



# DOMAIN PRECINCT

Community Reference Group

Presentation by CYP

25 October 2023



#	ACTION / ISSUE	OWNER
A49-1	RPV to request DTP attendance at the next meeting to talk to the plans for the tram network on Domain Road and St Kilda Road corridor.	RPV



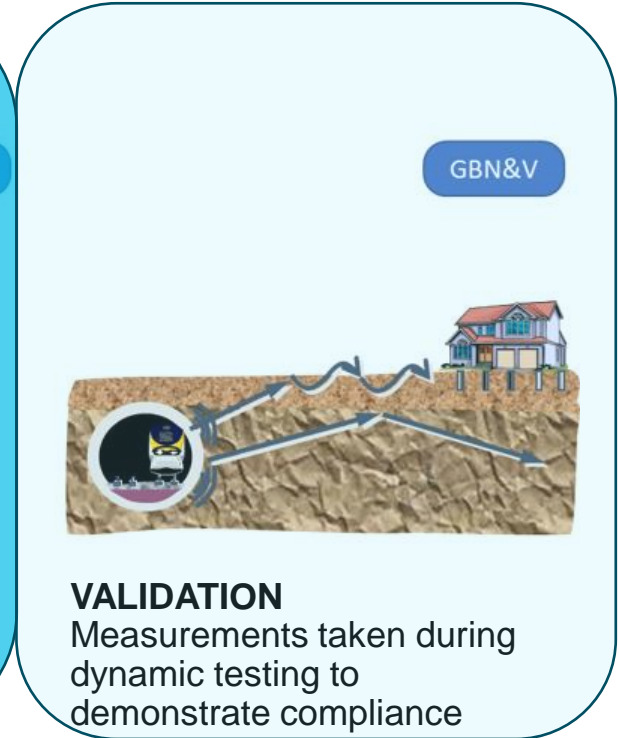
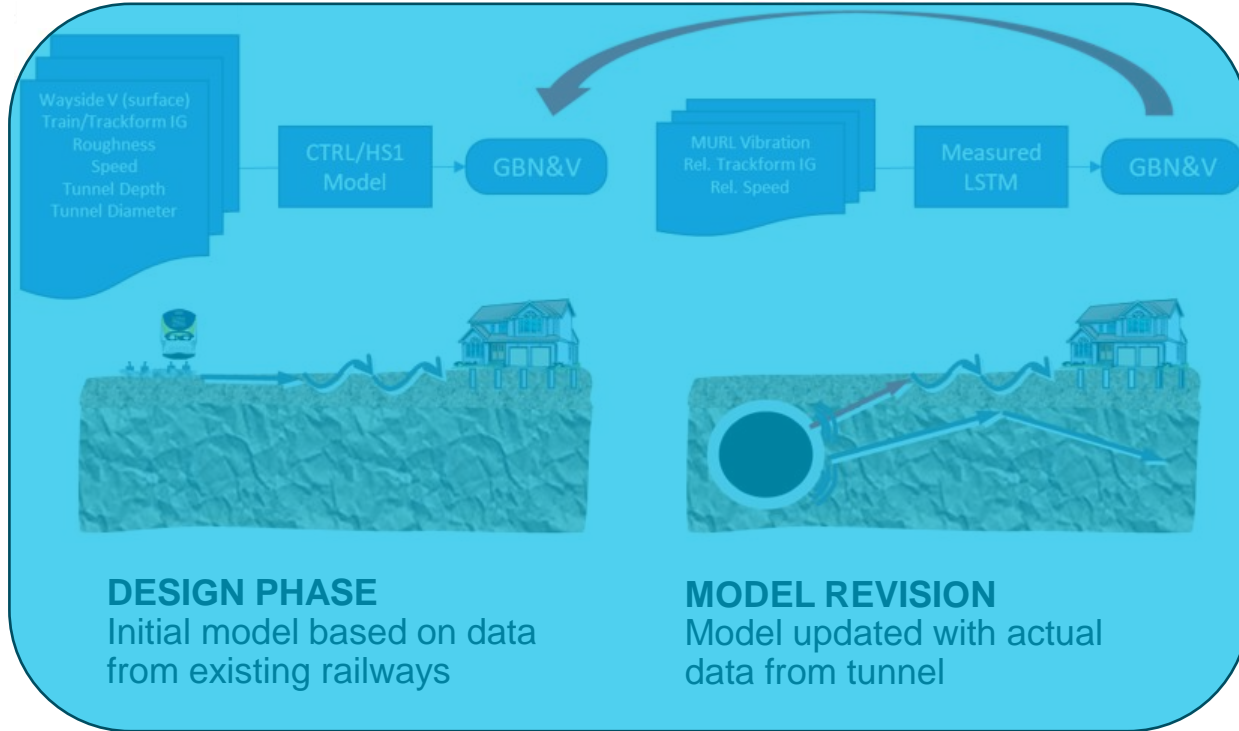
# TRAIN TESTING UPDATE



# Train Testing Update

# Ground-Borne Noise & Vibration Process

Journey

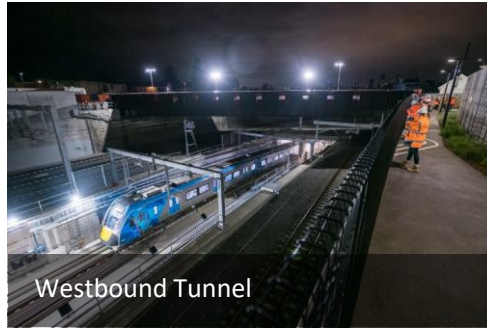


# First Trains – 27 July 2023

Eastern Portal & Anzac Station



Eastbound Tunnel



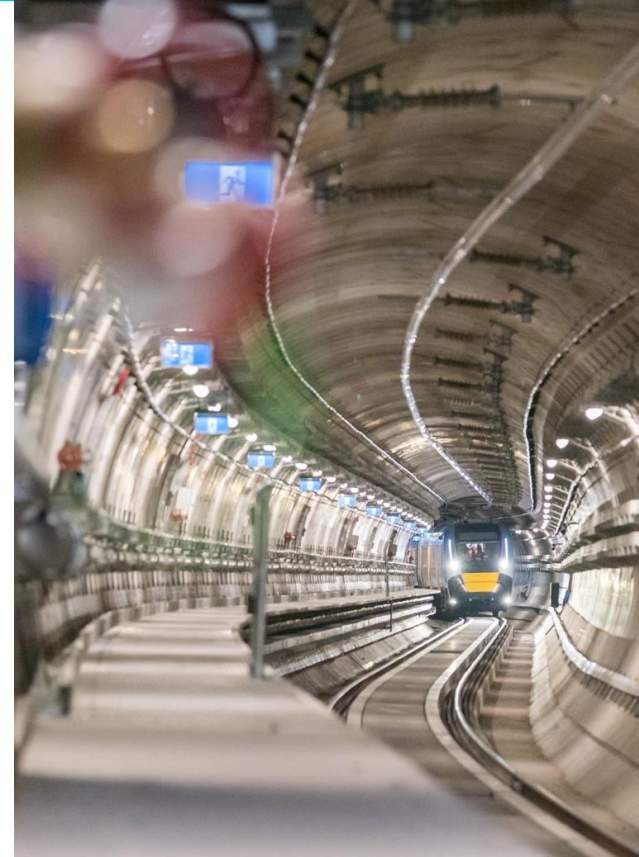
Westbound Tunnel



Anzac Station Eastbound Tunnel



Anzac Station Westbound Tunnel



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# Trains at Line Speed – 80 Km per hour



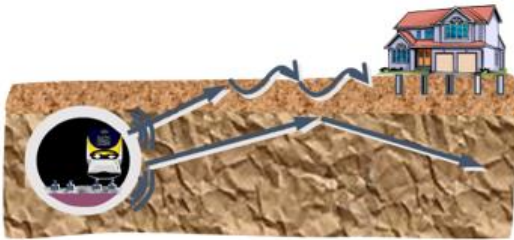
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# Train Dynamic Testing

Configuration for Ground-Borne Noise & Vibration Validation

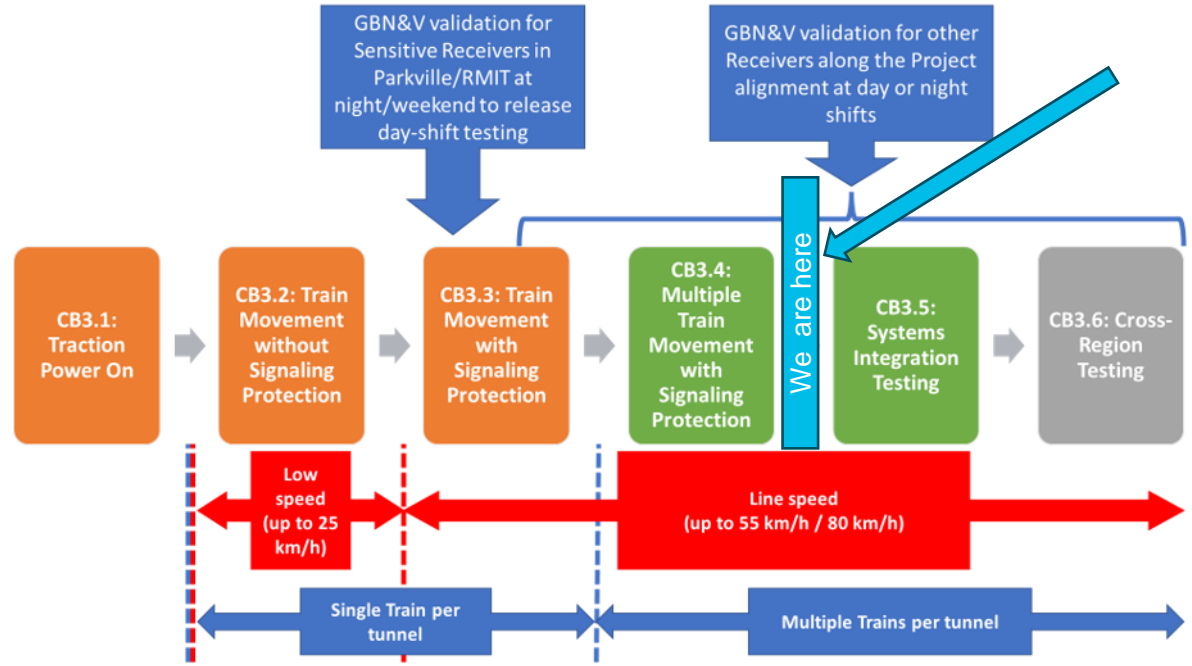


GBN&V



## VALIDATION

Measurements taken during dynamic testing to demonstrate compliance





# Monitoring completed to date - as at October 2023

# Train Dynamic Testing

## Track Roughness Testing



Track roughness testing completed

- Before DT (completed)
- During DT (completed)
- After DT (3.3) (completed)
- Late 2023 (scheduled)
- Track is performing as expected



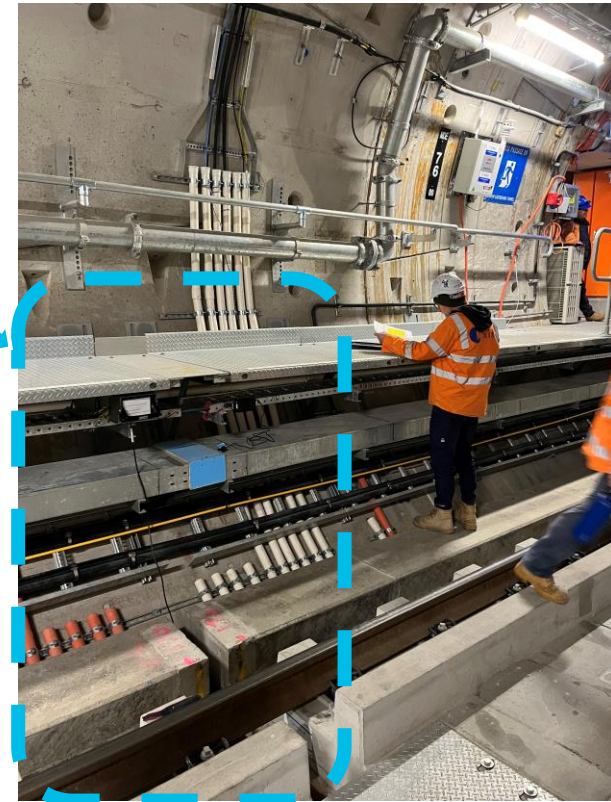
# Train Dynamic Testing

Track Form Transition and vibration monitor install



Track form vibration monitoring performance

Further Inspection of specific track forms installed

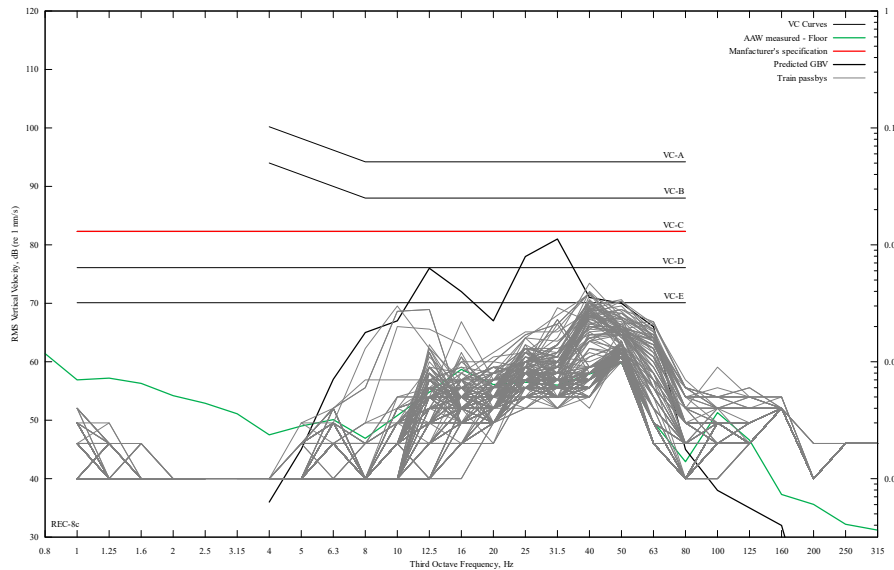


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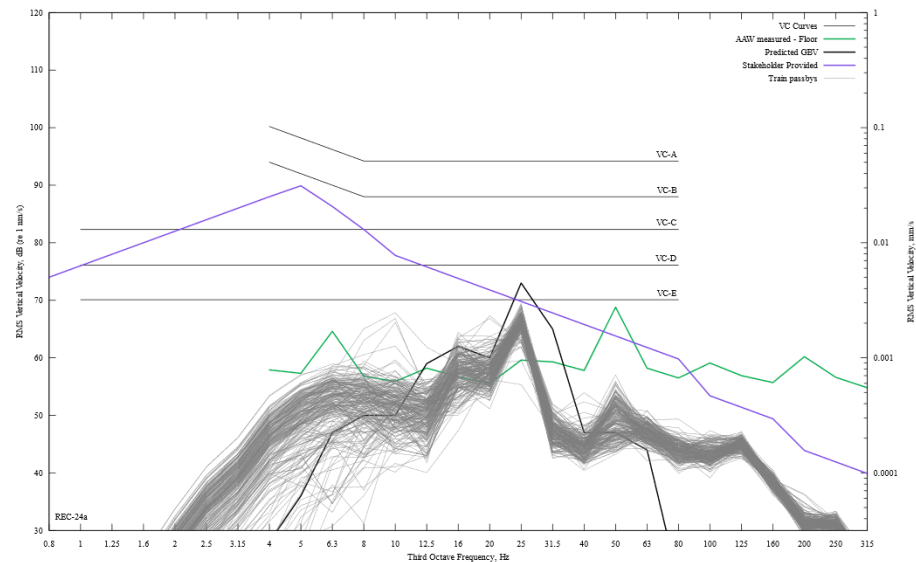
# Train Dynamic Testing Results



REC-8c - Peter Doherty Institute | TEM Microtome



REC-24a - University of Melbourne | Helium Ion Microscope



# Train Dynamic Testing

Upcoming validation testing and monitoring



Monitoring summary:

- Stage 1 – Parkville – validation testing now complete, ongoing monitoring
- Stage 2 – Project alignment (above tunnel)
  - Q4 2023 and early 2024
- Stage 3 – Kensington / South Yarra (outside of tunnel)
  - Early 2024
- 100% compliance so far



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# Questions





# WORKS UPDATE: STATION CONSTRUCTION

# WORKS UPDATE

## ANZAC STATION AERIAL



# WORKS UPDATE

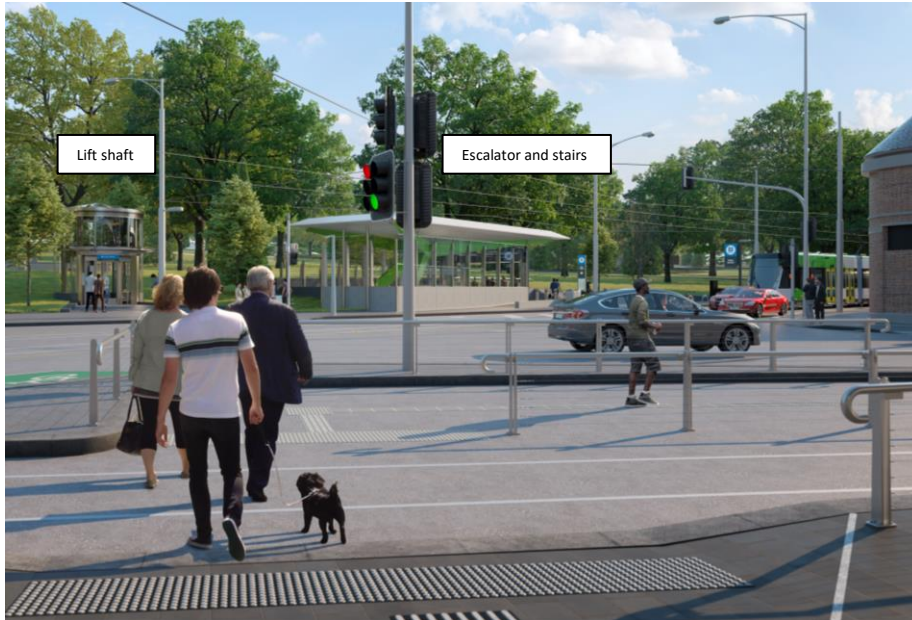
## STATION WORKS



- Back-of-house fit out in north and south box to be completed in the next few weeks. Team focusing on energising these rooms
- Plastering and furniture install taking place in the eastern section
- Services install throughout the station ongoing
- Stone floor tiling continues on B2.

# WORKS UPDATE

## SHRINE OF REMEMBRANCE ENTRANCE



- Escalators were installed in early October
- Works have begun to construct the canopy over the escalator entrance
- Structural works for lift shaft has commenced
- Night shift works under the roof will continue through to the end of the year
- The logistics void has been closed, Telstra currently installing services.

Artist impression of Shrine of Remembrance entrance, subject to change



# WORKS UPDATE

## ALBERT ROAD RESERVE STATION ENTRANCE



- First of two roof pours took place 20 October 2023
- Formwork installation in preparation for second pour continues
- Once roof is complete, remaining internal walls will be formed and poured
- Albert canopy starting soon
- Formwork on the road level will continue until 1am until Melbourne Cup shut down weekend.

Formwork continues at the Albert Road station entrance



# **WORKS UPDATE: SURFACE CONSTRUCTION**



# PLANTING UPDATE

St Kilda Road



St Kilda Road planting

- 45 Trees were planted this year
- Potential for Yarra Trams to plant an additional six on the tram platform
- Planting will recommence in April 2024.

# WORKS UPDATE

Dual traffic, St Kilda Road



Current traffic arrangement (May 2023)



## Upcoming works in this area

October:

- Pour roof, waterproof and back fill
- Commence Albert Road forecourt

November:

- Complete The Domain driveway
- Footpath rebuild from Albert Road to Bowen Crescent
- Install watermain
- Commence roadworks over station roof

December:

- Continue roadworks
- Switch traffic
- Complete traffic median



# WORKS UPDATE

Dual traffic, St Kilda Road



Next stage traffic arrangement



Orange: Two lanes of traffic

Green: Median

Yellow: Bike lane (future parking)

Blue: Left turn into Albert Road

Red: Construction site

# WORKS UPDATE

## ALBERT ROAD



- Site facility removal has begun. A small mobile site shed will be located in the reserve for the remainder of the works
- Construction of the footings for the South Africans Soldiers Memorial will commence in November
- A new site gate was installed on St Kilda Road to allow for the start of forecourt works
- The legacy road connection to Albert Road south was poured in October
- Hard landscaping continues in the linear park.



# WORKS UPDATE

ST KILDA ROAD – ARTHUR STREET TO BOWEN LANE (TOWARDS CITY)



- Separated bike lanes between Arthur Street and Bowen Crescent are now complete
- Final wearing course south of Kings Way will happen as part of the intersection resurfacing works in November
- Bowen Lane reopening has been pushed back until mid-November. Remaining works include sewage connection, strata vault installation, kerbs and relaying of road
- Re-asphalting of the pavement between Bowen Crescent and Bowen Lane will now take place in November. This work will require minor pedestrian detours
- Service investigation taking place on Bowen Crescent to de-risk closure for utility installation and new kerb alignment.

# WORKS UPDATE

ST KILDA ROAD – DOMAIN ROAD TO TOORAK ROAD (AWAY FROM CITY)



Tree planting and barrier removal is complete on eastern side

- This section will be complete by mid-November
- Earlier in October, barriers were removed between Anzac and Toorak tram stops
- Drainage and kerb installation is continuing towards Toorak Road
- Bike lanes will be installed in November
- Night works are required to asphalt from central platform to Toorak Road and reopen the two lanes of traffic
- On street parking will open in front of Melbourne Grammar School once asphaltting is complete.



# WORKS UPDATE

## MAJOR NIGHT WORKS – FINAL ASPHALTING



- As part of the scope of the project, complete intersection re-asphalting is required at:

### Intersection of Kings Way and Albert Road

- Window: 12 to 16 November (following week as contingency)
- Four nights
- Only outbound lanes of Kings Way affected

### Intersection of Toorak Road and St Kilda Road

- Window: 26 November to 1 December (following week as contingency)
  - Four nights
  - Full intersection closure
- During the Toorak Road works, the project may also take the opportunity to complete other final asphaltting works along St Kilda Road while the closure is in place
  - Additional information will be provided closer to the closure.



Kings Way / Albert Road



Toorak Road / St Kilda Road



# ENVIRONMENT UPDATE

# NOISE MONITORING



## Albert Rd Entrance PERI vs. traditional formwork

- Out of hours works are ongoing for formwork installation at the Albert Rd entrance
- “conventional” formwork has been slightly noisier than PERI formwork.
- Out of hours work for conventional formwork has been ongoing since 9<sup>th</sup> October.



<b>Albert Rd Entrance OOH Works</b>		
<b>1hr LAeq (10pm – 1am)</b>		
<b><u>Receiver</u></b>	<b>PERI formwork (25/9)</b>	<b>Conventional formwork (9/10)</b>
<b>Hallmark</b>	50.3dB – 53.3dB	51.2dB – 54.7dB
<b>Domain Hill</b>	53.8dB – 55.5dB	53.2dB – 57.9dB
<b>Domain</b>	53.7dB – 58.0dB	57.6dB – 62.6dB
<b>Botanica</b>	52.1dB – 57.5dB	55.3dB – 62.9dB

# NOISE MODELLING

Road resurfacing – Toorak & STK Road



**Profiling equipment:** Trucks, profiler, paver, rollers, light towers and EWP

**Asphalting:** Pavers, rollers, trucks and light towers

**Signalling/linemarking:** Truck, NDD truck

1hr LAeq (dB)			
Receiver	Profiling	Asphalting	Signalling/ linemarking
Promenade/ City Condos	60dB – 65dB	62dB – 67dB	48 – 53dB
Princeton	65dB – 70dB	65dB – 72dB	54 – 59dB
Lucient	65dB – 75dB	69dB – 76dB	58 – 63dB

*Noise levels relate to construction activities closest to the receiver*



# NOISE MODELLING

## Road resurfacing – Kings Way



**Profiling equipment:** Trucks, profiler, paver, rollers, light towers and EWP

**Asphalting:** Pavers, rollers, trucks and light towers

**Signalling/linemarking:** Truck, NDD truck

1hr LAeq (dB)		
Receiver	Resurfacing	Signalling/ linemarking
The Emerald	62 – 67dB	45 – 50dB
Albert Tower	55 – 60dB	40 – 45dB
The Domain	45 – 50dB	40 – 45dB
Domain Hill	47 – 52dB	40 – 45dB

*Noise levels relate to construction activities closest to the receiver*



# TUNNELS AND STATIONS PROJECT WIDE UPDATE



# METRO TUNNEL PROJECT

October 2023