December 2013

4000 enjoyed a walk through the trench

An estimated 4000 Wellingtonians experienced a walk through our narrow trench between towering walls at the Memorial Park open day on Sunday 24 November. The event was a rare opportunity to see the progress made on the underpass and to get close to the large machinery. The Memorial Park Alliance is now working to transform the trench into the underpass.

Neighbours Name the Crane competition

We have a winner in the Neighbours Name the Crane competition.

The red crane will henceforth be known as Poppy. Congratulations to Dennis Burns from Martin Square who said, “It’s red and it’s helping bring the National War Memorial Park to life. I would simply call it Poppy.”

The children at Mount Cook School, who judged the competition, overwhelmingly agreed with the reference to the iconic red poppy that is symbolic of those who served at war.

Dennis will soon be welcomed onto the Memorial Park for a ceremonial placing of the name plaque on the crane and will receive a replica fridge magnet as well.

Thank you to those who took part in the competition. We enjoyed your imaginative names, including the short–listed Sir Lift–a–Lot and Big Red.

Viewing room for public to see what’s going on

Coming in the next fortnight: A viewing room so everyone can get a closer look at the building of the underpass.

Right now the work is deep in the trench and obscured from passersby. That will change now the Memorial Park Alliance is taking possession of a standard 6m container that has been given two doors and two 2m high windows.

We will use the viewing room as a second information centre, including images of the future National War Memorial Park.

Contact us
A look back at six months of excavation

For six months, Wellingtonians have keenly observed a narrow strip of land being transformed from a state highway to a trench so deep they can’t see inside. Excavation of the reinforced trench – 300m long, 18m wide and 12m at its deepest point – began in early May and was completed by late November.

On Sunday 24 November we welcomed an estimated 4000 locals to an open day. The trench floor had a concrete working platform so was dry underfoot.

We now begin to transform the trench into an underpass. Locals will have another opportunity to walk through when it is completed late next year.

The National War Memorial Park will then be built on top. It is the main purpose for our work and must be open by Anzac Day 2015 – a deadline set by the Government. We work to a tight schedule.

Construction statistics

We removed 35,000m³ of soil – 2700 truck and trailer loads, much of it used for subdivisions. Our initial estimate was 48,000m³ – varying ground conditions and a multitude of pipes made the difference.

We installed 600m of retaining walls, comprising:

* Kingpost and timber walls
  - 285 kingposts, each 15m long
  - 14,381 timber lagging posts

* 90m steel sheet pile wall beside Mount Cook Police Barracks and Tasman Gardens Apartments to protect foundations by preventing ground water loss and potential soil shrinkage

* 595 ground anchors (558 planned plus 37 extras for added strength), each 13m long

Environmental innovation

We use two sediment tanks to filter groundwater and stormwater from the trench before discharging it into the city’s stormwater system.

At times this water is contaminated with cement residue which raises the pH level so it is too alkaline to discharge into the harbour without treatment. We have developed a safe and reliable method of lowering the pH close to neutral by releasing carbon dioxide (CO₂) into the tanks from pressurised containers.
Protecting underground services

To allow excavation, we shifted a “spaghetti junction” of underground pipes for stormwater, water mains, sewage, gas, electricity and telecommunications. We laid 6.5km of new pipes without disrupting the city’s services.

One service remaining in place is the 100-year-old brick sewer that runs under one end of the trench. We are responsible for protecting this 0.9m high piece of history that is still in use.

Current work

Piles: A challenge was to make underpass piles strong enough to withstand a 1-in-2,500 year earthquake – around 9 on the Richter scale. We tested various configurations with a 600-tonne jack and found the solution was to form a bell-shape at the base of each pile.

We are in the process of drilling and pouring 95 piles for the underpass, 10m to 30m deep depending on the depth of the bedrock.

Stormwater: Stormwater drainage for the underpass began with using a directional drill to install a pipe deep under the state highway to the Cambridge Tce stormwater system. We are now laying the rest of the pipe through the trench; 19 sumps feed into the pipe, 11 of which will fall in the underpass.

Floor: We have begun forming the underpass floor and walls which will be reinforced concrete 800mm thick.

Conclusion

We work in one of the busiest areas of Wellington with thousands of people passing by on the diversion road we built for SH1 out of the city and others working and living next door.

We work hard to ensure we are regarded as a diligent, responsible team, always dressed in full protective gear and maintaining a clean, tidy site that does not contaminate the local environment.

We are thankful for the goodwill of our neighbours whose peace we disturb with our activities. We try to keep them as well informed as possible and hope that anticipation of the end result – a beautiful park outside their homes – will soften the interim discomfort.
**What’s happening around the project site**

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**1. Road closure**

**Corner Tasman St and Buckle St service lane**

Work on new sewer pipe and connections

- **When:** Mon–Thurs 9–12 December
- **Hours:** 7.00am – 7.00pm

Access and parking arrangements have been made for vehicles accessing Entrance D Massey University, National War Memorial, HMNZS Olphert and Mount Cook Police Barracks.

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**2. Early morning concreting – floor slabs on site adjacent to HMNZS Olphert**

Early morning 3.00am starts will be needed on 3 occasions over the next 2 weeks for large concrete pours.

The early starts avoid traffic delays for trucks and allow time for the concrete to set so it can be worked on the next day. This work forms the 800mm floor for the underpass in the site adjacent to HMNZS Olphert.

- **When:** 2 mornings between 9–13 Dec, 1 morning 16–20 Dec, likely Tuesday, Thursday, Tuesday, but depends on progress of work
- **Hours:** From 3.00am approx
- **Where:** Site adjacent to HMNZS Olphert

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**3. Ongoing work**

**Basin Reserve end (east)**

Installing concrete piles for the underpass – 65 of 95 piles have been installed, 10m – 30m deep depending on depth of soil over bedrock

- Concrete trucks at the Basin Reserve end of the site most days
- Exit and entry points manned by traffic wardens

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**Central site**

**Installing underpass stormwater pipe to connect with pipe earlier drilled under SH1 to Cambridge Tce**

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**Taranaki Street end (west)**

Installing 800mm concrete floor for underpass

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**General site work hours**

- Mon – Fri: 6.00am–7.00pm
- Noisy work after 7.00am
- Sat: 7.00am – 7.00pm
- Noisy work after 8.00am

We try to give our neighbours a timely warning of activities they may find disruptive. However, some activities may occur at short notice as the work programme is adapted to optimise progress.

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**Contact us**

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