

Building the tunnels

Suburban Rail Loop (SRL) will deliver a 90km rail line linking every major train service from the Frankston Line to the Werribee Line via Melbourne Airport, better connecting Victorians to jobs, retail, education, health services and each other.

The first section, SRL East will deliver 26km twin tunnels and six new underground train stations in Melbourne's east and south east.

The first package of tunnelling works for SRL East was awarded in December 2023. This includes construction of the twin tunnels from Cheltenham to Glen Waverley.

We have identified an alternative way to construct part of the twin tunnels that will significantly reduce surface disruptions and impacts to local residents.

Tunnel Boring Machines (TBM) that construct the tunnels are now planned to be launched from the Alex Fraser Group Materials Recycling Facility and Transfer Station (Clarinda Recycling Facility) located on Kingston Road, Clarinda.

This change moves some significant construction and tunnelling activities from the Stabling Facility site on Kingston Road, Heatherton, further away from homes, reducing impacts to local residents.

Separately, in another initiative that will greatly reduce surface disruption to local streets, residents and traders, ground stabilisation works that will be needed for the construction of cross passages between the twin tunnels will now be undertaken underground, from within the tunnels.

Tunnelling works between Cheltenham and Glen Waverley

- 16-kilometre twin tunnels between Cheltenham and Glen Waverley
- 55 underground cross passages linking the twin tunnels for safety and emergency access
- Procurement, launch and operation of four Tunnel Boring Machines
- Construction of two tunnel access structures at the Clarinda Recycling Facility
- Construction of tunnel entrances
- Tunnelling support facilities at Heatherton, Monash and Clarinda
- Station boxes at Clayton and Monash including excavation and temporary structures.



Concept only

Benefits of design and construction improvements

New tunnel access structures at Clarinda Recycling Facility

- Moves significant construction impacts further away from homes including TBM launch and supporting activities
- Better safeguards the South Eastern Trunk Sewer (SETS) - a critical piece of sewerage infrastructure for Victorians.

Cross passage ground improvements from inside the tunnels

- Ninety per cent reduction in the number of cross passages that need surface works to improve ground conditions for construction
- Removes up to six months of direct impacts to more than 100 homes and businesses along 20 local streets including:
 - Road closures
 - Lane closures
 - Impacts to property access
 - Noise, dust and vibration.



Tunnelling sites in Heatherton and Clarinda

- Two tunnel access structures at the Clarinda Recycling Facility
- Two tunnel entrances at the Stabling Facility (east and west).



Tunnel Boring Machines

- Four TBMs will be launched from the Clarinda Recycling Facility
- Two TBMs will head north to Glen Waverley
- Two TBMs head west to Cheltenham (the TBMs will be brought above ground at the Stabling Facility before being relaunched from the western tunnel entrance towards Cheltenham).



	SRL East underground station
	Regional connection
	SRL East tunnel alignment
	Existing rail alignment
	SRL continues north to Burwood



FAQs

What does tunnelling involve? What is the tunnel depth?

Tunnelling under Melbourne's south east will use the latest technology including custom-built TBMs. On average, the SRL East tunnels will be approximately 26 metres deep – that's approximately six storeys below ground.

What are cross passages?

Cross passages are small, mined connections between the twin tunnels positioned at regular intervals along the alignment. These are built for safety and to access evacuation routes.

What is ground freezing?

Ground freezing allows the ground around the tunnels to be stabilised from inside the tunnels instead of from the surface for cross passage construction.

It means large machinery is not required at the surface to inject stabilisation substances below ground, removing direct impacts to surrounding neighbourhoods.

What is SETS?

The South Eastern Trunk Sewer (SETS) is a critical state asset vital for the health of the south east environment and community. It is part of a network of over 3,000km of pipes and pumps managed by Melbourne Water and local retail water companies.

The SETS safely transfers sewage from homes and businesses to treatment plants for processing.



Tunnel boring machine breakthrough

Project approvals

It is common for changes to be made to the design of an approved project as detailed construction methodology is developed and refined.

The SRL East project approvals were designed specifically to allow different design alternatives or construction methodologies to be considered while still achieving the environmental performance outcomes established by the SRL East Environmental Management Framework and Environmental Performance Requirements.

The use of ground freezing techniques and the relocation of some tunneling activities further away from homes to minimise surface disruptions in residential areas are good examples of how changes during detailed design can enable better project and community outcomes.

The activities proposed to be relocated from the Stabling Facility were assessed by the EES and we are currently working to confirm that relocation of these activities to the Clarinda Recycling Facility can be adequately managed under the existing SRL East Project approvals, which can be found on the project website: bigbuild.vic.gov.au/projects/suburban-rail-loop/planning/planning-approvals.

We will update the community on the outcomes of this process.



Scan the QR code or visit bigbuild.vic.gov.au/projects/suburban-rail-loop/subscribe to sign up for updates

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