

Coomera Connector

Coomera, QLD

Strengthened soft clays with mass mixing, cut CO₂ by 90% via hybrid energy, and delivered resilient results despite severe weather challenges.



The project

The Coomera Connector is one of Queensland's largest infrastructure projects, a 45km motorway designed to ease congestion and improve safety between Logan City and the Gold Coast. Keller Australia was engaged by the Fulton Hogan Hull McIlwain joint venture to deliver ground improvement works on the central segment of stage one. Our scope included mass soil mixing to stabilise soft clay foundations supported by innovative low-carbon energy solutions.

The challenge

The project site presented significant geological challenges, including soft clay soils with varying organic content, which required tailored solutions for strength and durability. Additionally, the team faced complex sequencing changes, inclement weather, and even a cyclone, all while managing large-scale operations across multiple work fronts and striving to reduce environmental impact.

The solution

Keller applied its global expertise and local knowledge to design and execute a robust mass mixing program. We conducted extensive soil sampling and lab trials to determine optimal binder content for each location, ensuring structural integrity. Collaborative engagement with designers and the client allowed us to refine specifications and adapt quickly to evolving requirements. To advance sustainability, we partnered with Green Energy Hire to deploy a hybrid battery-powered system at the grout batch plant, replacing diesel generators and cutting emissions by over 90%. Supported by agile planning and a dedicated maintenance team, Keller delivered reliable performance while raising the bar for environmental responsibility.

Project facts

Owner(s)

Department of Transport and Main Roads

Keller business unit(s)

Keller Australia

Main contractor(s)

Coomera Connector Central (Fulton Hogan, JF Hull and McIlwain Civil)

Solutions

Bearing capacity / settlement control
Slope stabilisation

Markets

Infrastructure

Techniques

Mass mixing