

# THE SKYVUE

GROCON  
SYDNEY NSW

## SKY HIGH

Grocon is the largest privately owned development and construction company in Australia. In all areas of its operations, the company is dedicated to the delivery and expansion of high-quality services to its clients. This paradigm has been a key feature of the success of the company and a significant part of the Grocon's outstanding accomplishments to date.

413 George Street, known as 'theskyvue', is a clear example of this philosophy of quality in action. In conjunction with the developer, a clear design intention was established in the initial stages of the project with regard to the quality of the development. This focus on quality has been a central aspect of the project and its realisation is a credit not only to Grocon and the developer, but to all the associated companies and subcontractors who provided their services.

Technically this was a challenging project. The 16 level, 413 George Street development is located between George and York Streets in Sydney's CBD, next to a heritage building. With retail areas located on the lower levels from basement one to level one and offices located from level two to thirteen the development has a gross floor area of 19,100sqm. Project highlights include; a large full office building height atrium with glass observatory elevators designed to 4.5 Star ABGR, equivalent to the Property Council of Australia's definition of A-Grade commercial offices, and the retention and restoration of the original 1927 George Street Nock & Kirby heritage facade and awning with the impressive white proscenium arches framing the upper George Street and York Street frontages.

Significant to the green credentials of the development was Grocon's use of recycled product which included the Iron Bark timber flooring used for the base of the atrium and each lift lobby floor within the project. This timber was salvaged from the existing building during demolition works on site.

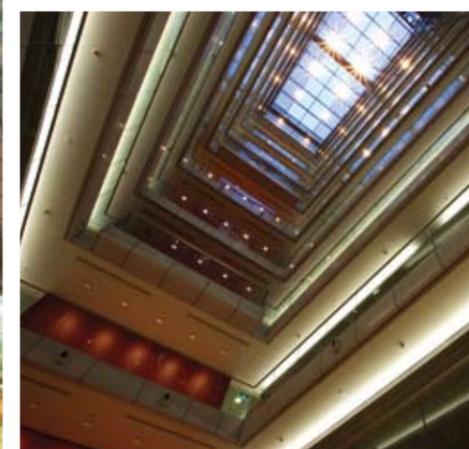
The installation of passive and active chilled beam cooling has also been utilised throughout the development. Chilled beam cooling is widely recognised as the most efficient and environmentally responsible method of creating a healthy internal built environment. The system also provides significant future cost savings over the building life.

Much of the challenge for the project was presented for by the location of four active rail tunnels 2-3 metres below the development. A collaborative approach was adopted between RailCorp and Grocon to ensure a suitable plan was in place for the safe expedition of the works. Vibration, crack and convergence monitoring of the rail tunnels was established and specialised subcontractors brought in to undertake the excavation of the lower levels. An added complication during the works was the discovery of weaker rock than expected adjacent to the rail tunnel easement. Grocon and the consultant team devised a solution for the significant transfer wall structures by extending the walls, so they would found at a lower level than originally intended where there was higher strength rock. This was suitable for the imposing building loads to ensure the rail tunnels were not adversely affected and added significantly to the project.

To ensure the future comfort of the building occupants and to reduce vibration transference from the rail lines below – the entire building has been founded on vibration isolation bearings specially engineered for the project. Located under the footings, each bearing is a sandwich of steel plate and vulcanised elastomeric rubber designed to absorb the vibrations from the rail network to significantly reduce transfer to the building structure. Extensive testing and modelling analysis was carried out to design a suitable isolation system that would not only isolate train borne vibrations but would also be adequate to withstand building loads and restraint lateral movement of the building caused by wind and earthquake.

The delivery of 413 George Street has been an accomplishment by the Grocon team, led by Project Manager David Risbey, in ingenuity, integrity, and perseverance without compromising on quality and the environment.

**Grocon Pty Ltd**  
152 Gloucester Street  
Sydney NSW 2000  
t. 02 8249 7000  
f. 02 9247 7768



# IN WITH THE NEW

All the world's a stage and with its lofty reach and superior visibility a proscenium arch is the classic way to view the drama that unfolds. For Crone Partners this elegant window frame for a stage was the perfect choice for the next act in the life of a neglected landmark building in Sydney's CBD, the former Nock & Kirby Building. Crone's proscenium arch design is stylish and timeless, complementing and strengthening its host building.

Built in 1862, the Nock and Kirby building has social significance as it is representative of the exclusive big city emporiums of the 1920s. After playing a part in Sydney's retail history, the building was closed in 1994 and has remained largely vacant ever since. Crone's involvement in the development known as 'the skyvue' harmoniously brings together key environmentally sustainable principles and innovative designs with the existing heritage listed building that fronts George Street. The development worked from a design concept of synergy between the old and the new; bringing new life to an old building whilst respecting and interpreting its rich heritage.

The 'skyvue' is a mixed use commercial and retail development that centres around a Crone-designed dramatic full height skylit atrium space which passes through all the building's commercial floors, creating a social and working heart for its office community. It is one of the tallest atrium spaces in Sydney. Along with the commercial floors there are also 3 levels of retail space accessed from street level in this 4.5 ABGR star building. On the building's York Street address the facade has been retained and incorporated with a modern addition which makes reference to the architecture of the George Street additions.

The atrium's creation is a celebration of the building's rich heritage; it is a reinterpretation of the lightweight roof lanterns of the original Nock and Kirby structure. Provision of this full height light well is a major attribute to the ESD of the building and maximises the opportunity for natural light and ventilation to all commercial floors throughout the building. The original heritage columns have also been reinterpreted with new slender supports for the lightweight louvred roofscape above.



Established 1964, Crone Partners Architecture Studios today provides architecture to the global community. Their highly regarded reputation is based on creativity through diversity of ideas, developing the most thoughtful environment for people to live and experience. This company has a considerable track record for designing and implementing innovative and award winning architecture, extending their services and expertise throughout Australia, Asia Pacific, China, The Middle East and the Indian sub-Continent.

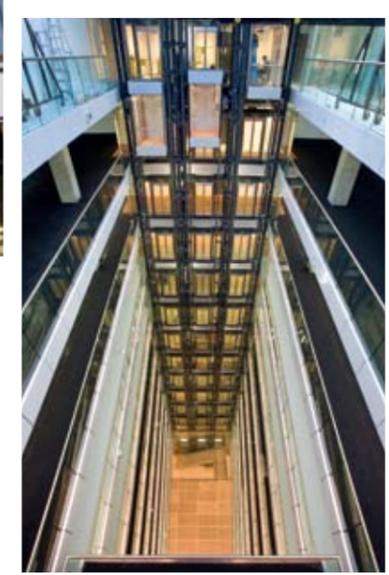
Driven by the belief that the dynamic created by a working team produces better results than the sum of individual efforts, Crone has developed a unique studio environment in their offices. This creates an interactive and open design process where innovative solutions are explored within highly skilled teams dedicated to Hospitality, Commercial, Residential, Retail and Entertainment and Master Planning. Management of Crone projects is based upon simple business practices within each architectural studio together with a sound Quality Management System. The studio is responsible for the entire project, including all aspects of the design process together with the continuity of key personnel throughout the project lifecycle.

Crone is committed to working in environmentally sustainable design, dynamically exploring both active and passive principles to realise responsible Environmentally Sustainable Design [ESD] outcomes whilst achieving the highest possible building performance. Many of their projects are the outcome of demanding selection processes and follow important social or political changes. The result is often a building or structure which becomes over time a familiar and symbolic landmark – emblematic of the place. However at the time of their creation they may be new and radical in appearance.

**cronepartners**  
architecture  
studios.

**Crone Partners Architecture Studios**

Contact: Greg Crone  
L2, 364 Kent Street  
Sydney, NSW 2000  
t. 02 8295 5300  
f. 02 8295 5301  
[www.cronepartners.com.au](http://www.cronepartners.com.au)



## BRINGING STRENGTH AND STRUCTURE

Pacific Steel Constructions Pty Ltd is proud to have been associated with “theskyvue” project at 413 George Street for Grocon Constructors. The company supplied and installed steelwork for the proscenium columns and roof, the 13 floor triple lift shaft framing, stainless steel lobby stairs, atrium roof and other miscellaneous steel framings.

Typical of Pacific Steel Constructions’ involvement in complex and challenging CBD projects, the steelwork for 413 George Street required careful and extensive co-ordination with the builder. The structural steel components were labour intensive and exceptionally difficult to install due to the many site constraints. The largest items were the 26m long proscenium columns weighing approximately 4 tonnes each, transported into the city during the night and erected into

position straight from the truck. Despite these challenges, Pacific Steel Constructions were able to skillfully co-ordinate with the builder and other trades to ensure the success of the project.

Pacific Steel Constructions have steadily gained a reputation as a quality and trouble-free steel manufacturer with a professional management team. The company is constantly reviewing and improving its systems and procedures to maintain pace with an ever-changing industry. As part of its commitment to improving performance, Pacific Steel Constructions are currently upgrading their workshop facilities by installing an automated beam cutting, drilling and marking machine that will greatly increase their capacity, efficiency and accuracy in an ever competitive industry.

The four current directors, who have over 90 years experience between them in the steel construction industry, formed Pacific Steel Constructions in 2002 and employ an average of fifty workers overall for workshop and on-site activities. The Directors hold key positions in the company participating daily in the business and have a combination of engineering and boiler-making backgrounds that offer clients technical and practical knowledge that is essential in the steel and construction industries.

**Pacific Steel Constructions**  
1/4 Maxim Place  
St Marys, NSW 2760  
t. 02 9623 5247  
f. 02 9623 1795  
e. info@pacificsteel.net



## UPLIFTING SOLUTIONS

Southwell Lifts and Hoists were established in 1945 in Camden, NSW. The company has a proud history of creating an extensive range of lift and hoist solutions for light commercial/retail businesses through to heavy industrial and transport applications. Southwell have been designing, building, installing and servicing lifts and hoists for over 30 years with most, older units still in service. Projects have ranged from small units through to one of the largest scissor lifts in the world.

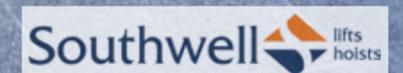
The company was approached by Wood and Grieve Consulting Engineers in late 2004 to provide a Truck Hoist Solution for 413 George Street, Sydney. Trucks and other vehicles had to be taken from the York Street Entry to a basement.

In early 2007 Southwell were awarded the subcontract from Grocon to design, manufacture and install the Truck Hoist. The unit is 8.2 x 3.6M, travels nearly 7M and has a lifting capacity of 10 Tonne. The mechanism is a double scissor lift to cater for the high vertical travel.

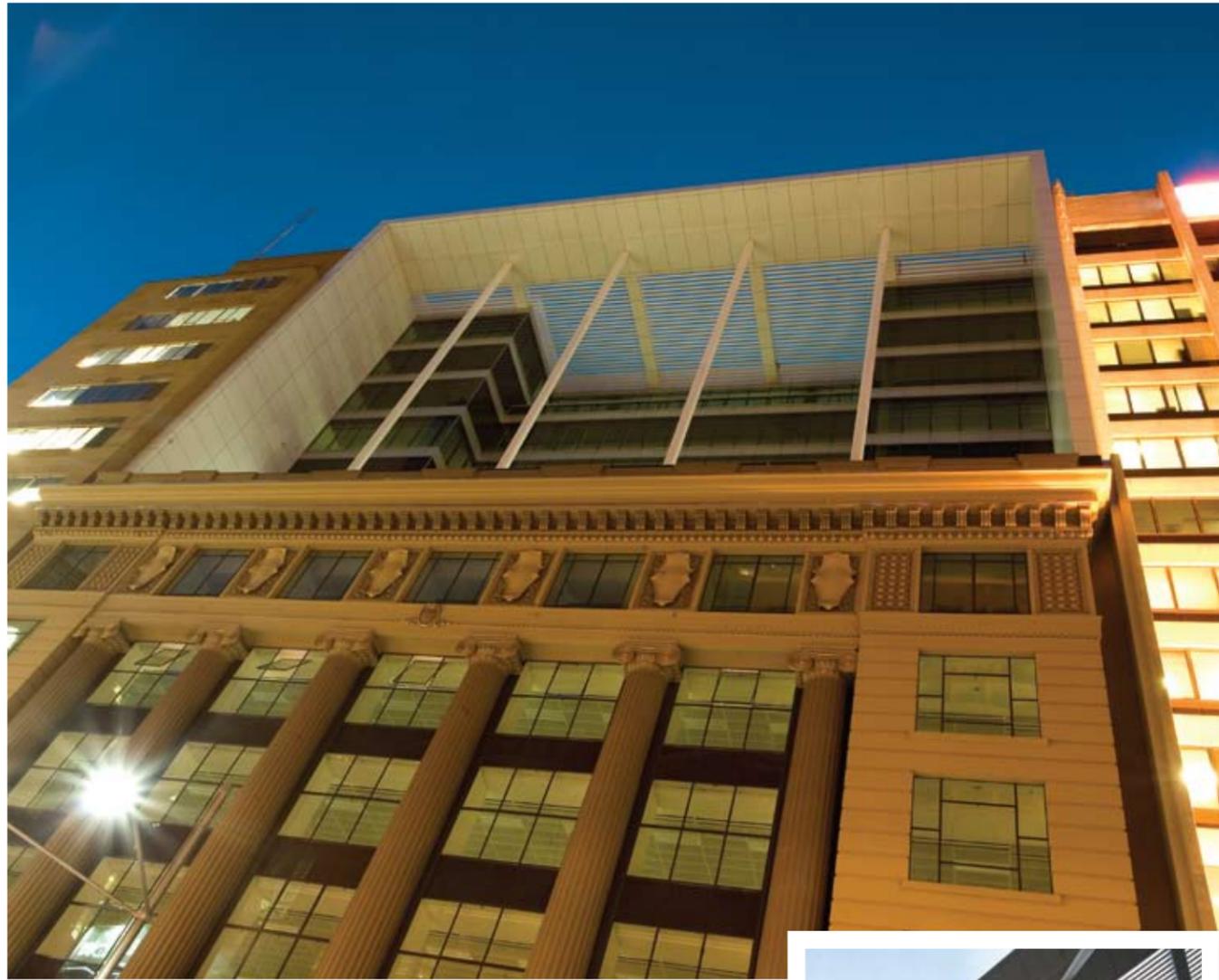
The unit had to be installed in components from street level but Southwell’s experienced installers excelled at the task. Delivery was undertaken early on a Saturday morning with a lane closure organised by Southwell. They complied with all site OH&S requirements and had good dealings with Grocon’s staff.

With the Southwell Preventative Maintenance program, the warranty is extended from 1 to 3 years plus a 10 year Structural Warranty.

The Southwell range of Vehicle Hoists provides a solution to small sites that are unsuitable for conventional car park facilities. They are a space saving alternative to concrete car parking ramps which enable additional parking spaces. Also ideal for car show rooms, Southwell Vehicle Hoists are reliable and cost effective.



**Southwell Lifts and Hoists**  
PO Box 690  
Camden, NSW 2570  
t. 02 4655 7007  
f. 02 4655 9134  
www.southwell.com.au

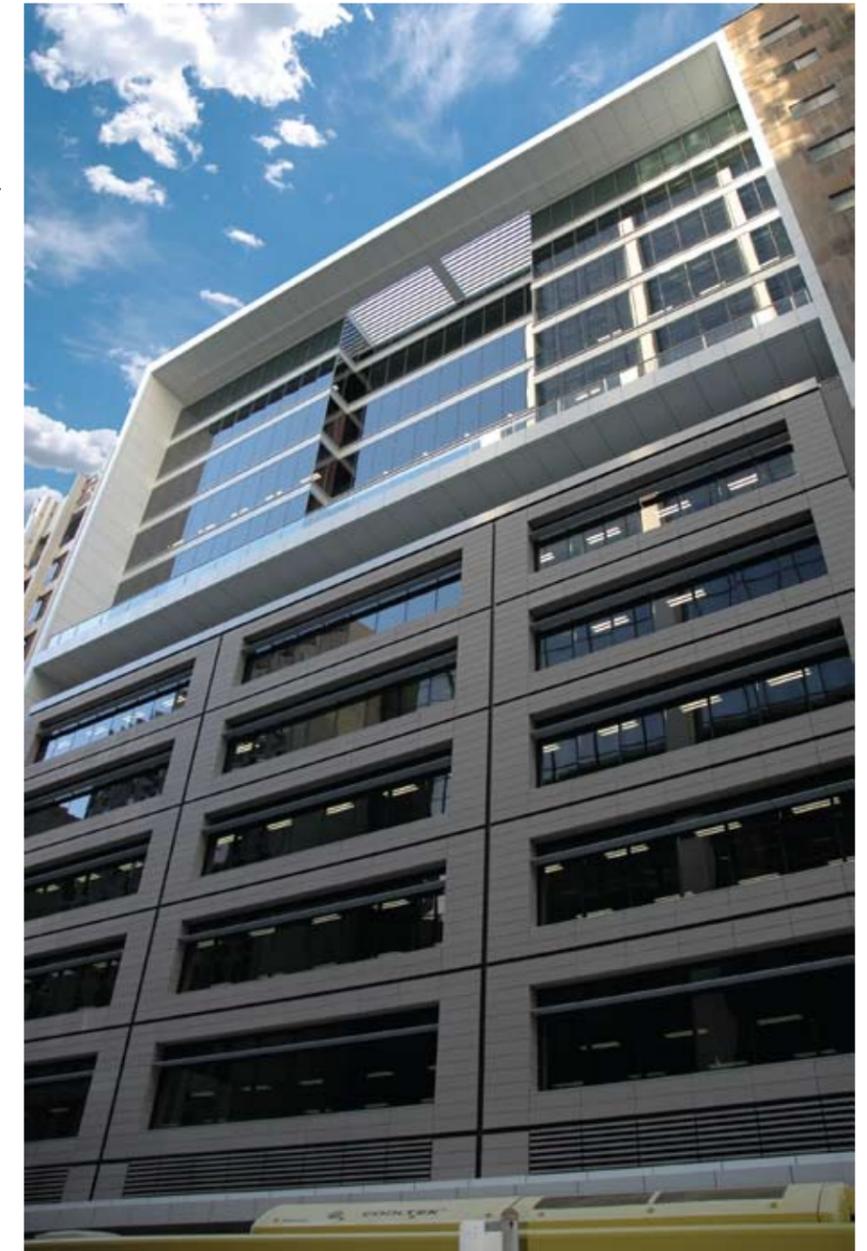


## FUSION OF OLD AND NEW

With head office and factory located in Condell Park, Architectural Façade Systems is a leading supplier and installer of various types of cladding for major industrial, commercial and public infrastructure projects. They offer a choice of lightweight, cost effective, commercial façade systems to create innovative and distinctive designs on any new or existing building. They incorporate the design flexibility and simple installation required to build efficient, economical and attractive façades for today's fast-track projects. Their commercial and residential facades and cladding systems are based on raw materials from suppliers such as Alpolic, James Hardie, Creaton and Alcom.

Architectural Façade Systems have built their reputation on highest quality finishes delivered within time and budget constraints. They offer a varied service ranging from simple supply and installation through to custom design and project management to suit specific needs. Managing Director Michael Dews has been involved in the construction industry since 1980 and has vast experience in all aspects of commercial project management. He and his company are 100% committed to their customers and happily receive feedback on all their projects.

On 'theskyvue' project at 413 George St, the former Nock and Kirby building, Architectural Façade Systems were able to sympathetically retain the existing heritage listed façade on the George Street frontage allowing the development of a new 12 storey A-grade commercial building behind to create a fusion of the old and new. A new terracotta façade in charcoal was used for the York Street frontage, creating a new look for the new commercial address of the building. Dramatically, the building's façade steps back on level 7, providing an amazing terrace space; the building also includes key features such as floor to ceiling windows, balcony areas on numerous floors and a proscenium arch setting the stage and framing each facade.



## ONE STOP SHOP

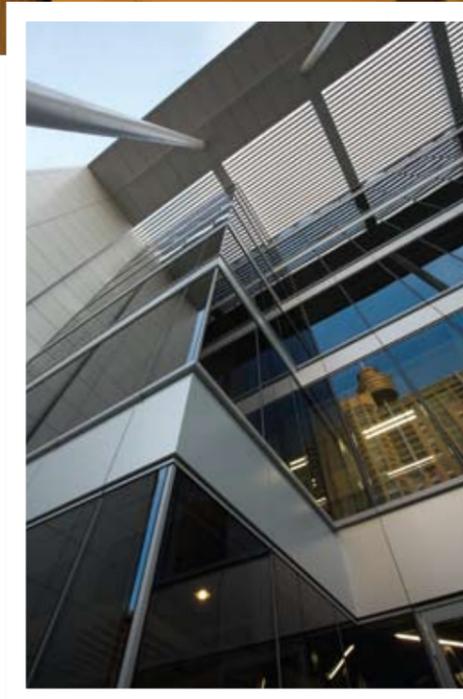
DBF Tools and Construction Supplies is a power tool, consumable supply and prop hire business established by owners Doug Flynn and Fred Hall in 1994. The company has been trading for 14 years on a strong premise of customer service backed by a huge range of stock on their shelves.

On the 413 George St project, DBF supplied a wide range of consumables, construction 'nuts and bolts' and stainless steel fixings over the 3 year span of the project. Whilst always busy, the job was straightforward for this experienced company, attributable in part to the organisational skill of main construction company, Grocon Constructors.

When it comes to a finding out about a company's service and reliability, it's often best not to ask the company themselves but find out what others think. In the case of DBF, George Araujo, a Project Engineer for Grocon Constructors, says it best, "Frank and the team at DBF are always very helpful, their deliveries

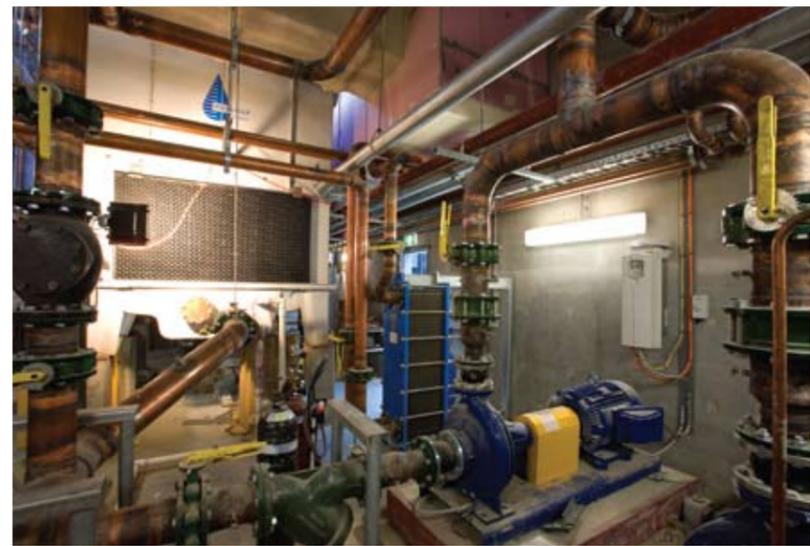
prompt, and nothing is ever too hard for them to procure. They were certainly our "one stop shop" for construction sundries on the 413 George St project and specialised in getting us out of trouble with urgent supplies on many occasions."

Primarily Melbourne based, the company has recently been increasing their NSW operations whilst their business is also in its infancy in Brisbane. They have up to 9 delivery vehicles and 20 staff in the metro Melbourne area and are proud of their 90% fill rate on all stock orders that are placed. DBF are authorised dealers and repair agents for many leading brands of power tools, air tools and petrol powered tools and their workshop consistently attempts to return tool repairs overnight. DBF are dedicated to providing their customers with what they need, when they need it.



**DBF Tools**  
57 Elm Park Drive  
Hoppers Crossing  
3029 VIC  
t. 03 8742 2200  
f. 03 8742 2266  
www.dbftools.com.au

**Architectural Façade Systems**  
16 Ilma Street  
Condell Park, NSW 2200  
t. 02 9792 2077  
f. 02 9792 2877



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## ENERGY EFFICIENT DESIGN

James L. Williams Pty Ltd are proud to be associated with the 413 George St "Skyvue" Project and continuing our long association with Grocon Pty Ltd and Bassett Consulting Engineers.

Being a member of the Green Building Council of Australia and at the forefront of energy efficient designs this project with its 4.5 AGBR rating and utilising Passive Chilled Beams technology was a perfect fit for James L. Williams.

Since 1875 James L. Williams has faithfully served the plumbing and engineering industry of Victoria and Australia. The success of the company is both a legacy of and a tribute to the energies and visions of its founder;

his vision and his commitment have been continued, enlarged and reinvigorated by successive generations of Williams' in an unbroken line of family management spanning over 130 years and 5 generations.

With small beginnings at Errol Street, Melbourne, James L. Williams has grown to become an industry leader with offices in Melbourne, Sydney, Brisbane, Gold Coast, Perth and Dubai. Each branch has its own unique style and personality, yet the companies core values of quality, a skilled and happy work force and high levels of customer satisfaction is maintained.

Working in a tough and competitive environment, James L. Williams continues to

display the same characteristics of innovation and personal attention that so much marked the success of JL himself. Through its modern sheetmetal factory in Melbourne and with its association through G.J. Walker with Efatar Engineering in China, James L. Williams has manufactured, installed, commissioned and serviced many of Australia's landmark buildings.

Congratulations to all those involved with the 413 George St "Skyvue" Project.

**James L. Williams Pty Ltd**  
Unit 10, 476 Gardeners Rd  
Alexandria NSW 2015  
t. 02 8338 5888  
f. 02 9313 5613



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