

Fast-curing epoxy grout restores critical rail bridge within six-hour shutdown

Mt Lawley Rail Bridge | Perth, WA, Australia

ASSET OWNER

Public Transport Authority (PTA)

CONTRACTOR

Enviro Infrastructure

SECTOR

Transport Infrastructure

DATE

2026

PRODUCTS

• Conbextra® EP65 Plus



Originally constructed in 1907, Perth's historic Mt Lawley Rail Bridge required urgent reinforcement after routine inspections identified deterioration in one of its support pillars. Rather than replacing the ageing pillar, the Public Transport Authority elected to undertake a structural repair as part of its ongoing bridge maintenance program.

THE PROJECT

During routine bridge inspections, the PTA identified a defect on the abutment of the bridge under a bridge bearing. When Enviro Infrastructure was asked to explore possible repair solutions, they sought the specialist advice of the team at Fosroc ANZ. The project presented several challenges, including confined working conditions beneath an active rail bridge, limited time for installation and curing, and the need to obtain PTA engineering approval for both the product selection and repair methodology.

"The team originally requested a cement-based mortar, but that was going to take too long to cure," said Fosroc Concrete Repair Specialist Dennis Murray. "I suggested an epoxy-based product to meet the time constraints."

THE SOLUTION

Following an onsite assessment, Conbextra® EP65 Plus was specified as the most suitable solution. The high-flow, fast-curing epoxy grout was capable of achieving approximately 30–35 MPa within the six-hour rail shutdown, allowing train services to safely resume while providing a durable, long-term structural repair. This line supports more than 200 services on a weekday.

Its excellent bond strength eliminated the need for priming, while its highly fluid consistency enabled the applicator to pour the grout through the rail platform, maintaining the hydrostatic head and completely filling the confined repair.

THE BENEFITS

Conbextra® EP65 Plus enabled a technically demanding structural repair to be completed safely while minimising disruption to Perth's rail network. With more than 200 rail services operating in a single direction each weekday, the repair also had to be installed correctly the first time to avoid any unexpected delays in returning the line to service.

- Achieved approximately 30–35 MPa within the available six-hour shutdown
- High-flow epoxy grout for confined structural repairs
- Excellent bond strength, eliminating the need for priming
- Ultra-high compressive, tensile and flexural strengths
- Excellent resistance to repetitive dynamic loading
- Technical support throughout product selection, specification and application

"Whilst it was a small volume pour, the project was highly technical and the support and timely feedback was appreciated by both Enviro Infrastructure and the PTA," said Fosroc Account Manager, Nakita Tiffin.

The successful repair allowed train services to resume on schedule while extending the service life of a critical piece of Perth's rail infrastructure, demonstrating how the right product selection, technical expertise and close collaboration can deliver reliable outcomes under demanding operational constraints.

AU 1800 812 864
fosroc.com.au

NZ 0800 657 156
fosroc.co.nz

Parchem Construction Supplies Pty Ltd
1956 Dandenong Rd, Clayton VIC AUS 3168

Concrete Plus Ltd
150 Hutt Park Road, Gracefield NZ 5010

Fosroc and the Fosroc logo are trade marks of Fosroc International.