METROTUNNEL

DEVELOPMENT PLAN

PARK STREET TRAM STOP

Yarra Trams

Jan 2018

MELBOURNE METRO RAIL AUTHORITY

VICTORIA State Government

Document Revision

All copies shall be distributed in accordance with the Distribution List. On receipt of a revision, the copyholder shall incorporate the revised pages into this document. The document shall be subject to reissue after a practical number of changes have been made.

The controlled copy of this plan will be maintained in the Yarra Tram document system. Each revision of the plan will also be updated within the Document Management System. Copies of the Plan downloaded by project personnel shall be deemed uncontrolled

Revision	Date	Prepared By	Approved By	Description
A	27-Jul-17	H. Jiang	M. Peace	Issue for Public Display
B	5 Sep 2017	H. Jiang	M. Peace	Edition incorporating comments from Public Display
C	28 Sep 2017	H. Jiang	M. Peace	Edition incorporating comments after presentation to DPRC and UDAAP
D	17 Jan 2018	J. Mckenzie-Smith	T. Phillips	Amended to include removal of an additional two trees

This Revision has been reviewed and approved by Yarra Trams and MMRA for submission to the Minister for Planning.

Name	**Ted Phillips** Senior Project Manager	Signature		Date	22/01/2018

Construction partner:

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1. Introduction

1.1 Purpose of the Development Plan

The Development Plan defines works being undertaken by Yarra Trams on behalf of Melbourne Metro Rail Authority (**MMRA**) to deliver the Park Street Tram Stop (the **Project**) as part of the broader Metro Tunnel Project. It demonstrates how these works will meet the requirements of the approved *Melbourne Metro Rail Project – Incorporated Document, May 2017* (**Incorporated Document**) and how they will be managed in accordance with the approved Environmental Management Framework (**EMF**); the Environmental Performance Requirements (**EPRs**) within the EMF and the approved Urban Design Strategy (**UDS**) for the Metro Tunnel Project. The new tram stop is needed to provide an alternative for tram passengers when existing tram stops in St Kilda Rd will be impacted by construction of Domain station in 2018. Following completion of Domain Station, the tram stop will continue to provide access to this part of the Domain area.

The EES was based on a Concept Design, with the understanding that detailed design would necessarily come later. The Development Plan provides an outline of the design solution in greater detail than was available at the time of the Environment Effects Statement (**EES**) for the Metro Tunnel Project.

1.2 Project and approvals context

The Minister for Planning completed the EES assessment for the Metro Tunnel Project in late 2016. This assessment led the development of the *Melbourne Metro Rail Project – Incorporated Document* (GC45) dated December 2016. Incorporated Document includes a condition for Development Plans to be prepared for the five stations, two portals, the rail turnback at West Footscray and for *any other above-ground works or structures that are part of the Project.*

Planning Scheme Amendment GC67 was approved by the Minister for Planning in June 2017 to replace the schedules to Clauses 52.03 and 81.01 of to the Maribyrnong, Melbourne, Port Phillip and Stonnington Planning Schemes (relevant planning schemes). The amendment inserted an amended Incorporated Document titled *Melbourne Metro Rail Project Incorporated Document, May 2017* into the planning schemes. It included additional land on Park Street and Bowen Lane within the Metro Tunnel Project Land at Appendix A of the *Incorporated Document*.

The extension of the Metro Tunnel Project Land to include land in Park Street facilitates the approval process (via this Development Plan) for the relocation of tram stop 119. The relocation is required due to the temporary removal of the Domain Tram Interchange to allow construction of the new Domain Station.

This project provides a suitable alternative for tram customers wishing to start, transfer or end their journey in the vicinity during temporary closure of the Domain tram interchange for the construction of the Domain Station. The works are to be delivered in direct agreement between MMRA and Yarra Trams (refer to Figure 1.1).

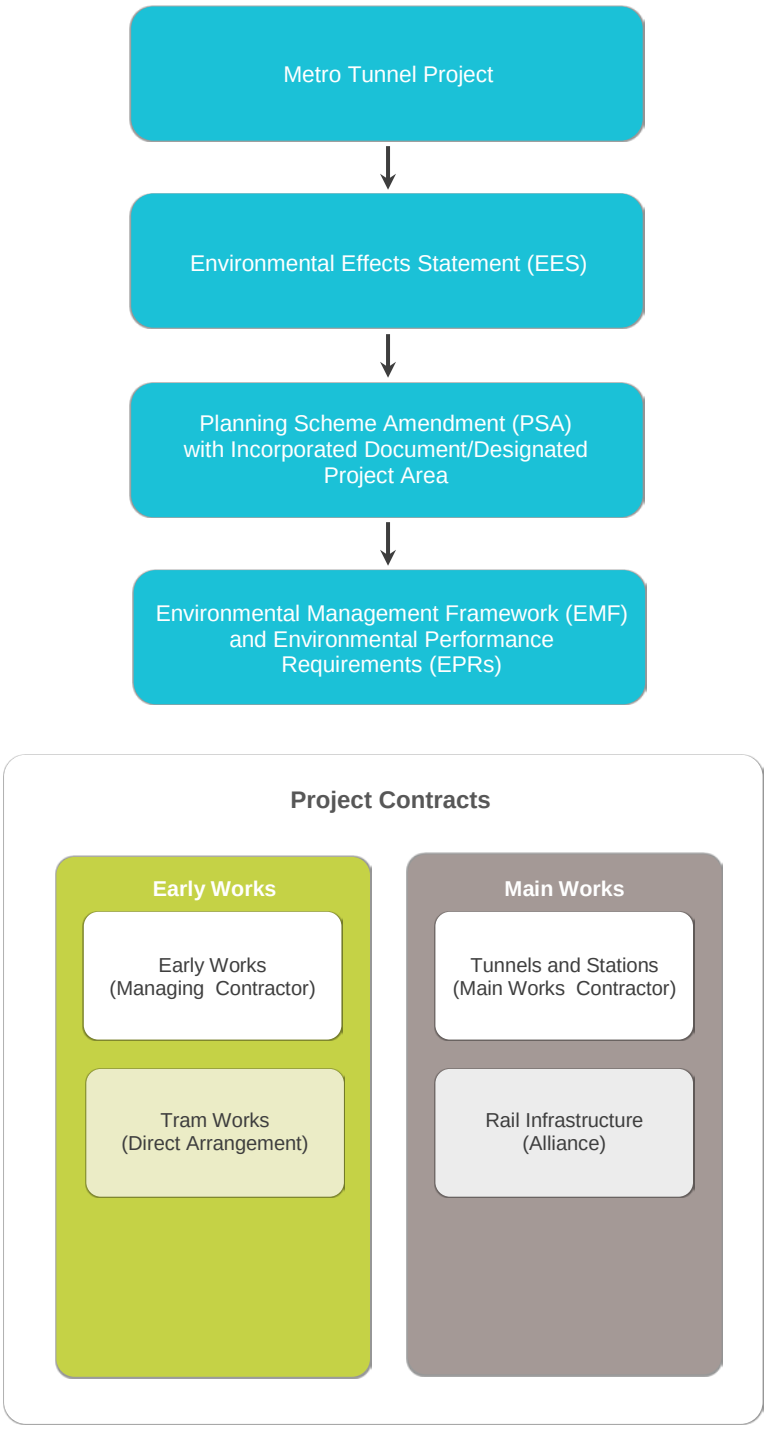


Figure 1.1: Governance Framework for the delivery of the Metro Tunnel Project

The Metro Tunnel Project is being delivered by the Melbourne Metro Rail Authority. The Metro Tunnel Project comprises twin nine kilometre rail tunnels between Kensington in the inner west and South Yarra in the inner southeast of Melbourne that will connect the Sunbury and Pakenham/Cranbourne train lines. The Metro Tunnel Project will provide five new inner city underground railway stations at Arden, Parkville, CBD North, CBD South and Domain. The Metro Tunnel Project will significantly increase inner city station capacity and open the Parkville and Domain precincts to the rail network. The alignment is shown in **Figure 1.2**.

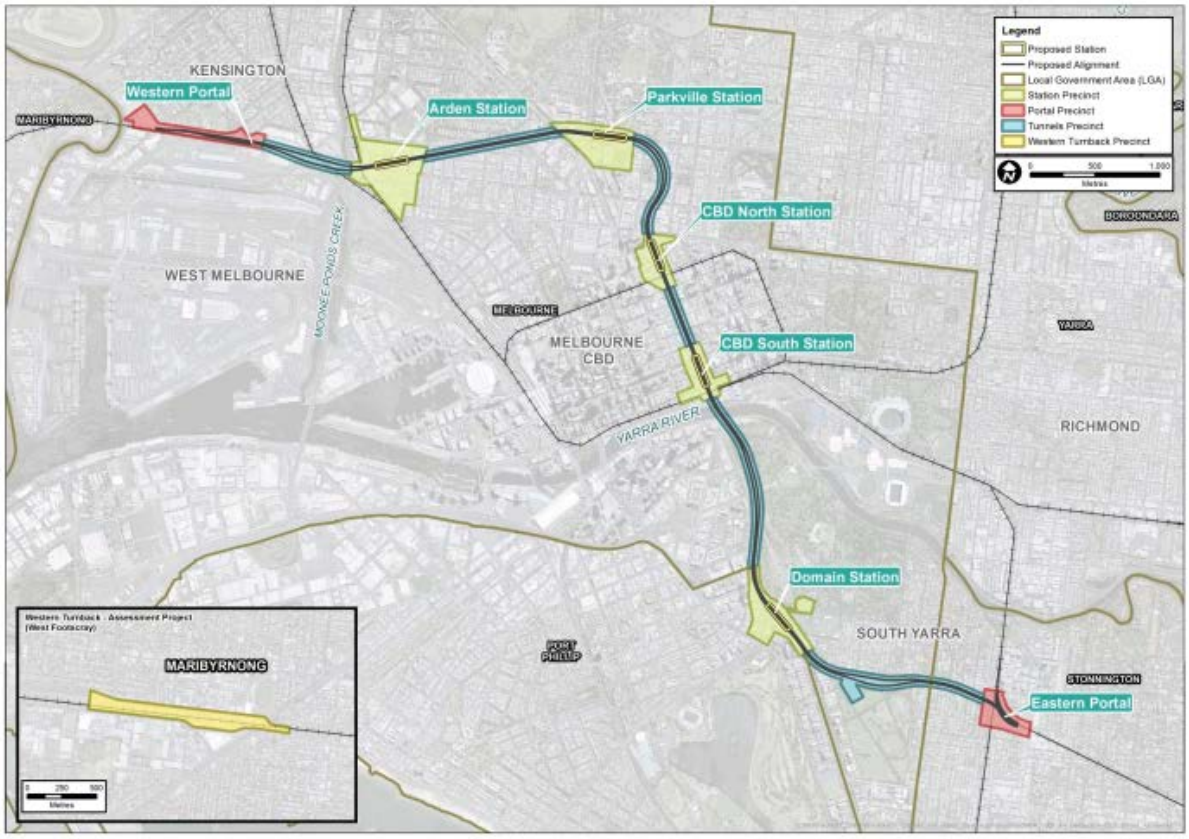


Figure 1.2: Precincts within the Metro Tunnel Project Land

1.3 Development Plan Requirements

1.3.1 General

A Development Plan must be prepared in accordance with the requirements of the Incorporated Document. Clause 4.6.1 of the Incorporated Document specifies that a Development Plan must be approved by the Minister for Planning for development that relates to any of the above-ground works or structures that are part of the Project. As the proposed Park Street Tram Stop comprises works above ground, a Development Plan is required for approval under this clause.

1.3.2 Content of Development Plans

Clauses 4.6.2 – 4.6.3 (inclusive) of the Incorporated Document specify the information and plans required to be included in a Development Plan.

A Development Plan must include:

- A site layout plan[1]
- Architectural, landscape and public realm plans and elevations including lighting, signage, pedestrian access, bicycle access and other ancillary facilities[2]
- An explanation of how the Development Plan accords with the approved Urban Design Strategy[3]
- An explanation of how the Development Plan accords with the approved Environmental Performance Requirements in the Environmental Management Framework[4].

1.3.3 Assessment of Development Plans

Clause 4.6.5 of the Incorporated Document requires that a Development Plan lodged for approval by the Minister for Planning must be accompanied by:

- Copies of all written comments received as a result of the consultation undertaken in accordance with Clause 4.6.4
- A summary of the consultation undertaken
- A response to issues raised during the consultation.

The Minister for Planning must consider all written comments received and the consultation and response summary provided before deciding whether to approve a Development Plan.

[1] Refer to **Appendix A**
[2] Refer to **Appendix B** and **Appendix C**
[3] Refer to Section 4.
[4] Refer to Section 5 **Compliance with EPRs**.

1.4 Community and stakeholder engagement

1.4.1 Consultation requirements for Development Plans

Clause 4.6.4 of the Incorporated Document sets out the consultation requirements that apply to a proposed Development Plan.

A draft Development Plan must be provided for comment as follows:

- The Office of the Victorian Government Architect
- Relevant Councils
- Where relevant, the Roads Corporation, Public Transport Development Authority, Melbourne Water and Heritage Victoria
- Made available for public inspection and comment on a clearly identifiable Project website for 15 business days. Simultaneously, a notice must be published in a newspaper generally circulating in the area to which a Development Plan applies, informing the community of the availability of the draft Development Plan for public inspection.

This version of the Development Plan has been prepared as per the stakeholder consultation requirements of clause 4.6.4 of the Incorporated Document. When submitted to the Minister for Planning for approval, the Development Plan will be accompanied by all written comments received under clause 4.6.4 and a summary of consultation and response to issues raised during the consultation.

2. Site context

2.1 Domain Precinct

Domain Station will be an important interchange station between train and tram services, providing access to existing business precincts and growing residential areas on St Kilda Road, Kings Way and in South Melbourne, Southbank and the expanding western CBD.

Ultimately Domain Station is expected to provide access to around 33,000 jobs in the precinct, and 17,000 residents will be within 800 metres of the station location from 2031.

The construction of Domain Station will be staged to reduce impacts on the road and tram network. As the existing Domain Interchange tram stop on St Kilda Road will be temporarily removed, the proposed Park Street Tram Stop as well as a further temporary tram stop on St Kilda Road is needed to accommodate passengers who would usually board, transfer or alight at the Domain Interchange.

2.2 Park Street, South Melbourne

Park Street is a two-way street managed by the City of Port Phillip (**CoPP**). The Park Street road reservation has a width of approximately 30 metres and the posted speed limit is 60kph. Park Street currently serves route 58 trams through the central tram reserved carriageway with yellow spike down kerbing. The road consists of one traffic lane and one parking lane on either side. The existing Tram Stop 119 is located adjacent to the intersection of Park Street with Kings Way. Stop 119 is to be relocated and consolidated with the tram platform stop proposed by this Development Plan.

Figure 2.1 identifies Park Street and the surrounding locality. **Figure 2.2** illustrates the character of existing tram stops in the area surrounding Park Street.

The land uses surrounding the project area consist of a mixture of commercial and high-density residential land uses adjoining Park Street. Commercial uses are dominant along the section of Park Street between St Kilda Road and Wells Street while residential uses are more evident for the section of Park Street between Wells Street and Kings Way. **Figure 2.3** depicts the existing streetscape and tram infrastructure in Park Street.

Between St Kilda Road and Wells Street, planning controls[5] specify mandatory height limits with reductions in height at the Park Street frontage and on sites proximate to St Kilda Road. Given the substantial nature of buildings anticipated by the planning controls it is envisaged that the area around the project site will see increased residential and employment density in the future. The project will support future land use trends by providing excellent metropolitan scale public transport connections, and will support further development of the surrounding area in the future as anticipated by the Port Phillip Planning Scheme.

The key local strategic plan that relates to Park Street is the City of Port Phillip's St Kilda Road Precinct Plan (updated 2015). The plan identifies a number of strategies and opportunities including the upgrade of existing tram stops to be fully accessible, and the installation of pedestrian operated signals mid-block on Park Street to enable people to cross Park Street conveniently and safely, both will be delivered by the proposed works.

[5] E.g. Design and Development Overlay Schedule 26 (St Kilda Road North Precinct), Sub-Precincts 1 and 2.

Figure 2.1: Park Street Existing Features

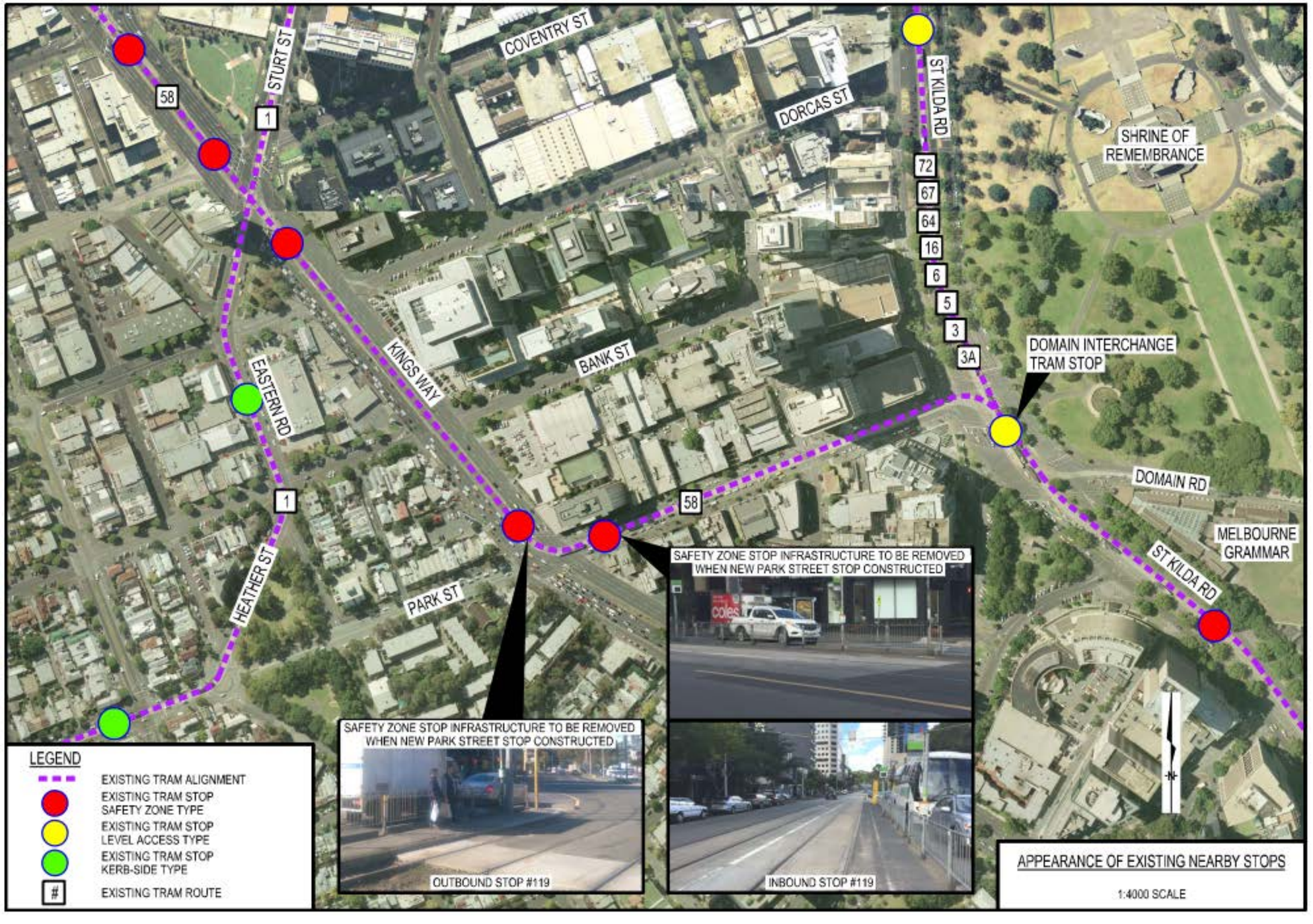


Figure 2.2 : Existing nearby tram stops

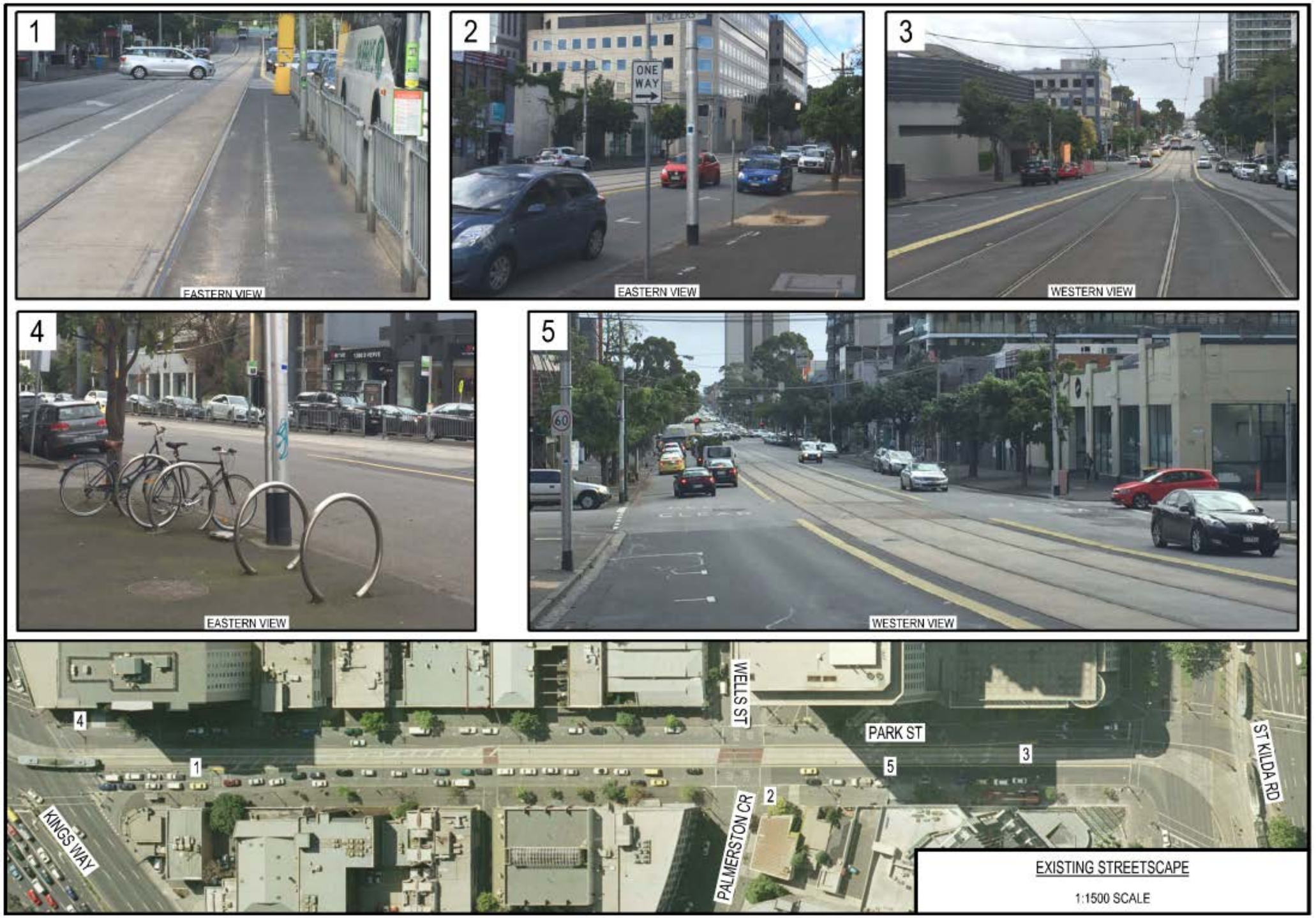


Figure 2.3: Existing Park Street tram infrastructure and streetscape

3. Project works

3.1 Scope of works

The works required as part of the project are summarised as follows:

- Construction of a new tram stop, including two side platforms, shelters and seating, ramps, fencing and associated platform furnishings and passenger facilities all to a standard compliant with the *Disability Discrimination Act 1992* (Cwth) (**DDA**) and Yarra Trams design standards. The PTV Accessibility Reference Guide helps pinpoint which platform and roadway elements require consideration to ensure persons with disabilities can utilise the new public infrastructure.
- Relocation and consolidation of existing Tram Stop 119 with the proposed tram stop into a new permanent level access stop.
- The Park Street Tram Stop is planned to be constructed in late 2017 or early 2018 to allow for the construction of Domain Station to commence in 2018.
- Removal of up to 26 on-street parking spaces to accommodate the Park Street platform stop.
- Tree impact works resulting from signalling design and the Road Safety Audit.
- Installation of new tram infrastructure including: tracks, overhead power system, enhanced separation kerbing, and crossover to provide the ability to turn trams back during Domain construction.
- Road works including modification of kerbs, asphalt surfacing, line-marking, utility protection and modification and reinstatement of access to adjoining properties.
- Changes to traffic management to produce a lower speed, safer and less complex traffic environment for tram passengers, pedestrians and drivers without unduly inhibiting the efficiency of the traffic network. These include:
    - Proposed reduction of the speed limit in this section of the road network to 40 kilometres per hour (kph).
    - Traffic signals will be installed at Wells St to stop southbound vehicles through/right turn to Park St when trams are approaching.
    - East and west-bound traffic travelling along Park Street will be prevented from right turns into Wells Street and Palmerston Crescent across the tram line.
    - Palmerston Crescent will be left-in and left-out only.
    - No U-Turns.
    - Installation of pedestrian-operated signals at each platform end.

The Site Layout Plan is showing the proposed modifications. A General Arrangement Design Plan is included at Appendix A. General Arrangement Design - Plan Site layout Design and a Typical Tram Stop Section Plan at Appendix B. Park Street tram stop – Typical Cross Section to describe the project works [6]. **Figure 3.2** and **Figure 3.3** provide illustrative streetscape views of the proposed tram stop. Appendix C. Park Street tram stop – platform furnishing provides details of the proposed platform furnishings.

[6] The dimensions shown on plans, elevations and sections may be subject to minor changes through detailed design.

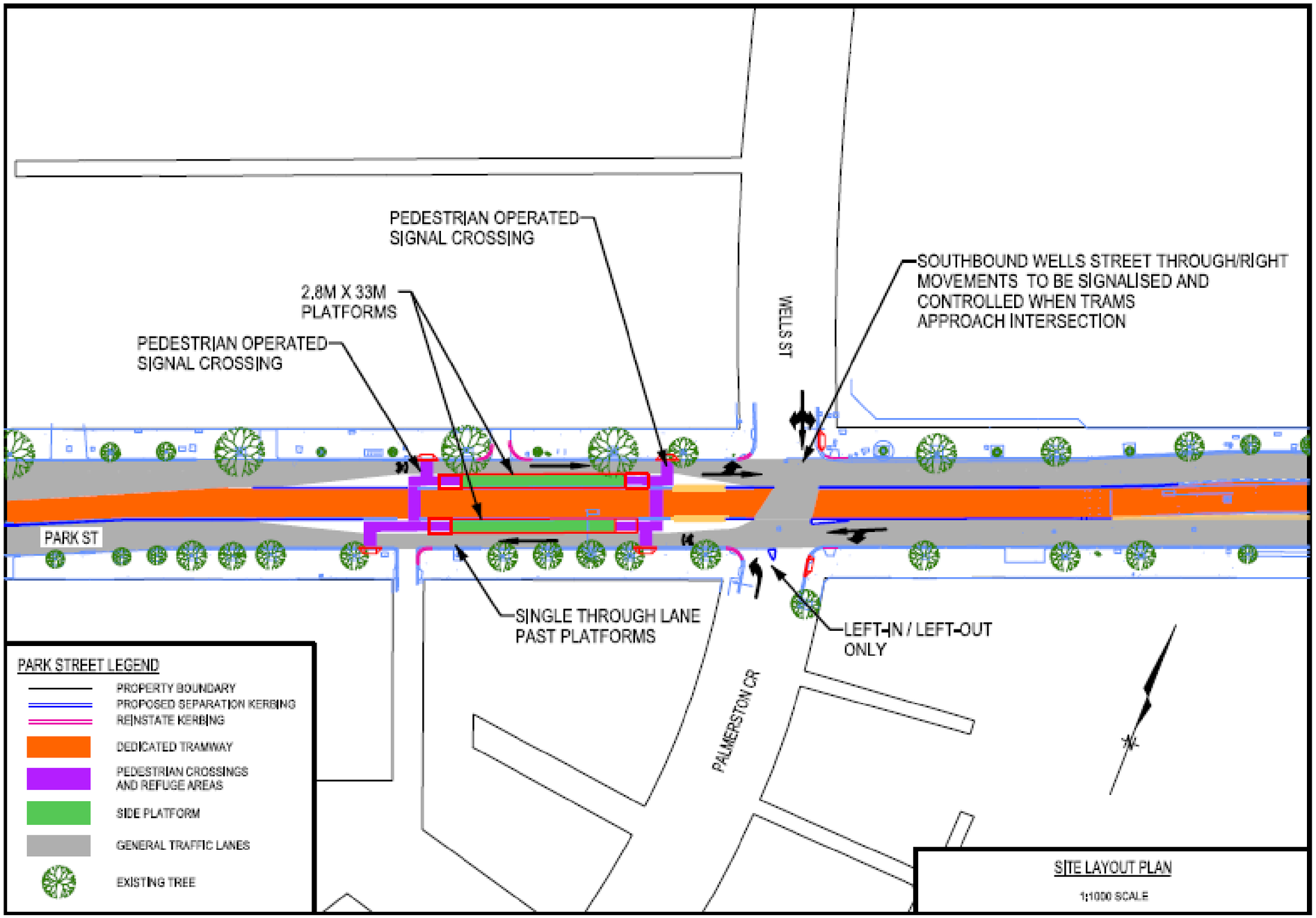


Figure 3.1: Park Street tram stop Site Layout Plan

Figure 3.2: Park Street tram stop – view west towards Kings Way

Figure 3.3: Park Street tram stop – view east towards St Kilda Road

4. Compliance with Urban Design Strategy

4.1 Overview

The Urban Design Strategy (**UDS**) was approved by the Minister for Planning in February 2017 and provides urban design guidance relating to the design, procurement and implementation of the Metro Tunnel and associated infrastructure.

The primary focus of the UDS is on the finished built form and use of the Metro Tunnel and associated spaces, rather than temporary works undertaken as part of the project construction process. This section relates to the design and location of above-ground infrastructure, and associated medium- to long-term impacts to local amenity, traffic and transport movements, and development opportunity resulting from the "finished built form". Short term impacts experienced during the construction of the project, e.g. traffic and noise disruptions, are addressed in accordance with the relevant EPRs identified in **Table 5.1**.

4.2 Melbourne tram network-wide design considerations

Tram infrastructure across the Melbourne tram network is to be delivered in a consistent manner, in terms of functionality and style of presentation, to support the hierarchy of transport modes and create a legible urban environment. Legislative requirements and minimum standards for the safety, efficiency, reliability and efficiency of the road and tram include, but are not limited to:

- Accessibility – The DDA is Commonwealth legislation that requires all public transport infrastructure to be accessible for people of all abilities by 2032. New and upgraded infrastructure is required to meet the minimum standards for access outlined in the Disability Standards for Accessible Public Transport (2002). This includes level access from tram platforms to low floor trams.
- The PTV Accessibility Reference Guide is a convenient overview and rationale for the Standards that govern public transport and roadway design. Section 2.3.2 'Application of the Transport Standards' in the aforementioned Guide helps pinpoint which platform and roadway elements require consideration to ensure persons with disabilities can utilise the new public infrastructure.
- Typical platform designs and passenger amenities – The Victorian Rail Industry Operators Group Standards (VRIOGS) cover the design requirements to deliver universally accessible tram stops on the Melbourne network. The document includes the functional requirements for passenger amenity, accessibility, tram operations and road design and traffic management that apply to the development of platform tram stops.
- Road network design requirements – VicRoads uses the Austroads road industry guides to ensure consistency and standardisation for all road work. These include minimum design requirements for speed limits, lane widths, intersection and turning circles, kerb requirements. The requirements of CoPP as the relevant public road manager are also of high relevance to the design of the project.

4.3 Project specific design considerations

4.3.1 General

The location of the tram stop is constrained by the existing road and tram networks and operational requirements. A number of options were considered for the location and style of platforms, and the alignment of the track connection between St Kilda Road and Kings Way. The options were assessed for their ability to achieve the following outcomes:

- Deliver more efficient and reliable tram and road network operations by optimising the spacing of tram stops (to international standards of 400 to 500 metres between new and existing stops) and maintaining consistent platform types. The relocation of Stop 119 will benefit walkability for passengers accessing the tram network from St Kilda Road.
- Improve safety and accessibility for tram passengers and road users including drivers, cyclists and pedestrians.

- Compliance with the DDA and Road Safety Audit.
- The provision of a permanent tram stop.
- The ability to minimise disruption to traffic movements and maintain appropriate vehicle movements into adjoining properties and the adjoining road network, such as into St Kilda Road. Turning movements to/from Wells Street, Palmerston Crescent and Millers Lane are proposed to be controlled to ensure a safe and efficient environment is provided for pedestrians, tram passengers and road users.
- Improve network resilience before, during and after Metro Tunnel construction by increasing the number of opportunities to interchange between tram routes.
- Minimise disruption to the local community, businesses and environment by constructing infrastructure within existing road reserves and limiting the loss of on-street car parking.
- Support local residents, businesses and community uses by minimising the walking distance to and from local residences, shops, schools, public spaces and other key destinations.
- To minimise impacts on existing trees.

4.3.2 Tram location & access

The tram platform location was determined to achieve optimal outcomes for accessibility, safety, tram/vehicle turning movements, property access and to best serve the projected patronage of the area following the removal of the Domain interchange.

DDA compliant access has been achieved by locating the tram stop on a more level grade than an alternative location closer to St Kilda Road. The relevant rail industry standards stipulate that at least one DDA ramp be incorporated into the design of any new tram platform. The Park Street tram stop is designed to exceed the minimum DDA requirements by providing ramps on both ends of each platform.

In addition to DDA compliant platforms and footpath ramps, tactile ground surface indicators are designed to optimise accessibility and pedestrian flow. Sufficient manoeuvrable areas are provided in the pedestrian refuges that flank the platforms, as well as sufficient distance provided between the platform shelters and platform edge to allow patrons using a wheelchair to turn around for example. Seating is included within the platform shelters for the convenience of Yarra Trams customers. Handrails are provided along all pedestrian refuge areas in association with the Yarra Trams standard blade & wire type fence. No additional tram boarding devices were required for the Park Street platforms because the platforms are designed to be the same level as the tram floor for ease of access for wheelchair users and no steps required. One audio bollard with push buttons is provided on each platform to provide additional transport information for customers. Outside the tramway area and platforms, DDA compliant pram ramps were provided on the existing footpaths to provide easier east-west pedestrian movements at the Wells Street intersection.

To further improve pedestrian access and safety, pedestrian operated signal crossings will be installed at each side of the platforms.

The proposed location best serves the needs of the community through better spacing between existing tram stops on St Kilda Road and Kings Way.

4.3.3 Road safety measures

The existing speed limit on Park Street is 60kph. The introduction of the tram stop requires that the traffic lanes merge into one lane adjacent to the platforms. To reduce the risk of collisions through this section, the proposed roadway speed has been reduced to 40kph in accordance with an independent road safety audit consideration.

The lane widths will be reduced from current conditions and will be shared by general traffic and cyclists. The design includes line markings to encourage bicyclists to ‘claim the lane’ (AS 1742.9:2000, Clause 2.3) and occupy road space when passing the platforms, the proposed speed reduction to 40kph improves the safety of bicyclists.

To accommodate the use of the proposed lanes (closer to footpath kerb) by larger vehicles the design includes the relocation of some overhead poles to maintain a safe distance from kerb line in the area of the platforms.

The design proposes to only allow southbound through & right turn traffic from Wells Street to cross the tram tracks. This is necessary to improve tram efficiency and road safety.

4.3.4 Tree impacts

An assessment has identified that the current design will require removal of six trees with a further four trees potentially impacted. Removed and impacted trees are shown in Figure 4.1. Impacts may include removals or pruning. During construction, an arborist will be on site to provide guidance to limit impacts to trees where possible, however the removal of trees is likely to be required due to the impact of signal poles, pits, service relocations and conduits.

4.4 Design Response

The design of the Park Street Tram Stop is shown in the Urban Design Response Plan at **Figure 4.1**. The design response was driven by the broader policy setting, the Metro Tunnel urban design requirements and overcoming the specific physical and network issues present in this location.

On the basis of the policy, network and physical considerations, the location and design of the tram stop as described by this Development Plan was arrived at as the preferred design response. Key urban design responses built within the preferred design response include:

- Tram platform environs are designed and detailed to provide strong visual clues for the new low speed vehicle environment to intuitively improve safety for pedestrians and cyclists. This will be achieved through the installation of two pedestrian crossings, clear visibility of the tram stop through both approaches and associated traffic calming measures (safety bollards, reduced speed, line markings).
- The tram platform is located to maximise site topography and to allow for full DDA compliant ramp access on either end, to ensure equitable access for all levels of mobility.
- The tram platforms are located to minimise impact on existing street trees and services to protect existing amenity and minimise disruption.
- The proposed pedestrian operated signal crossing to improve pedestrian safety may result in four street trees being removed, this is subject to an arborist assessment as well as Road Safety Audit.
- The design response has sought to substantively preserve existing kerb lines to provide maximum flexibility for future streetscape upgrades.
- All shelters and signage will be sited to avoid or reduce impact on important view lines, especially through to the Shrine Reserve.
- Tram signage and street furniture will also be selected from the network-wide palette to contribute to network legibility.
- Where possible, materials and finishes will be used to reflect the prevailing character of the local area, in particular the use of rolled finish asphalt with bluestone kerbing.

Figure 3.2 and **Figure 3.3** provide indicative streetscape views of the proposed tram stop, to illustrate the improvements that the project will deliver.

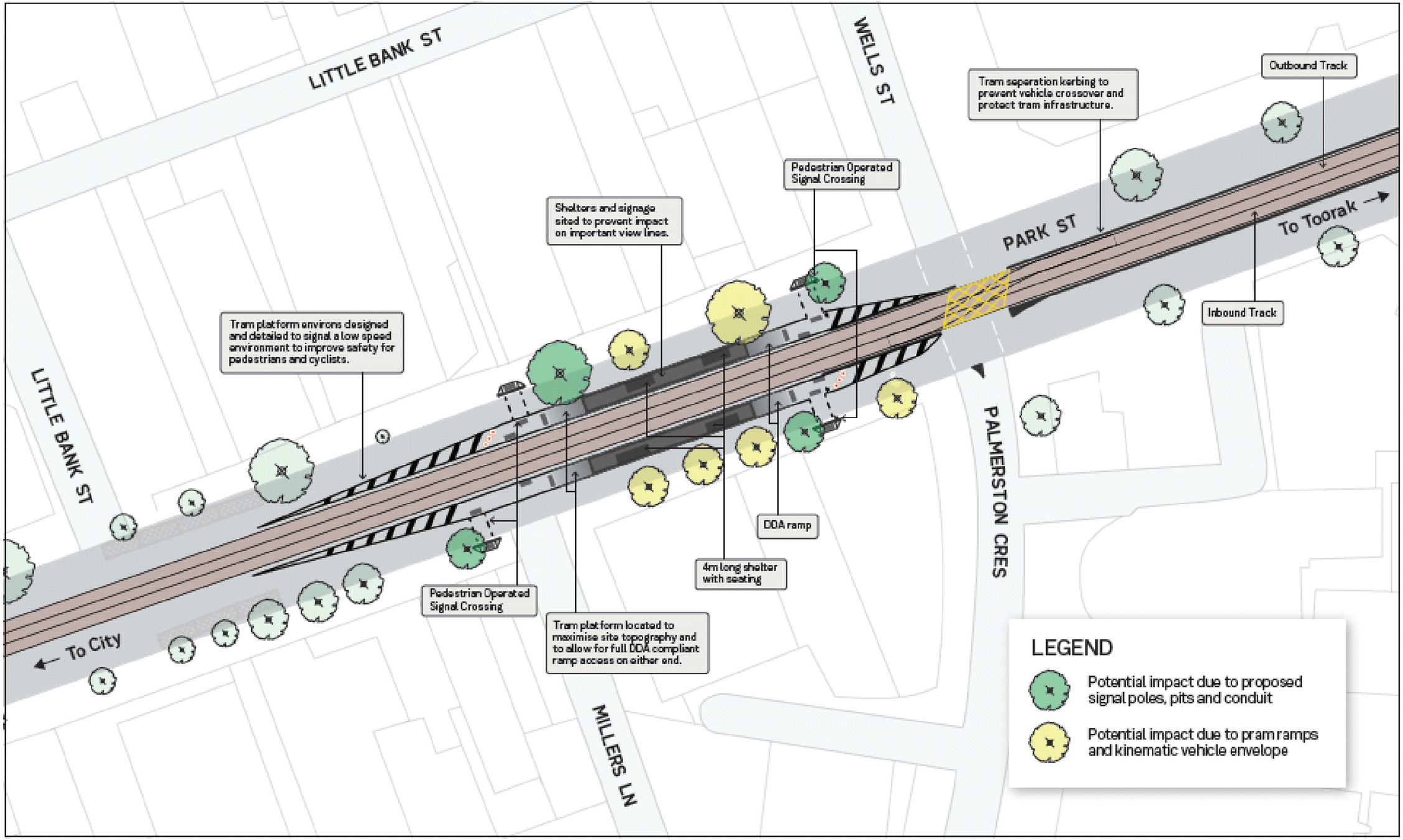


Figure 4.1: Urban Design Response plan

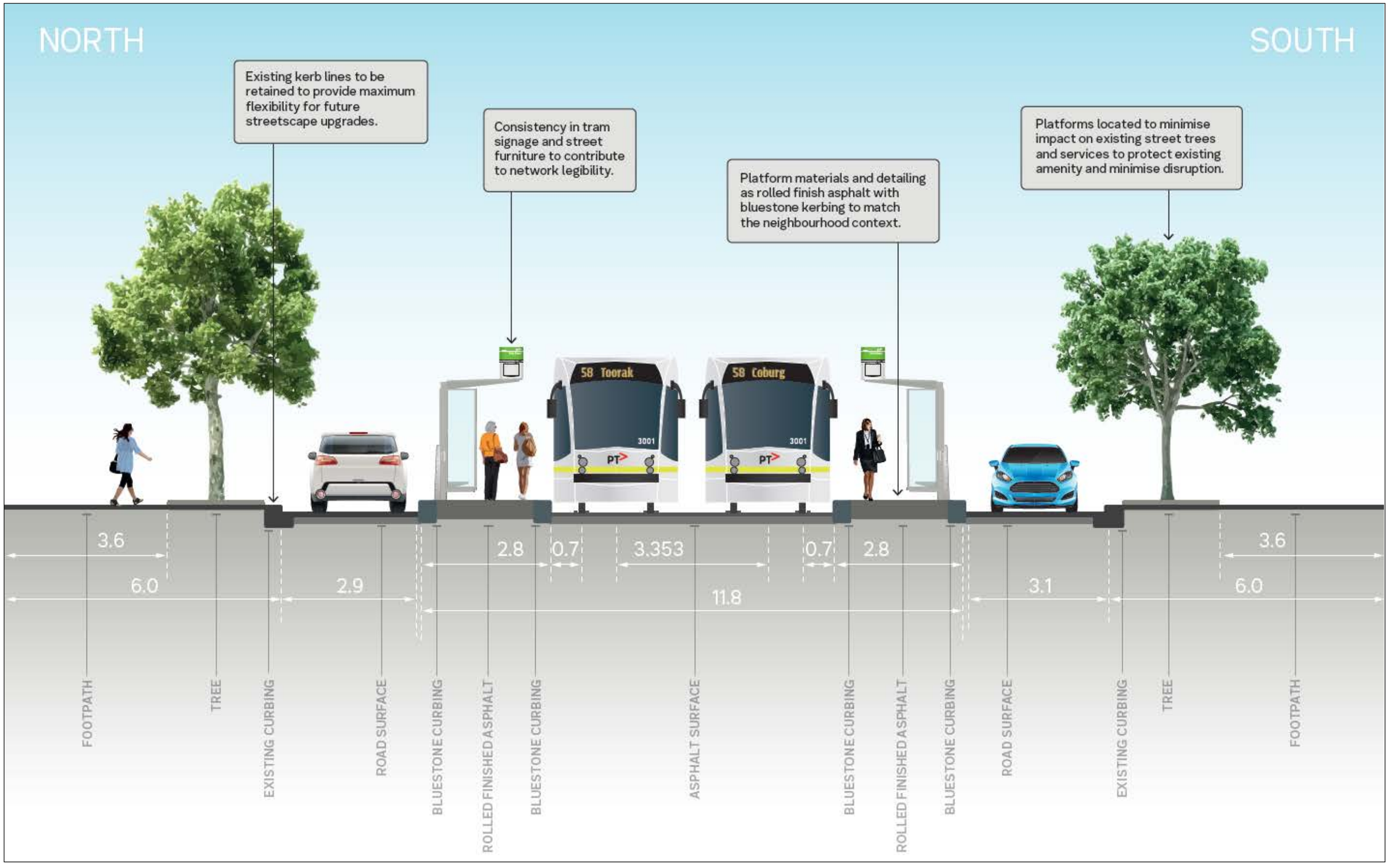


Figure 4.2: Urban Design Response cross-section

Table 4.1 : Design response to Metro Tunnel urban design strategy

Urban design strategy guideline	Design response
Make new and improved connections	
3.1.c.1. Station precinct environments must support safe and predictable movements that are prioritised along the transport hierarchy	The proposed works in Park Street will prioritise pedestrians and public transport users in line with the hierarchy. The Park Street tram stop has been designed to give the stop greater prominence within the streetscape which signalises a low speed traffic environment for road users. The proposed reduction of traffic speed from 60kph to 40kph helps to prioritise public transport and pedestrian movements. It has also adopted the universal design character of the tram network to enhance intuitive wayfinding and legibility. Pedestrian safety and amenity has been enhanced through the provision of DDA compliant access from either end of the platforms and the inclusion of two pedestrian operated traffic signals at either end of the platforms to allow for safe crossing of Park Street.
3.1.c.2. Provide for integration of all transport modes in line with the modal hierarchy above	The new tram stop will assist to integrate transport modes in line with the stated modal hierarchy. The design integrates with the existing pedestrian network through two new pedestrian crossings and complies with DDA requirements through ramp access at either end of the platforms. The revised road layout on Park Street and proposed lower speed will maximise safety as the risk of collision between vehicles and trams will be reduced. Existing kerb lines are sought to be retained where possible to provide maximum flexibility for future streetscape upgrades, in line with longer term strategic aspirations.
3.1.c.3. Minimise conflicts between transport modes and intersecting routes of travel	The platforms have been designed to meet universal accessibility standards and to accommodate increased passenger usage generated by the construction of Domain station. The current safety zone stop on Park Street/Kings Way would not meet the increased capacity requirements during Domain station construction, the proposed stop design will safely accommodate passengers. Two signalised pedestrian crossings have been designed to allow safe access across Park Street to the tram stop. The design includes effective separation kerbing and a reduction in the permitted turning movements to reduce the risk of conflicts between transport modes. The reduction of the speed limit to 40kph will limit the potential for conflict between vehicles and pedestrians.
3.1.c.4. Support ease of wayfinding	Directional signage will be provided and will be designed in accordance with Yarra Trams standards and located at key decision points. This will be finalised as part of detailed design and will support ease of wayfinding for tram users.
3.1.c.5. Create and improve strategic walking and cycling routes that connect the stations into surrounding areas.	The design of the tram stop will significantly improve the safety of pedestrian access to and from the stop. The design seeks to retain the existing street kerb lines to provide maximum flexibility for these future streetscape upgrades. The new signalised pedestrian crossings to each end of the platforms will improve the ease and safety connections for passengers accessing the tram stop from the surrounding area. These crossings will also improve permeability in the local area by providing two north south crossing points in line with the strategic objectives of the City of Port Phillip.
3.1.c.6. Provide universal access throughout public spaces and stations	The tram stop will provide accessible grades and tactile paving to assist passengers with impaired vision, audio information units, pram ramps, and pedestrian operated crossing signal at each end of both platforms.
3.1.c.7. Provide for vehicular traffic lanes as appropriate,	The roadworks reflect the relevant design standards and have been

Urban design strategy guideline	Design response
with consideration of lane widths, kerb radials at corners and intersections to suit swept paths, and appropriate levels, slopes and cross-falls.	developed in consultation with relevant stakeholders and the Traffic and Transport Working Group (TTWG is established under EPR T1). AutoTurn transport modelling software was utilised to ensure passenger vehicle and 10.2m long garbage trucks would be able to turn without obstructions at the Wells Street and Park Street intersection. Some driveways and Millers Lane will be accessed by cars/vans only. These driveways and Millers Lane would allow for left-in/left-out movements only, which matches existing conditions where there should be no vehicles turning right across the yellow spike-down separation kerbing. The modelling has enabled the road layout, turning lanes and traffic signal plans to be optimised.
3.1.c.8. Provide for vehicle parking, as appropriate, with consideration of locations and arrangements, management systems (ticket machines etc.) and motorcycle parking.	The project will result in the removal of up to 26 existing car parking spaces along Park Street, however the provision of a new tram stop will significantly improve public transport capacity for the area. The tram stop design has been informed by AutoTurn transport modelling software and optimised to minimise the loss of on-street parking. MMRA will investigate whether options are available to remediate losses of car parking arising from Metro Tunnel development.
Make great public places	
3.2.c.1. Ensure that all aspects of the design are of a high quality in concept, resolution and execution	The design has been developed to represent high quality tram infrastructure and achieve consistency throughout the tram network. However it is noted that the scope in this case was limited to tram stop works only. The project has been designed to be responsive to the needs of users and to comply with relevant design standards. All materials, street furniture and signage will be hard wearing and finished to a standard that is consistent with the prevailing character of the area. The use of rolled finish asphalt with bluestone kerbing reflects the material palette of the precinct and is consistent with surface treatments of nearby tram stops. Yarra Trams will work with OVGA/UDAAP to ensure that where possible, high quality tram infrastructure is embedded in future Development Plans.
3.2.c.2. Design spaces to be activated by public use	The new tram stop includes shelters with seating in accordance with Yarra Trams standards. The shelters are designed with weather protection to allow for public use in all weather conditions. Existing footpath widths will be maintained to prevent any impact on adjacent land uses.
3.2.c.3. Provide safe environments that promote safe behaviour and the feeling of safety	The new tram stop will provide an improved experience for passengers and pedestrians with two pedestrian operated crossing signals, directional signage, raised platforms that provide level access to trams (as opposed to the existing street-level stop), protective energy-absorbing bollards, shelters, fencing and lighting, and a reduced speed limit to promote safe behaviour. The designated pedestrian crossings, with associated separation kerbing, will encourage pedestrians to use these safe crossings instead of unmarked mid-block crossings as frequently occurs under the existing conditions. The posted speed for Park Street is proposed will be lowered to 40kph to increase the safety of the corridor. This is a major improvement over the existing condition where the wide traffic lanes and absence of pedestrian crosswalk line markings encourage higher vehicle speeds.
3.2.c.4. Respect heritage and respond to local cultural and indigenous heritage issues.	The Metro Tunnel will be delivered in accordance with MMRA's CHMP approved under the *Aboriginal Heritage Act 2006* and prepared as per the provisions of the *Aboriginal Heritage Regulations 2007*. This project will be subject to separate cultural heritage assessment processes compliant with the above *Act* and *Regulations*. Applicable cultural heritage considerations are addressed in EPR response table. No Heritage Overlays apply to the site or adjacent land.
3.2.c.5. Make provision for stormwater drainage and	A flood impact assessment was conducted to ensure that flow paths,

Urban design strategy guideline	Design response
management	floodplain storage, and freeboard would not be adversely affected by the project. The assessment indicates that the current design would marginally increase the existing 1% AEP flood level in the road reserve near some properties on the north side of Park Street. The design process will assess options to further reduce the flood impact. Any changes to the design that allow for appropriate stormwater drainage and management will be consulted with Melbourne Water, CoPP, MMRA, and Yarra Trams. In addition to the flood impact assessment, a drainage review was conducted to ensure the proposed tram separation kerbing will not cause new concentrated flow paths across Park Street. The review was undertaken to ensure that overland flows will travel to the existing drainage system, similar to the existing conditions.
3.2.c.6. Select and design paving and surface finishes to be fit for purpose, durable and sustainable	The design of the paving and finishes are consistent with Yarra Trams current standards. The selected paving and surface finishes are rolled finished asphalt with bluestone platform kerbing, which is durable, fit for purpose and provides design outcomes consistent with the wider tram network and the character of the local precinct.
3.2.c.7. Integrate street and park furniture into the overall design of public spaces as appropriate	The tram stop will be modern and accessible, providing improved comfort and safety for passengers. No existing street furniture is anticipated to be affected by the project. Rubbish bins will be provided on the platforms or the footpaths adjacent to the tram stop.
3.2.c.8. Provide lighting for amenity, wayfinding, visual comfort, road safety and personal security	The proposed lighting design for the new platforms and connection pedestrian crossings will comply with Australian Standard AS1158. The design includes pedestrian operated crossing signals to support safe and easy pedestrian access across Park Street and interchange between platforms.
3.2.c.9. Provide access to public amenities including public toilets	N/A
3.2.c.10. Provide access to public transport facilities including passenger shelters, ticket sales, etc.	The design of the tram stop incorporates appropriate features as described (for example) in the response to 3.2.c.3 above. In addition, appropriate passenger information components (timetables, displays, audio units) will be provided.
3.2.c.11. Incorporate public art in appropriate places	N/A
3.2.c.12. Provide signage in accordance with PTV, VicRoads, and authority standards	The design of signage will comply with PTV, VicRoads, CoPP, and Yarra Trams requirements.
3.2.c.13. Ensure advertising complements the character, functionality and amenity of the precinct	This will be the responsibility of Yarra Trams in accordance with the Port Phillip Planning Scheme.
3.2.c.14. Incorporate planting as an integral part of site design	Water Sensitive Urban Design measures including planting within the chevron line marked areas of the road were considered, and could not be implemented due to a number of design constraints. Introducing planter boxes to the painted chevron areas of Park Street were considered as a further sustainability gain for Park Street. Due to large vehicle turning swept paths, planters cannot be installed in the eastern chevron areas. The planter review demonstrated that for vehicular safety and that of maintenance crews, a planter box should be located off the road or up on a kerbed island. However, a kerbed planter box would negatively impact the flood plain storage volume in an area that is currently prone to flooding. A planter box without kerbing would be dangerous for maintenance crews. To provide safety for maintenance crews, a traffic barrier could be installed, but placing bollards or fencing around the planter box would present a safety hazard for drivers. Lastly, removing the pavement to install the planter box would allow water to flow underneath the road, thus increasing the rate of

Urban design strategy guideline	Design response
	roadway degradation and break-up.
3.2.c.15. Address irrigation including passive irrigation and opportunities for rain water infiltration	Passive water planters were considered for the proposed chevron road areas, however were considered to be inappropriate to implement in this instance due to flood storage displacement, road condition and safety issues, and turning movement conflicts.
Balance line-wide consistency with site responsiveness	
3.3.c.1. Operational elements must be consistent with the transport system as a whole	The tram stop has been designed to Yarra Trams standards and is therefore consistent with the wider transport system.
3.3.c.2. The character of individual stations may vary and should be responsive to their context	N/A
3.3.c.3. Locate and design infrastructure to integrate with surroundings and maintain amenity and functionality of surroundings	The tram stop and associated infrastructure has been designed to provide a modernised user experience while also responding appropriately to the site context. It will not introduce features detrimental to the quality of the public realm, rather represents an improvement on the existing tram infrastructure in Park Street. The spacing to adjacent existing and proposed tram stops will satisfy the patronage requirements of the precinct and conforms to international standards of 400 to 500 metres between new and existing stops.
3.3.c.4. Design streetscapes and open spaces to integrate with their context	The new tram stop will be integrated, modern and accessible, providing an improved experience for passengers with shelters, seating, lighting and tram arrival information. These elements are to Yarra Trams standards and therefore provide a consistent appearance to other tram infrastructure across the network.
Support integrated site redevelopment	
3.4.c.1. to 3.4.c.8.	N/A
Design to help manage construction impacts	
3.5.c.1. Maintain circulation and transport operations during the construction process	The works are planned to minimise the duration of the construction period, in order to minimise disruptions to the transport network. Disruptions to transport operations will be managed using the standard Yarra Trams process. A Traffic Management Plan (**TMP**) and Bus Replacement Plan (**BRP**) will be implemented to maintain safe and efficient circulation and transport during construction. Impacts on local pedestrian traffic will be managed through safe and accessible detours with wayfinding signage. Yarra Trams will progress the project in consideration of the scheduling of major events to ensure that adequate transport capacity is available during major events.
3.5.c.2. Protect the viability of, and amenity for, activities at and near construction work sites	The amenity impacts of construction activity on surrounding land uses will be minimised by the short construction period, engagement with residents and businesses in the project area and the management methods set out in a Construction Environmental Management Plan (**CEMP**) and associated Sub-Plans for noise, vibration and air quality.
3.5.c.3. Protect features from damage	Existing kerb lines and footpath areas have been substantively retained to limit the impact on existing features of Park Street. Service proving and relocation are being undertaken in consultation with service owners to ensure minimal impact to services. There are no monuments or artworks which will need to be removed or relocated to implement the project. The project impacts on street trees will be minimised to the extent practicable without decreasing traffic and pedestrian safety. The impact will be confirmed in consultation with the project arborist. There are no listed trees or heritage features within the project area that are required to be protected.

Urban design strategy guideline	Design response
3.5.c.4. Maintain an attractive presentation to surrounding areas	Adherence to the CEMP will maintain the construction area in as neat a condition as practicable and minimise adverse visual amenity impacts.
Design for the future	
3.6.c.1. Anticipate population growth and future changes in activity patterns and development	The proposed tram stop will provide an improved level of service to the locality, which is anticipated to undergo densification in the future. The provision of north south pedestrian crossing points and reduction in speed will benefit the existing and future population.
3.6.c.2. Management requirements of asset owners must be supported by the design	Consultation has been undertaken regarding the management requirements of asset owners.
3.6.c.3. Allow for long-term flexibility in the uses of public spaces and in the provision of facilities and services	The project will not adversely affect or constrain the use of public open space or public facilities. The design maintains use of the footpaths on either side of Park Street by substantively retaining the existing street kerb line. By minimising the footprint of the works, maximum flexibility for future public space upgrades is ensured.
3.6.c.4. Support the healthy growth of canopy trees and minimise constraints to plant and replant opportunities	The preliminary arborist assessment will inform further design revision to reduce the potential impact to existing trees. The works may potentially impact up to 10 street trees as result of road safety auditing and the installation of signals. The impact to trees will be minimised as much as possible during design and monitored during construction. As discussed at 3.2.c.14, in-street planter boxes are not considered suitable for this tram stop given site constraints mean it is difficult to install planters without causing adverse safety and/or flooding impacts.
3.6.c.5. Create robust and durable landscapes	The design will provide a robust, low maintenance regime appropriate to the character of the site and compatible with the operation of the tram stop.
3.6.c.6. Respond to changing climate and microclimate condition	N/A
3.6.c.7. Integrate water-sensitive urban design initiatives	WSUD initiatives were considered as part of project planning but for reasons described in 3.2.c 14 above were not considered appropriate to implement in this location given safety and flooding concerns. The new tram platforms and associated infrastructure do not significantly increase the area of impervious surfaces.
3.6.c.8. Practice sustainable use of materials and resources	The project has been designed and constructed to meet the Metro Tunnel sustainability objectives.
Precinct 7: Domain Station - 4.7.1 St Kilda Road	
4.7.1.e.1. Consider stakeholder requirements and potential for integration of future streetscape improvements	There has been consultation with stakeholders such as CoPP, Office of the Victorian Government Architect (**OVGA**) and MMRA throughout the design phase. This consultation has identified numerous requirements that have been captured in the design. For example, following consultation with OVGA and CoPP the design will provide improved universal access measures by including DDA compliant ramp access on both ends of the platforms.
4.7.1.e.2 Provide convenient pedestrian access - Enhance pedestrian links from St Kilda Road to the Park Street (South Melbourne) tram route.	The platform arrangement features DDA-compliant ramps, pedestrian operated signals at each end to support safe pedestrian access and interchange between platforms.
4.7.1.e.3. Provide protected bicycle lanes, connecting to bike lanes north and south of the project area	While the design currently has no dedicated bike lanes in this scope it did consider options for the provision of a future upgrade. The design of the stop does not prevent the future provision of bicycle lanes by other agencies.
4.7.1.e.4. Complement St Kilda Road's formal boulevard	The project location is such that the tram stop structures will not intrude on

Urban design strategy guideline	Design response
character - Ensure that the design of the Park Street (South Melbourne) tram stop near Wells Street preserves views to the Shrine.	views to the Shrine.
4.7.1.e.5 - 4.7.1.e.6	N/A

5. Compliance with EPRs

Clause 4.6.3(c) of the Incorporated Document specifies that a Development Plan demonstrates how the Project will be delivered in accordance with the approved Environmental Performance Requirements (EPRs) within the Environmental Management Framework (EMF). **Table 5.1** provides Yarra Trams response to the EPRs relevant to this project[7].

The EPRs have been developed for the Metro Tunnel Project. The relocation and consolidation of the Park Street Tram Stop is only a small component of the Metro Tunnel Project. As such a number of the EPRs are not relevant to the Park Street Tram Stop Project as they relate to other Metro Tunnel Precincts or to works (such as shaft construction). Table 5.1 responds to EPRs relevant to the Park Street Tram Stop Project.

EPRs which are not considered to be applicable to this project are listed below.

- AE3 – AE7
- AR5
- B1, B4 – B6
- C1 – C3
- CH1 – CH6, CH8 – CH17, CH19-22, CH24
- EMI1, EM2
- GHG1
- GM1, GM3, GM5, GM6
- GW1 – GW5
- LU3
- NV2 – NV4, NV10, NV 12, NV14 – NV20
- SC1, SC5, SC 7 – SC9, SC11
- SW1
- T8 – T9

[7] Some EPRs are specific to particular precincts, components or particular work methods of the Metro Tunnel that are not relevant to the works proposed in accordance with this Development Plan

Table 5.1: Response to Metro Tunnel Environmental Performance Requirements

Park Street Tram Stop Project Response				
Category	**Applicable EPRs**	**Overarching Development Plan Management Response**	**Specific Development Plan Management EPR response**	
Environmental Management Framework (EMF)	**EMF1-EMF4**	The project environmental management framework and supporting documentation includes an ISO 14001-certified EMS. as part of the Yarra Trams' EMS, a CEMP, Sub-Plans, and SEIP, will be developed and will be implemented as part of the delivery of the works. This documentation provides a transparent framework with clear accountabilities for managing environmental aspects and impacts associated with the works activities. These also address Commonwealth and State legislative project approvals and licenses (including the EPRs), and best practice environmental management requirements. The CEMP and all Sub-Plans will be audited, and approved for use by the Independent Environmental Auditor prior to commencement of the construction work. Note: Development of an Operations Environmental Management Plan (OEMP) is not relevant to the scope of the proposed works as its operation will not to create a significant adverse impact on the environment.	**EMF1**	Yarra Trams has worked with MMRA to develop a timeline for delivery of the Park Street Tram Stop project documentation to address all relevant EPRs. Yarra Trams operates in accordance with an ISO 14001 Accredited EMS. The works will be delivered in accordance with Yarra Trams' EMS. A framework has been developed for the development of plans required by the relevant EPRs and Incorporated document.
			EMF2	An environmental risk assessment will be carried out for the construction phase of the works in order to identify and control risks and to inform the development of a Construction Environmental Management Plan (**CEMP**). The CEMP will reference the EMF, EPRs, MMRA Environmental Policy and Yarra Trams EMS and be prepared in accordance with EPA Publication 480, *Environmental Guidelines for Major Construction Sites* (EPA 1996). It will provide a framework for the identification, control, responsibility, review and auditing of environmental risks. Yarra Trams will consult with key stakeholders including the CoPP, Heritage Victoria, the Roads Corporation, Melbourne Water, Public Transport Victoria (**PTV**)/DEDJTR (Transport), and the Environment Protection Authority (**EPA**) in the development and implementation of these documents.
			EMF3	An independent environmental auditor will be engaged prior to the finalisation of the plans to ensure all plans comply with the requirements of the EPRs. The independent environmental auditor will also undertake an environmental compliance audit during the construction phase of the works to ensure compliance with the EMF, EPRs and approved CEMP.
			EMF4	Yarra Trams will manage all feedback complaints in accordance with the Metro Tunnel complaints management approach documented in the Metro Tunnel Community and Stakeholder Engagement Management Framework (refer EPR SC3 and SC4). The Metro Tunnel complaints management approach will include protocols prepared in accordance with the Australian Standards AS/NZS 10002:2014 Guidelines for Complaint Management in Organisations and ensure that complaint management addresses requirements set out in the Business Support Guidelines for Construction. The Metro Tunnel Project Information Line is the primary reference point for construction related enquiries. Yarra Trams will work with MMRA to cooperate on the use of their complaints management system. Complaints forwarded to Yarra Trams in regard to the works will be handled and any escalation will be actioned as per prior agreement with MMRA. Complaints management processes will be thoroughly explained to the contractors delivering the works and as part of their contractual obligations, to include stakeholder engagement and complaints management and resolution as part of worker toolbox sessions and general onsite communications. In addition, Yarra Trams will ensure that any feedback received via other existing channels, such as the PTV Call Centre and the Yarra Trams webpage, is forwarded to the Park Street Tram Stop Project team and responded to in a timely manner.
Aquatic Ecology and River Health (AE)	**AE1- AE2**	The Water Management Sub-Plan outlines control measures to be implemented to manage potential sedimentation and erosion, and which have been developed in accordance with the *Best Practice Environmental Management: Environmental Guidelines for Major Construction Sites – EPA publication 480 (1996)*. Recommended control measures include vehicle wheel wash and rumble bars at worksite egress points, use of designated stockpile and chemical storage locations, and use of street sweepers. In some instances, construction water will be captured and disposed of, or treated, off-site. The location of waterways or stormwater pits are identified on the SEIP, along with the respective environmental control measure.	**AE1**	Project design has been undertaken in consultation with Melbourne Water and the City of Port Phillip. The design requires the minor relocation of existing pits and installation of new pits to divert existing stormwater around new tram platforms. The design does not change the existing stormwater catchment characteristics nor does it impact on the existing stormwater runoff quality. Yarra Trams will ensure the construction site adheres to best practice performance objectives for achieving compliance with State Environment Protection Policy (Waters of Victoria). Measures will include: vehicle wheel wash and rumble bars where required, appropriate placement of material stockpiles and chemical storages, covered loads, street sweeping and water quality monitoring.
			AE2 .	Yarra Trams will ensure the construction site adheres to best practice sedimentation and pollution control measures are applied to protect waterways in accordance with Best Practice Environmental Management: Environmental Guidelines for Major Construction Sites – EPA publication 480 (1996). A Water Management Sub-Plan, including sediment, erosion and discharge management will be included within the CEMP to mitigate potential risks to stormwater.
Aboriginal Cultural Heritage (AH)	**AH1**	The project will be delivered in accordance with the MMRA's Cultural Heritage Management Plan (**CHMP**) approved under the *Aboriginal Heritage Act 2006* and prepared as per the provisions set out in the *Aboriginal Heritage Regulations 2007*.	**AH1**	If a site is discovered during works the procedures set out in the CHMP will be followed to mitigate impacts to a place of Aboriginal Cultural Heritage significance. The main potential risk to Aboriginal Cultural Heritage is disturbance of a site during excavations. However; as all excavations associated with the works occur within the road reserve, which is already highly modified; therefore the potential for any disturbance of the site is expected to be low risk.
Air Quality (AQ)	**AQ1-AQ3**	Yarra Trams will engage specialist air quality consultants to provide advice on impact assessment and management. The objective is to avoid or minimise potential adverse air quality impacts, affecting the amenity of nearby sensitive receptors.	**AQ1**	Yarra Trams Air Quality Management Sub Plan (within the CEMP) will be developed prior to the commencement of the works. The Sub-Plan will: • Set out air quality criteria • Describe the proposed air quality management system • Describe the measures that would be implemented to ensure compliance with air quality criteria. • Address requirements for key sensitive receptors
			AQ2	Dust and other emissions will be managed throughout the construction phase in accordance with EPA Publication 480, Environmental Guidelines for Major Construction Sites (EPA 1996) and as per the Yarra Trams Air Quality Management Sub Plan.
			AQ3	Dust and other emissions will be managed throughout the construction phase in accordance with SEPPs for Air Quality Management and Ambient Air Quality and as per the Yarra Trams Air Quality Management Sub Plan.

Park Street Tram Stop Project Response				
Category	**Applicable EPRs**	**Overarching Development Plan Management Response**	**Specific Development Plan Management EPR response**	
Arboriculture (AR)	**AR1- AR4**	Trees in close proximity to the works include a mix of native and exotic species which are planted street trees on both sides of Park Street. Removal of trees will be required for installation of poles, pits, conduits and services. Tree impacts are to be managed in accordance with the Tree Management Sub-Plan, advice as received from the Project arborist and protocols as agreed with relevant asset owners including council. Any required tree removal will be undertaken in conjunction with necessary stakeholder consultation. In the event that it is necessary to remove street trees, a Tree Protection Plan (**TPPs**) will be prepared in accordance with AS4970-2009 Protection of Trees on Development Sites.	**AR1**	Yarra Trams has engaged a qualified arborist to inform design in order to maximise tree retention and reduce impacts on trees. Tree impact assessment will be completed on all trees within the works area. Pruning of trees will be undertaken by a qualified arborist. The replanting of street trees (if required) will be undertaken as directed by MMRA on a Metro Tunnel Project wide approach Tree removal for this project will be undertaken in accordance with an approved Tree Removal Plan in consultation with CoPP.
			AR2	Drainage infrastructure will be installed as per design requirements and in consultation with the City of Port Philip and arborist. With regards to WSUD, passive water planters were considered for the proposed Chevron Road Areas, however were found to be impacted by flood storage displacement, road condition and safety issues, and turning movement conflicts
			AR3	Tree removal will be undertaken in accordance with the Tree Removal Protocol and in consultation with CoPP. The re-establishment of trees will be undertaken with regard to the CoPP's Community Amenity Local Law No. 1 and Greening Port Phillip – An Urban Forest Approach.
			AR4	Tree Protection Plans prepared by a qualified arborist in accordance with AS4970-2009 . Protection of Trees on Development Sites will be implemented to mitigate potential impacts on trees. CoPP will be consulted and will be provided a copy of the TPP. No heritage places are affected by the project.
Business (B)	**B2-B3**	Prior to the commencement of the works Yarra Trams will prepare a Community and Stakeholder Engagement Management Plan and a Business Continuity Plan. The Community and Stakeholder Engagement Management Plan identifies at a high level how Yarra Trams will proactively engage with each stakeholder group and manage their concerns, issues and interests. This plan seeks to manage effects on the social fabric of the community during the project period.	**B2**	Businesses and traders are a key community group considered under the Park Street Tram Stop Communications and Engagement Plan (refer EPR SC4). Yarra Trams will adopt a business-as-usual approach to engaging affected traders and businesses in line with the Metro Tunnel Business Support Guidelines for Construction. This approach includes: • Communications activities to ensure traders and businesses are informed of the works within the minimum agreed disruption timeframe and regularly throughout the works. • Early engagement with business owners will be undertaken to ensure that businesses can trade and operate as usual during the works period, including access and delivery needs • Identification of proactive business support activities to assist businesses to communicate to their passengers that they are still open for trade and accessible to the public. Examples of these could include on-board marketing and wayfinding signage around the work zone. Cumulative impacts to businesses associated changes in the Domain precinct will be addressed by MMRA. These include impacts associated with road closures and other early works packages. Refer to EPRs EMF4 and SC4 for further details, including feedback and complaints management processes.
			B3	Yarra Trams will seek advice on the management of the site to minimise impacts on air quality and noise and vibration impacts and to prepare Air Quality and Construction Noise and Vibration Management Plans (sub-plans to CEMP) to manage potential impacts. Construction activities will be managed to minimise as much as practicable dust, noise and vibration impacts beyond the construction zone. The construction site will be managed in accordance with EPA Noise Control Guidelines Publication 1254 and EPA Publication 480, *Environmental Guidelines for Major Construction Sites* (EPA 1996). Businesses will be informed of upcoming works and a complaint management system in place to prompt a timely response to any concerns raised by business.
Contaminated Land and Spoil Management (C)	**C1&4**	Yarra Trams will undertake soil testing in consultation with EPA.	**C1&4**	Yarra Trams will develop a Spoil Management Sub Plan as part of the CEMP. Specialist consultants will be engaged to undertake soil testing to determine the presence of contaminated land and Acid Sulfate Soils. Test results will inform preparation of Contaminated Soil and Material Sub-Plan and procedures for handling and storage of contaminated substances to ensure risks to the environment employees, visitors and general public associated with hazardous substances are controlled. An Occupational Health and Safety Management Plan will also be prepared and implemented in accordance with relevant regulations, standards and best practice guidance and to the satisfaction of WorkSafe and in consultation with EPA Victoria which will include the management of hazardous.
Cultural Heritage – Historical (CH)	**CH7, CH18, CH23**	Works have been designed to avoid and minimise impacts on the cultural heritage values of heritage places. Any activities to be undertaken by Yarra Trams will be in accordance with heritage consents issued under the Heritage Act 1995, and in consultation with Heritage Victoria.	**CH7**	A qualified archaeologist has been appointed by Yarra Trams to identify any cultural heritage values for the site. Should any values be identified, Heritage Victoria will be consulted to ensure all necessary consents, exemptions and permits are obtained prior to works commencing and will be consulted in development of the Heritage Management Plan. Workforce will be provided with a Procedure for discovery of archaeological sites and artefacts. Should a site be discovered, the project archaeologist will inspect and provide guidance on its management.
			CH18	The removal of trees will be undertaken as per design requirements and reinstatement will be undertaken in agreement with MMRA and in consultation with the CoPP and Heritage Victoria. Replacement of canopy cover will be undertaken as directed by MMRA on a Metro Tunnel project-wide approach. Procedures and specifications for reinstatement of trees will be prepared by a qualified arborist.
			CH23	Surfaces of roads and footpaths shall be reinstated with asphalt as soon as practicable following the works. Yarra Trams will undertake a site inspection following works to ensure reinstatement has been completed in consultation with CoPP.
Flora and Fauna – Terrestrial (FF)	**FF1-FF3**	No impacts to protected flora or fauna species are anticipated during the works. Protection measures for tree and fauna management will be outlined in the Tree Management Sub-Plan and the Fauna Management Protocol. The measures identified in these plans aim to minimise adverse impacts on native terrestrial and aquatic flora and fauna associated with the works.	**FF1**	Any removal of native vegetation (if required) will meet the requirements of the Permitted Clearing of Native Vegetation- Biodiversity Assessment Guidelines.
			FF2	As the works will be undertaken in the road reserve there is limited opportunity for the spread of weeds. The CEMP will include weed hygiene procedures for all plant, equipment and construction methodologies to avoid the spread or introduction of weeds and pathogens during construction.
			FF3	Pruning of some street trees will be required to ensure compliance with road safety requirements. Pruning will be undertaken by a qualified arborist. If the removal of street trees is required due to this project, a Tree Protection Plan (refer to EPR AR4)will provide control measures to minimise impacts on fauna. Control measures will include conducting pre-clearance surveys to determine species and numbers of fauna present within trees earmarked for removal, and staging of clearing to minimise impacts on fauna present. Yarra Trams will prepare a Fauna Management Protocol in consultation with the Yarra Trams arborist and fauna handling specialists to capture best practice fauna management. This Protocol will include contingency measures in the event that listed fauna species are unexpectedly discovered during works.

Park Street Tram Stop Project Response				
Category	**Applicable EPRs**	**Overarching Development Plan Management Response**	**Specific Development Plan Management EPR response**	
Greenhouse Gas (GHG)	**GHG2**	The work will be designed to address the MMRA Sustainability Policy, the MMRA Sustainability Management Plan, and targets set by MMRA.	**GHG2**	A Sustainability Management Plan will be developed to contribute to achieving Metro Tunnel sustainability targets. The street lighting design will specify the use of low energy LED street lights where new lights are being installed. In addition, the design would endeavour to achieve a minimum 25% supplementary cementitious material to reduce the Portland cement use.
Ground Movement and Land Stability (GM)	**GM2, GM 4**	The design of the Park Street tram stop is in accordance with Victorian Rail Industry Operators Group Standards Tram Track Design Manual including standard drawings and construction techniques that are well understood. The vibration levels associated with construction activity will be assessed with regards to the limits for damage to structures in DIN 4150-3 Structural Vibration Part 3: Effects of Vibration on structures (DIN 4150.	**GM2**	The Park Street tram stop design is in accordance with Yarra Trams standard drawings and the Victorian Rail Industry Operators Group Standards. Acceptable ground movement limits are to be agreed with the relevant stakeholders to ensure the integrity of their assets are maintained throughout construction and operation of the tram infrastructure.
			GM4	Construction techniques that are well understood will be used. The vibration levels predicted will be assessed with regards to the limits for damage to structures in DIN 4150-3 *Structural Vibration Part 3: Effects of Vibration on structures* (DIN 4150). A pre-construction survey will be carried out based on a review undertaken by Yarra Trams/MMRA/Designers. A pre-construction survey will be carried out in accordance with GM4 and reasonable requests from property owners will be considered. Where ground movement affects properties or assets, repair works will be conducted with consideration of pre-construction surveys and in agreement with the relevant stakeholder.
Land Use Planning (LU)	**LU1, LU2, LU4**	The Park Street tram stop development will not alter the use of the land for a road. Further considerations of land use and urban design are included in Section 4	**LU1**	This Development Plan responds to LU1 by seeking to minimise impacts on existing land uses and considers the relevant sections of the Urban Design Strategy. On Park Street the relevant land uses include the commercial and residential properties on the street and the public use of the road by pedestrians, cyclists, private vehicles and public transport. This plan has been developed in consultation with CoPP, Melbourne Water and the Office of Victorian Government Architect (OVGA).
			LU2	The design is consistent with the Melbourne Metro Urban Design Strategy. Refer to EPR LU4 and section 4 of this Development Plan for further information, in particular **Table 4.1**.
			LU4	This Development Plan is the plan referred to in LU4. It responds to LU4 and has been developed in consultation with CoPP and the OVGA. The design has considered wayfinding, signage and advertising. Section 4 of this Development Plan identifies the manner in which the project addresses the requirements of the Urban Design Strategy. **Table 4.1** provides a detailed response to the guidelines of the Urban Design Strategy.
Landscape and Visual (LV)	**LV1-LV4**	Yarra Trams has consulted with the City of Port Phillip (CoPP) and the Office of the Victorian Government Architect (OVGA) in relation to the design of the Park Street Tram Stop. Consultation with these key stakeholders will continue through the Development Plan and detailed design process.	**LV1**	This Development Plan is the plan referred to in LV1. The plan is for the design of permanent works which has been developed in consultation with CoPP and the OVGA to comply with the Metro Tunnel Urban Design Strategy. It seeks to avoid and minimise to the extent practicable, the visual impacts of the project. The design process has considered the visual impacts that tram infrastructure could have on nearby sensitive receptors such as the Shrine of Remembrance. The proposed location and design of the tram does not unduly impact on sight lines to the Shrine. It therefore maintains visual permeability to the precinct's important heritage place.
			LV2	No public art is being removed for the works. Metro Tunnel Project branding suite fencing will be used during construction to minimise visual impacts. The CEMP will be implemented so as to maintain the construction area in a neat condition and minimise the amenity impacts of construction activity.
			LV3	Yarra Trams will consult the City of Port Phillip and VicRoads in developing a temporary lighting plan. Lighting will be designed and implemented as per council and VicRoads requirements and in order to have a safe work site during any night works. Lux levels will be taken prior to turning off permanent lights to ensure temporary lights provide equivalent lux levels. Temporary lighting will use multi barrel arrangement. These towers allow the flexibility of using between 1 to 3 barrels, therefore making it easier to control light spillage and contain luminance to the intended location whilst allowing increase in lighting during construction work for safety purposes. Barrel lights are an accepted system as they reduce glare. The light type also assists us in our sustainability targets as they are LED, significantly reduce fuel consumption and are quieter then other temporary light options.
			LV4	Given the short duration of the works there is limited opportunity and/or merit for pre-construction temporary landscape treatments.
Noise and Vibration (NV)	**NV1, NV5-NV9, NV11, NV13, NV21**	The anticipated impacts will inform the preparation of a Construction Noise and Vibration Management Sub-Plan which will require all construction noise to be managed in accordance with EPA Publication 1254 Noise Control Guidelines. A Noise and Vibration Communications Plan will be developed in consultation with relevant stakeholders, to guide communications specifically relating to potential noise and vibration impacts.	**NV1**	Yarra Trams will engage a suitably qualified acoustic and vibration consultant to assess the potential noise and vibration impacts associated with the works. The Construction Noise and Vibration Management Sub-Plan will be available to all site personnel; will be included as part of site induction and its implementation will be subject to audit by the independent environmental auditor. Construction noise will be managed in accordance with EPA Publication 1254 Noise Control Guidelines.
			NV5	Appropriate notification will be provided to community stakeholders and land owners regarding potential noise and vibration impacts in accordance with the Metro Tunnel Communications and Engagement Plan.
			NV6	A Construction Noise and Vibration Assessment Report and Management Sub-Plan will regulate construction noise and vibration. Works will be undertaken during normal working hours to the extent practicable. However, due to traffic disruption some works are best performed at night and will be considered 'Unavoidable Works' under EPA Publication 1254 *Noise Control Guidelines*. Some works are best performed at night and will be considered as 'Unavoidable Works' only if approved as such by an independent environmental auditor (NV21 Section J). "Unavoidable works" have no specific noise guidelines. Nonetheless Yarra Trams recognises that night time works cannot be conducted in an unreasonably noisy manner. Yarra Trams will undertake all reasonable management measures to minimise noise emissions. Notification (including planned duration and timing) of night works will be provided to residents and other relevant stakeholders a minimum of 10 business days prior to the commencement of night works.

Park Street Tram Stop Project Response				
Category	**Applicable EPRs**	**Overarching Development Plan Management Response**	**Specific Development Plan Management EPR response**	
			NV7	The Construction Noise and Vibration Management Sub-Plan will provide procedures for mitigating noise and vibration impacts associated with the construction phase of the works to meet targets for ground-borne (internal) noise.
			NV8	The design of the Park Street tram stop is in accordance with Victorian Rail Industry Operators Group Standards Tram Track Design Manual including standard drawings. Construction techniques that are well understood. The vibration levels will be assessed with regards to the limits for damage to structures in DIN 4150-3 *Structural Vibration Part 3: Effects of Vibration on structures* (DIN 4150).
			NV9	The potential for vibration to result in structural damage to adjacent utility assets and infrastructure will be assessed against DIN 4150 by Yarra Tram's appointed acoustic and vibration consultant. This will also be informed by a pre-construction survey will be carried out based on a review undertaken by Yarra Trams/MMRA/Designers.
			NV11	The consideration of vibration falls into two areas: • The potential for the works to result in structural damage to the adjacent dwelling or building, which is assessed against DIN 4150 • The potential for annoyance to occupants, which is assessed against the NSW EPA's *Assessing Vibration: A Technical Guideline (2006).* Yarra Trams will manage impacts to building occupants by providing notification of works prior to the commencement of works that would cause vibration.
			NV13	Management actions to address potential amenity impacts are outlined in the MMRA Construction Noise and Vibration Management Plan, Business Disruption Support Guidelines and Residential Impact Management Plan. Communications and engagement activities and notification requirements are addressed under EPR SC2 and EPR SC4.
			NV21	Yarra Trams will engage an acoustic and vibration consultant to prepare a Construction Noise and Vibration Assessment Report and Management Plan. The methodology for the assessment to inform the management plan will be determined in consultation with EPA Victoria. Prior to commencement of works the management plan will be provided to EPA and the City of Port Phillip for information and comment. The Construction Noise and Vibration Management Sub-Plan will detail the procedures for mitigating noise and vibration impacts associated with construction activity. The Construction Noise and Vibration Management Sub-Plan will respond to measures outlined in the Business Support Guidelines for Construction and Residential Impact Management Plan (refer EPR SC2). Construction works will be undertaken in accordance with the requirements of the EPA's *Noise Control Guidelines* Publication 1254. As stated in response to EPR NV6, works will be undertaken during normal working hours as much as possible however; some works are best performed at night and will be considered as 'Unavoidable Works' only if approved as such by an independent environmental auditor (NV21 Section J). Yarra Trams will ensure all reasonable management measures are adopted to minimise noise emissions. In addition potentially impacted stakeholders will be notified prior to works commencing as per the Metro Tunnel Communications and Engagement Plan (refer EPR SC4).
Social and Community (SC)	**SC2-SC4, SC6, SC10, SC12**	The Community and Stakeholder Engagement Management Plan, precinct specific working documents and Sub-Plans specific for packages of work will be developed to address disruption to residents, landowners and businesses. The Plan will provide the overarching framework for managing stakeholder impacts, and where suitable, will be developed in consultation with key stakeholders.	**SC2**	It is not anticipated that any relocations will be necessary during construction. Any decision to temporarily relocate affected residents will be undertaken in accordance with the Metro Tunnel Residential Impact Mitigation Guidelines for Construction. Wherever possible, impacts to residential amenity will be minimised in accordance with the noise and vibration performance criteria. Refer to EPRs NV1, NV5 – NV9, NV11, NV13 and NV21. Early notification of disruptive works will be provided in accordance with EPR SC10 to enable residents to make alternative plans for disruptive periods as they see fit.
			SC3 .	MMRA has developed a Community and Stakeholder Engagement Management Framework (**CSEMF**) that outlines the principles and approach to advising potentially affected stakeholders of construction activities associated with the Metro Tunnel. The Park Street Tram Stop project Community and Stakeholder Engagement Management Plan (**CSEMP**) will be prepared in accordance with the Metro Tunnel CSEMF and will identify past, present and future communications and engagement activities and will be adapted as necessary during the delivery of the works. The CSEMP will also indicate when and where a collaborative approach has, or will be taken, towards communications and engagement between Yarra Trams, MMRA, Transport for Victoria (**TfV**), VicRoads, Public Transport Victoria (**PTV**) and other Metro Tunnel works contractors. The CSEMP will provide a shared understanding of the activities, roles and responsibilities for planning and delivering project related communications, and demonstrate how Yarra Trams will provide strong community and project outcomes by keeping stakeholders informed whilst minimising potential impacts. The CSEMP will respond to and support requirements outlined in • Written notification requirements (EPR SC10) • Metro Tunnel Residential Impact Mitigation Guidelines (EPR SC2) • Metro Tunnel Business Support for Construction (EPR B2) • Complaints Management Procedures (EPR EMF 4)
			SC4	The Park Street Tram Stop Project CSEMP will be prepared in accordance with the Metro Tunnel CSEMF. The CSEMP will outline the approach to ensure open and proactive engagement with stakeholders and the community and to respond to their issues. The plan builds upon Yarra Trams standard practices for communications and engagement, developed through extensive experience in managing construction impacts across the tram network, whilst maintaining consistency with the broader Metro Tunnel protocols. A key aim of the plan is to work with MMRA to ensure that communications are issued in a coordinated fashion.

Park Street Tram Stop Project Response				
Category	**Applicable EPRs**	**Overarching Development Plan Management Response**	**Specific Development Plan Management EPR response**	
				In additional to the community directly affected by the construction works, the Park Street Tram Stop Project CSEMP seeks to ensure that tram passengers and road users are provided with timely and effective information regarding works disruptions and longer term journey changes. This plan will include: • Stakeholder analysis which includes communities of interest who are likely to be impacted by the Park Street Tram Stop project and associated service changes. • Risk assessment and mitigation measures developed to ensure impacts are minimised. • Community disruption notification processes as agreed between Yarra Trams, MMRA and the construction contractor. Communications activities identified to ensure effective and timely communications with community members and key stakeholders. • Feedback and complaints management protocols • Roles, responsibilities and collaboration opportunities between the various transport network partners including MMRA, TfV, Yarra Trams, PTV, CoPP and VicRoads A suite of communications tools and techniques will be used, targeted to the communications needs of the intended audience. These include: • Meetings and briefings with key stakeholder organisations and community members • Metro Tunnel factsheets to provide information on the works and longer term access changes • Works notifications issued prior to disruptions, including a minimum 10 business days' notice for night works. • All written communications will be distributed via letterbox drop, available on the Metro Tunnel Project website, and shared via the Metro Tunnel project email updates • Community drop-in sessions to answer any additional questions • Signage and announcements at tram stops and on-board affected tram routes • Digital and social media channels to reach broader target audiences such as tram passengers and commuters • Works contractor briefings and contact cards Wherever possible, Yarra Trams will utilise existing relationships, working groups and communication channel with our network-wide stakeholders to manage disruptions impacts and service changes.
			SC6.	As part of network-wide commitments, Yarra Trams works with local councils to understand, plan and manage service requirements during major public events. Engagement with the local council (CoPP) related to the Park Street Tram Stop project is outlined under EPR SC4. This feedback is a key consideration in determining when the works are scheduled to avoid conflict with the timing of major events and associated pressures on the tram and road network. Refer EPR T2 and T6. Yarra Trams has agreed protocols with MMRA for consultation and engagement with key stakeholders including local councils for event planning, timely notification for public events and consideration of alternative sites for events and parades. This includes a commitment to regular meetings and communications which allow for the exchange of information and tram project updates.
			SC10	SC4 outlines Yarra Tram's proposed approach to communications and engagement. In accordance with a business-as-usual approach, Yarra Trams will seek to ensure that residents will be provided with a minimum 10 business days' notice of impending night works. Yarra Trams are committed to continuously updating the community through written notices in their letterboxes, trader visits to their businesses and email and social media updates to promote awareness of the dates, times, locations and impacts of works.
			SC12	MMRA will establish a Precinct Reference Groups for all Metro Tunnel works. Yarra Trams will participate in the Domain and South Yarra Precinct Reference Group as the Tram Service Operator.
Surface Water (SW)	**SW2**	Yarra Trams will ensure measures and assessment will be undertaken to protect surface water quality, waterways and waterway function, in consultation with water authority and council.	**SW2**	During the design stage, a flood impact assessment was conducted because a Special Building Overlay (SBO) applies to land in the vicinity of the tram stop (the intersection of Park Street and Kings Way). The SBO represents the existing 1% AEP floodplain (Elevation 2.4m), whereas the track elevation around the proposed platforms is approximately 2.6m-2.8m. The assessment was conducted to determine whether the flow paths, floodplain storage, and freeboard were not negatively impacted as a result of the project. The design has been modified to incorporate additional drainage improvements to reduce the impact of the displacement of water by the proposed platforms as much as practicable, additional assessment indicates that the current design would marginally increase the existing 1% AEP flood level in the road reserve near some properties on the north side of Park Street. Consultation will be ongoing between Melbourne Water, CoPP, MMRA, and Yarra Trams to ensure the impacts are understood. In addition to the flood impact assessment, a drainage review was conducted to ensure the proposed separation kerbing did not cause new concentrated flow paths across Park Street. The result of this review was to introduce effective gaps along the kerbing, so that the overland flows will travel to the existing drainage system similarly to the existing circumstances. In addition to the flood impact assessment, a drainage review was conducted to ensure the proposed separation kerbing did not cause new concentrated flow paths across Park Street. The result of this review was to introduce effective gaps along the kerbing, so that the overland flows will travel to the existing drainage system similarly to the existing circumstances.
Transport (T)	**T1-T7, T10**	The Transport Management Plan (framework) (TMP) provides a context for traffic and transport management across the site, with Transport Management Implementation Plans (TMIPs) to be developed to address each precinct, and reflecting	**T1**	Yarra Trams is represented on the Metro Tunnel Traffic and Transport Working Group (**TTWG**) in order to understand, manage and respond to Metro Tunnel works affecting the broader Melbourne tram network. The location and format of the tram stop was determined following the review of options by the TTWG which included Yarra Trams, CoPP, TfV, MMRA and VicRoads. Yarra Trams has been and will continue to coordinate with the TTWG to develop and implement the TMP for the Park Street Tram Stop Development Project (refer EPR T2).

Park Street Tram Stop Project Response				
Category	**Applicable EPRs**	**Overarching Development Plan Management Response**	**Specific Development Plan Management EPR response**	
		requirements of the relevant EPRs. Together this documentation manages the effects of the works on the broader transport network during the project work addressing impacts and interactions with, road, public transport, pedestrians, cyclists and other specialist users (including waste collection services and emergency services). Outcomes of stakeholder consultation undertaken by either MMRA or Yarra Trams are captured within these plans, including through the Traffic and Transport Working Group (TTWG). The Community and Stakeholder Engagement Management Plan links into the objectives of the Transport Management Plan. The Community and Stakeholder Engagement Management Plan guides consultation with relevant stakeholders related to cyclists and pedestrians to achieve connectivity during construction and stipulate communication standards and guidelines for re-routing and way-finding in the lead up to, and during works. .		Yarra Trams representatives on the TTWG will ensure that any relevant information regarding related projects is shared with the Park Street Tram Stop Project team for consideration and action as appropriate.
			T2	A Transport Management Plan has been developed in consultation with the TTWG. Traffic modelling commissioned by MMRA will be used to inform the development of a project TMP to mitigate impacts on traffic and transport associated with the works. The TMP will be developed in consultation with VicRoads, the CoPP, PTV, MMRA, the works contractor and other stakeholders to minimise disruption to local land uses, traffic, car parking, public transport, pedestrian and bicycle movements during construction. The TMP will provide a framework, plans and procedures for: • Management of any temporary, full or partial closure of traffic lanes including (but not limited to) Park Street. • Monitoring of travel behaviour changes caused by construction works • Potential routes for construction vehicles travelling to and from the construction site, recognising sensitive receptors. • Provision of suitable routes for cyclists and pedestrians to maintain connectivity and safety for roads and shared paths to provide continued access • In consultation with emergency services, develop suitable measures to ensure emergency service access is not inhibited as a result of the construction worksite • Special arrangements for delivery or removal of large loads • Provide suitable routes for pedestrians to maintain connectivity, including DDA access. • Implement active control at construction work site access points to maintain safety by avoiding potential conflicts between trucks, pedestrians and cyclists. • Parking options for construction workers to minimise potential impacts on street parking for residents and businesses. The TMP will be developed recognising other Metro Tunnel Project works being undertaken in close proximity to project site. Impacts on local pedestrian traffic will be minimised through safe and accessible detours with wayfinding signage. Use of existing and placement of accessible, temporary stops and a bus replacement service will minimise impacts on tram passengers. Customer service personnel will be placed at key locations throughout the tram network to assist passenger access to tram services during the construction phase of the works.
			T3	The TMP will require provision of suitable routes for pedestrians (including DDA access where practicable) to maintain connectivity during the construction period. Yarra Trams are consulting with PTV, VicRoads, CoPP and TfV to investigate and implement intersection modifications where practicable, including public transport priority treatments for affected bus and tram routes. The TMP will include measures to minimise disruption to the tram and bus associated with construction and provides a framework, plans and procedures as mentioned in response to EPR T2 above. Site layout plans will be developed to organise storage of equipment, materials and tools to assist manage timing of deliveries outside of peak periods.
			T4	The TMP will require provision of suitable routes for pedestrians (including DDA access where practicable) to maintain connectivity during the construction period. The TMP will also include measures to minimise disruption to the tram and bus associated with construction activity. CoPP Yarra Trams will plan and manage the disruption to services using standard procedures which will include a BRP.
			T5	The TMP is being prepared in consultation with VicRoads, PTV, CoPP, MMRA and TTWG. Implementation of the TMP will assist to maintain connectivity for cyclists and pedestrians during construction along Park Street. Implementation of the TMP will ensure active control and wayfinding information is provided. The Communications and Engagement Plan will assist in reducing traffic and transport impact by: • Mapping out consultation with relevant authorities for cyclists and pedestrians to maintain connectivity throughout construction for road and shared path users. • Developing wayfinding options to ensure that changed routes are communicated clearly to commuters. The reinstatement of infrastructure to facilitate active transport will be undertaken as soon as possible following project completion. Wayfinding information will assist connectivity during the project duration.
			T6	MMRA is responsible for development and implementing a Travel Demand Management Strategy to manage the cumulative impacts of all Metro Tunnel works. Where appropriate, Yarra Trams will support the Metro Tunnel Travel Demand Management Strategy in response to Park Street Tram Stop project needs. Yarra Trams has an ongoing commitment to ensure that our passengers can get to their destinations with ease, including during periods of planned works and unplanned disruptions: • Works are scheduled across the tram network to minimise impacts to passengers and the broader metropolitan transport network. • Yarra Trams works closely with PTV to ensure that wayfinding signage and communication activities are executed so that commuters are aware of works and how these will affect their journey. These include at-stop and on-board signage and hangers, website updates, social media and tramTRACKER. The delivery of the project is a key element of the Metro Tunnel Travel Demand Management Strategy, by ensuring that Melburnians can rely on consistent public transport during construction of the Metro Tunnel.
			T7	Specialist consultants will have been engaged to develop a traffic management model to inform the TMP and BRP. The TMP and BRP will be developed in consultation with VicRoads, PTV, CoPP, VicRoads, Transdev, Ventura and the contractor. A core objective of these plans is to maintain circulation and transport safely and efficiently for the duration of the project. Active site management and quality control systems will ensure that the works (including vehicle and pedestrian access) are compliant with relevant road design standards. Impacts on pedestrian traffic will be minimised through safe, accessible detours with wayfinding signage. Accessible, temporary stops and a bus replacement service will minimise impacts on tram users. Customer service personnel will be placed at key locations throughout the tram network to assist customer access to tram services during project construction. The project has been planned to minimise impacts on vehicular traffic. Diversions have been identified and will be implemented to ensure safe traffic circulation.

Park Street Tram Stop Project Response				
Category	**Applicable EPRs**	**Overarching Development Plan Management Response**	**Specific Development Plan Management EPR response**	
				Clauses 2 through 7 of EPR T7 are not relevant to the project and as such, have not been included in the column opposite.
			T10	The intersection of Park Street / Wells Street and Palmerston Crescent has been design to accommodate local authority waste collections vehicles (8.8m). This has required the alteration of some existing kerbing and will include turning movements that utilise the chevron line marking on Park Street to the east of the platforms. To manage changes to waste collection services, Yarra Trams will: • Work with the City of Port Phillip and private waste collection services; and, Consult affected businesses via the Business Disruption Plan forming part of the Communications and Stakeholder Engagement Plan.

6. Conclusion

This Development Plan:

- Provides details of the proposed project works for the Park Street Tram Stop.
- Provides plans of the project area, existing features and proposed works.
- Responds to the Metro Tunnel Urban Design Strategy and Environmental Management Framework.
- Provides a summary of the community engagement and stakeholder consultation process undertaken.

Yarra Trams are delivering the Park Street Tram Stop project on behalf of MMRA. It is Yarra Tram's responsibility to deliver the works in accordance with regulatory, statutory and contractual obligations. The undertaking of the project works in accordance with an approved version of this Development Plan will enable the Park Street Tram Stop to be delivered in a timely and efficient manner, supporting the delivery of the wider Metro Tunnel project.

Yarra Trams has both a short term obligation to those communities affected by the construction works and associated service changes, and a long term obligation to provide an accessible and reliable service to the broader Melbourne metropolitan community and visitors.

Yarra Trams is committed to minimising nuisance to passengers and the community by providing advance notification of works and any planned travel disruptions, in order to assist them with planning their journeys with the least possible nuisance.

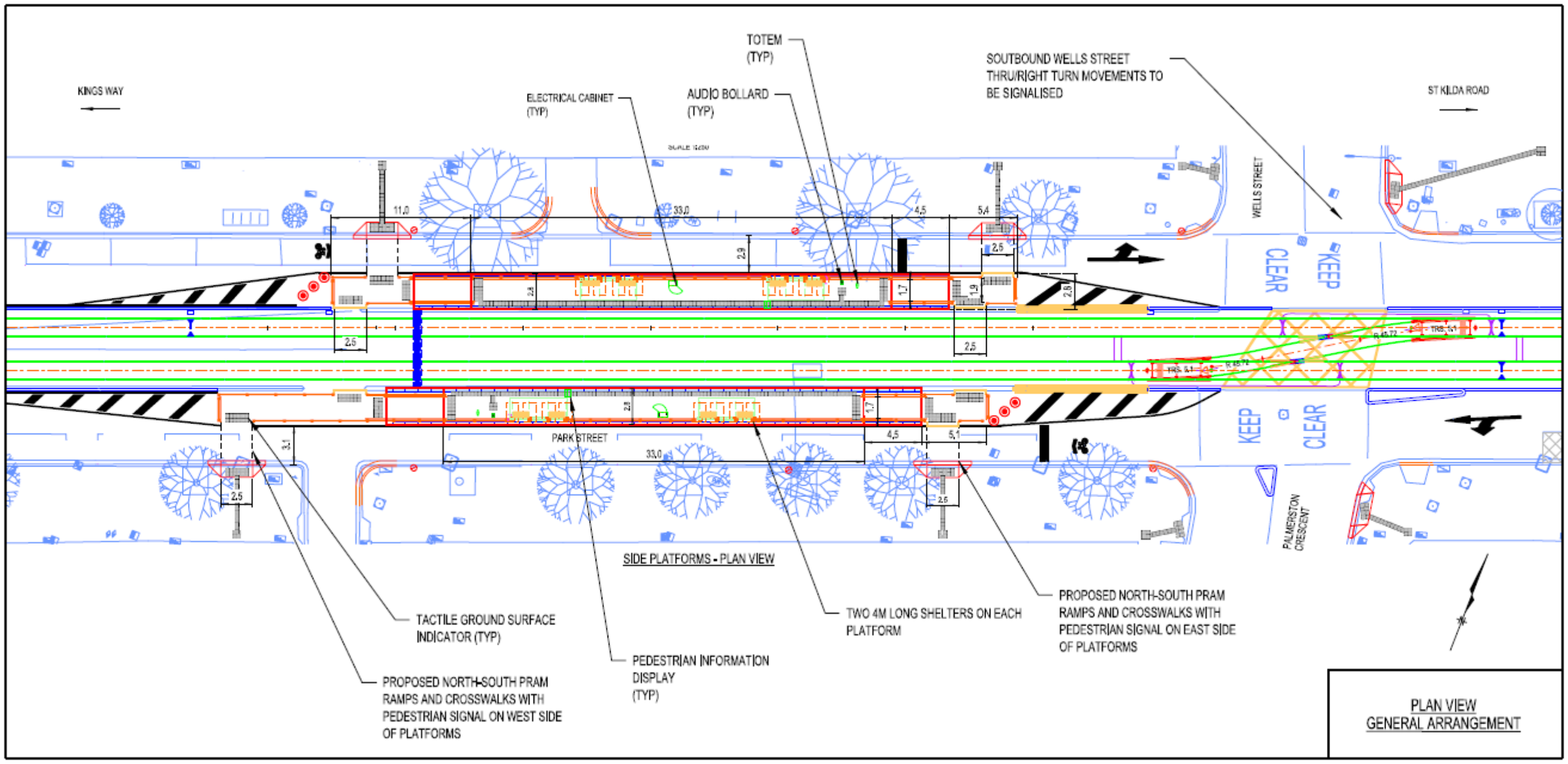
Consultation activities have begun and will continue, to provide stakeholders and community members with more detail on the impacts and benefits of the new infrastructure and construction period. The consultation requirements as stipulated at Clause 4.6.4 of the Incorporated Document (and identified at section 1.4.1 of this Development Plan) are being appropriately fulfilled. In accordance with Clause 4.6.5 the Development Plan submitted to the Minister for Planning will include copies of any written comments received through this consultation process and a summary of consultation and Yarra Trams' response to any issues raised during this consultation.

7. Glossary

Acronym	Full Term
BRP	Bus Replacement Plan
CEMP	Construction Environmental Management Plan
Chevron Road Area	Wide diagonal or chevron markings applied to areas of pavement which are not intended for use by vehicles
CHMP	Cultural Heritage Management Plan
CoPP	City of Port Phillip
CSEMF	Community and Stakeholder Engagement Management Framework
CSEMP	Community and Stakeholder Engagement Management Plan
DDA	*Disability Discrimination Act 1992* (Commonwealth)
DEDJTR	Department of Economic Development, Jobs, Transport and Resources
EES	Environment Effects Statement
EMF	Environment Management Framework
EPA	Environment Protection Authority
EPR	Environmental Performance Requirement
kph	Kilometres per hour
MMRA	Melbourne Metro Rail Authority
OVGA	Office of the Victorian Government Architect
PTV	Public Transport Victoria
SBO	Special Building Overlay
SEIP	Site Environmental Implementation Plan
TfV	Transport for Victoria
TMP	Transport Management Plan
TPP	Tree Protection Plan
TTWG	Traffic and Transport Working Group
UDS	Urban Design Strategy

Construction partner:

Appendix A. General Arrangement Design - Plan Site Layout Design



Appendix B. Typical Cross Section

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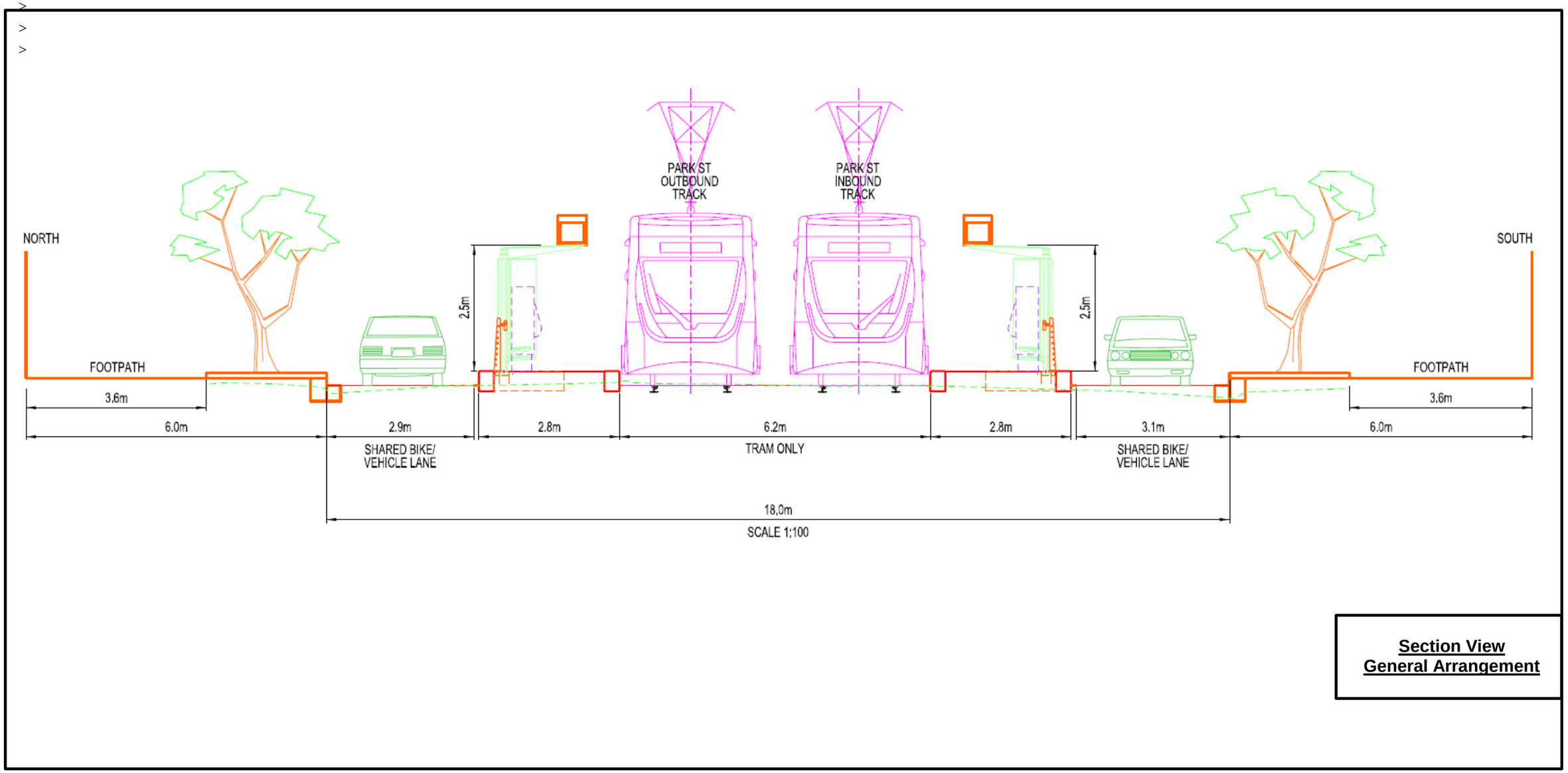
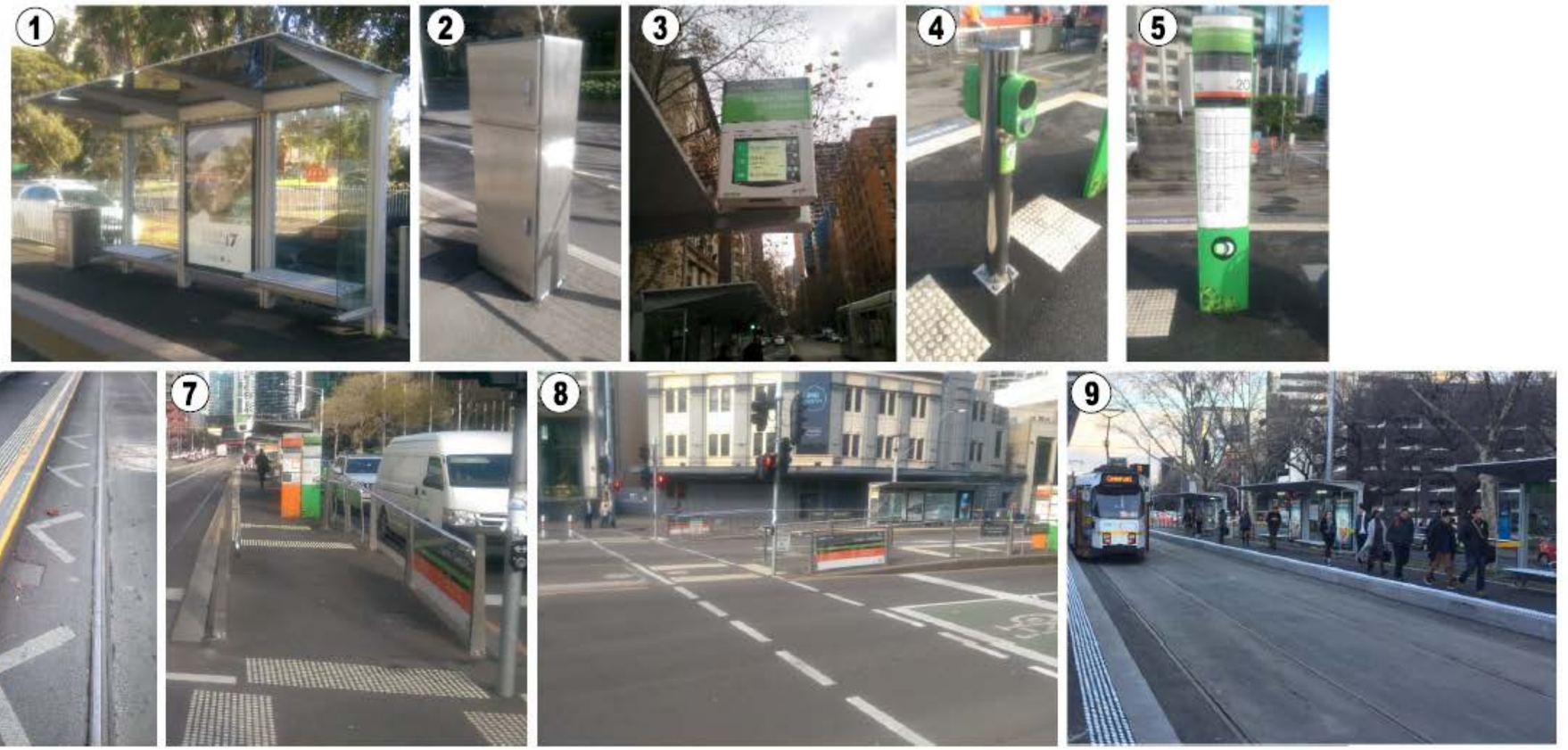
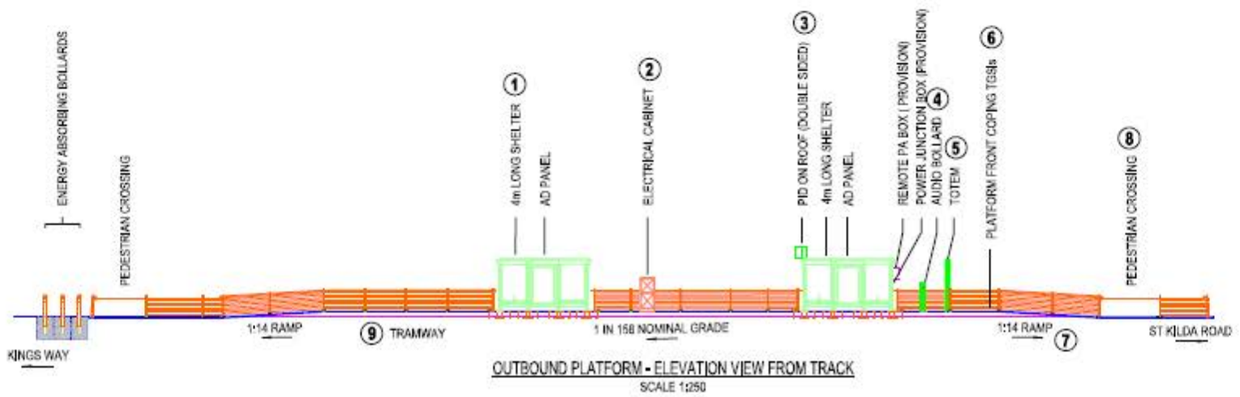


Appendix C. Park Street tram stop – platform furnishing





OUTBOUND PLATFORM - ELEVATION VIEW FROM TRACK
SCALE 1:250

NOTE:
1. IMAGES ARE INDICATIVE ONLY.

PLATFORM FURNISHINGS & FINISHES

Appendix D. Tree Map and Details

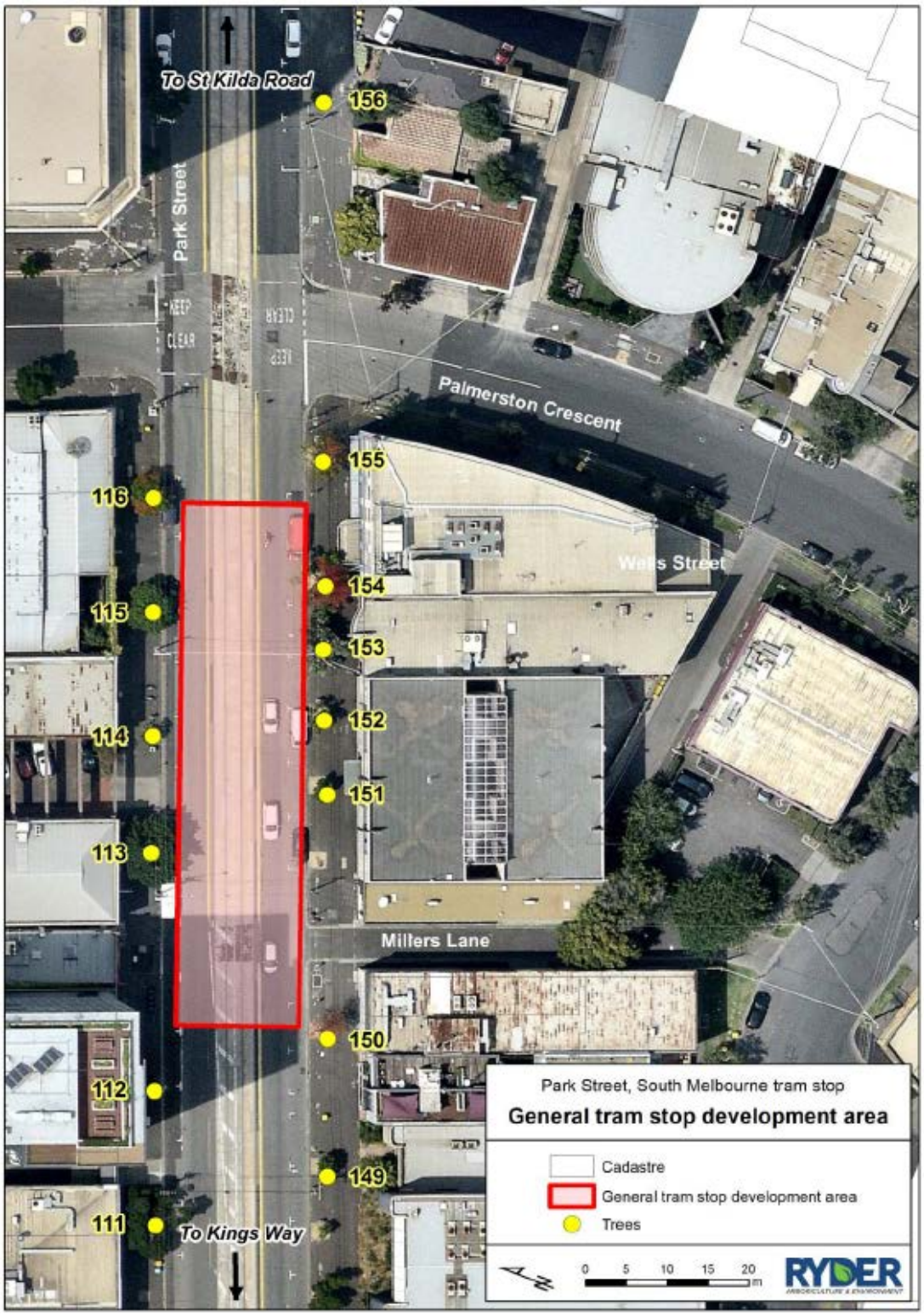


Figure 2- Tree Map with Council ID number

ID	Botanical Name	Common Name	Origin	Height (m)	Width (m)	DBH (cm)	DAB (cm)	Health	Structure	ULE	Retention Value	TPZr (m)	SRZr (m)
111	*Brachychiton populneus*	Kurrajong	Native	9	8	46	64	Good	Fair	20+ years	High	5.52	2.74
112	*Brachychiton acerifolius*	Flame Tree	Native	4	2	8	12	Good	Good	20+ years	Low	2	1.50
113	*Brachychiton acerifolius*	Flame Tree	Native	9	8	62	77	Good	Fair	20+ years	High	7.44	2.97
114	*Brachychiton acerifolius*	Flame Tree	Native	5	1	16	21	Fair	Good	20+ years	Low	2	1.72
115	*Brachychiton acerifolius*	Flame Tree	Native	7	6	41	50	Good	Good	20+ years	High	4.92	2.47
116	*Brachychiton acerifolius*	Flame Tree	Native	7	5	28	35	Good	Good	20+ years	High	3.36	2.13
149	*Brachychiton acerifolius*	Flame Tree	Native	5	2	20	22	Good	Good	20+ years	Moderate	2.4	1.75
150	*Brachychiton acerifolius*	Flame Tree	Native	7	4	26	35	Fair	Good	20+ years	High	3.12	2.13
151	*Brachychiton acerifolius*	Flame Tree	Native	5	3	22	29	Good	Good	20+ years	Moderate	2.64	1.97
152	*Brachychiton acerifolius*	Flame Tree	Native	6	3	24	30	Fair	Fair	20+ years	Moderate	2.88	2.00
153	*Olea europaea*	European Olive	Exotic	7	7	21 24	23 33	Good	Fair	20+ years	High	3.84	2.25
154	*Brachychiton acerifolius*	Flame Tree	Native	10	7	39	44	Fair	Fair	20+ years	High	4.68	2.34
155	*Brachychiton acerifolius*	Flame Tree	Native	9	6	34	40	Fair	Good	20+ years	High	4.08	2.25
156	*Brachychiton acerifolius*	Flame Tree	Native	3	1	10	16	Fair	Good	20+ years	Moderate	2	1.53

Table 2 - Tree list