sydney METRO | northwest

MARCH 2016

Planning for the Willoughby to North Chatswood 33kV underground cabling work

Sydney's new metro train

Introduction

The $8.3 billion Sydney Metro Northwest project is currently under construction and on track to open to customers in the first half of 2019.

It will deliver eight new railway stations, five upgraded stations, 4,000 commuter car parking spaces and a new metro train every four minutes in the peak.

Sydney Metro Northwest - formerly known as the North West Rail Link - is the first stage of Sydney Metro, Australia's biggest public transport project and the nation's first fully-automated metro rail system.

To deliver fast, safe and reliable train services, Sydney Metro Northwest requires two independent electrical supplies - one at each end of the project.

In November 2015, as part of a planning approvals process, Transport for NSW proposed a dedicated, independent 33 kilovolt (kV) underground connection from Ausgrid's Willoughby substation to Transport for NSW's North Chatswood traction substation.

An environmental assessment of this route was put on public exhibition in late 2015 for comment - 43 submissions were received from local residents, businesses, community groups and Willoughby City Council.

Following community feedback, modifications have been made to how the work will be completed.

See inside for more information on the planning for the cabling project and how we'll manage the work.

None of this work requires the closure of Hampden Road, Artarmon. We will keep traffic flowing around the works, no matter where they are on the route.

Your feedback

Transport for NSW received 43 submissions from the community about this 5.2km cabling project, which will supply power for Sydney Metro Northwest.

Submissions were received from residents, business, community groups and Willoughby City Council.

Community interest groups and associations also provided submissions including the Artarmon Progress Association, Artarmon Village Inc. and the Artarmon Public School P&C.

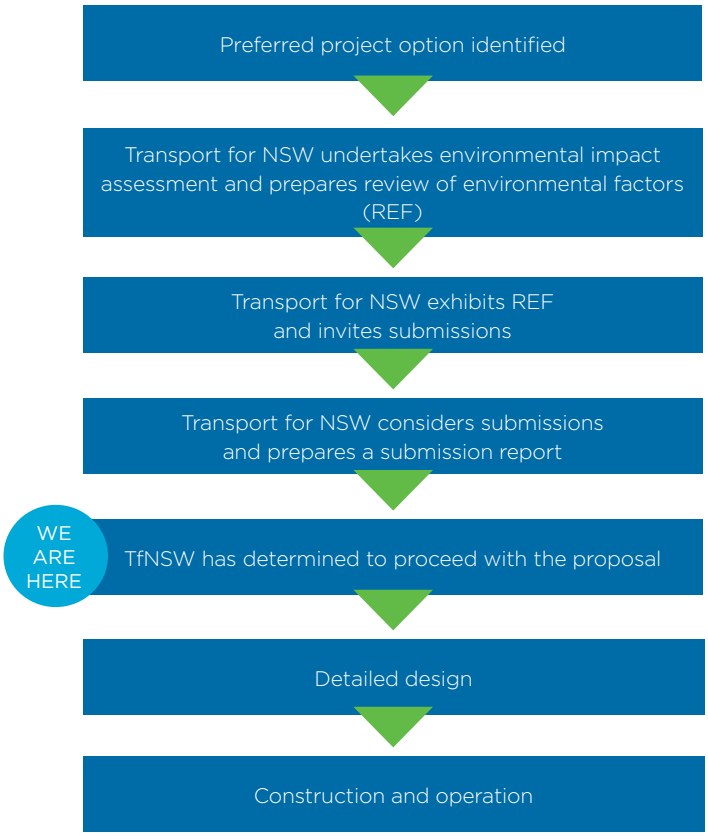
A Submissions Report details the feedback received and responds to the issues raised. It is available to be viewed in full at sydneymetro.info/northwest.

Most community submissions were concerned about the proposal's traffic, transport, access, design development and socio-economic impacts.

Transport for NSW acknowledges that the work will impact on the local community and will work hard to mitigate this via careful planning and rigorous on the ground project and traffic management.

Residents and businesses will be notified in advance of all works.

The planning approvals process under Part 5 of the *Environmental Planning and Assessment Act 1979* (NSW)



How the cabling work will be managed

The project team will continue to liaise with Willoughby City Council to plan the cabling works. A range of mitigation measures will be in place.

These include:

- keeping traffic flowing using traffic controllers
- possibly working along the Hampden Road, Artarmon shopping area at night, subject to a noise assessment
- construction vehicles that are not required for the work will not be parked within the temporary worksite
- workers encouraged to use a shuttle bus service from another site or public transport where possible
- community members will be notified in advance of all works
- Sydney Metro Northwest operator Northwest Rapid Transit (NRT) will contact local development projects and coordinate traffic and other impacts with their works
- the extent and timing of the permanent restoration of the road surface will be agreed with Willoughby City Council or Roads and Maritime Services as appropriate, and this work would be undertaken at the earliest possible time.

Hampden Road shopping area

Transport for NSW has taken on board community feedback and will adjust how the cabling work is delivered, including night work where possible to minimise impacts in the Artarmon shopping area.

- Some construction work along sections of Hampden Road and Brand Street, in particular within the Artarmon shopping area, may be done at night to minimise impacts to traffic, vehicle access, parking and cumulative impacts with other proposed developments in the area. This would be subject to a noise impact assessment.
- Proposed trenching works will take between four to six weeks for this section, subject to identification of existing services and utilities during detailed design and other external factors such as bad weather and using normal trenching methods during standard construction hours.
- For the potential night time works, it is expected that construction along these sections of the alignment would be mobilised, completed and demobilised during each shift. A shift may typically commence from about 7.30 pm until about 6 am.
- Transport for NSW and NRT will review the location and design of jointing bays to minimise potential traffic and transport impacts during the work, particularly the proposed jointing bay at the corner of Hampden Road and Brand Street, Artarmon.

Key considerations

Four key matters were raised as part of the community submissions and these are summarised below:

Why is the supply needed given that trains already run between Epping and Chatswood?

- The Sydney Metro Northwest project adds 23km of new railway alignment, eight new railway stations and a new maintenance facility which don't currently exist on the network. The proposed supply must be able to support the operation of these new assets and a much more frequent train service than currently runs between Epping and Chatswood. The power demand that this creates is significantly greater than the capacity of the existing supply to Chatswood North from the Sydney Trains system.

Why can't the cabling be located in the rail corridor?

- The existing Sydney Trains rail network is interconnected physically and electrically such that a failure at one location can have knock on effects across the network and impact a significant number of customers. Transport for NSW's Rail Clearways program over the past decade has sought to separate the operation of different lines, but there is still more work to be done. If the proposed feeder were located in the existing Sydney Trains rail corridor much of the independence between Sydney Metro and Sydney Trains operations is lost.

Why can't the new tunnels for the proposed Sydney Metro City & Southwest be used?

- The proposed power line needs to be operational by late 2018 in order for passenger services on Sydney Metro Northwest to commence in the first half of 2019. The City & Southwest tunnels are not expected to be available until around two years after the proposed power line is required and these tunnels are also subject to a separate planning approvals process which is still being undertaken.

  It was suggested a temporary option should be considered, where cable is laid in the rail corridor and then relocated when the City & Southwest tunnels are completed. An aerial solution through the rail corridor or along local streets would have significant impacts visually, require substantial pruning or removal of mature trees and would impact upon existing electrical assets. Any non-aerial route within the rail corridor must be trenched to avoid obstructing access by Sydney Trains to their track, signals, cables, pits, access roads, platforms, retaining walls and other structures. Consequently it is considered that temporary routes would still have significant impacts, not provide meaningful cost or time savings and would result in a less reliable power supply that is more likely to suffer planned or unplanned outages. After consideration the Project team does not consider this a viable option.

Hampden Road is a key traffic thoroughfare and important to the businesses in Artarmon. How can impacts be managed?

- The work does not require the full closure of Hampden Road, Artarmon. Transport for NSW and Northwest Rapid Transit will keep traffic flowing around the works, no matter where they are on the route. This will include conducting works at night (subject to noise impact assessment) and other lower traffic periods to reduce the impact. The detailed design of the alignment and the location of jointing pits will consider traffic impacts. The impacts from construction and workers vehicles will also be actively managed by the project.

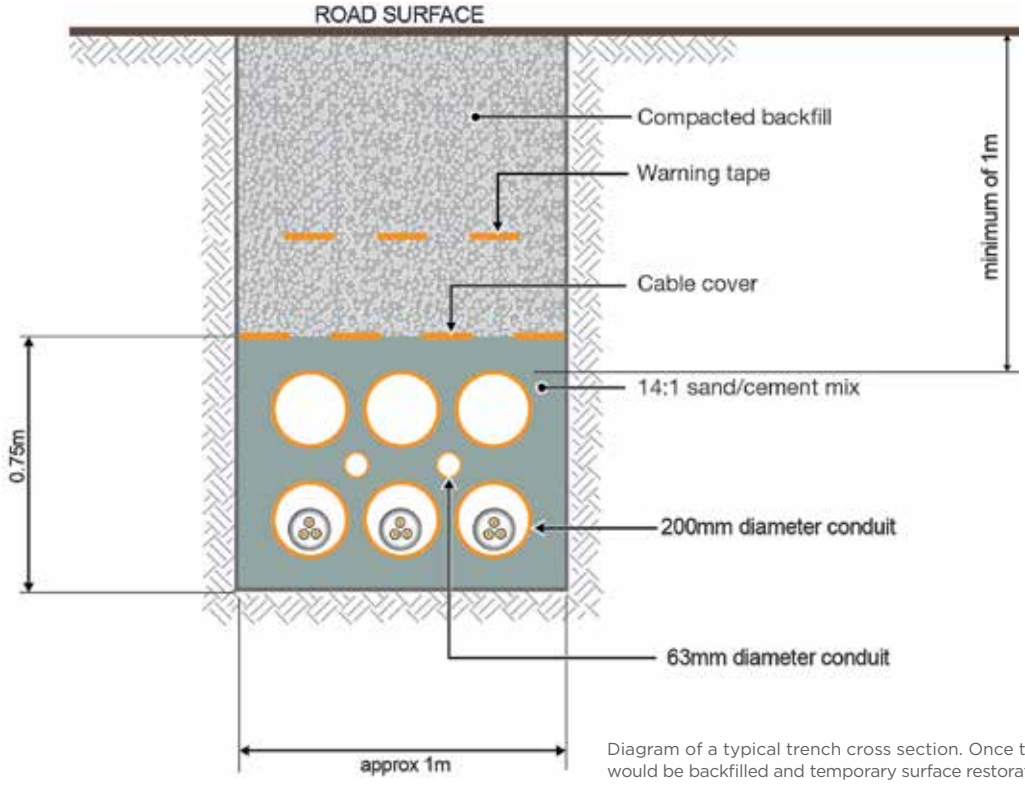


Diagram of a typical trench cross section. Once the conduits are installed the trench would be backfilled and temporary surface restoration carried out.

Road surface restoration

The road surface will be reinstated temporarily after cabling in line with applicable Willoughby City Council or NSW Roads and Maritime Services (RMS) standards.

The permanent restoration of the road surface will be agreed with Council or RMS as appropriate. This will be done at the earliest possible time.

All reinstated road surfaces will be flush with the existing road surfaces either side of the cabling work in order to maintain an even surface across the overall roadway.

The final method for road reinstatement will be determined during detailed design and in consultation with Council or RMS.

Next steps

NRT will shortly undertake a survey and potholing of buried services along the route which will help detailed design. Construction is expected to start in the second half of 2016, with completion of the most of the works expected by late 2017.

Contact us

For further information please contact us at:
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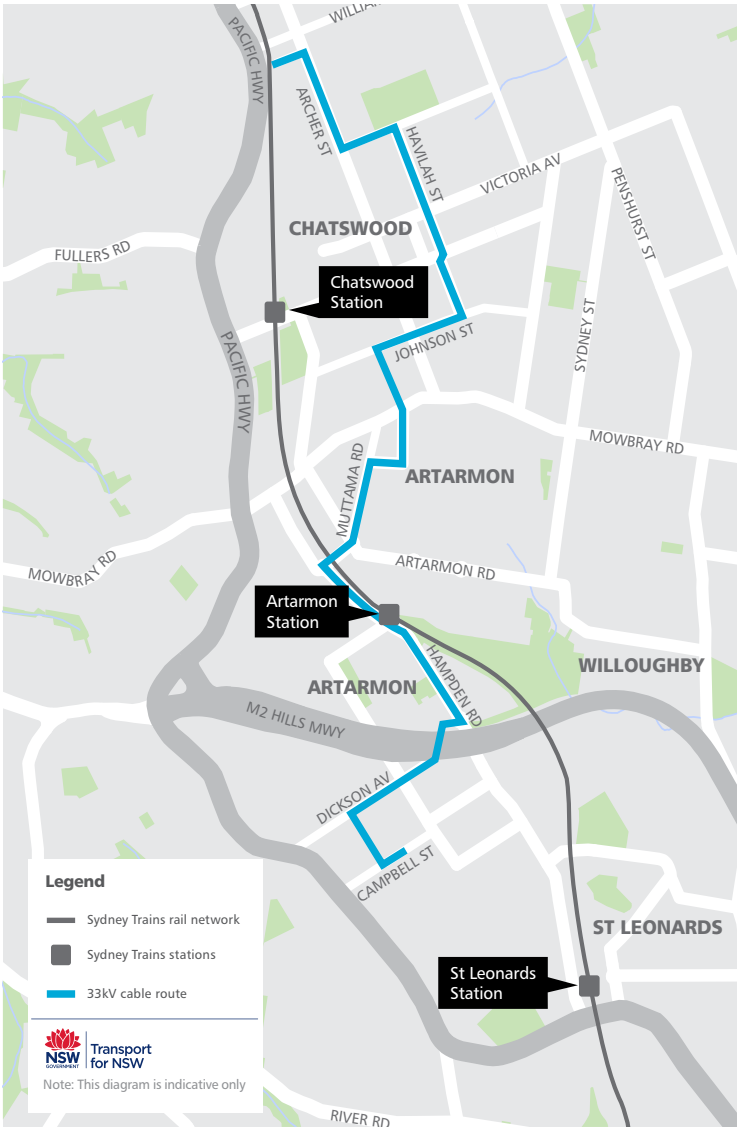

Potholing of buried services, Cherrybrook

Hampden Road, Artarmon