

January 2019

Historic first journey as Sydney's new metro railway comes to life



The first metro train (right) at Chatswood Station, alongside a suburban Sydney train

Australia's first metro train has completed its historic first journey along the entire length of Sydney's new \$8.3 billion Sydney Metro Northwest railway line.



Sydney's first metro train (right) arrives at Chatswood Station

The train arrived at Chatswood Station having travelled 36 kilometres from the new Tallawong Station in Sydney's north west as part of an intensive testing process.

Over the past three months, major upgrade work inside the existing railway tunnels between Epping and Chatswood has been underway to allow this major Sydney Metro milestone to occur.

Platform screen doors have now been installed at all Sydney Metro platforms, including stations from Epping to Chatswood.

About 19,000 kilometres of train testing has already taken place on the Sydney Metro system, with 19 of the fleet of 22 trains delivered.

Onboard train systems will be tested over the coming months as well as signalling, braking and acceleration at different speeds in the tunnels.

Revolutionary rail safety barriers installed

The installation of one of the biggest advances in safety for rail customers in Australian history is complete, with all platform screen doors in place at the 13 Sydney Metro stations between Tallawong and Epping.

These doors only open and close at the same time as the train doors and are a key safety and technology feature of Australia's most advanced railway.

The final doors were installed at Macquarie University Station as part of the suburban line upgrade from Epping to Chatswood.

Placed end to end, the doors would stretch 4.5 kilometres.

Platform screen doors are common around the world but Sydney Metro will be the first Australian railway to use them.

Each Sydney Metro platform barrier is 170 metres long, and made of 64 pieces of glass and 18 doors.

The doors are being tested as part of the commissioning process. They are being calibrated with the communication-based train control system, which lines up the train with the doors and only opens both sets of doors when both are aligned.

At the new underground stations, the door structures reach the ceiling and assist to efficiently heat and cool the platforms, providing additional comfort for customers and keeping the train corridor separate from them.

Sydney Metro is a fully accessible railway for people in wheelchairs, parents with prams and those who are less able.



Australian first – platform screen doors

Tunnel work begins from Chatswood to the harbour

Sydney Metro's third mega tunnel boring machine (TBM) has now started tunnelling, marking the next stage in delivering the new 15-kilometre metro twin tunnels below the centre of Sydney and deep under Sydney Harbour.



The TBM was named after Wendy Schreiber

TBM Wendy has started digging the 6.2 kilometres of tunnel from Chatswood to the edge of Sydney Harbour at Blues Point.

Wendy joins TBMs Nancy and Mum Shirl, the mega borers which launched last year and are now tunnelling from Marrickville towards the central business district (CBD).

With two more machines due to start work this year, the borers will build 31 kilometres of Sydney Metro tunnels between Marrickville and Chatswood, including the first rail tunnels under Sydney Harbour.

Wendy is one of five TBMs that will excavate 5.9 million tonnes of rock – enough to fill about 940 Olympic swimming pools.

The TBM has been named after Wendy Schreiber, a volunteer at Bear Cottage – the only children's hospice in NSW and long-standing charity partner for the Sydney Metro tunnelling contractor John Holland CPB Ghella.



The new Kellyville Station and its iconic wall of glass

Curtain wall of glass comes to life

An iconic curtain wall of glass has been successfully installed at the new Kellyville Station.

More than 400 distinctive clear and coloured glass panels have been safely lifted into place, bringing Sydney Metro services one step closer to starting in the middle of this year.

The glass panels weigh up to 150 kilograms each, or nearly 40 tonnes combined. The largest panels are each more than 2 metres tall and 2 metres wide, while the smallest is just 72 centimetres wide.

The colour scheme was inspired by local orchards with the glass wall design allowing natural light into the station concourse area, which sits beneath the elevated skytrain.

Strengthened steel frames hold in place the glass, which is strong enough to withstand hail storms and heavy winds.

The glass was manoeuvred into the steel frames with military precision – it took up to 20 minutes to lift each glass panel into place – and there were no breakages during the installation process.



Workers installing glass at Kellyville Station



Bridge lifted into place over Windsor Road at Kellyville

Biggest pedestrian bridge lifted into place

The biggest pedestrian bridge on the Sydney Metro Northwest project has been lifted into place in a precision night-time operation over a major Sydney road.

The 80-metre long bridge had to be lifted in two pieces over Old Windsor Road at Kellyville.

The bridge stands 6 metres above the road and will help get customers safely over Old Windsor Road, providing access to the new station as well as the Riley T-way bus stop.

In a military-style operation, a 500-tonne crane was used to lift into place the two bridge spans, weighing a combined 157 tonnes.

Landmark hub for North Sydney

North Sydney will be transformed with a \$476 million contract awarded to deliver a new Sydney Metro railway station and the landmark building above it.

The NSW Government has awarded Lendlease the contract to deliver the station component of the new Victoria Cross Station in North Sydney – including new retail spaces and improvements to the public domain.

This is the second integrated station development on the Sydney Metro City & Southwest project.

As the new Victoria Cross Station is largely built underground, the integrated station development can be built at the same time, minimising disruption to the community.

Work is already underway on the new Victoria Cross Station, with roadheader tunnelling machines working to excavate the new metro station cavern under Miller Street.



Artist's impression of Victoria Cross Station



The award-winning railway bridge

Rouse Hill Bridge named global project of the year

Sydney Metro's landmark new railway bridge over Windsor Road at Rouse Hill was awarded global Project of the Year in 2018 by a prestigious international engineering organisation.

The US-based Engineering News-Record (ENR) described the bridge as 'elegant, innovative and sustainable'.

The 270-metre curved cable-stayed railway bridge, similar in design to Sydney's Anzac Bridge, is the first of its kind built in Australia.

The project was named ENR's Global Project of the Year as well as winning the Global Best Project award for the railway sector. It was one of 23 projects from 14 countries to be selected by a jury of global engineering experts.

The judges said about the bridge and the 4-kilometre elevated skytrain viaduct leading to it: 'An elegant and sustainable rail project utilizing innovative construction techniques was selected by the panel of judges and ENR editors as the Global Project of the Year.'



Train testing on the new railway bridge over Windsor Road at Rouse Hill

Register your email at [sydnymetro.info](mailto:info@sydnymetro.info) to get the latest project news and invitations to upcoming community events.

Find out more



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