



VIC PROJECT FEATURE
COLLINS ARCH

Cbus Property / Multiplex

WHERE LUXURY LIVES FOREVER

DEVELOPER : Cbus Property
MAIN CONSTRUCTION COMPANY : Multiplex
ARCHITECT : SHoP Architects and Woods Bagot
DEVELOPMENT VALUE : \$1.25 billion

Cbus Property's world-class mixed-use development, Collins Arch, occupies an entire Melbourne city block and features a pair of stunning 164-metre-high towers. Joined by an elegant sky bridge, the project includes 184 one-, two-, three- and four-bedroom residences, including four penthouse apartments, a sky garden, five-star W Melbourne hotel, approximately 49,000m² of premium office space, and Melbourne's first public park in almost 40 years.

The 42-level Collins Arch is a significant architectural statement occupying a site area of 6,000m² in the heart of Melbourne.

"Cbus Property bought the island site in 2012 and then sent a team of employees overseas, to London, New York and Singapore, to consider some unique building designs," explained Cbus Property's Chief Executive Officer, Adrian Pozzo.

"We then requested local architects select an international partner to participate in a design competition. In mid-2013, local architects, Woods Bagot, who had teamed up with New York-based design firm, SHoP Architects, were appointed."

Composed as two buildings with linked floor plates that tie the structures together, the design focuses on limiting the shadows cast over the Yarra River and its northern bank. The building steps back as it rises, satisfying planning regulations and creating a highly articulated façade that makes a statement in the Melbourne CBD skyline.

On-site work started in 2015 with the demolition of the old National Mutual building, and excavation for the five-level basement. Following the excavation of the total city block, it took approximately 12 months to construct the basement to ground level.

"It was an extraordinary build, with one of the major challenges of the construction

being joining the two towers with the sky bridge, an extraordinary accomplishment. That made the completion of Collins Arch an incredible achievement," said Adrian.

The first 15 levels in the East Tower are occupied by the W Melbourne hotel, a five-star luxury lifestyle hotel comprising 294 guest rooms, bars, restaurants, a café, FTT gym and WET pool. The 184 Collins Arch luxury residences start at Level 16 and extend over the arch above. Some of Australia's biggest corporate businesses help to occupy the more than 49,000m² of office space in the West Tower.

"The office accommodation was completed in March 2020 and Cbus Property was one of the first tenants to occupy the building in April 2020. The hotel component was then completed in May 2020, however, due to the COVID-19 pandemic, will open in February 2021. The residences commenced to settle in September 2020," said Adrian.

"The design coordination and build of the residences were quite complex, as not many of the residences have the same floor plan but they all have spacious living areas, kitchens and bedrooms with abundant sunlight and magnificent views. The residences on the south-facing upper floors also feature significant outdoor terraces."

At street level, the Collins Arch structure is arranged around outdoor public space, forging

a seamless connection from Collins Street to Flinders Lane and Southbank beyond. By taking the surrounding streetscape into its design, Collins Arch makes a significant contribution to the character and function of the Melbourne CBD.

"Bordered by exclusive retail, dining and coffee experiences, the ground plane of Collins Arch is the unique and versatile meeting point between the east and west towers, underpinning this landmark new precinct for Melbourne," said Adrian.

"The Melbourne City Council and Victorian State Government agreed to close off half of Market Street to vehicle traffic to create a park precinct. Once approved, in collaboration with the City of Melbourne, we landscaped 1,900m² of open space in the middle of the city, creating Melbourne's first park in almost 40 years."

The park introduces green public space to the area, combining bluestone and sandstone elements inspired by the surrounding CBD laneways and heritage buildings. The park also utilises a range of sustainable technologies incorporating reused rainwater for irrigation and minimal stormwater run-off.

For more information, please contact Cbus Property, Level 14, 447 Collins Street, Melbourne VIC 3000, phone 1300 319 890, email reception@cbusproperty.com.au, website www.cbusproperty.com.au





Below Fytogreen installed unique greening infrastructure along the central concourse, all four façades and within stainless steel planter boxes.

Photos taken December 2020



When it comes to greening the built environment Fytogreen is the leading design, supply and installation company of unique greening solutions for the 'Built Environment'. Established in 2002 and employing 40, Fytogreen specialises in the creation and maintenance of green walls and façades, roof gardens, planter boxes and arbours Australia wide.

In late 2017, Director Geoff Heard, started work with the inhouse design and botanist team Erik van Zuilekom and Mitchell Clouten, designing for Collins Arch, consulting with the architect, builder and client. After the design approval process was completed, the key item of selecting and securing the Liriodendron tree was undertaken, so the advanced growth of 7.5m was ready for crane lifting in.

Onsite work commenced in March 2020 with the tree being craned in and maintained while the rest of the void space was constructed.

The green wall also was installed in March and the pre-grown green façades for the central concourse were installed in May 2020. The final section was the Level 39, 40 and 41 garden and climber element which commenced in June with a team of five skilled installers completing the installation by late September 2020.

Fytogreen designed, fabricated and installed stylish tapered stainless steel planter boxes for Levels 40 and 41, the northern and southern façades have cascading plants, while the climbers on the eastern and western façades are supported by architectural mesh from Tensile.

The main challenge Fytogreen faced for this huge greening project was coordinating with the steel fabricators for the green wall that runs along William Street, as each green wall was sloping in two directions – but the final product is looking fantastic and is thriving.

Fytogreen has successfully installed some of the largest greening projects across Australia and New Zealand. Recent projects include the \$97 million apartment building in Melbourne's CBD, Paragon where they installed a created an Indoor Urban Forest and integrated green walls on the lower ground, mezzanine and Level 2 Denison Street, North Sydney fitting 340 linear meters of elevated planter boxes.

Fytogreen focuses on sustainable biophillic design ensuring the species chosen thrive throughout their natural lifespan in their elevated environment.

"We prefer to get involved early and work with architects and landscape architects at the design stage when possible, so that the design is well thought out, with sufficient consideration for light and wind conditions, constructibility and importantly, future maintenance access and feasibility," said Lisa, Fytogreen's marketing coordinator.

"We have developed numerous products to advance the green infrastructure cause, all thoroughly researched and tested, which has enabled Fytogreen to lead the way in developing Fire Compliant Greenwall systems and the super lightweight Fytoarbour system throughout 2020 and beyond."



For more information contact Fytogreen Australia, phone 1300 182 341, email info@fytogreen.com.au, website www.fytogreen.com.au

Below Richstone Group produce prefabricated units for hot and cold water, drainage and gas, that were not repeated units.

Richstone Group is a leading plumbing and gas fitting contractor specialising in the design, manufacture and installation of a modular prefabricated system that enables the rapid and accurate fitting of plumbing hardware.

“We were interested at tender to see if our prefabricated system could be adapted to the project. Prefabrication works well for repetitive items and we wanted to see how well we could produce prefabricated items that were not repeated units. The plumbing and gas fitting hardware we installed at Collins Arch proved that we could successfully prefabricate a standard with modifications while maintaining quality and timely delivery,” explained Shannon Egglestone, Richstone Group’s Managing Director.

“We had three separate and quite different areas within the building: the hotel, the commercial tenancies and the residences and each area required a different response. The design process evolved quickly, creating a template that would suit adaption to the three different requirements.”

“Collins Arch is a complex structure and we used 3D computer modelling to aid the design work and the detailing necessary for prefabrication,” said Shannon. “We also had lots of metering to take care of due to the enormous number of individual spaces and we had lots of liaising with Energy Safety Victoria.”

“During the design work it was my job to flag key areas that needed more detailing for a successful outcome,” said Project Manager, Des Miller. “Onsite work started in July 2017 and with 45 onsite during peak periods we installed the plumbing and gas fitting for the entire complex as well as fitting out six plant rooms.”

Each module is packed with all the necessary hardware for hot and cold water, drainage and gas, to suit the space to be built. “The system works really well as the prepacked components arrive onsite and are put in place straight away. There’s no need for onsite storage and we don’t have to spend time moving materials around,” continued Des.

The logistics of transporting each module to the right place within the structure is dealt with by colour and number coding each module and tracking it from when it leaves the factory to its final placement onsite.

Established in 2003 by Shannon Egglestone restructured in 2020 with James Williams, Rhett Newell and John Rocci joining the team as Directors. Richstone employs over a 150 staff to work across the commercial and residential developments in Sydney and Melbourne.

“We are certainly going through a growth phase at the moment. Over the last four or five years we have increased our business by 600%!” said Shannon. “With our modular prefabrication everything is made in the factory and we can produce a high quality product in a controlled environment.”

“Green plumbing is about more than harvesting rainwater, it’s about sustainability. We reduce waste by recycling any excess material in the factory. Using our modular units for the plumbing component of a development saves time and money.”

At the same time Richstone Group were at work on Collins Arch, they were on another massive project M-City in Clayton, a mixed use development completed in April 2020. It is a testament to their modular prefabricated plumbing system that two such large scale projects were finished on time.

Previous works for Multiplex include 700 and 720 Bourke Street, both Cbus Property Buildings, as well as Swanston Central, a 70-story tower completed in 2019.

The company’s prefabricated modular plumbing system was also installed at Multiplex’s \$120 million Southbank Place Apartment building completing 54-stories with 593 apartments.

For more information contact Richstone Group, 23 Jersey Drive, Epping VIC 3076, phone 03 8339 3777, email info@richstonegroup.com.au, website www.richstonegroup.com.au



Below ASP Access Floors installed 50,000m² of access flooring on all 42 Levels of Collins Arch, concealing services yet allowing easy access.

ASP Access Floors are experts at the manufacture, distribution and installation of unique and versatile access floors.

The company's stylish access flooring systems are most suitable for contemporary commercial environments concealing services yet allowing easy access. Functional and durable access floors are quick and easy to install.

At Collins Arch, ASP installed 50,000m² of access flooring on all 42-levels of the building. The base build side of the project commenced in May 2019 and with a team of 20 installers at peak times the job was completed by April 2020.

"We also did the fitout for over a dozen of the tenancies including Cbus Property on Level 14," said Sales Manager, Paul Wszola. The majority of the fitout work entailed adjusting floor heights to accommodate different finishes as well as detail curves and radius for feature finishes.

"We finished the last fitout in July 2020," said Paul. "Our Urban Interlock product made from calcium sulphate was heavily used across multiple fitouts as it is suitable for the installation of stone and tile. It is a highly stable raised floor that can be tiled over directly, alleviating the need for any substrates."

"Basebuild projects with multiple integrated fitouts are inherently challenging, as often different builders are awarded different tenancies after works have commenced. Having experienced supervisors to navigate the constantly shifting sands onsite is essential to a successful outcome," explained Paul.

The company's access flooring system is an integrated structural system of panels fitted together and providing ease of reconfiguration. The flexibility of using an access floor system can hide vast amounts of

power and data cabling, pipe and ductwork, as well as reduce maintenance costs of services.

ASP's access floors come in a range of materials, colours and finishes with terrazzo and porcelain tiles, concrete, cork timber and vinyl available. They also supply HPL (high pressure laminate) with ESD (electro-static discharge) properties to floor panels for data centres and communication rooms.

"ASP prides themselves on constantly improving their products and offering builders, architects and end users choices and ingenuity. This is backed up by a culture of passionate on and offsite expertise, which has fostered an enviable partnership of trust and reliability with the major industry players when it comes to delivering quality projects," explained Paul. "The majority of our work is based around commercial towers followed by healthcare, learning and community facilities, retail and gaming, then data centre related projects."

ASP Access Floors operates internationally with projects in Europe, the Middle East and distributors in Vietnam, and the majority of work coming from Australia. New South Wales and Victoria are the main drivers but the company has delivered projects in all States and Territories with bases in Sydney, Melbourne and Brisbane.

A previous job with Multiplex was 80 Collins Street with ASP completing the floor installation to all levels and tenancy fitouts totaling 40,000m² in December 2019.

In February 2020, ASP Access Floors finished the supply and installation of 11kN rated panels across all three gaming floors in the podium at the Crown Casino, Barangaroo.

Other successfully completed projects include Barrack Place, Clarence Street, home to Arup Sydney's new offices. Arup wanted a new kind of workspace focusing on wellness and sustainability and incorporated a low energy, low noise underfloor displacement ventilation system, utilising 8,000m² of access flooring. By providing air through the floor Arup have created the highest levels of indoor air quality. The fit out achieved a 6 Star Green Star Interiors v1.1 Design Review Certified rating.

For more information contact ASP Access Floors, 32 Prime Drive, Seven Hills NSW 2147, phone 02 9620 9915, email sales@aspfloors.com.au, website www.aspfloors.com.au



Below XSPlatforms Australia designed and engineered the façade access equipment for the unique Collins Arch.

XSPlatforms are experts in the design and fabrication of premium façade access equipment. An example of this is Collins Arch, XSPlatforms designed and engineered three Building Maintenance Units (BMUs) for the façade access and a monorail system.

“We started the contract in 2017 and the following 12 months we worked purely on the design and engineering for the façade access equipment. This involved developing a working concept, obtaining approvals and generating the final engineering design,” said Australian Director, Manuel De Rivero.

XSPlatforms collaborated with architects, developers and construction companies to help resolve any complexities regarding this complex project. XSPlatforms engineers have years of experience designing their safety solutions to suit contemporary façade access equipment.

“I took XSPlatforms designs, implementing them with the Collins Arch team, through the process we had to make adjustments to the design to ensure the BMU fit within the building’s structure, parking space and aesthetic,” explained Manuel. “It was a challenging design because of all the different areas of the building including, negative façade, sloping facades, sunshades, terraces, etc. We worked closely with the architect, sharing 3D information to ensure all our equipment fit in the space provided and could reach the entire façade, this careful and considered collaboration resulted in a hugely successful outcome for Collins Arch and XSPlatforms.”

The BMU located on Level 16 is an articulated knuckle BMU that unfolds to reach the front and both sides of the façade around level 16 and below. The BMU has an integrated remote-control sliding glass balustrade which allows the cradle to be suspended over the edge of this level.

XSPlatforms also installed a BMU on Level 28, this machine is optioned with an automatic parking system. This allows the operator to safely park the BMU, removing any concern for human error. The BMU is specifically designed to access the skybridge façade. A monorail system was also installed, with a platform suspended from the underside.

On Levels 40 to 41, XSPlatforms installed a 110 tonne BMU which has a reach of over 40m when fully deployed. The BMU tracks are installed on two different levels, due to space restrictions, making the design unique for its class. At its initial parked position, the BMU extends from Level 39 to almost Level 42 making it the largest BMU in the southern hemisphere.

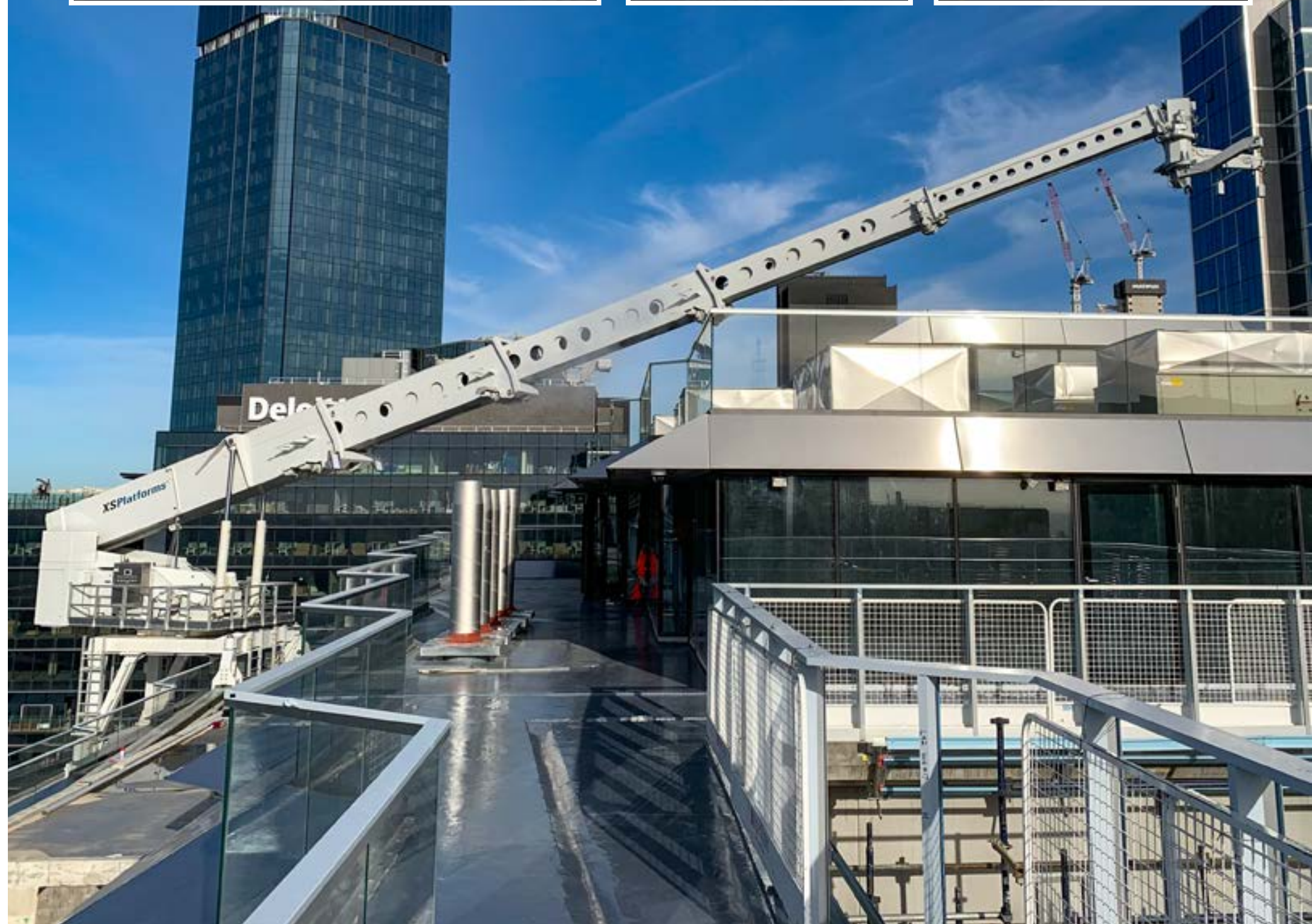
“It’s an impressive set up,” said Manuel. “We required to ensure the BMUs were hidden when they were not in operation in some extremely tight spaces. We designed and installed a set of automatic doors fully synchronised with the BMUs, for example on Level 41 we have five doors that operate using a complex PLC program. The coordination, design and installation of these complex door structures was the responsibility of our partner Andrew Engineering”. (www.andeng.com.au)

“Certainly, this has been one of our most challenging, but also one of our most iconic projects in Australia. We collaborated well with Multiplex as we have done on several previous projects. There is always pressure on a construction site, especially at the end and during the unique COVID requirements, however we supported each other to deliver an amazing project overall,” Manuel said.

XSPlatforms is a global company with the head office located in The Netherlands. XSPlatforms have offices across the globe including the United States, Canada, Europe, and the Middle East. Our Melbourne office, focus on the supply of complex projects across both Australian and New Zealand markets.

XSPlatforms also supply suspended platforms, fall protection systems as well as scaffolding for safety and protection throughout the construction process. As an international company XSPlatforms meets the many safety standards required for the use of their equipment all around the world.

For more information XSPlatforms Australia, Exchange Tower, Level 1, 530 Little Collins Street, Melbourne VIC 3000, phone 03 9909 7450, mobile (Manuel De Rivero) 0403 843 712, email info@xsplatforms.com, website www.xsplatforms.com



Below CAPACITY Building Emergency Management implemented emergency procedures for the entire Collins Arch precinct.



Below Living Landscapes installed all the soft landscaping, including mature trees and over 1,000 native and evergreen shrubs.



CAPACITY Building Emergency Management is a leading emergency management provider, ‘Future Proofing Today for the Threats of Tomorrow’.

“We provide holistic emergency management planning arising from all manner of threats, beyond just fire emergencies,” said Managing Director, Russell Boon. “We implement emergency procedures for dealing with bomb threats, gas leaks and chemical hazards as well as safety and rescue.”

In September 2019, Russell began the emergency planning for Collins Arch. Planning for such an enormous development included coordinating the whole precinct and the impact of neighbours’ own evacuation activities. “We divided the building into three sections, commercial, hotel and residential which all had different needs. The hotel was complex with 200 guest rooms, restaurant and ballroom and many back-of-house facilities. The challenge was uniting all the three different sections.”

The project was complicated by Melbourne’s pandemic lockdown and in response CAPACITY, transitioned to online emergency management training for tenants.

“The building was occupied then emptied, then re-occupied due to COVID restrictions,” said Russell. “Emergency planning won’t be finished until the building is fully occupied and we can test our procedures, see how it works and how it affects the different users.”

Russell established CAPACITY as an emergency management consultancy eight years ago specialising in site specific planning and training services for contemporary and emerging threats. CAPACITY services the Melbourne metropolitan region, with current clients including large shopping centres, high rise buildings and infrastructure as well as large scale government and multi-national developments.

Previous work includes the massive two tower development 80 Collins Street, and the incredibly complex new VicPol HQ at Spencer Street, which comprises two conjoined buildings and helipad.

For more information contact CAPACITY Building Emergency Management, phone (Russell) 0402 064 250, email russell.boon@capacity-building.com.au, website www.capacity-building.com.au

Living Landscapes is a specialist landscaping company creating gardens and plantings for sustainable commercial environments. Working to the landscape architect’s specifications a team of six worked on the landscape installation for Collins Arch, which included the supply and installation of all the soft landscaping, and a number of 6m mature Weeping Lilly Pillies.

“We also laid irrigation to maintain the plantings. The installation to part of Market Street, at the side of the building, was particularly successful, we put in a lawn, irrigation and garden beds with plantings of over 1,000 native and evergreen shrubs,” said Chris Brenchley. “It was challenging working during COVID-19 restrictions, Stage 2 reduced our workforce and we were finished by June 2020.”

Established 1987 Living Landscapes has 15 full time employees including six qualified landscapers. With a reputation for quality they work with their customers from concept to completion also offering long and short term maintenance contracts.

Living Landscapes has completed a full range of projects supplying and installing soft and hard landscaping solutions, along with compatible irrigation systems. The company focus on commercial,

however have been recognised for their work within the residential sector, winning the Excellence in Housing Award from the Landscape Institute Association of Victoria in 2001, 2002, 2005 and 2013.

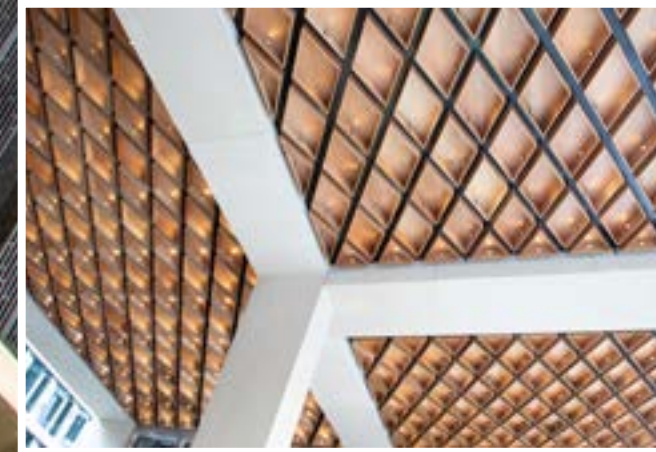
Living Landscapes has completed a number of jobs for Multiplex including Australia 108, Southbank where they provided civil works and soft landscaping including feature palm trees on balconies, outdoor furniture and gardens at Level 11, brass hanging baskets for the Skygarden and bluestone works at ground level.

Successful projects also include the Hyatt Hotel and the Australian Events Centre at Essenden Fields where Living Landscapes supplied and installed garden beds, soil, mulch and plants with a pond, timber seat walls and bicycle hoops. They also constructed extensive concrete and paving works and laid an irrigation system.

For more information contact Living Landscapes, 7/38 Camberwell Road, Hawthorn East VIC 3123, phone 03 9813 3022, email livinglandscape@optusnet.com.au, website www.livinglandscape.com.au

Collins Arch, Victoria

Below LL Installations installed a range of wall and ceiling features throughout the lobbies and entrances to Collins Arch.



Established in 2002, LL Installations offers high quality commercial architectural solutions that include stylish cladding and fitouts across commercial and public developments in Melbourne's CBD. "LL Installations specialises in commercial installations, predominantly wall and ceiling linings including carpentry and joinery works, stone, metal fabrication, upholstery, glazing and acoustic panelling," said Project Manager, Adam Thompson.

At Collins Arch LL Installations worked at the Williams Street and Flinders Lane Link installing solid blackbutt timber battens as wall and ceiling feature cladding, suspended off structural framing on the ceilings. "For the colonnade we used Blackbutt marine grade ply cut and formed into 3D diamond shapes to make an extensive feature ceiling. This has become known as one of the most eye catching areas of the project," said Adam.

In the main lobby a series of three feature ceilings were constructed from anodised aluminium mesh supplied by GKD Australia, imported from Germany. These were folded onto custom metal frames and suspended on a concealed system. For the east and west residential lobbies, LL Installations built a series of feature walls clad in fluted walnut supplied by Mortlock Timber with acoustic panelling behind.

"Working with the aluminium mesh was extremely challenging. It is a very brittle product that requires a lot of care and precision when folding. The design process on this material was also a challenge and took extensive prototyping and workshopping with the architects and consultants to get the desired outcome," Adam explained.

"Our practice spans from environmental retrofits of existing buildings to the complete planning and design of new neighbourhoods and public spaces. While our work is aesthetically diverse, our projects are linked by a focus on enhancing human relationships through architecture," said Adam.

Recently completed projects include a fitout with ceiling panelling and feature wall for Monash University at 750 Collins Street, as well as Multiplex's residential tower Melbourne Square at Southbank where LL Installations fitted the structural steel stair with glass and timber treads to the penthouse, and podium level external lounge pods.

For more information contact LL Installations, 13 Techno Park Drive, Williamstown North VIC 3016, phone 03 9397 5647, email projects@installations.com.au, website www.llinstallations.com.au