



HORSE SHOE BRIDGE RESTORATION

PERTH, WA

MAINTENANCE - HERITAGE STRUCTURES

PROJECT

Horse Shoe Bridge Restoration

CLIENT

Doric
Richard Willis-Jones 0407 778 460

DURATEC CONTACT

Greg Oates 0411 494 894

DESCRIPTION

The heritage listed Horseshoe Bridge in Perth connects the CBD to Northbridge. It was constructed in 1904, with the horseshoe shape designed to fit the approach ramps into a constricted site.

Duratec was engaged by Doric to complete the following scope of works:

- ▶ Corbel and rosette replacement.
- ▶ Abutment padstone repairs.
- ▶ Replacement of ventilation surrounds.
- ▶ Arch steel strengthening.
- ▶ Plaster and render crack repair.
- ▶ Repair delaminated/spalled render and coke breeze concrete.
- ▶ Removal of staining to facade.
- ▶ Reinstatement of loose brickwork.
- ▶ Re-pointing of mortar joints.
- ▶ Masonry wall reconstruction.
- ▶ Repairs to existing columns and bases.

HIGHLIGHTS

- ▶ Works completed on a tight programme with restricted access due to interaction with multiple subcontractors on site for the duration of the works.
- ▶ The works involved detailed repairs to strict heritage requirements including successfully matching existing concrete corbel and rosette details which are 110 years old.
- ▶ Corbels were created using specialised in-house equipment to produce polyurea moulds which provided significant cost and time savings.
- ▶ Project completed safely with no HSEQ injuries or incidents.
- ▶ Structural rehabilitation of the brickwork was achieved through a crack stitching process, bricks were abrasive blasted prior to being built to achieve a seamless match to the existing structure.



IMAGES (FROM TOP TO BOTTOM)

- ▶ Overview of the bridge.
- ▶ Overview of the bridge.
- ▶ Prior condition of one of the arches.



HORSE SHOE BRIDGE RESTORATION

PERTH, WA

MAINTENANCE - HERITAGE STRUCTURES



IMAGES (FROM TOP TO BOTTOM)

- ▶ Rosette moulds made using polyurea.
- ▶ Installation of new rosettes.
- ▶ Corbel moulds made using polyurea.

IMAGES (FROM TOP TO BOTTOM)

- ▶ New corbel after installation.
- ▶ Arch steel strengthening works.
- ▶ Completed corbel and wall reconstruction works.