

THE EVOLUTION OF DESIGN

MAIN CONSTRUCTION COMPANY : Richard Crookes Constructions

DEVELOPER : Rose Group and Cbus Property

ARCHITECTS : Rose Architectural Design

STRUCTURAL ENGINEER : BG&E Pty Limited

CONSTRUCTION VALUE : \$35 million



Breakfast Point Nantucket is located just footsteps away from the waterfront and offers amazing views of Sydney Harbour. It's nestled within immaculate terraced gardens and private outdoor retreats known as The Springs, and the building presents a collection of luxury one, two and three bedroom apartments and penthouses with air conditioning, fitted LED down-lights, 100% wool carpets and European-style designer kitchens.

Rose Group used its inhouse architectural team to produce the design and oversaw head contractor Richard Crookes Constructions to do the build, said Group Marketing Manager, Craig Walkerdene.

"We remain involved. Our architects have a watching brief over the design and construction process. As the developer, we've been intimately involved and Richard Crookes Constructions invites that from us because they have the same ethos as us. We're really building it for the purchasers, not ourselves. We've found Richard Crookes has a very good eye for detail and they understand who the real customer is," said Craig.

Rose Group employs 35 people, all of whom worked on the Breakfast Point Nantucket project. Design work began in early 2013 and by mid

September almost 90% of the units had sold, just two months before expected completion. By then the project would have used 14,000 tonnes of concrete, 450 tonnes of reinforcement and 22,500m² of formwork.

Richard Crookes has been involved in the Breakfast Point development since about half way through. That company's Project Manager, Liam Brosnan, says the longevity of Breakfast Point development has allowed Richard Crookes to develop, tweak and continually improve the Rose principal design model, allowing both parties to enjoy efficiencies with program, design and construction costs. Strong quality assurance processes and early delivery are their drawcards, particularly with the Nantucket project.

"At Richard Crookes Constructions we strive for repeat business and the Breakfast Point development is a great example of just what can

be achieved over a 10 year period. The longevity of the relationship comes with its own complications, as you have to deliver a consistently high product without getting complacent on cost, program or quality. We set strict goals for ourselves and aim to deliver each apartment with zero defects and up to Rose Groups' consistent show home standard."

"At Breakfast Point we have a history of delivering the projects early. We do this by selecting known supply chain (who understand the Breakfast Point design and construction process) and agreeing an aggressive target programme. We utilise LEAN planning techniques to manage the target programme and communicate the key activities to the team."

"To achieve the zero defect goal we have embraced technology and the entire supply chain have signed up to use Acconx system and field tools. The system allows for easy access of drawings onsite through their smartphones or devices minimising errors and speeding up key decision turn around times."

"The system also allows defects to be logged or closed out via the same devices and it saves hours and hours of writing up/closing out

and explaining defects to operatives. We've improved our systems so we're getting things right the first time."

Meanwhile, Rose Group is a multi-award winning family business that has operated for 37 years and specialises in large-scale master plan residential real estate. Its other signature projects include Beaches, a 550-lot development at Catherine Hill Bay as well as the Lakeside Estate at Gwandalan on the shores of Lake Macquarie. Another project on the drawing board is on a recently acquired site at Fisher Street, Dee Why.

"Our unique selling point is we design and produce homes that we would be happy to live in ourselves. There's an ongoing quality control process, which focuses on the evolution of design and detail. The ultimate indicator of what we're doing there is that we've achieved a very high level of repeat purchase and referral. Between 40% to 50% of our sales are from repeat purchasers," Craig said.

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KEEPING IT COOL

Orion Mechanical Services is a leading Australian specialist in custom Design and Construct HVAC (heating, ventilation and air conditioning) solutions for residential, commercial, industrial and mixed-use property developments and luxury homes. Orion Mechanical Services were subcontracted by Richard Crookes Constructions to design and install the air conditioning and mechanical ventilation systems to all 101 apartments within the Breakfast Point 7D2 Nantucket Project.

Orion's Design and Construct scope of works includes: Daikin VRV-4S air conditioning systems serving each apartment; Daikin ducted or high-wall indoor A/C unit installed in each room; Daikin Navigator wired wall controls and temperature sensors located in each room; Daikin A/C condensers located in the basement carpark or within roof plantrooms; basement carpark mechanical ventilation systems with VSD fans and CO controls; and central ducted toilet exhaust systems.

"It's our ninth building for Richard Crookes Constructions within the Breakfast Point precinct," says Justin Phillips, Founder and Managing Director. "We collaborate with the builder to streamline the design and de-risk the installation. Being proactive raises awareness of potential non-compliances and coordination issues, resulting in best solution outcomes prior to starting onsite."

Orion prides itself that all air conditioning and ventilation systems installed on its projects are compliant and work as per the client and manufacturer's specifications. "We procure the best available equipment and constantly invest in our labour force so that, upon project completion, all our installations are defect free. We design all our systems with the end user in mind."

"Managing fire safety is a priority on all our projects. We schedule, photograph and document all fire dampers, fire collars and fire compartmentation installed on each project." With limited ceiling space, Orion's solution was to install PVC flat pack ventilation ductwork to maintain required ceiling heights and minimise bulkheads. In addition, the Breakfast Point sites required limited hotworks. Orion used Lokring compression fittings at all refrigerant pipework connections to avoid the need for brazing.

Orion uses Aconex, an online project and document management software platform used in the building industry. Sharing project drawings and project correspondence via an iPad means a savvy foreman can have access to all of the drawings at their fingertips in the field. "Having completed so many stages at Breakfast Point, a lot of accumulated knowledge has been acquired and retained through our shared experience with the Richard Crookes project management teams. We've established good QA procedures for checking off our installation at the various stages, especially at project completion for checking the fit off drains and commissioning of all the air conditioning systems."

Orion is currently working on multiple projects including the Travelodge Hotel, Mascot and Mezzo Apartments, Glebe for Parkview Constructions, Platino Chatswood for Taylor Constructions and Tailors Walk, Botany also for Richard Crookes Constructions. Orion is currently also designing the next and final project stage at Breakfast Point, called 7D1 Providence. It will comprise 117 luxury apartments and will be completed by late 2017.

Orion is highly committed to working with clients to develop best practice environmentally sustainable and energy-efficient solutions, which comply fully with Section J of the Building Code of Australia (Energy Efficiency). Orion Mechanical Services is a member of the Green Building Council of Australia. Orion's energy-efficient solutions focus on cleverly using existing and new technologies. At the Travelodge Mascot Project, Orion is also installing, for Total Constructions, all tertiary side chilled and heating water pipework to serve the future corporate levels. The source of all onsite chilled and heating water is via large heat exchangers fed from the adjacent Qantas Trigeneration plant.

Orion's success can be measured on the fact that its Founder and Managing Director, Justin Phillips, is always customer focused and is intimately involved in every project, whether it be big or small, simple or complex.

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MASTERS OF DESIGN

The concept structural design, detailed design and documentation for the Breakfast Point Nantucket development was another BG&E Pty Limited accomplishment. The award winning civil and structural engineering company has been working on the development since 2007, says Associate Director, Vince Betro.

In Australia and the Middle East, BG&E employs approximately 300 people, six of whom worked on the Nantucket project. "We've done the site supervision for the structure, too, meaning we work closely with the builder, Richard Crookes Constructions, and developer," he said.

Even though BG&E has worked on the Breakfast Point development since 2007, each new building can present challenges. "There's always something new. The construction material may change and the way builders want to build changes to adapt to different materials or improvements to techniques."

"We thrive on technical excellence for cost-effective, innovative designs. As we're privately owned, we steer our own ship and can compete against some of the larger organisations on bigger projects yet we're small enough to do all ranges of projects," said Vince.

The company specialises in structures, civil and structural engineering, roadworks, bridges, façades, residential, commercial, retail and industrial complexes as well as education and medical facilities.

Recently, BG&E worked on the 200 George Street, Sydney Commercial Tower development for Mirvac and has worked for

the Walker Corporation and Hutchison Builders and is currently working on the redevelopment of Sydney's Castle Towers Shopping Centre for QIC.

Through their three Middle East offices they do "standout builds" such as the Index building in Dubai comprising 80-storeys of commercial and residential for Multiplex. About 20 staff are based in BG&E's Middle East division.

"Labour is cheaper so they tend to do things differently. Concrete structures are easier to build in a desert environment and they are starting to do modular work. They also tend to do bigger complexes than we do here," said Vince.

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ENGINEERING SUCCESS

SEMF is a multi-disciplined engineering, environmental and management consultancy, which works nationally across disciplines. Set up in 1980, it has offices in Sydney, Melbourne and Hobart and employs more than 130 people.

"We do projects ranging from single houses through to 500-unit apartment blocks and have extensive retail experience," said Principal Mechanical Engineer, Blake Thompson.

For the Breakfast Point Nantucket project, SEMF was the building services design and consulting engineers for all services. They designed the air conditioning ventilation, the electrical services including the power supply arrangements, the hydraulics/plumbing including storm water and did a small service on the lifts.

"We have an excellent working partnership with Breakfast Point Pty Ltd and have been involved with the site for 16 years. The Nantucket is the last major development on the site."

SEMF started preliminary works for this component in 2014 and will be "attending to queries from the builder" until works conclude towards the end of this year. The major issue was ensuring the stairwell was pressurised for the 3-level carpark.

"Once you go beyond two levels, you have to pressurise the stairs. This is in case of a fire alarm and stops the smoke getting into there."

Through negotiation and discussion with the architect and structural engineer, we engineered a solution that was physically difficult to figure out where you get the air in, where the ducts go. The hard bit was coordinating to get it right," he said.

As part of SEMF's broader range of projects it's been involved in Etihad Stadium, Queen Victoria Art Gallery and Museum, Salamanca Mews, Christchurch post-earthquake, the Royal Hobart Hospital. It's now working on a George Street, Sydney, residential apartment block, and a refurbishment project of the old TNT tower buildings in Redfern.



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SWITCHED ON

Word of mouth, not advertising is how DDP Electrical Services have built up their impressive client portfolio over the past 20 years. They now employ up to 60 electricians and have completed works for major corporations such as Woolworths, Aldi and AHG to name a few.

“DDP Electrical Services conduct electrical work in the commercial, light industry and large residential sectors. We have also completed water treatment plants, factories, shopping centres and car yards,” said Founder and Director, Darren Stevens.

DDP Electrical Services have completed in excess of \$6 million of work within the Breakfast Point Precinct over the past four years including the Nantucket project. At any one time, there have been four to ten employees who have worked on the Nantucket project in the last 12 months. They have installed more than 3,000 LED down lights and 1,500 general purpose power points.

“At DDP Electrical Services we pride ourselves on working closely with the client to meet their needs, ensuring at all times our work is of the highest standard. For this project, we completed the security access control, fire detection, intercom and master antenna systems. We also completed the cable containment design to enable the National Broadband Network to bring fibre in to each of the premises.”

The tricky part for the DDP team with the Breakfast Point Nantucket project was overcoming the limited headroom in the basement due to

the mechanical and hydraulic services. It meant they had to reticulate via basement two, then through basement one to gain access to the residential levels to supply power to the units. The main switch room is about 6m below the substation, this meant they had to ensure conduits containing the supply cables stopped outside the switch room and drainage was installed to prevent water ingress into the room.

“We had to adjust and plan out the Switch room to ensure we complied with AS3000 and Ausgrid regulations, as the original allocation was too small to house the main switchboard, metering, house services and NBN. This was completed in conjunction with the architect, builder and client so as not to affect lettable area.”

For more information contact DDP Electrical Services Pty Ltd, Unit 1/11 Stoddart Road, Prospect NSW 2148, phone 02 9679 9011, fax 02 9679 9003, email darrenddpelec@ozemail.com.au

EXEMPLIFYING CLASS AND ELEGANCE

Custom manufacturer, Shutterflex supplied powder-coated aluminium privacy screens for apartment balconies and frieze panels at the Breakfast Point Nantucket project.

The Miami Colonial privacy screens were installed between apartment balconies and frieze panels were installed above the balconies to offer some privacy control and weather protection.

“The shutters contribute to the fresh, nautical design of Nantucket with the white shutters adding a touch of class and elegance,” said Tracey Thompson, Marketing Manager of Shutterflex, who with husband, Peter Ryan, took over the company in 2003. They also manufacture a broad range of other aluminium architectural products, including sunblades and large louvre systems for sustainable building facades. Their extensive portfolio includes commercial and residential work throughout Australia and the South Pacific.

“Our products are stronger than those imported. We have inhouse engineering expertise and are a custom manufacturer. We work with architects so our products can be designed to meet a project’s specifications. This also allow us to engineer a solution for any challenging installations.”

The Nantucket project, however, was ‘very straightforward’ as Shutterflex had been doing many projects for Richard Crookes and have been supplying shutters for the Rose Group developments at Breakfast Point for more than 10 years.

“People may not know that with our manufacturing capacity and installation experience we’re large enough to handle large scale projects,” said Tracey.

This year, Shutterflex has completed the Sunshine Coast University Hospital for Lendlease, balcony shutters for two residential towers for Mirvac in Brisbane, and currently undertaking major projects in the Brisbane CBD with Hutchinson builders as well as Parklands with Grocon for the Commonwealth Games site.

For more information contact Design Enviro Pty Ltd (trading as Shutterflex), Unit 2/74-76 Magnesium Drive, Crestmead QLD 4132, phone 07 3277 5248, email sales@shutterflex.com.au, website www.shutterflex.com.au





Breakfast Point Nantucket, New South Wales