



Carpark in the big league

Home to the illustrious Parramatta Eels rugby league team, the Parramatta Leagues Club is capitalising on Western Sydney's proud sporting pedigree with a three-staged upgrade.

Stage 1 comprised the design and construction of a seven-storey car park. An upgrade from the previous 400-space car park, the new car park contains 773 car spaces, 27 motorcycle spaces, and has provision for 44 bicycle spaces. Now complete, this Stage intends to meet the parking demands of up to 15,000 fans that attend sporting games at Parramatta Stadium.

HIGH QUALITY SETS NEW CLUB BENCHMARK

National Precast member, Hanson Precast, has played an important role in the redevelopment of the Club, having manufactured and installed 186 precast concrete balustrades for Stage 1.

Hanson's Estimating and Sales Manager, Richard Lorenzin, says opting for a precast solution was essential to meet the project's design and quality requirements.

"The design required a robust and durable building material because it acts as a safety barrier. Precast concrete was chosen because of its inherent durability and because of the superior finish that can be achieved," Mr Lorenzin details. "The precast was of a very high quality and is a fantastic example of off-form finish using an off-white cement."

UNIQUE PATTERN DESIGN

The precaster manufactured \$1 million of precast balustrades for the project, including 54 plain elements and 132 patterned elements that were cast using a formliner.

"The balustrade panels were supported on formwork with protruding conventional reinforcement that was cast integrally into the insitu concrete slab," Mr Lorenzin explains. "Challenges arose here in ensuring the details were correct. Because the pattern in the precast was unique, we had to keep the architect's intent in mind while also ensuring the elements were manufacturable."

Precaster

Hanson Precast

Location

Parramatta, NSW

Client

Parramatta Leagues Club

Architect

Hassell

Builder

ADCO Constructions

Engineer

Taylor Thomson Whitting

www.nationalprecast.com.au



All elements were manufactured with 40MPa off-white concrete mix, with 6% titanium dioxide colour oxide. The patterned panels have a 30mm vertical relief, while the plain panels have adopted a Class 2 off-form finish.

PHOTOCATALYSTS TO PROTECT AND PURIFY

To protect the precast balustrades from the weather and vehicle exhaust pollution, Nawkaw Australia's photocatalyst coating was applied.

Nawkaw's Managing Director, Tony Watling, says the coating greatly reduces the maintenance requirements and expense of keeping the precast looking new.

"The quality of the precast was fantastic, so the coating was applied on all exposed surfaces - including the inside of the carpark - to keep the concrete looking in top condition," Mr Watling details. "The photocatalyst technology of the coating will protect the concrete surface from materials that will foul its appearance. Dirt, dust, road grime, oil, air-borne pollutants, and smog are broken down by the coating into oxygen, carbon dioxide, and water."

Once the coating has been applied, surfaces become anti-static, thereby reducing the adhesion of dust and other particles. Dust and dirt simply wash away with rain. Meanwhile, the coating also releases harmless by-products as it breaks down VOCs and pollutants from the air, thereby having a purification effect.

"The protective nature of the coating also resists carbonation, extending the precast concrete's already lengthy service life," Mr Watling reveals.

IN TIME FOR THE GAME

The ability for precast elements to be manufactured off-site while other works continue is a major benefit of using precast and in this case, it delivered significant time savings for what is a time-critical stage of the upgrade.

"Manufacture of the elements took approximately ten weeks and using precast saved approximately one month of the total program," Mr Lorenzin says.

FIRST OF THREE STAGES NOW COMPLETE FOR WORLD-CLASS PRECINCT

The carpark upgrade represents the first and most critical part of three major Stages over the next couple of years. With Stage 1 now completed, construction of Stage 2 is currently underway, which includes indoor entertainment, fitness, and aquatic centres as well as a 400-seat event facility. Stage 3 will comprise a 200-room hotel. Due to be completed by 2019, the overall Parramatta Leagues Club Upgrade will be a world-class sports and entertainment precinct for both the club's members and Parramatta Eels fans.

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