

STARBUCKS

### Albert Street Relining: Cross River Rail Project





customer

QLD Brisbane CBD

2020

1.2km

## The project

Using our innovative Expanda product, Interflow relined trunk sewer mains to provide extra protection during the construction of Cross River Rail. By listening to our customer's needs, Interflow was able to play a supporting role in the delivery of a critical infrastructure project.

The Cross River Rail is a new 10.2-kilometre, \$5.4 billion rail line from Dutton Park to Bowen Hills, which includes 5.9 kilometres of twin tunnels under the Brisbane River and CBD. Designed to unlock the bottleneck at the core of the transport network, it is the largest transport project ever built in Queensland.

To construct the underground Albert Street station, hard rock located 25-30 metres beneath the surface needed to be blasted and excavated to create a cavern to house the station platforms. A series of key DN450 trunk sewer mains run above the zone of influence created by the blasting works. These mains needed to be relined prior to the blasting works to strengthen and protect them from the impact. Because of the busy CBD location, crews had a limited 10-hour night-time window during which works could be performed. This quickly ruled out any relining solution that relied on bypass pumping or heat curing. Interflow's very own Expanda product was the perfect fit under these restrictions, allowing crews to quickly mobilise and pack down each night, strengthening the critical mains while the city slept. Overcoming the many constraints, relining works were completed on time, allowing the blasting works to commence on schedule and this gamechanging infrastructure project to continue.



Supporting growth through landmark infrastructure projects



#### The challenge

The 10m-deep trunk mains run down Albert Street and towards the busy Queen Street Mall precinct, capturing flows from the densely populated high-rise buildings. Because of the proximity to Brisbane's most popular shopping district, strict limitations were in place for traffic, noise and working hours. These restrictions, coupled with the high day-time flow rate, meant that relining works could only occur during a tight, 10-hour window in the night.

The restrictions ruled out the use of any bypass pumping as it wasn't practical to install and pack down within the timeframes each evening. Crews needed to find a way to perform the critical works in live mains during limited shift hours.

#### The solution

To overcome the challenge posed by the time restrictions, Interflow proposed the use of Expanda, a structural lining system strong enough to protect wastewater flows during the scheduled blasting works. Expanda was the perfect solution because it can be installed in live flows of up to 30% of the level of pipe height, typical of off-peak hours, eliminating the need to bypass wastewater above the ground and through the CBD.

With no need for heat curing, the installation process can be stopped at any time. Combined with the small site footprint, this meant crews could be agile and responsive, giving comfort to stakeholders that installation could stop, equipment could be removed, and traffic re-opened should it ever be required. Cross River Rail has ambitious goals, aiming to improve the quality of life for South East Queenslanders by growing the economy, creating jobs and activating urban development across the region.

When critical sewer mains needed reinforcing to facilitate blasting works, Interflow was ready to take on the challenge. By leveraging our patented technologies and customerfirst approach, Interflow was able to play a part in supporting the growth of South East Queensland.



# How we help









## Interflew"

#### Creating the Future of Water

#### For more information about the services we provide

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