

DUNBOGAN BRIDGE REHABILITATION

CLIENT: Port Macquarie Hastings Council

LOCATION: Port Macquarie

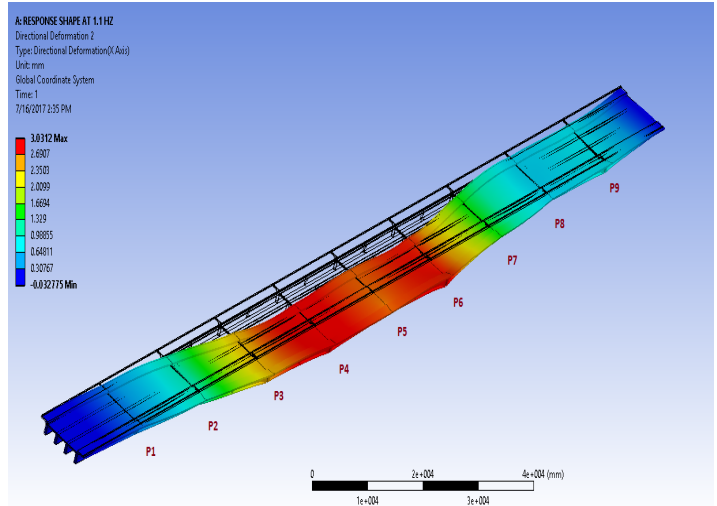
VALUE: \$5 million

DISCIPLINE: Bridge

PERIOD: 2017-2021

Dunbogan Bridge over Camden Haven Inlet on Reid St at Dunbogan was constructed in 1967. It is 198 m long and comprises 10 spans of 19.8 m. The bridge superstructure consists of a reinforced concrete deck, supported by 1.3 m deep pre-stressed concrete I-girders. The bridge substructure comprises 9 piers with a total of 36 piles.

In 2016 Dunbogan Bridge was identified as the highest ranked bridge in terms of risk due to significant chloride induced reinforcement corrosion in the piles with section loss. PMHC subsequently engaged MLEI to complete the investigations, determine the bridges structural capacity and provide engineering advice regarding potential strengthening and rehabilitation options.



MLEI ROLE

- Strategic options assessment
- Bridge Testing
 - Load testing
 - Brake testing
 - Rating of superstructure & substructure
- Finite element (FE) analysis
- Trigger, action and response planning (TARP)
- Bridge design
 - IV of detailed design
 - Flood load assessment
- Bridge rehabilitation
 - Pier rehabilitation design
- Cost estimating
- Client-side project management
- Site supervision & quality assurance



CLIENT REFEREE

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