



Gateway
Upgrade Project

A second Gateway Bridge

Fact Sheet 4



A second Gateway Bridge for Queensland.

The signature feature of the Gateway Upgrade Project is the duplication of Brisbane's iconic Gateway Bridge.

The second Bridge is being constructed 50m downstream of the existing Gateway Bridge and has the same distinctive shape, with the addition of a dedicated pedestrian and cycle way.

Key features:

- Additional six lanes across the Brisbane River for traffic.
- Pedestrian and cycle access via a dedicated 4.25m wide path.
- New urban design and lighting features.

Once the duplicate Bridge is completed, the existing Bridge will be refurbished. Pavements, lighting and urban design features on the existing Bridge will be upgraded to match the second Bridge. Further information about these features can be found overleaf.

Expected completion

The second Gateway Bridge will open to southbound traffic in mid-2010, followed by refurbishment of the existing Bridge under partial lane closures.

Both bridges will be fully opened to traffic by early 2011, with six lanes for southbound traffic and six lanes for northbound traffic.

Duplicating an icon

When constructed in 1986, the 1.63km Gateway Bridge was the longest balanced cantilever bridge in the world. The addition of a second Gateway Bridge reaffirms the unique status of this icon.

The existing Bridge owes its design to air traffic requirements and shipping clearances, restricting its height to under 80m above sea level and demanding a navigational clearance of 57m - a narrow envelope in which to construct a long bridge.

Like its twin, the new Bridge stands 64.5m at its highest point over the Brisbane River, which is about the same height as a 20-storey building.



Considered an engineering triumph ahead of its time when built in 1986, the existing Gateway Bridge has served as a template for construction of the second Bridge.

For more information

1800 700 525

www.gatewayupgradeproject.com.au

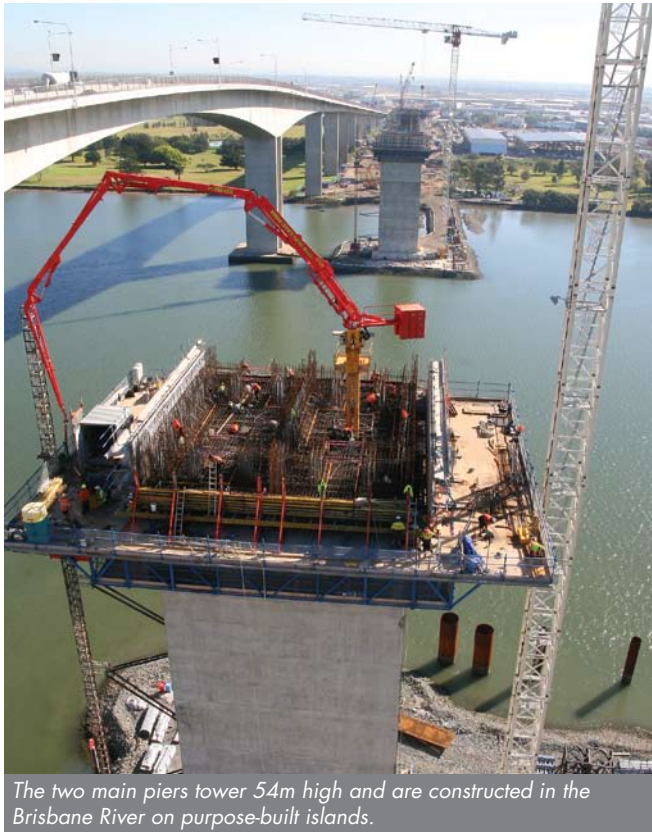
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Leighton Abigroup
Joint Venture

The Gateway Upgrade Project is a Queensland Government initiative being delivered by Queensland Motorways with design and construction by the Leighton Abigroup Joint Venture.

Construction methodology



The two main piers tower 54m high and are constructed in the Brisbane River on purpose-built islands.

The new Bridge is 27m wide, compared with 22m for the original, to provide for the new pedestrian and cycle facility. A different bridge system is being used to accommodate the extra width. Rather than a single box design, the new Bridge uses a twin box girder system.

- The 750m northern approach and 350m southern approach spans are being built using a segmental match-casting method, which involves lifting pre-cast concrete segments into place to form the Bridge deck.
- The balanced cantilever 260m main span and 130m side spans are being built using a cast in-situ method, which involves casting concrete segments at height from the two main river piers.

Gateway Bridge pedestrian and cycle way

A 4.25m wide dedicated pedestrian and cycle way is being constructed on the eastern side of the new Bridge, providing a much-needed crossing over the Brisbane River for pedestrians and cyclists. Four rest areas will offer shade and unsurpassed views west to Brisbane City and east to the Port of Brisbane, Brisbane Airport and beyond to Moreton Bay. The path will be able to be accessed on the north side from Kingsford Smith Drive and Lavarack Avenue, Eagle Farm and in the south from Lytton Road, Murarrie. A new park under the southern approach to the Gateway bridges will provide direct access, along with car parking and recreational facilities.

Urban design features for the bridges

Taking inspiration from Brisbane's unique subtropical identity, a distinctive design concept has been created that reflects Queensland's initiative, creativity and productivity.

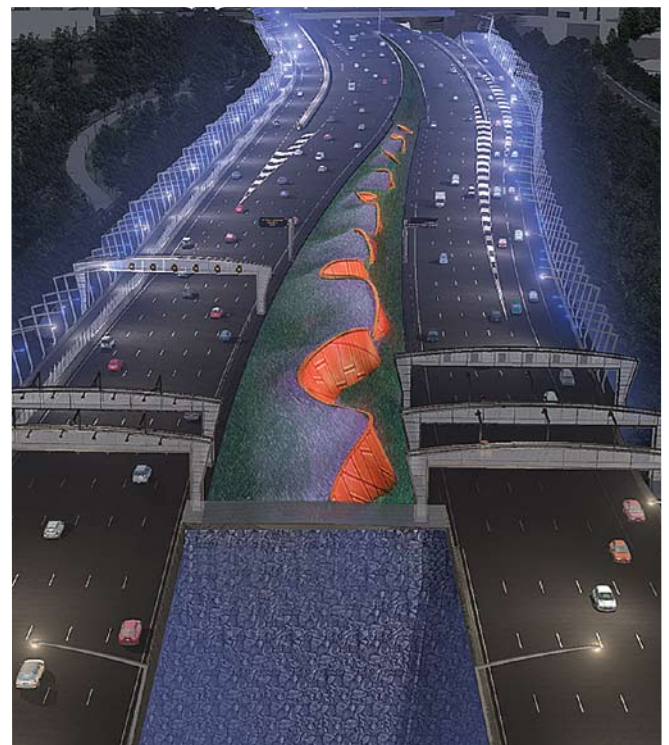
Highlights planned for the bridges include:

- 'Terrain Wave' sculptures positioned at the north and south Bridge approaches.
- Architectural lighting to create a signature visual experience, accentuating the form of the bridges against the night sky.
- Landscaping with predominately native and drought-resistant plants and trees appropriate to surrounding bushland, residential and industrial hubs.

BRIDGE FAST FACTS

The new Bridge:

- Equals the existing Bridge as being one of the top ten longest cantilever box girder bridges in the world.
- Relies on 17 piers of varying heights for support – the shortest at 17m and the tallest at 54m.
- Costs approximately \$350m (compared with \$92m for the original).
- Requires 150,000 tonnes of concrete and 11,600 tonnes of steel.
- Has a design life of 300 years.



The Project team has created some finishing touches to bring Brisbane's iconic river crossing to life.

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