

BUILT ON POWERFUL PRINCIPALS

CLIENT : Department for Education
MAIN CONSTRUCTION COMPANY : Sarah Constructions
ARCHITECT : COX and Thomson Rossi
STRUCTURAL ENGINEER : Aurecon
CONSTRUCTION VALUE : \$100 million



The state-of-the-art Whyalla Secondary College comprises five major buildings linked via a high level courtyard and includes contemporary learning spaces, multi-level outdoor learning and social spaces, a plaza at ground level with landscaping, expansive sporting fields and courts, and a performing arts theatre.

The Whyalla Secondary College is a \$100 million SA Department for Education project which will transform the educational experience of young people in Whyalla and around the Eyre Peninsula.

Sarah Constructions Pty Ltd, a highly successful family company celebrating 60 years of service to the South Australian community, has been entrusted with the responsibility to turn the ambitious educational vision into reality. Students will be welcomed from the commencement of the 2022 academic year.

Designed by COX Architecture and Thomson Rossi, the new state-of-the-art College combines three existing government high schools and is designed to accommodate 1,500 students in years 7 to 12, with the provision for 48 inclusive learning spaces.

Key features of the College include 5 major buildings, contemporary STEM focused learning spaces, multi-level outdoor learning and social spaces, a landscaped plaza at ground level, a double court gymnasium, expansive sporting fields and courts that can be utilised by the community and a performing arts theatre.

Whyalla Secondary College is only the second school of its type in South Australia. “The design and layout of the buildings and associated facilities provides a unique learning experience for the students, with an open environment enhanced by the extensive use of glass. With the exception of the gymnasium, the four main buildings are connected by bridges and surround a spectacular indoor-outdoor community plaza which is landscaped and open at one end at high level to capture cooling southern breezes, with protection provided by a 16m high saw-tooth roof,” said Sarah Constructions’ Senior Project Manager, Terry Kildea.

The College has been built on a 110,000m² site, located between the University of SA campus and the TAFE campus, creating a major educational precinct for Whyalla.

“The two 3-storey structures are our learning precinct buildings. There are large central communal learning commons spaces in the centre of each building. They’re bordered by both specialty and general learning spaces on either side. The flexibility of the spaces provide the opportunity to collaborate in both small and large groups or for students to work autonomously.”

Further opportunity for student learning and social interaction is provided via a camp-fire setting with surrounding seating. The sporting facilities are extensive and include separate two full-size soccer/hockey and AFL ovals, 5 multi-purpose courts and the double-court gymnasium.

Sarah Constructions was engaged in December 2019 and in the early stages provided advice and support on the design, the construction budget in accordance with the ECI process. The project completion took place in December 2021.

Sarah Constructions has achieved recognition for their excellence in delivery across all major project sectors including health, aged care, commercial and residential, but it has a particularly outstanding record in the education sector in South Australia.

Sarah Constructions is part of the TESA Education consortium chosen by the Department of Treasury and Finance (DTF) to deliver two new birth to year 12 schools - Aldinga Payinthe College

and Riverbanks College B-12 at Angle Vale in outer metropolitan Adelaide.

Other current projects include the Cedar Woods Glenside development of luxury apartments and townhouses, a new home for Cancer Council SA at 202 Greenhill Road, Eastwood in Adelaide and modular construction for Aldinga, Brighton and Greenwith Primary Schools for the Department for Education.

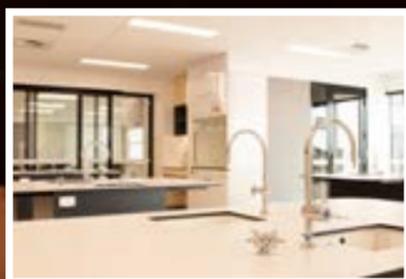
Sarah Constructions enjoys a high level of repeat business, a testimony to its approach to every project and the relationships it has fostered over 60 years in business. “At the outset of every project we develop an intimate understanding of our clients’ objectives,” Terry said. “We remain in close communication throughout the construction period to ensure our client is fully connected to the process.”

For more information contact Sarah Constructions Pty Ltd, 49 Glen Osmond Road, Eastwood SA 5063, phone 08 7129 8888, email contactus@sarah.com.au, website www.sarah.com.au

Below Lucid Consulting provided a range of services to the project including ICT, AV and security requirements, mechanical, electrical, hydraulic and fire safety.



Below Pro AV Solutions Installed 65 LCD screens which also double as interactive white boards, along with AV solutions for the college.



Proudly 100% Australian and wholly-owned by its employees, Lucid Consulting Australia is one of the nation's leading and most dynamic engineering consultancies.

Possessing a wide range of engineering, asset management, energy and sustainability capabilities, Lucid Consulting Australia was selected to provide its expertise for the Whyalla Secondary College project.

Lucid completed work encompassing mechanical, electrical, hydraulic, vertical transportation and sustainability services. Fire protection and fire safety engineering was also undertaken. The scope of Lucid's assignment also included information and communication technology (ICT), audio visual (AV) and security requirements.

The company was contracted very early in the project, undertaking an accelerated initial design and documentation programme for early engagement of the design and construct contractor. "We structured a highly collaborative value management process through the completion of design post-novation to ensure project budgets were achieved. We also developed early works packages to enable critical path site infrastructure to be commenced," explained Director, Adam Greaves.

To meet requirements for the comfort of students at the school, particularly in the hot summer months, Lucid's engineers adopted an indirect evaporative cooling system which provided a very low-carbon first stage of space cooling.

Around 40 of the 100-strong team based in South Australia worked on the Whyalla Secondary College project. "Our national team of over 240 professionals, operating from seven locations, ensures we have the agility and skills to support all our clients' projects," Adam said. "Everyone in Lucid is committed to establishing and maintaining long-term client relationships which manifests itself in a high level of repeat business."

Lucid Consulting Australia's current projects include the new Women's and Children's Hospital in Adelaide, the Ballarat Base Hospital redevelopment in Victoria, the Australian War Memorial redevelopment in the Australian Capital Territory and the RAAF Tindal redevelopment in the Northern Territory.

For more information contact Lucid Consulting Australia, Level 6, 80 Flinders Street, Adelaide SA 5000, phone 08 8407 9700, email adelaide@lucidconsulting.com.au, website www.lucidconsulting.com.au

The state-of-the-art Secondary College being built at Whyalla on the Eyre Peninsula is a transformational SA Department for Education project. The College showcases the latest in audio visual technologies from Pro AV Solutions, a highly accomplished and experienced supplier of advanced and innovative audio visual systems, solutions and technologies.

Pro AV Solutions liaised closely with key stakeholders including users and the Department for Education to ensure the audio visual solutions were designed to perfectly meet the College's functional requirements and individual teaching methodologies. The solutions being installed will set new standards for classroom AV in future years.

Each classroom has one LCD screen installed which can double as an interactive whiteboard. A total of 65 screens were installed for this purpose. This was achieved through advanced interactive technologies and large format displays. The AV systems in the classrooms support interconnection for extended and flexible learning.

Each display includes a wireless presentation device for connection of Teacher and Student devices, while supporting digital signage between classes. The College's theatre space includes production-grade AV

technologies that provide students with real hands-on experience, similar to that of TAFE and University.

The College also incorporates 18 digital signage displays throughout campus, three large venue projectors and one outdoor LED screen.

Given the remote location of the College, Pro AV Solutions focused its system designs and architecture on intuitive platforms that Teaching Staff and Students can easily operate as well as robust and reliable technologies to ensure minimal servicing requirements.

Pro AV Solutions has been supporting the education, healthcare, commercial and government sectors in South Australia since 1987. With fully resourced offices in New South Wales, Australian Capital Territory, Queensland, Victoria, Western Australian and South Australia, Pro AV Solutions is a true national brand and proudly Australian owned and operated.

For more information contact Pro AV Solutions, 247 Greenhill Road, Dulwich SA 5065, phone 08 8124 7777, email sales.sa@proav.com.au, website www.proavsolutions.com.au

Below Jamtek Structural provided a range of concrete solutions on the project, including footings, slabs decks, lift shafts, stairs and stair wells.

Below Capstone Construction installed aluminium battens to the foyer and timber feature battens to the theatre.



Jamtek Structural delivers innovative civil construction and building solutions to the highest quality standards for diverse projects ranging from commercial buildings and education facilities to roads, bridges and power stations.

Jamtek Structural has contributed its skills to some of South Australia's largest infrastructure projects.

Jamtek Structural completed all in-situ structural concrete at Whyalla Secondary College. The extensive scale of the project saw Jamtek provide detailed excavations, concrete footings, slabs at ground level and first and second level, decks, lift shaft, stairs and stair wells

The original scope of the project is substantiated by Jamtek's supply and placement of 6,500m³ of concrete and the supply and placement of 660 tonnes of reinforcement.

"The Jamtek team numbered around 60 people at the peak of operations, plus our subcontractors. We were onsite for around 18 months and were helped by consistently good weather. The main challenge on the project was being four to five hours from Adelaide, making the logistics of moving labour and materials more complex

than usual. However, working with Sarah Constructions was a very positive experience for Jamtek, with the job flowing smoothly throughout. Sarah Constructions was strongly supportive of our focus on safety as our number one priority," said Jamtek's Senior Site Supervisor.

ISO accredited, Jamtek Structural is no stranger to large infrastructure projects, with one being AGL's Barker Inlet Power Station where they completed an accelerated construction programme involving the supply and placement of 13,000m³ of concrete working on a 24/7 work roster.

Other notable projects include the placement of over 53,000m² of concrete at the New Royal Adelaide Hospital and an award winning FRP package of the spillways at Katarapko National Park.

For more information contact Jamtek Structural, 18 Myer Circuit, Beverley SA 5009, phone 08 8244 0023, email accounts@jamtekstructural.com.au, website www.jamtekstructural.com.au

Capstone Construction & Management is a fast-growing carpentry and fitout company in South Australia, delivering a complete suite of commercial carpentry services from frame to finish.

While its core business revolves around all first and second fix works, Capstone Construction has developed a real point of difference in the company's capabilities, to offer specialty services including heritage carpentry, feature cladding and feature timber works

Capstone Construction is an trusted installer of Sculptform products and was appointed by Sarah Constructions to provide Sculptform's battens at the theatre and its foyer at the Whyalla Secondary College. The products supplied and fitted included aluminium battens to the foyer and timber feature battens to the theatre.

The time frame for the work at Whyalla Secondary College and the distance from Adelaide posed particular challenges. "This was a sizeable job with a tight timeline, so we allocated three of our best to the project," said Jesse Graham, Managing Director of Capstone Construction. "The team worked for 21 days to complete the work which was done successfully to the highest standard."

Capstone Construction has a keen interest in mass timber construction which they see as the future of the building industry. "We are positioning Capstone Construction to be at the forefront of mass timber works in South Australia," Jesse added. "With a team of over 20 skilled trades people and a number of major carpentry projects completed previously, we are well positioned to move into this market."

Capstone Construction has also recently completed a second fix, CFC and aluminium external cladding and Sculptform package at Para Hills High School and is currently undertaking a feature hardwood timber supply and install carpentry assignment at Schubert Estate Cellar Door. It is also working on a second fix package at Stage 2 of the Adelaide Tennis Centre project and a first fix package at Beresford McLaren Vale.

For more information contact Capstone Construction & Management, phone 0425 018 455, email jesse@capstonecm.com.au, website www.capstonecm.com.au

Below Concure applied DEFLECTA STABILIZER® to all concrete slabs in order to provide a permanent moisture vapour transmission barrier.



Below Allstate Pest Control utilised the Kordon range to prevent moisture and termite damage for the perimeter and all penetrations in the slabs



Concure provides specialty services in the sale and application of concrete densifiers, sealers and hardeners for warehouse floors and polished concrete.

Concure has the capacity and range of products to treat newly laid surfaces as well as floors requiring restoration and repair. Since its establishment in 2002, the company has treated thousands of square metres of concrete floors in major warehouses and commercial big box stores, working with some of Australia's largest builders.

At Whyalla College, Concure applied DEFLECTA STABILIZER® to all concrete slabs in order to provide a permanent moisture vapour transmission barrier. The aqueous borne product also cures and seals the freshly-poured concrete slab. Concure followed the concretor through the build over a period of three months, applying the DEFLECTA® product to the slabs to achieve the appropriate level of moisture suppressant as per AS1884-2012.

“Traditional sealers only lie on the top of the concrete, relying on a mechanical or chemical hold against hydrostatic pressure and water vapour transmission. However the DEFLECTA STABILIZER® enters the voids and capillaries of the concrete matrix and is formulated

to retain moisture and improve hydration. It also reduces concrete dry shrinkage during its cure,” explained David Balloch, Director.

Concure’s treatment has excellent application for protecting concrete in carparks, factories, warehouses, office buildings and commercial retail areas, eliminating the risk of moisture related failures of floor coverings, coatings, adhesives or sealers.

Concure’s professional approach has established the company as a leading operator in new concrete sealing and densification projects as well as renovations of existing concrete floors. Recent projects have included concrete treatment at the new extension at Bunnings Parafield, and the new Bunnings store in Palmerston Northern Territory, IKEA stores in South Australia, Queensland, Sydney, Canberra, Melbourne and the Osborne Submarine Base.

Other projects where we have used the DEFLECTA STABILIZER® include the two new Super Schools (20,000m² each), Drakes Supermarkets and Distribution Centre and Aldi stores in SA.

For more information contact Concure, phone 0419 845 728, email david@concure.com.au, website www.concure.com.au

Contracted by Sarah Constructions to provide termite and moisture protection at the Whyalla Secondary College, Allstate Pest Control undertook the installation of all pre-construction termite work, utilising Bayer Environmental Science’s product range.

Allstate undertook a detailed examination of the plans and specifications for the buildings on the site to identify requirements for perimeter protection and all penetrations in the slabs. “Our work began prior to the concrete pour with the installation of flange treatments to all pipe penetrations using Kordon Kollars,” explained Allstate’s Construction Manager, Aaron Thompson. “Then we applied Kordon protection to all saw cuts including articulated joints.”

The third phase involved the cold joints, where there was an interface with existing slabs or tilt-up walls. Finally, protection was applied to the perimeter, requiring 150m per day to be sealed to keep pace with the construction timetable.

Kordon product acts as a physical and chemical termite system, with the synthetic pyrethroid deltamethrin impregnated onto a fibrous webbing in a controlled factory environment. The treated webbing is

then laminated top and bottom to plastic. Allstate has full confidence in the product due to its proven ability to repel termites, the guarantees attached to the product and the technical support from the Bayer team.

Allstate Pest Control has been dedicated to protecting buildings in South Australia from the impact of pests, particularly destructive termites, since 1986. Allstate has a dedicated pre-construction division which gives priority to the needs of builders for termite protection services using a range of premium products and application methods, such as the Kordon Termite Barriers, a guaranteed and proven termite management system manufactured by Bayer Environmental Science.

Allstate Pest Control has also been working on the Mt Barker High School project, a commercial building for Mawson Lakes Volkswagen at Green Fields and affordable housing projects with Palumbo.

For more information contact Allstate Pest Control, 686 South Road, Glandore SA 5037, phone 08 8371 1277, email mail@allstatepest.com.au, website www.allstatepest.com.au