

# HARBOURING AMBITIONS

MAIN CONSTRUCTION COMPANY : Hansen Yuncken  
PROJECT END VALUE : \$40 million  
STRUCTURAL ENGINEER : Northrop Consulting Engineers  
ARCHITECT : Reid Campbell Architects

The \$40M Patrick Port Botany is one of the world's largest automated container terminals with a new Green Star administration office, two storey control tower, new stores building and workshops.

The \$40 million Patrick Port Botany New Terminal Buildings Project is now completed. This challenging project has required Hansen Yuncken to combine ground-breaking engineering and complex staging whilst constructing in a live industrial environment.

The completed project will provide eight buildings across two sites to house and maintain Patrick Stevedores' (Patrick) new

automated straddle crane system. This system will allow Patrick to operate unmanned straddle cranes providing greater levels of efficiency and safety in its port operations.

The Stage 1 Control Tower stands at 47 metres and will become the nerve centre for the port operations as well as providing Patrick with an eye over its entire container operation in Port Botany. The complex building was completed successfully in record time due to

the lean construction methodology adopted by the project team.

The straddle crane workshop combines Patrick's existing workshop with a new Hansen Yuncken designed and purpose built facility and will enable the maintenance operations capacity to be doubled.

The project team allowed for Patrick's maintenance team to remain fully operational

whilst the building project continued in and around the existing workshop.

Stage 4 Infrastructure works will continue the challenge of working in a live industrial environment and the project team looks forward to successfully completing this challenge.

As a new client for Hansen Yuncken, Patrick has been impressed by the Hansen Yuncken values adopted and demonstrated by the project team. The Hansen Yuncken project team consists of Kevin Gomez, Ross Pearson, Jahaan Rowdah, Steve Polis, Paul Todhunter, Josh Beslich, Lawrence Jacobson, Dylan Scott, John He, Kay Kovesy, Sam Dalton, Derek Swann, John Nally, Gaz Osman, Tom Maishman, Brendan Pryke, and Nader Zreik. Hansen Yuncken is proud of its reputation and is committed to providing the highest level of service and quality to all clients. As

one of Australia's leading, privately owned construction companies, Hansen Yuncken is at the forefront of change and innovation in the building industry.

Hansen Yuncken has extensive experience in a wide range of project delivery methods and is able to tailor various procurement strategies to meet the specific needs of their clients. Delivery methods are constantly evolving and becoming more sophisticated. Hansen Yuncken is positioned at the forefront of such innovation.

The specialist staff at Hansen Yuncken are qualified and experienced across a range of delivery methods and they understand the requirements and intricacies of each method.

Hansen Yuncken can demonstrate cost competitiveness and efficiency in the implementation of all delivery methods.

The team has experience and expertise in the following delivery strategies:

- Development Packaging
- Public Private Partnerships (PPP)
- Alliance/Relationship Contracting
- Managing Contractor
- Project and Construction Management
- Design and Construct/Turnkey
- Fixed Price Contracts

Hansen Yuncken always encourages client involvement in the project delivery process, to the extent of their desire, expertise and availability.

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**Below** All Concrete SLD supplied, placed and formed all aspects of concrete to the Port Botany project.



**Continually pursuing excellence in everything they do, All Concrete SLD Pty Ltd have acquired a reputation as leaders in their field.** Established in 2005, the company prides themselves on their professionalism, attention to detail and efficiency.

Working together with Hansen Yuncken and their client Patrick Corporation, All Concrete SLD supplied, placed and formed all aspects of concrete to the Port Botany redevelopment project.

Due to the complexity of the project there were many areas that needed special attention. For example the works contained multiple falls, rebates and recesses with millimetre tolerances, hence requiring precision planning and execution. This required All Concrete to engage their most experienced team to deliver these slabs with the highest quality and professionalism.

Most of the concrete placed on the Port Botany project was a special design mix that had reinforcement within the concrete (Steel Fibers). This concrete is called Fibercrete. The use of Fibercrete expedited the completion of the project and, in turn, delivered the project ahead of schedule.

Port Botany is NSW's primary container and bulk liquids port and the only liquefied petroleum gas (LPG) import and export facility in NSW. It provides vital economic and

trade assets which are essential for supporting the needs of business and consumers in New South Wales.

As the nation's fastest growing state, New South Wales' population is forecast to expand significantly in the coming years. This population growth, along with the strength of the NSW economy, will see increased volumes of trade moving through the port.

All Concrete are striving to become leaders in all aspects of commercial, roads and civil packages in Sydney and surrounding areas. On the Port Botany project, All Concrete successfully demonstrated to Hansen Yuncken that their quality and delivery of the project was nothing less than exemplary.

The directors and staff are committed to providing excellence in service and quality is assured. All work is completed in a timely and safe manner complying with all WH&S regulations.

The company owns and operates all equipment and machinery needed to complete a wide range of concrete and earthmoving tasks. They maintain a list of reliable, experienced tradesmen that can be called upon for projects of different scales.

With a focus on Environmental sustainability, All Concrete employs the philosophy of 'replace, reuse and recycle'. They also have additional practices in place designed to minimise or even remove any risk to the environment.

Along with Hansen Yuncken, All Concrete have built relationships with many large building and development companies including:

- Baulkham Hills Council
- DownerMouchel
- Hutchinson Builders
- Leighton Boral Amey
- Taylors

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Patrick Port Botany, NSW





**Below** Stainform supplied and installed balustrades and screens on the Port Botany Development.

**Below** Austral Precast supplied precast panels for Patrick Stevedores control tower at Port Botany.



**Stainform Pty Ltd was contracted to carry out work for the Port Botany Redevelopment project.** The company supplied a glazed balustrade to the roof deck and internal stairs along with aluminium privacy screens to the external areas.

The project highlights the effective Crystal Balustrade range that uses unique stainless steel patch fittings. This innovative balustrade system does not require support posts enabling a clear, unimpeded view.

The Crystal Balustrade range is suitable for both internal and external applications that offer many enhancement options including acid etching, sandblasting, screen printing, special coatings and LED lighting.

Due to the height of the roof deck on the Port Botany project, the balustrade was installed to the deck before it was craned into position. The challenges that were overcome as a result of installing before the deck was craned into position, made this project a special showcase for Stainform.

For resource industry clients, Stainform provides high-quality turnkey fabrication and machining services. Their work includes

specific components for projects such as coal washeries and water treatment plants.

An extensive range of comprehensive fabrication capabilities are available. In addition to specialising in stainless steel, the team works with a diverse variety of alloys, laser cutting, profiling, rolling and tee-drilling. Their experienced, accredited technicians deliver TIG, MIG and orbital welding options.

Heavy-duty equipment, including a 200tonne press brake and a 4m guillotine, enables the undertaking of medium-scale projects. Other current projects that Stainform are working on include Westfield Miranda and Campbelltown Hospital.

Stainform works closely with each client to ensure all specifications and needs are met for each job. The team is focused on achieving a high standard of customer service, which enables them to deliver quality and professional work.

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**Austral Precast and Hansen Yunken have collaborated to create an impressive control tower for Patrick Stevedores ship unloading facility at Port Botany.** Composed of 67 panels (equal to approximately 1,201m<sup>2</sup> of precast) for the core, Austral Precast worked within a tight, carefully orchestrated installation schedule to meet project expectations.

The project was unusual because the top floors of the tower were manufactured on a temporary pad next to the tower's shaft so that both could be assembled at once. Normally the shaft would be created first and then the top floors would be created afterwards but in this case both were constructed in tandem to meet tight timelines on installation.

Once both the shaft and upper levels were completed, large bolt through angles were used with temporary braces to fix the top section into a rigged permanent structure before the entire upper section, weighing 50 tonne, was lifted into position using a 500 tonne crane. After this the top levels of the tower shaft were reinforced to hold the top floors weight using a combination of internal propping and coordinated steel connection solutions. The internal stair case was used to support the panels weight before the welded connections were installed to fix the shaft in place and support the floors above.

State Manager Nick Manfield commented that 'to say the project was complex is an understatement! It proved to be quite intricate and a great challenge throughout all stages, with a range of custom techniques employed in tandem to work around site challenges and to meet structural requirements. It was a good project for us to be part of and, by collaborating with Hansen Yunken, we were able to work around the challenges presented and find solutions that met the project and client requirements.'

The team at Austral Precast is proud of their relentless focus on the use of advanced technology, quality control and commitment to service. This attention to detail enables Austral Precast to provide their clients with world-class style, products and services.

As Australia's largest producer of precast concrete solutions, Austral Precast offers the entire precast range together under one brand. The company boasts four factories across Australia and is able to deliver the ideal precast solution for any build regardless of location.

*For more information contact Austral Precast, 33 Cowpasture Road, Wetherill Park NSW 2164, phone 1300 778 668, email [infonsw@australprecast.com.au](mailto:infonsw@australprecast.com.au), website [www.australprecast.com.au](http://www.australprecast.com.au)*



**Below** Sealutions carried out the waterproofing, epoxy flooring, nonslip and industrial coatings on Port Botany.



**Below** Schaumac Plumbing's work on Port Botany consisted of storing pumping and piping products, as well as installing dispensing reels.



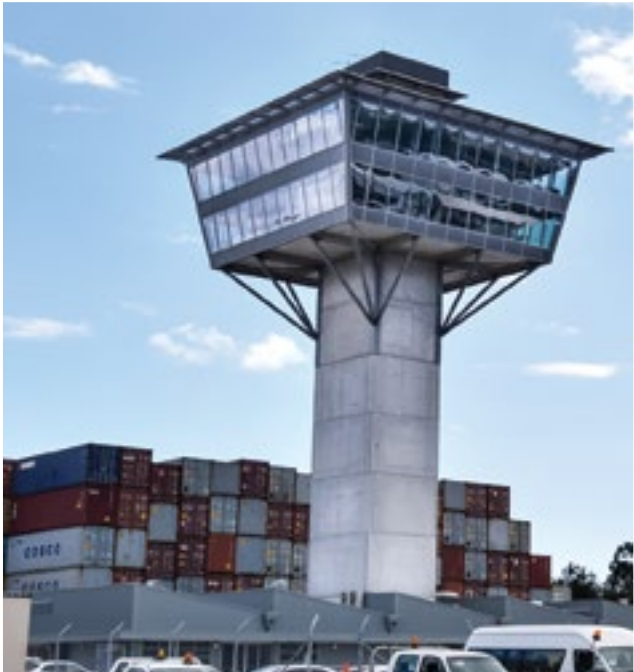
**Sealutions are experts when it comes to basement waterproofing, leak rectification and epoxy coatings.** The team at Sealutions was recently chosen to carry out works for the Port Botany Development, south of Sydney. These particular works included waterproofing, epoxy flooring, nonslip and industrial coatings

The massive Port Botany redevelopment includes the design and construction of the world's largest automated container terminal, a new Green Star administration office, a two-storey control tower, a new stores building and workshops.

Sealutions are also currently working at Ausgrid Olympic Park and Newcastle Law Courts.

With more than twenty years experience in tunnel and basement leak rectification, Sealutions have formed a reputable company with the expertise and invaluable technical support of two of the world's best suppliers of waterproofing and remedial products.

*For more information contact Sealutions Pty Ltd,* PO Box 3375, Wetherill Park NSW 2164, phone 02 8677 3315, email [info@sealutions.com.au](mailto:info@sealutions.com.au), website [www.sealutions.com.au](http://www.sealutions.com.au)



**Schaumac Plumbing Pty Ltd was engaged to supply and install piped services to Buildings 3, 6 and 7 at the Port Botany Redevelopment in Sydney.** The contract consisted of storing pumping and piping products such as hydraulics, engines, synthetic and non-synthetic materials, grease, brake cooling oil and coolant.

Schaumac Plumbing was also responsible for installing dispensing reels within the buildings. In addition, the team was required to pump back (vacuum) waste oils and coolant to storage tanks.

The redevelopment will see the transformation of the existing Port Botany terminal into a world class and internationally competitive facility.

Working in a live environment and maintaining services without causing any major disruptions proved challenging at times. The team at Schaumac Plumbing successfully planned and undertook their work effectively throughout the entire process. With innovation and sustainability in mind, Crimped Europipe stainless steel pipes and fittings were used throughout the project in lieu of conventional steel tubing.

The team at Schaumac Plumbing provided another successful outcome by completing their works for the Port Botany redevelopment on time

and to budget. Schaumac Plumbing is involved in all facets of the industry including Plumbing, Drainage, Storm water, Gas Fitting and Plant Hire primarily for the Commercial, Industrial and Care based (education / hospital / retirement) areas.

Over the years numerous services have been added to their list of capabilities including recycled water, trade waste, backflow prevention, Thermostatic Mixing Valve and CCTV testing

Schaumac Plumbing has worked on many notable projects with renowned builders & developers over the years including:

- Hansen Yuncken
- Richard Crookes
- Thomas & Coffee
- Kell & Rigby
- Zadro Constructions

*For more information contact Schaumac Plumbing Services Pty Ltd* Unit 1/58 Bells Line Of Road, North Richmond NSW 2754 phone 02 4571 2911, fax 02 4571 2933 email [admin@schaumacplumbing.com.au](mailto:admin@schaumacplumbing.com.au) website [www.schaumacplumbing.com.au](http://www.schaumacplumbing.com.au)