

BIRDS EYE VIEW

MAIN CONSTRUCTION COMPANY : Billbergia
ARCHITECT : SJB
STRUCTURAL ENGINEER : Bonacci Group
CONSTRUCTION VALUE : \$500 Million

Skyline Tower is a 25-storey residential tower offering one, two, and three bedroom apartments, demonstrating the attention to detail that Billbergia is known for and is the final stage of the Village Quay project.

Skyline Tower is the tallest of five buildings that make up the new residential development of Village Quay at Rhodes along the Parramatta River. Originally an industrial site, the \$500 million development provides some much needed remediation to the area.

A total of 760 apartments makes up the five buildings of the Village Quay development, ranging from 5 to 25-storeys high. Stunning views of the Blue Mountains and Sydney's central business district can be seen from the building, and due to a bend in the river, also provides residents with water views on all sides. The development also includes 1348m² of retail space and a basement car park over three levels with a total of 789 car spaces.

A striking feature of the Skyline Tower is the pair of 20m high V-shaped columns, which support the upper 20 storeys of the building. "These columns would usually be made of structural steel, but Billbergia set itself the challenge of constructing the two columns that meet at ground level from 1.2m diameter reinforced concrete," says Senior Project Manager Chris Kelly. "They were made on site and set at a 73-degree angle."

"The columns were formed and poured in four sequences using steel formwork shutters with a series of lateral bracing to restrain the column and control the initial movement and deflection," he explains. "That supported the building design criteria but it was a bit more complex than the usual construction process. The engineering was the real construction challenge, and that was mostly driven by the design goals. We wanted the V-columns to provide a real gateway for pedestrians coming into the development from Walker Street to Homebush Bay. The council also required this kind of architecture in the design process."

The contemporary look of Skyline Tower was designed by SJB Architects, who also

assisted in providing landscaped gardens which residents will be able to enjoy across the three hectares.

A mix of one, two and three bedroom apartments have double-glazed windows and doors which enhance the energy efficiency of the building, along with acoustic dampening which will reduce noise from neighbouring apartments.

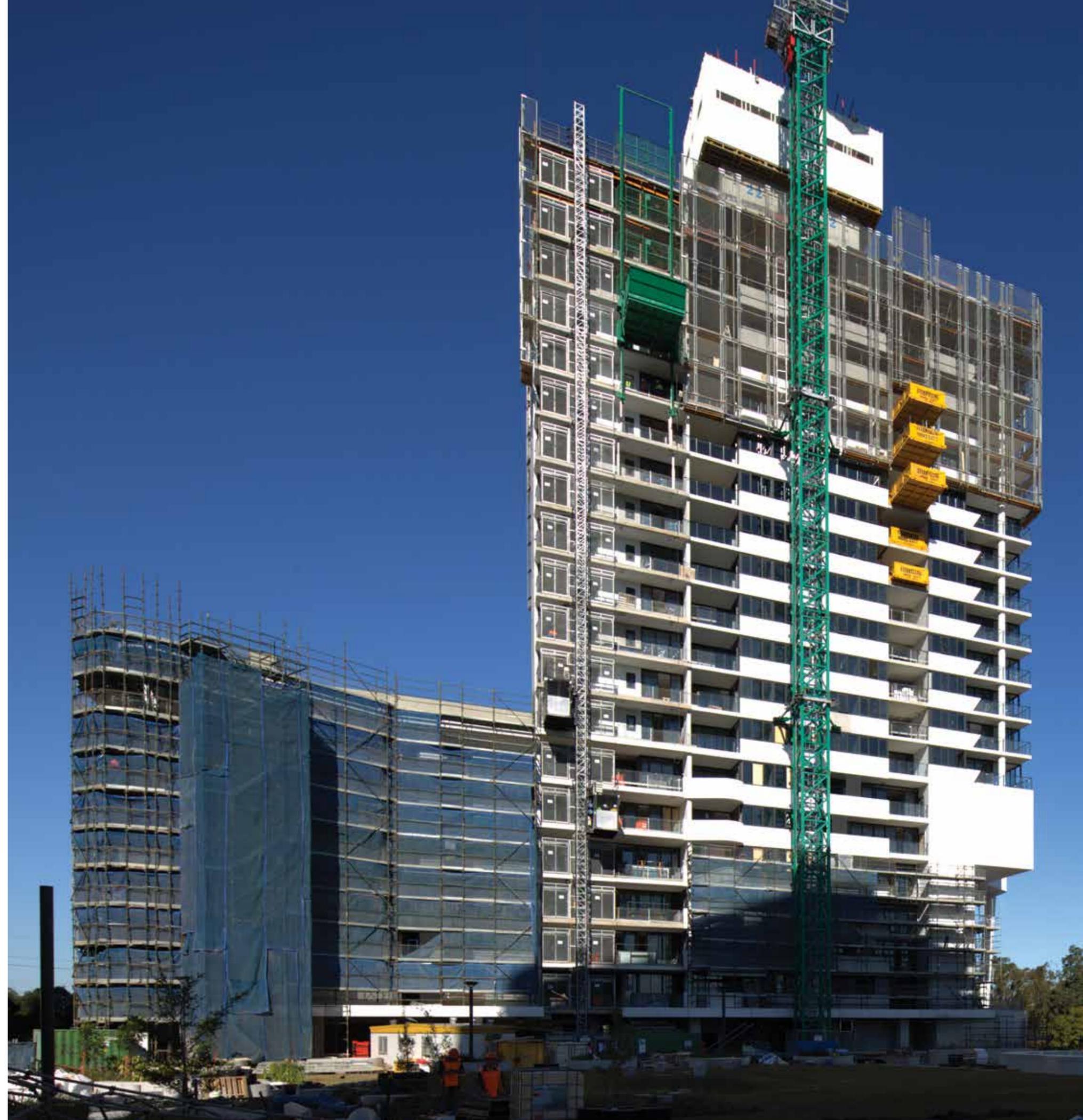
"The engineering, surveying, and formwork challenges were overcome with collective input from the designers, engineers, industry suppliers and specialised contractors to produce a space that will change the landscape of the Rhodes area," says Kelly. "It demonstrates the attention to detail that Billbergia is known for."

Billbergia continued to use in-house expertise across all stages of the development process. This included; investment management, acquisition, development management, planning and design, construction, project marketing and sales. Approximately 150 Billbergia employees worked on the project.

Overall 4,000 workers were involved in the project with 200 workers on site everyday. It took roughly 20 months for Skyline Tower to be complete.

Established in 1988 Billbergia has become one of the largest developers of waterfront apartments in Sydney and more recently they have undertaken large apartment projects in Brisbane and other cities. This includes apartments at Wentworth Point along the Parramatta River and the Brisbane Skytower. They also offer professional engineering and project management services to other sectors of the construction industry.

For more information contact Billbergia, Suite 101, 25 Angas Street, Meadowbank NSW 2114, phone 02 8878 6900, Email info@billbergia.com.au, website www.billbergia.com.au



Below Hyrise completed formwork for the main tower construction and the structural landscaping elements for Skyline.



Skyline Tower required specialised concrete casting and Hyrise Pty Ltd carried out that formwork on both the signature tower and landscaping. “The bulk of the work was fairly ordinary, says Supervisor Harry Karaiste.

The work on Skyline included not only the floors and walls but the unusual gardens in the grounds and the V-shaped towers that form the front of the building.

“The gardens were all curved, shaped like snakes,” says Karaiste. “They were more difficult to get done. We had to use plywood to get the specific shapes that were included in the plans. And we had to create each one separately because there’s no system for that kind of thing. It’s not hard but we just don’t do it that often.”

Time was also an issue. The unusual forms took time to shape and set and, according to Karaiste, time is always at a premium for the landscape construction. “But that being said, we were really pleased with the way it came out,” says Karaiste. “It looks really interesting and unusual when you’re looking at the landscaping from the apartment tower.”

The 20m high columns that form the gateway to the building also presented something of a challenge for the formwork team. “That process lasted for five weeks and we just ran the scaffolding up as we went,” says Karaiste. Hyrise used Fowler equipment to complete the unusual towers.

“We don’t usually get too involved with the engineering but they developed a pretty good system to construct the two columns,” Karaiste says.

The more mundane floor and wall formwork was done with RMD’s Airodek system. “That’s pretty standard for what we do,” says Karaiste. “It’s a form system for flat decks and just a standard screen system with 1800mm by 900mm forms,” he explains.

Hyrise typically uses such a system to complete the formwork on a high-rise with the striking architectural features of the Skyline Tower. The company is increasingly also using precast concrete to build the walls on its projects.

“It’s much easier to use and it saves an enormous amount of time,” says Karaiste. On most jobs, he says a precast wall can take as little as 30 minutes to install compared with a day or even two to use the traditional scaffold and screen method to build concrete walls.

Whatever the efficiencies of the formwork system, Skyline Tower was no small job. It took 75 Hyrise employees working on site at the peak of the project, Karaiste estimates. That also included work on one of the low-rise buildings in the Village Quay complex at Rhodes as well as the Skyline Tower, which is the development’s signature building.

One measure of the formwork done on Skyline is the amount of concrete that Hyrise’s work contained. Karaiste estimates that, in all, 20,500m³ was poured to build this project.

Erick Rochford, who is also a Supervisor at Hyrise, oversaw the completion of the concrete work. He says putting the roof on the tower was the easiest part of the project. From his point of view, the only challenge came with the changing profile of the building that occurred during construction.

“But it wasn’t anything we couldn’t handle easily,” he says.

Hyrise is currently working on a handful of projects. Apart from the Skyline project, Hyrise is also doing all the formwork on the Wentworth Point apartment complex, another Billbergia project creating a series of higher-density apartment buildings just along the Parramatta River from the Skyline Tower.

For more information contact Hyrise Pty Ltd, 72 Arcadia Road, Galston NSW 2159, phone 02 9653 2554

Below Raines Commercial Flooring provided high quality Axminster carpet throughout the development.

A luxury high rise needs the red carpet treatment to ensure buyers feel the opulence of the project. That was exactly how Raines Commercial Flooring approached their work in providing and installing the carpeting for Skyline Tower.

The waterfront apartment building was the fifth project the company has completed for Billbergia. Raines has worked with the developers of the Village Quay project (which includes the Skyline Tower) for a number of years says Director David Raines. "In fact, they're one of our VIP clients," he adds.

"Our brief from Billbergia was for a high-end product," says Raines. "Billbergia wanted to be sure that the fixtures and fittings in the building exemplified the luxury of the complex. They wanted to be sure that people felt that high quality throughout."

To ensure they were able to create the visual impact required at Skyline, Raines chose a floor covering that suggested truly sumptuous quality. "We used a pure wool loop pile because it gives you that luxe feel underfoot," says Director David Raines. The loop pile has a very distinctive texture owing to its thickness.

"The carpet used throughout the residences are earth tones, in keeping with the other finishes in the building," notes David Raines. "The mix is really very eye-catching"

"In the common areas, the developer really likes to create a wow factor," says Raines. "So we used an Axminster carpet with a combination of black and cream. It's visually very striking," he adds. Axminster is a heavy duty carpet that is often laid in lobbies and similar public spaces as it is able to withstand heavy foot traffic and maintain its high quality appearance.

Raines began operations in 1980 selling and installing carpets in homes and apartments. More recently, the company has moved into the commercial space and has developed a reputation for working on large scale commercial, industrial and residential projects.

This new division can provide "a complete end-to-end flooring solution" that includes initial design, complete project management, supply and installation of the floor covering as well as any subsequent work to maintain the flooring.

Raines Commercial Flooring is highly unusual in the floor covering industry in that it employs all its own installers. "That means we're responsible for the product and have real control over its quality," notes Director David Raines. "We minimise joins and seams to give a streamlined look to the finished floor," he adds.

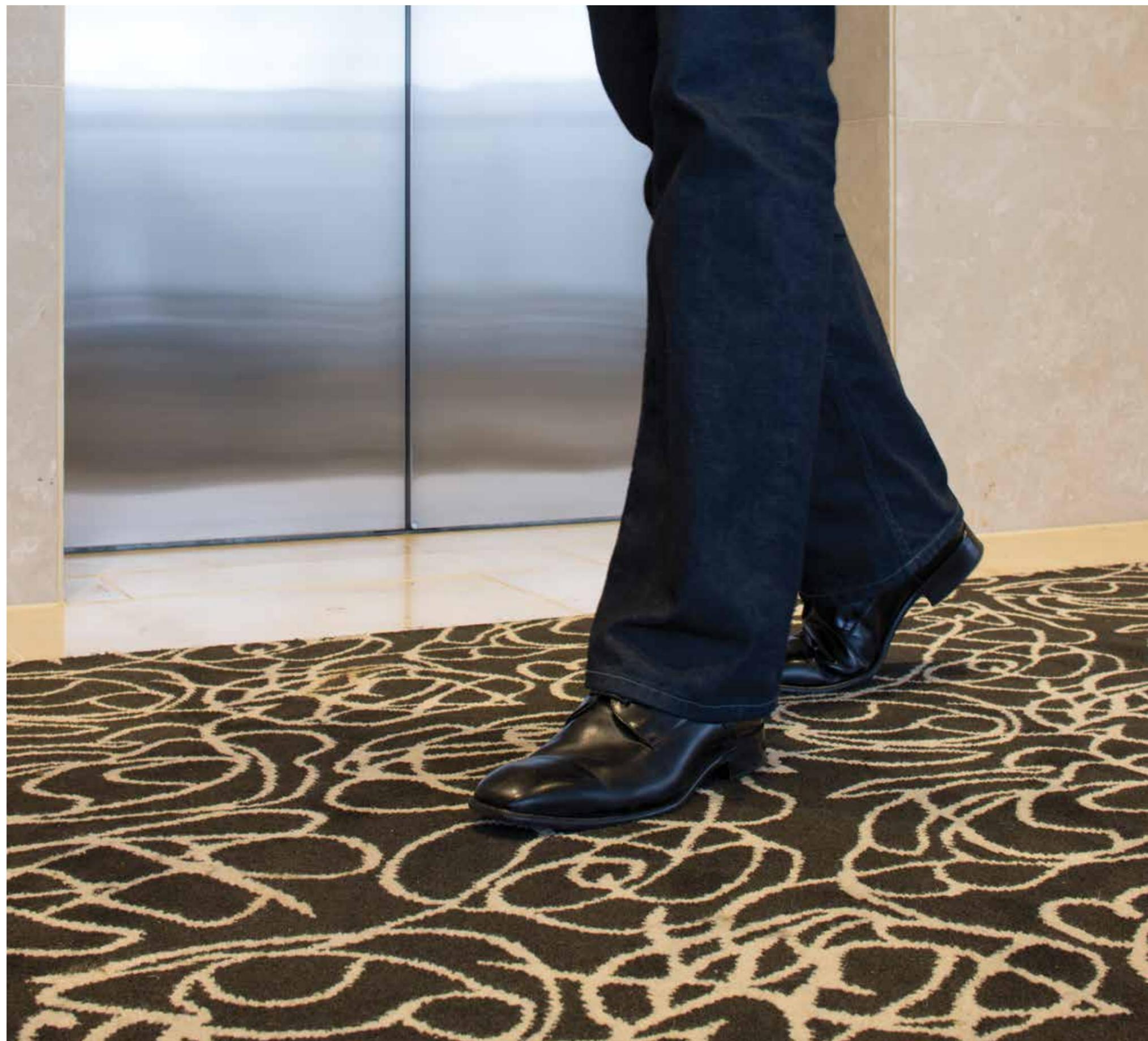
Raines Commercial Flooring is constantly searching for carpet products that will offer builders and developers real value in both quality and appearance for new projects.

The colours at Skyline Tower were earth tones and a simple black but Raines offers a complete palette and a wide range of designs to work with any building design, whatever the purpose – office buildings, apartments, hotels, schools and colleges, hospitals and aged care facilities, or even an airport terminal. Raines did the flooring for Virgin Australia's terminals at Sydney, Melbourne, Perth, Darwin and Canberra airports.

"We know that developers have to be sure that the carpet will last well beyond the initial sale period," says David. "It's the best way to avoid hassles down the track."

Beyond the Skyline project on the Waterfront at Rhodes, Raines is also providing the flooring for the series of apartment buildings Billbergia is building at Wentworth Point in Western Sydney. The company is also working on the Primus Hotel in Pitt Street, the Aqua Apartments in Bondi Junction and Skye by Crown in North Sydney.

For more information contact Raines Commercial Flooring Pty Ltd, 8/3 Exell Avenue, Banksmeadow NSW 2019, phone 02 9316 8030, fax 02 9666 6170, email info@rainescommercial.com.au, website www.rainescommercial.com.au



Below Supplied Holdings supplied and installed all the windows and doors for the project.

Supplied Holdings specialise in the supply of aluminum glass windows and doors in the residential high-rise sector.

The NSW based company was established by three directors who between them possess very different skillsets that complement each other and they boast over 50 years' experience in the industry. The directors are still actively involved in the day to day running of the business and looking to take it to the next level.

Supplied Holdings also have an affiliated company known as Installed Holdings who work in tandem with them, who specialise in the installation of the high-rise aluminum and glass facades in both the residential and commercial sectors.

Installed Holdings was established in July 2014 and Supplied Holdings was established exactly 12 months later.

Both Supplied and Installed Holdings pride themselves on their ability to build relationships and to exceed expectations. By using proven systems which have been pioneered by the two companies, they have been able to increase productivity by maximising labour efficiency allowing their teams to create a seamless installation which replicable on every job.

Between the two companies, they offer an end to end service for building and construction companies and have a strong workforce of around 50 staff and regular subcontractors.

The Skyline Tower at Village Quay Rhodes is far from the typical steel and glass highrise building. In fact, its curved corners required unique metal work to be attached to the building and on its debut, Supplied Holdings provided a one-of-a-kind façade for this luxury building.

They supplied and installed all the windows and doors for the project as well as the customised work on the façade.

"They are vertical fins on the corner of the building," explains Supplied Holding's Director of Operations Brian Mobbs. He added that they were unique because of the oval shape of the building's northern end.

The glass and aluminum windows and doors as well as the custom-made metal work was all sourced from Chinese manufacturers. "It's the way we have to go to stay competitive."

Whilst their works on the project were done with careful planning and a polished execution, they were held up with by a number of logistics mishaps, but overcame them in the end.

"The tricky part for us was the time constraints and co-ordinating with all the trades, but we pulled together as a team and managed to exceed both ours and the client's expectations," Mobbs said.

"With any project, particularly with tight programs, problems always arise which are caused by variables that we can control and many that we cannot. Being our first project with Supplied, expected teething problems come with any new business, but we are proud of what we have achieved in such a short time."

The company and its sister, Installed Holdings, had a narrow window to complete their works before the building's scaffolding disappeared. The two companies had around 30 people, which included employees, subcontractors and window installers working on Village Quay Skyline over the 14 weeks it took to complete the job.

The two companies are now working on a number of tenders for 2016 that they are optimistic about winning. They also commenced another large project in December in Clempton Park for the construction group, Parkview as well as some smaller projects around the city.

Mobbs sees more high and medium density apartments being built in the near future. "People want the high diversity and low maintenance living. We'll be working on those for some time to come. It's a great time to be launching a new business."

For more information contact Supplied Holdings, 1/4 Skyline Place, French's Forest NSW 2086, phone 0402 329 095, email admin@suppliedholdings.com, website www.suppliedholdings.com

