



## KENSINGTON COMMUNITY REFERENCE GROUP

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MEETING 13

6 AUGUST 2020



# COVID-19

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## ***Health and safety***

*The health and safety of our workers and the community is our key priority as we continue to deliver the Metro Tunnel Project, as is supporting social distancing measures in line with current health advice.*

- The project will continue to protect the health and welfare of our people and the community during this time
- Construction activities are continuing across all precincts with strict Covid-19 risk management control measures in place
- Additional on-site measures have been implemented to meet government advice on social distancing, practicing of good hygiene and wearing of PPE (including face coverings), and adherence to the metropolitan Melbourne curfew with relevant exceptions for approved out of hours works
- Communications and Stakeholder Engagement team reviewing how upcoming engagement activities are delivered.

# PROJECT DELIVERY APPROACH OVERVIEW

## *Presenters*

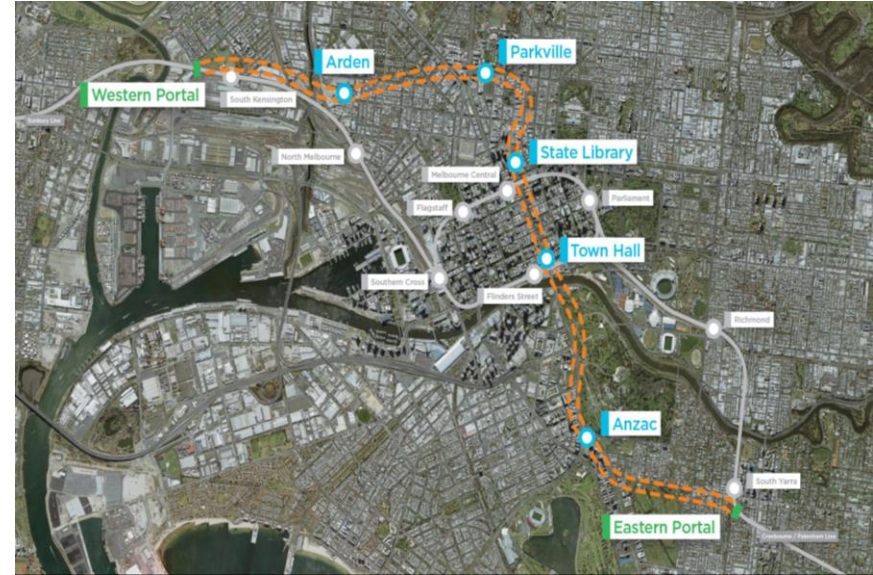
*Steve Villella (RIA Delivery Manager)*

*Niall Forbes (RIA Civil Construction Manager – Western Portal)*

# METRO TUNNEL PROJECT WORKS

## Wider Project – Delivery Overview

- Major projects like the Metro Tunnel require a huge number of interconnected project parts to be completed in sequence, meaning that some activities need to be finished before the next can begin
- This is a hugely complex task, which can require elements of the project to be reprioritised or reordered as project conditions change
- Learnings from projects of this size around the world highlight the significant complexities associated with fit out, systems installation, testing and commissioning.



# CRITICAL WORKS TO COMPLETE TUNNEL ENTRANCE (STRUCTURAL ELEMENTS)

Activity	Aug 2020	Sept 2020	Oct 2020	Nov 2020	Dec 2020	Jan 2021
Capping beams and permanent propping works	Dark Grey					
Sump piling (surface based works)	Dark Grey					
Tunnel entrance roof slab construction	Light Green	Dark Green	Dark Green	Light Green		
Capping Beam and Props (Form, Reo, concrete pour)	Light Green	Dark Green	Dark Green	Light Green		
Tunnel entrance excavation	Dark Grey	Dark Green	Light Green	Dark Green	Dark Grey	Light Blue
Tunnel entrance ground slab works	Light Green	Dark Green	Dark Green	Dark Grey	Dark Grey	Light Blue
Sump works (within decline structure)					Dark Grey	Dark Grey
Internal tunnel entrance walls					Dark Grey	Dark Grey

*Program is indicative and subject to change*

*Current out of hours works*

*Presenters: Steve Villella & Niall Forbes*

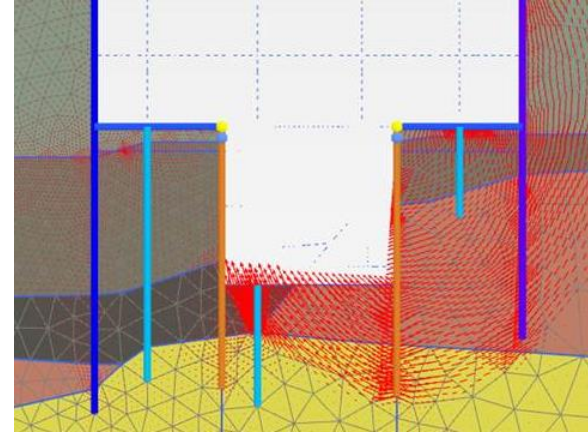
# OUT OF HOURS WORKS

## Western Tunnel Entrance overview

- Complete the decline structure and portal excavation works by early 2021
- Completing construction of the tunnel entrance assists the next phase of tunnel fit out and systems installation.

## Challenges

- Greater variability in ground conditions, resulting in increased design requirements for sump piling construction
- Increase ground water predicted, based on updated ground condition modelling, requiring greater complexity (and subsequently more time) in the construction methodology.



# OUT OF HOURS WORKS

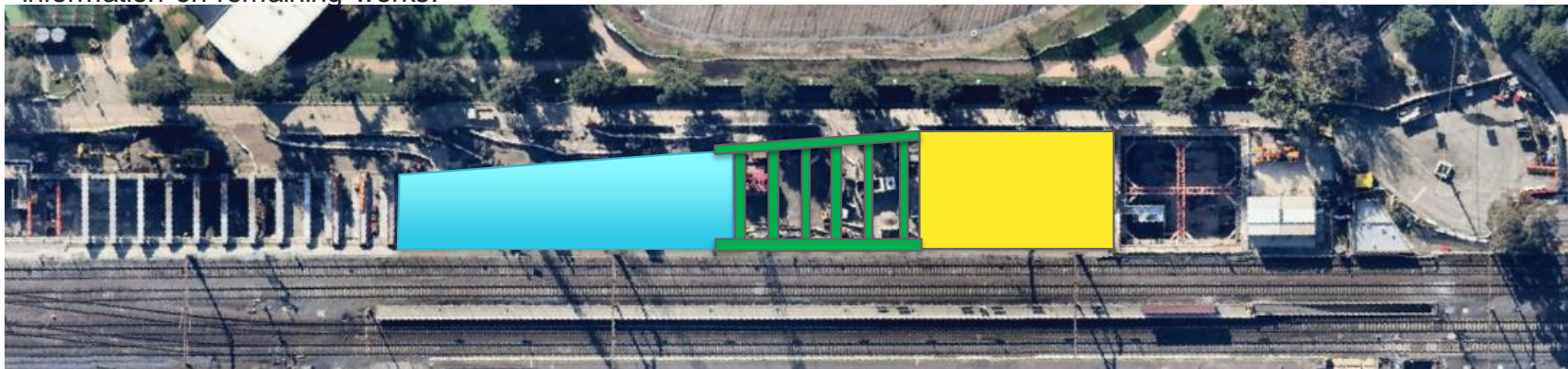
## Timing

- 7am to 10pm, Monday to Saturday
- Tuesday 4 August to late-September 2020
- No works on Sundays

## Works

- Tunnel entrance roof slab construction
- Capping beams and propping
- Tunnel entrance excavation and ground slab

RIA will continue to monitor the progress of these works over the coming months and provide further information on remaining works.





# NOISE MODELLING/MONITORING

## Evening background at closest residential receiver

- 46dBA

## Evening criteria (6pm to 10pm)

- Background noise (LA90) + 5dB(A)

## Excavation

- Evening prediction – 52dBA

## Temporary Propping

- Evening prediction – 47dBA

## Concrete Pours

- Evening prediction – 53dbA

## Formwork

- Evening prediction – 49dBA

## Steel Fixing

- Evening prediction – 49dBA

- The above noise modelling is an estimate only to assess potential noise impacts prior to work commencing
- Fixed and attended noise monitoring is being undertaken during works to verify actual noise against modelled noise
- Further investigation and additional measures to assist minimising noise may be required.

*Presenter: Niall Forbes (RIA)*

# MITIGATIONS

- Avoiding the use of Ormond Street turnaround. Using single trailer trucks, rather than truck and trailers, allows vehicles to turnaround within the existing site, and eliminates the need to use the turnaround for excavation works
- Noisier activities have been scheduled for day shifts. This includes break back works for capping beams, pile demolition works and all large concrete pours are scheduled to commence on day shifts
- Offers of relocation for front line residents in line with current Covid-19 restrictions
- Noise blankets placed around generators and positioned away from residences
- Decline structure walls provide some noise attenuation
- Investigation of additional onsite measures in response to noise monitoring.



# TRAFFIC UPDATE

# TRAFFIC UPDATE

- Childers Street is currently closed to all traffic except construction vehicles until late-September 2020 to allow for construction of the Metro Tunnel Project
- Several on-site changes since initial closure:
  - Re-sequenced program/methodology resulting from D-wall challenges
  - Ongoing excavation beyond September 2020
  - Additional works including – sump piling and utility works
  - Rescheduling of major rail corridor works from May 2020 due to resourcing availability during Covid-19
  - Timing of reinstatement works west of egress building brought forwards to Q1 2021
  - Timing of station forecourt reinstatement works (adjacent to South Kensington station) brought forward to Q3 2021.



# TRAFFIC UPDATE – WORKS LOOKAHEAD



Month	Tunnel entrance area	Egress building area	Station forecourt area
Q4 2020	Excavation, tunnel entrance works, roof slab works, drainage works, planned rail corridor works.		
Q1 2021	Complete tunnel entrance structural works, reinstatement works west of egress building (lighting, parking, pavement, flood wall creative design, removal of barriers and fencing, landscaping)		
Q2 2021		Drainage, egress building telecommunications connections, water and sewer connections, landscaping and removal of capping beams	Drainage, water and sewer connections
Q3 2021			Station forecourt works: lighting, drainage, signage/line marking, landscaping, and removal of gas monitoring points

# PROPOSED TRAFFIC CHANGES

## Proposal to extend the existing closure until September 2021

- An extension to the full closure of Childers Street to all traffic except construction vehicles and the continuation of a detour for over-height delivery vehicles accessing Lloyd Street Business Estate via Derby and Tennyson streets until September 2021
- The extension seeks to eliminate any potential conflict between large construction equipment, heavy vehicles and delivery vehicles on Childers Street
- There may be some short term closures, shuttle flow and other traffic management arrangements required beyond September 2021 until the project's completion in 2025. These closures will be managed in accordance with future works programs and engagement undertaken accordingly.



# PROPOSED TRAFFIC CHANGES

## Next Steps

- Speaking with local organisations, businesses and residents
- Information letter distributed to Kensington community (7 August)
- Online feedback open from 7 August until (5pm Wednesday 19 August) (survey available on Metro Tunnel website)
- Invitation to a virtual community pop-up (Thursday 13 and Saturday 15 August)
- Update to be provided to community in late-August





# COMMUNITY UPDATE





# COMMUNICATION AND ENGAGEMENT

## Notifications and communications

- July Kensington Construction Update (3 July)
- Extended concrete pour update (21-22 July)
- Out of hours works notification (21-22 July)
- Derby Street & Tennyson Street temporary traffic changes notification (23 July)
- SMS advice of coring overrun to 7pm (22 July)
- August Kensington Construction Update (4 August)

## Door knocks, meetings, briefings and events

- Lloyd Street Business Estate update email (3, 31 July)
- Kensington Community Childcare Co-operative monthly update email (9 June)
- City of Melbourne fortnightly progress meetings (24 June, 1, 13, 15, 22, 27 July)
- One-on-one communication/discussions with community members and businesses throughout July



**WORKS NOTIFICATION**

**OUT OF HOURS WORKS  
KENSINGTON**

**TUESDAY 4 AUGUST TO LATE-SEPTEMBER 2020**

Further to the recent Metro Tunnel Project construction update, we wish to update you on upcoming extended working hours in your area.

Throughout 2020, significant progress has been made in Kensington constructing the new Metro Tunnel. This includes completing diaphragm wall construction, tunnelling, retrieval of tunnel boring machines and commencing major excavation of the tunnel entrance.

Due to recent challenges with poor ground conditions a period of out of hours works will be required. This will ensure the completion of the tunnel entrance's major structural elements by early 2021 and will allow for tunnel fit out works and systems installation works to commence.

The Rail Infrastructure Alliance (RIA) will continue to monitor the progress of these works over the coming months and provide further information on remaining works.

**What we are doing**

**Piling**

- Using a piling machine to drill foundations and remove excavated material
- Loading excavated material into trucks for removal
- Using a crane to lift steel cages into place
- Pouring concrete to form the foundations.

**Tunnel entrance roof slab construction**

- Excavation works involving the use of one excavator loading material into trucks
- Using a small crane to lift temporary propping into place
- Placing steel reinforcement and timber formwork, in preparation for concrete pours

- Installing gravel and waterproofing material to secure the area to watertight
- Pouring concrete to provide a working area and a large concrete pour to form the tunnel entrance roof slab.

**Capping beams and propping**

- Constructing the final 60 metres of capping beams and the last three permanent concrete props
- These works involve breaking back excess concrete (using dry drill only) with a jackhammer, installing steel reinforcement and timber formwork and pouring concrete to form the capping beams and props.

**Tunnel entrance excavation**

- Using an excavator at surface level to load excavated material into trucks
- Excavating soil from between the tunnel walls using a small excavator located within the tunnel entrance.

**When**

**Piling**

- 7am to 6pm, Monday to Saturday
- Ongoing to Saturday 15 August
- No work on Sundays.

**Roof slab, capping beams, propping and excavation works**

- 7am to 10pm, Monday to Saturday
- Tuesday 4 August to late-September 2020
- No work on Sundays.

**RAIL PROJECTS VICTORIA**

**VICTORIA'S BIG BUILD**

**VICTORIA'S CONSTRUCTION**



# CONSTRUCTION UPDATE

# WHAT'S BEEN COMPLETED

- Installation of waterproofing for egress building (below ground structure)
- Egress building northern wall extended concrete pour (below ground structure).





**30 OF 36 SECANT PILES (SUMP PILING)**



**18 OF 21 CAST IN-SITU PROPS INSTALLED**  
**37% OF BULK EXCAVATION COMPLETE**



**126M OF 280M TUNNEL ENTRANCE  
BASE SLAB**

# WIDER CONSTRUCTION PROGRAM

Activity	Aug 2020	Sept 2020	Oct 2020	Nov 2020	Dec 2020	Jan 2021
Egress building – below ground structure	■	■				
Egress building – above ground structure			■	■	■	■
SER/CER Construction		■	■	■	■	■
Rail corridor works		■	■	■	■	■
Cross passage ground improvement reinstatement	■					
Cross passage construction (underground works)	■	■	■	■	■	■

Program is indicative and subject to change

Presenters: Kim Mas (CYP); Niall Forbes (RIA)

# CER/SER CONSTRUCTION

## Timing

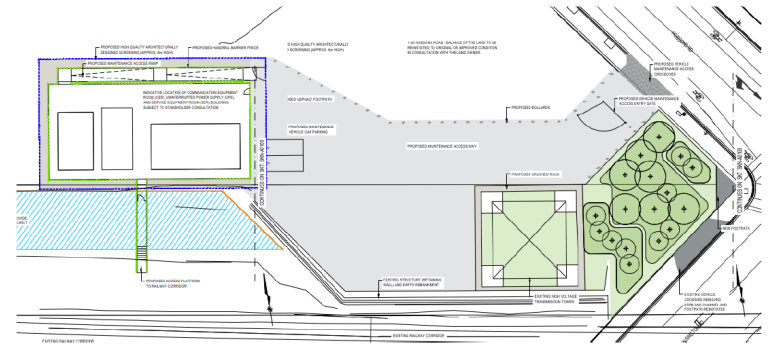
Commencing September 2020

## Works

- Driven piling works and installation of pile caps
- Installation of cable routes
- Installation of steel platform
- Delivery and landing of prefabricated buildings
- Building fit out.



Artist impression, subject to change.

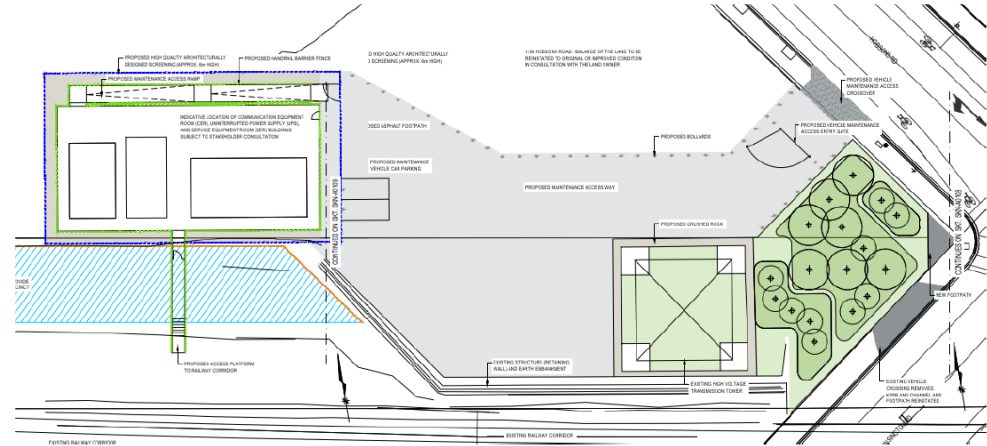




# CER/SER CONSTRUCTION

## Impacts

- Medium to high level noise associated with piling works
- Varying levels of impacts to available Hobsons Road offset parking throughout works with some activities requiring a full closure
- Finalising program of works over the coming weeks
- Project team are investigating alternative parking options during high parking impact works
- Further information will be available in late-August.



# EGRESS BUILDING – INTERNAL LINING WALL EXTENDED CONCRETE POURS

- Four internal lining wall pours in total
  - First completed last week (30 July)
  - Each pour expected to take up to 14 hours to be complete
  - Must be continuous to guarantee structural integrity
  - Will involve approx. 2 concrete trucks per hour travelling to site via Childers Street
- A further extended concrete pour will be required for a suspended slab which will complete the underground part of the egress structure
  - Construction of suspended slab expected to commence late August with pour expected during September (date TBC).



# PLANNING AND DESIGN

# RIA DEVELOPMENT PLAN AMENDMENT TIMELINE

Activities	Timing
Public display period	Monday 4 May to Friday 22 May 2020
Submissions reviewed and responded	May/June 2020
Anticipated submission to Minister for Planning for approval	June 2020
Anticipated approval	July/August 2020



Presenter: Jarrod Scurry (RIA)

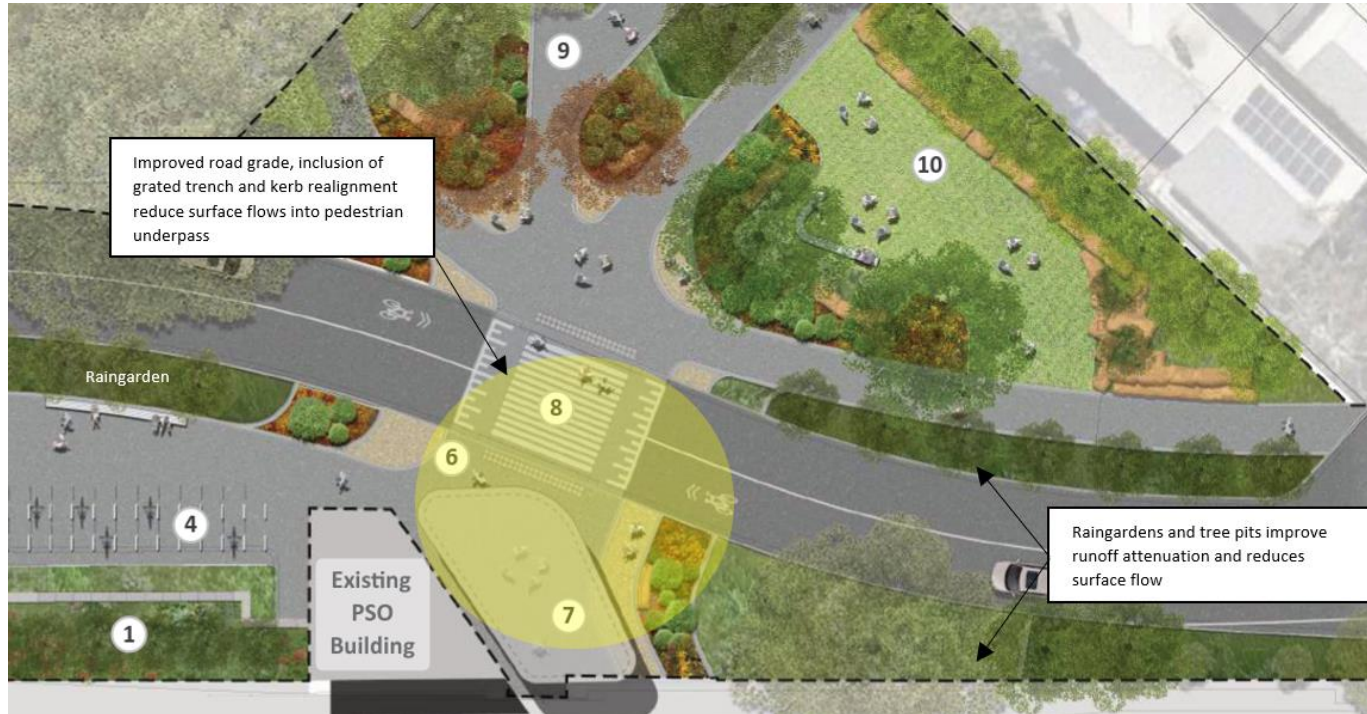
# LEGACY DRAINAGE

- Design will meet the drainage capacity available prior to the project. Additional new infrastructure will improve water catchment within the Childers Street project area.
- Two main areas of focus:
  - Childers Street
  - South Kensington Station Forecourt



Presenter: Reid Merriman (RIA)

# LEGACY DRAINAGE



# FLOODWALL DESIGN TREATMENT

## Timing

- Creative committee have established a shortlist of designers
- Meeting held **(24 July)** with the committee and shortlisted designers to further introduce the creative design, process, timing and to discuss queries
- Designers developing concepts to present to the committee to select the designer: Approx. **August/September**
- Selected designer will commence detailed design and present it to the committee: Approx. **October**
- Design implementation (following construction of flood wall) expected to begin in **approx. late 2020/early 2021**.



Kensington Artist Impression

# FLOODWALL DESIGN TREATMENT

## Community Engagement

- Key themes evolved from previous community engagement workshops have formed the creative design brief:
  - Landscape and nature
  - Heritage and local area history
  - Recreation, sport and community
  - Urban design intent
- The Creative Design response must address, respond to, interpret and/or incorporate the themes
- Creative Design team to host a session to provide an overview on the creative design process, emerging concepts from key themes and examples of similar creative responses
- Introduction to the selected designer and previous works.



Kensington Artist Impression





**OTHER ITEMS?**



**Western Portal**

South Kensington

**Arden**

**Parkville**

North Melbourne

**State Library**

Melbourne Central

Parliament

Flagstaff

**Town Hall**

Southern Cross

Flinders Street

Richmond

**Anzac**

South Yarra

**Eastern Portal**

Sunbury Line

Cranbourne / Pakenham Line