

STEEPED IN HISTORY

DEVELOPER : Shayher Group
MAIN CONSTRUCTION COMPANY : Construction Engineering
ARCHITECT : Buchan
STRUCTURAL ENGINEER : AECOM
CONSTRUCTION VALUE : \$75 million



The Pentridge Shopping Centre is a unique project including a supermarket, retail and food tenancies, cinema, restaurants, stunning landscaping and a huge piazza, transforming the former prison into a vibrant mixed use urban village.

Originally built as a prison in 1851, Pentridge closed in 1997 and was later divided into two sites. In 2013, Shayher Group purchased the Pentridge Coburg site and set about breathing new life into the iconic landmark.

The vision behind Pentridge was to invigorate the area of Coburg and providing locals with a great place to shop, dine and love life.

Construction Engineering was tasked with the job of bringing this vision to life, based on their reputation for innovation and project excellence since their inception in 1953.

While Pentridge will be a fresh destination for residents and visitors to Melbourne's north, the main objective was to create a contemporary hub while still celebrating the rich architectural heritage and historic materials of its past, such as the iconic bluestone and imposing turrets.

"Original elements from the site were incorporated in the centre design and construction, namely an existing bluestone turret and wall, and existing walls and buildings in the piazza area,"

explained Construction Engineering Director, Anthony Trantino. "This provided challenges in how to integrate the new structures with these heritage listed components."

They conducted dilapidation reports prior to work commencing and construction was monitored throughout the build to ensure the ongoing integrity of the older structures.

"There were also numerous requirements to be met through Heritage Victoria and the overall Planning Permit, including heritage artwork and signage interpretations that reflect and respect the site's past as an operational prison," Anthony explained.

Stage 1 construction (involving excavation and piling works) commenced in March 2018 and was completed by September 2018. Stages 2, 3, and 4 focused on the structures and finishes, and began in September 2018, with completion in mid-2020.

The central piazza is over 6,500m² and surrounded by heritage buildings, cafés and restaurants. It's a relaxing space that integrates a stunning



water feature, outdoor seating and re-use of the renowned bluestone. The shopping centre itself is entered via a glass canopy and features a 15 screen cinema, IGA supermarket, and over 20 speciality retail and dining options. Construction Engineering had up to 150 staff working on site, as well as another 15 in head office providing vital support systems to the project.

Apart from the heritage aspects of the build, the project presented a chance for Construction Engineering to flex their expertise muscle when it came to conquering obstacles.

"The structure was challenging and involved the use of two tower cranes to lift precast concrete panels and distribute formwork, reo, post tensioning, blockwork, structural steel and other materials around the site," Anthony said. "Digging a 10m deep basement in solid rock while maintaining the structural integrity of the fragile 150 year old bluestone wall and turret was also a big achievement."

"Due to the sheer size of the structure, each level had to be broken up into six separate areas and formed and poured separately. This equated to a total of 28 concrete pours throughout the structural programme with a total volume of 8,300m³. There were also 600 precast elements [panels and columns] and approximately 300 tonnes of steel in the roof structure," Anthony said.

Due to their close relationship with developer Shayher, Construction Engineering are involved in nine projects within the site. "For Pentridge, we provided a tailored solution that met the client's requirements, including early contractor involvement, overseeing the design management process and managing the agreed contract sum," Anthony said.

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Below PTA Landscapes completed an extensive external hard and soft landscaping elements for the shopping centre.

Below EPM&C installed the electrical, communication, audio-visual, access control and CCTV at the iconic centre.



As specialists in the construction of commercial, residential and educational spaces, PTA Landscapes has been essential to the beautification of the new Pentridge Shopping Centre.

PTA Landscape's work on the project was extensive and included much of the external hard and soft landscaping elements. "Prior to work beginning, we conducted client consultations to go over the project's differing elements," said Co-Director, Dion Loncar.

"The landscape construction phase included the installation of new and reconstitute walling types, such as new in situ concrete walls with interpretative heritage recesses, to the bluestone walls, seating and feature elements using reclaimed site stone. Pavements included both water exposed and sandblasted concrete, along with five different types and formats of bluestone pavements. We built split level timber deck structures, water feature components, and a new steel and timber entry portal. The hard works are softened by lawns, garden beds and established trees," explained Dion.

Due to site restrictions, the work was approached in stages. "Being situated at a live site meant we had to tackle this project with a piecemeal approach. Coordination, communication and site/project

management was key in achieving efficient progress while maintaining a high level of safety and quality," said Dion.

Coordinating with active trades was done in advance to ensure safety was maintained while enabling access to large quantities of materials. On top of this, any contaminated soil had to comply with government regulations, and changes in relation to the underground services network meant open communication and collaboration were ongoing.

PTA Landscapes have recently finished construction on Tote Park, the first landscape stage of the Moonee Valley Racecourse redevelopment and the Victorian Emergency Services Memorial in Treasury Gardens. The team were awarded 2019 Commercial Landscape of the Year by Landscape Victoria Master Landscapers and built the gold medal winning and Best In Show Garden at the 2019 Melbourne International Flower and Garden Show, highlighting their diversity and quality of workmanship, reinforcing PTA Landscapes' position as the leading contractor in the Victorian landscape industry.

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The quality of workmanship and their attention to detail on previous heritage listed building projects were integral factors in EPM&C winning the contract for Construction Engineering at Melbourne's iconic Pentridge Shopping Centre redevelopment.

"After successfully completing projects for Crown Casino's Club 23, the Victorian CFMEU head office and the ETU Training Centre, EPM&C were entrusted with the design and construction project at Pentridge Shopping Centre's new retail hub," said EPM&C Project Manager, Brendan Maloney. Commencing work onsite in July 2018, the company was responsible for the electrical, communication, audio-visual, access control and CCTV installations.

The state-of-the-art development of the former prison features a 15 screen cinema complex, supermarket and approximately 25 speciality shops. The project also includes a public piazza in which EPM&C installed custom linear LED lighting which showcases the heritage listed space.

"In partnership with Electrolight, we have highlighted the bluestone walls of the prison at night with a beautiful wash of warm light," said Brendan. "This feature comprises a 'one touch' computer controlled

lighting system by Dynalite, partners with Bluebottle. The site is also protected and monitored with 120 CCTV high definition cameras in constant operation."

The main challenge involved the heritage nature of the site and the preservation of any removed materials, but their prior project experience at the National Gallery of Victoria and the Shrine of Remembrance, held the team in good stead. "For EPM&C's site team, the careful planning and meticulous workmanship has transformed Pentridge Shopping Centre into an electrical extravaganza of the highest dimension, successfully blending the old and the new," said Brendan.

EPM&C's reputation has been built upon reliability, dedication and a commitment to excellence in every aspect of their business practices, striving to maintain strong community relationships and lead the way by building and enhancing developments which aim to meet the demands of modern needs, while still celebrating our heritage.

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