

# CONCRETE

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# IN AUSTRALIA

- The value of marketing in an economic downturn
- Structural failures – the social context
- Durability planning for infrastructure projects

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## New culverts replace steel pipes with precast

The Reinforced Earth Company (RECO) recently designed and supplied precast concrete culverts to Gosford City Council to replace former steel pipe culverts at Piles Creek and Leask Creek at Somersby, near Gosford. The road embankment at Piles Creek had failed following heavy rain in June 2007. Inspection of other culverts in the catchment found that a similar steel culvert at Leask Creek also needed to be replaced.

The council required concrete culverts, with concrete headwalls that could be tailored to suit the site requirements.

For the two new culverts RECO supplied its proprietary TechSpan precast arches using moulds from a previous job.

However, the moulds had to be altered slightly to meet the particular design requirements of the new culverts.

RECO's technical manager Chris Lawson said TechSpan is like a "bridge in a box", that the components can be easily transported and are easy to assemble and can be adapted to suit specific project requirements. He said the arch system can also be seamlessly combined with concrete-faced retaining walls.

RECO project coordinator Bryan Stralow said scheduling was a challenge due to tight time limits between precasting and delivery which was complicated by the thoroughness of site preparation where rock levels had to be adjusted so that the stormwaters would flow exactly according to the design.



This large capacity precast culvert was recently installed at Leask Creek near Gosford on the NSW Central Coast.



Construction workers guide a OneSteel prefabricated column

## Prefab reinforcing exp

Currently being built by Sydney firm Kayrouz C Residential Towers in Hurstville in the city's south incorporate seven commercial offices and 62 apar

Significantly contributing to the speed and cost-e of construction and site management has been the i column reinforcement prefabricated from OneSteel

Donny Kayrouz of Kayrouz said his firm was qu with OneSteel's Bamtec carpet system and has use the nearby suburb of Bankstown where Kayrouz b apartments.

"But this is the first project where we have used columns as well Bamtec," he said.

Kayrouz had asked OneSteel if it could develop alternative to manually steelfixing the columns, w slowing construction schedules.

"Each floor requires 52 columns and when we s were being tied manually. Prefab columns are a gre