



A PLACE TO REMEMBER

BUILDING OWNERS : Dexus Office Partnership (50%) and Cbus Property (50%)
MAIN CONSTRUCTION COMPANY : Grocon Constructors (NSW) Pty Ltd
ARCHITECT : Tanner Kibble Denton Architects and JPW
ENGINEER : Aurecon, Aecom, Inhabit Group and Norman Disney and Young
PROJECT VALUE : \$240 million

5 Martin Place merges old and new aesthetics with over 31,000m² of premium-grade office space and approximately 2,500m² of ground level retail space. The building is targeting a minimum 5 Star Green Star design rating and 5 Star NABERS Energy rating.

The challenge of redeveloping one of the most significant heritage sites in Sydney's CBD, 5 Martin Place, was undertaken by Grocon Constructors (NSW) Pty Ltd. The company was responsible for managing the design and construction of the project.

The original building on the site has immense architectural significance within the Martin Place street-scape. Built in 1916, it is one of Sydney's earliest, fully steel framed buildings and an important early example of the Commercial Palazzo style, popular for corporate and institutional buildings in the late 19th and early 20th centuries.

The building is historically significant as the first building in Sydney for the Commonwealth Bank of Australia's original Head Office and as the model for the bank's money boxes.

Works on the project included the construction of a new commercial tower, demolition work, the restoration of the historic Rowe Street lane way, along with conservation and modernisation works to heritage buildings.

"The project represents one of the most challenging projects ever undertaken by Grocon," said Contracts Manager, Nicholas Baxter. "The hard work of all the team members, the client representatives, the consultants and the subcontractors must be recognised."

Many of the main challenges related to the nature of the 1916 building and the 1933 addition on the site, which resulted in the introduction of "one of the most significant cantilevers in the world".

The cantilever is 21 metres at its deepest point and supports 11 levels of structure. It was designed so that the airspace above the heritage buildings could be used without imposing any permanent loads onto the existing buildings.

"The complexity of the interaction of various types of structure utilised (traditional concrete, two systems of jump form and structural steel) has presented ongoing challenges to both the design teams and construction teams," said Nicholas Baxter. "The entire system is highly engineered so that changes that would normally be considered nominal have proven to have substantial

flow on effects to the entire building design." The heritage component included extensive modernisation from ground to level 10 to provide premium grade office space.

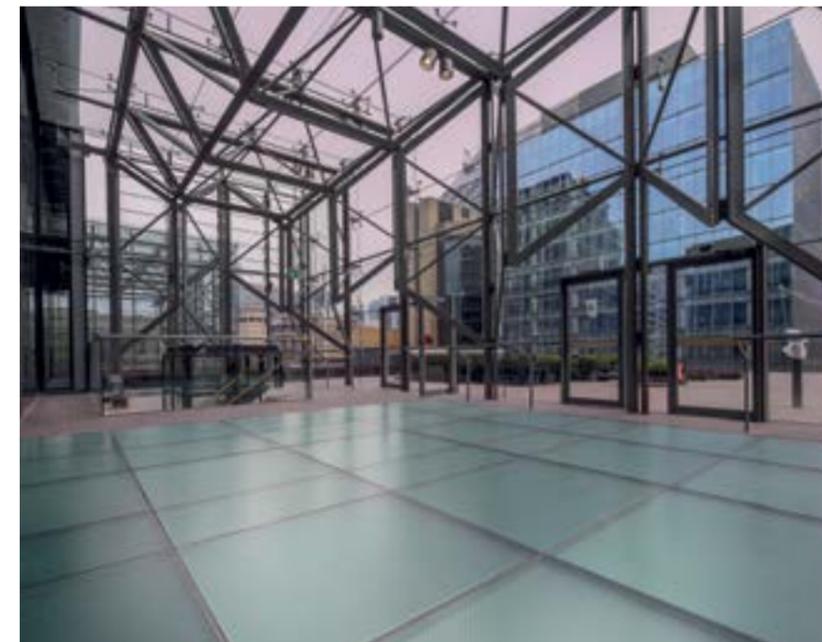
The refurbishment presented a wide range of design, demolition and construction challenges. The sensitive nature of the buildings required a sympathetic design that retained as many of the heritage elements as possible and included:

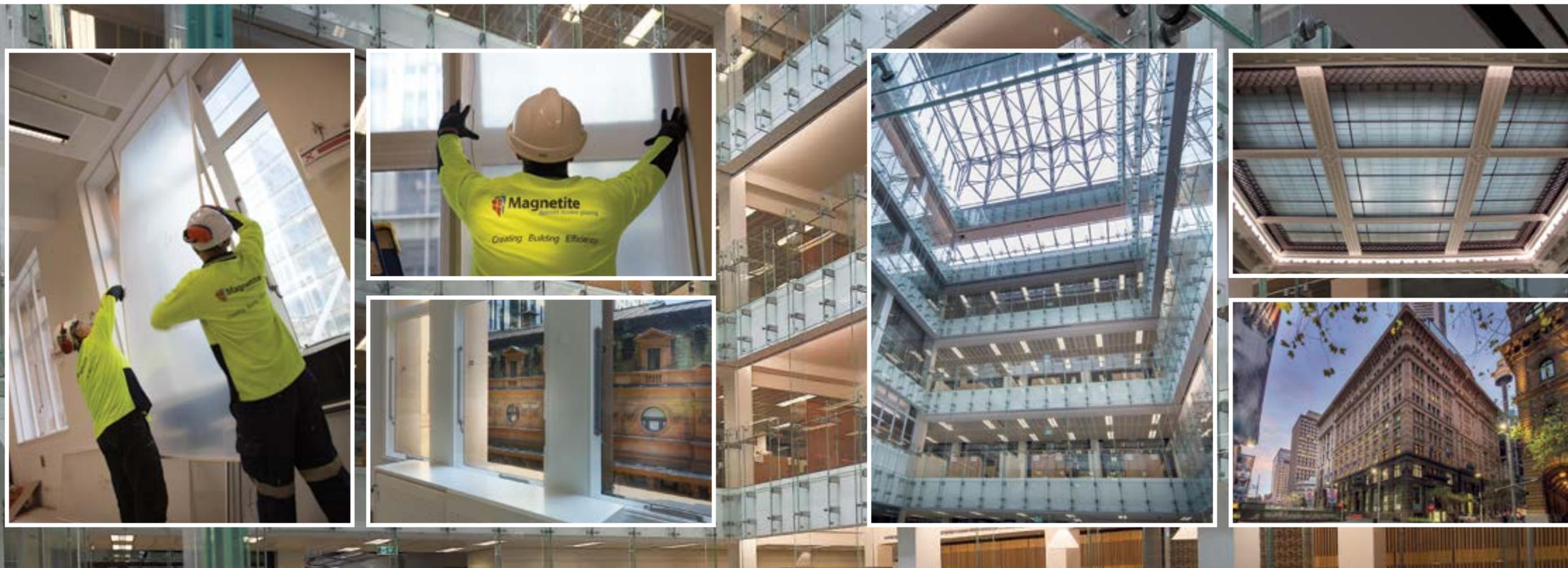
- Innovative services design - undertaken to preserve the heritage ceilings through the use of multi-service chilled beams
- Re-establishment of the atrium, (closed over in the 1960s) to allow for natural light throughout the heritage structure
- Installation of a decorative laylight to the ground floor at the base of the atrium to replicate the original laylight installed in the 30s
- Construction of a bespoke atrium balustrade system that includes structural glass fins suspended into the atrium space
- Removal and re-installation of valuable and complex pieces of art (sculptures) to both the exterior and the interior of the building

Other challenges resulted from the site's location and included excavation over operational rail tunnels, delivery of materials via a rear access lane way and a single loading zone. Demolition waste and excavated material had to be crane lifted out into Pitt Street, one of Sydney's busiest streets.

5 Martin Place adds to Grocon's long list of iconic landmark projects which includes the Rialto Towers, Eureka Tower and AAMI Park in Melbourne, No 1 Martin Place and 1 Bligh Street in Sydney and the Oracle Apartments at Broadbeach on the Gold Coast. The project's many challenges highlight Grocon's skills, both in modern construction and heritage restoration.

For more information contact Grocon (NSW) Pty Ltd, Legion House, Level 4, 161 Castlereagh Street, Sydney NSW 2000, phone 02 8249 7000, fax 02 9247 7768, email enquiries@grocon.com.au, website www.grocon.com





Magnetite (Australia) Pty Ltd was contracted to retrofit double glazing to 362 windows in the 5 Martin Place Redevelopment project. Magnetite manufactures and installs a secondary window system designed to reduce noise and reduce energy consumption.

10mm thick secondary glazing panels were installed on the inside of the building. The primary aim of the glazing project was to mitigate the noise through the windows to help meet the Green Star requirements for Indoor Environment Quality. An optical grade acrylic glazing was used instead of glass due to its superior thermal insulation properties - up to six times better than glass.

Magnetite imported mar (scratch) resistant acrylic glazing, manufactured by Mitsubishi, for this project – a first in Australia. This enhanced the durability and longevity of the solution.

“Once Acoustic Logic, the acoustic consultant, proved the effectiveness of the system the heritage architect, TKD Architects, was keen to use our product as it had the least visual impact on the heritage windows of any of the proposed solutions. This allowed the windows to be restored and become a feature of the building,” said Magnetite project manager Adrian Lafleur.

As with traditional double glazing the air cavity acts as an insulation barrier and Magnetite maximised this for the best acoustic results. The varying size of windows was not a problem for Magnetite who custom made each window which on average was 3m². Where possible a single pane was used to minimise the visual impact on the existing windows.

In addition to the system used on the 5 Martin Place Redevelopment project, Magnetite offers a range of solutions including Soundtite – secondary aluminium glazing, Solartite - solar control films and seals for existing windows and doors. With a network of fabricators across the country Magnetite has completed work in a range of industries including educational, industrial, government and hospitality.

Magnetite takes pride in its success and commitment to quality and service. Magnetite has won Best Value Product and Service Excellence Awards at the Australian Business Awards.

For more information contact Magnetite (Australia) Pty Ltd, 142a Victoria Road, Marrickville NSW 2204, phone 02 9565 4070, fax 02 9565 4080, email info@magnetite.com.au, website www.magnetite.com.au

Award winning Tanner Kibble Denton (TKD) Architects have been actively involved in the revitalisation of the Martin Place commercial precinct in the Sydney CBD, playing a pivotal architectural role in redeveloping several sites including 50 Martin Place and 5 Martin Place.

“Addressing the many challenges involved in the complete renewal of a significant CBD building such as 5 Martin Place has required much dedication and skill and I am immensely proud of our team’s involvement. We have provided architectural design and documentation alongside the specific heritage challenges and added real value to the delivery outcome,” said Managing Director, Alex Kibble.

JPW and TKD Architects worked in collaboration on this project. TKD Architects designed the revitalisation of the original 1916 building and the 1933 extension as well as the new elements within it including the glazed atrium. “Probably the greatest achievement is the re-presentation of the building as a contemporary office a century after it was built. When it was opened in 1916 it set the new benchmark for CBD office space with high ceilings, quality materials, finishes and appointments and access to good natural light and ventilation ... it will once again be an exemplar for high quality office space,” said Project Director, Megan Jones.

“The original light-well, which provided natural light to the centre of the large floor plates, as well as the Banking Chamber, had been infilled. TKD Architects designed a contemporary glazed atrium with a glass floor over the reconstructed lay-light, interpreting and referencing the extensive original decorative glass elements throughout the building and transforming both the commercial floors and the former Banking Chamber,” said Project Architect, David Earp.

Tanner Kibble Denton Architects’ recent work in the revitalisation of substantial early 20th century institutional buildings in Sydney and Brisbane demonstrates their design credentials and their architectural and technical experience. These projects exhibit a new contemporary design quality enhancing the original architectural intent and materials, re-equipping them for a sustainable future.

TKD Architects’ excellence in design was recognised in the Australian Institute of Architects Awards in 2014 for the University of Western Sydney Boilerhouse and for the Brisbane City Hall.

For more information contact Tanner Kibble Denton Architects Pty Ltd, Level 1, 19 Foster Street, Sydney NSW 2010, phone 02 9281 4399, email info@tkda.com.au, website www.tkda.com.au



Below AAM Group orchestrated a complex monitoring system for 5 Martin Place through the cantilever works.

Below Cubic Interiors installed ceilings and partitions to the base building of 5 Martin Place.



The biggest challenge for the surveyors, designers and every single tradesperson working on Sydney's 5 Martin Place rebirth was that the new 10-storey office tower cantilevered the existing heritage structure and was effectively built on a lean.

"Imagine a cantilever, it's going to potentially move the existing building out of balance because it is going to settle under the weight of the cantilever," Surveyor Gerald Sellwood from AAM explains. "To offset that, they built it leaning away from the expected movement. It was the first time we've ever worked on a building that wasn't vertical.

"Obviously the floors were out of level, with the purpose that they would settle into a vertical and horizontal position during the building's life. But while it was being built we had to set out steelwork design on a lean. While this was (happening) the building was propped up over the old tower."

"Back in about September 2014, they de-cropped it and the building was more or less allowed to settle into its position. We had set up an extensive monitoring system so we had strategic points set up around the tower and we measured those during the de-cropping process and the building performed as the engineers had expected."

AAM was originally approached in mid-2010 (when it was Max Braid Surveyors and already had an association with Grocon) to complete detailed surveys of the original building's façade for Colonial First State. In August 2012, AAM carried out internal detailed surveys of the heritage building for fitout design and to help with the demolition of the 1960's structures. It also recorded the dimensions of the 17-metre Albers sculpture so it could be removed. The sculpture is now in the process of being rebuilt on the new façade.

Having one person with unique skills on the whole project was important. In this case, AAM's project surveyor Goran Vegaja, who had worked on many major projects in Melbourne and Sydney including the Sydney GPO redevelopment at 1 Martin Place and the Sydney casino refit.

"Goran's got great drafting skills for setting out information in a clear manner for the client and designers," Gerald explains. "To be able to devote your attention over three years and to provide consistency from that one man over a period of time was pretty important."

For more information contact AAM Group, Suite 2, 33 Waterloo Road, Macquarie Park NSW 2113, phone 02 8879 1600, fax 02 8879 1633, website www.aamgroup.com.

Cubic Interiors has again showcased its commitment to deliver exceptional quality and workmanship through its works on state-of-the-art commercial building 5 Martin Place. The project follows on from Cubic's success on the University of New South Wales Materials and Science Engineering Building.

Cubic's Managing Director Robert Migliorino says the heritage aspect of the 5 Martin Place building did present a challenge. "Working in a heritage structure was very challenging, as not one floor was identical to the other."

Cubic installed the base building ceilings and partitions, amenities fit out, glazing to the lift shaft and Ashurst fitout.

According to Robert a particular feature of Cubic's work on the project was the installation of specialised perforated metal ceiling systems. This required Cubic to install an oval perforated metal pan suspended ceiling. Bespoke partitioning systems were also utilised in the Ashurst fitout.

Cubic worked closely with Grocon, Hassell Architects and base building architects on 5 Martin Place, had an average of 50 staff working on the project.

A leading specialist in its field, Cubic provides a comprehensive and integrated service to ensure a precise service and outcome. This encompasses a range of services to its clients from high quality commercial fit out works, design and construct and project management.

Cubic also provides resources management, quality assurance and safety systems, and quantity surveying and estimating, through to accounts and cost control. With a list of projects that keeps growing, the company's years of experience and strong relationships with its suppliers ensures Cubic continues to be a successful construction management provider.

"The refurbishment of an iconic Sydney building morphing into the new structure...is spectacular," he says. "We are very proud of the outcome and congratulate all of the Cubic Staff that contributed to this project."

For more information contact Cubic Interiors, Unit 4, 4 Avenue of Americas, Newington NSW 2127, phone 1300 028 242, fax 1300 056 369, email info@cubicgroup.biz, website www.cubicgroup.biz

Below Metrotex Painters were contracted to restore the ceilings, walls and lift lobbies on the 5 Martin Place project.



Below Dial A Dump Industries were contracted for their excellence in waste removal services.



It took 18 months for Metrotex Painters to restore the ceilings, walls and lift lobbies to their former glory at 5 Martin Place.

Metrotex Painters have worked on some of Sydney's most prestigious commercial projects in their 17-year history. Company founder, Harry Dellis, says the biggest challenge of their involvement in the 5 Martin Place development was to reinstate the whole heritage component of the building.

5 Martin Place was one of Sydney's original skyscrapers and so required specialist care in the restorative works needed to be completed on the project. Metrotex used expert renderers to restore the heritage features to their former glory.

The wall and ceiling work involved traditional "white set" plastering, which is much more intricate and labor-intensive than the rendering methods used in contemporary buildings. All damaged ceilings and walls were painstakingly repaired to their original condition and gleaming white traditional colour scheme.

"For instance, walls used to be smooth, not like the texture of modern render," Dellis says. The sheer scale of the original building, its

generous floor plates and high ceilings kept Metrotex busy for the duration of the development.

Restoration of the historic and grand lift lobbies in the lower floors of the development were a particular highlight for Metrotex. All the historic plaster ceilings in the lift lobbies had to be restored to original condition to capture the grandeur and significance of the building.

Metrotex were also charged with painting the interiors of the new office tower, which fuses modern glass with historic sandstone and marble. The emphasis in the new office tower is on natural light and crisp, fresh colour schemes.

White and natural tones dominate the interiors to maximize the modern comfort of the development. Dellis says the challenge of fusing historic and heritage with modern, high-end comfort and class were similar to those it faced during its contribution to the Sydney Cricket Ground Redevelopment.

For more information contact Metrotex Painters, 11 Watkin Street, Concord NSW 2137, phone 02 9743 2600, email metrotex@bigpond.com



For over 30 years Dial A Dump Industries (DADI) has been providing innovative environmental solutions for the building and construction needs of homeowners, builders, landscapers and tradespeople through to warehouses and most industry sectors. As one of New South Wales leading waste management service providers it was natural that DADI was involved in the inspiring and innovative redevelopment of Sydney's 5 Martin Place.

Like DADI, 5 Martin Place is a compelling synthesis of past and future and builds on tradition to create an extraordinary new landmark. The DADI integrated group of companies are licensed to transport, store, recycle, reprocess and dispose of waste and are renowned for offering convenience and reliability at competitive prices.

"We have a huge inventory of bins, a large fleet of modern trucks fitted with state-of-the-art GPS tracking systems, experienced drivers and a suite of specialized equipment to get around any access or operating issues that a job may entail," says Michael Harloff. "We're extremely proud that DADI are unrivalled within the waste transport industry."

A significant percentage of all waste received by DADI is either recovered or recycled into different types of products such as road

base, bedding sands and aggregates for re-use in landscaping and construction. "All our products are tested to the NSW EPA's standard and are marketed by the Dial A Product Division," adds Michael.

The DADI Group has also acquired several sites around Sydney including St Peters Landfill site and the former Fitzpatrick hard rock quarry at Eastern Creek. "At Eastern Creek we've developed a state of the art construction, landfill, demolition and commercial waste recycling and recovery centre known as Genesis," informs Michael. "The facility is licensed to accept 2 million tonnes of Construction and Demolition waste per year, enabling it to capture a significant portion of the C&D material recycling market in the Sydney basin."

DADI are now proposing to develop Australia's first Electricity Generation Facility at Honeycomb Drive, Eastern Creek. This will dramatically reduce the generation of greenhouse gases and will help to solve the energy and waste needs of Western Sydney over the next 50 years.

For more information contact Dial A Dump Industries Pty Ltd, 32 Burrows Road, Alexandria NSW 2015, phone 02 9519 9999, fax 02 9516 5559, email sales@dadi.com.au, website www.dadi.com.au