

VIC PROJECT FEATURE

TOWER FOUR COLLINS SQUARE

Walker Group / Victoria



TOWER FOUR – COLLINS SQUARE

DEVELOPER : Walker Corporation
MAIN CONSTRUCTION COMPANY : Brookfield Multiplex
ARCHITECT : Woods Bagot
CONSTRUCTION VALUE : \$380 million

TOWERING AHEAD

The \$380M Tower Four Collins Square will deliver an efficient workplace with access to amenities as well as stunning features such as a vertical green wall, collaboration pods and external terraces.

Walker Corporation's \$2.5 billion Collins Square development has seen the completion of Tower Four with a number of high-profile tenants already in place. The \$380 million Tower Four in Melbourne's largest commercial office precinct provides a flexible, highly efficient workplace and great amenities for staff.

Designed by internationally renowned design studio Woods Bagot, the large 2,600m² side core floor plates in Tower Four create a connected and enjoyable workspace for tenants who will also enjoy access to the many amenities of Collins Square and the nearby public transport links including Southern Cross station.

Designed to achieve a 5 Star NABERS energy rating, key features of Tower Four include an expansive internal atrium with a 60m green wall, balconies and collaboration pods plus external terraces on Levels 13 and 21 capturing panoramic views of Port Phillip Bay. Collins Square boasts the highest concentration of environmentally sustainable buildings in the southern hemisphere.

Collins Square comprises over 200,000m² of net lettable area across five commercial towers, a 8,000m² retail and entertainment zone and the historic Southern Goods Shed. It is situated in the highly sought-after western end of Collins Street, in the Batman's Hill precinct. Collins Square is fast becoming the premier address for blue-chip companies in Melbourne. The development is in the unique position of being the premier commercial precinct for both the large corporate users and just as importantly the smaller private firms that are also looking for premium Collins Street premises.

An intrinsic part of the design which reflects Melbourne's history is the interconnected laneways linking tower to tower. Featuring winter gardens and alcoves where people can eat, drink and relax among the substantial artworks. Collins Square features pioneering workplace design, high security and environmental excellence. The latest in green technology is inbuilt throughout including the Tower Four vertical green wall.

Tower Four and the other buildings making up Collins Square have created more than 3,500 jobs. Tower Five, currently under construction, will employ a further 1,200 workers through to 2018. Forecasts indicate that more than 46,000 people will use Collins Square daily, enjoying the seamless integration of commercial, retail, public and civic spaces in one bustling precinct. With 200m of prominent Collins Street frontage, Collins Square provides a corporate address and an expression of architecture demanded by leading Australian and global companies.

A feature that Tower Four tenants have available is the Collins Square onsite Business and Events Centre. It offers private, flexible meeting rooms designed to suit business meeting requirements. The Events Centre can host private seated dining for groups from 12 to 200, or cocktail events for up to 400 guests, as well as training facilities, seminars and other functions. All the spaces are fully equipped with the latest in audiovisual, tele-presence and soundproofing technology.

Walker Corporation is one of Australia's largest private development companies, with a successful record spanning 50 years. Its legacy is developing iconic, large-scale, award winning developments. The company has delivered over 1,000 projects that span the length and breadth of Australia and internationally in America, Canada, Fiji and Malaysia.

Walker Corporation has expertise across all areas of the property spectrum, from land subdivision through to residential properties, retail, commercial, industrial and resort living. It is at the forefront of commercial design and architecture. By fusing cutting-edge design with the latest in workplace functionality and ecologically sustainable development practices, it creates exceptional premises like Tower Four Collins Square.

For further information contact Walker Corporation Pty Ltd, Collins Square, Tower Two, Level 7, 727 Collins Street, Melbourne VIC 3008, phone 03 9252 7600, fax 03 9252 7699, email marketing@collinssquare.com.au, website www.collinssquare.com.au



Below 808 Design Glass fabricated and installed planar glazing and doors in the lobby plus window walls on levels 16-20.



Glass is an integral component of modern high-rise structures and Tower Four Collins Square is a striking example of the clever utilisation of this material.

808 Design Glass played an integral role in the final appearance and functionality of Tower Four through the provision of specialised glazing services.

808 Design Glass fabricated and installed planar glazing and doors in the lobby plus window walls including aluminium frames in the atrium on Levels 16-20.

The company also manufactured and installed window frames and glass for shops on the two level retail precinct.

Director of 808 Design Glass, James Baltzis, indicated that the company faced the challenge of meeting tight time-frames on the project by establishing an evening crew.

“At the height of activity we had up to 14 men working plus up to eight on the double shift. Another challenge was the installation of the planar wall on Level 3, as it had to be millimetre perfect. The glass had all been pre-cut and there was no room for error. But it all went in perfectly!”

808 Design Glass handles glass from creation to installation and understands how to utilise glass for optimum results.

Focusing on high-end commercial, industrial and architectural projects, it converts vision to reality and can solve glass-related problems

with its extensive knowledge and experience. “808 Design Glass is well equipped to manage installation and replacement of glass on large structures and highrise buildings. Our skilled team guarantees any job is delivered with priority given to safety, efficiency and high-quality workmanship.”

Safety and compliance are paramount when dealing with large-scale glass projects. Before undertaking any job, 808 Design Glass conducts a full safety audit to assess the risks involved in execution. A safety plan is developed and implemented, compliant with Australian Safety Regulations, relevant insurances and WorkSafe requirements.

All 808 Design Glass work complies with Australian Standard 1288-2006 Glass in buildings – Selection and Installation.

The company’s manufacturing plant, head office and showroom are located on one purpose-built site in Keilor Park.

Having all fabrication under one roof ensures that clients’ glass and glazing requirements are met in a seamless and convenient manner, with strict quality control. Clients are welcome to visit the Keilor Park facility by appointment to discuss projects, view showroom samples or view their work under production.

While the company has been very successful with its glazing service for high-rise buildings and multi-storey structures, it also has a niche in providing top-end glazing to shopping centres and retail shops.

Using high-quality materials and qualified glaziers, installers and fabricators, the 808 team can provide shop fronts, curtain walls, glass roofs and canopies, toughened assemblies, and atriums.

Drawing on its broad experience, its team can deliver the appropriate solution for each industrial project with respect to windows and façade installation.

808 Design Glass also supports private high end home and residential developments with its architectural glazing services. Working from the front door to the back of the property, 808 can provide glass and feature walls.

Other major commercial projects on which 808 Design Glass has been engaged include RMIT’s New Academic Street, the façade at the Chadstone Shopping Centre Redevelopment and the Rod Laver Arena refurbishment.

James said that contributing to the construction of Tower Four Collins Square had been very rewarding for 808 Design Glass. “The building is a great example of the way glass brings light, beauty and versatility into an inner-city building, enhancing the environment for the people who will work in the building.”

For more information contact 808 Design Glass Pty Ltd, 5 Logistics Street, Keilor Park VIC 3042, phone 03 9336 2808, email info@808designglass.com.au, website www.808designglass.com.au

Below Wetspot Waterproof & Tiling completed all of the stone masonry work, porcelain tiling and waterproofing.

You won't have to go far within Tower Four Collins Square in Melbourne to see the craftsmanship of Wetspot Waterproofing & Tiling, also known as Wetspot Consolidated. Think stone and you'll see and appreciate their work throughout this building, part of the \$2 billion Collins Square Project.

"We completed all of the stone masonry throughout the project, that's more than 7,000m² using imported stone called serpeggiante, which was creamy grey in colour. We did a lot of processing of that stone in house," said Director, Justin Davis.

His company is one of the largest waterproofing, tiling and stone contractors working throughout Victoria, Queensland and South Australia. "We completed the stone in the whole main lobby, then all the building's amenities, lift lobbies, in the Level 7 atrium plus all the porcelain tiling throughout the bathrooms including waterproofing. Plus we completed approximately 20,000m² of epoxy coating to the carpark."

"We're most proud of Level 3 because of the amount of natural stone and our work in mechanically fixing the stone to the walls. You don't often see such a large amount of stone in a building as projects don't often have those budgets to do something special like that. It really lends the project an element of prestige and helps showcase what our company can do," said Justin.

As per the client's request, Wetspot applied special anti-slip coatings to the stone floor and have created a special maintenance program so the client can maintain it at a premium level. Wetspot was invited to tender for the project and saw 60 of their 300 staff work on it in the five months to September 2016. The company has been operating for almost 20 years and has a well-established niche working for tier 1 and 2 clients.

A key challenge for the Tower Four Collins Square project was the short time frame. "We had to work around the clock to get it completed. It wasn't a problem as we'd done that with the Melbourne Airport project we'd worked on," said Justin. For that project, the company worked around the clock self-levelling and tiling just over 7,000m² on the Melbourne Airport T2E.

Another tricky part of the Collins Square Tower Four project was working with other

trades, which Justin said involved a lot of coordination with the builder, Multiplex and the other subcontractors. "It was more just maintaining a stricter program for deadlines," he said.

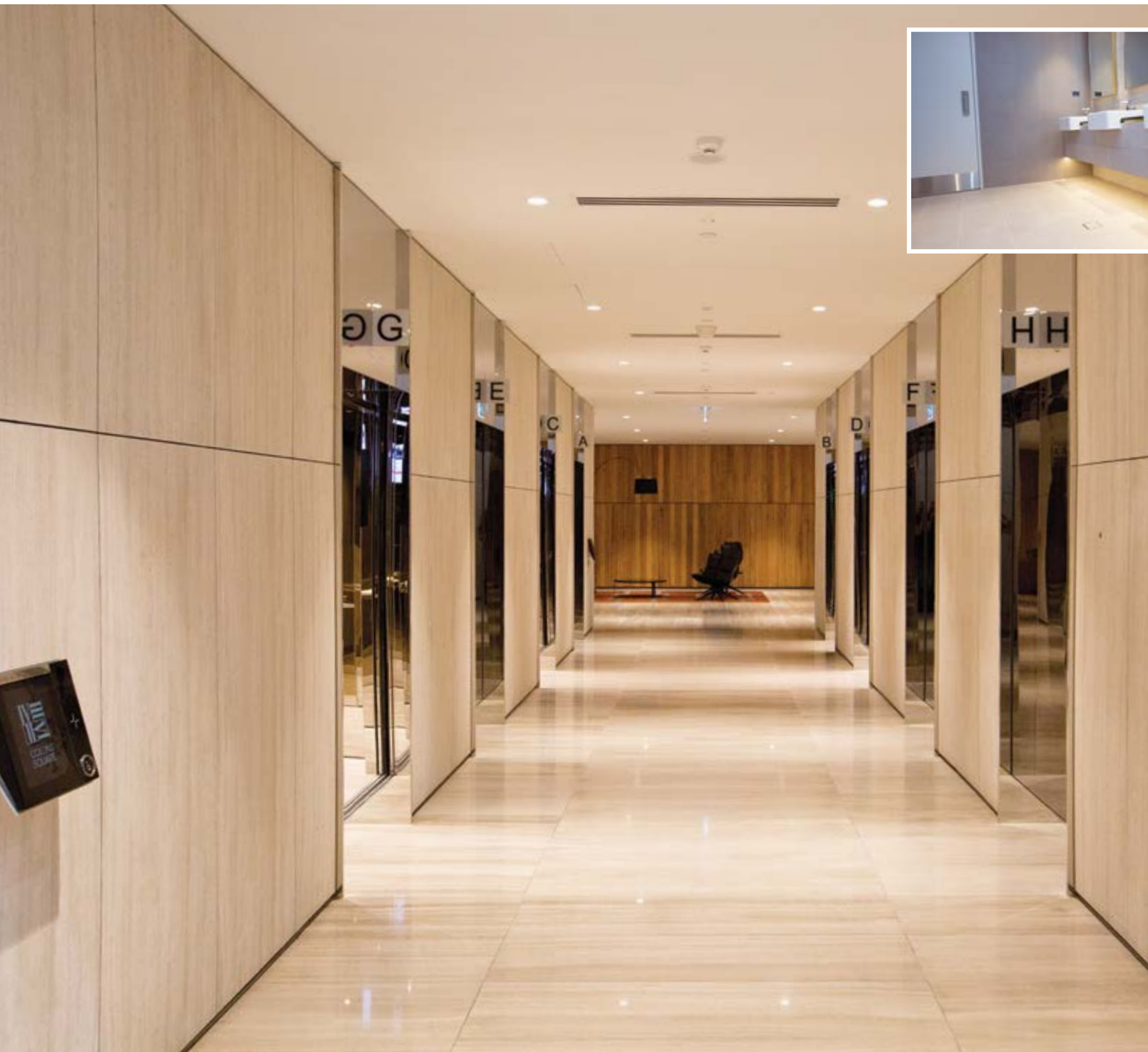
Justin was keen to make special mention of the tile supplier he used for the project, Signorino Tile Gallery, based in Richmond, Melbourne. "Their level of product is second to none. While we imported the marble ourselves, all the porcelain tiles we procured through Signorino Tile Gallery. The quality of their product and level of service and expertise they have was amazing."

"I would like to thank Multiplex staff for giving us the opportunity to complete such an iconic project and for the guidance and support namely Ben Hawker, Nick Davies, Tom O'Loughlin, Brad Wheeler, Danielle Savio and Frank Cuzzilla," said Justin. "Special thanks to my staff Anil Thomas, Ivan Matijas, Frank Bellizia, Jan Mohammad, Sandro D'Astolto and Nick Munafo for their dedication to the project."

The Collins Square project is expected to attract more than 46,000 people using its integrated commercial, retail, public and civic spaces including the refurbished historic goods shed in a precinct that has 200m of prominent Collins Street frontage in the Docklands. The five commercial towers add 200,000m² commercial mixed-used development built above a 10,000m² retail podium. In short, it's an entire city block.

Current tenants include Marsh Mercer, CBA, the Australian Tax Office, Maddocks, Pearson Publishing, KPMG, Transurban, Regus, data analytics company Link Group, and accountancy firm BDO. The latter two





are already in Tower Four, with Link Group's deal to lease 20,000m² over 10 floors ensuring it has naming rights to the building. Tower Four has 21 floors above ground.

Wetspot Waterproofing & Tiling processes natural and reconstituted stone in its 6,000m² facility in Campbellfield, north of Melbourne. They use a specialised CNC machine for their processing and have waterjet machinery for precision cutting to 0.01mm.

"Our general turn around for stone is three to five days while the industry standard is seven to ten," Justin said.

They've proven their mettle with large commercial and industrial sites right down to domestic residential projects. This hasn't stopped them excelling at small intricate projects in the past, although increasingly the company only works on large-scale multi-residential projects.

In August 2016, Wetspot Waterproofing & Tiling expanded its venture to offer timber flooring and carpets. "It's a new line in our business and means we're able to offer a complete package to our clients," he said.

Wetspot Waterproofing & Tiling aligns itself with Australia's leading product manufacturers so only use high quality products, which comply with the relevant Australian Standards.

"Our management team brings more than 40 years of industry experience and we have a strong hands-on approach to working with our clients to ensure a high degree of confidence," said Justin.

"Our aim is to set up a solid and professional relationship with our clients by satisfying their objectives. We want to be part of your journey in cost-effectiveness through improving our

systems and construction methods," said Justin. "Our unique selling proposition is being able to deliver on a project, maintaining the construction program, the high quality and level of service we give throughout the project and process and the horsepower to deliver a project when the client needs to push the program." Staff demonstrate the company's values to ensure clients' projects are successful by meeting the time frames, costs and quality targets.

The company is continuously upgrading its technology and software plus ensure they are up to date with the latest processing and installation methodology.

Iconic projects on which Wetspot Waterproofing & Tiling has worked include the Crown Casino, the Adelaide Oval (to install a complete waterproofing system to the entire stadium, concourse areas, staircases and specialist food beverage coatings), Hamer Hall in Melbourne's Southbank Cultural Precinct Redevelopment (applying waterproofing membranes, selling wet areas including balconies and industrial rooftops), as well as Melbourne Airport.

Other projects include 278 Collins Street, Baulderstone in South Yarra, Deakin University, Genesis Fitness Centre in Berwick, the Grand Hyatt, Melbourne University, Myer Adelaide and Melbourne University.

The company also has a strong community support spirit having donated to the Country Fire Authority, Ambulance Australia, Disability Victoria and many others.

For more information contact Wetspot Consolidated Pty Ltd trading as Wetspot Waterproofing & Tiling, 49 Metrolink Circuit, Campbellfield VIC 3061, phone 03 9303 9911, email info@wetspotgroup.com.au, website www.wetspotwt.com.au

Below WSP Structures provided engineering services and consultancy on the Tower Four Collins Square Project.

With its well-established reputation as a leading engineering consultancy, WSP Structures was commissioned to provide structural and civil engineering services for Tower Four Collins Square. This project adds to the company's proud list of achievements in the vicinity, with the nearby Southern Cross Station redevelopment and a number of other Docklands buildings already to its credit.

The Collins Square precinct consists of five architectural design towers and the refurbished South Goods Shed. WSP Structures were engaged for structural and civil engineering services on Towers 1, 3, 4 and 5 (under development) and the South Goods Shed.

The Tower Four Collins Square project presented a number of interesting challenges. Peter Hindmarch, Director of WSP Structures said that the site is located within a geologically complex area of the Yarra River delta. "The depth of soft variable silt is approximately 20m deep. A single-level drained basement was achieved using a hung secant pile that terminated 2.5m below the basement floor to act as a cut-off wall for ground water inflows. Clustered large diameter CFA piles were used as foundations for the building."

The building required the podium floors to connect with the adjoining buildings. In so doing, differential shrinkage, timed connection of the podium floors etc. had to be taken into consideration – WSP Structures provided a design for all the buildings to ensure that each of the head building contractors interfaced the construction of the connections to the adjoining buildings with great ease and accuracy.

Linkages are also being established between each of the towers as construction proceeds. WSP Structures designed a new glass canopy which was constructed between the five towers to act as a roof to the lower retail zone and to control downward environmental wind. The glass canopy is 1,000m² in size and was retrofitted after Tower 1 and 3 were constructed.

The existing historical South Goods Shed dating from the 1870s required extensive piling and reconstruction. The southern wall

consisted of a large arch over the original entrance to the platform. "The western buttress to this arch was in a very poor condition," says Peter. "It had to be demolished and rebuilt. The arch was supported using a temporary bracing and then permanently secured using a new steel mullion."

Peter said that the world-wide resources of the WSP Parsons Brinckerhoff group ensured their clients had access to the latest information and technical solutions across a broad range of engineering issues. "With over 34,500 employees and operating in over 40 countries, we can leverage off the global expertise of WSP Parsons Brinckerhoff to the benefit of our clients."

"Each of our disciplines is a market leader in terms of quality of service and design outcome. By integrating these into a team of specialists we provide a consistently higher quality of project outcome than our competitors," Peter further explained. "We at WSP Structures have worked with our specialist building services colleagues on many major projects prior to the acquisition of Winward Structures by WSP Parsons Brinckerhoff to form WSP Structures. Our approach now is as it was then, but we are under the same roof and work from a common platform."

WSP Structures is an Australian business, part of the global WSP Parsons Brinckerhoff Group, with 150 staff operating from offices in Melbourne, Sydney, Canberra, Brisbane, Perth, Adelaide and the Gold Coast. It delivers high-quality, cutting-edge engineering design, documentation and construction on a diverse range of projects across the country.

WSP Structures is currently engaged on projects including Queens Wharf in Brisbane, Jupiter's Casino on the Gold Coast, Parramatta Square Tower 8 in NSW, Elizabeth Quay Lot 9 and 10 in Perth, the Melbourne Exhibition and Convention Centre expansion and the Caulfield to Dandenong Level Crossing Removal project.

For more information contact WSP Structures Pty Ltd, Level 15, 28 Freshwater Place, Southbank VIC 3006, phone 03 8327 8600, email wspsstructures.info@wspgroup.com, websites www.wspsstructures.com.au, www.wsp-pb.com



Below Westkon Precast fabricated and installed 520 precast concrete column and precast walls.



Below dormakaba manufactured, supplied and installed their products in a number of locations across the entire project.



Westkon Precast Pty Ltd is an established Australian company that has developed a reputation for providing highly innovative precast concrete structures and products for some of Victoria’s most prominent and largest landmarks, sporting stadiums and road developments.

As Westkon likes to say “if you have been to Melbourne, you have probably driven on roads, crossed bridges, visited stadiums and hospitals, or stayed in apartments and hotels that have been built with Westkon Precast components!”

The company was contracted to fabricate and deliver an extensive range of components, including 410 precast concrete columns and 110 precast walls. The most challenging part of the project however was fabricating one of the largest green walls ever erected in the southern hemisphere.

Originally designed to be a glass-fibre reinforced concrete panel wall, the wall was converted to textured precast concrete panels. Project Manager for Westkon, Pramesh Shah, said that the wall covered 800m² and required 140m³ or 400 tonnes of concrete. “It was most important to produce a top quality architectural finish for the green wall. We used a rubber liner in the moulds to create a wood-grain finish. It was a great result.”

Pramesh said that the specific detailing required on the façade panels was another challenge. “Extra care had to be taken in handling the panels to ensure the edges were not chipped or damaged.”

Westkon has an experienced team including estimators, production managers, steel fixers, formworkers, concretors and riggers through to the project managers and transport employees, all of whom played some role in delivering the project.

At the forefront of concrete technology, Westkon has many landmark developments to its credit including the Simonds Stadium at Geelong, the City-Tullamarine widening project and the Australis Apartments.

For more information contact Westkon Precast Pty Ltd, 133-199 Ferris Road, Melton VIC 3337, phone 03 8746 1300, fax 03 9747 3088, email info@westkon.com.au, website www.westkon.com.au



First impressions are always crucial and that certainly applies to prestige developments like Tower Four Collins Square in Melbourne where high quality dormakaba doors are making a stunning impression as tenants and visitors enter the building.

The brand name dormakaba is relatively new. It became the identity of the international company formed by the merger of Dorma and Kaba effective in September 2015.

The merger has ensured that customers now have a single supplier for a comprehensive portfolio of products and solutions encompassing door technology solutions, automatic door systems, a wide variety of fittings, door closers and stoppers, and locking systems from cylinders, keys and locks to fully networked electronic access solutions.

For Tower Four Collins Square, dormakaba manufactured, supplied and installed revolving automatic doors, sliding automatic doors, swing automatic doors and door hardware throughout the project.

As a trusted partner to architects, designers, distributors, fabricators and builders throughout Australia and New Zealand, dormakaba was the natural choice to provide the doors for this landmark building.

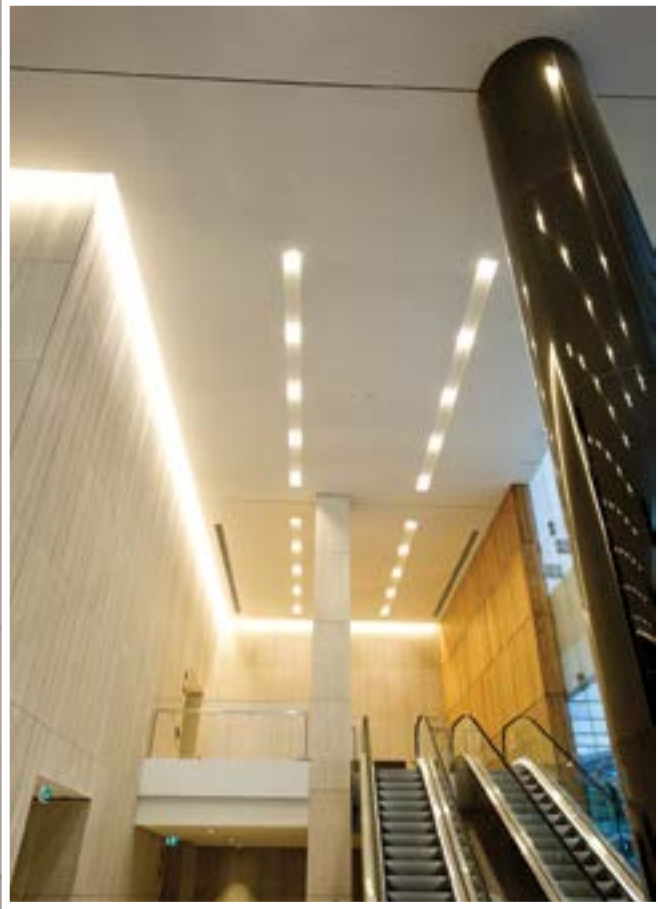
Projects of the size of Tower Four Collins Square will always provide challenges, predominantly around access and timeline movements but Carlos Inacio, dormakaba’s Victorian State Sales Manager – Automatics Sales Channel, said that none of this is new to the company given its wide experience in working on major building developments. “We always address the day-to-day issues by maintaining open communication with all stakeholders.”

“We had up to ten employees and contractors on site to ensure we were adhering to required timelines and that this project was aligning with associated trades,” Carlos added.

dormakaba currently have 475 employees in Australia and have recently worked on a number of developments where a broad spectrum of its products are specified and installed, including Monash Children’s Hospital, Epworth Geelong, Werribee Plaza, Chadstone Shopping Centre and Melbourne Airport.

For more information contact dormakaba Australia, 46-52 Abbott Road, Hallam VIC 3803, phone 1800 675 411, email info@dormakaba.com.au, website www.dormakaba.com.au

Below Construction Cleaning provided premier cleaning services to the Tower Four Collins Square project.



Construction Cleaning Services Pty Ltd, Melbourne’s premier cleaning company has been offering professional, high-quality commercial cleaning services for over 15 years. Project Manager, Jas Gavrilovski said that Construction Cleaning enjoyed a close working relationship with most of Australia’s builders and developers who appreciated the commitment that Construction Cleaning had to quality control, safety, efficiency and reliability.

“Our clients know that we can provide a variety of cleaning services including industrial cleaning, commercial cleaning including warehouses and car parks, office and business cleaning including IT and data cleaning and specialised floor cleaning services including carpet steam cleaning, floor sealing and restoration and floor maintenance.”

Construction Cleaning had earned a reputation for exceptional cleaning services across many of Melbourne’s major construction projects and it welcomed the opportunity to be involved with the Tower Four project.

For more information contact Construction Cleaning Services Pty Ltd, 14 Water Road, Preston VIC 3072, phone 03 9416 9699, fax 03 9416 9399, email jas@ccserv.com.au, website www.construction-cleaning.com.au



Equipping Tower Four Collins Square with all electrical wiring services and communications cabling was not a job for the faint-hearted. It required technical competence, experience and a commitment to safety, budgets and the building schedule.

Eascom Electrical was selected for this major contract as it has an excellent performance record in highrise electrical contracting. To add to the size of the project, Eascom Electrical simultaneously completed the electrical work on Tower 2 Collins Square.

Project Manager for Eascom Electrical, Rom Testa, said the tight time frame on the Tower Four project required a solid commitment of personnel to meet deadlines. “We had up to 70 of our 140 total staff numbers on site at peak times. This enabled us to maintain progress without calling in extra shifts.”

Eascom Electrical installed all electricals, fibre optic data cabling and mobile antenna system cabling. “The biggest challenge was setting up the lighting for the huge green wall in the Atrium,” Rom said. “It is reputed to be the biggest green wall in the southern hemisphere so it naturally took some careful design and planning to get it right.”

Eascom Electrical was established in 2009 and has grown to become a market leader in commercial electrical projects and maintenance. Developing total electrical solutions for its clients is what Eascom does best. It has recently completed major electrical works on Melbourne One, UOM Building of Architecture and South Bank Grand. Some of Eascoms current projects also include the Australis and Southbank Central Residential Towers as well as the Monash University Learning & Teaching Centre.

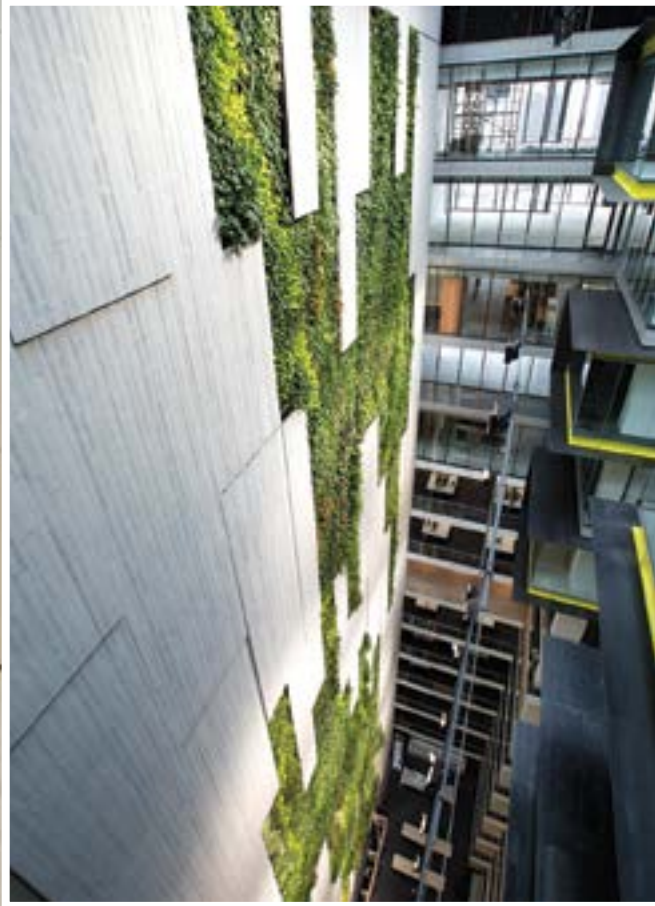
Rom Testa said that apart from the technical expertise of the directors and senior staff at Eascom Electrical, the company employs only fully-qualified and ticketed staff with a retention rate of over 95%. “As a result we have a staff which totally aligned with our objectives, quality standards and commitment to exceeding our clients’ expectations. Our team is very proud of its contribution to the Tower Four project.”

For more information contact Eascom Electrical Pty Ltd, 36 Sabre Drive, Port Melbourne VIC 3207, phone 1300 327 266, fax 03 9646 8819, email info@eascom.com.au, website www.eascom.com.au

Below Fabmetal Specialists provided the bronze feature wall and ceiling for Tower Four Collins Square.



Below Fytogreen completed the planting of the massive green wall.



When does architecture become art? Fabmetal Specialists proudly see its work as art in the fullest sense of the word, inspiring the senses with amazing visual effects. Fabmetal, having worked on Tower 2 at Collins Square, has graced the Tower Four building with its specialised metal.

Starting with a spectacular bronze feature wall and ceiling at the entrance, Fabmetal also supplied black stainless steel mirror columns on levels 16 to 20 together with glass balustrades.

Fabmetal’s Gordon Heald, said the cross discipline of bronze and black aluminium on the feature wall, a veritable maze of rhomboids and parallelograms which soar 12m overhead. “The wall and ceiling are conjoined which forms a canopy and curtain 16m x 20m long which is held in place by sky hooks and some canny engineering solutions from our partnered engineers at Inhabit for this project.”

Gordon further explained that the finishes and aged patina on the brass sheet were chemically produced, forming a thin corticated oxidised layer, creating a beautiful natural antique look. “This process was applied to the manufactured panels by Bronzeworks whom we engaged to provide an expert finish.”

Fabmetal’s methodology of fabricating and assembling its column modules is an effective procedure which is able to reduce lead time and facilitates larger quantities featuring its patented secret fixing system allowing no visible fixings or ugly caulked joins. Gordon said that Fabmetal’s signature material ‘Jet Mirror’ from its TiVox range was used at Tower Four, as it was in Tower 2.

A team of 10 men worked on Tower Four out of Fabmetal’s total workforce of 30 including its project managers, coordinators and estimators.

Fabmetal has recently completed UoM Art’s West façade and has won its latest job at Monash University, tasked to fabricate the B17 front entry.

Fabmetal’s work at Tower Four justifies its reputation as one of the leading fabricators of architectural metal works in Melbourne, specialising in complex geometric fabrications and specialised finishes.

For more information contact Fabmetal Specialists, 18 Brunsdon Street, Bayswater VIC 3153, phone 03 9720 2177, fax 03 9720 3277, website www.fabmetal.com.au

The tallest, largest and most ambitious vertical green wall in the nation has been completed by Fytogreen Australia Pty Ltd at Tower Four Collins Square. The towering 53m verdant showpiece enhances the ambience and built environment of this landmark building.

Geoff Heard, Managing Director of Fytogreen Australia, said that completing the project was a mammoth task. “We had to install 826 panels by two swing stages using a rope pulley system delivering panels to each swing stage from Level 7-20. All the material had to be craned to Level 7 of the adjacent Tower 5 and then the panels had to be walked across to an occupied office complex over 12 continuous days.”

Fytogreen used a rolling team of 6 out of a group of 10, followed by the maintenance team coming in each afternoon to take over and check, train and tidy up the panels for hand over.

Fytogreen is a world leader in lightweight sustainable green walls including design, construct and maintenance services, backed by 23 years of international research. The very latest Fytogreen technology is utilised in the Tower Four project. The irrigation system is a fully

alarmed, flow monitored system with remote access combined with a backup system with capacity to communicate to the site BMS and Fire Board systems to ensure complete monitoring at all times. Fertigation is via the Fytogreen system using a Dosatron to supply hydroponic nutrients.

“Another major challenge was selecting the plant species list,” Geoff said. “It was determined by the available light levels provided by supplementary lighting of a minimum of 1,500 lux using metal halide lights with a 5,600K lamp. Hence all species are low-light indoor plants suited to the warmer, more humid conditions within the atrium.” A total of 13,890 plants of 18 different species make up the wall which is an amazing landmark in the Collins Square development.

For further information contact Fytogreen Australia Pty Ltd, 3 Webbs Lane, Somerville VIC 3912, phone 1300 182 341, fax 03 5978 0744, email info@fytogreen.com.au, website www.fytogreen.com.au