Bell piles best for tunnel in a major quake

The planned Memorial Park Underpass will be anchored firmly in place by concrete piles designed with a bell–shape at the bottom that can withstand a 1-in–2,500 year earthquake.

Testing found that straight piles would not hold as tightly in the soil as required for the underpass. By adding a bell–shape, we have been able to achieve our design requirements.

A recent test surpassed the requirements by using a 10.9m deep pile that had a 1.5m wide bell at the base created with a specialist drilling tool.

The test was to try and prise the pile out of the ground with a 600-tonne jack while measuring the pile’s displacement (upward movement) with electronic gauges.

The pile coped with 500 tonnes of load and only moved 12mm. The load was equivalent to 5 of the largest crane on site – known as Mt Cranea.

The piles for the underpass will go down a minimum of 10m and a maximum of 30m depending on the depth of soil over the bedrock.

Information Update – Wednesday 4 September
6.00–7.00pm
Memorial Park Alliance Information Centre
175 Taranaki Street, Wellington
Please join us in the Memorial Alliance Information Centre for an update on progress and to answer your questions. If you arrive at 5.30pm, you are welcome to join a group walk around the perimeter of the site to see what’s happening.

Please RSVP to: Miranda Greer Project Liaison
Miranda.Greer@memorialpark.co.nz | 0800 020 086

Contact us
Ph: 0800 020 086
Email: memorial.park@nzta.govt.nz
www.nzta.govt.nz/memorial-park
**In the next few weeks**

These are the main activities in the coming weeks. Times may change depending on site and weather conditions.

**Sussex Street end (east end of site)**

Excavating trench
- Noise from the excavation should be similar to road traffic hum

**Taranaki Street end (west)**

Upgrading water main, stormwater and sewer
- On site work – will not inconvenience pedestrians

**All of site**

Continuing trench excavation
- Anchor crew works 6.00am – 8.00pm
- Generator lighting will be turned off when they finish

**General site work hours**

Mon – Fri: 6.00am–6.00pm
Noisy work after 7.00am
Sat: 7.00am – 2.00pm
Noisy work after 8.00am

We endeavour 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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**More 'cross now' phases at Tory Street lights**

The number of pedestrian crossing phases has been increased at the Tory Street lights to reduce the waiting time. The extra “cross now” phase is possible when there are large gaps in the turning traffic flows, which allows pedestrians to cross without causing undue delay to traffic. This is done by restricting right-turning traffic from SH1 when the crossing button is pushed.

**Cambridge Terrace stormwater work**

Work on a new stormwater pipe being installed across Cambridge Terrace near Basin Reserve.
- Lane closures for this work have finished
- Minor disruption on the footpath for pedestrians as stormwater treatment chambers are installed
- Daily work starts 9.00am, potentially up to 11.00pm, and includes weekend work

**Back issues of Memorial Park Updates**

To link to all our project updates, the overview booklet *Right Beside Our School*, and other Memorial Park Alliance publications, please visit the Publications page on: [http://www.nzta.govt.nz/memorial-park](http://www.nzta.govt.nz/memorial-park)