

RUSSEL TERRACE BRIDGE BEARINGS

PROJECT SUMMARY

Client: BMD

Location: Russel Terrace,
Indooroopilly

Duration: 1 week

Value: \$ 32,000

Major Challenges Overcome:

- Jacking Sensitivity
- Risk of deck cracking



Russel Terrace Bridge

The Project

An addition to the construction of the Legacy Way Tunnel was the widening of the bridge over Russel Terrace in Indooroopilly. The bridge spans approximately 22 meters with rubber Granor bearings at either side. It comprised of 4 large girders each approximately 1.2 meters deep.

At the time of construction, little to no grout was placed below and above the rubber bearing.

Epoxy Solutions was engaged by BMD construction to work closely with the designer to write a Construction Methodology Statement for the safe lifting and re-grouting of the rubber bearings.

Scope

1. Lift the girders equally to not fracture the concrete deck
2. Grout each of the bearings with an epoxy grout (Chemrite Pad Grout was used)
3. Where small gaps existed, these were to be epoxy injected (low viscosity resin was used – Chemrite CILV)
4. Re-position the girders to facilitate the new grout

Work Done

The support gussets were manufactured and bolted to the headstock using and epoxy Grout, Chemrite Bar Grout. Large M24 bolts was used to hold the gussets in place.

Large hydraulic jacks were then placed on top of the gussets as shown below



A 20mm support plate was placed on top of the jack to evenly distribute the load and these were grouted with fast curing Chemrite CR-FC grout.

Epoxy Solutions then fitted sensitive measuring equipment to each girder so any movement can easily be closely monitored. This was important to avoid damage to the structure.



Each girder was then evenly lifted at a continuous rate to a point where each bearing can be easily accessed and grouted. These were then grouted with Chemrite Epoxy Pad grout. Small gaps were grouted with a low viscosity crack injection epoxy.