

1 Waikato Expressway
Cambridge Section Information sheet February 2014



This huge pile of soil at the corner of Pickering Road and SH1 is 'preload' which has been put in place to consolidate the ground ahead of foundation works on the Pickering Road bridge. It will be in place for a couple of months, then will be removed in part to enable the construction of the bridge abutments.

Big year ahead

2014 kicks off the construction phase of the Cambridge Section of the Waikato Expressway. It's going to be a very busy year and you can expect to see plenty of progress and changes in the area.

The site was shut down over the Christmas period to give the team a well-deserved break. We're back to it now and the Visitor Information Centre at 129 Victoria Rd is open again Monday to Friday, 9am-3pm or by appointment.

The Centre displays project information including the detailed design, a project DVD and a live video link to the Karapiro Gully where the 200m long viaduct is currently under construction.

Update on progress

Since our last newsletter in October the team has been busy clearing, relocating services, fencing and establishing environmental controls including earth bunds and sediment ponds.

We've also been stripping topsoil and constructing haul roads along the length of the Expressway, as well as an access road into the Karapiro Gully for construction of the Karapiro Viaduct. The Ambreed access road in Tamahere is nearing completion.

Topsoil has been used to construct the earth bunds (piles of soil) along the perimeter of the site. These temporary bunds aim to keep construction materials within the site during the term of the project. Hay is cut from across the site and reused to stabilise the bunds from rain (stopping the soil from being washed away long enough for grass to grow). Sedimentation ponds have also been excavated to protect local waterways from any construction runoff. Permanent sedimentation ponds will be landscaped as a part of the finished project. These will be located at Pickering Road, Appleby Road, Thornton Road and near the Karapiro Gully.



View of the Expressway alignment from the south



Viaduct piling work in Karapiro Gully



Progress at the north end of site, Pickering Road

Dealing with dust

With construction under way you may have noticed more heavy earthworks machinery on site moving soil and sand.

Dust is one of the most challenging aspects of managing the environmental effects of this project. The control of it requires a great deal of hands-on management by staff on site and is closely monitored by HEB Construction and the Regional and District Councils.

A dust management plan which includes numerous mitigation measures is in place to manage the dust on site during construction. These measures include:

- water carts to spray water and a dust suppressant binder (applied to surfaces near neighbouring properties and which last for weeks at a time)
- dust warning signs
- no driving zones, prohibited areas and carpooling

The large amount of water required to keep the fleet of water carts running has required construction of three large water storage ponds. These fenced ponds have a combined capacity of 5 million litres and are strategically positioned at Discombe, Peake, and SH1 Tirau roads to ensure water is readily available.

HEB Construction and their subcontractors are working hard to minimise dust however people are urged to call 0800 WAIKEXP (0800 924539) if they have any concerns or questions.



Water cart



Temporary water pond at Peake Road



Progress in Karapiro Gully



Piling under way at southern abutment of Karapiro Viaduct



Traffic management and road closures

Traffic management plays an important role in keeping everyone safe. Construction traffic (using the Expressway haul road) keeps machinery away from the travelling public on SH1 and local roads. Where there are permanent or temporary road closures detour signage is in place at all times. Keep up to date on the Expressway's Facebook page or at the Visitor Information Centre.

Some recent and planned road changes:

- Temporary traffic signals and 30 km/h speed restrictions at Forrest, Watkins and Victoria roads
- Permanent road closures at Laurent and Discombe roads to build the new interchange
- Sections of Peake and Swayne roads temporarily closed to allow construction of local bridges over the Expressway
- Pickering Road access to SH1 temporarily closed to July to allow construction of the new Pickering Road roundabout and bridge to Tamahere Drive
- The new realigned St Kilda Road has recently opened, forming a new T-junction at Thornton Road. A short diversion road for Thornton Road will connect into St Kilda Road, allowing deep excavations for the Thornton Road bridge under the Expressway
- Victoria Road walkway has been temporarily closed to allow construction of the Victoria Road Interchange, and will reopen on its completion
- Hannon Road is targeted for permanent closure in early March 2014 to allow construction of the main Expressway and the ramps for the Victoria Road interchange

Thanks for your patience and understanding.



Karapiro Viaduct

A heavy duty access road has been constructed down into the bottom of the Karapiro Gully where the majority of the substructure piling and construction will take place for the Karapiro Viaduct.

The viaduct piles were constructed by driving a 710mm diameter hollow tube into the ground. The 12m sections of tube are then welded together on site to make up the required length of each pile. The piles are

driven into the ground using a large hydraulic impact hammer which is lifted on top of the pile with the crawler crane. The steel cylinders will be filled later with concrete and reinforcing.

The piling equipment, including the 280 tonne crawler crane, have now been moved into the base of the gully where piling works will continue until around April 2014.

Quick facts

- Piles are around 62m deep on the south side of the gully and 30m deep on the north
- 2800m of steel pile casing used - most of it on the viaduct bridge
- Completed viaduct length - 200m
- Viaduct height - 40m

Go online

- View the Karapiro Viaduct being built via live webcam at www.karapirogully.co.nz, tick Anonymous and click Login to view during daylight hours, or view at the Visitor Information Centre
- Check out time lapse photography of the viaduct build on the Transport Agency website (details on the back page)
- And coming soon timelapses for the Victoria Road Interchange

Artist's impression of the Karapiro Viaduct



Detailed design of the eight bridges is nearing completion - see below for the bridge construction programme:

January 2014 - June 2014
 April 2014 - June 2015
 February 2014 - November 2014
 January 2014 - September 2014
 January 2014 - January 2015
 March 2014 - May 2015
 April 2014 - August 2015
 February 2014 - April 2015

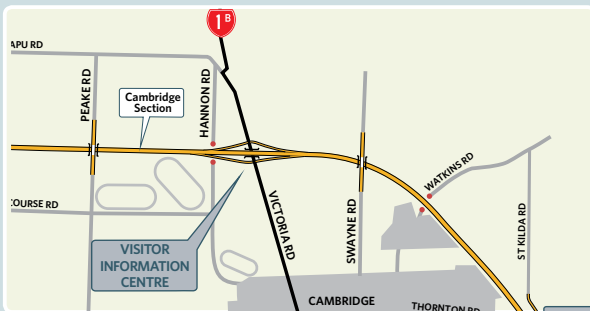
Pickering Rd Underbridge
 Northern Interchange
 Peake Rd Overbridge
 Victoria Rd Interchange
 Karapiro Gully Viaduct
 Southern Interchange
 Swayne Rd Overbridge
 Thornton Rd Overbridge

Expressway overview

This project is part of the larger Waikato Expressway programme of work. The Waikato Expressway is one of seven roads of national significance for New Zealand.

Sections update

- Longswamp - Secondary investigation, target opening 2018
- Rangiriri - Under construction, opens late 2016
- Huntly - Investigation and preliminary design, target opening 2019
- Ngaruawahia - Opened December 2013
- Te Rapa - Opened December 2012
- Hamilton - Investigation and preliminary design, target opening 2019
- Cambridge - Under construction, opens late 2016



We've had 1,000 visitors to our Visitor Information Centre since it opened in mid November. If you haven't already, please visit us at 129 Victoria Road Cambridge.

Open Monday - Friday, 9am - 3pm or by appointment.
Group bookings available on request.

Meet the Project Manager

Raj Rajagopal is the Transport Agency's man on the ground for the Cambridge section of the Expressway. He manages the Design and Build contract with HEB Construction, working closely with their Project Manager David Loe and the Transport Agency's advisor, Opus, to ensure progress of the Cambridge section as planned.



He's been involved with the project since 2007 and so there's not too much he doesn't know about it. On starting with the project he saw the benefits of merging the Cambridge and Tamahere sections to build as one section, rather than separately as originally planned.

Raj worked closely with Ngati Koroki Kahukura Trust and Ngati Haua iwi to develop a partnership agreement where the Transport Agency has been working with them around sensitive cultural sites such as Karapiro Gully and pa site, and the Forrest and Thornton road borrow pits. The good relationship between local iwi and the Transport Agency has had a positive influence in the development of the project.

Expressways have been a way of life for Raj, with more than 20 years spent working on Expressway constructions in Malaysia and India, including working as contracts manager for the company building the 775km North-South Expressway project in Malaysia.

Raj, who is a civil engineer, hails from Malaysia. He moved here in 2007 with his wife and two sons to take up a position with the Transport Agency in Wellington as a procurement manager before moving to Hamilton.

He's also the practitioner of a meditation technique called Sahaja Yoga, and frequently runs free weekly programmes for the public.

Our contact details

For enquiries or information regarding the Cambridge Section of the Waikato Expressway.

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