NZ TRANSPORT AGENCY
WAKA KOTAHI

29A

Maungatapu underpass

Project update December 2015

Progress so far

Drivers and residents would have noticed the changing landscape of the Maungatapu underpass project site. In this update, you will find information on the construction since starting in September 2015, the forward works programme, and what the various machines are doing on site.

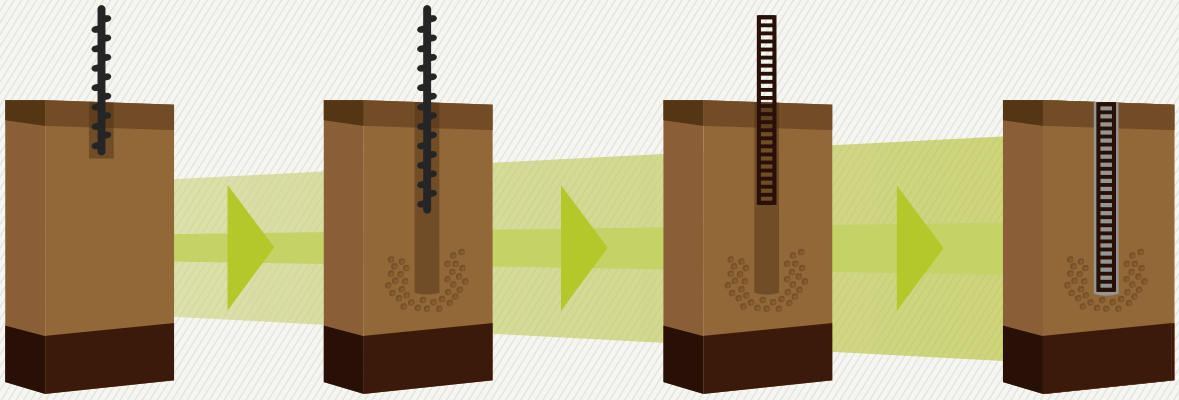
Fulton Hogan

1 Piling at the Maungatapu roundabout

Piling at the Maungatapu roundabout has started. The drilling device used is an auger, which as it drills into the ground, removes the drilled out material. Steel cages are inserted after the auger is removed and concrete poured in, creating the pile which will support the bridges and the sides of the underpass.

This is a fast efficient method of construction in stable soils. There will be 200 piles in total and the auger holes are 17.5 metres deep and 750mm wide.

Auger drilling at Maungatapu roundabout



Position auger and drill | Drill to pile depth | Place reinforcement cage into the hole | Pour concrete to level

2 Temporary lanes on the Maungatapu roundabout

The temporary lanes on the Maungatapu roundabout heading towards Mt Maunganui are now in place to allow the team to begin building the western bridge for the underpass.

3 Site entrance for construction traffic

A new site entrance for construction traffic is in place from Turret Road.

4 Temporary access to Hammond Street

The new temporary access to Hammond Street has opened. Hammond Street now links to State Highway 29A and is a left-turn only.

continued overleaf

4 Installation of the wick drains has started

The team have had some questions about what these machines are doing. They are installing the 110,000 lineal metres of wick drains near Hammond Street.

A wick drain is a vertical drain that allows an escape route for water when the soil is compressed.

Installing wick drains near Hammond Street

Wick drains are made up of a synthetic material wrapped around a piece of grooved plastic. This is inserted vertically into the ground providing a path for water to flow and quickly escape once pre-load material is placed on top (see diagram opposite).

The wick drains speed up the rate at which the water can escape from the underlying water-logged soils, reducing the settlement time.

On the Maungatapu underpass project the wick drains will be drilled to depths of 3 – 15 metres.

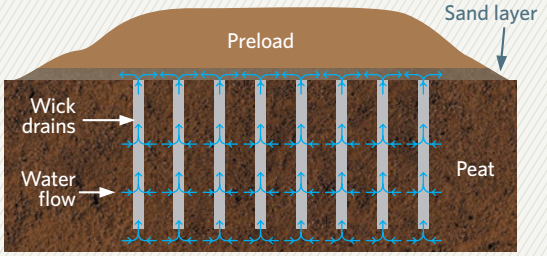


Diagram showing how wick drains remove the water content from soft soils.

An unexpected challenge for the project

The project team unexpectedly discovered a site that contained asbestos close to the Baden Powell Centre.

The site has been tested and it does contain all three grades of asbestos material. The project team are working closely with specialist contractors to ensure that the disposal method is managed safely.

The area is secure, in line with all health and safety, environmental, legal and regulatory guidelines and there is no immediate health risk to staff or the community.

The project is focussed on keeping the community informed as we work to find the best solution and will update when more information is available.

Construction work is progressing in other areas of the project site.

Asbestos site near Baden Powell Centre

Forward construction programme : Dec 2015 - Feb 2016

- Piling work to continue
- Wick drain installation to continue
- Project shutdown over the Christmas period: 23 Dec 2015 – 6 Jan2016

Any questions relating to the project please do not hesitate to get in touch:

- **Visit our website** www.nzta.govt.nz/hairinilink
- **Like us on Facebook** www.facebook.com/NZTAWaikatoBoP
- **Phone us on** 0800 772 532
- **Follow us on Twitter** www.twitter.com/NZTAwaibop

SIGN UP

Stay up-to-date by signing up to the mailing list www.nzta.govt.nz/hairinilink