CASE STUDY

Koloona Drive Bridge



Overview

Tapitallee is a rural location in the Shoalhaven Shire Council local government area in NSW.

It is approx. 160 km south of Sydney with a population of just 650 residents. The place is wellsuited for outdoor activities such as bushwalks, picnic's and local wineries.

- Dimensions: Single span 16.1 x 7.2m wide.
- Contractor: GC Civil.
- Client: Shoalhaven City Council.
- Design Engineering: Maker ENG

About

Koloona Bridge provides key access to the Tapitallee community, and due to site constraints a side track wasn't possible and the bridge couldn't be closed. As a result, the new InQuik® bridge had to be constructed in two halves to ensure continuity of traffic flow during construction. A 16.1 x 4.8m bridge was initially built and opened for traffic, then after the old bridge was fully demolished, an additional 16.1 x 2.4m bridge section was built and attached to the first bridge section to give the bridge 2 lanes.

How We Helped

Being a modular bridging system, the InQuik bridge could be partly installed whilst the traffic remained on the old bridge. When the first section was completed, traffic was diverted to the new bridge, the old bridge was fully removed, and the new bridge completed.

This was the first time an InQuik bridge had been built in two sections side-by-side. This accomplishment showcases the versatility of the InQuik design, and our team's skill in executing complex projects.

Results

The project's success demonstrates the dedication and expertise of the project team involved and the versatility of InQuik systems.

This staged method made sure the community stayed connected throughout construction. The project was a joint effort between Shoalhaven City Council and TfNSW as part of the Fixing Country Bridges initiative.

Key Points

- Continuity of traffic flow during construction, and successfully rerouting the traffic to the first half of the new bridge while the second half was being built.
- Construction of a longer and higher bridge to address the skewed position of the waterway.
- Positive impact on the community by providing a permanent integral bridge structure for safer, efficient, and climate-resilient transportation routes.
- The financial contributions from both council and TfNSW demonstrate their commitment to improving infrastructure and enhancing connectivity in the region.

Challenges

This project required meticulous planning and execution to overcome the numerous challenges presented by the location and construction limitations:

The bridge is positioned with a large skew to the waterway, requiring special considerations for managing waterflow.

The old timber bridge needed to be carefully disassembled.

The redesign process for the addition of the retaining wall was arduous. Despite the challenges, the retaining wall now serves its purpose effectively.









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