

# LAND USE AND PLANNING IMPACT ASSESSMENT

TAS-CYP-SDL-ZWD-REP-XLP-NAP-X0003  
REV C

14<sup>TH</sup> APRIL 2018



Cross  
Yarra  
Partnership



## Document Verification



<b>Job title</b>		Metro Tunnel Project - Tunnel and Stations PPP Package			
<b>Document title</b>		Land Use and Planning Impact Assessment			
<b>Document ref</b>		TAS-CYP-SDL-ZWD-REP-XLP-NAP-X0003 Rev C Land Use and Planning Impact Assessment			
<b>Revision</b>	<b>Date</b>	<b>Filename</b>	Land Use and Planning Impact Assessment Rev A		
A	21/12/2017	<b>Description</b>	Land Use and Planning Impact Assessment		
			Prepared by	Checked by	Approved by
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B	13/03/2018	<b>Filename</b>			
		<b>Description</b>	Land Use and Planning Impact Assessment Rev B		
			Prepared by	Checked by	Approved by
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C	24/04/2018	<b>Filename</b>			
		<b>Description</b>	Land Use and Planning Impact Assessment Rev C		
			Prepared by	Checked by	Approved by
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## Executive Summary

Cross Yarra Partnership (CYP) has been contracted by Melbourne Metro Rail Authority (MMRA) to design, build and maintain the tunnels and stations for the Metro Tunnel Project, (the Project). The project includes two nine-kilometre train tunnels and five new underground train stations, linking the north-west Sunbury rail corridor and the south-east Cranbourne/Pakenham rail corridor, unlocking additional capacity in the existing City Loop. The five new underground stations are located at Arden, Parkville, CBD North, CBD South and Domain.

This report details an Environmental Risk Assessment (ERA) of the additional Project Land proposed by CYP for Melbourne Metro. Effective environmental risk management is a continuous, collaborative and forward-looking process. It aims to anticipate potential impacts so that project related activities can be planned and managed, and where applicable, mitigate adverse impacts. Environmental risk is a function of the likelihood of an adverse event occurring and the consequence of the event. CYP will continue to apply a robust and transparent environmental risk assessment across all phases and components of the Project including construction and operational phases.

The project has already undergone an extensive and robust planning assessment process. As part of this, MMRA published an Environment Effects Statement (EES) and draft Planning Scheme Amendment that included an integrated assessment of the potential environmental, social, economic and planning impacts of the project, and the approach to managing these impacts.

In developing the EES, MMRA undertook a comprehensive engagement program to seek input from stakeholders and the community. This included stakeholders and the community having the opportunity to provide formal submissions during a public exhibition period, which were then presented to an Inquiry and Advisory Committee. The key focus of the Committee's review, findings and recommendations was the planning and environmental control framework for the Project, which resulted in a report prepared for the Minister for Planning.

In December 2016, the Minister for Planning released his Assessment of the environmental effects of the project. The Assessment was undertaken in line with the *Environment Effects Act 1978* and completed the EES process. The Minister's Assessment concludes that the environmental effects of the Project are acceptable, provided appropriate mitigation and management is implemented. The Minister subsequently approved a Planning Scheme Amendment (PSA) and Incorporated Document for the project. The Incorporated Document, under Section 4.7 Environmental Management Framework (EMF), required an EMF to be approved. The EMF ensured the inclusion of Environmental Performance Requirements (EPRs), which address sixteen environmental factors. This will be referred throughout as the EES and PSA processes.

The EPRs measurements ensure that there is a clear, unambiguous and transparent set of controls in place to guide Project delivery. The EPRs define the project-wide environmental outcomes that must be achieved during design, construction and operation of Melbourne Metro, (regardless of the design solutions adopted). While it will not be possible to avoid all effects and impacts, the recommendations and outcomes of the public submission, Inquiry and Ministerial Assessment; found the EPRs should provide an effective way to manage potential risk.

It is therefore these EPRs that will be used to assess the ability for CYP to appropriately manage and mitigate the proposed changes outside of Project Land. As a consequence of this, an updated ERIA has been undertaken for the proposed changes to the Project Land.

The assessment finds that the proposed CYP changes to the approved Project Land does not have a detrimental impact on current and future development as the works do not constitute a significant departure from the works assessed under the EES. These changes generally represent a realignment of works of a similar nature assessed under the EES and PSA processes. Environmental performance requirements established through the EES and PSA processes assessment remain relevant and applicable to the proposed changes. In the majority of cases there is no appreciable increase in direct physical impact to current and future development as the majority of works proposed are subsurface (rail tunnel alignment, additional underground support structures, pedestrian/construction adits) or superficial in nature (additional road surface works).

The risk assessment process has resulted in ten residual risk rating of medium. All other residual risk ratings returned a low or very low rating.

This impact assessment report has determined that all potential impacts to current and future land use and planning, arising as a result of the changes to the approved Project Land, can be dealt with effectively by the existing project EPR's.

Acquisition of residential, commercial and retail titles for the additional Project Land is unlikely to result in changes in land use. As the additional buildings and works will occur at strata (below ground) it is expected that no detrimental impacts will occur at surface level. Furthermore, the EPRs provides a rigorous framework to ensure that impacts are identified and mitigated throughout the construction and operational phases.

A number of current planning permits exist within the additional Project Land, however none will be directly impacted by the strata (below ground) works. There are no potential issues in relation to the use or development of land within, above or adjacent to the rail tunnels, apart from the desirability of protecting the Melbourne Metro infrastructure from new development. Although this has been done through the application of a Design and Development Overlay (DDO) through Amendments GC67 and GC45, to address this risk, the extent of the DDO will need to be modified to provide appropriate

protection for all Melbourne Metro infrastructure including CYP's proposed design changes. This report assesses the risks associated with changes to the Project Land, whilst the suitability of changes to the DDO has been addressed in a separate report 'Future Development Loading Report to Support GC82.

The additional Project Land will impact Heritage Registered building and precincts. However, a Heritage Management Plan (HMP) will be prepared and implemented to manage the impacts of the additional works. Therefore, the risks are not considered to be detrimental.

# Introduction

Cross Yarra Partnership (CYP) has been contracted by Melbourne Metro Rail Authority (MMRA) to design, build and maintain the tunnels and stations for the Metro Tunnel Project (the project). The project includes two nine-kilometre train tunnels and five new underground train stations, linking the north-west Sunbury rail corridor and the south-east Cranbourne/Pakenham rail corridor, unlocking additional capacity in the existing City Loop. The five new underground stations are located at Arden, Parkville, CBD North, CBD South and Domain.

The project has undergone an extensive and robust planning and environmental assessment process. In 2016 MMRA exhibited and received public comment on:

- An Environment Effects Statement (EES) that presented an integrated assessment of the potential environmental, social, economic and planning impacts of the project, and the proposed approach to managing these impacts.
- A Draft Planning Scheme Amendment (PSA) to facilitate the use and development of the project, as well as, establishing a mechanism to protect the tunnels, stations and associated infrastructure from potential adverse effects of development in their vicinity.

In December 2016, the Minister for Planning released his assessment of the environmental effects of the project. The Minister subsequently approved a PSA (GC45) for the project which, among other things, inserted the *Melbourne Metro Rail Project Incorporated Document (December 2016)* into the Melbourne, Port Phillip, Stonnington and Maribyrnong Planning Schemes and gave legal effect to the Incorporated Document through clause 52.02 of each of these Schemes. The project's Incorporated Document was subsequently amended by PSA GC67 to facilitate the Park Street, South Melbourne tram stop. The latest Incorporated Document is *Melbourne Metro Rail Project Incorporated Document (May 2017)*.

The EES and PSA processes assessed a Concept Design and indicative construction methodology for that project that was prepared by MMRA. This was described in some detail in Chapter 6 of the EES. Following appointment as the project contractor, CYP proposes a series of enhancements and changes to the Concept Design as exhibited as part of the EES and PSA processes that will deliver improvements in accessibility and construction and operational efficiencies.

Some of these CYP enhancements necessitate a need to change the boundary of the Project Land, which can only be done by a planning scheme amendment to vary the plans appended to the Incorporated Document. The CYP changes predominately relate to the provision of underground support structures, additional station connections and temporary road occupations that affect surface land.

A PSA to amend the Incorporated Document is an appropriate planning response to the project changes, as the alternative would be to seek either multiple planning permits or planning scheme amendments. The CYP design changes affect land located both inside and outside of the approved Project Land.

## 1.1 Purpose of this Report

The purpose of this report is to assess the potential positive and adverse land use and planning impacts of the changes to the approved Project Land resulting from CYP design changes from those previously assessed with the MMRA Concept Design. This report assesses new potential impacts arising during construction and operation, and includes consideration of both direct and indirect impacts.

This report will support MMRA's proposed planning scheme amendment (GC82), which will include the additional Project Land as part of an updated Incorporated Document.

## 1.2 Project Description

The physical infrastructure proposed to be constructed as part of Melbourne Metro, and assessed in the initial EES and PSA processes, broadly comprises:

- Twin nine-kilometre rail tunnels from Kensington to South Yarra connecting the Sunbury and Cranbourne/Pakenham railway lines to form the new Sunshine-Dandenong Line (with the tunnels to be used by electric trains)
- Rail tunnel portals (entrances) at 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.

The following sections outline the extent and location of CYP design changes, which will result in modifications of the approved Project Land, as exhibited in GC45 and GC67. The changes, or project components generally relate to the following works at Parkville Station, CBD North Station and CBD South Station:

- Rail alignment: The modified rail alignment represents a change in horizontal or vertical alignment (i.e. change in track geometry).
- Underground support structures: Underground support structures are ancillary structures that are used for stabilisation of a primary structure such as a shaft, station box or tunnel:
  - Usually rock bolts are shorter in length and used predominantly along the rail tunnels.
  - Rock anchors are longer in length and can be used to support shafts at the stations.
 In both instances, each stabiliser can sit 1.5 to 2 metres apart and protrude at an angle.
- Note: The underground support structures will be used temporarily by CYP to provide ground support during the construction phase and then will remain in situ pending removal or modification as part of any future redevelopment by others.
- Pedestrian adits: A pedestrian adit is a permanent underground passage that connects the tunnel or station to a ground level access point and has a primary purpose of facilitating passenger movements.
- Construction adits: A construction adit is an underground passage that will connect the station to a ground level access point. It is typically used for the movement of equipment, materials and excavated material. It can also be used for storage purposes.
- Flinders Street Station platform works: Additional lifts connecting the station platforms to the Degraes Street Underpass/Campbell Arcade underpass.
- Additional road areas: Additional road areas are road reserves required for construction management, together with temporary and legacy road requirements. TMPs will be prepared and implemented in accordance with the approved EPRs, for each area, setting out specific traffic management activities and legacy roadworks. Generally, temporary traffic management will involve signs, workers and possible signage line marking adjustments. Legacy roadworks will generally involve the re-surfacing of road, kerb and channels, road works, pedestrian/cycle crossings, and hard and soft landscaping.

There are also a series of changes to the approved Project Land related to surface road works. These are described in Section 1.2.4.

### 1.2.1 Parkville Station to CBD North Station

The design and construction changes to the Project Land at Parkville Station and between Parkville Station and CBD North Station relates to changes to the rail tunnel alignment and additional underground support structures.

Also as a result of these changes, two properties will be removed from the approved Project Land. They are 212 Berkeley Street, Carlton and 214 Berkeley Street, Carlton.

Table 1 provides a breakdown of the location of changes to Project Land resulting from the above enhancements and changes at Parkville Station and between Parkville Station and CBD North Station.

TABLE 1: PARKVILLE STATION TO CBD NORTH STATION CHANGES TO PROJECT LAND

Element	Location of change to approved Project Land
<b>Rail tunnel alignment</b>	Excursion outside of the approved Project Land is as follows: <ul style="list-style-type: none"> <li>▪ south of Grattan Street (near the corner of Bouverie Street), Carlton</li> <li>▪ south of Church Street, Carlton</li> <li>▪ Lincoln Street North, Carlton</li> <li>▪ Swanston Street, Lincoln Square North to Pelham Street, Carlton</li> <li>▪ Swanston Street, south of Kelvin Place and north of Queensberry Street, Carlton.</li> </ul>
<b>Additional underground support structures</b>	Excursion outside of the approved Project Land is as follows: <ul style="list-style-type: none"> <li>▪ the southern side of Grattan Street, east of Royal Parade and west of Barry Street</li> </ul>

### 1.2.2 CBD North Station

The design and construction changes to the approved Project Land at CBD North Station relate to changes to the rail tunnel alignment and additional underground support structures.

Table 2 provides a breakdown of the location of changes to the approved Project Land resulting from the above enhancements and changes at CBD North Station.

TABLE 2: CBD NORTH STATION CHANGES TO THE APPROVED PROJECT LAND

Element	Location of change to approved Project Land
<b>Rail tunnel alignment</b>	Excursion outside of the approved Project Land is 3 metres or less as follows: <ul style="list-style-type: none"> <li>along Swanston Street, between Franklin Street East and Little Lonsdale Street (east of alignment)</li> <li>along Swanston Street between Franklin Street West and Little Lonsdale Street (west of alignment)</li> </ul>
<b>Additional underground support structures</b>	Excursion outside of the approved Project Land as follows: <ul style="list-style-type: none"> <li>north and south Franklin Street West, between Swanston Street and Stewart Street</li> <li>south of Franklin Street East</li> <li>along Swanston Street, between Franklin Street West and A'Beckett Street</li> <li>391 Swanston Street</li> <li>north of Literature Lane and between south of Literature Lane and north of Little La Trobe Street</li> <li>along Swanston Street between La Trobe Street and Little Lonsdale Street (east of alignment)</li> <li>south Franklin Street East along Swanston Street, between south Franklin Street to Red Cape Lane between La Trobe Street (east side of alignment)</li> </ul>

### 1.2.3 CBD South Station

The design and construction changes to the approved Project Land at CBD South Station relate to changes to the rail tunnel alignment, additional underground support structures, pedestrian and construction adits and works to Flinders Street Station platforms.

As a result of CYP's design modifications, the car parking area located at Chapter House Lane, adjoining St.Paul's Cathedral, can be omitted from the Project Land.

Table 3 provides a breakdown of the location of changes to project land resulting from the above enhancements and changes at CBD South Station.

TABLE 3: CBD SOUTH STATION CHANGES TO THE APPROVED PROJECT LAND

Element	Location of change to approved Project Land
<b>Rail tunnel alignment</b>	Excursion outside of the approved Project Land are as follows: <ul style="list-style-type: none"> <li>between Collins Street and Flinders Lane (west side of alignment)</li> <li>between the southern side of Collins Street and the northern side of Flinders Lane (west side of alignment)</li> <li>south Flinders Lane to north Flinders Street (east side of alignment)</li> <li>a small section of the Federation Square forecourt (east side of alignment).</li> </ul>
<b>Additional underground support structures</b>	Excursion outside of the approved Project Land are as follows: <ul style="list-style-type: none"> <li>between south Bourke Street and the north Collins Street</li> <li>between south of Collins Street and the north Flinders Lane (west side of alignment only)</li> <li>between south Flinders Lane and north Flinders Street (east side of alignment only)</li> </ul>
<b>Pedestrian adit</b>	A pedestrian adit will be required to link CBD South Station with Federation Square. This will sit parallel to St.Paul's Cathedral footprint and Swanston Street, between south of Flinders Lane and north of Flinders Street.  Another pedestrian adit will be required to provide an emergency egress from the tunnel to City Square. This will sit under Melbourne Town Hall footprint and the footpath at the corner of Collins Street and Swanston Street.
<b>Construction adit</b>	A construction adit extending diagonally south from Flinders Lane towards Swanston Street, under the north western corner of St.Paul's Cathedral.

<b>Flinders Street Station platform works</b>	<p>The CYP design changes at Flinders Street Station will require an extension to the approved Project Land to include the middle section of Flinders Street Station Platforms.</p> <p>Some works will occur at Degrares Street Underpass/Campbell Arcade.</p>
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## 1.2.4 Additional road surface works

In addition to CYP modifications to the tunnel and station design, there is a requirement for additional roads to be added to the Project Land. This will be for construction purposes and legacy road works as follows:

- Construction purposes will namely result in road management activity such as temporary traffic management measures including signage, line marking and small kerb and channel adjustments.
- Legacy road works including road adjustments and resurfacing, tram works and pedestrian and cycle crossings.

Table 4 provides a breakdown of the location of changes to the approved Project Land resulting from the above additional road surface works.

TABLE 4: ADDITIONAL ROAD SURFACE WORKS CHANGES TO THE APPROVED PROJECT LAND

Element	Location of change to Project Land	Road management activity	Legacy road works
<b>Arden Street</b>	Located south of North Melbourne Football Club and north of Laurens Street and east of Fogarty Street and west of Dryburgh Street. Expected use of the road is 3 months	✓	X
<b>Royal Parade</b>	Located south of Storey Street to Genetics Lane. The area is required for road management lanes 2, 3, 4 (west to east) and tram tracks. Expected use of the road is 3 months	✓	✓
<b>Grattan Street</b>	Located east of Bouverie Street and west of Swanston Street. Expected use of the road is 3 months	✓	X
<b>Cardigan Street</b>	Located is located north of Victoria Street and south of Earl Street. Expected use of the road is 3 months	✓	X
<b>Flinders Street</b>	Located east of Queen Street and west of Elizabeth Street. Expected use of the road is 3 to 6 months	✓	✓
<b>Flinders Lane</b>	Located west of Elizabeth Street and east of Swanston Street. More specifically, the western half of this area is required for temporary traffic management. Located west of Swanston Street and east of Russell Street. Expected use of the road is 3 to 6 months	✓	✓
<b>Kings Way</b>	Located south of Palmerston Crescent and north of Albert Road. Expected use of the road is 3 to 4 months	✓	✓
<b>Albert Road</b>	Located west of Kings Way and east of Stead Street. Expected use of the road is 3 to 6 months	✓	✓
<b>Toorak Road</b>	Located west of Darling Street and east of Claremont Street. Expected use of the road is 2 to 3 months	✓	✓

## 1.3 Study Area

The study area for the land use and planning impact assessment includes land within the City of Melbourne, City of Port Phillip and City of Stonnington as shown on Figure 1 through Figure 18.



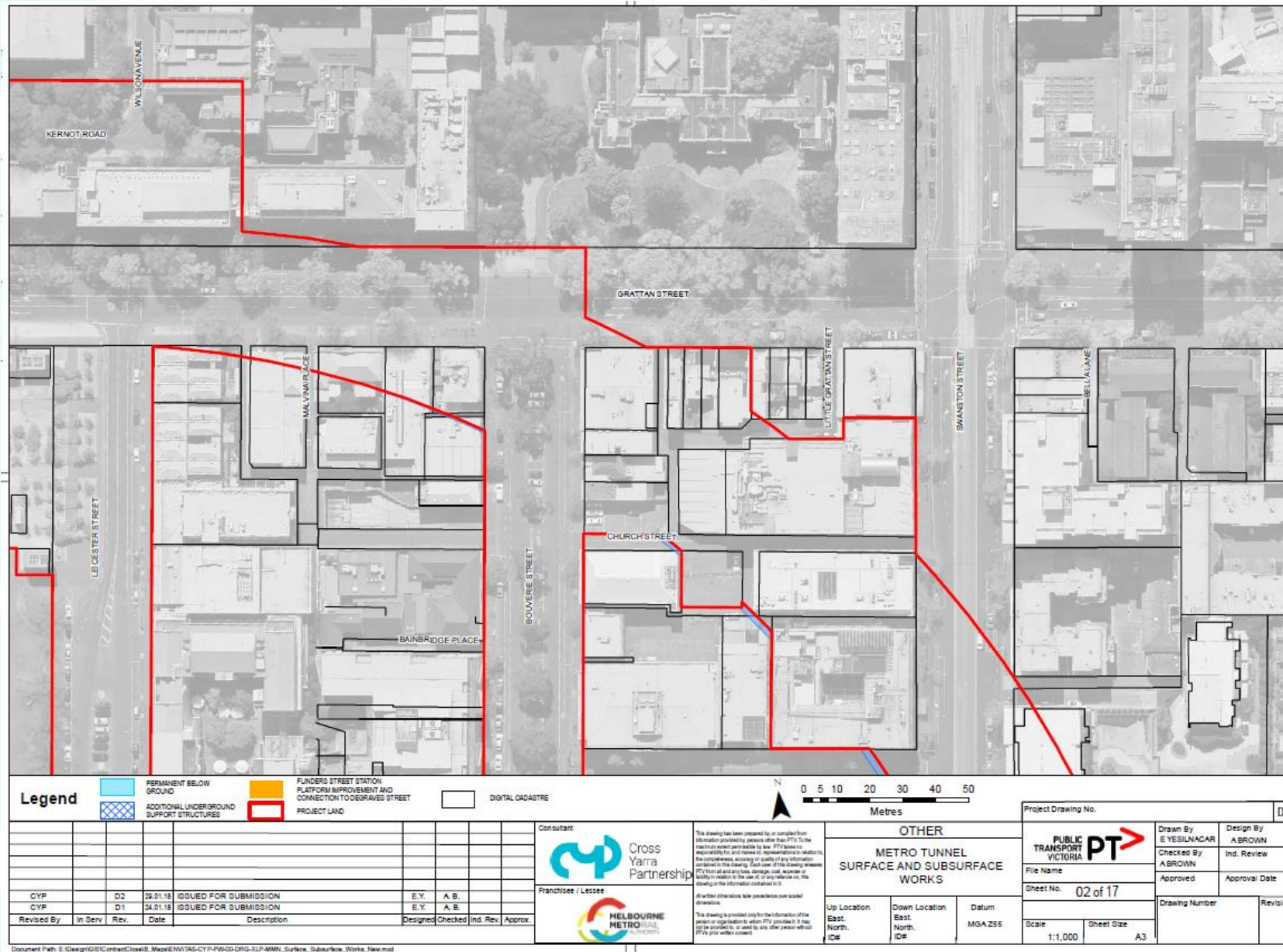


FIGURE 1: ADDITIONAL PROJECT LAND REQUIRED FOR PERMANENT BELOW GROUND BETWEEN PARKVILLE STATION AND CBD NORTH STATION

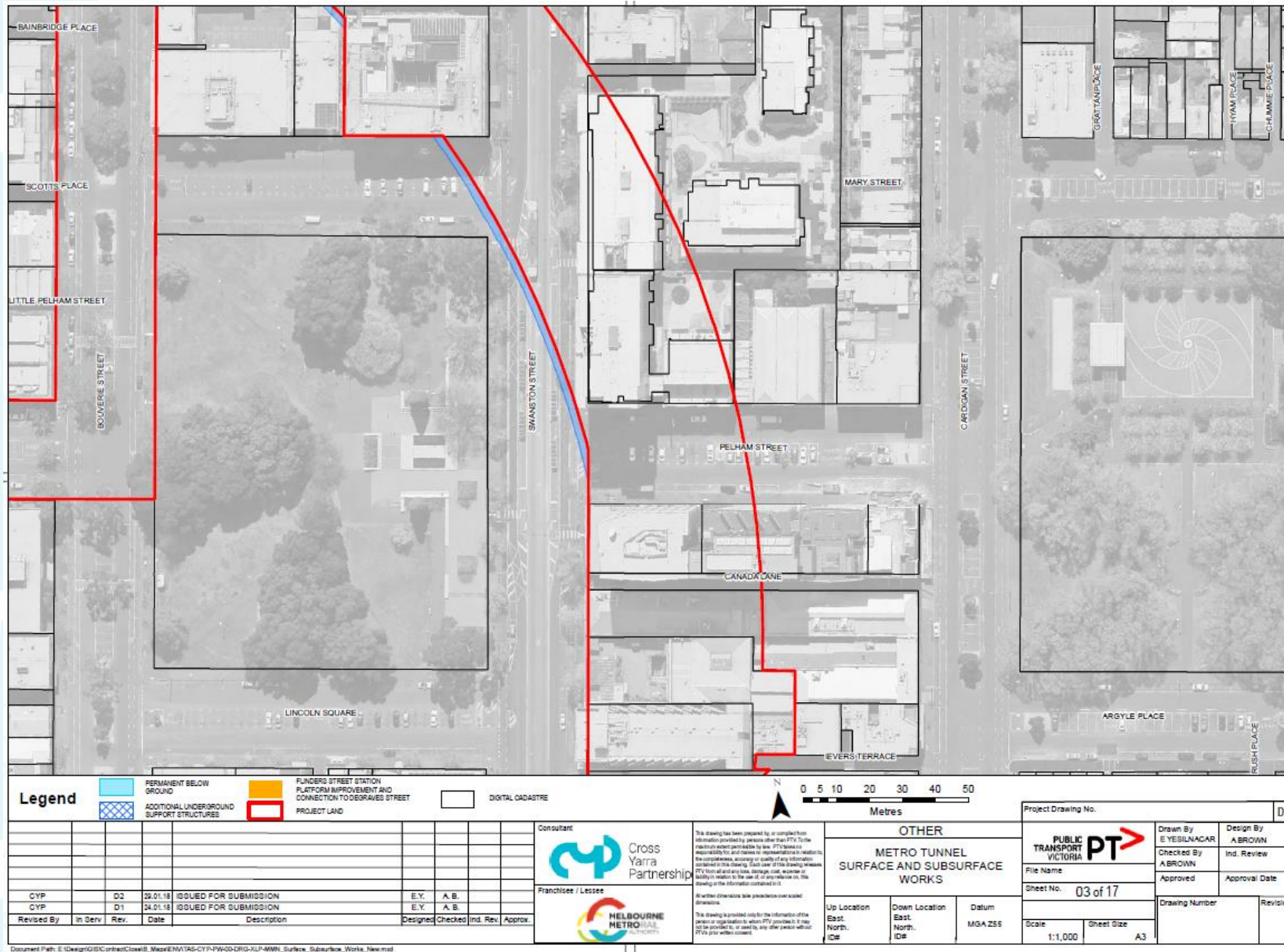


FIGURE 2: ADDITIONAL PROJECT LAND REQUIRED FOR PERMANENT BELOW GROUND BETWEEN PARKVILLE STATION AND CBD NORTH STATION



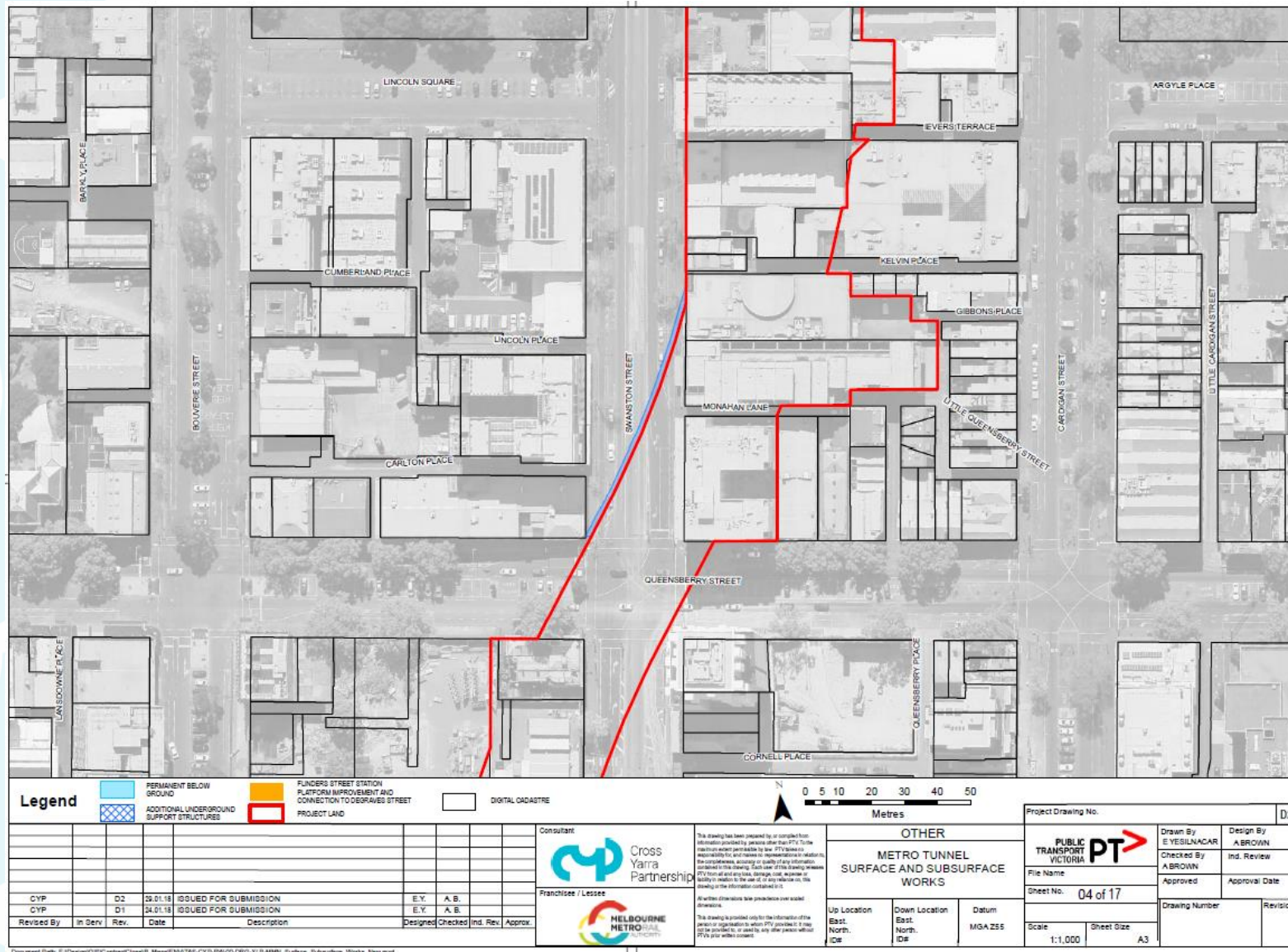


FIGURE 3: ADDITIONAL PROJECT LAND REQUIRED FOR PERMANENT BELOW GROUND BETWEEN PARKVILLE STATION AND CBD NORTH STATION

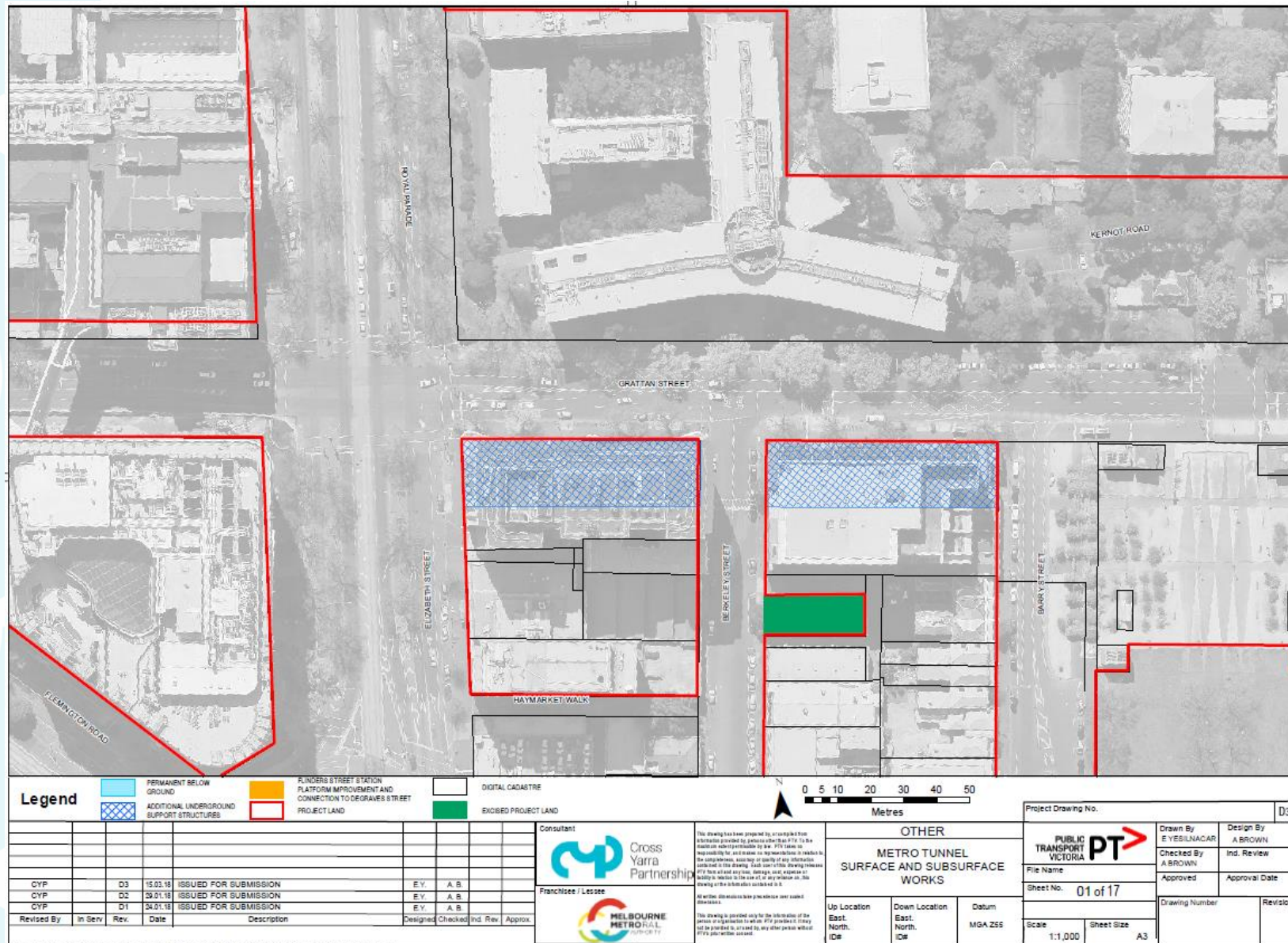


FIGURE 4: ADDITIONAL PROJECT LAND REQUIRED FOR UNDERGROUND SUPPORT STRUCTURES AT PARKVILLE STATION AND EXCISED LAND



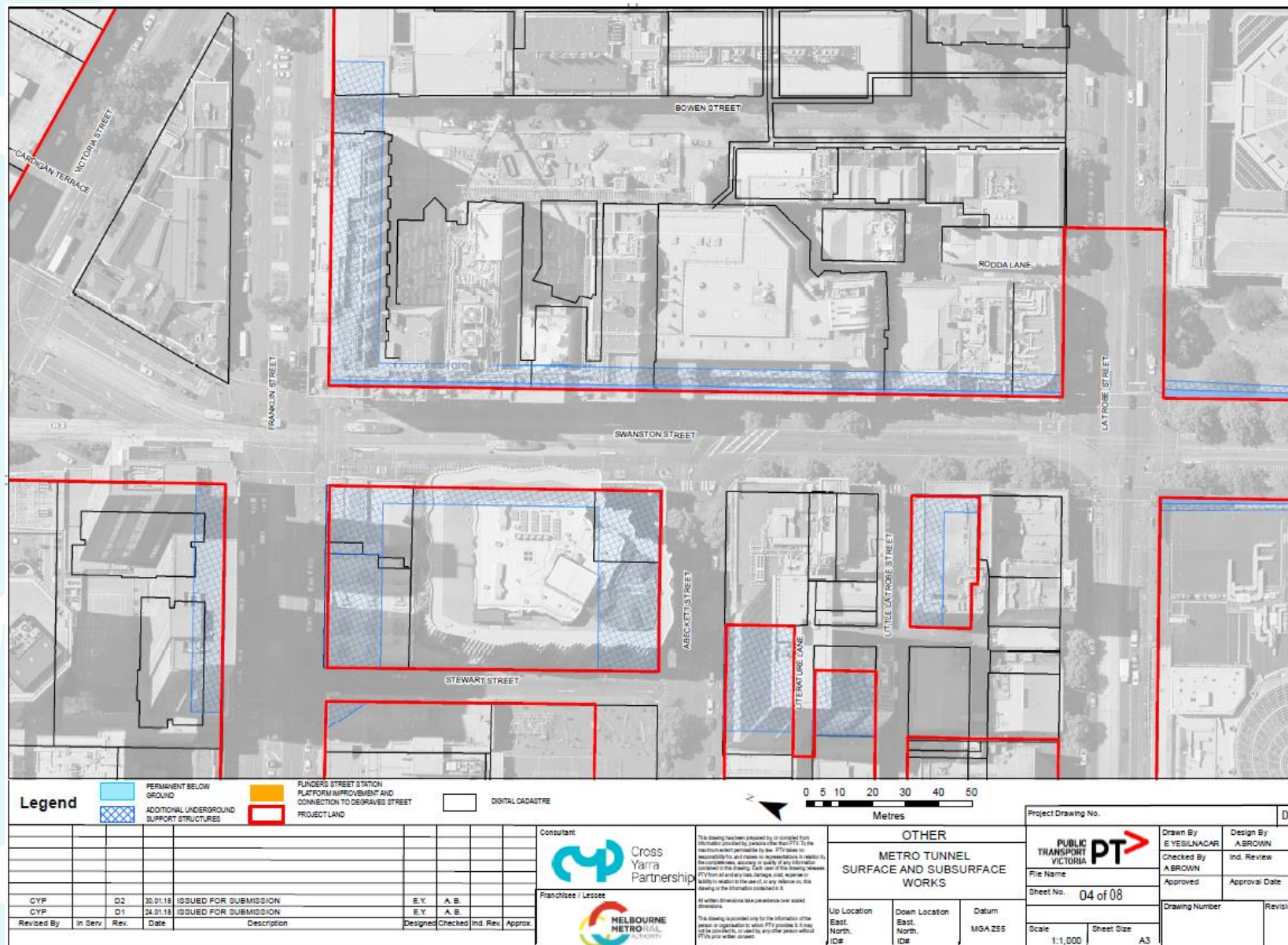


FIGURE 5: ADDITIONAL PROJECT LAND REQUIRED FOR UNDERGROUND SUPPORT STRUCTURES AND PERMANENT BELOW GROUND AT CBD NORTH STATION

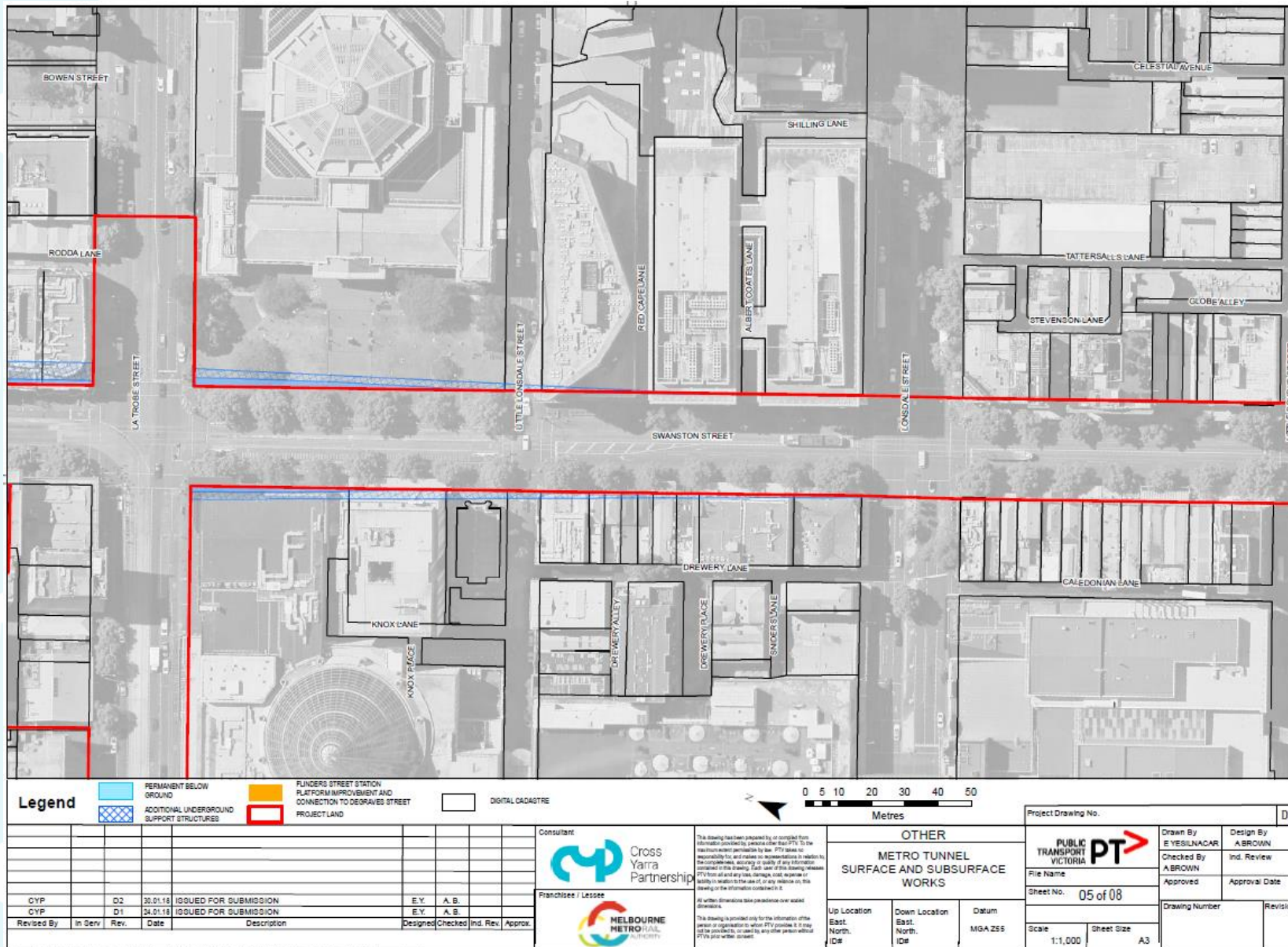


FIGURE 6: ADDITIONAL PROJECT LAND REQUIRED FOR UNDERGROUND SUPPORT STRUCTURES AND TUNNEL ALIGNMENT AT CBD NORTH STATION



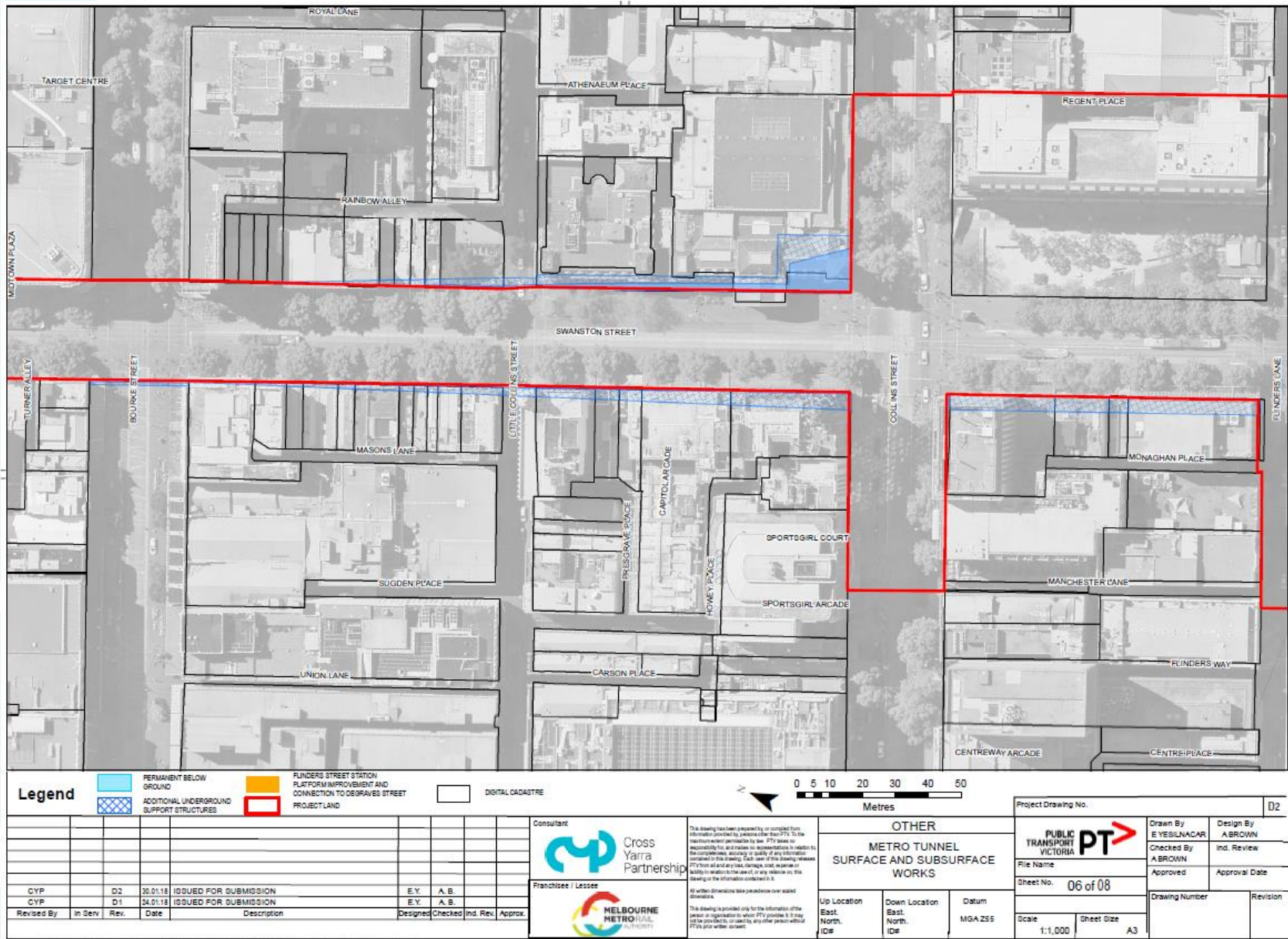


FIGURE 7: ADDITIONAL PROJECT LAND REQUIRED FOR PERMANENT BELOWGROUND AND UNDERGROUND SUPPORT STRUCTURES AT CBD SOUTH STATION

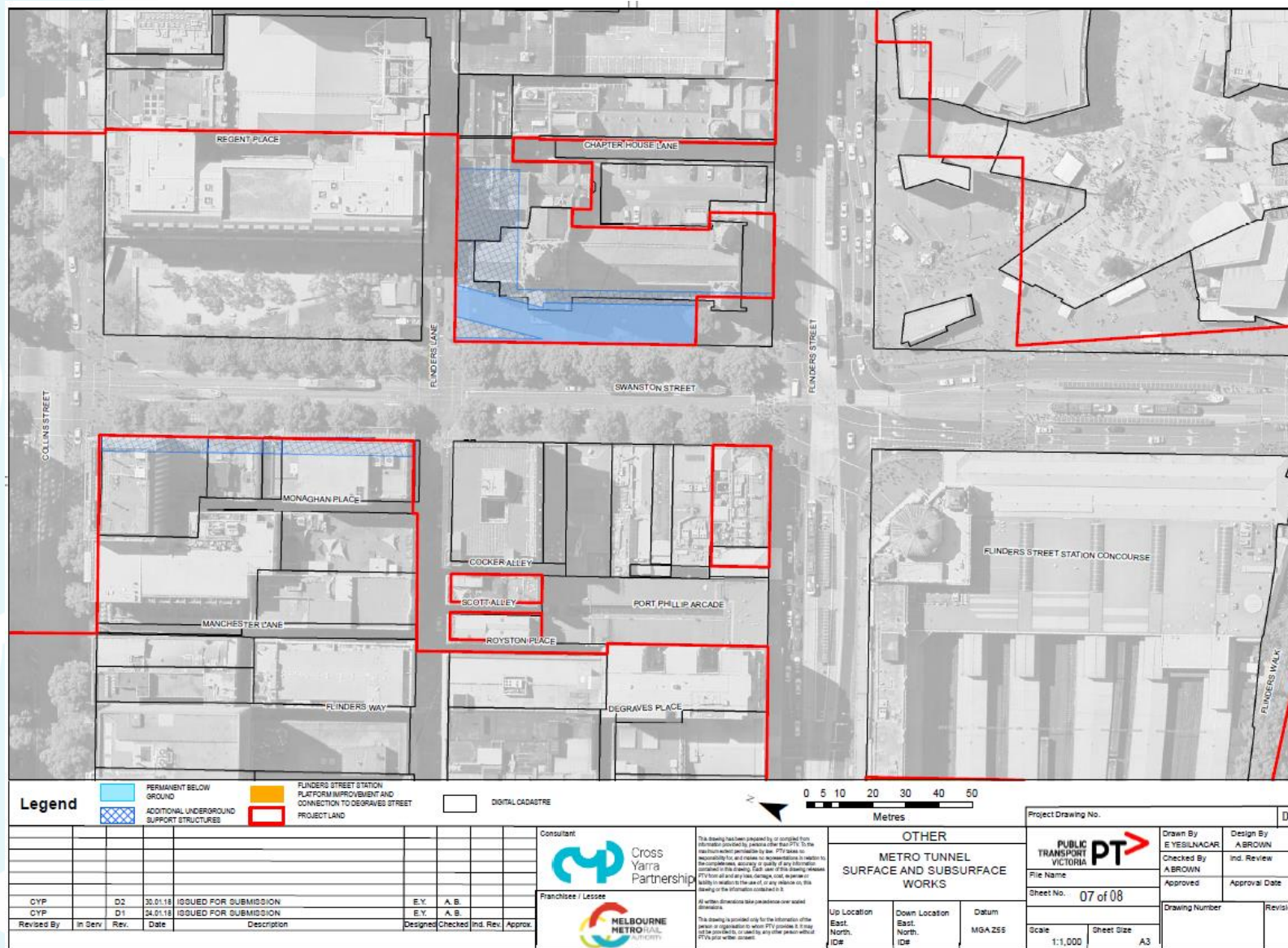


FIGURE 8 ADDITIONAL PROJECT LAND REQUIRED FOR PERMANENT BELOWGROUND AND UNDERGROUND SUPPORT STRUCTURES AT CBD SOUTH STATION



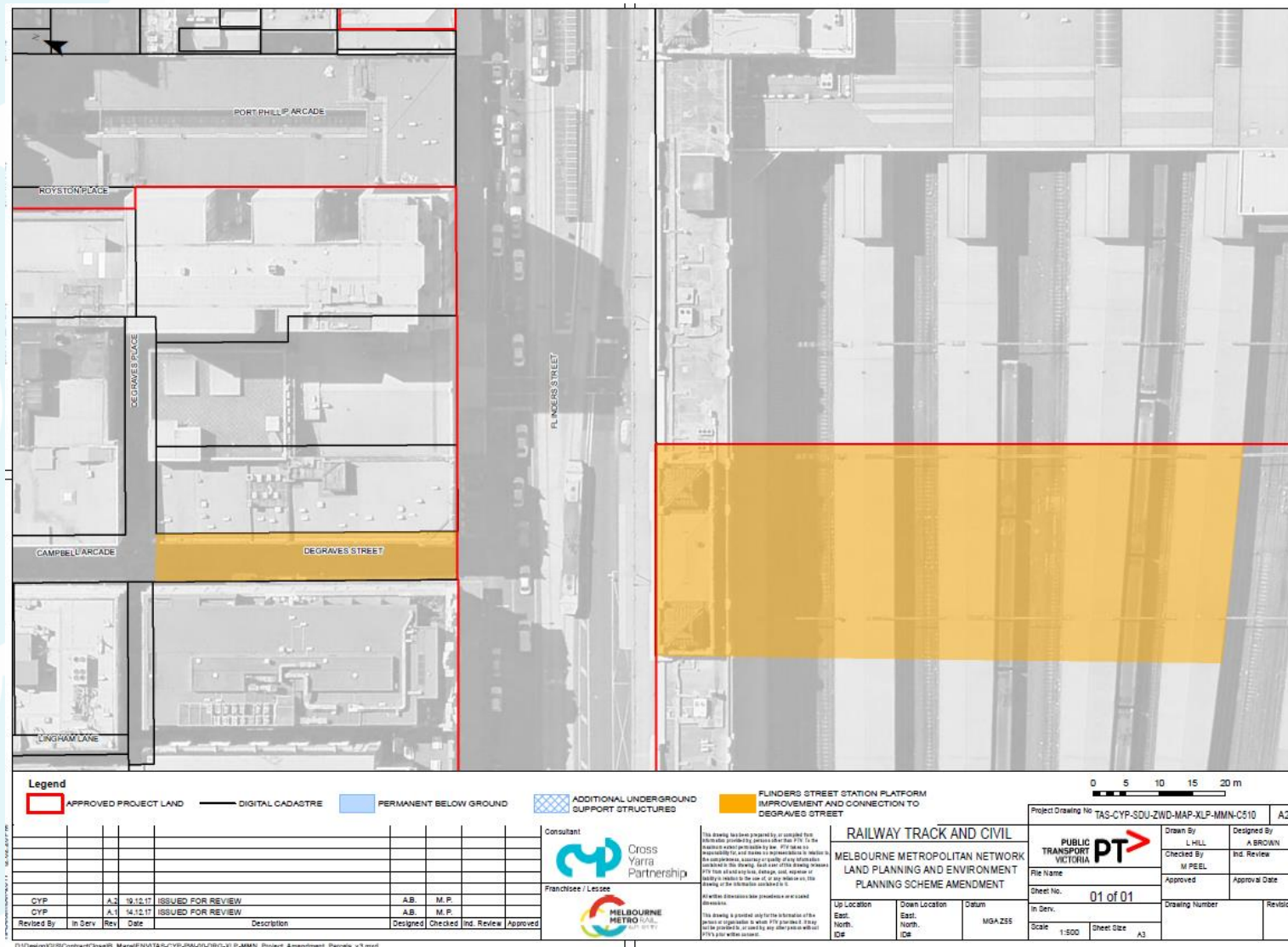


FIGURE 9: ADDITIONAL PROJECT LAND REQUIRED AT CAMPBELL ARCADE FOR FLINDERS STREET STATION CONNECTION AND FLINDERS STREET STATION MID-PLATFORM CONNECTION

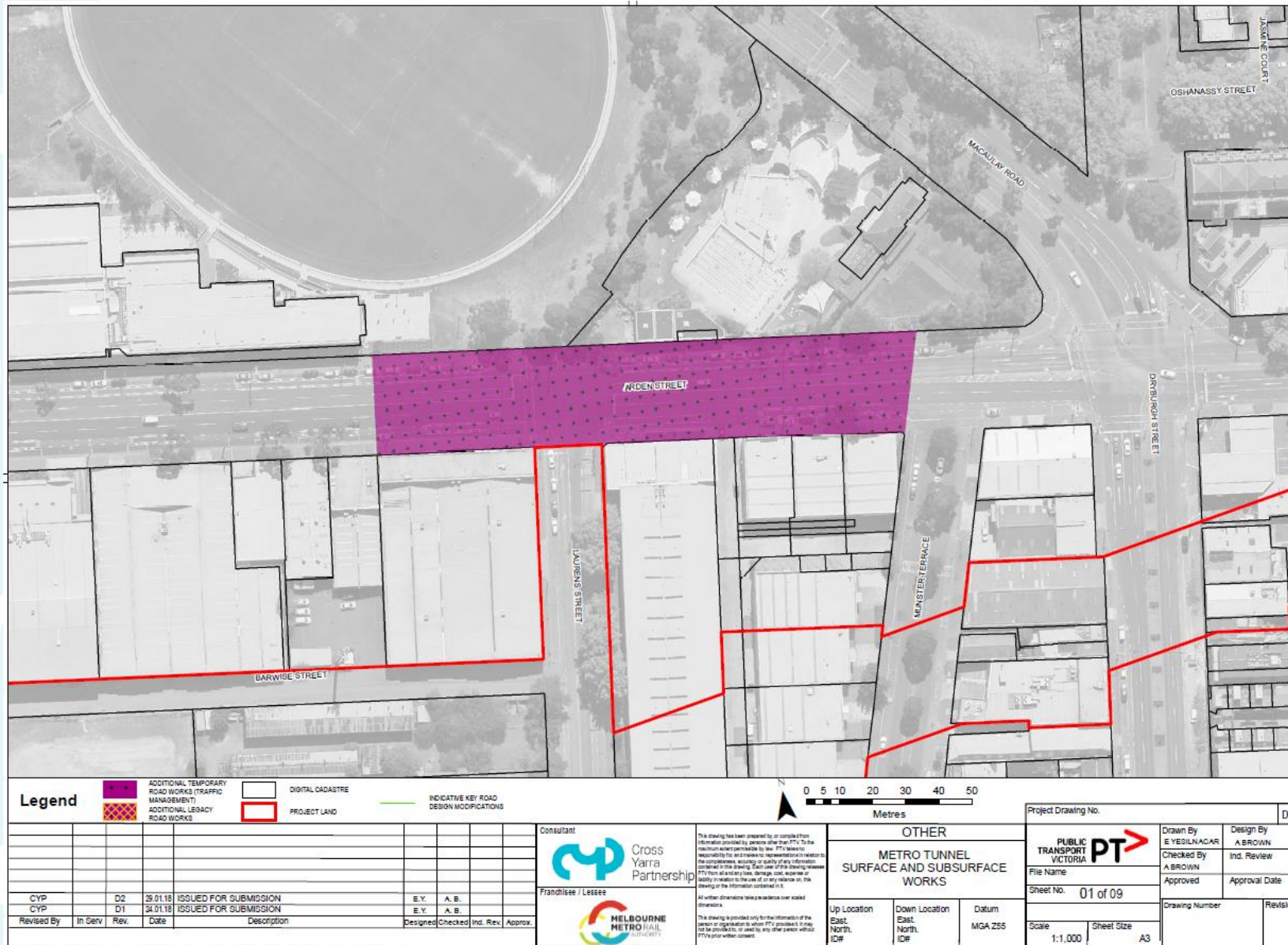


FIGURE 10: ARDEN STREET ADDITIONAL ROAD SURFACE WORKS



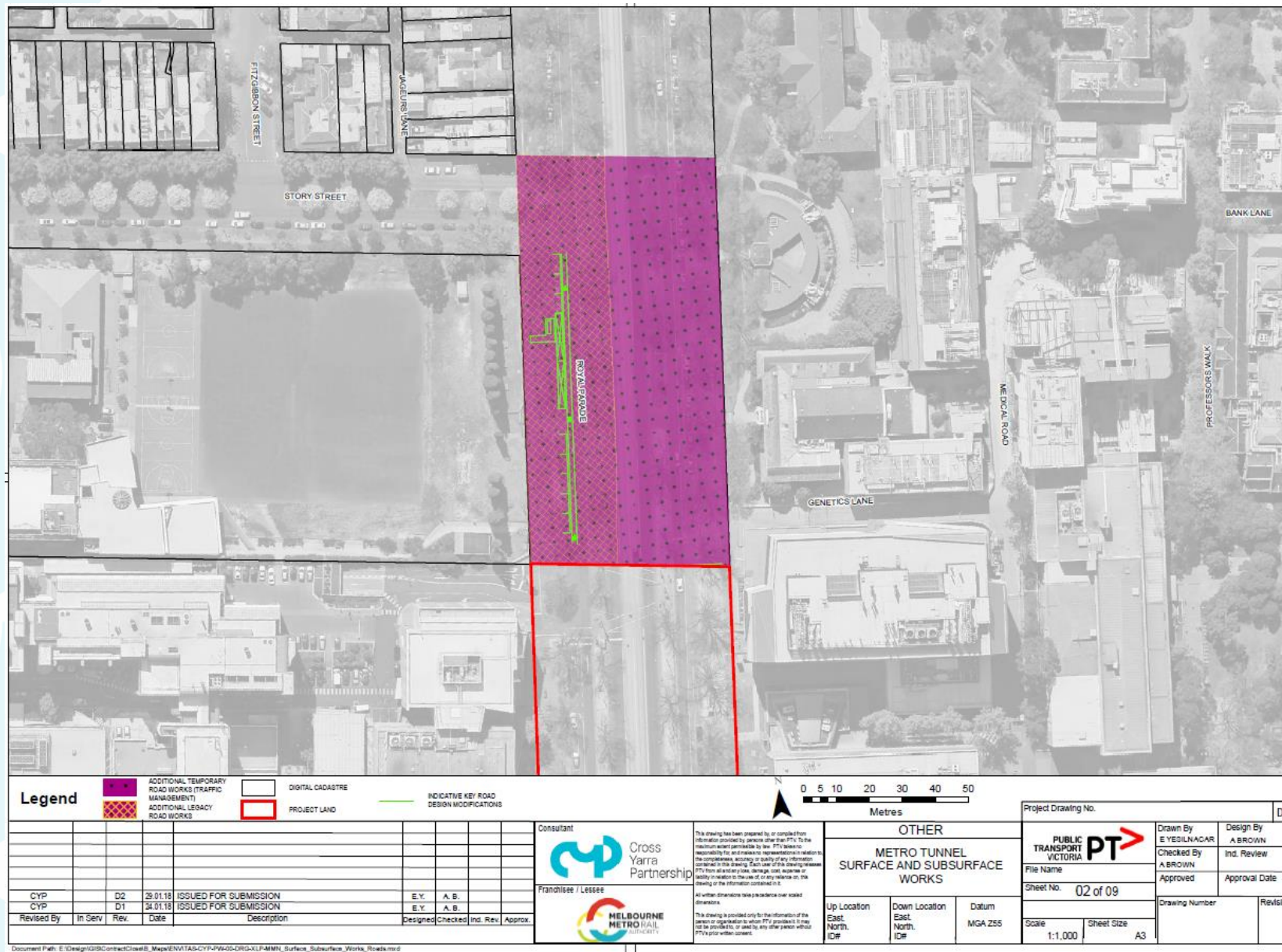


FIGURE 11: ROYAL PARADE ADDITIONAL ROAD SURFACE WORKS





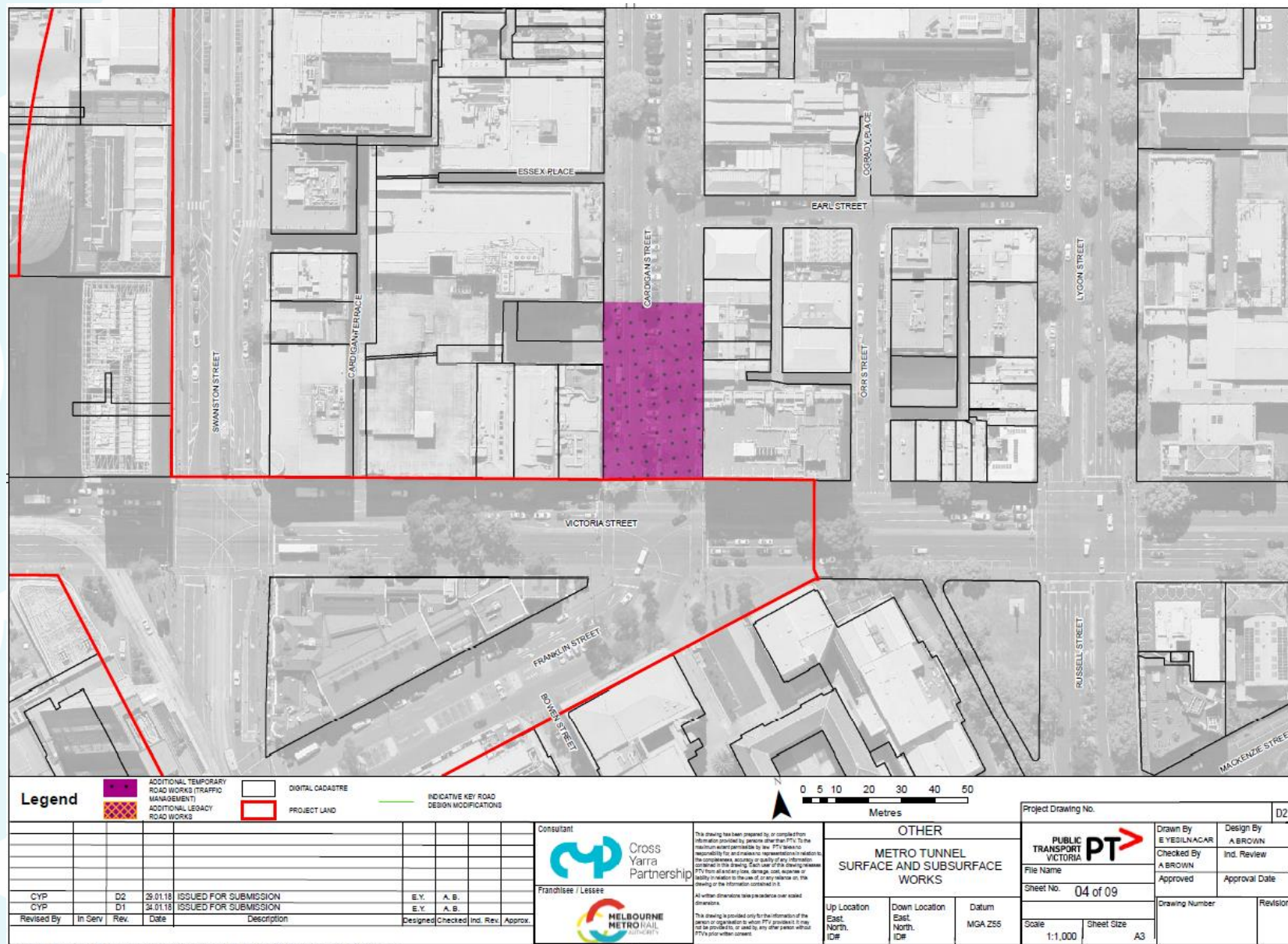


FIGURE 13: CARDIGAN STREET ADDITIONAL ROAD SURFACE WORKS





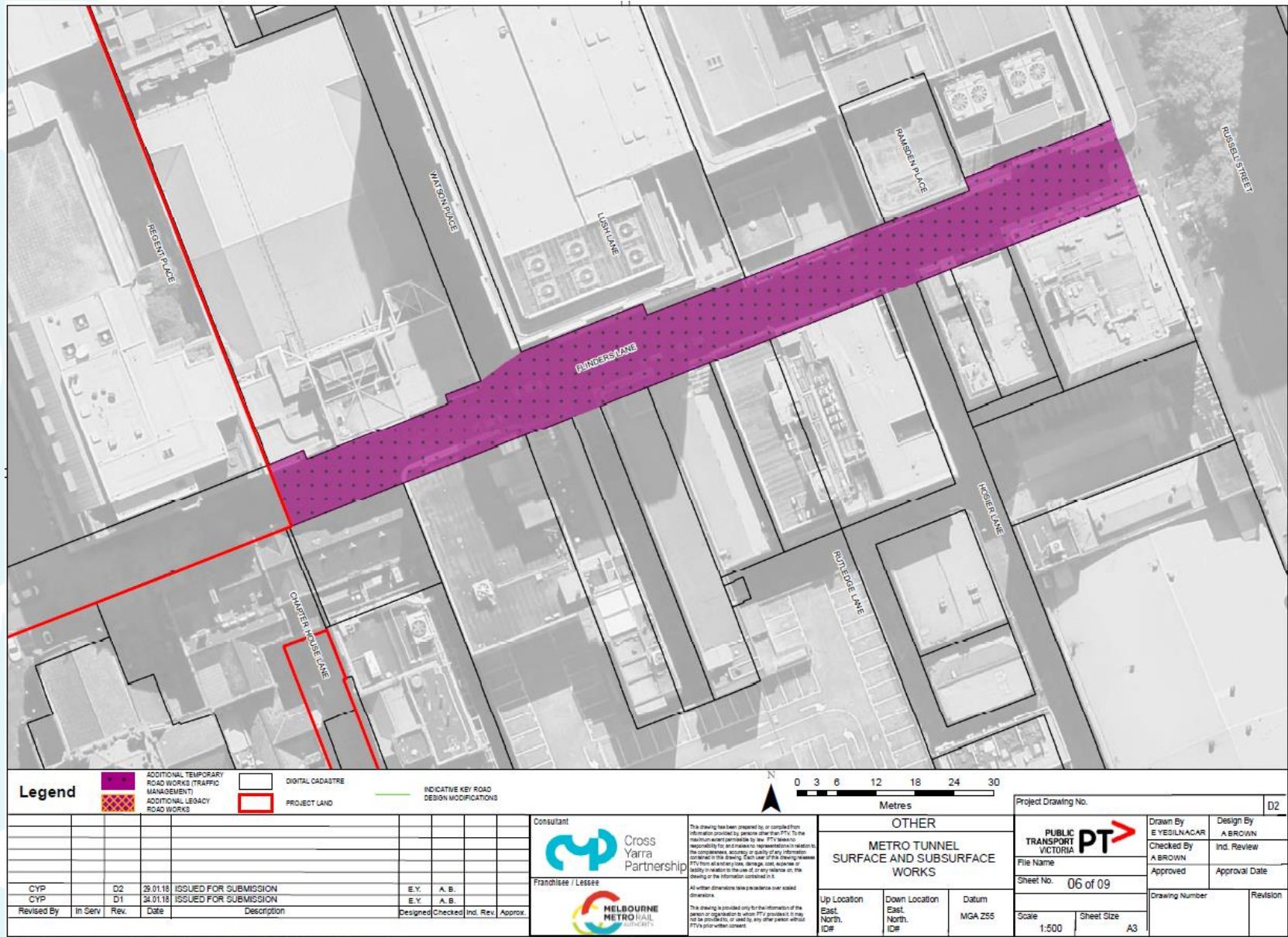


FIGURE 15: FLINDERS LANE ADDITIONAL ROAD SURFACE WORKS

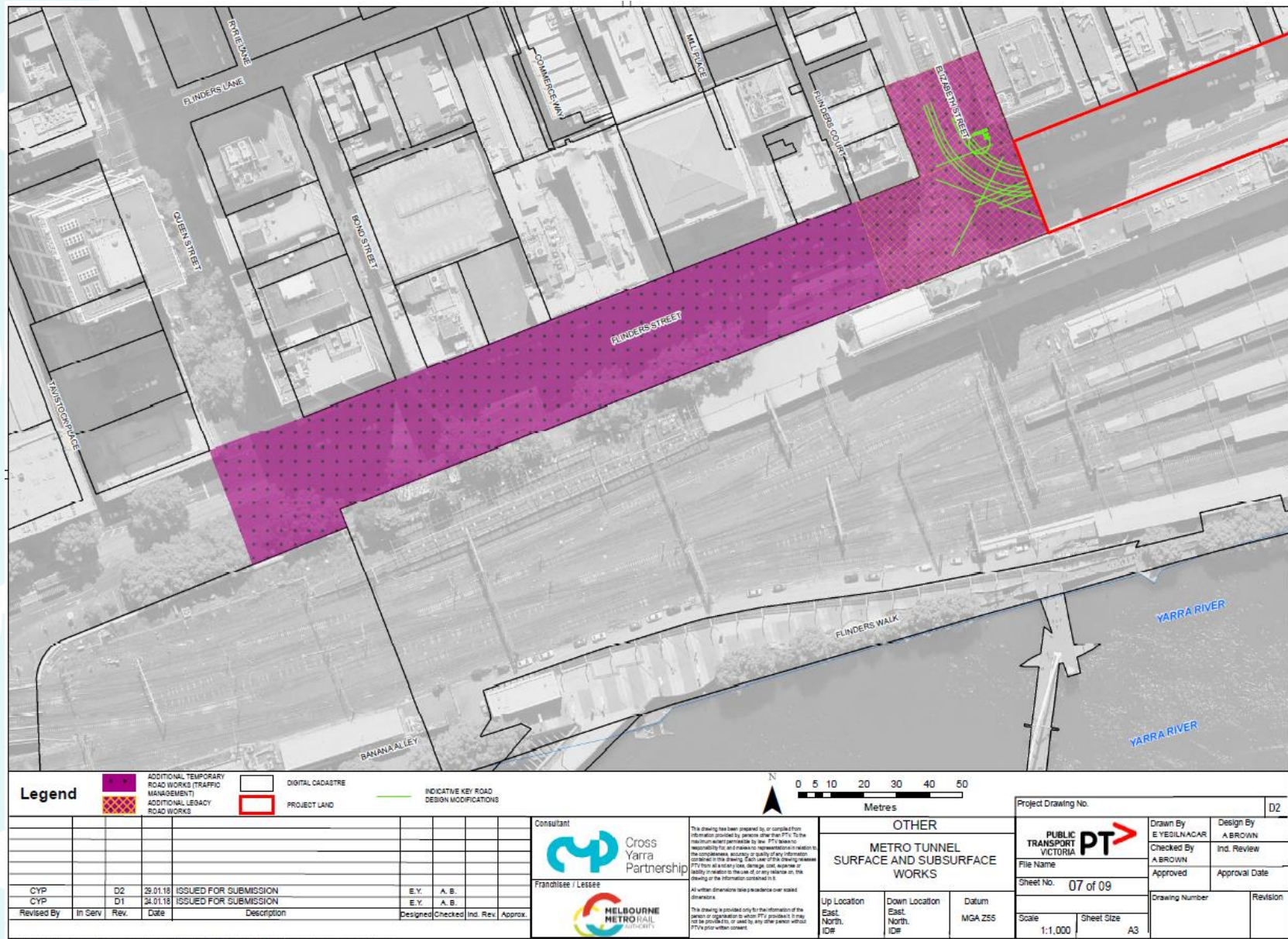


FIGURE 16: FLINDERS STREET ADDITIONAL ROAD SURFACE WORKS



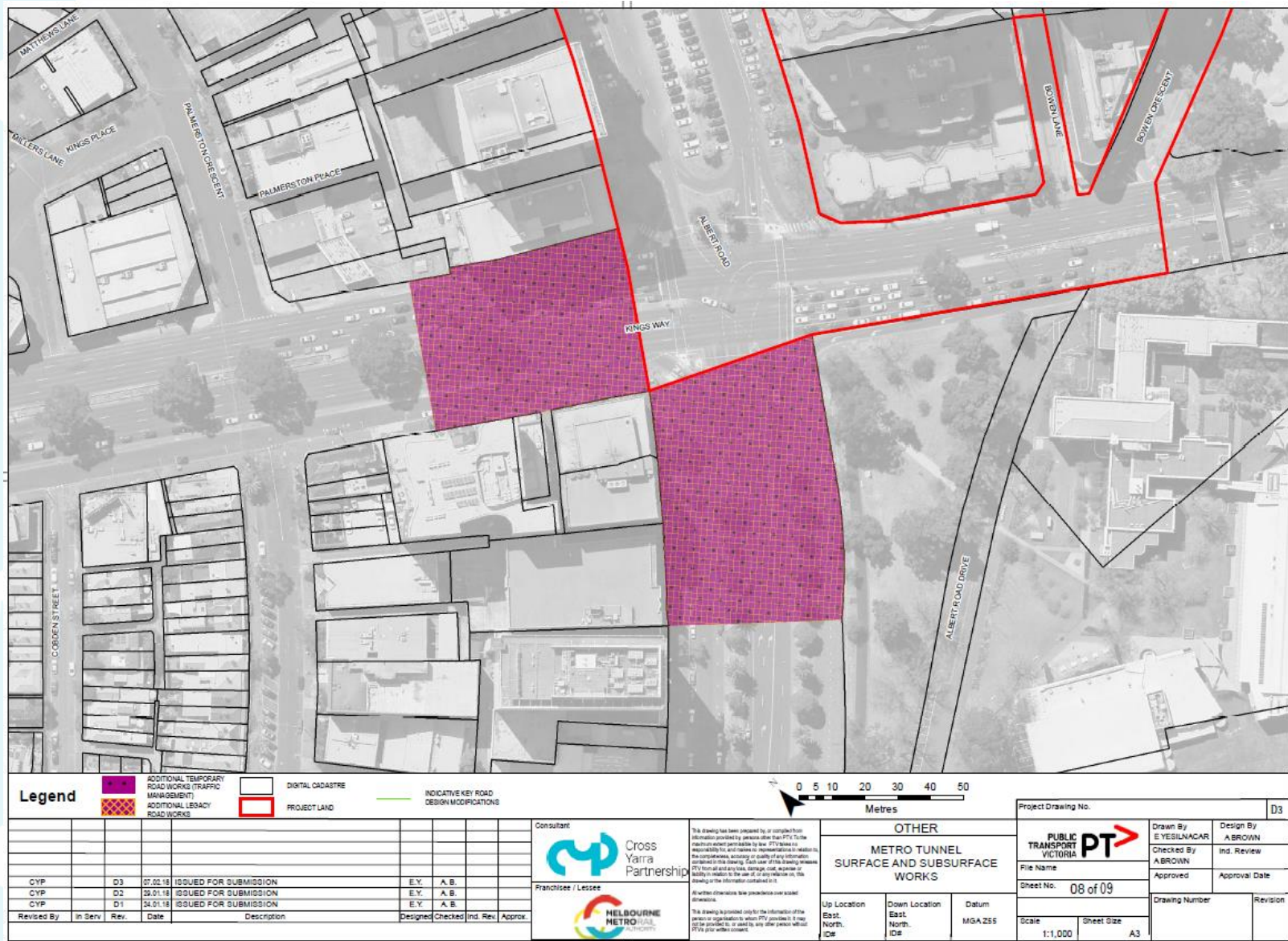


FIGURE 17: KINGS WAY AND ALBERT ROAD ADDITIONAL ROAD SURFACE WORKS

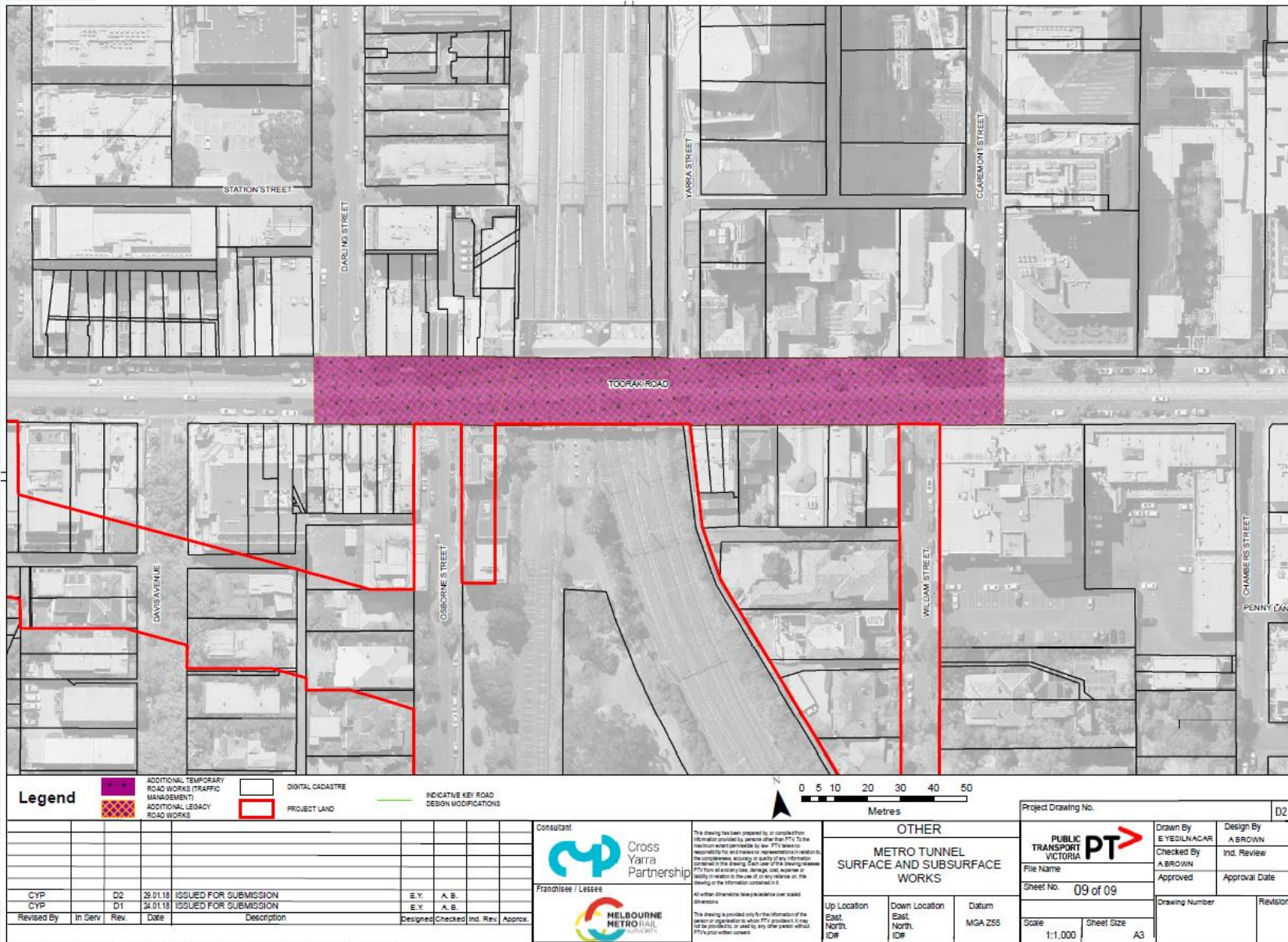


FIGURE 18: TOORAK ROAD ADDITIONAL ROAD SURFACE WORKS



## 2. Methodology

### 2.1 Environmental Risk Assessment

The Environmental Management Framework (EMF) provides a transparent and integrated governance framework to manage the environmental aspects of the Project. As part of the EES and PSA processes undertaken in 2016, MMRA completed a detailed environmental risk assessment (ERA) based on the Concept Design. Through this process an approved set of Environmental Performance Requirements (EPRs) were defined. The EPRs define the project-wide environmental outcomes that must be achieved during design, construction and operation of Melbourne Metro, (regardless of the design solutions adopted). As stated previously, CYP has proposed enhancements and changes to the Concept Design, and as a consequence, have undertaken an updated desktop environmental risk assessment to determine the impacts of the proposed changes on the required additional Project Land.

CYP have continued to apply a robust and transparent environmental risk assessment process to the project, based on the requirements of Risk Management Standards AS/NZS ISO 31000:2009, as depicted in Figure 19 below. ISO 31000:2009 provides principles and generic guidelines on risk management and represents a standardised risk management approach. It provides a structured approach for the risk assessment and is widely used for EESs and EIAs.

The environmental risk assessment process initially involved the definition of the context and scope of the additional Project Land required for the additional works. This entailed the preparation of an updated Project Description for buildings and works located outside of the approved Project Land. Following this, an initial environmental risk screening using the EPRs was undertaken. The approach followed involved the application of the EPRs as an assessment tool, an approach that accords with the framework established during the EES and PSA processes for the Project.

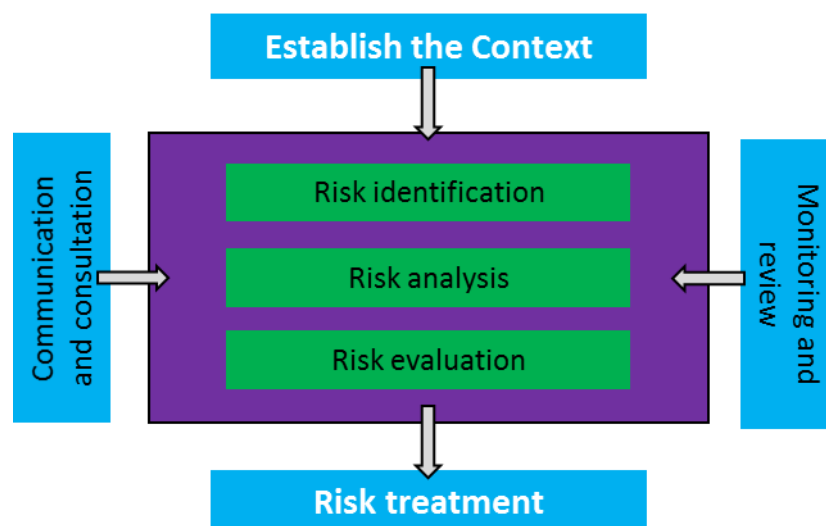


FIGURE 19: RISK ASSESSMENT PROCESS

The initial land use and planning assessment undertaken by CYP confirmed an overall low to medium risk associated with the proposed changes and the impact. The risks were mainly associated with potential future development possibilities for those properties affected at strata (below ground). Therefore, further assessment of the strata (below ground) impacts as a result of the CYP modified design was required.

### 2.2 Impact Assessment

The methodology adopted by CYP for the land use and planning impact assessment has generally followed the appraisal approach and structure employed by AJM Joint Venture.

The land use and planning impact assessment for CYP's design addresses the overarching evaluation objectives for land use and built form in relevant Melbourne Metro precincts.

**Built environment objective:** 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.

**Social, community, land use and business:** To manage the effects on the social fabric of the community in this component 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.

The methodology for the land use and planning impact assessment of additional Project Land incorporates a review and appraisal of the following:

- Existing and proposed land uses and development
- Existing and proposed planning scheme requirements and strategy
- Existing and proposed access arrangements
- Existing planning permit applications and recently approved permits
- Existing and future land use and planning risks.

The methodology also included the identification of the land that may be required permanently or temporarily for the delivery of the additional Project Land.

Consultation with MMRA 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 additional Project Land, the identification of likely impacts of the project's construction and operation and mitigation measures.

### 3. Legislation, Policy and Guidelines

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

TABLE 5: COMMONWEALTH, STATE AND LOCAL LEGISLATION, POLICY AND GUIDELINES

Legislation	Comment
<b>Commonwealth</b>	
<b>Environment Protection and Biodiversity Conservation Act 1999</b>	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.
<b>State</b>	
<b>Environment Effects Act 1978</b>	<i>The Environment Effects Act 1978</i> 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' that are capable of having a significant impact on the environment under Section 3 of the Environment Effects Act 1978, an EES is required. This Act triggers a substantial assessment process to be followed as per the applicable Ministerial direction.
<b>Major Transport Projects Facilitation Act 2009</b>	The purpose of the <i>Major Transport Projects Facilitation Act 2009</i> is 'to facilitate the development of major transport projects'. Pursuant to the Premier's declaration (gazetted 4 September 2015) Melbourne Metro would use 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 Minister for Public Transport declared the Project Minister under s14 of the same Act. Following approval of the proposed planning scheme amendments, a Project Area would be designated to enable the project to use the delivery powers of the Act.
<b>Transport Integration Act 2010</b>	<p>The Act requires transport planning to 'provide for the effective integration of transport and land use and facilitate access to social and economic opportunities'. The transport system and land use should be aligned, complementary and supportive and ensure that:</p> <ul style="list-style-type: none"> <li>Transport decisions are made having regard to the current and future impact on land use</li> <li>Land use decisions are made having regard for the current and future development and operation of the transport system</li> <li>Transport planning decisions relating to Melbourne Metro must have regard to current and future impact on land use and include a triple bottom line assessment including costs, benefits and sustainability.</li> </ul> <p>Section 63 requires that the department responsible for administering the Act undertakes integrated transport planning to guide the development of the transport network in Victoria. The Department is developing a network development strategy, which will align with both Plan Melbourne and the Regional Statement, to provide integrated guidance on land use and transport planning for Victoria.</p>
<b>Planning and Environment Act 1987</b>	<p>The Act provides a planning framework (for the Melbourne, Stonington, Port Philip and Maribynong Planning Schemes) 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 approval would be required under this Act. A planning scheme amendment would be the preferred approval mechanism for Melbourne Metro. Further detail is provided in Chapter 3 Legislative Framework and Approvals Requirements and Technical Appendix A Draft Planning Scheme Amendment and Associated Documentation of the EES.</p> <p>Planning schemes are given effect by the <i>Planning and Environment Act 1987</i> 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 of any project. Plan Melbourne, along with many other strategic documents including the permitted clearing guidelines, is given effect by planning schemes. Planning schemes trigger the requirement for planning approval for Melbourne Metro. The assessment under the Environment Effects Act 1978 would inform decision-making on any planning approval requirement for the project under the relevant planning scheme.</p> <p>A planning scheme amendment to facilitate the use and development of Melbourne Metro via an Incorporated Document is proposed. A control is considered desirable to protect the tunnels, stations and other infrastructure during the construction and operation of Melbourne Metro from inconsistent developments. A Design and Development Overlay has been included in a draft planning scheme amendment in Technical Appendix A Draft Planning Scheme Amendment and Associated Documents.</p>

<b>Crown Land (Reserves) Act 1978</b>	This Act enables reservation of land for (Reserves) Act a range of public purposes, stipulates 1978 how reserved land must be dealt with and prescribes some governance arrangements for committees of management appointed to manage reserved land. Melbourne Metro affects a range of reserved Crown land such as the Domain Parklands and Shrine of Remembrance Reserve. Land managers are appointed as a committee of management or trustees under the <i>Crown Land (Reserves) Act 1978</i> . 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. <i>The Major Transport Projects Facilitation Act 2009</i> provides the ability to reserve Crown land for the purposes of major transport projects.
<b>Land Act 1958</b>	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. <i>The Major Transport Projects Facilitation Act 2009</i> provides the ability to reserve Crown land for the purposes of major transport projects.
<b>Environment Protection Act 1970</b>	<p>The purpose of this Act is to create a legislative framework for the protection of the environment in Victoria having regard to the principles of environment protection.</p> <p>The Act must consider impacts of State environment significance, as outlined by the <i>Environment Protection Act 1970</i> 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 Protection Act preparation of State to the environment, as outlined by the 1970 Environment Protection relevant SEPPs.</p>
<b>Heritage Act 2017</b>	<p>The <i>Heritage Act 2017</i> establishes two registers, the Victorian Heritage Register and the Victorian Heritage Inventory and the Act 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 place or heritage object on the Victorian Heritage Register. <i>The Heritage Act 2017</i> is relevant to Melbourne Metro as numerous places within the study area are included on the Victorian Heritage Register or the Victorian Heritage Inventory.</p> <p>Two classes of approvals are required from Heritage Victoria: • Victorian Heritage Register – Permits under s74 of the Act except where works are minor and Heritage Victoria is able to issue an exemption from a permit under s66 of the Act • Consents to damage or remove archaeological artefacts under s129 of the Act for places on the Victorian Heritage Inventory. Where approval is required under <i>The Heritage Act 2017</i>, no planning approval is required under the Heritage Overlays of the relevant planning schemes.</p>
<b>Aboriginal Heritage Act 2006</b>	<p>This Act provides for the protection of Aboriginal cultural heritage in Victoria. The Act states that a Cultural Heritage Management Plan is required for any project requiring an EES. The main purposes of this Act are:</p> <ul style="list-style-type: none"><li>(a) to provide for the protection of Aboriginal cultural heritage and Aboriginal intangible heritage in Victoria; and</li><li>(b) to empower traditional owners as protectors of their cultural heritage on behalf of Aboriginal people and all other peoples; and</li><li>(c) to strengthen the ongoing right to maintain the distinctive spiritual, cultural, material and economic relationship of traditional owners with the land and waters and other resources with which they have a connection under traditional laws and customs; and</li><li>(d) to promote respect for Aboriginal cultural heritage, contributing to its protection as part of the common heritage of all peoples and to the sustainable development and management of land and of the environment.</li></ul>
<b>Road Management Act 2004</b>	The purpose of this Act is to reform the law relating to road management in Victoria and to make related amendments to certain Acts. The Act establishes any new statutory framework for the management of the road network which facilitates the coordination of the various uses of road reserves for roadways, pathways, infrastructure and similar purposes.
<b>Plan Melbourne 2017-2050</b>	<p>Plan Melbourne is the metropolitan planning strategy that would guide Melbourne's growth to 2050. Its strategies address transport, housing, economic development, and the environment across Melbourne.</p> <p>Plan Melbourne refers to the 'Melbourne Rail Link project' rather than 'Melbourne Metro'. Plan Melbourne was refreshed and a discussion paper regarding the 'refresh' was released in October 2015. This paper refers to '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 in the approval for the use and development of the project.</p>

## 4. Impact Assessment

### 4.1 Overview

The land use and planning impact assessment has determined that all potential impacts to current and future building and works, arising from the changes to Project Land, can be dealt with effectively by the existing project EPR's.

The risk assessment process has resulted in ten residual risk rating of medium, this being related to potential impacts in existing or future land uses across the additional Project Land scope.

An Environmental Risk Assessment has been completed for the CYP design changes for the Melbourne Metro project. The overall Environmental Risk Assessment process adopted was based on AS/NZS ISO 31000:2009. As part of this process, an initial land use and planning risk assessment was undertaken for the CYP design changes located outside of the approved Project Land. In conjunction with a number of other technical areas, the initial risk assessment recommended that a detailed land use and planning assessment be undertaken for the CYP design changes located outside of the approved Project Land.

The following section identifies and appraises new or additional land use and planning impacts arising from the CYP design changes. Impact relates to the outcome of an action in relation to values of a resource or sensitivity of a receptor. Benefits are also considered in impact 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. For ease of reference, the impact assessment relates to discrete sections of the overall project.

#### 4.1.1 Benefits and Opportunities

Table 6 and Table 7 list the benefits and opportunities that the land use and planning impact assessment has determined arise from the changes in Project Land.

TABLE 6: BENEFITS OF THE CHANGES TO THE APPROVED PROJECT LAND

Element	Benefits
<b>Parkville to CBD North</b>	<ul style="list-style-type: none"> <li>the change in tunnel alignment will help track degradation and therefore future maintenance expenditure and traction power for trains thereby reducing greenhouse gas emissions and operational costs</li> <li>construction will occur at strata (below ground) therefore limited surface work disruptions</li> <li>provide safe and less restricted construction space for the excavation works due to the omission of struts throughout the whole cavern</li> <li>allow for more efficient constructing techniques, particularly accelerated excavation and safer controls around ground movement, to be employed</li> <li>no loss of access to residences, workplaces, retail and business</li> <li>aligns with numerous local and state planning policy and objectives</li> <li>ensures the delivery of the MM project in a timely, coordinated and consistent manner</li> </ul>
<b>CBD North Station</b>	<ul style="list-style-type: none"> <li>the change in tunnel alignment will help track degradation and therefore future maintenance expenditure and traction power for trains thereby reducing greenhouse gas emissions and operational costs</li> <li>construction will occur at strata (below ground) therefore limited surface work disruptions</li> <li>provide safe and less restricted construction space for the excavation works due to the omission of struts throughout the whole cavern</li> <li>allow for more efficient constructing techniques, particularly accelerated excavation and safer controls around ground movement, to be employed</li> <li>no loss of access to residences, workplaces, retail and business</li> <li>aligns with numerous local and state planning policy and objectives</li> <li>ensures the delivery of the MM project in a timely, coordinated and consistent manner</li> <li>create safe pedestrian access between Melbourne Central Station and CBD North</li> </ul>
<b>CBD South Station</b>	<ul style="list-style-type: none"> <li>the change in tunnel alignment will help track degradation and therefore future maintenance expenditure and traction power for trains thereby reducing greenhouse gas emissions and operational costs</li> <li>most construction will occur at strata (below ground) therefore limited surface work disruptions</li> <li>provide safe and less restricted construction space for the excavation works due to the omission of struts throughout the whole cavern</li> <li>allow for more efficient constructing techniques, particularly accelerated excavation, additional construction access via Federation Square; overall enabling an efficient construction sequence</li> <li>reduce the geotechnical stress near the corner of Flinders Land and Swanston Street</li> <li>create safer turning points for construction vehicles at strata</li> <li>no loss of access to residences, workplaces, retail and business</li> <li>aligns with numerous local and state planning policy and objectives</li> <li>ensures the delivery of the MM project in a timely, coordinated and consistent manner</li> <li>provides</li> </ul>

	<ul style="list-style-type: none"> <li>▪ provide commuters seamless access from CBD South Station to Flinders Street Station and to the middle of Flinders Street Station platforms, avoiding the already congested forecourt area of Flinders Street Station</li> <li>▪ aligns with numerous local and state planning policy and objectives</li> </ul>
<b>Additional road surface works</b>	<ul style="list-style-type: none"> <li>▪ roads are reinstated to pre-development standards</li> <li>▪ the correct road adjustments meet applicable road standards and regulations</li> <li>▪ public realm will be restored post construction</li> <li>▪ construction work can be carried out safely</li> <li>▪ ensure that entries and exits cater for expected traffic volumes and with respect to sight distances, acceleration and deceleration provision and clear advanced warning signage</li> <li>▪ keep traffic delays to a minimum by strategically managing traffic</li> <li>▪ allow the trams 19, 57 and 59 to integrate into the current tram network along Flinders Street</li> <li>▪ allow more trams onto the network overall</li> <li>▪ reduce delays currently experienced on the network due to trams terminating at the Elizabeth Street/Flinders Lane final stop</li> </ul>

TABLE 7: OPPORTUNITIES FROM THE CHANGES TO THE APPROVED PROJECT LAND

Element	Opportunities
<b>Parkville to CBD North</b>	<ul style="list-style-type: none"> <li>▪ accommodate and support ongoing design improvements to Parkville Station</li> </ul>
<b>CBD North Station</b>	<ul style="list-style-type: none"> <li>▪ accommodate and support ongoing design improvements to CBD North Station</li> </ul>
<b>CBD South Station</b>	<ul style="list-style-type: none"> <li>▪ ensure that access for all abilities is provided mid-platform at Flinders Street Station facilitating the station and access to rail remains viable for all</li> <li>▪ accommodate and support ongoing design improvements to CBD South Station</li> </ul>
<b>Additional road surface works</b>	<ul style="list-style-type: none"> <li>▪ associated landscaping works could greatly improve the public realm</li> <li>▪ create an integrated transport network</li> </ul>



## 4.2 Parkville to CBD North

### 4.2.1 Project Components

Within this component of the project, all changes to the approved Project Land are subterranean. The additional strata (below ground) is required for ground support structures encasing the shafts at Parkville Station and the new tunnel alignment between Parkville Station and CBD North Station.

The additional ground support structures at Parkville Station include two sections outside of current Project Land on the southern side of Grattan Street, to the east of Royal Parade and west of Barry Street, Carlton. The alignment curve takes an excursion outside of current Project Land at:

- south of Grattan Street (near the corner of Bouverie Street), Carlton
- south of Church Street, Carlton
- Lincoln Street North, Carlton
- Swanston Street, Lincoln Street North to Pelham Street, Carlton
- Swanston Street, south of Kelvin Place and north of Queensberry Street, Carlton.

Activities in this area include operation of the TBM, cross passage excavation, installation of ground support structures, and the operation and maintenance of the trains.

### 4.2.2. Existing Conditions

The area between Royal Parade to Victoria Street contains a multitude of land uses. To the east, closer to Royal Parade, is Melbourne's key health, medical research and educational precinct including the Peter Doherty Institutes for Infection and Immunity, Royal Melbourne Hospital, Royal Women's Hospital, Victorian Comprehensive Cancer Centre and various University of Melbourne medical institutions. These buildings are used for research, teaching, public health and reference laboratory services, diagnostic services and clinical care in infectious diseases and immunity (Refer to Figure 20 and Figure 21)

Moving east towards Swanston Street, Lincoln Square provides open space for the various mixed-use developments within the area. Retail, food and drink premises, commercial and high density living development flank Swanston Street's tram, cycling and road corridor to Victoria Street. The School of Audiology, Trinity College, University Digitisation Centre, Grattan Institute and student accommodation can also be found within this area (Refer to Figure 22 and Figure 23). Within this precinct, service relocation and early works are already evident. The land use and planning map can be found in Figure 26.



FIGURE 20: ALBERT GILBERT BUILDING, GRATTAN STREET



FIGURE 21: PETER DOHERTY INSTITUTUE, GRATTAN STREET



FIGURE 22: STUDENT ACCOMMODATION AND TRAM ON SWANSTON STREET



FIGURE 23: PRINCE ALFRED HOTEL, GRATTAN STREET

There are many properties within the University of Melbourne, University Square, Leicester Street and Royal Parade are affected by Heritage Overlays and the Victorian. For this planning scheme amendment, additional Project Land impacts HO1, Carlton Precinct and HO1129, 166-170 Bouverie Street, Carlton (Refer to Figure 24 and Figure 25).

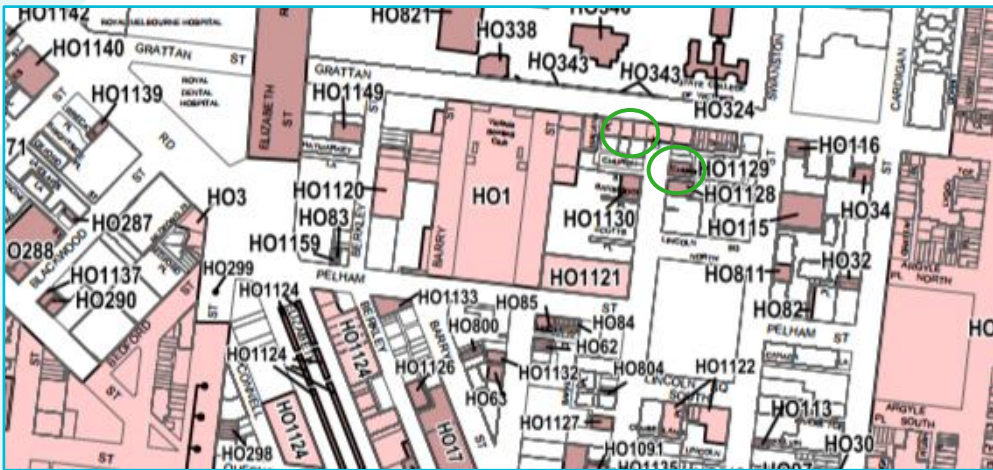


FIGURE 24: HERITAGE OVERLAY PARKVILLE STATION TO VICTORIA STREET SOURCE: PLANNING MAPS ONLINE





FIGURE 25: PITMAN BOOKS, HERITAGE BUILDING

As the works is at strata (below ground), basement development is an important component that will impact current and future development. Figure 27 displays the basement study undertaken as part of the concept design. It provides an indicative indication of where potential issues may arise. Figure 27 shows a total of nine blocks are, six of which have no basement and three do have basements.

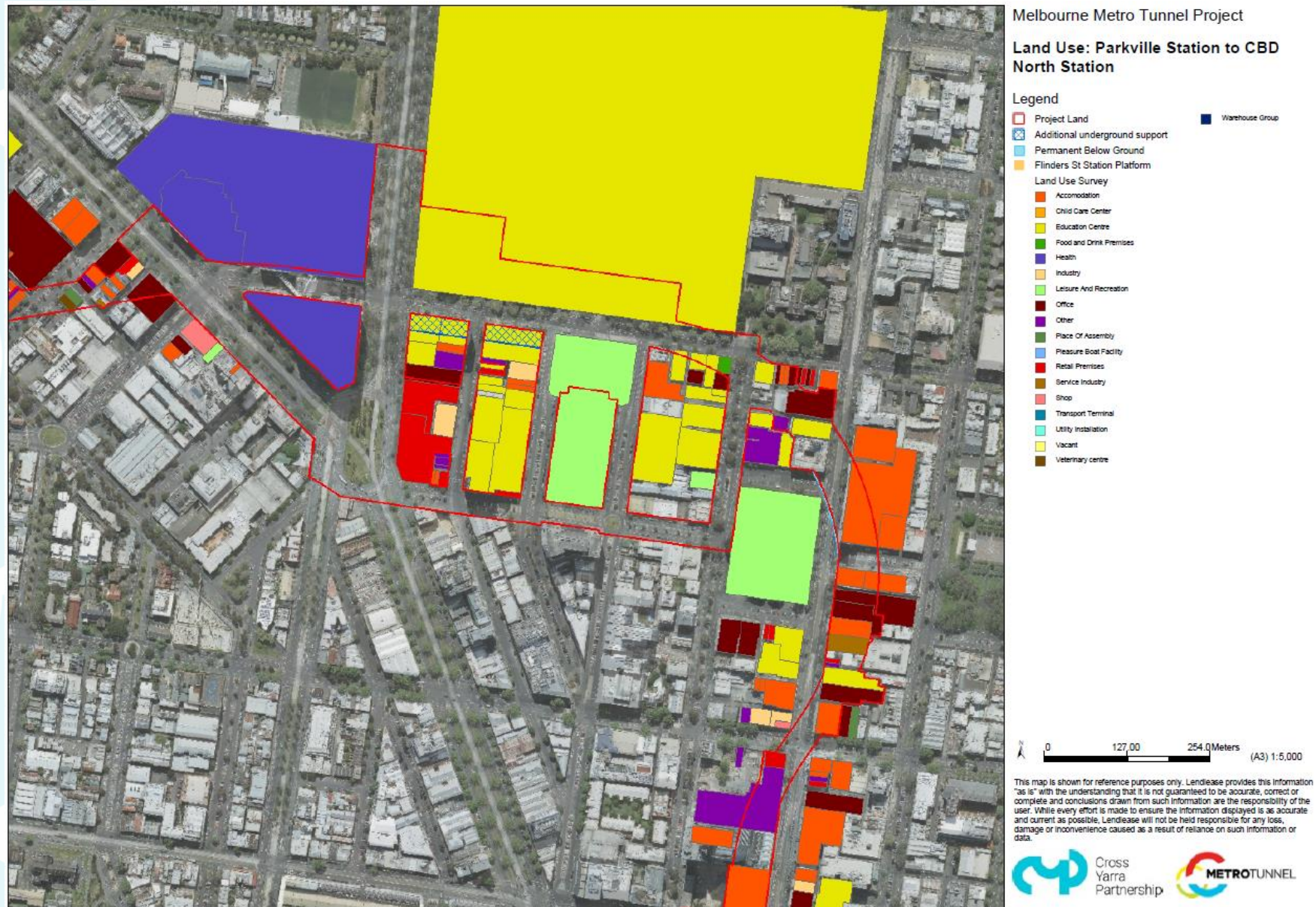


FIGURE 26: LAND USE STUDY FOR PARKVILLE STATION TO CBD NORTH STATION





# Melbourne Metro Tunnel Project

## Basement: Parkville Station to CBD North Station

### Legend

- Project Land
- Additional underground support
- Permanent Below Ground
- Flinders St Station Platform
- Basements
  - Unknown
  - No
  - Yes

0 127.00 254.00 Meters (A3) 1:5,000

This map is shown for reference purposes only. Lendlease provides this information "as is" with the understanding that it is not guaranteed to be accurate, correct or complete and conclusions drawn from such information are the responsibility of the user. While every effort is made to ensure the information displayed is as accurate and current as possible, Lendlease will not be held responsible for any loss, damage or inconvenience caused as a result of reliance on such information or data.



FIGURE 27: BASEMENTS STUDY FROM PARKVILLE STATION TO CBD NORTH STATION

Any future development in the area must take into consideration the provisions of the Melbourne Planning Scheme as well as any relevant strategic planning studies. These are discussed below in the analysis against applicable State and local planning policy, legislation and planning permits.

### 4.2.3 Applicable Government Policy, Legislation and Planning Permits

Table 5 describes the Commonwealth and State Acts that may be applicable to this project. The list below identifies the Acts that are applicable. These include;

- *Aboriginal Heritage Act 2006*
- *Environment Effects Act 1978*
- *Major Transport Projects Facilitation Act 2009*
- *Transport Integration Act 2010*
- *Environment and Planning Act 1987*
- *Heritage Act 2017*
- *Land Acquisition and Compensation Act 1986*

Plan Melbourne (2017) identifies the Parkville Precinct, including the new Parkville Station, as a National Employment Cluster, incorporating an Education and Health Precinct (Plan Melbourne, 2017). 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. Parkville, amongst others, has been identified to improve the growth and clustering of business activity of national significance, particularly in knowledge-based industries. Figure 28 shows the Parkville Precinct as part of Plan Melbourne.

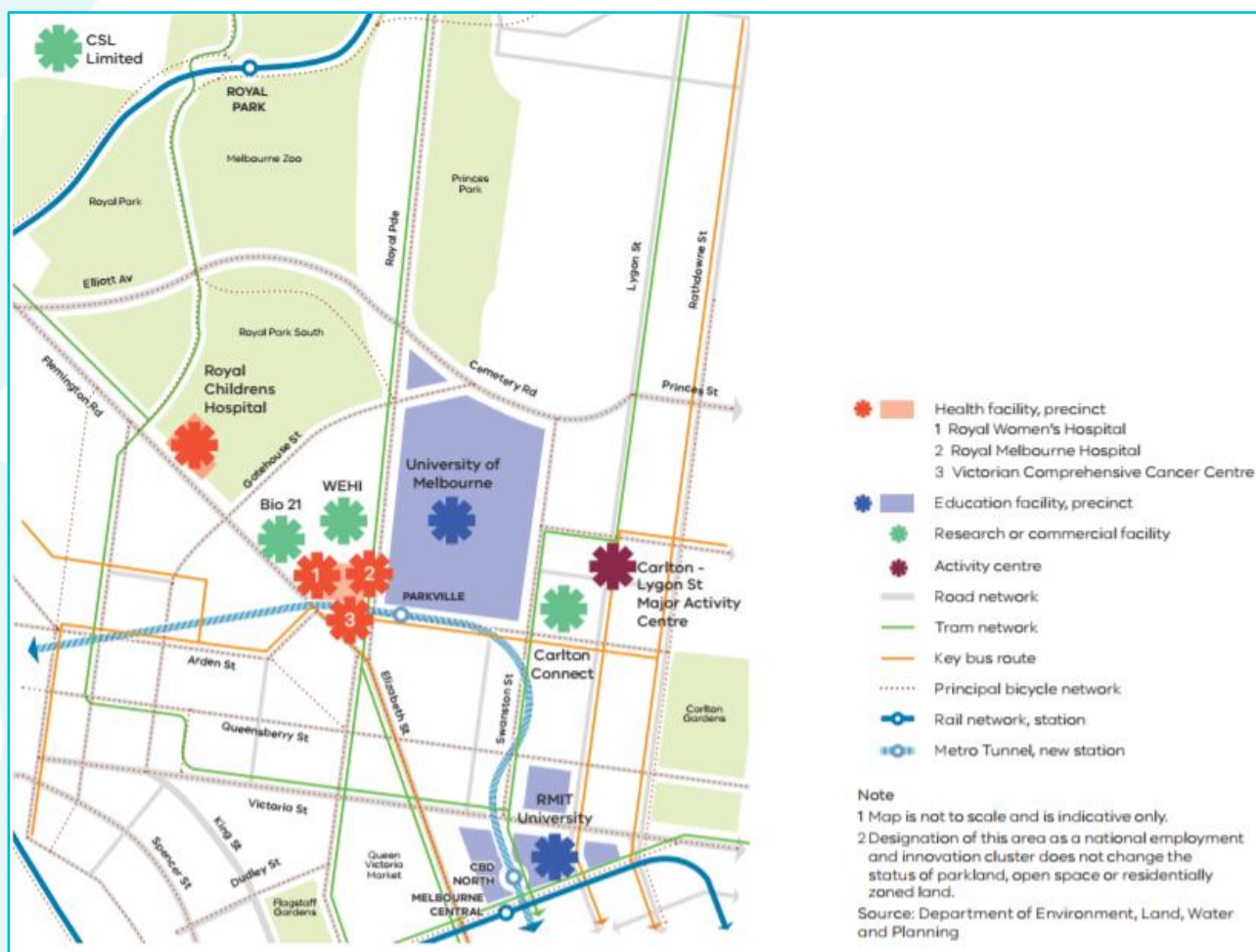


FIGURE 28: PARKVILLE NATIONAL EMPLOYMENT AND INNOVATION CLUSTER SOURCE: PLAN MELBOURNE 2017-2050 STRATEGY, PP.28

The City North Structure Plan (2012), which was prepared by Melbourne City Council, acknowledges this part of the city contributes greatly to Melbourne's reputation as one of the world's great student cities. As part of this, the Central City requires a boost in mobility infrastructure. This includes high capacity public transport, accessible and reliable ways of moving within and around the central and inner city, and high connectivity to the surrounding metropolitan regions. Particularly at University of Melbourne, where improved transport options will continue to support a thriving campus atmosphere.





FIGURE 29: CITY NORTH STRUCTURE PLAN AREA SOURCE: CITY NORTH STRUCTURE PLAN, 2012, PP.4

The appropriate State Planning Policy Framework objectives have been identified below:

**Clause 11 Settlement** – aims to provide an integrated transport system connecting people to jobs and services, and goods to market.

**Clause 11.06 Metropolitan Melbourne** – aims to provide an integrated transport system connecting people to jobs and services, and goods to market. This will support the creation of a city structure that drives productivity, attracts investment, supports innovation and creates jobs.

**Clause 15 Built Environment** – aims to achieve architectural and urban design outcomes that contribute positively to local urban character and enhance the public realm while minimising detrimental impact on neighbouring properties.

**Clause 18 Transport** - aims to facilitate greater use of public transport and promote increased development close to high-quality public transport routes in Metropolitan Melbourne.

The Local Planning Policy Framework (LPPF) requirements impacted through by the CYP design changes and the broader Project are:



- **Clause 21.09 - Transport:** which outlines the Councils aim for an efficient transport system to support and the vital economic, cultural and social operation of the City. The clause acknowledges public transport is the most economic and efficient mode for mass travel to and from the City.
- **Clause 21.04 - Settlement:** which identifies City North as a proposed renewal site given its existing role as a specialised activity centre, the proposed Parkville Station as part of this Project and its proximity to the City centre. The City North Structure Plan (2012) was adopted by the City of Melbourne and has been implemented introduced into the planning scheme via an amendment.

The Parkville Station to CBD North Station component lays predominantly within the Capital City Zone, under the Melbourne Planning Scheme. Some components are located on the eastern side of Swanston Street take a slight excursion into Mixed Used Zone (Refer to Figure 30 to Figure 32 for a map of zones). Capital City Zone Schedule 5 - City North aims to provide 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). The Mixed Use Zone aims to deliver a range of residential, commercial, industrial and other uses which complement the mixed-use function of the locality.

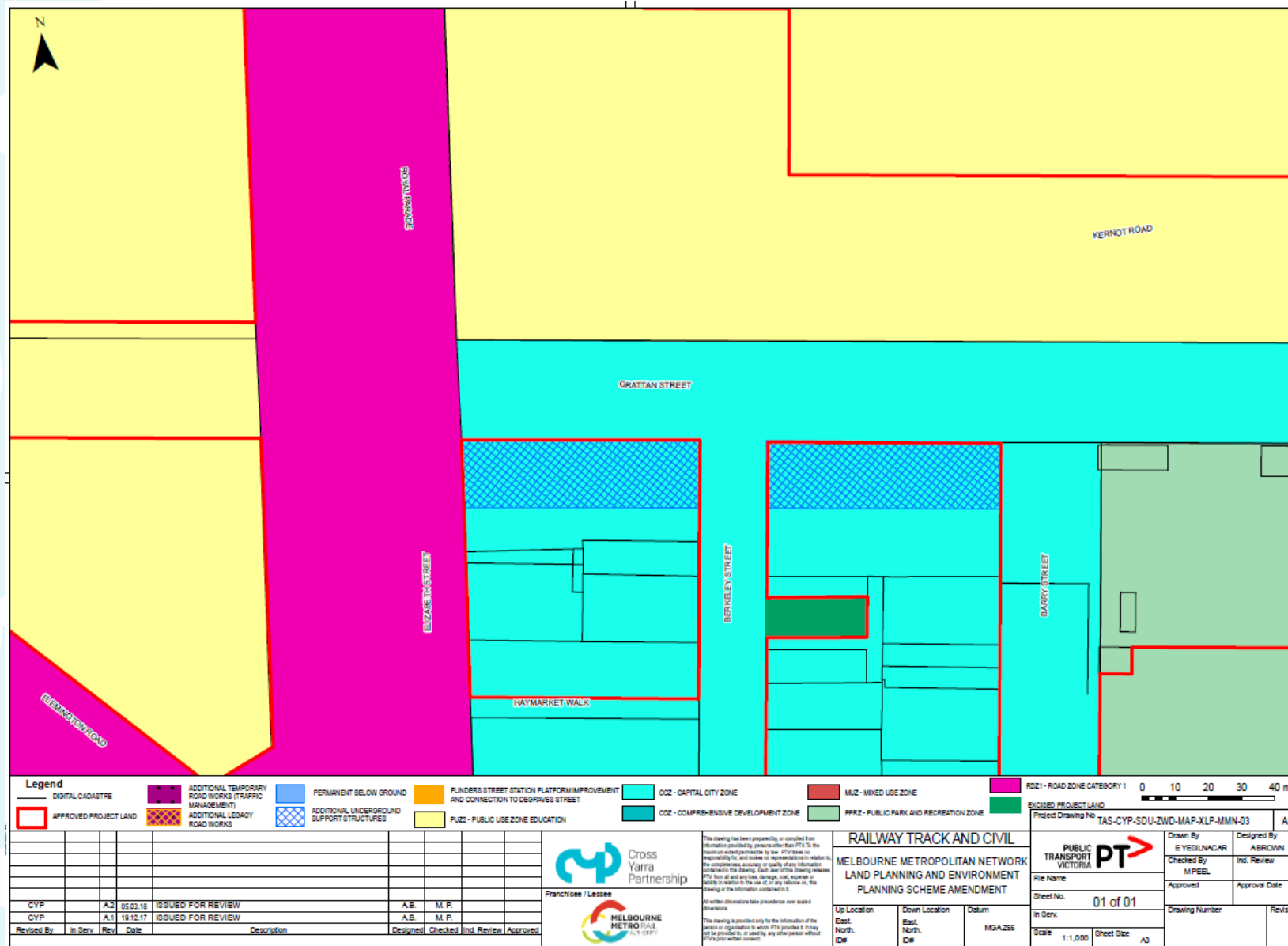


FIGURE 30: PLANNING ZONES AT MELBOURNE CITY COUNCIL

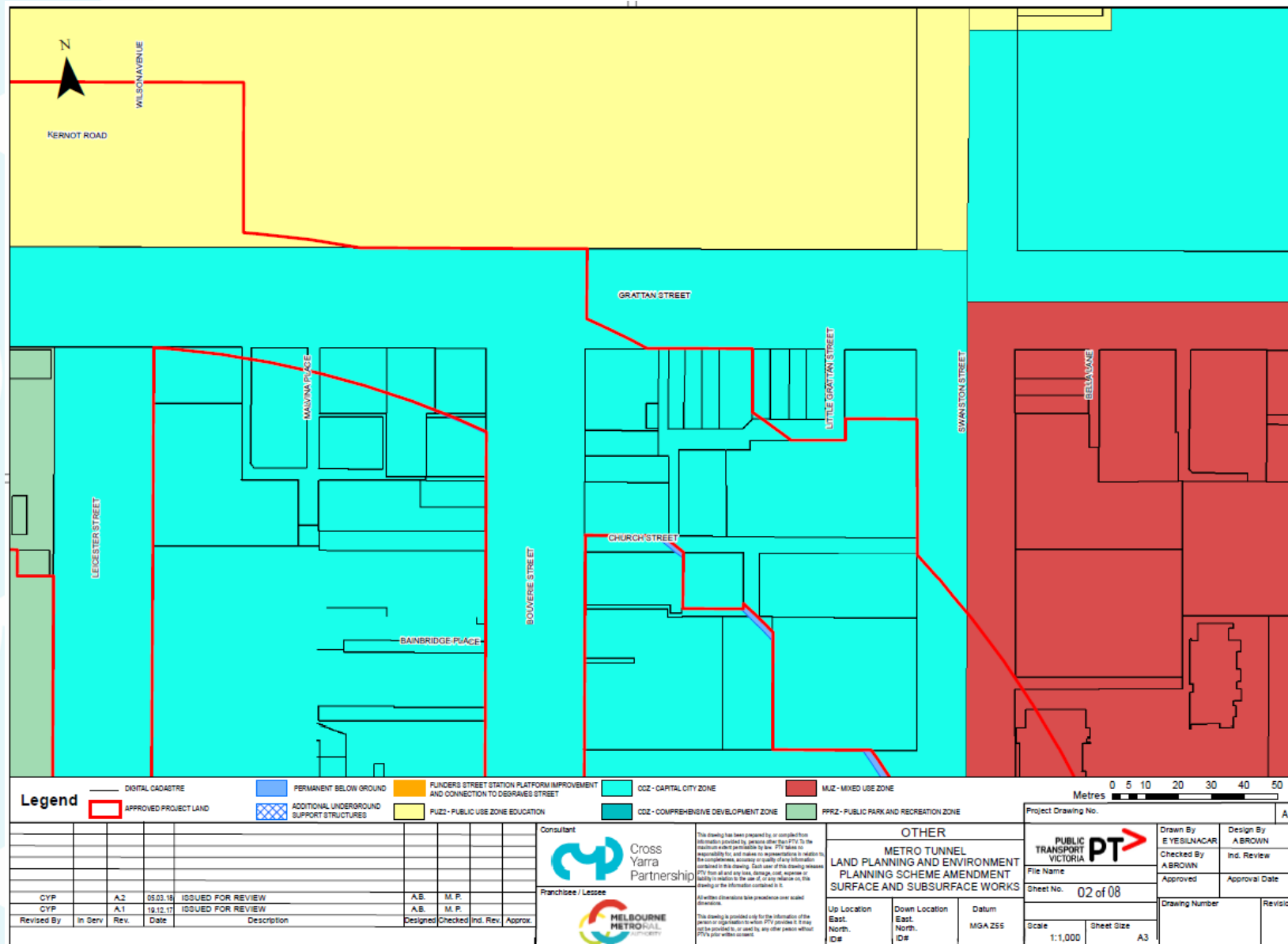


FIGURE 31: PLANNING ZONES AT MELBOURNE CITY COUNCIL



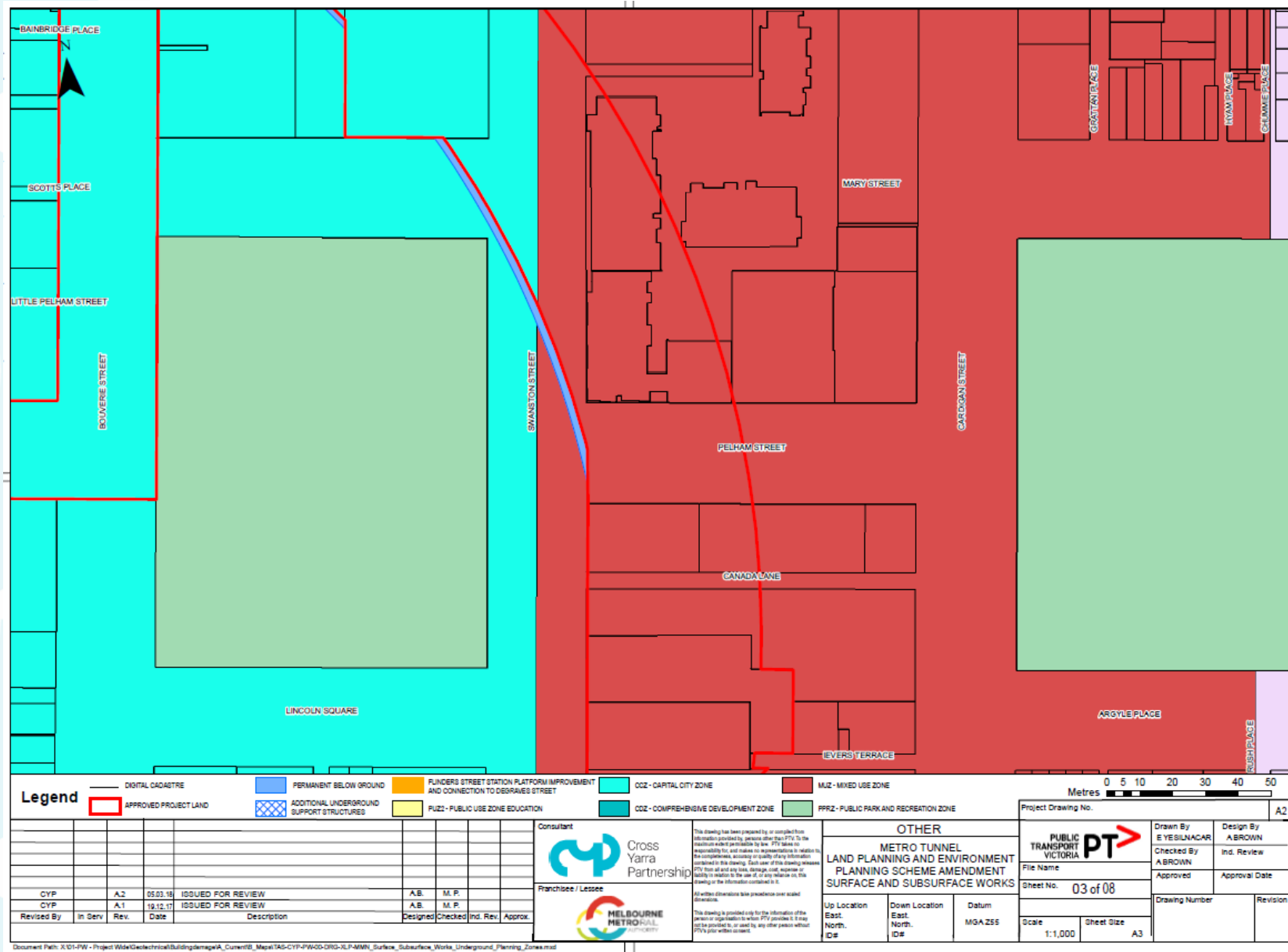


FIGURE 32: PLANNING ZONES AT MELBOURNE CITY COUNCIL

TABLE 8: MELBOURNE METRO CHANGE TO PROJECT LAND - ZONES

Permit Triggers for City of Melbourne			
Zone	Railway	Railway Station	Comments
<b>Capital City Zone (Schedule 5 – City North)</b>			
Use	x	x	
Building and works	x	✓	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.
<b>Mixed Use Zone</b>			
Use	x	✓	A railway does not requires approval for use.
Building and works	x	✓	

The Design and Development Overlays are the most prominent overlay in this component. This reflects the Councils focus on building height with street edge height, upper level setback and built form outcomes emphasised. Table 9 identifies the overlays which intercept the additional land required for the project. As all the works within this section of development will be subterranean, many of the overlay requirements are not applicable as they stipulate design guidelines for buildings. The Heritage Overlay aims to conserve and enhance heritage places of natural or cultural significance will triggered by HO1 Carlton Precinct and HO1129, House 166-170 Bouverie Street, Carlton.

TABLE 9 : MELBOURNE METRO CHANGES TO PROJECT LAND - OVERLAYS

Permit Triggers for City of Melbourne			
Overlays	Buildings and works	Vegetation Removal	Comments
Design and Development Overlay (Schedule 45 - Swanston Street)	x	x	Maximum building height is 9 stories
Design and Development Overlay (Schedule 61 - City North)	x	x	Approval is not required for public works or minor alterations or the installation of service fixtures to existing buildings.
Design and Development Overlay (Schedule 61A5 - Buildings fronting Pelham and Berkeley Street)	x	x	Maximum building height 32m, building facing the street 24m and any part of the building above 24 metres setback 6 metres. On the street edge of laneway frontages, any part of the building above 10.5 metres should be setback 4 metres.
Design and Development Overlay (Schedule - 61A4.1 City North Buildings fronting Grattan, Pelham, Queensberry, Bouverie, Leicester, Barry, Berkeley and Lincoln Square North and South streets)	x	x	Maximum building height 40 metre street edge height. Any part of the building above 24 metres setback 6 metres from the street.
Design and Development Overlay (Schedule 65 - Hospital Emergency Medical Services Helicopter Flight Path Protection (Inner Area))	x	x	Approval is not required to construct a building or to construct or carry out works with a height less than the referral height of the Hospital helicopter landing site.
Design and Development Overlay (Schedule 66 - Hospital Emergency Medical Services Helicopter Flight Path Protection (Outer Area))	x	x	Approval is not required to construct a building or to construct or carry out works with a height less than the referral height of the Hospital helicopter landing site.
Design and Development Overlay (Schedule 70 - Melbourne Metro)	✓	x	Approval is required for buildings of three or more storeys, temporary structures of two or more storeys, earthworks or excavation that change the Surface Level by over 1metre, underground utility requiring a

Permit Triggers for City of Melbourne			
Overlays	Buildings and works	Vegetation Removal	Comments
Rail Project - Infrastructure Protection Areas)			trench over 2 metres below ground, internal and external alterations to a building if below Surface Level works and works to a tramways.
Heritage Overlay	✓	✓	Where a site is listed on the Victorian Heritage Register, the requirements of the <i>Heritage Act 2017</i> supersede the requirements of the Heritage Overlay in the planning scheme.
Parking Overlay (Schedule 1, 2 and 12)	x	x	This overlay identifies appropriate parking rates and should be read in conjunction with Clause 52.06 (Carparking).

There is currently one planning permit at referral for:

TP-2017-446 18-20 (lodged 15/06/2017) 18-20 Lincoln Square North CARLTON VIC 3053 (Zone PO1). Demolition of the existing building and construction of a multi-storey mixed-use development comprising ground level retail and apartments above.

#### 4.2.4 Risk Assessment

The initial and residual risk assessment found Parkville Station and tunnel modifications will result in limited impacts on current and future land use and development above ground as the majority of works associated with the proposed Project Land change are located below ground and entail strata divestment. Design refinement regarding the station location and rail alignment has the potential to further minimise land use and planning impacts and ensure that the number of newly affected landholders, tenants and stakeholders is minimised. Table 10 below identifies the initial Environmental Risk ratings for Parkville Station to CBD North Station. The table shows the controls outlined in LU1 should reduce the impact of any initial risks identified as a result of the Risk Assessment. LU1 states: Prior to commencement of relevant works, develop and implement a plan for construction and operation of the Project that has as its purpose minimising impacts on existing land uses during both early works and main works. Also need to ensure such measures are developed in consultation with affected land managers for public land, local councils and key stakeholders, as applicable.



TABLE 10: INITIAL ENVIRONMENTAL RISK ASSESSMENT FOR PARKVILLE STATION TO CBD NORTH STATION

			Initial Risk				Residual Risk		
Aspect	Impact Pathway	Project phase	Likelihood	Consequence	Inherent Risk Rating	Relevant Discipline EPRs	Likelihood	Consequence	Residual Risk Rating
<b>Operation of the TBM</b>									
Land use and planning	Impact on existing or future land use	Construction	Likely	Major	High	Addressed by EPR LU1	Possible	Moderate	Medium
<b>Cross passage excavation</b>									
Land use and planning	Impact on existing or future land use	Construction	Unlikely	Moderate	Low	Addressed by EPR LU1	Unlikely	Moderate	Low
<b>Ground support structures</b>									
Land use and planning	Impact on existing or future land use	Construction	Likely	Major	High	Addressed by EPR LU1	Unlikely	Major	Medium
<b>Operation</b>									
Land use and planning	Impact on existing or future land use	Operation	Rare/ Remote	Moderate	Very Low	Addressed by EPR LU1	Rare/ Remote	Moderate	Very Low
<b>Maintenance</b>									
Land use and planning	Impact on existing or future land use	Operation	Unlikely	Moderate	Low	Addressed by EPR LU1	Unlikely	Moderate	Low

## 4.2.5 Impact Assessment

### Summary

- The two strata (below ground) sections required for the underground structures at Parkville Station sit under the Peter Doherty Institutes for Infection and Immunity and the University of Melbourne's Alan Gilbert Building.
- The additional strata (below ground) required for the Parkville Station to CBD North curve sits predominantly below the Swanston Street Road, Church Street and Pelham Street road reserves in Carlton. For the components outside the road reserve, the land use is education or vacant. The School of Audiology, University Digitisation Centre, Grattan Institute and Trinity College are all intercepted strata (below ground).

The overall issues and benefits associated with the changes to Project Land for GC82 have been identified in Table 11.

TABLE 11: BENEFITS AND ISSUES OF THE PARKVILLE TO CBD NORTH DEVELOPMENT

Element	Issues	Benefits
<b>Changes to the rail tunnel alignment</b>	<ul style="list-style-type: none"> <li>▪ strata development under former Pitman Books Building</li> <li>▪ strata divestment</li> </ul>	<ul style="list-style-type: none"> <li>▪ track degradation and therefore future maintenance expenditure</li> <li>▪ tunnel maintenance thereby reducing exposure to safety risks</li> <li>▪ traction power for trains thereby reducing greenhouse gas emissions and operational costs.</li> </ul>
<b>Construction works</b>	<ul style="list-style-type: none"> <li>▪ noise and vibration during construction and operation</li> <li>▪ dust emissions during construction</li> </ul>	<ul style="list-style-type: none"> <li>▪ Construction Management Plan and EPRs will mitigate these risks</li> <li>▪ construction will occur at strata (below ground) therefore limited surface work disruptions</li> </ul>
<b>Heritage buildings</b>	<ul style="list-style-type: none"> <li>▪ strata development under former Pitman Books Building</li> <li>▪ potential damage to building due to ground movement and vibration</li> </ul>	a HMP and vibration modelling will mitigate impacts on equipment
<b>Insertion of underground support structures</b>	<ul style="list-style-type: none"> <li>▪ potential to increase future development costs if removal is required (although not uncommon)</li> </ul>	<ul style="list-style-type: none"> <li>▪ provide safe and less restricted construction space for the excavation works due to the omission of struts throughout the whole cavern</li> <li>▪ allow for more efficient constructing techniques, particularly accelerated excavation, to be employed</li> <li>▪ allow for the combined use of struts and rock bolts to control ground movement closer to the surface</li> <li>▪ accommodate and support the design improvements to Parkville Station</li> <li>▪ safely support the geological profile surrounding Parkville Station and shafts</li> </ul>
<b>Presence of technology and sensitive equipment</b>	<ul style="list-style-type: none"> <li>▪ impact on established sensitive uses during construction, operation and maintenance.</li> </ul>	<ul style="list-style-type: none"> <li>▪ EMI and vibration modelling will mitigate impacts on equipment</li> <li>▪ Stakeholder engagement will ensure all parties are aware of works and can manage disruptions</li> </ul>
<b>Strata development</b>	<ul style="list-style-type: none"> <li>▪ strata divestment</li> <li>▪ changes to the DDO, therefore impacting more land owners</li> </ul>	<ul style="list-style-type: none"> <li>▪ no surface acquisition or impacts</li> <li>▪ no loss of access to residences, workplaces, retail and business</li> <li>▪ framework in place to ensure owner/occupier is fairly compensated</li> <li>▪ stakeholder engagement will ensure all those impacted will be notified and given opportunity to discuss impacts with MMRA</li> </ul>
<b>Strategic implications of the Melbourne Metro Tunnel</b>		<ul style="list-style-type: none"> <li>▪ aligns with numerous local and state planning policy and objectives</li> <li>▪ ensures the delivery of the MM project in a timely, coordinated and consistent manner</li> </ul>

Table 12 identifies the main assets within the area and the impact the proposed change to Project Land will have on the assets. This is followed by ways to mitigate these impacts and the related EPRs.

TABLE 12: IMPACTS, MITIGATION MEASURES AND RELATED EPRS.

Asset / value	Impact	Proposed mitigation measures	EPRs
<b>Medical / research precinct</b>	<ul style="list-style-type: none"> <li>possible construction activities inhibit future development above and below ground.</li> <li>vibration and EMI could impact on medical equipment</li> </ul>	<ul style="list-style-type: none"> <li>selection of appropriate construction equipment/construction methodology to minimise disruption to medical uses.</li> <li>consultation with affected institutes</li> <li>undertake strata and, where required, full strata divestment of titles where conflict exists</li> <li>use the proposed DDO to protect Melbourne Metro infrastructure and trigger discussions with third party developers regarding future development</li> </ul>	LU1, EM1, EM2, NV1 & NV12
<b>Heritage Building</b>	<ul style="list-style-type: none"> <li>possible construction activities could impact on heritage value through ground movement</li> </ul>	<ul style="list-style-type: none"> <li>selection of appropriate construction equipment/construction methodology to minimise ground movement</li> <li>undertake ground movement and vibration modelling to ensure construction and operation have no long-term impacts on the building</li> <li>a HMP to identify possible impacts and appropriately mitigate</li> </ul>	LU1 & CH2

## Strategic Planning Policy Support and Land Use

### Plan Melbourne

Plan Melbourne identifies the Parkville Precinct as a National Employment Cluster (Plan Melbourne, 2014). The additional Project Land proposed for this Planning Scheme Amendment will support the provision of Parkville Station to provide access to Parkville Precinct. Accessibility will be improved with the establishment of a new, state-of-the-art train station as part of the Metro Tunnel. The frequency and capacity of this service will make it possible for more people to access Parkville.

### City North Structure Plan

The City North Structure Plan acknowledges this part of the city contributes greatly to Melbourne's reputation as one of the world's great student cities. As part of this, the Central City requires a boost in mobility infrastructure. This includes high capacity public transport, accessible and reliable ways of moving within and around the central and inner city, and high connectivity to the surrounding metropolitan regions. The Plan acknowledges the two new Metro stations – Parkville and CBD North will assist in achieving this. The changes to Project Land will facilitate the ability for Parkville and CBD North Stations, connecting tunnels and the greater metro network, to support greater mobility across the City. As part of the rezoning under the City North Plan, a new Design and Development (Schedule 61 - City North) (DDO61) (Refer to Table 9). This will be discussed further below.

### State and Local Planning Policy

The changes to Project Land will fundamentally support the delivery of the Melbourne Metro Rail Project. An assessment of the appropriate SPPF objectives show the SPPF requirements have been met:

**Clause 11 Settlement** – the additional land will promote and support sustainable growth within the Metropolitan Melbourne area through the provision of transport to and from Melbourne City centre.

**Clause 11.06 Metropolitan Melbourne** – the additional land will support the Melbourne Metro Rail project in order to provide an integrated transport system connecting people to jobs and services, and goods to market. This will support the creation of a city structure that drives productivity, attracts investment, supports innovation and creates jobs.

**Clause 15 Built Environment** – part of the additional land requirements will be to accommodate improvements to Parkville Station design, which aims to achieve architectural and urban design outcomes that contribute positively to local urban character and enhance the public realm while minimising detrimental impact on neighbouring properties.

**Clause 18 Transport** - the development of the Melbourne Metro tunnel supports many of the objectives of the States Transport policy. The inclusion of additional Project Land will support a project that will create a safe and sustainable transport system by integrating land-use and transport. The project aims to facilitate greater use of public transport and subsequently promote increased development close to public transport routes in Metropolitan Melbourne.

The Local Planning Policy Framework (LPPF) objectives outlined in Clause 21.09 – Transport are well supported as the additional Project Land will enable the delivery of the Melbourne Metro Rail project to support the provision of quality transport around the City.

This addition to Project Land lays within the Capital City Zone and Mixed Used Zone (Refer to Table 8 for map of zones). Capital City Zone (Schedule 5 - City North) aim to provide for a range of educational, research and medical uses as part of an internationally renowned knowledge district. The underground support structures which sit within the Peter Doherty



Institute for Infection and Immunity and Alan Gilbert Building boundaries should not impact these uses from a planning perspective. Other impacts such as Vibration, Noise and EMI may need to be considered. Given there are no active permits in place, the lot sizes are relatively small, there is limited road access to these properties, the area is strictly regulated by the Design and Development Overlays height restrictions and the current built form character and use; it could be assumed that it is unlikely any major basement development will occur in the near future and thus would be detrimentally impacted by the Project. There will be disruptions as construction commences, however these will be managed through the Business Social and Community Strategies. An impact assessment is being undertaken to identify ways to reduce disruption.

The Mixed Use Zone aims to provide for a range of residential, commercial, industrial and other uses which complement the mixed-use function of the locality. The Mixed Use zone that is impacted by additional Project Land sits wholly within the Swanston Street Road reserve. Therefore, there it would be very unlikely the changes to the rail alignment would impact on surface or subterranean uses within this area.

As specified, the City North Structure Plan introduced a new Design and Development Overlay – DDO61. This introduced the following controls:

- 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.

It is difficult to make a direct correlation between the DDO 61 objectives and the changes to Project Land in this area. Generally, the Project should not unjustly impact on the design of shop fronts and low rise building style objectives as the work is at strata (below ground). As the initial Land Use Planning Risk Assessment for the EES stated: *'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.'* Therefore, it could be assumed that the current DDOs height restriction combined with smaller lot sizes; mean limited adverse impacts on future development.

As identified, the main impact will be on below surface construction, i.e. basement use and development. A previous basement study was undertaken (Refer to Figure 27) as part of concept design. The map indicates that are five properties that do not have a basement and two properties which do. Where it has yet to be determined if a basement exists below a property, a surveying study will occur. CYP has begun this process with surveyors inputting their data into the ongoing design refinement. Furthermore, these findings should be reflected in the appropriate management plans. Therefore, although all properties are not accounted for at present, this indicative study provides an adequate basis.

TABLE 13: BASEMENT STUDY AT PARKVILLE STATION TO CBD NORTH

Existing known basement	No or unknown basement
<ul style="list-style-type: none"> <li>▪ Educational facilities</li> <li>▪ Bookshop</li> <li>▪ Café</li> <li>▪ Research facilities</li> </ul>	<ul style="list-style-type: none"> <li>▪ Education facilities</li> <li>▪ Offices</li> <li>▪ Entertainment: Pool Hall</li> </ul>

It is difficult to make a direct correlation between the use of these properties and likelihood of future basement development. However, given there are no active permits in place, the lot sizes are relatively small, there is limited road access to these properties, the area is strictly regulated by the Design and Development Overlays height restrictions and the current built form character and use; it could be assumed that it is unlikely any major basement development will occur in the near future and thus would be detrimentally impacted by the Project.

Furthermore, GC45 introduced a specific Design and Development Overlay and an associated Incorporated Document, Melbourne Metro Rail Project – Infrastructure Protection Areas Incorporated Document, December 2016, to land above and adjacent to the Project infrastructure to ensure new development does not compromise the Project's infrastructure (Design and Development Overlay Schedule 70 – DDO70). This means:

- 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.

Overall, the DDO 70 schedule for Melbourne Metro would enable the responsible authorities to consider the design and loading of new developments and their implications for Melbourne Metro tunnels. Therefore, future development will be impacted by the eventual expansion of this overlay. However due to the close proximity of the current Project Land changes to the established DDO 70 area; the affected properties are already within this zone and therefore will not experience any new impacts as a result of this change to Project Land. For example, any planned basement works for the five properties without basements are already restricted through the design objectives outlined in DDO 70. The implementation of DDO 70 does not explicitly control the use of land as this remains the objectives of the zones. As the zones have not been affected by the changes to Project Land; it is considered there is no detrimental impact to use as a result of the changes to Project Land.

There are many Heritage Overlays in the area, however for this Planning Scheme Amendment that additional Project Land crosses HO1 Carlton Precinct and HO1129, House 166-170 Bouverie Street, Carlton. For this property, the Heritage Overlay relates to aesthetic works to the building, which the changes to Project Land (tunnel alignment) will have no impact on. The issue that may arise is ground movement due to works taking place at strata (below ground). This should be assessed as part of the Heritage Management Plan, which is being prepared as part of this PSA.

Overall, there will be minimal impact on use and development at surface level impacts. Strata (below ground) impacts will likely be development related, rather than impacting on use as the zones within this area have not changed. The impacts on development will be minimal due to the changes to Project Land as the pre-established Design and Development Overlays already protect the Melbourne Metro tunnel and stations as a result of GC45. As a result of works taking place at strata (below ground) and the minimal impact on basement development, the residual risk rating on land use and built form in this precinct is low.

### Strata divestment

Figure 33 identifies all parcels affected by the additional Project Land. In the Parkville to CBD North precinct, the project may acquire one whole title at strata (below ground) with ceiling as a result of the additional underground support structures. Additional support structures in this area vary in depth from 18m to 34m in this area. As a result of the changes in alignment through the Parkville to CBD North curb, partial acquisition of all the impacted properties will occur. This does not include road reserves (although highlighted on the map).

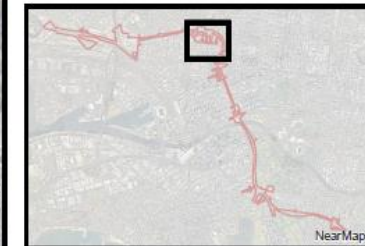
The exact extent of strata divestment has not yet been determined and will be finalised during detailed design for the Project. This will need to be considered project wide by MMRA and DEDJTR as the government authorities with ability to acquire property. The surface level land uses would not be impacted by the Project Land change. Landowners and tenants would be compensated in accordance with the requirements of the *Land Acquisition and Compensation Act 1986*.



## MELBOURNE METRO RAIL PROJECT

### All properties intersecting

### Parkville



### Legend

- All property affected
- Project land

Source: Layer Credits  
Revised: 07/02/2017. The State of Victoria through the Department of Environment, Land, Water and Planning (DELWP)



This map is shown for reference purposes only. CYP provides this information "as is" with the understanding that it is not guaranteed to be accurate, correct or complete and conclusions drawn from such information are the responsibility of the user. While every effort is made to ensure the information displayed is as accurate and current as possible, CYP will not be held responsible for any loss, damage or inconvenience caused as a result of reliance on such information or data.



Exported: 27/11/2017  
Prepared by: MB  
Reviewed by: AB  
Approved by:

FIGURE 33: ALL PARCELS AFFECTED BY THE ADDITIONAL PROJECT LAND



## Heritage, Local Character, Built Form and Design

The additional Project Land includes one place of Historic significance, the former Pitman Books Building, 158-164 Bouverie Street, Carlton (HO1128) will be subject to Melbourne City Council's Heritage Overlay. There are no places of interest on the Victoria Heritage Register or Victorian Heritage Inventory. It is anticipated that the Heritage Management Plan and detailed design would ensure that potential impacts on the heritage values of this building is limited or mitigated. This will occur as part of the EMF for Heritage and falls under the EPR CH2. Consequently, it is anticipated the residual risk on land use and built form, with regards to heritage in this specified scope, is low.

The additional Project Land within this area will sit strata (below ground) and therefore does not include any demolition. There are currently one planning permit under referral. This was lodged in June 2017 and will therefore be assessed under the DDO 70 guidelines. As a result, the slight excursion outside of current Project Land should not detrimentally impact this development.

There will be no impact on street trees as all work will occur at strata (below ground), consequently, the residual risk rating on land use and built form, with regards to arboriculture in this specified scope is low. Road works will occur in the area, and may have an impact on vegetation. The impacts of additional roads are discussed in 'Additional Road surface works'.

Public open space will not be occupied as part of the scope within this area as all works will occur at strata (below ground), therefore the residual risk rating on land use and built form in this precinct is low.

## Access

There will be no impact on access as all work will occur at strata (below ground). Road closures will occur in the area, however these will be managed through the Traffic and Transport Management Plans. This will occur as part of the EMF process for Transport and falls under the EPR T2. The impacts of additional roads required to carry out these works are discussed in 'Additional Road surface works'. As a result of works taking place at strata (below ground) the residual risk rating on land use and built form in this precinct is low.

## Amenity

Increased noise and dust from construction will be evident, although these impacts should be managed through the implementation of appropriate environmental management measures outlined in the Noise and Vibration environmental risk assessment and EPRs. Vibration and electromagnetic impacts on sensitive receivers i.e at The Peter Doherty Institute for Infection and Immunity and Melbourne School of Health, could occur, however are likely to be addressed through further EMI studies as part of the EPRs. A Noise and Vibration assessment and Construction Noise and Vibration Management Plan (as part of EPR NV21) will occur as part of the EMF.

## Conclusion

Specifically, for the additional Project Land required, opportunities arise from the ability for the project to be completed safely and accommodate the improved station design at Parkville. There needs to be consideration taken in regards to the impact construction and operation will have on sensitive receivers, such as the Peter Doherty Institutes for Infection and Immunity. This should be done through EMI and noise and vibration modelling. There are no active planning permits within this area, avoiding potential impact to development. From a planning perspective, the additional Project Land and associated works should not cause any detrimental impact to land use and planning within the area.

### 4.2.6 Stakeholders

MMRA, with the assistance of CYP, will be undertaking consultation in relation to draft Planning Scheme Amendment GC82. This includes affected Councils and key landowners/occupiers. In recognition that project progress and decisions can be enhanced through dialogue with the community and relevant stakeholders, MMRA has developed core principles and goals for the planning and construction of the project, described in Table 14. CYP shares these principles and goals. Furthermore, the findings from this series of impact assessments will inform refinement of the Communication and Stakeholder Engagement Strategy.

TABLE 14: PRINCIPAL AND GOALS OF THE STAKEHOLDER AND ENGAGEMENT STRATEGY

Principle	Goal
<b>Effective</b>	Engagement is open, consistent, inclusive, accessible and transparent throughout planning and delivery of the project
<b>Timely</b>	Engagement spans all stages of the project, ensuring information is provided to stakeholders as the project develop and feedback is responded to and incorporated in the project's development
<b>Meaningful</b>	Engagement is clear on the elements of this project that can be influenced by the community and stakeholders, how the feedback will be used and is explicitly on which elements of the project are fixed and the reason for this

<b>No surprises</b>	Engage early to gain understanding of interests, concerns, requirements and preferred outcomes. Close the loop to determine how feedback has been considered
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A three phase approach has been developed. Phase 1 – Early Engagement, Phase 2 - Engagement to support public display of draft PSA and Phase 3: Engagement post PSA. The Consultation and Summary Report provides further detail of the process and outcomes and next steps.

### *Phase 1: Early Engagement*

#### **Key stakeholders –government agencies / entities /precinct based**

Engagement was focused on briefing key stakeholders particularly government departments and agencies, and Councils on the proposed changes to the Project Land. MMRA and CYP held stakeholder meetings to outline the PSA process and to obtain feedback leading up to submission of the draft PSA to the Minister for Planning. Where possible, MMRA and CYP used existing stakeholder meetings to discuss the PSA. Key messages were high level with the provision of information tailored to the specific needs of the stakeholder.

CYP and MMRA held meetings with each of the following stakeholder stakeholders as part of the ongoing stakeholder engagement strategy:

- City of Maribyrnong
- City of Melbourne
- City of Port Phillip
- City of Stonnington
- DELWP
- EPA
- Heritage Victoria
- Melbourne Water
- Parkville Precinct Reference Group
- Public Transport Victoria (PTV)/TfV
- State Library
- Transport for Victoria (TfV)
- VicRoads.

#### **Landowner/Tenant Engagement**

Strata divestment will be required for the proposed CYP design and construction changes to Project Land. Further, temporary occupation may also be required for the Project Land changes at 2 and 2A Chambers Street, South Yarra, for the purposes of the Rail Infrastructure Alliance (RIA), which is yet to be appointed.

MMRA commenced early engagement with the impacted property owners and tenants as part of PSA GC82 and will continue to do so throughout the PSA process.

Letters were sent to landowners and tenants about the proposed changes to Project Land in PSA GC82. The letters outlined the impact to their property, the planning process, how to be involved and how to contact the project for assistance or support.

MMRA and CYP held meetings with each of the following stakeholders as part of the ongoing stakeholder engagement strategy:

- Capitol Theatre
- Federation Square
- MATC
- Melbourne Central
- Manchester Unity
- QV Building
- RMIT University
- University of Melbourne.

#### **Road Surface Works**

A number of roads will be included in the draft PSA to enable construction management and some legacy roadworks. Engagement with stakeholders will occur before these permanent changes are undertaken. The nature of the road surface works and the broad timelines (where available) was provided in letters to relevant stakeholders.

### *Phase 2: Engagement to support public display of draft PSA*

The PSA will be on display for 30 calendar days with the following proposed communications tools.

## Targeted Letters

Information packs were provided to landowners and tenants, tailored to whether the proposed impact on the property is as follows:

- newly within the Project Land
- newly within the DDO
- an increase in the Project Land
- an increase in the DDO
- adjacent to the road surface works

Strata divestment and DDO-related change information packs included:

- Letters to landowners advising of the proposed changes to the PSA and potential strata divestment / a potential Design and Development Overlay (DDO) on their property
- Maps relevant to the property
- Invitation to provide feedback online or contact the project team
- The information packs will outline the time frames for the PSA process, opportunity to provide feedback, the Strata divestment process (if relevant) and address any immediate questions.

The draft PSA and supporting documents will be published on the Metro Tunnel website for 30 calendar days. An online feedback form will also be made available for the duration of the draft PSA public display period for landowners and tenants to provide feedback on the PSA process and potential impacts on their property. These comments will be responded to, as outlined in Phase 3 of the consultation process. A consultation summary report will be produced to support formal submission of draft Amendment GC82.

### Phase 3: Engagement post PSA

CYP will provide a response and update on the issues raised to prescribed stakeholders, key stakeholders, Reference Groups, and the community. Prescribed stakeholders will receive a response on their feedback including through comprehensive briefings.

Key stakeholders will be responded to formally in writing, and in stakeholder meetings. CYP will include presentations on the feedback received to the Parkville Precinct Reference Group and Community Reference Groups. Organisations and members of the community who provide feedback either online through the survey or in writing will be responded to, where email or address details are provided.

In accordance with the existing approved Environmental Performance Requirements and the project's contractual Project Scope & Technical Requirements, further detailed technical assessments are being undertaken including of building and asset condition, ground movement, groundwater, noise and vibration, and Electro Magnetic Interference (EMI). These assessments variously involve stakeholder consultation, and are used to inform design and construction of the project

## 4.2.7 Environmental Performance Requirements

A performance-based approach such as the EPRs aims to achieve outcomes that provide a net community benefit, while allowing for a delivery model with sufficient flexibility to encourage innovation to determine how any Environmental Performance Requirements would be achieved. For the works undertaken at Parkville to CBD North Station, the following EPRs aim to mitigate any impacts on the environment

TABLE 15: MITIGATION MEASURES

Asset / value	Impact	Proposed mitigation measures	EPRs
<b>Medical / research precinct</b>	<ul style="list-style-type: none"> <li>possible construction activities inhibit future development above and below ground.</li> <li>vibration and EMI could impact on medical equipment</li> </ul>	<ul style="list-style-type: none"> <li>selection of appropriate construction equipment/construction methodology to minimise disruption to medical uses.</li> <li>consultation with affected institutes</li> <li>undertake strata and, where required, full strata divestment of titles where conflict exists</li> <li>use the proposed DDO to protect Melbourne Metro infrastructure and trigger discussions with third party developers regarding future development</li> </ul>	LU1, EM1, EM2, NV1 & NV12
<b>Heritage Building</b>	<ul style="list-style-type: none"> <li>possible construction activities could impact on heritage value through ground movement</li> </ul>	<ul style="list-style-type: none"> <li>selection of appropriate construction equipment/construction methodology to minimise ground movement</li> <li>undertake ground movement and vibration modelling to ensure construction and operation have no long term impacts on the building</li> </ul>	LU1 & CH2



Asset / value	Impact	Proposed mitigation measures	EPRs
		<ul style="list-style-type: none"> <li>a HMP to identify possible impacts and appropriately mitigate</li> </ul>	

## 4.2.8 Assumption and Limitations

The relevant planning provisions were assessed for Melbourne City Council. Port Phillip, Stonnington and Maribyrnong Council planning scheme was not assessed as there will be no land within the municipality physically impacted by the changes from Parkville Station to CBD North Station. The changes to Project Land will however result in the Planning Scheme Amendment being incorporated into their local planning schemes.

In consultation with MMRA acquisition was discussed and assumptions were also made around strata divestment. Multiple criteria need to be considered including impact on use at surface and strata (below ground), impact of future use and development, heritage overlays, title ownership, cost of strata divestment, and ability to change design to avoid acquisition. Cost of strata divestment could not be included in this assessment, therefore the total and partial strata divestment cannot be guaranteed. This will need to be considered project wide by MMRA as the government authority. Furthermore, land ownership titles are not available to CYP at the time of writing. For office spaces, it was also not possible to see the number of tenancies as these could not be identified through addresses alone.

The impacts of the Design and Development Overlay have been discussed in AJM (2018) report titled '*Future Development Loading Report to Support GC82*'. It is assumed that other assessments and modelling will be undertaken, for example EMI, ground movement, noise and vibration and heritage to ensure minimal impact on medical institutions and heritage buildings.

There were limitations on the basement assessment as the data used was collated during concept phase. It is not expected this would have changed drastically given the implementation of the Melbourne Metro Design and Development Overlay, however this cannot be guaranteed. Further, determining the use above the basements had limitations as a field assessment could not determine the entire use of a building in all instances. The land use maps provided rely on use data from concept phase combined with current design. A field assessment was also undertaken to ensure a complete picture was provided. The discrepancies between the results have been discussed.

## 4.3 CBD North Station

### 4.3.1 Project Components

Within this component of the project area, all changes to Project Land area subterranean. The additional strata (underground) is required for ground support structures encasing shafts at CBD North Station and the new tunnel alignment between CBD North Station and Lonsdale Street.

The additional ground support structures at CBD North Station is required to stabilise the shafts at Franklin Street east, Franklin Street west, A'Beckett Street and the Swanston Street tunnels.

The modified alignment design takes a slight excursion outside the approved Project Land in a number of sections along Swanston Street, in between CBD North Station and the northern side of Lonsdale Street.

Activities in this area include operation of the excavation, cross passage excavation, installation of ground support structures, and the operation and maintenance of the trains. It will therefore be the impacts of these works on future development analysed for this impact assessment.

### 4.3.2 Existing Conditions

The proposed additional works required at CBD North Station is to be located west and west of Swanston Street, Franklin Street and A'Beckett Street and along the Swanston Street road corridor. This northern area of the CBD contains a multitude of uses.

The precinct generally includes the block fronting Swanston Street, including education, retail, recreation, retail and shops. Swanston Street is a key tram, cycle and pedestrian link from the north to south of the CBD and metropolitan Melbourne. Specifically 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 south of La Trobe Street and near the corner of Swanston and Franklin Streets.

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. Along with RMIT, the State Library of Victoria forecourt is within this precinct. The forecourt is a busy open space. 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 (Refer to Figure 35 to Figure 38). The forecourt of the QV shopping centre is also located within the scope of this area. This area of the CBD has become increasingly characterised by high rise development in recent years. Within CBD North, the impacts of the Melbourne Metro early works is already evident. A map of existing uses can be found at Figure 38.



FIGURE 34: RECREATIONAL AND RETAIL, CORNER FRANKLIN STREET AND SWANSTON STREET

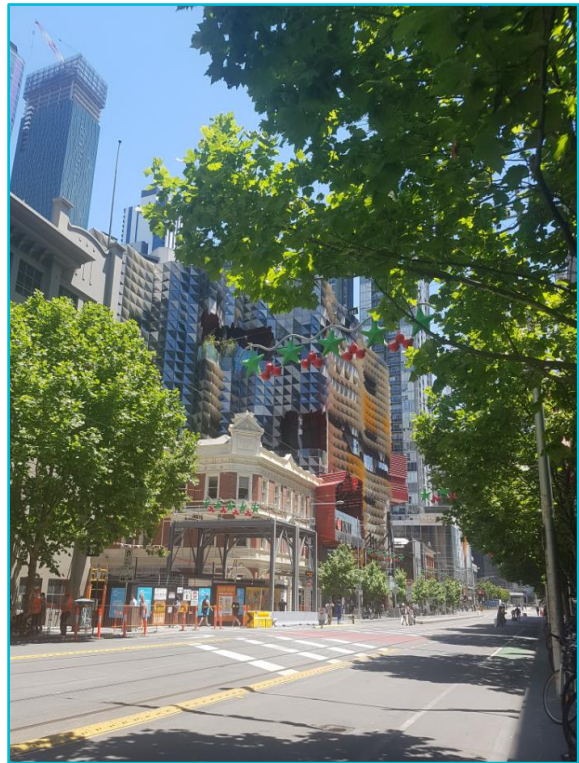


FIGURE 35: RMIT UNIVERSITY, SWANSTON STREET (FACING NORTH)



FIGURE 36: FORECOURT OF THE STATE LIBRARY, SWANSTON STREET

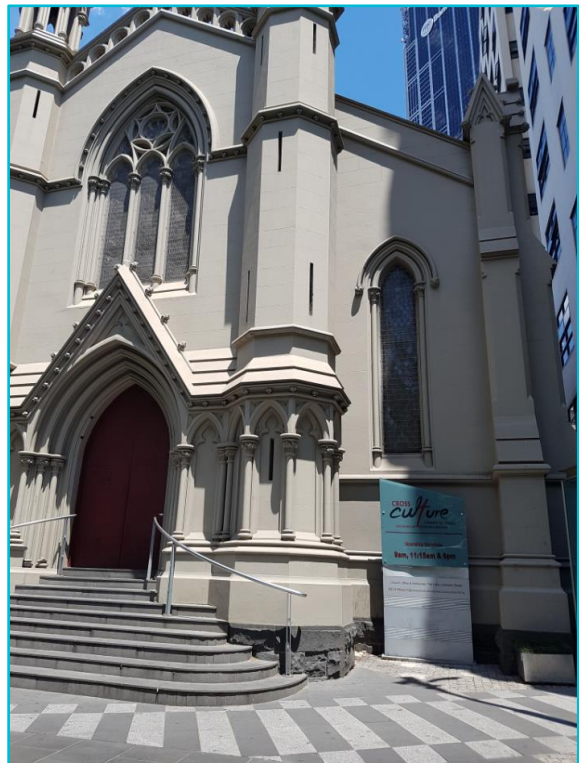
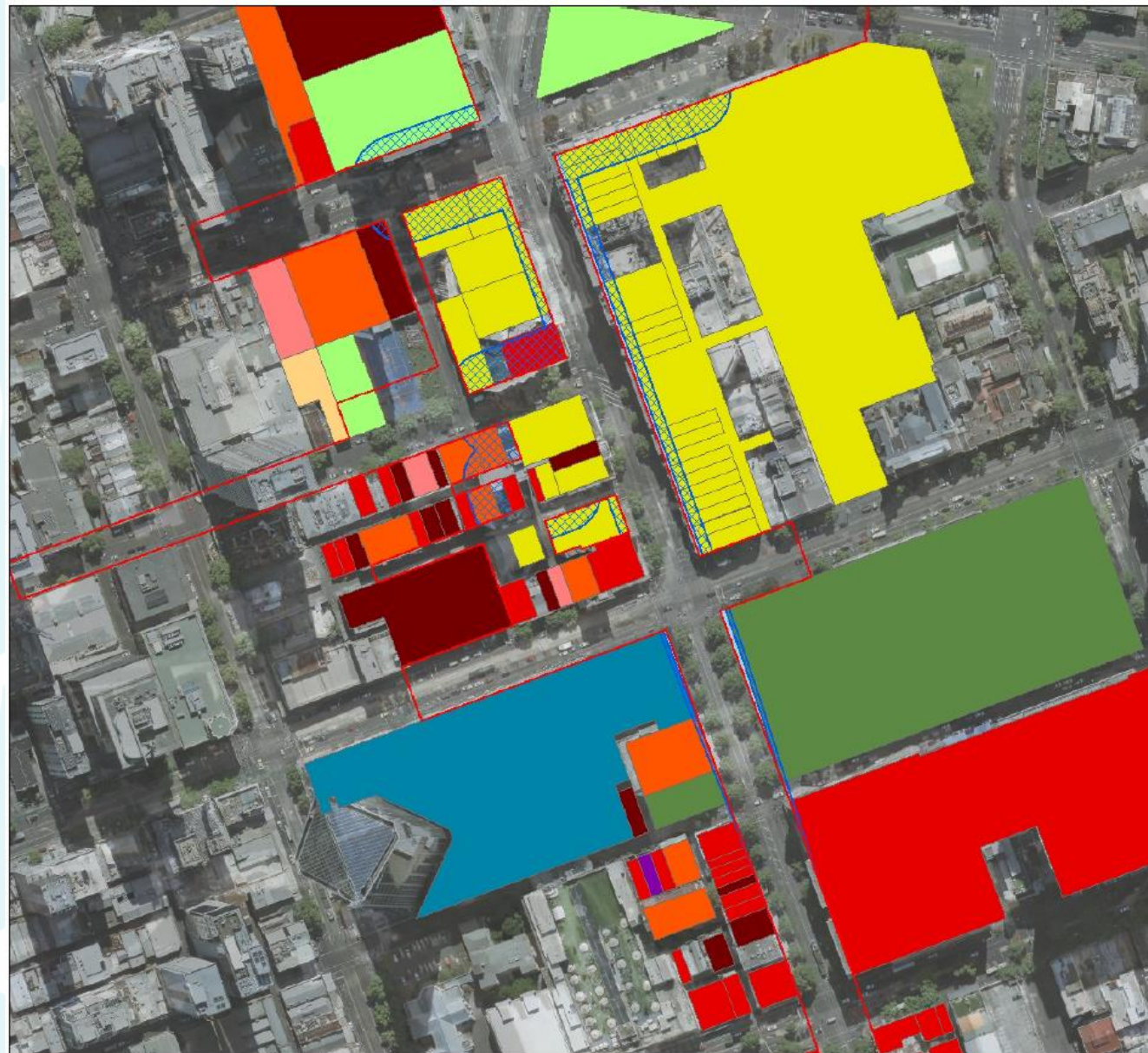


FIGURE 37: CROSS CULTURE CHURCH, SWANSTON STREET





## Melbourne Metro Tunnel Project

### Land Use: CBD North Station

#### Legend

- Project Land
- Additional underground support
- Permanent Below Ground
- Flinders St Station Platform
- Land Use Survey**
- Accommodation
- Child Care Center
- Education Centre
- Food and Drink Premises
- Health
- Industry
- Leisure And Recreation
- Office
- Other
- Place Of Assembly
- Pleasure Boat Facility
- Retail Premises
- Service Industry
- Shop
- Transport Terminal
- Utility Installation
- Vacant
- Veterinary centre
- Warehouse Group

0 63.50 127.0 Meters (A3) 1:2,500

This map is shown for reference purposes only. Lendlease provides this information "as is" with the understanding that it is not guaranteed to be accurate, correct or complete and conclusions drawn from such information are the responsibility of the user. While every effort is made to ensure the information displayed is as accurate and current as possible, Lendlease will not be held responsible for any loss, damage or inconvenience caused as a result of reliance on such information or data.



FIGURE 38: LAND USES STUDY FOR CBD NORTH

There are many Heritage Registered buildings under the *Heritage Act 2017* and Heritage Overlays (Refer to Figure 39 and Figure 40 and the 'H' listed buildings below indicates VHR buildings) in the area and that the additional Project Land intersects with. This includes:

- HO483/H1506: RMIT Building No. 9, 1-55 Franklin Street, Melbourne
- HO482/ H1498: Storey Hall, 344-346 Swanston Street, Melbourne
- HO1042: 63-67 Franklin Street, Melbourne
- HO664/H0440: Currie and Richards Warehouse, 79- 81 Franklin Street & 3 Stewart Street, Melbourne
- HO1085: 427-433 Swanston Street, Melbourne
- HO752/H0455: Church of Christ, 327-333 Swanston Street & 178-190 Little Lonsdale Street, Melbourne
- HO713/H0956: Former Queen Victoria Hospital Tower & Perimeter fence, 180- 222 Lonsdale Street and 278-300 Swanston Street, Melbourne
- HO751/H01497: State Library of Victoria, 304-328 Swanston Street and 179-181 La Trobe Street, Melbourne



FIGURE 39: HERITAGE OVERLAY NORTH OF LA TROBE STREET SOURCE: PLANNING MAPS ONLINE



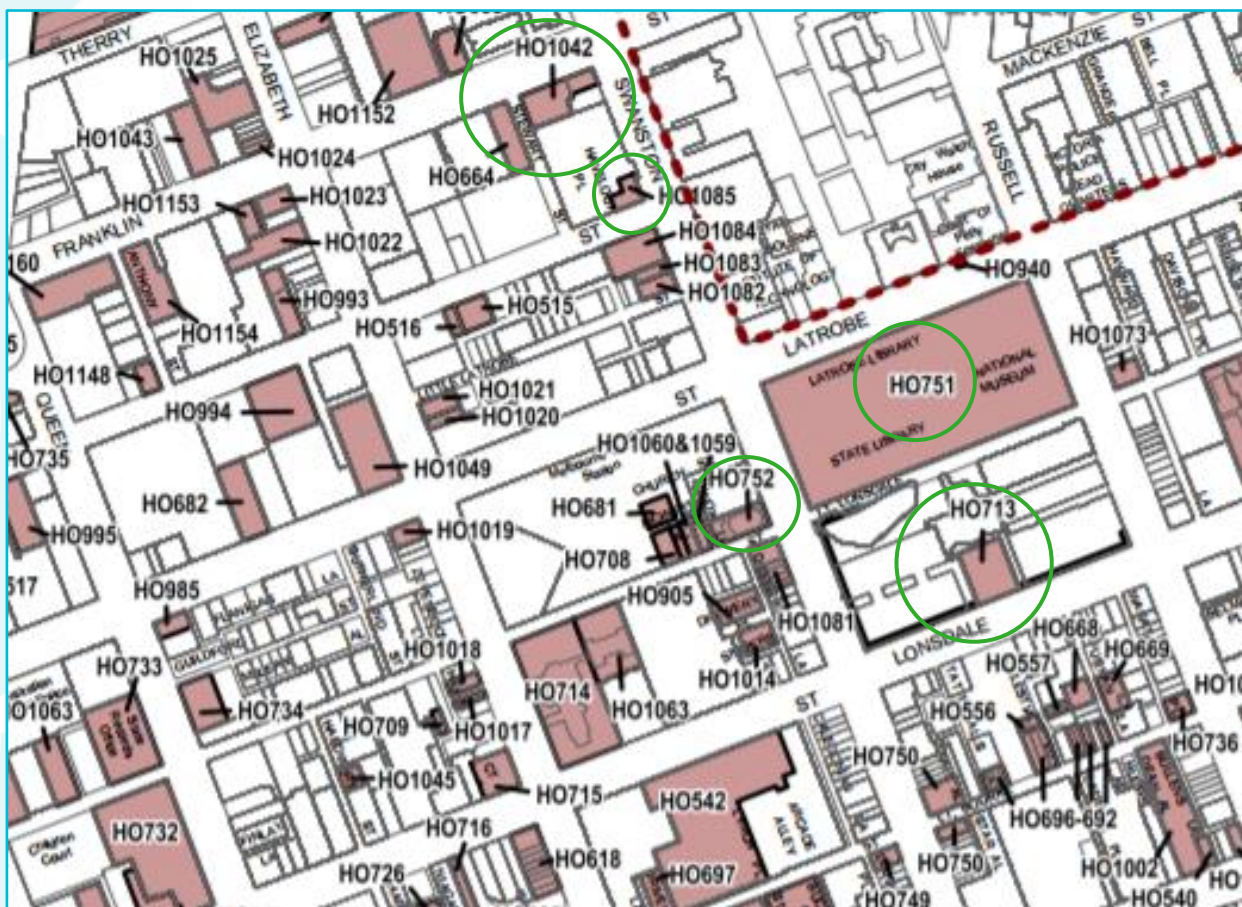


FIGURE 40: HERITAGE OVERLAY SOUTH OF LA TROBE STREET

SOURCE: PLANNING MAPS ONLINE

As the works is at strata (below ground), basement development is an important component that will impact current and future development. The below map is of the basement study undertaken as part of the concept design. It provides an indicative indication of where potential issues may arise. Figure 41 shows the indicative number of properties affected at strata (below ground) affected by underground support structures only, rail alignment only or a combination of underground support structures and rail alignment.

TABLE 16: MITIGATION MEASURES

Known basement	Number of properties affected at strata (below ground) by the underground support structures:	Number of properties affected at strata (below ground) by the rail alignment:	Number of properties affected at strata (below ground) by both rail alignment and the underground support structures:	Total properties affected by strata (below ground) works
Yes	4	0	4	8
No/Unknown	3	0	25	28

Where it has yet to be determined if there is a basement below a property, a surveying study will occur. CYP has begun this process with surveyors inputting their data into the ongoing design refinement. Furthermore, these findings should be reflected in the appropriate management plans. Therefore, although all properties are not accounted for at present, this indicative study provides an adequate basis. Table 16 includes the maximum number of properties that could be affected at strata, detailed design will refine the number of properties to be affected and the exact extent of strata divestment will be determined following completion of the detailed design





# Melbourne Metro Tunnel Project

## Basement: CBD North Station

### Legend

- Project Land
- Additional underground support
- Permanent Below Ground
- Flinders St Station Platform
- Basements
  - Unknown
  - No
  - Yes

0 63.50 127.0 Meters (A3) 1:2,500

This map is shown for reference purposes only. Lendlease provides this information "as is" with the understanding that it is not guaranteed to be accurate, correct or complete and conclusions drawn from such information are the responsibility of the user. While every effort is made to ensure the information displayed is as accurate and current as possible, Lendlease will not be held responsible for any loss, damage or inconvenience caused as a result of reliance on such information or data.



FIGURE 41: BASEMENTS STUDY AT CBD NORTH STATION

### 4.3.3 Applicable Government Policy, Legislation and Planning Permits

Table 5 describes the Commonwealth and State Acts that are applicable to the project. These include;

- *Aboriginal Heritage Act 2006*
- *Environment Effects Act 1978*
- *Major Transport Projects Facilitation Act 2009*
- *Transport Integration Act 2010*
- *Environment and Planning Act 1987*
- *Heritage Act 2017*
- *Land Acquisition and Compensation Act 1986*

Plan Melbourne (2017) identifies the CBD North Precinct, including the new CBD North Station, as a National Employment Cluster and Education Precinct (Plan Melbourne, 2017). As with Parkville, this area aims to provide education services that are well served by public transport in a range of locations across Melbourne. In particular, RMIT, Victoria's second largest university, is expanding their facilities to incorporate greater collaboration and joint projects within innovation, research and business development. Figure 42 shows the Parkville National Employment and Innovation Cluster Precinct as part of Plan Melbourne.

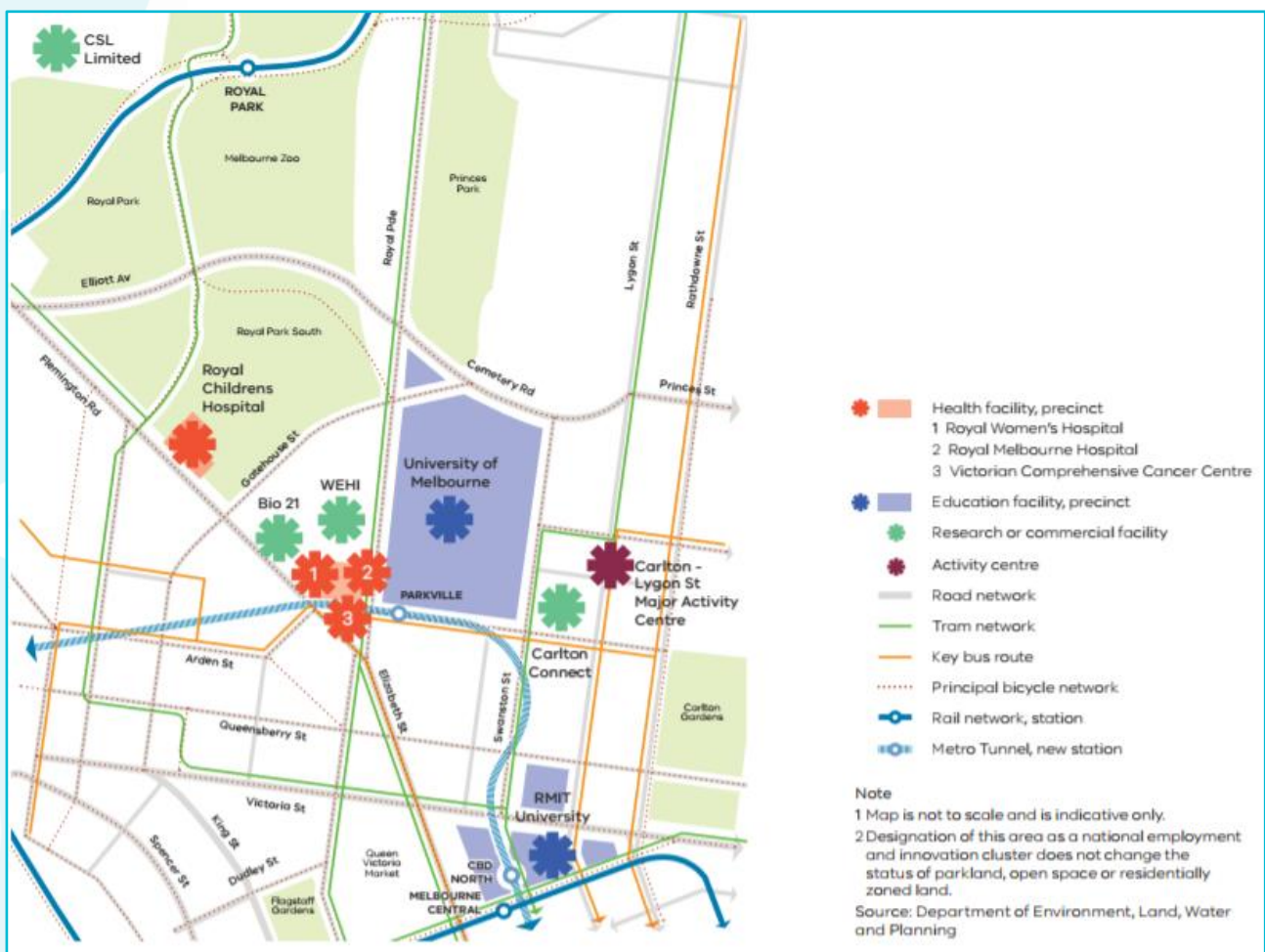


FIGURE 42: PARKVILLE NATIONAL EMPLOYMENT AND INNOVATION CLUSTER SOURCE: PLAN MELBOURNE 2017-2050 STRATEGY, PP.28

The City North Structure Plan (2012), which was prepared by Melbourne City Council, is applicable to the area encasing CBD North Station. The Plan acknowledges this part of the city contributes greatly to Melbourne's reputation as one of the world's great student cities. Specifically, RMIT University, has been identified for its excellence in teaching and research and continues to expand northwards (i.e. The Design Hub on the Carlton and United Brewery site). As part of this, the Central City requires a boost in mobility infrastructure. Figure 43 shows the impacted areas. This includes high capacity public transport, accessible and reliable ways of moving within and around the central and inner city, and high connectivity to the surrounding metropolitan regions. It is these activities the Plan aims to make a defining characteristic of City North.





FIGURE 43: CITY NORTH STRUCTURE PLAN AREA SOURCE: CITY NORTH STRUCTURE PLAN, 2012, PP.4

The appropriate State Planning Policy Framework objectives have been identified below:

**Clause 11 Settlement** – aims to provide an integrated transport system connecting people to jobs and services, and goods to market.

**Clause 11.06 Metropolitan Melbourne** – aims to provide an integrated transport system connecting people to jobs and services, and goods to market. This will support the creation of a city structure that drives productivity, attracts investment, supports innovation and creates jobs.

**Clause 15 Built Environment** – aims to achieve architectural and urban design outcomes that contribute positively to local urban character and enhance the public realm while minimising detrimental impact on neighbouring properties.

**Clause 18 Transport** - aims to facilitate greater use of public transport and promote increased development close to high-quality public transport routes in Metropolitan Melbourne.

The Local Planning Policy Framework (LPPF) requirements impacted through by the CYP design changes and the broader Project are:



- **Clause 21.09 - Transport:** which outlines the Councils aim for an efficient transport system to support and the vital economic, cultural and social operation of the City. The clause acknowledges public transport is the most economic and efficient mode for mass travel to and from the City.
- **Clause 21.04 - Settlement:** which identifies City North as a proposed renewal site given its existing role as a specialised activity centre, the proposed Parkville Station as part of this Project and its proximity to the City centre. The City North Structure Plan (2012) was adopted by the City of Melbourne and has been implemented introduced into the planning scheme via a an amendment

West Franklin Street, A'Beckett Street, Swanston Street and the State Library forecourt all sit within the Capital City Zone Schedule 1 - Outside the Retail Core under the Melbourne Planning Scheme. This zone aims to provide a range of financial, legal, administrative, cultural, recreational, tourist, entertainment and other uses that complement the capital city function of the locality. South of La Trobe Street is characterised by the Capital City Zone Schedule 2 - Retail Core. This zone aims to intensify the retail and other complementary commercial, community and entertainment uses. This is exemplified by Melbourne Central's retail and entertainment uses. East Franklin Street falls within the Mixed Use Zone, which aims to provide a range of residential, commercial, industrial and other uses which complement the mixed-use function of the locality.

Within this area there is a particular focus on building height and housing density and design objectives in regards to street set back, site coverage and open space provision. This is complimented by the Design and Development Overlays objectives which emphasis building height, upper level setback and built form outcomes. Finally, RMIT University falls within Public Use Zone 2 – Education which promotes public land for community services and facilities. Figure 44 to Figure 45 identified the zones which intercept the additional land required for the Project.

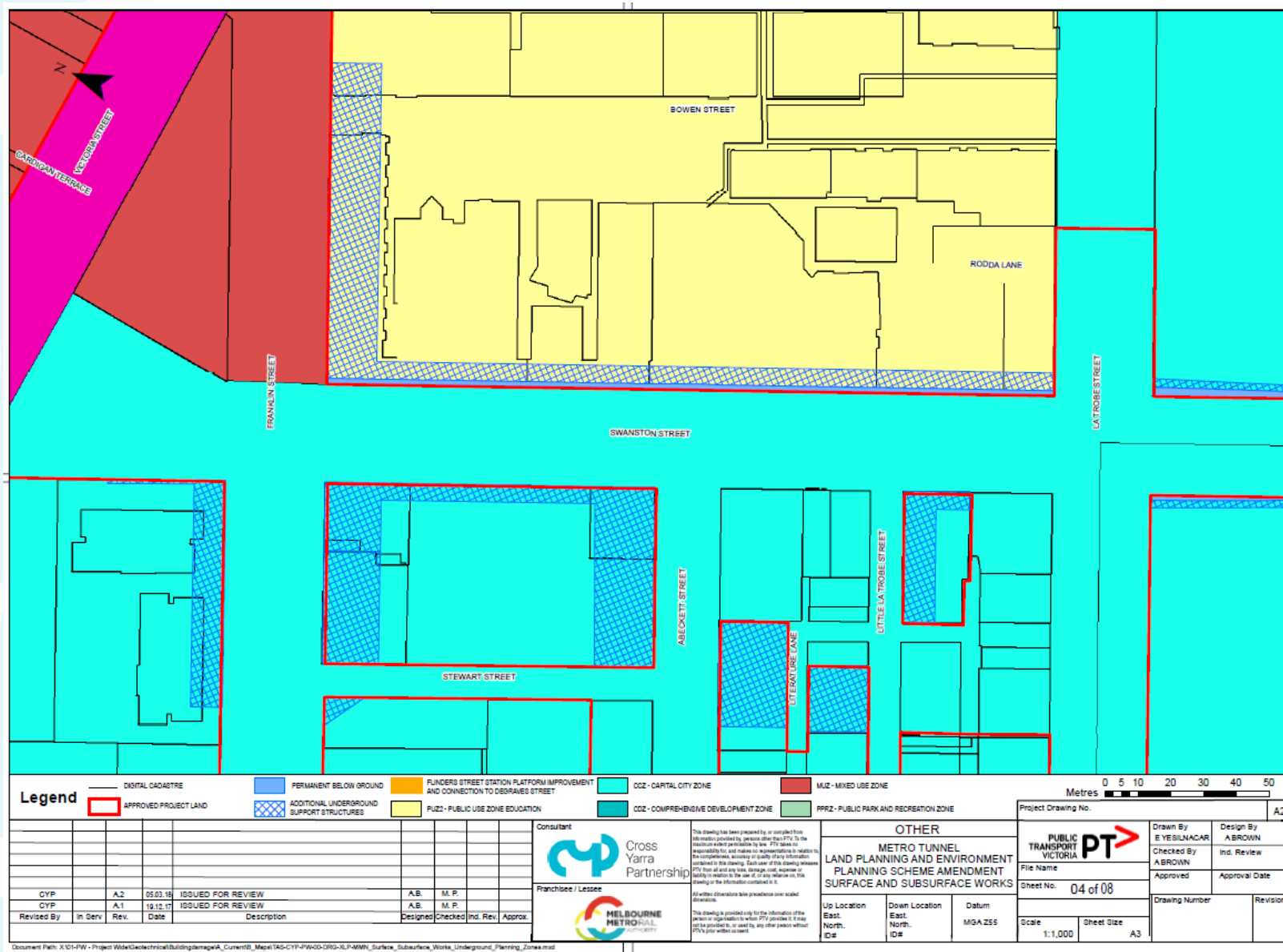


FIGURE 44: PLANNING ZONES AT MELBOURNE CITY COUNCIL

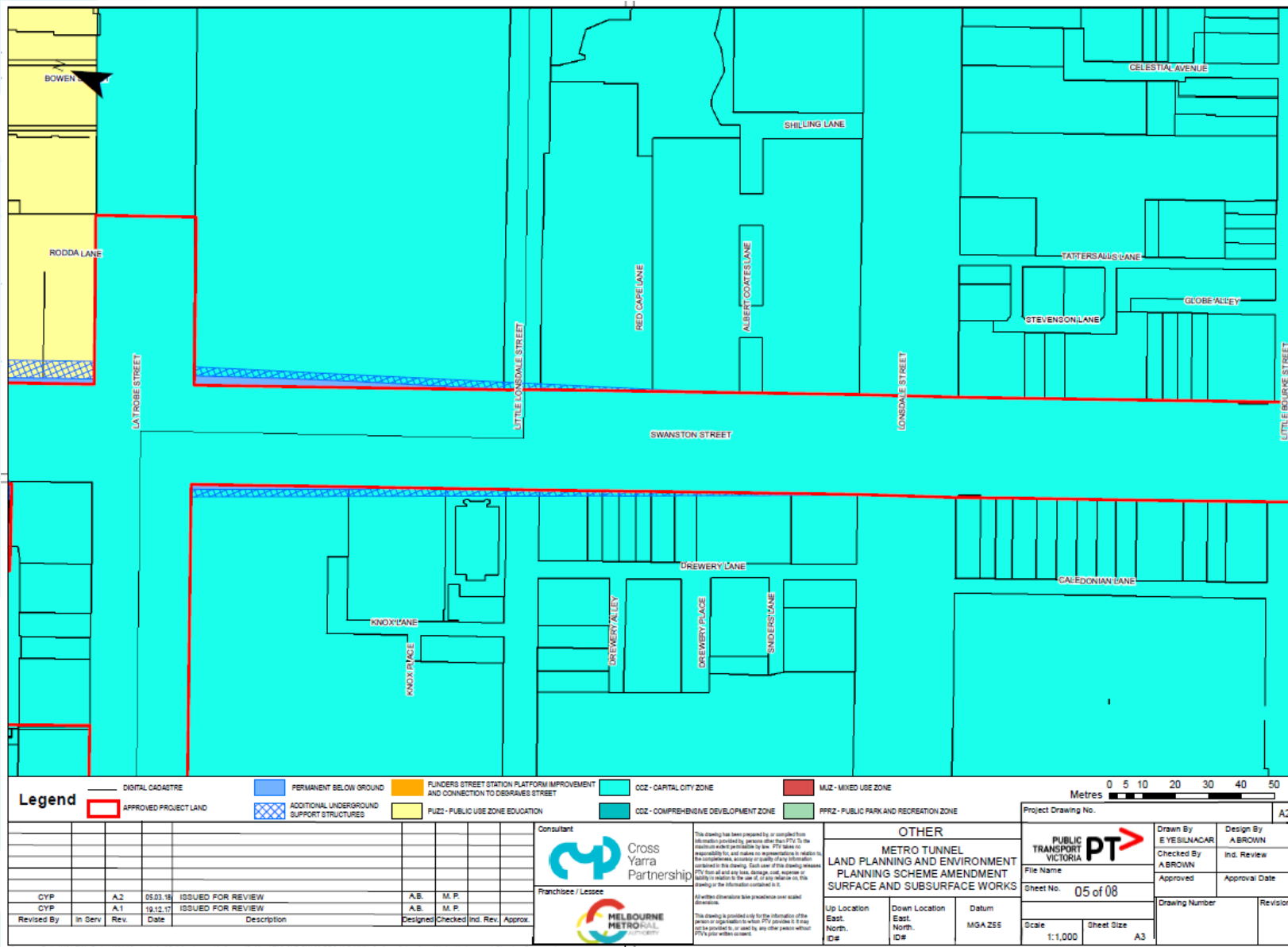


FIGURE 45: PLANNING: ZONES AT MELBOURNE CITY COUNCIL



TABLE 17: MELBOURNE METRO CHANGE TO PROJECT LAND - ZONES

Permit Triggers for City of Melbourne			
Zone	Railway	Railway Station	Comments
<b>Capital City Zone (Schedule 1 – Land outside the Retail Core)</b>			
Use	x	x	
Building and works	x	✓	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.
<b>Capital City Zone (Schedule 2 – Land inside the Retail Core)</b>			
Use	x	✓	A railway station requires approval for use.
Building and works	✓	✓	Buildings and works associated with railway or railway station requires approval.
<b>Public Use Zone 2- Education</b>			
Use	x	n/a	
Building and works	x	n/a	

The Design and Development Overlays are the most prominent overlay in this area. This reflects the Councils focus on building height with street edge height, upper level setback and built form outcomes emphasised. Table 18 identifies the overlays which intercept the additional land required for the project. As all the works within this section of development will be subterranean, many of the overlay requirements are not applicable as they stipulate design guidelines for buildings. As previously identified, the Heritage Overlay will trigger planning approval requirements. The Heritage Overlay aims to conserve and enhance heritage places of natural or cultural significance.

TABLE 18: MELBOURNE METRO CHANGES TO PROJECT LAND - OVERLAYS

Permit Triggers for City of Melbourne			
Overlays	Buildings and works	Vegetation Removal	Comments
Design and Development Overlay (Schedule 1 - A1 Area 1 - Retail Core, Area 2 - Major Pedestrian Areas and Key Pedestrian Routes within CCZ1)	x	x	Approval is required if the works are at ground level.
Design and Development Overlay (Schedule 2)	x	x	Approval is not required for buildings and works at ground level, including external works to provide access for persons with disabilities that comply with all legislative requirements.  Approvals required for buildings and works which would cast any additional shadow across the Yarra River corridor, Federation Square, City Square, State Library Forecourt, Shrine of Remembrance, Bourke Street Mall, Flinders Street Railway Station Steps, Elizabeth Street between Flinders Street and Flinders Lane
Design and Development Overlay (Schedule 2 - A1, A5, A9 Special Character Areas)	x	x	A1: Maximum building height is 40 metres A5: Maximum building height is 40 metres A9: Maximum building height is 30 metres
Design and Development Overlay (Schedule 3 - Traffic Conflict Frontage – Capital City Zone)	✓	x	Approval required to construct or carry out works associated with the creation or alteration of a crossover or vehicle access way.

Permit Triggers for City of Melbourne			
Overlays	Buildings and works	Vegetation Removal	Comments
Design and Development Overlay (Schedule 10 General Development Area- Built Form)	x	x	Approval is not required for buildings and works at ground level, including external works to provide access for persons with disabilities that comply with all legislative requirements.  Approvals required for buildings and works which would cast any additional shadow across the Yarra River corridor, Federation Square, City Square, State Library Forecourt, Shrine of Remembrance, Bourke Street Mall, Flinders Street Railway Station Steps, Elizabeth Street between Flinders Street and Flinders Lane
Design and Development Overlay (Schedule 70 - Melbourne Metro Rail Project - Infrastructure Protection Areas)	✓	x	Approval is required for buildings of three or more storeys, temporary structures of two or more storeys, earthworks or excavation that change the Surface Level by over 1metre, underground utility requiring a trench over 2 metres below ground, internal and external alterations to a building if below Surface Level works and works to a tramways.
Heritage Overlay	✓	✓	Where a site is listed on the Victorian Heritage Register, the requirements of the <i>Heritage Act 2017</i> supersede the requirements of the Heritage Overlay in the planning scheme.
Parking Overlay (Schedule 1, 2 and 12)	x	x	This overlay identifies appropriate parking rates and should be read in conjunction with Clause 52.06 (Carparking).

Current active planning permits within the area include:

- TP-2017-731 (lodged 01/09/2017) Melbourne Central 183-265 La Trobe Street MELBOURNE VIC 3000 (Zone DDO1-A1) Shop 145A, Level 1 300 Lonsdale Street MELBOURNE VIC 3000 (Zone HO708). Alterations to facade of shop including recladding and erection of new internally illuminated business identification signage and promotional signage.
- TP-2017-703 (lodged 25/08/17), Melbourne Central 183-265 La Trobe Street MELBOURNE VIC 3000 (Zone DDO1-A1) Shop 4M1, Level 4 300 Lonsdale Street MELBOURNE VIC 3000 (Zone DDO4). Use land as a restricted recreational facility (gymnasium) with a 24 hour operation and waive bicycle parking requirements.
- TP-2017-225 (lodged 3/04/2017). Shop 154, Level 1 300 Lonsdale Street MELBOURNE VIC 3000 (Zone DDO1-A1)
- Melbourne Central 183-265 La Trobe Street MELBOURNE VIC 3000 (Zone DDO1-A1) Erect and display internally illuminated business identification signs.
- TP-2017-906 (lodged 3.11.2017) State Library of Victoria 304-328 Swanston Street MELBOURNE VIC 3000 (Zone CCZ1) 176 Little Lonsdale Street MELBOURNE VIC 3000 (Zone CCZ1). Construction and display of business identification, internally illuminated and electronic signage; and construction of an underground utility.

#### 4.3.4 Risk Assessment

The initial risk assessment found the land use and development impacts between CBD North and CBD South station precinct are considered acceptable as the majority of works including rock bolts would still be located within the Swanston Street road reserve. The depth at which additional Project Land is affected is significant and outside of any realistic subterranean development envelope (i.e. car park), particularly given applicable heritage and height controls. DDO1-A1, DDO2, DDO2-A1, DDO3, DDO4, DDO70 apply to the area between CBD North and South. DDO2-A1 stipulates a maximum building height of 40m along Swanston Street with the aim of retaining a feeling of openness and intimate scale for pedestrians.

Utilising applicable strata divestment processes to undertake strata and where required full acquisition of affected Old Law titles will help minimise impacts on future land use and development. The extended application of the DDO will protect and safeguard Melbourne Metro infrastructure, but it could have impacts on future development, albeit limited. Design refinement regarding the station location and rail alignment has the potential to further minimise land use and planning impacts and ensure that the number of new affected landholders, tenants and stakeholders is minimised.

Table 19 below identifies the initial Environmental Risk ratings for CBD North Station.

TABLE 19: INITIAL ENVIRONMENTAL RISK ASSESSMENT FOR CBD NORTH STATION

			Initial Risk				Residual Risk		
Aspect	Impact Pathway	Project phase	Likelihood	Consequence	Inherent Risk Rating	Relevant Discipline EPRs	Likelihood	Consequence	Residual Risk Rating
Excavation									
Land use and planning	Impact on existing or future land use	Construction	Likely	Moderate	Medium	Addressed by EPR LU1	Unlikely	Moderate	Low
Cross passage excavation									
Land use and planning	Impact on existing or future land use	Construction	Unlikely	Major	Medium	Addressed by EPR LU1	Unlikely	Moderate	Low
Ground support structures									
Land use and planning	Impact on existing or future land use	Construction	Likely	Major	High	Addressed by EPR LU1	Unlikely	Major	Medium
Operation									
Land use and planning	Impact on existing or future land use	Operation	Rare/ Remote	Moderate	Low	Addressed by EPR LU1	Rare/ Remote	Moderate	Low
Maintenance									
Land use and planning	Impact on existing or future land use	Operation	Unlikely	Moderate	Low	Addressed by EPR LU1	Unlikely	Moderate	Low



## 4.3.5 Impact Assessment

### Summary

The works outside of Project Land within this precinct consists of underground support structures and changes to the rail alignment, all of which will be undertaken at strata (below ground). Specifically, the following tenancy and uses are located in the area and will be intercepted at strata (belowground):

- Melbourne Real Estate
- Restaurants including: Sichuan Dining Room, Café Mimo, Joomak Mr.Burger, Nandos, Subway,
- 7-11
- Hardrock Rock Climbing Centre
- RMIT University
- Residential apartments
- The State Library forecourt
- Newsagency
- Student Flight Centre
- Melbourne City Conference Centre
- Church of Christ
- QV forecourt

The overall issues and benefits have been identified below in Table 20:

TABLE 20: BENEFITS AND ISSUES OF THE PARKVILLE TO CBD NORTH DEVELOPMENT

Element	Issues	Benefits
<b>Changes to the rail tunnel alignment</b>	<ul style="list-style-type: none"> <li>▪ impact different properties at strata (below ground)</li> <li>▪ strata development under heritage buildings</li> </ul>	<ul style="list-style-type: none"> <li>▪ track degradation and therefore future maintenance expenditure</li> <li>▪ tunnel maintenance thereby reducing exposure to safety risks</li> <li>▪ traction power for trains thereby reducing greenhouse gas emissions and operational costs.</li> </ul>
<b>Construction</b>	<ul style="list-style-type: none"> <li>▪ noise and vibration during construction and operation</li> <li>▪ dust emissions during construction</li> </ul>	<ul style="list-style-type: none"> <li>▪ Construction Management Plan and EPRs will mitigate these risks</li> <li>▪ construction will occur at strata (below ground) therefore limited surface work disruptions</li> </ul>
<b>Heritage buildings</b>	<ul style="list-style-type: none"> <li>▪ strata development under 7 of heritage buildings along Swanston Street which could potentially damage the buildings</li> </ul>	<ul style="list-style-type: none"> <li>▪ a HMP and vibration modelling will mitigate impacts on equipment</li> </ul>
<b>Insertion of underground support structures</b>	<ul style="list-style-type: none"> <li>▪ potential to increase future development costs if removal is required (although not uncommon)</li> </ul>	<ul style="list-style-type: none"> <li>▪ provide safe and less restricted construction space for the excavation works due to the omission of struts throughout the whole cavern</li> <li>▪ allow for more efficient constructing techniques, particularly accelerated excavation, to be employed</li> <li>▪ allow for the combined use of struts and rock bolts to control ground movement closer to the surface</li> <li>▪ accommodate and support the design improvements to CBD North Station</li> <li>▪ safely support the geological profile surrounding Parkville Station and shafts</li> </ul>
<b>Strata development</b>	<ul style="list-style-type: none"> <li>▪ strata divestment of property titles at strata (below ground)</li> <li>▪ change to the DDO, therefore impacting different land owners</li> </ul>	<ul style="list-style-type: none"> <li>▪ no surface acquisition or impacts</li> <li>▪ no loss of access to residences, workplaces, retail and business</li> <li>▪ rigorous process in place to ensure an owner/occupier is fairly compensated</li> <li>▪ stakeholder engagement will ensure all those impacted will be notified and given opportunity to discuss impacts with MMRA</li> </ul>
<b>Strategic implications of the Melbourne Metro Tunnel</b>	<ul style="list-style-type: none"> <li>▪ disruption to the business and community during construction</li> </ul>	<ul style="list-style-type: none"> <li>▪ aligns with numerous local and state planning policy and objectives</li> <li>▪ ensures the delivery of the MM project in a timely, coordinated and consistent manner</li> </ul>

Table 21 identifies the main assets within the area and the impact the proposed change to Project Land will have on the assets. This is followed by ways to mitigate these impacts and the related EPRs.

TABLE 21: IMPACTS, MITIGATION MEASURES AND RELATED EPRS

Asset / value	Impact	Proposed mitigation measures	EPRs
<b>Education Facilities</b>	<ul style="list-style-type: none"> <li>possible construction activities inhibit future development above and below ground.</li> <li>possible disruption as a result of TBM movement and insertion of underground support structures</li> </ul>	<ul style="list-style-type: none"> <li>selection of appropriate construction equipment/construction methodology to minimise disruption to medical uses.</li> <li>consultation with affected institutes</li> <li>undertake strata and, where required, full acquisition of titles where conflict exists</li> <li>use the proposed DDO to protect Melbourne Metro infrastructure and trigger discussions with third party developers regarding future development</li> </ul>	LU1, B1 B2, SC1 & SC2
<b>Heritage Building</b>	<ul style="list-style-type: none"> <li>possible construction activities could impact on heritage value through ground movement</li> </ul>	<ul style="list-style-type: none"> <li>selection of appropriate construction equipment/construction methodology to minimise ground movement</li> <li>undertake ground movement and vibration modelling to ensure construction and operation have no long term impacts on the building</li> <li>a HMP to identify possible impacts and appropriately mitigate</li> </ul>	LU1 & CH2

## Strategic Planning Policy Support

### Plan Melbourne

CBD North Station has been identified as a national employment and innovation cluster (Plan Melbourne, 2017). The role of this area is as to improve the growth and clustering of business activity of national significance, particularly in knowledge-based industries. A station at this location provides improved connectivity between the expanded central city precinct and the rest of Melbourne. The frequency and capacity of this service will make it possible for more people to access CBD North. The proposed changes to Project Land will support these objectives as it will ensure the Melbourne Metro Tunnel can be built and operated to a high standard and therefore facilitate access to CBD North including RMIT.

### City North Structure Plan

The City North Structure Plan acknowledges this part of the city contributes greatly to Melbourne's reputation as one of the world's great student cities. As part of this, the Central City requires a boost in mobility infrastructure. This includes high capacity public transport, accessible and reliable ways of moving within and around the central and inner city, and high connectivity to the surrounding metropolitan regions. The Plan acknowledges the two new Metro station – Parkville and CBD North will assist in achieving this. The changes to Project Land will facilitate the ability for Parkville and CBD North Stations, connecting tunnels and the greater metro network, to support greater mobility across the City.

### State and Local Planning Policy

The appropriate State Planning Policy Framework (SPPF) objectives are well supported as the additional land will support the delivery of the Melbourne Metro Rail project, in doing so, the following SPPF requirements have been met:

**Clause 11 Settlement** – the additional land will promote and support sustainable growth within the Metropolitan Melbourne area through the provision of transport to and from Melbourne City centre.

**Clause 11.06 Metropolitan Melbourne** – the additional land will support the Melbourne Metro Rail project in order to provide an integrated transport system connecting people to jobs and services, and goods to market. This will support the creation of a city structure that drives productivity, attracts investment, supports innovation and creates jobs.

**Clause 15 Built Environment** – part of the additional land requirements will be to accommodate improvements to Parkville Station design, which aims to achieve architectural and urban design outcomes that contribute positively to local urban character and enhance the public realm while minimising detrimental impact on neighbouring properties.

**Clause 18 Transport** - the development of the Melbourne Metro tunnel supports many of the objectives of the States Transport policy. The inclusion of additional Project Land will support a project that will create a safe and sustainable transport system by integrating land-use and transport. The project aims to facilitate greater use of public transport and subsequently promote increased development close to public transport routes in Metropolitan Melbourne.

The Local Planning Policy Framework (LPPF) objectives outlined in Clause 21.09 – Transport are well supported as the additional Project Land will enable the delivery of the Melbourne Metro Rail project to support the provision of quality transport around the City.

This area lays within the Capital City Zones and Public Use Zone (Refer to Table 17). Capital City Zone (Schedule 1 - City North) aims 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. Within the Capital City Zone Schedule 1, impacts are from both underground support structures and changes to the rail

alignment. These changes to design should not impact the surface or subterranean use of this area. There will be disruptions as construction commences, however these will be managed through the Business Social and Community Strategies. An impact assessment is being undertaken to identify ways to reduce disruption. Capital City Zone Schedule 2 (retail Core) primarily affects Melbourne Central Shopping Centre and Train Station as retail premises south of this, on the west side of Swanston Street. Given the intent of this zone and established train network below the shopping centre, it is unlikely the additional works occurring at strata (below ground) will have a detrimental impact on use. Finally, the Public Use Zone – Education recognise public land use for public utility and community services and facilities. The strata (below ground) works below RMIT University should not impact on the use of the University. Again, disruptions as construction commences may be an issue however these will be managed through the Business Social and Community Strategies.

As identified, the main impact will be on below surface construction, i.e. basement use and development. A previous basement study was undertaken (Refer to Figure 41) as part of concept design. The map indicates that are 28 properties that do not have a basement and eight properties which do. Where it has yet to be determined if a basement exists below a property, a surveying study will occur. CYP has begun this process with surveyors inputting their data into the ongoing design refinement. Furthermore, these findings should be reflected in the appropriate management plans. Therefore, although all properties are not accounted for at present, this indicative study provides an adequate basis. Of these properties, the current uses are:

TABLE 22: BASEMENT STUDY AT CBD NORTH STATION

Existing known basement	No or unknown basement
<ul style="list-style-type: none"> <li>recreational centre</li> <li>education facilities</li> <li>library</li> <li>accommodation</li> <li>retail</li> <li>restaurants</li> <li>offices</li> </ul>	<ul style="list-style-type: none"> <li>education facilities</li> <li>religious centre</li> <li>offices</li> </ul>

It is difficult to make a direct correlation between the use of these properties and likelihood of future basement development. However, given there are no active permits in place, there is limited road access to these properties, the area is strictly regulated by the Design and Development Overlays height restrictions and the current built form character and use; it could be assumed that it is unlikely any major basement development will occur in the near future and thus would be detrimentally impacted by the Project.

The Design and Development Overlays prominent in this area is Design and Development Overlay Schedule 70 (DDO70) as introduced by GC45 (explained in Parkville to CBD North). DDO70 enables the responsible authorities to consider the design and loading of new developments and their implications for Melbourne Metro tunnels. Therefore, future development will be impacted by the overlay. However due to the close proximity of the current Project Land changes to the established DDO 70 area; the newly affected properties are already within this zone and therefore will not experience any new impacts as a result of this change to Project Land. For example, any planned basement works for the five properties without basements are already restricted through the design objectives outlined in DDO 70. The implementation of DDO70 does not explicitly control the use of land as this remains the objectives of the zones. As the zones have not been affected by the changes to Project Land; it is considered there is no detrimental impact to use as a result of the changes to Project Land.

The additional Project Land includes two sites listed as part of Melbourne City Council's Heritage Overlay (Refer to Figure 39):

- HO1042: 63-67 Franklin Street, Melbourne
- HO1085: 427-433 Swanston Street, Melbourne

For these properties, a Heritage Management Plan will be prepared and ensure that potential impacts on the heritage values of these registrations are limited or mitigated. Furthermore, the Heritage Overlay relates to aesthetic works to the building, which as the changes to Project Land are belowground (tunnel alignment and underground support structures), there should have no detrimental impact to their heritage value.

Overall, there will be minimal impact on use and development at surface level impacts. Strata (below ground) impacts will likely be development related, rather than impacting on use as the zones within this area have not changed. The impacts on development will be minimal as a result of the changes to Project Land as the pre-established Design and Development Overlays already protect the Melbourne Metro tunnel and stations as a result of GC45. A HMP will be prepared to ensure any impacts on VHR buildings are mitigated. As a result of works taking place at strata (below ground) and the minimal impact on basement development, the residual risk rating on land use and built form in this precinct is low.

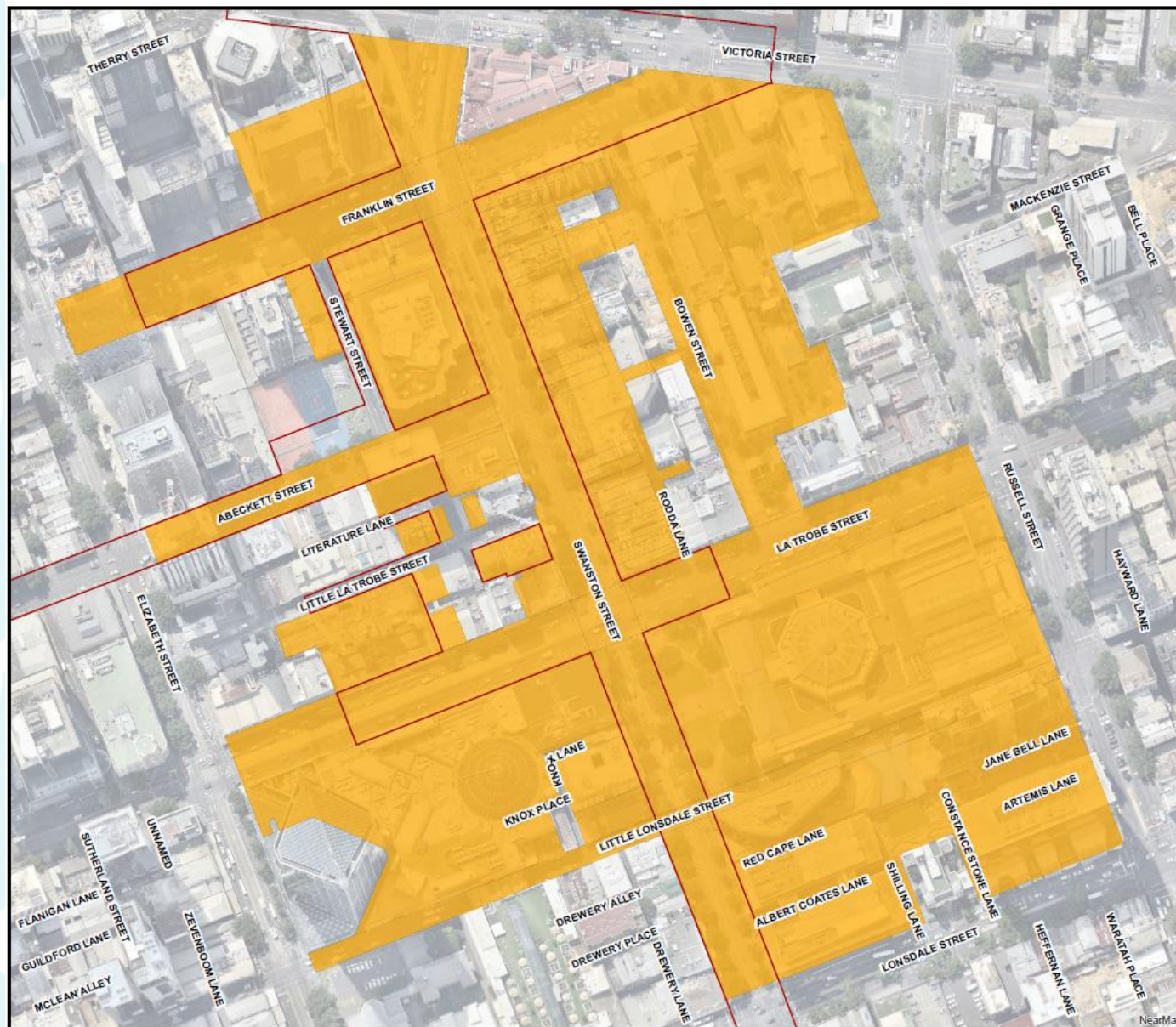
### Strata divestment

Figure 46 identifies properties intercepted by the additional Project Land. In the CBD North precinct, the project may acquire seven whole title at strata (below ground) with ceiling as a result of the installation of rock bolts. As a result of the



changes in alignment and underground support structures, partial strata divestment of the 46 intercepted properties may occur, and it is expected no full strata divestment will occur. Underground support structures in this area sit at approximately 18 m to 21m below surface level. This does not include road reserves (although highlighted on the map)..

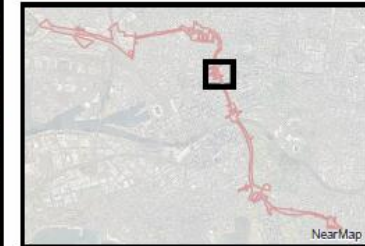
The exact extent of properties to be strata divestment has not yet been determined and will be finalised during detailed design for the Project. This will need to be considered project wide by MMRA and DEDJTR as the government authorities with ability to acquire property. The surface land use would not be impacted by the Project Land change. Landowners and tenants would be compensated in accordance with the requirements of the *Land Acquisition and Compensation Act 1986*.



## MELBOURNE METRO RAIL PROJECT

### All properties intersecting

### CBD North



### Legend

- All property affected
- Project land

Service Layer Credits:  
NearMap (27/03/2017), The State of Victoria through the Department of Environment, Land, Water and Planning (DELWP)



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Exported: 28/11/2017  
Prepared by: MB  
Reviewed by: AB  
Approved by:

FIGURE 46: ALL PARCELS AFFECTED BY THE ADDITIONAL PROJECT LAND

## Heritage, Local Character, Built Form and Design

The additional Project Land includes six places on the Victorian Heritage Register (Refer to Figure 39 and Figure 40):

- VHR H1506: RMIT Building No. 9, 1-55 Franklin Street, Melbourne. RMIT Building No.9 is architecturally significant as one of the few large public building designed in the streamlined horizontal Moderne style.
- VHR H1498: Storey Hall, 344-346 Swanston Street, Melbourne. Storey Hall is architecturally significant as one of the most architecturally pretentious and largest Friendly Society Halls erected in Melbourne during the nineteenth century.
- VHR H0440: Currie and Richards Warehouse, 79- 81 Franklin Street & 3 Stewart Street, Melbourne: The Currie and Richards Warehouse is of architectural significance as a fine example of a 19th century warehouse in Melbourne and a distinctive example of the Renaissance Revival style applied to such a building.
- VHR H0455: Church of Christ, 327-333 Swanston Street & 178-190 Little Lonsdale Street, Melbourne. The Church of Christ, Swanston Street is of architectural significance as one of the earlier works of the important Victorian architect Charles Webb.
- VHR H0956: Former Queen Victoria Hospital Tower & Perimeter fence, 180- 222 Lonsdale Street and 278-300 Swanston Street, Melbourne: The former Queen Victoria Hospital Tower is of architectural significance as the only surviving remnant of the former Queen Victoria Hospital, once a substantial example of an Edwardian hospital.
- VHR H1497: State Library of Victoria, 304-328 Swanston Street and 179-181 La Trobe Street, Melbourne. The State Library is of architectural significance as the first major building by prolific Melbourne architect Joseph Reed, and as an early example of public architecture in Victoria

For the buildings listed, it is anticipated that a Heritage Management Plan will be prepared and ensure that potential impacts on the heritage values of these registrations are limited or mitigated. This will occur as part of the EMF process for Heritage and falls under the EPR CH2. As all the works occurring strata (belowground), ground movement will be a consideration and assessed separately for this area. Therefore, it is anticipated that potential impacts on the heritage values of these registrations are limited or mitigated.

There will be no impact on street trees as all work will occur at strata (below ground), consequently, the residual risk rating on land use and built form, with regards to arboculture in this specified scope is low. Road works will occur in the area, and may have an impact on vegetation. The impacts of additional roads are discussed in 'Additional Road surface works'. Public open space will not be occupied as part of the scope within this area.

The additional Project Land within this area will sit strata (below ground) and therefore does not include any demolition.

Public open space will not be occupied as part of the scope within this area as all works will occur at strata (below ground), therefore the residual risk rating on land use and built form in this precinct is low.

## Access

There will be no impact on access as all work will occur at strata (below ground). Road closures will occur in the area, however these will be managed through the Traffic and Transport Management Plans This will occur as part of the EMF process for Transport and falls under the EPR T2. The impacts of additional roads required to carry out these works are discussed in 'Additional Road surface works'. As a result of works taking place at strata (below ground) the residual risk rating on land use and built form in this precinct is low.

## Amenity

Increased noise and dust from construction will be evident, although these impacts should be managed through the implementation of appropriate environmental management measures outlined in the Noise and Vibration environmental risk assessment and EPRs. Vibration and ground movement impacts on sensitive receivers' i.e VHR buildings, could occur, however are likely to be addressed through further vibration and ground movement studies as part of the EPRs. A Noise and Vibration assessment and Construction Noise and Vibration Management Plan (as part of EPR NV21) will occur as part of the EMF process.

## Conclusion

Specifically, for the additional Project Land required, opportunities arise from the ability for the project to be completed safely and to the complex scheduling requirements. There needs to be consideration of the impact construction and operation will have on sensitive receivers, such as RMIT heritage building and State Library. This should be done through rigorous noise and vibration modelling as well as a HMP. Although there are four active permit application in the area, three relate to shop front signage and façade works, which will not be impacted by the strata (below ground) works. The other is to change the use of a site to a gymnasium, this too should not be impacted by the changes to strata.

From a planning perspective, the additional Project Land and associated works should not cause any detrimental impact to land use and planning within the area.



### 4.3.6 Stakeholders

MMRA and CYP, will be undertaking consultation in relation to draft Planning Scheme Amendment GC82. This includes affected Councils and key landowners/occupiers. In recognition that project progress and decisions can be enhanced through dialogue with the community and relevant stakeholders, MMRA has developed core principles and goals for the planning and construction of the project, described in Table 14. CYP shares these principles and goals. Furthermore, the findings from this series of impact assessments will inform refinement of the Communication and Stakeholder Engagement Strategy.

A three phase approach has been developed. Phase 1 – Early Engagement, Phase 2 - Engagement to support public display of draft PSA and Phase 3: Engagement post PSA. These have been outlined in Section 4.2.6.

In line with this process, CYP and MMRA are in Phase 2 and have presented the proposed changes to Project Land to the following stakeholders:

- Councils – City of Melbourne (including as asset owner of Melbourne Town Hall), City of Port Phillip, City of Stonnington and City of Maribyrnong
- State Government departments and agencies – Department of Environment, Land, Water and Planning (DELWP), EPA Victoria, Heritage Victoria, Melbourne Water, Public Transport Victoria (PTV), Transport for Victoria (TfV), VicRoads and Federation Square
- Effected research and educational institutions – RMIT University (including as asset owner of Capitol Theater), University of Melbourne and State Library
- Project's reference groups – CBD Community Reference Group and Parkville Precinct Reference Group
- St. Paul's Cathedral (Melbourne Anglican Trust Corporation's (MATC))
- Effected private landowners and occupiers including representatives from Melbourne Central, Manchester Unity and QV Building.

The draft PSA and supporting documents will be published on the Metro Tunnel website for 30 calendar days. An online feedback form will be made available for the duration of the draft PSA public display period for landowners and tenants to provide feedback on the PSA process and potential impacts on their property. These comments will be responded to, as outlined in Phase 3 of the consultation process.

### 4.3.7 Environmental Performance Requirements

A performance-based approach such as the EPRs aims to achieve outcomes that provide a net community benefit, while allowing for a delivery model with sufficient flexibility to encourage innovation to determine how any recommended Environmental Performance Requirements would be achieved. For the works undertaken at CBD North, the following EPRs aim to mitigate any impacts on the environment:

TABLE 23: MITIGATION MEASURES

Asset / value	Impact	Proposed mitigation measures	EPRs
<b>Education facilities</b>	<ul style="list-style-type: none"> <li>possible construction activities inhibit future development above and below ground.</li> <li>possible disruption as a result of TBM movement and insertion of underground support structures</li> </ul>	<ul style="list-style-type: none"> <li>selection of appropriate construction equipment/construction methodology to minimise disruption to medical uses.</li> <li>consultation with affected institutes</li> <li>undertake strata and, where required, full strata divestment of titles where conflict exists</li> <li>use the proposed DDO to protect Melbourne Metro infrastructure and trigger discussions with third party developers regarding future development</li> </ul>	LU1
<b>Heritage Building</b>	<ul style="list-style-type: none"> <li>possible construction activities could impact on heritage value through ground movement</li> </ul>	<ul style="list-style-type: none"> <li>selection of appropriate construction equipment/construction methodology to minimise ground movement</li> <li>undertake ground movement and vibration modelling to ensure construction and operation have no long term impacts on the building</li> <li>a HMP to identify possible impacts and appropriately mitigate</li> </ul>	LU1

### 4.2.8 Assumption and Limitations

Refer to section 4.2.8.

## 4.4 CBD South Station

### 4.4.1 Project Components

Within this component of the project all changes to the approved Project Land will be both surface and subterranean. The additional strata (underground) is required for ground support structures to accommodate the inclusion of adits, north of CBD South Station and the new tunnel alignment between Bourke Street Mall and CBD South Station.

Additional strata (underground) is required for ground support structures to accommodate the change in rail alignment along Swanston Street, between north of Little Collins Street and Collins Street (east and west side of alignment). Excursion outside of the approved Project Land as follows:

- along Swanston Street, between southern side of Bourke Street Mall and the northern side of Collins Street (east and west side of alignment)
- along Swanston Street, between south of Collins Street and the north Flinders Lane (west side of alignment only)
- along Swanston Street between south Flinders Lane and north Flinders Street (east side of alignment only)

A pedestrian adit will be required to link CBD South Station with Federation Square while another pedestrian adit (emergency egress) will be required to provide access to CBD South Station from the City Square entrance/exit. This will sit under the rear, western corner of St. Paul's Cathedral footprint.

Above ground strata changes occur at Flinders Street Station as the change to design requires an extension to include the middle section of Flinders Street Station platforms one to nine and the Campbell Arcade Subway.

Activities in this area include operation of the excavation, cross passage excavation, installation of ground support structures, haulage, fit out, reinstatement and the operation and maintenance of the trains. It will therefore be the impacts of these works on future development analysed for this impact assessment. It will therefore be the impacts of these works on future development analysed for this impact assessment.

### 4.4.2 Existing Conditions

The area south of Little Collins Street to the Yarra River contains a multitude of uses. To the north of the 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. Notably in this section is the Melbourne Town Hall, which sits on the corner of Collins Street and Swanston Streets. Also, the Westin Melbourne Hotel and City Square, a seven storey hotel and apartment complex fronted by public open space and bars and restaurants. FIGURE 47 to FIGURE 52 illustrate the local heritage buildings, while a land use map can be found overleaf in Figure 53.

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, Capitol House, Nicholas Building and Flinders Street Station (Refer to Figure 54 to Figure 55 and the 'H' listed buildings below indicates VHR buildings). Flinders Street Station is the oldest capital city train station in Australia (with the current incarnation completed in 1910) and the busiest on Melbourne's network. For this PSA, that additional Project Land intercepts:

- HO502 The Block Precinct
- HO504 Collins East Precinct
- HO505 Flinders Gate Precinct
- HO506 Flinders Lane Precinct
- HO655/ H0018 St Pauls Cathedral and Precinct
- HO590/H0411: Manchester Unity Building, 220-226 Collins Street, & 91-107 Swanston Street, Melbourne
- HO649/ H1083: Flinders Street Railway Station Complex, 207-361 Flinders St, Melbourne
- HO745/ H2119: Nicholas Building, 31-41 Swanston Street, Melbourne
- HO746/ H2119: Melbourne Town Hall and Administration Building, 90-130 Swanston Street, Melbourne
- HO747/ H471: Capitol House, 109-117 Swanston Street, Melbourne
- HO748/ H2250: Century Building, 125-133 Swanston Street, Melbourne
- HO1079/H7822-1613: 135-137 Swanston Street.

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.



FIGURE 47: MELBOURNE CITY TOWN HALL

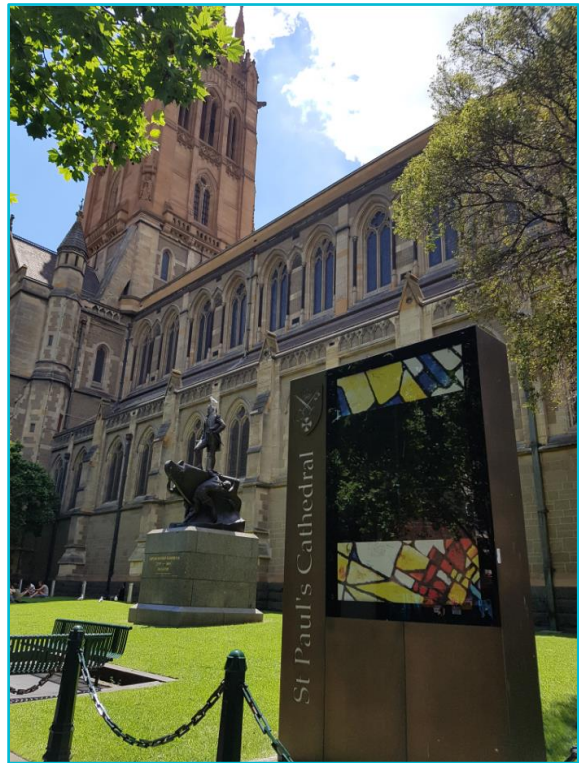


FIGURE 48: ST. PAUL'S CATHEDRAL



FIGURE 49: FLINDERS STREET STATION

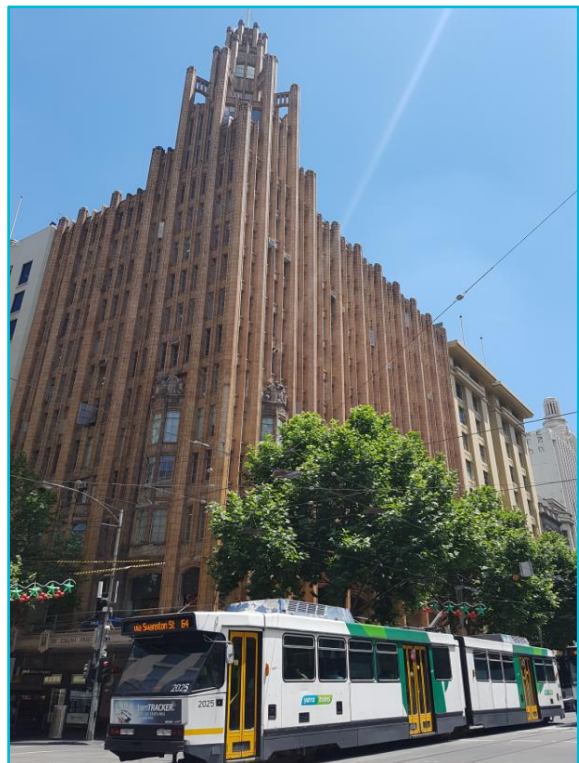


FIGURE 50: MANCHESTER UNITY, SWANSTON STREET

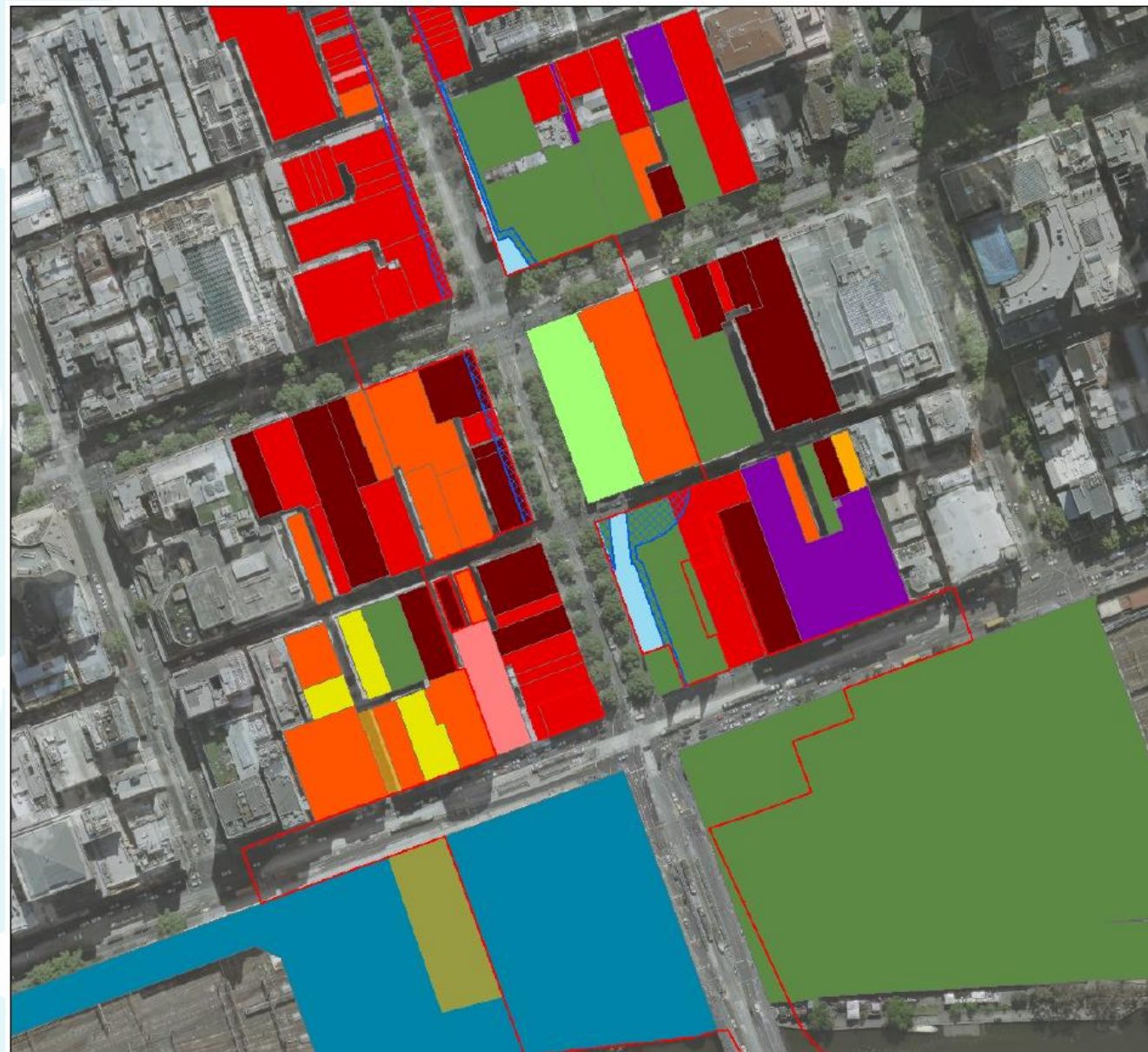




FIGURE 51: SUBWAY ENTRANCE, FLINDERS STREET



FIGURE 52: DEGRAVES STREET SUBWAY



# Melbourne Metro Tunnel Project

## Land Use: CBD South Station

### Legend

- Project Land
- Additional underground support
- Permanent Below Ground
- Flinders St Station Platform
- Warehouse Group
- Land Use Survey**
- Accommodation
- Child Care Center
- Education Centre
- Food and Drink Premises
- Health
- Industry
- Leisure And Recreation
- Office
- Other
- Place Of Assembly
- Pleasure Boat Facility
- Retail Premises
- Service Industry
- Shop
- Transport Terminal
- Utility Installation
- Vacant
- Veterinary centre

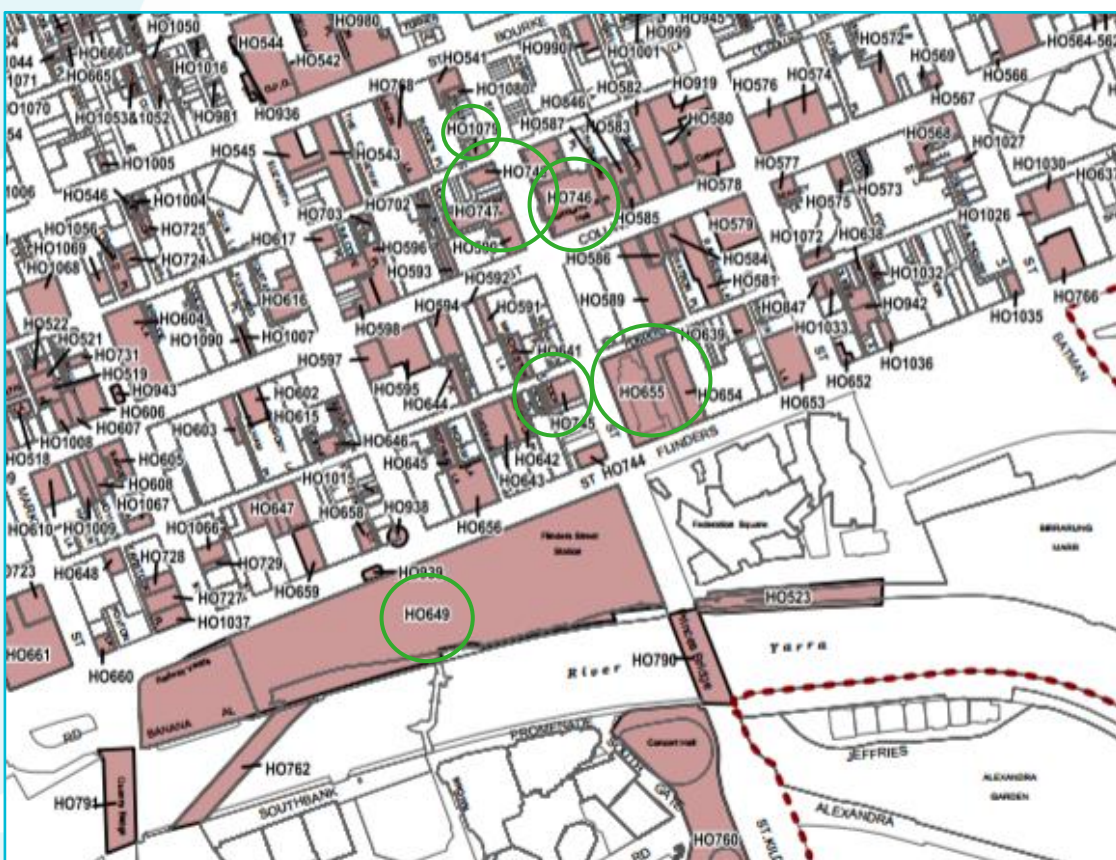
0 63.50 127.0 Meters (A3) 1:2,500

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FIGURE 53: LAND USE STUDY OF CBD SOUTH





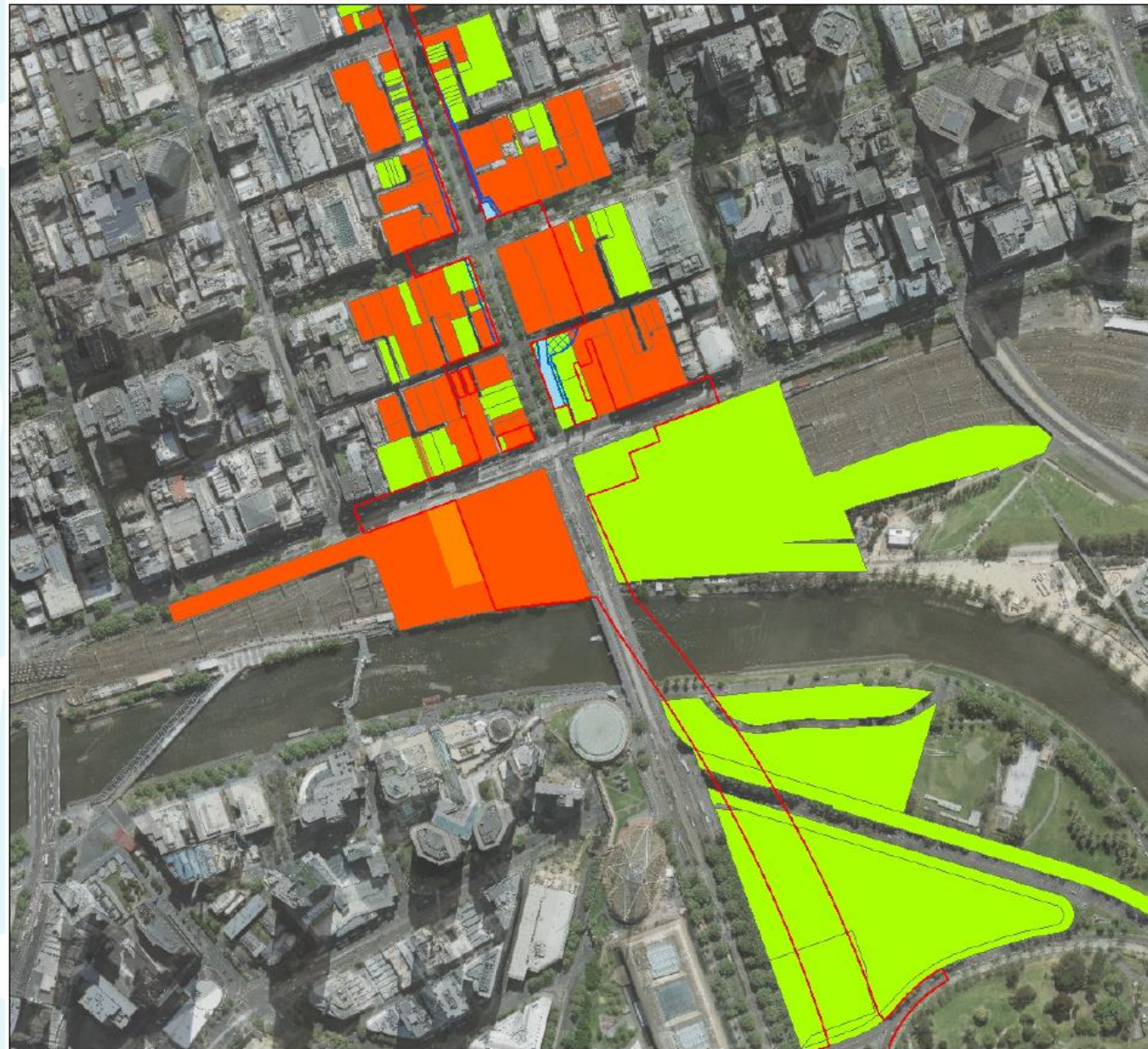
As the works is at strata (below ground), basement development is an important component that will impact current and future development. The maps below are of the basement study undertaken as part of the concept design. It provides an indicative indication of where potential issues may arise. Figure 56 shows that 12 building intercepted have known



basements and 22 do not have a known basement. Any future development in the area must take into consideration the provisions of the Melbourne Planning Scheme as well as any relevant strategic planning studies. These are discussed below in the analysis against applicable State and local planning policy, legislation and planning permits.

Where it has yet to be determined if there is a basement below a property, a surveying study will occur. CYP has begun this process with surveyors inputting their data into the ongoing design refinement. Furthermore, these findings should be reflected in the appropriate management plans. Therefore, although all properties are not accounted for at present, this indicative study provides an adequate bases. Table 57 includes the maximum number of properties that could be affected at strata, detailed design will refine the number of properties to be affected and the exact extent of strata divestment will be determined following completion of the detailed design.

Any future development in the area must take into consideration the provisions of the Melbourne Planning Scheme as well as any relevant strategic planning studies. These are discussed in the analysis against applicable State and local planning policy, legislation and planning permits.



Melbourne Metro Tunnel Project  
**Basement: CBD South Station**

- Legend**
- Project Land
  - Additional underground support
  - Permanent Below Ground
  - Flinders St Station Platform
- Basements**
- Unknown
  - No
  - Yes

0 127.00 254.00 Meters (A3) 1:5,000

This map is shown for reference purposes only. Lendlease provides this information "as is" with the understanding that it is not guaranteed to be accurate, correct or complete and conclusions drawn from such information are the responsibility of the user. While every effort is made to ensure the information displayed is as accurate and current as possible, Lendlease will not be held responsible for any loss, damage or inconvenience caused as a result of reliance on such information or data.



FIGURE 56: BASEMENTS STUDY AT CBD SOUTH STATION

#### 4.4.3 Applicable Government Policy, Legislation and Planning Permits

Table 5 describes the Commonwealth and State Acts that are applicable to this project. These include;

- *Aboriginal Heritage Act 2006*
- *Environment Effects Act 1978*
- *Planning and Environment Act 1987*
- *Major Transport Projects Facilitation Act 2009*
- *Transport Integration Act 2010*
- *Heritage Act 2017*
- *Land Acquisition and Compensation Act 1986*

Plan Melbourne (2017) includes the CBD South area as precinct that will assist in transforming Melbourne's transport options. While the current plan does not reference the exact proposed alignment of Melbourne Metro, the idea of a 'metro-style rail system' accommodating Melbourne's future travel needs is acknowledged.

The appropriate State Planning Policy Framework objectives have been identified below:

**Clause 11 Settlement** – aims to provide an integrated transport system connecting people to jobs and services, and goods to market.

**Clause 11.06 Metropolitan Melbourne** – aims to provide an integrated transport system connecting people to jobs and services, and goods to market. This will support the creation of a city structure that drives productivity, attracts investment, supports innovation and creates jobs.

**Clause 15 Built Environment** – aims to achieve architectural and urban design outcomes that contribute positively to local urban character and enhance the public realm while minimising detrimental impact on neighbouring properties.

**Clause 18 Transport** - aims to facilitate greater use of public transport and promote increased development close to high-quality public transport routes in Metropolitan Melbourne.

The Local Planning Policy Framework (LPPF) requirements impacted through by the CYP design changes and the broader Project are:

- *Clause 21.09 - Transport: which outlines the Councils aim for an efficient transport system to support and the vital economic, cultural and social operation of the City. The clause acknowledges public transport is the most economic and efficient mode for mass travel to and from the City.*

East Swanston Street, between south of Little Collins to the Yarra and south of Flinders Street (including Flinders Street Station) lays within the Capital City Zone Schedule 1 - Outside the Retail Core, under the Melbourne Planning Scheme. This zone aims to provide a range of financial, legal, administrative, cultural, recreational, tourist, entertainment and other uses that complement the capital city function of the locality. The section west of Swanston Street and north of Flinders Street, including Degraes Street, is characterised by the Capital City Zone Schedule 2 - Retail Core. This zone aims to intensify the retail and other complementary commercial, community and entertainment uses. This is exemplified by Melbourne Central's retail and entertainment uses. City Square however falls within the Public Park and Recreation Zone, which recognise areas for public recreation and open space and provide for commercial uses where appropriate. Table 24 identified the zones which intercept the additional land required for the project, while Figure 57 to Figure 59 illustrates the areas zones.



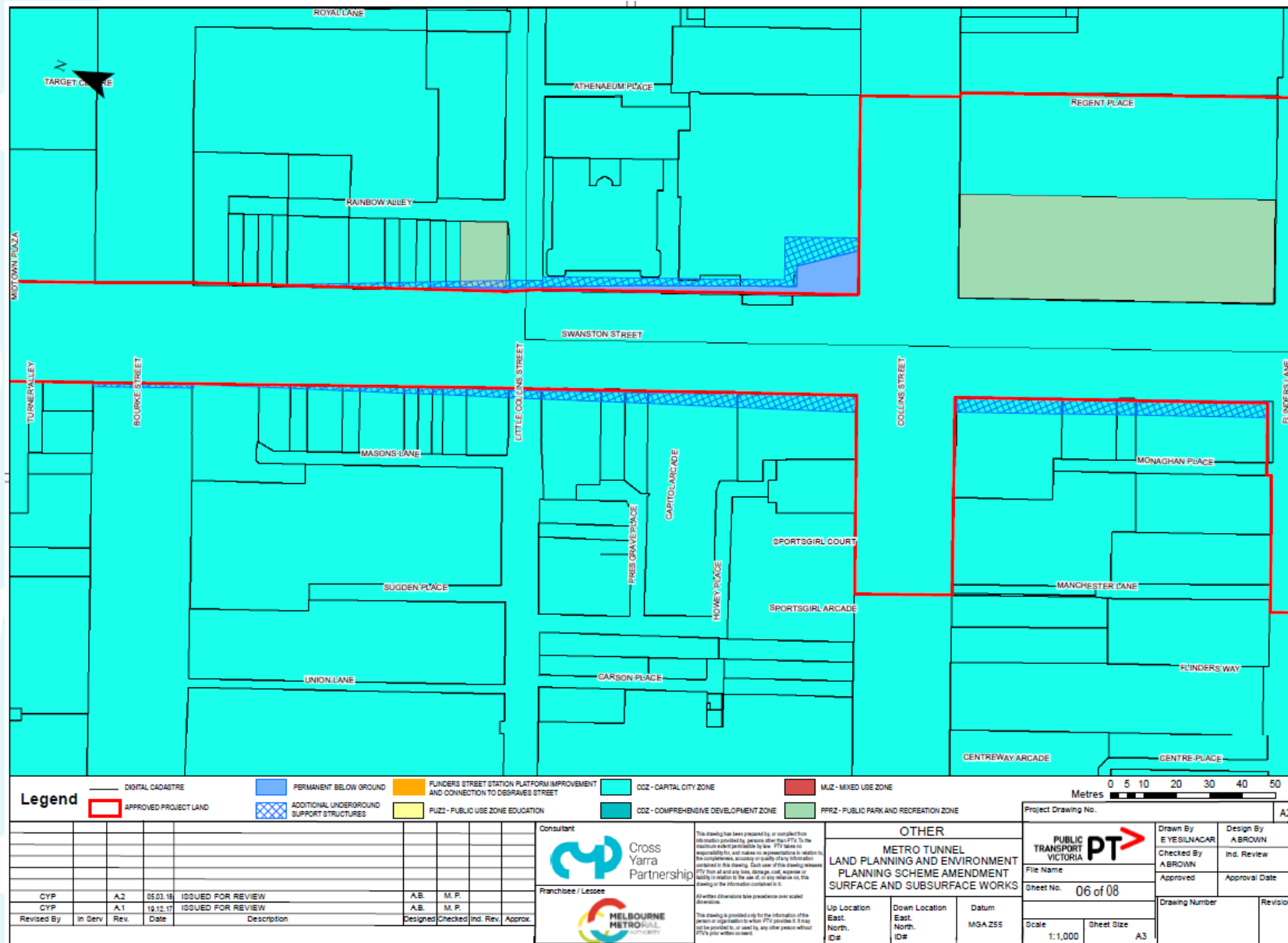


FIGURE 57: PLANNING ZONES AT MELBOURNE CITY COUNCIL

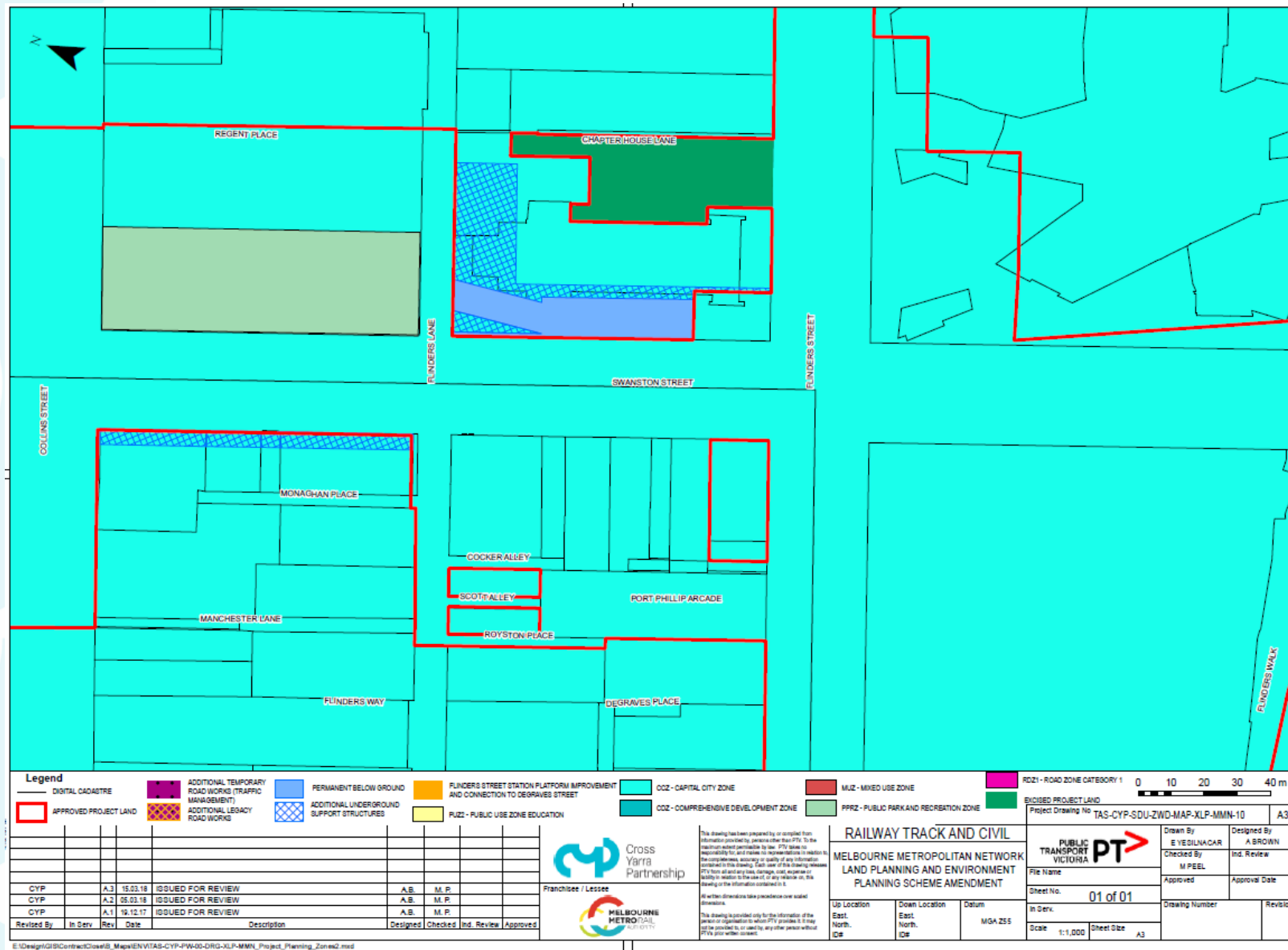


FIGURE 58 PLANNING ZONES AT MELBOURNE CITY COUNCIL

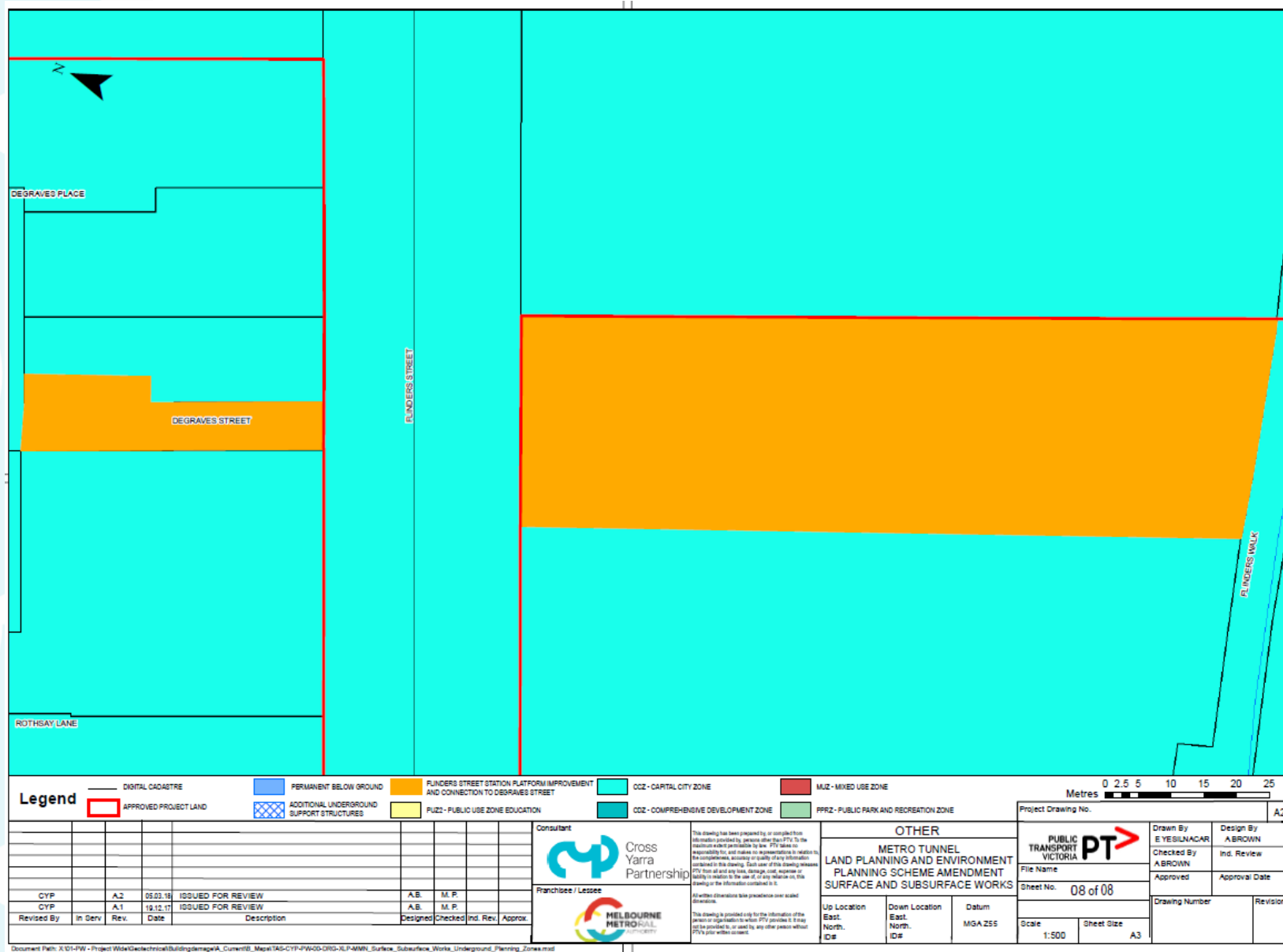


FIGURE 59: PLANNING ZONES AT MELBOURNE CITY COUNCIL



TABLE 24: MELBOURNE METRO CHANGE TO PROJECT LAND - ZONES

Permit Triggers for City of Melbourne			
Zone	Railway	Railway Station	Comments
<b>Capital City Zone (Schedule 1 – Land outside the Retail Core)</b>			
Use	x	x	
Building and works	x	✓	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.
<b>Capital City Zone (Schedule 2 – Land inside the Retail Core)</b>			
Use	x	✓	A railway station requires approval for use.
Building and works	✓	✓	Buildings and works associated with railway or railway station requires approval.
<b>Public Park and Recreation Zone</b>			
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.
Building and works	✓	✓	

The Design and Development Overlay is the most prominent overlay in this area and reflects the Council's focus on building height with street edge height, upper level setback and built form outcomes emphasised. Table 25 identifies the overlays which intercept the additional land required for the project. Most of the works within this section of development will be subterranean, many of the overlay requirements are not applicable as they stipulate design guidelines for buildings. The works at Degraes Street Underpass and surface work at Flinders Street Station, will be subject to the Heritage Overlay approval requirements. The Heritage Overlay aims to conserve and enhance heritage places of natural or cultural significance.

TABLE 25: MELBOURNE METRO CHANGES TO PROJECT LAND - OVERLAYS

Permit Triggers for City of Melbourne			
Overlays	Buildings and works	Vegetation Removal	Comments
Design and Development Overlay (Schedule 1 - A1 Area 1 - Retail Core, Area 2 - Major Pedestrian Areas and Key Pedestrian Routes within CCZ1)	x	x	Approval is required if the works are at ground level.
Design and Development Overlay (Schedule 2)	x	x	Approval is not required for buildings and works at ground level, including external works to provide access for persons with disabilities that comply with all legislative requirements.  Approvals required for buildings and works which would cast any additional shadow across the Yarra River corridor, Federation Square, City Square, State Library Forecourt, Shrine of Remembrance, Bourke Street Mall, Flinders Street Railway Station Steps, Elizabeth Street between Flinders Street and Flinders Lane
Design and Development Overlay (Schedule 2 - A1, A5, A9 Special Character Areas)	x	x	A1: Maximum building height is 40 metres A5: Maximum building height is 40 metres A9: Maximum building height is 30 metres
Design and Development Overlay (Schedule 3 - Traffic Conflict Frontage – Capital City Zone)	✓	x	Approval required to construct or carry out works associated with the creation or alteration of a crossover or vehicle access way.

Permit Triggers for City of Melbourne			
Overlays	Buildings and works	Vegetation Removal	Comments
Design and Development Overlay (Schedule 4 - Weather Protection – Capital City Zone)	✓	x	Approval is not required if adequate weather protection is required to the satisfaction of the responsible authority.
Design and Development Overlay (Schedule 10 General Development Area- Built Form)	x	x	Approval is not required for buildings and works at ground level, including external works to provide access for persons with disabilities that comply with all legislative requirements.  Approvals required for buildings and works which would cast any additional shadow across the Yarra River corridor, Federation Square, City Square, State Library Forecourt, Shrine of Remembrance, Bourke Street Mall, Flinders Street Railway Station Steps, Elizabeth Street between Flinders Street and Flinders Lane
Design and Development Overlay (Schedule 40 Special Character Areas- Built Form (River Environs))	x	x	Approval is not required for buildings and works at ground level, including external works to provide access for persons with disabilities that comply with all legislative requirements.  Maximum building height of 24m.  Approval required for buildings and works which would cast any additional shadow across the Yarra River corridor, Federation Square, Flinders Street Railway Station steps.
Design and Development Overlay (Schedule 56 CBD Lanes - Class 1 and Class 2)	x	x	Approval is not required to construct a building or construct or carry out works if the Building height along lane wall, Setback and Interface requirements of this schedule are met (set out in Schedule 2).
Design and Development Overlay (Schedule 70 - Melbourne Metro Rail Project - Infrastructure Protection Areas)	✓	x	Approval is required for buildings of three or more storeys, temporary structures of two or more storeys, earthworks or excavation that change the Surface Level by over 1metre, underground utility requiring a trench over 2 metres below ground, internal and external alterations to a building if below Surface Level works and works to a tramways.
Heritage Overlay	✓	✓	Where a site is listed on the Victorian Heritage Register, the requirements of the <i>Heritage Act 2017</i> supersede the requirements of the Heritage Overlay in the planning scheme.
Parking Overlay (Schedule 1, 2 and 12)	x	x	This overlay identifies appropriate parking rates and should be read in conjunction with Clause 52.06 (Carparking).

Current active planning permits within the area include:

- TP-2017-968 (lodged: 24/11/2017), 250-254 Flinders Street MELBOURNE VIC 3000 (Zone DDO4) 8 Degraves Street MELBOURNE VIC 3000 (Zone DDO4). Proposed signage.
- TP-2017-675. (lodged 22/08/2017), 250-254 Flinders Street MELBOURNE VIC 3000 (Zone DDO4) 250 Flinders Street MELBOURNE VIC 3000 (Zone DDO1-A1). Construction and display of business identification signage.

#### 4.4.4 Risk Assessment

The project changes relating to the new connection to Flinders Street Station and adits below St Paul's Cathedral will be impacted by the Victorian Heritage Register, Heritage Inventory and Heritage Overlays. Further research and collaboration with historic and social, community and business disciplines will provide more detailed insight into the impacts that these works will have on these places of historic significance. Council and Heritage Victoria seek to protect elements that add to the area's significance, therefore undertaking below strata works at St. Paul's Cathedral should have minimal impact on the significant land use character contribution of St Pauls Cathedral. The impacts on Flinders Street Station will be more significant during construction, however reinstatement and enhancement will ensure minimal impact on the historic and visual character of the station precinct.

The land use and development impacts between CBD North and CBD South station precinct are considered acceptable as the majority of works including rock bolts would still be located within the Swanston Street road reserve. The depth at

which additional Project Land is affected is significant and outside of any realistic subterranean development envelope (i.e. car park), particularly given applicable heritage and height controls. DDO1-A1, DDO2, DDO2-A1, DDO3, DDO4, DDO70 apply to the area between CBD North and South. DDO2-A1 stipulates a maximum building height of 40m along Swanston Street with the aim of retaining a feeling of openness and intimate scale for pedestrians.

Utilising applicable strata divestment processes to undertake strata and where required full a strata divestment of affected Old Law titles will help minimise impacts on future land use and development. The extended application of the DDO will protect and safeguard Melbourne Metro infrastructure, but it could have impacts on future development, albeit it limited. Design refinement regarding the station location and rail alignment has the potential to further minimise land use and planning impacts and ensure that the number of new affected landholders, tenants and stakeholders is minimised.

Table 26 overleaf identifies the initial environmental risk ratings for CBD South Station.



TABLE 26: INITIAL ENVIRONMENTAL RISK ASSESSMENT FOR CBD SOUTH STATION

			Initial Risk				Residual Risk		
Aspect	Impact Pathway	Project phase	Likelihood	Consequence	Inherent Risk Rating	Relevant Discipline EPRs	Likelihood	Consequence	Residual Risk Rating
Excavation									
Land use and planning	Impact on existing or future land use	Construction	Likely	Moderate	Medium	Addressed by EPR LU1	Possible	Moderate	Medium
Cross passage excavation									
Land use and planning	Impact on existing or future land use	Construction	Unlikely	Major	Medium	Addressed by EPR LU1	Unlikely	Moderate	Low
Ground support structures									
Land use and planning	Impact on existing or future land use	Construction	Likely	Major	High	Addressed by EPR LU1	Unlikely	Major	Medium
Haulage									
Land use and planning	Impact on existing or future land use	Construction	Rare/ Remote	Negligible	Very Low	Addressed by EPR LU1	Rare/ Remote	Negligible	Very Low
Fit out									
Land use and planning	Impact on existing or future land use	Construction	Possible	Major	High	Addressed by EPR LU1	Possible	Moderate	Medium
Reinstatement									
Land use and planning	Impact on existing or future land use	Construction	Rare/ Remote	Minor	Very Low	Addressed by EPR LU1	Rare/ Remote	Minor	Very Low
Operation									
Land use and planning	Impact on existing or future land use	Operation	Rare/ Remote	Moderate	Very Low	Addressed by EPR LU1	Rare/ Remote	Moderate	Very Low
Maintenance									
Land use and planning	Impact on existing or future land use	Operation	Unlikely	Moderate	Low	Addressed by EPR LU1	Unlikely	Moderate	Low

## 4.4.5 Impact Assessment

### Summary

The works outside of Project Land within this precinct consists of underground support structures and changes to the rail alignment, all of which will be undertaken at strata (below ground). Specifically, the following buildings will be intercepted at strata (belowground):

- Flinders Street Station
- Federation Square
- St Paul's Cathedral
- Melbourne Council House
- Commonwealth Bank, Westpac, multiple Money Exchange
- Restaurants: KFC, Subway, Lord of the Fries, Sushi Hub, Krispy Kream, Chat time, Boost Juice, Sushi Sushi, Cabinet
- Retail: multiple Souvenir shops, Arthur Daily, 7-11, EB Games, Femme Fashion, Roxanne, 7 Angels, Rocash, Dangerfield Clearance, Opal, Virgin Mobile, Hype, Off ya tree, Platypus, Dotti, Foot Locker, Micheal Hill Jeweller, Vodaphone, Rochs Opals, Salmas, Paul Bram
- Pharmacies
- Woolworth Metro.

The overall issues and benefits have been identified below in Table 27.

TABLE 27: BENEFITS AND ISSUES OF THE CBD SOUTH DEVELOPMENT

Element	Issues	Benefits
<b>Changes to the rail tunnel alignment</b>	<ul style="list-style-type: none"> <li>▪ strata development under heritage registered buildings and precincts</li> <li>▪ strata divestment</li> </ul>	<ul style="list-style-type: none"> <li>▪ track degradation and therefore future maintenance expenditure</li> <li>▪ tunnel maintenance thereby reducing exposure to safety risks</li> <li>▪ traction power for trains thereby reducing greenhouse gas emissions and operational costs.</li> </ul>
<b>Construction</b>	<ul style="list-style-type: none"> <li>▪ noise and vibration during construction and operation</li> <li>▪ dust emissions during construction</li> </ul>	<ul style="list-style-type: none"> <li>▪ Construction Management Plan and EPRs will mitigate these risks</li> <li>▪ construction will occur at strata (below ground) therefore limited surface work disruptions</li> </ul>
<b>Construction adit</b>	<ul style="list-style-type: none"> <li>▪ will be built under St.Paul's Cathedral, therefore possibility of damage to building</li> </ul>	<ul style="list-style-type: none"> <li>▪ enable an efficient and safe construction sequence that will minimise ground stress</li> <li>▪ provide an additional access points during construction, via Federation Square, to enable efficient construction sequence</li> <li>▪ reduce the geotechnical stress near the corner of Flinders Land and Swanston Street</li> <li>▪ create safer turning points for vehicles at strata</li> <li>▪ be informed by rigorous modelling to minimise damage to surrounding buildings, particularly St.Paul's Cathedral.</li> </ul>
<b>Heritage buildings</b>	<ul style="list-style-type: none"> <li>▪ strata development under numerous VHR buildings, including St. Paul's Cathedral, Manchester Unity Building, Flinders Street Railway Station Complex, Capitol House, Nicholas Building and Century Building.</li> </ul>	<ul style="list-style-type: none"> <li>▪ provide commuters seamless accessibility from CBD South Station to Flinders Street Station</li> <li>▪ provide a superior station access design for commuters by connecting the middle of Flinders Street Station platforms, avoiding the already congested forecourt area of Flinders Street Station</li> <li>▪ ensure that access for all abilities is provided mid-platform at Flinders Street Station</li> <li>▪ avoid invasive works within the Flinders Street Station forecourt.</li> <li>▪ additional permit (s) required under the Heritage Act 2017 any works in the Arcade.</li> </ul>
<b>Insertion of underground support structures</b>	<ul style="list-style-type: none"> <li>▪ potential to increase future development costs if removal is required (although not uncommon)</li> </ul>	<ul style="list-style-type: none"> <li>▪ provide safe and less restricted construction space for the excavation works due to the omission of struts throughout the whole cavern</li> <li>▪ allow for more efficient constructing techniques, particularly accelerated excavation, to be employed</li> <li>▪ allow for the combined use of struts and rock bolts to control ground movement closer to the surface</li> <li>▪ accommodate and support the design improvements to the CBD North to CBD South Tunnels,</li> <li>▪ safely support the geological profile surrounding CBD South Station and shafts</li> <li>▪ ensure land stability around the adit.</li> </ul>

Element	Issues	Benefits
<b>Pedestrian adit</b>	<ul style="list-style-type: none"> <li>will be built under St.Paul's Cathedral, therefore possibility of damage to building</li> </ul>	<ul style="list-style-type: none"> <li>provide commuters seamless accessibility from CBD South Station to Federation Square and City Square</li> <li>enable easier commuter circulation, particularly during peak hours</li> </ul>
<b>Strata development</b>	<ul style="list-style-type: none"> <li>strata divestment</li> <li>change to the DDO, therefore impacting different land owners</li> </ul>	<ul style="list-style-type: none"> <li>no surface acquisition or impacts</li> <li>no loss of access to residences, workplaces, retail and business</li> <li>rigorous process in place to ensure owner/occupier is fairly compensated</li> <li>stakeholder engagement will ensure all those impacted will be notified and given opportunity to discuss impacts with MMRA</li> </ul>
<b>Strategic implications of the Melbourne Metro Tunnel</b>	<ul style="list-style-type: none"> <li>disruption to the business and community in accessing</li> </ul>	<ul style="list-style-type: none"> <li>aligns with numerous local and state planning policy and objectives</li> <li>ensures the delivery of the MM project in a timely, coordinated and consistent manner</li> </ul>

Table 28 identifies the main assets within the area and the impact the proposed change to Project Land will have on the assets. This is followed by ways to mitigate these impacts and the related EPRs.

TABLE 28: IMPACTS, MITIGATION MEASURES AND RELATED EPRS

Asset / value	Impact	Proposed mitigation measures	EPRs
<b>Retail and commercial uses</b>	<ul style="list-style-type: none"> <li>possible construction activities inhibit future development above and below ground.</li> <li>possible disruption as a result of TBM movement and insertion of underground support structures</li> </ul>	<ul style="list-style-type: none"> <li>selection of appropriate construction equipment/construction methodology to minimise disruption to retail and commercial uses.</li> <li>consultation with affected institutes</li> <li>undertake strata and, where required, full acquisition of titles where conflict exists</li> <li>use the proposed DDO to protect Melbourne Metro infrastructure and trigger discussions with third party developers regarding future development</li> <li>introduction of Business Disruption Management Plan to mitigate impact on business</li> <li>where applicable business relocation strategies and compensation to mitigate impacts</li> </ul>	LU1, EM1, EM2, NV1 & NV12
<b>Heritage Building</b>	<ul style="list-style-type: none"> <li>possible construction activities could impact on heritage value through ground movement</li> </ul>	<ul style="list-style-type: none"> <li>selection of appropriate construction equipment/construction methodology to minimise ground movement</li> <li>undertake ground movement and vibration modelling to ensure construction and operation have no long term impacts on the building</li> <li>Construction Management Plans – particularly dust management to mitigate impacts</li> <li>a HMP to identify possible impacts and appropriately mitigate.</li> </ul>	LU1 & CH2

## Strategic Planning Policy Support

### Plan Melbourne

Plan Melbourne specifies the need for a 'metro style rail system' to accommodating Melbourne's future travel needs. The additional Project Land is required to ensure the Melbourne Metro Rail project can be delivered, therefore this Project supports Plan Melbourne's objectives.

### State and Local Planning Policy

The appropriate State Planning Policy Framework (SPPF) objectives are well supported as the additional land will support the delivery of the Melbourne Metro Rail project, in doing so, the following SPPF requirements have been met:

**Clause 11 Settlement** – the additional land will promote and support sustainable growth within the Metropolitan Melbourne area through the provision of transport to and from Melbourne City centre.

**Clause 11.06 Metropolitan Melbourne** – the additional land will support the Melbourne Metro Rail project in order to provide an integrated transport system connecting people to jobs and services, and goods to market. This will support the creation of a city structure that drives productivity, attracts investment, supports innovation and creates jobs.

**Clause 15 Built Environment** – part of the additional land requirements will be to accommodate improvements to Parkville Station design, which aims to achieve architectural and urban design outcomes that contribute positively to local urban character and enhance the public realm while minimising detrimental impact on neighbouring properties.



**Clause 18 Transport** - the development of the Melbourne Metro tunnel supports many of the objectives of the States Transport policy. The inclusion of additional Project Land will support a project that will create a safe and sustainable transport system by integrating land-use and transport. The project aims to facilitate greater use of public transport and subsequently promote increased development close to public transport routes in Metropolitan Melbourne.

The Local Planning Policy Framework (LPPF) objectives outlined in Clause 21.09 – Transport are well supported as the additional Project Land will enable the delivery of the Melbourne Metro Rail project to support the provision of quality transport around the City.

East Swanston Street, between south of Little Collins to the Yarra and south of Flinders Street (including Flinders Street Station and Federation Square) sits the Capital City Zone Schedule 1 - Outside the Retail Core. This area will be impacted by the additional ground support structures, construction adit, pedestrian adit and Flinders Street Station access. This zone aims to provide a range of uses that complement the capital city function of the locality. The works being undertaken at strata (belowground) would not be expected to have a detrimental impact on the ability to provide financial, legal, administrative, cultural, recreational, tourist and entertainment uses. There will be disruptions to these uses as construction commences, particularly at Flinders Street Station where mid-platform works area taking place. These impacts should however be identified and managed through the Business Social and Community Strategies and Transport Management Frameworks to ensure commuters experience minimal disruption. From a land use perspective, this disruption will be temporary and therefore the overall impact is not considered detrimental. Furthermore, the long term gain by creating a more accessible train station is positive. The works under St.Paul's Cathedral could be an issue if ground movement disturbances are not managed. Again, from a land use perspective the construction adit should not impose any detrimental impact on use of the Church. Rigorous ground movement modelling and monitoring will be required to mitigate any risks.

The section west of Swanston Street and north of Flinders Street, including Degrares Street, is characterised by the Capital City Zone Schedule 2 - Retail Core. Works in this area include the Flinders Street Station Platform access through Degrares Street. The works in this area will ensure the Degrares Street underpass retains its historical character while integrating the new commuter passageways. To ensure this occurs a Heritage assessment should be undertaken. Furthermore, additional permit (s) required under the *Heritage Act 2017* any works in the Arcade. There are also likely to be disruptions as access to business, workplaces and Flinders Street Station maybe impacted as the works occur. A Business, Social and Community Plan as well as Transport Management Plan will mitigate these impacts. As the work will be temporary and the reinstatement value high, the overall impact will be low and ultimately will support the zones aims to intensify the retail and other complementary commercial, community and entertainment uses. Finally, City Square falls within the Public Park and Recreation Zone, which recognise areas for public recreation and open space. The works here include a pedestrian adit and underground support structures, which should not detrimentally impact the use of the Square as it will occur at strata (below ground). These works will support the development of CBD South Station (GC45) and as a result the reinstatement will ensure the area remains a public open space and public realm.

As identified, the main impact will be on below surface construction, i.e. basement use and development. A previous basement study was undertaken (Refer to Figure 56) as part of concept design. The map indicates that are 17 properties that do not have a basement and eleven properties which do. Where it has yet to be determined if a basement exists below a property, a surveying study will occur. CYP has begun this process with surveyors inputting their data into the ongoing design refinement. Furthermore, these findings should be reflected in the appropriate management plans. Therefore, although all properties are not accounted for at present, this indicative study provides an adequate basiss. Of these properties, the current uses are:

TABLE 29: BASEMENT STUDY AT CBD SOUTH STATION

Existing known basement	No or unknown basement
<ul style="list-style-type: none"> <li>▪ retail</li> <li>▪ restaurants</li> <li>▪ railway station</li> <li>▪ Town Hall</li> </ul>	<ul style="list-style-type: none"> <li>▪ place of worship</li> <li>▪ retail</li> <li>▪ restaurants</li> </ul>

It is difficult to make a direct correlation between the use of these properties and likelihood of future basement development. However, given there are no active permits in place, there is limited road access to these properties, the area is strictly regulated by the Design and Development Overlays height restrictions and the current built form character and use; it could be assumed that it is unlikely any major basement development will occur in the near future and thus would be detrimentally impacted by the Project.

The Design and Development Overlays prominent in this area is Design and Development Overlay Schedule 70 (DDO70) as introduced by GC45 (explained in Parkville to CBD North). DDO70 enables the responsible authorities to consider the design and loading of new developments and their implications for Melbourne Metro tunnels. Therefore, future development will be impacted by the overlay. However due to the close proximity of the current Project Land changes to the established DDO 70 area; the newly affected properties are already within this zone and therefore will not experience any new impacts as a result of this change to Project Land. For example, any planned basement works for the five properties without basements are already restricted through the design objectives outlined in DDO 70. The implementation of DDO70 does not explicitly control the use of land as this remains the objectives of the zones. As the

zones have not been affected by the changes to Project Land; it is considered there is no detrimental impact to use as a result of the changes to Project Land. The other Design and Development Overlays within this area aim to promote accessible ground floor retail frontage and appropriate scale. The retail outlets in the Subway will be impacted by this, however only for a short time before reinstated to a high quality that will support these design objectives. Therefore, the additional works in this area are seen as supportive of the DDO.

The additional Project Land includes four precincts listed as part of Melbourne City Council's Heritage Overlay (Refer to Figure 54 and Figure 55)

- HO502 The Block Precinct
- HO504 Collins East Precinct
- HO505 Flinders Gate Precinct
- HO506 Flinders Lane Precinct

The Blocks key attributes include:

- The historic character of the precinct as a retail area, characterised by a large number of buildings from the late Victorian and early 20th century periods and by the network of arcade shopping.
- The comfortable pedestrian movement within the precinct.
- The commercial and retail buildings of the Victorian and 1900-1940 periods.

Collins East Precinct key attributes include:

- The buildings remaining from before the Second World War
- The boulevard quality of this end of Collins Street with street tree plantations and street furniture
- A consistent height, scale, character and appearance of the remaining 19th and early 20th century buildings.
- The historic garden of the Melbourne Club.

Flinders Gate Precinct key attributes include:

- The traditional gateway to the central city from the south and an area associated with retailing.
- Major 19th and early 20th century buildings including Flinders Street Station, St Paul's Cathedral and Princes Bridge.

Flinders Lane Precinct key attributes include:

- The scale and character of the six and seven-storey office and warehouse buildings constructed in Flinders Lane before the Second World War and the predominant building forms and materials of the precinct.
- The traditional association with 'Rag Trade' activities, other creative professions, or dwellings.
- The large showcase windows at the ground and basement floors of the warehouse offices constructed before the Second World War.

For these properties, a Heritage Management Plan will be prepared and ensure that potential impacts on the heritage values of these areas are limited or mitigated. The majority of work will be occurring at strata (below ground) therefore the defined character of each precinct should not be detrimentally impacted by the additional Project Land. The use of identified buildings should not be impacted in the long term as a result of the works and installation of the permanent pedestrian adit. Ground movement could pose an issue for the stability of the identified heritage buildings within these precincts, however further modelling and management of ground movement during construction should ensure these impacts are minimised and mitigated.

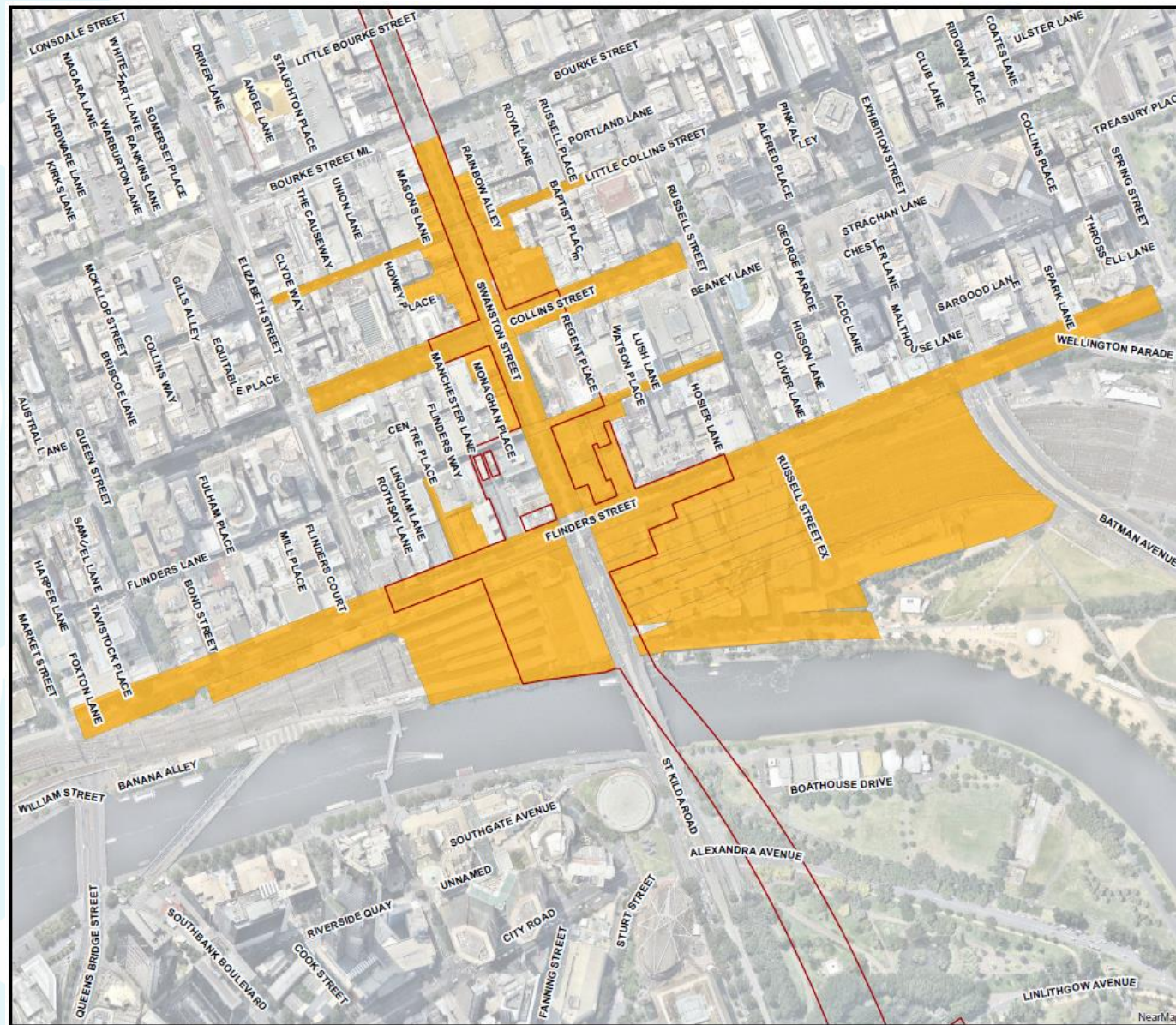
Overall, there will be some impact on use and development at surface level as the insertion of lifts on Flinders Street Station platforms occur. This will have an unavoidable temporary impact on the use, yet will result in long term benefits for the station. Strata (below ground) impacts will likely be development related, rather than impacting on use as the zones within this area have not changed. The impacts on development will be minimal as a result of the changes to Project Land as the pre-established Design and Development Overlays already protect the Melbourne Metro tunnel and stations as a result of GC45. A HMP will be prepared to ensure any impacts on VHR buildings are mitigated. As a result of works taking place at strata (below ground) and the minimal impact on basement development, the residual risk rating on land use and built form in this precinct is low.

## Strata divestment

Figure 60 illustrates all the properties intercepted by the additional Project Land. In the CBD South precinct, the project is unlikely to acquire any whole title at strata (below ground) or surface. Result of the insertion of underground support structures, pedestrian and construction adits works, partial strata divestment of the remaining properties could occur. An initial assessment shows 34 blocks will be intercept. Underground support structures in this area sit between 9m and 12m below surface level. This does not include road reserves (although highlighted on the map)..

The exact extent of properties to be strata divestment has not yet been determined and will be finalised during detailed design of the Project. This will need to be considered project wide by MMRA and DEDJTR as the government authorities with ability to acquire property. The surface land use would not be impacted by the Project Land change. Landowners and tenants would be compensated in accordance with the requirements of the *Land Acquisition and Compensation Act 1986*.





# MELBOURNE METRO RAIL PROJECT

## All properties intersecting CBD South



### Legend

- All property affected
- Project land

Service Layer Credits:  
NearMap (2017/2017). The State of Victoria through the Department of Environment, Land, Water and Planning (DELWP).



This map is shown for reference purposes only. CYP provides this information "as is" with the understanding that it is not guaranteed to be accurate, correct or complete and conclusions drawn from such information are the responsibility of the user. While every effort is made to ensure the information displayed is as accurate and current as possible, CYP will not be held responsible for any loss, damage or inconvenience caused as a result of reliance on such information or data.

**Cross Yarra Partnership**  
Exported: 28/11/2017  
Prepared by: MB  
Reviewed by: AB  
Approved by:

FIGURE 60: ALL PARCELS AFFECTED BY THE ADDITIONAL PROJECT LAND



## Heritage, Local Character, Built Form and Design

The additional Project Land includes four precincts listed as part of Melbourne City Council's Heritage Overlay (Refer to Figure 54 and Figure 49):

- HO655/ H0018: St. Pauls Cathedral and Precinct. St Pauls is of architectural, historic and scientific (technical) importance to the state of Victoria.
- HO590/ VHR H0411: Manchester Unity Building, 220-226 Collins Street, & 91-107 Swanston Street, Melbourne. Manchester Unity Building is architecturally significant as one of the tallest building in Melbourne when it was completed in 1932.
- HO649/ H1083: Flinders Street Railway Station Complex, 207-361 Flinders St, Melbourne
- HO745/ H2119: Nicholas Building, 31-41 Swanston Street, Melbourne. The Nicolas Building is of architectural significance as an outstanding and imposing example of the grand commercial palazzo of the 1920s
- HO746/ H2119: Melbourne Town Hall and Administration Building, 90-130 Swanston Street, Melbourne. The Melbourne Town Hall is of architectural, historical, scientific (technical) and aesthetic significance to the State of Victoria
- HO747/ H471: Capitol House, 109-117 Swanston Street, Melbourne. Capitol House s of architectural significance as a unique expression and highly advanced design concept by the creative and well known architects, Walter Burley Griffin and Marion Mahony.
- HO748/ H2250: Century Building, 125-133 Swanston Street, Melbourne. Century Building is architecturally significant as an outstanding example of a commercial building in the vertical Streamlined Moderne style, and is particularly notable for its starkness and expression of verticality.

For the buildings listed it is anticipated that a Heritage Management Plan will be prepared and ensure that potential impacts on the heritage values of these registrations are limited or mitigated. This will occur as part of the EMF process for Heritage and falls under the EPR CH2. As all the works occurring strata (belowground), ground movement will be a consideration and assessed separately for this area. Therefore, it is anticipated that potential impacts on the heritage values of these registrations are limited or mitigated.

There will be no impact on street trees as all work will occur at strata (below ground), consequently, the residual risk rating on land use and built form, with regards to arboculture in this specified scope is low. Road works will occur in the area, and may have an impact on vegetation. The impacts of additional roads are discussed in 'Additional Road surface works'. Public open space will not be occupied as part of the scope within this area.

The majority of additional Project Land within this area will sit strata (below ground) and therefore does not include any demolition. The works within Campbell Arcade is not expected to entail any demolition. The addition of lifts at Flinders Street Station is likely to require demolition works, which will be managed through the Heritage Management Plan and Construction Plans. This will be disruptive and impact on use temporarily until the works are complete. A Business, Social and Community Plan should mitigate disruptions. As a result the built form impact of Melbourne Metro in this area is considered acceptable.

Public open space will not be occupied as part of the scope within this area as all works will occur at strata (below ground), therefore the residual risk rating on land use and built form in this precinct is low..

## Access

Access to Flinders Street Station via Campbell Arcade will be impacted by the works being undertaken in the Arcade. Although a popular commuter access point, there are numerous alternative entrances available, which with adequate closure information and on-site signage; should help alleviate disruptions. Furthermore, the works will be temporary and managed through Business, Social and Community Plans, therefore mitigating against the issues arising from disruption.

Flinders Street platform access will be disrupted by the addition of lifts onto the platforms. Similarly, to above, distributions of information via the Business, Social and Community Plans will help minimise disruption for affected commuters and businesses. Transport Management Plans will also provide clarity around the impacts to commuters as a result of the platform modifications. Although the impacts have the potential to be very disruptive, the end result will greatly improve access to Flinders Street Station platforms and trains in the future. Therefore, although the potential risk is moderate, the net benefit of the additional lift access is greater.

Road closures will occur in the area, particularly by haulage vehicles during construction. These will be managed through the Traffic and Transport Management Plans as well as Construction Management Plans. This will occur as part of the EMF process for Transport and falls under the EPR T2. This will impact on the use and access to business in the area, however a Business Disruption Plan will seek to minimise this. Furthermore, the works are temporary and therefore the overall impact will be minimal. The impacts of additional roads required to carry out these works are discussed in 'Additional Road surface works'. As a result of works taking place at strata (below ground) the residual risk rating on land use and built form in this precinct is low.

## Amenity

Increased noise and dust from construction will be evident, although these impacts should be managed through the implementation of appropriate environmental management measures outlined in the Noise and Vibration environmental

risk assessment and EPRs. Vibration and ground movement impacts on sensitive receivers i.e VHR buildings, could occur, however are likely to be addressed through further vibration and ground movement studies as part of the EPRs. A Noise and Vibration assessment and Construction Noise and Vibration Management Plan (as part of EPR NV21) will occur as part of the EMF process.

Haulage vehicles will impact on the public realm in the short term. The visual impacts of such disruptions will be unavoidable. However, as the impacts will be temporary and managed through Construction Management Plans, it will overall have no detrimental impact on the land use. The fit out and reinstatement works is further expected to improve public realm in the long term.

## Conclusion

Specifically, for the additional Project Land required, opportunities arise from the ability for the project to be completed safely and accommodate the improve access to Flinders Street Station. There needs to be consideration taken in regards to the impact construction and operation will have on sensitive receivers, such heritage registered buildings including St.Paul's Cathedral, Flinders Street Station and Manchester House. This should be done through rigorous noise and vibration modelling as well as HMP. There are two active planning permits in Degraes Street, however both related to exterior signage and should not be impacted by the improvements in Campbell Arcade. From a planning perspective, the additional Project Land and associated works should not cause any detrimental impact to land use and planning within the area.

### 4.4.6 Stakeholders

MMRA and CYP, will be undertaking consultation in relation to draft Planning Scheme Amendment GC82. This includes affected Councils and key landowners/occupiers. In recognition that project progress and decisions can be enhanced through dialogue with the community and relevant stakeholders, MMRA has developed core principles and goals for the planning and construction of the project, described in Table 14. CYP shares these principles and goals. Furthermore, the findings from this series of impact assessments will inform refinement of the Communication and Stakeholder Engagement Strategy.

A three phase approach has been developed. Phase 1 – Early Engagement, Phase 2 - Engagement to support public display of draft PSA and Phase 3: Engagement post PSA. These have been outlined in Section 4.2.6.

In line with this process, CYP and MMRA are in Phase 2 and have presented the proposed changes to Project Land to the following stakeholders:

- Councils – City of Melbourne (including as asset owner of Melbourne Town Hall), City of Port Phillip, City of Stonnington and City of Maribyrnong
- State Government departments and agencies – Department of Environment, Land, Water and Planning (DELWP), EPA Victoria, Heritage Victoria, Melbourne Water, Public Transport Victoria (PTV), Transport for Victoria (TfV), VicRoads and Federation Square
- Effected research and educational institutions – RMIT University (including as asset owner of Capitol Theater), University of Melbourne and State Library
- Project's reference groups – CBD Community Reference Group and Parkville Precinct Reference Group
- St. Paul's Cathedral (Melbourne Anglican Trust Corporation's (MATC))
- Effected private landowners and occupiers including representatives from Melbourne Central, Manchester Unity and QV Building.

The draft PSA and supporting documents will be published on the Metro Tunnel website for 30 calendar days. An online feedback form will be made available for the duration of the draft PSA public display period for landowners and tenants to provide feedback on the PSA process and potential impacts on their property. These comments will be responded to, as outlined in Phase 3 of the consultation process.

### 4.4.7 Environmental Performance Requirements

A performance-based approach such as the EPRs aims to achieve outcomes that provide a net community benefit, while allowing for a delivery model with sufficient flexibility to encourage innovation to determine how any recommended Environmental Performance Requirements would be achieved. For the works undertaken at Parkville to CBD South, the following EPRs aim to mitigate any impacts on the environment:

TABLE 30: MITIGATION MEASURES

Asset / value	Impact	Proposed mitigation measures	EPRs
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<b>Retail and commercial uses</b>	<ul style="list-style-type: none"> <li>possible construction activities inhibit future development above and below ground.</li> <li>possible disruption as a result of TBM movement and insertion of underground support structures</li> </ul>	<ul style="list-style-type: none"> <li>selection of appropriate construction equipment/construction methodology to minimise disruption to retail and commercial uses.</li> <li>consultation with affected institutes</li> <li>undertake strata and, where required, full acquisition of titles where conflict exists</li> <li>use the proposed DDO to protect Melbourne Metro infrastructure and trigger discussions with third party developers regarding future development</li> <li>introduction of Business Disruption Management Plan to mitigate impact on business</li> <li>were applicable business relocation strategies and compensation to mitigate impacts</li> </ul>	LU1
<b>Heritage Building</b>	<ul style="list-style-type: none"> <li>possible construction activities could impact on heritage value through ground movement</li> </ul>	<ul style="list-style-type: none"> <li>selection of appropriate construction equipment/construction methodology to minimise ground movement</li> <li>undertake ground movement and vibration modelling to ensure construction and operation have no long-term impacts on the building</li> <li>Construction Management Plans – particularly dust management to mitigate impacts</li> <li>a HMP to identify possible impacts and appropriately mitigate.</li> </ul>	LU1

#### 4.4.8 Assumption and Limitations

Refer to Section 4.2.8.

### 4.5 Additional road surface works

#### 4.5.1 Project Components

Additional roads have been identified where temporary road works may be required and/or traffic management will be periodically required during construction.

The additional roads include parts of:

- Arden Street, North Melbourne
- Royal Parade, Grattan Street and Cardigan Street, Carlton
- Flinders Street and Flinders Lane, Melbourne;
- Kings Way and Albert Road, South Melbourne
- Toorak Road, South Yarra.

Activities in this area are related to road works. It will therefore be the impacts of these works on future development analysed for this impact assessment.

#### 4.5.2 Existing Conditions

The road surface works occur across three different municipalities of Metropolitan Melbourne. Each area has its unique character.

**Arden Street, North Melbourne:** The area required is located between east of Fogarty Street, west of Dryburgh Street, south of North Melbourne Football Club and north of Laurens Street. The area is dominated by the North Melbourne Football Club grounds, North Melbourne Pool and car dealerships and mechanics (Ford and Prestige Cars).

**Royal Parade, Parkville:** The area required is located south of Storey Street to Genetics Lane. The Parade is tree lined, with vehicle, tram (routes 19), bus (routes 505 and 546) bike and pedestrian movement in both directions. Flanking the streets is the Harry Brookes Allen Museum and Royal Melbourne Hospital.

**Grattan Street, Carlton:** The area required is east of Bouverie Street and west of Swanston Street. The Street is tree lined and has vehicle and bus lanes (routes 401 and 403) running in both directions. The street has University of Melbourne facilities, residential premises and restaurants on either side.

**Cardigan Street, Carlton:** The required area of Cardigan Street is located north of Victoria Street and south of Earl Street. The street is tree lines, with vehicle and bike lanes running in both directions. There is median road parking provided. The street is flanked by RMIT University buildings and Draculas (soon to be closed).



**Flinders Street, CBD:** The required area of Flinders Street is located east of Queen Street and west of Elizabeth Street. This area has limited street trees. It is a tram (routes 35, 70 and 75) and pedestrian thoroughfare, with vehicle access in both directions. Flinders Street Railway is located on one side on the street, while Victoria University, restaurants, retail, hotels and multi-storey car parking are located on the northern side.

**Flinders Lane, CBD:** There are two sections of Flinders Lane required, first located is west of Elizabeth Street and east of Swanston Street, second is west of Swanston Street and east of Russell Street. Flinders Lane has one way vehicle access. The first section has retail, restaurants, cafes and City Library. The second section contain retail, multi-story car parking, hotels and offices.

**Kings Way, South Melbourne:** The required area is located south of Palmerston Crescent and north of Albert Road. This is an area with median trees, and vehicle travel in both directions. The road has medium rise offices on either side.

**Albert Road, South Melbourne:** The required area is located west of Kings Way and east of Stead Street. The street is tree lined, with vehicle traffic in both directions and a slip lane on either side of the road. The road has MacRobertson Girl's High School, offices and cafes bordering the road.

**Toorak Road, South Yarra:** The required area is located west of Darling Street and east of Claremont Street. There is minimal street trees in the area, with retail and restaurants on either side. The road sits above the Frankston/Dandenong/Cranbourne rail way line, with access to South Yarra Station on the northern side of the road. Tram route 58 also travels along Toorak Road.

Arden Street, Grattan Street, Cardigan Street, Flinders Street, Kings Way and Albert Street are not impacted by the Heritage Overlay. Both segments of Flinders Lane are affect by the Heritage Overlay 505 – Flinders Gate Precinct and Heritage Overlay 506 Flinders Lane Precinct. In Stonnington, Toorak Road lays within HO150, Toorak Rad (west of William and Claremont Streets) Precinct South Yarra (Refer to Figure 61 to Figure 66)

Unlike the previous sections, there is no strata (below ground works) works. All temporary and legacy road works and tram works will be surface works.

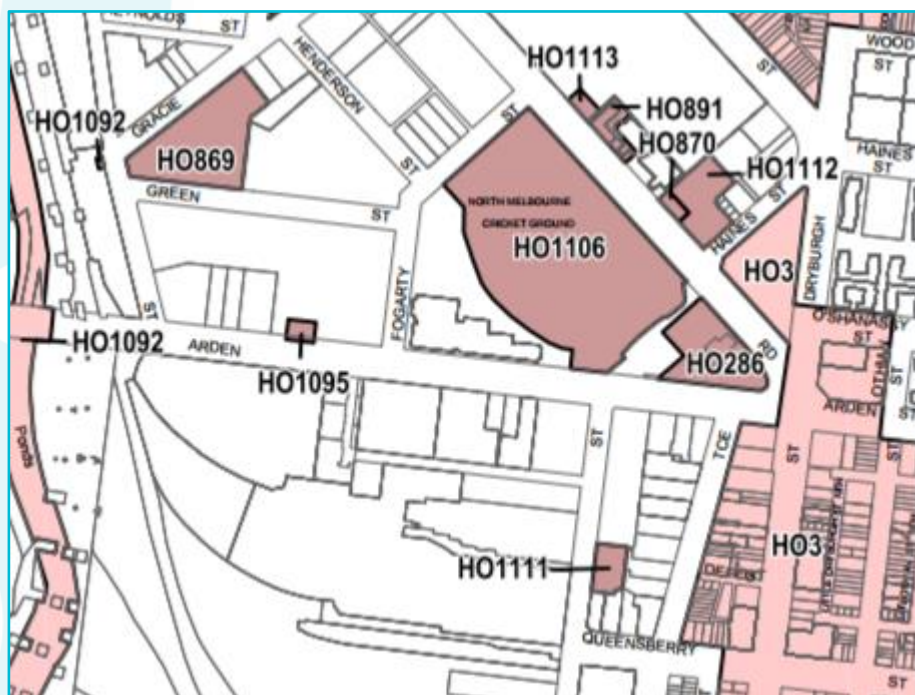


FIGURE 61: NO HERITAGE OVERLAY ON ARDEN STREET

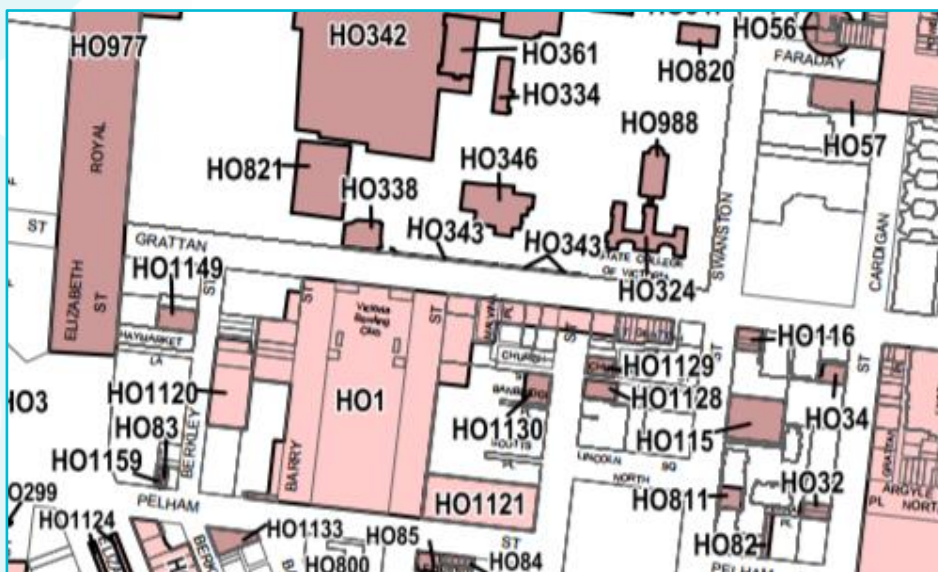






FIGURE 64: HERITAGE OVERLAY ON FLINDERS LANE

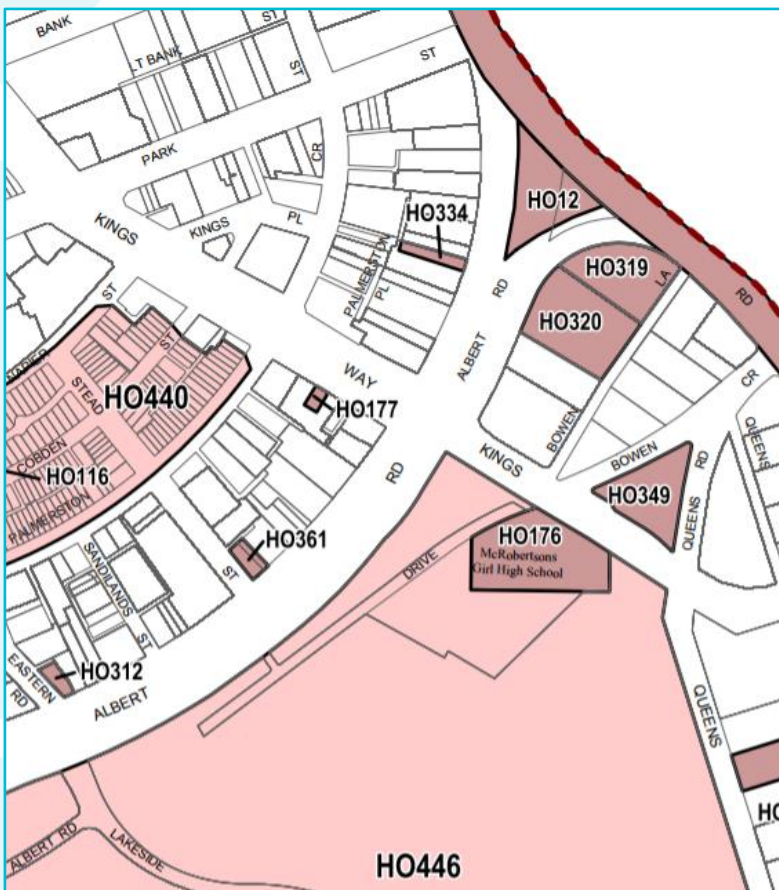


FIGURE 65: NO HERITAGE OVERLAY ON KINGS WAY AND ALBERT ROAD



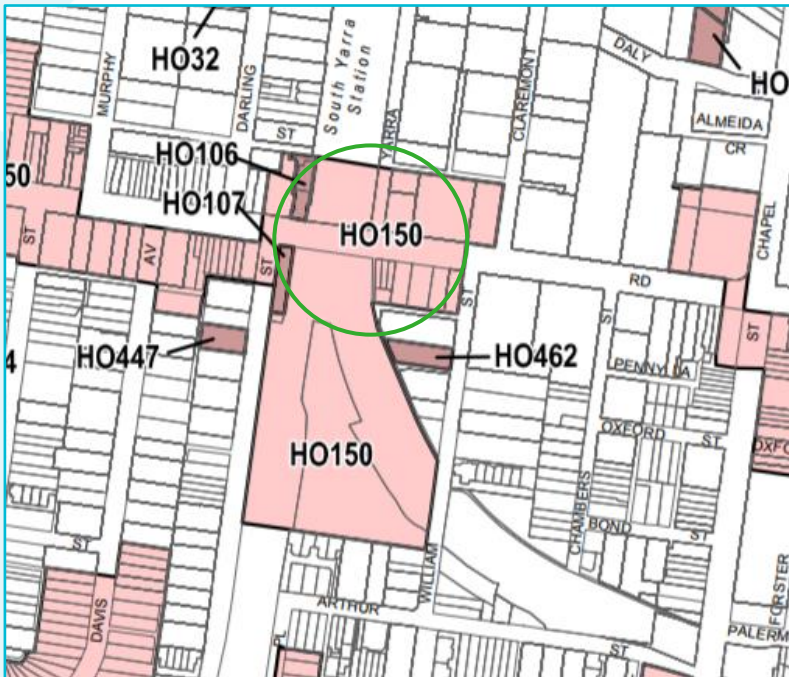


FIGURE 66: HERITAGE OVERLAY ON TOORAK ROAD

#### 4.5.3 Applicable Government Policy, Legislation and Planning Permits

Table 5 describes the Commonwealth and State Acts that are applicable to this project. These include;

- *Aboriginal Heritage Act 2006*
- *Land Act 1958*
- *Transport Integration Act 2010*
- *Road Management Act 2004*
- *Environment and Planning Act 1987*

The Elizabeth Street to Flinders Street new tram curves and associated overhead wires are subject to the Plan Melbourne (2017) policy. This will allow the trams 19, 57 and 59 to integrate into the current tram network along Flinders Street, therefore assisting in transforming Melbourne's transport options. From Elizabeth Street to Flinders Street, the new tram curves and associated overhead wires will be installed. This will allow the trams 19, 57 and 59 to integrate into the current tram network along Flinders Street.

The appropriate State Planning Policy Framework objectives have been identified below:

**Clause 18 Transport** - the development of the Elizabeth Street/Flinders Street tram curve supports many of the objectives of the States Transport policy. The inclusion of additional Project Land will support a project that will create a safe and sustainable transport system by integrating land-use and transport.

All road surface works sit within Road Zone, which aims to identify significant existing roads. Within Stonnington, the road also falls within the Activity Centre Zone, which aims to support sustainable urban outcomes that maximise the use of infrastructure and public transport. Table 31 summaries the zones while Figure 67 to Figure 76 illustrated the zones intercepted by the addition road surface works.

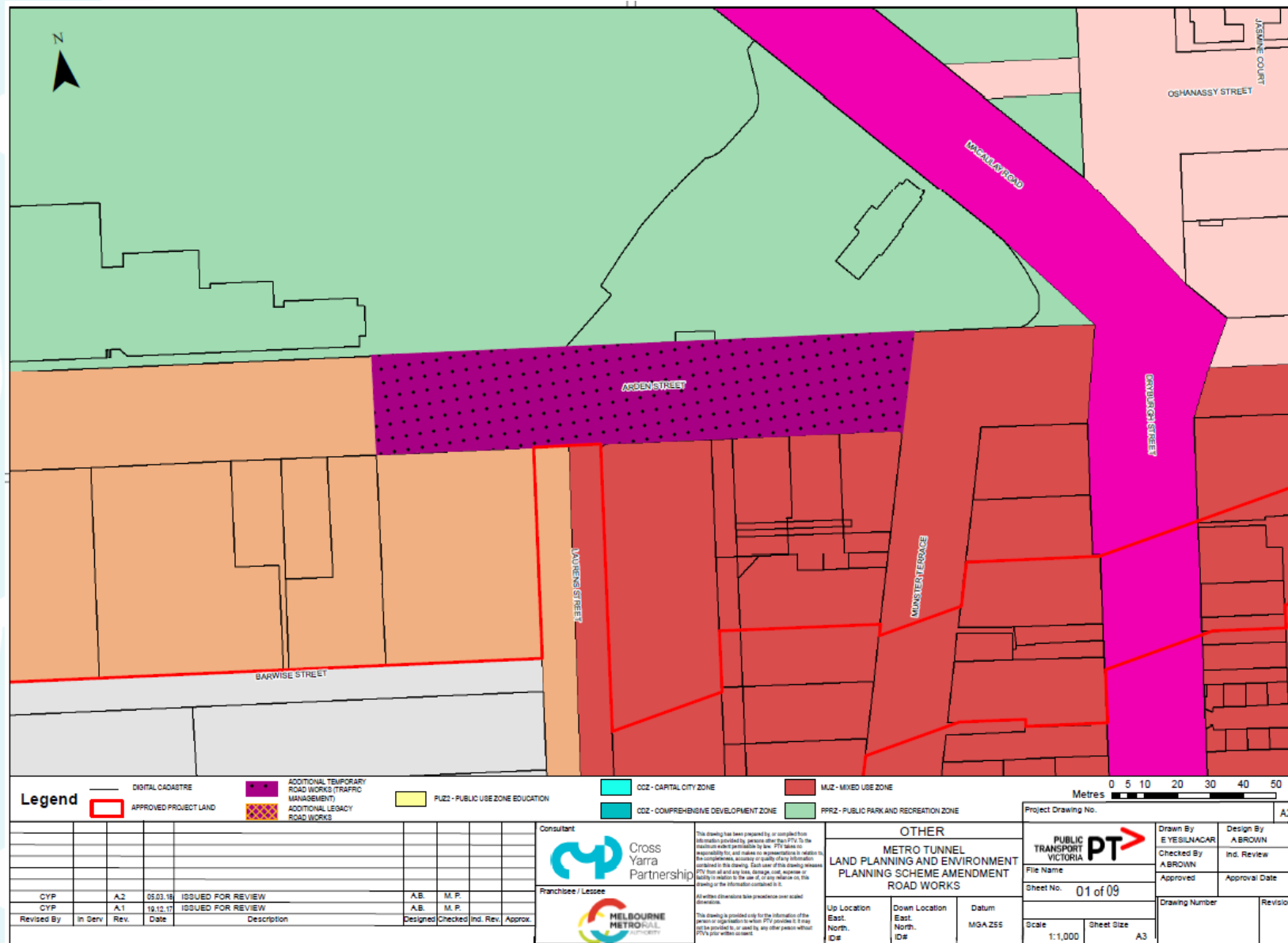


FIGURE 67: PLANNING ZONES AT MELBOURNE CITY COUNCIL

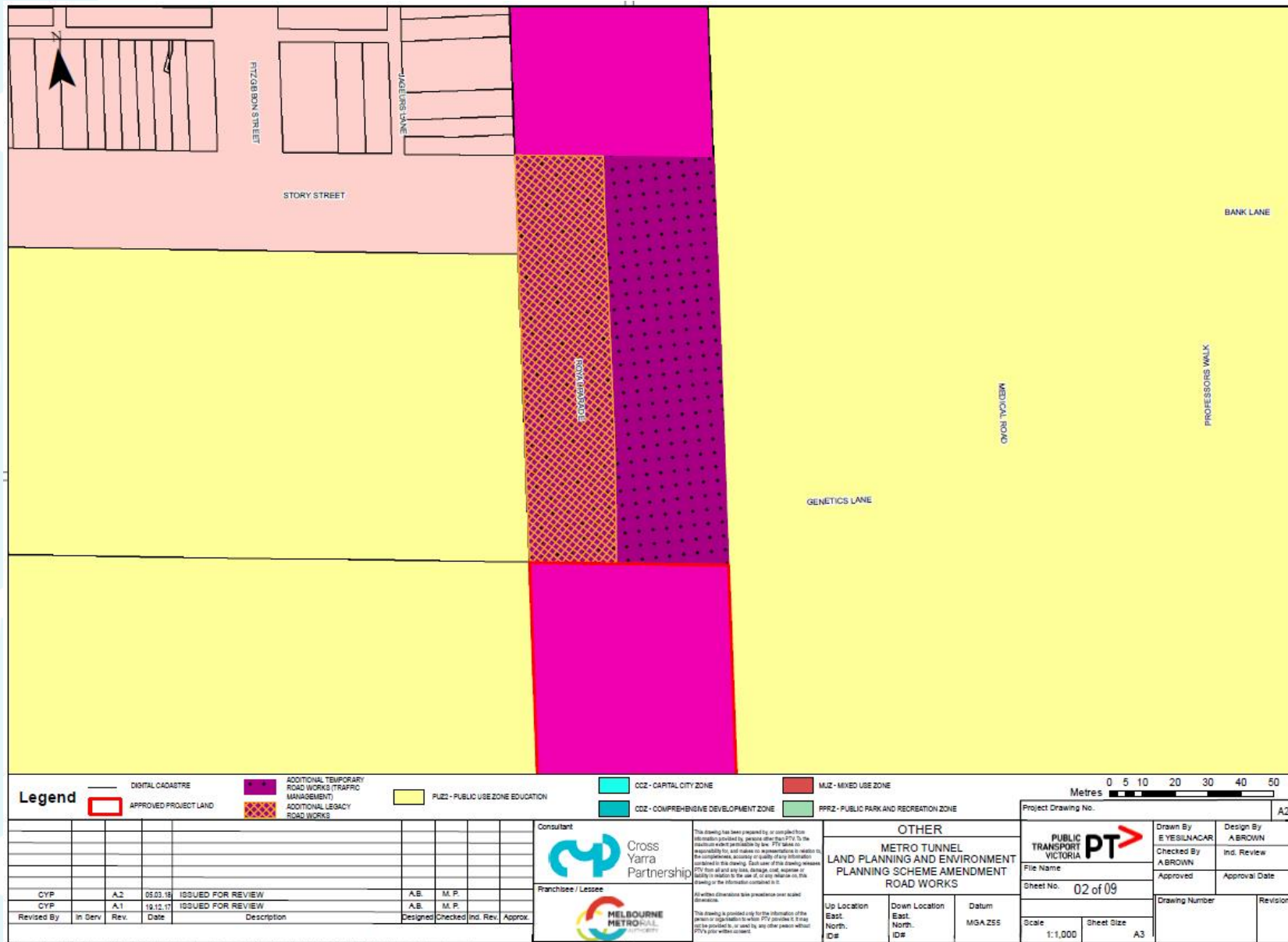


FIGURE 68: PLANNING ZONES AT MELBOURNE CITY COUNCIL



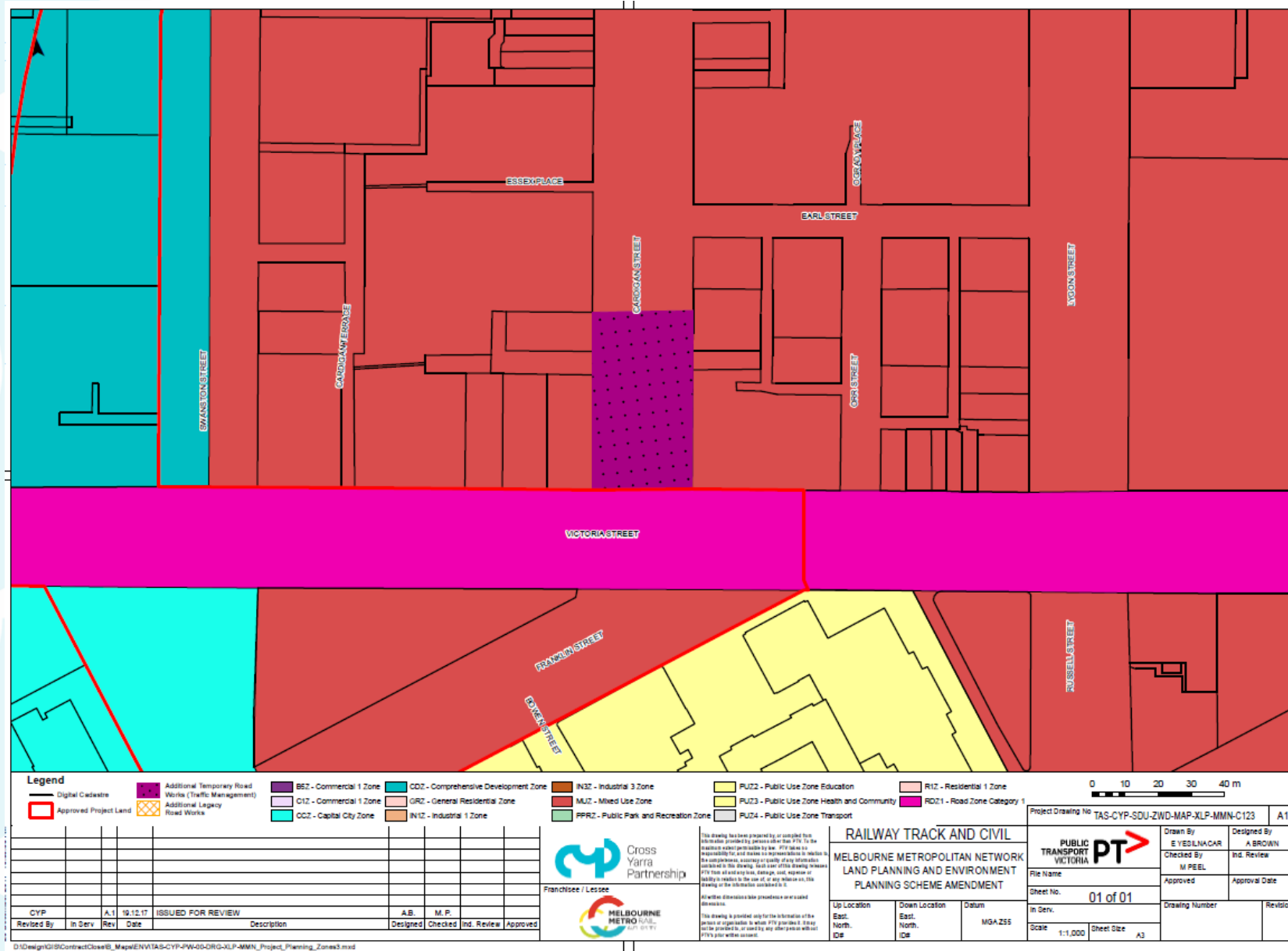


FIGURE 69: PLANNING ZONES AT MELBOURNE CITY COUNCIL

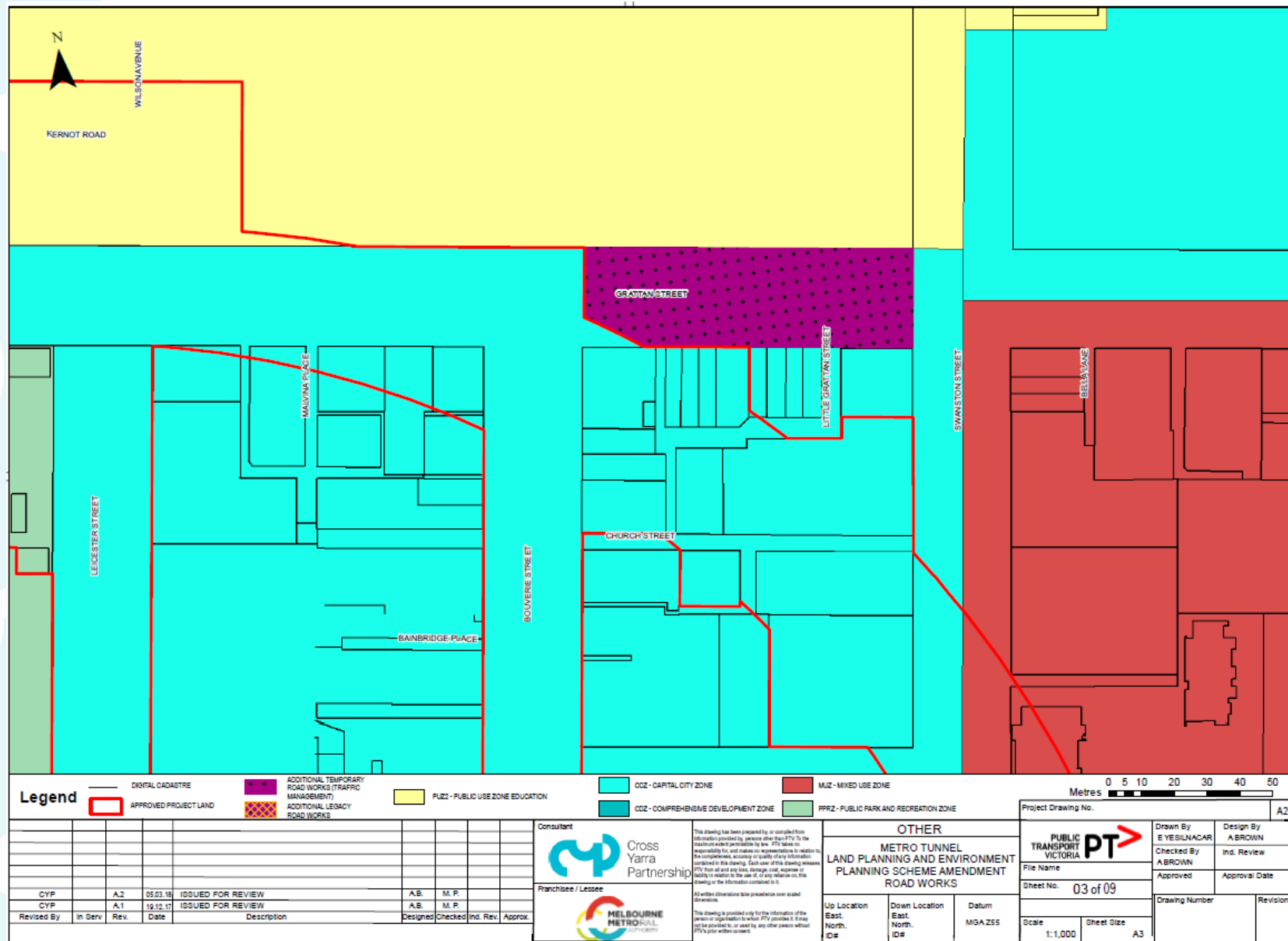


FIGURE 70: PLANNING ZONES AT MELBOURNE CITY COUNCIL

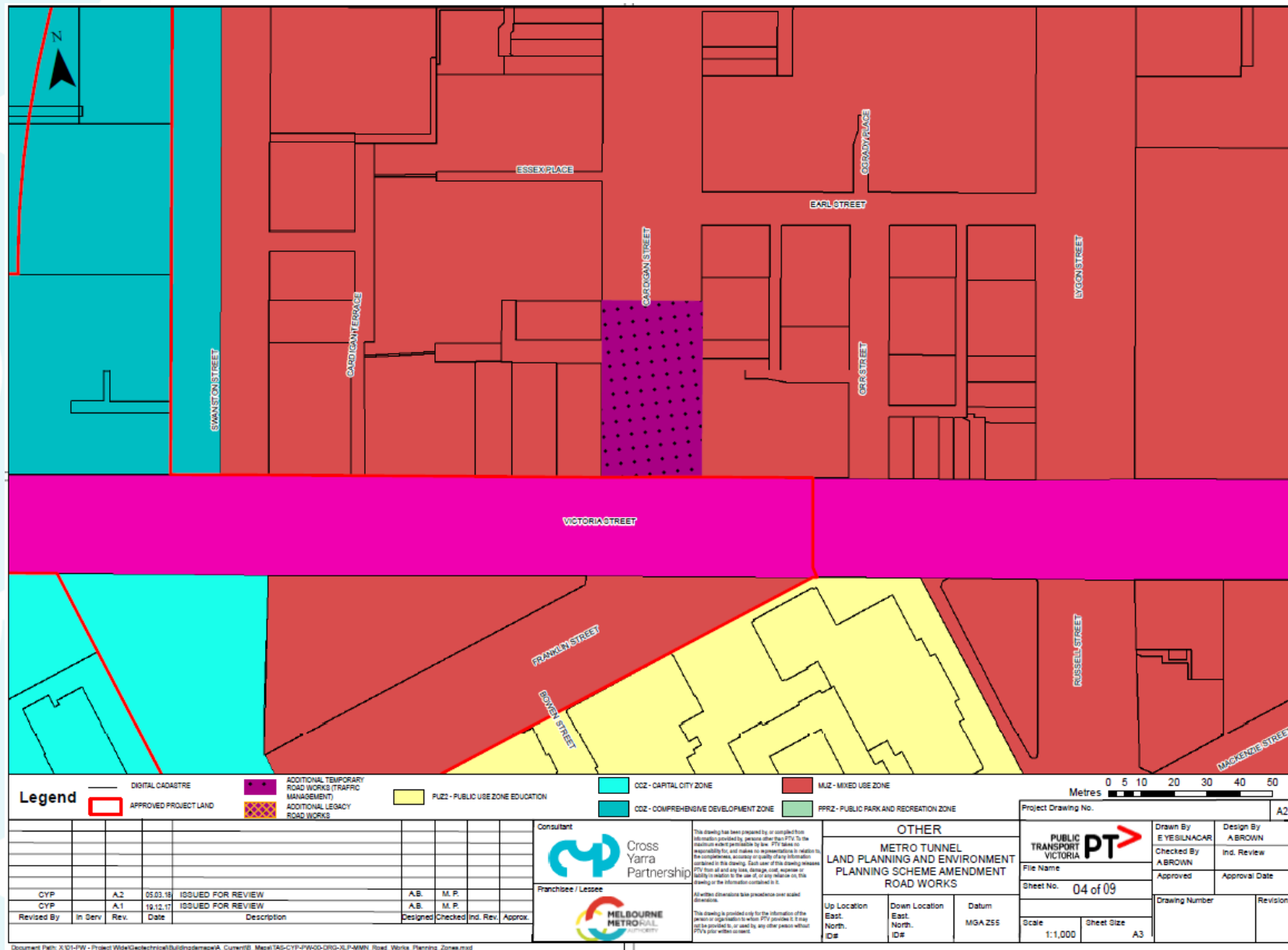


FIGURE 71: PLANNING ZONES AT MELBOURNE CITY COUNCIL



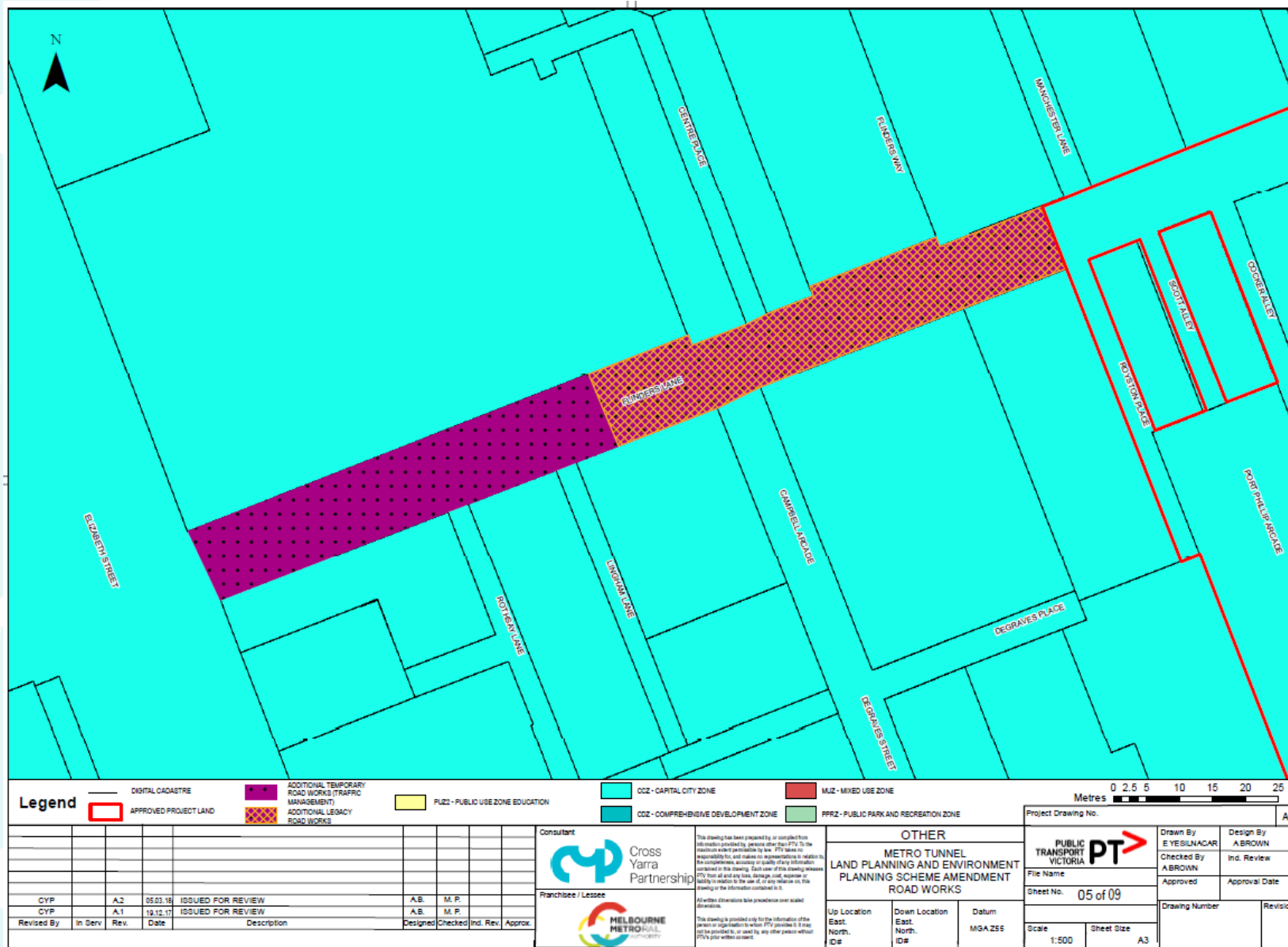


FIGURE 72: PLANNING ZONES AT MELBOURNE CITY COUNCIL

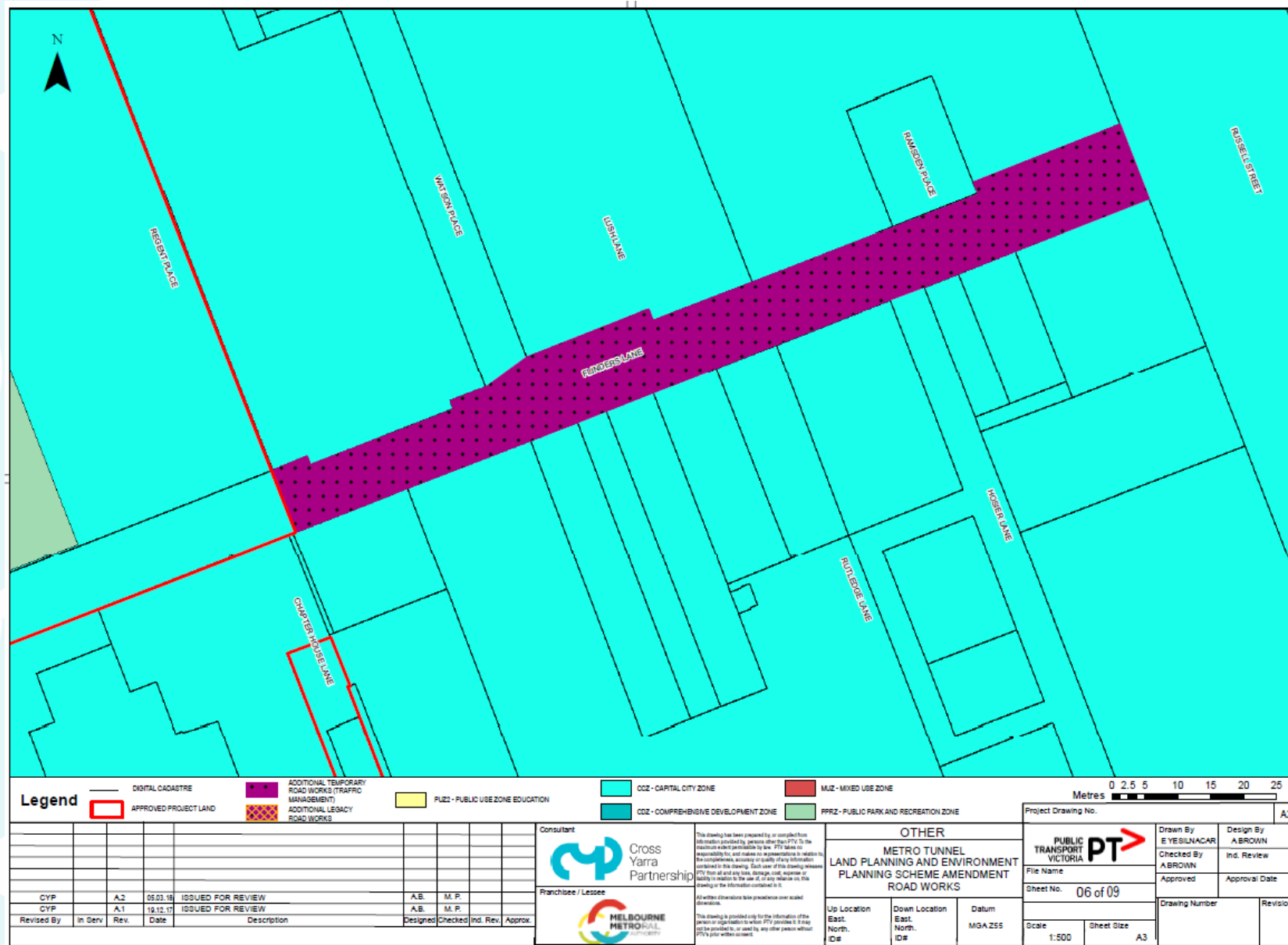


FIGURE 73: PLANNING ZONES AT MELBOURNE CITY COUNCIL

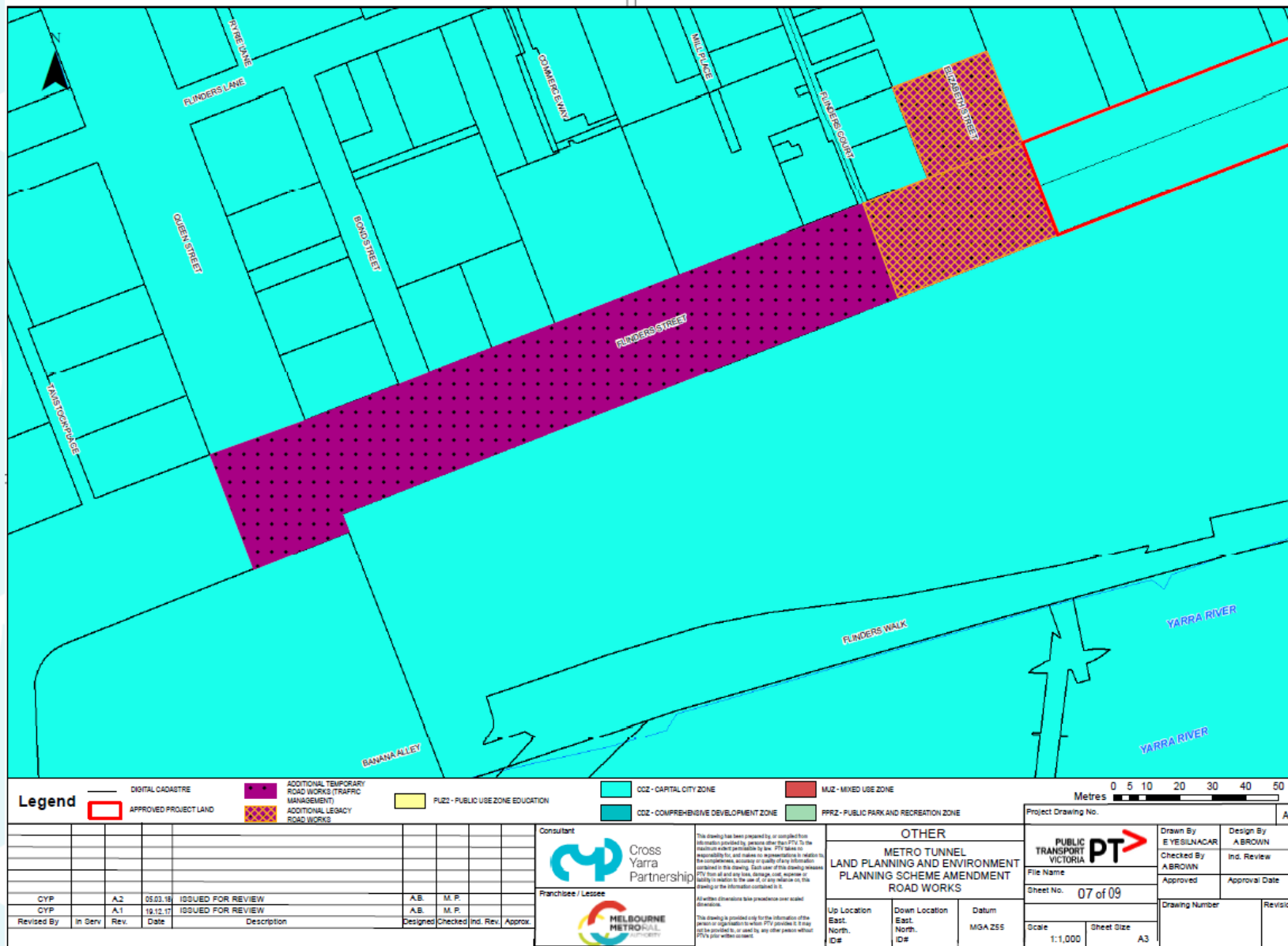


FIGURE 74: PLANNING ZONES AT MELBOURNE CITY COUNCIL



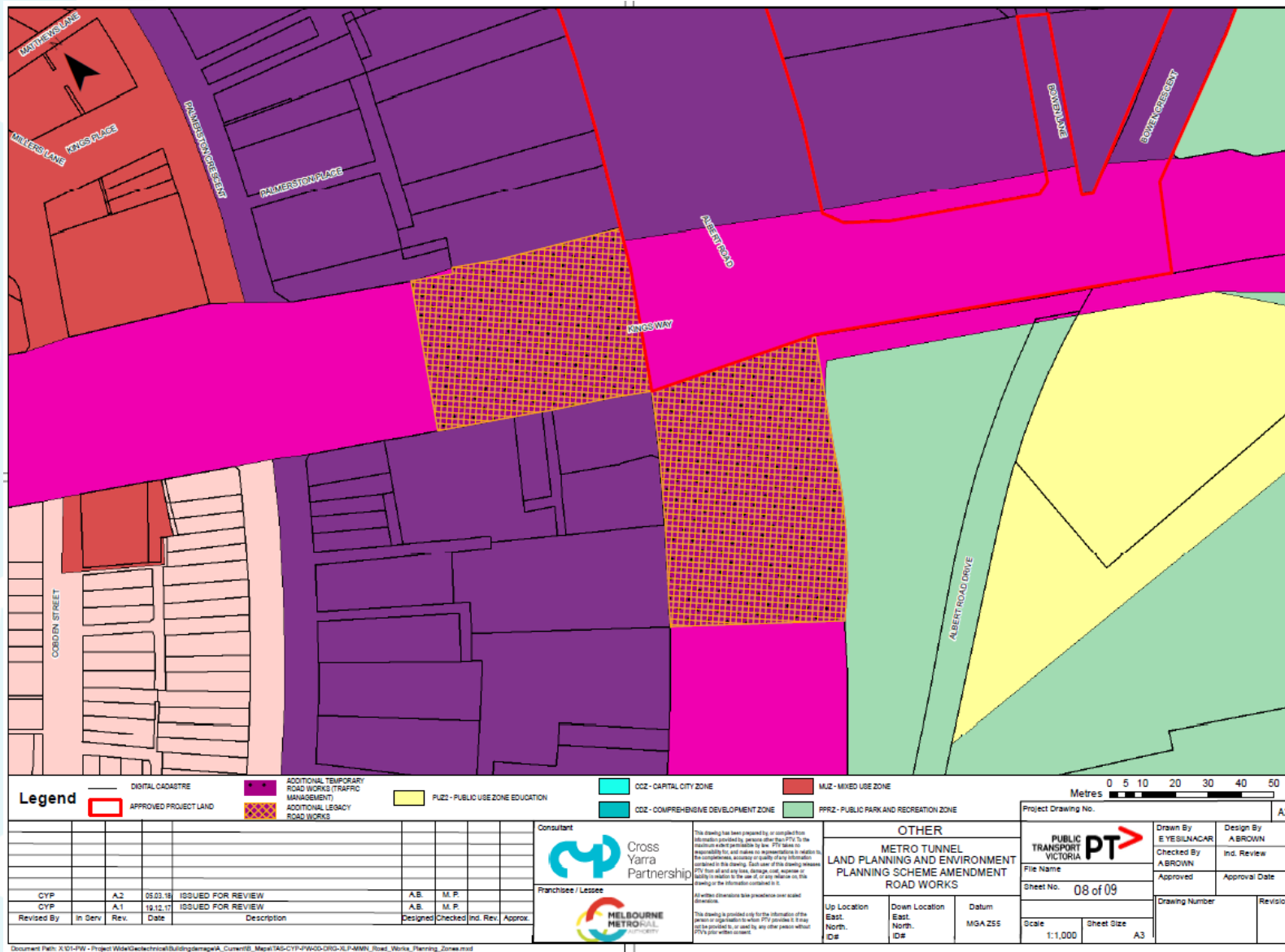


FIGURE 75: PLANNING ZONES AT PORT PHILLIP CITY COUNCIL



TABLE 31: MELBOURNE METRO CHANGE TO THE APPROVED PROJECT LAND - ZONES

Permit Triggers for City of Melbourne		
Zones	Road	Comments
<b>Road Zone 1</b>		
Use	x	No permit required for the use of land for a Road.
Building and works	x	
<b>Permit Triggers for City of Port Phillip</b>		
<b>Road Zone 1</b>		
Use	x	No permit required for the use of land for a Road.
Building and works	x	
<b>Permit Triggers for City of Stonnington</b>		
<b>Road Zone 1</b>		
Use	x	No permit required for the use of land for a Road.
Building and works	x	Buildings and works not requiring a permit - Roadworks
<b>Activity Centre Zone 1</b>		
Use	x	No permit required for the use of land for a Road.
Building and works	x	Buildings and works not requiring a permit - Roadworks

The Design and Development Overlay is the most prominent overlay in this area. This reflects all Councils focus on building height with street edge height, upper level setback and built form outcomes emphasised. All areas are impacted by the Special Building Overlay, which identifies land in urban areas liable to inundation by overland flows from the urban drainage system. Table 32 summaries this.

TABLE 32: MELBOURNE METRO CHANGES TO THE APPROVED PROJECT LAND - OVERLAYS

Permit Triggers for City of Melbourne			
Overlays	Buildings and works	Vegetation Removal	Comments
Heritage Overlay	✓	✓	Where a site is listed on the Victorian Heritage Register, the requirements of the <i>Heritage Act 2017</i> supersede the requirements of the Heritage Overlay in the planning scheme.
Special Building Overlays	✓	x	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.
<b>Permit Triggers for City of Port Phillip</b>			
Design and Development Overlay (Schedule 26 – 3A St. Kilda Road North Precinct: Albert Road)	✓	x	Vehicle crossovers should be no more than 6m wide, with a maximum of one crossover per site. Vehicle ingress and egress, loading facilities and building services should not be located on frontages along St Kilda Road or Punt Road. Car access ways should not visually dominate the façade of a building.
Design and Development Overlay (Schedule 26-4A St.Kilda Road North Precinct: Albert Road North And Bowen Crescent)	✓	x	Vehicle crossovers should be no more than 6m wide, with a maximum of one crossover per site. Vehicle ingress and egress, loading facilities and building services should not be located on frontages along St Kilda Road or Punt Road. Car access ways
Special Building Overlay (Schedule 1 - Melbourne Water Main Drain)	✓	x	Approval is required for roadworks.
<b>Permit Triggers for City of Stonnington</b>			
Design And Development Overlay (Schedule 1 Royal Botanic Gardens, City Of Melbourne)	x	x	Approval is not required for a building or works to be constructed up to 12 metres in height.



Design and Development Overlay (Schedule 20 Melbourne Metro Rail Project - Infrastructure Protection Areas)	✓	x	Approval is required for earthworks or excavation that change the Surface Level by over 1metre, underground utility requiring a trench over 2 metres below ground, internal and external alterations to a building if below Surface Level works and works to a tramways.
Heritage Overlay	✓	✓	Where a site is listed on the Victorian Heritage Register, the requirements of the <i>Heritage Act 2017</i> supersede the requirements of the Heritage Overlay in the planning scheme.
Special Building Overlay	✓	x	Approval is required for roadworks.

There are currently no active planning permits within the road reserves.

#### 4.5.4 Risk Assessment

Additional Surface Road Works may result in temporary limitations on access to properties along the affected roads. It is understood that the road surface works will not result in a permanent change in road function albeit that legacy assets such as landscaping and urban design treatments may be introduced in the road reserve. Table 33 below identifies the initial Environmental Risk ratings for additional road works.

TABLE 33: INITIAL ENVIRONMENTAL RISK ASSESSMENT FOR ADDITIONAL ROAD SURFACE WORKS

			Initial Risk			Residual Risk			
Aspect	Impact Pathway	Project phase	Likelihood	Consequence	Inherent Risk Rating	Relevant Discipline EPRs	Likelihood	Consequence	Residual Risk Rating
Site establishment									
Land use and planning	Impact on existing or future land use	Construction	Likely	Major	High	Addressed by EPR LU1	Likely	Minor	Medium
Roadworks									
Land use and planning	Impact on existing or future land use	Construction	Likely	Major	High	Addressed by EPR LU1	Likely	Moderate	Medium
Tramworks									
Land use and planning	Impact on existing or future land use	Construction	Likely	Major	High	Addressed by EPR LU1	Likely	Moderate	Medium
Reinstatement									
Land use and planning	Impact on existing or future land use	Construction	Likely	Major	High	Addressed by EPR LU1	Likely	Minor	Medium

## 4.5.5 Impact Assessment

### Summary

It is expected that no properties will be directly impacted as a result of the surface road works as all the works will occur within the road corridors. This will have implications for adjoining properties, which will be discussed below.

TABLE 34: BENEFITS AND ISSUES OF THE ADDITIONAL ROAD WORKS

Element	Issue	Benefits
<b>Legacy road work</b>	<ul style="list-style-type: none"> <li>works will have some longer-term impacts of up to six months</li> <li>potential loss of trees within the precinct</li> <li>access to properties surrounding the construction work site</li> </ul>	<ul style="list-style-type: none"> <li>roads are reinstated to pre-development standards</li> <li>the correct road adjustments meet applicable road standards and regulations</li> <li>bike lanes to be included in updated CYP design, which should provide safer, sustainable private transport options</li> <li>associated landscaping works will improve the public realm.</li> </ul>
<b>Temporary traffic management</b>	<ul style="list-style-type: none"> <li>some longer-term impacts of up to three months in total.</li> <li>access to properties surrounding the construction work site</li> </ul>	<ul style="list-style-type: none"> <li>construction work can be carried out safely</li> <li>ensure that entries and exits cater for expected traffic volumes and with respect to sight distances, acceleration and deceleration provision and clear advanced warning signage</li> <li>keep traffic delays to a minimum by strategically managing traffic</li> <li>minimise disturbances to the environment</li> <li>comply with safety guidelines and regulations.</li> <li>should be short term - likely on a day to day basis</li> </ul>
<b>Tramworks</b>	<ul style="list-style-type: none"> <li>access to properties surrounding the construction work site</li> </ul>	<ul style="list-style-type: none"> <li>allow the trams 19, 57 and 59 to integrate into the current tram network along Flinders Street</li> <li>allow more trams onto the network overall</li> <li>reduce delays currently experienced on the network due to trams terminating at the Elizabeth Street/Flinders Lane final stop.</li> </ul>

Table 35 identifies the main assets within the area and the impact the proposed change to Project Land will have on the assets. This is followed by ways to mitigate these impacts and the related EPRs.

TABLE 35: IMPACTS, MITIGATION MEASURES AND RELATED EPRS

Asset / value	Impact	Proposed mitigation measures	EPRs
<b>Heritage precinct</b>	<ul style="list-style-type: none"> <li>possible construction activities could impact on heritage value through ground movement</li> </ul>	<ul style="list-style-type: none"> <li>selection of appropriate construction equipment/construction methodology to minimise ground movement</li> <li>undertake ground movement and vibration modelling to ensure construction and operation have no long term impacts on the building</li> </ul>	LU1 & CH2
<b>Residential, retail and commercial uses</b>	<ul style="list-style-type: none"> <li>possible construction activities could temporarily inhibit development above ground.</li> <li>possible temporary disruption to access to business, workplaces, residents</li> </ul>	<ul style="list-style-type: none"> <li>selection of appropriate construction equipment/construction methodology to minimise disruption to medical uses.</li> <li>consultation with affected land holders</li> <li>introduction of Business Disruption Management Plan to mitigate impact on business</li> <li>were applicable compensation for business and residents to mitigate impacts</li> </ul>	LU1, EM1, EM2, NV1 & NV12

### Strategic Planning Policy Support

#### Plan Melbourne

Plan Melbourne transport aspirations to create a more connected Melbourne will be facilitated by a better tram curve which will allow the trams 19, 57 and 59 to integrate into the current tram network along Flinders Street.

#### State and Local Planning Policy

The appropriate State Planning Policy Framework (SPPF) objectives are well supported as the additional land will support the delivery of the Melbourne Metro Rail project, in doing so, the following SPPF requirements have been met:



**Clause 18 Transport** - the development of the Elizabeth Street/Flinders Street supports many of the objectives of the States Transport policy. The inclusion of additional Project Land will support a project that will create a safe and sustainable transport system by integrating land-use and transport. The project aims to facilitate greater use of public transport and subsequently promote increased development close to public transport routes in Metropolitan Melbourne.

Temporary road management works does not need to be considered by the Local Planning Scheme. The legacy work however will need to. The objectives of the road zones is well supported by the legacy road works being undertaken as a result of the additional Project Land. The use of the road zone will not be impacted by the road surface works, which includes the Flinders Street/Elizabeth Street tram curve, pedestrian/cycle crossings and curb and channel adjustments. There will be impacts as a result of the installation of the tram curve, however these should be addressed in the Transport Management Plan and through transport modelling at the design phase. At Toorak Road utility upgrades are planned, which will have no detrimental impact to the uses outlined in the Activity Centre Zone.

The Design and Development Overlay in each area reflects all Councils focus on building height with street edge height, upper level setback and built form outcomes emphasised, which will not be impacted by the additional road surface works. The Special Building Overlay, which identifies land in urban areas liable to inundation by overland flows from the urban drainage system will need to be considered. Surface water modelling during the design phase is expected to inform the legacy road work, therefore it is not expected to cause any detrimental impact. There is also a low possibility of the additional road surface works impacting on design in the future. The Design and Development Overlay Schedule 20 (DDO20) will need to be considered at Toorak Road as the Overlay specifies any underground utility trench of more than two metres below Surface Level requires a permit. The design phase should mitigate any impact the upgrade to services has on the Melbourne Metro tunnels, therefore it is not believed there will be any detrimental impact as a result of the additional works through construction or in the future.

Within the CBD, the Heritage Overlay applied to Flinders Street and Flinders Lane. The Flinders Gate Precinct key attributes include:

- the traditional gateway to the central city from the south and an area associated with retailing.
- major 19th and early 20th century buildings including Flinders Street Station, St Paul's Cathedral and Princes Bridge.

Flinders Lane Precinct key attributes include:

- the scale and character of the six and seven-storey office and warehouse buildings constructed in Flinders Lane before the Second World War and the predominant building forms and materials of the precinct.
- the traditional association with 'Rag Trade' activities, other creative professions, or dwellings.
- the large showcase windows at the ground and basement floors of the warehouse offices constructed before the Second World War.

HO150 Toorak Road (west of William and Claremont Streets) Precinct

For the precincts under the heritage overlay, a Heritage Management Plan will be prepared as part of this Planning Scheme Amendment to ensure that potential impacts on the heritage values of these areas are limited or mitigated. As the work will be occurring within the road reserve, it is not expected any major impacts will occur as a result of the additional Project Land. The impacts of dust may need to be considered as a result of the road works, however this will be addressed in the Construction Management Plans.

Overall, there should be no long term, negative impact on use and design of the road network as result of the additional road surface works. It is of the view the works will overall improve the current transport network by facilitating better tram movement through the Elizabeth Street and Flinders Street corridor.

## Strata divestment

There is not expected to be any strata divestment as a result of the additional road surface works.

## Heritage, Local Character, Built Form and Design

There are no Heritage Inventory Registered assets impacted as a result of the road management and legacy road works. Those precincts impacted by the Heritage Overlay are discussed above in Strategic Planning and Land Use.

There is expected to be limited impact on street trees as there road management activity will not require trees to be removed. This is in line with the EMF process and particularly Arboculture EPRs AR1 and AR4. The tram curve works, additional cycle paths and crossings and utility should also not require trees to be removed as the works will occur in the roadways. There may be some trees removed as a result of works to footpaths, bus stops and drain maintenance/installation. However, during reinstatement landscaping is expected to occur at Royal Parade, Flinders Lane. King Way and Albert Road ensuring no long-term loss to public realm.

There will be no demolition of buildings as a result of the additional road surface works.

It is not expected that public open space will not be occupied as part of the scope within this area. Issues around access to public open space may be an issue, particularly at Arden Street. This will however be managed as part of the Transport Management Plan. Therefore, the residual risk rating on land use and built form in this precinct is low.

## Access

Access will be the key issue as a result of the additional road surface works. Road closures will occur across the whole Project during construction. In particular for this Planning Scheme Amendment, the longest closures are expected to take up to 6 months. For road traffic management, these are likely on a day to day basis. It will include partial lane closures which will impact traffic movement and possibly parking. The legacy work may have a greater impact, particularly as a result of the Flinders Street/Elizabeth Street tram curve. This area of the CBD is a busy traffic and pedestrian thoroughfare, therefore disruptions will be unavoidable. These impacts should be managed through the Traffic and Transport Management Plans as well as Construction Management Plans. This will occur as part of the EMF process for Transport and falls under the EPR T2. The legacy work may impact on the use and access to business in the area, however a Business Disruption Plan will seek to minimise this. Therefore, given the short-term nature of the impacts the residual risk rating on land use and built form is low.

## Amenity

Increased noise and dust from construction will be evident, although these impacts should be managed through the implementation of appropriate environmental management measures outlined in the Noise and Vibration environmental risk assessment and EPRs. Vibration and ground movement impacts on sensitive receivers i.e VHR buildings, could occur, however are likely to be addressed through further vibration and ground movement studies as part of the EPRs. A Noise and Vibration assessment and Construction Noise and Vibration Management Plan (as part of EPR NV21) will occur as part of the EMF process.

## Conclusion

The legacy road works being undertaken will provide a new tram curve at Flinders Street/Elizabeth Street allowing more trams onto the network. Roads will be reinstated to pre-development standards and with the correct road adjustments in place to meet applicable road standards and regulations. Landscaping will be improved, creating better public realm. There will be some impact on traffic movement and access, however these impacts will be managed by Transport Management Plans and Business disruption plans. The works themselves compliment the local and state planning policy and promote a more integrated transport network.

### 4.5.6 Stakeholders

MMRA and CYP, will be undertaking consultation in relation to draft Planning Scheme Amendment GC82. This includes affected Councils and key landowners/occupiers. In recognition that project progress and decisions can be enhanced through dialogue with the community and relevant stakeholders, MMRA has developed core principles and goals for the planning and construction of the project, described in Table 14. CYP shares these principles and goals. Furthermore, the findings from this series of impact assessments will inform refinement of the Communication and Stakeholder Engagement Strategy.

A three phase approach has been developed. Phase 1 – Early Engagement, Phase 2 - Engagement to support public display of draft PSA and Phase 3: Engagement post PSA. These have been outlined in Section 4.2.6.

In line with this process, CYP and MMRA are in Phase 2 and have presented the proposed changes to Project Land to the following stakeholders:

- Councils – City of Melbourne (including as asset owner of Melbourne Town Hall), City of Port Phillip, City of Stonnington and City of Maribyrnong
- State Government departments and agencies – Department of Environment, Land, Water and Planning (DELWP), EPA Victoria, Heritage Victoria, Melbourne Water, Public Transport Victoria (PTV), Transport for Victoria (TfV), VicRoads and Federation Square
- Affected research and educational institutions – RMIT University (including as asset owner of Capitol Theater), University of Melbourne and State Library
- Project's reference groups – CBD Community Reference Group and Parkville Precinct Reference Group
- St. Paul's Cathedral (Melbourne Anglican Trust Corporation's (MATC))
- Affected private landowners and occupiers including representatives from Melbourne Central, Manchester Unity and QV Building.

The draft PSA and supporting documents will be published on the Metro Tunnel website for 30 calendar days. An online feedback form will be made available for the duration of the draft PSA public display period for landowners and tenants to provide feedback on the PSA process and potential impacts on their property. These comments will be responded to, as outlined in Phase 3 of the consultation process.

### 4.5.7 Environmental Performance Requirements

A performance-based approach such as the EPRs aims to achieve outcomes that provide a net community benefit, while allowing for a delivery model with sufficient flexibility to encourage innovation to determine how any recommended Environmental Performance Requirements would be achieved. For the works undertaken across the whole project related to additional road works, the following EPRs aim to mitigate any impacts on the environment:

TABLE 36: MITIGATION MEASURES

Asset / value	Impact	Proposed mitigation measures	EPRs
<b>Heritage precinct</b>	<ul style="list-style-type: none"> <li>possible construction activities could impact on heritage value through ground movement</li> </ul>	<ul style="list-style-type: none"> <li>selection of appropriate construction equipment/construction methodology to minimise ground movement</li> <li>undertake ground movement and vibration modelling to ensure construction and operation have no long term impacts on the building</li> <li>prepare a Heritage Impact Assessment</li> </ul>	LU1
<b>Residential, retail and commercial uses</b>	<ul style="list-style-type: none"> <li>possible construction activities could temporarily inhibit development above ground.</li> <li>possible temporary disruption to access to business, workplaces, residents</li> </ul>	<ul style="list-style-type: none"> <li>selection of appropriate construction equipment/construction methodology to minimise disruption to medical uses.</li> <li>consultation with affected land holders</li> <li>introduction of Business Disruption Management Plan to mitigate impact on business</li> <li>were applicable compensation for business and residents to mitigate impacts</li> </ul>	LU1

### 4.5.8 Assumption and Limitations

The relevant planning provisions were assessed for Melbourne, Port Phillip and Stonnington Council. Maribyrnong Council planning scheme was not assessed as there will be land within the municipality impacted.

It is assumed that other assessments and modelling will be undertaken, particularly around transport management to ensure minimal impact disruption to pedestrian, public transport and private transport movement. The TMPs will be prepared and implemented in accordance with the approved EPRs for the project, setting out specific traffic management activities. The TMP be prepared and satisfy EPR T2. The Transport and Traffic Working Group TTWG will be also be presented with the TMPs for comment. Furthermore, a Business Disruption Plan (as part of the Business EPR B2) is assumed to be implemented to alleviate issues regarding access to businesses and workplaces.



## 5. Conclusion

Overall, there is an established net benefit to the community, economy and future development of Melbourne as a result of the changes to the approved Project Land.

The primary issues that have arisen from this land use and planning assessment include:

- Potential constraints on future development potential of land due to the presence of the underground infrastructure: The Design and Development Overlay introduced through GC45 ensures the alignment and all Melbourne Metro Infrastructure is not directly contacted or unreasonably loaded upon by future development. Such strategic restrictions will have impacts on future development. However, given there are no identified active permits for basements development, the lot sizes are relatively small, there is limited road access to most properties and the area is strictly regulated by other Design and Development Overlay's height restrictions and; it may be assumed that it is unlikely any major basement development will occur in the near future and thus would be detrimentally impacted by the Project.
- Land acquisition within each precinct and the resulting potential for some land use change: Future land use and built form would need to be undertaken in accordance with the relevant planning policy and strategic planning guidance. Underground strata divestment is not expected to result in any land use change as a consequence of this planning scheme amendment.
- Potential for access issues to impact on existing land uses: These are generally considered temporary issues during construction.
- Temporary road closures: Access will be the key issue as a result of the additional road surface works. Road closures will occur across the whole Project during construction, however given the temporary nature of the closures are not considered detrimental.

There are also a number of land use and planning benefits that will result from the additional Project Land facilitating the construction and operation of the Melbourne Metro tunnels. This includes, but not limited to:

- improving accessibility across the whole of Melbourne, particularly to identified National Employment Cluster and Health and Education Precinct and southern Melbourne CBD.
- accommodate and support ongoing design improvements across Parkville Station, CBD North Station and CBD South Station
- provide commuters seamless access from the new railway stations to existing railway stations and to the middle of Flinders Street Station platforms, avoiding the already congested forecourt area of Flinders Street Station ensures the delivery of the MM project in a timely, coordinated and consistent manner.

Impacts will be appropriately managed by achieving the recommended EPRs across all disciplines. This would ensure that Melbourne Metro would meet the land use and planning objectives established as part of the EES and PSA processes.