

Tunnelling Factsheet

The Rozelle Interchange is a new underground motorway interchange which provides connectivity to the M4-M5 Link Tunnels and the City West Link, and an underground bypass of Victoria Road between Iron Cove Bridge and Anzac Bridge. The Rozelle Interchange also provides a connection to the future Western Harbour Tunnel.

Tunnelling is a safe and frequently used construction technique that significantly reduces impacts on local properties while still enabling major infrastructure to be delivered in built-up residential areas. During construction of the Rozelle Interchange, strict safety requirements will be adhered to in the design, construction and operation of the tunnels and every effort will be made to minimise impacts within local areas.



Above: Roadheader tunnelling machine

The interchange in Rozelle will be mostly underground and located at the site of the old Rozelle Rail Yards. It will deliver new active transport options in Rozelle and transform the disused site into up to 10 hectares of new open space.

Our tunnelling activity has been given environmental approval to take place 24-hours a day, seven-days a week.

Keeping you informed

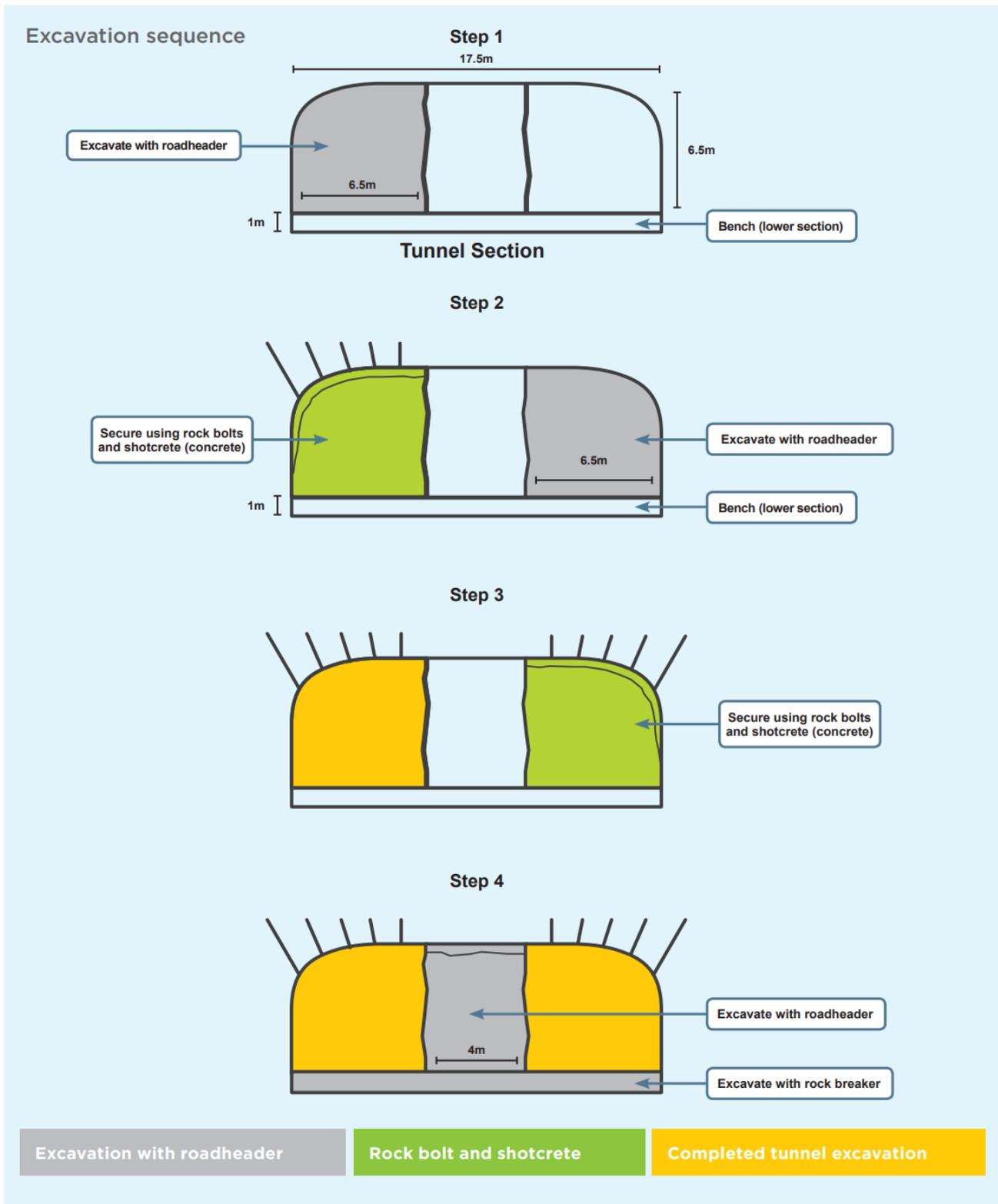
We are committed to keeping you informed and will provide regular information on the Rozelle Interchange through direct mail and email notifications, community updates, local papers and face-to-face activities.

You can also contact the WestConnex info line on **1800 660 248**, email info@rozelleinterchange.com.au or visit westconnex.com.au/project/s/m4-m5-link-rozelle-interchange for more information.

We speak your language



Need an interpreter?
Call the Translating and Interpreting Service on **131 450**.



Example excavation sequence. Subject to tunnel size and ground conditions.

Building tunnels

WestConnex motorway tunnels are designed to be wider, flatter and higher than most other tunnels in Sydney, resulting in a smoother journey and fewer vehicle emissions – including greenhouse gases.

The Rozelle Interchange tunnels will be mainly constructed in good quality Sydney sandstone. There are three stages to the construction sequence.

Stage 1: Excavation

We will excavate the tunnels using a heading-and-bench technique. Excavation of the heading (top section of the tunnel) will be carried out using roadheaders – specially-designed excavation machines with rotary cutters positioned on bulldozer-style tracks. Around 20-25 metres of tunnel is excavated per week, depending on ground conditions.

The "bench" (or lower section of the tunnel) in the tunnels will also be excavated using a roadheader. Rock-bolting (to stabilise the tunnel interior), shotcrete (a method of concreting), and the tunnel-lining will be installed along the tunnels as excavation advances.

Stage 2: Finishing works

Finishing works will begin once tunnel excavation is complete. This includes the installation of stormwater and groundwater drainage systems; pavement construction and line marking; painting; and installation of electrical pipes, road signage, street lighting and electrical panels.

Stage 3: Fit-out

Following excavation and finishing works, the tunnels will be fitted-out with operational infrastructure. This includes power; lighting; and other systems to support ventilation, fire safety, tolling and traffic controls. The tunnel will go through an extensive testing process before it opens, to ensure it is fully operational and integrated into the rest of the road network.

What to expect during construction

We have approval to tunnel 24-hours a day, seven-days a week. The impact on properties above the tunnel is expected to be minimal and temporary. Vibration and noise levels will also depend on ground conditions, building types, the existing background noise levels and the quality of the existing building (older buildings were built to different standards than newer buildings). It also depends on how far away you are from the tunnel.

Residents may notice some vibration and noise impacts at night for a short period - usually only for a few days - where activities are directly below or nearby their property. In most cases, noise generated by tunnelling activities are less than 35 decibels (dBA), which is equivalent to a 'quiet' environment. As a comparison, it may be less than that of a refrigerator. The noise in a library is generally around 40 dBA. Once the Rozelle Interchange is operational, residents above the tunnels are unlikely to be able to hear or feel any vibration from vehicles using the motorway.

Subsurface acquisition

Roads and Maritime Services manages all property acquisitions for the project and will need to compulsorily acquire 'subsurface' land in order to create a path for the tunnel. This includes some land passing directly under properties. The surface area and any dwellings or other structures on your land will not be affected by subsurface acquisition, and in most circumstances no compensation is payable.

Roads and Maritime Services will send letters to impacted property owners to confirm subsurface property acquisition is required. The letters are sent progressively, according to the construction schedule and when access to the subsurface land is required.

Protecting property

Tunnelling is a safe construction technique that is often used and it is unlikely that it will cause damage to your property. To give further peace of mind to local residents and businesses, all properties within a zone on the surface equal to 50 metres from the outer edge of the underground tunnels will be offered a property condition survey both before and after construction. This will ensure there is a clear record of the property's condition. Any damage attributed to the project will be repaired at no cost to the property owner. The contractor for the project will be in touch with residents progressively before tunnelling is due to commence in their area to offer a property condition survey.