

#### Roads of national significance



## 1

## **Waikato Expressway**

## **Cambridge Section**

Information sheet June 2014

## All go north to south

## The long dry summer has been great for the HEB Construction team building the Cambridge section of the Expressway.

They've made good progress on the 16km four-lane route, from its northern point near Pickering Road right through to the southern end on the hill above the Cambridge golf course on SH1. This construction phase started in January 2014 and won't stop until its scheduled completion in 2016, with work carrying on through winter. Extended good weather in summer has enabled 450,000 cubic metres of material to be moved and restricted work will continue as and when the weather allows.

HEB Construction's project manager Gary Budden says such progress wouldn't have been possible without the goodwill of nearby residents and travellers. "We've established a haul road along the site, closed some roads, put up temporary traffic signals, created a diversion road, and moved a lot of earth ... and right through it all the people have been wonderful", Gary says.

"I think they really 'get' what we are doing here and what will be achieved. All the project partners want to thank them for their patience and support."



At the northern end of the job: embankments, Pickering Road pond and the roundabout have come a long way in the last few months



Progress at the southern end of the job:

- work on the foundations for the southern
Interchange bridge is progressing rapidly



Progress on the bridge abutment walls for the Pickering Road Underbridge ha been steady and the earthy tones are starting to come together.



#### Ride the haul road

Would you like to get up close with the Cambridge section of the Waikato Expressway?

With construction in full swing from end to end, we are running a quiz and offering a great prize:

A ride down part of the haul road, which runs most of the length of the 16km Cambridge section.

Winstone has come up with the novel prize and the NZ Transport Agency and HEB Construction are right behind the idea.

Take the quiz on our Facebook page www.facebook.com/waikatoexpressway or by calling in at the Visitor Information Centre at 129 Victoria Road, Cambridge. Correctly answer the five questions, and you'll go into the draw to win this unique prize. Entries close 31 July 2014.

Answers to the quiz questions can all be found at the visitor centre and on our project webpages at www.nzta.govt.nz/cambridge

HEB will provide the winner with a safety induction and safety equipment prior to the drive-over in a big Winstone truck. See entry form for terms and conditions.

# Keeping an eye on what's under the ground

Right from the start of the project the Transport Agency and HEB Construction have been mindful about the archaeology of the area and have measures and protocols in place to deal with finds.

Early digs and detailed studies of an old pā site near the Karapiro Gully were done and some interesting historic discoveries have occurred in various Māori occupation sites.
Finds to date include an old rubbish dump, wells, kumara pits and fire scoops, koiwi (pre-European human remains) and numerous flakes of obsidian rock which were often used for cutting during pre-European times. Carbon dating put some of these finds around 1500AD.

As the project unfolds and interesting artefacts are found they will be returned to iwi though some artefacts may be displayed temporarily in the visitor centre.





**Top:** This archaeological dig uncovered an early food storage pit with evidence of a post hole.

Bottom: An early European well uncovered on a dig.



## Traffic and construction work update

**State Highway 1:** At the southern end of the project near the Cambridge golf course, the north-bound passing lane has been shortened to allow construction of a safer site entrance for heavy construction vehicles.

Work on SH1B is also under way to widen Victoria Road, allowing for the interchange bridge columns to be constructed.

After Fieldays in June, construction work at the Tamahere end of SH1 will ramp up to allow for the new Waikato Expressway to be merged with the existing SH1. To make room for this work there will be some temporary changes to the road layout which on SH1 Tamahere straight will mean changes to the passing lanes.

Later in July plans are in place to reopen Pickering Road to temporarily access SH1. At this time Hautapu Road will also be closed to SH1 to allow for work on the Northern Interchange.

Traffic management and safety plans are currently being finalised – we'll share details with you as traffic management plans are agreed and approved.

**Pickering Road area:** Preload for the Pickering Road underbridge has been removed. Construction of the mechanically stabilised earth (MSE) retaining wall and main alignment embankments is almost complete. Pickering

Road connection to SH1 will reopen at the end of July once the underbridge is completed.

**Hautapu Road:** Access to SH1 will close permanently in late July once Pickering Road access to SH1 reopens.

Northern Interchange area: Construction of the pre-load is complete, using material from cut at Thornton Road. There will be a twomonth settlement period before it is removed and construction of the interchange starts.

**Peake Road:** Embankment construction is under way.

**Swayne Road:** Temporarily closed late February, bridge embankment work under way.

Victoria Road: Interchange ramps are being constructed. A link to the community cycleway has been created at both ends of the worksite here and will remain open as long as it is safe to do so. Please watch out for heavy machinery crossing SH1B.

**Thornton Road:** Excavations now under way. The diversion road was opened in March.

**St Kilda Road:** Realigned St Kilda Road is now open.

**Karapiro Gully:** Piling is complete, and work is currently under way on the columns which are rising up out of the ground with the two central pier columns at height. Work on the southern abutment MSE retaining wall will begin shortly.

**Southern Interchange:** Construction of the interchange has started, with footings being formed and poured.



## Bridge programme update

With a large and complex project like this, project managers are continually reviewing and revising the work schedule based on technical complexity, unforeseen events, weather, geotechnical matters, and resourcing such as staff and cranes. With eight bridges to build, work began first on the most complex, the Karapiro Viaduct. To the right is an updated construction schedule.

### Did you know

- 300-350 staff and subcontractors are on site
- 1.2 million litres of water a day was used for dust control during the summer months
- Karapiro Viaduct will be 200 metres long and 40 metres high
- 2500 metres of piles driven to date
- 4000 traffic cones on site
- 300 traffic signs in use
- 16km of road and eight bridges to be built
- Around 360,000 trees to be planted
- On completion traffic through Cambridge is predicted to reduce by up to 10,000 vehicles a day.

JANUARY - AUGUST 2014	Pickering Rd Underbridge	Access to SH1 opening from 22 July 2014. Work on the bridge will continue above this.
APRIL 2014 - JUNE 2015	Northern Interchange	Preload piles in place from April – June 2014, no change to programme.
MARCH 2014 - JANUARY 2015	Peake Rd Overbridge	Delayed start, primarily due to programming, still on track to open on time.
SEPTEMBER 2014 - MAY 2015	Victoria Rd Interchange	Delayed start, primarily due to programming, but work now progressing well. Access maintained while safety permits.
MARCH 2014 - AUGUST 2015	Swayne Rd Overbridge	Work under way on the embankments as there is a 5-month hold period on these to allow the ground to settle, before work can start on building the bridge.
APRIL 2014 - SEPTEMBER 2015	Thornton Rd Overbridge	Originally meant to start February, but the diversion road was built first to keep Thornton Road open. Excavations under way. Work on the structure to start 2015.
DECEMBER 2013 - JUNE 2015	Karapiro Viaduct	Construction has presented a number of challenges, with piles needing to go deeper than the design depth, design challenges, and fabrication and delivery times for steel. Programme extended by 6 months.
MARCH 2014 - MAY 2015	Southern Interchange	Foundation work well under way. No changes to programme.

#### **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 Preliminary design, target opening 2019
- Ngaruawahia Opened December 2013
- Te Rapa Opened December 2012
- Hamilton Preliminary design, target opening 2019
- Cambridge Under construction, opens late 2016.

## Information centre update

A number of community groups have visited the Visitor Information Centre or requested HEB Construction present the project to them. They include the Cambridge Lions, Transport Agency graduates, Lauriston Park retirement home residents, boys' brigade, Hautapu School and AA Council among others. Over 1700 people have now visited the information centre.

Feel free to request a talk, or call in at the centre at the main site office on Victoria Road to see:

- Fresh posters/information on display
- · A new dvd with helicopter fly-over
- · New aerials every month
- Up-to-date information on road closures and construction activity.

## Come fly with us

Our latest six-monthly dvd update covering progress across the project, and also featuring the close partnership working with iwi, is fresh from the editing suite. There is also a recent flyover of the project. View both at www.nzta.govt.nz/cambridge/gallery

### Machines in for the big dig

Up to 150 pieces of equipment have been on site during peak summer construction, with the bulk used for earthworks, and including:

- 20 excavators ranging from 2 50 tonnes
- 17 bulldozers
- 14 scrapers
- 16 articulated dump trucks (9 x 40 tonne and 7 x 30 tonne)
- 12 truck and trailer units
- 13 rollers
- 15 water carts used for dust suppression
- 4 crawler cranes including a 280 tonne crawler crane used for piling work







**Top:** An articulated dump truck. **Bottom left:** A grader shaping pavement material. **Bottom right:** A scraper which is used to move dirt over short distances.

#### Our contact details



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