

Westconnex demands a solution to overcome insitu challenges

Project: Westconnex Project

Location: Kingsgrove, NSW

Master Precaster: Humes

Client: NSW & Australian Governments

Builder: CPB Contractors

The currently under-construction Westconnex motorway is paving a 33km stretch of traffic-light free road network across the Sydney metropolitan area. At the project's Southern edge - in the suburb of Kingsgrove - the initial design included an insitu surface drainage solution, which was later rejected due to a concerning tolerance between the insitu pits and the precast pipe infrastructure.

As the primary supplier of pipes for the project, National Precast's Master Precaster Humes suggested replacing the risky insitu pits with a modified variant of their tightly specified precast Dn3600 pump-well.

By engaging Humes to supply this precast solution, the civil contractor CPB were able to ensure a successful outcome with stringent deadline, all whilst not effecting the project's total cost.

The set of five modified Dn3600 pump-well units supplied by Humes include custom-cast blockouts and a design that made for efficient transport and installation. Due to the size of each precast element, Humes negotiated an after-hours escort and installation of the pump-well units.



Precast concrete allowed for a reduced congestion of trades on site and a highly efficient installation that took less than one hour from unloading from the delivery trucks.

Like many civil applications of precast concrete, Humes supplied the elements in an affordable, uniform and cost-effective off-form finish. Off-form precast elements may be visually comparable to an insitu counterpart, however they boast a greater control of tolerance, quality, finish consistency and structural reliability.

Humes' ability to supply an innovative yet cost

effective solution for the Kingsgrove Westconnex project will service the new road network for many generations to come.

The durability of precast concrete is an additional reason why it is commonly used in watertight civil projects such as the Westconnex motorway. The pump-well unit supplied was rated with a minimum 100-year design lifespan.

A precast concrete solution also solved complications and challenges presented by the initially proposed insitu method such as onsite waste, delays due to weather, worker safety and issues with design tolerances. Engaging one of National Precast's Master Precasters has ensured that the drainage works at Kingsgrove Westconnex were a quick and successful installation.

