

TOWERS OF INSPIRATION

As SP Setia's first development in Australia, FULTON Lane has become an icon in the northern fringe of Melbourne CBD and has set new boundaries in terms of residential, retail and commercial facility, project value, number of apartments and finish quality.

FULTON Lane has been the catalyst for several apartment developments in this area and will be home for 804 Apartments, 13 Retail and 2 Commercial spaces. The project features podium level sky gardens, gymnasium, swimming pool, sauna, steam room, gold class cinema, commercial style kitchen, dining and lounge rooms the resident's use.

The \$221m FULTON Lane Apartment project has formed an international partnership and another milestone achievement for Hickory Group. Working with multi-award winning Malaysian Developer, SP Setia, this \$221 million project demonstrates a collaboration excelling in environmental, construction and financial efficiencies.

Designed by Fender Katsalidis Architects, a striking green arbour facade on Franklin street co-ordinates with two tower forms rising above the podium, that avail maximum solar penetration to every apartment. Comprised of 806 residential apartments ranging from studios to 4 bedroom Penthouse apartments, there are a further 13 retail tenancies at ground floor, first class communal facilities, 400 car spaces and 600 bicycle parks.

“Hickory Group achieved a close working relationship between the developer, the superintendent, the design team and the subcontractors to achieve the best possible outcome at the best possible price. Awarded as a Design and Construct project, the design development was closely coordinated with all project stakeholders.” Project Manager Peter Frank commented.

Designed to achieve a 4 star Green Star rating, the two towers provide a greater

façade area, which provides a high degree of natural lighting to the apartments internal spaces. Other initiatives include high performance glazing, energy sub-metering, water conservation and recycling, re-use of Fire Service test water, low VOC's and the provision of outdoor facilities.

Construction methodology involved two separate but concurrent stages. Stage 1 included the Franklin St tower, podium level car parks, and level 9 common areas, while Stage 2 covered the Beckett St tower, comprising of 504 apartments, and includes the balance of ground floor and level 9 common areas.

The FULTON Lane Apartments covers a massive 5000m² site. Hickory's project team required a well-considered best practice strategy to ensure all elements of the complex, multistage build was completed on time and to Hickory Groups high standard.

“We undertook extensive value management considerations through the reworking of the basement to reduce piling and excavation on the site.” Peter Frank commented, “The raft slab foundation for each tower was a significant milestone to the project following the removal of 46,000m³ of soil.”

The use of Bamtech Steel reinforcement significantly reduced the preparation time of the raft slabs. The two raft foundation concrete pours started at 5.00am, finished at 4.30pm and each used 1060m³ of 65mPa concrete via four concrete pumps.

Hickory is at the forefront of innovation and new technologies and has created associated

divisions including Hickory Modular Building Systems and Sync bathroom pods to enable the construction of turn-key project solutions across Australia. In 2013 and 2014 the Group were named in the BRW Top 50 Most Innovative Companies List, the highest ranking construction company on the list.

Recent projects from Hickory include:

- 568 Collins Street, a 65 story residential towers on a compact 30m by 40m site which they overcame by implementing efficiencies such as producing 794 prefabricated bathroom pods off site in their Brooklyn factory.
- The Istana Melbourne, a 25 story residential tower comprising 320 apartments.
- Central South Yarra, a 30 storey luxury development for Little Projects which is also utilising Hickory's innovative bathroom pod technology to fast track the programme.

With a team of construction professionals numbering at over 450, Hickory Group is in a position of having the best teams with the best support.

Their practice of self performance, standardised processes and combined with their professional knowledge, achieves both a consistency in their delivery of high-quality construction projects for the past 20 years, and brings future visions combatively into the now.

For more information contact Hickory Group, 101 Cremorne Street, Richmond VIC 3121, phone 03 9429 7411, fax 03 9428 7376, email, info@hickory.com.au, website www.hickory.com.au

DEVELOPER : S P Setia Bhd Group
MAIN CONSTRUCTION COMPANY : Hickory Group
ARCHITECT : Fender Katsalidis Architects Pty Ltd
STRUCTURAL ENGINEER : Robert Bird Group Pty Ltd
CONSTRUCTION VALUE : \$221 million

CREATING A BETTER PLACE

The term sustainability has on occasion been used as somewhat of a “greenwash” in a development’s branding strategy but with less than promised outcomes.

One Melbourne-based company that challenges such insubstantialities is Sustainable Development Consultants (SDC), whose platform is to encourage, support and guide a building’s development through alternative sustainable design choices.

Based in Melbourne, and established in 2004, SDC were the sustainability consultant for the SETIA development, FULTON Lane Apartments, in Melbourne CBD.

With Malaysian based development company SETIA having bought the site, and Fender Katsalidis Architects awarded the project, SDC were engaged during the concept and planning stage to work with the team to define clear and appropriate sustainability goals for the CBD site.

SDC’s role continued through all stages of the development of this project, working with the team and advising on sustainability initiatives and outcomes. However, during that period, the realisation of all kinds of potentials that could be made manifest through their services occurred and the consultancy’s role expanded to encompass not only advising the designers, but also the services engineers, contractors and builders.

One of the great achievements of this project is the four-star Green Star rating. There are few multi-residential buildings within Australia that achieve such a rating, making this particular project a fantastic one.

Company co-director Lindsay Richardson commented “We then decided to make it a sort of ‘stretch goal’ for the future, in that we could get that high green star rating to really show that we are providing a highly sustainable building. There were certainly a lot of project team meetings discussing the different façade elements, and interactions, and investigating choices available for what was provided on the Level 9 podium that spans most of the site. There was a lot of discussion on community facilities for the residents, so that they could not just have an environmentally sustainable building, but also a socially and more economically sustainable building.”

At its outset, the highest sustainable attribute of the site was the site itself, located in the centre of the CBD, with a choice of transport that keeps sustainability in movement, namely public transport options and being on foot or bike. The building provides almost 300 bike racks, and motorbike and small car spaces make up around 10% of the total parking, while building efficiency comprised much of the investigations.

“Our biggest influence is on the energy and water efficiency of the building. We like to make sure that the sustainability initiatives are kept practical and tangible and that what comes out at the end will have a benefit to the building users,” Lindsay Richardson commented.

A key element to their consultancy methodology is the use of energy modelling for spaces as a whole, defining the solutions as not just individual components but looking at what the complete picture is.

For FULTON Lane Apartments, as with many high rise developments, the issue of glazing required investigative studies to find the solutions for both the design goal and sustainability goal.

“Instead of looking at the issue element by element, we used an energy modelling program to model all of the ground floor, and ran the model so that it would take into account the walls, the roof, the floor, the mechanical and electrical systems that were being designed in, to know how it performed as a whole. So that’s the kind of detailed work that we get into with different elements of these buildings. That is something that we find is very important for builders, design and construct style, especially.”

With directors Lindsay Richardson, Ben de Waard and Daniel Edwards at the helm of a team of 10, there are a range of sectors that SDC have provided services for, including aged-care facilities, schools, child-care centres, commercial and industrial facilities. Key to their line of investigation is the realistic, practical outcome that can come from any sustainable initiative and ensuring the attainment of positive results.

For more information contact Sustainable Development Consultants Pty Ltd, Level 2, 555 Riversdale Road, Camberwell VIC 3124, phone 03 9882 9967, fax 03 9882 9969, email info@sdconsultants.com.au, website www.sdconsultants.com.au





Main image: CFA Piling and Basement Construction at Morton Avenue, Carnegie
Insert: Basement construction on FULTON Lane Apartments.

BRC PILING THE COMPLETE PACKAGE

Basement retention for a high-rise development in the middle of a dense CBD site is just one of the many kinds of challenges of a site that BRC Piling and Foundations Pty Ltd undertake regularly.

Established in 1988, the company can now boast a plethora of problem-solving cases for their range of projects, a body of professional knowledge that they bring forth to all new projects, making them ready to deal with any and all site complexities.

BRC Piling and Foundations were awarded the design and construct contract on the high-profile FULTON Lane Apartments project in Melbourne CBD. The company’s investigation and design work related to the retention system required for the high rise’s basement levels, and included design of ground anchors. Working collaboratively with the structural engineer, they designed the bored pier retention pile wall system for 5000 square-metre site, numbering at 146 piles.

An example of their flexibility in working with unique site conditions was highlighted with this CBD site, with the adjoining buildings own retaining structures forming part of the design of the new builds system.

“Working with the structural engineer for the retention system design, we had to consider a three level basement next door. Basically we eliminated the piles on

that side because we were able to use the adjoining buildings structure’, Director Craig Boam commented.

This strategy was conceived during the design and development stage of the retention system and is in fact a strategy that is becoming more and more common, as buildings go up in the city. Craig Boam further explains,

“We are working on a concept with another builder at the moment, combining two different developers but one builder, whereby we are cantilevering one building and ignoring the retention system of the adjoining one to save money.’

On site for around one month at the FULTON Lane Project, a beneficial condition for this project was that the water table remained below the excavation depth. The company utilised two of their Soilmec SR40’s and a Crawler Crane, working with shaft diameters of 600 and 750mms, and supplied all specified concrete and steel.

With up to 8 men on-site at any one time, this projects complexity was affected by it straddling the entire site block, with a hotel on one side and an apartment block on the other. An added complexity in the design work was catering to the temporary loads of the gantries that were installed by the client at either end of the site.



BRC Piling and Foundations have covered projects across Australia and into Asia, with their services contracted for projects in the mining sector, infrastructure works, civil design projects, water, shafts, refineries, and more. With staff numbering around 60, BRC Piling and Foundations continues to strive towards a future that can offer more services for its clients, as a one stop-shop for basement retention systems, combining the design, piling, capping beam, ground anchors, shotcrete and excavation.

BRC Piling and Foundations- the Complete Basement Contractor

For more information contact BRC Piling and Foundations Pty Ltd, PO Box 457, Mount Evelyn VIC 3796, phone 03 8761 0000, fax 03 8761 0000, website www.brcpiling.com.au

STUDD CORP

Specialising in aluminium external windows and façade systems, Studd Corp has had an impressive start since its inception barely 3 years ago, becoming a sought –after contractor for external systems, as well as for a range of glass solutions for internal fit-outs.

A Victoria- based company, Studd Corp remains focused on the quest to manufacture highest quality window systems, with architectural glass solutions optimised for both performance and aesthetics.

For the FULTON Lane Apartments development, while the external façade system is within Hickory’s scope of works, Studd Corp won the design and construct contract for the internal fit-out of three glass-solution components in the 778 apartments - mirrored wardrobes, internal bedroom sliders and shower screens.

The contemporary design for this highly specified development utilises new frameless mirrored wardrobes, and internal top hung sliding doors at a large 1500mm wide x 2.4 high of frosted glass.

It is Studd Corps’ highly motivated team that is part of their winning game, with such force being one reason behind the company’s growing success. Keeping direct and frequent contact with their suppliers both local and off-shore, Studd Corps’ team ensures a smooth running and consistent result at the final location on site.

Studd Corp’s Company Director Jay Studd comments, “I go back and forth from China a lot and make sure everything is running smoothly. We have extremely good suppliers that go above and beyond to make sure we stay on time and cost. If there are any hiccups, they air freight things in, so it makes for really smooth running on a project.”

In order to achieve these results, Studd Corp have established two facilities in Victoria, as well as maintaining an office offshore in China. For FULTON Lane Apartments, the shower screens were sourced from China through their office, while the internal doors were an offshore product, fabricated here in Australia.

Recent design research and development for the company include a new curtain wall and

window system for HACER as part of their range, and with whom they are currently assisting with further projects.

While a relatively small team of 25 in the company, Studd Corp position themselves as being both small enough to give the best service, but with structure in place to cater for larger scale developments.

Recently Studd Corp finished the Istana Melbourne project which utilises similar products of mirrors, splashbacks and shower screens, and are undertaking B17 and Central also by Hickory.

Studd Corp continues to contend for both large and small, commercial and residential projects for glass and aluminium external systems and internal fit-outs, and have extend their reach across Victoria and as far as Port Hedland in WA.

With a passion for glazing systems with a dedication to both innovative ideas as much as highest design resolve, Studd Corp can see their client base continuing to grow, with both new and returning clients.



For more information contact Studd Corp, 9 Judge street Sunshine VIC 3020, phone 03 9077 4409, website www.studdcorp.com.au



B17 by Hickory Building Systems (Hickory), Perth



Imperial by Hacer, Doncaster Victoria





KEEPING ON THE STRAIGHTLINE

As specialists in basement retention systems, Straightline Excavations are not newcomers to finding buried treasures more routinely attributed to archaeology.

For the FULTON Lane Apartments in Melbourne's historic CBD, digging ten metres deep at the 5,000 square metre site, all situational management was handled with environmental and economic professionalism that has come to be expected from this Victoria-based company.

Straightline Excavations is owned and managed by Tarkan Gulenc, a qualified civil engineer and George Parissis as the Operations Manager. They have over 20 years of delivery on projects of multi-residential, commercial and industrial, with more recent years developing their specialty in basement systems of piling, anchors, shotcrete walls, bulk and detailed excavation.

With the FULTON Lane Apartments design being composed of two towers and a three level basement, Straightline's scope of work began with the excavation of a massive 50,000 solid cubic metres.

Over a four month period, Straightline delivered on their design and construct contract, with a basement retention system including bored piers, shotcrete walls, capping beams, temporary anchors and raft footing components. Facilitated by their fleet of 35 tonne capable excavators, at peak, the job was staffed by up to 22 employees.

The design and construct contract permitted greater control on site over potential changes, and made any design changes easier to employ. "The benefit of this type of contract is it gives you more control over any potential changes that do crop up, during the construction phase. We have more control over things that can and can't be done, to change the design as we go", Tarkan Gulenc commented.

"We had some ongoing issues with adjoining neighbours properties, particularly in terms of the anchors clashing with adjoining neighbours foundations and services, and then not to mention the site was heavily contaminated to begin with."

Unique to this site perhaps was its history. Documented to have been in various use for over 130 years, the existing car park structure covered multiple layers of city life as it once stood.

"Once we started excavating, we uncovered items such as old bits of machinery and equipment that had been buried in the ground, and built upon. The site had some factory use previously and they basically just buried their contaminants in the ground. It was like a bit of a time capsule, so these had to be tested and removed according to EPA guidelines," Tarkan Gulenc stated.

Full de-contamination took about 3 -4 weeks, with Straightline managing the conduct of strict environmental procedures for a clean up. At a further layer, a network of old Melbourne streets and laneways that traversed the site was at once both a fascinating find historically, and then was also viable material for commercial re-use. In fact, the majority of material carried out on this site was able to be re-used and very little was put back into a landfill.

"We found tonnes of old bluestone, pretty much nearly all over the 5000m² site. The bluestone is a popular material, and can be re-sold at a commercially viable cost. For the other items found, some of the contamination that was foundry work contamination was tipped at a licensed landfill, and all the dirt inside the job going down ten meters, was basically recycled going out towards a residential estate that required the material," Tarkan commented.

Formed in 2004, working on both large and small sub-structures, Straightline Excavations has consistently developed and refined their operations in the civil and building industries, and continue to maintain a level of confidence from builders across Melbourne and Brisbane cities.

For more information contact Straightline Excavations Pty Ltd, 19 Dawson Street, Coburg North VIC 3058, phone 03 9354 1220, fax 03 9354 1225, website www.straightlineexcavations.com