

# Project Profile—Johnstone Street Bridge South Port, Gold Coast, Queensland



Client: Johnson Street Bridge Refurbishment



## SCOPE & KEY ASPECTS

Johnston Street Bridge was designed and built in the 1960's and is three span, a two lane bridge approximately 24m long and used by vehicles and pedestrians to cross Loders Creek, Southport, Gold Coast. An engineering report produced in 2014 identified some deterioration in terms of cracked piles at the waterline and it was decided that a more thorough inspection and assessment of the structure was required. In January 2017, NCS were awarded a contract to Inspect, Assess and Remediate the bridge.

After a thorough cleaning process, detailed inspections were undertaken including inspecting the structure below the water line through the use of de-watering

boxes. Multiple concrete core samples were taken along with concrete break-outs of areas of concern. An inspection report was then prepared which outlined the condition of the bridge and also recommendations for remediation which would extend the bridge life well into the future.

Once the recommendations were accepted by the client, NCS set about the process of planning the repairs (in accordance with Main Roads Standards) which included: purchase of a purposely designed pontoon vessel for safe access, design and construction of moulds for full structural pile encasement, specialist galvanised reinforcing cage design, concrete mix design and testing, Ultra High Pressure water scabbling and procurement of specialist repair mortars and admixtures.

In August 2017, the NCS team mobilised to site and launched the pontoon vessel. By the end of September 5 full pile encasements had been successfully completed along with the other remediation work including crack injection and the application of specialist concrete protection systems. The work was successfully undertaken: without accident, with a high duty of care to the environment, with zero interruption to traffic or pedestrians and without causing nuisance to the local neighbours.

The work undertaken on the bridge by the NCS team will now allow the bridge to be continued to be used for decades into the future.



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