

Precast provides vital infrastructure

A century old brick sewerage system in Melbourne's Alphington is being upgraded to service the community for the next 100 years. Precast concrete has been a vital component in the construction phase of this vital infrastructure.

The project includes the replacement of a section of the North Yarra Main Sewer. The construction contract was awarded to Lend Lease Engineering and National Precast member Humes was awarded the contract to supply precast concrete shafts and pipe.

Jacking pipe and segmental shafts supplied

After a lengthy design and tender process, it was decided that trenchless pipe installation was the appropriate solution. Humes' J-Series jacking pipe was chosen for the project and manufactured in the company's Laverton factory in Melbourne's south-west. A DN1500 jacking pipe was supplied with a high density polyethylene lining which was cast into the inside surface of the pipe, to protect against hydrogen sulphide. The pipe was supplied with 6mm steel collars and several interjack stations to assist with installation.

Precast manufacturer
Humes Australia

Head Contractor
Lend Lease

Project Owner
Melbourne Water

www.nationalprecast.com.au



Precast segmental shafts for the sewer were also manufactured at the company's factory in Echuca in country Victoria. The shafts were supplied to Rob Carr, installers of underground pipes and services and sub-contractors to Lend Lease.

The shafts ranged between six and nine metres in diameter and were in excess of 10 metres deep.



Easy and safe installation

According to Humes' Southern Region Engineered Solutions Manager Alex Graff, shafts are usually constructed in situ. But in this case, precast was chosen.

"We've been able to showcase the benefits of using precast segmental elements," Mr Graff said. "They are easier to install and it's also a safer system that reduces the safety risks on site."

The new sewer main will service the area for the next century, reducing the risk of maintenance issues such as blockages, which can be costly and disruptive to the community.



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