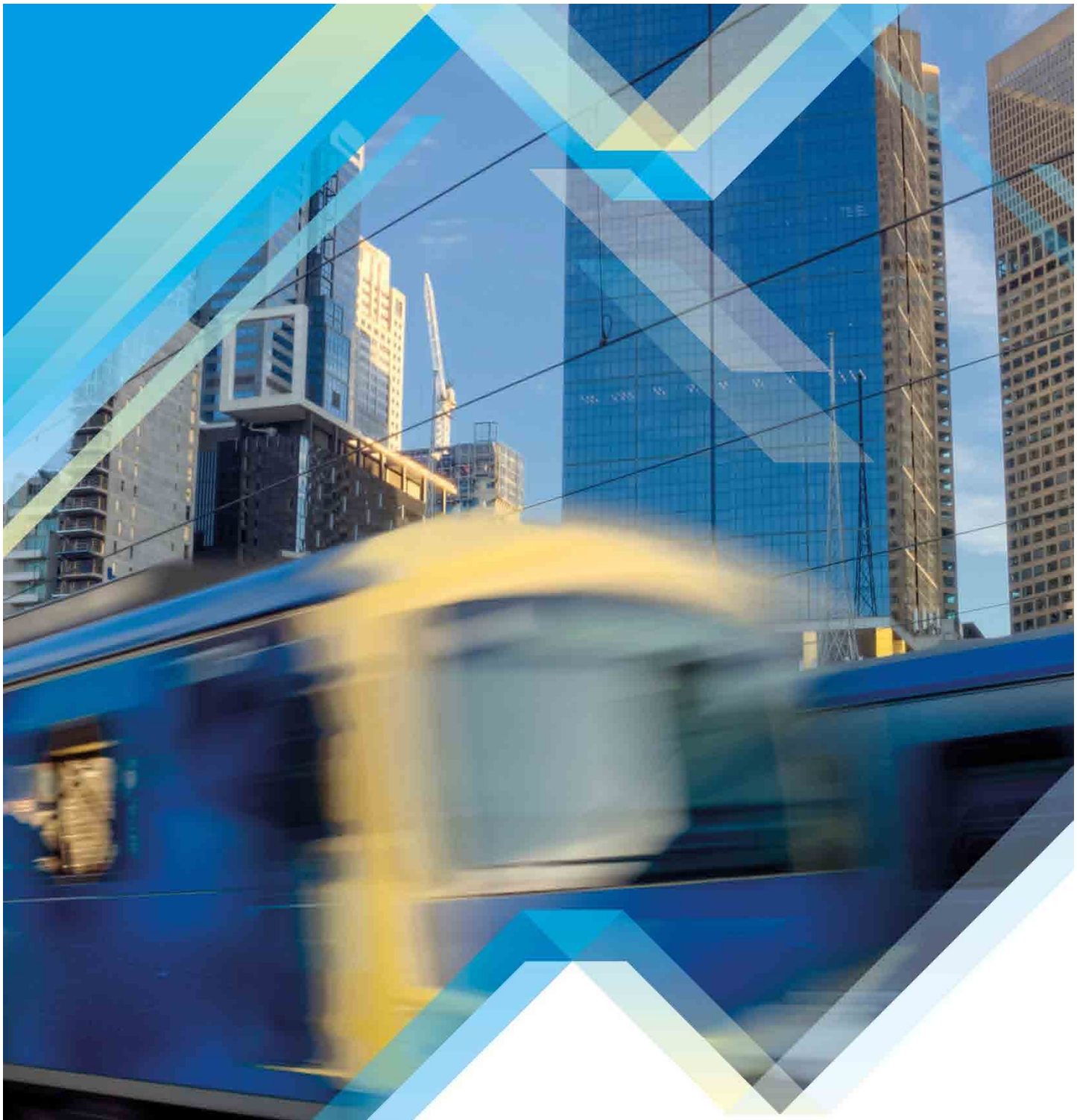

Melbourne Metro Rail Project

MMR-AJM-PWAA-RP-NN-000816

Land Use and Planning Impact Assessment

Melbourne Metro Rail Authority

20 April 2016

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Glossary and Abbreviations

Acronym	Definition
CBD	Central Business District
CLPO	City Link Project Overlay
CUB	Carlton and United Brewery
DDO	Design and Development Overlay
DEDJTR	Department of Economic Development, Jobs, Transport and Resources
DELWP	Department of Environment, Land, Water and Planning
EMP	Environmental Management Plan
LSIO	Land Subject to Inundation Overlay
MPA	Metropolitan Planning Authority
MUZ	Mixed Use Zone
MTM	Metro Trains Melbourne
PPRZ	Public Park and Recreation Zone
PUZ4	Public Use Zone 4 (Transport)
SUZ	Special Use Zone
VHR	Victorian Heritage Register

Executive Summary

This report provides an assessment of the land use and planning related aspects associated with the construction and operation of the Melbourne Metro Rail Project (Melbourne Metro). These include issues relating to impacts on land use and built form, land acquisition, access and existing planning controls and approved developments. Other aspects including amenity, heritage and social related aspects, are covered in other impact assessments, in particular:

- Technical Appendix D *Transport*
- Technical Appendix F *Social and Community*
- Technical Appendix H *Air Quality*
- Technical Appendix I *Noise and Vibration*
- Technical Appendix J *Historical Cultural Heritage.*

Land Use Context

Melbourne Metro is one of the largest infrastructure projects ever undertaken in Australia. The project would lead to the transformation of Melbourne's rail network into an international-style metro system, boosting the capacity of the rail network to keep pace with Melbourne's growing and changing travel needs as the city heads towards a population of six million over the next 20 years.

The development of Melbourne Metro has been undertaken within the context of existing Commonwealth, State and local legislation and policy, including the *Transport Integration Act 2010*, *Plan Melbourne* (the metropolitan planning strategy) and the relevant planning schemes. Melbourne Metro has been assessed as having the potential to offer maximum benefit to the transport system in Melbourne and alignment with the relevant strategic policies.

The proposed project boundary for Melbourne Metro extends from Kensington in the west to South Yarra in the east and includes land within the Melbourne Central Business District (CBD). Within the CBD is a high diversity of land uses including retail, office, commercial, residential, education and civic uses. Outside of the CBD, there is a diversity of land uses including industrial uses to the north of the city around the Western Portal and Arden precincts, residential uses in North Melbourne and South Yarra; education, health and research uses in Parkville; and parkland around the Yarra River and in Domain Parklands, Fawkner Park, African Soldiers Memorial Reserve, South Yarra Siding Reserve and JJ Holland Park. The project boundary also includes a separate area for the proposed turnback at West Footscray.

Methodology

The methodology for the land use and planning impact assessment included:

- A review of the legislative framework for the study area including the Melbourne, Port Phillip, Stonnington and Maribyrnong Planning Schemes, including any recent planning scheme amendments, and current strategic planning work, frameworks and proposed future amendments. This included a review of relevant Ministerial directions and planning practice notes to identify where the Melbourne Metro should be guided by these.
- A baseline land use survey carried out between 28 April and 11 May 2015 and on 23 September 2015 identified existing and proposed land uses and development along and adjacent to the Melbourne Metro area (including the tunnels alignment, stations, portals, emergency access shafts and construction work sites). To do this, the study area was inspected on foot and mapped. This was supplemented by a number of localised walkovers and inspections.

- Identification of the land that may be required permanently or temporarily for the delivery of the project, including its current uses and sensitivities. This task included noting relevant infrastructure, networks and other elements that provide for connectivity within and between communities, to the extent that such features may be disrupted or additionally loaded due to project works or activities.
- A review of the planning permit applications and recently approved permits (since November 2011 and up to 15 December 2015) within the proposed Melbourne Metro boundary to determine any potential built form or structural interference and inform detailed design. Where possible, the timing of major developments was assessed to determine the cumulative impact of construction in the metropolitan area and along transport routes.
- A review of the Certificates of Title for land identified for acquisition in order to identify any potential encumbrances such as covenants, titles that extend to the centre of the earth or easements. As part of this review, impacts on land in public ownership have been identified and relevant Committees of Management identified. This information is held to form an understanding of existing conditions, although once the relevant property interest has been compulsorily acquired, these encumbrances do not apply to the project land that has been acquired.
- Identification of any land use and planning risks, and assessment of the impact of these risks on land use and planning approval triggers in order to provide recommendations for mitigation and potential design modifications.
- Consultation with relevant State and local government agencies was also undertaken for this assessment. The outcomes of this consultation informed the assessment of existing and likely future land use and planning in the study corridor, the identification of likely impacts of the project's construction and operation and mitigation measures.
- An assessment of the potential implications for existing and likely future land uses, from the construction and operation of Melbourne Metro, including land use requirements of the project, potential constraints on or changes to existing or likely future land use and development. This impact assessment is structured around the EES Scoping Requirements that are relevant to land use and planning, and consequently focussed on land use, land acquisition, land access and any impacts to existing planning permit applications and approvals.
- Identification of measures to avoid or manage potential impacts on land use and tenure and maximise or enhance opportunities for existing or planned future land use.
- Identification of opportunities where Melbourne Metro (in particular the underground elements) could be protected in the future through planning controls or property systems and identification of planning controls for over-site development along the project alignment.

In addition, the assessment was independently peer reviewed.

Risk Assessment

The risk assessment considered the following potential consequences across the study area:

- Disruption to existing land use and the compliance of the project with existing state and local planning strategies, policies and frameworks
- Impacts on the built environment within the study area including any constraints to access of properties within the study area
- Extent of land acquisition across each precinct and the study area as a whole.

The risk assessment concluded that mitigation measures could be implemented to reduce most risks to 'Negligible' or 'Low', however, there is one risk identified as 'Medium':

- Acquisition of residential, commercial and retail titles for the project, resulting in some changes in land use. This includes the strata acquisition of numerous titles across the study area.

Impact Assessment

The impact assessment was carried out for each precinct and determined the issues, impacts and management measures.

Land acquisition would be undertaken in accordance with the requirements of the *Land Acquisition and Compensation Act 1986* and *Major Transport Projects Facilitation Act 2009*. Many of the properties proposed for acquisition would be required for temporary construction purposes only and their existing use could be reinstated after construction is complete. Any surplus land would be managed in accordance with the *Victorian Government Landholding Policy and Guidelines.* This would occur after the end of the construction phase of the Project.

The project is consistent with EES evaluation objectives for the built environment and land use as it would result in low impact on existing land use, planning policy and the built environment as outlined by precinct below.

Precinct 1 – Tunnels

The majority of works in this precinct would be located beneath existing roads and Crown reservations, which would result in minimal impacts on the built environment and existing land uses at surface level and the need for surface land acquisition. Strata acquisition would be undertaken to provide tenure and protection for the tunnels and stations. It is also proposed to apply the Design and Development Overlay (DDO) with new Schedules in the Melbourne, Port Phillip, Stonnington and Maribyrnong Planning Schemes to identify and protect the tunnels, stations and associated infrastructure from future development.

Permanent land use impacts from the Concept Design in this precinct would result from the construction of two emergency access shafts. These are proposed to be located in the Domain Parklands beside Linlithgow Avenue or near Toorak Road in Fawkner Park. Construction of an emergency access shaft at Fawkner Park and Linlithgow Avenue for three years would result in the temporary loss of public open space, however post construction only a small area would be required for the permanent structure above each shaft. The permanent occupation would require the permanent reservation of Crown (public) land.

Precinct 2 – Western Portal (Kensington)

The proposed works are considered appropriate in this location as most of them would be undertaken within the existing rail corridor, with limited impact on land outside the corridor. The Concept Design would require the acquisition of nine residential properties as well as the Council owned shared pathway and car parking area on Childers Street. A further 13 full titles and one part title would be acquired in the 50 Lloyd Street Business Estate. Temporary occupation would be required for approximately three years for the proposed construction work site at 1-39 Hobson's Road, Kensington.

The alternative design option at the western portal includes the relocation of the TBM retrieval box further west. This would limit private land acquisition to one residential property. There would be no acquisition at the 50 Lloyd Street Business Estate, however there would be a temporary occupation of land in JJ Holland Park, which would result in the temporary loss of a small area of public open space.

Precinct 3 – Arden Station

The station and major construction work site are proposed to be sited on publicly owned (VicTrack) land, and so no land acquisition would be required. However the existing land uses on the site would be displaced.

The Arden precinct is identified in the Municipal Strategic Statement of the Melbourne Planning Scheme as a 'proposed urban renewal area'. The future development of the land is the focus of strategic planning studies currently being undertaken by the City of Melbourne and the Metropolitan Planning Authority. The use of the land for the project is consistent with the purpose of the existing Public Use Zone 4 (Transport), as well as the future strategic intent of the site. The station would act to provide a catalyst for revitalisation of the area

and enable future development in line with the *Arden-Macaulay Structure Plan 2012*, Technical Appendix M *Urban Design Strategy* and the planning controls that are proposed to apply to the site.

The precinct would also include a new electrical substation, which is required to provide power for the operation of Melbourne Metro. The potential location of the substation on publicly owned (VicTrack) land would be the preferred option in terms of land use and planning.

Precinct 4 – Parkville Station

The Parkville station site is identified in the *City North Structure Plan*, 2012 and would contribute to the ongoing revitalisation of the precinct. The station was a catalyst for the rezoning of land in the precinct as it connects the Parkville National Employment Cluster to the CBD.

Impacts on the surrounding land caused by the construction of the station in this location include the temporary loss of public open space due to the occupation of part of University Square, constrained access through the precinct during construction, amenity impacts and land acquisition. The proposed use of land within the University of Melbourne provides opportunities to incorporate the station with future redevelopment of University land.

Precinct 5 – CBD North Precinct

The proposed location of the station in this precinct is considered appropriate as the majority of work would be within road reserves and the station would support the further intensification of land use in this area. The proposed use of the land for the project is consistent with the purpose of the Capital City Zone, which is to *'enhance the role of Melbourne's central city as the capital of Victoria and as an area of national and international importance'*.

The proposed works would require the acquisition of 60 titles in this precinct in six buildings, including one building on La Trobe Street. The other buildings to be acquired contain a mix of commercial, retail and office uses, which should be easily accommodated within the CBD.

Four high-rise developments have been recently approved in the study area, with many more within close proximity. Of these approvals, two are on land identified for acquisition and demolition as part of this project. The development potential lost through the occupation of sites with existing permits has the potential to be returned through future over-site development at the station entrance on the corner of Swanston and La Trobe Streets.

Precinct 6 – CBD South Station

The proposed siting of the station is considered appropriate, with minimal land acquisition and resulting land use change. The project would be consistent with the purpose of the Capital City Zone, as it would reinforce the precinct as an area of *'national and international importance'* and the long-term productivity of Melbourne.

The station construction in this location would result in the loss of retail properties, however, post construction, the station building on Swanston and Flinders Street is proposed to incorporate retail premises. The station itself would act as a catalyst for change and reinvigoration of this highly valued area of the CBD.

The construction would require the temporary occupation of City Square and some permanent occupation, resulting in the loss of public open space and a business occupation. It is considered that the proposed station entrances at City Square and Federation Square would contribute to the ongoing use of the land for central city purposes and in the long term, would not change the ongoing overall use of the land for public purposes.

Precinct 7 – Domain Station

The proposed location of the station beneath the road reserve of St Kilda Road is considered appropriate, as there would be no change in land use and no private land acquisition. The construction of the station would

impact on the public open space of Domain Parklands and the Albert Road Reserve. Public open space not directly impacted by the proposed station entrances would be returned to public open space following construction. The station would contribute to the main function of the land for civic and public purposes and would not change the ultimate use of the parklands. It would also support the commercial and residential uses on the west side of St Kilda Road, supports the implementation of Planning Scheme Amendment C107 to the Port Phillip Planning Scheme and Council's aspiration for more intensive development of land.

The low scale built form of the proposed station entrances would be sensitive to the heritage significance of the area.

The underpass would be a significant contributor to the pedestrian amenity and connections in this area.

The proposed functional road layout of St Kilda Road during construction would impact on existing footpaths along St Kilda Road and impact pedestrian access through the precinct. The works would also require the temporary closure of sections of Domain and Albert Roads. Limited access around the construction work site would affect surrounding land uses, however temporary access would be provided to these uses during construction.

Precinct 8 – Eastern Portal

This precinct includes a highly urbanised area within South Yarra, which provides the potential for many land use conflicts. However, this location is considered appropriate in terms of impacts on land use and built form as the majority of works would be located within the existing rail corridor and public open space surrounding the rail corridor.

The occupation of South Yarra Siding Reserve and Osborne Street Reserve for up to five years would result in a temporary loss of public open space. While this use is inconsistent with the purpose of the Public Park and Recreation Zone, post construction there is the opportunity to provide a more functional and enhanced public open space. Lovers Walk would also be incorporated into the construction work site for the duration of construction in this precinct, affecting pedestrian access between Chapel Street and Toorak Road. However, Lovers Walk would be re-instated and enhanced post-construction.

Western Turnback

The Concept Design would be wholly contained within the rail corridor and consistent with the existing purpose and use of the land for railway activities. Other than potential temporary amenity impacts during construction and construction traffic, there would be limited impacts on surrounding land uses or the built environment.

Benefits and Opportunities

The Concept Design would be anticipated to assist in the implementation of state and local planning policy by transforming Melbourne's transport system to support a more productive central city and broader area. The project would also improve integration between land use and transport across Melbourne, with limited impacts on land use and built form resulting from the majority of works being retained below ground. The majority of land use opportunities for the project would result from the potential redevelopment of construction work sites and station precincts and the reinstatement and potential upgrade of public open space at the completion of construction.

The development and use of Melbourne Metro is proposed to be enabled via a planning scheme amendment to the Melbourne, Port Phillip, Stonnington and Maribyrnong Planning Schemes, facilitated by the Minister for Planning. Facilitation by the Minister for Planning has been designed to realise the importance of the project and its existence in current planning policy. As part of the planning approval, it is proposed to implement a planning tool to identify and protect the Melbourne Metro tunnels, stations and associated infrastructure from future development that may impact on its capacity to operate, as well as assist in the redevelopment of land in proximity to the Melbourne Metro assets. A technical assessment has been undertaken and is included in

Appendix J of this impact assessment that identifies potential future loading requirements for land within proximity of Melbourne Metro assets.

Environmental Performance Requirements

The following Environmental Performance Requirements are recommended:

Environmental Performance Requirements
Develop and implement measures for construction and operation of Melbourne Metro that aim to minimise impacts to the development and / or operation of existing land uses, including: • Limiting the permanent change of use within existing public open space • Minimising footprints of construction sites and permanent infrastructure on public land • Minimising impacts to existing public open spaces and recreational facilities and the users of these facilities, including but not limited, to JJ Holland Park, University Square, City Baths, City Square, Federation Square, the Shrine of Remembrance Reserve, Domain Parklands, Edmund Herring Oval, Fawkner Park and the South African Soldiers Reserve. Such measures shall be developed in consultation with affected land managers for public land.
Development of the project is to have regard to the relevant Open Space Master Plans (including but not limited to, the Domain Parklands and Fawkner Park Master Plans) in designing and constructing above-ground infrastructure for the tunnels. Consultation must occur with land managers and / or agencies responsible for the implementation of the relevant Open Space Master Plans.
Design and construction of Arden station must consider the ongoing strategic planning of the Arden-Macaulay Urban Renewal Area, and include consultation with the Metropolitan Planning Authority, City of Melbourne and any other relevant agencies.
Prior to main works or shaft construction, develop and implement a community and business involvement plan to engage potentially affected stakeholders and advise them of the planned construction activities and progress against the schedule. The plan must include: • Measures to minimise impacts to the development and/or operation of existing facilities • Measures for providing advance notice of significant milestones, changed traffic conditions, periods of predicted high noise and vibration activities • Process for registering and management of complaints • Measures to address any other matters which are of concern or interest to them. The plan would consider each precinct and station location in detail. Stakeholders to be considered in the plan include (but not limited to): • Municipalities • Potentially affected residents • Potentially affected businesses • Recreation, sporting and community groups and facilities • Royal Melbourne Hospital, Victorian Comprehensive Cancer Centre, Peter Doherty Institute and other health and medical facilities • The University of Melbourne • RMIT • Fawkner Park Children's Centre and Kindergarten

Environmental Performance Requirements
• South Yarra Senior Citizens Centre • Other public facilities in proximity.
In consultation with key stakeholders and in accordance with the Urban Design Strategy, relevant statutory approvals and other relevant requirements, re-establish sites impacted by construction works, including but not limited to: • Childers Street, Kensington • JJ Holland Park • Royal Parade and Grattan Street, Parkville • The south western entrance of the proposed CBD South station • St Kilda Road boulevard • Edmund Herring Oval • Fawkner Park and Fawkner Park Tennis Facility • Osborne Street Reserve • South Yarra Siding Reserve • Lovers Walk • The South African Soldiers Memorial. See related Environmental Performance Requirement LV2.
Develop and implement a plan in consultation with the Office of Victorian Government Architect, local councils and other land managers to comply with the Melbourne Metro Urban Design Strategy to re-establish public open space, recreation reserves and other valued places disturbed by temporary works. The plan must include, but not be limited to a methodology for storage, reinstatement or replacement of existing public art, monuments and public infrastructure such as poles, bins, and other street furniture.

1 Introduction

This report provides a description of the existing land use and planning conditions within the Melbourne Metro Rail Project (Melbourne Metro) area and an assessment of the land use and planning impacts on Melbourne Metro. Related issues including social, transport, historic heritage and noise and vibration are addressed in other impact assessment reports.

The assessment is structured around the EES evaluation objectives and provides an overview of the strategic justification for Melbourne Metro. The legislation and strategic planning policy relevant to Melbourne Metro has been described and assessed in Section 3, Appendix A (Relevant Legislation) and Appendix I (Relevant Planning Scheme Amendments and Strategic Planning Studies) to determine how the project would address the relevant legislative requirements or strategic goals for the project area.

An assessment has also been undertaken on compliance with State and Local Planning Policy and planning approval requirements and triggers. The requirements of the Melbourne, Port Phillip, Stonnington and Maribyrnong Planning Schemes are described in Section 3.2 and Appendix B (Relevant Provisions of the Melbourne, Port Phillip, Stonnington and Maribyrnong Planning Schemes), Appendix C (Relevant Provisions of the State Planning Policy Framework), Appendix D (Relevant Provisions of the Local Planning Policy Framework), Appendix E (Relevant Zone Table), Appendix F (Relevant Overlay Table), and Appendix G (Planning Scheme Maps).

It has been determined that there would be many planning approval triggers across the four municipalities, and given the consultation and planning and environment assessments undertaken as part of the Environment Effects Statement (EES) process, it is considered that a planning scheme amendment facilitated by the Minister for Planning would be appropriate for the project. In this assessment, the potential planning approval mechanism and controls have been discussed in Section 5 and has been informed by Appendix J (Limits on Future Development Technical Paper) and Appendix K (Relevant Practice Notes, Advisory Notes and Ministerial Directions).

Section 7 of this impact assessment provides a summary of the risk assessment undertaken for the project and identifies the land use and planning risks for Melbourne Metro. The full risk assessment is in Technical Appendix B *Environmental Risk Assessment Report*.

The impact assessment then provides a description of the project components, existing conditions, the key issues, benefits and opportunities, findings of the impact assessment for the Concept Design and Alternative Design Options (if any). This section is divided up by project precinct or component and the assessment focuses on the identified land use and planning risks to the project and the relevant EES evaluation objectives, in particular:

- Land use and built form
- Land acquisition and how acquisition would create land use change
- Changes to access arrangements
- Strategic planning policy support
- The potential land use and built form changes resulting from the execution of any existing planning applications or approvals.

The impact assessment is supported by Appendix H (Planning Permit Applications) of this impact assessment.

Following identification of the potential land use and planning impacts in each precinct, environmental performance requirements have been drafted, to mitigate the impacts.

1.1 Project Description

Melbourne Metro comprises two nine-kilometre log rail tunnels from Kensington to South Yarra, travelling underneath Swanston Street in the Central Business District (CBD), as part of a new Sunbury to Cranbourne/Pakenham line.

The infrastructure proposed to be constructed as part of Melbourne Metro broadly comprises:

- Twin nine-kilometre rail tunnels from Kensington to South Yarra connecting the Sunbury and Cranbourne/ Pakenham railway lines form the new Sunshine-Dandenong Line (with the tunnels to be used by electric trains)
- Rail tunnel portals (entrances) at South Kensington and South Yarra
- New underground stations at Arden, Parkville, CBD North, CBD South and Domain with longer platforms to accommodate longer High Capacity Metro Trains (HCMTs). The stations at CBD North and CBD South would feature direct interchange with the existing Melbourne Central and Flinders Street Stations respectively
- Train/tram interchange at Domain station.

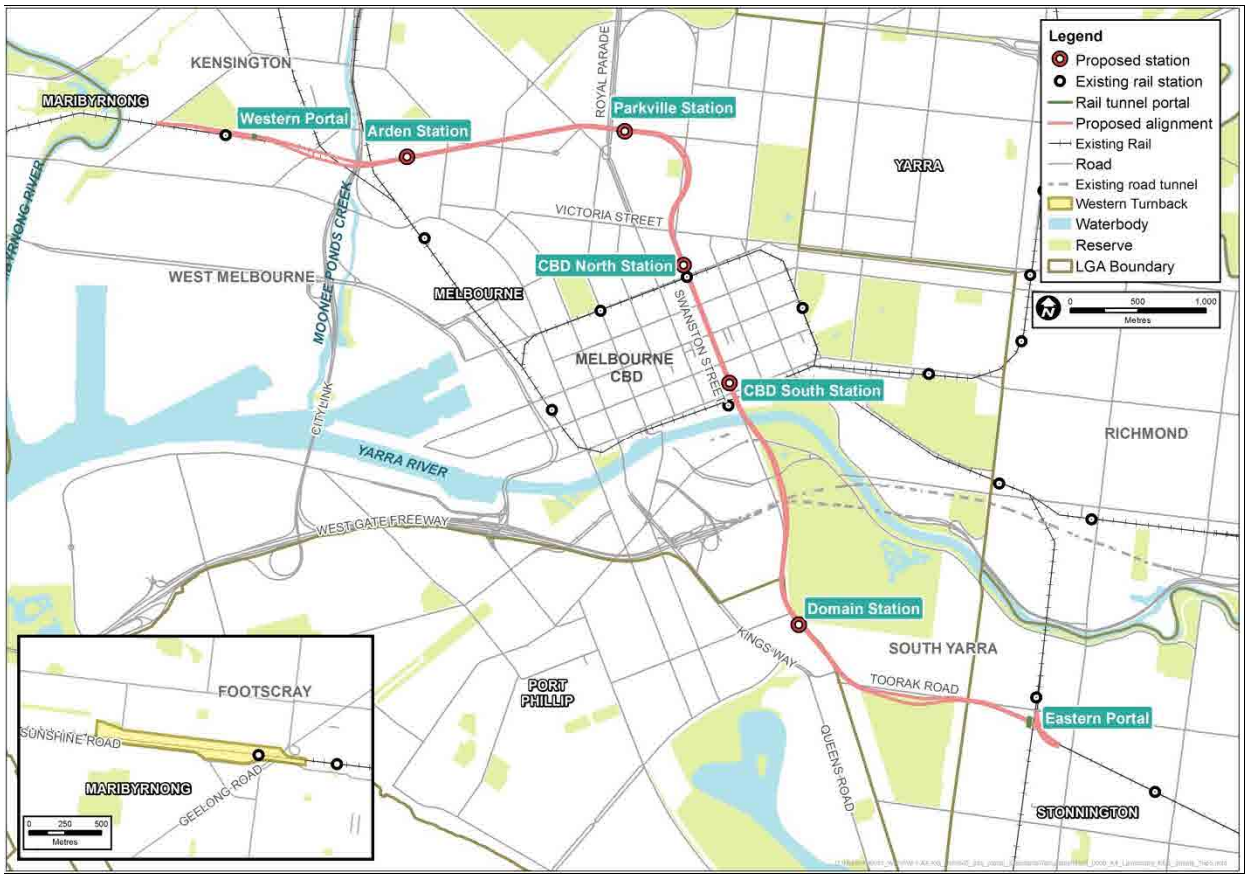

Figure 1-1 Map of the Melbourne Metro alignment and five underground stations

Proposed construction methods would involve bored and mined tunnels, cut and cover/mined cavern (CBD stations) construction of the station boxes, and portals. The project would require planning, environmental and land tenure related approvals to proceed.

1.2 Purpose of this Report

The purpose of this report is to provide an understanding of the land use and planning controls present within the proposed Melbourne Metro study area and to identify potential risk, as it relates to land use and

planning. The outcome of this assessment provides context for the risk assessment process and to meet the EES assessment requirements.

Whilst this report does not specifically address the amenity impacts of Melbourne Metro, amenity has been assessed in other technical assessments including Technical Appendix D *Transport,* Technical Appendix H *Air Quality*, Technical Appendix I *Noise and Vibration*, Technical Appendix L *Landscape and Visual* with a summary of amenity impacts in Technical Appendix F *Social and Community.*

1.3 Project Precincts

For assessment purposes, the proposed project boundary has been divided into precincts as outlined below. The precincts have been defined based on the location of project components and required construction works, the potential impacts on local areas and the character of surrounding communities.

The precincts are:

- Precinct 1: Tunnels (outside other precincts)
- Precinct 2: Western Portal (Kensington)
- Precinct 3: Arden station (including electrical substations)
- Precinct 4: Parkville station
- Precinct 5: CBD North station
- Precinct 6: CBD South station
- Precinct 7: Domain station
- Precinct 8: Eastern Portal (South Yarra).
- Precinct 9: Western Turnback (West Footscray).

The nine precincts are shown on Figure 1-2.

1.4 Study Area

The study area for this assessment includes all land identified within the proposed project boundary as shown in Figure 1-2. The project boundary includes all areas that would be used for permanent structures and temporary construction area (both above and below ground).

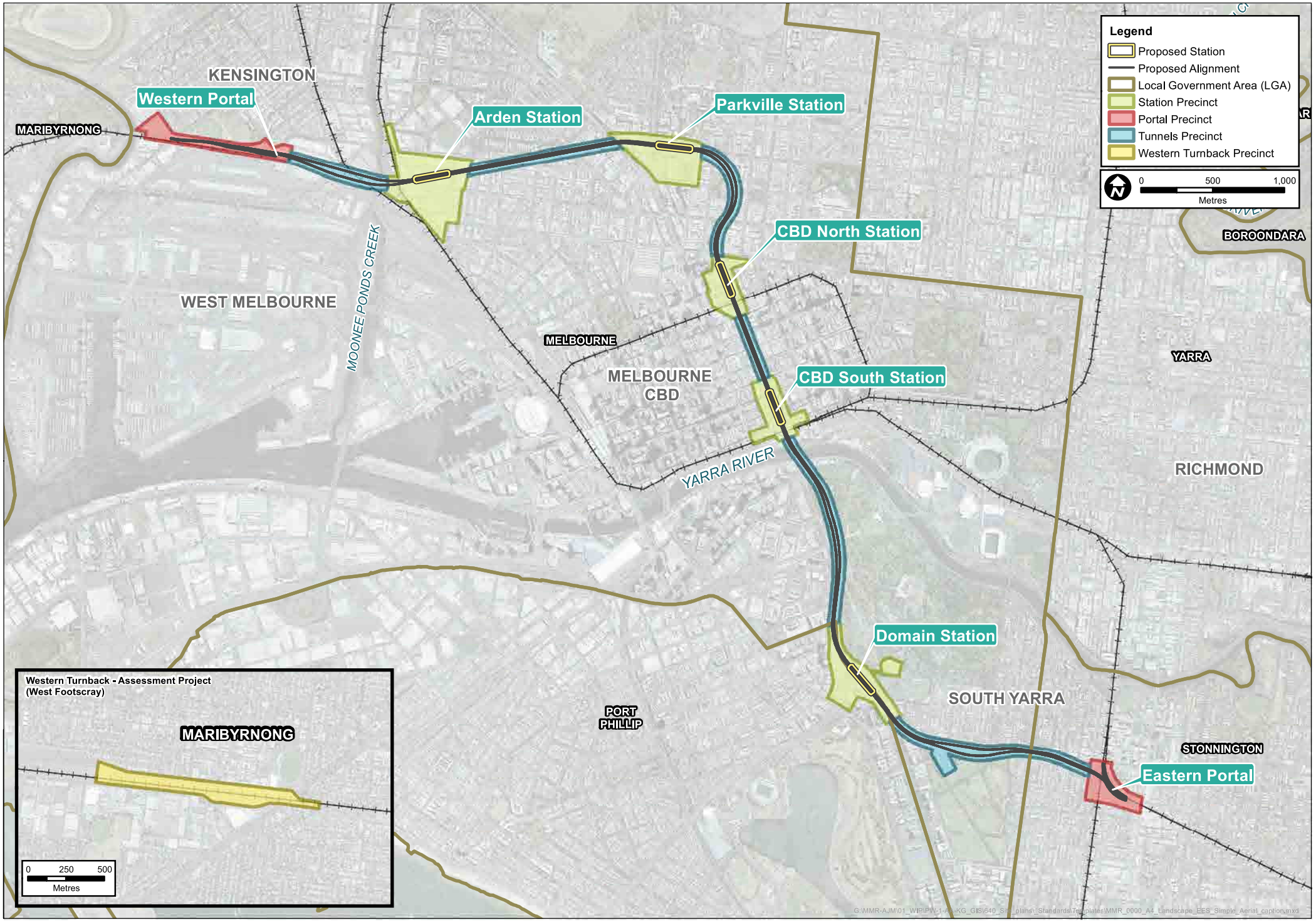

Figure 1-2 Melbourne Metro precincts

2 Scoping Requirements

2.1 EES Objectives

The following draft evaluation objectives are relevant to land use and planning and identify the desired outcomes in the context of potential project effects. The draft evaluation objectives provide a framework to guide an integrated assessment of environmental effects of the project, in accordance with the *Ministerial guidelines for assessment of environmental effects under the Environment Effects Act 1978*.

Table 2-1 Built environment objective

Draft evaluation objective	Key legislation
Built environment: To protect and enhance the character, form and function of the public realm and buildings within and adjacent to the project alignment, and particularly in the vicinity of project surface structures, having regard to the existing and evolving urban context.	*Planning and Environment Act 1987*

Table 2-2 Social, community, land use and business objective

Draft evaluation objective	Key legislation
Social, community, land use and business: To manage the effects on the social fabric of the community in the area of the project, including with regard to land use changes, community cohesion, business functionality and access to services and facilities, especially during the construction phase.	*Environment Protection Act 1970* and State Environment Protection Policies *Planning and Environment Act 1987* *Transport Integration Act 2010*

2.2 EES Scoping Requirements

The following extracts from the Scoping Requirements, issued by the Minister for Planning, are relevant to the Land Use and Planning evaluation objectives.

Table 2-3 Built environment scoping requirements

Aspect	Relevant response
Key issues	• Acknowledging and respecting the existing qualities of the built environment in the immediate and broader neighbourhood of project works. • Recognising the need for project works, both above and below ground, to reinforce, enhance or complement valued aspects of the existing and evolving built environment.
Priorities for characterising the existing environment	• Describe in appropriate detail the character of the existing and evolving built environment in the immediate and broader neighbourhood of project works. • Describe any relevant planning strategies, policies and frameworks guiding maintenance, development or redevelopment of the built environment in the immediate and broader neighbourhood of project works, and describe their implications for anticipated project outcomes.

Aspect	Relevant response
Design and mitigation measures	• Describe measures to be taken to create a positive relationship between the established or emerging form, function, amenity and appearance of associated public realm and buildings and the design and appearance of project buildings and structures. • Describe the design and management approach to ensure the project protects and enhances its urban setting, including streetscapes, built form and community safety, especially for pedestrians. • Describe measures to assure the safety and enhance the experience of people using project facilities.
Assessment of likely effects	• Analyse the effect of the project on the form, function, amenity and appearance of associated public realm and buildings during and after construction. • Analyse risks that the project's built form may indirectly detract from the positive contribution of the project to local and neighbourhood built form character.
Approach to manage performance	• Identify management programs required to ensure that the project's built form, both internally and externally, continues to integrate with local character, presents the intended attractive appearance, enhances users' experience and ensures users' safety. • Identify contingency measures to be implemented if required.

Table 2-4 Social, community, land use and business scoping requirements

Aspect	Relevant response
Key issues	• Potential for changed accessibility for residents, including to community services or facilities resulting from construction works or from operation of the project. • Potential acquisitions of private property for project purposes.
Priorities for characterising the existing environment	• Describe the land which may be required permanently or temporarily for the delivery of the project, including its current uses and sensitivities. • Describe in broad terms land uses in the area neighbouring the alignment, and particularly in the neighbourhood of stations, portals and construction works compounds.
Design and mitigation measures	• Describe measures to be put in place to maintain community linkages or replace linkages which may be disrupted by the project. • Describe the approach to provide alternative access to properties for which customary access may be disrupted by the project.
Assessment of likely effects	• Analyse the effects of temporary and longer-term land use changes which would result from the implementation of the project.
Approach to manage performance	• Describe the principles to be adopted for contingency actions which could be implemented if foreseeable but uncertain adverse effects are detected.

3 Legislation, Policy and Guidelines

3.1 Relevant Legislation

This section summarises the relevant legislation that applies to the project as well as the implications, required approvals and interdependencies and information requirements associated with obtaining approvals.

Table 3-1 identifies legislation that requires consideration for the facilitation of the use and development of the project or provides approval mechanisms for the project. Use and development approvals must be obtained before construction commences. Other legislation provides for approvals that are required after the use and development approvals are obtained. These secondary approvals relate to a certain area or sub-component of the project, and generally would not hinder the commencement of construction (on other areas/components) of the project. Descriptions of all relevant legislation are contained in Appendix A of this impact assessment.

The legislation of relevance to the land use and planning for Melbourne Metro is:

Commonwealth

- *Environment Protection and Biodiversity Conservation Act 1999*

State

- *Environment Effects Act 1978*
- *Major Transport Projects Facilitation Act 2009*
- *Transport Integration Act 2010*
- *Planning and Environment Act 1987* (Melbourne, Stonnington, Port Phillip and Maribyrnong Planning Schemes)
- *Heritage Act 1995*
- *Aboriginal Heritage Act 2006*
- *Environment Protection Act 1970*
- *Crown Land (Reserves) Act 1978*
- *Land Act 1958.*

The legislation described in this section influences the potential use and development of land within the Melbourne Metro area as outlined in Table 3-1.

Table 3-1 Primary legislation and associated information

Legislation / policy	Key policies / strategies	Implications for this project	Approvals required	Timing / interdependencies
Commonwealth				
Environment Protection and Biodiversity Conservation Act 1999	The Act states that 'controlled' actions – actions that are likely to have a significant impact on a Matter of National Environmental Significance – are subject to a Commonwealth Government assessment and approval process.	MMRA referred the project to the Australian Government Minister for the Environment pursuant to this Act.	On 22 September 2015, the Minister determined that Melbourne Metro is 'not a controlled action if undertaken in a particular manner' to avoid significant vibrational impacts to the Commonwealth Heritage listed structures within the Victoria Barracks site in St Kilda Road.	N/A
State				
***Environment Effects Act* 1978**	The *Environment Effects Act* 1978 provides for the assessment of actions that are capable of having a significant environmental effect.	As the Victorian Minister for Planning has declared the project as 'public works' which are capable of having a significant impact on the environment under section 3 of the *Environment Effects Act 1978*, an EES is being prepared.	This Act triggers a substantial assessment process to be followed as per the applicable Ministerial direction.	The assessment under the *Environment Effects Act 1978* would inform decision-making under other legislation.
Major Transport Projects Facilitation Act 2009	The *Major Transport Projects Facilitation Act 2009*'s legislated purpose is 'to facilitate the development of major transport projects'.	Pursuant to the Premier's declaration (gazetted 4 September 2015), Melbourne Metro would utilise the *Major Transport Projects Facilitation Act 2009* suite of project delivery powers. The project was declared under s10(1)(b) of the Act, with the Minster for Public Transport declared the project Minister under s14 of the same Act.	N/A	Following approval of the proposed planning scheme amendment, the project area would be declared to enable the project to use the delivery powers of the Act.

Legislation / policy	Key policies / strategies	Implications for this project	Approvals required	Timing / interdependencies
Transport Integration Act 2010	Transport planning should 'provide for the effective integration of transport and land use and facilitate access to social and economic opportunities' (Section 11.1). The 'transport system and land use should be aligned, complementary and supportive and ensure that – (a) transport decisions are made having regard to the current and future impact on land use; (b) land use decisions are made having regard for the current and future development and operation of the transport system' (Section 11.3)	Transport planning decisions relating to Melbourne Metro must have regard to the current and future impact on land use and include a triple bottom line assessment including costs, benefits and sustainability.	N/A The triple bottom line approach advocated in the Act has been adopted in assessing Melbourne Metro's options and impacts	Section 63 requires that the department responsible for administering this Act undertakes integrated transport planning to guide the development of the transport network in Victoria. The Department is developing a network development strategy, which would align with both a refresh of Plan Melbourne (anticipated to be finalised in mid-2016) and the Regional Statement, to provide integrated guidance on land use and transport planning for Victoria.
Planning and Environment Act 1987	The Act provides a planning framework that establishes planning schemes as the principal way of setting out objectives, policies and controls for the use, development and protection of land within each municipality.	The area within which Melbourne Metro would be constructed and operated, traverses a range of planning controls and as such, approval is required under this Act.	The planning approval mechanism to seek approval for Melbourne Metro is drafted as a planning scheme amendment. Further detail is provided in Chapter 3 of the EES.	The timing of approvals is dependent on the approval mechanism used.
Crown Land (Reserves) Act 1978	The *Crown Land (Reserves) Act 1978* enables reservation of land for a range of public purposes, stipulates how reserved land must be dealt with and prescribes some governance arrangements for	Melbourne Metro affects a range of reserved Crown land such as the Domain Parklands and the Shrine of Remembrance Reserve. Land managers are appointed as a committee of management	The *Major Transport Projects Facilitation Act 2009* provides the ability to reserve Crown land for the purposes of major transport projects.	Reservations must be in place prior to the commencement of works.

Legislation / policy	Key policies / strategies	Implications for this project	Approvals required	Timing / interdependencies
	committees of management appointed to manage reserved land. Reserved Crown land supports a wide range of uses such as sports grounds and parks within the study area, which are managed by a range of land managers including Councils, Shrine Trustees and Parks Victoria.	or trustees under the *Crown Land (Reserves) Act 1978.*		
Land Act 1958	This Act deals with sale, grants and occupation of unreserved Crown land in Victoria.	Melbourne Metro affects a range of unreserved Crown land.	A lease or licence may be required to occupy Crown land.	Reservations must be in place prior to the commencement of works. The *Major Transport Projects Facilitation Act 2009* provides the ability to reserve Crown land for the purposes of major transport projects.
Environment Protection Act 1970	The Act provides for the preparation of the State Environment Protection Policies (SEPPs) which are used to implement the policies outlined in the primary legislation to protect the environment. The SEPPs relate to emissions to air, water and land in Victoria (including through noise and waste).	Melbourne Metro must consider impacts to the environment, as outlined by the relevant SEPPs.	The SEPPs contain potential audit triggers for Melbourne Metro.	To be determined should any audits be required.
Heritage Act 1995	The *Heritage Act 1995* establishes two registers, the Victorian Heritage Register (VHR)and the Victorian Heritage Inventory and requires consent to carry out works or activities to a Victorian Heritage Inventory site or a permit to carry out works or activities to a heritage	The *Heritage Act 1995* is relevant to Melbourne Metro as there are numerous places within the study area which are included in the Victorian Heritage Register or the Heritage Inventory.	There are two classes of approvals required from Heritage Victoria: • Victorian Heritage Register - Permits under s74 of the Act. where works are minor and Heritage Victoria is able to issue an exemption	Where approval is required under the *Heritage Act 1995*, no planning permit is required under the Heritage Overlays of the relevant planning schemes for Victorian Heritage Register listed places. Permit applications must be processed by the Executive Director of Heritage Victoria

Legislation / policy	Key policies / strategies	Implications for this project	Approvals required	Timing / interdependencies
	place or heritage object (on the Victorian Heritage Register).		from a permit under s66 of the Act where there is little or no impact. • In the case of sites included on the Victorian Heritage Inventory, consents to damage or remove archaeological artefacts are required under s129 of Act	within 60 statutory days. No statutory timeframes for the consent process.
Aboriginal Heritage Act 2006	To provide for the protection of Aboriginal cultural heritage in Victoria. To recognise Aboriginal people as the primary guardians, keepers and knowledge holders of Aboriginal cultural heritage. To promote the use of agreements that provide for the management and protection of Aboriginal cultural heritage.	This Act states that a Cultural Heritage Management Plan is required for any project requiring an EES.	Approved Cultural Heritage Management Plan	A Cultural Heritage Management Plan is being prepared concurrent to the EES for the Melbourne Metro and would be submitted to the Office of Aboriginal Affairs Victoria for approval after the Minister's assessment of the EES is released to enable any changes to the proposed Assessment Design to be accommodated.
Local				
Melbourne, Stonnington, Port Phillip and Maribyrnong Planning Schemes	Planning Schemes are given effect by the *Planning and Environment Act 1987*, and set out objectives, policies and particular provisions for the use, development and protection of land in the area to which they apply. Planning schemes contain State and Local Planning policy which must be considered in assessing the appropriateness	Consideration would be given to the relevant planning schemes when requesting planning approval for Melbourne Metro.	Planning Schemes trigger the requirement for planning approval for Melbourne Metro.	The assessment under the *Environment Effects Act 1978* would inform decision-making under the planning schemes. MMRA would seek to introduce planning scheme amendments to facilitate the use and development of Melbourne Metro via an Incorporated Document, as well as a Design and Development Overlay and new Schedule to identify and protect Melbourne Metro

Legislation / policy	Key policies / strategies	Implications for this project	Approvals required	Timing / interdependencies
	of any project. *Plan Melbourne*, along with many other strategic documents including the permitted clearing guidelines, are given effect by planning schemes.			tunnels, stations and associated infrastructure from future development that may impact on its capacity to operate. A draft of the proposed planning scheme amendments is contained in Appendix A of the EES *Draft Planning Scheme Amendment and Associated Documents*.
Other documents of relevance				
Plan Melbourne: Metropolitan Planning Strategy	*Plan Melbourne* is the metropolitan planning strategy that will guide Melbourne's growth to 2050. It is currently in the process of being revised.	*Plan Melbourne* contains policies and strategies that address transport, housing, economic development, and the environment across Melbourne. *Plan Melbourne* was released in May 2014 and is currently referenced in the State Planning Policy Framework.	N/A Currently, *Plan Melbourne* is being refreshed and a discussion paper regarding the 'refresh' was released in October 2015. The current Melbourne Metro is not identified in *Plan Melbourne* (2104). However, the *Plan Melbourne* refresh paper states 'The Melbourne Metro Project, which returns to the vision of the draft *Plan Melbourne* 2014 alignment and includes new stations to generate new land use and interchange opportunities, particularly around Arden and Parkville'.	Consideration must be given to the strategies contained in *Plan Melbourne* and its refresh in the approval for the use and development of the project.

3.2 Planning Schemes

Melbourne Metro is affected by the Melbourne, Port Phillip, Stonnington and Maribyrnong Planning Schemes. The project is located in each of these municipalities as follows and is shown in Figure 6-1:

- Melbourne Planning Scheme including the tunnels (Precinct 1) between the Western Portal in Kensington and Punt Road in South Yarra, Precinct 2 (Western Portal), Precinct 3 (Arden station), Precinct 4 (Parkville station), Precinct 5 (CBD North station), Precinct 6 (CBD South station) and that part of Precinct 7 (Domain station) on the east side of St Kilda Road
- Port Phillip Planning Scheme for the west side of St Kilda Road (south of Dorcas Street, South Melbourne), including part of Precinct 7 (Domain station) and the surrounding tunnel alignments (Precinct 1)
- Stonnington Planning Scheme for the tunnels alignment east of Punt Road and Precinct 8 (Eastern Portal) in South Yarra
- Maribyrnong Planning Scheme for Precinct 9 (Western Turnback at West Footscray)

Planning Schemes control the use and development of land within each municipality and are structured to include the following sections of the Victoria Planning Provisions. The Victoria Planning Provisions are a state-wide reference document or template from which planning schemes are sourced and constructed.

- State Planning Policy Framework
- Local Planning Policy Framework
  - Municipal Strategic Statement
  - Local Planning Policy
- Zones
- Overlays
- Particular Provisions
- General Provisions
- Definitions
- Incorporated Documents

A description of each of these sections of planning schemes can be found in the following appendices to this report:

- Appendix B Relevant Provisions of the Melbourne, Port Phillip, Stonnington and Maribyrnong Planning Schemes
- Appendix C State Planning Policy Framework
- Appendix D Local Planning Policy Framework
- Appendix E Relevant Zone Table
- Appendix F Relevant Overlay Table
- Appendix G Planning Scheme Maps

3.2.1 State Planning Policy Framework

As outlined in Appendix B of this impact assessment and detailed in Appendix C of this impact assessment, the State Planning Policy Framework is planning policy taken from the Victoria Planning Provisions, which guide the operation of every planning scheme in Victoria.

The Victoria Planning Provisions outline the objectives of planning in Victoria as set out in Section 4(1) of the *Planning and Environment Act 1987*. Each planning scheme must seek to achieve the following objectives:

a) to provide for the fair, orderly, economic and sustainable use and development of land;

b) to provide for the protection of natural and man-made resources and the maintenance of ecological processes and genetic diversity;

c) to secure a pleasant, efficient and safe working, living and recreational environment for all Victorians and visitors to Victoria;

d) to conserve and enhance those buildings, areas or other places which are of scientific, aesthetic, architectural or historical interest, or otherwise of special cultural value;

e) to protect public utilities and other assets and enable the orderly provision and coordination of public utilities and other facilities for the benefit of the community;

f) to facilitate development in accordance with the objectives set out in paragraphs a), b), c), d) and e);

g) to balance the present and future interests of all Victorians.

The purpose of the *Planning and Environment Act 1987* is to establish a framework for planning the use, development and protection of land in Victoria in the present and long-term interests of all Victorians.

3.2.2 Local Planning Policy Framework

As outlined in Appendix B and detailed in Appendix D of this impact assessment, the Local Planning Policy Framework is made up of each municipality's Municipal Strategic Statement and Local Planning Policies. Each Council has policies relevant to Melbourne Metro in their Municipal Strategic Statement and Local Planning Policies to varying degrees. In particular, Melbourne Metro is specifically referenced in the Melbourne Planning Scheme's Local Planning Policy Framework as follows:

- Clause 21.04 (Settlement) and Clause 21.14 (Proposed Urban Renewal Areas) identify Melbourne Metro as influencing the renewal of the City North area and the Arden-Macaulay area.
- Clause 21.09 (Transport) recognises Melbourne Metro and station locations.

Melbourne Metro is also listed in Clause 21.04-1 (Growth Area Framework) and Clause 21.14 (Proposed Urban Renewal Areas) as a planned major transport infrastructure initiative that would integrate the growth and development of the Urban Renewal Areas of Melbourne.

3.2.3 Section 30 of the Victoria Planning Provisions – Zones

The project is comprised of a number of components. Each of the construction works and use components are generically defined by the planning scheme, which determines whether planning approval is required. The planning scheme definitions are described in Appendix B of this impact assessment.

Melbourne Metro area is subject to a range of zones as illustrated in the plans in each precinct description. These zones, their general locality and whether planning approval is currently required for each proposed use (railway and railway station) are outlined in Table 3-2 with further detail in Appendix E of this impact assessment. N/A has been used where no 'railway station' is proposed within the zone or overlay. The emergency access shafts, vents, roadworks, tramworks or other related construction activities within the study area are considered to be ancillary to the project and are not considered separately in this assessment. The table clearly identifies that the project is subject to a range of zones and planning approval requirements.

Table 3-2 Zones affecting the Melbourne Metro alignment

Zone	Permit Required[1]		Comments
	Railway	Railway station	
MELBOURNE			
Capital City Zone (Schedule 1 – Land outside the Retail Core)			
Use	×	×	
Buildings and Works	×	✓	A permit and prior approval for the redevelopment of the site for a railway station is required to demolish or remove a building or works.
Capital City Zone (Schedule 2 – Land inside the Retail Core)			
Use	×	✓	A railway station requires approval for use.
Buildings and Works	✓	✓	Buildings and works associated with railway or railway station requires approval.
Capital City Zone (Schedule 5 – City North)			
Use	×	×	
Buildings and Works	×	✓	A permit and prior approval for the redevelopment of the site for a railway station is required to demolish or remove a building or works.
Commercial 1 Zone			
Use	×	✓	
Buildings and Works	✓	✓	
Comprehensive Development Zone (Schedule 2 – Carlton Brewery)			
Use	✓	N/A	
Buildings and Works	✓	N/A	
General Residential Zone (Schedule 1 – General Residential Areas)			
Use	×	N/A	
Buildings and Works	×	N/A	
General Residential Zone (Schedule 2 – General Residential Areas – 8 metre height limit)			
Use	×	N/A	
Buildings and Works	×	N/A	
Industrial 1 Zone			
Use	×	✓	
Buildings and Works	✓	✓	
Industrial 3 Zone			
Use	×	✓	
Buildings and Works	✓	✓	
Mixed Use Zone			
Use	×	✓	A railway station requires approval for use.

[1] Planning approval is also required triggered for subdivision in all zones.

Zone	Permit Required[1]		Comments
	Railway	Railway station	
Buildings and Works	×	✓	
Public Park and Recreation Zone			
Use	✓	Not permitted	The use of a railway station in a Public Park and Recreation Zone (partly Domain station, partly CBD South station) is prohibited.
Buildings and Works	✓	✓	
Public Use Zone 1 – Service and Utility			
Use	×	×	
Buildings and Works	×	×	
Public Use Zone 2 – Education			
Use	×	N/A	
Buildings and Works	×	N/A	
Public Use Zone 3 – Health and Community			
Use	×	×	
Buildings and Works	×	×	
Public Use Zone 4 – Transport			
Use	×	×	
Buildings and Works	×	×	
Road Zone, Category 1			
Use	×	✓	A permit is required for use of a railway station.
Buildings and Works	×	✓	A permit is required for buildings and works associated with a Section 2 use (including a railway station).
Special Use Zone (Schedule 3 – Private Sports Grounds and Religious and Educational Institutions)			
Use	✓	N/A	
Buildings and Works	✓	N/A	
PORT PHILLIP			
Commercial Zone (Schedule 1)			
Use	×	✓	A railway station requires approval for use.
Buildings and Works	✓	✓	
Public Park and Recreation Zone			
Use	✓	Not permitted	The use of a railway station in a Public Park and Recreation Zone (partly Domain station) is prohibited.
Buildings and Works	✓	✓	
Road Zone, Category 1			
Use	×	✓	A permit is required for use of a railway station.

Zone	Permit Required[1]		Comments
	Railway	Railway station	
Buildings and Works	×	✓	A permit is required for buildings and works associated with a Section 2 use.
STONNINGTON			
Commercial 1 Zone			
Use	×	N/A	
Buildings and Works	✓	N/A	
General Residential Zone (Schedule 1 – General Residential Areas)			
Use	×	N/A	
Buildings and Works	×	N/A	
General Residential Zone (Schedule 12 – Inner Urban Precincts)			
Use	×	N/A	
Buildings and Works	×	N/A	
Public Park and Recreation Zone			
Use	✓	N/A	
Buildings and Works	✓	N/A	
Public Use Zone 4 – Transport			
Use	×	N/A	
Buildings and Works	×	N/A	
Road Zone, Category 1			
Use	×	N/A	
Buildings and Works	×	N/A	
MARIBYRNONG			
Public Use Zone 4 – Transport			
Use	×	×	
Buildings and Works	×	×	
Road Zone, Category 1			
Use	×	✓	A permit is required for use of a railway station, however the works would be within the rail corridor at this location.
Buildings and Works	×	✓	A permit is required for buildings and works associated with a Section 2 use.

Development other than railway, railway station and subdivision (and ancillary activities identified above) that may be proposed as part of the Melbourne Metro would require a full planning assessment to determine what planning approvals, if any, are required.

3.2.4 Section 40 of the Victoria Planning Provisions – Overlays

The study area is affected by a range of overlays that apply in addition to the zone provisions as illustrated in the overlay plans in each precinct.

Overlays do not affect the 'use' of land but rather seek to control development and/or environmental, landscape, heritage, built form, and land management issues.

Overlays can be used to identify a use or impact that may not be evident at first glance. For instance, the Melbourne City Link Project is identified within the Melbourne Planning Scheme by a specific overlay (Clause 45.07 City Link Project Overlay). The overlay identifies where the underground tunnels are physically located, and triggers planning approval for any use or development not associated with the CityLink Project. It is also used to exempt all other requirements of the planning scheme for use and development associated with the CityLink Project.

The Design and Development Overlay can also be used for similar intents, as the Design and Development Overlay can identify areas that are affected by specific requirements relating to the design and built form of new development. Proposed developments must be assessed against the specific requirements of the overlay.

Table 3-3 identifies the overlays within the Melbourne Metro area and whether planning approval is required for activities associated with the railway and railway stations and is a summary of the information contained in Appendix F of this impact assessment. The table clearly identifies that the project is subject to a range of overlays and planning approval requirements.

Table 3-3 Overlays affecting the Melbourne Metro alignment

Overlay	Permit requirement		Comments / referrals
	Buildings and works	Vegetation removal	
MELBOURNE			
City Link Project Overlay	✓	×	A permit is also required for use if the works are not associated with the CityLink Project. An application pursuant to this control must be referred to the Roads Corporation as a determining referral authority.
Design and Development Overlay (Schedule 1 –Active Street Frontages – Capital City Zone - Area 2 – Major Pedestrian Areas and Key Pedestrian Routes with CCZ1 and CCZ2)	✓	×	Approval is required if the works are at ground level.
Design and Development Overlay (Schedule 2 – Height Controls – Capital City Zone - Areas A1, A2 and A9)	✓	×	Maximum building heights: A1 – 40 m A2 – 15 m A9 – 30 m
Design and Development Overlay (Schedule 3 – Traffic Conflict Frontage – Capital City Zone)	✓	×	Approval is required if the works are to create a vehicle crossing.
Design and Development Overlay (Schedule 4 – Weather Protection – Capital City Zone)	✓	×	Approval is not required if adequate weather protection is required to the satisfaction of the responsible authority.
Design and Development Overlay (Schedule 9 – Fawkner Park Area)	×	×	No permit is required if works are less than 9 m in height.
Design and Development Overlay (Schedule 10 – Built Form Controls)	✓	×	Developments must have 5 metre setbacks for all podium development.

Overlay	Permit requirement		Comments / referrals
	Buildings and works	Vegetation removal	
Design and Development Overlay (Schedule 15 – Royal Botanic Gardens (Area A1) (Area A2)	✓	×	Maximum building height of 12 m.
Design and Development Overlay (Schedule 17 – Shrine Vista)	×	×	No permit is required for buildings less than 33 m in height above AHD.
Design and Development Overlay (Schedule 19 – St Kilda Road Area (Area A40))	✓	×	Maximum building height of 12 m.
Design and Development Overlay (Schedule 19 (Area A42))	✓	×	Maximum building height of 60 m.
Design and Development Overlay (Schedule 26 – North and West Melbourne Noise Attenuation Area)	×	×	New residential or other noise-sensitive uses must include noise attenuation measures.
Design and Development Overlay (Schedule 27 – City Link Exhaust Stack Environs)	×	×	No permit is required, however if a permit is required under another provision of the scheme, notice must be given to the referral authority. An application pursuant to this control must be referred to the EPA, Transurban CityLink Ltd and the Roads Corporation as a determining referral authority.
Design and Development Overlay (Schedule 30 – Flemington Road South)	✓	×	Development should not exceed 6 storeys.
Design and Development Overlay (Schedule 31 – North Melbourne Central)	✓	×	Maximum building height of 10.5 m
Design and Development Overlay (Schedule 32 – North Melbourne Peripheral)	✓	×	Maximum building height of 14 m
Design and Development Overlay (Schedule 45 – Swanston Street)	✓	×	Development should not exceed 9 storeys.
Design and Development Overlay (Schedule 47 – Central Carlton South)	×	×	Development should not exceed 4 storeys.
Design and Development Overlay (Schedule 61A2 Buildings fronting Harcourt Street – City North)	✓	×	Development should not exceed 14 metres at the front boundary.
Design and Development Overlay (Schedule 61A3 Building facing all streets – City North)	✓	×	Development should not exceed 20 m at the front boundary.
Design and Development Overlay (Schedule 61A4.1 – City North Buildings fronting Grattan, Pelham,	✓	×	Various development height requirements.

Overlay	Permit requirement		Comments / referrals
	Buildings and works	Vegetation removal	
Queensberry, Bouverie, Leicester, Barry, Berkeley and Lincoln Square North and South streets)			
Design and Development Overlay (Schedule 61A5 Buildings fronting Pelham and Berkeley Street)	✓	×	Various development height requirements.
Design and Development Overlay (Schedule 58 – 312-332 St Kilda Road)	×	×	No permit is required for buildings less than 36 m in height above AHD and within 3 m of St. Kilda Road. The Shrine of Remembrance Trustees must be notified of an application pursuant to this control.
Environmental Audit Overlay	×	×	Applies to the development of sensitive uses.
Environmental Significance Overlay (Schedule 2 – Exceptional Trees)	✓	✓	Approval is required for buildings and works within the Tree Protection Zone of any exceptional tree identified in this control.
Heritage Overlay	✓	✓	Where a site is listed on the Victorian Heritage Register, the requirements of the *Heritage Act 1995* supersede the requirements of the Heritage Overlay in the planning scheme.
Incorporated Plan Overlay (Schedule 2)	✓	×	No permit is required if the development is generally in accordance with the 'Hobsons Road Incorporated Plan-March 2008' Incorporated Plan
Land Subject to Inundation Overlay (Schedule 1)	✓	×	An application pursuant to this control must be referred to the relevant floodplain management authority (Melbourne Water) as the determining referral authority.
Parking Overlay (Schedule 1, Schedule 2 and Schedule 12)	×	×	This overlay identifies appropriate parking rates and should be read in conjunction with Clause 52.06 (Carparking).
Special Building Overlay	✓	×	An application pursuant to this control must be referred to the relevant floodplain management authority (Melbourne Water or City of Melbourne) as the determining referral authority.
PORT PHILLIP			
Design and Development Overlay (Schedule 3 - Albert Road, Kings Way North and St Kilda Road North (Area 3-8))	✓	×	Buildings and works should be more than 3 m from the front boundary of a lot and with a maximum building height of 36 m (for buildings fronting St Kilda Road or within 20 m of a Wells Street boundary). The Shrine of Remembrance Trustees must be notified of any works exceeding the preferred maximum heights.
Design and Development Overlay (Schedule 3 Albert Road, Kings Way North and	✓	×	No development within 3 m of front building boundary, 35 m height limit for development between 3 and 13 m of Albert Road and 65 m for

Overlay	Permit requirement		Comments / referrals
	Buildings and works	Vegetation removal	
St Kilda Road North (Area 3-9))			any development further than 13 m.
Design and Development Overlay (Schedule 3 Albert Road, Kings Way North and St Kilda Road North (Area 3-10))	✓	×	No development within 3 m of front boundary to St Kilda Road or Wells Street. 25 m height limit for all development 3 m of greater from boundary.
Design and Development Overlay (Schedule 4 – St Kilda Road, Queens Road, Kings Way And Queens Way (Area 4-1))	✓	×	No development within 3 m of front building boundary, 35 m height limit for development between 3 and 13 m of Albert Road and 65 m for any development further than 13 m.
Design and Development Overlay (Schedule 13 – Shrine Vista) (DDO3-8) (DDO4-1) (DDO3-9)	✓	×	The height of buildings or works must be in compliance with the shrine vista height control formula. The Shrine of Remembrance Trustees must be notified of an application pursuant to this control.
Heritage Overlay	✓	✓	Where a site is listed on the Victorian Heritage Register, the requirements of the *Heritage Act 1995* supersede the requirements of the Heritage Overlay in the planning scheme.
STONNINGTON			
Design and Development Overlay (Schedule DD01 – Royal Botanic Gardens, City of Melbourne)	✓	×	No permit is required if works are less than 12 m in height. Any approval pursuant to this control must be referred to the Director of the Royal Botanic Gardens.
Design and Development Overlay (Schedule DD07 – Prahran/South Yarra And Windsor Activity Centre)	✓	×	No permit is required if works are less than 19 m in height. The current schedule expired on 31 October 2015.
Design and Development Overlay (Schedule 8 – Forrest Hill Precinct)	×	×	All development must be consistent with the General Design Objectives of Clause 15.01 of the Stonnington Planning Scheme.
Environmental Audit Overlay	×	×	Applies to the development of sensitive uses.
Incorporated Plan Overlay (Schedule 3 – Late Night Liquor Licence Trading in the Chapel Street Precinct: Measuring the Saturation Levels)	×	×	Applies to liquor licencing of businesses in the Chapel Street precinct.
Heritage Overlay	✓	✓	Where a site is listed on the Victorian Heritage Register, the requirements of the *Heritage Act 1995* supersede the requirements of the Heritage Overlay in the planning scheme.
Public Acquisition Overlay – Schedule 1	✓	✓	The PAO is in favour of VicRoads for road widening. Any application pursuant to this control must be referred to VicRoads as a determining referral

Overlay	Permit requirement		Comments / referrals
	Buildings and works	Vegetation removal	
			authority.
Special Building Overlay	✓	×	An application pursuant to this control must be referred to the relevant floodplain management authority (Melbourne Water or City of Stonnington) as the determining referral authority.
MARIBYRNONG			
Design And Development Overlay (Schedule 3 – Melbourne Airport Rail Link Area)	×	×	Only applies to development related to a potential Airport Rail Link.
Special Building Overlay	✓	×	An application pursuant to this control must be referred to the relevant floodplain management authority (Melbourne Water) as the determining referral authority.
Development Plan Overlay (Schedule 11 – Melbourne Airport Rail Link Development Plan)	×	×	Only applies to development related to a potential Airport Rail Link.

3.2.5 Section 50 of the Victoria Planning Provisions – Particular Provisions

Particular Provisions apply to all matters in addition to any provisions of the local planning scheme and contain planning approval requirements. The following particular provisions are relevant to the project:

- Clause 52.02 (Easements, Restrictions and Reserves)
- Clause 52.06 (Car Parking)
- Clause 52.07 (Loading and unloading of vehicles)
- Clause 52.17 (Native Vegetation)
- Clause 52.19 (Telecommunications Facility)
- Clause 52.29 (Land Adjacent to a Road Zone Category 1, or a Public Acquisition Overlay for a Category 1 Road)
- Clause 52.34 (Bicycle Facilities)
- Clause 52.36 (Integrated Public Transport Planning)

Table B-2 in Appendix B of this impact assessment outlines the matters of relevance to the project, which apply across the whole study area.

3.2.6 Section 60 of the Victoria Planning Provisions - General Provisions

Clause 60 (General Provisions) includes clauses relating to the administration of each planning scheme, existing uses, decisions guidelines, referral of application and other matters.

In most cases, the responsible authority for planning application decisions is the Council, however in the City of Melbourne, Schedule 1 to Clause 61.01 (Administration and Enforcement of this Scheme) states that the Minister for Planning is the responsible authority for developments with a gross floor exceeding of 25,000 square metres. This clause also includes a list of addresses where the Minister for Planning is the responsible authority.

There are other powers within the *Planning and Environment Act 1987* that allow the Minister for Planning to make himself the responsible authority.

Clause 62.02-1 (Uses, Buildings, Works, Subdivisions and Demolition not requiring a Permit) of all planning schemes states that buildings and works associated with a temporary shed or temporary structure for construction purposes do not require a permit. In addition, temporary shed or temporary structure for construction purposes are not uses in their own right, are ancillary to other activities and therefore do not need planning approval.

Clause 66 (Referral and Notice Provisions) of all schemes provides a list of applications that must be referred to the person or body specified as a referral authority. Clause 66 also provides notice requirements for applications. The responsible authority can determine not to refer an application or provide notification if the views of the referral authority or affected party are known.

Appendix B of this impact assessment includes a description of General Provisions relevant to Melbourne Metro.

3.3 Planning Scheme Amendments

When a planning scheme needs to be changed to reflect new circumstances, achieve new objectives such as through new zones or to include a project specific approval, a planning scheme amendment is prepared. Strategic planning studies which provide overarching direction for the future use and development of land can also be included in planning schemes or form the strategic justification for a change.

An amendment may involve a change to a planning scheme map (such as a rezoning), a change to the written part of the scheme, or both. Amendments can be prepared by Councils or by the Minister for Planning and are included into the relevant planning scheme once approved by the Minister for Planning and notice is given in the Victorian Government Gazette.

Relevant planning scheme amendments and associated strategic planning studies that may impact on Melbourne Metro have been identified and the impact of which discussed in each precinct, with additional detail included in Appendix I of this impact assessment.

Ministerial Direction No 11 (Strategic Assessment of Amendments) provides direction on the strategic evaluation of a planning scheme amendment and the outcomes it produces. The strategic justification prepared for the planning scheme amendment addresses this Direction. This is further discussed in Appendix K of this impact assessment.

4 Methodology

The relevant evaluation objective provided in the EES Scoping Requirements for the land use and planning impact assessment is

> *'to protect and enhance the character, form and function of the public realm and buildings within and adjacent to the project alignment, and particularly in the vicinity of project surface structures, having regard to the existing and evolving urban context'*.

Consideration has also been given in this impact assessment to the evaluation objective

> *'to manage effects on the social fabric of the community in the area, including with regard to land use changes, community cohesion, business functionality and access to services and facilities, especially during the construction phase'.*

As such, the impact assessment for each precinct has focused on the:

- potential impact of Melbourne Metro on land use, including changes to existing land use and built form
- planning scheme requirements and strategy
- impacts on access
- land acquisition (and potential for land use change)
- existing and proposed planning approvals.

4.1 Existing Conditions

The focus for this land use and planning impact assessment is on land within the proposed project boundary as identified in the EES.

As part of this assessment, the existing conditions have been identified to provide an understanding of baseline conditions within the proposed project boundary. The following tasks have been undertaken:

- A review of the legislative framework which applies within the proposed project boundary including the Melbourne, Port Phillip, Stonnington and Maribyrnong Planning Schemes, including the State Planning Policy Framework and Local Planning Policy Framework, land use definitions, zones, overlays and other provisions, including any recent Planning Scheme Amendments, and current strategic planning work and future amendments.
- A review of strategic planning policy to identify where the proposed works would impact on strategic plans and land use plans identified by the relevant Council. This included a review of relevant Ministerial directions and planning practice notes to identify where Melbourne Metro should be guided by these.
- A review of current planning permit applications and recently approved permits (from November 2011[3] up until 15 December 2015) within the proposed Melbourne Metro study area that may impact on the construction of Melbourne Metro.
- A baseline land use survey between the 28 April and 11 May 2015 and on 23 September 2015 to identify existing and proposed land uses and development along and adjacent to the proposed Melbourne Metro area (including tunnels alignment, stations portals, emergency access shafts and construction work sites). To do this, the study area was inspected on foot and mapped. This was supplemented by a number of localised walkovers and inspections.
- Identification of the land which may be required permanently or temporarily for the delivery of the project, including its current uses and sensitivities. This task included noting relevant infrastructure, networks and

[3] Refer to Section 6.2 for detail of the justification for starting analysis in November 2011.

other elements that provide for connectivity within and between communities, to the extent that such features may be disrupted or additionally loaded due to project works or activities.

- A review of the Certificates of Title identified for acquisition to identify any encumbrances such as covenants, caveats, easements or Section 173 Agreements (under the *Planning and Environment Act 1987*). This information is held to form an understanding of existing conditions, although once the relevant property interest has been compulsorily acquired, these encumbrances do not apply to the project land that has been acquired.
- Consultation with relevant State and local government agencies was also undertaken for this assessment. The outcomes of this consultation informed the assessment of existing and likely future land use and planning in the study corridor, the identification of likely impacts of the project's construction and operation and mitigation measures.

As planning schemes and strategic planning studies are constantly evolving, this impact assessment is based on the relevant planning schemes as of 7 December 2015.

4.2 Peer Review

This assessment has been independently peer reviewed by Mr Rob Milner of 10 Consulting Group. The peer reviewer reviewed and provided feedback on drafts of this report. The peer reviewer's methodology is set out in his report, but in general terms it included a review of the assumptions, methodology, assessment criteria and scope applied in this report. It also addressed whether there were any additional matters which should be considered as part of the impact assessment in order to address the EES Scoping Requirements that are relevant to land use planning impacts or management. The peer reviewer was also required to consider whether there are any gaps or matters where they disagreed with this assessment. The final peer review report is attached as Appendix L of this report, which sets out the peer reviewer's conclusions in relation to this report, and whether or not all of their recommendations were adopted.

4.3 Risk and Impact Assessment

4.3.1 Overview

An Environmental Risk Assessment has been completed for impacts of Melbourne Metro. The risk-based approach is integral to the EES as required by Section 3.1 of the Scoping Requirements for the EES. Importantly, an environmental risk is different from an environmental impact. Risk is a function of the likelihood of an adverse event occurring and the consequence of the event. Impact relates to the outcome of an action in relation to values of a resource or sensitivity of a receptor. Benefits are considered in impact assessment but not in risk assessment. Impact assessment must be informed by risk assessment so that the level of action to manage an impact relates to the likelihood of an adverse impact occurring.

The overall risk assessment process adopted was based on AS/NZS ISO 31000:2009, as illustrated in Figure 4-1.

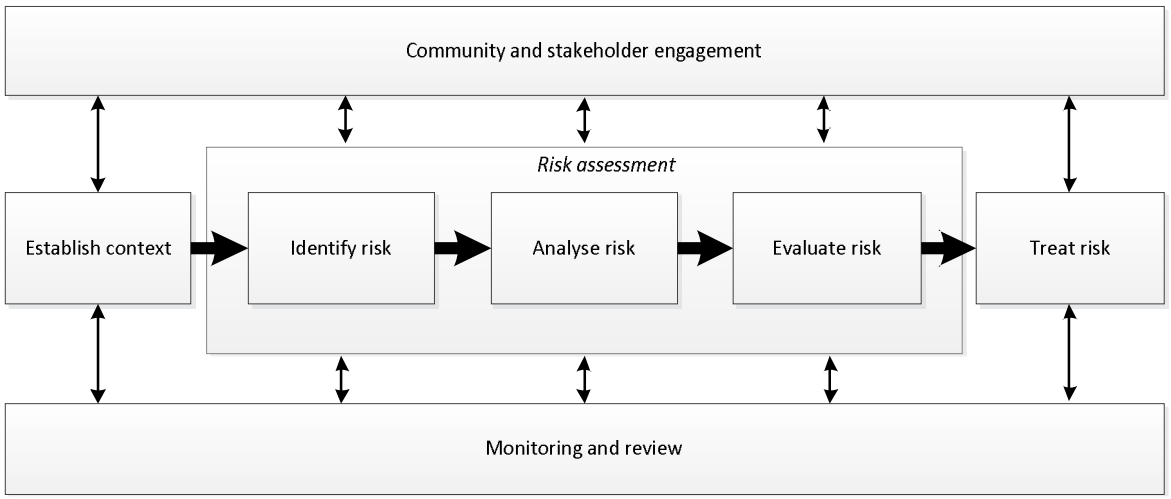

Figure 4-1 Overview of AS/NZS ISO 31000-2009 risk process

The following tasks were undertaken to determine the impact pathways and assess the risks:

- Setting of the context for the environmental risk assessment
- Development of consequence and likelihood frameworks and the risk assessment matrix
- Review of project description and identification of impact assessment pathways by specialists in each relevant discipline area
- Allocation of consequence and likelihood categories and determination of preliminary risks
- Workshops with specialist team members from different yet related discipline areas and focussing on very high, high and moderate initial risks to ensure a consistent approach to risk assessment and to identify possible interactions between discipline areas
- Follow-up liaison with specialist team members and consolidation of the risk register
- Identification of Environmental Performance Requirements and mitigation measures during the impact assessment
- Review of the initial risk levels after allowing for implementation of the Environmental Performance Requirements and in so doing, identifying residual risk levels.

A more detailed description of each step in the risk assessment process is provided in Technical Appendix B *Environmental Risk Assessment Report.*

4.3.2 Context

The overall context for the risk assessment and a specific context for each specialist study is described in Technical Appendix B *Environmental Risk Assessment Report*. The context describes the setting for evaluation of risks arising from Melbourne Metro. The specific context for the land use and planning impact assessment is provided below:

> *The Melbourne Metro area extends through land containing a diverse range of land uses from Kensington at the northwestern end of the tunnel alignment to South Yarra at the south eastern end. It includes retail, commercial, educational, civic and mixed use land within the Melbourne CBD. Outside of the CBD, there is a diversity of land uses including industrial uses in the Arden and Western Portal precincts, residential uses in North Melbourne and South Yarra, education, health and research uses in the Parkville precinct, mixed commercial, residential and educational uses in the Domain precinct and parkland from the Yarra River to the Domain precinct (Alexandria Gardens, Queen Victoria Gardens, the Domain Parklands, Shrine of Remembrance Reserve) as well as Fawkner Park, the Albert Road Reserve, South Yarra Railway Siding Reserve and JJ Holland Park. These land uses have evolved over the past 180 years of development within central Melbourne.*

Any proposed changes to these existing land uses or applicable planning schemes would be undertaken in accordance with the Planning and Environment Act 1987, which provides for the orderly development of land for a range of public and private uses, including the development and control of land for public transport purposes. The provision for Melbourne Metro in the relevant planning scheme provisions is proposed via a planning scheme amendment to be exhibited with the EES.

Land use and planning related aspects associated with the construction and operation of Melbourne Metro include issues relating to potential impacts on current and future land use and built form, land acquisition, access and existing planning controls and developments.

A high standard of building design and landscaping in accordance with the Urban Design Strategy for the project would result in positive visual impacts of the project in the longer term and potential negative impacts during construction mitigated by fencing.

The likelihood rating criteria used in the risk assessment by all specialists is shown in Table 4-1.

Table 4-1 Likelihood rating criteria

Level	Description
Negligible	The event is very unlikely to occur but may occur in exceptional circumstances.
Unlikely	The event may occur under unusual circumstances but is not expected.
Possible	The event may occur once within a five-year timeframe.
Likely	The event is likely to occur several times within a five-year timeframe.
Severe	The event is almost certain to occur one or more times a year.

The consequence criteria framework used in the risk assessment follows. Each specialist has used this framework to develop criteria specifically for their assessment.

Table 4-2 Consequence framework

Level	Qualitative description of biophysical / environmental consequence	Qualitative description of socio-economic consequence
Negligible	No detectable change in a local environmental setting.	No detectable impact on economic, cultural, recreational, aesthetic or social values.
Minor	Short term, reversible changes, within natural variability range, in a local environmental setting.	Short term, localised impact on economic, cultural, recreational, aesthetic or social values.
Moderate	Long term but limited changes to local environmental setting that are able to be managed.	Significant and/or long-term change in quality of economic, cultural, recreational, aesthetic or social values in local setting. Limited impacts at regional level.
Major	Long term, significant changes resulting in risks to human health and/or the environment beyond the local environmental setting.	Significant, long-term change in quality of economic, cultural, recreational, aesthetic or social values at local, regional and State levels. Limited impacts at national level.
Severe	Irreversible, significant changes resulting in widespread risks to human health and/or the environment at a regional scale or broader.	Significant, permanent impact on regional economy and/or irreversible changes to cultural, recreational, aesthetic or social values at regional, State and national levels.

The consequence rating criteria used in the risk assessment specifically for the Land Use and Planning Assessment is shown in Table 4-3.

Table 4-3 Consequence rating criteria

Level of consequence	Consequence criteria
Negligible	No impact on existing land uses and does not require any property acquisition OR The project element complies fully with all relevant legislative requirements and is consistent with government strategic planning studies
Minor	Potential short term disruption to existing land use OR Temporary limited access to properties but properties still able to be used for existing purpose OR Minimal property acquisition that results in no land use changes OR The project element has minor inconsistencies with local planning policies
Moderate	Land use changes that would result in some inconsistencies with local planning policies OR Moderate property acquisition that results in minimal land use changes OR Temporary disruption of access to properties resulting in land use changes
Major	Land use changes that would result in significant inconsistencies with local and State planning policies OR Major property acquisition required that results in some land use changes. OR Permanent disruption of access to properties resulting in some land use changes
Severe	The project cannot comply with all relevant legislative requirements and land use changes result in extensive conflict with state and local planning policies OR Extensive property acquisition that results in significant land use changes OR Permanent disruption of access to properties resulting in complete land use changes

The environmental risk assessment matrix used by all specialists to determine levels of risk from the likelihood and consequence ratings is shown in Table 4-4.

Table 4-4 Risk Assessment Matrix

		Consequence rating				
		Negligible	**Minor**	**Moderate**	**Major**	**Severe**
Likelihood rating	**Rare**	Very Low	Very Low	Low	Medium	Medium
	Unlikely	Very Low	Low	Low	Medium	High
	Possible	Low	Low	Medium	High	High
	Likely	Low	Medium	Medium	High	Very High
	Almost Certain	Low	Medium	High	Very High	Very High

4.4 Impact Assessment

In order to provide an assessment of the impact of Melbourne Metro on the land use and planning within the proposed project boundary, the following tasks have been undertaken:

- An assessment of the implications of the existing legislative framework on the detailed design, construction and operation of Melbourne Metro.
- Planning permit applications and planning permits approved between November 2011 and 15 December 2015 within the proposed Melbourne Metro boundary have been reviewed to determine any potential built form or structural interference and inform detailed design. The timing of major developments has been assessed where possible to determine the cumulative impact of construction in the metropolitan area and along transport routes.
- Review of the Certificates of Title for land identified for acquisition in order to identify encumbrances such as covenants, titles that extend to the centre of the earth or easements. As part of this review, impacts on land in public ownership have been ascertained and relevant Committees of Management identified. This information is held to form an understanding of existing conditions, although once the relevant property interest has been compulsorily acquired, these encumbrances do not apply to the project land that has been acquired.
- Identification of any land use and planning risks or issues, and assessment of the impact of these risks on land use and approval triggers in order to provide recommendations for mitigation and potential design modifications.
- An assessment of the potential implications for existing and likely future land uses, from the construction and operation of Melbourne Metro, including land use requirements of the project, potential constraints on or changes to existing or likely future land use and development.
- The impact assessment is structured around the Scoping Requirements which are relevant to land use and planning, and as such, focussed on land use, land acquisition, land access and any impacts to existing planning permit applications.
- Identification of measures to avoid or manage potential impacts on land use and tenure and maximise or enhance opportunities for existing or likely future land use.
- Identification of opportunities where the proposed development (in particular the underground elements) could be protected in the future through planning controls or property systems and identification of planning controls for over-site development along the project alignment.

4.5 Assumptions

The following assumptions apply to this assessment:

Table 4-5 Assumptions

Assumption	Description
Transport network	By 2026, the first year of operation of Melbourne Metro, the transport network would be more congested than today leading to increased delays and overcrowding for road and rail users.
Tunnel boring activities and mined tunnels	Tunnel boring activities and mined tunnels would require surface level works in identified construction work areas.
Purchase and acquisition	Properties would only be purchased or acquired where they are needed for project purposes. Buildings on acquired properties are assumed to be demolished unless otherwise stated.

4.6 Stakeholder Engagement

As part of this impact assessment, the following specific engagement with stakeholders was undertaken:

- Meetings held with officers at the City of Melbourne, City of Stonnington and City of Port Phillip to advise them of the project and discuss the current and proposed land use impacts including existing planning applications within the proposed project boundary.
- Meetings held with the Department of Environment, Land, Water and Planning (DELWP) regarding the information systems used to track and advise on proposed development within the City of Melbourne, where developments have a gross floor area in excess of 25,000 sqm[4]. DELWP has provided access to their mapping images to illustrate the existing and proposed built form within the City of Melbourne.
- Ongoing monitoring and review of planning permit applications within the study area through consultation with Council officers.

Table 4-6 outlines the consultation and consultation outcomes that that contributed specifically into the preparation of the land use and planning impact assessment.

Table 4-6 Summary of stakeholder engagement

Activity	When	Matters discussed / issues raised	Consultation outcomes
Meetings with City of Melbourne	29 June 2015 8 July 2015 30 September 2015	The process for obtaining planning permit application information was discussed. The September meeting discussed the social impact assessment for the project and any land use impacts were identified.	A project team member attended Council offices to search the internal databases and retrieve all relevant planning permits. This was undertaken on 8 July 2015.
Meeting with City of Stonnington records department	7 July 2015	Planning permit application information requirements were discussed as well as the process for obtaining 'as built' information.	A list of current planning permit applications was publicly available on the City of Stonnington's website. The Planning Permit Register went offline late in 2015 and permits and

[4] The Minister for Planning is the responsible authority for developments with a gross floor exceeding of 25,000 sqm.

Activity	When	Matters discussed / issues raised	Consultation outcomes
			plans were requested from Council. There has been ongoing engagement with Stonnington to obtain endorsed plans and permits for applications within the proposed project boundary.
Meetings with City of Port Phillip	29 July 2015 25 September 2015	Planning permit application information requirements were discussed as well as a general project briefing. At the later meeting, an initial draft of the impact assessment was discussed and Council identified some key issues.	A list of current planning permit applications is publicly available on the City of Port Phillip's website. The permits and plans as well as key strategic planning documents were provided on CD.

As the works within the City of Maribyrnong are contained fully within the rail corridor at the Western Turnback, the proposed works are consistent with the planning controls and therefore consultation related to land use and planning was not undertaken with the City of Maribyrnong.

In addition to the specific agency engagement and the engagement listed in the table above, general engagement and consultation with the community was also conducted as part of this assessment. Written feedback was obtained through feedback forms and the online engagement platform with face-to-face consultation at the community drop-in sessions (refer to Technical Appendix C *Community and Stakeholder Feedback Summary Report* for further information). Planning specialists attended the drop-in sessions at Kensington, Arden, South Yarra, Domain and the CBD to answer questions related to land use and planning related issues.

Feedback from the community emphasised the need to minimise temporary and permanent impacts on public open space. There were also concerns raised about over-site development (especially within the CBD) and changes to the character of local areas. In response to these comments, this assessment has paid particular attention to the potential impact of Melbourne Metro on public open space. This report has also sought to clarify the expected impact from over-site development and change to local character through assessment of the project area's built form.

4.7 Limitations

The limitations associated with this assessment are as follows:

- The assessment is based on the Concept Design and the associated alternative design options. If design details change, the outcomes of this report could be subject to review.
- It should be noted that whilst there would be impacts arising from the project outside the study area identified in this report as a result of activities such as spoil haulage, this assessment has been limited to those land use impacts which occur within the study area.
- Planning schemes are dynamic and subject to change over time. This impact assessment is based on the relevant planning schemes as of 7 December 2015. Any changes to the planning schemes after this date have not been addressed.
- This impact assessment is based on a review of the relevant strategic planning studies current as of 7 December 2015.
- Planning permit applications within the proposed project boundary were identified and reviewed until 15 December 2015. Any applications lodged after this date have not been captured.

- Planning permit applications have been reviewed where it was determined that they may have material impact on Melbourne Metro. Applications for minor works were not assessed.
- A review of the Certificates of Title for properties identified for full acquisition was undertaken. The titles reviewed were provided by MMRA and the title searches date to mid 2015. The status of these titles may change and land identified for acquisition has the potential to change.
- This impact assessment should be read in association with all other environmental impact assessments, in particular Technical Appendix D *Transport*, Technical Appendix F *Social and Community*, Technical Appendix I *Noise and Vibration, Technical Appendix H Air Quality,* Technical Appendix J *Historic Cultural Heritage* and Technical Appendix L *Landscape and Visual*.

5 Strategic Justification

5.1 Project Rationale

Melbourne Metro is one of the largest infrastructure projects ever undertaken in Australia. The project would lead the transformation of Melbourne's rail network into an international-style metro system, boosting the capacity of the rail network to keep pace with Melbourne's growing and changing travel needs as the city heads towards a population of six million over the next 20 years.

The project provides the foundation for further expansion of Melbourne's public transport network, helping to ensure Melbourne remains one of the world's most liveable cities now and into the future. Melbourne Metro would also catalyse significant urban renewal in a number of places, opening up opportunities for new housing, commercial development and jobs close to the city centre.

Melbourne's rail network was designed for a much smaller population and built to serve patterns of travel and demand that are very different from current and anticipated future trends. Without action, the rail network would struggle to cope with this increasing demand and changing travel needs. This result would be reduced connectivity and accessibility across the city – limiting personal and business travel choices and options, undermining the city's attractiveness and liveability, and restricting the competitiveness of industries and businesses. In turn, these outcomes would constrain economic development and jobs growth not only in Melbourne, but also across Victoria.

As central Melbourne grows and economic activity intensifies into the future, there would be considerable growth in travel demand for access to central Melbourne. Not only would access to central Melbourne continue to grow based on economic drivers; it would also be driven by tourist (overseas and local) movements, overseas demand for Australian education institutions and the need for cross-city travel in general.

To maintain the city's liveability and accessibility, the demand for access to central Melbourne would need to be met largely by walking, cycling and public transport, putting these networks under increasing pressure.

Successive Victorian Governments have reviewed alternative responses to boosting public transport capacity in Melbourne. The 2008 Eddington Report '*Investing in Transport'* recommended a new Melbourne Metro rail tunnel to link Melbourne's west and south eastern suburbs. Melbourne Metro has been in development since then, with the preparation of a number of investigations. The capital investment options analysis, built on Sir Rod Eddington's work and assessed thirteen capital investment options against the following four evaluation criteria:

- Increasing rail capacity and improving service reliability in time to meet growth
- Improving access to jobs in Central Melbourne and supporting and stimulating urban renewal
- Deliverability and extent of disruptions
- Cost.

Based on this analysis, Melbourne Metro and Melbourne Rail Link (Fishermans Bend) options were identified as providing the most significant capacity uplift for access to the CBD while also improving reliability, improving access to jobs through the provision of new stations, facilitating urban renewal and alleviating tram congestion. The two options were assessed further and it was identified that Melbourne Metro was the preferred option as it would:

- Provide new and higher capacity services on day one to expand the capacity of the network by over 39,000 passengers each morning and afternoon peak periods.
- Connect the Sunbury and Cranbourne / Pakenham Lines (Sunbury – Dandenong Line), the metropolitan lines which service two of Melbourne's largest growth corridors to the north west and south east.

Moreover, the Werribee, Frankston, Craigieburn, Upfield and Sandringham Lines could better meet demand requirements by using the significant capacity released by removing the Sunbury and Cranbourne / Pakenham services from the existing City Loop. This line would use the extended high capacity metro trains and the underground stations would be long enough to accommodate these trains. The high capacity metro trains are longer, provide more internal space and carry more passengers than existing rolling stock.

- Provide the backbone for further improving the network in the future by incorporating features such as longer platforms and high capacity signalling that would allow a staged approach for further expansion of the rail network.
- Provide two new CBD stations and takes pressure off existing CBD stations. This option evenly distributes passenger movements and interchanges in the CBD. Melbourne Rail Link (Fishermans Bend) would increase the use of existing CBD stations as well as other interchange stations, such as Richmond and North Melbourne.
- The new Melbourne Metro stations would service new catchment areas for a growing and expanding CBD (Arden, Parkville and Domain), with improved access to jobs outside the CBD and stimulation of urban renewal. The Arden station would provide a connection between Melbourne's growth corridor in the north and west to a new expanded central city employment zone, and assist in revitalising the precinct.
- Provide the greatest number of new stations in areas not currently serviced by heavy rail (Arden, Parkville and Domain), more than double the Melbourne Rail Link (Fishermans Bend).
- Support the reconfiguration of the tram network and provide the most effective and direct congestion relief to trams running to and through the CBD including the Elizabeth Street and Swanston Street / St Kilda Road corridors.
- Provide improved rail access to jobs in the Melbourne CBD and in important employment clusters outside the CBD such as Parkville and St Kilda Road.
- Be a city-changing project that would influence land use around the new stations and along rail corridors.
- Create a new inner city line, and reduce the complex interactions of services across multiple lines. Melbourne Metro would improve the resilience, punctuality and overall reliability of the network.
- Require comparatively limited rail service and land use disruptions as the new tunnels would be constructed below ground and largely separate to the existing rail network.

Melbourne Metro would deliver a substantial uplift in capacity across the rail network, allowing more people to travel by train in the morning and evening peak periods. It would also improve the connectivity and accessibility of two of Melbourne's high growth areas, catalyse urban renewal and open up opportunities for new housing, commercial development and jobs close to the city centre. It would facilitate the transition of Melbourne's rail network into an international-style metro system and provide opportunities for further expansion of the network. As defined in the Executive Summary of the EES, metro-style systems are characterised by:

> *'Simple timetables with 'turn up and go' frequency and consistent stopping patterns*
>
> *Frequent services that facilitate interchange with other train lines, trams and buses*
>
> *Stand-alone, end-to-end lines, that prevent service disruptions on one line from cascading across other lines*
>
> *Separate train fleets, maintenance and stabling facilities for each line*
>
> *Modern signalling technology to maximise the number of trains that can operate on each line*
>
> *High Capacity Metro Trains (HCMTs) that are longer, can carry more passengers and are designed to minimise boarding and alighting times'.*

The development of Melbourne Metro has been undertaken within the context of existing Commonwealth, State and local legislation and policy. Melbourne Metro is supported by all relevant transport and land use

planning strategies that have been published or adopted by the Australian and Victorian governments, and has been designed with regard to the transport system objectives and decision-making principles of Victoria's *Transport Integration Act 2010*, *Plan Melbourne* (the metropolitan planning strategy) and the relevant planning schemes. The choice of Melbourne Metro has shown to offer maximum benefit and alignment with these relevant planning policies.

Plan Melbourne is currently referenced in the State Planning Policy Framework and whilst the current version does not reference the alignment of Melbourne Metro, the idea of a 'metro-style rail system' is acknowledged in the form of the Melbourne Rail Link.

The plan envisages an integrated transport system connecting people to jobs and services, and goods to markets. The key transport challenges nominated in the plan are to ensure sufficient commuter capacity on the city's public transport and road networks, and to ensure Victoria maintains a competitive advantage in freight and logistics. These challenges are reflected in the State Planning Policy Framework in Clause 11.04-1 and Clause 11.04-3:

> *'Plan for the expanded central city to become Australia's largest commercial and residential centre by 2040'*
>
> *'Transform the transport system to support a more productive central city'*
>
> *'Improve access to job-rich areas across Melbourne and strengthen transport networks in existing suburbs'*

Melbourne Metro is considered to be consistent with State Planning Policy Framework, particularly the objective of Clause 11.04-3 (A more connected Melbourne) *'to provide an integrated transport system connecting people to jobs and services, and goods to market'*. Melbourne Metro would also work towards meeting the aim of Clause 18 (Transport) as it would act to *'ensure an integrated and sustainable transport system that provides access to social and economic opportunities, facilitates economic prosperity, contributes to environmental sustainability, coordinates reliable movements of people and goods, and is safe'*.

The proposed project is also consistent with local planning policy as the Melbourne, Port Phillip, Stonnington and Maribyrnong planning schemes include directions to provide opportunities for development in locations with accessibility to public transport and identify the importance of integrated land use planning, infrastructure planning and sustainable transport to ensure growth and economic prosperity for their municipalities.

Further discussion about the relevant legislation is included in Appendix A of this impact assessment. Further discussion on the policy context is contained in Chapter 2 *Project Rationale and Benefits* of the EES.

5.2 Planning Approval Mechanism

The development and use of Melbourne Metro is proposed to be enabled via a planning scheme amendment to the Melbourne, Port Phillip, Stonnington and Maribyrnong Planning Schemes, facilitated by the Minister for Planning. The planning scheme amendment would seek to insert an Incorporated Document into the four relevant planning schemes and apply a Design and Development Overlay over the tunnels, stations and associated infrastructure in the Melbourne, Port Phillip and Stonnington Planning Schemes.

Using an Incorporated Document as the planning control for a project under clause 52.03 is common for large scale or linear projects which impact on multiple municipalities or traverse a mosaic of different zone and overlay controls with different purposes and permit triggers, or where and has the effect of creating a planning control specific to a particular project on a particular site. Incorporated documents are tailor made for individual projects and would exempt the need for individual planning permits to be applied and issued for Melbourne Metro (and ancillary activities) under any other provision of the four relevant planning schemes by each of the Councils. Development would be undertaken in accordance with the specific conditions contained within the Incorporated Document without further planning approval being required.

The planning scheme amendment would ultimately be an output of the EES process and would be facilitated by the Minister for Planning. The process for approval of the planning scheme amendment is reflective of the importance of the project and its existence in current planning policy. In addition, given the number of planning permit triggers across the four municipalities, the number of stakeholders (in addition to the Councils) with an interest in the project, the consultation and planning and environmental assessments undertaken as part of the EES process and the need to provide an integrated approval, it is considered appropriate that the project is facilitated by the Minister for Planning. This would ensure delivery of this State and regionally significant project, which provides improved public transport for Melbourne as well as consistency across the four planning schemes in relation to Melbourne Metro.

Following approval of the proposed planning scheme amendment, the project area would be declared to enable the project to use the delivery powers of the *Major Transport Project Facilitation Act 2009*. The delivery powers under this Act broadly comprise:

- Powers of the Project Authority
- Road powers
- Land acquisition Powers
- Utility Powers.

5.3 Protection of the Melbourne Metro

As discussed in Section 6.2 of this impact assessment, the changing nature of land use and built form within the proposed Melbourne Metro area has been identified through a land use and built form survey and a review of recent planning approval applications and decisions. Melbourne Metro is a major infrastructure project within the inner region of Melbourne and as such, the project has the potential to impact on future developments.

There would be a need to identify and protect the Melbourne Metro tunnels, stations and associated infrastructure from future development that may impact on its structural integrity and capacity to operate.

5.3.1 Issues to be Addressed

The purpose of the Incorporated Document is to regulate the use and development of land for Melbourne Metro under the relevant planning schemes. A further control is considered desirable to protect the tunnels, station and other infrastructure during the construction and operation of Melbourne Metro from inconsistent developments. The issues to be addressed by this further control include:

- Avoiding direct contact with, and providing a safe working clearance around, Melbourne Metro structures
- Avoiding loading onto Melbourne Metro structures that leads to structural damage with an associated reduction of structural capacity, damage detrimental to the serviceability of the structures (leading to effects such as increased leakage of groundwater into the underground structures), and displacement of Melbourne Metro assets to the detriment of operations
- Avoiding excavations or other unloading of the ground around Melbourne Metro underground assets that would generate unfavourable reduction in the stresses in the ground that leads to structural, serviceability, or operational damage of Melbourne Metro assets
- Avoiding construction methods or operations in the development that would generate unacceptable levels of vibration in Melbourne Metro structures and equipment
- Avoiding new development works that rely upon direct structural support from Melbourne Metro assets unless specifically envisaged in Melbourne Metro design

A number of legal and regulatory options have been considered that could best address these issues. These options are discussed below.

5.3.2 Summary of Options Considered to Protect Melbourne Metro

5.3.2.1 Summary of Options

Three options to protect the tunnels have been considered. These options are not in all cases mutually exclusive:

- A legislative approach. This could include an amendment to the scope of section 54 of the *Transport (Compliance and Miscellaneous) Act 1983* to require persons who propose to develop land along or in the immediate proximity of the Melbourne Metro to obtain approval from VicTrack (the authority owning and managing of railway land and assets in Victoria) as was done for the Melbourne Underground Rail Link (City Loop). Alternatively, project-specific legislation could be enacted.
- Amending the planning schemes to introduce a schedule to the Design and Development Overlay.
- Amending the Victoria Planning Provisions by including:
  - a new particular provision in clause 52 of the relevant planning schemes to describe the type and location of permit applications that need to be referred to a referral authority
  - introducing a project-specific overlay

Amending clause 66.02 to describe the type and location of permit applications that need to be referred to a referral authority. When developing the draft planning scheme amendment within the current statutory regime and using the existing planning context, MMRA was concerned to balance the need to protect Melbourne Metro from inappropriate development, whilst also achieving visibility in the planning system and integration with the planning permit process. Early consideration of the project infrastructure by future development would assist design and decision-making for those developments.

The options to protect the Melbourne Metro are considered in more detail below.

5.3.2.2 Legislative Amendments

The City Loop was initially protected by the *Melbourne Underground Rail Loop Act 1970*. This Act provided that until the City Loop had been constructed, any person who proposed to develop any land or any building or erection along the line or in the immediate proximity of the line, as shown in a plan, was required to submit to the rail authority full details of the proposed development. In addition, the land owner was also required to comply with any conditions imposed by the authority necessary to protect the City Loop.

After completion of the City Loop, similar provisions were included with respect to the completed rail tunnels. These provisions are now contained in the *Transport (Compliance and Miscellaneous) Act 1983*. The Act provides that if notice is not given prior to the construction of the proposed development, the rail authority may require demolition of the structure or the making of alterations.

The key benefits of a legislative amendment are that it has a demonstrable record of success with the City Loop and would provide clear and emphatic statutory protection of the tunnels from any development. Legislation would give the Secretary a power of veto over inconsistent development that would not be subject to merits review in the Victorian Civil and Administrative Tribunal (VCAT).

A key limitation of this option is that there would be nothing registered on title or within the relevant planning scheme that would notify existing or potential landowners of the existence of these statutory restrictions. The Secretary's consideration of an applicant's proposed development would occur in isolation from the planning permit process.

5.3.2.3 Amending the Victoria Planning Provisions or Planning Schemes

Referral Authority

Clause 66 of the Victoria Planning Provisions lists the kinds of permit applications that must be referred to the referral authorities listed in that clause in accordance with section 55 of the *Planning and Environment*

Act 1987. This section requires a responsible authority, when it receives a planning permit application, to seek comments from a referral authority with respect to that application.

If the referral authority is a determining referral authority, then any comments and conditions required by that authority must be included in any planning permit the responsible authority decides to issue. A responsible authority also must refuse to grant a permit if a relevant determining referral authority objects to the grant of the permit.

Consideration has been given to amending the schedule to clause 66.02 of the relevant planning schemes to include the Secretary and VicTrack as determining referral authorities for permit applications in the vicinity of Melbourne Metro. However, this is not of itself a complete solution and would need to operate in tandem with another planning control that is designed to protect Melbourne Metro infrastructure from in appropriate developments.

A further consideration is how to define the circumstances in which permit applications must be referred to the Secretary. Given the necessity to protect Melbourne Metro infrastructure, it has been assumed that the obligation on responsible authorities to refer permit applications to the Secretary would need to apply to land within an identified area in the vicinity of the Melbourne Metro infrastructure.

A planning control designed to achieve these aims could conceivably be achieved through applying a schedule to the Design and Development Overlay along the alignment or amending the Victoria Planning Provisions. These options are considered below.

Design and Development Overlay

The first option considered was to amend the relevant planning schemes by applying an overlay to land in the vicinity of the Melbourne Metro tunnels, stations and other infrastructure. The Design and Development Overlay was considered the best option from the existing overlay controls in the Victoria Planning Provisions.

The purpose of a Design and Development Overlay is to identify areas that are affected by specific design and built form requirements. A new Design and Development Overlay schedule for Melbourne Metro would enable responsible authorities to consider the design and loading of new developments and their implications for Melbourne Metro by creating a planning permit trigger within the Design and Development Overlay area. This could operate in conjunction with clause 66.04, requiring applications under the Design and Development Overlay to be referred to the Secretary or VicTrack as relevant. The Future Development Loading report included in the EES (Appendix J to Technical Appendix E *Land Use and Planning*) sets out the technical assessment of the land to which the Design and Development Overlay would apply. The Design and Development Overlay would apply to land where development has the potential to adversely affect the Melbourne Metro infrastructure, but where careful design or construction techniques could be utilised to ensure development can proceed safely.

The spatial area of a Design and Development Overlay schedule could be included in planning scheme maps that would notify relevant authorities, landowners and developers of the location of the Melbourne Metro and the requirements imposed on development applications to protect Melbourne Metro. Vendor statements under the *Sale of Land Act 1962* would also need to specify the presence of the overlay control.

There are a number of limitations with using an overlay as opposed to amending clause 52. These are that Design and Development Overlays have typically been used to meet design objectives rather than to control particular forms of building, and do not control the use of land at all. However the Cities of Melbourne, Port Phillip and Stonnington have all used the Design and Development Overlay tool to manage design and built form within their municipalities, and would be familiar with the Design and Development Overlay provisions and its implementation.

A Design and Development Overlay would also provide permit applicants with a right of review in VCAT to overturn decisions of responsible authorities, notwithstanding the fact that the Secretary or VicTrack may view the proposed development as a threat to the integrity or operation of Melbourne Metro. It would

therefore be important for the design objectives and decision guidelines to give clear guidance as to the importance of safety considerations and weight to be given to the referral authority's views in that respect. Any application for review to VCAT would be required to clearly demonstrate on strong engineering grounds why the application should be approved or any condition designed to protect the Melbourne Metro be varied. It is also noted that the Minister for Planning retained the power to call in and determine planning or review decisions.

Introducing a New Project-specific Overlay

An alternative to a Design and Development Overlay schedule would be to amend the Victoria Planning Provisions to include a project-specific overlay. Such an overlay could enable the spatial extent to which the overlay applies to be included in planning scheme maps, and regulate the development of land within the overlay area. It could also include planning objectives and decision guidelines in the same way as a Design and Development Overlay schedule. It is anticipated that a project specific overlay would apply to the same land to which the Design and Development Overlay would apply, using the rationale set out in the Future Development Loading report included in the EES (Appendix J to Technical Appendix E *Land Use and Planning*).

The key benefit of applying a project-specific overlay is that it could provide stronger tunnel protection than a Design and Development Overlay schedule. For example, it could remove VCAT's review function by prohibiting particular forms of development, or prohibiting development that, in the Secretary's opinion would or may compromise the structural integrity or operational capacity of Melbourne Metro. This would give the State the power in deciding whether a permit application to undertake development could affect Melbourne Metro. However, a project-specific overlay could not prohibit or regulate a land use.

There is the City Link precedent for including a project-specific overlay. The City Link approach utilised a project-specific overlay to facilitate the use and development of the project while also setting up a referral trigger to regulate future development over tunnels and other infrastructure. Melbourne Metro's approach differs to City Link as this project proposes an incorporated document to facilitate the use and development of the project and whilst using an overlay control to regulate future development in proximity to tunnels, station and other infrastructure.

Amending Clause 52

A further option would be to amend the Victoria Planning Provisions by introducing a new Particular Provision that defines the locations to which it applies (for example, by reference to plans attached or referred to in the Incorporated Document). The Particular Provision could include controls over development of land that have the potential to threaten Melbourne Metro infrastructure. Again, it is anticipated that a new Particular Provision would apply to the same land to which the Design and Development Overlay would apply, using the rationale set out in the Future Development Loading report, included in the EES (Appendix J to Technical Appendix E *Land Use and Planning*).

The role of PTV as a determining authority is an example of the utilisation of clause 66 together with a Particular provision in clause 52 of the Victoria Planning Provisions. Clause 52.36 is titled 'Integrated Public Transport Planning,' and its purpose is to support public transport usage, to ensure that development provides access to public transport, incorporates safe, attractive and convenient pedestrian access to public transport stops and does not adversely affect the efficient, equitable and accessible operation of public transport. Clause 52.36 requires certain types of applications to be referred such as large residential developments (e.g. comprising 60 or more dwellings or lots); new retail premises of over 4,000 sqm; and office development of 10,000 sqm to be referred to PTV.

Unlike a project-specif overlay or Design and Development Overlay, a Particular Provision could inhibit development and land use. This means that a Particular Provision for Melbourne Metro could remove VCAT's review function by prohibiting particular forms of land use or development, either by way of listing those uses in the conventional sense or prohibiting a use or development that, in the Secretary's opinion, would or may compromise the structural integrity or operational capacity of Melbourne Metro. This would

give the State ultimate power in deciding whether a permit application for a change in land use or development could affect Melbourne Metro in much the same way that it presently does for City Loop. Although protecting the project infrastructure, the key disadvantage of this option is that the spatial operation of a Particular provision would not be included in planning scheme maps and would not necessarily be identified in standard planning certificates for prospective purchasers of affected properties.

It is noted that the Minister for Planning has powers under the *Planning and Environment Act 1987* to prepare, adopt and approve an amendment to the Victoria Planning Provisions, together with nay consequent amendment to one or more specific planning schemes.

5.3.2.4 Concept Design and Development Overlay

Given the scale of Melbourne Metro, the number of properties it passes under and its impact on multiple municipalities, MMRA's preference was to clearly identify the area in which tunnel protection considerations would arise in the planning schemes. This would ensure that proponents of future development that may affect Melbourne Metro assets would become aware of the potential issues through normal planning processes and vendor statements, and can plan development accordingly. The draft planning scheme amendment exhibited during the EES (Technical Appendix A *Planning Scheme and Associated Documentation*) assumes and is based on existing statutory provisions, and uses existing planning controls in the Victoria Planning Provisions. Of those controls, MMRA considered a new schedule to the Design and Development Overlay to be the most appropriate tool to protect Melbourne Metro from inappropriate development. A draft Design and Development Overlay forms part of the suite of potential planning controls in the draft planning scheme amendment for Melbourne Metro. The Draft Design and Development Overlay, if approved, would operate in tandem with the establishment of easements, title acquisition and strata acquisition.

If it is determined that the Project objectives can be better achieved through an amendment to the Victoria Planning Provisions by including a new project-specific overlay or Particular Provision, MMRA would work with the Minister for Planning and his department to progress this prior to requesting that the Minister exercise their powers under the *Planning and Environment Act 1987* to prepare, adopt and approve the amendments to the Victoria Planning Provisions and associated planning scheme amendments.

The schedules to the Design and Development Overlay are proposed to be introduced into the relevant planning schemes at Clause 43.02. By including a referral requirement, the schedule to Clause 66.04 of the relevant planning schemes also need to be amended.

5.3.2.5 Impact of Tunnel Protection Mechanism on Development Capacity

While the project would influence development within the whole study area, the influence could be most evident where the tunnels are located under areas suitable for higher density development such as North Melbourne, Carlton, Parkville and Arden. Within the CBD, the tunnels are within the road reserve, however, it is likely the 'zone of influence' would extend outside the road reserve and impact on properties fronting road reserves including Swanston Street. Appendix J of this impact assessment provides a technical description of anticipated impacts and mitigation measures and would provide guidance into the preparation of the 'zone of influence'.

Where a development has existing planning approvals and would be built concurrently with or before Melbourne Metro, Melbourne Metro design would account for any additional loading from the development.

Prior to the implementation of the proposed Design and Development Overlay, informal discussions and ongoing monitoring of planning applications by the relevant Council, DELWP and MMRA would be the mechanism to identify any potential impacts on the Melbourne Metro alignment.

Properties within the proposed Design and Development Overlay area have been subject to further assessment as to the impact of Melbourne Metro on the development potential of each property. Factors considered in the assessment include existing planning controls, future loading requirements (identified

through the proposed Design and Development Overlay), lot size and the depth of the tunnels. These factors have been used for the following reasons:

- Existing planning controls including strategic development schemes provide a framework within which decisions about the use and development of land can be made.

  Zones generally control the intended purpose of a site. As such, the development potential would be influenced by the existing or proposed zone affecting each site. For example, no development un-related to the public purpose of the land would be considered appropriate on land affected by the Public Park and Recreation Zone.

  Overlays seek to control environmental, landscape, heritage, built form, and land management issues and the Design and Development Overlay is commonly used to identify areas that are affected by specific requirements relating to the design and built form of new development. A Design and Development Overlay can include mandatory or discretionary development requirements such as height restriction and plot ratios. Other overlays that would include specific built form controls include the Heritage Overlay and any flooding overlay that includes the requirement for a raised floor level.

  Should these overlays apply to a site, the development potential may already be restricted.

  Strategic planning documents provide an outline of the intended development of the land, which would also impact on future development potential.
- The proposed schedule to the Design and Development Overlay, as stated previously, is intended to work in conjunction with the establishment of easements, title acquisition and strata acquisition to protect Melbourne Metro assets. The location of the proposed Design and Development Overlay has been determined based on the extent of reasonable clearance zones required for minimising the risk of coming into direct contact as well as limiting the changes in stress around the tunnel structures, having considered the likely positional tolerances and local effects of typical construction methods that might be used in future developments.
- Lot size can dictate the potential development capacity of a site. As such, the larger a parcel of land the greater the potential for redevelopment and the more likely it would be to require subsurface construction (i.e. basements and deep foundations) in comparison to a small lot.
- The depth of the Melbourne Metro tunnels range from 8.4 m to 36.2 m below surface level. The presence of Melbourne Metro tunnels is unlikely to prevent development, however in some cases, engineering measures would be required to stay clear of Melbourne Metro assets, or to keep the loading on Melbourne Metro assets to acceptable levels. Development potential may not therefore be specifically restricted by the shallow tunnels (expect where there is potential for built form or structural interference or foundation depths are limited), however increased construction costs may act as a deterrent to development.

The potential constraints to future land use and built form is discussed in the impact assessment sections of this report.

6 Regional Context

This section describes the existing land use and built form within the proposed Melbourne Metro study area and wider region.

The plans and conditions described in this section are based on information gathered during the land use survey and the planning provisions as described in the Melbourne, Port Phillip, Stonnington and Maribyrnong Planning Schemes.

6.1 Regional Land Use Context

Melbourne Metro is located predominantly within the City of Melbourne. Proposed works are also located within the Cities of Port Phillip, Stonnington and Maribyrnong as illustrated in Figure 6-1.

It is anticipated that Melbourne Metro would act as one of the centrepieces of Melbourne's Principal Public Transport Network and provide connectivity across the Greater Melbourne area. As such, the project is likely to impact on existing and proposed land uses across inner Melbourne as well as Greater Melbourne.

The Australian Bureau of Statistics[5] estimated a resident population in Greater Melbourne of 4,440,300 at 30 June 2014, an increase of 95,700 from June 2013. Melbourne had the largest growth of all Greater Capital Cities in Australia, with the outer suburbs of Greater Melbourne experiencing some of the largest population growth rates in Australia.

The City of Melbourne includes the CBD and the suburbs of Carlton, Docklands, East Melbourne, Kensington, Melbourne, North Melbourne, Parkville, Southbank, West Melbourne, and parts of Port Melbourne, South Yarra and Flemington.

It was estimated, in the City of Melbourne Census of Land Use and Employment (2012 update), that there was 439,172 total workers (total jobs) within the City of Melbourne, up from 362,799 in 2006. This is expected to increase, putting more pressure on transport routes into the CBD and the City of Melbourne.

The CBD is Melbourne's business and financial centre, home to retail, financial, legal, administrative, education, recreation, tourist and entertainment facilities, serving a wide variety of residents, workers and visitors. The Melbourne CBD also includes approximately 16,320 dwellings, representing 28 per cent of the municipality[6]. It is also estimated that more than 18,500 people residing within the City of Melbourne work within the Melbourne CBD, with 'professional' the most common occupation identified (39 per cent). Eighty nine per cent of the Melbourne CBD workforce live outside the City of Melbourne but within Greater Melbourne[7].

Figure 6-2 illustrates the land use categories surrounding the Melbourne Metro alignment. The figure shows how the land uses change across the study area. Outside of the CBD, there is also a large diversity of land uses including industrial uses to the north of the city around the Western Portal and Arden Station precincts, residential uses in North Melbourne and South Yarra, an education, health and research precinct in Parkville and public open space around the Yarra River, Domain Parklands and Fawkner Park.

Melbourne Metro would travel through four local government areas and eight suburbs. Travelling from west to east, the suburbs include Footscray, Kensington, North Melbourne, Parkville, Carlton, Melbourne, South Melbourne and South Yarra. As of the 2011 census, these suburbs were home to 102,028 people and contained 58,427 dwellings.

[5] http://www.abs.gov.au/Ausstats/abs@.nsf/mf/3218.0 (Accessed 22 May 2015)
[6] Melbourne Central Business District & Remainder Small Area Demographic Profile (City of Melbourne, 2013)
[7] ibid

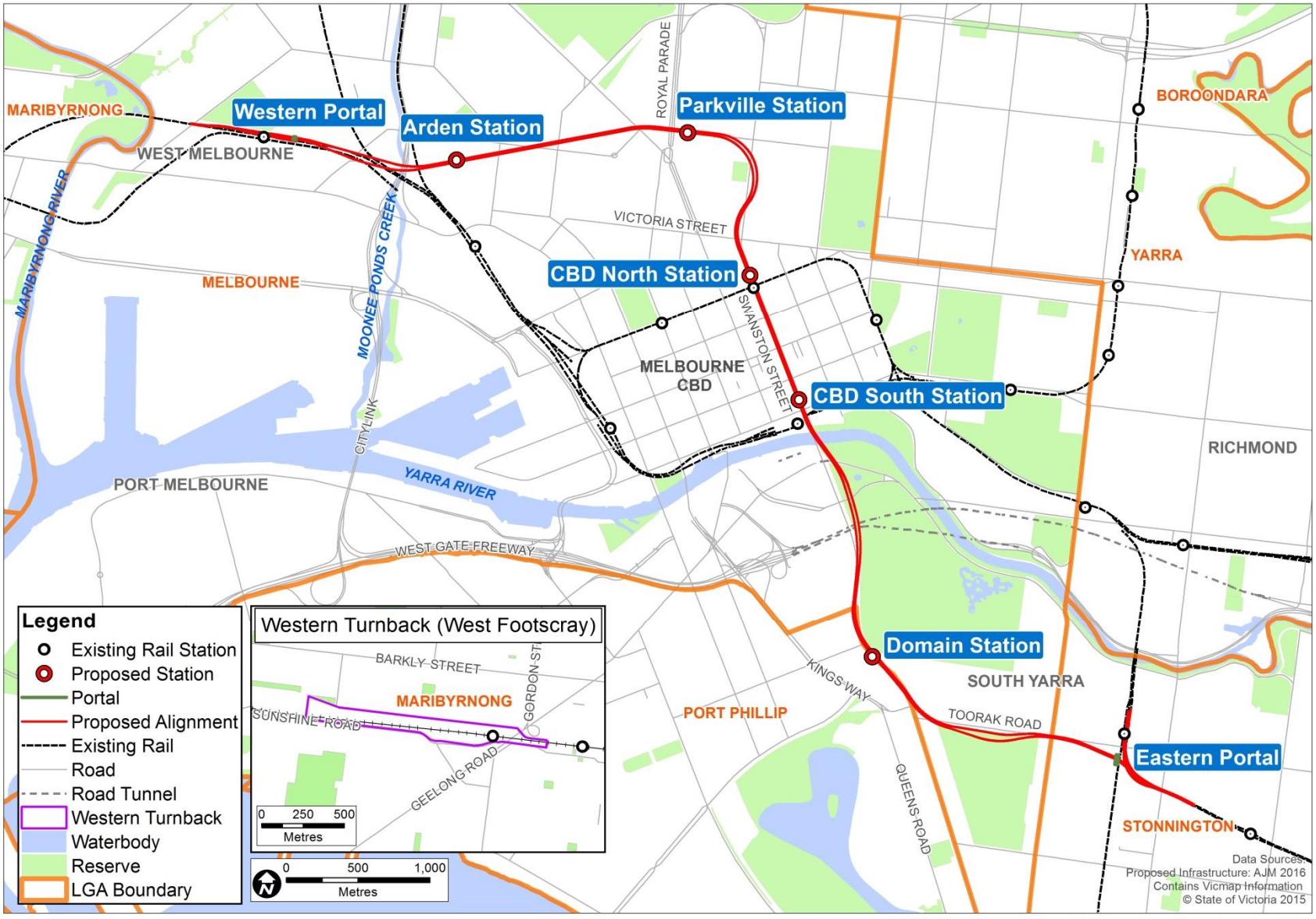

Figure 6-1 Melbourne Metro area showing municipal boundaries

As outlined in Section 5 of this impact assessment, increasing strain is being placed on Melbourne's infrastructure and services, with a growing demand on public transport due to changes in the rate and pattern of population and jobs growth. Melbourne's metropolitan rail network requires upgrading to provide the capacity needed to meet the increased demand. Melbourne Metro provides a built environment and land use benefit as it would act as a catalyst for change at station locations, improving access and providing potential for revitalisation of land use across Melbourne. Other key benefits of the project include:

- Delivery of a significant project with relatively limited impact on land use and built form across Melbourne, especially given the scale of the project
- The tunnels limit the permanent impact to land use and the built environment as the majority of permanent works are below ground
- Opportunities for improvement of public open space at the completion of the project through legacy works at City Square, Federation Square, University Square, Fawkner Park, Albert Road Reserve and the South Yarra Siding Reserve
- The use of public land (VicTrack) at Arden for a station and a major construction work site limits private land acquisition and would act to invigorate extensive urban renewal in the area, ensuring future development in the area is integrated with the transport network
- Opportunities to incorporate the proposed works with future planned development of land including Arden and at the University of Melbourne
- Enhanced connections through precincts and to valued places such as the Parkville Employment Cluster and Federation Square with opportunities for improved train, tram, and bus interchanges at Parkville, CBD North, CBD South and Domain stations
- Potential opportunities for over-site development to allow for future replacement of land uses removed as part of the project, therefore lessening the impact on existing land use and built form.

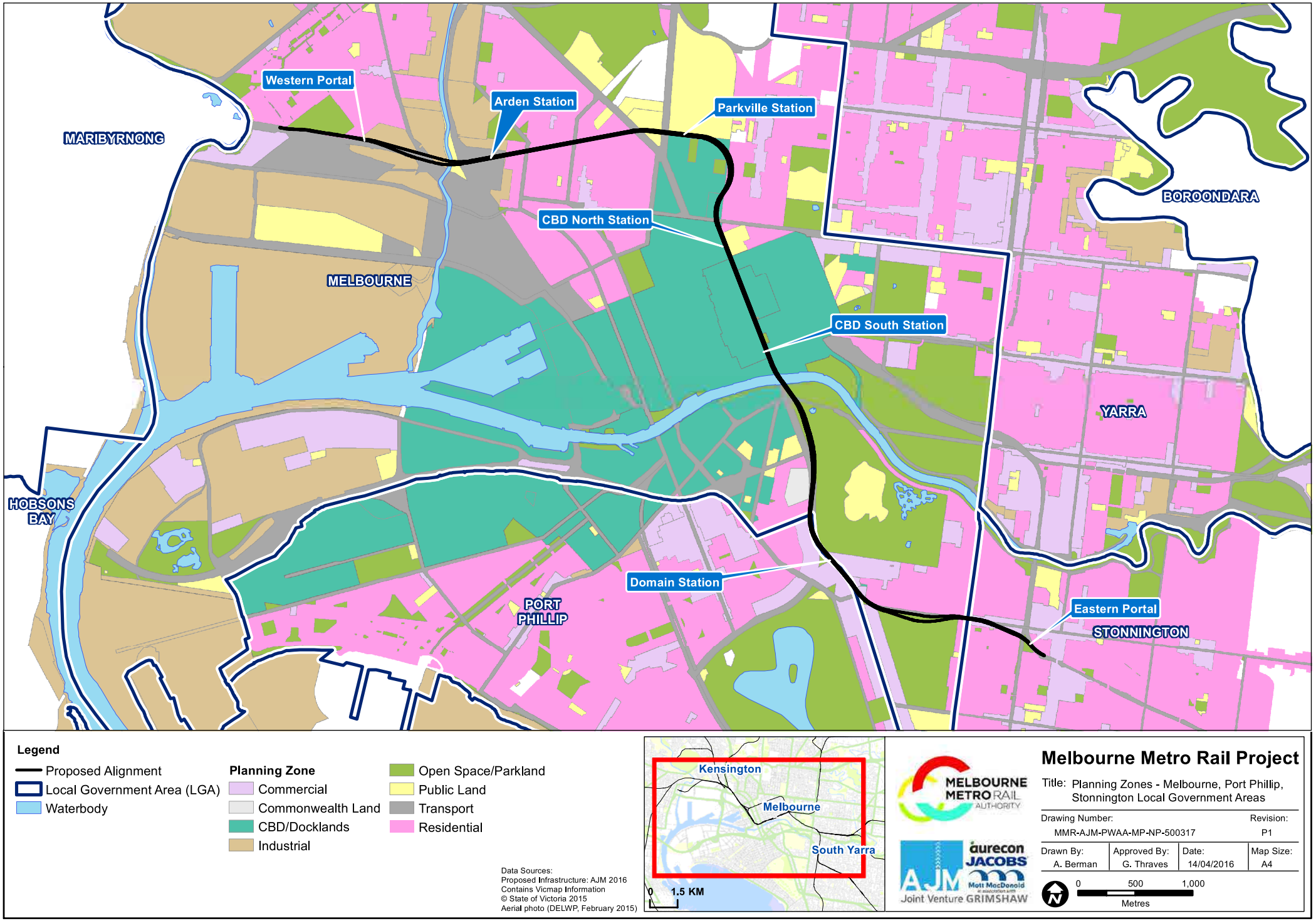

Figure 6-2 Regional land use context

6.2 Planning Permit Applications and Permits

As part of this impact assessment, current planning permit applications and approved planning permits were identified and reviewed to understand the potential for land use and built form changes within the proposed Melbourne Metro boundary.

To limit future potential conflict and identify opportunities, recently approved permits and plans have been considered to identify where proposed development could impact on Melbourne Metro where the building is not yet constructed. Planning permits may never be activated or may change from what was approved, however the impact assessment provides an overview of potential conflicts.

Due to the large study area within the City of Melbourne, access was provided to the City of Melbourne's internal database to assist in the identification of relevant permits.

Consultation has also been undertaken with the DELWP as the Minister for Planning is the responsible authority for developments within the City of Melbourne with a gross floor area exceeding of 25,000 square metres.

The Cities of Port Phillip and Stonnington have online planning registers that were searched to identify planning permit applications. A register search was not undertaken for the City of Maribyrnong as the works associated with the proposed Western Turnback are wholly contained within the functioning rail corridor.

Planning permit applications and approved permits that interact with the proposed Melbourne Metro area are identified in each precinct assessment, along with an assessment of the identified impact. The applications have also been mapped and are shown in the mapping included in each precinct impact assessment.

The lists include development that may impact on Melbourne Metro, or where Melbourne Metro may impact on the completion of the development as proposed. The lists have been determined based on the following criteria:

- Planning permits issued since November 2011. Planning permits generally include a condition of expiry that require works to commence within two years of the date of the permit approval (as outlined in Section 68 of the *Planning and Environment Act 1987*). This means permits approved in November 2011 should have been activated by November 2013. A buffer of two years has been included to ensure extensions of time are captured. These permits would also provide data for buildings currently under construction, particularly in regards to the presence of basements.
- When assessing planning permits and determining if their scale would be likely to impact Melbourne Metro, the description of works and proposed cost have been cross referenced. Planning permits have only been extracted for parcels of land within the proposed Melbourne Metro project boundary.

The application numbers associated with the City of Melbourne have the following references:

- TP – Town planning permit application
- TPM – Ministerial Planning Application (where the Minister for Planning is the responsible authority).

The Cities of Stonnington and Port Phillip do not use identifiers like these.

6.3 Regional Strategic Planning Studies

Many regional strategic studies apply to the proposed study area and have been described in Table 6-1 on a precinct basis. Table 6-1 provides a summary of the planning scheme amendments and strategic planning policies that have been identified as having a potential impact on land use within the regional context of Melbourne Metro. Further detail of each policy document as well as a description of all local studies are provided in each precinct description as well as Appendix I of this impact assessment.

Table 6-1 Relevant strategic policy affecting the Melbourne Metro alignment

Precinct	Amendment / Study	Status	Points of relevance	Municipality
Whole study area	Inner Melbourne Action Plan	Adopted by Councils	This plan is currently being updated to include reference to *Plan Melbourne*.	Cities of Melbourne, Port Phillip and Stonnington
All precincts within the City of Melbourne	City of Melbourne's Exceptional Tree Register	Reference document	Trees within the Melbourne Metro boundary in the Precinct 4 - Parkville station precinct (University of Melbourne) and Precinct 7 – Domain station (Melbourne Grammar School) are identified in this register. The register is a reference document to the Schedule 2 to the Environmental Significance Overlay.	Melbourne
All precincts within the City of Melbourne	Places for People, 2004	Reference document	Melbourne Metro is proposed to impact on a number of public spaces within the City of Melbourne.	Melbourne
All precincts within the City of Melbourne	Future Melbourne, 2008	Reference document	One of the aims for Melbourne Metro is to provide a transport system suitable for a global city.	Melbourne
All precincts within the City of Melbourne	Towards a Better Public Melbourne: Draft Urban Design Strategy, 2006	Reference document	Melbourne Metro is located within a number of public spaces with the proposed station entrances at ground level within the City of Melbourne.	Melbourne
All precincts within the City of Melbourne	Melbourne Transport Strategy, 2012	Reference document	Melbourne Metro seeks to provide a 'metro style rail service' as outlined in this strategy.	Melbourne
All precincts within the City of Melbourne	City of Melbourne Bicycle Plan 2012-16	Reference document	Melbourne Metro would pass through land affected by a number of initiatives outlined in this Plan.	Melbourne
All precincts within the City of Melbourne	City of Melbourne Open Space Strategy, 2012	Reference document	The strategy explicitly outlines the role and future of the public open spaces within the proposed Melbourne Metro boundary.	Melbourne
All precincts within the City of Stonnington	Heritage Citations	Reference document	Part of the proposed Melbourne Metro boundary within the City of Stonnington has been identified as within an area of heritage precinct protection.	Stonnington

7 Risk Assessment

Table 7-1 below identifies the risks associated with the project, based on a precinct basis. The environmental risk assessment methodology is outlined in Section 4.2.

Existing Environmental Performance Requirements were identified to inform the assessment of initial risk ratings. The key existing Environmental Performance Requirement relevant to land use and planning was compliance with the *Land Acquisition and Compensation Act 1986* for any private property acquisition.

As a result of the risk assessment, project-specific Environmental Performance Requirements have been proposed to potentially reduce risks and hence determine the 'Residual Risk Rating'. The Environmental Performance Requirements are outlined in the following sections of the impact assessment and collated in Table 18-1. All Environmental Performance Requirements are incorporated into the Environmental Management Framework for the project (Chapter 23). For further details refer to Technical Appendix B *Environmental Risk Assessment Report* (which includes the full Risk Register, with existing performance requirements and recommended Environmental Performance Requirements assigned to each risk.

Table 7-1 Risk register for impact assessment

Impact pathway		Precincts	Initial risk			Residual risk			Risk no.
Category	Event		Cons.	Like.	Risk	Cons.	Like.	Risk	
Design									
The acquisition of properties	Acquisition of residential, commercial and retail titles for the project, resulting in some changes in land use.	5 - CBD North station	Moderate	Almost certain	High	Minor	Likely	Medium	**LU001**
The acquisition of properties	Acquisition of titles for the project, however only minimal land use change is anticipated.	1 - Tunnels 2 - Western Portal 6 - CBD South station 7 - Domain station	Minor	Almost certain	Medium	Minor	Possible	Low	**LU002**
The acquisition of properties	Acquisition of titles for the project, however no change in land use is anticipated.	4 - Parkville station 8 - Eastern Portal	Minor	Almost certain	Medium	Minor	Possible	Low	**LU003**
The acquisition of properties	Strata below surface of old law titles may be required for Precinct 1 (Tunnels) for	1 - Tunnels (including emergency access	Minor	Almost certain	Medium	Minor	Possible	Low	**LU004**

Impact pathway		Precincts	Initial risk			Residual risk			Risk no.
Category	Event		Cons.	Like.	Risk	Cons.	Like.	Risk	
	the project. Number not yet determined. Strata acquisition would not impact on land use.	shafts)							
The proposed location and siting of the project	Land use changes that would result in minor inconsistencies with local planning policies and current planning scheme provisions.	1 - Tunnels (including emergency access shafts)	Minor	Almost certain	Medium	Minor	Possible	Low	**LU005**
The proposed construction methodology for the project	The use of the South Yarra Siding Reserve, City Square, University Square, Domain Parklands and Fawkner Park for the project is inconsistent with the intended use of the land for public parks.	1 - Tunnels (including emergency access shafts) 4 - Parkville station 6 - CBD South station 7 - Domain station 8 - Eastern Portal	Minor	Almost certain	Medium	Minor	Possible	Low	**LU006**
Change to future development of the land	The development of the project potentially impacts the future development of land.	1 to 8	Moderate	Possible	Medium	Minor	Possible	Low	**LU008**
Construction									
Relocation of infrastructure	The relocation of infrastructure (including power lines and bike paths) causes short-term disruption to existing land use.	1 to 8	Minor	Likely	Medium	Minor	Possible	Low	**LU009**
Construction and Operation									
Change in access to properties	Temporary limited access (potential short-term disruption to existing land use) to properties but properties are still able to be used for existing purposes (potential long term access changes).	2 - Western Portal 3 - Arden station 4 - Parkville station 5 - CBD North station 6 - CBD South station 7 - Domain station 8 - Eastern Portal	Minor	Almost certain	Medium	Minor	Possible	Low	**LU007**

8 Precinct 1: Tunnels

This section describes the project components, existing conditions, key issues, benefits and opportunities, findings of the impact assessment for the Concept Design and alternative design options (if any).

8.1 Project Components

This precinct includes the tunnels and associated works outside of the station precincts between the western portal at Kensington and the eastern portal at South Yarra, including emergency access shafts.

8.1.1 Infrastructure

The majority of works associated with the tunnels would be located underground, and consequently would have minimal impact on land uses and planning at the surface level. Where possible, the tunnels would be located under existing road reserves and parkland to minimise the requirement to acquire and disrupt existing land uses.

In the Tunnels precinct, it has been identified that the following permanent land acquisition, temporary occupation and permanent strata acquisition would be required for construction. The tunnel sectors are described in Section 8.2.

The Concept Design proposes to cross above the existing CityLink tunnels, which may result in some ground improvement works. These works have the potential to require the removal of many trees within Tom's Block (Domain Parklands). Technical Appendix R *Arboriculture* contains information about the impact of tree removals.

Strata would be acquired from below land under approximately 3,400 Certificates of Titles across the precinct. The titles identified for strata acquisition may be subject to change and refinement through the detailed design process.

TBM Southern Launch Site

The Domain station construction work site includes the southern TBM retrieval and relaunch site. This site at Domain may also be supported by a second launch site at Fawkner Park. As such, both sites are being assessed as part of this impact assessment. There would be no permanent works associated with the use of either of the sites as a launch site. Temporary infrastructure and construction works required for a TBM launch site at Domain are described in Section 14 of this report and impacts associated with the use of Fawkner Park for a TBM launch site are included in this section.

Emergency Access Shafts

An emergency access shaft is proposed in the north eastern corner of Fawkner Park, fronting Toorak Road and adjacent to the existing public toilet facilities.

Another emergency access shaft is within the Queen Victoria Gardens, adjacent to Linlithgow Avenue. This site utilises an area already occupied by public toilet facilities.

The shaft structures would be expected to be approximately two and a half times as wide as the existing toilet block on Linlithgow Avenue and double the height.

8.1.1.1 Alternative Design Option

The following section describes the relevant proposed alternative design options.

Emergency Access Shafts

There are two alternative design options for the emergency access shafts as follows:

- Fawkner Park (alternative to the Fawkner Park north eastern site) - using the location of the potential Fawkner Park TBM launch site on the site of the existing Fawkner Park tennis courts
- Linlithgow Avenue (alternative to the Queen Victoria Gardens site) - Tom's Block between Linlithgow Avenue and St Kilda Road in an area currently used for passive recreation.

The emergency access shafts would provide access to the two tunnels for emergency services only and would require the permanent reservation of Crown land.

CityLink Tunnels Crossing

The alternative design option proposes the vertical alignment of the tunnels to pass under the existing CityLink tunnels rather than above.

8.1.2 Construction

Construction of the Melbourne Metro would require a number of construction work sites along the alignment. The main construction work site for tunnelling activities for the western reach of the project (between the Western Portal and CBD North station) would be at Arden. For the tunnels between the Eastern Portal and CBD South station, construction would be initiated from the Domain station construction work site, and potentially from Fawkner Park.

Other temporary construction work sites would be located at each of the stations and portal sites. Smaller work sites would likely be required at the emergency access shaft locations.

As part of the construction required for the tunnels for the Melbourne Metro, temporary and permanent access would be required to land, with the potential to disrupt existing land uses. This would result in the need for temporary occupation as well as permanent acquisition of properties. The number of properties are outlined in Section 8.1.1.

8.1.2.1 Yarra River Crossing – TBM under the River

The Yarra River crossing would use a TBM to cross under the river, thereby reducing the need for surface level activities.

8.1.2.2 CityLink Tunnels Crossing – Above CityLink Tunnels

The CityLink tunnels crossing would potentially require ground improvement works above the length of the tunnels travelling through Tom's Block. These works are likely to require the injection of concrete grout into the ground to reduce the risk of subsidence when constructing the tunnels. The injection and ongoing presence of the grout would require the removal of all trees in the affected area, with no reinstatement of equivalent vegetation possible.

There is an alternative design option for the tunnels to cross below the CityLink tunnels as described in Section 8.1.1.1.

8.1.2.3 TBM Southern Launch Site

The Domain station TBM launch site would be incorporated into the existing Domain station construction site. This is discussed further in Section 14 of this impact assessment.

It is anticipated that the potential Fawkner Park construction work site would have an area of approximately 19,800 m^2 and be used in conjunction with the Domain station TBM launch site. Should this site be used, a temporary above ground substation (approx. 5 m x 5 m and up to 3 m height) would be required to power the TBM, and new power lines would be required to run from the Richmond Terminal Station to Fawkner Park.

The works at this site have the potential to affect a number of trees (refer to Technical Appendix R *Arboriculture*), the Fawkner Park Tennis Centre, and the Fawkner Park Community Centre (which includes the Fawkner Park Children's Centre and Kindergarten and Senior Citizen's Centre, and the Maternal and Child Health Centre). Construction would occur in manner that would allow the facilities in the Fawkner Park Community Centre to continue to operate.

Part of Fawkner Park would need to be acquired for construction purposes with small areas permanently acquired land for either the Concept Design and alternative design option sites for the emergency access shafts.

8.1.3 Operation

Within this precinct, the rail lines and majority of infrastructure would be below ground and therefore ongoing operation of Melbourne Metro would not impact on the surface use of the land.

The above ground structures would include a permanent structure for the emergency access shafts, which provide access to Melbourne Metro tunnels and house essential equipment. The emergency access shafts are not expected to be highly trafficked as they would provide access for emergency services only. Parking and access for emergency services would need to be retained adjacent to each access shaft.

8.2 Existing Conditions

The location of the Melbourne Metro and the relevant planning controls within each of the Tunnels sectors are shown in Figure 8-7 and Appendix G of this impact assessment.

The tunnels precinct starts at Kensington and travels across the project area to link in with the Eastern Portal in South Yarra. The tunnels pass under railway and industrial land in the west, until Dryburgh Street (east of Arden), where they travel under houses and apartments in North Melbourne before reaching the Parkville station. Between Parkville and the CBD, the tunnels pass under apartment blocks, a park and commercial areas before travelling under Swanston Street. The tunnels pass under the Yarra River and continue under the Domain Parklands and St Kilda Road to Domain station. Between Domain station and the Eastern Portal, the tunnels pass under Toorak Road, the northern extent of Fawkner Park and residential areas of South Yarra.

Tunnel Sector 1

Tunnels Sector 1 is located between the western portal to the Arden station precinct.

The Melbourne Metro generally follows the rail corridor beneath Lloyd Street and continues east beneath the Kensington Rail Corridor (Craigieburn Line), West Melbourne Terminal Station, Moonee Ponds Creek and CityLink. It passes beneath vacant land between CityLink and the Upfield line to the Arden station precinct.

This precinct includes the 50 Lloyd Street Business Estate. The estate is the former site of the Four n Twenty Pie factory which operated between 1950 and 2003. The site has subsequently been redeveloped and is now occupied by 53 warehouse units of two storeys or a ground level with an office mezzanine. The site was built and subdivided in stages between 2007 and 2008. The estate is gated, with access from Childers Street and Lloyd Streets. There are three internal private roads that service the site - McLennan Drive, Bakehouse Road and McClure Road.

The West Melbourne Terminal Station is a major electrical system terminal station for Melbourne and receives 220 kV transmission lines for conversion and distribution to the electricity network. There are plans for the assets in the terminal station to be upgraded, with construction to commence in 2016, pending approvals.

The majority of land where the project works would be undertaken in this precinct is within the Public Use Zone 4 (Transport) as the study area follows the rail corridor. The terminal station site is within the Industrial 1 Zone and where the Melbourne Metro crosses beneath CityLink and the Moonee Ponds Creek, the land is zoned Public Use Zone 1(Service and Utility) and is affected by a Land Subject to Inundation Overlay (LSIO). CityLink at this point is identified by the City Link Project Overlay. The overlay impacts on land within the CityLink road reserve and triggers the requirement for planning approval for any use or development not associated with CityLink.

Tunnel Sector 2

Tunnel Sector 2 is located between the Arden station precinct and Parkville station precinct beneath the low- to medium-density, low-scale residential and commercial area of North Melbourne. The alignment heads north-east from the Arden station precinct in a fairly direct line beneath residential properties to the Parkville station precinct.

The majority of land in this sector is zoned General Residential Zone, with some pockets of land within the Mixed Use Zone. Part of the residential area in this sector is affected by the Heritage Overlay (HO3 North and West Melbourne precinct), as well as two individual heritage buildings (HO306 48-50 Villiers Street, North Melbourne and HO295 North Melbourne Primary School No. 1402, Errol Street, North Melbourne). The area around the Red Cross building on Harcourt Street and properties fronting Flemington Road are in the Mixed Use Zone. Curzon Street is in the Road Zone, Category 1 and is managed by VicRoads.

Flemington Road is also in the Road Zone, Category 1 and is a major north – south connection between the Melbourne CBD and the northern portion of CityLink.

There are a number of active planning permits in this precinct. These permits generally allow for the development of multi-storey residential developments, which is consistent with the purposes of the General Residential Zone and the Mixed Use Zone.

Tunnel Sector 3

Tunnel Sector 3 is located between the Parkville station and CBD North station precincts, beneath an educational, residential and commercial area of Carlton. This sector begins one block back from Leicester Street beneath an area predominantly occupied by buildings of heritage significance owned by the University of Melbourne as well as newer office developments. The alignment heads south beneath the Rydges on Swanston Hotel and other properties fronting Swanston Street before running beneath the road alignment of Swanston Street to Victoria Street.

The precinct impacts on the north east corner of Lincoln Square supports established trees, including avenues of Morton Bay fig trees and English elms. Lincoln Square is within the Public Park and Recreation Zone.

The majority of land in this tunnel sector (east of Swanston Street) is within the Mixed Use Zone, with land to the west of Swanston Street in the Capital City Zone (Schedule 5 - City North).

This sector also contains the former Carlton and United Brewery (CUB) site (bound by Queensberry, Bouverie, Swanston and Victoria Streets), which is currently being redeveloped subject to the provisions of the Comprehensive Development Zone (Schedule 2 – Carlton Brewery). The sector also includes the recently constructed Swanston Square building at 555 Swanston Street (35 level multi-residential tower), and land at 557 – 591 Swanston Street. A planning permit has been issued for this which allows for its development as a multi storey apartment building (with one sub-ground floor level) with retail and associated car parking. Further development of Swanston Square is anticipated in the next two years, with approval granted for construction of a residential tower, known as Building 4. It has been identified that this site may have ground contamination. Ministerial Direction No. 1 (Potentially Contaminated Land) outlines the assessment process for a planning scheme amendment for land that is adversely affected by contamination. Further discussion on potential contamination is included in Technical Appendix Q *Contaminated Land and Spoil Management*.

Figure 8-1 Lincoln Square

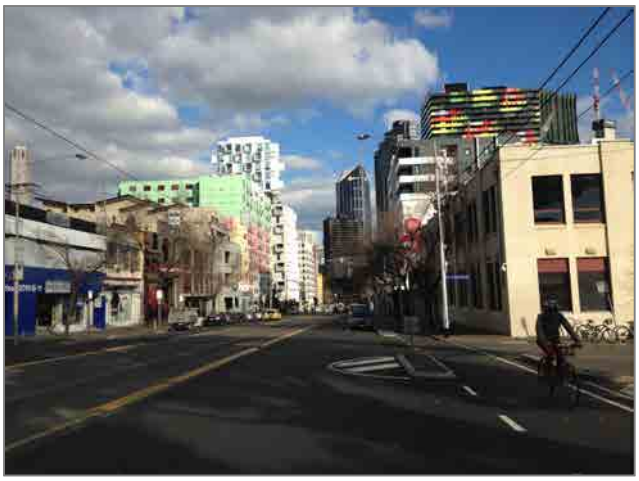

Figure 8-2 Swanston Street looking south including the CUB redevelopment site

Tunnel Sector 4

Tunnel Sector 4 is located between the CBD North station and CBD South station precincts beneath Swanston Street in the CBD.

This sector is within the Capital City Zone (Schedule 2 – Retail Core). It includes a number of significant multi-storey mixed use developments, many of which have basements. There are also many buildings of heritage significance including numerous buildings on the Victorian Heritage Register. It is noted that the Melbourne Town Hall portico is located within the Swanston Street road reserve.

The QV retail precinct on the corner of Lonsdale and Swanston Streets is generally set around open air, pedestrian laneways and includes a mix of retail and food and drink shops, a supermarket and a discount department store.

The remainder of Swanston Street in this area is a mix of low- to medium-rise commercial, office, retail and hospitality uses. Swanston Street itself is a highly valued cross city transport corridor, which provides for tram routes, bicycle paths and pedestrian friendly access.

Tunnel Sector 5

Tunnel Sector 5 is located between CBD South station and Domain station precincts.

It crosses beneath the Yarra River, then passes under Alexandra Gardens, Alexandra Avenue, Queen Victoria Gardens, Linlithgow Avenue, Kings Domain (Tom's Block), the Shrine of Remembrance Reserve and back under the St Kilda Road road reserve.

The parks and gardens that would be impacted in this precinct are part of the Domain Parklands. The Domain Parklands are set over undulating terrain, with curving paths and drives, wide lawns, established trees, an ornamental lake and many statues. A feature of the parklands is the presence of a number of vistas towards Melbourne from the south.

The emergency access shafts would be located within either the Queen Victoria Gardens or part of the Domain Parkland known as Tom's Block. The Queen Victoria Gardens are located opposite the Arts Centre on St Kilda Road and are bound by Linlithgow Avenue, St Kilda Road and Alexandra Avenue. The proposed site for the emergency access shaft is in close proximity to assets of heritage value including the Floral Clock, King Edward VII monument and the Rockery fountain in the traffic island in Linlithgow Avenue. Tom's Block is part of Kings Domain within the Domain Parklands. The block is a narrow strip of gardens between St Kilda Road and Linlithgow Avenue. The parkland in this location contains a number of statues and monuments including the Sir Edward 'Weary' Dunlop statue, the Boer War monument, the Walker Fountain

and the Victoria Police Memorial. A map showing the location of heritage monuments and memorials in Tom's Block is included in Technical Appendix J *Historical Cultural Heritage*.

Figure 8-3 Yarra River, viewed from the south side

Figure 8-4 Fromelles Memorial in the Shrine Reserve (Domain Parklands), viewed from the corner of Domain and St Kilda Road

The area contains a number of Heritage Overlays (HO398 Domain Parklands and LaTrobe's Cottage, St Kilda Road and Domain Road and Dallas Brooks Drive, Melbourne and HO489 Shrine of Remembrance, 2-42 Domain Road, Melbourne) that protect the Domain Parklands, Government House and the Shrine of Remembrance, as well as a number of smaller memorials. The Domain Parklands are also listed on the Victorian Heritage Register (VHR H2304, H1076, H1447, H848). The current Domain Parklands Master Plan is discussed in Technical Appendix I of this impact assessment.

Victoria Barracks is located on the west side of St Kilda Road and is adjacent to the Melbourne Metro tunnels. The land is Commonwealth land and is a Commonwealth heritage place. As such, it is not subject to the controls of the Melbourne Planning Scheme.

The majority of the alignment in this sector is in the Public Park and Recreation Zone, with the western most part of this sector around in CBD South in the Capital City Zone (Schedule 1 – Outside the Retail Core).

Where the Melbourne Metro crosses under the Yarra River, the land is affected by the Land Subject to Inundation Overlay. The Land Subject to Inundation Overlay identifies '*land in a flood storage or flood fringe area affected by the 1 in 100 year flood or any other area determined by the floodplain management authority*'.

St Kilda Road is managed by VicRoads and is in the Road Zone, Category 1. St Kilda Road is a six lane, tree-lined boulevard and is lined on the west side with the Victorian Arts Centre, Victoria Barracks and with medium to high rise commercial and residential developments. In this location, St Kilda Road also contains dedicated bicycle lanes, on-street car parking and tram routes 1, 3, 3a, 5, 6, 8, 16, 64, 67 and 72. The CityLink tunnels cross under Grant Street and Tom's Block and are identified by the CityLink Project Overlay. The overlay applies to the Princes Bridge and the Alexandra Gardens and triggers the requirement for planning approval for any use or development not associated with CityLink.

Land on the western side of St Kilda Road between Dorcas Street and Park Street is in the City of Port Phillip. Land uses in this part of the City of Port Phillip are a mix of high rise commercial and residential uses.

Tunnel Sector 6

Tunnel Sector 6 is located between the Domain station precinct and the Eastern Portal precinct beneath an area containing residential, commercial and public open space to the Eastern Portal in South Yarra. The alignment heads east from St Kilda Road beneath Toorak Road and beneath the northern section of Fawkner Park to the low- to medium-rise commercial strip of Toorak Road.

This sector is within the Cities of Melbourne and Stonnington (Punt Road forms the municipal boundary) and is affected by a number of different zones. Fawkner Park is in the Public Park and Recreation Zone, Toorak Road and Punt Road are both VicRoads managed roads within the Road Zone, Category 1. The residential properties fronting Toorak Road West (to the west of Punt Road) in the City of Melbourne are in the General Residential Zone with properties to the east of Punt Road in Toorak Road in the City of Stonnington in the Commercial 1 Zone. Toorak Road supports a commercial shopping strip with a wide range of commercial and office uses. Residential land uses dominate the areas to the north and south of Toorak Road.

Fawkner Park was first reserved in 1873 and is known for the tree-lined pathways that cross the park, that were originally designed for promenading. The trees in the park include well established Moreton Bay figs, elms, poplars, and oaks as well as newer plantings. The park is popular for structured sports events and leisure activities and includes a community centre, Fawkner Park Tennis Centre (operated under a commercial lease), barbecues and picnic areas, playgrounds and the many sports grounds. The Fawkner Park Community Centre contains the Fawkner Park Children's Centre and Kindergarten (a co-operative, with a parent committee of management), South Yarra Neighbourhood Centre / Senior Citizen's Centre, and the Maternal and Child Health Centre. The Community Centre is owned by the City of Melbourne. The Fawkner Park Tennis Centre includes six courts, clubhouse, kiosk and tearooms.

Fawkner Park is included in a precinct wide Heritage Overlay identified in the Melbourne Planning Scheme as HO6 (South Yarra Precinct).

Figure 8-5 Fawkner Park

Figure 8-6 Fawkner Park Community Centre and Tennis Centre

St Kilda Road, Toorak Road and Punt Road all carry high traffic volumes including tram and bus services. A bus drop off is located to the west of the childcare centre in Fawkner Park, which is used by schools for sporting competitions.

Figure 8-7 to Figure 8-12 shows the zones in each Tunnel sector. Appendix G of this report shows the zones and overlays in each Tunnel precinct. Figure 8-13 - Figure 8-18 show the results of the land use survey and any recent planning applications in the Tunnels precinct.

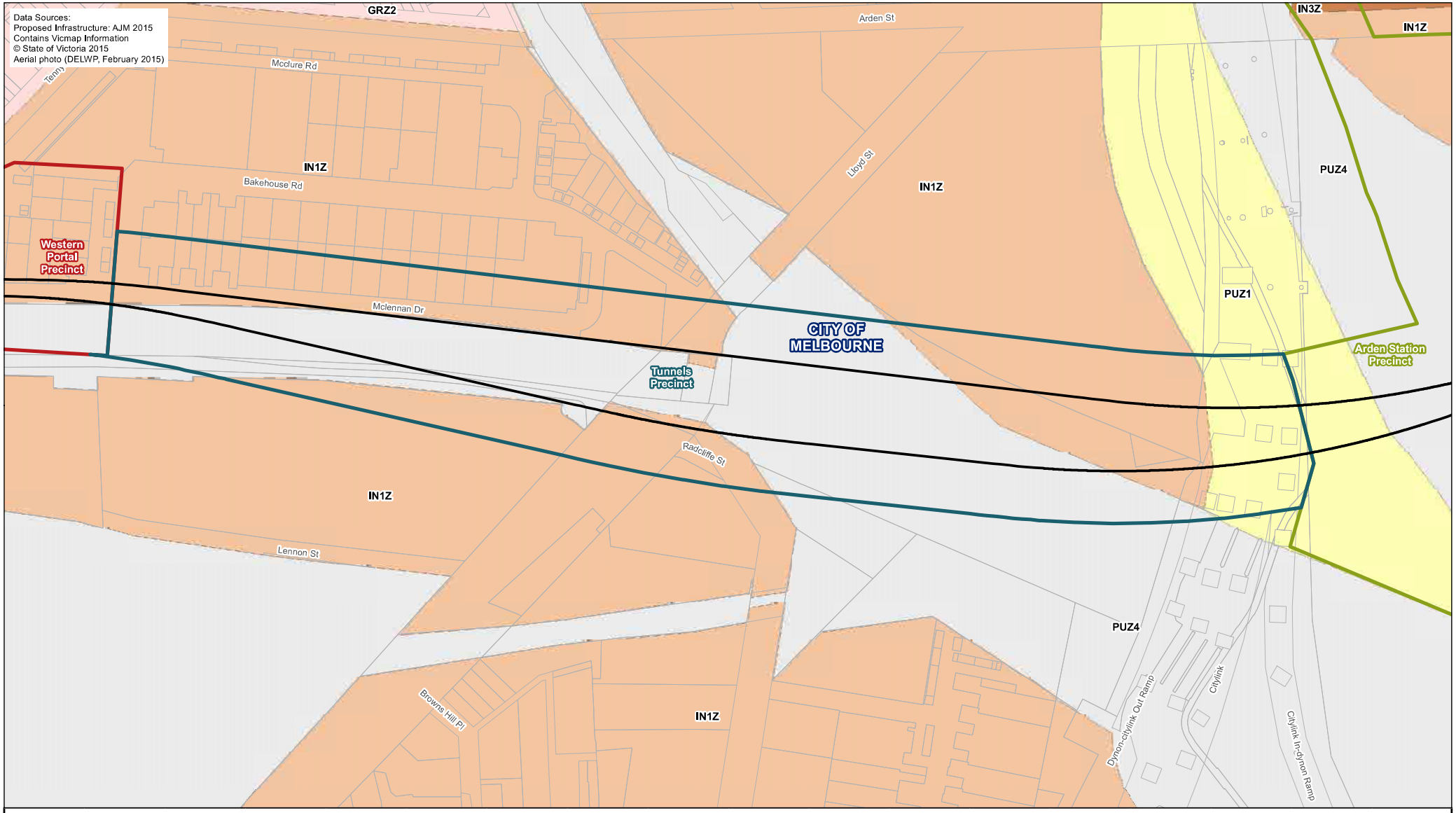

Figure 8-7 Zones in Sector 1 of the tunnels precinct

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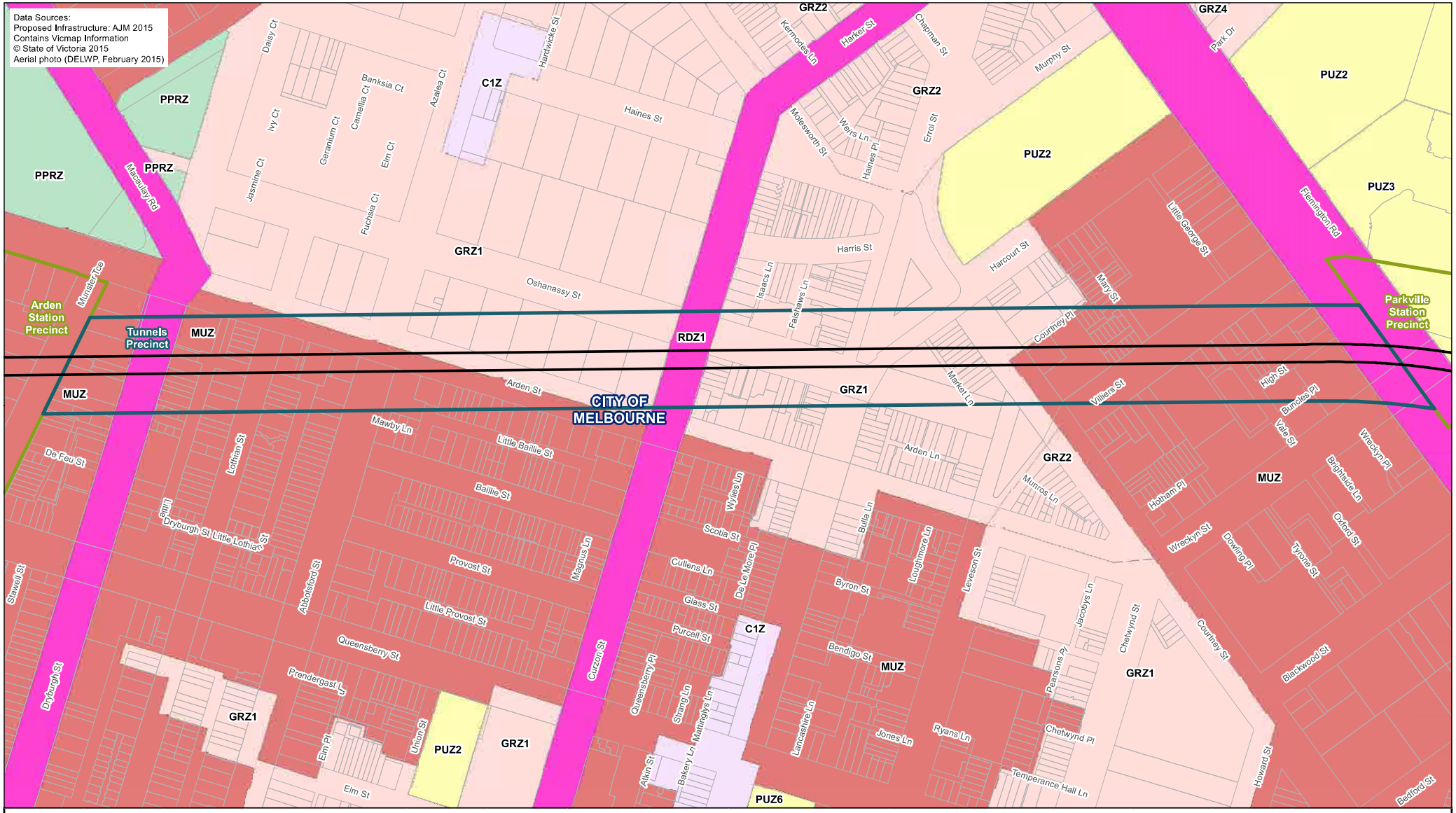

Map 4 of 14

Legend

Proposed Concept Design
- Proposed Alignment

Environmental and Planning Precincts
- Station Precinct
- Tunnels Precinct

- Cadastre
- Local Government Area (LGA)

Planning Zones
- C1Z - Commercial 1 Zone
- GRZ - General Residential Zone
- MUZ - Mixed Use Zone
- PPRZ - Public Park and Recreation Zone
- PUZ2 - Public Use Zone Education
- PUZ3 - Public Use Zone Health and Community
- PUZ6 - Public Use Zone Local Government
- RDZ1 - Road Zone Category 1

MELBOURNE METRO RAIL AUTHORITY

AJM Joint Venture GRIMSHAW
aurecon JACOBS Mott MacDonald in association with

Melbourne Metro Rail Project

Title:
Planning Zones

Drawing Number:			Revision:
MMR-AJM-UGAA-MP-NN-500264			P1
Drawn By:	Approved By:	Date:	Map Size:
A. French	G. Thraves	13/04/2016	A4

0 50 100
Metres

Figure 8-8 Zones in Sector 2 of the tunnels precinct

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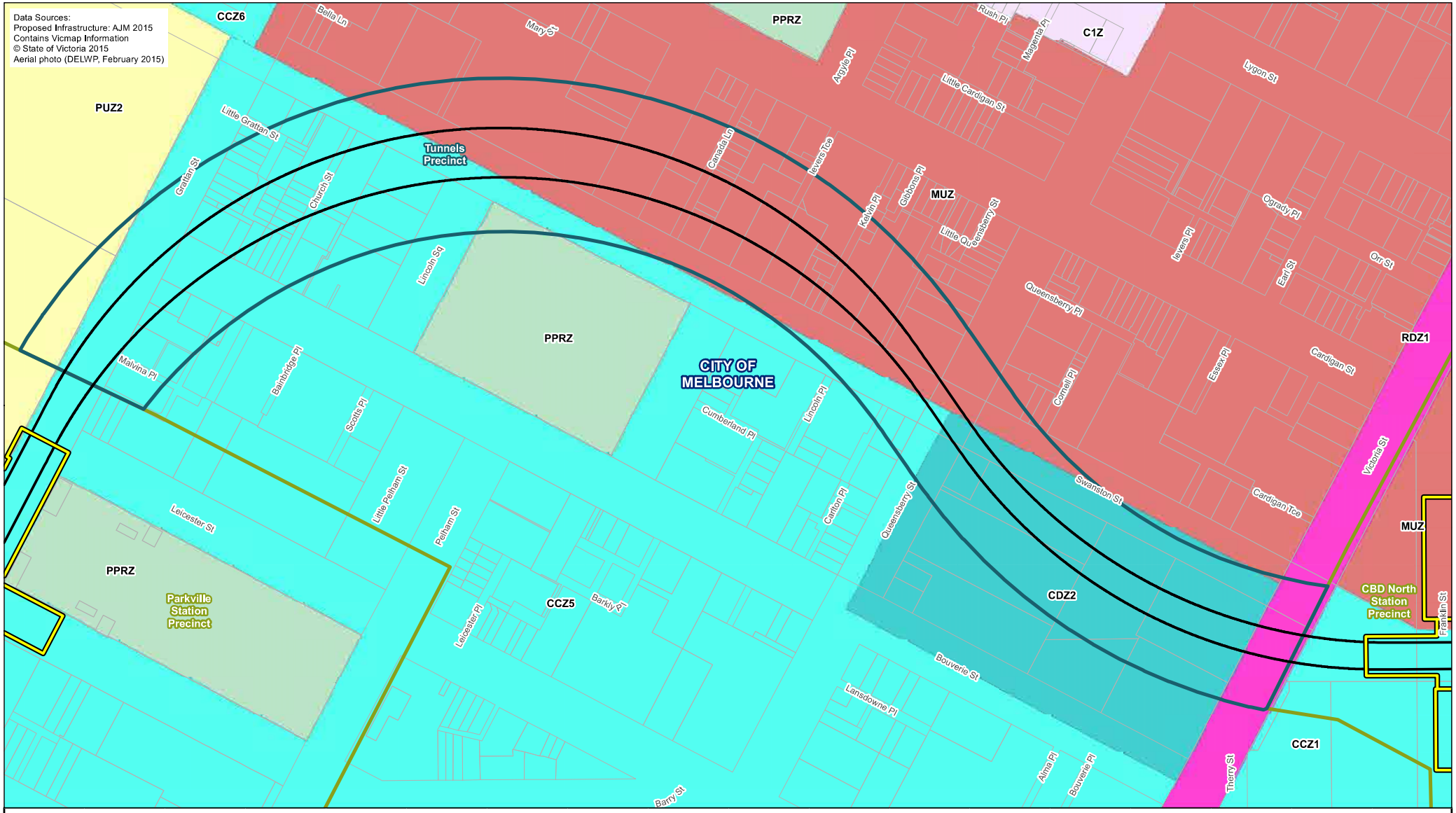


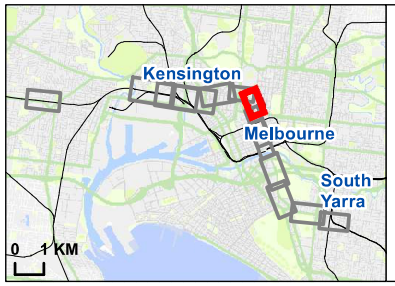
Legend

Proposed Concept Design
- Proposed Alignment
- Proposed Station Footprint

Environmental and Planning Precincts
- Station Precinct
- Tunnels Precinct
- Cadastre
- Local Government Area (LGA)

Planning Zones
- C1Z - Commercial 1 Zone
- CCZ - Capital City Zone
- CDZ - Comprehensive Development Zone
- MUZ - Mixed Use Zone
- PPRZ - Public Park and Recreation Zone
- PUZ2 - Public Use Zone Education
- RDZ1 - Road Zone Category 1

Map 6 of 14



MELBOURNE METRO RAIL AUTHORITY

AJM Joint Venture GRIMSHAW
aurecon JACOBS Mott MacDonald in association with

Melbourne Metro Rail Project

Title: Planning Zones

Drawing Number:		Revision:
MMR-AJM-UGAA-MP-NN-500264		P1
Drawn By: A. French	Approved By: G. Thraves	Date: 13/04/2016	Map Size: A4

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Figure 8-9 Zones in Sector 3 of the tunnels precinct

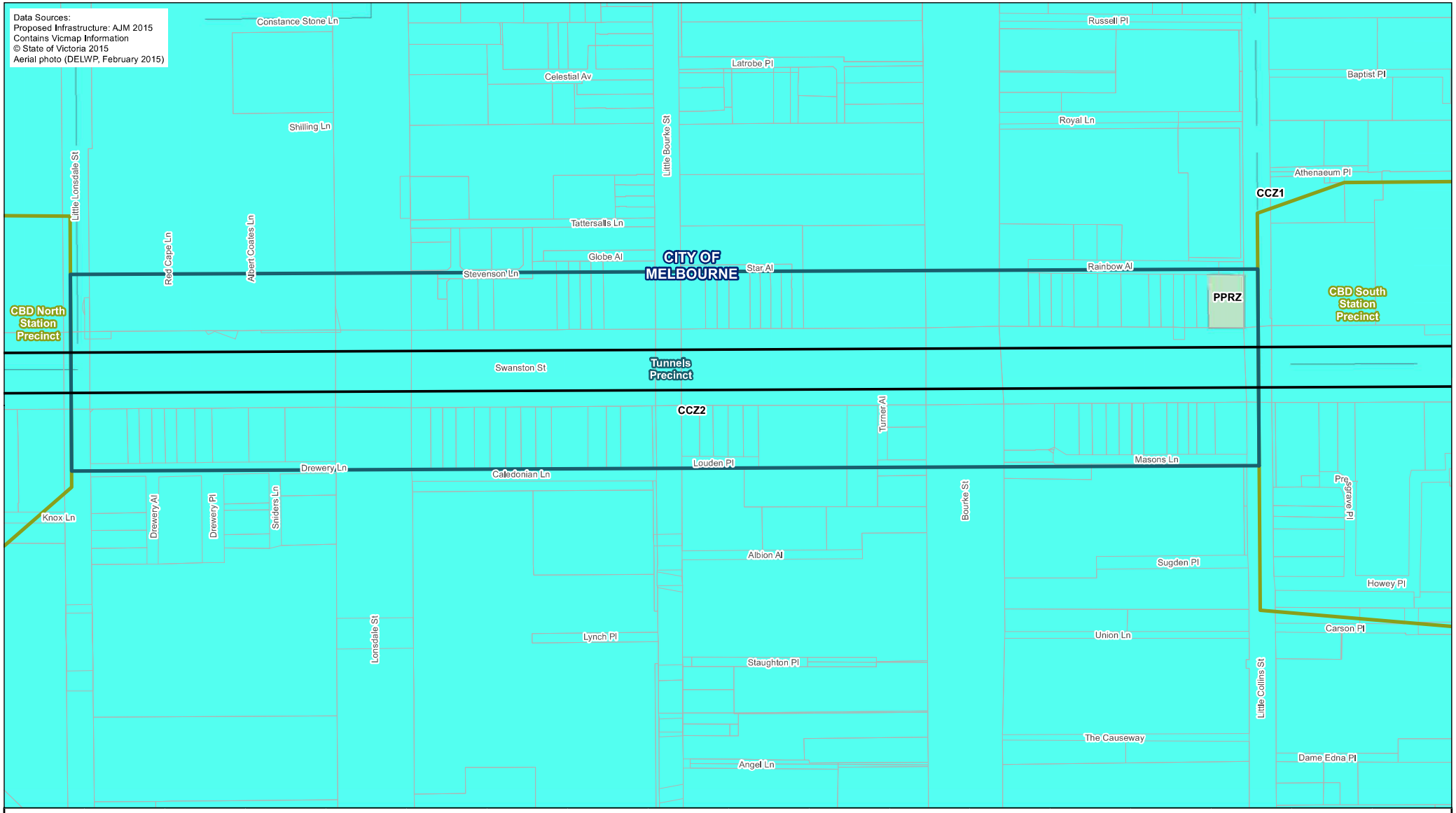

Figure 8-10 Zones in Sector 4 of the tunnels precinct

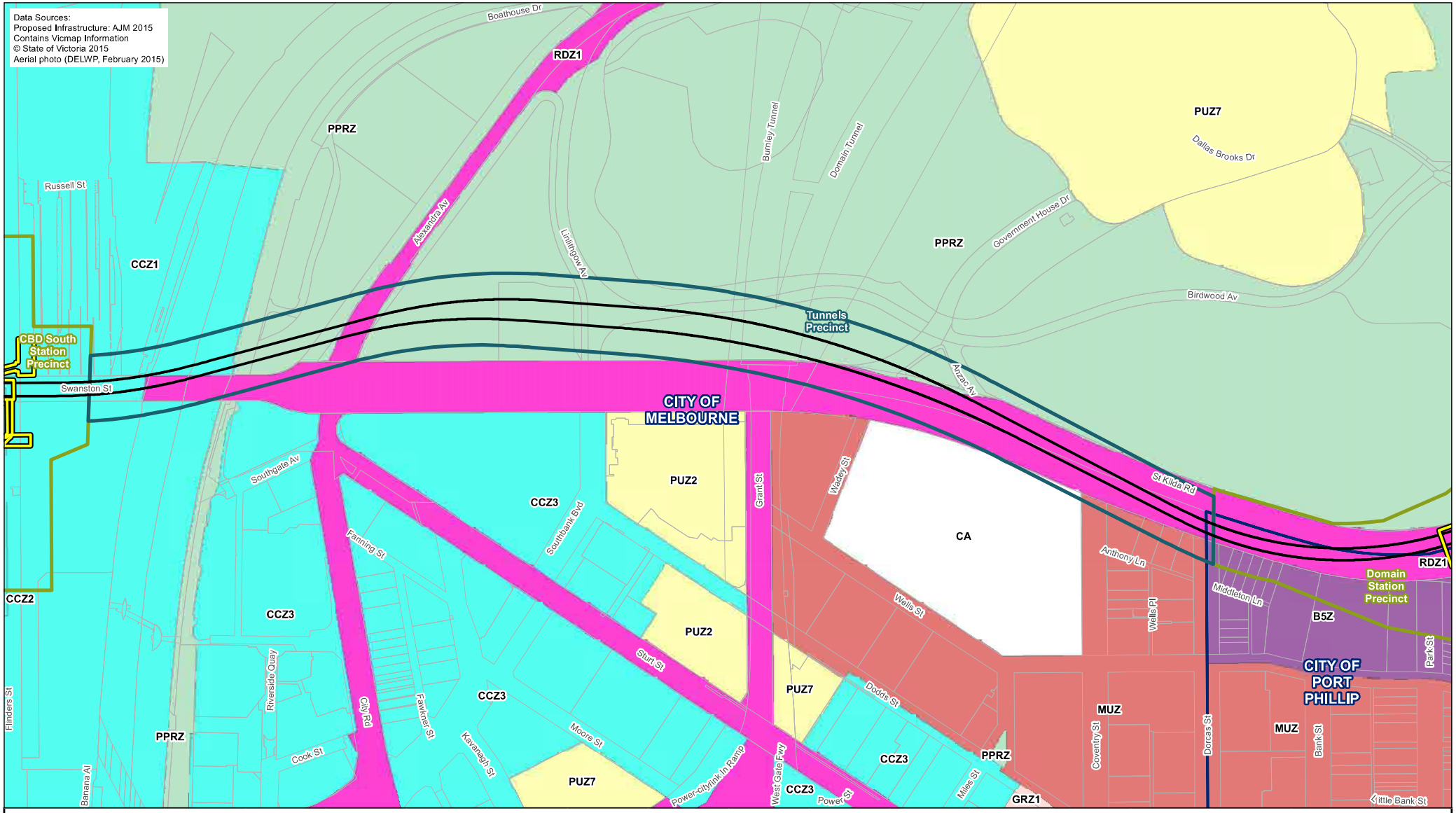

Figure 8-11 Zones in Sector 5 of the tunnels precinct

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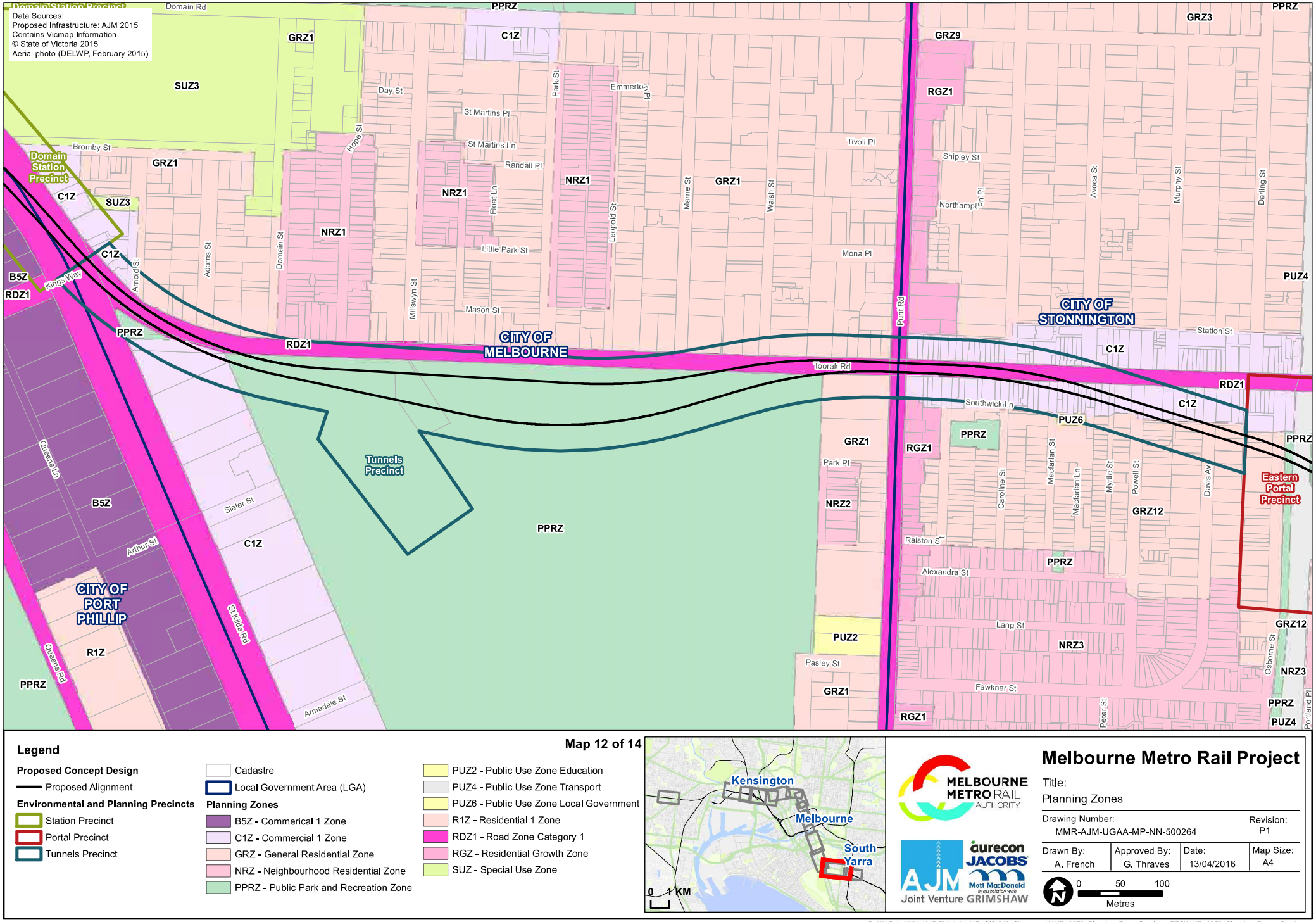


Figure 8-12 Zones in Sector 6 of the tunnels precinct

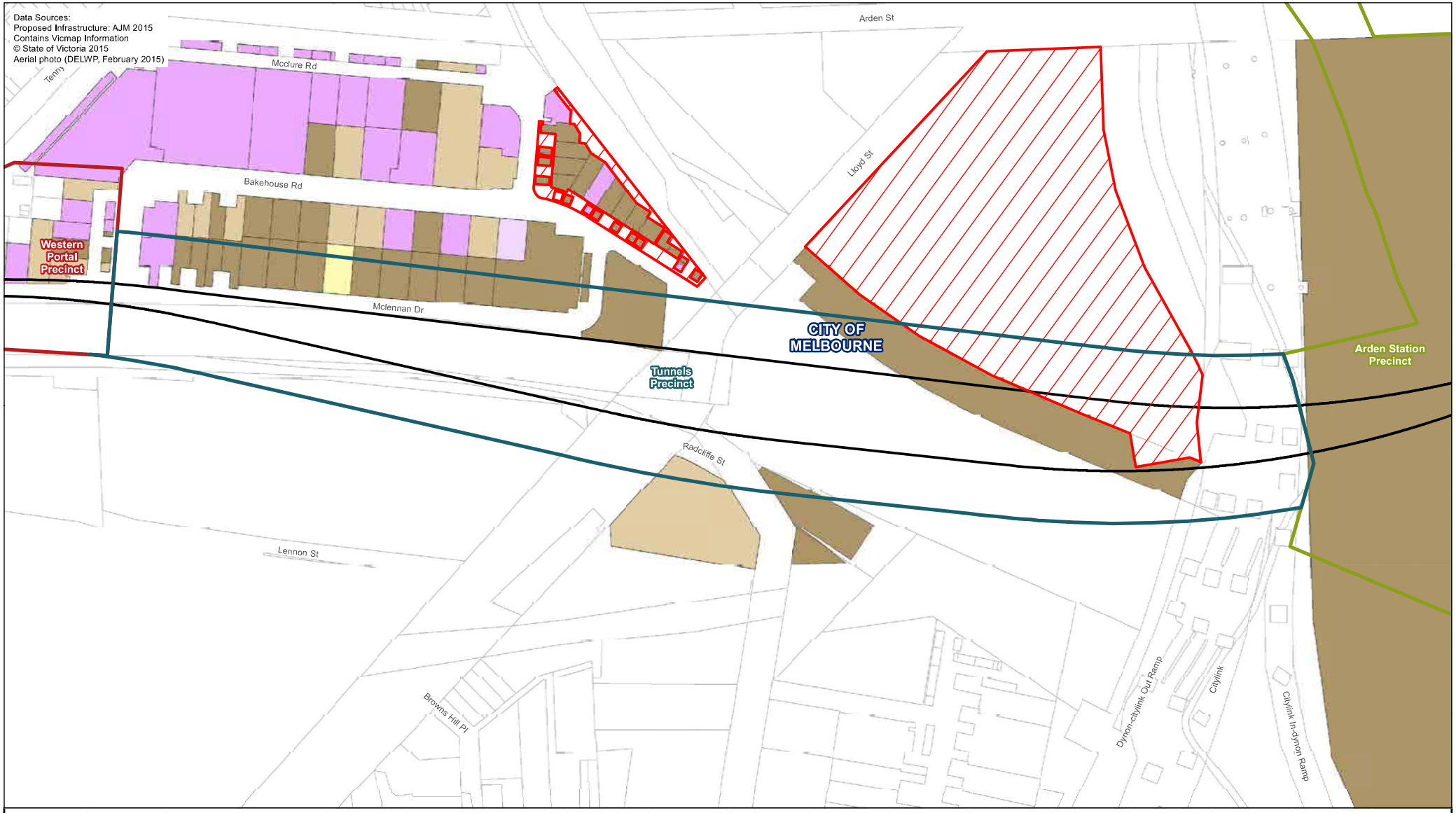


Figure 8-13 Land Use Survey and recent planning applications in Sector 1 of the tunnels precinct

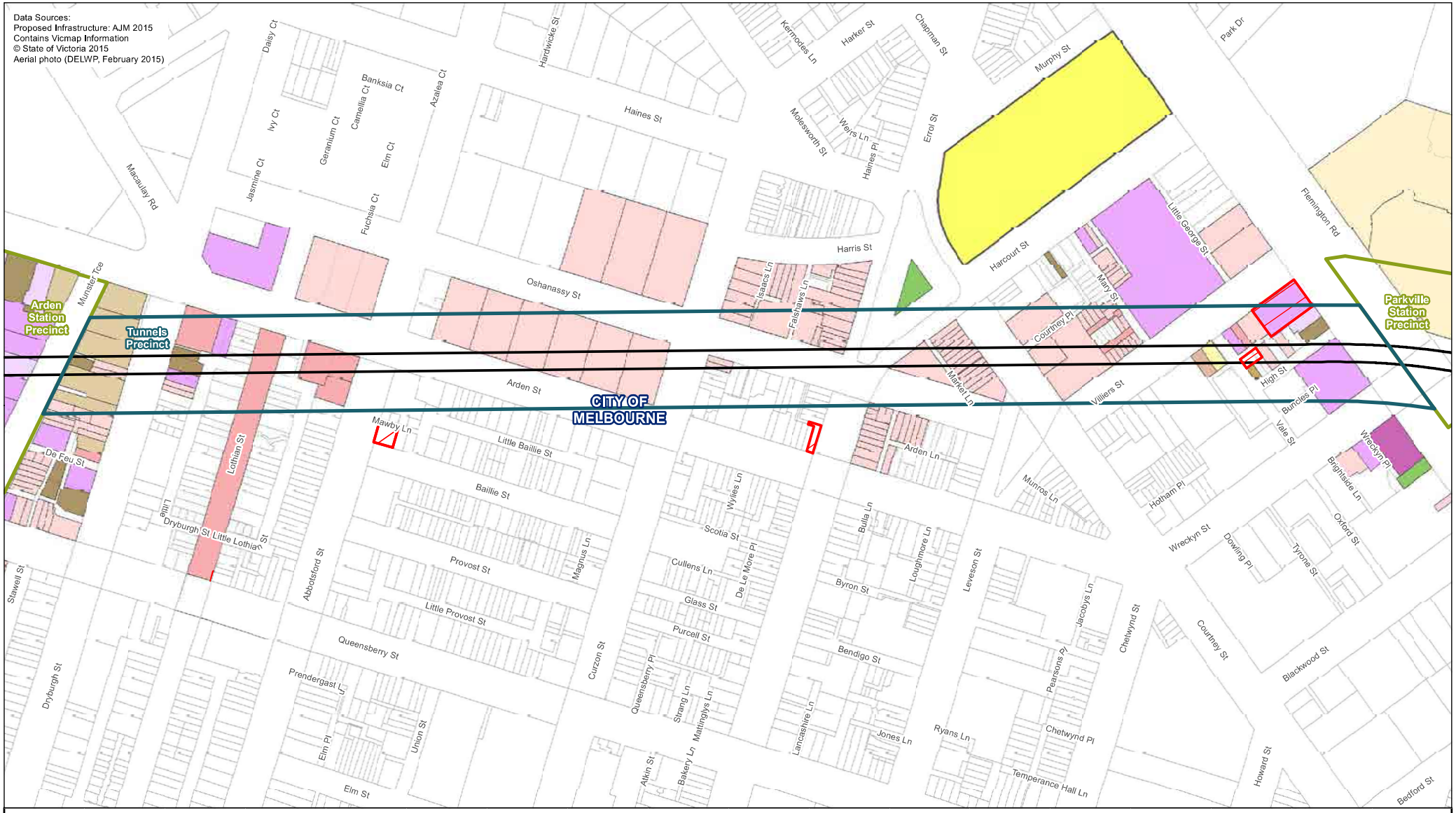


Figure 8-14 Land Use Survey and recent planning applications in Sector 2 of the tunnels precinct

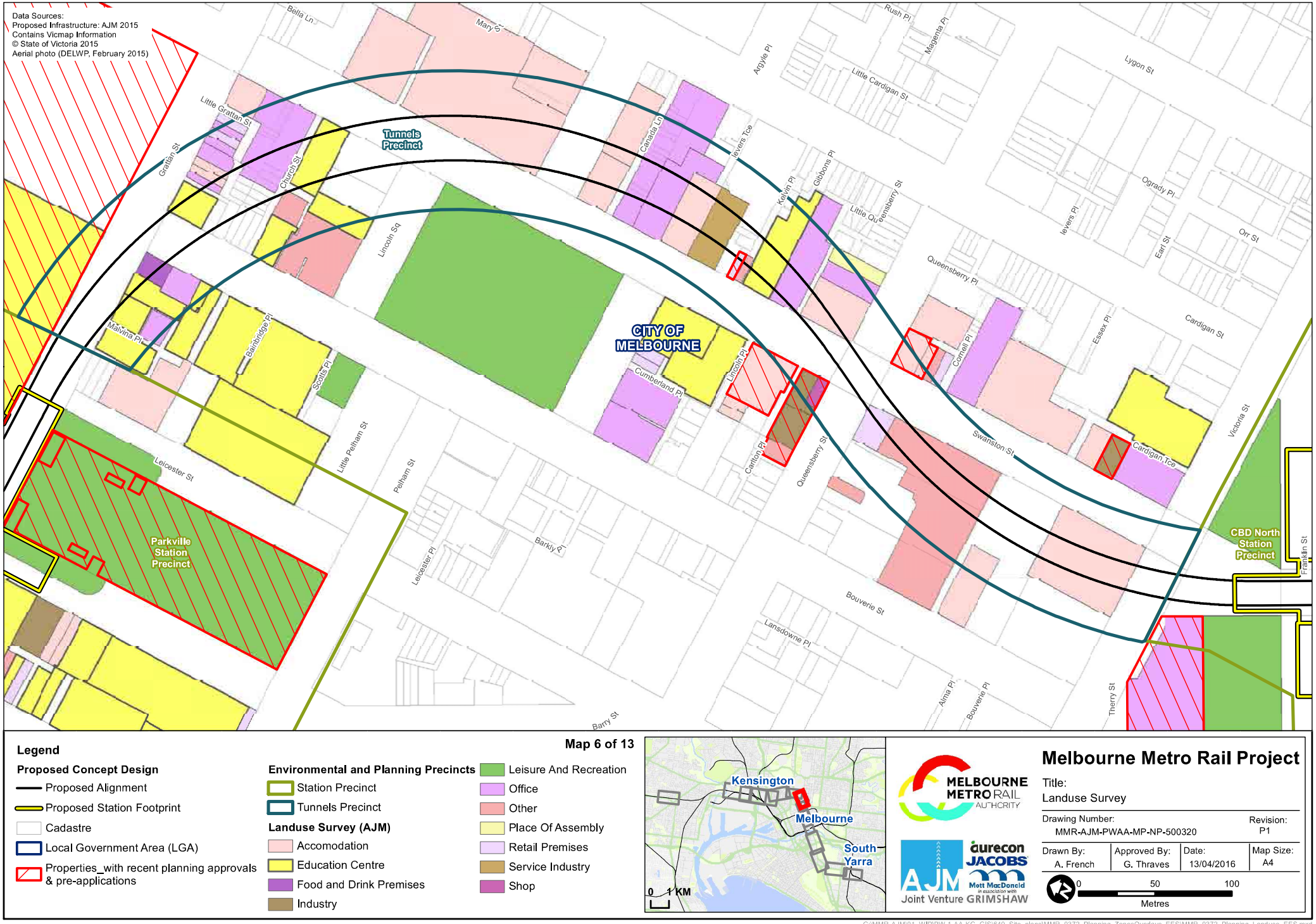


Figure 8-15 Land Use Survey and recent planning applications in Sector 3 of the tunnels precinct

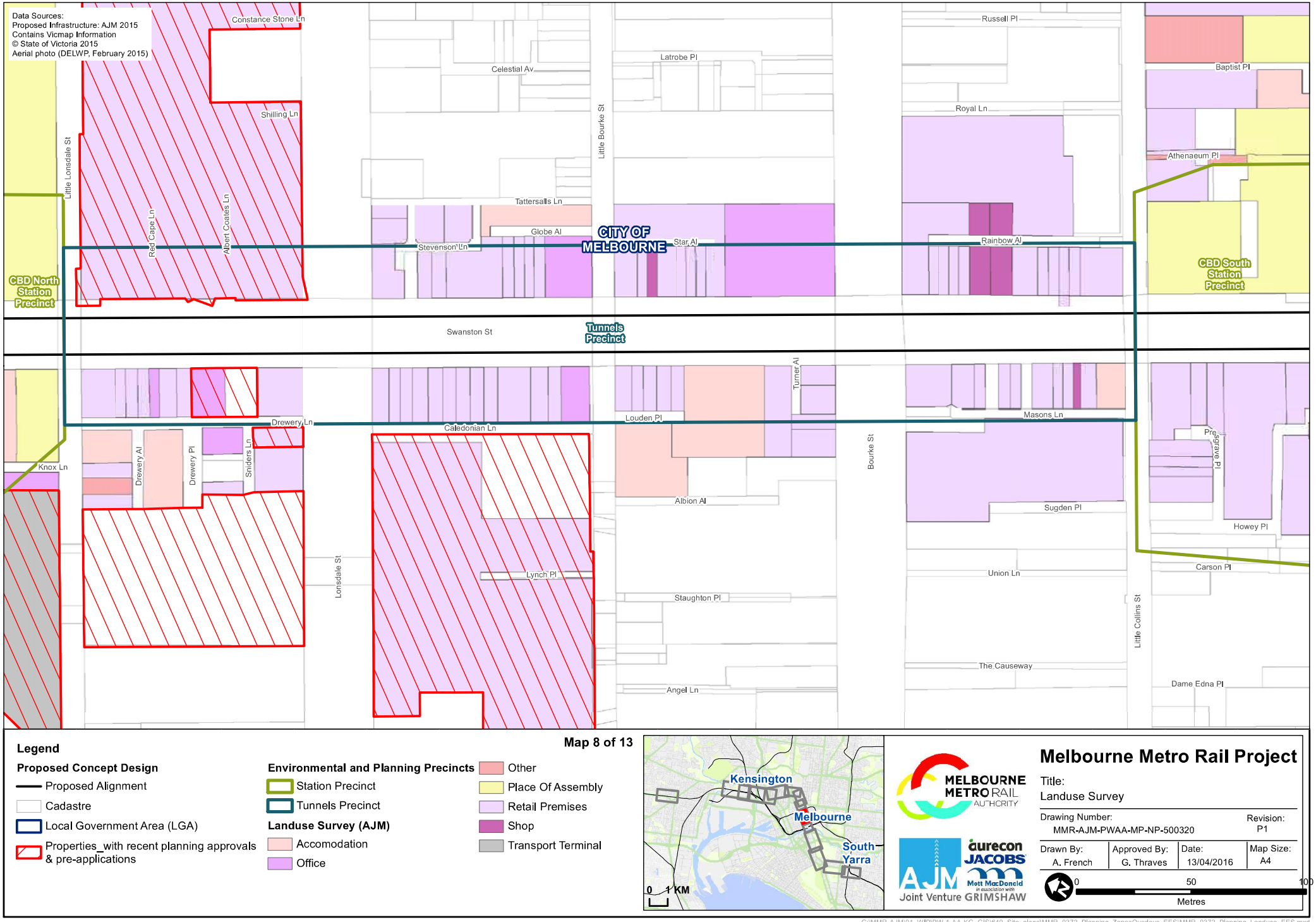


Figure 8-16 Land Use Survey and recent planning applications in Sector 4 of the tunnels precinct

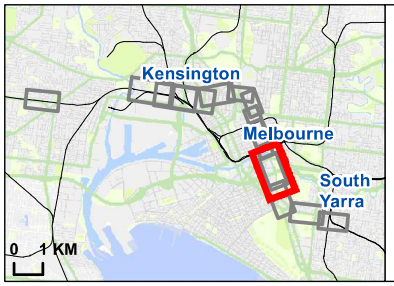
Legend

Proposed Concept Design
- Proposed Alignment
- Proposed Station Footprint
- Cadastre
- Local Government Area (LGA)

Environmental and Planning Precincts
- Station Precinct
- Tunnels Precinct

Landuse Survey (AJM)
- Accomodation
- Education Centre
- Leisure And Recreation
- Office
- Other
- Place Of Assembly
- Pleasure Boat Facility
- Retail Premises
- Shop
- Transport Terminal
- Vacant

Map 10 of 13



Melbourne Metro Rail Project

Title:
Landuse Survey

Drawing Number:			Revision:
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Drawn By:	Approved By:	Date:	Map Size:
A. French	G. Thraves	13/04/2016	A4

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Figure 8-17 Land Use Survey and recent planning applications in Sector 5 of the tunnels precinct

Figure 8-18 Land Use Survey and recent planning applications in Sector 6 of the tunnels precinct

Table 8-1 outlines the existing land use assets in the Tunnels precinct.

Table 8-1 Key assets identified in Precinct 1

Asset / value	Description
Commercial, industrial and residential areas	The tunnels pass beneath land used for commercial, industrial and residential uses.
Heritage values	Much of the tunnel infrastructure pass beneath land affected by precinct wide Heritage Overlays as well as site-specific heritage controls. Many heritage assets within this precinct are listed on the Victorian Heritage Register.
West Melbourne Terminal Station	The siting of the West Melbourne Terminal Station means there are high voltage electricity lines within the precinct. Setbacks are required from existing electricity infrastructure. There are proposed upgrades for the West Melbourne Terminal Station.
Moonee Ponds Creek	The Creek travels through the western and northern suburbs of Melbourne including Parkville and North Melbourne (where its artificially widened section is named Railway Canal) before joining the Yarra River at Melbourne Docklands.
CityLink	CityLink is a road zoned Public Use Zone 4 (Transport) and protected by the City Link Project Overlay.
Education / health precinct	The tunnels pass beneath land owned and occupied by the University of Melbourne in Parkville. The University of Melbourne itself is predominately located outside of the precinct boundary, however it makes a contribution to the land use character of the precinct. The University is bound by College Crescent to the north, Swanston Street to the east and Royal Parade to the west. It extends north and south across Grattan Street, and includes University Square, an area of public open space. Other institutions in the area include the Royal Women's Hospital, the Royal Melbourne Hospital, the Victorian Comprehensive Cancer Centre, the Peter Doherty Institution for Infection and Immunity and the Royal Children's Hospital.
Yarra River	The Yarra River and associated river banks are of environmental, cultural and heritage significance. Heritage Overlays identify land within the precinct as being of heritage significance. A Land Subject to Inundation Overlay identifies land on the riverbanks as having potential for flooding.
Domain Parklands	The Domain Parklands are of cultural and environmental significance and is listed on the Victorian Heritage Register. Domain Parklands include Alexandra Park and Gardens, Queen Victoria Gardens and the King's Domain and King's Domain South. The Shrine of Remembrance Reserve and the setting of Government House are also included within this area.
St Kilda Road	St Kilda Road is a major commercial and office precinct and is a major transport route serving the CBD from the southern and eastern suburbs. St Kilda Road supports tram, bus and car travel as well as significant street trees (London plane trees).
Fawkner Park	Fawkner Park is of local heritage significance and contains popular sporting grounds. The park supports a large number of established trees, including a row of trees fronting Toorak Road West. The Fawkner Park Tennis Centre, Fawkner Park Children's Centre and Kindergarten and South Yarra Senior Citizens Centre are located within the park.

Asset / value	Description
Strip shopping within the Central City retail core (Swanston Street) and Toorak Road, South Yarra (Neighbourhood Activity Centre (large))	Swanston Street supports a mix of low- to medium rise commercial, office, retail and food and drink uses and is the core of Melbourne's capital city retail precinct. This area of Swanston Street is highly used by pedestrians and has many buildings of heritage value. Toorak Road shopping strip supports a wide range of specialist and high-end commercial uses, as well as the everyday commercial and office uses. The area has high traffic volumes including tram and bus services.

Planning Applications

To identify future potential conflict and opportunities, including strata acquisition consideration, current planning applications and approved planning permits and endorsed plans (lodged since November 2011) have been reviewed to identify where proposed future development could impact on the Melbourne Metro.

Any future development in the Tunnels precinct must take into consideration the provisions of the relevant Planning Scheme as well as any relevant strategic planning studies. The planning controls in the Tunnels precinct are included in Appendix E and Appendix F of this impact assessment.

Appendix H of this impact assessment provides a full list of current or approved planning applications within the precinct that may have an impact on the Melbourne Metro.

8.2.1 Alternative Design Option

Table 8-2 identifies the key assets at the alternative emergency access shaft sites. The variation of crossing below the CityLink tunnels does not impact on surface land uses and has not been considered further in this assessment.

Table 8-2 Key assets identified in Precinct 1 - Alternative Design Option

Alternative Design Option	Asset / value	Description
Emergency access shaft – utilising the location of the Fawkner Park TBM launch site	Fawkner Park	Fawkner Park is of local heritage significance and is a popular sporting ground. The park supports a large number of established trees, including a row of trees fronting Toorak Road West.
Emergency access shaft in Tom's Block	Domain Parklands	Tom's Block is located in the Domain Parklands, and supports a number of statues and monuments including memorials to the Sir Edward 'Weary' Dunlop statue, the Boer War monument, the Walker Fountain and the Victorian Police Memorial.

8.3 Key Issues

The key issues, related to land use and planning, associated with the Concept Design are identified in Table 8-3.

Table 8-3 Key issues associated with the Concept Design

Concept Design	Issue
Vertical Alignment	• The vertical alignment would require permanent strata acquisition below ground under up to approximately 3260 Certificates of Title within this precinct • The potential strain on foundations, and impact of settlement, increases closer to the tunnel structure, the lower the foundations • Potential for geotechnical impacts between the tunnel structures and existing buildings
CityLink tunnels crossing – Above CityLink tunnels	• The CityLink tunnels cross the study area beneath Tom's Block, and Kings Domain, which are part of the Domain Parklands. At this location, land is part of a Crown Allotment permanently reserved for park and gardens and would require permanent reservation of Crown land. • Issues relating to the potential removal of trees associated with this crossing are discussed in Technical Appendix R *Arboriculture* and Technical Appendix F *Social and Community* respectively. Should ground stabilisation works be undertaken at this location, passive recreation would still be able to continue and the existing land use would not change.
TBM Southern launch site	
Domain launch site	• Temporary occupation of public open space for up to four years near the southern edge the Shrine of Remembrance Reserve. • Temporary loss of on-street car parking on St Kilda Road and Domain Road. • Potential temporary restricted access to existing dwellings and commercial / office uses in the study area and spoil management resulting in higher trafficked roads in the area. • Future developments within the proposed project boundary may have similar construction timeframes, compounding potential amenity impacts • Impact on State heritage significance of the Shrine of Remembrance and the South African War Memorial as well as contributory statues and memorials within the Domain Parklands
Fawkner Park open space and tennis courts	• The potential construction work site would be located in Fawkner Park and would result in a temporary loss of public open space. • Potential temporary loss of community facilities such as the tennis centre due to temporary and permanent occupation for construction purposes
Emergency Access Shafts	
Fawkner Park north east location	• Permanent loss of public open space within Fawkner Park due to the siting of the emergency access shaft • Should the park be used as a TBM launch site, a second construction work site within Fawkner Park would have the potential to compound construction impacts
Queen Victoria Gardens, adjacent to Linlithgow Avenue	• Potential impacts to the heritage significance of the adjacent King Edward VII monument and Gardens • Permanent loss of public open space within the Queen Victoria Gardens

The key issues associated with the alternative design option are identified in Table 8-4.

Table 8-4 Key issues associated with alternative design option

Alternative Design Option	Issue
Emergency Access Shafts	
Using the location of the Fawkner Park TBM launch site	• Loss of public open space, however, the consolidation of construction work sites within Fawkner Park would reduce the loss of public open space. • Potential loss of community facilities, such as the tennis centre, and child care facilities in Fawkner Park (temporary and permanent occupation required) • Permanent land acquisition required for the emergency access shaft
Located in Tom's Block	• Loss of public open space • Potential impacts on the heritage significance of nearby monuments

8.4 Benefits and Opportunities

Table 8-5 provides the benefits and opportunities associated with the Concept Design in this precinct.

Table 8-5 Benefits and opportunities associated with the Concept Design

Concept Design	Benefits	Opportunities
Vertical Alignment	The tunnels would limit the permanent impact to land use and the built environment as the majority of permanent works are below ground. The tunnels would limit the land acquisition required for the project.	N/A
CityLink tunnels crossing – Above CityLink tunnels	The works are below ground and should not impact on land use at the CityLink crossing.	The use of the CityLink Project Overlay sets a precedent for the use of a planning control to protect below ground infrastructure. A similar planning tool would be used to protect and identify the Melbourne Metro tunnels.
TBM Southern launch site		
Fawkner Park open space and tennis courts	Temporary occupation of the land at Fawkner Park would be between mid 2018 – 2023, with no permanent acquisition required.	Opportunities to improve Fawkner Park facilities with the replacement of community tennis courts, or other facilities (in line with consultation with the City of Melbourne), as part of legacy works at the completion of construction.
Domain launch site	Works would be generally contained within the existing road reserve and access is maintained to all surrounding land uses.	Opportunity to combine the TBM launch site with the existing station construction work site limits land use impacts on Fawkner Park.
Emergency Access Shafts		

Concept Design	Benefits	Opportunities
Fawkner Park north east location	The overall land take required for the emergency access shaft would be minimal when considered in context with the overall size of Fawkner Park.	Opportunities to improve Fawkner Park facilities as part of legacy works at the completion of construction.
Queen Victoria Gardens, adjacent to Linlithgow Avenue	Minimal loss of public open space as the site currently includes public toilet facilities. The location of the site on the edge of gardens limits visual impacts within the gardens.	Potential opportunity to improve public toilet facilities as part of the shaft building.

Table 8-6 provides the benefits and opportunities, related to land use and planning, associated with the variations to the Concept Design in this precinct.

Table 8-6 Benefits and opportunities associated with alternative design option

Alternative Design Option	Benefits	Opportunities
Emergency Access Shafts		
Using the location of the Fawkner Park TBM launch site	Using the potential TBM launch site reduces the impact on public open space as the north eastern portion of land would not be required.	Opportunities to improve Fawkner Park facilities as part of legacy works at the completion of construction.
Located in Tom's Block	Parkland in this location provides a backdrop to existing monuments rather than an area for active recreation. This area of Domain Parklands is not well connected to the rest of the park	Opportunities to improve Tom's Block as part of legacy works at the completion of construction.

8.5 Impact Assessment

The following draft EES evaluation objectives and assessment criteria (and indicators where relevant) are relevant to this assessment.

Table 8-7 Draft EES evaluation objectives and criteria

Draft EES evaluation objectives	Assessment criteria (as relevant to land use and planning)
Built environment - To protect and enhance the character, form and function of the public realm and buildings within and adjacent to the Project alignment, and particularly in the vicinity of Project surface structure, having regard to the existing and evolving urban context.	• Provide opportunities through design and construction to integrate with, and improve existing urban character/aesthetics of the area • To allow for future opportunities for urban renewal and redevelopment of higher density residential and commercial uses adjoining and over stations, consistent with *Plan Melbourne*
Social, community, land use and business - To manage the effects on the social fabric of the community in the area of the Project, including within regard to land use changes, community cohesion, business functionality and access to services and facilities, especially during the construction phase.	• Minimise impacts to private property owners and occupiers. • Minimise impacts on existing and future land use • Maintain community accessibility and minimise impacts on social structure and networks

8.5.1 Land Use

Where possible, the Melbourne Metro tunnels are located beneath existing road reserves, which would result in minimal impacts on existing land uses at surface level and the need for surface land acquisition. In this precinct, the impact of the project and the resulting land acquisition on land use and built form would be minimal and has a residual risk rating of low.

Permanent land use impacts from the Concept Design in this precinct would result from the construction of the emergency access shafts proposed to be located in the north eastern corner of Fawkner Park and in the Queen Victoria Gardens, adjacent to Linlithgow Avenue. This would require the revocation of the existing Crown land reservation, temporary reservation for the purpose of Melbourne Metro and the permanent loss of public open space. The extent of impacts to public open space would be determined by the contractor and would be dependent on the ultimate construction methodology.

Strata acquisition would be required to identify and protect the tunnels underground. Strata acquisition would generally only be required where Certificates of Title do not have a depth limitation specified. To date, no existing or proposed basements have been identified that are directly impacted by a built form or structural interference with the tunnels, however this would be continually monitored by MMRA throughout the design and construction phases of the project (see Technical Appendix P *Ground Movement and Land Stability* for more information). For instance, the alignment would pass under 135-139 Arden Street in North Melbourne, which is currently being developed for a four to five storey apartment building with two levels of basement parking. The Melbourne Metro would pass beneath the basements of this development with piles directly overlying the tunnels at a minimum vertical clearance of 5.4 m.

In addition, the tunnels and stations should be protected in the planning scheme through the application of a project specific schedule to the Design and Development Overlay. This overlay (a copy of which is contained in Technical Appendix A *Planning Scheme Amendment and Associated Documents* of the EES) would be used to identify and protect the Melbourne Metro tunnels, stations and associated infrastructure from future development which may impact on its capacity to operate. The proposed Design and Development Overlay is discussed further in Section 5 of this impact assessment.

The proposed crossing of Melbourne Metro tunnels above the existing CityLink tunnels, would have the potential to require the removal of many trees within Tom's Block (Domain Parklands) due to the potential need for ground improvement works (grouting) above the tunnel. Whilst the amenity of the public open space would likely suffer from the tree removal, the land use would not be considered to change. For further information on the impact of the tree removal, refer to Technical Appendix R *Arboriculture*.

8.5.1.1 Domain Southern TBM Launch Site

Temporary impacts to land use in this precinct are at the Southern TBM launch site at the Domain station construction work site or in Fawkner Park. The proposed construction work site for Domain station would be used as a launch site for the TBM. Any impact from the tunnels at this location has been assessed as part of the impact assessment for the Domain station.

8.5.1.2 Fawkner Park Southern TBM Launch Site

The construction footprint within Fawkner Park would include an area of approximately 19,800 m^2, which when considered in the context of the park as a whole, is a relatively small proportion, given the park has an area of approximately 410,000 m^2. Despite this, it is anticipated that the Melbourne Metro would impact on the use of a broader area of the park through impacts to amenity potentially caused by noise, dust, vibration and access.

The proximity of works to the Fawkner Park Community Centre would likely impact on the amenity of users of that centre. Noise attenuation is proposed between the work site and Centre with further detail provided in Technical Appendix I *Noise and Vibration*.

8.5.1.3 Emergency Access Shaft – Fawkner Park North East Location

The emergency access shaft in the north east of Fawkner Park would require the permanent revocation of a parcel of Crown land currently within the park. This would result in the loss of public open space, however within the context of Fawkner Park as a whole, it is a very small area. Construction impacts at this second site within the park would have the potential to compound with the construction impacts of the potential Fawkner Park TBM launch site.

The detailed design and construction techniques for the emergency access shafts should have regard to the minimisation of impacts on public open space.

8.5.1.4 Emergency Access Shaft – Linlithgow Emergency Access Shaft

The emergency access shaft in the Queen Victoria Gardens would result in the permanent loss of land including land currently used to provide public toilet facilities. The proposal would include the co-location of the toilet block in a building with the access shaft.

Whilst the total land used for the building would increase, the loss of public open space would be limited as part of the land has effectively been removed from the gardens through the location of the public toilet building. The site fronts Linlithgow Avenue, providing direct vehicle access to the proposed facility, which would be screened from its surrounds by vegetation.

The building supporting the shaft would be approximately two and a half times as wide as the existing toilet block on the site and double the height. As it is located on the edge of the gardens, on land currently supporting a toilet facility, and largely protected from view by surrounding plantings, it is considered to have an acceptable impact on surrounding land use (refer to Technical Appendix L *Landscape and Visual*). As such, this location would be the preferred site for the emergency access shaft from a land use and planning perspective.

8.5.2 Alternative Design Option

8.5.2.1 Emergency Access Shaft – Fawkner Park TBM Launch Site

The alternative design option for the emergency access shaft at Fawkner Park proposes to use the location of the potential Fawkner Park TBM launch site on a permanent basis. It would be designed to limit impact on the public open space and any reinstated community facilities (e.g. tennis courts). The location of the emergency access shaft in this location rather than a separate location within the park would limit construction impacts on the park. Temporary construction impacts have been assessed as part of the impacts identified for the TBM launch site and construction work site.

Figure 8-19 : Proposed emergency access shaft site at Queen Victoria Gardens Linlithgow Ave

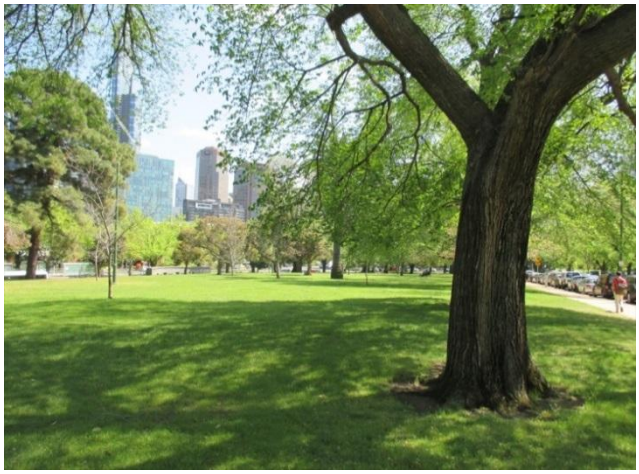

Figure 8-20 : Proposed emergency access shaft site at Tom's Block looking north

8.5.2.2 Emergency Access Shaft – Tom's Block

The proposed alternative design option for the location of the emergency access shaft would be in public open space known as Tom's Block.

The public open space at this location is valued for the monuments it contains, which are visible from St Kilda Road, Linlithgow Avenue and Birdwood Avenue. An assessment of the visual impact of this site is contained in Technical Appendix L *Landscape and Visual*.

The site supports several monuments and statues and is affected by the Heritage Overlay HO398 and listed on the Victorian Heritage Register VHR H2304 (Domain Parklands). An assessment of the impacts of the proposal on the heritage values of the site is contained in Technical Appendix J *Historical Cultural Heritage*.

The proposed site would be within land affected by the City Link Project Overlay which triggers the requirement for planning approval for use or development not associated with CityLink. Consideration would be required in the design and construction of the facility at this location of the impact of the development on the CityLink tunnels.

A building of this nature in this location is out of character with the existing landscape character and recreational use of the site. There are no other buildings in Tom's Block and the siting of an emergency access shaft is considered contrary to the existing character. The following image (Figure 8-21) is an aerial photo of the proposed site showing the built form in the area. It illustrates the lack of built form within the open space area (other than monuments).

Source: DELWP, November 2015

Figure 8-21 : Proposed emergency access shaft location within Tom's Block

8.5.3 Land Acquisition

The Linlithgow Avenue emergency access shaft would require the revocation of the existing Crown reservation and re-reservation for the purposes of the Melbourne Metro, between the CBD South station precinct and Domain station precinct. Figure 8-21 illustrates the location of all land to be reserved within this precinct.

The southern TBM launch site and emergency access shaft at Fawkner Park is Crown land and would require reservation of the land for the purpose of the Project. The *Major Transport Projects Facilitation Act*

2009 provides the ability to reserve Crown land for the purposes of major transport projects. The construction work site would only require temporary occupation but the shaft site at either site (Concept Design or alternative design option) would be permanently reserved. Land required for reservation at Fawkner Park would be minimal and would not impact on the ongoing use of the land as a park.

The Melbourne Metro tunnels would require the strata acquisition of up to approximately 3,400 titles within this precinct to protect the asset. The strata acquisition would have variable depths depending on the depth of the tunnels and be confirmed through detailed design.

Any surplus land remaining upon completion of the project construction phase would be managed in accordance with the *Victorian Government Landholding Policy and Guidelines*.

8.5.4 Access

The majority of construction for the Tunnels would be undertaken via a TBM or through mined excavation which would limit the impact on access to existing land uses throughout this precinct. However, the construction work sites that support the tunnelling may create access and amenity issues for existing land uses.

There may be potential to limit spoil removal to times outside of peak traffic periods.

The construction of the proposed emergency access shaft sites would increase construction traffic on a temporary basis (refer to Technical Appendix D *Transport*). The site in Tom's Block would be set back from the road and would require an access road to be built through part of the park for construction traffic and emergency vehicles during operation. The construction of this access road may require the removal of some existing trees, which would increase the visual impact of the works.

Due to the close proximity, it is anticipated that construction traffic at the Fawkner Park construction work site would directly impact on access to the childcare centre and kindergarten for parents dropping off and picking up children, however there may be potential to limit impacts through scheduling of truck movements to avoid conflict.

8.5.5 Strategic Planning Policy Support

The strategic planning policies that apply to Precinct 1 are listed in Appendix I of this impact assessment.

The majority of works required for the Tunnels precinct would be located below ground. The strategic planning policy and municipal planning controls which apply to this precinct seek to contain above ground activities and as such, limited consideration is required of them for the underground tunnels. All temporary works and their implications on the implementation of strategic policy have not been assessed as the policy would be able to implemented following construction.

The tunnels associated with Melbourne Metro are considered to be consistent with State Planning Policy Framework, particularly the objective of Clause 11.04-3 (A more connected Melbourne) *'to provide an integrated transport system connecting people to jobs and services, and goods to market'*. Melbourne Metro would also work towards meeting the aim of Clause 18 (Transport) as it would act to *'ensure an integrated and sustainable transport system that provides access to social and economic opportunities, facilitates economic prosperity, contributes to environmental sustainability, coordinates reliable movements of people and goods, and is safe'*.

Melbourne Metro is referred to specifically in the Melbourne and Maribyrnong Local Planning Policies in the local transport policies.

The Melbourne local policy, Clause 21.09-4 (Public Transport) acknowledges that *'an efficient transport system is … vital for the economic, cultural and social operation of the City. Public transport is the most economic and efficient mode for mass travel to and from the City'*. The Melbourne Metro is listed as a planned major transport infrastructure initiative aimed to integrate the growth and development of the Urban Renewal Areas of the City.

Clause 21.09 (Transport) of the Maribyrnong Planning Scheme acknowledges that a number of significant transport initiatives have been proposed to improve east west connections and reduce the impact of freight and general traffic on the municipality. The initiatives include *'linkages to the new underground rail line (Melbourne Metro) connecting Footscray to Parkville and the Melbourne CBD'* as a high priority.

All the relevant Local Planning Policy Frameworks include directions to provide opportunities for development in locations with accessibility to public transport and identify the importance of integrated land use planning, infrastructure planning and sustainable transport to ensure growth and economic prosperity for their municipalities.

The project would seek to respond to the environmental objectives of the State and Local Planning Policies through the implementation of an Environmental Management Plan.

The *Moonee Ponds Creek Strategic Plan* 2011 provides guidance for the development and protection of the entire length of Moonee Ponds Creek. Whilst the Plan does not mention Melbourne Metro specifically, it identifies the need to manage the impacts of infrastructure on the creek corridor and seeks to encourage linear parkways along the creek, acquisition of land adjacent to the creek for the development of parkland, and for new development interfacing the creek to have consideration for the amenity of the parkland. The Melbourne Metro would pass under the Moonee Ponds Creek but would not impact on the implementation of this Plan. A potential electrical substation location is identified adjacent to the Moonee Ponds Creek and is discussed further in Section 10 of this impact assessment.

Permanent works within this precinct at surface level are limited to the emergency access shafts and southern TBM launch site and require consideration against the strategic policy that applies to this precinct.

The southern TBM launch site and emergency access shaft options have the potential to impact on land within Fawkner Park. The City of Melbourne's *Open Space Strategy* 2012 identifies Fawkner Park as regionally significant as it '*encourages the community outdoors to participate in organised sport, unstructured recreational activities and informal uses that promote social connectedness and community health and wellbeing'.*

The *Fawkner Park Master Plan 2006* is a 10 year plan, and is still in the process of being implemented by Council. The plan states that historically, Fawkner Park was laid out as *'a place for promenading and watching sporting activities'*. The proposed works would impact on the tennis courts, a path, a portion of a cricket oval (also used for softball and soccer) and an area used for informal recreation. The use of the park for promenading (or walking) and watching or partaking in sporting activities would be maintained in the majority of the park and the overall purpose of the land would be maintained. Post construction, the land would be returned to public open space (except for a small portion that would be used as an emergency access shaft).

The proposed emergency access shaft sites in Queen Victoria Garden (Linlithgow Avenue) and the alternative design option in Tom's Block are located in the Domain Parklands. The *Domain Parklands Masterplan 1997* identifies the tenure and administration of the various parts of the Parklands. The Queen Victoria Gardens is identified as Crown land reserved for memorial statue and public gardens and Tom's Block is reserved for public park and gardens. The masterplan recommends the preparation of precinct plans for the ongoing improvement of these significant parklands.

The Domain station construction work site is proposed to be used for TBM retrieval and relaunch. Discussion on compliance with planning policy related to this construction work site is included in Section 14.5.4 of this impact assessment.

The Domain Parklands Master Plan is currently being updated. It is still in an early consultation phase, and therefore cannot be considered as a seriously entertained document from a planning perspective.

8.5.6 Planning Applications

It is anticipated that a Design and Development Overlay would be applied to the tunnels alignment to identify and protect Melbourne Metro tunnels, stations and associated infrastructure from future development that may impact on its capacity to operate.

Existing planning applications along the tunnels alignment have been reviewed and there are no potential issues in relation to proximity of the tunnels. The need for the Design and Development Overlay is discussed further in Section 5 and Appendix I of this impact assessment.

There are no planning permit applications or recently approved permits that would affect the proposed development at Fawkner Park or the proposed locations for the emergency access shafts.

8.5.7 EES Evaluation

The Concept Design and associated alternative design options are generally consistent with the draft EES evaluation objectives for land use and planning as:

- The tunnels location complies with the objectives in the state and local planning policy including the directions of *Plan Melbourne,* in particular the objective of moving *'towards a metro-style rail system'*
- The tunnels limit the impact on the built environment of Melbourne as the majority of works required for their construction and operation are below ground
- The tunnels limit the loss of public open space and environmental values
- The tunnels limit the land acquisition required for the project as the tunnels are below ground
- The tunnels limit the impact of the project on the access requirements of surrounding land uses
- The majority of impacts on public open space would be temporary, caused by construction works, with the emergency access shafts the only permanent structures impacting on public open space in this precinct.
- The proposed location of the alternative design option for the emergency access shaft at Tom's Block is considered to only partially meet the draft EES evaluation objectives as it would impact heavily on public open space valued for its siting of monuments and statues. The preferred location for the emergency access shaft from a land use and planning perspective would be the site in Queen Victoria Gardens adjacent to Linlithgow Avenue as it is immediately adjacent to Linlithgow Avenue, so doesn't require access through the park for emergency vehicles, and is already occupied by the toilet block building and the impact on public open space would be less.
- Regular monitoring of planning permit applications and proposed developments within the study area have not identified any built form or structural interference between the Concept Design and alternative design options and proposed basement development.

8.6 Environmental Performance Requirements

Table 8-8 provides the recommended Environmental Performance Requirements and proposed mitigation measures for the precinct.

Table 8-8 Environmental Performance Requirements for the Tunnels precinct

Asset / Value	Impact	Environmental Performance Requirements	Proposed mitigation measures	Risk no.
Commercial, industrial and residential areas	Possible construction activities inhibit future development above and below ground.		Undertake strata and, where required, full acquisition of titles where conflict exists. Use the proposed DDO to protect Melbourne Metro infrastructure and trigger discussions with third party developers regarding future development. Preparation and exhibition of the planning scheme amendment at the same time as the EES. Facilitation of the planning scheme amendment by the Minister for Planning.	LU004 LU008
West Melbourne Terminal Station	Potential for construction activities to inhibit future development on and below the site.	Develop and implement measures for construction and operation of Melbourne Metro that aim to minimise impacts to the development and / or operation of existing land uses, including: • Limiting the permanent change of use within existing public open space • Minimising footprints of construction sites and permanent infrastructure on public land • Minimising impacts to existing public open spaces and recreational facilities and the users of these facilities, including but not limited, to JJ Holland Park, University Square, City Baths, City Square, Federation Square, the Shrine of Remembrance Reserve, Domain Parklands, Edmund Herring Oval, Fawkner Park and the Albert Road Reserve.	Ensure proposed works are appropriately located to limit impact on the site. Undertake strata acquisition of titles where required. Use the proposed DDO to protect Melbourne Metro infrastructure and trigger discussions with third party developers regarding future development.	LU004

Asset / Value	Impact	Environmental Performance Requirements	Proposed mitigation measures	Risk no.
		Such measures shall be developed in consultation with affected land managers for public land.		
Domain Parklands	Construction activities and permanent structures minimise land to be used for public open space and reduce quality of open space.	Develop and implement measures for construction and operation of Melbourne Metro that aim to minimise impacts to the development and / or operation of existing land uses, including: • Limiting the permanent change of use within existing public open space • Minimising footprints of construction sites and permanent infrastructure on public land • Minimising impacts to existing public open spaces and recreational facilities and the users of these facilities, including but not limited, to JJ Holland Park, University Square, City Baths, City Square, Federation Square, the Shrine of Remembrance Reserve, Domain Parklands, Edmund Herring Oval, Fawkner Park and the Albert Road Reserve. Such measures shall be developed in consultation with affected land managers for public land. Development of the project is to have regard to the relevant Open Space Master Plans (including but not limited to, the Domain Parklands and Fawkner Park Master Plans) in designing and constructing above-ground infrastructure for the tunnels. Consultation must occur with land managers and / or agencies responsible for the implementation of the relevant Open Space Master Plans.	Demonstrate that construction work sites have been optimised to reduce their footprint on the parklands. Avoid the use of the Shrine of Remembrance Reserve for construction activities unrelated to the station entrance. Ensure the park and its facilities are reinstated post construction.	LU002 LU005 LU006

Asset / Value	Impact	Environmental Performance Requirements	Proposed mitigation measures	Risk no.
		Develop and implement a plan in consultation with the Office of Victorian Government Architect, local councils and other land managers to comply with the Melbourne Metro Urban Design Strategy to re-establish public open space, recreation reserves and other valued places disturbed by temporary works. The plan must include, but not be limited to a methodology for storage, reinstatement or replacement of existing public art, monuments and public infrastructure such as poles, bins, and other street furniture.		
Fawkner Park	Construction activities and permanent structures minimise land to be used for public open space and reduce quality of open space.	Develop and implement measures for construction and operation of Melbourne Metro that aim to minimise impacts to the development and / or operation of existing land uses, including: • Limiting the permanent change of use within existing public open space • Minimising footprints of construction sites and permanent infrastructure on public land • Minimising impacts to existing public open spaces and recreational facilities and the users of these facilities, including but not limited, to JJ Holland Park, University Square, City Baths, City Square, Federation Square, the Shrine of Remembrance Reserve, Domain Parklands, Edmund Herring Oval, Fawkner Park and the Albert Road Reserve. Such measures shall be developed in consultation with affected land managers for public land. Development of the project is to have regard to the relevant Open Space Master Plans	Consolidate construction works in the one location within the Park. Ensure the park and its facilities are reinstated and improved post construction.	LU002 LU005 LU006

Asset / Value	Impact	Environmental Performance Requirements	Proposed mitigation measures	Risk no.
		(including but not limited to, the Domain Parklands and Fawkner Park Master Plans) in designing and constructing above-ground infrastructure for the tunnels. Consultation must occur with land managers and / or agencies responsible for the implementation of the relevant Open Space Master Plans. Develop and implement a plan in consultation with the Office of Victorian Government Architect, local councils and other land managers to comply with the Melbourne Metro Urban Design Strategy to re-establish public open space, recreation reserves and other valued places disturbed by temporary works. The plan must include, but not be limited to a methodology for storage, reinstatement or replacement of existing public art, monuments and public infrastructure such as poles, bins, and other street furniture.		
Strip shopping along Swanston Street and Toorak Road	Construction activities result in a loss of amenity for shoppers and inhibit future development.		Minimise the construction footprint where possible. Undertaken consultation with community and relevant Councils.	LU002

9 Precinct 2: Western Portal (Kensington)

9.1 Project Components

This section describes the components and construction activities of Melbourne Metro that are likely to result in impacts to existing land use conditions in this precinct.

9.1.1 Infrastructure

The majority of works would be contained within the existing rail corridor. The decline structure would require a widening of the existing embankment for the new Melbourne Metro tracks. The embankment would be located behind a retaining wall to allow Childers Street to remain in service.

The emergency access/egress shaft is proposed to be located within an existing car park in the 50 Lloyd Street Business Estate, which would be reinstated to allow access to the shaft and for use by emergency vehicles. It is proposed that a small building would be constructed to provide access and to weather-proof the emergency access/egress shaft in the future.

Three existing high voltage transmission towers along Childers Street would be relocated as part of the proposed early works (see Section 17 of this impact assessment).

Within this precinct, the Concept Design requires the acquisition or temporary occupation of 26 titles for construction purposes and for the ongoing operation of Melbourne Metro. This includes 13 full titles and one part title (common area) within the 50 Lloyd Street Business Estate, nine residential properties, part of one property at Hobsons Road Industrial Estate and one Council owned property (comprising two parcels) used for a shared pedestrian/bike path south of Childers Street. The Hobsons Road Industrial Estate (comprising of two titles) has also been identified as one temporary occupation site for the construction work site.

The existing buildings identified for acquisition would be demolished. Part of the land within the 50 Lloyd Street Business Estate required for acquisition may be reinstated post construction. Table 9-1 identifies the permanent and temporary acquisition in this precinct.

Table 9-1 Land acquisition and occupation for construction

Precinct	Permanent acquisition	Temporary occupation	Strata acquisition	Total
2	23 full titles and 1 part in 50 Lloyd Street Business Estate and 1 part in the Hobsons Road Industrial Estate	1	N/A	26

9.1.2 Alternative Design Option

This alternative design option proposes works commencing to the west of Kensington Road using a viaduct/ elevated structure to a new rail bridge adjacent to the existing rail bridge to carry the Melbourne Metro tracks over Kensington Road. The decline structure would extend along Childers Street to the start of the cut and cover tunnel adjacent to the pavilion in JJ Holland Park. The TBM retrieval box would be located west of South Kensington station subway entrance, opposite the pavilion on Childers Street (approximately 200 m west of the TBM location for the Concept Design).

This alternative design option would require the acquisition of one residential property.

9.1.3 Construction

The Western Portal precinct would include the establishment of a linear construction work site footprint along Childers Street, with larger sites at each end of the precinct. A major construction work site is proposed in the 50 Lloyd Street Business Estate and 1-39 Hobsons Road. Both sites would be used for site offices and facilities, laydown areas and materials, spoil removal and equipment storage.

There are currently 120 car park spaces in Childers Street which would be removed during construction. It is proposed that approximately half of these spaces would be returned to the area post construction. A local traffic diversion route would be required for approximately 18-24 months from the 50 Lloyd Street Business Estate via Altona Street and Ormond Street to Childers Street.

The shared path between Kensington Road and Ormond Street on the southern side of Childers Street would be removed. It is also proposed that up to 47 trees would be removed as part of the works (the final number would be subject to detailed design). This is discussed further in Technical Appendix R *Arboriculture*.

South Kensington station would remain operational, except during the track lowering works. The subway entrance to the existing South Kensington station would be maintained.

As part of early works, a 450 mm gas main under Childers Street to Ormond Street/Altona Street/Tennyson Street and existing high voltage transmission towers along Childers Street would be relocated (see Section 17 of this impact assessment). Ground improvement works may also be required adjacent to the Portal.

9.1.4 Alternative Design Option

The alternative design option would result in the shift of the project area to the west. The location of the TBM retrieval box opposite the pavilion on Childers Street and the use of a longer decline structure would result in a larger excavation area.

This option requires the duplication of the rail bridge over Kensington Road.

Similarly to the Concept Design, the main construction work site would be at 1-39 Hobsons Road and the existing shared path and existing carparking along Childers Street would be removed during construction. This alternative design option does not require the use of the 50 Lloyd Street Business Estate.

The car park spaces in Childers Street would need to be removed during construction, with the potential reinstatement of the majority of those spaces, post construction,

9.1.5 Operation

The ongoing operation of the western portal at this location would not have any impact on surrounding land uses. The future use of the existing residential properties earmarked for acquisition is yet to be confirmed but could be incorporated into the station precinct, reinstated for residential use or for used as public open space.

The emergency access/egress shaft proposed in the 50 Lloyd Street Business Estate would be retained for use by emergency services and remain on site in perpetuity. Land set aside for the shaft would include hardstand for use by emergency service vehicles. This area has the potential to support a substation required for Melbourne Metro. The alternative design option does not require the use of the 50 Lloyd Street Business Estate for operation.

9.2 Existing Conditions

The location of the Melbourne Metro within Precinct 2 – Western Portal and the relevant planning controls are shown in Figure 9-2 and Figure G-1 and Figures G-15 and G-16 in Appendix G of this impact assessment.

The Western Portal Precinct starts at the tie-in to the Sunbury line and includes the portal of the Melbourne Metro tunnels in the Kensington area. The works for the Concept Design are proposed to commence to the east of the Kensington Road rail bridge and follow the existing rail corridor and high voltage power line easement east to South Kensington station. At this point, the power lines cross the rail corridor and continue east outside the study area to the West Melbourne Terminal Station.

The rail corridor supports the Sunbury, Werribee and Williamstown lines. South Kensington station is located opposite JJ Holland Park and is served by the Werribee and Williamstown lines.

The precinct is located in the City of Melbourne. The existing rail corridor is within the Public Use Zone 4 (Transport). Land abutting the rail corridor in this precinct is generally in the Industrial 1 Zone except for JJ Holland Park, which is in the Public Park and Recreation Zone and the residential properties in Childers Street, Tennyson Street and Ormond Street, which are in the General Residential Zone (Schedule 2 – General Residential Areas).

The western most point of this precinct includes existing industrial land to the north and south of the rail corridor. This includes land at 1-39 Hobsons Road (bound by Hobsons Road, Kensington Road, the Maribyrnong River and the railway line). This land is discussed in Table 9-2 of this impact assessment.

JJ Holland Park is a key area of regional open space, containing sporting fields, a BMX and skate park, picnic and barbeque area and playground. Figure 9-1 shows an aerial image of the park.

Source: www.maps.melbourne.vic.gov.au (accessed 13 July 2015)

Figure 9-1 Aerial overview of JJ Holland Park

JJ Holland Park and the proposed construction work site at Hobsons Road are affected by the Land Subject to Inundation Overlay and any works should consider the potential for flooding in the area and in consultation with Melbourne Water as the floodplain manager. Discussion on the surface water impacts at this location are included in Technical Appendix N *Surface Water.* The LSIO1 is shown in Figure G-16 in Appendix G of this impact assessment.

The construction work site at Hobsons Road and some residential properties in the area are impacted by the Heritage Overlay (HO239 1-39 Hobsons Road, Kensington and HO9 Kensington Precinct) Discussion on the heritage values of the precinct are included in Technical Appendix J *Historical Cultural Heritage* and Appendix G shows the location of the overlays.

Figure 9-2 and Appendix G shows the zones in the Western Portal precinct and Figures G-15 and G-16 in Appendix G show all the overlays affecting the Western Portal precinct.

Figure 9-3 shows the results of the land use survey and any recent planning applications in the Western Portal precinct.

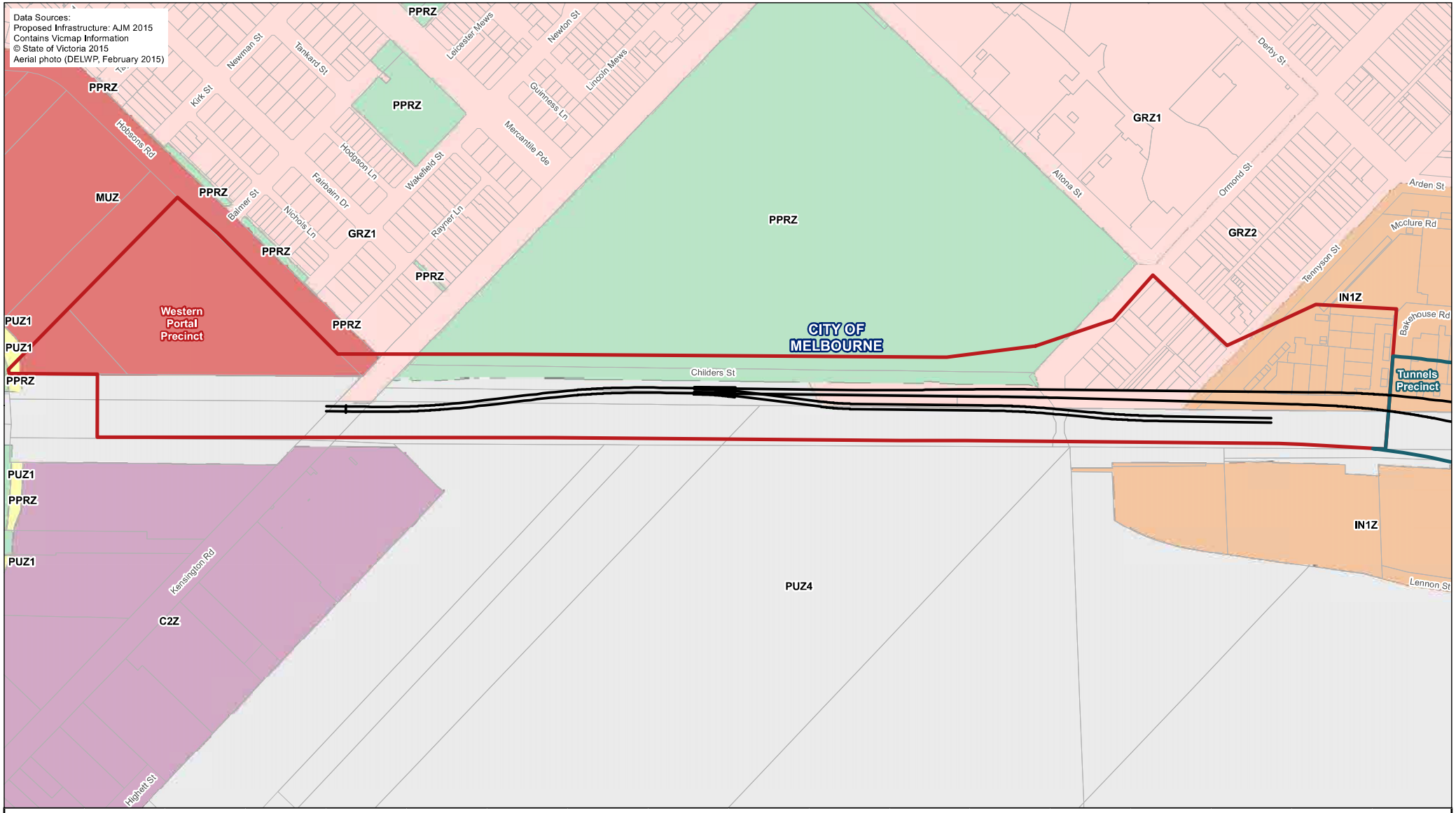

Figure 9-2 Zones in the western portal precinct

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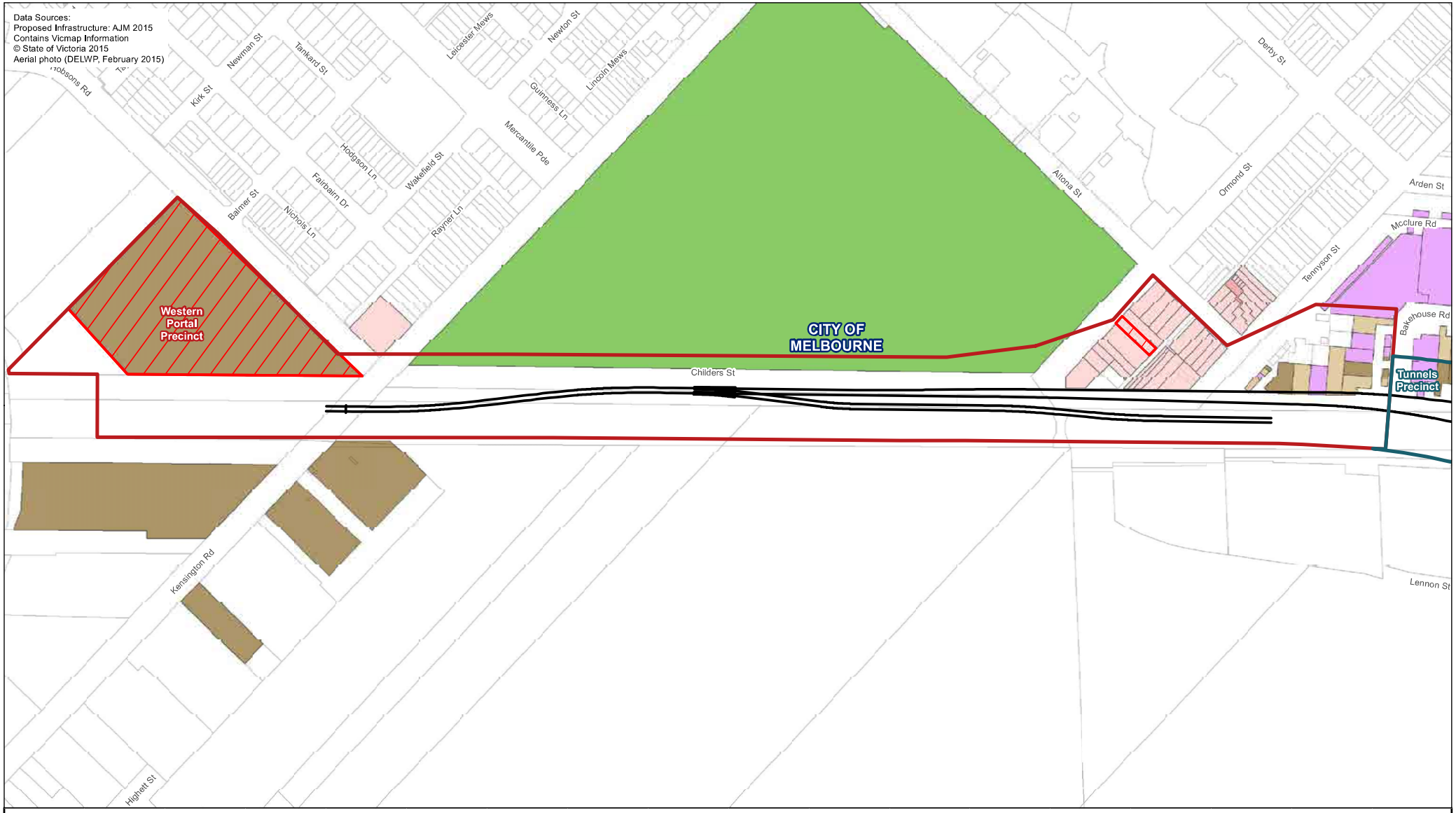


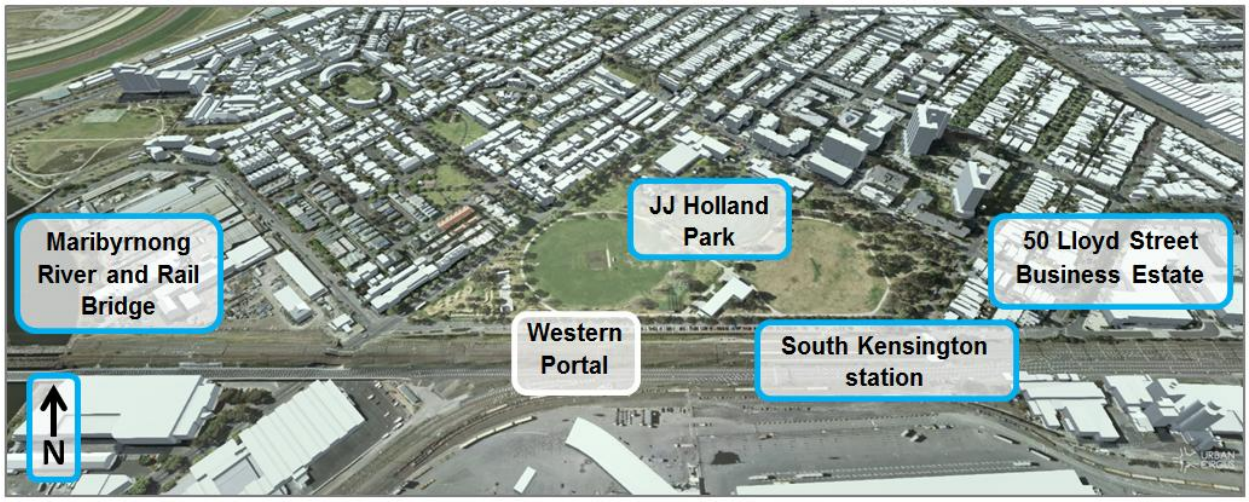
Figure 9-3 Land Use Survey and recent planning applications in the western portal precinct

Childers Street provides vehicle access and parking along the south side of JJ Holland Park. Car parking is located within the rail reserve and is managed by the City of Melbourne. A shared pathway runs along the southern side of Childers Street, beneath the HV power line towers.

The Western Portal precinct includes a number of single and double storey dwellings on Childers Street between Ormond and Tennyson Streets (shown in purple in Figure 9-3). Residential properties in this area vary in age and built form but are predominantly single or double storey, single or dual occupancy dwellings.

Childers Street is blocked at Tennyson Street for through traffic and there is a private road called McLellan Drive into the 50 Lloyd Street Business Estate, which contains a range of uses including industrial, warehousing and commercial uses as well as special uses. The built form in this estate is consistent with two storey concrete buildings and storage areas.

Figure 9-4 illustrates the low scale of development in the area surrounding the Western Portal precinct aligning with the existing rail corridor adjacent JJ Holland Park. Any future development in the precinct must take into consideration the provisions of the Melbourne Planning Scheme as well as any relevant strategic planning studies. The planning controls in the Western Portal precinct are included in Appendix E and Appendix F of this impact assessment.



Source: DELWP, November 2015

Figure 9-4 Illustration of built form in the precinct and surrounding area

9.2.1 Alternative Design Option

The construction area footprint would extend further west than the Concept Design as the works area starts at the Maribyrnong River. Here the works remain on the existing rail formation. The land to the north of the rail corridor is currently used for industrial / warehousing purposes. The parcel of land immediately adjacent to the river is known as the rear of 1-39 Hobsons Road, and contains no buildings and is used for storage of industrial materials. Land to the south is used for commercial purposes, with a double storey warehouse / commercial building occupying the site at 156-174 Kensington Road, West Melbourne.

Table 9-2 describes the existing land use assets in the precinct.

Table 9-2 Key assets identified in Precinct 2

Asset / value	Description
JJ Holland Park	The park has an area of 10.2 ha and contains sporting fields, a BMX and skate park, picnic and barbeque area and playground. The park also contains four buildings - the Bill Vanina Sports Pavilion, the Kensington Community and Recreation Centre (indoor swimming pool), a childcare centre and a maternal

Asset / value	Description
	and child health centre.
Existing residential area	Within this precinct, Childers Street, Ormond Street and Tennyson Street support residential uses.
South Kensington station	The Werribee and Williamstown lines serve the South Kensington station.
High Voltage Electricity easement and proximity to the West Melbourne Terminal Station	The nearby West Melbourne Terminal Station means there are high voltage electricity lines within the precinct. Setbacks are required from existing electricity infrastructure.
Existing rail corridor	The existing Craigieburn Line rail corridor supports a busy rail system and associated infrastructure.
Maribyrnong River	The Maribyrnong River flows from the north west of Melbourne to meet the Yarra River at Yarraville.
Industrial / Business Estates	The 50 Lloyd Street Business Estate and Hobson Road Estate are within the proposed project boundary. Lloyd Street Business Estate contains warehousing and commercial uses. The Hobsons Road Estate includes land at 1 - 89 Hobsons Road, Kensington, which is generally bounded by Hobsons Road, the Maribyrnong River, the railway line and Kensington Road. The site has historically been used for the manufacture of glue, however it is now largely vacant and many of the existing buildings have been damaged by fire. The Inner City Christian Church is currently located in a building at 1-39 Hobsons Road, Kensington. Heritage Overlay (HO239 1-39 Hobsons Road, Kensington) is a site-specific overlay.

9.3 Key Issues

The key issues related to land use and planning associated with the Concept Design are:

- Acquisition of 27 titles including nine residential properties
- Acquisition of residential properties are within HO9 Kensington Precinct and the Hobsons Road site is affected by HO239
- Loss of on-street car parking and street trees
- Loss of shared path adjacent Childers Street

9.3.1 Alternative Design Option

The key issues related to land use and planning associated with the alternative design option that differ from the Concept Design would be the single property acquisition, resulting in minimal land use change.

9.4 Benefits and Opportunities

The key benefit of the Concept Design in Precinct 2 is that the majority of works are contained in the rail alignment.

There would be an opportunity to realign Childers Street to replace a proportion of on-street car parking post construction as well as opportunities for the redevelopment of some of the titles acquired for the project.

9.4.1 Alternative Design Option

The key benefit of the alternative design option as opposed to the Concept Design would be the reduced impact to existing residential properties, with only one residential acquisition and no acquisition within the 50 Lloyd Street Business Estate.

9.5 Impact Assessment

9.5.1 Land Use

The proposed works are considered appropriate in this location as the majority of works would be contained within the existing rail corridor, with limited impact on land outside the corridor. There would be no occupation of land in in JJ Holland Park and some private land acquisition only. Consequently, the residual risk rating for impacts to land use and built form in this precinct is low.

There would be potential for construction activities to result in the loss of amenity for users of JJ Holland Park. This is discussed further in Technical Appendix F *Social and Community*.

The Hobsons Road Estate is affected by the Mixed Use Zone, Incorporated Plan Overlay (IPO2) (Schedule 2 – Hobsons Road Mixed Use Area) and Heritage Overlay HO239 (1-39 Hobsons Road). Land at 1-39 Hobsons Road is shown in Figure 9-5. The IPO2 provides support for the change of use of the land from industrial use to residential and commercial uses and gives guidance to any future development. Land at 71-89 Hobsons Road is currently being developed for 182 dwellings plus commercial use in a building with a maximum six storeys.

The parcel of land immediately adjacent the Maribyrnong River is the rear of 1-39 Hobsons Road, Kensington and is currently vacant, used for storage of industrial materials.

Any buildings and works within land covered by the IPO2 would require planning approval and should meet the requirements as set out in the Hobsons Road Incorporated Plan March 2008 and IPO2. The site is also impacted by the Heritage Overlay (HO239), which includes another set of requirements for proposed developments to meet. It is considered unlikely that the proposed use of the site for construction purposes would meet the goals and objectives of the IPO2 and would be considered a short term impediment to development on the site in line with the IPO2. However, the project impacts are only temporary and at the completion of works opportunities for redevelopment could be provided in line with the City of Melbourne's strategic direction for the area.

Due to the shallow tunnel alignment near the portal itself, ground treatment may be required to limit impacts on Melbourne Metro assets from loading, as well as impacts on existing future development. A discussion on loading requirements for future developments is included in Appendix J of this impact assessment.

9.5.2 Alternative Design Option

This option would require less property acquisition than the Concept Design as only one residential property on Ormond Street would need to be acquired. The property is within the Heritage Overlay (HO9 - Kensington Precinct). Discussion on the heritage value of the precinct in included in Technical Appendix J *Historic Cultural Heritage*.

Figure 9-5 Intersection of Kensington Road and Hobsons Road showing the Kensington Road rail bridge and industrial land at 1 – 39 Hobsons Road

9.5.3 Land Acquisition

The Concept Design would require the acquisition of nine residential properties as well as the Council owned shared pathway and car parking area on Childers Street. The acquisition of a further 13 full titles and one part title would be required for acquisition within the 50 Lloyd Street Business Estate. This would result in the temporary occupation of commercial uses, however it is likely that after construction this land (except for the proposed emergency access shaft and associated infrastructure) could be reinstated to industrial/business related uses. Should the substation identified and discussed in Section 10.1.1 of this report be located within the 50 Lloyd Street Business Estate, less land would be able to be returned to industrial/business related uses. Land acquisition in this precinct would result in minimal land use change and has a low residual risk rating.

Any surplus land remaining after construction is complete would be managed in accordance with the *Victorian Government Landholding Policy and Guidelines.*

9.5.3.1 Alternative Design Option

The proposed alternative design option would require the acquisition of one residential property on Ormond Street, as well as the Council owned shared pathway and car parking area on Childers Street. No acquisition would be required in the 50 Lloyd Street Business Estate.

9.5.4 Access

Currently, Childers Street provides 120 angled on-street car spaces which would be lost during construction as this land would be required for construction purposes. Post construction, it is estimated that approximately half of these would be reinstated. The *JJ Holland Park Concept Plan* (City of Melbourne, 2008) identifies car parking as an issue in the area. The impact of the loss of the 120 car spaces is discussed in Technical Appendix D *Transport* and Technical Appendix F *Social and Community*.

Increased construction traffic would potentially limit the ability to easily move through the precinct by vehicle. Trucks accessing the 50 Lloyd Street Business Estate would be diverted onto residential streets, rather than Childers Street, creating potential conflict with accessways to residential properties. Access to sports clubs in JJ Holland Park may be restricted due to the use of Childers Street for construction purposes.

The shared path is part of the Principal Bicycle Network. The north side of Childers Street has on-road cycle markings and a pedestrian path within JJ Holland Park. Currently, the shared path connects to on-road bike paths at Ormond Street (to the east) and Kensington and Hobsons Road (to the west). Consequently, it is considered that the removal of the shared path would be acceptable.

9.5.5 Strategic Planning Policy Support

The precinct abuts the JJ Holland Park and the *JJ Holland Park Concept Plan 2008* guides the development of the park until 2013. Council has indicated that the plan is still being implemented and as such, is still an applicable consideration. The plan identifies car parking as an issue in the area, however the provision of car parking along Childers Street is considered sufficient for ongoing use of the park. The proposed removal of this car parking during construction would be likely to exacerbate parking issues in the area, however it is proposed that much of the lost car parking in the area would be replaced at the completion of construction. Other than the added pressure on carparking in the area, the proposed Melbourne Metro would not impact on the implementation of the *JJ Holland Park Concept Plan 2008*.

The proposed Melbourne Metro is considered to be consistent with State and Local Planning Policy Framework in this precinct, particularly the objective of Clause 11.04-3 (A more connected Melbourne) of the Melbourne Planning Scheme *'to provide an integrated transport system connecting people to jobs and services, and goods to market'*.

Clause 21.15 (Potential Urban Renewal Areas) of the Melbourne Planning Scheme identifies 1-39 Hobsons Road, Kensington as a potential urban renewal site and supports *'conversion of industrial uses on land bounded by Hobsons Road, Kensington Road and the Maribyrnong River to a mix of residential, commercial and recreational uses to ensure that they are more compatible with the adjoining Kensington Banks'*. The Melbourne Metro seeks to use this site on a temporary basis and at the completion of construction, would be available for redevelopment in line with the intention of the local planning policy.

This local policy also seeks to *'strengthen the recreational role of Holland Park'*. As outlined above, Melbourne Metro would not directly impact on the ongoing land use of JJ Holland Park.

9.5.6 Planning Applications

The Melbourne Planning Scheme supports the redevelopment of the land at 1-39 Hobsons Road, Kensington for residential and commercial purposes. No planning application has been lodged at this stage, however, the multi-unit, mixed use development at 71-89 Hobsons Road (outside the study area) should be considered as an example of the type of development that could occur at 1-39 Hobsons Road, Kensington.

9.5.7 EES Evaluation

The Concept Design and associated alternative design options are generally consistent with the draft EES evaluation objectives for land use and planning as:

- The portal location complies with the objectives in the state and local planning policy including the directions of *Plan Melbourne*, in particular the objective of moving *'towards a metro-style rail system'.*
- The bulk of the works are confined to the rail corridor and so reduce the need to acquire private land.
- Dwellings and commercial buildings to be acquired would be removed for construction purposes. Temporary occupation of land during construction enables the former land use to be reinstated at the completion of works. Built form within the area would not be significantly impacted.
- Access would be limited for surrounding land uses for the duration of works due to increased construction traffic. A traffic management plan would be prepared to mitigate impacts.
- The removal of the shared path would result in a loss of recreation facilities, however on-road bike paths and walking paths through JJ Holland Park complete the pedestrian and bike connections through the precinct.
- The public open space at JJ Holland Park would not be directly impacted by the Concept Design in this precinct.
- The alternative design option would result in less private land acquisition, with only one residential property required for acquisition and no impact to the 50 Lloyd Street Business Estate.

9.6 Environmental Performance Requirements

Table 9-3 below provides the recommended Environmental Performance Requirements and proposed mitigation measures for the precinct.

Table 9-3 Environmental Performance Requirements for the precinct

Asset / value	Impact	Environmental Performance Requirements	Proposed mitigation measures	Rick no.
JJ Holland Park	Construction activities result in the loss of amenity for health, educational, commercial, recreational and other facilities in the park.	Prior to main works or shaft construction, develop and implement a community and business involvement plan to engage potentially affected stakeholders and advise them of the planned construction activities and progress against the schedule. The plan must include: • Measures to minimise impacts to the development and/or operation of existing facilities • Measures for providing advance notice of significant milestones, changed traffic conditions, periods of predicted high noise and vibration activities • Process for registering and management of complaints • Measures to address any other matters which are of concern or interest to them. The plan would consider each precinct and station location in detail. Stakeholders to be considered in the plan include (but not limited to): • Municipalities • Potentially affected residents • Potentially affected businesses	Consult with managers of key facilities when developing the construction methodology and seek to reduce impacts on key social infrastructure. Further discussion on this is included in Technical Appendix F *Social and Community*.	LU002 LU007 LU008 LU009

Asset / value	Impact	Environmental Performance Requirements	Proposed mitigation measures	Rick no.
		• Recreation, sporting and community groups and facilities • Royal Melbourne Hospital, Victorian Comprehensive Cancer Centre, Peter Doherty Institute and other health and medical facilities • The University of Melbourne • RMIT • Fawkner Park Children's Centre and Kindergarten • South Yarra Senior Citizens Centre • Other public facilities in proximity.		
Existing residential area	Construction activities inhibit access to residences. Construction activities require property acquisition. Possible construction activities inhibit future development.	Develop and implement measures for construction and operation of Melbourne Metro that aim to minimise impacts to the development and / or operation of existing land uses, including: • Limiting the permanent change of use within existing public open space • Minimising footprints of construction sites and permanent infrastructure on public land • Minimising impacts to existing public open spaces and recreational facilities and the users of these facilities, including but not limited, to JJ Holland Park, University Square, City	Provide for temporary relocation of households in proximity to construction zones with restricted access or / and amenity impacts. Use hotels/motels or other temporary accommodation for short term disruptions. Where relocation is longer term use alternative housing options. Undertake strata and, where required, full acquisition of titles where conflict exists. Communicate construction timeframes with potential developers. Use the proposed DDO to protect Melbourne Metro infrastructure and trigger discussions with third party developers regarding future development.	LU001 LU002 LU008

Asset / value	Impact	Environmental Performance Requirements	Proposed mitigation measures	Rick no.
		Baths, City Square, Federation Square, the Shrine of Remembrance Reserve, Domain Parklands, Edmund Herring Oval, Fawkner Park and the Albert Road Reserve. Such measures shall be developed in consultation with affected land managers for public land. Prior to main works or shaft construction, develop and implement a community and business involvement plan to engage potentially affected stakeholders and advise them of the planned construction activities and progress against the schedule. The plan must include: • Measures to minimise impacts to the development and/or operation of existing facilities • Measures for providing advance notice of significant milestones, changed traffic conditions, periods of predicted high noise and vibration activities • Process for registering and management of complaints • Measures to address any other matters which are of concern or interest to them. The plan would consider each precinct and station location in detail. Stakeholders to be considered in the plan include (but not limited to):		

Asset / value	Impact	Environmental Performance Requirements	Proposed mitigation measures	Rick no.
		• Municipalities • Potentially affected residents • Potentially affected businesses • Recreation, sporting and community groups and facilities • Royal Melbourne Hospital, Victorian Comprehensive Cancer Centre, Peter Doherty Institute and other health and medical facilities • The University of Melbourne • RMIT • Fawkner Park Children's Centre and Kindergarten • South Yarra Senior Citizens Centre • Other public facilities in proximity.		
Industrial/Business Estates	Construction activities inhibit access through the precinct. Construction activities require property acquisition.	Prior to main works or shaft construction, develop and implement a community and business involvement plan to engage potentially affected stakeholders and advise them of the planned construction activities and progress against the schedule. The plan must include: • Measures to minimise impacts to the development and/or operation of existing facilities • Measures for providing advance notice of significant milestones, changed traffic conditions,	Preparation of a Transport Management Plan to limit congestion and impact on residential streets (Technical Appendix D *Transport* provides more detail on this).	LU002 LU007 LU009

Asset / value	Impact	Environmental Performance Requirements	Proposed mitigation measures	Rick no.
		periods of predicted high noise and vibration activities • Process for registering and management of complaints • Measures to address any other matters which are of concern or interest to them. The plan would consider each precinct and station location in detail. Stakeholders to be considered in the plan include (but not limited to): • Municipalities • Potentially affected residents • Potentially affected businesses • Recreation, sporting and community groups and facilities • Royal Melbourne Hospital, Victorian Comprehensive Cancer Centre, Peter Doherty Institute and other health and medical facilities • The University of Melbourne • RMIT • Fawkner Park Children's Centre and Kindergarten • South Yarra Senior Citizens Centre • Other public facilities in proximity. In consultation with key stakeholders and in accordance with the Urban Design Strategy, relevant statutory approvals and other relevant		

Asset / value	Impact	Environmental Performance Requirements	Proposed mitigation measures	Rick no.
		requirements, re-establish sites impacted by construction works, including but not limited to: • Childers Street, Kensington • JJ Holland Park • Royal Parade and Grattan Street, Parkville • The south western entrance of the proposed CBD South station • St Kilda Road boulevard • Edmund Herring Oval • Fawkner Park and Fawkner Park Tennis Facility • Osborne Street Reserve • South Yarra Siding Reserve • Lovers Walk • The South African Soldiers War Memorial See related Environmental Performance Requirement LV2.		

10 Precinct 3: Arden Station

10.1 Project Components

This section describes the components and construction activities of Melbourne Metro that are likely to result in impacts to existing land use and planning conditions in this precinct.

10.1.1 Infrastructure

The station would be located underground, wholly within publicly owned land (VicTrack). This land (two titles) would be made available to MMRA for the construction of the station and construction work site. All existing buildings and other infrastructure are proposed to be removed.

Initially, one station entrance is proposed fronting Laurens Street, not precluding the future creation of additional entrances. There are two proposed vent shafts and an emergency access/egress point associated with the Arden station infrastructure. The station entrance is proposed to be raised 2.2 m above existing ground level to cater for 1 in 1000 year flood events.

A second future entrance is proposed to be located approximately 120 m south of Arden Street, in line with a future southward extension of Fogarty Street.

Substations

The Concept Design includes the construction of an electrical substation within this precinct. The substation would convert power provided from the adjacent West Melbourne terminal station for the ongoing operation of the proposed Melbourne Metro. There are four potential sites identified for the substation. The Concept Design site (option 1) would be located to the north of Arden Street, between CityLink to the west and Langford Street to the east. There are three alternative design option site options as follows:

- Option 2 would be co-located at the Metro Trains Melbourne (MTM) traction substation site.
- Option 3 would be located at the southern section of the precinct between rail tracks to the west and Laurens Street to the east
- Option 4 would be located within the Western Portal precinct at the existing 50 Lloyd Street Business Estate.

Option 4 is only an option should the Concept Design be pursued at the Western Portal, as land within the 50 Lloyd Street Business Estate acquired for the Concept Design would be used.

Options 1, 2 and 3 would be located on publicly owned land. Option 4 would require the acquisition of private land, and would prevent the return of the land to commercial uses after construction.

10.1.2 Construction

The proposed Arden station construction work site would be used to launch the TBM as well as for the construction of the Arden station. The publicly owned (VicTrack) land would be used as a major staging area for the proposed Melbourne Metro western section works. The construction works on the site include site offices and amenities (including car parking), construction traffic parking and staging areas, fabrication sheds, major storage areas and TBM spoil extraction and handing facilities.

The tunnelling operations at Arden station precinct would operate from mid 2018 – end 2023, with the station box being constructed from mid 2018 – mid 2021. The operation of the TBMs would occur 24-hours, six days a week and as such, the Arden construction work site would be used 24 hours a day, seven days a week.

A proposed wastewater treatment plant, water tanks and a tunnel air ventilation and extraction plant would also be located on the site for the duration of construction works. Additionally, a concrete batching plant, precast yard and segment storage is proposed on site.

The works require protection for the North Yarra Sewer main and relocation of a number of stormwater drains. A substation (and ancillary equipment) is proposed to be located on one of three proposed parcels of land adjacent to the construction work site, all of which are included in the precinct boundary.

The proposed works are likely to impact on up to 116 trees. This is discussed further in Technical Appendix R *Arboriculture*.

10.1.3 Operation

The site would be occupied by the Arden station. The initial design includes one station entrance however, one additional future station entrances are proposed to be located in the centre of the site, to be constructed in line with the development of the remainder of the publicly owned (VicTrack) land.

The remainder of the site, not used for the operational station, is earmarked for development in line with the directions of the *Arden-Macaulay Structure Plan 2012* (details of this study are included in Section 10.5.4 and Appendix I of this impact assessment). A coordinated approach is underway to facilitate more intensive development in Arden-Macaulay, including preparation of a structure plan and Planning Scheme Amendment, development of an integrated flooding and development scheme, and finalisation of the Arden-Macaulay Partnership Blueprint between the Victorian Government, City of Melbourne, Department of Education and Training, Office of Housing, VicTrack and other major land owners and stakeholders in the precinct.

10.2 Existing Conditions

The location of the proposed Melbourne Metro within Precinct 3 - Arden Station and the relevant planning controls are shown in Figure 10-1, and in Appendix G of this impact assessment.

The proposed Arden station precinct is located in an existing industrial area, bordered by CityLink and Moonee Ponds Creek to the west and Little Dryburgh Street to the east. This precinct is in the City of Melbourne.

The precinct boundary includes properties on the eastern side of Laurens Street and fronting Munster Terrace. This area is within the Mixed Use Zone and is affected by a Design and Development Overlay that requires new noise sensitive uses to attenuate against potential noise impacts from the Laurens Street North Melbourne Industrial Area.

The precinct includes land within the Laurens Street industrial area, which is a triangular area bounded by Laurens Street, Arden Street and the existing Upfield railway line, as well as properties on the eastern side of Laurens Street. Ownership and parcel details for land within the Laurens Street industrial area is complex, however the majority of this land is publicly owned land. The site has an area of approximately 14 ha with VicTrack currently leasing the land commercially to a number of private tenants. Existing tenancies on this site would be terminated. The publicly owned (VicTrack) land is within the Public Use Zone 4 (Transport). The majority of the land is affected by the Land Subject to Inundation Overlay. It is relatively flat and supports a mix of land uses, including two concrete batching plants, manufacturing, warehousing and distribution uses and the former rail yard. The land has also been used recently to support the development of the Regional Rail Link. The built form on this site is generally low rise buildings (approximately one to three storeys) plus the higher structures of the batching plants and associated works.

The existing Boral concrete batching plant was initially granted planning approval in 1994. Further planning permits have been issued for the site, the most recent in 2003. A Section 173 Agreement was required as part of the planning approval for the development relating to truck movements to and from the site and is listed on the title, however none is registered to title currently. The Hy-Tec batching plant has been in operation since 2000.

Due to the industrial nature of the land, it has been identified that the site may be contaminated. Ministerial Direction No. 1 (Potentially Contaminated Land) outlines the assessment process for a planning scheme

amendment for land that is adversely affected by contamination. Further discussion on potential contamination is included in Technical Appendix Q *Contaminated Land and Spoil Management.*

Properties fronting Laurens Street are mostly two storey commercial buildings. On Laurens Street, in the south of the precinct, is a heritage protected biscuit factory that has been converted into residential properties (four to five storey brick building).

Land slopes up from the government owned site to the east and north. To the north of the proposed Arden station precinct is the North Melbourne Cricket Ground and associated community facilities. Mature trees line Laurens Street at the Arden Street end.

CityLink structures to the west of the precinct are a dominating visual structure in the area. The Moonee Ponds Creek separates CityLink from the West Melbourne terminal station.

Approximately 500 m south of the precinct is North Melbourne railway station. This station serves as a transport interchange connecting the Werribee, Williamstown, Sunbury, Craigieburn and Melton lines as well as regional services. Tram route 57 travels along Abbotsford Street (approximately 100 m east of the eastern edge of the precinct) between Flinders Street Station and West Maribyrnong. Bus route 401 travels along Dryburgh Street (within the precinct) between the University of Melbourne and North Melbourne railway station.

Table 10-1 outlines the existing land use asset in the precinct.

Table 10-1 Key assets identified in precinct 3

Asset / value	Description
Industrial area	One of the last areas of industrial land located in close proximity to the CBD.
Opportunities for development	Sites within this precinct are earmarked for development through the preparation of the *Arden-Macaulay Structure Plan 2012*, including the government owned land that currently supports a mix of industrial uses. This land is currently in the Public Use Zone 4 (Transport) and affected by the Land Subject to Inundation Overlay.

Figure 10-1 and Figure G-3 in Appendix G show the zones within the Arden station precinct. Figures G-19 and G-20 in Appendix G show the overlays within the Arden station precinct. Figure 10-2 shows the results of the land use survey and any recent planning applications within the Arden station precinct.

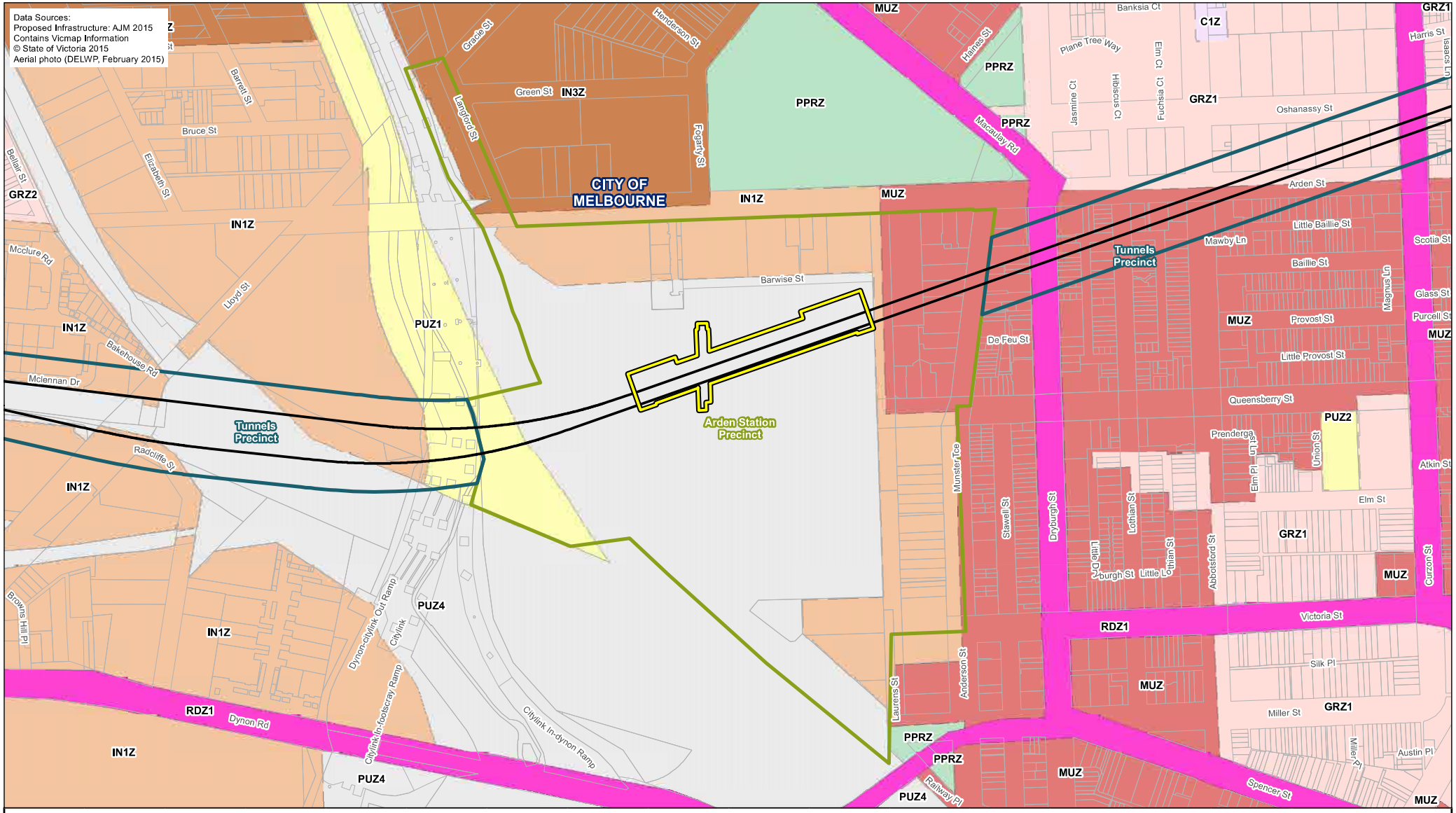
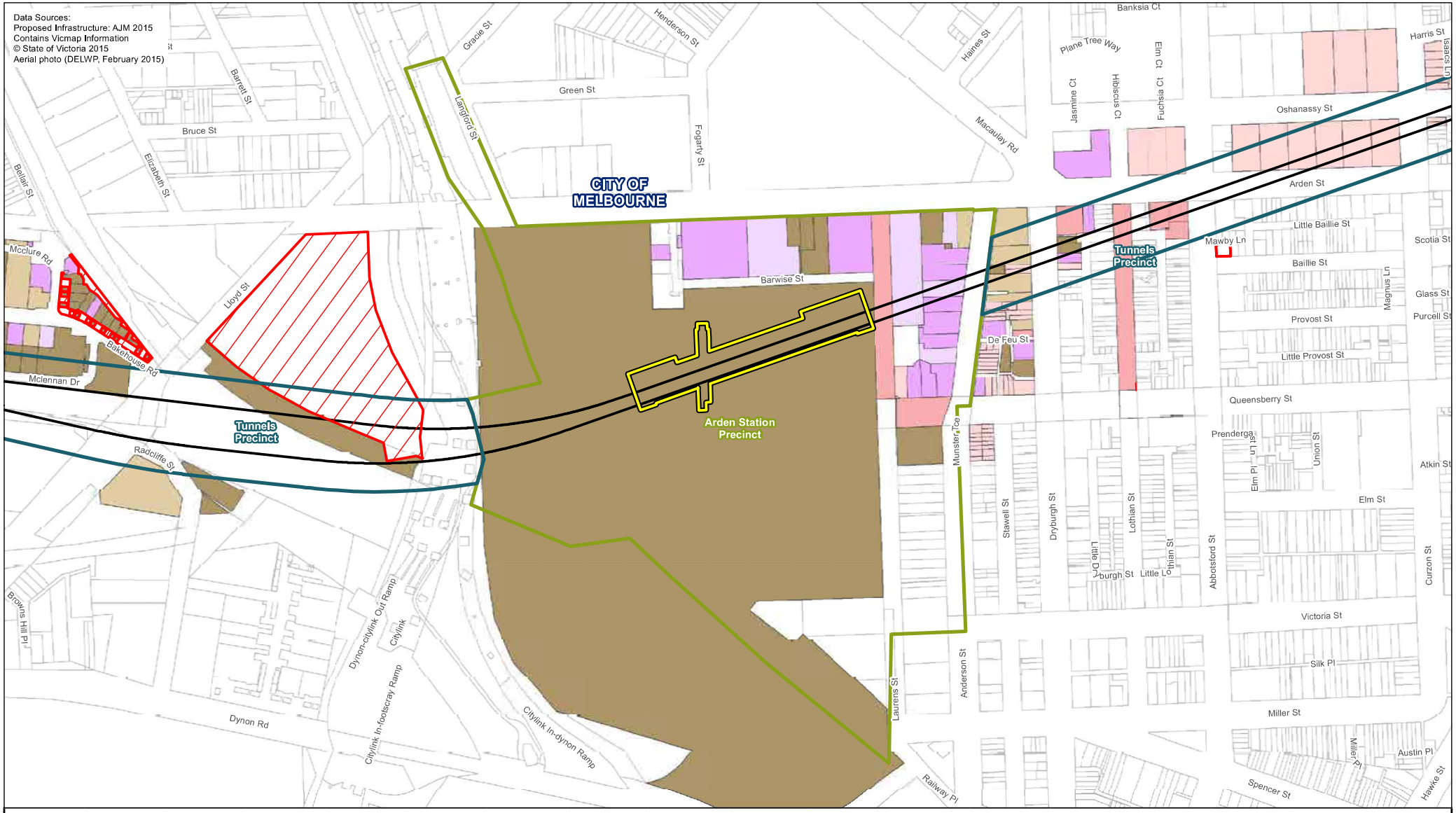


Figure 10-1 Zones in the Arden station precinct



Legend

Proposed Concept Design
- Proposed Alignment
- Proposed Station Footprint
- Cadastre
- Local Government Area (LGA)
- Properties_with recent planning approvals & pre-applications

Environmental and Planning Precincts
- Station Precinct
- Tunnels Precinct

Landuse Survey (AJM)
- Accomodation
- Industry
- Office
- Other
- Retail Premises
- Shop
- Warehouse Group

Map 3 of 13

MELBOURNE METRO RAIL AUTHORITY

AJM Joint Venture GRIMSHAW — aurecon JACOBS Mott MacDonald in association with

Melbourne Metro Rail Project

Title:
Landuse Survey

Drawing Number:			Revision:
MMR-AJM-PWAA-MP-NP-500320			P1
Drawn By:	Approved By:	Date:	Map Size:
A. French	G. Thraves	13/04/2016	A4

0 50 100
Metres

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Figure 10-2 Land Use Survey and recent planning applications in the Arden station precinct

10.2.1 Substation

The Concept Design site (option 1) is currently vacant but supports a large billboard tower for advertising to vehicles on CityLink. The land is publicly owned (VicTrack) and from time to time short term licence agreements may be entered into for use of the site. The land is within the Industrial 3 Zone and affected by the LSIO.

The MTM traction substation site (option 2) currently supports an existing substation and staff centre on part of the site and is publicly owned (VicTrack). This site is within the PUZ4 (Transport) and affected by the LSIO.

The southern site (option 3) is on public land (VicTrack), partially within the Public Use Zone 4 (Transport) and partially within the Industrial 1 Zone. The land currently currently supports one property leased to MTM, one leased to Milham Lake, and there is potential that the substation would impact on a second private lease to a commercial property.

Land identified for option 4 is within the existing 50 Lloyd Street Business Estate and identified for acquisition as part of the Concept Design for the western portal. This site is within the Industrial 1 Zone and not affected by any overlays. This option would not be chosen if the alternative design option of the Western Portal is chosen.

10.2.2 Planning applications

A recent planning application within the precinct seeks approval for the change of use of the building at 49-63 Laurens Street, North Melbourne to a mail centre including minor buildings and works and a reduction in carparking. The application is currently under assessment and is unlikely to impact on the proposed Melbourne Metro. However, the construction of Melbourne Metro would necessitate the relocation of this business.

Any future development in the precinct must take into consideration the provisions of the Melbourne Planning Scheme as well as any relevant strategic planning studies. A full outline of the planning controls within the Arden station precinct is included in Appendix E and Appendix F of this impact assessment. Figure 10-2 shows the results of the land use survey and any recent planning applications in the precinct.

10.3 Key Issues

The key issues associated with the Concept Design are as follows:

- Buffer distances required surrounding the proposed concrete batching plant
- The presence of the Land Subject to Inundation Overlay over the majority of the publicly owned (VicTrack) land
- Close proximity to sensitive residential uses.

10.4 Benefits and Opportunities

Table 10-1 provides the benefits and opportunities from a land use and planning perspective associated with the Concept Design.

Table 10-1 Benefits and opportunities associated with the Concept Design

Concept Design	Benefits	Opportunities
Aligned between the alignment of Arden and Queensberry Streets, in the public land (VicTrack)	Land already in public ownership and is appropriately zoned. Only three title acquisitions for Intake Substation (Option 3). Presence of concrete batching plants in the publicly owned (VicTrack) land. The site is located in an existing industrial precinct with limited sensitive uses in the immediate area.	Opportunities for incorporating development of the station with future development of the area (in line with master planning work undertaken by the MPA in partnership with CoM). At the completion of the Project, the redevelopment of the site would result in extensive urban renewal of the area.

10.5 Impact Assessment

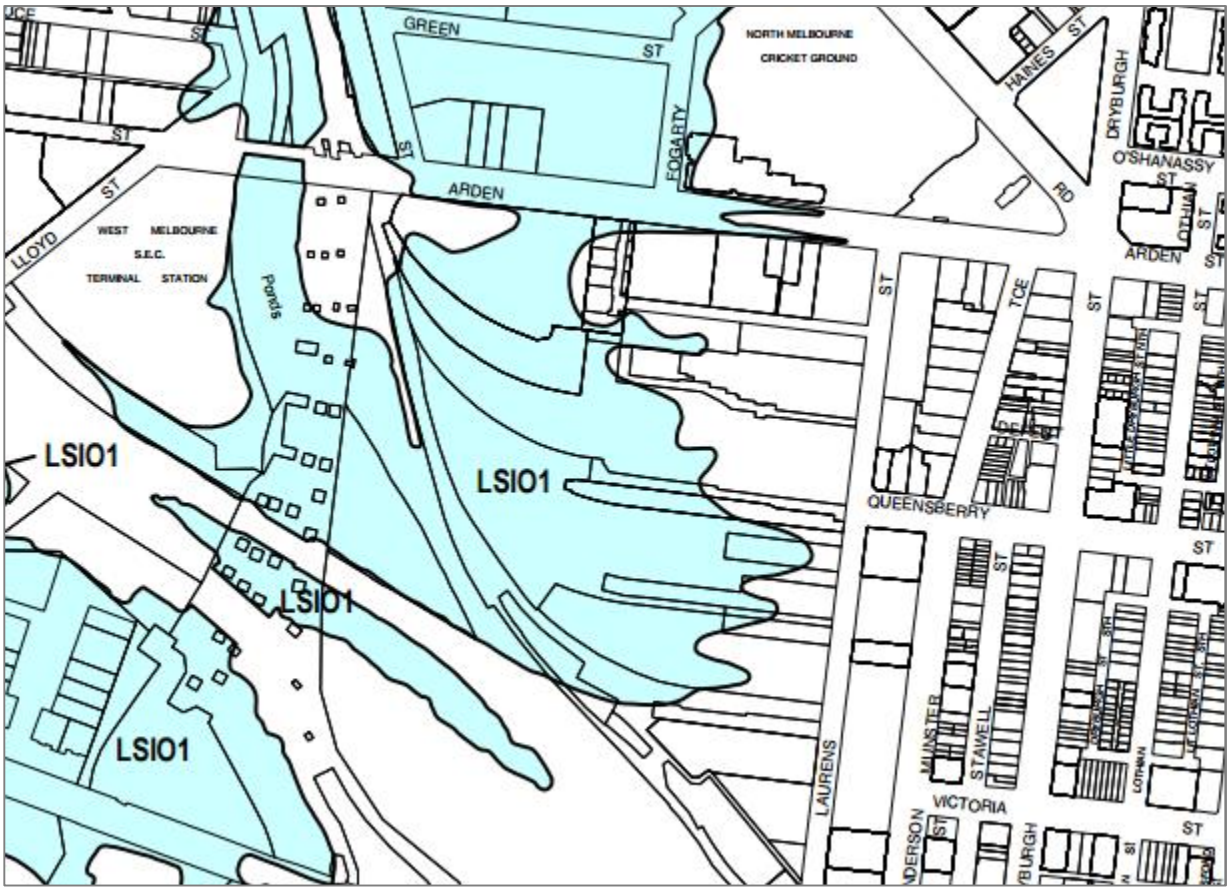
10.5.1 Land Use

The proposed use of the land for a station, as well as a temporary construction work site is on publicly owned (VicTrack) land, and so no private land acquisition is required. The use of the land is consistent with the existing purpose of the Public Use Zone 4, which is for transport purposes. The residual risk rating for this precinct is low as no private land acquisition is required and any change in land use resulting from the project would likely be in accordance with the directions of the *Arden-Macaulay Structure Plan* (City of Melbourne 2012).

The project proposes to release parts of the site for redevelopment during the later stages of Melbourne Metro construction. Any future development of the site would need to consider the *Arden-Macaulay Structure Plan* 2012 and relevant planning controls. The impact of Melbourne Metro on the *Arden-Macaulay Structure Plan 2012* is discussed in Section 10.5.4.

The proposed station is located in the core of the publicly owned redevelopment site at Arden. This site is identified in the *Arden-Macaulay Structure Plan 2012* as Arden Central and is earmarked to incorporate growth in a mixed use precinct as the new extension of Melbourne's central city. As the site is currently used for industrial purposes, the layout of the station, with the entrance fronting Laurens Street, close to existing development, would provide the best access for users on day one. A second, future entrance has been located in line with Fogarty Street (to the east of Arden Street) to account for the future development of the precinct.

The site is affected by a Land Subject to Inundation Overlay Schedule 1, which is used to *'identify land in a flood storage or flood fringe area affected by the 1 in 100 year flood'*. The Land Subject to Inundation Overlay (as shown in Figure 10-3) triggers planning approval for buildings and works and requires referral to the floodplain management authority (in this case Melbourne Water). Any planning application would assess the potential of the development to be impacted by floodwater and the impact of the development on the floodplain and river health. The station entrances and vents would be designed to address potential flooding issues, and any future development of the site would need to include flood mitigation measures. Further discussion regarding the flooding of the area is provided in Technical Appendix N *Surface Water*.



Source: Melbourne Planning Scheme

Figure 10-3 LSIO affecting the Arden station precinct

Land between the Arden station precinct and North Melbourne station is the subject of discussion at the City of Melbourne due to the high truck traffic numbers. There is potential for the road layout arrangements to change prior to construction commencing, resulting in altered construction traffic routes.

There are limited sensitive uses in the precinct, however the amenity of residential properties in Munster Terrace could be impacted by increased traffic movement and noise and vibration impacts. Further discussion on the amenity impacts in this area is in Technical Appendix D *Transport* and Technical Appendix I *Noise and Vibration*.

As identified in the *Arden-Macaulay Structure Plan 2012,* it is recommended that a Master Plan is prepared to provide further guidance on the land use and design of the precinct.

10.5.2 Land Acquisition

There would be no property acquisition required for this precinct, as the construction work site (station site) is publicly owned (VicTrack). The project would require the displacement of existing industrial uses through the discontinuance of existing leases on the public land.

Option 4 for the substation site would require the acquisition of land within the 50 Lloyd Street Business Estate (in the Western Portal precinct).

The *Major Transport Projects Facilitation Act 2009* provides the ability to temporarily and permanently reserve land and revoke reservations on Crown land for the purpose of a major transport project.

10.5.3 Access

Whilst it has been determined that the impact of the increase in truck movements is likely to be diminished due to the displacement of current activities, suitable measures should be implemented to direct pedestrian

and bicycle movements safely and effectively around the works, and ensure access is maintained to surrounding land uses.

Further discussion regarding the transport impacts of the use of this site as a major construction and staging area is provided in Technical Appendix D *Transport* and Technical Appendix G *Business.*

10.5.4 Strategic Planning Policy Support

The *Arden-Macaulay Structure Plan 2012* identifies the future use of the publicly owned (VicTrack) land for future expansion of Melbourne's Central City, including high density residential development, complemented by commercial activities, research jobs and tertiary education facilities. Additionally, open space is identified for the area. Increased accessibility to the area would support the revitalisation of the precinct and change in intensity of land use. No rezoning is proposed in the Structure Plan, however a Master Plan would be required to guide the land use and design within the precinct. As such, consideration needs to be given to the staging of development and the potential buffer requirements of the proposed concrete batching plant to limit any existing and future impacts to residential uses.

Post construction, it is anticipated that the proposed Arden station would provide a catalyst for revitalisation of the area and enable the Master Plan to facilitate future commercial and residential development at densities potentially higher than those outlined in the *Arden-Macaulay Structure Plan 2012* and the existing planning controls of the site. The Victorian government and the City of Melbourne are working together on a framework plan to guide the renewal of the area around the proposed Arden station over the next three decades.

The framework plan would aim to facilitate more intensive development in Arden-Macaulay, including preparation of a structure plan and Planning Scheme Amendment, development of an integrated flooding and development scheme, and finalisation of the Arden-Macaulay Partnership Blueprint between the Victorian Government, City of Melbourne, Department of Education and Training, Office of Housing, VicTrack and other major land owners and stakeholders in the precinct. There are opportunities in the drafting of the Master Plan to further leverage the benefits associated with the station by increasing the proposed densities in and around the periphery of the Structure Plan area. Consistent with Plan Melbourne, the Metropolitan Planning Authority is coordinating the work with a view to securing Arden Macaulay's position as a major new employment and residential destination on the western edge of the CBD providing:

- increased accessibility from Melbourne's growing west to the expanded Central City and links between the CBD and Docklands, E-Gate, Dynon and Footscray renewal precincts,
- high capacity frequent rail links to Australia's premier knowledge cluster at Parkville and the CBD, combined with accessibility to Docklands, Footscray, Sunshine and Melbourne Airport,
- intensive 24 hour, safe Transit Oriented Development and civic heart with Arden Station,
- new sustainably designed neighbourhoods, and
- best practice water management of Moonee Ponds Creek and its environs for the benefit of the public.

The preparation of the Master Plan would have regard to Technical Appendix M *Urban Design Strategy*.

It is expected that a draft of the Framework Plan would be available for community input during the Melbourne Metro EES process.

The timing of development of key parts of the precinct would be determined by construction of the Arden station, with major developments likely to be completed after 2024.

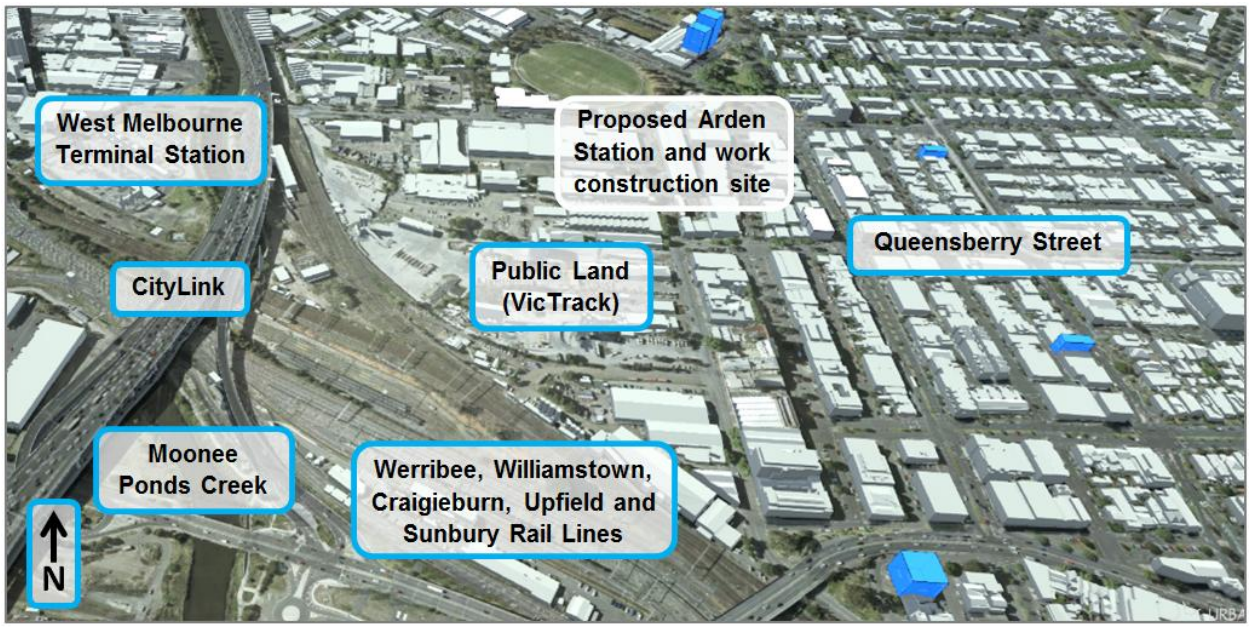
Local planning policies, Clause 21.04-1 (Growth Area Framework) and Clause 21.14 (Proposed Urban Renewal Areas) identify the Arden-Macaulay area as an area in transition as the profile of business activity in the area is changing due to its proximity to the Central City as well as the proposed Melbourne Metro station. Melbourne Metro would act as a catalyst to the implementation of the *Arden-Macaulay Structure Plan 2012.*

The Melbourne local policy Clause 21.09-1 (Integrated Transport) includes the strategy of growth and development of the City in the Urban Renewal Areas to be integrated with planned major transport infrastructure initiatives including Melbourne Metro. This precinct is within a proposed urban renewal area.

The City of Melbourne's *Open Space Strategy* (June 2012) identifies the land to be occupied by the proposed construction work site at Arden as incorporating potential Capital City Open Space. Capital City Open Space is classified in the Strategy due to its value to the city either as large parks and gardens for events and informal use, venues for major sporting events or public gathering spaces and squares focussed around the Hoddle Grid and the Yarra River. The provision of public open space would need to be incorporated into any master plan for the area and the provision of such space would be delayed until completion of the works in 2023.

10.5.5 Planning Applications

There are no current planning applications or recently approved developments that have the potential to impact on the proposed Melbourne Metro. Figure 10-4 shows the low scale built form in the area and identifies (in blue) the recently approved developments in the surrounding area that are yet to be completed[8].



Source: DELWP, November 2015

Figure 10-4 Image of recently approved developments within the surrounding area (Arden station precinct)

10.5.6 Substation

The Concept Design and alternative design options (options 2 and 3) for the substation are on publicly owned (VicTrack) land. The publicly owned land (VicTrack) is in the Public Use Zone 4 (Transport), which is an appropriate zone for a use associated with transport (the substations are considered to be ancillary to Melbourne Metro and as such, appropriate in this context). The Concept Design site (option 1) is currently vacant and access could be provided from Langford Street. The proposed use of the site would be consistent with the intended use of the site for transport purposes and is the preferred site from a land use and planning perspective.

Access to the MTM Traction Substation site (option 2) is constrained as it is located between two rail lines and CityLink and Moonee Ponds Creek. The existing use of the site for a substation would mean no change in land use would occur with the construction of an additional substation at the site.

[8] DELWP manages mapping of the City of Melbourne, which identifies built form and proposed developments.

Options 1 and 2 are also affected by the LSIO, where any development would need to address the floodplain and be designed to withstand potential flooding. Further discussion regarding flooding is in Appendix N *Surface Water.*

Option 3 (the southern site) is on publicly owned land (VicTrack) that is subject to one lease to MTM and one or two leases to private businesses (dependant on the precise footprint of the substation).

The location of options 1 – 3 are shown in Figure 10-3.

Option 4 is located in the 50 Lloyd Street Business Estate (in the Western Portal precinct) and would require permanent land acquisition. However the use of this location would likely be incorporated into the proposed emergency access shaft and therefore not require acquisition in its own right.

10.5.7 Proposed Concrete Batching Plant

It is proposed to include a concrete batching plant within the construction work site in this precinct.

Clause 52.10 (Uses with Adverse Amenity Impacts) of the Melbourne Planning Scheme outlines threshold distances for those types of industries, which if not appropriately designed and located, may cause offence or unacceptable risk to the neighbourhood. A concrete batching plant is specifically defined and requires a 300 m minimum buffer distance from any part of the land of the proposed use to land (not a road) in a residential zone, including a Mixed Use Zone. The Mixed Use Zone provides for a range of residential, commercial, industrial and other uses, which complement the mixed-use function of the locality. It is classified as a residential zone and as such, the concrete batching plant requires a minimum buffer distance of 300 m from properties on the eastern side of Laurens Street.

Figure 10-5 below illustrates the amount of the study area covered by the 300 m wide buffer from the Mixed Use Zone (shaded area is land within 300 m of the Mixed Use Zone). Any proposed concrete batching plant should be located on land not affected by the hatching (as shown in the figure).

Similarly, EPA's *Recommended separation distances for industrial residual air emissions, Publication number 1518, March 2013* (Guidelines) provides that facilities engaged in the 'production of concrete' at a rate of greater than 5000 tonnes per year should have a minimum separate distance of 100 m from sensitive land uses (measured from the 'activity boundary' of the concrete producing facilities to the property boundary of the nearest sensitive land use).

Section 9 of the Guidelines states that if a variation from the recommended separation distance is sought, approval should not be given by the planning authority or other responsible authority until the 'relevant land use separation issues' have been resolved to the satisfaction of the EPA. The Guidelines do not state what types of measures would satisfy the EPA but criteria for site-specific variations are set out in Section 9.2 of the Guidelines.

Two existing concrete batching plants (currently operated by Boral and Hy-Tec) are located within the precinct, as shown in Figure 10-5. There are potential benefits in the location of the construction work site at this location as a concrete batching plant is required for the project and there are two existing concrete batching plants at the site. The potential that a new operation could be the beneficiary of existing use rights, could be explored by the contractor.

The planning approval for Melbourne Metro is likely to be sought via a planning scheme amendment that introduces an Incorporated Document into the four relevant planning schemes. The Incorporated Document would exempt the need for a planning permit for Melbourne Metro (and ancillary activities) under any other provision of the four relevant planning schemes. Development would be undertaken in accordance with the specific conditions contained within the Incorporated Document without further planning approval being required. This has the potential to negate the planning buffer issue here, however this would not exempt the project from the need to meet the requirements of the EPA.

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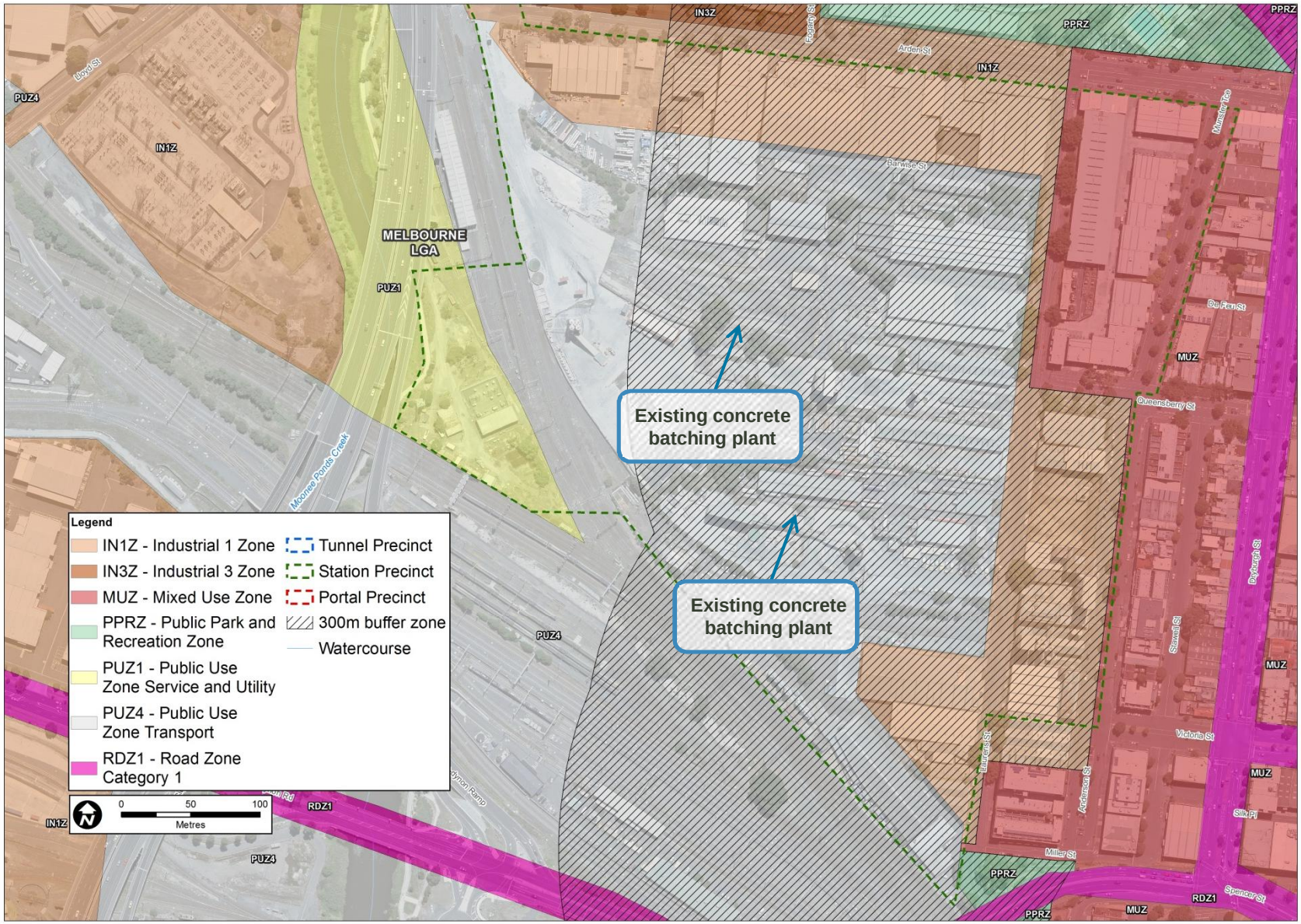


Figure 10-5 Buffer zone for the proposed concrete batching plant

10.5.8 EES Evaluation

The Concept Design and associated alternative design options are consistent with the draft EES evaluation objectives for land use and planning as:

- The station location complies with the objectives in the state and local planning policy, the directions of *Plan Melbourne,* in particular the objective of *'world's best urban renewal'* and the identification of *'new development and investment opportunities on the planned transport network'*, and the objectives and recommendations of the *Arden-Macaulay Structure Plan 2012*
- The proposed Melbourne Metro is consistent with the use of publicly owned (VicTrack) land which is zoned for rail purposes
- At the completion of construction, the station would assist in the revitalisation of the area in accordance with the directions of the *Arden-Macaulay Structure Plan 2012*
- The proposed Melbourne Metro would not significantly impact on built form in the area
- The only land acquisition required would be associated with the southern proposed site variation (option 3) for the substation
- Access to surrounding land uses for the duration of works needs to be maintained. A traffic management plan would be prepared to minimise disruption to traffic, pedestrian and bicycle movements across the precinct.

10.6 Environmental Performance Requirements

Table 10-2 provides the recommended Environmental Performance Requirements and proposed mitigation measures for the precinct.

Table 10-2 Environmental Performance Requirements for the precinct

Asset / value	Impact	Environmental Performance Requirements	Proposed mitigation measures	Risk no.
Industrial area	Potential loss of industrial land in close proximity to the CBD.	Design and construction of Arden station must consider the ongoing strategic planning of the Arden-Macaulay Urban Renewal Area, and include consultation with the Metropolitan Planning Authority, City of Melbourne and any other relevant agencies.	Preparation of a Master Plan having regard to the Melbourne Metro Urban Design Strategy to guide future development in Arden Macaulay.	LU007 LU008
Opportunities for development post construction	The proposed station would assist in the revitalisation of the area.	Design and construction of Arden station must consider the ongoing strategic planning of the Arden-Macaulay Urban Renewal Area, and include consultation with the Metropolitan Planning Authority, City of Melbourne and any other relevant agencies.	Preparation of a Master Plan having regard to the Melbourne Metro Urban Design Strategy to guide future development in Arden Macaulay.	LU008

11 Precinct 4: Parkville Station

11.1 Project Components

This section describes the components and construction activities that are likely to result in impacts to existing land use and planning conditions in this precinct.

11.1.1 Infrastructure

The proposed station is located under the Grattan Street road reserve, between Royal Parade and Leicester Street, Parkville.

The station would have one entrance/exit to the north of Grattan Street into land owned by the University of Melbourne (230 Grattan Street). A second entrance is proposed in front of the University of Melbourne on the north-east corner of Grattan Street and Royal Parade and a third entrance is proposed in front of the Victorian Comprehensive Cancer Centre building on the south-west corner of Grattan Street and Royal Parade. The station entrance structures would be approximately 4 m high and include two lift shafts at surface level, each measuring approximately 4 m high.

The station would incorporate sub-surface crossings beneath Royal Parade and Grattan Street.

Three vent shafts are proposed in the nature strip in front of University Square to the south of Grattan Street.

A new tram stop and train/tram interchange would be constructed on Royal Parade as part of the works.

The surface level land acquisition, occupation and strata acquisition shown in Table 11-1 would be required for construction in this precinct. Two properties on Berkeley Street are identified for permanent acquisition, one is owned by the University of Melbourne and the other is privately owned. Land within the University of Melbourne required for acquisition includes land along the northern side of Grattan Street (adjacent to the medical building) and land for two proposed station entrances. This same title would be acquired in part for strata. Land leased from the University of Melbourne on Elizabeth Street to provide for a car sales business (City Ford) is proposed for temporary occupation. University Square is public open space managed by the City of Melbourne, the northern end of which would require temporary occupation for approximately three years.

Table 11-1 Land acquisition and occupation for construction

Precinct	Permanent acquisition	Temporary occupation	Strata acquisition (approximate)	Total
3	Part of the University of Melbourne fronting Grattan Street Two properties in Berkeley Street	2 (City Ford) and University Square)	1 (part of the same University of Melbourne title as permanent acquisition)	5

11.1.2 Construction

The station would be constructed by the cut and cover (top down or bottom up) method. This would require the closure of Grattan Street between Royal Parade and Leicester Street for approximately three years. Barry Street is also proposed to be closed and used for construction between Grattan Street and Pelham Street for approximately three years. The construction of the station entrance structures would continue for another year on land acquired by the project.

Vehicle access to businesses surrounding the area of Grattan Street proposed to be closed would be constrained for the duration of construction works. Pedestrian routes linking the area across Grattan Street and Royal Parade would be diverted and constrained, however access would be maintained to the medical facilities in the area and the University of Melbourne buildings.

A temporary construction work site is proposed at City Ford on Elizabeth Street and the northern portion of University Square. Occupation of these sites would be required for approximately five years.

The construction of the station would potentially affect up to 145 trees in Grattan Street, Royal Parade and the University of Melbourne (subject to alternate design variations). Further information about the trees is in Technical Appendix R *Arboriculture*.

The station construction and tunnelling at this site would be undertaken on a 24-hour basis seven days a week.

11.1.3 Operation

Once construction is complete, Grattan Street and Royal Parade would be reinstated. The three station entrances and vents would be the only evidence of the operation of the proposed station.

11.2 Existing Conditions

The location of the proposed Melbourne Metro within Precinct 4 – Parkville Station and the relevant planning controls are shown in Figure 11-4 and Appendix G of this impact assessment.

The Parkville station precinct is bordered by Flemington Road, Pelham Street, buildings on the eastern side of Leicester Street and buildings on the north side of Grattan Street. Melbourne's key health, medical research and educational precinct is located in this precinct and includes the Royal Melbourne Hospital, Royal Women's Hospital, Victorian Comprehensive Cancer Centre, and the University of Melbourne.

North-west of the precinct on Flemington Road is the Royal Children's Hospital, Melbourne University's Bio21 Institute, Melbourne Private Hospital and University High School.

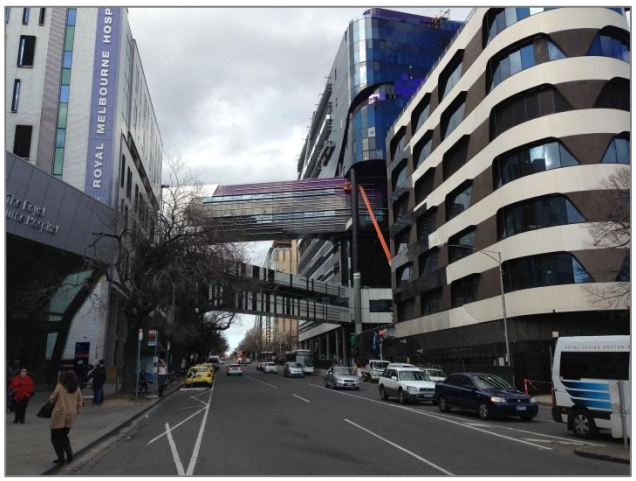


Figure 11-1 Royal Melbourne Hospital (left) and the Victorian Comprehensive Cancer Centre (right)

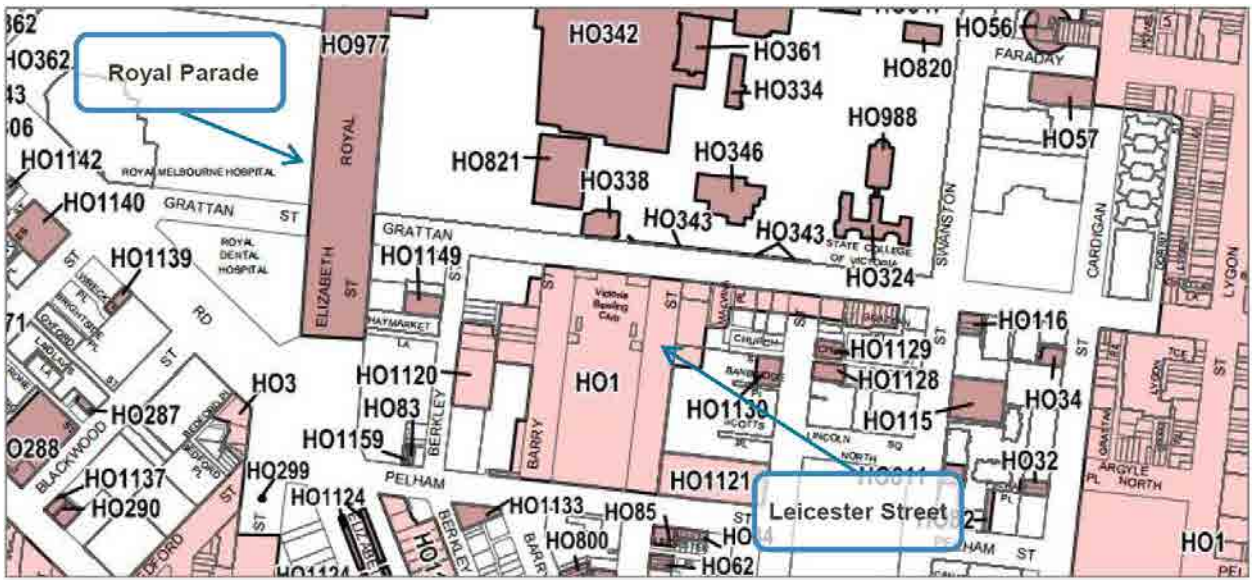
Figure 11-2 University of Melbourne Medical Building

The main campus of the University of Melbourne is bound by Grattan Street, Royal Parade, Swanston Street and College Crescent. The north east corner of Grattan Street and Royal Parade is dominated by the Medical Building, which is a distinctive eight storey building dating from the 1960s. The proposed project boundary within the University of Melbourne affects land in a number of Heritage Overlays and listed on the Victorian Heritage Register. The details of these heritage buildings are contained in Technical Appendix J *Historical Cultural Heritage*.

University Square is in the east of this precinct. It is Crown land (reserved for ornamental plantation) managed by the City Melbourne, in the Public Park and Recreation Zone and is affected by the precinct wide Heritage Overlay (HO1 – Carlton Precinct). The northern end of the Square was developed as part of the University of Melbourne underground car park in 2001, which is leased to the University of Melbourne.

Land in this precinct includes a mix of land use zones, with the hospital precinct and University of Melbourne (north of Grattan Street) in the Public Use Zone (PUZ3 – Health and Community and PUZ2 – Education). Land south of Grattan Street and east of Royal Parade (excluding University Square) has recently been rezoned from Mixed Use Zone to the Capital City Zone (Schedule 5 - City North) to provide for a range of *'educational, research and medical uses as part of an internationally renowned knowledge district'*. This rezoning is reflective of the plans for the area as set out in the *City North Structure Plan*, 2012. As part of the rezoning, a new Design and Development (Schedule 61 - City North) (DDO61) was introduced which provides the following controls to:

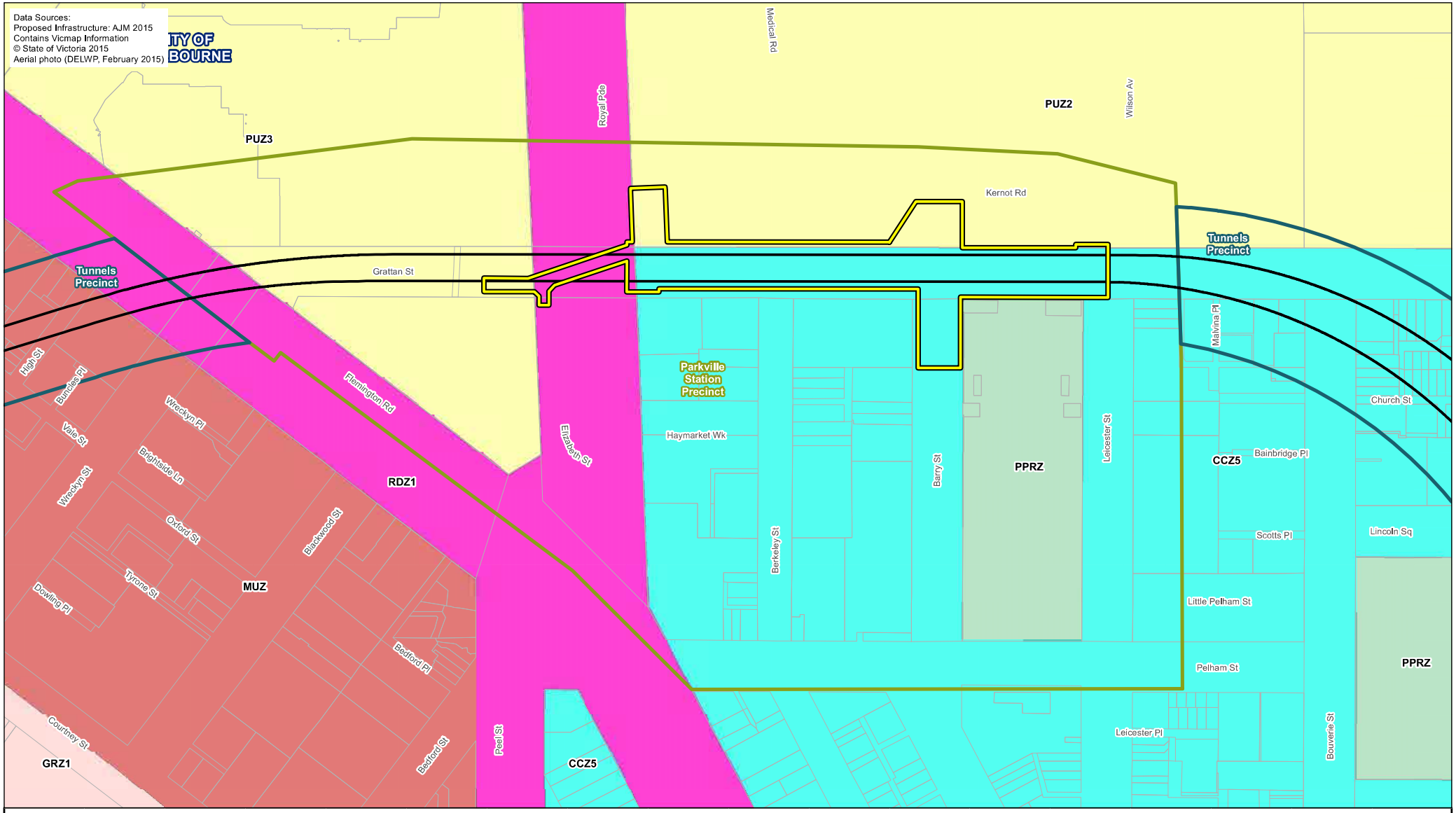
- Determine a range of building heights in different parts of City North
- Ensure streets have good pedestrian scale with lower building heights at the street frontage and higher parts set back from the street
- Ensure building fronts provide good pedestrian amenity including weather protection
- Provide lower building heights near existing low rise neighbourhoods to help maintain the amenity of these areas and ensure that new buildings are respectful of existing buildings
- Ensure buildings do not overshadow the Queen Victoria Market and respect its heritage character.



Source: Melbourne Planning Scheme

Figure 11-3 – Heritage Overlays in the Parkville station precinct

Figure 11-4 and Appendix G shows the zones within the Parkville station precinct. Figures G-23 and G-24 in Appendix G show the overlays within the Parkville station precinct. Figure 11-5 shows the results of the land use survey and any recent planning applications within the Parkville station precinct.



Legend

Proposed Concept Design
- Proposed Alignment
- Proposed Station Footprint

Environmental and Planning Precincts
- Station Precinct
- Tunnels Precinct
- Cadastre
- Local Government Area (LGA)

Planning Zones
- CCZ - Capital City Zone
- GRZ - General Residential Zone
- MUZ - Mixed Use Zone
- PPRZ - Public Park and Recreation Zone
- PUZ2 - Public Use Zone Education
- PUZ3 - Public Use Zone Health and Community
- RDZ1 - Road Zone Category 1

Map 5 of 14

MELBOURNE METRO RAIL AUTHORITY

AJM Joint Venture GRIMSHAW — aurecon JACOBS — Mott MacDonald in association with

Melbourne Metro Rail Project

Title: Planning Zones

Drawing Number:		Revision:
MMR-AJM-UGAA-MP-NN-500264		P1
Drawn By: A. French	Approved By: G. Thraves	Date: 13/04/2016	Map Size: A4

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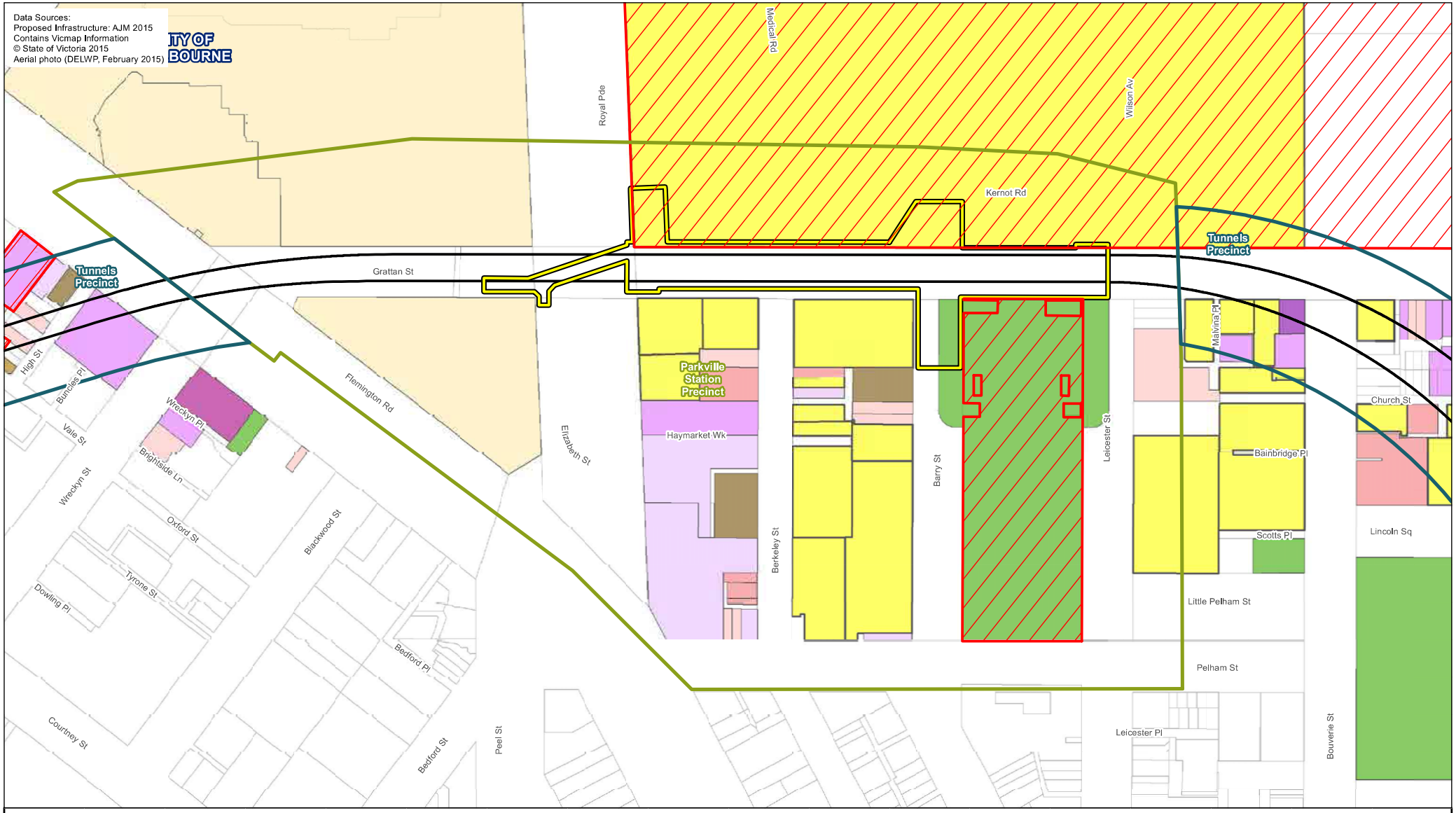
Figure 11-4 Zones in the Parkville station precinct



Legend

Proposed Concept Design
- Proposed Alignment
- Proposed Station Footprint
- Cadastre
- Local Government Area (LGA)
- Properties_with recent planning approvals & pre-applications

Environmental and Planning Precincts
- Station Precinct
- Tunnels Precinct

Landuse Survey (AJM)
- Accomodation
- Education Centre
- Food and Drink Premises
- Health
- Industry
- Leisure And Recreation
- Office
- Other
- Retail Premises
- Service Industry
- Shop

Map 5 of 13

MELBOURNE METRO RAIL AUTHORITY

AJM Joint Venture GRIMSHAW — aurecon JACOBS Mott MacDonald in association with

Melbourne Metro Rail Project

Title: Landuse Survey

Drawing Number:	Revision:
MMR-AJM-PWAA-MP-NP-500320	P1

Drawn By:	Approved By:	Date:	Map Size:
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Figure 11-5 Land Use Survey and recent planning applications in the Parkville station precinct

The Haymarket roundabout, the major road intersection of Royal Parade, Flemington Road, Peel Street, Elizabeth Street and Pelham Street, is located at the southern end of the precinct.

Royal Parade and Flemington Road are tree lined boulevards that provide major north south access routes in and out of the CBD. Both roads are in the Road Zone, Category 1 and managed by VicRoads.

Tram route 19 to North Coburg runs along Royal Parade and tram routes 55 and 59 to Airport West and West Coburg respectively run along Flemington Road. Bus route 546 runs on Royal Parade between Heidelberg, Melbourne University and the Queen Victoria Market via Clifton Hill and Carlton.

Royal Parade is affected by the Heritage Overlay (HO977 Royal Parade, Parkville and Carlton North, and Elizabeth Street, Melbourne) and is listed on the Victorian Heritage Register (Ref H2198). The heritage value of the precinct is described further in Technical Appendix J *Historical Cultural Heritage*.

Any future development in the precinct must take into consideration the provisions of the Melbourne Planning Scheme as well as any relevant strategic planning studies. The planning controls in the Parkville station precinct are included in Appendix E and Appendix F of this impact assessment.

Table 11-2 describes the existing land use assets in the precinct.

Table 11-2 Key assets identified in precinct 4

Asset / value	Description
The University of Melbourne	Victoria's oldest university, including many buildings of heritage significance.
Hospitals/medical research precinct	Melbourne's key health, research and educational precinct, and includes the Royal Melbourne Hospital, Royal Women's Hospital, the Victorian Comprehensive Cancer Centre, the Peter Doherty Institution for Infection and Immunity, the Royal Children's Hospital, and the University of Melbourne.
Key boulevards	Royal Parade and Flemington Road are tree lined boulevards that provide the major north south access routes to the CBD. Trams operate along both roads. Royal Parade is listed on the Victorian Heritage Register and supports a number of established trees.
Heritage values	Many places within the University of Melbourne, University Square, Leicester Street and Royal Parade are affected by Heritage Overlays and the Victorian Heritage Register.
University Square	City of Melbourne managed public open space, partly over an underground carpark for The University of Melbourne.

11.3 Key Issues

The key issues associated with the Concept Design are identified below.

- The acquisition of part of one title at the University of Melbourne, and two titles on Berkeley Street, as well as the temporary occupation at the City Ford site and University Square for a period of five years. One strata acquisition of a portion of land owned by the University of Melbourne
- The temporary closure of Grattan Street between Royal Parade and Leicester Street and Barry Street between Grattan and Pelham Street, limiting vehicle access to the hospital precinct and the University of Melbourne
- The maintenance of pedestrian access to properties surrounding the construction work site
- The heritage significance of street trees in Royal Parade and the overall loss of trees within the precinct (some loss of trees would be for temporary works)

- Loss of public open space through the occupation of part of University Square
- The presence of technology and sensitive equipment within the health and education precinct should be considered during construction to limit impacts to the use of sensitive equipment.

11.4 Benefits and Opportunities

The benefits and opportunities associated with the Concept Design include.

- The linear nature of the station provides opportunities for numerous linkages across the precinct
- Safe pedestrian links across Royal Parade and Grattan Street

The opportunities relate to the potential to improve the precinct through the redevelopment of University Square and facilitating the City of Melbourne's desire to pedestrianize Barry Street. There are opportunities to incorporate the station design with the planned development of the University of Melbourne and a better tram, train and bus interchange in this area.

11.5 Impact Assessment

11.5.1 Land Use

The proposed Parkville station site is considered an appropriate location for a station as its siting in this location would contribute to the ongoing development of this precinct. The station is identified in the *City North Structure Plan*, 2012 and acted as a catalyst for the rezoning of land in the precinct as it is seen as connecting the National Employment Cluster to the CBD. The *City North Structure Plan* is a reference document to the planning scheme and is discussed further in Appendix I of this impact assessment.

Plan Melbourne 2004 identifies the Parkville Precinct as a National Employment Cluster (incorporating a health / education precinct) (Plan Melbourne, 2014). The role of this area is as a 'city-shaping' precinct, and the contribution it provides to productivity and economic growth of Victoria and Australia. A station at this location provides improved connectivity between the expanded central city precinct of Parkville and the rest of Melbourne. It is also essential for sustaining central Melbourne's job-generating attributes: a major driver of Melbourne's and Victoria's productive capacity. The station would provide an opportunity to restructure the tram network at this location to better serve emerging employment patterns and facilitate new connections to and from Parkville. There would be three station entrances here to provide the best possible access to patrons across the precinct, focusing on the health and education uses. The station entrance on the south-west corner of the Royal Parade, Grattan Street intersection would provide access to the hospital precinct on the west side of Royal Parade. By locating the entrance on the south side of Grattan Street, it would avoid disruptions to the main emergency accessway for the Royal Melbourne Hospital, which is located on the north side of Grattan Street.

The station entrance on the north east corner of the same intersection would provide direct access to the University of Melbourne as well as the proposed tram super stop on Royal Parade. To provide balanced access to the station, a second entrance is proposed further east, which would also provide access to the University of Melbourne and provide access to the eastern catchment. The entrance would be aligned with Barry Street, which is proposed to be pedestrianised at the completion of construction.

Impacts to the street trees on Royal Parade and emergency access to the hospitals have been limited through the siting of the station to the east of Royal Parade.

The construction phase of the Project would temporarily impact on existing land uses in the area through amenity impacts and traffic congestion, however the proposed Melbourne Metro would not impact on the existing land uses on a permanent basis. Consequently, the residual risk rating on land use and built form in this precinct is low.

The proposed development of the station box would encroach onto land on the north side of Grattan Street owned by the University of Melbourne. It is anticipated that following construction, land within the University

of Melbourne disturbed by construction activities but not required for the station entrances would be reinstated to its previous use or could be designed as part of the University of Melbourne redevelopment plan.

Further impacts on surrounding uses would be due to increased noise and dust from construction, although these impacts would be managed through the implementation of appropriate environmental management measures, as discussed further in Technical Appendix D *Transport*, Technical Appendix F *Social and Community* and Technical Appendix I *Noise and Vibration*.

The study area currently includes three places on the Victorian Heritage Register within the University of Melbourne. However, it is anticipated that detailed design would ensure that potential impacts on the heritage values of these registrations are limited or mitigated. Further information on potential impacts on heritage buildings is provided in Technical Appendix J *Historical Cultural Heritage.*

The temporary use of the northern portion of University Square would temporarily reduce the availability of public open space in the precinct. The extent of impacts to public open space would be determined by the contractor and would be dependent on the ultimate construction methodology. During construction, the southern area of University Square would remain undisturbed and available for public use, however the amenity of users would be impacted through its proximity to a construction work site. Further discussion on the social impact of this construction work site is included in Technical Appendix F *Social and Community*.

11.5.2 Access

The proposed works would require the closure of Grattan Street and part of Barry Street for three years and increase congestion in the area through construction traffic. This would impact on connectivity within the precinct and public accessibility of the Royal Melbourne Hospital, Royal Women's Hospital, Victorian Comprehensive Cancer Centre and the University of Melbourne.

It is proposed to maintain access for pedestrians and emergency vehicles across the precinct, however movement across the precinct generally would be constrained due to the construction work sites in the precinct.

The location of the proposed station and the proposed new tram stop on Royal Parade, as well as the pedestrian underpass below Royal Parade and Grattan Street, has the potential to create an improved tram, train and bus interchange at this location, and further improving connectivity to this National Employment Cluster.

11.5.3 Land Acquisition

The proposed works in this precinct would require the acquisition of part of one title, and two properties on Berkeley Street, as well as the temporary occupation of two titles for approximately three years, plus one strata acquisition. The land to be acquired on Grattan Street is owned by the University of Melbourne, however the parcel to be acquired is relatively small in size and does not impact on buildings within the main campus. One property on Berkeley Street is owned by the University of Melbourne and the other is privately owned. The University of Melbourne would be compensated in accordance with the requirements of the *Land Acquisition and Compensation Act 1986.*

Part of University Square and the City Ford site in Elizabeth Street would be required for temporary occupation for approximately three years. The loss of temporary access to public open space at University Square would result in some land use change over this period.

Acquisition in this precinct would not result in a permanent change of land use or the loss of residential uses.

11.5.4 Strategic Planning Policy Support

Plan Melbourne is the metropolitan planning strategy guiding Melbourne's growth to 2050. Whilst it is acknowledged that the current version of *Plan Melbourne* refers to Melbourne Rail Link rather than the current project, the plan notes that Melbourne's economic competitiveness could be undermined if

accessibility to employment is not improved and congestion on the public transport system addressed. The plan is currently being reviewed, with an updated version due to be released in 2016, however the existing document provides the following initiatives of relevance to Melbourne Metro within this precinct within Direction 1.5 (Plan for jobs closer to where people live) relevant to the Parkville precinct:

Initiative 1.5.1

The objective is to 'facilitate the development of National Employment Clusters'.

Initiative 3.1.2

The objective is to 'move towards a Metro-Style Rail System, starting with the Melbourne Rail Link'

The Parkville employment cluster is identified as a National Employment Cluster and improved access to the area would support the area and increase jobs for residents in outer Melbourne.

The recent rezoning of the land to the south of Grattan Street to the Capital City Zone 5 (City North) by the City of Melbourne supports a more intensive development of the area including becoming an extension of the central city, accommodating more people and jobs. Particularly, the planned development at the Queen Victoria Market site, Carlton Housing Estate and the redevelopment of the CUB site would contribute to the density of the area.

Future Melbourne 2008 established a goal for the provision of 20 per cent affordable housing in new developments in Melbourne. This growth in population in the area would put pressure on existing public open spaces, which would be exacerbated by the loss of a portion of University Square for approximately three years during construction.

The *City North Structure Plan 2012* recommends the preparation of a master plan for University Square to improve the amenity of this open space for recreational enjoyment and improved ecological performance. The public open space attached to University Square is proposed to be expanded into the surrounding street reserves to maximise public open space, in line with the recommendations of the *City North Structure Plan 2012*. It is likely this expansion would occur at the completion of the construction works for Melbourne Metro. The Structure Plan identifies the station location in this precinct and provides a framework to guide the development of the area as an extension of the Central City.

Clause 21.14 (Proposed Urban Renewal Areas) of the Melbourne Planning Scheme identifies City North as an area in transition, with potential for urban renewal utilising the *City North Structure Plan 2012.* The proposed Melbourne Metro in this precinct would not prevent the implementation of the Structure Plan.

The proposed Melbourne Metro would contribute to the implementation of the *University of Melbourne Parkville Master Plan,* with MMRA working together with the University of Melbourne to develop this precinct in line with the aims of the Master Plan and the Technical Appendix M *Urban Design Strategy*.

11.5.5 Planning Applications

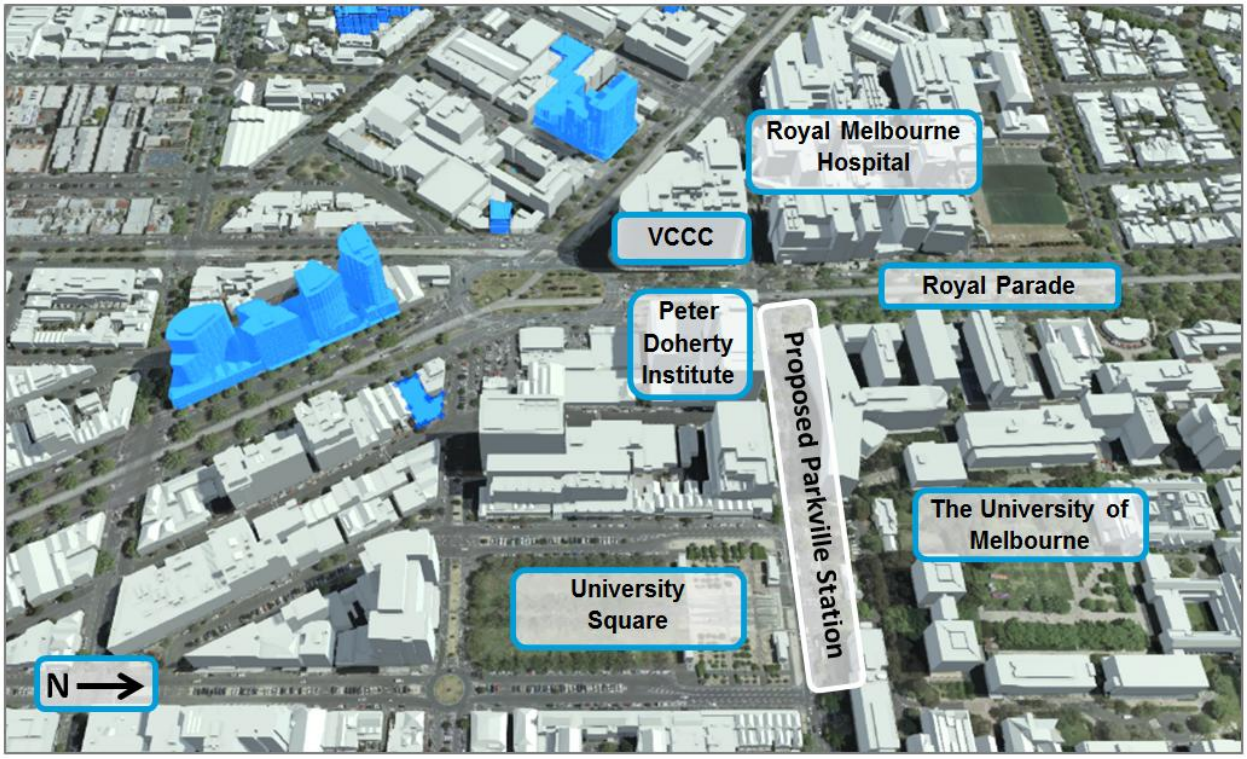
There are no recent planning applications of relevance to the project in this precinct.

The University of Melbourne has advised that there are plans to redevelop the University of Melbourne's main campus. This redevelopment would include the following works:

- Redevelopment of the City Ford site within the next five years (the timeframe of this development is likely to extend due to its proposed temporary use for Melbourne Metro)
- Underground connectivity across Royal Parade and Grattan Street
- Proposed connectivity between the Victorian Comprehensive Cancer Centre and Royal Melbourne Hospital with support facilities/spin-off businesses and student accommodation expected to develop on the western side of Flemington Road
- Creation of a direct pedestrian connection between the main campus and University Square through the proposed closure of Grattan Street between Royal Parade and Swanston Street.

The location of the proposed station entrances and station ventilation shafts could be integrated into the future structures at the University. Any future loading requirements associated with development along the alignment are discussed in Appendix J of this impact assessment.

Figure 11-6 illustrates the existing built form in the precinct but the University of Melbourne development is not highlighted as planning approval has not been lodged as yet. The buildings highlighted in blue are developments that have planning approval but have not been built. Detailed discussion on the proposed developments is not provided as the sites are outside the proposed Parkville station precinct.



Source: DELWP, November 2015

Figure 11-6 Built form in the Parkville precinct

11.5.6 EES Evaluation

The Concept Design is generally consistent with the draft EES evaluation objectives for land use and planning as:

- The station design complies with the objectives in the state and local planning policy, and the directions of *Plan Melbourne*, in particular the objective of facilitation of *'the development of National Employment Clusters'*.
- It would have a low impact on built form and heritage assets in the precinct as the station would be located beneath the Grattan Street road reserve with three station entrances
- it has low impact on privately owned land, requiring minimal land acquisition
- it would result in the temporary loss of public open space (three years) with the use of a portion of University Square for the project. At the completion of construction, University Square would be returned to public open space, with the exception of the permanent vents fronting Grattan Street.
- At the completion of construction, the station would assist in the revitalisation of the area in accordance with the recommendations of the *City North Structure Plan 2012*, the Capital City Zone 5 (City North) and the planned redevelopment of the University of Melbourne

- Movement would be constrained within the precinct, however access would be maintained for pedestrians and for emergency vehicles. A traffic management plan would be prepared to to minimise disruption to traffic, pedestrian and bicycle movements.

11.6 Environmental Performance Requirements

Table 11-3 provides the recommended Environmental Performance Requirements and proposed mitigation measures for the precinct.

Table 11-3 Environmental Performance Requirements for the precinct

Asset / value	Impact	Environmental Performance Requirements	Proposed mitigation measures	Risk no.
University of Melbourne	Partial land acquisition for station entrances.	Develop and implement measures for construction and operation of Melbourne Metro that aim to minimise impacts to the development and / or operation of existing land uses, including: • Limiting the permanent change of use within existing public open space • Minimising footprints of construction sites and permanent infrastructure on public land • Minimising impacts to existing public open spaces and recreational facilities and the users of these facilities, including but not limited, to JJ Holland Park, University Square, City Baths, City Square, Federation Square, the Shrine of Remembrance Reserve, Domain Parklands, Edmund Herring Oval, Fawkner Park and the Albert Road Reserve. Such measures shall be developed in consultation with affected land managers for public land. Prior to main works or shaft construction, develop and implement a community and business involvement plan to engage potentially affected stakeholders and advise them of the planned construction activities and progress against the schedule. The plan must include:	Undertake acquisition of parcels where conflict exists. Incorporate proposed works with the planned future development of the University. Use the proposed DDO to protect Melbourne Metro infrastructure and trigger discussions with third party developers regarding future development.	LU003

Asset / value	Impact	Environmental Performance Requirements	Proposed mitigation measures	Risk no.
		• Measures to minimise impacts to the development and/or operation of existing facilities • Measures for providing advance notice of significant milestones, changed traffic conditions, periods of predicted high noise and vibration activities • Process for registering and management of complaints • Measures to address any other matters which are of concern or interest to them. The plan would consider each precinct and station location in detail. Stakeholders to be considered in the plan include (but not limited to): • Municipalities • Potentially affected residents • Potentially affected businesses • Recreation, sporting and community groups and facilities • Royal Melbourne Hospital, Victorian Comprehensive Cancer Centre, Peter Doherty Institute and other health and medical facilities • The University of Melbourne • RMIT • Fawkner Park Children's Centre and Kindergarten • South Yarra Senior Citizens Centre		

Asset / value	Impact	Environmental Performance Requirements	Proposed mitigation measures	Risk no.
		• Other public facilities in proximity.		
Hospitals / medical / research precinct	Provision of the station in this location supports the identification of the precinct as a National Employment Cluster. Possible construction activities inhibit future development above and below ground.	Develop and implement measures for construction and operation of Melbourne Metro that aim to minimise impacts to the development and / or operation of existing land uses, including: • Limiting the permanent change of use within existing public open space • Minimising footprints of construction sites and permanent infrastructure on public land • Minimising impacts to existing public open spaces and recreational facilities and the users of these facilities, including but not limited, to JJ Holland Park, University Square, City Baths, City Square, Federation Square, the Shrine of Remembrance Reserve, Domain Parklands, Edmund Herring Oval, Fawkner Park and the Albert Road Reserve. Such measures shall be developed in consultation with affected land managers for public land.	Selection of appropriate construction equipment/construction methodology to minimise disruption to medical uses. Consultation with affected institutes. Undertake strata and, where required, full acquisition of titles where conflict exists. Use the proposed DDO to protect Melbourne Metro infrastructure and trigger discussions with third party developers regarding future development. Potential redevelopment of the precinct to have regard to the City North Structure Plan, *Plan Melbourne* and the Capital City Zone Schedule 5 (City North Area).	LU003 LU008
University Square	Temporary occupation of public open space reducing quality of surrounding open space.	In consultation with key stakeholders and in accordance with the Urban Design Strategy, relevant statutory approvals and other relevant requirements, re-establish sites impacted by construction works, including but not limited to: • Childers Street, Kensington • JJ Holland Park • Royal Parade and Grattan Street,	Demonstrate that construction work sites have been optimised to reduce their footprint on the parklands.	LU006 LU007 LU009

Asset / value	Impact	Environmental Performance Requirements	Proposed mitigation measures	Risk no.
		Parkville • The south western entrance of the proposed CBD South station • St Kilda Road boulevard • Edmund Herring Oval • Fawkner Park and Fawkner Park Tennis Facility • Osborne Street Reserve • South Yarra Siding Reserve • Lovers Walk • The South African Soldiers War Memorial Develop and implement a plan in consultation with the Office of Victorian Government Architect, local councils and other land managers to comply with the Melbourne Metro Urban Design Strategy to re-establish public open space, recreation reserves and other valued places disturbed by temporary works. The plan must include, but not be limited to a methodology for storage, reinstatement or replacement of existing public art, monuments and public infrastructure such as poles, bins, and other street furniture. Develop and implement measures for construction and operation of Melbourne Metro that aim to minimise impacts to the development and / or operation of existing land uses, including: • Limiting the permanent change of use within existing public open space • Minimising footprints of construction		

Asset / value	Impact	Environmental Performance Requirements	Proposed mitigation measures	Risk no.
		sites and permanent infrastructure on public land • Minimising impacts to existing public open spaces and recreational facilities and the users of these facilities, including but not limited, to JJ Holland Park, University Square, City Baths, City Square, Federation Square, the Shrine of Remembrance Reserve, Domain Parklands, Edmund Herring Oval, Fawkner Park and the Albert Road Reserve. Such measures shall be developed in consultation with affected land managers for public land.		

12 Precinct 5: CBD North Station

12.1 Project Components

This section describes the components and construction activities that are likely to result in impacts to existing land use and planning conditions in this precinct.

12.1.1 Infrastructure

The proposed CBD North station is to be located beneath Swanston Street, between the north side of Franklin Street and La Trobe Street. The design includes a station entrance adjacent to the City Baths and RMIT on the eastern side of Franklin Street and at the north west corner of Swanston and La Trobe Streets. There would also be an underground connection to Melbourne Central Station.

The station entrance at Franklin Street is currently proposed to be approximately 4 m high and would occupy a portion of the centre median car parking and Franklin Street. The design includes the permanent closure of Franklin Street east of Swanston Street, except for a U-Turn facility from Victoria Street to provide access to RMIT and City Baths loading bays.

The new station structure on the corner of Swanston and La Trobe Streets is currently proposed to be approximately 25 m high. The design of the station entrance has provision for possible future over-site development opportunities, however over-site development is not subject to this impact assessment and no approval is being sought for it. A vent shaft is proposed in Franklin Street road reserve (west of Swanston Street) and would be approximately 3 m high. No acquisition would be required for this shaft and traffic would still be able to pass in both directions during construction and in the future.

Further vent shafts and maintenance access is proposed within the road reserve of A'Beckett Street (west of Swanston Street).

The station entrance at the corner of Swanston and La Trobe Streets would require the acquisition of 60 titles (49 residential titles and 11 commercial titles). Six buildings are proposed to be removed to form the station construction work site and station entrance and include one residential building on La Trobe Street (nine storeys plus basement), a three storey office and retail building on Swanston Street, two double storey commercial buildings on La Trobe Street and a three storey office building with ground level retail on La Trobe Street connected to a second three storey office building, also on La Trobe Street. Three further titles (in three buildings) are identified for acquisition in Little La Trobe Street.

In this precinct, it has been identified that the following surface level land acquisition, occupation and strata acquisition would be required for construction. Table 12-1 lists the land acquisition numbers required for this precinct.

Table 12-1 Land acquisition and occupation for construction

Precinct	Permanent acquisition	Temporary occupation	Strata acquisition (approximate)	Total
5	57 titles across six buildings on Swanston and La Trobe Streets Three titles across three buildings on Little La Trobe Street	N/A	14	74

Of the properties identified for acquisition, two properties have approved planning permits for the redevelopment of the land for multi-storey, mixed use buildings.

12.1.2 Construction

The construction work sites for this precinct would be within the Franklin Street road reserve between Swanston Street and Victoria Street and a La Trobe Street property. There are two alternative additional construction sites; one at on A'Beckett Street and the other within the road reserve of A'Beckett Street between Swanston Street and approximately half way down the block towards Elizabeth Street.

The station itself would be constructed using mined cavern construction method, with access provided from the main construction work sites.

There is potential to impact on up to 46 trees within this precinct. This is discussed further in Technical Appendix R *Arboriculture*.

12.1.3 Operation

Once construction is complete, Swanston Street would be reinstated. The station entrances and vent stacks would be the only evidence of the works at surface level.

The station entrance in Franklin Street and the vent stacks in A'Beckett Street would both require the closure of part of the road. Structures within the Franklin Street road reserve, west of Swanston Street, would require the narrowing of a portion of the road.

12.2 Existing Conditions

The location of the proposed Melbourne Metro within Precinct 5 CBD North Station and the relevant planning controls are shown in Figure 12-1 and Appendix G of this impact assessment.

The CBD North station precinct is in the City of Melbourne and extends from Victoria Street, south along Swanston Street to Little Lonsdale Street. The precinct generally includes the block fronting Swanston Street, and apart from the RMIT buildings and City Baths, is within the Capital City Zone (Schedule 1 - Outside the Retail Core). Swanston Street is a key tram, cycle and pedestrian link from the north to south of the CBD.

This area of the CBD was previously characterised by a stepping down in scale from the high rise of the development in the central grid area of the city to the medium and lower scale of development in Carlton. However, a number of recent developments and proposals on La Trobe Street and the former CUB site on Victoria Street are leading to an increase in high rise buildings and population densities in this area. Recent developments in the area include the Verve 501 apartment building (46 storeys) at 483 Swanston Street (near the corner of Franklin Street) and the RMIT Swanston Academic Building (427 – 457 Swanston Street) on the north west corner of A'Beckett Street and Swanston Street (see Figure 11-2).

It has been identified that there is potential ground contamination in this precinct. Ministerial Direction No. 1 (Potentially Contaminated Land) outlines the assessment process for a planning scheme amendment for land that is adversely affected by contamination. Further discussion on potential contamination is included in Technical Appendix Q *Contaminated Land and Spoil Management*.

This precinct is dominated by RMIT University, which is the largest land owner in the precinct, with holdings extending between Franklin and La Trobe Streets on the eastern side of Swanston Street. RMIT also owns a number of buildings on the west side of Swanston Street. Some RMIT buildings such as Storey Hall (listed on the Victorian Heritage Register Ref No H1498) are affected by a Heritage Overlay (see Appendix F of this impact assessment). RMIT University's main campus area, generally bordered by Swanston Street, Elizabeth Street, Franklin Street and Russell Street is within the Public Use Zone 2 (Education).

Figure 12-1 and Appendix G shows the zones in the CBD North station precinct. Figures G-27 and G-28 in Appendix G show the overlays in the CBD North station precinct. Figure 12-2 shows the results of the land use survey.

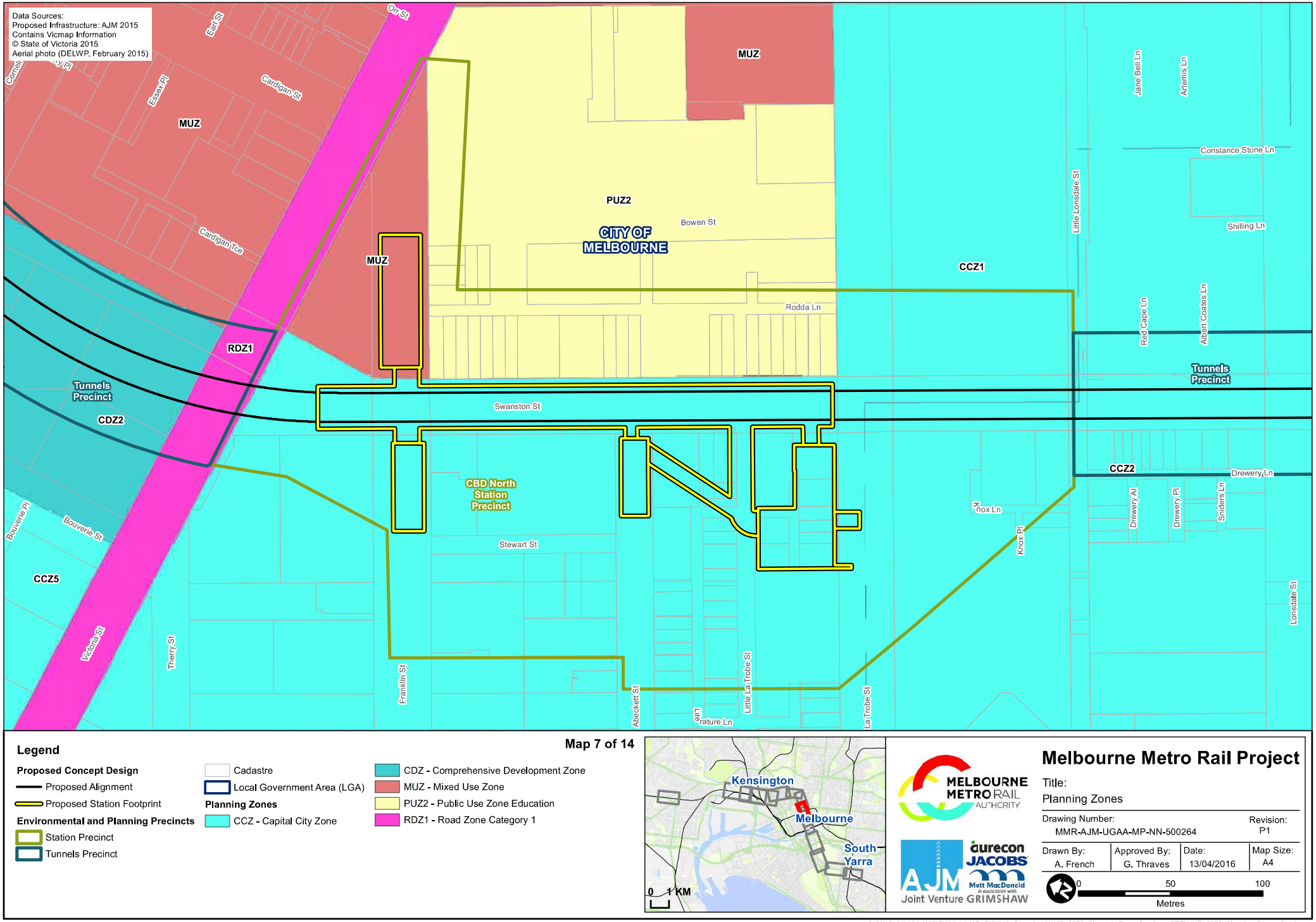


Figure 12-1 Zones in the CBD North station precinct

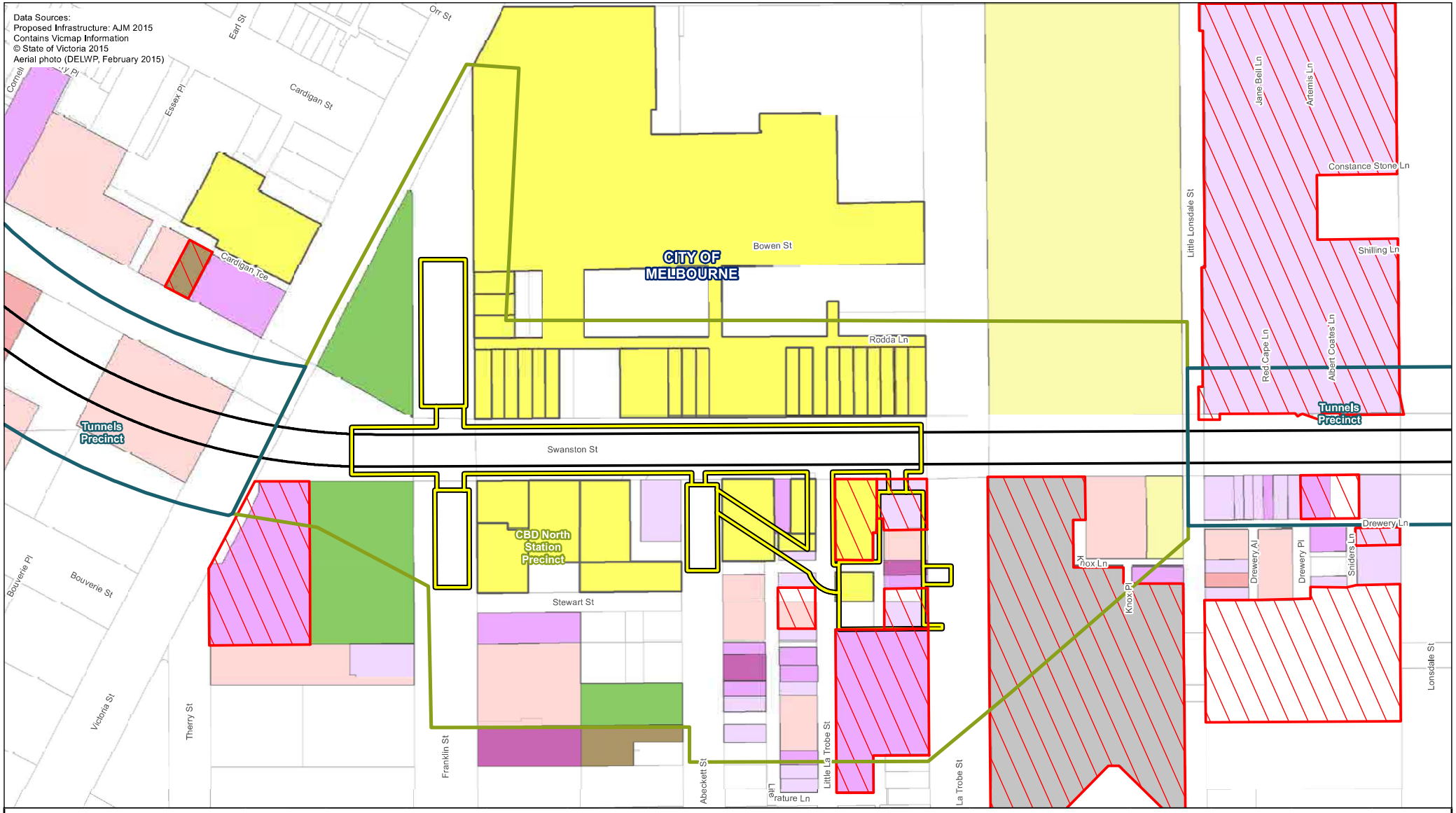


Figure 12-2 Land Use Survey and recent planning applications in the CBD North station precinct

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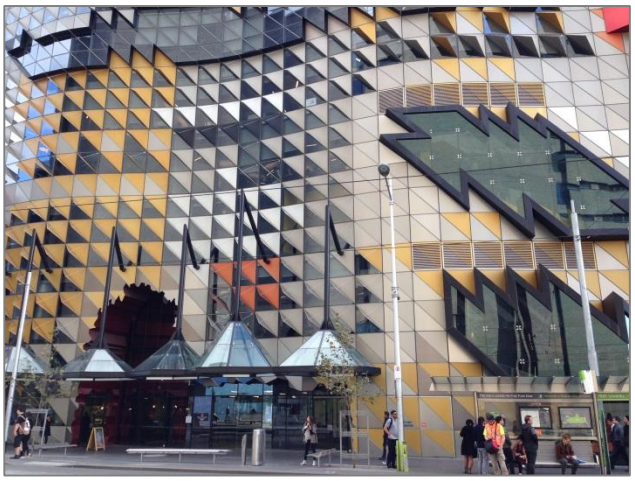


Figure 12-3 RMIT's Swanston Academic Building

Figure 12-4 The State Library of Victoria

The State Library of Victoria forecourt is within this precinct and supports a number of significant trees and monuments(shown in Figure 12-4). The forecourt is a busy open space. The State Library of Victoria was built in 1854 and is listed, along with its forecourt, on the Victorian Heritage Register (H1497).

Established London plane trees line Swanston Street on both sides, within much of this precinct.

Figure 12-5 Melbourne Central looking south down Swanston Street

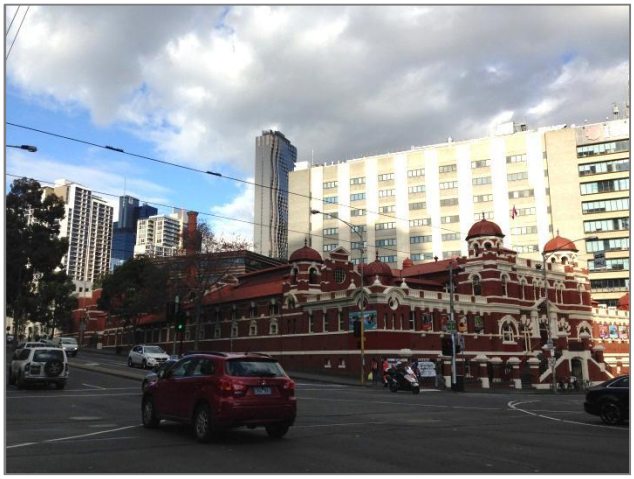


Figure 12-6 The City Baths with RMIT in the background

Melbourne Central Shopping Centre and the existing Melbourne Central underground railway station are located on the south west corner of La Trobe and Swanston Streets. Melbourne Central includes a cinema, hotel, gym, supermarket and speciality retail and food stores, linked to the existing railway station.

The City Baths are located on a triangular parcel of land between Swanston Street, Victoria Street and Franklin Street and are housed in a three storey brick building, built in 1903. The land is within the Mixed Use Zone and the building is listed on the Victorian Heritage Register (H466). The building is shown in Figure 12-6.

Tram routes 1, 3, 3a, 5, 6, 8, 16, 64, 67 and 72 travel along Swanston Street to and from the south eastern and northern suburbs. A tram super stop and tram zone are located just south of La Trobe Street and near the corner of Swanston and Franklin Streets. Tram route 30 and the City Circle use La Trobe Street. Route 30 runs between St Vincent's Plaza and Etihad Stadium on weekdays, during daylight hours. The City Circle tram is a free tourist tram service that circles the CBD. Swanston Street is seen in Figure 12-5.

Emergency vehicles are the only motor vehicles that can use Swanston Street south of Franklin Street on a regular basis, without approval (apart from the stretch of road between A'Beckett Street and La Trobe Street,

which can be accessed by all vehicles). The redevelopment of Swanston Street in 2012 included a dedicated bicycle lane, which has led to Swanston Street becoming a major commuter route for cyclists.

To the north of this precinct is the former CUB site, and a number of proposals for high rise development. This precinct would continue to develop and grow, with varying land uses and built form. Precinct 1 Tunnels, has more information on the existing and proposed developments at the former CUB site (refer to Section 8.5.6 of this impact assessment).

To the west of the precinct (fronting Little La Trobe Street and A'Beckett Street) are a number of residential, commercial and office uses consistent with the intent of the Central City Zone (Schedule 2 Retail Core).

Table 12-2 outlines the existing land use assets in the precinct.

Table 12-2 Assets identified within Precinct 5

Asset / value	Description
Significant transport route	Swanston Street and La Trobe Street support a number of tram routes and Swanston Street is a major tram corridor through the CBD.
Education uses	RMIT is a significant land owner within this precinct and has undertakes a number of recent developments in the area.
Heritage landmarks of the City Baths and State Library of Victoria	Historic landmarks of high significance are within the precinct, including monuments. The State Library of Victoria was built in 1854 and is listed on the Victorian Heritage Register (H1497). The City Baths are on the Victorian Heritage Register (H466).
Public Open Space	The public open space provided in the State Library of Victoria forecourt and the A'Beckett Urban Square are examples of limited public open space in the precinct.
Melbourne Central	Melbourne Central includes a shopping centre and existing station on the City Loop.
Potential for substantial change and development with existing development proposals	The area between La Trobe Street and Victoria Street and the former CUB site are areas of intense redevelopment. Existing planning approvals are relevant for the CUB site and other sites in the area. Increasing dwelling densities in the area.

12.2.1 Planning Applications

There are currently active planning permits for the construction of multi-storey student housing developments in the block bound by Swanston, La Trobe, Elizabeth and Little La Trobe Streets. The permits are located at:

- 377-391 Swanston Street
- 212-222 La Trobe Street
- Deakin House, 393 Swanston Street, and
- 224-252 La Trobe Street, Melbourne.

Any future development in the precinct must take into consideration the provisions of the Melbourne Planning Scheme as well as any relevant strategic planning studies. The planning controls in the CBD North station precinct are discussed in Section 12.5.4 as well as Appendix E and Appendix F of this impact assessment.

Appendix H of this impact assessment provides a full list of current or approved planning applications within the precinct that may have an impact on the proposed Melbourne Metro. Figure 12-7 and Figure 12-8 show recently approved planning applications within this precinct.

12.3 Key Issues

The key issues associated with the Concept Design are identified in Table 12-3.

Table 12-3 Key issues associated with the Concept Design

Concept Design	Issue
Located under Swanston Street, between Franklin and La Trobe Streets.	The presence of technology and sensitive equipment within RMIT should be considered during construction to limit impacts to the use of the RMIT facilities.
Entrances on the:	
• East side of Franklin Street	Closure of Franklin Street during construction would limit access to surrounding land uses including RMIT and the City Baths. Potential for impacts to the heritage value of the City Baths. Loss of on-street car parking and potential loss of through traffic on Franklin Street.
• Corner of Swanston and La Trobe Street	Existing planning approval for developments within the study area would be impacted by the proposal as some sites are proposed for acquisition. Cumulative impact on access and amenity from the scale of development within and adjacent to the precinct, including the CUB site and surrounding developments on Swanston and La Trobe Streets. Potential to impact on access for the public to surrounding land uses including RMIT, Melbourne Central and the State Library during construction. Access may also be restricted to private residences on A'Beckett Street due to the location of a construction work site in the road reserve.

12.4 Benefits and Opportunities

Table 12-4 provides the benefits and opportunities associated with the Concept Design.

Table 12-4 Benefits and opportunities associated with the Concept Design

Concept Design	Benefits	Opportunities
Entrances on the:		
• East side of Franklin Street	Improved access to RMIT and other land uses in the area through the provision of a station entrance. Use of the road reserve does not permanently impact on access arrangements to RMIT and the City Baths. Improved access for the large number of current and future residents in the precinct to the rest of Melbourne Enhanced access to the CBD for wider Melbourne	Potential for the station location to facilitate the pedestrianisation of Franklin and A'Beckett Streets for public open space.

Concept Design	Benefits	Opportunities
• Corner of Swanston and La Trobe Street	Improved access to RMIT and other land uses in the area through the provision of a station entrance. Improved access for the large number of current and future residents in the precinct to the rest of Melbourne Enhanced access to the CBD for wider Melbourne Improved interchange between trains and trams	Opportunities for over-site development in line with current planning scheme requirements.
• Underground connection to Melbourne Central Station, excluding 393 Swanston Street	Improved access and safety for commuters through the area.	To limit travel times for users of the stations. To provide protection from the weather and improved safety.

12.5 Impact Assessment

12.5.1 Land Use

The proposed location of the station in this precinct is considered appropriate as the majority of work is within the road reserves. The impact on built form and change in land use has been minimised where possible through the siting of the cavern entrances and construction techniques. Some land use changes would occur as a result of property acquisition, however it would not alter the land use character of the area. On some sites, the change in use would be temporary as the same use could be reinstated post construction. The provisions of the Melbourne Planning Scheme would determine the nature and character of the future land use and built form. Consequently, the residual risk rating regarding land use and built form in this precinct is medium.

The proposed use of the land for the project is consistent with the purpose of the Capital City Zone (Schedule 2 Retail Core) to '*enhance the role of Melbourne's central city as the capital of Victoria and as an area of national and international importance'* (Melbourne Planning Scheme).

At this location, there would be two main construction work sites used to facilitate construction of the station and associated works. The station and tunnels in this location would be mined with the construction work sites used to enable construction of the station cavern from underground. This technique would prevent the need for the excavation of Swanston Street and reduce the impact to existing land uses on Swanston Street and surrounding streets.

The station would provide direct access to Melbourne Central, below ground, creating connectivity between the existing City Loop and Melbourne Metro. A ground level entrance would also be proposed in this location on La Trobe Street to further utilise connections to Melbourne Central. The station building on the corner of Swanston and La Trobe Streets would also include an entrance fronting Swanston Street to capture patrons from RMIT and the south west. Due to the length of the proposed platforms and intensity of activity in the precinct, it is generally preferred to provide access at each end of the platforms, and as such, a further entrance would be proposed in the Franklin Street road reserve. This entrance would provide direct access to RMIT users on the eastern side of Swanston Street and utilise existing road reserve, rather than privately owned land. The Franklin Street entrance would avoid the need to impact to the Victorian heritage listed tramway signal cabin, waiting shelter and conveniences on the corner of Swanston and Victoria Streets.

On-street parking on the east side of Franklin Street may be lost as this section of Franklin Street may be permanently closed as a consequence of the station entrance location. The impact of the loss of car parking in this location is considered low due to the number of car parks in the immediate surroundings. The majority of visitors to RMIT use public transport and the benefit of a station entrance at this location has potential to outweigh the impact of the loss of car spaces. This is discussed in detail in Technical Appendix D *Transport*.

Works for the project do not directly impact on the City Baths building and as such, the heritage significance of the building would be respected. The impact on the heritage values of City Baths is discussed in Technical Appendix J *Historical Cultural Heritage*.

The construction work site on the corner of Swanston and La Trobe Street would be on land acquired by the project and therefore contained within the property boundaries. All these buildings are currently occupied and businesses and residents would be required to relocate and the buildings would be demolished. The loss of existing residential and commercial uses would be supplemented at the completion of works through potential over-site development. Future development would be required to comply with the relevant planning scheme requirements and *Plan Melbourne* directions.

Current planning scheme requirements include the Capital City Zone (Schedule 1 Outside the Retail Core) and the Design and Development Overlay (Schedule 10 - Built Form Controls) (DDO10) introduced by Planning Scheme Amendment C262 to the Melbourne Planning Scheme on September 4 2015. This is further discussed in Section 12.5.4 and Appendix I of this impact assessment.

Further impacts on existing land uses in this precinct would be as a result of amenity and social impacts due to their proximity to the CBD North station construction work sites and their associated activities. This is discussed in Technical Appendix F *Social and Community*.

12.5.2 Access

One of the construction work sites for this precinct is on Franklin Street adjacent to the main RMIT City campus. While the works would not directly impact on RMIT owned buildings and access would be maintained to Bowen Street, there would be temporary impacts on access to the campus (for the duration of construction, approximately five years).

Part of Franklin Street may be closed permanently to traffic however, access would be maintained to Bowen Street and the City Baths loading bays. Whilst pedestrian access would be constrained through the precinct, access would be maintained (including access for people with mobility impairments), therefore it is considered that partial closure of Franklin Street would have minimal permanent impact on surrounding land uses.

The works in A'Beckett Street would result in the closure of the street at Swanston Street, preventing access to and from Swanston Street. This would result in disruption to property access for properties on A'Beckett Street, including 31 A'Beckett Street. This building contains 287 residential properties, however it is considered disruption of access would be minimal as alternative access is available from the north via Franklin Street, and Stewart Street and from the west via A'Beckett Street. Should the alternative construction works sites be used, access to buildings on A'Beckett Street would be further restricted, however access could also be maintained from Literature Lane at the rear of the properties. Potential impacts of the project on transport and local traffic, including for tenancies on Swanston Street, are described further in Technical Appendix D *Transport*.

Trams would continue to travel through the precinct along Swanston Street and La Trobe Street, with the construction works not impacting on tram services in this location.

The provision of the underground connection between Melbourne Central and the proposed CBD North station would improve access through the precinct and provide opportunities for creating safe, weather protected access for commuters.

The City of Melbourne has identified plans to pedestrianise Franklin Street at the completion of the construction, the location of the station would facilitate this plan with opportunities for a civic space. There would be potential at this location to improve access to public open space as a legacy of this project.

12.5.3 Land Acquisition

The proposed works would require the acquisition of 60 titles in this precinct in nine buildings. It is considered that the property acquisition may result in some land use changes and as such, the residual risk rating is medium.

The loss of 49 residential properties in one building within the CBD should be considered in the context of the entire housing stock in the Melbourne CBD. There are a large number of residential vacancies within the CBD (see Technical Appendix F *Social and Community*), and it is likely existing tenants and landowners would be able to find alternate accommodation/assets within a similar budget. Landowners would be compensated in accordance with the requirements of the *Land Acquisition and Compensation Act 1986*. It is anticipated that the loss of 49 residential properties at this location would result in some land use change, however there is potential for over-site development to reinstate residential uses here.

A residential building at this location has benefits for tenants and occupiers due to the close proximity to educational facilities, retail uses, offices and public transport options including the train station at Melbourne Central and the trams on Swanston Street. It should be noted there are a number of developments approved for mixed use buildings (with a focus on student accommodation) within the immediate vicinity.

The other buildings present a mix of commercial, retail and office uses which would be easily accommodated within the CBD. Additionally, the loss of existing residential and commercial uses may be supplemented at the completion of works through potential for over-site development. Future development would be required to comply with the relevant planning scheme requirements and *Plan Melbourne* directions.

Any surplus land remaining upon completion of the project construction phase would be managed in accordance with the *Victorian Government Landholding Policy and Guidelines.*

12.5.4 Strategic Planning Policy Support

Clause 21.12 (Hoddle Grid) of the Melbourne Planning Scheme outlines the planning principles for the Hoddle Grid local area in relation to housing, economic development, built environment, heritage and transport. Relevant principles include to:

> *'Encourage the development of a range of complementary precincts within the Hoddle Grid that offer a diverse range of specialist retail, cultural and entertainment opportunities'.*
>
> *'Enhance Swanston Street as part of a boulevard axis which runs from Princes Park to St Kilda Road'.*
>
> *'Ensure the area bounded by Latrobe and Victoria Streets and Elizabeth/Peel Streets has a lower scale than the Hoddle Grid and provides a contrast in built form scale between the lower scale of Carlton and North Melbourne and the higher scale of the Hoddle Grid'.*
>
> *'Ensure the ground level design of shop fronts on Swanston Street contribute to its role as a pre-eminent retail and lifestyle avenue and entry axis to the Retail Core'.*

The proposed station building in this precinct has the potential to provide retail and commercial uses as part of any over-site development. Over-site development is not part of this project and any proposal would need to comply with relevant planning scheme requirements. Of particular note is the requirement to keep any over-site development at a lower scale to the remainder of the Hoddle Grid. This should be assessed in the context of other existing and proposed development within the area, as it would appear that this pocket of land in the CBD is subject to increasing heights and density.

The *City North Structure Plan 2012* includes land within this precinct and seeks to guide the development of the city north area as an extension of the Central City and consolidate the State significant knowledge precinct with a range of commercial, residential and retail activities. The Structure Plan identifies the Haymarket roundabout and the former CUB site on the corner of Victoria and Swanston Streets as redevelopment sites and community hubs. The proposed CBD North Station would facilitate the

implementation of this Structure Plan as it is intended that public transport provision in the area would be enhanced, which would encourage the revitalisation of the area. To support the implementation of this Structure Plan, an *Integrated Transport and Access Review* was undertaken by Council in June 2013. This study identifies that the introduction of Melbourne Metro would not greatly increase accessibility for many areas around Melbourne as it provides additional capacity on existing lines (rather than new links). Accessibility for the area in the Structure Plan would not improve, however, the land use and urban renewal benefits would. Further detail on this Structure Plan is included in Appendix I of this impact assessment.

The Design and Development Overlay – Schedule 10 (Built Form Controls) (DDO10) was introduced by Planning Scheme Amendment C262 to the Melbourne Planning Scheme on 4 September 2015. The DDO10 introduced interim built form and height controls until 4 September 2016. This one year interim control would provide the City of Melbourne and DELWP with time to review the existing controls and prepare permanent controls. The land affected by this Design and Development Overlay is shown in Appendix I of this impact assessment and the Design and Development Overlay controls impacting on land within this precinct are outlined in Table 12-5:

Table 12-5 Planning controls introduced through Planning Scheme Amendment C262

Requirement	Level of control	Identified outcome
Podium heights of up to 40 m	Mandatory	To ensure an appropriate level of street enclosure.
Street setbacks above the podium height of minimum 5 m	Mandatory	To ensure large buildings do not dominate built form at ground level.
Tower setbacks to all other boundaries of 5 m (buildings up to or equal to 100 m high)	Mandatory	Improved amenity for inhabitants and neighbours, sun penetration, mitigation of wind impacts.
Tower setbacks to all other boundaries of 5% of the overall building height (for buildings over 100 m high)	Mandatory	Improved amenity for inhabitants and neighbours, sun penetration, mitigation of wind impacts.
Site Plot Ratios of 24:1	A permit can be granted to vary plot ratios[9].	To ensure individual sites do not produce inequitable outcomes that represent a quantum of development in the block.
Amend Capital City Zone, Schedules 1 and 2 to introduce mandatory controls to limit overshadowing to identified public spaces and introduce wind analysis application requirements	A permit may only be granted if the responsible authority considers overshadowing will not prejudice the amenity of public space.	Protecting access to sunlight and wind controls in public open spaces.
The City of Melbourne has been introduced as a 'recommending' referral authority for planning applications for developments with a gross floor area exceeding 25,000 square metres, for which the Minister for Planning is the responsible authority.	Listed in the schedule to Clause 66.04 Referral of permit applications under local provisions	Provides the City of Melbourne with an opportunity to comment on larger developments where they are not the responsible authority.

[9] Site ratios can be exceeded if the proposed development is declared to be of State or regional significance under section 201F of the *Planning and Environment Act 1987* and/or the development delivers public amenity improvements as agreed with the responsible authority.

The foreshadowed permanent controls introduced in September 2016 would influence any potential over-site development at the CBD North Station precinct.

Within proximity to this precinct is the *Queen Victoria Market Precinct Renewal Project*, which is the revitalisation of the Queen Victoria Market precinct. Further detail on this project is on the City of Melbourne website.

12.5.5 Planning Applications

Four multi-storey developments have been approved recently[10] in the northwest corner block between Swanston, La Trobe, Elizabeth and Little La Trobe Streets:

- 377-391 Swanston Street
- 212-222 La Trobe Street,
- Deakin House, 393 Swanston Street
- 224-252 La Trobe Street, Melbourne.

Of these approvals, two are on land identified for acquisition and demolition as part of Melbourne Metro (377-391 Swanston Street, 212-222 La Trobe Street) and none have commenced construction work (as of 15 December 2015). It is unlikely any of these developments would have been designed with any consideration to the proposed Melbourne Metro and the timing of construction is unknown. There is potential for the construction of Deakin House, 393 Swanston Street and 224-252 La Trobe Street to have a cumulative impact of on surrounding land uses dependant on timing of the development.

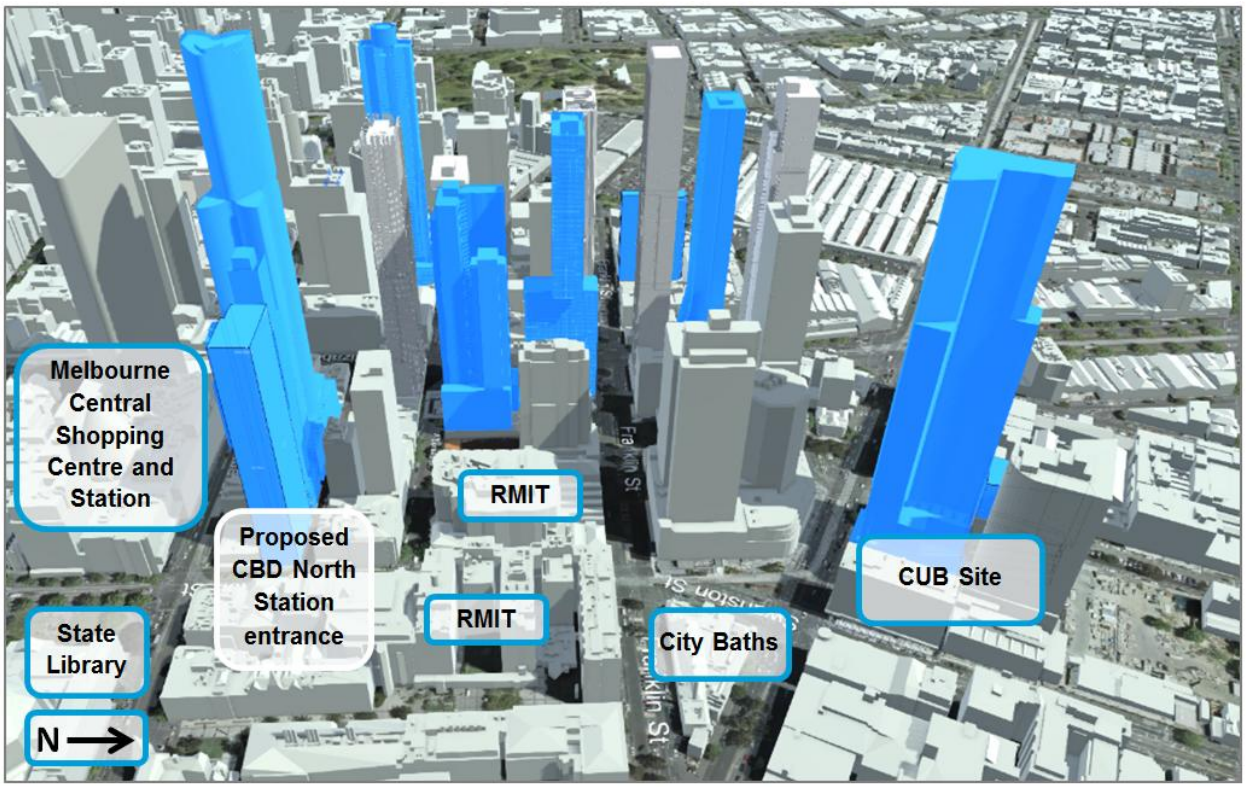
The development potential lost through the occupation of sites with existing permits has the potential to be returned through future over-site development at the station entrance site. Over-site development is not part of the Project. Issues associated with the process for acquisition of these sites would be managed in accordance with the *Land Acquisition and Compensation* Act 1986.

Neighbouring developments at the former CUB site include the recently constructed Swanston Square building at 555 Swanston Street (35 level multi-residential tower), as well as the Maltstore Building at 551 Swanston Street. Recent planning permits have been issued for Building 6 at 2-76 Bouverie Street/551 Swanston Street, Carlton and 557-591 Swanston Street for development of multi storey apartment buildings with retail components and associated car parking. Further development of Swanston Square is anticipated in the next two years, with approval granted for construction of a 77 storey residential tower, known as Building 4 at 156-172 Victoria Street, Carlton. These large developments would greatly increase the population density of the area, as well as construction impacts should the sites continue to be built on when the proposed Melbourne Metro is being built. The presence of the proposed Melbourne Metro would have the potential to impact on the timing of these developments if construction timetables conflict.

Figure 12-7 and Figure 12-8 illustrate the existing built form (buildings shown in white/grey) as well as approved buildings in the area that are yet to be constructed (buildings shown in blue). The visual depiction of the precinct illustrates the large scale of development likely to be undertaken within the immediate area of the precinct. These images have been provided by DELWP with input from the City of Melbourne and are based on information correct as of 30 November 2015.

The timing for construction for these developments is unknown and there is no certainty that they would be built in accordance with the current endorsed plans or at all.

[10] Appendix H of this impact assessment provides details of the planning application status and timing.

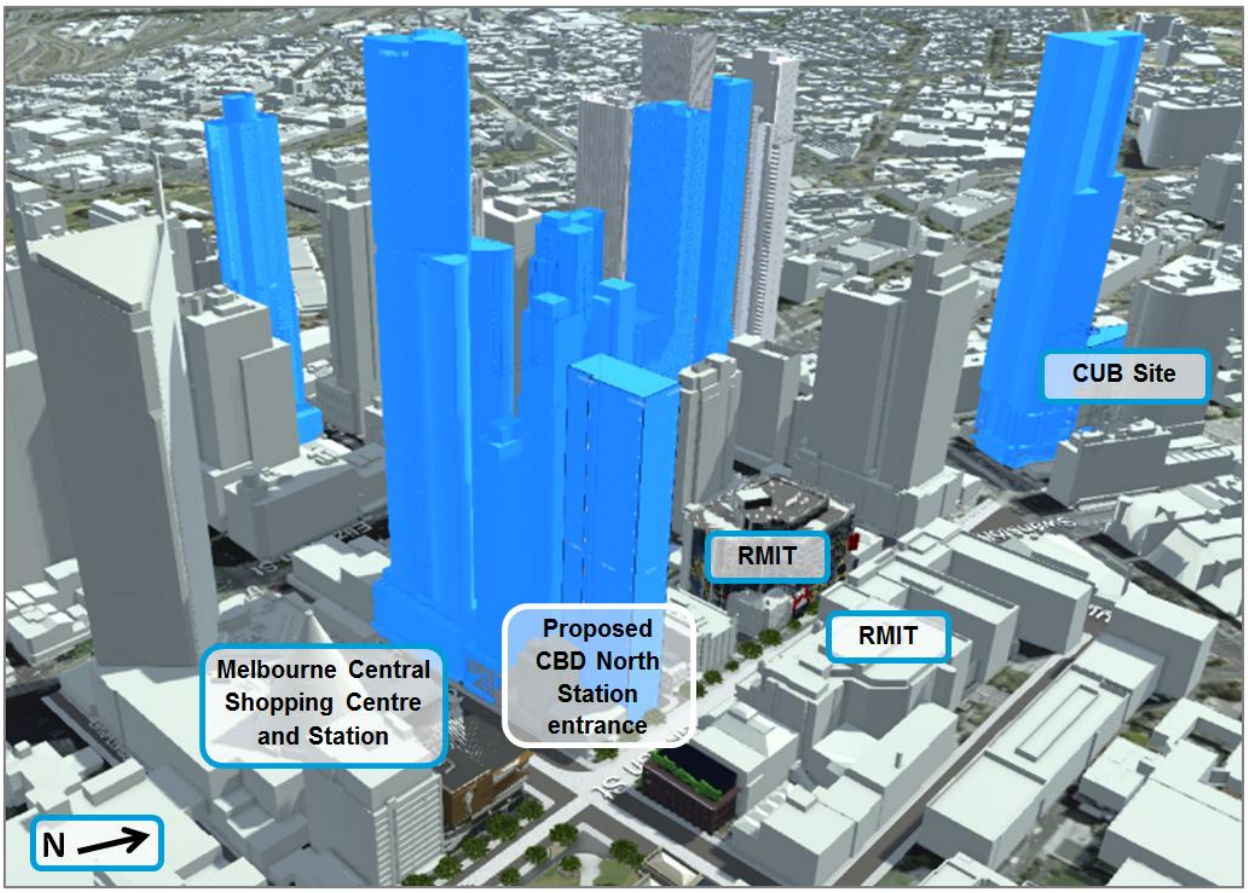


Source: DELWP, November 2015

Figure 12-7 CBD North station precinct showing approved developments

Figure 12-7 is a detailed view of the proposed station building location at 377-391 Swanston Street, 200 La Trobe Street, 204-206 La Trobe Street, 208-210 La Trobe Street, 212-222 La Trobe Street and 17-27 Little La Trobe Street. There is an existing approval for redevelopment of the corner site, however it has not been shown in this image as it would not be possible for that development to be constructed if the proposed CBD North station entrance was located in that location.

The completion of the proposed Melbourne Metro would support the redevelopment and revitalisation of this area of Melbourne's CBD.



Source: DELWP, November 2015

Figure 12-8 CBD North station precinct showing approved developments

12.5.6 EES Evaluation

The Concept Design and associated alternative design options are generally consistent with the draft EES evaluation objectives for land use and planning as:

- The proposed station complies with the objectives in the state and local planning policy, and the directions of *Plan Melbourne*, in particular the identification of *'new development and investment opportunities on the planned transport network'*.
- It is consistent with the purpose of the Capital City Zone and the long term growth of Melbourne.
- The built form of the area would be impacted as there are some approved developments that would not be able to proceed as the land is earmarked for acquisition. Over-site development of the area has the potential to replace this development.
- The acquisition of 60 titles in this precinct and subsequent loss of existing and proposed residential and commercial uses within this precinct may result in some land use change but there is the potential to supplement these developments (in part) by over-site development at the station entrance location. The residual risk rating regarding land use change is medium in this precinct, however the impact on existing land use has been minimised where possible, through design and construction.
- At the completion of construction, the station would assist in the revitalisation of this area of Melbourne's CBD.
- Access would be limited throughout the precinct due to the increase in construction traffic. However, there are minimal works at ground level at this location and there are potential opportunities with the underground connection between Melbourne Central and the proposed station and the pedestrianisation of Franklin Street. A traffic management plan would be prepared to to minimise disruption to traffic, pedestrian and bicycle movements.
- The heritage values of surrounding buildings such as the City Baths would be respected.

12.6 Environmental Performance Requirements

Table 12-6 below provides the recommended Environmental Performance Requirements and proposed mitigation measures for the precinct.

Table 12-6 Environmental Performance Requirements for the precinct

Asset / value	Impact	Environmental Performance Requirements	Proposed mitigation measures	Risk no.
Education uses (RMIT University)	Possible construction activities inhibit future development above and below ground.	Develop and implement measures for construction and operation of Melbourne Metro that aim to minimise impacts to the development and / or operation of existing land uses, including: • Limiting the permanent change of use within existing public open space • Minimising footprints of construction sites and permanent infrastructure on public land • Minimising impacts to existing public open spaces and recreational facilities and the users of these facilities, including but not limited, to JJ Holland Park, University Square, City Baths, City Square, Federation Square, the Shrine of Remembrance Reserve, Domain Parklands, Edmund Herring Oval, Fawkner Park and the Albert Road Reserve. Such measures shall be developed in consultation with affected land managers for public land.	Selection of construction equipment/construction methodology. Consultation with affected institutes. Use the proposed DDO to protect Melbourne Metro infrastructure and trigger discussions with third party developers regarding future development.	LU001 LU008
Potential for substantial change and development with existing	The proposed station would assist in the redevelopment and revitalisation of the area. Construction activities inhibit access to	Develop and implement measures for construction and operation of Melbourne Metro that aim to minimise impacts to the development and / or	Provide for temporary relocation of households in proximity to construction zones with restricted access or / and amenity impacts.	LU001 LU002 LU008

Asset / value	Impact	Environmental Performance Requirements	Proposed mitigation measures	Risk no.
development proposals and increasing dwelling densities	residences. Construction activities require property acquisition. Possible construction activities inhibit future development.	operation of existing land uses, including: • Limiting the permanent change of use within existing public open space • Minimising footprints of construction sites and permanent infrastructure on public land • Minimising impacts to existing public open spaces and recreational facilities and the users of these facilities, including but not limited, to JJ Holland Park, University Square, City Baths, City Square, Federation Square, the Shrine of Remembrance Reserve, Domain Parklands, Edmund Herring Oval, Fawkner Park and the Albert Road Reserve. Such measures shall be developed in consultation with affected land managers for public land.	Use hotels / motels or other temporary accommodation for short term disruptions. Where relocation is longer term use service apartments or provide for alternative rental properties. Undertake strata and, where required, full acquisition of titles where conflict exists. Communicate construction timeframes with potential developers. Use the proposed DDO to protect Melbourne Metro infrastructure and trigger discussions with third party developers regarding future development.	

13 Precinct 6: CBD South Station

13.1 Project Components

This section describes the components and construction activities that are likely to result in impacts to existing land use and planning conditions in this precinct.

13.1.1 Infrastructure

The proposed CBD South station would be located beneath Swanston Street between Flinders Street and Collins Street. Works would extend beneath Flinders Street to connect the proposed station to Flinders Street Station and Federation Square. Three entrances are proposed. One entrance would be located in the City Square. The other main entrance is from Flinders Street and includes the current Port Phillip Arcade site with an underground connection to Flinders Street Station and separate access from Swanston Street. A further entrance is proposed via an underground connection to the Melbourne Visitors Centre in Federation Square. There is also potential for another station entrance at 65-73 Swanston Street.

The mined connection to Federation Square would pass beneath land at 198-206 Flinders Street, occupied by St Pauls Cathedral, but would not pass beneath the cathedral building.This precinct requires the acquisition of 14 titles including part of Federation Square, three leases on Flinders Street that are part of Flinders Street Station (one publicly owned (VicTrack) title) and the Port Phillip Arcade on Flinders Street (including 29 leases). The project requires the acquisition of a number of public car parks beneath City Square and the temporary occupation and permanent acquisition of a portion of the Square itself (4 titles). Seven titles are proposed for acquisition on the west side of Swanston Street between Flinders Street and Flinders Lane.

In this precinct, it has been identified that the following surface level land acquisition, occupation and strata acquisition would be required for construction as outlined in Table 13-1.

Table 13-1 Land acquisition and occupation for construction

Precinct	Permanent acquisition	Temporary occupation	Strata acquisition (approximate)	Total
6	14 titles	2 - City Square (part)	1	17

13.1.2 Construction

The station would be constructed under Swanston Street using the mined cavern construction method.

It is proposed to use the City Square for the establishment of site offices, materials storage and laydown from 2017 until 2020 (four years). The memorial statue of Burke and Wills at this location would need to be relocated (subject to Council approval).

The cut and cover construction of the subsurface connection to Flinders Street Station would require the temporary closure of Flinders Street. Closure of Flinders Street would require temporary tram diversions that may flow along Flinders Street to Elizabeth Street. Works required for the shaft and station entrance construction would be carried out on a 24-hour basis.

There is potential to impact on up to 24 trees within this precinct, however there are potential opportunities to mitigate any impact to trees through detailed design.

Vehicular and pedestrian access would be maintained through Swanston Street.

13.1.3 Operation

The station entrances in the City Square are located in the northern portion of the square and the opposite southern portion. The station entrance structures would be approximately 4 m high. The station footprint is proposed to occupy approximately one sixth of the square above ground as well as land below ground. The remainder of the square would be returned for use as public open space at the completion of construction.

The Melbourne Metro station building on Flinders Street and Swanston Street has been designed to be approximately 18 m high, with a ground floor retail component and the station itself below ground. Entrance to the station would be through the proposed retail tenancies fronting Flinders Street or via a laneway to the rear of the site. Access would also be available from Swanston Street through additional retail uses.

13.2 Existing Conditions

The location of the proposed Melbourne Metro within Precinct 6: CBD South station precinct and the relevant planning controls is shown in Figure 13-6 and Appendix G of this impact assessment.

The CBD South station precinct is located in the City of Melbourne and includes part of Flinders Street Station and part of Federation Square and extends north along Swanston Street to Little Collins Street. The precinct extends away from Swanston Street to the east as far as Chapter House Lane and Regent Place, and to the west as far as Flinders Way and Carson Place.

The precinct includes the three storey brick Port Phillip Arcade (228 -236 Flinders Street) which is a shopping arcade with 29 tenancies. Further detail on the existing tenancies is included in the Technical Appendix G *Business*.

Flinders Street Station (Figure 13-3) is located on the south west corner of Flinders and Swanston Streets. It is the oldest capital city train station in Australia (with the current incarnation completed in 1910) and the busiest on Melbourne's network. Current upgrade works to the station include restoration works and upgrade station platforms, entrances, toilets and information displays.

The City Square is within the Public Park and Recreation Zone while the remainder of the precinct is within the Capital City Zone (Schedule 2 - Retail Core). This precinct includes a number of significant buildings that are listed on the Victorian Heritage Register including Flinders Street Station, St Paul's Cathedral, Melbourne Town Hall, the Manchester Unity Building (Figure 13-1), Capitol House, Nicholas Building and Young and Jackson Hotel.

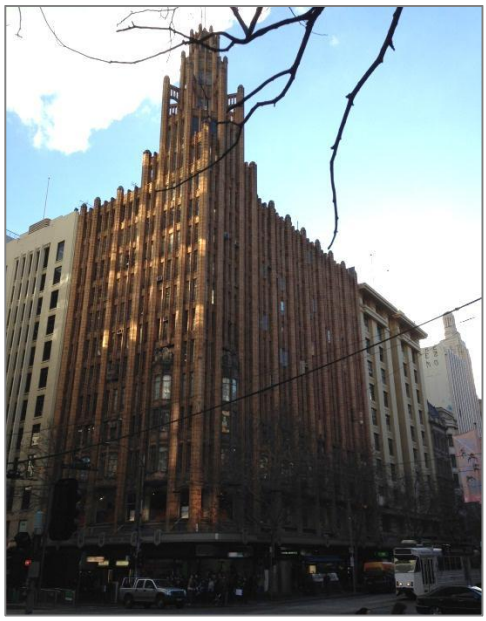


Figure 13-1 Manchester Unity Building

Figure 13-2 City Square (Westin Hotel), St Paul's Cathedral

Figure 13-3 Flinders Street Station

Figure 13-4 Federation Square

The heritage values of the area are identified by the precinct wide Heritage Overlay (HO505 – Flinders Gate Precinct) and shown in Figure 13-6 and Appendix G shows the zones within the CBD South Station precinct. Figures G-31 and G-32 in Appendix G show the overlays within the CBD South station precinct. Figure 13-7 shows the results of the land use survey and any recent planning applications within the CBD South station precinct.

Source: Melbourne Planning Scheme

Figure 13-5 Heritage Overlay HO505 within the CBD South station precinct

In addition, more modern landmarks within the precinct include City Square (Figure 13-2) and Federation Square (Figure 13-4). Since opening in 2002, Federation Square has become one of Melbourne's main public spaces and is located on the south eastern corner of Swanston and Flinders Streets (Figure 13-4). Federation Square is managed by Fed Square Pty Ltd, which was established by the State Government in 1999. Fed Square Pty Ltd is responsible for the co-ordination and management of tenancies and the public open space. MMRA is working with Fed Square Pty Ltd in the design and construction of the proposed Melbourne Metro CBD South station.

The Melbourne Visitor Centre is located at lower ground level, in the north west corner of Federation Square.

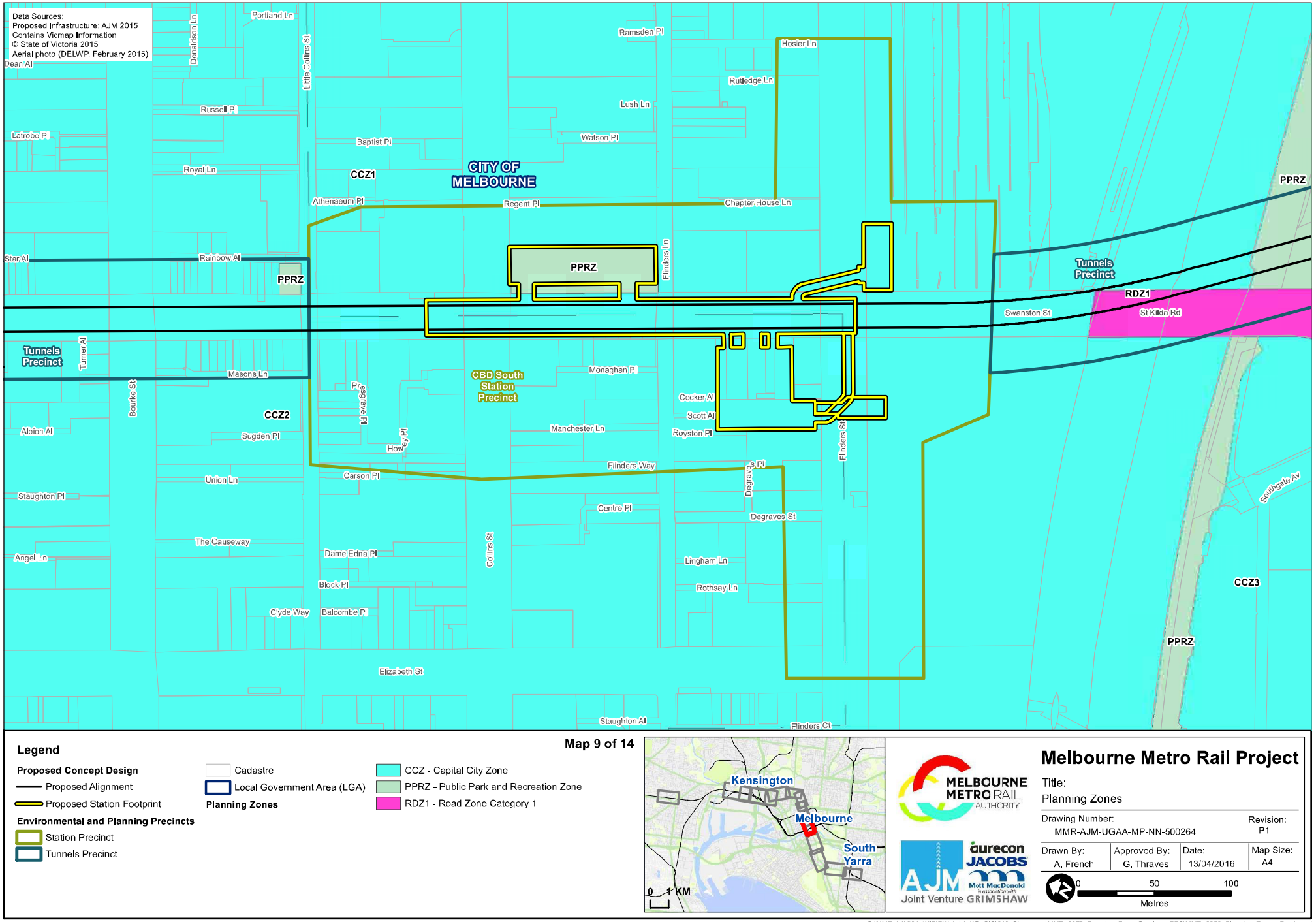
Flinders Street Station, St Paul's Cathedral and Young and Jackson Hotel occupy the other three corners of the intersection of Swanston and Flinders Streets.

Figure 13-3 Flinders Street Station

Figure 13-4 Federation Square

The heritage values of the area are identified by the precinct wide Heritage Overlay (HO505 – Flinders Gate Precinct) and shown in Figure 13-7.

Figure 13-5 and Appendix G shows the zones within the CBD South Station precinct. Figures G-31 and G-32 in Appendix G show the overlays within the CBD South station precinct. Figure 13-6 shows the results of the land use survey and any recent planning applications within the CBD South station precinct.



Legend

Proposed Concept Design
- Proposed Alignment
- Proposed Station Footprint

Environmental and Planning Precincts
- Station Precinct
- Tunnels Precinct
- Cadastre
- Local Government Area (LGA)

Planning Zones
- CCZ - Capital City Zone
- PPRZ - Public Park and Recreation Zone
- RDZ1 - Road Zone Category 1

Map 9 of 14

MELBOURNE METRO RAIL AUTHORITY

AJM Joint Venture GRIMSHAW

durecon JACOBS

Mott MacDonald in association with

Melbourne Metro Rail Project

Title:
Planning Zones

Drawing Number:	Revision:
MMR-AJM-UGAA-MP-NN-500264	P1

Drawn By:	Approved By:	Date:	Map Size:
A. French	G. Thraves	13/04/2016	A4

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Metres

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Figure 13-6 Zones in the CBD South station precinct

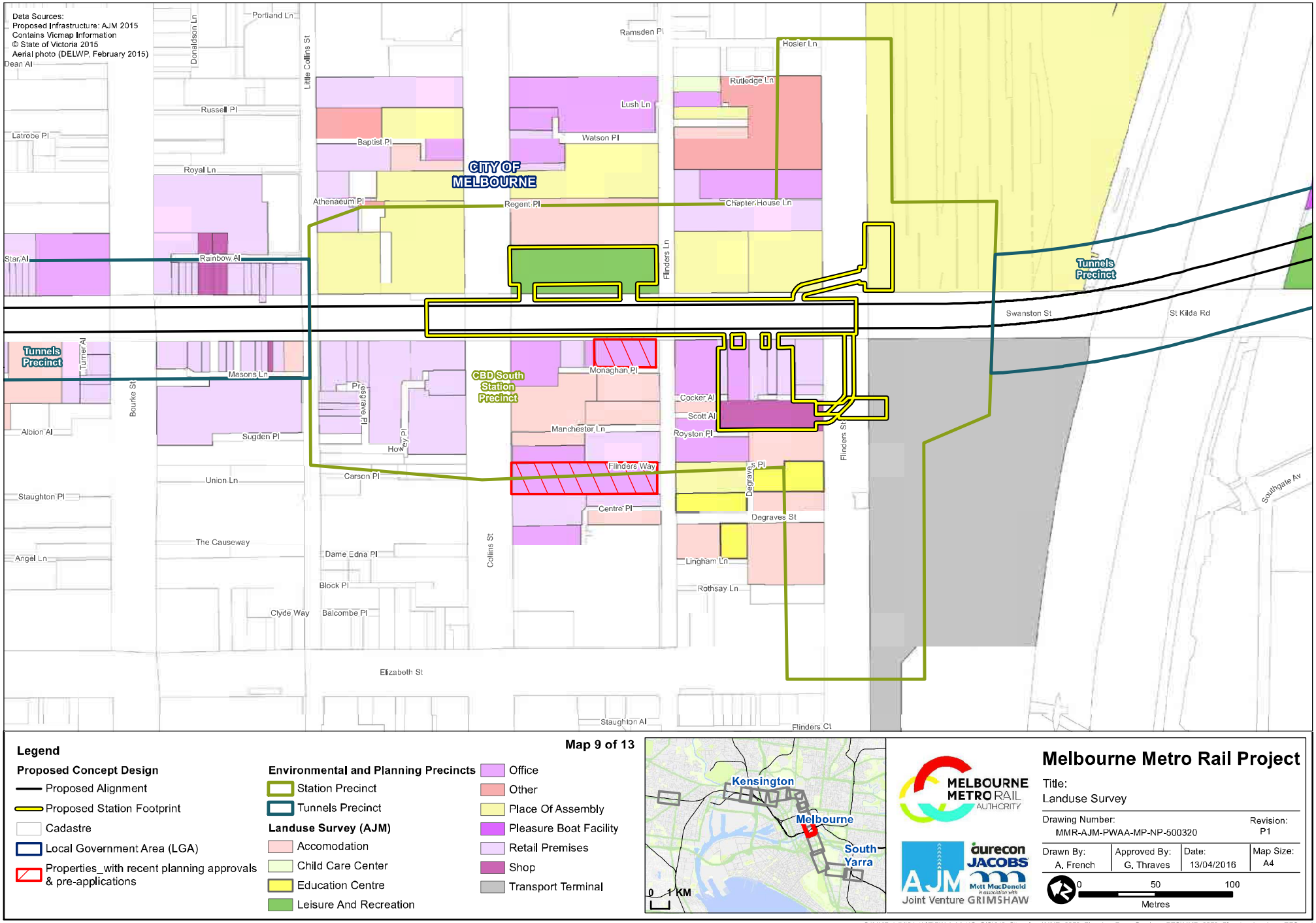


Figure 13-7 Land Use Survey and recent planning applications in the CBD South station precinct

Properties on the western side of Swanston Street between Flinders Street and Collins Street are generally retail and commercial uses and are within Melbourne's retail core. Uses on Flinders Street west of Swanston Street comprise a mix of uses including accommodation. Similarly, to the east of Swanston Street on Flinders Street there is a mix of retail, office, accommodation as well as a carpark. These areas of Flinders Street are highly pedestrianised.

The eastern side of Swanston Street in this precinct includes St Paul's Cathedral and City Square. The Westin Melbourne Hotel fronts City Square (199 – 206 Collins Street and 202 – 206 Flinders Lane) and is a seven storey hotel and apartment complex, completed in 2000. Beneath the City Square is a car park. A number of retail and food outlets are located in the hotel building fronting the City Square. The Melbourne Town Hall is the central municipal building for Melbourne and sits on the corner of Collins Street and Swanston Streets and fills the block between Collins Street and Little Collins Street.

The laneways running parallel with Swanston Street are generally narrow pedestrian walkways lined with retail uses and food and drink premises. A number of service laneways in this precinct house bins and associated infrastructure for the uses fronting the main roads.

Tram routes 1, 3, 3a, 5, 6, 8, 16, 64, 67 and 72 travel along Swanston Street to and from the south eastern and northern suburbs. A tram super stop is located just north of Flinders Lane. Collins Street also supports tram routes 11, 12, 48 and 109 and Flinders Street tram routes include 70, 75 and the City Circle.

The Night Bus operates Friday and Saturday nights and stops on Flinders Street outside St Paul's Cathedral.

The Melbourne City Tourist Shuttle is a free tourist bus service that runs every 30 minutes daily (excluding Christmas Day). The bus route heads north along St Kilda Road and turns right on Flinders Street before heading further north along Exhibition Street.

Table 13-2 outlines the existing land use assets in the precinct:

Table 13-2 Assets identified within Precinct 6

Asset / value	Description
Contemporary Landmarks (including Federation Square and City Square)	Popular meeting places and a highly valued public realm, act as landmarks within the CBD and regionally.
Flinders Street Station	This is the busiest train station on Melbourne's network, with significant heritage significance.
Historic Landmarks (including St Paul's Cathedral, Melbourne Town Hall, Flinders Street Station and several other buildings on the Victorian Heritage Register)	Historic values are present within the precinct including St Paul's Cathedral, Melbourne Town Hall and Flinders Street Station.
Retail core	Swanston Street, Flinders Lane and Scott Alley are popular shopping strips, supporting many retail uses. Port Phillip Arcade currently houses 29 retail tenancies. These areas contribute to the regionally significant retail core of the CBD.
Significant transport routes	Swanston Street is a major transport corridor through the CBD, including numerous tram routes and priority bike lanes. Pedestrian traffic is also significant in this precinct.

13.2.1 Planning Applications

There are no current or approved planning applications within this precinct that are considered to have potential to impact on the proposed Melbourne Metro. Any future development in the precinct must take into

consideration the provisions of the Melbourne Planning Scheme as well as any relevant strategic planning studies. The planning controls in the CBD South station precinct are included in Appendix E and Appendix F of this impact assessment.

13.3 Key Issues

The key issues associated with the Concept Design are identified in Table 13-3.

Table 13-3 Key issues associated with the Concept Design

Concept Design	Issue
City Square entrances (*potential to include 65 and 67 Swanston Street)	Constrained access for pedestrians and vehicles adjacent to construction work sites in the CBD. Acquisition of land within the CBD retail core would result in the loss of retail and commercial uses. Temporary loss of the entirety of public open space in City Square during construction and the ongoing use of City Square as a station entrance.
Flinders Street and Swanston Street entrance including Port Phillip Arcade with underground connection to Flinders Street Station	Constrained access for pedestrians and vehicles adjacent to construction work sites in the CBD. Acquisition of 14 titles, including leases within the Flinders Street Station building and 29 tenancies in the Port Phillip Arcade. Heritage values of Young and Jackson Hotel, St Paul's Cathedral and Flinders Street Station need to be respected and protected. The whole area is covered by a precinct wide heritage overlay (HO505 Flinders Gate Precinct). Loss of access due to the partial closure of Flinders Street during construction.
Underground entrance connection to Federation Square.	Disruption of public events and tourist activities caused by construction activity in Federation Square. Temporary use of an area of public open space in Federation Square during construction and permanent loss of a small area of public open space for the ongoing use as a station entrance.

13.4 Benefits and Opportunities

Table 13-4 provides the benefits and opportunities associated with the Concept Design.

Table 13-4 Benefits and opportunities associated with the Concept Design

Concept Design	Benefits	Opportunities
Located under Swanston Street, between Collins and Flinders Streets.	These works are underground and would not impact on land uses within the area.	Potential for below ground commercial opportunities associated with the connection of the proposed station with the existing Flinders Street Station.
City Square entrances (potential to include 65 and 67 Swanston Street)	The station would invigorate the public space post construction.	Opportunities to revitalise City Square post construction.
Flinders Street entrance including Port Phillip Arcade with underground connection to Flinders Street Station.	Minimal loss of heritage fabric at Flinders Street Station.	Opportunity to improve this part of the CBD with higher value retail businesses Potential for tram infrastructure improvements on Flinders Street between Elizabeth and Russell Streets post construction.

Concept Design	Benefits	Opportunities
Underground entrance connection to Federation Square.	Provides direct and safe access to the station without the need to cross the road at ground level.	Connection of the station entrance with the existing visitor information centre in Federation Square.

13.5 Impact Assessment

13.5.1 Land Use

The proposed siting of the station is consistent with the purpose of the Capital City Zone and the intent of the long term productivity of Melbourne. Minimal land use change would be expected as a result of the proposed Melbourne Metro in this precinct and, as such, the residual risk rating is low.

The station construction in this location would result in the loss of retail properties, however after construction, it is intended that the station buildings would include a number of retail outlets. There would be opportunities for the re-establishment of the businesses within the new development. Technical Appendix G *Business* states that even in the worst case scenario, it is unlikely that the business activity from these properties identified for acquisition would be lost from the CBD, but merely redirected to adjoining streets and laneways. One of the strategies outlined in Clause 21.12 (Hoddle Grid) of the Melbourne Planning Scheme is to *'ensure the ground level design of shop fronts on Swanston Street contribute to its role as a pre-eminent retail and lifestyle avenue and entry axis to the Retail Core'*. The initial station building design includes retail shop fronts on Swanston Street, which would contribute to the continued use of the ground level of Swanston Street as part of the retail core of the CBD.

The CBD South station would provide direct access to Flinders Street Station, both above and below ground level, providing connections with the existing Melbourne Underground Rail Line. The station building avoids impacts to the Young and Jackson's Princes Bridge Hotel and the building at 222-224 Flinders Street, both of heritage significance. In this location, an entrance is proposed fronting Swanston Street, which is a major thoroughfare for Melbourne, supporting a mix of land uses. Access would be provided to the rear of the Swanston Street station entrance building from north-south alleyways including Scott, Crocker and Royston Alleys.

The proposed entrance in Federation Square would provide direct access for users of Federation Square, supporting the role of the square as a gathering place and public events venue. The entrance would also provide access to the sporting precincts of the MCG and Melbourne and Olympic Parks.

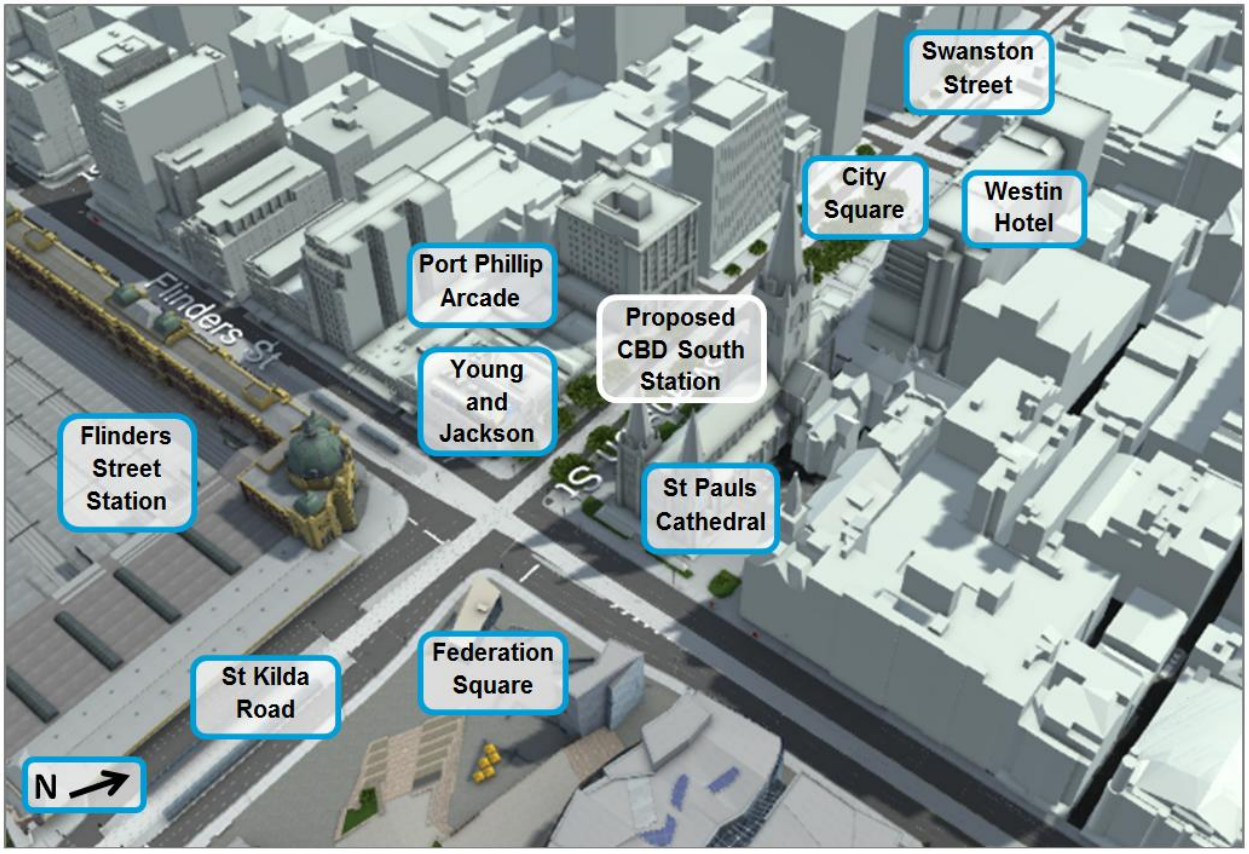
Station entrances to the north of the station box are located in City Square. The northern most entrance is close to Collins Street in order to capture Collins Street patrons and provide access to the retail areas of Bourke Street Mall and Collins Street. A more central entrance is proposed in City Square, fronting Flinders Lane to account for the high patronage levels expected at this site.

The Swanston / Flinders Street intersection is seen as the CBD's southern face, the meeting of the commercial district of the Hoddle Grid and the lower scale, arts and parks precinct to the south. Princes Bridge is a major access point to the CBD from the south and Clause 22.04 (Heritage Places within the Capital City Zone) of the Melbourne Planning Scheme states that this area has been the gateway to the City *'ever since the first Prince's Bridge (1841) and Melbourne's first railway were constructed, and Flinders and Spencer Street stations were linked by a viaduct in 1879'.* The grand building of St Paul's Cathedral and one of Melbourne's oldest and best known hotels, Young and Jackson's Princes Bridge Hotel (1854), flank Swanston Street at this location, emphasising the importance of this gateway precinct. The existing built form in this location is generally low to medium rise, with most buildings between two and four storeys. Clause 22.04 states that *'an important feature of Flinders Street's southern face of buildings is their uniform height facing the station, Federation Square and the Yarra River'*.

The station itself would act as a catalyst for change and reinvigorate a block of the CBD that is currently tenanted by lower value retail tenancies. Future over-site development could provide retail opportunities in

the area and act as a lure for higher quality retail and food tenancies. There would be potential for future invigoration of the station connections below ground level through commercial and retail opportunities at sub surface level. This is consistent with clause 21.12 of the Melbourne Planning Scheme, which requires developments along Swanston Street to *'ensure the ground level design of shop fronts… contribute to its role as a pre-eminent retail and lifestyle avenue and entry axis to the Retail Core'*.

The image below (Figure 13-8) illustrates the existing low to medium scale built form within this precinct.



Source: DELWP, November 2015

Figure 13-8 Built form in the CBD South station precinct

The City Square is proposed to be used as a station entrance location and is within the Public Park and Recreation Zone. Within this zone, a railway station is a prohibited use pursuant to the Melbourne Planning Scheme. The precise extent of impacts to public open space must be managed in accordance with the Environmental Performance Requirements and would be dependent on the ultimate construction methodology. The approvals for this Project are proposed to provide a site specific exception to the zoning prohibition for a station, however, it is considered that the proposed station would contribute to the ongoing use of the land for central city purposes and in the long term, it would not change the ongoing use of the land for public recreation purposes.

Federation Square is located in the Capital City Zone and also provides public open space within the central city area. While the permanent acquisition of part of Federation Square for a station entrance would similarly result in the loss of public open space, station entrances in Federation Square and City Square are considered to be an appropriate use of this land as they would support the ongoing function of the central city. In addition, the affected area of Federation Square is not as heavily utilised as other parts of the square, with the potential for other parts of the area to host displaced activities.

Development of a public open space on the eastern portion of the St Pauls Cathedral site is proposed to ameliorate the loss of public open space at City Square during project construction. Development would

include removing the current surface car park and installing hard and soft landscaping, paths, lighting and structures. The space would allow informal recreation and potentially support public events

13.5.2 Access

There would be constrained access for pedestrians and vehicles adjacent the station entrances and worksites, however pedestrian access would be maintained to businesses fronting Swanston Street as well as Young and Jackson Hotel.

Swanston Street would remain open to through traffic throughout construction. Existing access routes would remain along Swanston Street. Construction traffic would result in greater volumes of traffic through the precinct and the wider area. It is intended that there would be minimal use of Swanston Street by construction vehicles accessing Flinders Street, Batman Avenue and CityLink.

Flinders Street would be partially closed for periods to facilitate the construction of the connections to Flinders Street Station. During these closures, trams along Flinders Street would be temporarily disrupted or potentially re-routed.

The partial road closure of Flinders Street, would act as a physical barrier to movement. Access around the construction work site would be maintained via alternative streets such as Degraves Street and Flinders Lane.

13.5.3 Land Acquisition

The proposed station would require the acquisition of 14 titles. This includes a number of car park spaces beneath City Square and the temporary occupation and permanent acquisition of a portion of City Square. The majority of acquisitions are commercial buildings on the west side of Swanston Street between Flinders Street and Flinders Lane and within the Port Phillip Arcade. It is also identified that land currently occupied by Brunetti's CBD would be acquired. Landowners would be compensated in accordance with the requirements of the *Land Acquisition and Compensation Act 1986.*

It is not considered that the acquisition of these properties would impact on the land use character of the area, as there are many fast food and retail stores along Swanston Street and within the precinct. There are multiple outlets for each fast food chain within the CBD.

The productivity of businesses in the Westin Hotel building fronting and within City Square is expected to be either lost entirely or significantly reduced during the temporary occupation of the Square. The City Square is anticipated to be occupied for four years. It is not anticipated that the loss of these businesses would significantly impact on land use in the area. Whilst the temporary relocation of these retail/food and drink premises would be required, the properties are owned by the Westin Hotel and would likely be used for similar land uses at the completion of construction. The Westin Hotel itself may be required to change its operation slightly due to the amenity impacts of construction. This is discussed further in Technical Appendix G *Business.*

The built form in the precinct would be impacted during construction as a number of buildings would be removed. However, the buildings removed are generally low rise and not of significant architectural value. The City Square is a landmark open space area that would be temporarily lost during construction. The long-term use of the site would revert back to public open space apart from the two proposed station entrances, and consequently, the residual risk rating for built form in this precinct is low.

Any surplus land remaining upon completion of the project construction phase would be managed in accordance with the *Victorian Government Landholding Policy and Guidelines.*

13.5.4 Strategic Planning Policy Support

Clause 21.12 (Hoddle Grid) of the Melbourne Planning Scheme outlines the planning principles for the Hoddle Grid local area in relation to housing, economic development, built environment, heritage and transport. Relevant principles include to:

'Encourage the development of a range of complementary precincts within the Hoddle Grid that offer a diverse range of specialist retail, cultural and entertainment opportunities'.

'Enhance Swanston Street as part of a boulevard axis which runs from Princes Park to St Kilda Road'.

'Ensure the ground level design of shop fronts on Swanston Street contribute to its role as a pre-eminent retail and lifestyle avenue and entry axis to the Retail Core'.

The proposed station building in this precinct has the potential to provide retail and commercial uses as part of any over-site development. Over-site development is not part of this project and any proposal would be guided by the relevant planning controls at the date of the proposal. The proposed station in this location would support the boulevard status of Swanston Street and would not impact on views to and from the Shrine of Remembrance.

Planning Scheme Amendment C262 – Schedule 10 (Built Form Controls) (DDO10), discussed in Precinct 5: CBD North Station also applies to Precinct 6: CBD South Station. A precinct heritage overlay also applies to in this area, along with the height controls implemented through the Design and Development Overlay. The built form of the proposed station at this location is yet to be determined, however the existing planning controls would need to be considered in the planning for any future development of the site.

13.5.5 EES Evaluation

The Concept Design is generally consistent with the draft EES evaluation objectives for land use and planning as:

- The proposed station complies with the objectives in the state and local planning policy, and the directions of *Plan Melbourne*, in particular the objective to *'harmonise and improve public transport services across trains, trams and buses to provide access to job-rich areas in the suburbs'*
- The proposed Melbourne Metro and the siting of the station is consistent with the purpose of the Capital City Zone and the intent of the long term productivity of Melbourne, however the occupation of City Square is inconsistent with the intent of the zoning which applies to the site
- The heritage values of surrounding land would be respected and any protection works would be undertaken in accordance with any approvals from Heritage Victoria or the Minister for Planning or Council
- The acquisition of 14 titles in this precinct and subsequent loss of existing and proposed residential and commercial uses has the potential to be supplemented (in part) by over-site development at the station location. The acquisition in this precinct is considered to have minimal impact on land use in the precinct and the residual risk rating is low.
- Built form would be impacted temporarily through the use of the City Square as a construction work site, and the removal of a number of buildings. At the completion of construction, there would be potential for over-site development of the station entrance building in Flinders and Swanston Streets and re-instatement of the City Square to revitalise built form in the precinct, keeping the residual risk rating to low.
- At the completion of construction, the station would assist in the revitalisation of this area of Melbourne's CBD
- Access would be limited throughout the precinct due to the increase in construction traffic, and construction works at ground level. This includes the disruption to pedestrian access across the precinct. A traffic management plan would be prepared to to minimise disruption to traffic, pedestrian and bicycle movements.

13.6 Environmental Performance Requirements

Table 13-5 provides the recommended Environmental Performance Requirements and proposed mitigation measures for the precinct.

Table 13-5 Environmental Performance Requirements for the precinct

Asset / value	Impact	Environmental Performance Requirements	Proposed mitigation measures	Risk no.
Flinders Street Station	Private leases within the station building would be acquired.	Prior to main works or shaft construction, develop and implement a community and business involvement plan to engage potentially affected stakeholders and advise them of the planned construction activities and progress against the schedule. The plan must include: • Measures to minimise impacts to the development and/or operation of existing facilities • Measures for providing advance notice of significant milestones, changed traffic conditions, periods of predicted high noise and vibration activities • Process for registering and management of complaints • Measures to address any other matters which are of concern or interest to them. The plan would consider each precinct and station location in detail. Stakeholders to be considered in the plan include (but not limited to): • Municipalities • Potentially affected residents • Potentially affected businesses	Assist in the relocation of impacted businesses (refer to Technical Appendix G Business).	LU002 LU008

Asset / value	Impact	Environmental Performance Requirements	Proposed mitigation measures	Risk no.
		• Recreation, sporting and community groups and facilities • Royal Melbourne Hospital, Victorian Comprehensive Cancer Centre, Peter Doherty Institute and other health and medical facilities • The University of Melbourne • RMIT • Fawkner Park Children's Centre and Kindergarten • South Yarra Senior Citizens Centre • Other public facilities in proximity.		
Contemporary Landmarks (including Federation Square and City Square)	Temporary loss of City Square during construction and the inclusion of station entrances in both City Square and Federation Square. Temporary occupation of public open space reducing quality of surrounding open space. Improvement of access to both sites through the inclusion of station entrances.	Develop and implement measures for construction and operation of Melbourne Metro that aim to minimise impacts to the development and / or operation of existing land uses, including: • Limiting the permanent change of use within existing public open space • Minimising footprints of construction sites and permanent infrastructure on public land • Minimising impacts to existing public open spaces and recreational facilities and the users of these facilities, including but not limited, to JJ Holland Park, University Square, City	Demonstrate that construction work sites have been optimised to reduce their footprint on the landmarks and public open space. Ensure the open space and its facilities are reinstated post construction (where possible).	LU002 LU006 LU007

Asset / value	Impact	Environmental Performance Requirements	Proposed mitigation measures	Risk no.
		Baths, City Square, Federation Square, the Shrine of Remembrance Reserve, Domain Parklands, Edmund Herring Oval, Fawkner Park and the Albert Road Reserve. Such measures shall be developed in consultation with affected land managers for public land. Prior to main works or shaft construction, develop and implement a community and business involvement plan to engage potentially affected stakeholders and advise them of the planned construction activities and progress against the schedule. The plan must include: • Measures to minimise impacts to the development and/or operation of existing facilities • Measures for providing advance notice of significant milestones, changed traffic conditions, periods of predicted high noise and vibration activities • Process for registering and management of complaints • Measures to address any other matters which are of concern or interest to them. The plan would consider each precinct and station location in detail. Stakeholders to be considered in the plan include (but not limited to):		

Asset / value	Impact	Environmental Performance Requirements	Proposed mitigation measures	Risk no.
		• Municipalities • Potentially affected residents • Potentially affected businesses • Recreation, sporting and community groups and facilities • Royal Melbourne Hospital, Victorian Comprehensive Cancer Centre, Peter Doherty Institute and other health and medical facilities • The University of Melbourne • RMIT • Fawkner Park Children's Centre and Kindergarten • South Yarra Senior Citizens Centre • Other public facilities in proximity. In consultation with key stakeholders and in accordance with the Urban Design Strategy, relevant statutory approvals and other relevant requirements, re-establish sites impacted by construction works, including but not limited to: • Childers Street, Kensington • JJ Holland Park • Royal Parade and Grattan Street, Parkville • The south western entrance of the proposed CBD South station • St Kilda Road boulevard		

Asset / value	Impact	Environmental Performance Requirements	Proposed mitigation measures	Risk no.
		• Edmund Herring Oval • Fawkner Park and Fawkner Park Tennis Facility • Osborne Street Reserve • South Yarra Siding Reserve • Lovers Walk • The South African Soldiers War Memorial See related Environmental Performance Requirement LV2. Develop and implement a plan in consultation with the Office of Victorian Government Architect, local councils and other land managers to comply with the Melbourne Metro Urban Design Strategy to re-establish public open space, recreation reserves and other valued places disturbed by temporary works. The plan must include, but not be limited to a methodology for storage, reinstatement or replacement of existing public art, monuments and public infrastructure such as poles, bins, and other street furniture.		

14 Precinct 7: Domain Station

14.1 Project Components

This section describes the components and construction activities that could result in impacts to existing conditions in this precinct.

14.1.1 Infrastructure

The proposed station at Domain is located beneath St Kilda Road adjacent to Albert Road and Domain Road. The station would have three station entrances:

- On the corner of Domain Road and St Kilda Road (within the edge of the Shrine of Remembrance Reserve)
- To the west of St Kilda Road, within the Albert Road Reserve
- In the proposed new Domain tram interchange in the centre of St Kilda Road.

The entrance in the Shrine of Remembrance Reserve would require permanent reservation of a small portion of public parkland and temporary occupation of the Edmund Herring Oval during construction.

The works at this location would require the realignment of St Kilda Road, however this would not impact on existing land use or built form fronting St Kilda Road.

The proposed early works include the rerouting of the number 8 tram from Park Street / Domain Road to Toorak Road West. This is discussed further in Section 17.1.1 of this impact assessment.

The proposed station entrance on the west of St Kilda Road would involve a sunken plaza in the Albert Road Reserve. Part of the reserve would require permanent reservation and relocation of the existing South African Soldiers Memorial.

Table 14-1 below sets out the surface level land acquisition, occupation and strata acquisition that would be required for construction in this precinct.

Table 14-1 Land acquisition and occupation for construction in the precinct

Precinct	Permanent acquisition	Temporary occupation	Strata acquisition (approximate)	Total
7	2 (Crown Land Reservations including the Shrine of Remembrance Reserve)	2 (Shrine of Remembrance Reserve and Edmund Herring Oval)	1	5

The Crown land in this precinct has been identified for acquisition, however as it is already in public ownership, the land would not be acquired but the existing reservation would be revoked and the land would be reserved under section 4(1) of the *Crown Land (Reserves) Act* 1978 for the purposes of Melbourne Metro.

An unpaid underground pedestrian connection beneath St Kilda Road would connect the east and west sides of St Kilda Road around its intersection with Domain Road and Albert Road.

Parking within the centre median on Albert Road would be removed to allow the siting of a generator/chiller.

The existing tram interchange in St Kilda Road would be removed and a new interchange built further south on St Kilda Road (just south of Domain Road). A station entrance would be incorporated into the new interchange facility in the centre of St Kilda Road.

14.1.2 Construction

The Domain station precinct would be one of the major construction work sites for the project. A number of construction work sites are proposed within and adjacent to this precinct. It is proposed to use the Albert Road Reserve for site offices, amenities, equipment storage and materials laydown and the Eastern TBM launch site would be within the St Kilda Road road reserve. A small area would be required to be temporality occupied in the Shrine of Remembrance Reserve to enable the development of the north east entrance. Additionally, the Edmund Herring Oval would be used as a further construction work site for the duration of works.

The partial closure of Domain Road between Park Street and St Kilda Road would be required to access the proposed construction work site at the Edmund Herring Oval. The number 8 tram would need to be re-routed from Park Street / Domain Road to Toorak Road West.

The construction of Domain station, its associated construction sites and required traffic diversions would require the removal of approximately 208 trees from the public realm, most notably from the St Kilda Road road reserve and the Albert Road Reserve. All trees within the proposed St Kilda Road construction zone central median are anticipated to require removal for staged traffic diversions and provide construction access. This is discussed further in Technical Appendix R *Aboriculture*. Construction would be staged to allow traffic to be maintained through the site along St Kilda Road. Road realignment may be required that could impact on land outside the existing road reservation. Temporary removal of all street furniture, tram stops and parking spaces would be required during construction.

14.1.3 Operation

Post construction, St Kilda Road would be reconfigured and traffic lanes restored, including bike lanes and street furniture, as well as the operation of a new tram interchange.

The Shrine of Remembrance Reserve would be reinstated incorporating the new station entrance and associated access ways and planting in consultation with the Shrine Trustees and the City of Melbourne.

It is proposed that the sunken plaza station entrance within the Albert Road Reserve would form part of the public open space. The existing South African Soldiers War Memorial would be relocated in consultation with the City of Port Phillip (the owners of the memorial) and other key stakeholders including Heritage Victoria.

Once construction has completed, it is intended to replace the trees in the precinct in accordance with the City of Melbourne's *Urban Forest Strategy* and *Greening Port Phillip, an Urban Forest Approach* guidelines.

14.2 Existing Conditions

The location of the proposed Melbourne Metro within Precinct 7 - Domain station precinct and the relevant planning controls are shown in Figure 14-4 and Appendix G of this impact assessment.

The Domain station precinct is located on a bend of St Kilda Road, between Park Street and the intersection of Kings Way, Toorak Road and Domain Road (refer to Figure 14-2). The eastern side of St Kilda Road is within the City of Melbourne, whilst the western side, including the Albert Road Reserve, is within the City of Port Phillip.

The Shrine of Remembrance Reserve is part of Domain Parklands, which includes the reserves bound by St Kilda Road to the west, the Yarra River to the north, Anderson Street to the east and Domain Road to the south. The Edmund Herring Oval is within the Domain Parklands. The Domain Parklands is listed on the Victorian Heritage Register (VHR H2304). At this location, the Macpherson Robertson Memorial Fountain and Cobbers sculpture are listed on the Victorian Heritage Register (VHR Ref H0848). The landform at this point rises from St Kilda Road up to the high point of the Shrine of Remembrance (refer to Figure 14-3).

The Albert Road Reserve (shown in Figure 14-1) is located in the triangular park at the east end of South African Soldiers Memorial and accommodates the South African War Memorial as well as an area of public open space. The Reserve is listed on the Victorian Heritage Register (VHR Ref H1374), and contains mature

elm trees and slopes to the west. Technical Appendix J *Historical Cultural Heritage* provides further information on the features of this site and the remainder of the precinct.

Figure 14-1 Albert Road Reserve

The west side of St Kilda Road is characterised by multi-storey, residential and office buildings. This area is within the Commercial 1 Zone[11] (B5Z) and affected by a number of Design and Development Overlays that control built form, in the Port Phillip Planning Scheme.

Figure 14-2 Domain Tram Interchange and high rise buildings on St Kilda Road and Albert Road

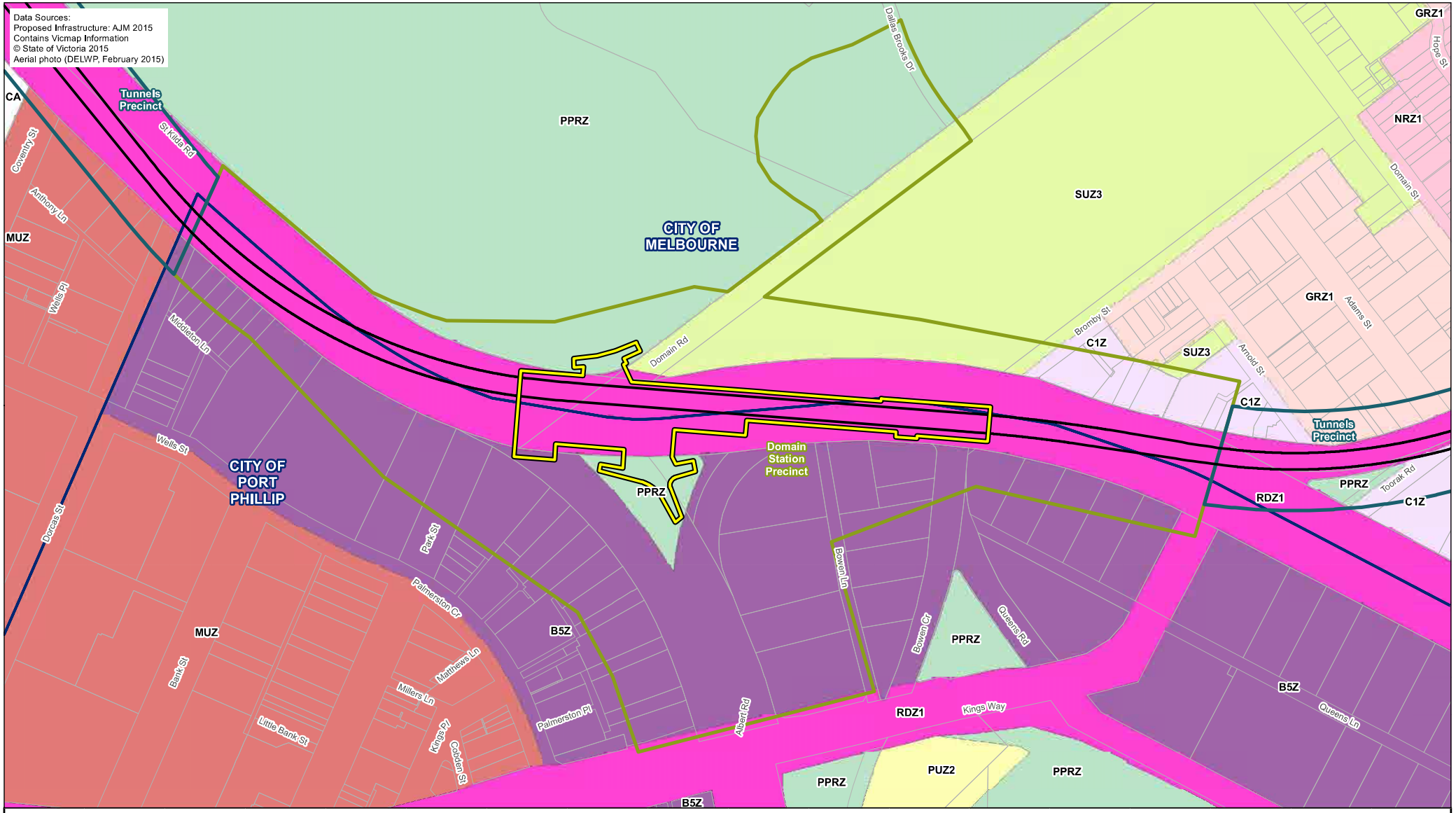
Figure 14-3 Domain Parklands

The east side of St Kilda Road is markedly different, with built form typically of two or three storeys, including the Melbourne Grammar School and the Royce Hotel and the parklands.

Melbourne Grammar School's Wadhurst campus is on the corner of Domain Road and St Kilda Road. Vehicle access to an underground car park beneath the campus is via Bromby Street. The site is listed on the Victorian Heritage Register (VHR Ref H0019) and affected by the Environmental Significance Overlay (Schedule 2 Exceptional Trees). The ESO2 aims to protect trees identified in the City of Melbourne's Exceptional Tree Register, 2012 (amended 2014).

Figure 14-4 and Appendix G show the zones within the Domain station precinct. Figures G-36 and G-37 in Appendix G show the overlays within the Domain station precinct. Figure 14-5 shows the results of the land use survey and any recent planning applications within the Domain station precinct.

[11] The City of Port Phillip mapping in this location, shows the land as being within the Business Zone Schedule 5, however this equates to the Commercial 1 Zone in the planning scheme ordinance.



Legend

Proposed Concept Design
- Proposed Alignment
- Proposed Station Footprint

Environmental and Planning Precincts
- Station Precinct
- Tunnels Precinct

- Cadastre
- Local Government Area (LGA)

Planning Zones
- B5Z - Commerical 1 Zone
- C1Z - Commercial 1 Zone
- CA - Commonwealth Land Not Controlled By Planning Scheme
- GRZ - General Residential Zone
- MUZ - Mixed Use Zone
- NRZ - Neighbourhood Residential Zone
- PPRZ - Public Park and Recreation Zone
- PUZ2 - Public Use Zone Education
- RDZ1 - Road Zone Category 1
- SUZ - Special Use Zone

Map 11 of 14

MELBOURNE METRO RAIL AUTHORITY

AJM Joint Venture GRIMSHAW

aurecon JACOBS Mott MacDonald in association with

Melbourne Metro Rail Project

Title: Planning Zones

Drawing Number:	Revision:
MMR-AJM-UGAA-MP-NN-500264	P1

Drawn By:	Approved By:	Date:	Map Size:
A. French	G. Thraves	13/04/2016	A4

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Metres

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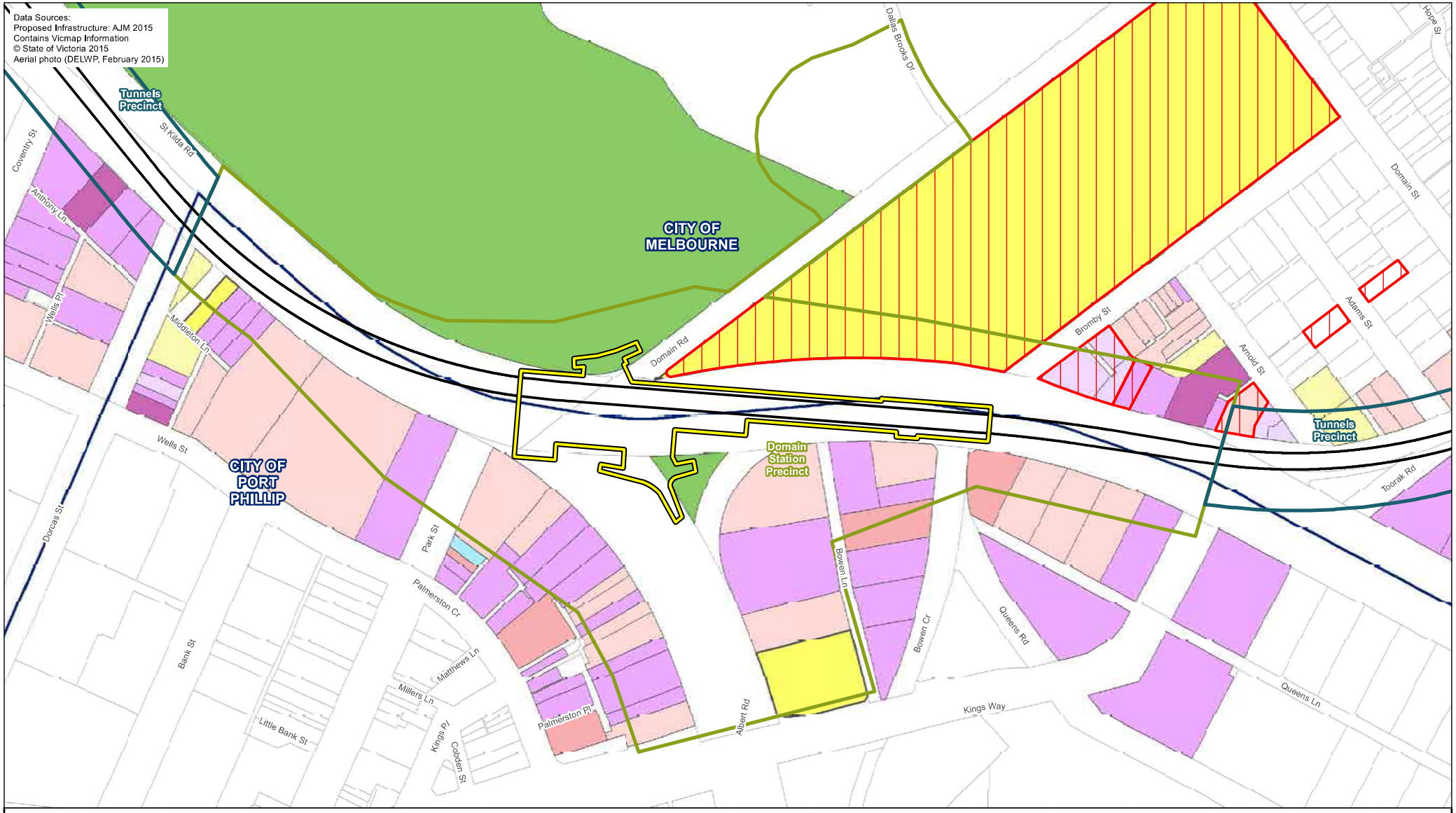
Figure 14-4 Zones in the Domain station precinct



Legend

Proposed Concept Design
- Proposed Alignment
- Proposed Station Footprint
- Cadastre
- Local Government Area (LGA)
- Properties_with recent planning approvals & pre-applications

Environmental and Planning Precincts
- Station Precinct
- Tunnels Precinct

Landuse Survey (AJM)
- Accomodation
- Education Centre
- Leisure And Recreation
- Office
- Other
- Place Of Assembly
- Retail Premises
- Shop
- Vacant

Map 11 of 13

MELBOURNE METRO RAIL AUTHORITY

AJM Joint Venture GRIMSHAW — aurecon JACOBS Mott MacDonald in association with

Melbourne Metro Rail Project

Title: Landuse Survey

Drawing Number:	Revision:
MMR-AJM-PWAA-MP-NP-500320	P1

Drawn By:	Approved By:	Date:	Map Size:
A. French	G. Thraves	13/04/2016	A4

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Figure 14-5 Land Use Survey and recent planning applications in the Domain station precinct

St Kilda Road is managed by VicRoads and is within the Road Zone, Category 1. Domain Road and Albert Road are Council managed roads. St Kilda Road supports many established London plane and elm trees within the road reserve and is considered one of Melbourne's premier tree-lined boulevards. Domain Road is affected by the Heritage Overlay HO398 (Domain Parklands and LaTrobe's Cottage, St Kilda Road and Domain Road and Dallas Brooks Drive, Melbourne).

Albert Road is used as a walking link between St Kilda Road and Domain Parklands and the public open space of Albert Park, Albert Park Lake and other land uses west of Kings Way including Mac Robertson Girls' High School.

The Domain tram interchange is located within the road reserve of St Kilda Road, between Domain Road and Park Street, and provides an interchange between tram services from Domain Road, Park Street and St Kilda Road. The interchange has two island platforms and four tracks, dedicated turning tracks and through tracks, and was most recently upgraded in 2013.

The existing route of the number 8 tram is along Domain Road to terminate at the Domain tram interchange. The proposed early works for Melbourne Metro includes the re-routing of the number 8 tram to Toorak Road West and St Kilda Road. This work would pass residential properties fronting Toorak Road West as well as Fawkner Park, which also fronts Toorak Road West.

Table 14-2 outlines the existing land use asset in the precinct.

Table 14-2 Assets identified within Precinct 7

Asset / value	Description
Domain Parklands including the Shrine of Remembrance Reserve and the Edmund Herring Oval	The parklands themselves, as well as the individual features of the Macpherson Robertson Memorial Fountain and Cobbers sculpture, have State heritage significance.
Albert Road Reserve	The Reserve itself as well as the monument and plantings have State heritage significance.
Domain Tram Interchange	Provides accessible stop with two island platforms including a dedicated track for route 8 trams, seating, shelters and passenger information display screens. It is used by nine tram routes and is one of the busiest interchanges in the tram system.
Melbourne Grammar School	The Melbourne Grammar School (VHR H0019) has many buildings of heritage significance, which need to be considered. Access for school drop-offs and to the underground car park should be maintained. The site is affected by the ESO to protect significant trees.
Key transport corridors of St Kilda Road with tram routes and bus services	High traffic volumes and public transport routes. Key pedestrian route and bicycle route to and from the city to the southern suburbs.
Walking links between public open space and to St Kilda Road	Albert Road provides direct pedestrian access between the major public open spaces of the Shrine of Remembrance Reserve (Domain Parklands) and Albert Park Lake as well as other land uses west of Kings Way.
Street trees on St Kilda Road	St Kilda Road supports many established London plane and elm trees within the road reserve and is considered one of Melbourne's premier tree-lined boulevards.
High Rise Apartment and Office Buildings	St Kilda Road is lined with medium to high rise commercial and residential development. The existing police precinct on St Kilda Road is proposed to be redeveloped for mixed use purposes.

14.2.1 Planning Applications

Any future development in the precinct must have regard to the provisions of the Melbourne and Port Phillip Planning Schemes as well as any relevant strategic planning studies. The planning controls in the Domain station precinct are included in Appendix E and Appendix F and mapped in Appendix G of this impact assessment.

Appendix H provides a full list of current or approved planning applications within the precinct that may have an impact on the proposed Melbourne Metro.

14.3 Key Issues

The key issues associated with the Concept Design are as follows:

- Loss of street trees and trees within the Shrine of Remembrance Reserve and Albert Road Reserve
- Loss of a small area of public open space within the Shrine of Remembrance Reserve, Albert Road Reserve and temporarily for Edmund Herring Oval
- Permanent reservation of portions of the Shrine of Remembrance Reserve and the Albert Road Reserve plus temporary occupation
- Relocation of the South African Soldiers War Memorial
- Relocation of the Domain tram interchange
- Full closure of a section of Domain Road between St Kilda Road and Birdwood Avenue and partial closure of St Kilda Road lanes in stages during construction
- Restricted access to existing buildings around construction work sites and movement through the precinct.

14.4 Benefits and Opportunities

The benefits associated with the Concept Design include:

- No requirement for private land acquisition
- No direct impact to statues or memorials within the Shrine of Remembrance Reserve
- Improved train access to the area resulting in less reliance on trams
- Potential to provide a direct interchange between trams and trains at this location
- Sub-surface pedestrian links east-west under St Kilda Road, including improved access to the Shrine of Remembrance Reserve
- Improved bike lanes providing access to the CBD from the south and east
- Limited access along St Kilda Road would be maintained throughout the construction period
- New tree plantings in accordance with the City of Melbourne's *Urban Forest Strategy* and City of Port Phillip's *Greening Port Phillip – An Urban Forest Approach*.

The opportunities are:

- Potential for public open space improvements at the Albert Road Reserve post construction
- Potential for increased residential density due to proximity to improved transport infrastructure
- The station to act as a catalyst for change for the functional road layout including the provision of more trees within the road reserve.

14.5 Impact Assessment

14.5.1 Land Use

The proposed Melbourne Metro brings heavy rail to this precinct for the first time and a proposed station in this location would help to relieve the busy Swanston Street and St Kilda Road tram corridor, encouraging tram travellers to shift to the rail network and relieving tram congestion and overcrowding. Melbourne Metro would create rail network capacity to serve the continuing expansion of central Melbourne, as well as providing direct access to the St Kilda Road precinct, which is essential for sustaining central Melbourne's job-generating attributes.

The location of the station in the road reserve of St Kilda Road is considered appropriate, as there would be no private land acquisition. Any public open space impacted by the construction of the proposed station would be returned to public open space where it is not directly impacted by station entrances. The built form of the proposed station entrances would be sensitive to the heritage and landscape significance of the area and the residual risk rating is low.

The proposed station would have limited long term impact on the land use surrounding the precinct. Post construction, the only change in land use in this precinct resulting from the project would be at the station entrances. Three entrances would be proposed to this station, one on each side of St Kilda Road and one to directly link with the proposed new Domain Tram Interchange in the centre of St Kilda Road. Entrances in these locations provide connections to the valued commercial and residential land uses on the west side of St Kilda Road, as well as the Shrine of Remembrance Reserve, Domain Parklands, the Royal Botanic Gardens and Melbourne Grammar School on the east side of St Kilda Road. The proposed works, would provide an opportunity to change the configuration of the Albert Road area in line with the strategic plans of the City of Port Phillip.

During construction, there would be a number of disruptions to surrounding land uses within the area, mostly due to the impact of construction on access, amenity and disruptions to transport in the area.

The Domain tram interchange would be relocated but would remain within the existing road reserve of St Kilda Road, so there would be no significant change in land use within the road reserve. The proposed location of the tram interchange would not have a significant impact on surrounding land uses, with the detailed design of the infrastructure to be confirmed at a later stage of the project. The proposed sub-surface pedestrian access beneath St Kilda Road would provide a safer and more direct option for getting to and from the interchange, as well as the Shrine of Remembrance Reserve and Melbourne Grammar School.

The location of the station entrance in the Shrine of Remembrance Reserve would result in the loss of a small area of public open space, however no monuments or statues would need to be removed. The extent of impacts to public open space would be determined by the contractor in accordance with the Environmental Performance Requirements and be dependent on the ultimate construction methodology. The loss of public open space is negligible when considered as a portion of the whole of Domain Parklands and surrounding parklands. However, the value placed on the heritage significance of the Shrine of Remembrance needs to be considered, and the design of the station entrance sensitive to the significance of the precinct. Further discussion related to this issue is in Technical Appendix J *Historical Cultural Heritage* and Technical Appendix M *Urban Design Strategy.*

The Shrine of Remembrance Reserve is within the Public Park and Recreation Zone. Within this zone, a railway station is a prohibited use pursuant to the Melbourne Planning Scheme. The approvals for this project are proposed to provide an appropriate site specific exception to this, as it is considered that the proposed station would contribute to the ongoing use of the land for public purposes and in the long term, it would not change the ongoing use of the land for public recreation purposes. It is also considered that the proposed station would contribute to the commercial and office uses in the area.

The use of the Albert Road Reserve by the project would result in a loss of existing public open space, however there would be opportunities at the completion of construction to provide an improved open space

area for the community and surrounding office workers. The improved space could enhance connections through the precinct, providing a link for pedestrians between the east and west sides of St Kilda Road. The underground connection beneath St Kilda Road would improve safety for pedestrians and eliminate the need to cross busy St Kilda Road at ground level.

The St Kilda Road Police Complex is located on the corner of Bowen Crescent and St Kilda Road and includes a 17 storey building with underground access from the rear. This site has existing planning approval for redevelopment for mixed use purposes. There is capacity within the existing strip for more high density commercial and residential development supported by the provision of additional public transport options. Currently, there is no train access to this part of Melbourne and there is heavy reliance on the trams that run north-south along St Kilda Road (further discussion surrounding this issue is provided in Technical Appendix D *Transport*). The provision of a station at this location would support the regionally significant employment area and the growing residential uses of St Kilda Road and surrounding areas.

The current proposal includes the loss of a number of car spaces within the Albert Road road reserve. There are potential land use improvements that may result from this as the road reserve could be incorporated into the improved Albert Road Reserve open space.

The proposed works would result in the loss of a number of street trees which would impact on the valued landscape character of St Kilda Road. It is recommended that the re-establishment of trees along St Kilda Road is undertaken in accordance with the City of Melbourne's *Urban Forest Strategy* and City of Port Phillip's *Greening Port Phillip* document.

14.5.2 Access

During construction, there would be constrained access for pedestrians and vehicles adjacent to the work sites, and restricted access to part of the public open space (Shrine of Remembrance Reserve and Albert Road Reserve), however pedestrian access would be maintained to businesses and residents surrounding the worksite. Access would also be maintained to the MacRobertson Fountain.

The closure of Domain Road would restrict access around the station precinct, particularly when trying to access Melbourne Grammar School and the Shrine of Remembrance Reserve. The impact of this road closure would be minimised as there are alternative accesses available to both these land uses and around the construction work site. This is further discussed in Technical Appendix D *Transport*.

The proposed re-routing of the number 8 tram away from Domain Road has the potential to impact on existing land uses in the area. This is discussed in Section 17.5.

St Kilda Road would remain open throughout construction, however traffic might be reduced to one vehicle lane and a bike lane in each direction plus tram tracks. The proposed functional road layout during construction would also impact on existing footpaths along St Kilda Road and further impact pedestrian access through the precinct. Surrounding land uses would be affected by the limited access around the construction work site. However, there is potential for a pedestrian overpass across St Kilda Road to improve connectivity during construction. Post construction, there would be potential for the proposed station to act as a catalyst for change in transport modal priorities in the area including improved bicycle lanes along St Kilda Road. This is discussed further in Technical Appendix D *Transport*.

As outlined above, the sub-surface pedestrian access beneath St Kilda Road would improve connection across St Kilda Road and the precinct and wider area as a whole.

14.5.3 Land Acquisition

Minimal land acquisition would be required, with two areas of public open space required for acquisition, as well as two portions of land required for temporary occupation (for construction purposes). No private land acquisition would be required. The ongoing use of land identified for acquisition would support the existing use of the land for public purposes. Consequently, the residual risk rating is low.

The Shrine of Remembrance Reserve is Crown land reserved as the site for the Shrine of Remembrance (A\PP5514D). The provisional administrator for this Crown Grant is DELWP, but the land is vested in the Shrine of Remembrance Trustees. The Crown Grant has a Queens Caveat attached to it, which prevents the sale of any portion of the land. However, the *Major Transport Projects Facilitation Act 2009* provides the ability to temporarily and permanently revoke reserves on Crown land for the purpose of major transport projects.

The Edmund Herring Oval is located in the Domain Parklands, on land known as Allotment 2055\PP5514D. This parcel is Crown land is reserved for public parks and gardens. The land is managed by the City of Melbourne. The City of Melbourne has the power to enter into tenure arrangements, such as leasing and licensing, for part or all of the reserve, subject to the Minister for Environment, Climate Change and Water's approval. The *Major Transport Projects Facilitation Act 2009* provides the ability to temporarily revoke reserves on Crown Land for the purpose of major transport projects.

The title for the Albert Road Reserve is mixed, as it appears the cadastre does not match up with the true boundaries of the Reserve. As such, the Reserve is a mix of Crown land (Reserved for Ornamental Plantation and managed by the City of Port Phillip) and Government Road (managed by the City of Port Phillip). The *Major Transport Projects Facilitation Act 2009* provides the ability to temporarily or permanently revoke reserves on Crown land for the purpose of major transport projects.

St Kilda Road is managed by VicRoads and would be temporarily occupied by the proposed Melbourne Metro. VicRoads' consent would be required for works in this road.

Any surplus land remaining upon completion of the project construction phase would be managed in accordance with the *Victorian Government Landholding Policy and Guidelines.*

14.5.4 Strategic Planning Policy Support

The *Domain Parklands Masterplan* was intended to provide a broad strategic direction for the Domain as a whole and was prepared by the City Melbourne in 1997. The Masterplan is currently being updated. Appendix I of this impact assessment provides detail of the Masterplan, including the boundaries of the parkland. The masterplan recommends the preparation of precinct plans for the ongoing improvement of these significant parklands. The proposed Melbourne Metro does not impact on the implementation of the current *Domain Parklands Masterplan*, and any precinct plans prepared for this area of the parklands should have regard to Technical Appendix M *Urban Design Strategy*.

The City of Port Phillip has submitted Planning Scheme Amendment C107 to the Minister for Planning for approval. The Amendment seeks to implement a series of built form and height controls that are derived from the *St Kilda Road North Precinct Plan* 2013. The Precinct Plan responds to the changing character of the area, with a shift away from commercial uses to an increased demand for residential apartments. Existing planning controls (Design and Development Overlays) specify 'preferred' building heights, which have been exceeded in a number of proposals. The revised Design and Development Overlay specifies 'design objectives' and 'design requirements' relating to the scale and form of new development, including maximum building heights and building setback requirements. It requires high quality development that respects the Shrine of Remembrance setting, reinforces the well-established street layout and landscape identity of the precinct, maintains residential amenity, and contributes to an inviting and activated environment for pedestrians at street level. Land within the Domain station precinct is identified as Sub-Precinct 4: Albert Road North & Bowen Crescent. As such, the following objective is relevant to the Domain station precinct:

> *'The Albert Road North and Bowen Crescent Sub-Precinct is a distinct part of the Precinct expressing a unique nineteenth century formal street layout. Higher scale buildings clustered around the Domain will sit in a landscaped setting serving as a focal point within the overall precinct area and a point of transition along the St Kilda Road axis.*

- *To ensure that built form creates a focal point for the wider St Kilda Road Precinct where Albert Road, St Kilda Road and Domain Road meet through the development of higher scale and quality buildings*
- *To ensure that development reinforces the distinctive street pattern by building frontages following the curve of the street and are complemented by formal tree planting in setback areas*
- *To ensure that podium heights create and reinforce human scale and provide visual interest and activity for the pedestrian at street level*
- *To improve public streets, provide for additional street trees and increase pedestrian connections*
- *To ensure that development improves the pedestrian environment along Queens Lane and Bowen Lane through buildings designed to address and engage with the street edge, while maintaining the service role of these lanes'.*

The proposed Domain station would be affected by the revised Design and Development Overlay, which requires the consideration of the development on the views to and from the Shrine and the St Kilda Road boulevard. One proposed Domain Station entrance would be located on the edge of the Shrine Reserve and its design would be highly sensitive to the Shrine and its parkland setting.

Planning Scheme Amendments to the Melbourne, Port Phillip and Stonnington Planning Schemes were approved in 2014 to implement the findings of *'The Shrine of Remembrance, Managing the significance of the Shrine, July 2013'* planning study. The Amendments strengthened the planning polices and controls applicable to land that forms the setting and background of the Shrine of Remembrance.

Clause 21.06 (Built Environment and Heritage) of the Melbourne and Stonnington planning schemes and Clause 21.05 (Built Form) of the Port Phillip planning scheme seek to *'protect iconic views in the city'*, including views of the Shrine of Remembrance along Swanston Street from the State Library. These policies also seek to protect the heritage significance of the Shrine of Remembrance. The Port Phillip policy also aims to protect St Kilda Road and its street trees from inappropriate development.

The proposed station has been designed to take these views into consideration, and further detailed design would be undertaken with regard to this planning study and Technical Appendix M *Urban Design Strategy*. Once operational, the new station would improve access for the wider community to the Shrine and to facilities and services nearby, as discussed in Section 14.5.2.

Clause 21.04-3 (Office and Mixed Activity Areas) of the Port Phillip Planning Scheme identifies St Kilda Road as the premier employment node for the City of Port Phillip. This policy identifies St Kilda Road as a location for *'office and related commercial uses that support the capital city function'*. A station at this location would support the ongoing growth of the employment node of St Kilda Road by providing an improved public transport option. Clauses 21.04-1 and 21.06-7 also identify St Kilda Road as a high density residential precinct, stating that the precinct is *'a preferred location for new housing at higher densities'*.

The proposed Melbourne Metro would facilitate the intensification of this area and would not impede the implementation of these policies.

Further strategic policies are discussed in more detail in Appendix I of this impact assessment.

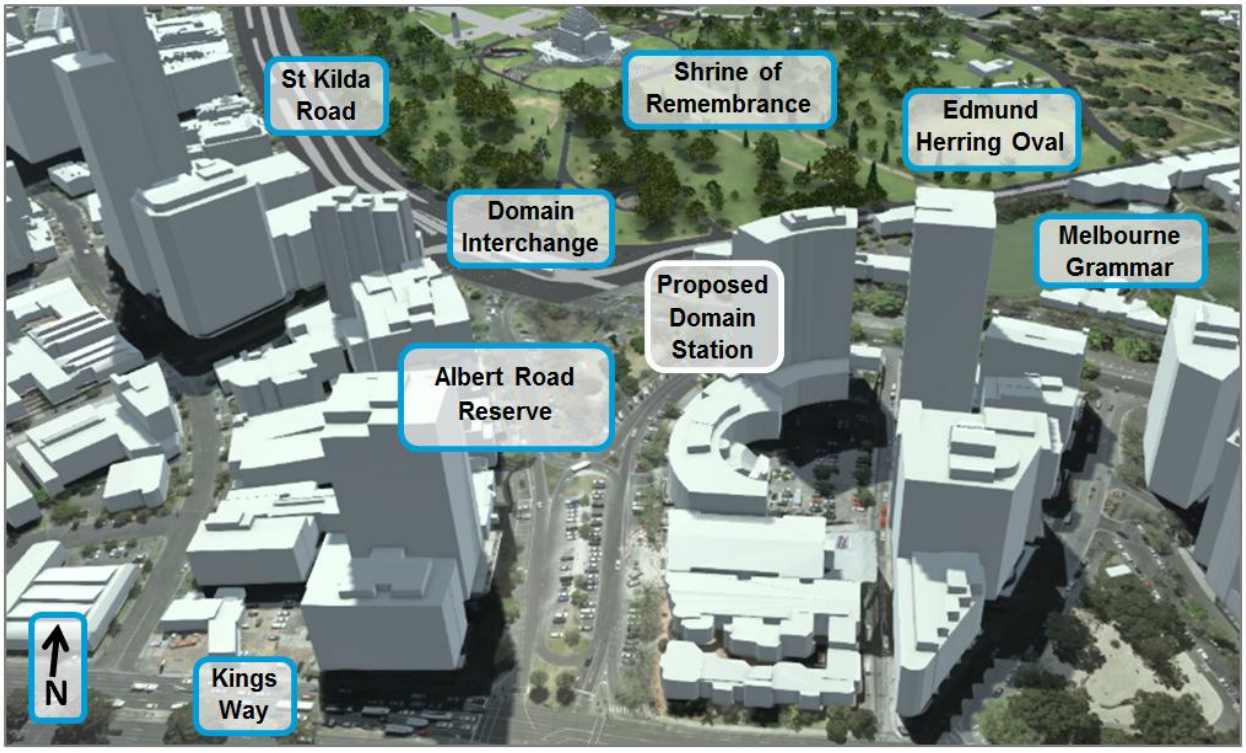
14.5.5 Planning Applications

Land in Albert Road is subject to a number of recent and current planning applications and developments. Numbers 35, 34-38 and 42-50 Albert Road have all been the subject to recent redevelopment, with a number of other proposals in the vicinity, including 28-32 Albert Road, 412 St Kilda Road, as well as a number of proposals outside the study area on Park Street, Palmerston Crescent, St Kilda Road and Wells Street.

It is expected that there would be a number of planning permit applications in the area west of the station precinct resulting from the implementation of Planning Scheme Amendment C107 to the Port Phillip Planning

Scheme, as this amendment seeks to give developers certainty as to the future built form of the area. This amendment is currently with the Minister for Planning awaiting approval.

Figure 14-6 illustrates the existing built form of the precinct and Figure 14-5 shows planning applications in the precinct. Proposed development is not identified in Figure 14-6.



Source: DELWP, November 2015

Figure 14-6 Existing built form at the Domain station precinct

14.5.6 EES Evaluation

The Concept Design is generally consistent with the draft EES evaluation objectives for land use and planning as:

- The proposed station complies with the objectives in the state and local planning policy, and the directions of *Plan Melbourne*, in particular the objective to *'expand the central city to retail competitive advantages and attract diverse value-adding businesses'.*
- The built form in the precinct would not be significantly impacted by the removal of any existing buildings and the residual risk rating is low.
- The design of the station entrances respond to the heritage values of surrounding land and generally protect the heritage values of the land; the South African Soldiers War Memorial would be relocated and protected in accordance with approval required from Heritage Victoria.
- The Melbourne Metro would result in the temporary loss of public open space within the Domain Parklands (including the Edmund Herring Oval and the Shrine of Remembrance Reserve) and the Albert Road Reserve, however the long term use of the land is consistent with public purposes.
- Minimal land acquisition is required in this precinct, with no private land acquisition required.
- At the completion of construction, the station would assist in the revitalisation of this area and provide linkages east-west through the precinct.
- Access would be limited throughout the precinct due to the increase in construction traffic and disruption to east west links. A traffic management plan would be prepared to to minimise disruption to traffic, pedestrian and bicycle movements.

14.6 Environmental Performance Requirements

Table 14-3 provides the recommended Environmental Performance Requirements and proposed mitigation measures for the precinct.

Table 14-3 Environmental Performance Requirements for the precinct

Asset / value	Impact	Environmental Performance Requirements	Proposed mitigation measures	Risk no.
Shrine of Remembrance Reserve (Domain Parklands) and Albert Road Reserve	Construction activities and permanent structures require the loss of land to be used for public open space resulting in a change of land use.	Develop and implement measures for construction and operation of Melbourne Metro that aim to minimise impacts to the development and / or operation of existing land uses, including: • Limiting the permanent change of use within existing public open space • Minimising footprints of construction sites and permanent infrastructure on public land • Minimising impacts to existing public open spaces and recreational facilities and the users of these facilities, including but not limited, to JJ Holland Park, University Square, City Baths, City Square, Federation Square, the Shrine of Remembrance Reserve, Domain Parklands, Edmund Herring Oval, Fawkner Park and the Albert Road Reserve. Such measures shall be developed in consultation with affected land managers for public land. Development of the project is to have regard to the relevant Open Space Master Plans (including but not limited to, the Domain Parklands and Fawkner Park Master Plans) in designing and constructing above-ground infrastructure for the tunnels.	Demonstrate that construction work sites have been optimised to reduce their footprint on the parklands. Avoid the use of the Shrine of Remembrance reserve for construction activities unrelated to the station entrance. Ensure the park and its facilities are reinstated post construction.	LU002 LU003 LU004 LU006 LU007 LU009

Asset / value	Impact	Environmental Performance Requirements	Proposed mitigation measures	Risk no.
		Consultation must occur with land managers and / or agencies responsible for the implementation of the relevant Open Space Master Plans. In consultation with key stakeholders and in accordance with the Urban Design Strategy, relevant statutory approvals and other relevant requirements, re-establish sites impacted by construction works, including but not limited to: • Childers Street, Kensington • JJ Holland Park • Royal Parade and Grattan Street, Parkville • The south western entrance of the proposed CBD South station • St Kilda Road boulevard • Edmund Herring Oval • Fawkner Park and Fawkner Park Tennis Facility • Osborne Street Reserve • South Yarra Siding Reserve • Lovers Walk • The South African Soldiers War Memorial See related Environmental Performance Requirement LV2. Develop and implement a plan in consultation with the Office of Victorian Government Architect, local councils and other land managers to comply with the Melbourne Metro Urban Design Strategy to re-establish public open space, recreation		

Asset / value	Impact	Environmental Performance Requirements	Proposed mitigation measures	Risk no.
		reserves and other valued places disturbed by temporary works. The plan must include, but not be limited to a methodology for storage, reinstatement or replacement of existing public art, monuments and public infrastructure such as poles, bins, and other street furniture.		
High Rise Apartment and Office Buildings	Possible construction activities inhibit future development above and below ground	Develop and implement measures for construction and operation of Melbourne Metro that aim to minimise impacts to the development and / or operation of existing land uses, including: • Limiting the permanent change of use within existing public open space • Minimising footprints of construction sites and permanent infrastructure on public land • Minimising impacts to existing public open spaces and recreational facilities and the users of these facilities, including but not limited, to JJ Holland Park, University Square, City Baths, City Square, Federation Square, the Shrine of Remembrance Reserve, Domain Parklands, Edmund Herring Oval, Fawkner Park and the Albert Road Reserve. Such measures shall be developed in consultation with affected land managers for public land.	Undertake strata and, where required, full acquisition of titles where conflict exists. Consultation with affected landowners and tenants. Use the proposed DDO to protect Melbourne Metro infrastructure and trigger discussions with third party developers regarding future development. Preparation and exhibition of the planning scheme amendment at the same time as the EES. Facilitation of the planning scheme amendment by the Minister for Planning.	LU002 LU008

15 Precinct 8: Eastern Portal (South Yarra)

15.1 Project Components

This section describes the components and construction activities that could result in impacts to existing conditions in this precinct.

15.1.1 Infrastructure

The majority of works would be located within the existing rail corridor with the proposed TBM shaft, tunnel ventilation shaft, emergency access shaft and underground substation located in the Osborne Street Reserve (alongside Osborne Street). Post construction, the shaft structure would provide ventilation, an underground substation and an emergency access shaft for the tunnels.

The proposed Melbourne Metro tracks would be brought up to ground level at William Street (passing under the existing William Street bridge which would be reinstated post construction) where they would connect with the existing rail tracks east of Chambers Street.

The existing rail cutting in this precinct would need to be permanently widened, resulting in some property acquisition and loss of vegetation on the walls of the rail cutting. New retaining walls would be required on both sides of the rail cutting. The potential for over-site development is retained with the current design, however it is not part of this project.

This precinct requires the acquisition of thirteen titles, including the temporary occupation of South Yarra Siding Reserve, private residences and publicly owned (VicTrack) land on Arthur Street and Osborne Street (including the car park on Arthur Street), to support construction activities. Acquisition is outline in Table 15-1.

The VicTrack title on Arthur Street is provided as a long term lease to multiple leasehold interests. The project would acquire the leasehold interests for this title (one title (part)).

Table 15-1 Land acquisition and occupation for construction

Precinct	Permanent acquisition	Temporary occupation	Strata acquisition (approximate)	Total
8	6 titles in William Street and Arthur Street 3 titles (in one location on Chambers Street) 2 VicTrack owned parcels (one in Arthur Street and one part of Osborne Street Reserve)	2 titles in William Street	1 (part of a title identified for temporary occupation)	13

The publicly owned (VicTrack) land in this precinct has been identified for acquisition, however as it is already in public ownership, the land would not require acquisition.

15.1.2 Construction

The South Yarra Siding Reserve and Osborne Street Reserve (alongside Osborne Street) would be occupied for construction purposes, including site offices, amenities, material laydown and storage. In addition, Lovers Walk would be closed and occupied for construction purposes. South Yarra Siding Reserve and Osborne Street Reserve are both currently in the Public Park and Recreation Zone, whilst Lovers Walk is within the Public Use Zone 4 (Transport). All public open space in this precinct would be reinstated as enhanced public open spaces post construction.

During construction, the William Street road bridge would be removed and then post construction, reinstated at a slightly different alignment and gradient. A bridge would be construction from Osborne Street to provide construction vehicles across into the South Yarra Siding Reserve. This bridge would likely be retained as a pedestrian access to the public open space at the completion of construction.

The proposed works at this location would likely impact on up to 218 trees within the construction zone. This is further discussed in Technical Appendix S *Arboriculture*.

Ground stabilisation works may be required to the west of the construction work site, particularly within the Osborne Street road reserve. Details of how this would be undertaken would be determined at the detailed design stage.

15.1.3 Operation

Post construction, the majority of land within the Eastern Portal precinct would be reinstated to the existing land use. The rail track between Osborne Street and William Street would be below ground and therefore not impact on land use. There may be impacts on built form due to the loading requirements for buildings over the proposed tunnel alignment. The identified area of influence for potential impacts on future development would be identified by the future Design and Development Overlay. This is discussed further in Appendix J of this impact assessment.

The Concept Design includes a vent shaft and emergency access shaft located in the Osborne Street Reserve.

15.2 Existing Conditions

The location of the proposed Melbourne Metro within Precinct 8: Eastern Portal precinct and the relevant planning controls are shown in Figure 15-3 and Appendix G of this impact assessment.

The Eastern Portal precinct is within the City of Stonnington and extends along Toorak Road from the end of the proposed tunnels at Powell Street, and south east along the rail corridor to Chapel Street. South Yarra station is just north of the precinct. The proposed Melbourne Metro connects with the existing rail infrastructure of the Cranbourne/Pakenham line below William Street.

South Yarra is a well-established residential area, as well as home to key shopping and entertainment areas including Chapel Street and Toorak Road. This area includes both the Toorak Road Neighbourhood Activity Centre and the Prahran/South Yarra Activity Centre. Properties fronting Toorak Road and Chapel Street are within the Commercial 1 Zone, with the residential areas behind these within the General Residential 1 Zone. The existing rail corridor is within the Public Use Zone 4 (Transport) and the South Yarra Siding Reserve and the Osborne Street Reserve are within the Public Park and Recreation Zone. Within this precinct, Toorak Road is managed by VicRoads but Chapel Street is a Council managed road.

Land use in this precinct is a mix of residential dwellings, mixed use buildings and commercial uses along Toorak Road and Chapel Street. The houses are generally located one block behind the main roads of Toorak Road and Chapel Street and are a mix of mostly single or double storey buildings on small land parcels.

Toorak Road to the west of Chapel Street is characterised by a mix of small shops, commercial buildings with less active shop fronts, and heritage buildings (South Yarra Railway Station and the former South Yarra Station building, as well as the former South Yarra Post Office).

The former South Yarra Post Office has a recently constructed multi-storey modern extension at the rear, fronting Osborne Road. There is a high traffic volume along Toorak Road, and the number 8 tram route. The former South Yarra Post Office is located on the corner of Osborne Street and Toorak Road and is adjacent the existing Sandringham line rail cutting. The Post Office building is covered by a Heritage Overlay (HO107 - Former South Yarra Post Office 162 Toorak Road, South Yarra) and listed on the Victorian Heritage Register (H210).

Figure 15-1 Toorak Road

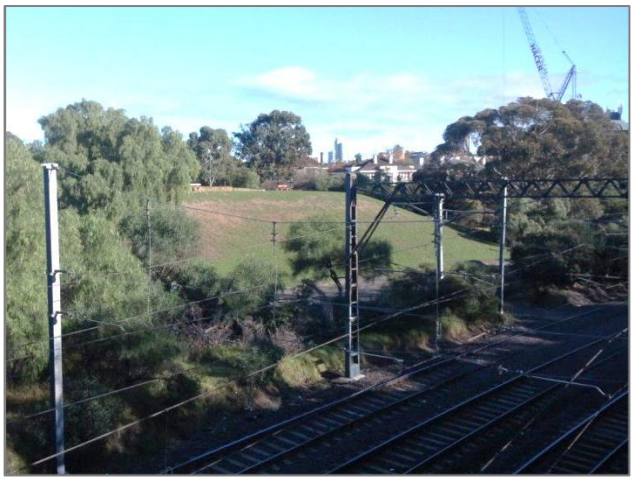


Figure 15-2 South Yarra Siding Reserve and rail cutting

The South Yarra Siding Reserve is located south of Toorak Road between the two railway corridors and properties fronting William Street and Arthur Street. The reserve is Crown land managed by the City of Stonnington. Directly south of South Yarra station, there is no direct access from Toorak Road to the park. Access to the reserve is via William Street and it is bounded on two sides by residential properties and two sides by railway lines. Access to the Reserve is limited due to the deep cuttings for the rail lines. The cuttings support existing vegetation.

This precinct includes properties fronting Chapel Street, including the Jam Factory.

Figure 15-3 and Appendix G show the zones within the Eastern Portal precinct. Figures G-39 and G-40 in Appendix G shows the overlays within the Eastern Portal precinct. Figure 15-4 shows the results of the land use survey and any recent planning applications within the Eastern Portal precinct.

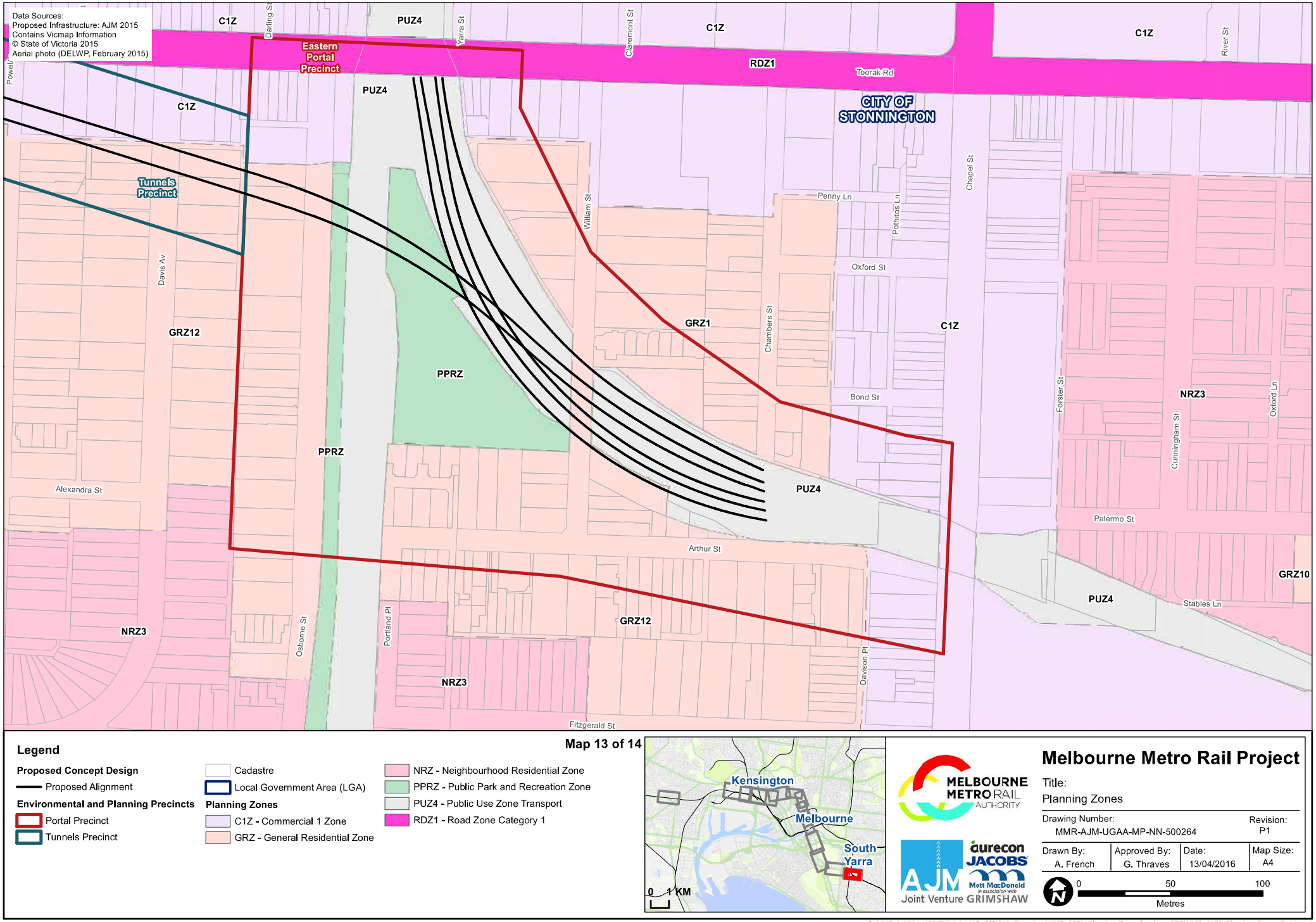


Figure 15-3 Zones in the eastern portal precinct

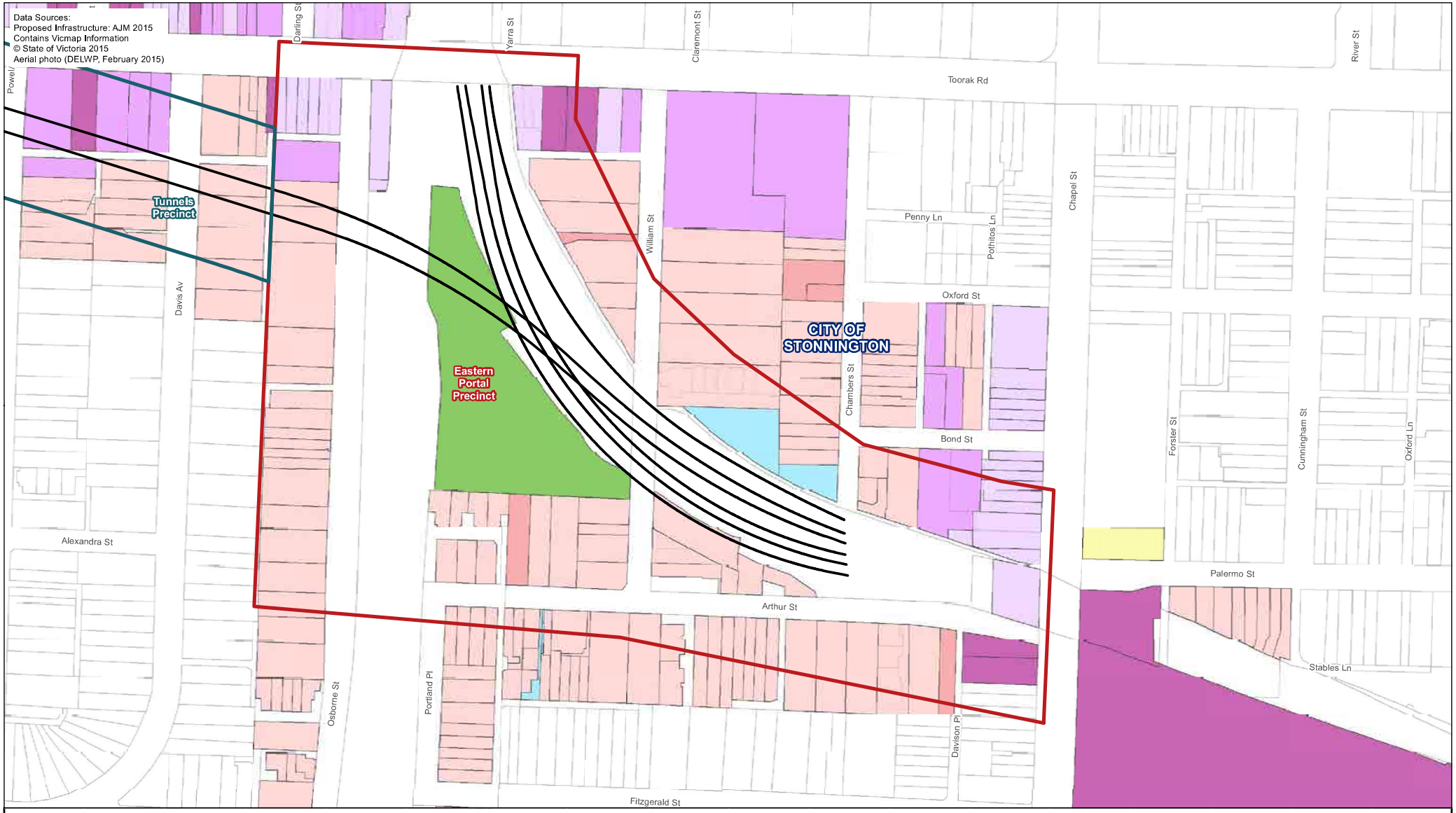


Figure 15-4 Land Use Survey and recent planning applications in the eastern portal precinct

Table 15-2 outlines the existing land use assets in the precinct.

Table 15-2 Assets identified within Precinct 8

Asset / value	Description
South Yarra station	Highly utilised station with interchange capability, requires improved access.
Existing residential area	South Yarra is a well-established residential area
Potential for substantial change and development	Council plans identify the precinct as an area of substantial change.
Heritage significance of the precinct	Council has identified the need to open view lines to the former South Yarra Post Office. The area is affected by the following Heritage Overlays: • HO150 Toorak Road Precinct (west of William and Claremont Streets), South Yarra • HO106 Former South Yarra Railway Station 165-167 Toorak Road, South Yarra (Victorian Heritage Register Ref No. H1068) • HO107 Former South Yarra Post Office 162 Toorak Road, South Yarra (Victorian Heritage Register Ref No. H210) • HO462 21 William Street, South Yarra and HO126 Chapel Street Precinct South Yarra, Prahran and Windsor.
Key transport corridors of Toorak Road and Chapel Street with tram routes	High traffic volumes and tram routes.
Chapel Street / Toorak Road	Shopping, dining, office and entertainment strips.
Dandenong rail corridor	This rail corridor is experiencing one of the highest levels of patronage growth in Melbourne.
Sandringham rail corridor	Extends between Flinders Street Station and Sandringham in Melbourne's south east.
Public Open Spaces (South Yarra Siding Reserve, Osborne Street Reserve, Lovers Walk)	South Yarra Siding Reserve is underutilised and has only one access point. Lovers Walk is undervalued as public open space (*Chapel Street reVision Structure Plan 2013-2031*). There are opportunities for improved connections, public realm treatment and passive surveillance improvement through well designed development.

15.2.1 Planning Applications

Any future development in the precinct must have regard to the provisions of the Stonnington Planning Scheme as well as any relevant strategic planning studies. The planning controls in the Eastern Portal precinct are included in Appendix E and Appendix F of this impact assessment and mapped in Appendix G of this impact assessment.

Appendix H of this impact assessment provides a full list of current or approved planning applications within the precinct that may have an impact on the proposed Melbourne Metro and Figure 15-4 maps these properties.

15.3 Key Issues

The key issues associated with the Concept Design are identified below.

- Temporary loss of public open space of the South Yarra Siding Reserve and pedestrian access via Lovers Walk
- Acquisition of privately owned land, currently used for residential purposes

- Use of the South Yarra Siding Reserve for the Project is inconsistent with the Public Park and Recreation Zone
- Widening of the rail cutting resulting in the acquisition of private properties
- Loss of vegetation adjacent to the rail cutting and within the South Yarra Siding Reserve
- Ground stabilisation works are likely to be required near the TBM retrieval site at Osborne Street
- Location of vent shaft and other structures opposite existing residential properties on Osborne Street
- Impact on access through the precinct due to high volumes of construction traffic and road closures
- Proximity to highly urbanised area of South Yarra and busy entertainment and retail precinct around Toorak Road and Chapel Street.

15.4 Benefits and Opportunities

The benefits with the Concept Design are:

- The majority of works retained in the rail corridor and the post construction use of public land occupied for the Project returned to public purposes
- William Street bridge, South Yarra Siding Reserve, Osborne Street Reserve and Lovers Walk would be largely reinstated at the completion of works, with potential for improvements.

The opportunities include:

- Improved integration between land use and transport with the potential for upgrades to connections between Lovers Walk, the South Yarra Siding Reserve, Osborne Street Reserve and Toorak Road. This would require further investigation by the City of Stonnington.
- Improvement of public open space at the completion of construction including the retention of the Osborne Street bridge to provide an pedestrian accessway to South Yarra Siding Reserve from Osborne Street. This would require further investigation by the City of Stonnington.
- Improvement of the safety, activation and utilisation of the space of Lovers Walk.

15.5 Impact Assessment

15.5.1 Land Use

This precinct includes a highly urbanised area within South Yarra, which provides many potential land use conflicts. However, this location is considered appropriate in terms of impacts on land use and built form as the majority of works would be located within the existing rail corridor and public open space surrounding the rail corridor with limited private land acquisition. The occupation of South Yarra Siding Reserve, Osborne Street Reserve and Lovers Walk for up to five years would result in a temporary loss of public open space. While this use is inconsistent with the purpose of the land zone, post construction there is the opportunity to redevelop the sites to provide more functional and enhanced public open spaces.

The impact of the project in this precinct on land use and built form is considered to have a low residual risk rating.

Clause 21.07 (Open Space and Environment) identifies a key issue for the City of Stonnington as the City's *'low ratio of public open space compared to the metropolitan average'*. This policy aims to *'seek opportunities to increase regional open space links across the municipality and with adjoining municipalities, in particular along railway lines and waterways'*. Whilst the proposed Melbourne Metro would occupy an area of underutilised open space during the construction phase, there are opportunities as part of this Project to improve the long term quality of open space in the municipality. Improved pedestrian linkages could be provided to South Yarra Siding Reserve through the retention of the Osborne Street pedestrian bridge, thereby improving the quality of open space in the precinct.

The former South Yarra Post Office (VHR Ref No. H210) and the former South Yarra Railway Station (VHR Ref No. H1068) are considered of heritage significance to the State of Victoria for their architectural significance. The South Yarra Post Office has had a recent modern extension. The proposed Melbourne Metro would not impact on these buildings and their heritage significance would be protected, including view lines to the buildings along Toorak Road.

The existing Lovers Walk is within the Public Use Zone 4 (Transport) and would be used as part of the construction work site. Post construction, the path would be reinstated for public access. The design of the path would be undertaken in consultation with the City of Stonnington with the intent to improve safety and integration with activity centres along this laneway. Further opportunities exist to better connect the open space in this area, as discussed in Technical Appendix M *Urban Design Strategy*.

Due to the shallow tunnel alignment around Osborne Street, ground treatment may be required to limit impacts on Melbourne Metro assets from loading, as well as impacts on existing future development. A discussion on loading requirements for future developments is included in Appendix J of this impact assessment.

15.5.2 Access

Due to the constrained nature of the construction area, and the restricted entry to the South Yarra Siding Reserve, there are likely to be access restrictions across the precinct. The proposed Osborne Street bridge would provide access for construction traffic, limiting the need for construction traffic to use surrounding residential streets. The surrounding streets are narrow and busy, and Osborne and William Streets would be required for access to construction traffic to Toorak Road, including oversized and potentially overweight trucks for approximately five years. This is likely to result in reduced amenity for residents and businesses. This is discussed in Technical Appendix I *Noise and Vibration*. Impacts to the local road network are discussed in Technical Appendix D *Transport*.

It is proposed to remove the William Street bridge for the duration of construction. This would impact on local traffic. Residents south of the rail line would no longer have direct access to Toorak Road from William Street and would have to use either Chapel Street or the Argo Street bridge to access their properties from the north. This is further discussed in Technical Appendix D *Transport*. The reinstatement of the bridge at the completion of works would be at a slightly different alignment and gradient, resulting in the need for property acquisition as access would no longer be possible for one property.

Public access to South Yarra Siding Reserve and Lovers Walk would be removed during construction between 2018 and 2023, however there is potential to provide improved access to South Yarra Siding Reserve once construction has been completed. This would be provided through the retention of the Osborne Street bridge for pedestrian access. Improved access to and between the public open space in this precinct would promote its use and improve the quality of public open space in the area.

Pedestrian access across the precinct would be restricted during construction due to the increased construction traffic and highly built up nature of the area.

15.5.3 Land Acquisition

The majority of the construction footprint is within public open space, with the acquisition of nine private residential properties, partial strata and partial temporary occupation of one property and partial temporary occupation of another. This level of land acquisition is anticipated to have no long term impact on land use in the precinct, with a low residual risk rating.

Whilst the proposed Melbourne Metro would occupy South Yarra Rail Siding Reserve for approximately five years, it is anticipated that when the Reserve is reinstated, there would be access and landscaping improvements that would reinvigorate the space and provide an improved resource for the community. The *Major Transport Projects Facilitation Act 2009* provides the ability to temporarily and permanently revoke reserves on Crown land for the purpose of major transport projects.

The private dwellings that would need to be acquired are considered to be a small number for the city-wide scale of a project such as this and acquisition would be undertaken in accordance with the requirements of the *Land Acquisition and Compensation Act 1986*. It is not considered that the acquisition of the private residences would impact on the long term land use character of the precinct. The area would remain as a mix of residential and commercial uses and the character of the area would be maintained. Post construction, residual land would be available for redevelopment in accordance with the Stonnington Planning Scheme and relevant Structure Plans.

Any surplus land remaining upon completion of the project construction phase would be managed in accordance with the *Victorian Government Landholding Policy and Guidelines.*

15.5.4 Strategic Planning Policy Support

The land to the north and east of South Yarra Station is identified as the Forrest Hill Precinct. Whilst the study area only contains a small portion of land within the Forrest Hill Precinct, the area is identified as a key area within Stonnington for higher density housing, mixed use and intensive built form. Development is increasing the population density in this area, resulting in more traffic movements. Detail on the *Forrest Hill Structure Plan* is included in Appendix I to this impact assessment.

Similarly, the *Chapel reVision Structure Plan 2013-2031* identifies the South Yarra Railway Station, rail corridor and South Yarra Siding Reserve as a 'strategic area', with the station and the reserve identified for further development.

One aim of the Structure Plan is to replace the various existing zone provisions with one control – Schedule 1 to the Activity Centre Zone (ACZ1) (with the exception of some existing land in the Public Use Zone, Public Park and Recreation Zone and Road Zone Category 1). It proposes to rezone the area known as 'Lovers Walk' from Public Use Zone 4 (Transport) to Public Park and Recreation Zone.

The amendment proposes the use of vertical zoning to achieve a mix of residential and employment uses. In the Activity Centre Zone, a permit is proposed for a dwelling if land is designated for:

> '*Main Street Uses and is located below Level 4 (other than sub-precinct GV-6)*
>
> *Side Street Uses and is located below Level 3'.*

South Yarra Siding Reserve has been identified in the *Chapel reVision Structure Plan 2013-2031* as *'an underutilised public open space'* and requires revitalisation through improved access and better integration with the surrounding land. Clause 21.07 (Open Space and Environment) of the Stonnington Planning Scheme aims to *'seek opportunities to increase regional open space links across the municipality and with adjoining municipalities, in particular along railway lines and waterways'*. It is proposed to retain the construction accessway from Osborne Street to the Reserve as a pedestrian access, which would provide improved access to the public open space and provide opportunities for improvement post construction.

The South Yarra station and the majority of the rail corridor would remain Public Use Zone 4 (Transport) as part of this amendment. However, the *Chapel reVision Structure Plan* (2013-2031) identifies the opportunity to provide a 'Village Square' on the south side of Toorak Road above the railway lines, with its rezoning to the Activity Centre Zone. Consideration for the decking of the reserve is not part of this Project, however the design of the portal in this precinct does not limit the opportunity for over-site development at a later stage.

Planning Scheme Amendment C172 to the Stonnington Planning Scheme seeks to implement the recommendations of the *Chapel reVision Structure Plan* has been submitted to the Minister for Planning for approval.

Further detail on the *Chapel reVision Structure Plan 2013-2031* and Planning Scheme Amendment C172 is included in Appendix I to this impact assessment.

15.5.5 Planning Applications

There are a number of recent planning permit applications within the precinct (mapped in Figure 15-4). The application at 2, 2A, 4 and 6 William Street has the potential to be affected by the proposed Melbourne Metro, similarly with the planning permit application at 3-5 Chambers Street.

Further, 15 William Street has a recent planning permit granted for the development of a six storey building housing 13 dwellings. The proposed development would not be restricted by Melbourne Metro, other than the potential for construction conflict and future amenity impacts.

Where approvals have been granted on sites, it is assumed that any assessment of compensation would take this into consideration.

The current zoning and surrounding neighbourhood character would suggest that properties in this precinct would be suitable for redevelopment as single residential or multi-unit development, subject to planning approval. The current zoning land identified for temporary occupation for the project is not proposed to change, however if, at the completion of works, redevelopment of residual land requires rezoning, this would not be precluded by the project. Figure 15-5 illustrates the existing built form of the precinct. Proposed development is not identified in this image.

Source: DELWP, November 2015

Figure 15-5 Built form surrounding the Eastern Portal precinct

15.5.6 EES Evaluation

The Concept Design is generally consistent with the draft EES evaluation objectives for land use and planning as:

- The proposed station complies with the objectives in the state and local planning policy, and the directions of *Plan Melbourne* in particular the objective of *'moving towards a Metro-Style Rail System'*.
- As the majority of work would be within the public open space and existing rail reserve, the impact on built form and private properties would be minimal.
- The proposed Melbourne Metro would result in the loss of public open space within the South Yarra Siding Reserve during construction with opportunities to improve open space in the long term in line with the *Chapel reVision Structure Plan 2013-2031*.
- Construction work at this location would respect and protect the heritage values of surrounding land.

- During construction, access would be limited throughout the precinct due to the increase in construction traffic and the closure of roads. A traffic management plan would be prepared to to minimise disruption to traffic, pedestrian and bicycle movements.

15.6 Environmental Performance Requirements

Table 15-3 provides the recommended Environmental Performance Requirements and proposed mitigation measures for the precinct.

Table 15-3 Environmental Performance Requirements for the precinct

Asset / value	Impact	Environmental Performance Requirements	Proposed mitigation measures	Risk no.
Potential for substantial change and development	Construction activities impact on the future development of land.	Develop and implement measures for construction and operation of Melbourne Metro that aim to minimise impacts to the development and / or operation of existing land uses, including: • Limiting the permanent change of use within existing public open space • Minimising footprints of construction sites and permanent infrastructure on public land • Minimising impacts to existing public open spaces and recreational facilities and the users of these facilities, including but not limited, to JJ Holland Park, University Square, City Baths, City Square, Federation Square, the Shrine of Remembrance Reserve, Domain Parklands, Edmund Herring Oval, Fawkner Park and the Albert Road Reserve. Such measures shall be developed in consultation with affected land managers for public land.	Have regard to the Melbourne Metro Urban Design Strategy to guide future development. Undertake strata and, where required, full acquisition of titles where conflict exists. Use the proposed DDO to protect Melbourne Metro infrastructure and trigger discussions with third party developers regarding future development. Potential redevelopment to have regard to the *Chapel reVision Structure Plan* and other provisions of the Stonnington Planning Scheme.	
Public Open Spaces (South Yarra Siding Reserve, Osborne Street Reserve, Lovers Walk)	Construction activities and permanent structures minimise land to be used for public open space and reduce quality of open space.	Develop and implement measures for construction and operation of Melbourne Metro that aim to minimise impacts to the development and / or operation of existing land uses, including: • Limiting the permanent change of use within existing public open space • Minimising footprints of construction sites and permanent infrastructure on public land • Minimising impacts to existing public open spaces and recreational facilities and the users of these facilities, including but not limited, to JJ Holland Park, University Square, City Baths, City Square, Federation Square, the Shrine of Remembrance Reserve, Domain Parklands, Edmund Herring Oval, Fawkner Park and the Albert Road	Ensure the open space and its facilities are reinstated and improved post construction. Retention of the Osborne Street bridge to provide pedestrian access to South Yarra Siding Reserve post construction.	LU003 LU007 LU009

Asset / value	Impact	Environmental Performance Requirements	Proposed mitigation measures	Risk no.
		Reserve. Such measures shall be developed in consultation with affected land managers for public land. Prior to main works or shaft construction, develop and implement a community and business involvement plan to engage potentially affected stakeholders and advise them of the planned construction activities and progress against the schedule. The plan must include: • Measures to minimise impacts to the development and/or operation of existing facilities • Measures for providing advance notice of significant milestones, changed traffic conditions, periods of predicted high noise and vibration activities • Process for registering and management of complaints • Measures to address any other matters which are of concern or interest to them. The plan would consider each precinct and station location in detail. Stakeholders to be considered in the plan include (but not limited to): • Municipalities • Potentially affected residents • Potentially affected businesses • Recreation, sporting and community groups and facilities • Royal Melbourne Hospital, Victorian Comprehensive Cancer Centre, Peter Doherty Institute and other health and medical facilities • The University of Melbourne • RMIT • Fawkner Park Children's Centre and Kindergarten • South Yarra Senior Citizens Centre • Other public facilities in proximity. Development of the project is to have regard to the relevant		

Asset / value	Impact	Environmental Performance Requirements	Proposed mitigation measures	Risk no.
		Open Space Master Plans (including but not limited to, the Domain Parklands and Fawkner Park Master Plans) in designing and constructing above-ground infrastructure for the tunnels. Consultation must occur with land managers and / or agencies responsible for the implementation of the relevant Open Space Master Plans. In consultation with key stakeholders and in accordance with the Urban Design Strategy, relevant statutory approvals and other relevant requirements, re-establish sites impacted by construction works, including but not limited to: • Childers Street, Kensington • JJ Holland Park • Royal Parade and Grattan Street, Parkville • The south western entrance of the proposed CBD South station • St Kilda Road boulevard • Edmund Herring Oval • Fawkner Park and Fawkner Park Tennis Facility • Osborne Street Reserve • South Yarra Siding Reserve • Lovers Walk • The South African Soldiers War Memorial See related Environmental Performance Requirement LV2. Develop and implement a plan in consultation with the Office of Victorian Government Architect, local councils and other land managers to comply with the Melbourne Metro Urban Design Strategy to re-establish public open space, recreation reserves and other valued places disturbed by temporary works. The plan must include, but not be limited to a methodology for storage, reinstatement or replacement of existing public art, monuments and public infrastructure such as poles, bins, and other street furniture.		

16 Precinct 9: Western Turnback

16.1 Project Components

This section describes the components and construction activities that could result in impacts to existing conditions in this precinct.

16.1.1 Infrastructure

In order to optimise the efficiency of the Melbourne Metro corridor, a turnback is required on the Sunbury line to enable trains to run back towards the CBD.

All works for this option are located entirely within the rail corridor and no property acquisition would be required. The works include the construction of a third platform and track at West Footscray Station, and modifications to the existing concourse.

16.1.2 Construction

Approximately 26 car spaces at the station would be removed for the duration of construction. All construction laydown areas and site offices are located on public land (VicTrack) and some of the construction work site would utilise land previously used for the laydown area for Regional Rail Link.

16.1.3 Operation

Once constructed, the turnback would optimise the efficiency of the proposed Melbourne Metro.

16.2 Existing Conditions

The location of Melbourne Metro within Precinct 9 and the relevant planning controls are shown in Figure 16-3 and Appendix G of this impact assessment.

The Western Turnback precinct is within the City of Maribyrnong and contained wholly within the rail corridor.

Geelong Road intersects with the Princes Highway near the study area and is grade separated over the rail line at this location.

Figure 16-1 West Footscray station

Figure 16-2 The Olympic Tyre and Rubber building on Cross Street

The rail corridor is within the Public Use Zone 4 (Transport) including the station car park.

The rail corridor is also affected by the Special Building Overlay, the Development Plan Overlay (Schedule 11 - Melbourne Airport Rail Link Development Plan) and Design and Development Overlay (Schedule 3

Melbourne Airport Rail Link Area). Development Plan Overlay (Schedule 11 - Melbourne Airport Rail Link Development Plan) requires that proposed works do not prejudice the future construction of the Melbourne Airport Rail Link. Design and Development Overlay (Schedule 3 - Melbourne Airport Rail Link Area) seeks to ensure that the Melbourne Airport Rail Link is constructed in accordance with the approved Melbourne Airport Rail Link Development Plan, and therefore is not relevant to the proposed Melbourne Metro.

The Cross Street Electrical Substation is located within the project area and is affected by the heritage overlay (HO192).

Table 16-1 outlines the existing land use assets in the precinct.

Table 16-1 Assets identified within the Concept Design in Precinct 9

Asset / value	Description
West Footscray station	The station provides access to the Sunbury train line and was upgraded in 2013.
Rail corridor	At this location, the rail corridor supports the Sunbury line, two freight tracks, the Melbourne to Sydney standard gauge line and RRL.

Figure 16-3 and Appendix G show the zones within the Western Turnback precinct. Figures G-41 and G-42 in Appendix G show the overlays within the Western Turnback precinct. As the works are retained within the rail corridor, no land use survey as undertaken in this precinct

16.3 Key Issues

The key issues associated with the Concept Design are.

- Alterations required to the recently constructed concourse at West Footscray Station
- The close proximity of residential land uses to rail corridor works
- The permanent loss of 26 car spaces within the station car park.

16.4 Benefits and Opportunities

The benefits associated with the Concept Design are that work would be contained within the existing rail corridor and no land acquisition is required.

The opportunity for the Concept Design relates to the improvement of the station concourse and station infrastructure.

16.5 Impact Assessment

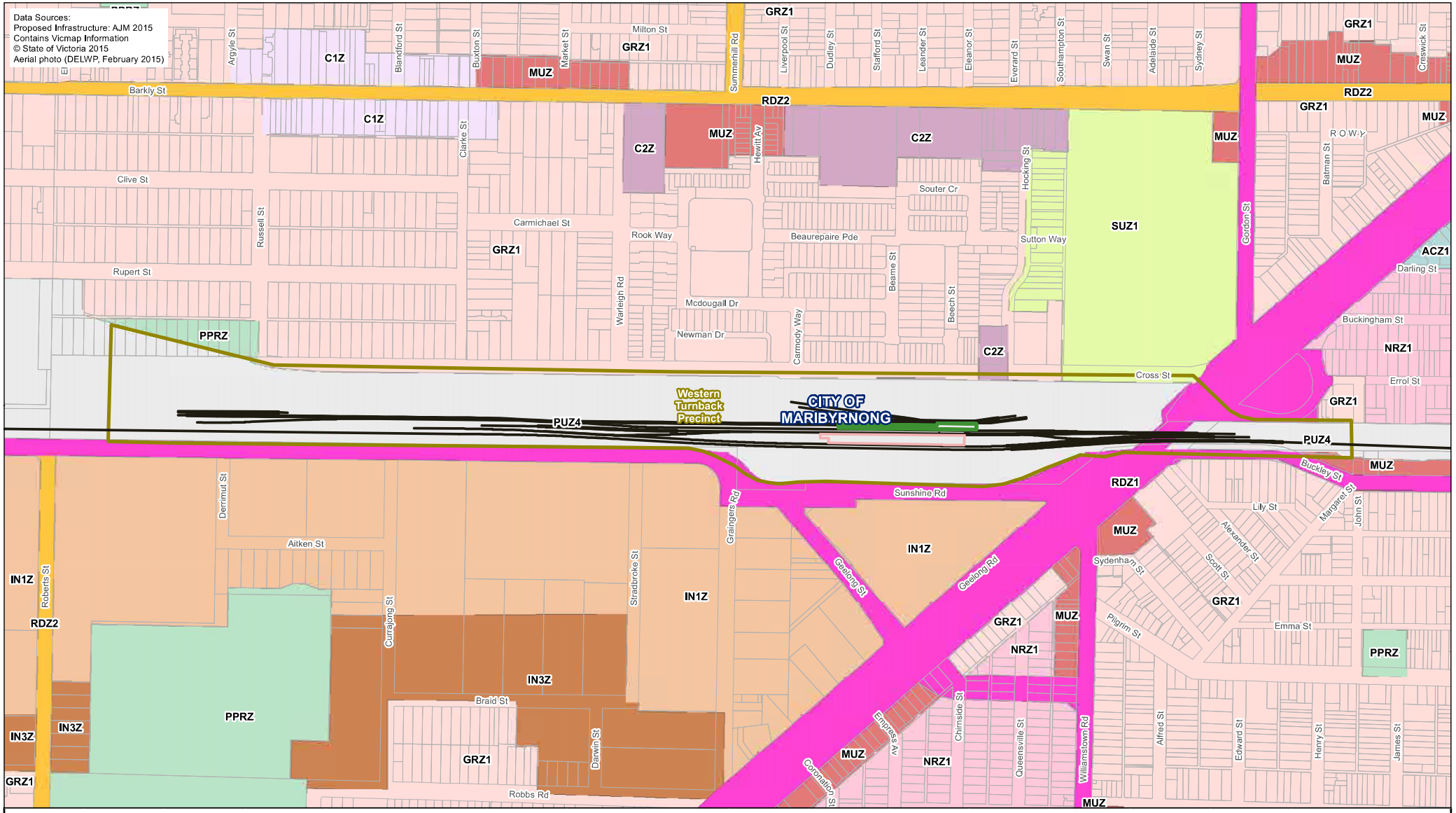
16.5.1 Land Use

The Concept Design is wholly contained within the rail corridor and consequently, is consistent with the purpose of the land and has a residual risk rating of low in terms of land use and built form. Other than potential amenity impacts during construction and an increase in construction traffic, there would be limited impacts on surrounding land uses.

The proposed turnback design option would not preclude development of the Melbourne Airport Rail Link project. As such, the project complies with the requirements of Development Plan Overlay (Schedule 11 - Melbourne Airport Rail Link Development Plan), which requires that proposed works do not prejudice the future construction of the Melbourne Airport Rail Link.

No land acquisition would be required as the works are confined to the existing rail corridor.

The heritage significance of the surrounding land or the Cross Street Electrical Substation would not be impacted by the proposed works..



Legend

Proposed Turnback Design - West Footscray
- Existing platform
- Proposed platform
- Proposed alignment

Environmental and Planning Precincts
- Western Turnback Precinct
- Cadastre
- Local Government Area (LGA)

Planning Zones
- ACZ - Activity Centre Zone
- C1Z - Commercial 1 Zone
- C2Z - Commercial 2 Zone
- GRZ - General Residential Zone
- IN1Z - Industrial 1 Zone
- IN3Z - Industrial 3 Zone
- MUZ - Mixed Use Zone
- NRZ - Neighbourhood Residential Zone
- PPRZ - Public Park and Recreation Zone
- PUZ4 - Public Use Zone Transport
- RDZ1 - Road Zone Category 1
- RDZ2 - Road Zone Category 2
- SUZ - Special Use Zone

Map 14 of 14

MELBOURNE METRO RAIL AUTHORITY

AJM Joint Venture GRIMSHAW — aurecon JACOBS Mott MacDonald in association with

Melbourne Metro Rail Project

Title: Planning Zones

Drawing Number:		Revision:
MMR-AJM-UGAA-MP-NN-500264		P1
Drawn By: A. French	Approved By: G. Thraves	Date: 13/04/2016	Map Size: A4

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Figure 16-3 Zones in the western turnback precinct

16.5.2 Land Acquisition

The Concept Design does not require any land acquisition as the works would be retained within the existing rail corridor, which is public land (VicTrack).

16.5.3 Access

Access is provided to the Concept Design in this precinct via two main site access points, and there are a further two alternative access points identified for further assessment. All the access points would be on public land (VicTrack) and construction land utilises land used previously for the construction of Regional Rail Link.

Access to surrounding land would not be impacted except through the increase in construction traffic on surrounding roads.

16.5.4 Strategic Planning Policy Support

As the works are wholly retained within the rail corridor, there are no strategic policies that require consideration, however Clause 21.09 (Transport) of the Maribyrnong planning scheme identifies Melbourne Metro as a high priority as it would provide linkages *'connecting Footscray to Parkville and the Melbourne CBD'*. As such, the Maribyrnong Planning Scheme supports the development of Melbourne Metro.

16.5.5 Planning Applications

West Footscray station was redeveloped as part of RRL and opened in 2013. It was delivered as part of the Footscray – Deer Park work package and included a new station building including ramps, lifts and stairs, a covered pedestrian and cycle overpass connecting Sunshine Road and Cross Street and new car parks. The RRL project included new dedicated tracks between Sunshine and Southern Cross Station for regional lines. Figure 16-4 below illustrates the built form at the precinct.

Source: DELWP, November 2015

Figure 16-4: West Footscray station built form

16.5.6 EES Evaluation

The Concept Design is consistent with the draft EES evaluation objectives for land use and planning as:

- All works undertaken for the Concept Design in this precinct would be located within the rail corridor
- All works undertaken for the Concept Design in this precinct are consistent with the intent of the land in this location

- Access would be impacted throughout the precinct due to the increase in construction traffic. A traffic management plan would be prepared to to minimise disruption to traffic, pedestrian and bicycle movements.

16.6 Environmental Performance Requirements

There are no Environmental Performance Requirements and/or mitigation measures recommended for land use or planning in this precinct.

17 Early Works

17.1 Project Components

17.1.1 Infrastructure

A number of early works would be required prior to the commencement of the main construction works. The early works comprise modifications, temporary works, relocations or new works associated with existing utilities and services as follows:

- Electrical
- Sewer
- Gas
- Water
- Stormwater
- Communications
- Tram works.

All these works are associated with the stations and the portals only and vary across the study area. The majority of early works are within the study area and, are subject to assessment as part of the EES scope.

The following works have been identified as impacting on existing land uses:

- The relocation of three transmission towers within the Western Portal precinct. It is estimated that each relocated high voltage tower would require land of approximately 10 x 10 m^2, with a 37 m wide easement (13 m either side of the tower) at each tower. The towers would be relocated to public land (VicTrack) to the south of the rail corridor.
- Construction of new water mains and stormwater drains and pipes within road reserves and rail reserves
- Relocation of high voltage electricity cables and temporary suspension of underground wires above ground
- New sewerage pipes and associated manholes including the realignment of the South Yarra Main Sewer
- Relocation of existing telecommunication cables and conduits
- Installation of tram infrastructure on Toorak Road West between St Kilda Road and Domain Road to connect the route 8 tram to St Kilda Road and removal of tram infrastructure along Park Street and Domain Road.

There is no private land acquisition required as part of the early works. Works impact on land within a variety of zones and overlays.

17.1.2 Construction

Construction of the early works would be undertaken prior to the commencement of the main construction works. The partial closure of Domain Road up to Park Street would be required for the construction works associated with the re-routing of the number 8 tram from Park Street / Domain Road to Toorak Road West.

Where works are outside the study area, planning and environmental approvals would be sought, as required.

17.1.3 Operation

The majority of early works involve the protection or relocation of underground utilities. Once these works are complete, the land would be reinstated and assets would be handed back to the relevant operator to maintain.

17.2 Existing Conditions

The majority of works involve underground protection or relocation of utilities within road reserves or rail reserves. The proposed works are scattered throughout the study area and in some cases, outside the study area.

The existing conditions surrounding the proposed re-routing of the number 8 tram are close to the Domain station precinct and Toorak Road West is included in the tunnels precinct (Sector 6), and are described in Section 14.2 and 8.2.

17.3 Key Issues

The key issues associated with the Concept Design are identified below:

- Temporary road closures or altered access arrangements due to construction works and tram works
- Potential for temporary disruption to utility services during construction
- Potential amenity impacts (noise, dust) for land uses surrounding the construction work sites, particularly the re-routing of the route 8 tram

17.4 Benefits and Opportunities

The benefits associated with the Concept Design for early works relate to facilitation of the proposed Melbourne Metro. The opportunities are associated with the potential to provide a better utility service to users including upgrades and realignments. The works may also provide the opportunity to bring forward any planned works on the services.

Tram works for the route 8 tram would facilitate linkages with the route 55 tram to provide a single route between Toorak and West Coburg, creating efficiencies in the tram network.

17.5 Impact Assessment

Whilst the proposed early works are located across the study area, it is anticipated that the majority of works would be retained within the existing road reserve or rail corridor and land use impacts would be limited. Consequently, the residual risk rating for land use and planning for early works is considered low. The type of works proposed would generally be similar to those undertaken by utility service providers on a regular basis, and generally defined by the planning scheme as minor utility installations.

Planning approval is not required for buildings and works associated with the development of a 'minor utility installation', except where the works are within a Public Conservation and Resource Zone. There is also precedent to show that no planning approval is required for use of land for a minor utility installation as it has been determined that an underground utility does not impact on the continuing use of the land for the zoned purposes. As the project is unlikely to impact on land within the Public Conservation and Resource Zone, it is unlikely that many of the proposed early works would require planning approval on their own merit.

The South Yarra Main Sewer is proposed to be realigned to avoid the proposed Domain Station. The majority of works would be below ground and would not impact on land use and built form.

The tram works along Toorak Road West and the removal of the tram tracks on Domain Road would have an impact on land uses in the area as these would be major road works. There are likely to be amenity and traffic impacts for local residents on both Domain Road and Toorak Road West. Access to the existing retail businesses on Domain Road, Melbourne Grammar School and the Botanic Gardens is likely to be reduced. Impacts to access to these areas are considered to be minimal, as alternative access to these areas can be provided by other local streets, St Kilda Road or Punt Road. Further discussion on these issues is included in Technical Appendix D *Transport*, Technical Appendix F *Social and Community* and Technical Appendix G *Business*.

It is anticipated the relocation of the transmission towers would have an impact on surrounding land uses due to the sheer scale of works. The towers are proposed to be relocated into land currently used as a railway freight terminal and publicly owned (VicTrack). Easements would be required to protect the power lines. No private land acquisition would be required.

An EMP would be prepared to limit impacts to the environment and the amenity of surrounding land uses and would include the management of early works. It is also assumed that a traffic management plan would be prepared to limit any access issues resulting from the works. All works would comply with existing Victorian environmental and safety standards.

It is unlikely the proposed early works would impact on any current or proposed developments as they are generally retained within the road reserve. Any impacts to private land would only be where connections (to the services) to the private land need to be maintained.

17.5.1 EES Evaluation

The Concept Design is generally consistent with the draft EES evaluation objectives for land use and planning as:

- The majority of early works include the relocation of essential services below the ground and would not impact on land use and planning
- The relocation of the high voltage transmission towers onto publicly owned (VicTrack) land would have a lesser land use and planning impact than the location of the towers onto privately owned land, however there are likely to be amenity issues due to the scale of the works.
- The tram works on Toorak Road West would be within the existing road reserve and would have minor impacts on land use during construction, however there are likely to be amenity and traffic impacts caused by the works
- No private land acquisition is required for these works.

17.6 Environmental Performance Requirements

There are no Environmental Performance Requirements and/or mitigation measures recommended for land use and planning in this precinct.