

## Tunnelling near your home



NorthConnex is a nine kilometre tunnel that will link the M1 Pacific Motorway at Wahroonga to the Hills M2 Motorway at West Pennant Hills, removing around 5,000 trucks off Pennant Hills Road daily.

The tunnel motorway includes interchanges to the north and south to accommodate connections at either end of the project. When complete in 2019, it will link Sydney's north to the orbital network and enable travel from Newcastle (M1) to Melbourne without a single set of traffic lights.

NorthConnex will also boost the state and national economies by providing more reliable journeys and shorter travel times for the movement of freight.

### Tunnelling work

The project would involve the excavation of two tunnels around nine kilometres in length with a maximum depth of around 90 metres. Over half the tunnel is more than 60 metres deep – about the height of the Sydney Opera House. Additional tunnelling would be required for the on and off-ramps at the northern and southern interchanges. The main tunnels would be generally excavated to around 14 metres wide, with a height of about eight metres. Tunnelling would be carried out by excavation equipment called roadheaders and surface miners, working from several construction sites.

### How long will the tunnelling machinery be under my property?

Tunnelling would occur under individual properties for around one week, based on an advance rate of 25-30 metres per week.

### Will I notice tunnelling activities in my home?

You would not be able to actually hear the excavation equipment, but groundborne noise generated by the work may be experienced inside your property at shallower depths. You may notice a low frequency rumble up to about 45dBA when excavation equipment is working underneath your property. This is equivalent to vibration caused by a passing truck. By

comparison, normal conversation is about 60dBA and a refrigerator is about 50dBA. Depending on the ground condition, building type and existing background noise, it is possible that tunnel construction under your property may not be noticeable.

It is anticipated some vibration may be felt during night time work around the portals. Residents would not experience vibration on a continuous basis and would only be affected for a short period while the tunnelling activities are directly below or nearby.

### Will tunnelling work require blasting?

As part of the tunnel preparation, NorthConnex is using modern and safe technology in the form of controlled blasting to excavate shafts leading to the tunnels. This will bring considerable benefits to the local community including significant noise reduction and accelerated construction time for tunnel shaft excavation.

### What happens if my property gets damaged during construction?

The detailed noise and vibration assessment completed as part of the environmental assessment indicates structural or cosmetic property damage as a result of the project's construction is highly unlikely.



As a precautionary measure, properties within 50 metres from the outer edge of each tunnel would be offered a pre-condition and post-condition survey. This would establish a record of property conditions before construction starts. Subject to project approval, if your property is within 50 metres of the tunnel or surface site you would be contacted before the start of construction to discuss the process and arrange for a pre-condition survey. Damage attributed to the project would be repaired by NorthConnex at no cost to the owner.

### How are property owners covered against long-term damage to property?

In the unlikely event property damage appears post construction which is believed to be the result of either the tunnel's construction or operation, property owners are advised to contact Roads and Maritime Services and make a claim for damages.

### How can you be certain that our homes won't be damaged or even collapse, as happened with the Lane Cove Tunnel?

The collapse during the Lane Cove Tunnel construction in November 2005 has been thoroughly investigated by Workcover and specialist geotechnical and tunnelling engineers. Their findings have been documented and the lessons learnt incorporated by the project team. NorthConnex is generally deeper and in better geology than was experienced at Lane Cove.

The NorthConnex project team would follow the provisions of *Workcover's Tunnels Under Construction Code of Practice* that was reissued in 2006, after the Lane Cove Tunnel incident.

The process before construction starts involves detailed design including ground investigation and modelling. Certification of this design would be carried out by an independent party.

### Will the tunnel limit the future development of my property?

Future development of your property would not be affected unless significant depth was required (for example an underground carpark). All alterations to private property would require you to follow the normal council application and approval process.

### Compensation for subsurface acquisition under private property?

Roads and Maritime Services need to acquire subsurface land for the tunnel's construction and operation. This land would form the underground road corridor, known as a substratum corridor.

Landowners potentially impacted have been notified and further details will be provided.

The acquisition of subsurface land will be carried out in accordance with statutory acquisition processes. Generally, compensation is not payable for subsurface acquisitions in accordance with the *Land Acquisition (Just Terms Compensation) Act 1991*.

For further information on subsurface acquisition, Roads and Maritime provide a land acquisition information guide.

This is called the Roads and Maritime Services land acquisition information guide and can be found on their website [www.rms.nsw.gov.au](http://www.rms.nsw.gov.au)

### More questions?

The NorthConnex project team is committed to working closely with you to inform you of upcoming work over the course of the project and to minimise impact from our construction activities.

For further information on NorthConnex please don't hesitate to contact members of the project team.

Phone: 1800 997 057 (24 hours a day)

Email: [enquiries@northconnex.com.au](mailto:enquiries@northconnex.com.au)

Mail: Locked Bag 1001, West Pennant Hills NSW 2125

Visit: NorthConnex Community Information Centre, 118 Yarrara Road, Pennant Hills, open weekdays from 9am to 5pm.

### NorthConnex Website

Visit [www.northconnex.com.au](http://www.northconnex.com.au) to stay in touch with the latest project information including construction progress and activities in your area.

Visit the interactive map on the website to view the depth and route of the main alignment tunnels: [http://giswebapps.aecomonline.net/northconnex/map\\_view.html](http://giswebapps.aecomonline.net/northconnex/map_view.html)

If you require the services of an interpreter, please contact the **Translating and Interpreting Service (TIS International)** on **131 450** and ask them to call the NorthConnex Project Team on **1800 997 057** - the interpreter will then assist you with the translation.  
TIS International business hours are 9am to 5pm Monday to Friday.

Translator



131 450

For more information:

 1800 997 057 (free call)

 [enquiries@northconnex.com.au](mailto:enquiries@northconnex.com.au)

 [www.northconnex.com.au](http://www.northconnex.com.au)