



April 2019

Bruce Highway
Cairns Southern Access Corridor

Stage 4: Kate Street to Aumuller Street Project

Project flyover video released

The Department of Transport and Main Roads (TMR) has released a detailed flyover animation of what the Kate Street to Aumuller Project will look like once complete.

The animation shows at street level how TMR will deliver long-term improvements to traffic flow, freight delivery and road safety on the southern approach to Cairns CBD.

Click the image to the right to view the full length animation or visit the [project web page](#).



Watch the animation by clicking on the image above.

Project works update

Project construction is well underway. Recent works undertaken include the relocation of protected ant plants and rare mangrove species, and clearing of vegetation.

Current and future works include relocation of services such as water, electricity and gas, and placement of rock material on site.

Large quantities of rock referred to as surcharge loading are placed on site to compress the ground and create a stable foundation for the new road. In some locations on the construction site, this rock will exceed the height of Ray Jones Drive. After a settling period the rock material will be removed before road construction begins.



Excavator spreading rock fill over geofabric next to Chinaman Creek.



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Rapid Impact Compaction - making a stable foundation

Parts of the construction site include old landfill. These areas required a specialised ground treatment before the road can be built. Rapid Impact Compaction (RIC) is used to consolidate the ground by striking a 7-tonne weight against a 1.5 metre metal plate compressing the ground to an average of 0.5 metres.

Across the landfill area the RIC equipment was used to compress the ground every 2 metres, with 100 locations compressed each day. The RIC equipment was in use for around 500 hours. The machine is one of two in Australia and this is the first time RIC has been used in Far North Queensland.



RIC equipment in use adjacent to Ray Jones Drive.

Wick drains an efficient solution

Wick drains are now in place along the construction site. The installation machine drove long strips of corrugated plastic covered by a porous fabric into the ground. The drains allow water to rise under the weight of surcharge material. This process speeds up ground consolidation and overall construction time.

Across the site, 41 kilometres of the wick drains were installed, spaced on average 1.5 to 2 metres apart depending on location.

The drains will remain in place permanently with the road built over the network of vertical drains.



The wick drain installation machine installs drains 1.5m to 2m apart.

Ant plants and rare mangroves given new home

The relocation of threatened Ant plants and rare mangroves from the site to East Trinity Reserve is now complete.

The Ant plant has a symbiotic relationship with the Golden ant and the threatened Apollo jewel butterfly. Each species requires the others to complete their life cycle.

Over the last hundred years coastal development in the Far North has reduced the niche habitat available to the plants.

An elevated work platform was used to install the Ant plants high up in the canopy of their preferred host trees - the Narrow leaf paperbark. The plants were tied to the host tree with a biodegradable rope until roots develop.

TMR and Biotropica Australia cared for 130 of the unique Ant plants while an appropriate relocation site was selected.



Adam Northover (Biotropica Australia) inspecting the plants before they were tied to trees in East Trinity Reserve.



Environmental Officer Harriet Allen (Georgiou Koppen) and Senior Environmental Scientist Nigel Tucker (Biotropica Australia).



The tuber-like structure of the plants provide a home for golden ants which provide nutrient waste and protection in return.

Ant plants are covered in sharp spines to protect them from predators.

Stay Connected

For project updates, enquiries or project maps:

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* Free call from anywhere in Australia, call charges apply for mobile phones and payphones. Check with your service provider for call costs.

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