



Signal Control Centres



Artist Impression

The Metro Tunnel will free up space in the City Loop to run more trains to and from the suburbs by taking our busiest train lines through a new tunnel under the city. That means more trains across Melbourne during peak times, with a less crowded and more reliable train network.

Next-generation High Capacity Signalling is the technology that will be installed in the Metro Tunnel to revolutionise Melbourne's train network as we move towards a 'turn-up-and-go' network like other cities such as London, Singapore and Hong Kong.

What are signal control centres?

Two signal control centres are being built as part of the Metro Tunnel, and these two locations are where the new High Capacity Signalling System will be managed from.

Located at Sunshine and Dandenong, these centres will be where signallers will support management of all train movements on the Cranbourne, Pakenham and Sunbury lines, including through the Metro Tunnel.

Control rooms inside the centres will be fitted-out with High Capacity Signalling equipment to provide a dynamic, real-time, overview of train movements across the network.

Sunshine and Dandenong were chosen as locations for the signal control centres because of their strong connection points to metropolitan, regional and freight rail services.

Construction of the Sunshine Signal Control Centre started in 2020 and is scheduled for completion in 2021.

The High Capacity Signalling upgrades for the Dandenong Signal Control Centre, which has already been built, will be up and running in 2022.



At a glance

The Metro Tunnel Project will facilitate:

65 new trains

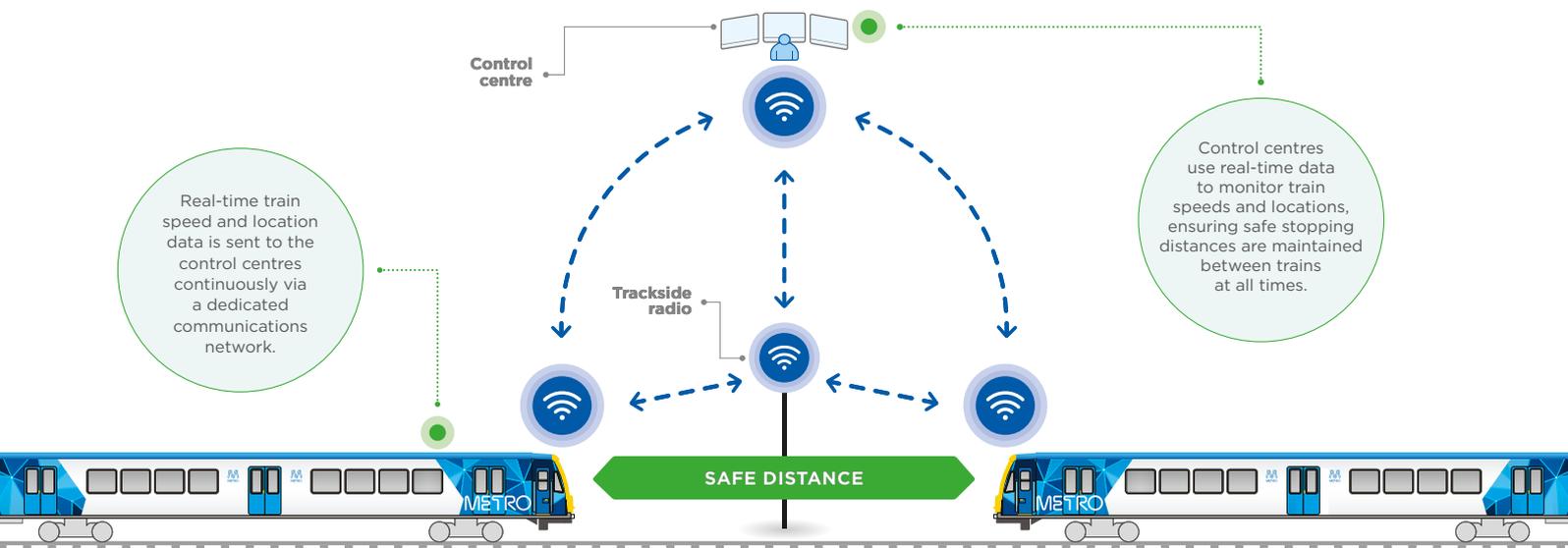
1 new dedicated line under the city

2 control centres to run the line

Up to 60 trains up and down the line per hour

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metrotunnel.vic.gov.au



High Capacity Signalling

What is it?

High Capacity Signalling is the hi-tech “moving block” signalling system used around the world that enables trains to automatically adjust their speed to maintain a safe distance from the train in front.

This replaces the current conventional “fixed block” system, which uses coloured signals to indicate when it is safe for a train to proceed.

How does it work?

To visualise how High Capacity Signalling works, imagine driving on a freeway. Adaptive cruise control adjusts the vehicle speed according to the distance from the car ahead to help the driver travel more safely.

Under the control of train drivers, High Capacity Signalling works in a similar way by communicating this same information wirelessly between trains, the railway line and the signal control centres.

Why do we need it?

In 2050, Melbourne’s population will double from 4 to nearly 8 million people – as Melbourne grows, our public transport system needs to grow too.

Today, as trains get closer to Melbourne’s CBD, they struggle for space, get caught in each other’s way and hold other trains up, particularly at the entrances to the underground City Loop. This causes delays and makes services unreliable.

Taking three of Melbourne’s busiest train lines from its key growth areas (Cranbourne, Pakenham and Sunbury) out of the City Loop and through their own Metro Tunnel reduces this congestion.

What are the benefits?

High Capacity Signalling allows trains to safely run closer together which means; more trains, more services, more travel options and greater service reliability across the network.

By taking the Cranbourne, Pakenham and Sunbury lines out of the City Loop room is made for over half a million additional passengers per week to travel across Melbourne’s train network.

More information

To find out more about the Metro Tunnel Project:

metrotunnel.vic.gov.au

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It should be noted that this information is current at the time of printing, however due to unforeseen circumstances, changes may occur. Please visit railprojects.vic.gov.au for the latest updates.