

Rosewood Bridge Replacement

Rosewood, QLD

Designed a cost-effective solution that reduced the number of micro piles and saved an estimated 25 percent on client's bottom line.



The project

The project involved design and construction of micropiles to replace the existing timber bridges. Due to the potential to impact the live railway, and construction tolerances, the micropiles needed to be constructed under closely monitored conditions, in and around the existing railway lines, whilst not impeding ongoing railway operations.

The challenge

The work needed to happen during a weekend shutdown of the rail line, which meant working day and night to ensure the central piles between the existing bridges were installed within the limited time frame. The remaining outside piles were installed under live overhead power lines whilst the railway line was operational. The micropiles targeted specific variable geotechnical strata that required drilling data to be recorded and communicated so that real-time design approvals could be made to ensure the project stayed on schedule.

The solution

By providing an alternate solution to other micropile systems proposed, that relied on installing fewer high-performing piles instead of more, moderately performing piles, the client saved an estimated 25 per cent on its bottom line. Keller's specialist equipment, material and drilling techniques led to the efficient and high-quality outcome. The end result was 50 micropiles, at a depth of 15 metres, installed in a tight time-frame and coming in under budget.

Project facts

Owner(s)

JF Hull Holdings

Keller business unit(s)

Keller Australia

Main contractor(s)

Queensland Rail

Solutions

Underpinning

Markets

Infrastructure

Techniques

Micropiles