



SOUTH YARRA (EASTERN PORTAL) PRECINCT COMMUNITY REFERENCE GROUP

17 SEPTEMBER 2019



PROGRAM

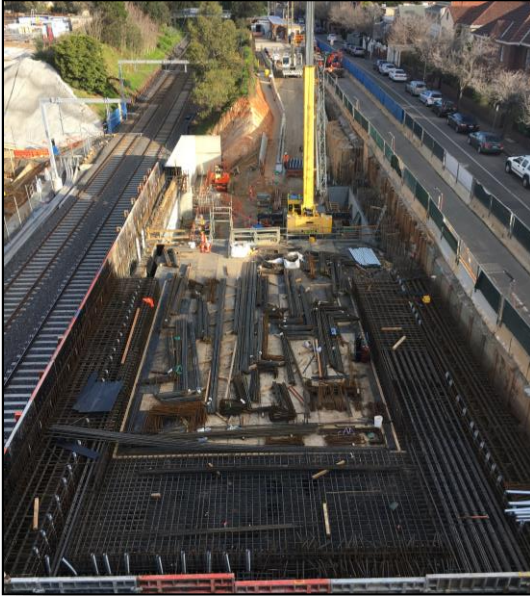
THE EASTERN PORTAL – SEPTEMBER 2019



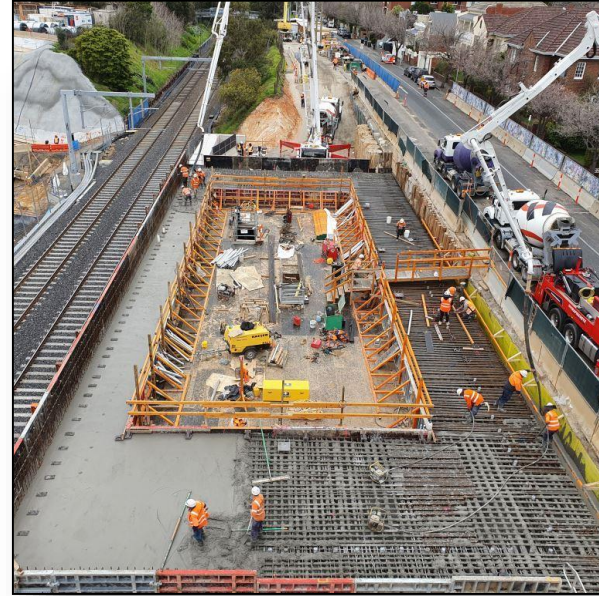
PROGRESS UPDATE



COMPLETED WORKS ON OSBORNE STREET

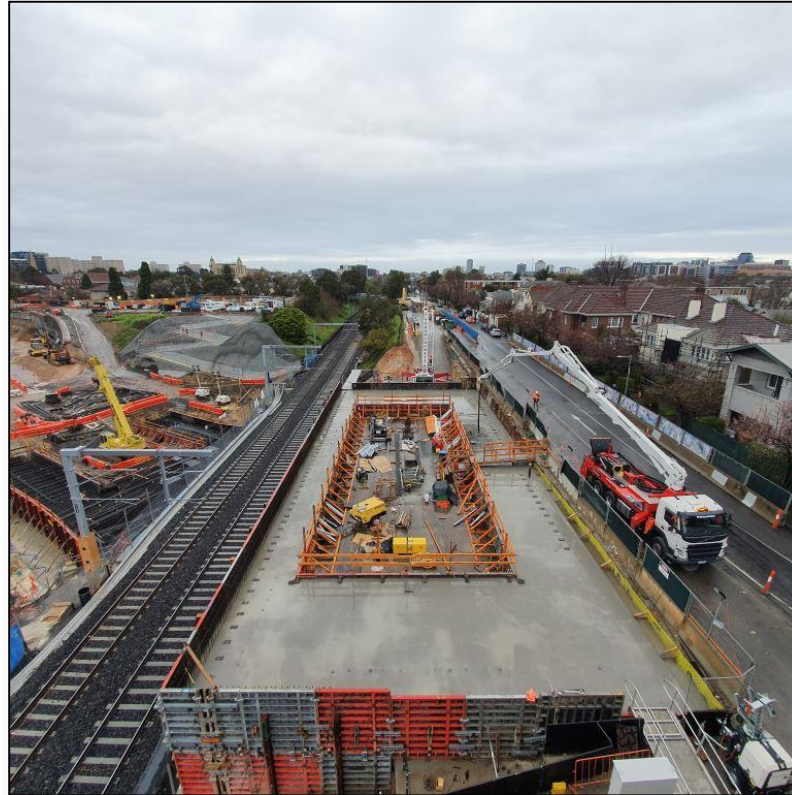


Before concrete pour



During concrete pour

COMPLETED WORKS ON OSBORNE STREET



Completed concrete pour of tunnel boring machine retrieval shaft

COMPLETED WORKS ON OSBORNE STREET

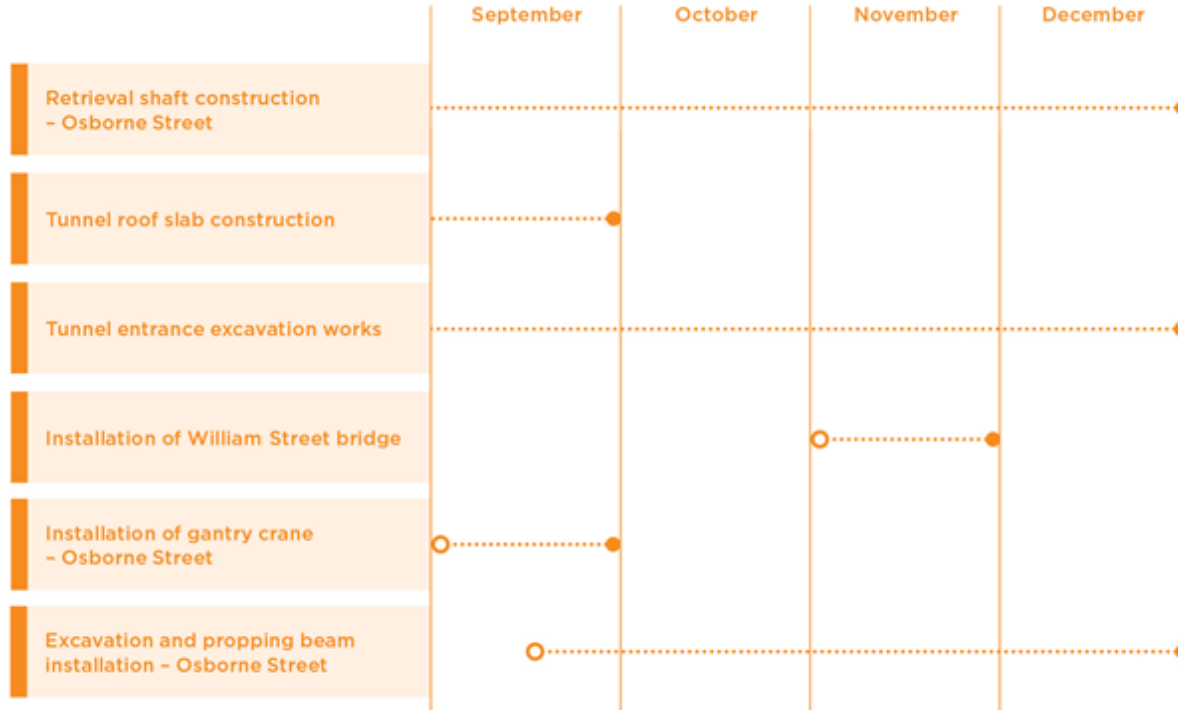


Gantry crane construction Osborne Street



Gantry crane construction Osborne Street

CONSTRUCTION PROGRAM





LONGER TERM CONSTRUCTION PROGRAM

Longer terms works – into 2020

- Slewing of tracks for final track alignment
- Continuation of tunnel construction and excavation
- Base slab construction of the TBM retrieval shaft



CONSTRUCTION LOOKAHEAD

Ongoing works - South Yarra Siding Reserve

- Dewatering works to continue
- Retaining wall works nearly complete

Upcoming works - South Yarra Siding Reserve

- Installation of ventilation fans
- Start of tunnel entrance excavation
- Construction of the tunnel entrance egress shaft
- Weekend rail occupation - Friday 25 to Monday 28 October

DE-WATERING UPDATE

- 25 de-watering wells located in South Yarra (11 commissioned and four in operation)
- More wells will become operational over the coming weeks to suit the construction program
- Hourly groundwater monitoring from six boreholes. Manual monitoring also occurs weekly at additional monitoring boreholes
- Drawdown currently occurring as predicted
- Observed drawdown and future drawdown modelling continues to show no settlement issues for nearby properties



CONSTRUCTION LOOK AHEAD

Upcoming works - Osborne Street

- Delivery and install of gantry crane top piece (delayed until Thursday 19 September)
- Formwork removal
- Bulk excavation of the Osborne Street retrieval shaft
- Progressive installation of steel propping beams



Formwork at Osborne Street site

CROSS SECTION OF TBM RETRIEVAL SHAFT

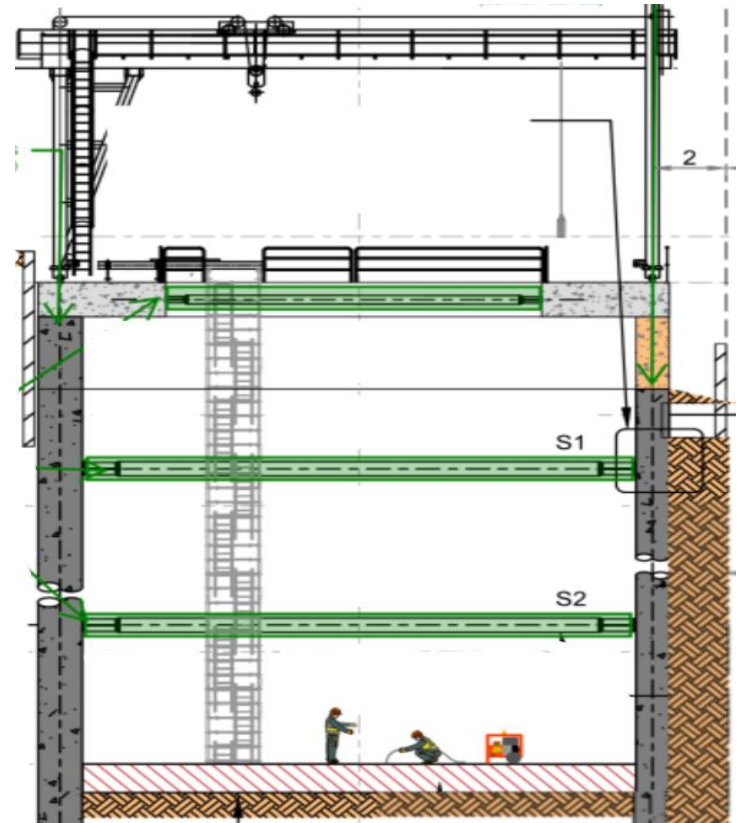
Two main activities to be completed by late December

Excavation

- Undertaken in three parts
- Approximately 9000 bulk cubic meters of earth removed

Propping beam installation:

- Undertaken in three parts, one already completed
- Over 380 tonnes of steel installed
- Extended work hours required (7am-midnight), with less disruptive works after 6pm



Artists impression of retrieval shaft



COMMUNITY & COMMUNICATIONS UPDATE

COMMUNICATIONS

Recent and upcoming communications

- September construction update distributed to approximately 1,500 residents and businesses on 2 September, and online distribution via email
- Additional notifications included gantry crane installation, 24/7 weekend works, and 24/7 steel fixing works in preparation for roof slab concrete pour
- Notifications regarding activities associated with the William Street bridge delivery and installation will be distributed in the lead up to these works



COMMUNICATIONS

Artwork installation

- We have been working closely with the City of Stonnington to improve the streetscape at the intersection of Chapel and Arthur streets
- In the coming weeks, artwork will be installed on the 11 traffic light boxes



Traffic light boxes



Artist: Neils Weerheim



Artist: Esther Olsson

TRAFFIC AND TRANSPORT

TRAFFIC CHANGES

General update – October and November

Significant increase in truck activity in streets around the site due to works associated with the gantry crane, concrete pour and bridge installation (including delivery and removal of 750 tonne crane and counterweights)

Palfreyman Street, South Yarra – ongoing

Temporary removal of parking and temporary closure when used as a rail access point

Porter Street, Prahran - September

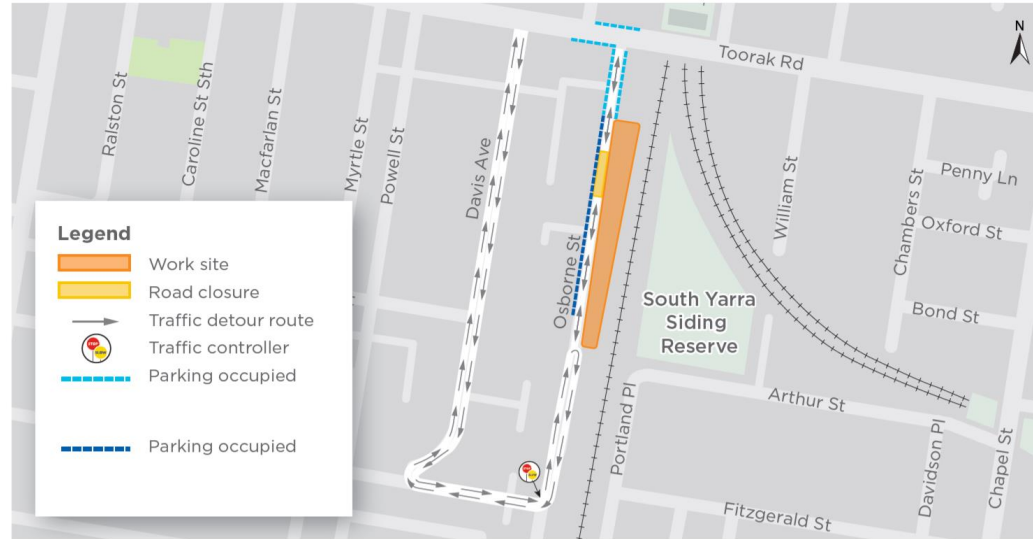
Temporary removal of parking while works are completed near Prahran Station



TRAFFIC CHANGES OSBORNE STREET

Gantry crane delivery and installation

- Osborne Street temporarily closed to through traffic to allow for crane
- Local access maintained via Davis Avenue and Fawkner Street detour
- Some parking occupied along Osborne Street and Toorak Road



Indicative only

Detour map

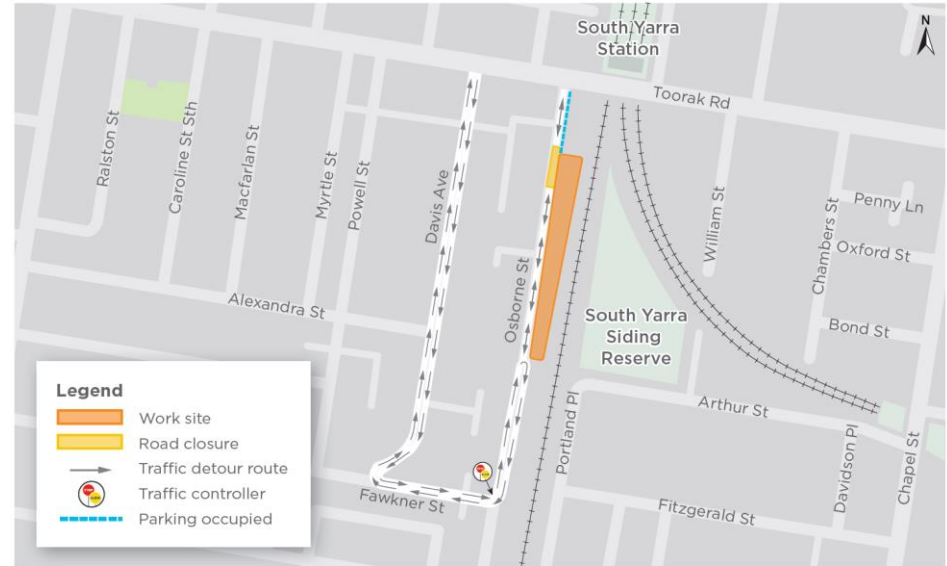
GANTRY CRANE DELIVERY AND INSTALLATION UPDATED SEQUENCE OF WORKS

	Wednesday 18 September	Thursday 19 September
Early morning		<ul style="list-style-type: none">• 2am - oversized delivery arrives to site
Morning	<ul style="list-style-type: none">• 7am –Osborne Street parking occupied• 250 tonne crane to perform lift arrives on site	<ul style="list-style-type: none">• Begin lift of gantry crane top piece
Afternoon		<ul style="list-style-type: none">• 250 tonne crane leaves site• Osborne Street reopens at 6pm
Evening	<ul style="list-style-type: none">• 9pm - Osborne Street closed to through traffic, detour in place• 10pm – Toorak Road parking occupied	

TRAFFIC CHANGES OSBORNE STREET

One day closure for formwork removal

- Retrieval shaft formwork removal
- Osborne Street closed to through traffic to allow for crane
- Local access maintained via Davis Avenue and Fawcner Street detour
- **Increase in trucks during excavation and propping installation**



Indicative only

Formwork removal detour map

ST KILDA ROAD REALIGNMENT SOUTH YARRA IMPACTS

What is happening?

- These works are part of the Spring Blitz
- Currently the Anzac Station site is split into the northern and southern sections
- St Kilda Road runs through the middle of these two sections
- St Kilda Road needs to be realigned to allow the construction of the middle box
- **From 13 October to 27 October, buses will replace trams while St Kilda Road is realigned**
- St Kilda Road will remain open to vehicles and cyclists



Artist impression of Anzac Station site

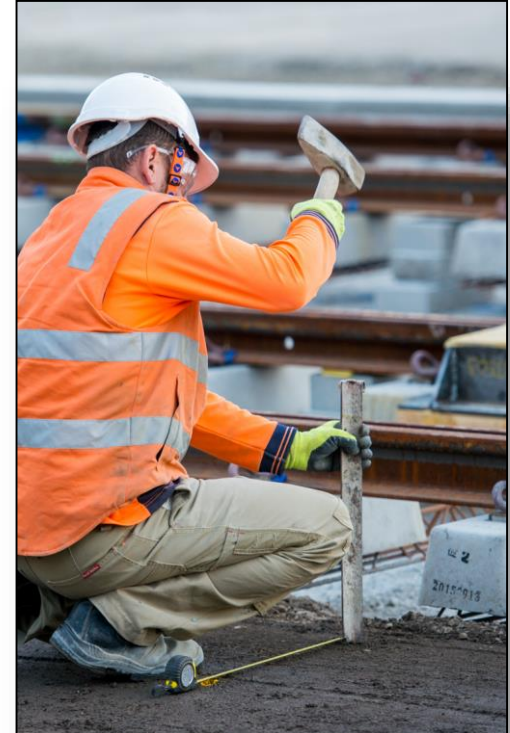
ST KILDA ROAD REALIGNMENT SOUTH YARRA IMPACTS

Tram and bus services changes

- **Buses will replace Route 58** between Stop 119 – Wells Street and Stop 123 – Fawkner Park
- Buses will replace Routes 3, 3a, 5, 16, 64 and 67 (Route 67A) between Stop 19 – Shrine of Remembrance and Stop 25 – Commercial Road
- Buses will replace Route 6 between Stop 19 – Shrine of Remembrance and Stop 53 – Malvern Road
- Buses will replace Route 72 between Stop 19 – Shrine of Remembrance and Stop 26 – Alfred Hospital

Spring Blitz

- Buses replace trains on sections of the Cranbourne and Pakenham lines from 21 to 25 September, however, all services will continue to run through South Yarra station
- Visit ptv.vic.gov.au for more information



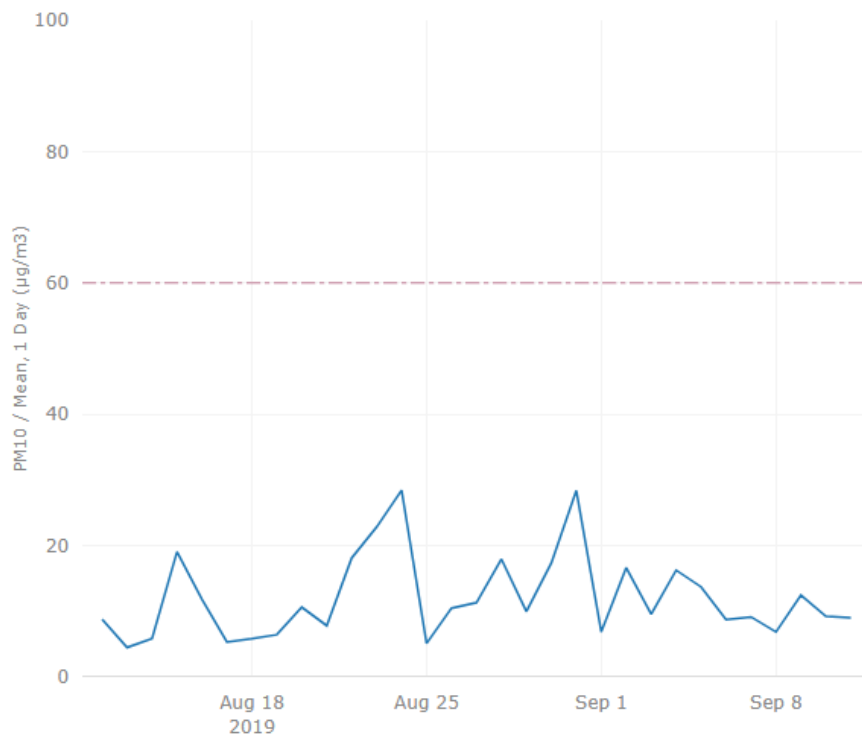
St Kilda Road tram works April 2018



ENVIRONMENTAL MANAGEMENT

AIR QUALITY MONITORING

DEVICE DATA

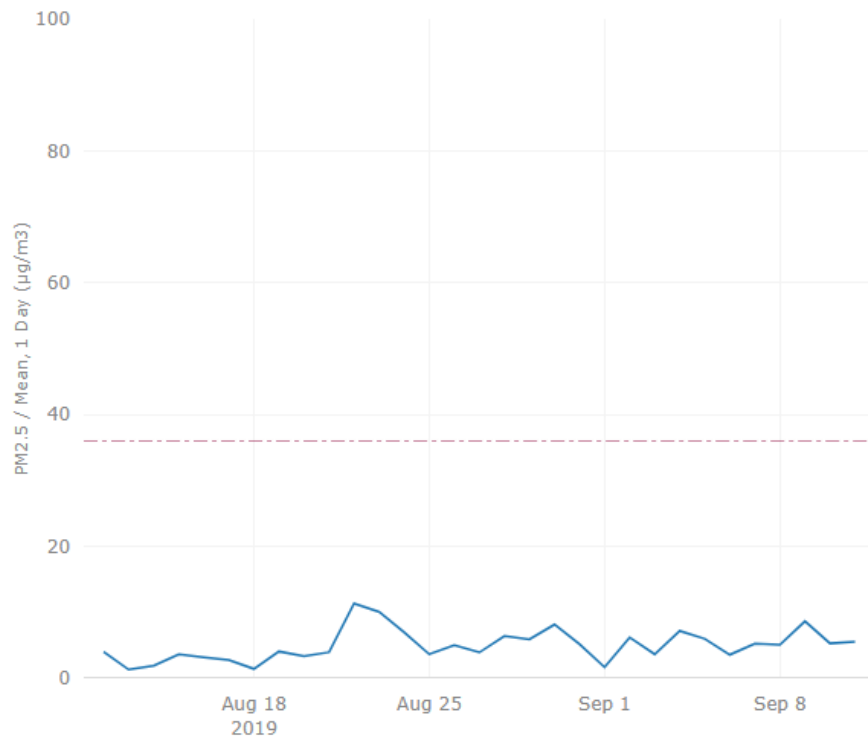


PM10 – Osborne Street

Date range: August 11 to September 11

AIR QUALITY MONITORING

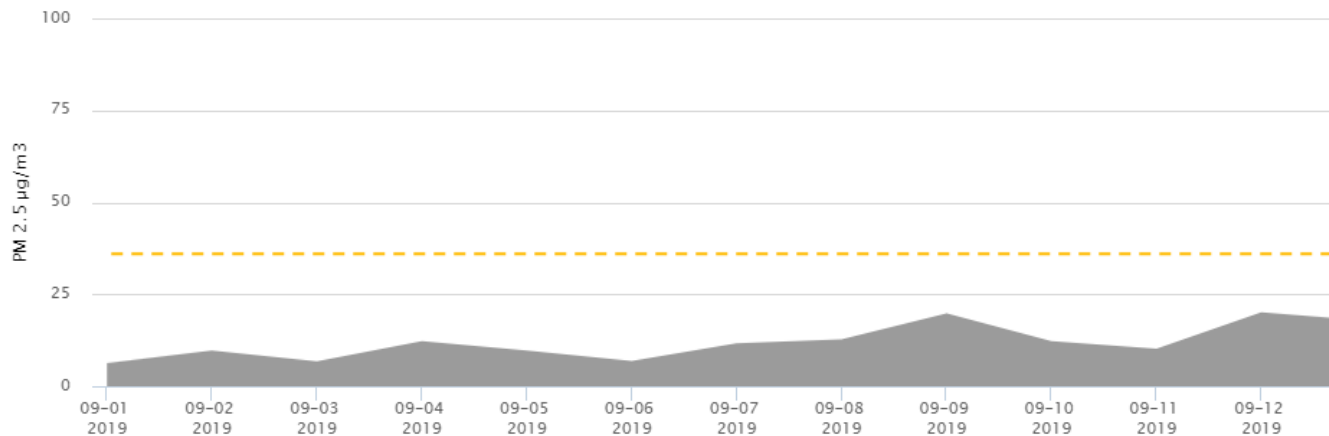
DEVICE DATA



PM 2.5 – Osborne Street

Date range: August 11 to September 11

AIR QUALITY MONITORING



William Street (north)

Date range: September 1 to September 13

NOISE MONITORING

DEVICE DATA



Average Week

Location: Arthur Street

Date range: August 8 – 13

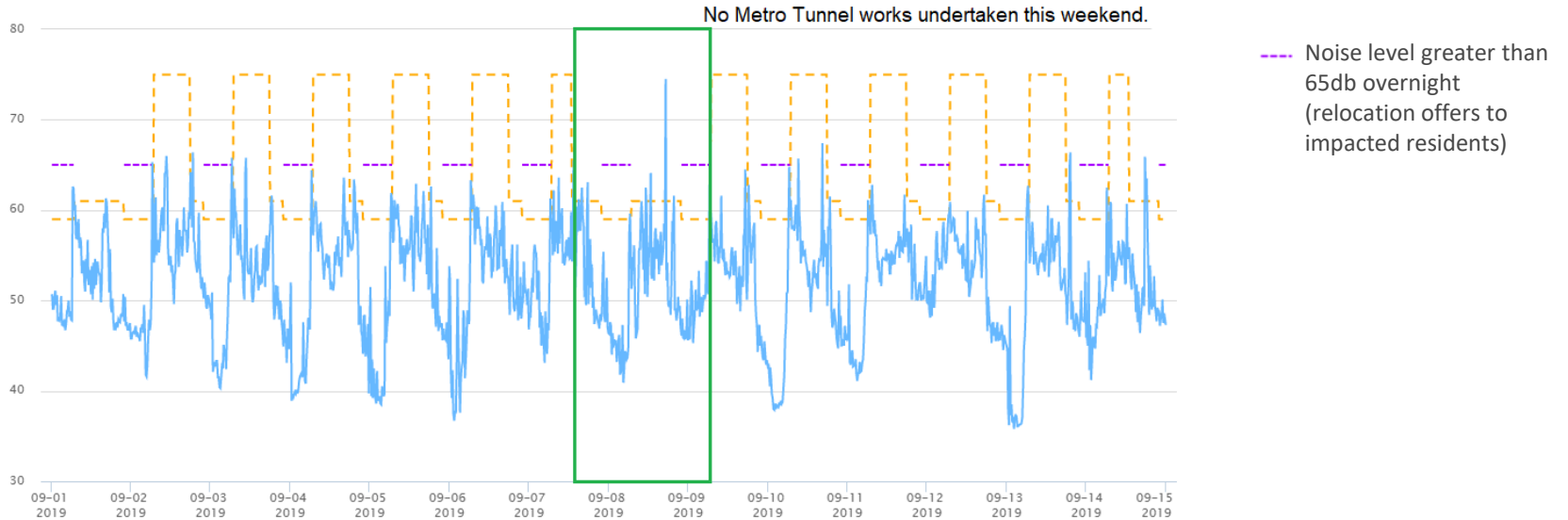
Evening limits: —

No works after 6pm

Data affected by everyday background noise

NOISE MONITORING

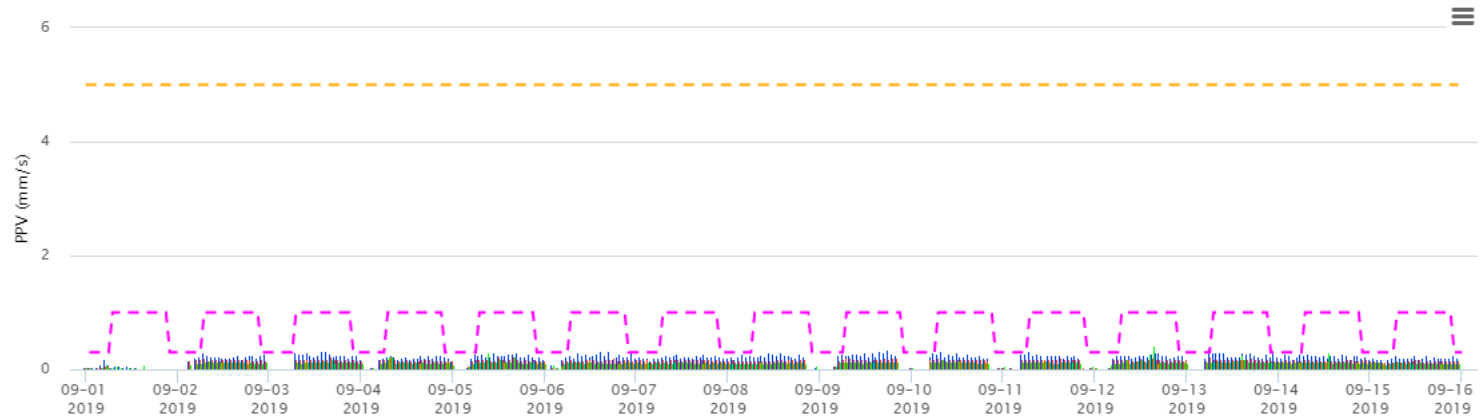
Portland Place, South Yarra: Measured Noise Levels



Portland Place

Date range: September 1 to September 15

VIBRATION MONITORING



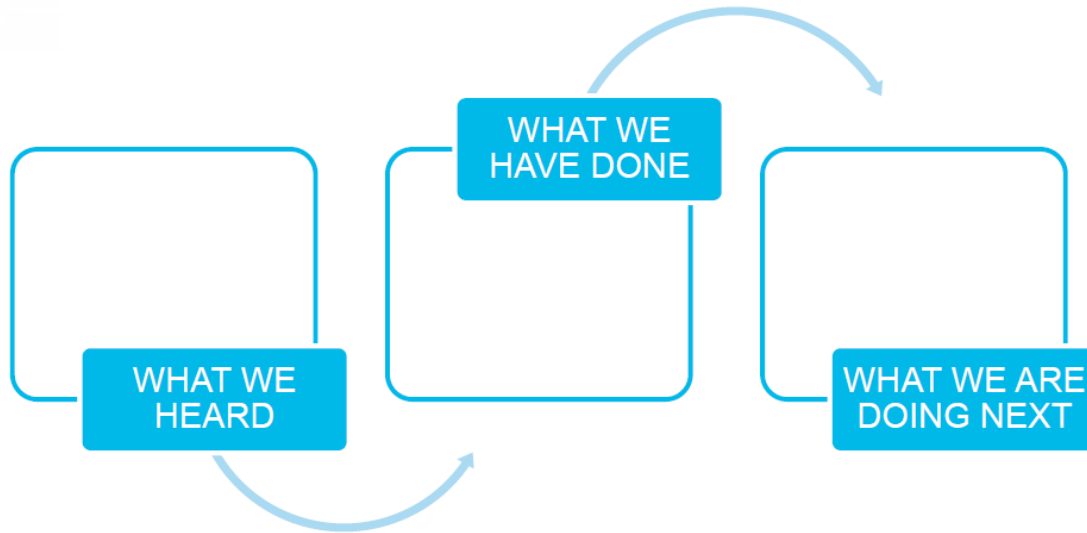
Portland Place

Date range: September 1 to September 16



URBAN DESIGN UPDATE

URBAN DESIGN UPDATE



WHAT WE'VE HEARD

South Yarra Siding Reserve

- Maximise usable green space
- Mixture of shade and sun areas
- Provide dog off leash area
- Manage interface between pedestrians, cyclists, park users

Osborne Street Reserve

- Loss of green space reserve as a result of the bridge
- Improves the connection between Osborne St and Siding Reserve
- Reduce in the bulk and footprint to mitigate loss of amenity



William Street Bridge

- Limited opportunities for visual permeability
- Support for improved pedestrian connection and widen footpaths
- High visual permeability screens around the bridge and throughout the precinct

Lovers Walk

- Widen footpaths where possible
- Transparent fences/ screens
- Improve security
- Future rail infrastructure area

WHAT WE HAVE DONE

South Yarra Siding Reserve

- Park has designed to create and define two large lawn areas
- Revised footpaths reduce conflicts between cyclists and pedestrians
- Additional garden bed and lawn areas
- New stepped terraces and low retaining/ seating walls
- Deciduous trees to provide shade in summer and access to sunlight in winter

Lovers Walk

- Reinstated asphalt pavement to match surrounding pavement materials
- New CCTV and public lighting
- Exploring opportunities to wider where possible
- Transparent fences and anti-throw screens



WHAT WE HAVE DONE

South Yarra Siding Reserve



Artist impression

WHAT WE HAVE DONE

William Street Bridge – single span or multi-span analysis

- The width of the rail corridor and the existing rail lines present significant challenges for construction of bridge piers (e.g. two or three span bridge) at this location:
 - Safety clearance requirements (between rail track and bridge piers) cannot be met
 - Maintenance access requirements cannot be met
 - 'Position of safety' requirements cannot be met
 - Visibility / signal sighting issues for train drivers on the curve
 - Highly impactful construction process.
- Multi-span options unsuitable for this location as they would require load bearing concrete bridge piers to be constructed within the rail corridor and would result in several considerable construction and ongoing maintenance risks.

WHAT WE HAVE DONE

William Street Bridge - rationale

- Construction of a single span bridge avoids the need to install piers within the rail corridor – the weight of the single span is borne at surface level and removes all interface of this infrastructure within the rail corridor.
- The benefits of a single span bridge design:
 - Removes ALL risks associated with not meeting necessary safety clearances, maintenance access and continuous 'position of safety'
 - Reduces visibility risks for train drivers on the curve, and minimises need for speed restrictions
 - De-risks design complexities (de-links bridge pier design to decline structure wall)
 - Significantly reduces construction impacts including further train line occupations (shutdowns).



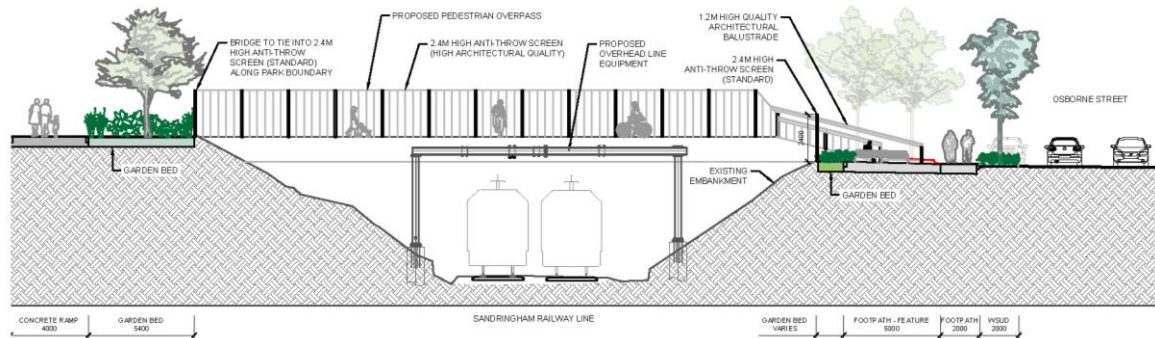
WHAT WE HAVE DONE

William Street Bridge – additional considerations

- Metro Trains Melbourne (MTM) require any public infrastructure (e.g. bridges) over the rail corridor to have a 2.4m non-climbable ‘anti-throw screens’ to ensure the safety of trains and pedestrians
- Structural loading and bridge design cannot provide capacity for landscaped planters or stoned paved areas on bridge structure. The use of painted graphics being explored.

WHAT WE HAVE DONE

Osborne Street Bridge





WHAT WE ARE DOING

Next steps

- Ongoing work to develop urban design plans further will continue
- Working closely with MTM, City of Stonnington and other stakeholders to refine elements of the design
- Further targeted engagement sessions with the local community will be undertaken
- Broader community engagement information sessions will also take place.



QUESTIONS?



Western Portal

North Melbourne

Parkville

State Library

Town Hall

Anzac

Eastern Portal

The existing 'North Melbourne' station will be renamed West Melbourne.

South Kensington

West Melbourne

Melbourne Central

Flagstaff

Parliament

Southern Cross

Flinders Street

Richmond

South Yarra

Carabourne / Pakenham Line