

KICKING GOALS

CLIENT : Australian Rugby Union (ARU) and
The University of Technology Sydney (UTS)
MAIN CONSTRUCTION COMPANY : A W Edwards
ARCHITECT : Populous
STRUCTURAL ENGINEER : Taylor Thomson Whitting
CONSTRUCTION VALUE : \$40 million

The Australian Rugby Development Centre houses both the Australian Rugby Union (ARU) and the University of Technology, Sydney (UTS). The ARU component includes a high performance training facility, indoor training field, hydrotherapy pools, staff facilities, and offices while the UTS component consists of teaching areas, laboratories, indoor training rooms and a roof level running track.

The Australian Rugby Development Centre (ARDC) will be the new high performance home of the nation's beloved rugby team, the Wallabies.

Located adjacent to Moore Park Road, the \$40 million 6-level building will provide a state-of-the-art base for the Australian Rugby Union (ARU) and the University of Technology Sydney (UTS). It's an Australian first for the integration of science and sport at a major sporting precinct.

The project is a partnership between ARU, UTS, the Sydney Cricket and Sports Ground Trust, and the Federal and New South Wales government who are contributing \$20 million in funding.

Multi-awarding winning construction company, A W Edwards, were awarded the Design and Construct contract in early 2016. The scope of their work included the dramatic exterior façade and three different internal fitouts.

"Creating a home for two high profile residents was a big undertaking," said Project Manager, Steve Chamberlain. "Both required a set of different yet equally complex internal structural features. We worked across three separable portions; the base building, the ARU fitout and the UTS fitout."

The ARU levels feature a high performance training facility, indoor training field, hydrotherapy pools, staff facilities, and offices. The UTS component consists of teaching areas, laboratories, indoor training rooms and a roof level running track.

"The project was structurally challenging. There was a large floor plate with a lot of

internal voids and vertical off-form concrete. For example, the ARU internal playing field, essentially a 3-storey void, was adjacent to their gym space, a 2-storey void. It was a complex build," explained Steve.

The construction of a building like the ARDC can only be successful with a competent and dedicated workforce. At the peak of the project around 200 people were employed onsite.

"We relied heavily on our team here at A W Edwards, they're a highly skilled group of people who can be trusted to do the job right. Our subcontractors also played a vital role, the selection of subcontractors was particularly important as it's not your run-of-the-mill office fitout," said Steve.

Specialised contractors worked across elements such as the 4G turf installation for the indoor playing fields and the three recovery pools; an endless river for resistance recovery, cold plunge pool and hot spa.

Construction on the Australian Rugby Development Centre commenced in May 2016. ARU will move into the building first, followed by UTS with teaching set to commence in the new building from 2018.

Reflecting UTS' commitment to sustainability, the ARDC is fitted with a full environmental monitoring system which allows the building managers to track water and electricity usage and identify waste.

Solar hot water and electricity panels installed on the roof will generate energy to service the building's water heating needs as well as its general power requirements. The building's dramatic exterior also enhances its green credentials, with fixed horizontal aluminium

shading devices sheltering the façade and interiors from direct sunlight.

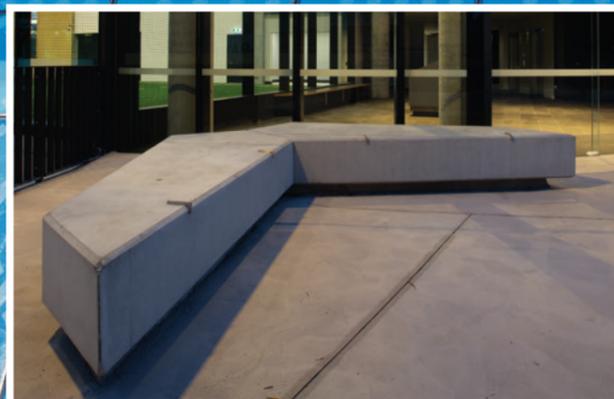
More than just a home for the country's top rugby team, the Australian Rugby Development Centre will also be a base for the Wallaroos and men's and women's sevens squads. It's hoped that the development of this world class sporting, education and community hub will give Australian rugby the winning edge.

A W Edwards is a family run business that has been operating for almost 100 years. They're responsible for numerous notable New South Wales' landmarks including The Concourse at Chatswood, M A Noble Don Bradman & Dally Messenger Stand at the Sydney Cricket Ground, and the refurbishment of the heritage listed Queen Victoria Building in Sydney.

Current and recent projects include the Sydney Trains Rail Operational Centre and Calvary Bruce Private Hospital in Canberra.

For more information contact A W Edwards, 131 Sailors Bay Road, Northbridge NSW 2063, phone 02 8036 7200, fax 02 9958 6208, website www.awedwards.com.au





Known for the quality of their handcrafted custom precast concrete products, Benzini Australia was a natural choice for the unconventional seating design on Level 5 of the Australian Rugby Development Centre. The company was contracted for the supply of a large precast concrete seat with an integrated planter.

“As each product is custom built, we have a relatively long lead time,” said Co-Owner and Director, Corinne Meunier. “A W Edwards contracted us in March 2017 and we delivered the seat in June.”

“The client sent through their initial drawings and from there we produced the shop drawings – this is the stage where we can assist with the finer details of design for reinforcing, casting and finishing of the product,” explained Corinne.

At this point it was discovered that the original seat design was too heavy for its fifth floor destination. The structural integrity of the building was endangered as the architectural plans had not accounted for an extra 14 tonnes of weight.

“We worked closely with A W Edwards to redesign the seat and reduce the weight, it needed to be reengineered to feature a polystyrene

core filling. Once the weight was reduced we had to readdress the steel reinforcing and the lifting points. Attention to detail is vital; you don’t get a second chance with custom pieces,” said Corinne.

Benzini Australia has a small team of eight people. Everyone has a part to play in the finished product; from the office work, to mould making to casting and finishing.

The company works across the east coast and has a strong track record in commercial seating. They have been commissioned by the Gold Coast City Council to create outdoor concrete seating and they’re currently working on projects for Griffith University and the Parklea Correctional Centre.

For more information contact Benzini Australia, 35 Demand Avenue, Arundel QLD 4214, phone 07 556 33 555, mobile 0429 919 922, email benzini@benzini.com.au, website www.benzini.com.au

The sophisticated electrical and data communications system within the Australian Rugby Development Centre (ARDC) was installed by Barnwell Cambridge including base building design. The electrical contractors design, develop and implement complex systems for a range of facilities including bespoke Data Centers, major sporting facilities, commercial office space, transportation hubs and major retail outlets.

Their work for the ARDC included but wasn’t limited to the general power and lighting, two high voltage substations, specialised lighting, Dali Lighting Control, PV system, security and communications.

Home to two different tenants, the ARDC required two independent systems. “This project presented a number of complexities during its installation,” explained company Director, Anthony Cambridge. “We had to design security systems that tied into the base building system and satisfied the needs of the two tenants. This was also encountered with the common building lighting control system which needed to be individualised to work for both tenants and with the base building.”

“It was interesting to work with two different clients with two distinct sets of requirements and ideas within the same building. We have

worked with A W Edwards for over 30 years and that collaborative relationship and understanding played an important role in the project’s success,” said Anthony.

Established in 1988, Barnwell Cambridge has a wealth of experience across complex projects and employs a field crew of over 150 electricians. Their portfolio includes Sydney Cricket Ground, Westmead Hospital Children’s Medical Research and the White Bay Overseas Passenger Terminal.

They are currently working on the Sydney Trains Rail Operations Centre (ROC) and associated Infrastructure in Alexandria, this facility will modernise how Sydney’s rail network is controlled by incorporating dozens of different systems into a single location. Within this four level building (including a double height top floor) Barnwell Cambridge are responsible for the supply and installation of all of the electrical, communications and associated services across the breadth of this project.

For more information contact Barnwell Cambridge, 9 Subway Road, Rockdale NSW 2216, phone 02 9556 1666, fax 02 9556 1566, email admin@barcam.com.au, website www.barnwellcambridge.com.au

Below Beyond Fire supplied and installed the fire protection services on the project.

Below MBM provided complete quantity surveying services for the Australian Rugby Development Centre.

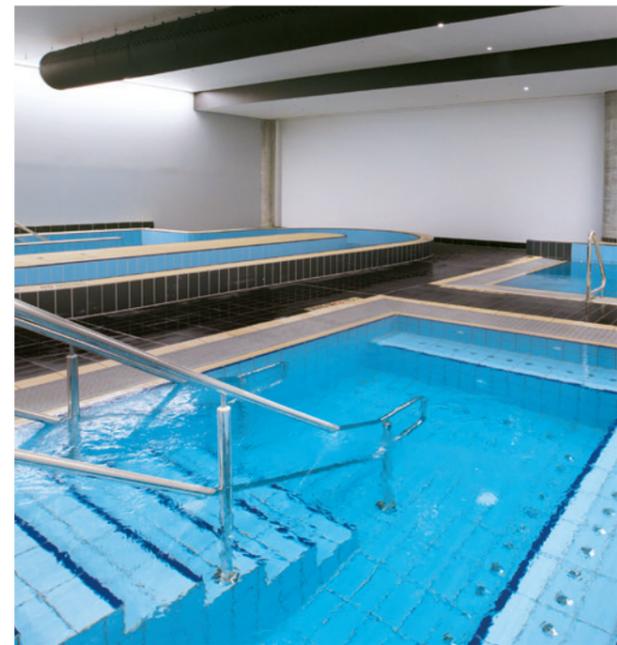


Beyond Fire are the company who were responsible for designing and delivering the fire protection services for the Australian Rugby Development Centre. Fire protection specialists, their experience and industry knowledge is extensive and includes commercial, residential, government, healthcare, hotels, transport and utilities.

"We started work on this project in June 2016," explained Director, Anthony Rocca. "Fire services are an integral part of any type of building and we were brought on board at a very early stage. We oversaw the design, supply and installation of the fire protection equipment in the building, this included the fire sprinklers, alarms, curtains, extinguishers and pumps."

The team are currently establishing inspection and testing procedures for the building. Enjoying ongoing growth since their establishment over two years ago, Beyond Fire is also working on 4 Murray Rose Avenue at the Sydney Olympic Park and new carpark and facility building at Australian Turf Club Randwick.

For more information contact Beyond Fire, Unit 24, 10 – 18 Orchard Road, Brookvale NSW 2100, phone 02 9948 3803, email anthony@beyondfire.com.au, website www.beyondfire.com.au



MBM worked closely with the University of Technology Sydney, Australian Rugby Union and the project team on this world class sporting, education and community hub. They delivered full quantity surveying service, including precontract cost advice, cost planning, value engineering, tender review and post contract services with assessments of progress payments and variations.

The success of the project can be attributed to the collaborative working relationship with the client and the project team. The team has followed a systematic and structured process of team based decision making to achieve the best value for the end users through tailor made design solutions within the cost parameters and timeframe.

"MBM's early and effective cost advice helped to assess the viability of the project by identifying key development risks and ensured the bespoke design solutions could be provided within budget. MBM is proud to be associated with this high performance facility," said Helga Maynier, Director.

MBM believes that value for money in construction is about more than just delivering a project to time and budget. The aim is to build

good structures and to ensure a balance between function and whole of life cost. The need for economy, efficiency and effectiveness should constantly be tested during the design process to achieve the best outcome.

The Australian Rugby Development Centre project was led by Helga Maynier, Director; David Madden, Founding Director; and Ling Chen, Senior Quantity Surveyor and supported by a national multi-disciplinary team.

MBM is an award winning and accredited practice established in 2002 as a quantity surveying firm and has grown into a national asset advisory practice with over 100 staff. As a value driven business based on Precision, Integrity and Reliability, the multi-disciplinary team provides innovative, tailored and optimal solutions to its public, corporate and private sector clients across Australia, PNG and New Zealand.

For more information contact MBM, Level 7, 68 Pitt Street, Sydney NSW 2000, phone 02 9270 1000, email nsw@mbmpl.com.au, website www.mbmpl.com.au



Australian Rugby Development Centre, New South Wales



ACT Stainless Steel manufactured and installed the commercial kitchen, serveries and pantries in the Australian Rugby Development Centre. Since 1995, ACT Stainless Steel has become one of the largest manufacturers of custom stainless steel and suppliers of commercial kitchen equipment in the industry. Through expert design, coordination and quality of workmanship, the company collaborates with local and interstate builders, clubs and food service consultants.

ACT Stainless Steel is fully committed to a comprehensive process of quality assurance. Each phase of work on any project is reviewed by senior project managers to ensure all documentation and coordination of installation is correct and performed to the highest standard. Offering full design service with CAD and 3D Revit flexibility and accuracy, along with expertise in all aspects of commercial kitchen and bar fabrication.

ACT Stainless Steel's scope of work included the coldrooms and refrigeration system, exhaust hoods and the fitout of the custom stainless steel and commercial kitchen equipment required for the project. The team started the project in early 2017. "The extent of our role is always project dependant. We offer a full inhouse design service but for this fitout we were supplied drawings in the tender,"

explained Director, Trevor Tsiouris. "Our inhouse draftsmen used these designs to create our shop drawings, once these were approved by A W Edwards, we started the manufacturing process. We have our own factory and do not need to outsource the stainless steel products. It enables us to guarantee a high quality service."

ACT Stainless Steel's team manufactured all the custom stainless steel. While the kitchen equipment and exhaust hoods were sourced externally from the manufacturers. Adhering to the building's sustainability commitment, the specifications for the equipment focused on efficiency and environmental impact. A total of 17 people working on the project from the factory floor to fitout.

Notable portfolio pieces include the kitchens and bars at Royal Randwick Racecourse, Sydney Cricket Ground, the National Portrait Gallery, Parliament House Australia and The Star Casino. They're currently working on a fitout at UTS Student Accommodation, Urbanest, in Darling Harbour and numerous other projects.

For more information contact ACT Stainless Steel, Unit 5, 10 – 12 Lyell Street, Fyshwick ACT 2609, phone 02 6228 1123, fax 02 6228 1129, website www.actstainlesssteel.com.au