



Perth's largest event infrastructure project runs ahead of schedule

At a cost of one billion dollars, Gateway WA Perth Airport and Freight Access Project is Western Australia's largest ever road project, and partly thanks to precast concrete, is already six months ahead of its original schedule.

Gateway WA aims to create an iconic gateway to the state, as well as improving the safety and efficiency of one of WA's most important transport hubs. This significant project is jointly funded by both the Federal and Western Australian Governments, and delivered by an alliance of partners. The project includes road and bridge improvements, local road modifications, facilities and connections for pedestrians and cyclists, noise walls, landscaping and the use of Intelligent Transport System Technology. Once completed, it will deliver a suite of road networks to improve freight and passenger movements around the Perth Airport terminal and the nearby Kewdale and Forrestfield industrial estates.

Running ahead of schedule and with completion due in mid-2016, the project owes some of this reduction in construction time to the use of precast

Project Owner

Main Roads Department of WA

Architect and Project Superintendent

Gateway WA Alliance, (Leighton Contractors, Georgiou Group, GHD, AECOM, BG&E & Main Roads WA)

Precast Manufacturer

Delta Corporation

www.nationalprecast.com.au



concrete. According to Matt Perrella, Executive Director of National Precast member Delta Corporation Ltd and manufacturer of precast for the project, this demonstrates and reinforces the benefits of using precast. "It shows what we have been talking about for some years, showing the efficiency and cost savings of precast concrete," he said.

Precast integral to the project

Precast concrete was an essential component of the build. "Precast was chosen for this project because of its structural quality and the speed of construction. It's simply more efficient to manufacture off site. In this case it was less expensive and it also ensured there was minimal disruption to traffic," Mr Perrella said.

The project incorporates construction of 165 lane kilometres of road, seven underpasses, seven kilometres of noise walls, over 25,000 square meters of retaining walls, numerous ancillary precast elements and 11 major bridges. Of the 11 bridges, seven have been constructed using TeeRoff precast prestressed beams, while four used precast prestressed concrete planks.

A total of 86 TeeRoff beams were manufactured by Delta Corporation in varying sizes, ranging from 75 tonne at the lower end right through to the largest beam, which weighed 168 tonne and boasted dimensions of 39.5 metres long, 4.85 metres wide and 1.6 metres deep. The beams were the heaviest Delta had ever produced and were delivered 10 months ahead of schedule.

As well as TeeRoff beams, the precaster also manufactured 1,916 square metres of retaining wall panels, more than 1000 square metres of Deltacore (hollowcore) floor planks and parapet panels for the project.

All these elements were manufactured at the company's factory in Herne Hill. According to Mr Perrella, the company's expertise is well recognized in the civil construction industry. "Our state-of-the-art facilities and high capacity prestressing beds cater for varying component sizes and high volume," he said.

"Being involved in such major projects puts precast in the forefront for designers. They look for the most efficient way of construction and precast comes out on top," said Mr Perrella.