



Tunnel boring machine Eileen was the first to arrive at the Airport Terminal Station site.

Major tunnelling milestone reached at Airport Station

Sydney Metro is Australia's biggest public transport project, transforming Sydney with a world-class metro. Sydney Metro–Western Sydney Airport is the new metro railway line that will service Greater Western Sydney, connecting the Western Sydney Aerotropolis and the new Western Sydney International (Nancy-Bird Walton) Airport with St Marys and the existing Sydney Trains suburban T1 Western Line.

The six new metro stations at St Marys, Orchard Hills, Luddenham, Airport Business Park, Airport Terminal and the Aerotropolis will become the transport spine for the region, supporting its growth for generations to come.

The Australian and NSW Government have a shared objective of having Sydney Metro–Western Sydney Airport operational when the airport open for passenger services.

Two tunnel boring machines (TBMs) have reached the future Airport Terminal Station site, completing the first

section of the twin 5.5-kilometre southern tunnels for the project. The new Airport Terminal Station will enable easy access to the new Western Sydney International Airport.

About 293 thousand tonnes of rock (enough to fill about 47 Olympic swimming pools) was excavated to build the Airport Terminal Station box.



TBM Peggy breakthrough at the Airport Terminal site in late August 2023.



Australian Government



Northern tunnel boring machines underway

Two TBMs have launched at the Orchard Hills Station site to construct the northern tunnels to the new metro station at St Marys. TBM Catherine started tunnelling in mid-July 2023, while TBM Marlene got underway in mid-August. The machines will soon tunnel underneath the M4 motorway, as they head towards the Claremont Meadows Services Facility site next to the Great Western Highway.

The TBMs building the 4.3-kilometre northern tunnels are the first earth pressure balance machines to be used on the Sydney Metro project. This type of TBM is designed to excavate through softer shale and clay. The two TBMs excavating the southern tunnels are double-shield machines, which are more suited to boring through hard rock or shale.

TBMs Catherine and Marlene are expected to complete their tunnels by mid-2024.



Catherine White attended the launch of her namesake TBM Catherine at the Orchard Hills site.

Local charity names TBM

The WASH House named the third TBM in honour of Catherine White for her relentless advocacy, notably against violence towards women. Catherine managed the WASH House from 2003 to 2013.

CPB Contractors Ghella, who is delivering the Station Boxes and Tunnelling contract for the Sydney Metro Western Sydney Airport project, has been supporting the WASH House.

Local students enjoy Sydney Metro site visit

Students at Claremont Meadows Public School won the competition to name the fourth TBM Marlene for the Sydney Metro-Western Sydney Airport tunnelling project.



Claremont Meadows students Alexandria Cusack and Reuben Yard got to meet Dr Marlene Kanga AO, who they suggested for the TBM's name.

Students and teachers from six schools were invited to take part in the TBM naming competition. The schools got to see TBM Marlene before it launched.

The participating schools, all located within three kilometres of the northern tunnels between Orchard Hills and St Marys, included:

- Orchard Hills Public School
- Claremont Meadows Public School
- Our Lady of the Rosary Primary St Marys
- St Marys South Public School
- St Marys North Public School
- Kurrambee School.

Each school submitted the name of one inspirational Australian woman in the field of engineering, design, environment, safety, community, culture, art, heritage, science, technology or mathematics.

All six schools were awarded a two-hour cultural learning workshop for up to 30 students delivered by local Indigenous artists from Dalmarri. The students will create an artwork on either a canvas or aluminium panel.

Meet our Sydney Metro ladies

Sydney Metro TBMs are named after women with an important meaning to local history and culture. It is a tradition to give a female name to tunnelling

machines that work underground — this is believed to bring luck to the workers who look to Saint Barbara for protection.



TBM Eileen

The first TBM is named Eileen and pays tribute to the first female Mayor of Penrith, Eileen Cammack OBE, who also established the first pathology laboratory at Nepean District Hospital.



TBM Peggy

The second TBM is named Peggy and honours pioneer aviator Peggy Kelman OBE, who was instrumental in promoting female aviation and a flying companion of Nancy-Bird Walton.



TBM Catherine

The third TBM is named after Catherine White. She has worked tirelessly to promote social justice and gender equality, and advocate against violence towards women in the Blacktown area.



TBM Marlene

The fourth TBM is named in honour of Dr Marlene Kanga AO, an engineer, entrepreneur and diversity activist. She has dedicated outstanding service to the engineering field in Australia and internationally.

Future stations emerge

Two station dives have been excavated at Orchard Hills and Airport Business Park, along with station boxes at the St Marys, Airport Terminal and Aerotropolis sites, and two services facility sites at Claremont Meadows and Bringelly. These excavated structures are then waterproofed and lined with concrete.

So Parklife Metro can begin construction of the future metro rail line and stations, significant parts of these structures will be handed over for delivery of the Station, Systems, Trains, Operations, and Maintenance work package.

Major portions of work already handed over include the Orchard Hills dive south of Lansdowne Road, a bridge on Lansdowne Road, the St Marys station box, the Aerotropolis dive and the northern end of the Airport Business Park.



The Orchard Hills dive structure looking south towards the Lansdowne Road bridge, will allow excavation to continue underneath Lansdowne Road.



Artist's impression of proposed Luddenham Station.

Introduction to Parklife Metro

The Parklife Metro consortium was awarded the Stations, Systems, Trains, Operations and Maintenance (SSTOM) contract for Sydney Metro – Western Sydney Airport in late December 2022. The consortium brings together four world-class organisations to deliver the SSTOM works – Plenary, Webuild, Siemens and RATP Dev.

Parklife Metro will deliver 12 new metro trains, six new stations between St Marys and the Aerotropolis, rail systems and the stabling and maintenance facility to be built at Orchard Hills. Parklife Metro will operate and maintain the Western Sydney Airport line for 15 years after it starts running.

In addition to the best practice passenger experience provided via the trains, stations and their surrounding precincts, the project will also deliver a host of benefits to the local economy during construction; sourcing from local businesses and creating local jobs.

Early work has commenced across the sites along the alignment, including at the Stabling and Maintenance



Artist's impression of proposed Orchard Hills Station.

Facility and Airport Business Park in August 2023, and at Orchard Hills, Luddenham and St Marys in September 2023.

Works at the Aerotropolis site, which will become the major transport interchange connecting with the new central business district of the Western Parkland City, are expected to start in mid-October 2023.

Place, Urban Design and Corridor Landscape Plan

Parklife Metro is preparing a Place, Urban Design and Corridor Landscape Plan (PUDCLP) that documents permanent above-ground works, the Sydney Metro stations and landscape designs.

The community is invited to review and make comments on the designs.

The PUDCLP for the SSTOM works will be delivered in two stages covering the:

1. Stabling and Maintenance Facility and Luddenham Station (building only). This will be available for public comment before the end of 2023
2. all other stations, linewide designs, including Luddenham Station precinct.

This will be available for public comment in early 2024.

There will be opportunities to view the PUDCLP online and at local information sessions. More details will be provided via our community updates. You can register at **www.sydneymetro.info/westernsydneyairportline**.



The completion of earthworks at the Stabling Maintenance Facility (SMF) attended by the SCAW project team.

Stabling and Maintenance Facility underway

The Surface Civil and Alignment Works (SCAW) project has completed preparation works on the site for the new Stabling and Maintenance Facility and handed it over to Parklife Metro. The facility will be the operational hub for the Sydney Metro–Western Sydney Airport line.

The 200-thousand-square-metre site has been a hive of activity, with more than 50 people preparing the ground for construction. The base for the facility has been formed using 750-thousand tonnes of repurposed sandstone sourced from the M6 Stage 1 and Rozelle Interchange WestConnex projects, combined with the on-site geology of shale and clay.

Site excavation began in September 2022, with the major sandstone deliveries starting in January this year. At its peak, 13-thousand tonnes of sandstone were transported daily, which involved the seamless coordination of up to 350 large trucks.

The handover of the Stabling and Maintenance Facility is a key project milestone. Once completed, the facility will house a state-of-the-art 24-hour operations control centre, where train controllers will oversee every facet of the system. From lifts and escalators to platform screen doors, the fully accessible railway will be under their supervision.

Elevated viaduct takes shape at Luddenham

Substantial progress has been made between Orchard Hills and the new Airport Business Park Station with the 3.6-kilometre elevated viaduct starting to take form. This follows the successful installation of the first eight segments of the viaduct's initial span at the new Luddenham Metro Station.

The viaduct is a crucial link in the metro line that stretches from Orchard Hills to Luddenham and traverses several key locations, including Blaxland Creek, Patons Lane and the Warragamba pipelines.

Each span of the viaduct is made using precast segments designed to fit together seamlessly. Manufactured in a facility in Buchanan, in the NSW Hunter Valley, the segments are made of reinforced concrete. The production process employs a highly specialised technique, ensuring each segment dovetails perfectly with the next when assembled.

Each segment is 10.85 metres wide, up to 3.2 metres long and 2.4 metres high. The mass of the segments ranges between 45 and 65 tonnes each,



Installing viaduct segments for the new Luddenham Station.

which demands the use of heavy duty equipment and expertise to transport and install them on site.

A staggering 52,500 tonnes of concrete will be used to produce the 1,101 segments needed to complete the viaduct. More than 100 segments have already been poured.

M12 bridge ready for excavation

Seven months of focused construction efforts have led to the completion of the impressive 190-metre M12 bridge – another milestone achieved on the Sydney Metro – Western Sydney Airport, SCAW project.

Work has included delivery of the substructure, which has six piers, two abutment substructures and 68 rock-founded piles, that serve as the bridge's foundation.

The bridge has seven spans consisting of 35 Super-T girders, or strong beams, that hold the structure up and 171 precast parapets, that form the bridge's protective barrier.

The M12 contractor will now excavate underneath the bridge, preparing for the other M12 motorway works, including underground services, drainage systems and concrete paving.



Construction progress on the M12 bridge from April 2023 until handover of the completed structure in August 2023.

Sydney Metro yarning circle

A yarning circle has been built in a tribute to cultural heritage and unity. This significant unveiling took place during NAIDOC Week, highlighting the project's commitment to inclusion and the recognition of Aboriginal and Torres Strait Islander traditions.

A yarning circle is a traditional gathering place for Indigenous communities, encouraging open discussions and connections. It holds deep meaning for First Nations people as a space for sharing stories and knowledge and fostering a sense of togetherness. It embodies respect for culture and the land.

Central to the project's authenticity, First Nations employees played a pivotal role in crafting the yarning circle. Their insights ensured the circle's design and location aligned with traditional values.

The yarning circle will serve as a hub for the SCAW project team to engage in open conversations and collaborative solutions. It also reflects the project's dedication to an inclusive work environment where all voices matter.

The yarning circle underscores the importance of acknowledging Aboriginal culture while forging a better future together.



Community events calendar

If you would like to attend one of our community events head to our website www.sydneymetro.info/events to keep up to date.



The students looked professional in their safety gear.

Work experience inspires careers

CPBG's work experience program is designed to provide students with a taste of the construction industry, offering hands-on training, mentorship and a glimpse into the wide range of career opportunities available.

Eleven work experience placements have now been completed on the project, with more than 90 percent of the students of Aboriginal or Torres Strait Islander descent.

Students from Rooty Hill High School, Kingswood High School, Broughton Anglican College, Colyton High School and Chifley College Bidwill Campus, were able to take part in safe activities on the worksites, as well as find out about office-based roles.



The students from Glenmore Park High School viewed a TBM in the station dive.

Top marks for tunnelling lesson

Thirty-five STEM (Science, Technology, Engineering and Maths) students from Glenmore Park High School were invited to visit the Orchard Hills site in August 2023.

The students and their teachers were given a project overview and visitor safety induction before a tour of the site. A viewing platform next to the station dive gave them a birds-eye view of TBM Catherine getting ready to start tunnelling.

The students also had a question-and-answer session so they could find out more about how the tunnel boring machines work and what they are building for the Sydney Metro project.



The volunteers are looking forward to other opportunities to help the local community.

Bushcare volunteer day

Sydney Metro joined forces with Penrith City Council officers to clean up the environment at Werrington Lake Reserve in mid-August 2023. Rubbish was collected from around the lake, playground, exercise equipment and cricket oval, and along the walking tracks. Weeds were also removed from local woodland and next to Werrington Creek.

The reserve was developed in the early 1980s to help relieve flooding from the creek and is an important resource to provide green space for the local residents and native fauna. The reserve is about three kilometres from Sydney Metro's St Marys site.

Community welcomed at open days

Open days were held at the Aerotropolis site in June 2023 and at the Orchard Hills site in August 2023. Local community members were invited to visit the construction sites and get a close-up view of metro progress for the new metro stations.

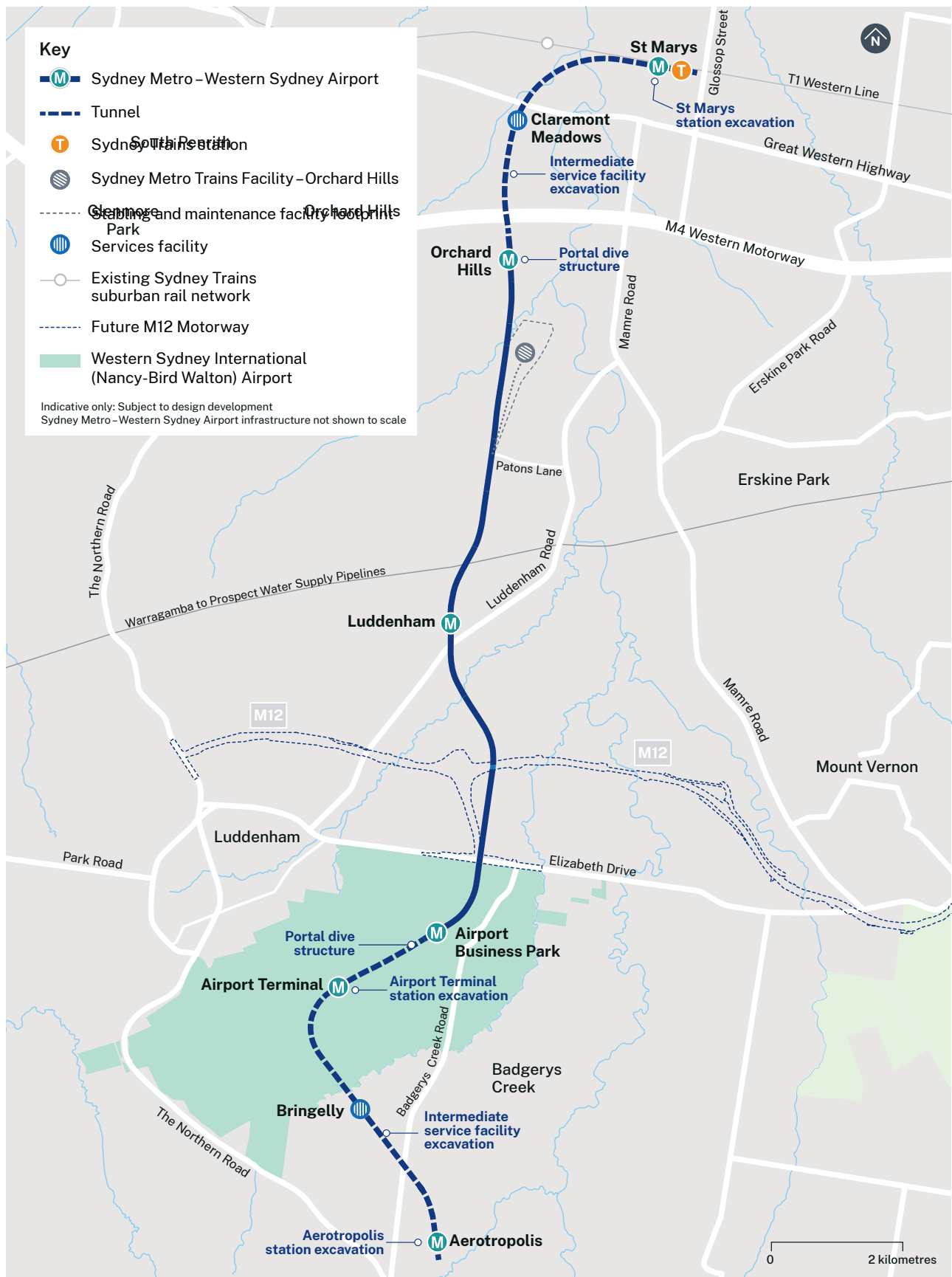
Hundreds of people took up the opportunity to get an on-site tour to see the station box and excavation machines at Aerotropolis and to view the TBMs being prepared for tunnelling in the station dive at Orchard Hills.

Visitors were also able to ask questions about the project, get information, such as newsletters, and take home a



Visitors at Orchard Hills got to find out information about the Sydney Metro project.

free bush tucker plant for their garden. Activities were also provided to keep the younger visitors entertained and teach them more about the Sydney Metro project.



Contact us

If you have any questions or would like more information please contact our project team:

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