

# REVISITING HISTORY

The Pentridge Adina Hotel project consists of 106 apartment style hotel rooms, 19 heritage suites and 56 residential apartments above the hotel, plus ground level conference spaces, a function centre within the prison's former chapel, and the reconstruction of the Annex building.

Delivered by Construction Engineering, the Adina Apartment Hotel Pentridge forms part of this one-of-a-kind lifestyle precinct in the suburb of Coburg and will be a hotel offering like no other.

The scope was for the construction of an 18-level structure including three levels of basement, 106 guest suites over nine levels, 56 residential apartments, a public rooftop garden and the restoration and conversion of the existing Division B to feature as a part of the hotel. There are 19 Heritage Suites,

fine dining, a basement swimming pool, wellness centre and gym facilities and the prison's existing Chapel has been turned into a conference area.

Early works undertaken by Construction Engineering included the dilapidation of existing heritage structures, plus the demolition and conservation of the existing Division B Annexe Building at the end of 2019. This was a huge undertaking and removing mass volumes of bluestone to turn prison cells into luxury accommodation was not without its challenges.

"This stage of the project saw numerous inspections from Heritage Victoria and consultation with archaeologists to establish a record of the existing structures prior to the commencement of works," said Marshall Rippon, Project Manager at Construction Engineering.

"We had a workforce of 172 onsite, including a team of 10 employees at head office to deliver this project and as one of the largest bluestone restoration projects in Australia, access and logistical challenges meant the planning and sequencing of the works was always front-of-mind."

Completing the excavation of the pool within the Division B basement was also a tough task, given the fact that the building's existing openings and doorways couldn't be modified under Heritage Victoria's guidance.

Construction Engineering engaged specialist contractors with custom equipment to navigate through this and has added another drawcard to this new and enviable destination.

Open communication and cooperation with the entire project team was key and resulted in a team environment which was consistent, clear and collaborative.

"As a site team, we focussed heavily on collaboration and careful consideration of the construction sequence prior to commencing any works," Marshall said. "Having this understanding and commitment from all contractors, namely Caelli Constructions, Austech Facades, JMC Facades and Earth Electrical, made the project possible and ensured the most successful outcome was achieved."

With more than 90 years of combined construction experience among the directors alone, Construction Engineering's traditional approach with its clients is the reason why the company enjoys repeat business and why they were the ideal choice to bring this exciting project to life.

"Construction Engineering has developed a lasting relationship with developer Shayher Group over the last seven years at the Pentridge Prison site and the hotel is one of many projects that we have completed here," said Marshall.

"The redevelopment of the Pentridge Prison site is exciting for the whole community. So far, the redevelopment has already rolled out the Pentridge Shopping Centre, Horizon Apartments, The Rook and Victoria Tower. The next part of this exciting development is the new Adina Apartment Hotel Pentridge."

Looking to the future, Construction Engineering is focused on maintaining its strong client relationship and repeat business with Shayher Group, including to continue to assist Shayher with completing the entire Pentridge redevelopment.

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DEVELOPER : Shayher Group  
MAIN CONSTRUCTION COMPANY : Construction Engineering  
STRUCTURAL & CIVIL ENGINEER : Webber Design  
CONSTRUCTION VALUE : \$100 million



Below DDEG provided a range of acoustic engineering solutions for the Pentridge Adina Hotel.

Below ACOR delivered mechanical, electrical, fire, hydraulics, acoustic services and specialist lighting for the project.



DDEG is a 100% Australian-owned, multi-disciplinary engineering consultancy which specialises in fire safety engineering, acoustics and vibration, disability access and building code performance solutions. Established in 2016, DDEG maintains a fleet of high end instruments and test equipment for accurate acoustic measurement and monitoring.

As the design progressed for both the Tower and the Heritage Buildings, DDEG consulted with the project team to develop and meet the acoustic requirements where there were design constraints such as needing to retain heritage elements which were never intended to stop noise.

“Our acoustics team has experience in all aspects of acoustics and vibration and we provide our services across various sectors. We provide advice on sound insulation and speech privacy, room acoustics, noise and vibration control, plus a range of other engineering solutions,” said Andrew Mitchell, Director of Acoustics at DDEG.

“Working with the project team, we had to design extra door sealing and secondary glazing for the Heritage Hotel Suites, as well as an acoustic airlock for the function area in the Heritage Building, so that certain features of the original rooms could be retained,” Irena explained.

DDEG was engaged by ACOR Consultants at the Pentridge Adina Hotel to carry out the initial analysis of the site, on a scope which included stricter parameters than usual for the international hotel client.

“The project has benefited greatly from regular meetings between the project manager, the builder, the client and ourselves and the result is two buildings which look great and are going to be a fantastic place to stay. Through our contribution, we are confident that the residents and guests won’t be unduly affected by noise.”

“Our early work involved ensuring that the façade of the Tower Building was designed to cope with traffic noise from Sydney Road, and designing noise treatments for the rooftop plant so that noise emissions to the nearby buildings and residents within the tower itself were controlled,” said Irena Peoples, Senior Acoustic Engineer at DDEG.

DDEG provides consulting services to projects all around Australia.

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ACOR Consultants is a 100% employee-owned Australian company that has been providing specialist consulting services to the construction industry for 25 years and they pride themselves on delivering technically challenging projects.

worked closely with the building surveyor, Fire Rescue Victoria and the fire safety engineer to find suitable solutions and, where required, seek dispensations.

At the Pentridge Adina Hotel, ACOR was engaged to deliver the mechanical, electrical, fire, hydraulics, acoustic services and specialist lighting for the project. By embracing new technologies and applying ‘out-of-the-box’ thinking, ACOR was perfectly placed to achieve a sustainable outcome on this unique project.

“Pentridge Adina Hotel offers something that no other hotel in Melbourne does and that is to spend a night in a prison cell,” Ryan said. “And despite the technical challenges on the site, our team has done a great job to hero what is essentially the existing B-division prison, but also develop a high end hotel offering for Adina.”

“We initially started the design in mid-2016 and given the controversial nature of the project and the heritage aspect of the prison, it was a struggle to get Council approval,” said Ryan, ACOR’s National Mechanical Discipline Leader. “We wanted to deliver a successful outcome for the client, but also to put our mark on what is a very unique and historical site.”

ACOR delivers projects all over Australia and from time-to-time is involved with projects abroad. The company is currently working on the Fuel Farm Design and infrastructure at a major Australian Airport and the redevelopment of the Scott Base research station in Antarctica.

ACOR’s problem-solving measures were put to the test due to both the heritage nature and the age of the building, which made it challenging to comply with current code requirements in relation to ventilation, smoke hazard management and fire systems. The team from ACOR

Creating an environment where ACOR’s 500 plus employees across 10 offices nation-wide can thrive paired with their investment in clients’ success, has catapulted the company to the successful reputation they have today.

For more information contact ACOR Consultants, phone 03 9885 4335, email [rtanner@acor.com.au](mailto:rtanner@acor.com.au), website [www.acor.com.au](http://www.acor.com.au)



Below Caelli Constructions supplied a range of lifting and rigging services for the duration of the project.



Below Action Alliance applied the required fire-rated coatings to the structural and exposed steel on the project.



Caelli Constructions (VIC) Pty Ltd has been an icon in the commercial building industry for over 50 years. With over 400 employees skilled in trades such as Carpentry, Concreting, Steelfixing, Crane Operations, Concrete Pumping, Welding and Manufacturing, Caelli Constructions strive and succeed in delivering quality products and services, to some of the most successful, and influential Builders in Australia.

These significant years have resulted in the building of a wealth of experience, together with providing systems of work and services, that are tailored to suit the needs of each individual client and project. Each project is then managed by our experienced Supervisors and Staff with the support of our team at Head Office.

We pride ourselves on our strong commitment to Occupational Health and Safety in our workplace. This has resulted in the advancement of specifically developed Safety Management Systems, whilst working closely with our clients to ensure their needs are met.

We endeavour in all instances to ensure that the requirements of the Regulatory Bodies are adhered to, in order to achieve optimum safety for our personnel, and commercial performance.

Caelli Constructions operate a fully equipped manufacturing facility capable of designing, engineering, and producing specialised and complex formwork and edge protection solutions for each project, as well as providing access to an extensive stock of modular and conventional typical Slab, and Wall Formwork systems.

We are immensely proud of our innovation and commitment to the construction industry and as a result have received numerous awards for our excellence in a variety of fields.

Caelli Constructions thrive on creating mutually beneficial working relationships, for all parties involved, and this is reflected in our long-standing relationships with some of the largest and most influential builders in our country.

We are equally proud of our workforce; without them we do not exist.

For more information contact Caelli Constructions, 320 Hume Highway, Craigieburn VIC 3064, phone 03 8338 3300, email info@caelli.com.au, website www.caelli.com.au

Action Alliance is a fully accredited company which specialises in abrasive blasting and the application of protective and fire-rated coatings on projects of any scale. For more than 25 years, the Melbourne-based company has been providing its services to the construction industry and the work of their expert team can be seen on government and commercial projects across the city's skyline. Working closely with the team from Construction Engineering at the Pentridge Adina Hotel, Action Alliance's streamlined application of protective and fire-rated coatings not only ensures the longevity of the paintwork, but also protects against harsh weather elements, corrosion and UV degradation.

"For around five months, we had a team of six applicators onsite, working in situ to apply the required fire-rated coatings to the structural and exposed steel," said Brendon Woods, Business Development at Action Alliance. We've used Promat Cafero 300 Vermiculite Fire Spray for the concealed steel and Permax's Nullfire SC902 Intumescent paint system to the exposed steel here at the Pentridge Adina Hotel and particular attention was paid to the large steel columns at the entrance of the hotel."

Action Alliance is well-known in the industry as one of Melbourne's largest applicators for protective and intumescent coatings and their

large, custom built facility, equipped with overhead cranes, has given the company a competitive edge when it comes to large-scale developments. Action Alliance also has a dedicated site PC and Fire Rating division along with Shamick Transport a specialised transport company which can pick up or delivery all sorts of Over Dimensional loads for major projects.

"The challenge with this job, as with all jobs, is to complete your scope of works in a timely manner and on this project, we were fortunate to be in constant consultation with the efficient crew from Construction Engineering and we were on schedule," Brendon said. "The hotel is a satisfying and unique mix of old and new design and we achieved a pleasing aesthetic for the exposed steel in line with the design requirements."

Action Alliance is currently working on the upgrade of Marvel Stadium in Melbourne, as well as the new train stations for the Metro Tunnel. In its 25-year history, the company has also worked on some of Victoria's most iconic landmarks, including the MCG, Melbourne Park and Melbourne Airport.

For more information contact Action Alliance, phone 03 9931 0740, email info@actionalliance.com.au, scheduling@shamick.com.au, website www.actionalliance.com.au, www.shamick.com.au



