

Project Case Study

TOTAL
CONSTRUCTION

Concept to Completion

Project

BlueScope Lysaghts

Location

Emu Plains, NSW

Client

Alexander Wholesalers

Project cost

\$7.5 million

Completion

January 2011



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Total Construction was selected by Alexander Wholesalers to design and construct a new 8,000 sqm building and associated works for their tenant, BlueScope Lysaghts to relocate rolling mill plant from another site in NSW.

Time was of the essence for the project. The contract was awarded in mid August and had to be completed by 19 December to a stage where BlueScope could move plant into the new building and be operational by 17 January. It was also a condition of the contract to use an associate company – BlueScope Building Solutions to design and construct the steel frame building. The scope included, extensive civil, concrete slabs and paving, electrical and hydraulic services, OHT cranes and site landscaping to meet the conditions of the development approval by Penrith Council.

An experienced team of designers and subcontractors was assembled and the works fast tracked to achieve the tight delivery deadlines. All works came in ahead of schedule and the works handed over in time for BlueScope Lysaghts to meet production requirements.

The building is a rigid portal frame 115 m x 70 m x 13 m high with 2 x 5T and 2 x 10T OHT cranes. Paved area is 13,400 sqm.

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Total Construction
Project Manager
Claus Bredow

For example, on this project up to two truckloads of steel components were delivered and erected each day, with installation of the LYSAGHT KLIP-LOK 700 HI-STRENGTH® roofing taking place while the main structure was still being erected.

Major savings were also achieved by the use of tapered beams; cut from plate and fabricated on pull-through welding machines using a technique only a handful of companies in Australia have mastered. This method reduces the amount of steel required in construction, saves weight and reduces the intrusion of the beams into the finished building.

Using the BUTLER™ building system, BlueScope Buildings provided the client with significant cost savings, compared with competitive quotes received at the commencement of the project. The result was on-budget and on-time delivery of an efficient, state-of-the-art manufacturing facility with no disruption to existing business.

To find out more about the benefits of partnering with BlueScope Buildings for your next project contact us on **1800 213 423** or visit our website www.bluescopebuildings.com.au

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Case Study

Building Use
Manufacturing Facility Total

Location
Emu Plains
Sydney

Project
Facility Expansion

Home on the Plains

The decision by an iconic Australian manufacturer to relocate its structural products facility from Chullora, in Sydney’s Inner West, to Emu Plains on the city’s far western outskirts, presented the company with a significant opportunity – and a considerable time challenge.

The site at Emu Plains was already home to a smaller manufacturing plant and with plenty of land available for expansion, the decision to build a new facility and expand the manufacturing operation was a logical one. To facilitate the project the company had its builder, Total Construction, contract BlueScope Buildings for the supply of the new, all-steel structure.





BlueScope Buildings is the world's largest supplier of custom designed, pre-engineered buildings, using the proven BUTLER™ building system developed in the USA and now tailored for Australian conditions.

Positive Experience

"This has been my first experience working with BlueScope Buildings and it's been very positive," said Claus Bredow, Project Manager for Total Construction. "This was an 8050 sq m factory, plus attached office building, and the whole thing was designed, fabricated and constructed in just 16 weeks,"

"BlueScope Buildings impressed me with their ability to deliver. They provided the structural steel plus all the wall cladding and roofing. To meet the specific noise reduction requirements of the project, specially roll-formed COLORBOND® steel with a base metal thickness (BMT) of 0.6 mm was required, rather than the standard 0.42 mm product,"

"On the roof, LYSAGHT KLIP-LOK 700 HI-STRENGTH® profile was used, also with a 0.6 mm BMT.

“BlueScope Buildings impressed me with their ability to deliver”

Total Construction
Project Manager, Claus Bredow

In conjunction with the extra-thick wall cladding this all made for a solid building, in the end,"

"Impressively, the roofing was roll-formed on-site in continuous lengths, to provide the most efficient coverage. The building footprint is 115 m long x 70 m wide, with a 3 degree roof pitch running from the apex

to the sides. The LYSAGHT KLIP-LOK 700 HI-STRENGTH® roofing was rolled in 35 m lengths and installed on either side of the apex, eliminating mid-span joins and thereby providing a very weather-tight roof,"

"For a project of this scale BlueScope Buildings was, without any doubt, the best steel contractor I have worked with, in Sydney, in the past 20 years. Their BUTLER™ building system impresses because it saves time and money. From a builder's perspective this equates to increased productivity, while for the client it means lower costs and faster occupancy. In fact, I'm looking forward

to doing more work with BlueScope Buildings in the future." Claus said.

Better by Design

"As the architects, our original brief was to design a building using a conventional steel system arrangement," said Chris Jones of MCHP Architects. "Once complete and having been designed on a

conventional grid system, the design component of the steel work was sent to BlueScope Buildings who then produced their own structural design, using their proprietary system,"

"Once the design passed over to them we didn't have a lot of input; the only criteria I had was to maintain door locations and sizes and ensure there was seven metres clearance on the underside of the crane hooks,"

"As long as the owner's design criteria were met and column positions were where we wanted them, I was happy to use BlueScope Buildings' BUTLER™ building system." Chris said.

The conventional steel work design used substantial structural sizes, with 360 tonnes of steel required for construction. The reworked structural system, developed by BlueScope Buildings and using the BUTLER™ building system, was able to meet all the design criteria with just 240 tonnes, resulting in significant cost savings.

Mission Accomplished

The new facility at Emu Plains has been a great success, despite a rather ambitious schedule of just over four

months from start to finish. Construction commenced on August 9th, 2010, with a target date of December 17th and the project came in on time and on budget. As planned, this allowed equipment to be moved in over the Christmas break without disrupting business.

The BUTLER™ building system employs a unique

combination of software, design methodologies, fabrication techniques and supply chain management that takes a commercial building design concept and turns it into a finished structure. Rather than requiring customers to take a stock design and modify it to suit, the system takes a customer's ideas and turns them into reality.

A key area where the BUTLER™ building system saves time and money is the use of factory-punched secondary structural

members to ensure a precision fit on the jobsite. This helps speed installation, lower construction costs and creates low-maintenance structures for greater life-cycle cost savings.

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Total Construction
Project Manager, Claus Bredow

