

PALM BEACH TO TUGUN M1 UPGRADE

MAR 2023 - MAY 2024

SEYMOUR WHYTE CONSTRUCTIONS

\$1.9 M

DEMEX was engaged to safely demolish seven bridges in a five kilometre stretch of the Pacific Motorway upgrade project representing Package C of the greater \$1.5 billion-dollar Pacific Motorway upgrade project.

Minimising disruption to road users posed logistical challenges as all works had to be staged at night in shifts finishing, with site cleaned and validated safe by an independent structural engineer, by commencement of morning traffic between 3.30am and 5.00am.

PROJECT METHODOLOGY

Each bridge presented its own unique challenges that required extensive planning subject to rigorous scrutiny by the key project stakeholders. Plans incorporated break-up of bridge deck, span at a time, management of slurry and bracing for stability before demolition, processing and removal.

Drawing from previous experience on Package A, DEMEX adopted an innovative approach involving separating the bridge deck into manageable components that could safely be deconstructed during consecutive night shifts under partial road closures.

Slurry was controlled by using placement of geofabric liners and wet vacuums. Selected deck units remained affixed to the headstock or temporary engineered bracing was installed to maintain stability of bridge deck units prior to the commencement of the demolition.

Protecting the existing road beneath the bridge was imperative to the reopening of the motorway each morning. Once road closures were established, DEMEX deployed a range of road protection measures including a geofabric lining, track mats, swamp boards and steel plates. The critical final step in the reopening process was the sign off from the external structural engineer.

PROJECT HIGHLIGHTS

- Works involved the detailed deconstruction of redundant bridges within 250mm of newly constructed bridges.
- The project was completed with an exemplary safety record and without any delays reopening the motorway on schedule each morning.
- The team's flexible approach to the work was made possible by the professionalism, precision and restraint demonstrated by the operators.

