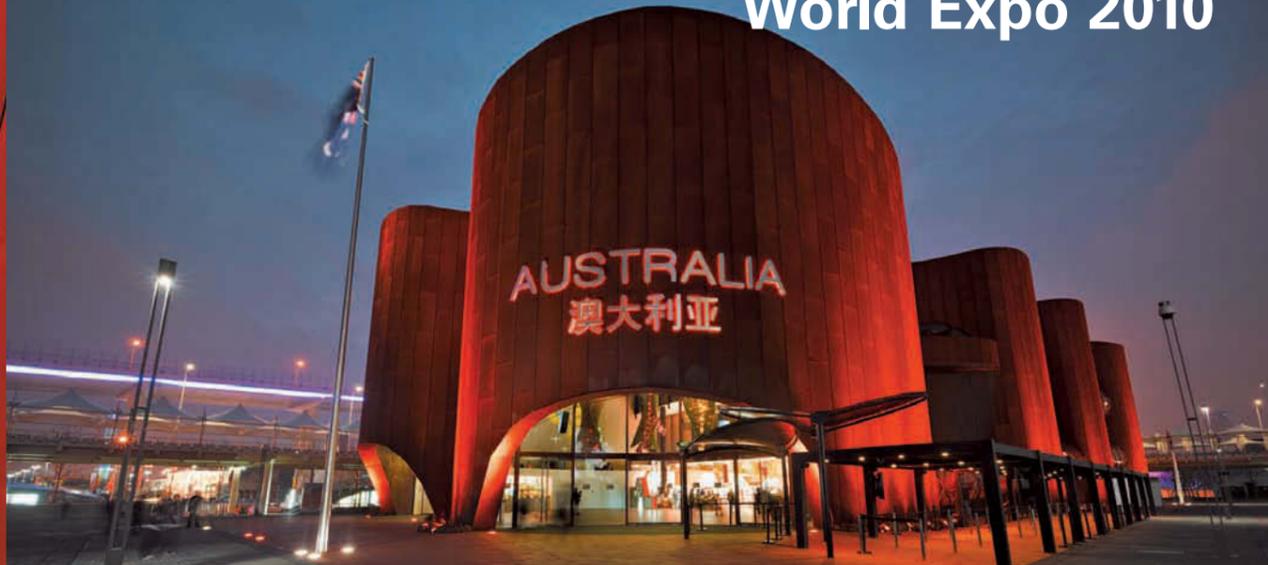


Best face forward for top trade show

Australian Pavilion at Shanghai World Expo 2010



By ALAN MARSHALL

An innovative steel solution was selected for Australia's biggest investment ever in a World Expo event.

Billed as the world's largest, an estimated seventy to eighty million people are projected to visit World Expo Shanghai 2010.

The Australian Pavilion has been attracting a lot of attention for the combination of an iconic design with a smart skin that evokes the great Australian outback.

BlueScope's Façade Solutions business provided the turnkey solution for the design, supply and installation of the stunning façade.

The weathering steel façade envelops the entire complex structure and provides an environmentally responsible solution to protect the steel-intensive building. The patina of the façade bathes the structure in a hue similar to the strong ochres reflective of Australia's 'Red Centre' and indigenous artworks.

General Manager of BlueScope Façade Solutions **Catherine Jacob** explained that: "When we started the Façade Solutions business for BlueScope Steel, the intention was to create what the architects had in mind and ensure that would only be limited by their imagination."

"We adapted our Azure™ cassette-style system for the façade of the Australian Pavilion to embrace the curvature of the building and give life to Wood Marsh's outstanding design," she said.

"It was a very exciting, but also very challenging project due to the unusual shape of the building as well as the short and non-negotiable lead time.

"Behind the stunning result are highly respected companies such as Wood Marsh, Bovis Lend Lease, Aurecon and BlueScope Steel and an exceptional project team. Working together under the stewardship of **Peter Sams** from the Australian Department of Foreign Affairs and Trade (DFAT), we all had a common purpose of giving our best for this amazing building which showcases Australian creativity and innovation at the largest world Expo to date."

The BlueScope Azure™ cassette-style system allows for exceptional precision down to 0.3mm between the panels that enabled cladding across the building's radical curvature. It is Australia's first such system to provide cassette-style weathering steel panels.

Wood Marsh's Project Architect for the pavilion **Antony Martin** said that weathering steel is rarely used in projects of such scale, due to the technical complexities involved.

"Fortunately, BlueScope Steel has an extensive knowledge of this material and the Azure™ cassette system enabled perfect alignment between panels, something that is traditionally difficult to achieve," Mr Martin said.

BlueScope Façades' Operations Manager, **Steven Halpin** said that while the Australian market is used to handling larger, heavier plates and site welding, the cassette system addressed some of the major challenges of this construction.

"Lack of space onsite was certainly a challenge as there was only enough room for approximately one container's worth of product at any one time," he said.

"The smaller, lighter cassettes allowed for a very efficient packaging sequence. With only six panel types and 13 containers in total, this was a huge benefit to our construction and logistics process."

"We were impressed with BlueScope Steel's logistical efficiency, flexibility of approach to adapting their standard cassette system design to the needs of the project and the quality of the Azure™ weathering product," said Managing Director of the Pavilion builder Bovis Lend Lease, **David Lehmann**.

"Having led the design and construction team, we are extremely happy with the outcome which speaks for itself."

The use of weathering steel is more common for structural steel used in Europe as it protects much longer than coatings and galvanising.

A weathering steel façade will generally last over 50 years and is effectively maintenance-free, even though the actual life of the Pavilion is a matter of months. The material is also more recyclable than traditional cladding which is composite and needs to be separated into elements before it can be recycled.

The alloy composition of weathering steel enables the development of an oxide layer, or patina that forms a rust-like appearance within less than three months when exposed to the weather. This was enough time for the development of an authentic-looking colouring to the Pavilion's exterior prior to the opening of the Expo.

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The building's high standards of safety, organisation and management were recognised by the Shanghai Expo organisers with the awarding of the highly prestigious Civilised Site Award.

"Australia has led the way among international participants in reaching construction milestones since work began on the site," said **Commissioner-General Lyndall Sachs** from DFAT.

