
Case study

University of Wollongong iAccelerate Centre



REDCOR[®] weathering steel

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business incubator

RedCor[®]



Accelerate

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BlueScope REDCOR® weathering steel has contributed a dramatic, transformative facade to University of Wollongong’s iAccelerate business incubation facility, celebrating the community’s historic identity while inspiring future innovation.

iAccelerate is University of Wollongong’s (UOW) recently opened business incubator. CEO Omar Khalifa says it is designed to foster and grow local entrepreneurship and offers a robust educational program, formalised business acceleration monitoring and one-to-one mentoring. “What we’re trying to achieve is economic stimulation and diversity – transforming the Illawarra from its industrial past,” says Mr Khalifa.

“We want to create jobs for the Illawarra and a flourishing, vibrant economic base. iAccelerate is all about supporting an innovation and entrepreneurial ecosystem to help our start-ups and SMEs achieve their potential.”

The building’s design reflects this, containing a wealth of thought-provoking, inspiring spaces accommodating different work styles and group sizes, supported by comprehensive amenities.

The design also alludes to the local community’s past and future economic identity, as Mr Khalifa observes: “If you look at the layout, it’s laid out like a pier and incorporates design elements such as shipping containers and even many old bricks from Port Kembla.

“It’s a place built for trade, interaction and collaboration among a diverse group of specially skilled workers, and for new companies to be built and set sail for international opportunities and markets,” he continued. “It is hoped that their success will help the region ‘pivot’ and become a vibrant hub for innovation, new jobs and economic renewal relying on the skills, knowledge and hard work of the people here and highlighting the uniqueness of the Illawarra.”

Given the primacy of BlueScope in the Illawarra and Australia’s greater industrial economy, and the fact that UOW began as a metallurgy college to support BlueScope’s industry, Khalifa says employing BlueScope products was an important way of referencing the local heritage. “Our brief was very clear about representing steel in the building and representing a certain look and feel, symbolic and aesthetic, not just for function,” he explains.

“REDCOR® weathering steel creates a sophisticated industrial aesthetic. It’s manufactured but feels natural. It’s durable and weathers well as it ages. The older it gets, the better it looks.”

Weathering steels are widely recognised for their distinctive patina produced when the surface oxidises during exposure to the atmosphere. The patina is a complex protective oxide layer that forms on the steel’s surface, giving weathering steel its distinctive appearance as well as contributing to the steel’s improved corrosion resistance. In the case of its application as exterior walling and interior feature cladding, such a facade is more than an ornament, barrier or even link to the past, it is an extension of the very purpose of iAccelerate: “Great buildings inspire those that enter to raise their expectations of what is possible and of themselves. Buildings also create their own authenticity by being respectful of their environment and the heritage that surrounds them. By using local products to dramatic effect we think this building achieves that and the responses from our start-ups confirms it.”



“REDCOR® weathering steel creates a sophisticated industrial aesthetic.”



“The building’s design pays homage to the Port and Illawarra’s export heritage and heralds a new era of innovation and technology exports that we hope our region will become famous for in the future.”

Angelo Di Martino of ADM Architects expands on Mr Khalifa’s impressions, commenting that: “The use of REDCOR® weathering steel is indicative of the types of materials selected for the iAccelerate building – that is, materials that are durable and expressive of their raw qualities.”

As lead Architect for the project, Di Martino also renders a nuanced understanding of how the facade and its materiality interact with the design overall. “The building form consists of three primary elements, of which the ‘expanded’ weathered steel box-like structure at the corner end of the building is the most prominent by way of its design, height and material selection,” says Mr Di Martino. “The cladding made from REDCOR® weathering steel helps identify the main entry to the building and strongly articulates its frontage to the public domain.” For Di Martino, the “transformative qualities” of REDCOR® weathering steel “made it ideal for the project”.

As a local (like much of the team who realised the project), Di Martino is conscious of the importance of iAccelerate’s community resonance. “The building’s design pays homage to the Port and Illawarra’s export heritage and heralds a new era of

innovation and technology exports that we hope our region will become famous for in the future,” he says. “The iAccelerate Centre embodies our local past, present and future – representing global crossroads that include investors, customers and international markets.”

Builder Russell Dunn of Project Coordination (Australia) was instrumental in translating the client and architect’s vision into reality, and engaged extensively with BlueScope’s Specification Team to come to the best solution. “I think firstly I just looked up BlueScope and called their head office. I got transferred through to the BlueScope Specification Team and after listening to their experience with facades and talking with them about our job, things just flowed so easily,” says Mr Dunn. “BlueScope’s Specification Team was of great assistance to us with the product and system selection process, eventually recommending the thinner, 1.5-millimetre sheet over the 3-millimetre that we had originally been considering.

“They got really involved in things, coming to the site several times to review things and see if they could help or if we had any concerns. We did have some questions around whether the 1.5 millimetre

thickness would be durable enough – ‘would it oxidise all the way through or was there any chance of it deforming or ‘oil-canning’? We made up some full-size sample panels to trial various options which helped us select the final system.”

This thinner sheet also provided other benefits for the project. As Kirrawee-based company Complete Facade Solutions director Nick Lloyd commented: “The thinner material reduced the cost of the panels, reduced installation time because the panels were lighter than the thicker alternative and also required less sub-framing. Most importantly, the lighter panels mitigated safety concerns of lifting the 3mm panels which would have been up to 100kg each, so the mass was able to be halved.”



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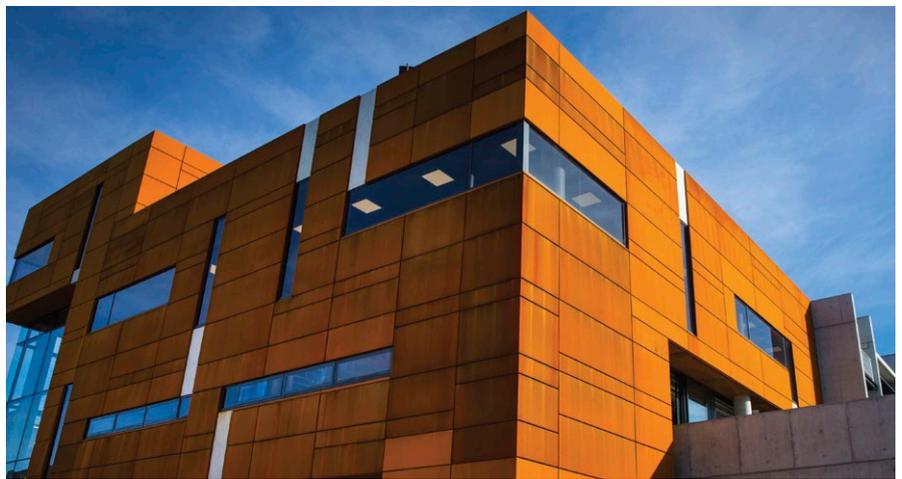


Ultimately, in partnership with Complete Facade Solutions, Mr Dunn was able to adapt an original design to the completed building. "The main change from the original design was that a front-fixed exposed screw fixing system was used. The original design proposed a concealed fixing system which worked by putting clips behind the cladding panels and hooking the panels over and onto them. However it was determined by the sample panels to have the potential to rattle in high winds, and made future monitoring or modifications difficult."

The final iteration of the design consists firstly of a galvanised, 1mm-thick back-panning sheet fixed to the structural steelwork. This was proposed by Nick Lloyd of Complete Facade Solutions as a far superior alternative to a typical sarking membrane as it acts as a solid rain-proof skin around the building.

Onto this was fixed the top-hat sub-framing, upon which the facade panels made from REDCOR® weathering steel were installed, with a 50-millimetre gap between the back-panning and the panels. So far, the system has performed stoically. In Mr Dunn's words: "We've had some intense coastal storms come through and haven't seen any issues with the back-panning at all."

It is not often that a project, or even an element of a project, achieves such comprehensive resonance with its stakeholders. In the case of UOW's iAccelerate business incubator, the facade made from REDCOR® weathering steel sits at the centre of a web of intersecting values, anchoring an innovative future in a distinguished past, and celebrating its community.



A recurring sentiment of satisfaction and admiration among the team which realised the project attests to its success, including Mr Khalifa's praise – "It's inspiring. It's lovely. It plays tribute to the past while pointing to a vibrant future." Perhaps even more telling is Mr Dunn's reflection: "I think it's going to be something we look back on in years to come and still be as proud of what we have done as when it was first finished."

Project: University of Wollongong iAccelerate Centre
Location: Wollongong, New South Wales
Client: University of Wollongong
Principal Steel Components: 700m² of BlueScope REDCOR® weathering steel.
Architect: ADM Architects
Builder: Project Coordination (Australia) Pty Ltd
Engineer: Core Project Consulting
Steel Fabricator: Structural Steel Fabricator: Illawarra Steelworks
Facade Panel Fabricators: Complete Facade Solutions
Shop Drawing and Cladding Contractor: Complete Facade Solutions
Timeframe: Four months to fabricate and install the facade made from REDCOR® weathering steel
Cost: \$300,000 (facade made from REDCOR® weathering steel only)
Photography: Paul Jones/University of Wollongong

steel.com.au

To learn more about REDCOR® weathering steel

1800 800 789

For more information

