EARLY WORKS PLAN FOR APPROVAL

METRO TUNNEL PROJECT MANAGING CONTRACTOR – EARLY WORKS

Doc No. MMEW-JHG-CO-PLN-ENV-0001 Rev. 5.1









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Revisions

Draft issues of this document shall be identified as Revision A, B, C etc. The first post approval version will start Revision 00. Revision numbers shall use a sequential numbering system commencing at Rev. 01, 02, etc.

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

Rev	Date	Prepared by	Reviewed by	Approved by	Remarks
0.	16/02/2017	M. Treadwell	C. Freestone	D. Cownley	Issued for Public Display
1.	16/03/2017	M. Treadwell	R. Macdonald	D. Cownley	Issued for Ministerial Approval
2.	27/04/2017	M. Treadwell	C. Freestone	D. Cownley	Issued for Ministerial Approval – Parkville Revision
3.	10/08/2017	N. Harris-Baxter	C. Freestone	F. Bowie	Issued for Ministerial Approval – Eastern Portal Revision
4.	15/09/2017	N. Harris-Baxter	F. Bowie	D. Cownley	Issued for Ministerial Approval – CBD North Revision
5.	01/12/2017	N. Harris-Baxter	C. Jackson	D. Cownley	Issued for Ministerial Approval – Parkville, CBD North, Domain and Eastern Portal Revision
5.1	11/12/2017	N. Harris-Baxter	C. Jackson	D. Cownley	Reference to University Square removed from section 4.3.5 & response to AR4 and CH6 updated in line with CoM feedback





Distribution

The Plan is distributed to the Minister for Planning for approval and following this to the Managing Contractor Leadership Team (MCLT) and Wider Project Team (WPT) for implementation.

The controlled copy of this plan will be maintained in the Project Document Management System. Each revision of the plan will also be updated within the Document Management System.

Copies of the Plan downloaded by project personnel shall be deemed uncontrolled.

Approval for Implementation

This Management Plan has been reviewed by the Project Director with regards to the appropriateness and conformance to the requirements of the MCA of the Project Management System contained therein and has been deemed appropriate for implementation.

Name	Rob Cranston (Project Director)	Signature		Date	
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Definitions

The following specific definitions apply to this plan:

Construction Environment Management Plan (CEMP)	Overarching document which details the management of environmental aspects and impacts associated with the delivery of the works (forms part of the Managing Contractor Agreement). The document has been prepared in accordance with the applicable requirements of the Incorporated Document (Clause 4.7.3).		
Early Works	Works identified as Early Works in the Melbourne Metro Rail Project's EES (section 6.5.10 and applicable technical appendices). Works in this phase can only commence following approval of an applicable Early Works Plan.		
	Early Works include the Yarra Trams works which are to be approved under a separate Early Works Plan.		
Early Works Package	Works overseen/delivered by the Managing Contractor which are to be undertaken prior to the commencement of the main program. The Managing Contractor scope of works is identified within the EES and includes the following:		
	 Utility service relocation and protection of utility assets; 		
	Site preparation works, including demolition works, removal or		
	relocation of trees and monuments, minor road / transport network		
	changes; and		
	Works for construction of shafts at CBD North and CBD South		
	station precincts.		
Enabling Works	Works identified in Victorian Government Gazette No. S361 (24 November 2015) and excluded from assessment under the EES.		
Environment Effects Statement (EES)	Assessment of the potential environmental, social and business impacts associated with the proposed construction and operation of Metro Tunnel under the <i>Environment Effect Act 1978</i> .		
Environmental Management Framework (EMF)	Refer to Clause 4.7 of the Incorporated Document - Part 1 of the EMF, including EPRs, was approved by the Minister for Planning on 9 February 2017. Part 2 of the EMF is to incorporate the final version of the Residential Impact Mitigation Guidelines and the Business Support Guidelines for Construction, and will be approved prior to the commencement of Early Works.		
Environmental Performance Requirements (EPRs)	Performance requirements as detailed within the approved EMF.		
Incorporated Document	Incorporated Document for the Melbourne Metro Rail Project (December 2016) as referenced in The Maribyrnong, Melbourne, Port Phillip and Stonnington Planning Schemes.		
Key stakeholders	The term stakeholder refers to any person or organisation with an interest in the project. To determine key stakeholders the following factors need to be considered:		
	Whether a stakeholder has a regulatory or approval role in a given		
	activity.		
	Whether the stakeholder represents an impacted facility or activity		
	that is of importance to the wider community.		





	Whether a stakeholder possesses unique knowledge or skills that	
	would contribute to a significantly better solution.	
	Whether a stakeholder can effectively represent the views or	
	interests of many of those impacted by a given activity.	
Land Subject to Inundation Overlay (LSIO)	Land Subject to Inundation Overlay (LSIO).	
Managing Contractor	John Holland Group is the Managing Contractor engaged by Melbourne Metro Rail Authority to manage the delivery of the Early Works Package in accordance with the Managing Contractor agreement.	
Melbourne Metro Rail Authority (MMRA)	Melbourne Metro Rail Authority.	
Metro Tunnel	Melbourne Metro Rail Project as identified within the Incorporated Document.	
Minister's Assessment	Minster's Assessment of the Metro Tunnel EES as made under the Environment Effects Act 1978 (dated 20 December 2016).	
Minor Utility Installation	As defined under Clause 74 of the Victorian Planning Provisions.	
Planning Scheme Amendment (PSA)	Planning Scheme Amendment GC45.	
Preparatory Works	Works identified under clause 4.12 of the Melbourne Metro Rail Project Incorporated Document (December 2016) that are preparatory to the carrying out of works identified as Early Works in the Melbourne Metro Rail Project's EES (section 6.5.10 and applicable technical appendices). Works in this phase may proceed prior to the approval of plans or other matters listed in Clauses 4.6 to 4.9 of the Incorporated Document.	
Prescribed Stakeholders	Stakeholders as specifically identified under Clause 4.9.4 of the Incorporated Document. This includes the relevant Councils, affected utility service providers, Roads Corporation, Public Transport Development Authority, Melbourne Water and Heritage Victoria.	
Principal Environmental and Planning Approvals	Key approvals required for the delivery of Metro Tunnel. Includes statutory requirements associated with the <i>Planning and Environment Act 1987</i> (i.e. obligations stemming from the Incorporated Document), the <i>Heritage Act 1995</i> (i.e. Permits and Consents) and the <i>Aboriginal Heritage Act 2006</i> (i.e. Cultural Heritage Management Plan).	
Project Land	Land as identified within Appendix 1 of the Incorporated Document.	
Road and transport network changes	Some of the road and transport network changes identified in the EES will have greater or longer term impacts during construction and so require a more detailed approach within the Early Works Plan to appropriately manage impacts in accordance with the EMF and EPRs. Subsequently, road and transport network changes include activities that would result in permanent/long-term alteration of access to a road zoned Road Zone 1 (RDZ1) (and would ordinarily require consideration pursuant to Clause 52.29 – Land Adjacent to a Road Zone, Category 1, or a Public Acquisition Overlay for a Category 1 Road of the applicable planning scheme), or works which may have a significant impact on key pedestrian links.	
Sensitive Receptor	Sensitive receptors as per relevant statutory guidelines, including homes, schools, universities and hospitals, or places where a person's regular daily life might be affected by amenity impacts as a consequence of the Project. Sensitive receptors do not include public open space or places of work.	





Site Environmental Implementation Plans (SEIPs)	Subordinate to the CEMP are the Site Environmental Implementation Plans (SEIPs) which describe how environmental aspects and impacts will be managed at each distinct area (precinct) within the Project.
Special Building Overlay (SBO)	Special Building Overlay (SBO).
Transport Management Implementation Plan (TMIP)	Transport Management Implementation Plan.
Transport Management Plan (TMP)	Transport Management Plan.
Urban Design Strategy (UDS)	Refer to Clause 4.8 of the Incorporated Document – the UDS was approved by the Minister for Planning on 16 February 2017.
Victorian Heritage Inventory (VHI)	Inventory of historical archaeological sites which are identified and protected under the <i>Heritage Act 1995</i> .
Victorian Heritage Register (VHR)	Register of significant heritage places or/or objects which are identified and protected under the <i>Heritage Act 1995</i> .





1 Introduction

1.1 Purpose

Consistent with the requirements detailed under Clause 4.9.3 of the *Incorporated Document for the Melbourne Metro Rail Project* (dated December 2016) (referred to herein in as the Incorporated Document), the purpose of this Early Works Plan is to demonstrate how the applicable works are to be carried out in accordance with the approved Environmental Performance Requirements (EPRs) and the approved Urban Design Strategy (UDS).

1.2 Context of the Early Works Package

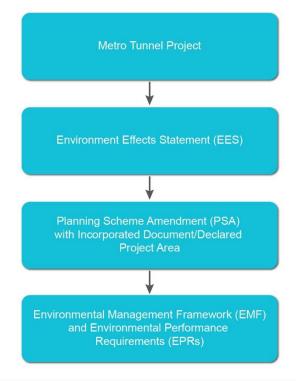
The framework for the approval of the Metro Tunnel Project (the Project) allows for certain works to occur at early stages to prepare critical works sites and help facilitate the timely delivery of the Project. To help progress such works Melbourne Metro Rail Authority (MMRA) has procured an Early Works Package which seeks to complete targeted works in advance of Main Works commencing.

The John Holland Group has been designated as the Managing Contractor for the delivery of the Early Works Package. Running parallel with the delivery of the Early Works Package is the Tram Works Package (to be delivered by a direct agreement with Yarra Trams - not subject to consideration under this Early Works Plan). The remaining works packages are yet to be awarded (refer to Figure 1).

The Managing Contractor is also engaged by MMRA to deliver the Enabling Works, and Preparatory Works (noting that this Early Works Plan does not cover all works which the Managing Contractor is responsible for delivering).







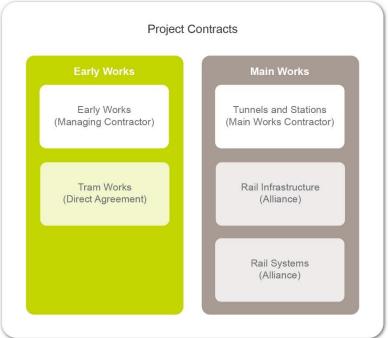


Figure 1. Governance framework for the delivery of the Metro Tunnel project.





1.3 Project Description

1.3.1 Background

In early 2015 the Victorian Government announced that it was committed to the delivery of the Project. The MMRA was established as an administrative office of the Department of Economic Development, Jobs, Transport and Resources and tasked with the delivery of the Project. The MMRA is responsible to the Minister for Public Transport.

1.3.2 Metro Tunnel Project

The Project comprises twin nine kilometre rail tunnels between Kensington in the inner west and South Yarra in the inner southeast of Melbourne that will connect the Sunbury and Pakenham/Cranbourne lines. The Project will provide five new inner city underground railway stations at Arden (western end of Queensberry Street in North Melbourne), Parkville (Grattan Street and Royal Parade), CBD North (Swanston Street between Victoria Street and La Trobe Street), CBD South (Swanston Street between Collins Street and Flinders Street) and Domain (St Kilda Road between Domain Road and Toorak Road) (refer to Figure 2). The Project is intended to significantly increase inner city station capacity and open the Parkville and Domain precincts to the rail network.

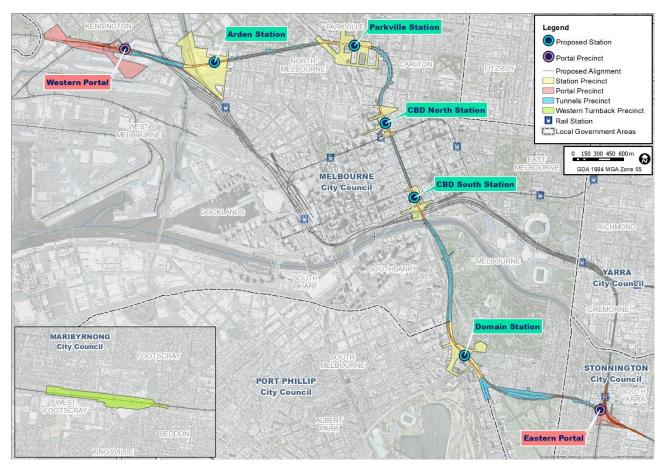


Figure 2. Precincts as identified within Project Land (refer to Appendix 1 of the Incorporated Document).





The area directly affected by the Project comprises land that is currently used for railway or road purposes, developed urban land (including land in Melbourne's central business district), and parkland. The Project's alignment commences at the Western Portal east of the Maribyrnong River, passes under Moonee Ponds Creek near CityLink and the Yarra River adjacent to Princes Bridge and returns to the surface at the Eastern Portal in the rail reserve at South Yarra, between Toorak Road and Chapel Street. For assessment purposes, the Project has been divided into nine precincts based on the location and nature of project components and construction works, the potential impacts on local areas and the characteristics of surrounding communities (refer to Table 1 for further details):

- 1. Tunnels (not applicable to the Early Works Package);
- 2. Western Portal (Kensington);
- 3. Arden Station;
- 4. Parkville Station;
- CBD North Station;
- 6. CBD South Station;
- 7. Domain Station;
- 8. Eastern Portal (South Yarra); and
- 9. Western Turnback (West Footscray) (not applicable to the Early Works Package).

A detailed description of the Project is provided in Volume 1, Chapter 6 of the EES. The Project and its potential effects on the environment are presented in the EES in the context of a concept design and specific alternative design options. The final detailed design will be prepared by the preferred Main Works tenderer, expected to be appointed to design and construct the Project during 2017, whilst Project Land is as identified within Appendix 1 of the Incorporated Document.

The scope of the Early Works dealt with in this plan are not anticipated to significantly vary with the appointment of the preferred tenderer to build the tunnels and stations.





Table 1. Site Context for precincts where Early Works are proposed.

Precinct	Description
Western Portal - Kensington (Precinct 2)	 Vicinity of South Kensington station; Contains housing, public open space and an industrial estate to the north; Railway lines and a freight terminal to the south.
Arden Station (Precinct 3)	 Characterised by wide streets, low rise development and a mix of land uses, including light and heavy industrial and residential; Currently dominated by a 14 ha publicly owned industrial site managed by VicTrack; Expected to undergo extensive urban renewal over the next 20 years.
Parkville Station (Precinct 4)	 Dominated by health and education uses, including major hospitals, leading research institutes and the University of Melbourne; Land uses range from high density development to residential areas with a strong heritage character; Precinct features the historic, tree-lined boulevards of Royal Parade and Flemington Road.
CBD North Station (Precinct 5)	Situated within Melbourne Central Business District (CBD); Currently characterised by a range of land uses including: RMIT University; Apartment towers; Melbourne Central Shopping Centre; State Library; Melbourne Central Station; Melbourne City Baths. Highly developed with a diverse mix of modern and heritage buildings.





Precinct	Description
CBD South Station (Precinct 6)	 Situated within Melbourne CBD; Dense inner urban area; Centred on the Swanston Street corridor between Collins and Flinders streets at the southern edge of the CBD. Site of several Melbourne landmarks and visitor destinations, such as: Federation Square; St Paul's Cathedral; Young and Jacksons Hotel; Melbourne Town Hall; City Square; and Flinders Street Station Numerous laneways lined with bars, cafes and retail outlets.
Domain Station (Precinct 7)	 Dominated by parks and gardens and the Shrine of Remembrance along the east side of St Kilda Road, north of Domain Road; Precinct features the historic, tree-lined boulevard of St Kilda Road; Offices and residential apartments feature along the west side of St Kilda Road; Melbourne Grammar School and commercial premises are located along the east side of St Kilda Road.
Eastern Portal – South Yarra (Precinct 8)	 Highly urbanised and comprises of mixed use development and a range of housing types, from detached housing to large residential apartment blocks; Borders one of Melbourne's busiest retail and entertainment precincts, centred on Toorak Road and Chapel Street.





2 Metro Tunnel Works Program

Work on the Project is proposed to proceed in phases. These are described below and are variously referred to in the text of the Minister's Assessment of the EES.

2.1 Enabling Works

Enabling Works are identified in Victorian Government Gazette No. S361 (24 November 2015) and were excluded from assessment under the EES.

2.2 Preparatory Works

Preparatory Works are defined under Clause 4.12 of the Incorporated Document, and are intended to commence prior to the approval of an Early Works Plan or Development Plan in accordance with Clause 4.12.2. These include Preparatory Works such as:

- a) Works, including vegetation removal, that would not require a permit under the provisions of the Planning Schemes that, but for the Incorporated Document, would apply to the relevant land.
- b) Investigations, surveys, testing and preparatory works to determine the suitability of land.
- c) Creation of construction access points.
- d) Establishment of environmental and traffic controls.
- e) Fencing and temporary barriers to enable preparatory works.
- f) Utility service relocations and protection works limited to the following locations only:
 - i. in the CBD North Precinct that are preparatory to works for the construction of shafts at Franklin and A'Beckett streets (including associated tree removal);
 - ii. on Flinders Lane between Russell and Swanston streets that are preparatory to works for shaft construction at City Square; and
 - iii. at Toorak Road West (between St Kilda Road and Leopold Street) that are preparatory to works associated with diverting tram services along Toorak Road West to connect with St Kilda Road.





2.3 Early Works

Early Works are referred to under Clause 4.9 of the Incorporated Document and as described within the EES, and are intended to commence prior to the approval of Development Plans but after the approval of the EMF (including EPRs) and UDS. Early Works include activities which are the responsibility of the Managing Contractor and activities which are to be delivered by Yarra Trams (and/or other parties). In accordance with Clause 4.9.7, Early Works cannot commence until such time as an Early Works Plan has been formally approved by the Minister for Planning.

2.3.1 Managing Contractor Early Works

Managing Contractor Early Works include activities such as:

- Utility service relocation and protection of utility assets;
- Site preparation works, including demolition works, removal or relocation of trees and monuments, minor road / transport network changes; and
- Works for construction of shafts at CBD North and CBD South station precincts.

The focus of this particular Early Works Plan is on works which are to be delivered by the Managing Contractor. The Managing Contractor's Early Works Plan is only seeking approval for tree removal associated with Enabling Works, and not the applicable utility service relocation/installation works per se. This is because utility service works associated with Enabling Works were excluded from the EES (as per Victorian Government Gazette No 361, dated 24 November 2015) and therefore do not need to be identified within an Early Works Plan.

2.3.2 Yarra Trams Early Works

Yarra Trams Early Works (and Construction Power Early Works) are part of other contracts and therefore approval obligations will be addressed via separate Early Works Plans.

2.4 Main Works

Main Works encompass the main body of the Project works and are subject to the preparation and approval of a Development Plan, and are not considered in this Early Works Plan. The bulk of Main Works will be completed by a number of contractors who are to be engaged by the MMRA to deliver the Project. In accordance with Clause 4.6, Main Works cannot commence until a Development Plan has been approved for the applicable works.





3 Scope of Early Works

To help summarise the nature and extent of activities associated with the delivery of Early Works Package, Early Works have been grouped into the following categories:

- Monument and Plaque Removal/Relocation;
- Utility Relocation Works;
- Tree Management Considerations;
- Road and Transport Network Changes;
- Shaft Construction (only applicable at CBD North and CBD South Station Precincts);
- · Property Demolition Works;
- Associated Construction Activities.

A summary of activities as applicable to each precinct has been provided under Section 4 of this Plan, whilst the processes and controls for delivering Early Works have been identified within Section 5. In addition to demonstrating compliance with the approved EMF and UDS, Section 5 outlines the approach to community notification and engagement in relation to Early Works and identifies management initiatives which are to be adopted to help mitigate against the potential for adverse impacts.

3.1 Monument and Plaque Removal/Relocation

The delivery of the Early Works Package involves the removal, storage and/or relocation of a number of monuments and plaques, in consultation with the applicable owner and/or manager. Monument and plaque removal/relocation is to progress in consultation with the applicable owner and/or manager. In addition to this, a range of additional approvals will need to be sought in accordance with regulatory, statutory (i.e. obligations stemming from heritage permits, requirements of the EMF as approved under Clause 4.7 of the Incorporated Document) and contractual obligations.

It is the Managing Contractor's responsibility to dismantle and store (where applicable) the monuments and plaques, and comply with conditions of heritage permit and/or any other approvals. Where necessary, works are to be overseen by a qualified heritage consultant to help mitigate the potential for any unintended damage.

The extent of monument and plaque removal/relocation within each precinct is summarised in Section 4 of this Plan, whilst a response to the applicable EPRs is detailed under Section 5.

3.2 Utility Relocation Works

The delivery of the Early Works Package involves the relocation and installation of utility services which are not explicitly captured as Enabling Works and/or Preparatory Works (refer to Section 2). Such works are varied throughout each precinct and are broadly identified under Section 4 of this Plan. The services to be relocated and their expected localities have been identified, but as with typical activities, the Managing Contractor will work within the constraints of the site when doing the works to help mitigate against the potential for adverse amenity impacts. These works are to be delivered in accordance with the applicable EPRs (refer to Section 5).





3.3 Tree Management Considerations

The delivery of the Early Works Package involves the removal of a number of trees in order to undertake the necessary works. A design and construction hierarchy has been adopted to inform activities undertaken around trees. This approach has been taken in recognition of sensitivities associated with trees throughout the Project Land.

The design and construction hierarchy as adopted for the delivery of the Early Works Package includes the following steps:

- 1. Avoid works within designated Tree Protection Zones:
 - Tree Protection Zones are to be allocated in accordance with AS 4970-2009 Protection of Trees on Development Sites;
 - Where practical, priority is to be given to the relocation of infrastructure away from trees to reduce the potential for immediate or future damage.
- 2. If works are required within a designated Tree Protection Zone:
 - Works are to be undertaken in accordance with advice as received from the Project Arborist;
 - Where excavation works are proposed within a Tree Protection Zone, the Project Arborist must prepare a Tree Protection Plan. A Tree Protection Plan must include details in relation to the condition and significance of each tree, and the arboricultural feasibility for relocation (if necessary);
 - Open trenching is to be avoided unless it is demonstrated by the Project Arborist that the viability of the tree will not be affected.
- 3. Tree and/or root pruning is to only be pursued in instances where it has been assessed by the Project Arborist as not having a detrimental impact on the viability of the tree. Such works must be undertaken in accordance with *Australian Standard AS4373-2007 Pruning of Amenity Trees*.
- 4. Tree removal is to be pursued only as a last resort/exception, with preference to be given to trees that will require removal to facilitate the main works program (i.e. trees situated within the designated station boxes).

All works must be undertaken in accordance with the EMF/EPRs, and all tree removal is to progress in accordance with an agreed Tree Removal Plan and the Tree Management and Removal Sub-Plan, which includes timely notification of the asset owner/manager and nearby residents (refer to Section 5 and Figure 3).





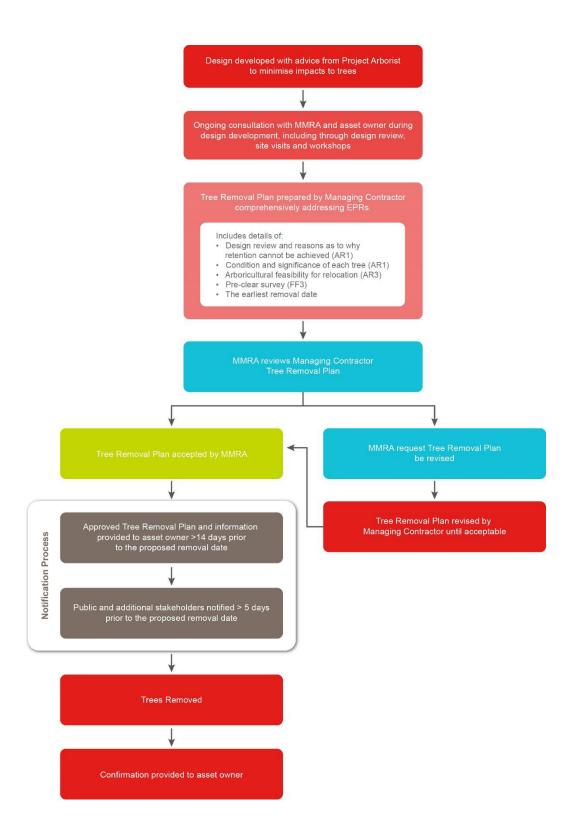


Figure 3. Flow chart detailing the Managing Contractor's process for considering tree removal as part of the delivery of the Early Works Package.





3.4 Road and Transport Network Changes

Works associated with road and transport network changes are to progress in consultation with Council, VicRoads and other applicable stakeholders as identified under Clause 4.9.4 and 4.11.1 of the Incorporated Document. Such works include activities that would result in permanent/long-term alteration of access to a road zoned Road Zone 1 (RDZ1) (and therefore would ordinarily require consideration pursuant to Clause 52.29 – Land Adjacent to a Road Zone, Category 1, or a Public Acquisition Overlay for a Category 1 Road of the applicable planning scheme), or works which may have a significant impact on key pedestrian links.

Additional approvals will need to be sought in accordance with regulatory and contractual obligations (including the requirements of the EMF – refer to Section 5.1 of this Plan). For all works this includes appropriate management of bicycle and pedestrian movements to minimise disruption, and for road and transport changes it includes the maintenance/establishment of appropriate access to building entrances and loading facilities of neighbouring developments. It also includes appropriate notification of affected stakeholders in accordance with the Community and Stakeholder Engagement Management Plan (as identified under Section 5.1.5) and the Transport Management Plan (as identified under Section 5.1.6).

3.5 Shaft Construction

The delivery of the Early Works Package involves the excavation of shafts at CBD South Station and CBD North Station precincts. With the exception of Preparatory Works, works associated with the construction of the shafts fall under the scope of Early Works. Shaft construction includes the installation of temporary acoustic sheds over the CBD North shafts, which are to be designed to help mitigate against construction noise associated with the Project. A summary of shaft construction works which are to be delivered as Early Works is provided under Section 4 of this Plan, whilst Section 5 outlines how the works will be delivered in accordance with the EMF and UDS.

3.6 Property Demolition Works

Property demolition works are to be undertaken as part of the delivery of the Early Works Package at the Arden Station, CBD North Station, CBD South Station and Eastern Portal to help establish critical work sites. A range of additional approvals may need to be sought in accordance with regulatory, statutory (i.e. obligations stemming from heritage permits, requirements of the EMF as approved under Clause 4.7 of the Incorporated Document) and contractual obligations. Tree removal may be required with some demolition works, especially in Arden Precinct.

Section 4 of this Plan provides a summary of demolition works associated with the delivery of the Early Works Package, whilst Section 5 outlines how the applicable works will be undertaken in accordance with the approved EPRs and UDS.

3.7 Associated Construction Activities

Associated construction activities capture elements of the Early Works Package which do not fall within any of the above mentioned headings, however, are activities that would ordinarily require planning permission. Such activities include construction works within a designated Heritage Overlay (not listed as under the Victorian Heritage Register), works within a Land Subject to Inundation Overlay (LSIO) and Special Building Overlay (SBO) where relevant, and long-term car parking/access changes that would ordinarily trigger the need for a planning permit (under the provisions of *Clause 52.06 - Car Parking*). This does not preclude the need for other statutory approvals that may need to be obtained in advance of works commencing (i.e. permits under the Road Management Act, Building Regulations, etc.).





4 Summary of Early Works

The following summary accounts for activities and impacts directly associated with the Early Works phase as applicable at the following precincts (noting that works carried out as Enabling Work or Preparatory Work have not been identified as they are not subject to the approval of an Early Works Plan):

- Western Portal (Precinct 2);
- Arden Station (Precinct 3);
- Parkville Station (Precinct 4);
- CBD North Station (Precinct 5);
- CBD South Station (Precinct 6);
- Domain Station (Precinct 7); and
- Eastern Portal (Precinct 8).





4.1 Western Portal (Precinct 2)

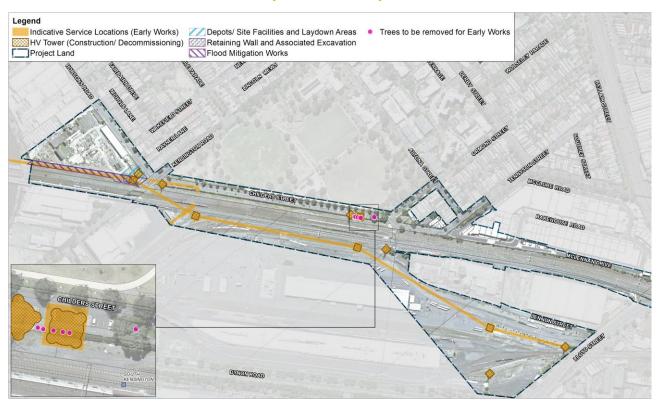


Figure 4. Excerpt from the Site Layout Plan which identifies Early Works within the Western Portal (refer to Appendix 1).

Table 2. Summary of Early Works proposed within the Western Portal.

Type of Early Works	Applicable to Precinct 2
Monument and Plaque Removal/Relocation	No
Utility Relocation Works	Yes (refer to Section 4.1.1)
Tree Removal	Yes (refer to Section 4.1.2)
Road and Transport Network Changes	No
Shaft Construction	No
Property Demolition Works	No
Associated construction activities	Yes (refer to Section 4.1.3)





4.1.1 Utility Relocation Works

Utility relocation works within the Western Portal involve the relocation of High Voltage Cables.

4.1.2 Tree Removal

In the context of Early Works, tree removal within the Western Portal currently involves the removal of a bottle brush hedgerow and an adjacent tree (subject to final design and consideration of the hierarchy identified under Section 3.3. of this Plan – refer to Appendix 2).

4.1.3 Associated Construction Activities

Associated construction activities undertaken within the Western Portal include works within a LSIO (situated within the western portion of the Project Land). All works within the LSIO are to be undertaken in consultation with the relevant floodplain management authority.

In the context of the Western Portal, construction activities within a LSIO include:

- Minor road works (including impacts to kerb and channel, carriageway, footpaths, stormwater pipes and pits, service poles, etc. which may be associated with service relocation and demolition works);
- Installation of a retaining wall and associated earthworks for tower construction within easement.

Works within Western Portal also include the relocation of a portable display building from within 1-39 Hobsons Road, Kensington (subject to acquisition timeframes), and the undertaking of flood mitigation works within VicTrack land to the satisfaction of Melbourne Water.

4.1.4 Applicable EPRs

EPRs applicable to works within the Western Portal Precinct include: EMF1, EMF2, EMF3, EMF4, AE1, AE2, AE3, AH1, AQ1, AQ2, AQ3, AR1, AR2, AR4, AR5, B2, B3, C1, C3, C4, CH1, CH2, CH3, CH4, CH6, CH8, CH9, CH11, CH23, FF1, FF2, FF3, GHG1, GHG2, GW3, GW4, GW5, LU1, LU4, LV1, LV2, LV3, LV4, NV1, NV3, NV4, NV5, NV6, NV7, NV8, NV9, NV10, NV11, NV13, NV21, SC1, SC2, SC4, SC6, SC7, SC8, SC10, SW1, SW2, T2, T3, T4, T5, T6, T10.

4.1.5 Response to UDS

Refer to Section 5.2.

4.1.6 Timing of works

Early works within the Western Portal will commence following the approval of the Early Works Plan. It is anticipated that it will take three to six months to complete the works and notifications are to be sent to applicable stakeholders in advance of works commencing.





4.2 Arden Station (Precinct 3)

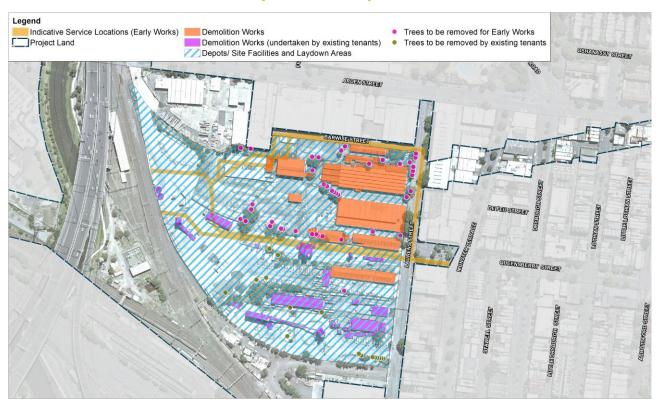


Figure 5. Excerpt from the Site Layout Plan which identifies Early Works within the Arden Station Precinct (refer to Appendix 1).

Table 3. Summary of Early Works proposed within the Arden Station Precinct.

Type of Early Works	Applicable to Precinct 3
Monument and Plaque Removal/Relocation	No
Utility Relocation Works	Yes (refer to Section 4.2.1)
Tree Removal	Yes (refer to Section 4.2.2)
Road and Transport Network Changes	No
Shaft Construction	No
Property Demolition Works	Yes (refer to Section 4.2.3)
Associated construction activities	Yes (refer to Section 4.2.4)





4.2.1 Utility Relocation Works

Utility relocation works within Arden Station Precinct involve the relocating of drainage and electrical services.

4.2.2 Tree Removal

The extent of tree removal within the Arden Station Precinct is currently 57 trees (subject to final design and consideration of the hierarchy identified under Section 3.3. of this Plan – refer to Appendix 2). Existing tenants are responsible for removing trees within the southern portion of the site prior to the Managing Contractor obtaining access and therefore potentially prior to the approval of the Early Works Plan (refer to Appendix 1 and 2). All tree removal undertaken by the Managing Contractor must be considered in accordance with the hierarchy identified under Section 3.3 of this Plan, and Tree AP072 (River Red Gum) is to be protected in accordance with the commentary included within the Minister's Assessment.

4.2.3 Property Demolition Works

Demolition works within the Arden Station Precinct include the removal of a number of buildings (refer to Site Layout Plans included as Appendix 1):

77-191 Laurens Street, West Melbourne.

Similar to tree removal, existing tenants are responsible for demolishing buildings as shown within the southern portion of the site prior to the Managing Contractor obtaining access.

4.2.4 Associated Construction Activities

Associated construction activities undertaken within the Arden Station Precinct include works within a LSIO (which covers the western portion of the VicTrack site).

In the context of the Arden Station Precinct, construction activities within a LSIO may include:

- Minor road works (including impacts to kerb and channel, carriageway, footpaths, stormwater pipes and pits, service poles, etc. which may be associated with service relocation and demolition works);
- Demolition works (refer to Section 4.2.3).

4.2.5 Applicable EPRs

EPRs applicable to works within the Arden Station Precinct include: EMF1, EMF2, EMF3, EMF4, AE1, AE2, AE3, AH1, AQ1, AQ2, AQ3, AR1, AR2, AR4, AR5, B2, B3, C1, C3, C4, CH1, CH2, CH3, CH4, CH5 CH6, CH8, CH9, CH23, FF1, FF2, FF3, GHG1, GHG2, GW3, GW4, GW5, LU1, LU4, LV1, LV2, LV3, LV4, NV1, NV3, NV4, NV5, NV6, NV7, NV8, NV9, NV10, NV11, NV13, NV21, SC1, SC2, SC4, SC6, SC7, SC8, SC10, SW1, SW2, T2, T3, T4, T5, T6, T10.

4.2.6 Response to UDS

Refer to Section 5.2.

4.2.7 Timing of works

Early works within the Arden Station Precinct will commence following the approval of the Early Works Plan. It is anticipated that it will take three to six months to complete the works and notifications are to be sent to applicable stakeholders in advance of works commencing.





4.3 Parkville Station (Precinct 4)

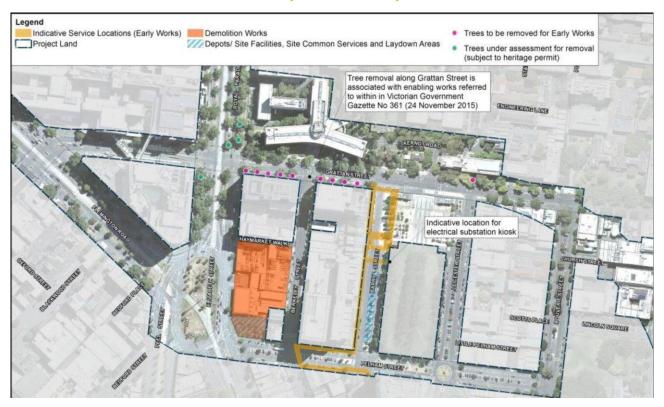


Figure 6. Excerpt from the Site Layout Plan which identifies Early Works within the Parkville Station Precinct (refer to Appendix 1).

Table 4. Summary of Early Works proposed within the Parkville Station Precinct.

Type of Early Works	Applicable to Precinct 4
Monument and Plaque Removal/Relocation	No
Utility Relocation Works	Yes (refer to Section 4.3.1)
Tree Removal	Yes (refer to Section 4.3.2)
Road and Transport Network Changes	Yes (refer to Section 4.3.3)
Shaft Construction	No
Property Demolition Works	Yes (refer to Section 4.3.4
Associated construction activities	Yes (refer to Section 4.3.5)





4.3.1 Utility Relocation Works

Acknowledging that the bulk of service relocation works are to be undertaken as Enabling Works, utility relocation works (associated with Early Works) within Parkville Station Precinct involve the relocating of water services down Barry Street and installation of electrical utility services that are ancillary to the operation of the electrical kiosk sub-station within Barry Street and Pelham Street.

4.3.2 Tree Removal

Tree removal is required within the Parkville Precinct to facilitate Enabling Works. The extent of tree removal from within the Parkville Station Precinct is currently 14 trees (subject to final design and consideration of the hierarchy identified under Section 3.3. of this Plan – refer to Appendix 2). This includes the potential removal of four trees from within Royal Parade which are subject to the issuing of a heritage permit and compliance with all applicable conditions. Outside of heritage listed sites, an additional ten trees are proposed for removal from Grattan Street.

It is noted that tree removal is restricted to that which may be required to facilitate works, and that additional tree removal as identified within current Heritage Permit applications consider impacts that could be associated with separate works packages (i.e. Main Works). All tree removal must be considered in accordance with the hierarchy identified under Section 3.3 of this Plan.

As detailed under Section 2.3.1, the Managing Contractor's Early Works Plan is only seeking approval for tree removal associated with Enabling Works, and not the applicable utility service relocation/installation works per se. This is because utility service works associated with Enabling Works were excluded from the EES (as per Victorian Government Gazette No 361, dated 24 November 2015) and therefore do not need to be identified within an Early Works Plan.

4.3.3 Road and Transport Network Changes

Road and Transport Network Changes within the Parkville Station Precinct include the temporary alteration of access to a road zoned RDZ1 (Royal Parade and Elizabeth Street) to facilitate construction activities. The delivery of Early Works will not result in the long term closure of Grattan Street or University Square, and all works are to progress in accordance with the UDS and applicable EPRs.

4.3.4 Property Demolition Works

Demolition works within the Parkville Station Precinct include the demolition of the City Ford site at 712-764 Elizabeth Street, Melbourne (refer to Site Layout Plans included as Appendix 1).

4.3.5 Associated Construction Activities

Associated construction activities undertaken within the Parkville Station Precinct include works that could impact on features which are identified within a Heritage Overlay (non VHR/VHI site). Areas within the Parkville Station Precinct where this may occur include Barry Street, Leicester Street and the northern end of Bouverie Street (all covered by HO1 under the provisions of Melbourne Planning Scheme).

Construction activities within these areas may include:

- Minor road works (including impacts to kerb and channel, carriageway, footpaths, stormwater pipes and pits, service poles, etc. which may be associated with service relocation works);
- The removal/relocation of associated street features including signage, bins, lights and bollards (where applicable);
- Installation of site common services (electrical kiosk substation) in Barry Street.





4.3.6 Applicable EPRs

EPRs applicable to works within the Parkville Station Precinct include: , EMF1, EMF2, EMF3, EMF4, AE1, AE2, AE3, AH1, AQ1, AQ2, AQ3, AR1, AR2, AR4, AR5, B2, B3, B4, B5 C1, C3, C4, CH1, CH2, CH3, CH4, CH6, CH7, CH8, CH9, CH23, EMI1, EMI2, FF1, FF2, FF3, GHG1, GHG2, GW3, GW4, GW5, LU1, LU4, LV1, LV2, LV3, LV4, NV1, NV3, NV4, NV5, NV6, NV7, NV8, NV9, NV10, NV11, NV12, NV13, NV14 (unlikely), NV15, NV21, SC1, SC2, SC4, SC6, SC7, SC8, SC10, SW1, SW2, T2, T3, T4, T5, T6, T10.

4.3.7 Response to UDS

Refer to Section 5.2.

4.3.8 Timing of works

Early works within the Parkville Station Precinct will commence following the approval of the Early Works Plan. It is anticipated that it will take six to nine months to complete the works and notifications are to be sent to applicable stakeholders in advance of works commencing.





4.4 CBD North Station (Precinct 5)

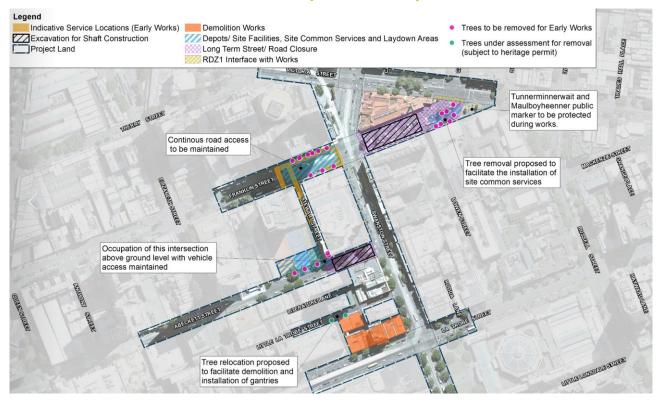


Figure 7. Excerpt from the Site Layout Plan which identifies Early Works within the CBD North Station Precinct (refer to Appendix 1).

Table 5. Summary of Early Works proposed within the CBD North Station Precinct.

Type of Early Works	Applicable to Precinct 5
Monument and Plaque Removal/Relocation	No
Utility Relocation Works	Yes (refer to Section 4.4.1)
Tree Removal	Yes (refer to Section 4.4.2)
Road and Transport Network Changes	Yes (refer to Section 4.4.3)
Shaft Construction	Yes (refer to Section 4.4.4)
Property Demolition Works	Yes (refer to Section 4.4.5)
Associated construction activities	Yes (refer to Section 4.5.6)





4.4.1 Utility Relocation Works

Utility relocation works within CBD North Station Precinct involve the relocation of water, sewer, telecommunication and electrical services along Franklin Street (between Swanston Street and Elizabeth Street) and installation of electrical utility services that are ancillary to the operation of the electrical kiosk sub-station within the northern extent of Stewart Street.

4.4.2 Tree Removal

In the context of Early Works, the extent of tree removal from within CBD North is currently 23 trees (subject to final design and consideration of the hierarchy identified under Section 3.3. of this Plan – refer to Appendix 2). This includes the removal of three trees from within A'Beckett Street, nine trees from within Franklin Street West, a further seven trees from within Franklin Street East, two trees within Stewart Street and the relocation of two trees on Little La Trobe Street. Tree removal within A'Beckett Street is required to facilitate the creation of access to Stewart Street, tree removal within Franklin Street East is required to progress the installation of site common services, tree removal within Stewart Street is required to facilitate broader works, whilst tree relocation within Little La Trobe Street is required to allow for access for demolition and installation of gantries. All tree removal must be considered in accordance with the hierarchy identified under Section 3.3 of this Plan.

4.4.3 Road and Transport Network Changes

Road and Transport Network Changes within the CBD North Station Precinct include:

- The alteration of access to a road zoned RDZ1 (Victoria Street/Franklin Street) to allow for shaft excavation and construction works (noting that the initial closure of Franklin Street and A'Beckett Street was conducted as Preparatory Works).
- The construction of a temporary road from A'Beckett Street to Stewart Street;
- The alteration/realignment of Franklin Street West; and
- Impacts on key pedestrian links along Franklin Street and A'Beckett Street (i.e. pedestrian links from Swanston Street to A'Beckett Street and Franklin Street).

Appropriate way-finding solutions are to be implemented in accordance with the EPRs (refer to Section 5).

4.4.4 Shaft Construction

Construction works at CBD North Station involves the excavation of two separate shafts:

- · Franklin Street East Entry Shaft (situated between Swanston Street and Victoria Street); and
- A'Beckett Street Shaft (situated between Swanston Street and Stewart Street).

The Franklin Street East Shaft is to be approximately 75m x 24m and 40m deep (refer to Figure 8) and is to be utilised for construction access into the main station cavern (below Swanston Street).

The A'Beckett Street Shaft is to be approximately 44m x 17m and 34m deep and is to be used during the construction phase for access into the main station cavern (below Swanston Street).

Acoustic enclosures are to be installed over both shafts to help mitigate against adverse amenity impacts associated with construction works. It is anticipated that they will be in place at CBD North for the bulk of excavation works associated with the Early Works Package (commencing mid-late 2017).





Table 6 provides a summary of Early Works associated with the construction of the two shafts within the CBD North Station precinct. Works associated with shaft construction are to progress in direct consultation with key stakeholders, including the City of Melbourne, RMIT and VicRoads (refer to Section 5.1.5 for further details).

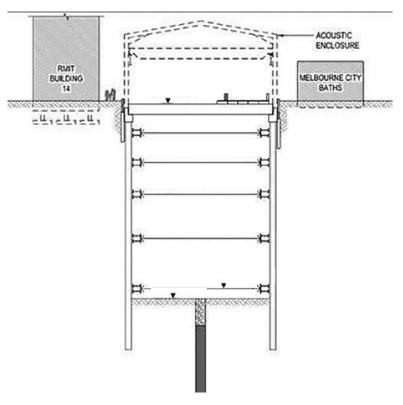


Figure 8. Indicative section of the shaft and acoustic enclosure at Franklin Street East.

Table 6. Works associated with the CBD North Shaft Construction.

Shaft Construction Activity	Associated works
Piling	Cranage, bored piles installation, temporary retaining wall construction, pile breakdown.
Capping Beams	Steel fixing, formwork installation, concrete pumping, cranage, concrete placement, concrete repair.
Temporary Deck - Steel	Cranage, steelwork installation.
Temporary Deck - Concrete	Beam and plank installation, grouting, concrete repair.





Shaft Construction Activity	Associated works
Installation of Acoustic Enclosures	Building and construction works associated with the installation of acoustic enclosures, including: establishment of footings, steel and structural support installation, cladding installation, roofing installation, installation of ventilation system.
Gantry Crane Installation	Gantry crane installation and maintenance within the acoustic enclosure and associated construction service installation.
Excavation	Cranage, haulage, bulk earthworks, hardstand construction, pile cleaning, pile grinding.
Shotcrete	Pile repair, drill and dowel installation, reo installation, anchor installation, shotcrete installation.
Structural Works/ Bracing	Cranage, tube installation, steel installation, water installation.

4.4.5 Property Demolition Works

Early Works within CBD North Station Precinct include the demolition of the following buildings at proposed station entrance (along Franklin Street and A'Beckett Street):

- 391 Swanston Street (VHI listed site heritage consent required for works below building footings);
- 17-27 Little La Trobe Street;
- 200 La Trobe Street;
- 204-206 La Trobe Street (VHI listed site heritage consent required for works below building footings);
- 208-210 La Trobe Street (VHI listed site heritage consent required for works below building footings);
- 212 222 La Trobe Street.

All demolition activity undertaken by the Managing Contractor is subject to acquisition timeframes.

4.4.6 Associated Construction Activities

Early Works within CBD North Station Precinct include the installation of site common services (electrical kiosk sub-station) at the site of 22-44 A'Beckett Street. The site at 22-44 A'Beckett Street will also be used for site depots/facilities, sedimentation tanks, truck storage and construction laydown is also be undertaken.





4.4.7 Applicable EPRs

EPRs applicable to works within the CBD North Station Precinct include: EMF1, EMF2, EMF3, EMF4, AE1, AE2, AE3, AH1, AQ1, AQ2, AQ3, AR1, AR2, AR4, AR5, B2, B3, C1, C2, C3, C4, CH1, CH2, CH3, CH4, CH6, CH7, CH8, CH9, CH10, CH23, EMI1, EMI2, FF1, FF2, FF3, GHG1, GHG2, GM1, GM2, GM3, GM4, GM5, GM6, GW1, GW2, GW3, GW4, GW5, LU1, LU4, LV1, LV2, LV3, LV4, NV1, NV3, NV4, NV5, NV6, NV7, NV8, NV9, NV10, NV11, NV12, NV13, NV15, NV21, SC1, SC2, SC4, SC6, SC7, SC8, SC10, SW1, SW2, T2, T3, T4, T5, T6, T10.

4.4.8 Response to UDS

Refer to Section 5.2.

4.4.9 Timing of works

Early Works within CBD North will commence following the approval of the Early Works Plan. It is anticipated that it will take six to nine months to complete the works and notifications are to be sent to applicable stakeholders in advance of works commencing. Following the completion of Early Works, the excavated shafts and associated acoustic sheds are to be handed on to the contractor responsible for delivering Main Works.





4.5 CBD South Station (Precinct 6)



Figure 9. Excerpt from the Site Layout Plan which identifies Early Works within the CBD South Station Precinct (refer to Appendix 1).

Table 7. Summary of Early Works proposed within the CBD South Station Precinct.

Type of Early Works	Applicable to Precinct 6
Monument and Plaque Removal/Relocation	Yes (refer to Section 4.5.1)
Utility Relocation Works	Yes (refer to Section 4.5.2)
Tree Removal	Yes (refer to Section 4.5.3)
Road and Transport Network Changes	Yes (refer to Section 4.5.4)
Shaft Construction	Yes (refer to Section 4.5.5)
Property Demolition Works	Yes (refer to Section 4.5.6)
Associated construction activities	Yes (refer to Section 4.5.7)





4.5.1 Monument and Plaque Removal/Relocation

A range of monuments are proposed for removal within the CBD South Station Precinct. Table 8 identifies the specific monuments/plaques that are impacted as a consequence of works within the CBD South Station Precinct. Unless otherwise stated, plaques associated with artworks are to be placed in storage.

Table 8. Summary of monument removal within CBD South Station Precinct.

Monument	Summary of Impacts	Additional Approval Requirements
Burke and Wills Statue	Removal, storage and conservation work (as required).	Compliance with applicable EPRs; Approval from landowner and/or asset manager.
John Mockridge Fountain	Demolition (complete removal).	Compliance with applicable EPRs; Approval from landowner and/or asset manager.
Larry La Trobe	Removal and storage.	Compliance with applicable EPRs; Approval from landowner and/or asset manager.
Victorian of the Year Plaques	Returned to the owner.	Compliance with applicable EPRs; Approval from landowner and/or asset manager.
Warin the Wombat	Removal and storage.	Compliance with applicable EPRs; Approval from landowner and/or asset manager.
Beyond the Ocean of Existence	Removal, storage and conservation work as required.	Compliance with applicable EPRs; Approval from landowner and/or asset manager.





Monument	Summary of Impacts	Additional Approval Requirements
Looking Glass	Removal and storage of specific elements (glass object in boxes, stainless steel fish grate, bridges and associated plaques). Other elements are to be demolished.	Compliance with applicable EPRs; Approval from landowner and/or asset manager.
Glass Façade of the Car Park Ventilation Shaft	Removal.	Compliance with applicable EPRs; Approval from landowner and/or asset manager.
Painted Poles	Removal and storage	Compliance with applicable EPRs; Approval from landowner and/or asset manager.

4.5.2 Utility Relocation Works

Utility relocation works within CBD South Station Precinct may involve the relocation of various services, including power and communication services along Swanston Street and Collins Street.

4.5.3 Tree Removal

In the context of Early Works, the current extent of tree removal from within the CBD South Station Precinct is 19 trees (subject to final design and consideration of the hierarchy identified under Section 3.3. of this Plan – refer to Appendix 2).

4.5.4 Road and Transport Network Changes

Road and Transport Network Changes within the CBD South Station Precinct include the temporary alteration of pedestrian links around City Square.

4.5.5 Shaft Construction

In the context of the Early Works Package, shaft construction at CBD South Station involves the occupation, excavation and demolition of the City Square car park to allow for the creation of an entry shaft (refer to Appendix 1 – Site Layout Plans). The CBD South shaft is to be approximately 96m x 36m and 15m deep and is to be utilised for construction access into the main station cavern (below Swanston Street). Table 9 provides a summary of Early Works associated with the construction of the CBD South Station shaft.





Table 9. Early Works associated with the CBD South shaft construction.

Shaft Construction Activity	Associated works
City Square Above Ground Works	Temporary retaining wall, steel beam and pre-cast panel installation, excavation works to expose top of car park, demolition of the top of the car park, Associated Construction Works (refer to Section 4.5.7).
Ramp Demolition Works	Carbon fibre strengthening, installation of temporary horizontal props, demolition of ramps.
Ground Anchoring	Installation of anchors and structural supports.
Demolition of City Square Car Park	Back propping works, floor demolition works, associated sawcutting, removal of cladding to expose concrete structures, demolition of staircase near lift and tower crane void.
Floor Reconstruction Works	Structural steel installation, bondek and reinforcement installation, concreting works, lift installation, services reinstallation around lift, blockwork wall around the car lift at three levels, storage unit construction/installation.
Structural Concrete Walls	Installation of structural concrete and steel shear walls and dividing walls.
Ventilation System	Installation of external ventilation system.





4.5.6 Property Demolition Works

Early Works within the CBD South Station Precinct include the demolition of the following buildings at proposed station entrance (Swanston Street between Flinders Lane and Flinders Street):

- 9-11 Swanston Street (VHI listed site heritage consent required for works below building footings);
- 13 Swanston Street (VHI listed site heritage consent required for works below building footings);
- 15-19 Swanston Street (VHI listed site heritage consent required for works below building footings);
- 21-25 Swanston Street (VHI listed site heritage consent required for works below building footings);
- 27-29 Swanston Street (VHI listed site heritage consent required for works below building footings);
- 228-236 Flinders Street (Port Phillip Arcade Heritage Overlay 505);
- 44-86 Swanston Street (City Square Heritage Overlay 505).

Demolition works within the CBD South Station Precinct also involve the removal of the Brunetti café structure (refer to Section 4.5.7). All demolition activity undertaken by the Managing Contractor is subject to acquisition timeframes.

4.5.7 Associated Construction Activities

Associated construction activities undertaken within the CBD South Station Precinct include works that could impact on features which are identified within a Heritage Overlay (non VHR/VHI site). Areas within the CBD South Station Precinct where this may occur include works within City Square (covered by HO505 under the provisions of Melbourne Planning Scheme).

Associated impacts include:

- Closure of City Square to facilitate construction activities;
- Changes to the existing footpaths including the removal/relocation of associated street features
 including signage, bins, lights and bollards (where applicable);
- Removal of garden beds;
- Dismantling of the Brunetti café structure (structure and façade);
- Removal of glass surrounds of an existing ventilation shaft (adjacent to Brunetti café);
- Dismantling of the Westin Hotel car park art installation (steel and wood suspended known as the Abyss);
- Narrowing of existing footpath near tram stop;
- Removal of City Square signage.

Construction works within CBD South Station Precinct will also vary car parking and associated facilities and access arrangements within the Westin Hotel car park (including the removal of public car parking spaces and the temporary installation of staircases to allow for emergency exits from the Westin Hotel to remain accessible).





4.5.8 Applicable EPRs

EPRs applicable to works within the CBD South Station Precinct include: EMF1, EMF2, EMF3, EMF4, AE1, AE2, AE3, AH1, AQ1, AQ2, AQ3, AR1, AR2, AR4, AR5, B2, B3, C1, C3, C4, CH1, CH2, CH3, CH4, CH5, CH6, CH7, CH8, CH9, CH10, CH16, CH23, FF1, FF2, FF3, GHG1, GHG2, GM1, GM2, GM3, GM4, GM5, GM6, GW1, GW2, GW3, GW4, GW5, LU1, LU4, LV1, LV2, LV3, LV4, NV1, NV3, NV4, NV5, NV6, NV7, NV8, NV9, NV10, NV11, NV13, NV21, SC1, SC2, SC4, SC6, SC7, SC8, SC10, SW1, SW2, T2, T3, T4, T5, T6, T10.

4.5.9 Response to UDS

Refer to Section 5.2.

4.5.10 Timing of works

Early Works within CBD South Station Precinct will commence following the approval of the Early Works Plan. It is anticipated that it will take six to nine months to complete the works and notifications are to be sent to applicable stakeholders in advance of works commencing. Following the completion of Early Works, the shaft is to be handed on to the contractor responsible for delivering Main Works.





4.6 Domain Station (Precinct 7)

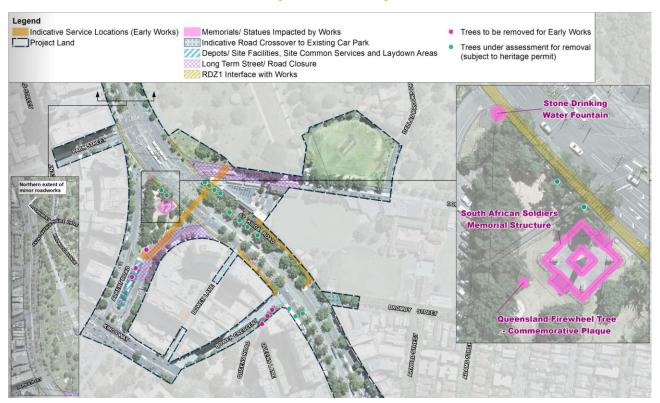


Figure 10. Excerpt from the Site Layout Plan which identifies Early Works within the Domain Station Precinct (refer to Appendix 1).

Table 10 Summary of Early Works proposed within the Domain Station Precinct.

Type of Early Works	Applicable to Precinct 7
Monument and Plaque Removal/Relocation	Yes (refer to Section 4.6.1)
Utility Relocation Works	Yes (refer to Section 4.6.2)
Tree Removal	Yes (refer to Section 4.6.3)
Road and Transport Network Changes	Yes (refer to Section 4.6.4)
Shaft Construction	No
Property Demolition Works	No
Associated construction activities	Yes (refer to Section 4.6.5)





4.6.1 Monument and Plaque Removal/Relocation

A range of monuments are proposed for removal within the Domain Station Precinct. Table 11 identifies the specific monuments/plaques that are impacted as a consequence of works within the Domain Station Precinct.

Table 11. Summary of monument removal within Domain Station Precinct.

Monument	Summary of Impacts	Additional Approval Requirements
South African Soldiers Memorial.	Removal, storage and restoration (as required).	Heritage Permit under the Heritage Act 1995 and compliance with applicable conditions; Compliance with applicable EPRs; Approval from landowner and/or asset manager.
Boer War Interpretive Bronze Plaque by Ross Bastian.	Removal and storage.	Heritage Permit under the Heritage Act 1995 and compliance with applicable conditions; Compliance with applicable EPRs; Approval from landowner and/or asset manager.
Stone Drinking Water Fountain of 1910, built by memorial mason G. Dawe.	Removal, storage and restoration (as required).	Heritage Permit under the Heritage Act 1995 and compliance with applicable conditions; Compliance with applicable EPRs; Approval from landowner and/or asset manager.
Queensland Firewheel Tree commemorative plaque.	Removal and storage.	Heritage Permit under the Heritage Act 1995 and compliance with applicable conditions; Compliance with applicable EPRs; Approval from landowner and/or asset manager.





4.6.2 Utility Relocation Works

Utility relocation works within the Domain Station precinct involve the installation of the South Yarra Sewer Main, and the relocating of gas, water, sewer (additional) and telecommunication services.

4.6.3 Tree Removal

In the context of Early Works, the extent of tree removal from within the Domain Station Precinct is currently 19 trees (subject to final design and consideration of the hierarchy identified under Section 3.3. of this Plan – refer to Appendix 2). This includes the potential removal of 11 trees from within St Kilda Road and two trees from within the South African Soldiers Memorial site, which are subject to the issuing of a heritage permit and compliance with all applicable conditions. Outside of heritage listed sites, an additional three trees are proposed for removal from within Albert Road and three trees within Bowen Crescent.

It is noted that tree removal is restricted to that which may be required to facilitate Early Works, and that additional tree removal as identified within current Heritage Permit applications consider impacts that could be associated with separate works packages (i.e. Main Works, Tram Works Package). All tree removal must be considered in accordance with the hierarchy identified under Section 3.3 of this Plan.

4.6.4 Road and Transport Network Changes

Road and Transport Network Changes within the Domain Station Precinct include:

- The alteration of access to a road zoned RDZ1 to facilitate construction activities (i.e. Domain Road/St Kilda Road intersection and St Kilda Road/Albert Road intersection);
- The construction of a crossover from Bromby Street to Melbourne Grammar car park (and associated changes within the St Kilda Road reservation);
- The closure of the western portion of Domain Road and part of Albert Road (south-eastern portion) to allow for construction activities to progress.

Early Works associated with the Domain Station Precinct do not include slewing or significant modifications to St Kilda Road.

4.6.5 Associated Construction Activities

Associated construction activities undertaken within the Domain Station Precinct include works that could impact on features which are identified within a Heritage Overlay (non VHR/VHI site). Areas within the Project Land where this may occur include Domain Road, Domain Street, Bromby Street and Toorak Road (all covered by HO6 under the provisions of Melbourne Planning Scheme).

Such activities may include:

- Minor road works (including impacts to kerb and channel, carriageway, footpaths, stormwater pipes and pits, minor tree pruning and installation of temporary tram poles, etc);
- Trenching/excavation for the South Yarra Sewer Main shaft and associated road impacts;
- The removal/relocation of associated street features including signage, bins, lights and bollards (where applicable).





4.6.6 Applicable EPRs

EPRs applicable to works within the Domain Station Precinct include: EMF1, EMF2, EMF3, EMF4, AE1, AE2, AE3, AH1, AQ1, AQ2, AQ3, AR1, AR2, AR4, AR5, B2, B3, B4, C1, C3, C4, CH1, CH2, CH3, CH4, CH5, CH6, CH7, CH8, CH9, CH18, CH20, CH23, FF1, FF2, FF3, GHG1, GHG2, GM1, GM2, GM3, GM4, GM5, GM6, GW1, GW2, GW3, GW4, GW5, LU1, LU4, LV1, LV2, LV3, LV4, NV1, NV3, NV4, NV5, NV6, NV7, NV8, NV9, NV10, NV11, NV13, NV21, SC1, SC2, SC4, SC6, SC7, SC8, SC10, SW1, SW2, T2, T3, T4, T5, T6, T10.

4.6.7 Response to UDS

Refer to Section 5.2.

4.6.8 Timing of works

Early Works within Domain Station Precinct will commence following the approval of the Early Works Plan. It is anticipated that it will take six to nine months to complete the works and notifications are to be sent to applicable stakeholders in advance of works commencing.





4.7 Eastern Portal (Precinct 8)



Figure 12. Excerpt from the Site Layout Plan which identifies Early Works within the Eastern Portal (refer to Appendix 1).

Table 12. Summary of Early Works proposed within the Eastern Portal.

Type of Early Works	Applicable to Precinct 8
Monument and Plaque Removal/Relocation	No
Utility Relocation Works	Yes (refer to Section 4.7.1)
Tree Removal	Yes (refer to Section 4.7.2)
Road and Transport Network Changes	No
Shaft Construction	No
Property Demolition Works	Yes (refer to Section 4.7.3)
Associated construction activities	Yes (refer to Section 4.7.4)





4.7.1 Utility Relocation Works

Utility relocation works within the Eastern Portal involve the relocating of gas and telecommunication services, the protection of electricity assets and the relocation of a water main.

4.7.2 Tree Removal

In the context of Early Works, the current extent of tree removal from within Eastern Portal is four trees (including a newly planted street tree) (subject to final design and consideration of the hierarchy identified under Section 3.3. of this Plan – refer to Appendix 2).

4.7.3 Property Demolition Works

Property demolition works within the Eastern Portal include the demolition of a residential building at 15 William Street, South Yarra and 3-5 Chambers Street, South Yarra

4.7.4 Associated Construction Activities

Associated construction activities undertaken within Eastern Portal include works that could impact on features which are identified within a Heritage Overlay (non VHR/VHI site). Areas within the Eastern Portal where this may occur include Osborne Street (northern portion - covered by HO107 under the provisions of the Stonnington Planning Scheme) and the South Yarra Siding Yard (covered by HO150).

Construction activities within these areas may include:

 Minor road works (including impacts to kerb and channel, carriageway, footpaths, stormwater pipes and pits, service poles, etc. which may be associated with service relocation works).

Additional associated construction activities within Eastern Portal include the associated fencing and hoarding of the property at 3-5 Chambers Street and 6 Williams Street, South Yarra.

Early Works within the Eastern Portal do not involve the construction of the Osborne Street Bridge.

4.7.5 Applicable EPRs

EPRs applicable to works within the Eastern Portal include: EMF1, EMF2, EMF3, EMF4, AE1, AE2, AE3, AH1, AQ1, AQ2, AQ3, AR1, AR2, AR4, B2, B3, C1, C3, C4, CH1, CH2, CH3, CH4, CH6, CH8, CH9, CH23, FF1, FF2, FF3, GHG1, GHG2, GW3, GW4, GW5, LU1, LU4, LV1, LV2, LV3, LV4, NV1, NV3, NV4, NV5, NV6, NV7, NV8, NV9, NV10, NV11, NV13, NV21, SC1, SC2, SC4, SC6, SC7, SC8, SC10, SW1, SW2, T2, T3, T4, T5, T6, T10.

4.7.6 Response to UDS

Refer to Section 5.2.

4.7.7 Timing of works

Early Works within Eastern Portal will commence following the approval of the Early Works Plan. It is anticipated that it will take three to six months to complete the works and notifications are to be sent to applicable stakeholders in advance of works commencing.





5 Process and Controls for Delivering the Early Works Package

The following section has been prepared to provide an explanation as to how Early Works will be undertaken in accordance with the approved EPRs and UDS (pursuant to Clause 4.9.3 of the Incorporated Document), and to detail the management structure and broader communication process associated with the delivery of the works (refer to Figure 13 for a summary of the overarching document structure that has been adopted for the delivery of the Early Works Package).

The section starts with a summary of the overarching Environmental Management Framework and Environmental Management System which govern the delivery of Early Works, before discussing each EPR as it relates to the delivery of the Early Works Package. In discussing these processes, the section provides context for how EPR compliance will be achieved and summarises roles, risks and reporting obligations. The section then discusses relevant considerations as detailed within the UDS and outlines how applicable considerations will be integrated into the design and construction program.





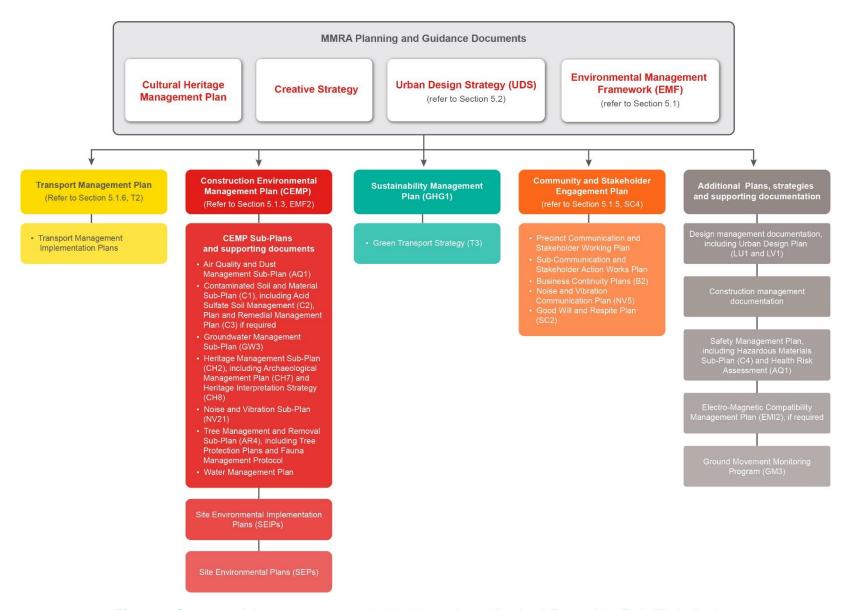


Figure 13. Summary of document structure that has been adopted for the delivery of the Early Works Package.





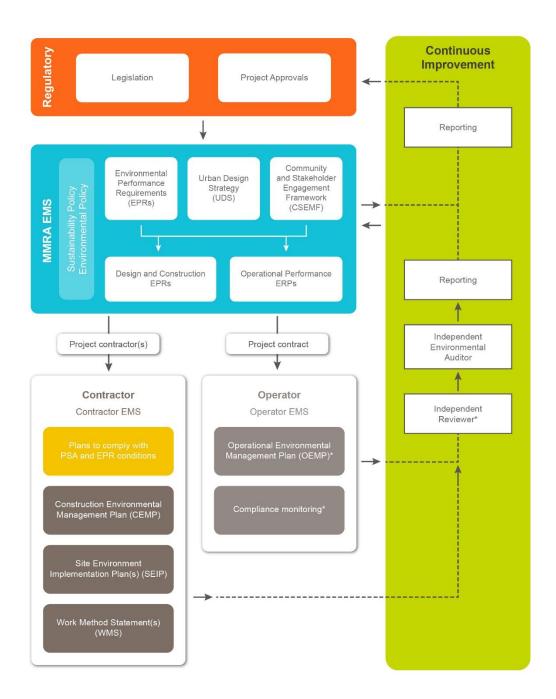
5.1 Environmental Management Framework

The EMF has been developed by MMRA to address the requirement of Clause 4.6 of the Incorporated Document and is summarised in Figure 14 below. The EMF provides a transparent and integrated governance framework to manage environmental aspects associated with the design, construction and operational phases of the Project. The requirements of the EMF and the EPRs will be enforced by MMRA on behalf of the State through the contractual arrangements for the delivery of the Project. Clause 4.9.10 of the Incorporated Document requires that Early Works development be carried out in accordance with an approved Early Works Plan.

The EMF has been informed by the environmental risk assessment and specialist environmental studies completed for the EES. The EMF identifies accountabilities for the delivery and monitoring of actions required to achieve the outcomes of the EPRs. The EMF requires that MMRA, Contractors and Operators operate under a certified Environmental Management System (EMS).







^{*}Applies to Main Works Contractor only

Figure 14. Environmental Management Framework adapted for the Metro Tunnel Project.





5.1.1 Environmental Management System

Melbourne Metro Rail Authority's Environmental Management System

The MMRA EMS Manual provides a structured management approach for outlining and tracking compliance with the environmental management responsibilities for all parties, including the contractors. The Manual requires the establishment of a system whereby project environmental risks and impacts are managed in accordance with ISO 14001 requirements and the relevant obligations as stipulated under the EPRs (refer to Table 14). The Manual also provides guidance on development of subordinate plans, systems and tools including the Managing Contractor's CEMP, Site Environmental Implementation Plans (SEIPs) and Site Environmental Plans (SEPs) (noting that Operational Environmental Management Plans (OEMP) are not applicable to the delivery of the Early Works Package).

Managing Contractor's Environmental Management System

The Managing Contractor's EMS is certified to ISO 14001, and reflects the requirements of the overarching MMRA EMS Manual. The EMS provides a structured framework to support the planning and implementation of environmental protection measures required to drive environmental compliance. The Managing Contractor is operating under an ISO 14001-certified EMS which will be regularly audited throughout the delivery of the Early Works Package. Supporting the EMS will be the project CEMP which will guide the implementation of the broader EMS requirements, and provides a structure for measurement and evaluation of environmental compliance.

Compliance is tracked through a number of tools including the License and Approvals Register. This Register details all licenses and approvals required and / or obtained by the Early Works Package, including listing each of the individual EPRs. The Register has a mechanism for allocating actions and responsibilities under each license or approval, and for tracking the status and evidence of compliance up to project completion (see Figure 15).

The EMS and supporting tools will be audited by the Independent Environmental Auditor prior to commencement of Early Works to confirm that it is fit for purpose, and in accordance with the requirements of the EMF and ISO 14001. Audits will be ongoing throughout delivery of the Early Works Package to monitor the system and its implementation.





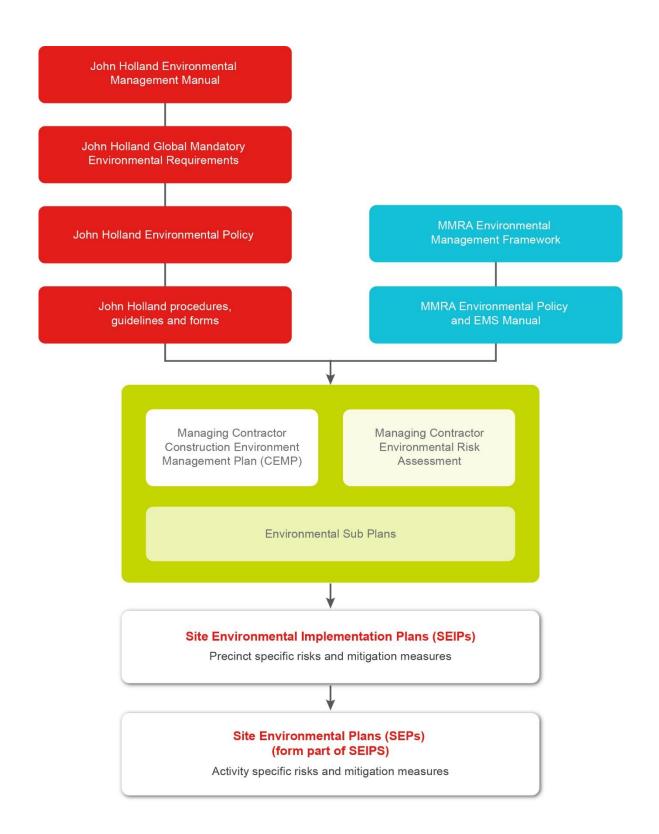


Figure 15. The Managing Contractor's Environmental Management System that has been adopted for the delivery of the Early Works Package.





5.1.2 Risk Assessment

An iterative assessment of environmental risk will be ongoing throughout Project delivery. This process commenced with the development of a project risk register using the EES risk registered as a basis. It was further refined through the delivery of an Early Works environmental risk workshop. The workshop involved participants from MMRA and the Managing Contractor, and allowed the risks specific to the Early Works activities to be identified, and the likelihood and consequence of each risk to be assessed. Targeted control measures could then be identified for inclusion in the Project CEMP and Sub-Plans. The risk register is also used in Activity Method Statements (AMS), which are developed in advance of any activity commencing. The AMS captures risks and control measures specific to the delivery of the works in question.

The CEMP and Sub-Plans align risks from the EES process, the Managing Contractor's risk assessment process, and the EPRs to demonstrate the relationships between risk and mitigation measures. This is reflected in Table 14, where EPRs of relevance to this Early Works Plan are identified and addressed.

In accordance with the Early Works EMS the Project risk register is reviewed on a monthly basis to capture any changes to activities and associated risk. The Managing Contractor will continue to implement appropriate risk management procedures consistent with AS/NZS ISO 31000:2009, Risk management—principles and guidelines throughout Project delivery.

As detailed within the Minister's Assessment, there are some impacts that cannot be avoided or sufficiently mitigated, and therefore remain a high risk. In the context of the Early Works Package these include tree removal along St Kilda Road, Royal Parade and Grattan Street, the dismantling of the South African Soldiers Memorial, and the demolition of five graded buildings in the Flinders Gate Precinct, amongst others.

Close monitoring of the effectiveness of mitigation measures allows for adaptive management or risk and implementation of contingency plans where inadequate performance is identified. Specific construction risks associated with Early Works have been identified within Table 13.





Table 13. Key risks and mitigation measures associated with the delivery of the Early Works Package.

Risk	Applicable Precinct	Mitigation Measure
Noise and vibration generated during the construction phase.	All Precincts (in particular, shaft construction works at CBD North and CBD South, and works associated with the installation of the South Yarra Sewer Main).	Compliance with EPRs, including the installation of monitoring points on sensitive buildings and the management of works to reduce the potential for adverse amenity impacts, notification of applicable stakeholders in advance of works taking place (refer to Section 5.1.5), implementation of the Noise and Vibration Sub-Plan.
Removal of trees, especially in the context of landscape, heritage and amenity values.	All Precincts.	Compliance with applicable EPRs (refer to Table 14), notification of applicable stakeholders in advance of works taking place (refer to Section 5.1.5), following of the design and construction hierarchy identified under Section 3, compliance with conditions of any Heritage Permit, following of the Tree Management and Removal Sub-Plan, following of the Tree Removal Plan as agreed upon with landowners/managers.
Traffic and transport management (includes local traffic congestion, dust and mud on roads).	All precincts (in particular, works undertaken within Parkville, CBD North, CBD South Station and Domain Station).	Compliance with applicable EPRs (refer to Table 14), notification of applicable stakeholders in advance of works taking place (refer to Section 5.1.5), implementation of Transport Management Process (refer to Section 5.1.6), installation of way-finding signage and alternative access plans where significant pedestrian links are to be modified to accommodate works, implementation of the Network Enhancement Program to help accommodate temporary and permanent road closures.





Risk	Applicable Precinct	Mitigation Measure
Ground movement and stability.	All Precincts.	Compliance with applicable EPRs (refer to Table 14), notification of applicable stakeholders in advance of works taking place (refer to Section 5.1.5), ongoing consultation with land owners/managers to help monitor and manage sensitive sites and equipment, and installation of monitoring points in accordance with technical advice.
Management of spoil excavated from shafts and for utility installation.	All Precincts.	Compliance with applicable EPRs (refer to Table 14), notification of applicable stakeholders in advance of works taking place (refer to Section 5.1.5), ongoing consultation with EPA to help classify, monitor and manage soil removed from site, compliance with EPA requirements, implementation of the Contaminated Soil and Material Sub-Plan.
Issues relating to groundwater interception/need for dewatering.	All Precincts (in particular, shaft construction works at CBD North and CBD South, along with works associated with the installation of the South Yarra Sewer Main in Domain).	Compliance with applicable EPRs (refer to Table 14), ongoing consultation with EPA and the water management authority, implementation of the Groundwater Management Sub-Plan.
Protection of historical heritage assets and values.	All Precincts.	Compliance with the approved Cultural Heritage Management Plan and applicable EPRs (refer to Table 14), notification of applicable stakeholders in advance of works taking place (refer to Section 5.1.5), ongoing consultation with Heritage Victoria to make sure historical sites are being appropriately monitored and managed, implementation of the Heritage Management Sub-Plan.
Impacts on existing businesses during the construction phase.	All Precincts.	Compliance with applicable EPRs (refer to Table 14), notification of applicable stakeholders in advance of works taking place (refer to Section 5.1.5), implementation of the approved Business Support Guidelines for Construction, ongoing monitoring of the effectiveness of initiatives.





Risk	Applicable Precinct	Mitigation Measure
Dust emissions impacting sensitive receivers.	All Precincts.	Compliance with applicable EPRs (refer to Table 14), notification of applicable stakeholders in advance of works taking place (refer to Section 5.1.5), implementation of the Air Quality and Dust Management Sub-Plan, ongoing monitoring of the effectiveness of initiatives.

5.1.3 Construction Environmental Management Plan

The CEMP will provide the roadmap for the implementation of the Early Works EMS, and will be supported by a series of Sub-Plans addressing environmental aspects of relevance to the Early Works Package, and Site Environmental Implementation Plans (SEIPs) detailing environmental aspects and recommended control measures specific to each precinct. This set of environmental documentation will be developed to address the requirements of the EMF and the applicable EPRs, and incorporate best practice measures such as those detailed in EPA Publication No. 480, *Environmental Guidelines for Major Construction Sites*. The CEMP and Sub-Plans will also identify monitoring and evaluation requirements, and contingency measures to be employed where required.

Sub-Plans to be prepared to support the delivery of the Early Works Package include:

- Air Quality and Dust Management Sub-Plan;
- Contaminated Soil and Material Sub-Plan;
- Groundwater Management Sub-Plan;
- Heritage Management Sub-Plan;
- Noise and Vibration Sub-Plan;
- Tree Management and Removal Sub-Plan;
- Water Management Sub-Plan.

The environmental documentation is being developed to address the findings from the EES, from more recent technical investigations, and outcomes of the Early Works risk assessment process (refer Table 14). The documentation will also consider outcomes of stakeholder consultation, capturing and addressing specific concerns where appropriate. This will continue to feed into the impact management through a number of processes (refer to Section 5.1.9 below), and where necessary may require future updates to the CEMP or one of the Sub-Plans.

The Sub-Plans will detail control measures for implementation in order to meet the requirements of the EPRs, and with the aim of avoiding and minimising impacts to identified values. The SEIPs will provide a summary of the risks and control measures specific to the respective precinct. A Site Environment Plan (SEP) will be developed for each activity within a precinct, providing a graphical tool for on-site implementation of environmental controls.

The CEMP, Sub-Plans and SEIPs will be audited and approved for use by the Independent Environmental Auditor prior to commencement of Early Works.





The Project Land contains environmental, cultural heritage and social values that could potentially be impacted by Early Works. These values are summarised in Table 14. Specific controls designed to meet the requirements of the EPRs by avoiding and minimising impacts to key assets will be detailed in the CEMP and Sub-Plans. The CEMP also interfaces with the SEIPs which will describe how environmental aspects and impacts will be managed within each distinct precinct of the site, and the SEPs which will describe how environmental aspects and impacts will be managed at each area or site for each construction activity or stage of works. Sub-Plans are to be audited by the Independent Environmental Auditor prior to being submitted to MMRA for approval.





Noise and Vibration Sub-Plan

A detailed noise and vibration assessment and modelling is being undertaken for each precinct, including for key construction activities such as piling, excavation, and demolition. The noise and vibration modelling will consider the location of sensitive receptors, guideline targets as described by the EPRs, construction methods, equipment used, and duration of activities. Modelling will be updated as required to address significant changes to the construction method or activities.

The noise and vibration assessment will inform the development of the Noise and Vibration Sub-Plan, which will have the overall objective of minimising adverse impacts on the amenity of sensitive receptors, as far as practicable during the construction of the Early Works. In addition to reflecting the key outcomes of the modelling, the Noise and Vibration Sub-Plan will detail a comprehensive monitoring program, details of unavoidable works as assessed and agreed with the Independent Environmental Auditor, and contingency measures in the event that guideline targets are not achieved. The Sub-Plan will be developed in consultation with the EPA and the relevant councils, will be audited by the Independent Environmental Auditor, and approved by MMRA prior to the commencement of relevant works. Stakeholders potentially impacted by noise and vibration, may also be consulted to assist with the identification of appropriate management or mitigation measures. This process will be described in the Community and Stakeholder Engagement Management Plan and the Noise and Vibration Communications Plan.





5.1.4 Additional Plans and Reports and Documentation

Additional plans and reports referenced within the Sub-Plans and/or required to demonstrate that the Early Works Package will be delivered in accordance with the requirements of the EPRs and UDS include (refer to Figure 13):

- Cultural Heritage Management Plan (as approved under the Aboriginal Heritage Act 2006);
- Acid Sulfate Soil Management Plan;
- Remedial Management Plans (if required);
- Archaeological Management Plan;
- Heritage Interpretation Strategy;
- Tree Protection Plan(s);
- Design management documentation (including Urban Design Plan);
- · Construction management documentation;
- Safety Management Plan (including Hazardous Material Sub-Plans and Health Risk Assessment);
- Electro-magnetic Interference Management Plans (if required).





5.1.5 Communication and Stakeholder Engagement Process

Meaningful communication is key to ensuring residents and other stakeholders impacted by the Project are informed of Project works, and that they are given the opportunity to provide input into key project milestones. On this basis, the overarching approach to stakeholder and community engagement has been designed to address the strong stakeholder engagement framework as advocated by the Minister's Assessment and as reflected within the approved EPRs. The Managing Contractor recognises that communication will be an important way to mitigate and manage risk of impacts to landowners during the Early Works construction process.

A summary of the communication and stakeholder engagement process as adopted by the Managing Contractor is identified in Figure 16. The adopted approach has been designed to make sure that the lines of communication between the proponent and those affected by the Project are clear. This measure has been adopted to help mitigate against the potential for adverse impacts. Of specific relevance to the Early Works Package is the inclusion of EPR SC10 which requires that written notice be provided to adjoining landowners in advance of any Early Works being carried out within a precinct. Further details demonstrating how EPRs are being addressed is provided within Table 14, whilst specific consultation requirements associated with the Early Works Plan (including obligations as detailed under Clause 4.9.4 of the Incorporated Document) are addressed under Section 6 of the Early Works Plan.

The Managing Contractor's Community and Stakeholder Engagement Management Plan (CSEMP) is to be audited by the Independent Environmental Auditor prior to being submitted to MMRA for approval. The CSEMP must be consistent with MMRA's Community and Stakeholder Engagement Management Framework (CSEMF), which is subject to the Minister for Planning's approval.

John Holland as Managing Contractor for the Early Works component of the Metro Tunnel project will also implement a business continuity plan focussed on engaging and understanding local business requirements and implement measures to provide support to local businesses during construction. This business continuity plan will reflect MMRA's overarching Business Support Guidelines for Construction.





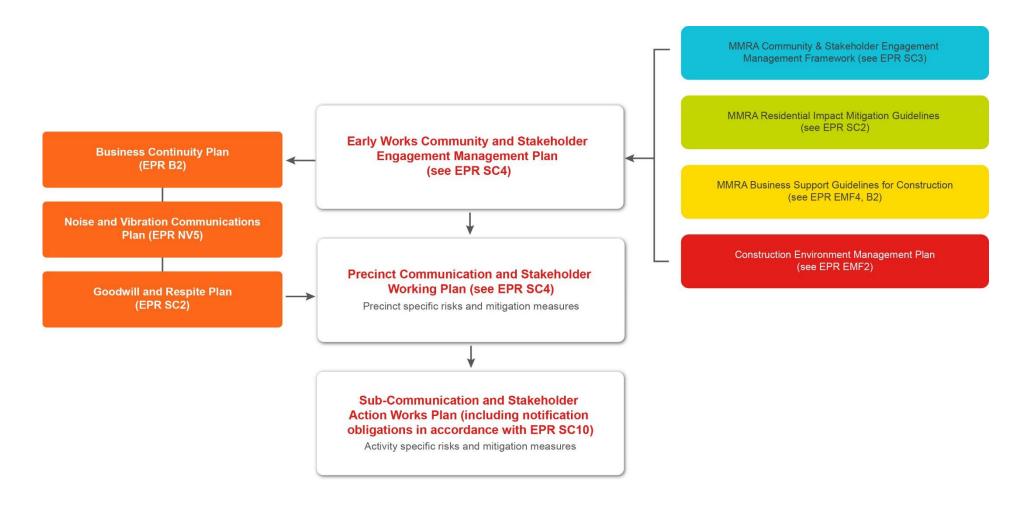


Figure 16. Summary of the communication and stakeholder engagement process as adopted by the Managing Contractor.





5.1.6 Transport Management Plan

Transport Management Plans (TMP) document the means by which the contractor will minimise disruption to traffic, car parking, pedestrian and bicycle movements during construction and address the requirements of relevant EPR. Typically called a Traffic Management Plan, for Metro Tunnel Project it is referred to as the Transport Management Plan to ensure all modes of active and passive transport are considered.

An overarching Transport Management Plan (TMP) has been prepared for the delivery of the Early Works Package. The purpose of the TMP is to outline how Early Works are to interface with the public to maximise the safety of all road users, the public, and the construction workforce, whilst minimising disruptions during project delivery. The TMP provides a coherent and organised approach to identifying and managing the direct and cumulative impacts of construction on the transport network with consideration of all modes including buses, trams, commercial vehicles, cars, pedestrians and cyclists as well as parking and loading areas.

The TMP has been prepared in consultation with the Traffic and Transport Working Group (TTWG) and agencies relevant to each plan including relevant Council/s, Heritage Victoria, the Roads Corporation, Melbourne Water, Public Transport Development Authority and the Environment Protection Authority and affected stakeholders as relevant, as required under the Incorporated Document and any relevant EPR.

The TMP sets the foundation for the development of more detailed construction activity based Transport Management Implementation Plans (TMIPs) which set out how the interface between the pubic and construction will be maintained safely at all times.

The purpose of TMIPs is to identify transport management initiatives that are specific to particular precincts and work packages in order to minimise the construction impacts on the surrounding transport network whilst maintaining a safe environment for the workforce and the public. Elements incorporated into TMIPs include:

- Identifying, minimising and managing risks associated with the worksite and managing traffic;
- Providing sufficient delineation and warning to provide safe and efficient movement of vehicles past the work site;
- Minimising the number of roads/lanes that are closed at the same time and the duration of temporary road/lane closures;
- Ensuring adequate advanced/guidance signage is provided for motorists;
- Ensuring advance communication of impacts to stakeholders and the community;
- TMIPs will be required where works affect, change, traverse or operate adjacent to the transport network;
- Short-term traffic arrangements;
- Long-term traffic arrangements;
- Site access where the activity warrants changes or additional signage;
- Address potential impacts bicycle parking (where relevant);
- Construction activities adjacent to, or on, the transport network.

Figure 17 summarises the overarching approach to transport management as has been adopted by the Managing Contractor. Transport Management Plans will be approved by MMRA prior to the commencement of the relevant works.





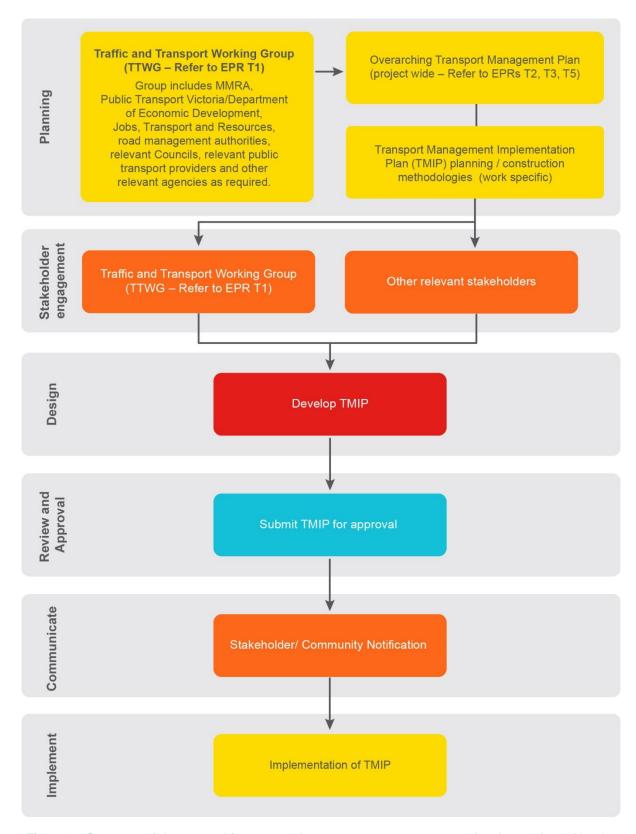


Figure 17. Summary of the overarching approach to transport management as has been adopted by the Managing Contractor.





5.1.7 Roles and Responsibilities

Roles and responsibilities in implementing the EMF during Early Works are described in detail in the EMF itself and are summarised below.

MMRA has been established to deliver the Project. The MMRA specific responsibilities in relation to environmental management for the delivery of the Early Works Package are to:

- Review and approve the project CEMP, SEIPs, TMPs, and Sub-Plans;
- Monitor and audit the implementation of the CEMP, EMS and compliance with EPRs;
- Facilitate Heritage Permits for works within St Kilda Road, Royal Parade and the South African Soldiers Memorial.

The Managing Contractor has the following responsibilities in relation to environmental management:

- Develop the EMS for the delivery of the Early Works Package;
- Obtain all other required primary approvals, permits and consents not obtained by MMRA under the
 Planning and Environment Act 1987 and *Heritage Act 1995* (i.e. heritage consents for works within
 Project Land);
- Obtain relevant secondary approvals from landowners/managers (i.e. a 'consent for works' from Council);
- Develop an Early Works CEMP to meet the requirements of the EMF and comply with EPRs;
- Compliance with the UDS;
- · Mitigate environmental risks through design and construction;
- Appoint an Environment Manager, or equivalent, who has primary responsibility for ensuring compliance with EPRs and implementing the CEMP;
- Review of sub contractors' performance against EPRs and CEMP and take corrective action as necessary;
- Undertake reporting, monitoring and auditing as required by the CEMP;
- Delivery of the works in accordance with the EMF.





5.1.8 Monitoring, reporting and auditing

Environmental monitoring, inspections, auditing and reporting will be undertaken by the Managing Contractor, their consultants, and sub-contractors to check compliance with specific environmental targets, controls, policies, legislation and obligations during the day to day work activities. The details of this program are included in the CEMP and the Sub-Plans as it relates to specific environmental aspects. Where relevant and appropriate, such information will be also captured on the SEIPs.

Monitoring and reporting will likely include, but not be not limited to, surface and groundwater water quality monitoring (including prior to discharge), visual inspection of air quality, noise and vibration monitoring, inspections of implementation of environmental and heritage control (e.g. tree protection fencing, heritage protection fencing, sediment controls), and monitoring of changes to traffic and access.

The Managing Contractor will submit Monthly Environmental Management Performance Reports to MMRA detailing the following information:

- Inspections;
- Non-compliance reports;
- Audit findings;
- Incidents;
- Monitoring results;
- Waste, water use data;
- Complaints;
- Innovations and achievements;
- Training and Awareness delivery;
- Status of environmental aspects related to the Project;
- Fuel and energy use information.

Allowance will be made within the CEMP for contingency reporting in the event of an incident or issue including:

- Discovery of a potential Aboriginal site or artefact;
- Discovery or any damage to a place identified in the Victorian Heritage Register;
- In the event of a spill or discharge of polluted water/waste.

The Managing Contractor will also undertake reporting in accordance with National Greenhouse and Energy Reporting requirements.

Regular environmental inspections will be undertaken by the Managing Contractor, MMRA, and the subcontractors, reflective of the types and risk ranking of activities being undertaken. For example, more regular inspections will be undertaken for high risk activities. The outcomes of inspections will be captured within the Managing Contractor's management system, which allows for the allocation and tracking of corrective actions where required.

Regular auditing will also be undertaken by the Managing Contractor, MMRA and the Independent Environmental Auditor. The CEMP will outline the audit program, including details of frequency, methods, responsibilities, planning requirements and reporting. When establishing the audit schedule and scope, the environmental risk and the results of previous audits will be considered. Non-conformances identified in the audits will be reported to MMRA through an online Incident Reporting Management Database where their management and recording of close-out will be maintained, and will also be captured within the Managing Contractor's management system.





Role of the Independent Environmental Auditor

An Independent Environmental Auditor has been appointed pursuant to the requirements of EPR EMF3, and is responsible for auditing compliance with approved plans. As detailed above, they will audit and sign-off on the project CEMP, Sub-Plans, and precinct-specific SEIPs prior to submission to MMRA and prior to commencement of relevant works or activities. The Auditor will also conduct audits against the implementation of the CEMP, Sub-Plans, SEIPs, and approval conditions, including in relation to compliance with the EPRs. This will involve both site inspections as well as review of office documentation and processes. Additional technical requirements as stipulated by the EPRs and to be fulfilled by an Independent Environmental Auditor include referral of groundwater modelling in accordance with the Australian Groundwater Modelling Guidelines, and review of the Construction Noise and Vibration Assessment Reports.





5.1.9 Environmental Performance Requirements

The EPRs are defined within the EMF and provide project-wide environmental requirements that must be achieved during design, construction and operation of the Metro Tunnel. The Incorporated Document requires the Project to be constructed and operated in accordance with the EPRs approved by the Minister for Planning. The Early Works Package forms a small component of the larger Metro Tunnel Project, and as such not all of the EPRs are applicable to the works detailed herein. The EPRs are generally not prescriptive, rather they have been developed and written in such a way as to guide and drive outcomes. This reflects the EES, which did not mandate or commit to particular mitigation or management solutions, but rather provided examples of how an environment effect could be mitigated.

For those EPRs which are relevant to the Early Works Package a risk-weighted assessment has been completed of the nature and extent of potential impacts. This has allowed the Managing Contractor to develop control measures which are commensurate and proportional to the works as they relate to the EPRs.

Table 14 below details EPRs considered relevant to the delivery of the Early Works Package, outlining how they have been, or are going to be (depending on their timing), addressed by the Early Works Managing Contractor.





Table 14. Early Works Management Plan Response to EPRs.

Category	Applicable EPRs	plicable EPRs Overarching Early Works Management Response	Specific Early Works Management EPR response		
Environmental Management Framework	EMF1-EMF4	The project environmental management framework and supporting documentation is described in detail above, and includes an ISO 14001-certified EMS. As part of the Managing Contractor's EMS, a CEMP, Sub-Plans, and SEIPs, have been developed and will be implemented as part of the delivery of Early Works. This documentation provides a transparent framework with clear accountabilities for managing environmental aspects and impacts associated with Early Works activities. These also address Commonwealth and State legislative requirements, project approvals and licenses (including the EPRs), and best practice environmental management.	EWIF1	The Managing Contractor operates in accordance with an ISO 14001 certified EMS. This EMS aligns with the overarching requirements of the MMRA EMS Manual and Environmental Policy, which have also been developed in accordance with the requirements of ISO 14001 requirements (refer to Figure 14 and Section 5.1 of this Plan).	
		The EMS and supporting environmental documentation will be audited, and approved for use, by the Independent Environmental Auditor prior to commencement of Early Works. Note: Development of operational management documentation is not relevant to the scope of the Early Works Package.	EMF2	An Early Works CEMP, Sub-Plans, SEIPs have been developed and will be implemented prior to the commencement of Project works. Other plans and strategic documents required by the EPRs will also be developed to guide delivery of the Early Works, including to address matters such as heritage interpretation and urban design. The CEMP has been prepared in accordance with EPA Publication 480, Environmental Guidelines for Major Construction Sites (EPA 1996) and will be audited, and approved for use, by the Independent Environmental Auditor prior to commencement of Early Works (refer to Section 5.1 of this Plan). Development of the EMS and delivery of supporting documentation has been integrated into the Project program. Stakeholder consultation has been, and will continue to be, ongoing throughout the Project, and includes regular meeting with councils, Heritage Victoria, roads and public transport corporations, water authorities, and the EPA, amongst others.	
			EMF3	This program allows for the Independent Environmental Auditor to approve proposed plans, as required by the Incorporated Document, prior to commencement of relevant works. The Independent Environmental Auditor has also been engaged to complete regular compliance audits against implementation of the CEMP, SEIPs, Sub-Plans and therefore the EPRs.	
			EMF4	Consistent with AS/NZS 10002:2014 Guidelines of Complaint Management in Organisations, a process for recording, managing and resolving complaints will be developed by MMRA and documented in the Community and Stakeholder Engagement Management Framework (refer to EPR SC3). The Managing Contractors Community and Stakeholder Engagement Management Plan details a complaints management process, also consistent with the above Australian Standard. Once approved, relevant requirements of the Business Support Guidelines for Construction, will also be incorporated into the complaint management process (refer to EPR B2).	
Aquatic Ecology & Rive Health	AE1-AE3	The Water Management Sub-Plan outlines control measures to be implemented to manage potential sedimentation and erosion, and which have been developed in accordance with the Best Practice Environmental Management: Environmental Guidelines for Major Construction Sites – EPA publication 480 (1996). Recommended control measures include vehicle wheel wash and rumble bars at worksite egress points, use of designated stockpile and chemical storage locations, and use of street sweepers.	AE1	Project design is being undertaken in consultation with the relevant council and asset-owner or operator. Where relevant, the project design incorporates stormwater management and treatment devices required to address the State Environmental Planning Policies (SEPP) (Waters of Victoria). Methods for management and treatment of stormwater during construction are outlined in the CEMP, Water Management Sub-Plan and Groundwater Management Sub-Plan which have also been developed to address the SEPP for suspended solids, litter and other pollutants.	





Category	Applicable EPRs	cable EPRs Overarching Early Works Management Response	Specific Early Works Management EPR response		
		In some instances, construction water will be captured and disposed of, or treated, off-site. The location of waterways or stormwater pits are identified on SEIPs and SEPs, along with the respective environmental control measure. Implementation of control measures in the Water Management Sub-plan aims to protect waterways, waterway function, and water quality in accordance with statutory objectives and best practice.	AE2	The Water Management Sub-Plan outlines sediment and soil controls relevant to Early Works, and has been developed in accordance with the EPA's Best Practice Environmental Management: Environmental Guidelines for Major Construction Sites – EPA publication 480 (1996). Specific measures are to be identified on SEIPs and SEPs, and may include, vehicle wheel wash and rumble bars at worksite egress points, use of designated stockpile and chemical storage locations, covering loads, street sweeping, and water quality monitoring.	
			AE3	Construction water captured or produced during shaft construction will be discharged to sewer, including groundwater intercepted at shaft depths. Discharge to sewer would be undertaken in accordance with relevant licenses such as Trade Waste Agreements and Groundwater Extraction Licenses, which would be granted through the applicable authority. Groundwater will be intercepted at the CBD North precinct, and targeted control measures will be developed in consultation with EPA, and integrated into the Groundwater Management Sub-Plan.	
Aboriginal Cultural Heritage	AH1	A Cultural Heritage Management (CHMP) was prepared by MMRA and has been approved under the <i>Aboriginal Heritage Act 2006</i> . The Managing Contractor must comply with requirements detailed in the CHMP as it relates to the Early Works. The CHMP details protective measures, monitoring and reporting requirements, triggers for site supervision by a Heritage Advisor, and contingency measures in the case of unexpected finds.	AH1	A Cultural Heritage Management (CHMP) was prepared by MMRA and has been approved under the <i>Aboriginal Heritage Act 2006</i> . Requirements of the CHMP have been integrated into the Heritage Management Sub-Plan, and have been incorporated into project management processes including inductions, toolbox talks, and identification of Aboriginal Places on construction drawings.	
Air Quality	AQ1- AQ3	The Managing Contractor's CEMP and associated Air Quality and Dust Management Sub-Plan are being prepared to address key risks to air quality from the Early Works activities. Qualitative air quality risk assessments are being completed for each precinct, specific to the activities and sensitive receptors. Potential risks include production of dust and odour. The objective of the Air Quality Sub-Plan is to avoid or minimise potential adverse air quality impacts, affecting the amenity of nearby sensitive receptors. The Sub-Plan is being prepared in consultation with EPA, incorporating controls from the EPA's Best Practice Environmental Management: Environmental Guidelines for Major Construction Sites – EPA publication 480 (1996), and will be audited and approved for implementation prior to the commencement of relevant works (refer to Section 5.1).	AQ1	The Air Quality and Dust Sub-Plan include control measures to avoid and minimise the production of dust created by Early Works activities. Qualitative air quality risk assessments are being completed for each precinct, specific to the activities and sensitive receptors present. The assessments identify air quality criteria to be incorporated into the Sub-Plan, which will then guide monitoring requirements for key sensitive receptors. Sensitive receptors considered within the air quality assessment and Sub-Plan include the Peter Doherty Institute, the University of Melbourne, the Royal Melbourne Hospital, City Baths, RMIT, St Paul's Cathedral, Melbourne Grammar School, as well as residences and business adjacent to works. Consultation with key affected stakeholders will guide the development of the Sub-Plan and associated management measures. Further to this, the Community and Stakeholder Engagement Management Plan includes respite measures for unavoidable air quality impacts and measures for informing the community of upcoming works. A human health risk assessment for potential airborne contaminants is being prepared to further guide control measures to be detailed in the Air Quality Sub-	
				Plan. This assessment will consider the relevant project activities across each precinct, and the potential presence of contaminants of concern. The outcomes of this assessment will also be integrated into the Safety Management Plan.	
			AQ2	The Air Quality and Dust Sub-Plan is being developed in consultation with the EPA and in accordance with EPA Publication 480, <i>Environmental Guidelines for Major Construction Sites</i> (EPA 1996). The Plan seeks to prevent the generation of dust in preference to applying dust suppression measures. Measures to be adopted which will help to prevent the generation of dust include, minimising the distance travelled on unsealed surfaces, the extent of cleared land, and the sealing or reinstatement of distrurbed areas as soon as possible following works.	





Category	Applicable EPRs	Overarching Early Works Management Response		Specific Early Works Management EPR response
		AQ3	Measures for controlling the emission of smoke, dust, fumes and other pollution into the atmosphere are being developed in accordance with the SEPP (Air Quality Management and Ambient Air Quality). These control measures are detailed in the Air Quality and Dust Sub-Plan and include, scheduling works so that areas of cleared land are minimised during the drier months, the use of street sweepers, installation of stabilised site entry/exist points, covering of truck taking soil off-site, management of the size and siting of stockpiles, and wetting down of exposed surfaces.	
<u>Arboriculture</u>	AR1-2; AR4-5	Trees within the Project Land include a mix of native and exotic species, the majority of which are planted street trees in public open spaces, heritage reserves, and heritage parklands. Tree impacts are to be managed in accordance with the Tree Management and Removal Sub-Plan, advice as received from the Project arborist and protocols as agreed with relevant asset owners or land managers, including councils, Heritage Victoria and the University of Melbourne. The aim of this process is to avoid or minimise adverse effects on landscape, visual amenity and recreational values as far as practical (refer to the hierarchy as per Section 3.3). Any required tree removal will be undertaken in conjunction with necessary stakeholder consultation. Fauna inspection and relocation protocols are specified in the Tree Management and Removal Sub-Plan, and Fauna Management Protocol. This includes the development of a translocation plan required prior to site clearance and details management requirements for listed fauna species if encountered. The scope for tree replacement works is limited in the context of the Early Works Package as most of these areas will be subject to further development from Main Works.	AR1	Tree management consideration and removal requirements associated with the Early Works Package have been identified under Section 3.3 of this plan. These considerations have been achieved through the planning and design processes, which have identified opportunities for minimising clearing requirements, which ir turn have been guided by tree assessment work conducted by MMRA. A design and construction hierarchy has been adopted to inform activities undertaken around trees, whilst the flow chart included as Figure 3, captures the Managing Contractor's process for guiding tree removal considerations as part of the works. In addition to this, the Tree Management and Removal Sub-Plan reviews potential tree impacts and outlines additional measures to help maximum tree retention as part of Early Works. This Sub-Plan reinforces that the detailed design process is to provide for the maximum tree retention in both public and private land, having regard to habitat linkages and corridors where practical. An arboricultural assessment of all trees with potential for relocation and reinstatement will also occur in advance of tree removal. MMRA have developed a Tree Removal Plan to guide the Managing Contractor (and future contractors) in capturing information relevant to tree removals, and which requires MMRA approval prior to removal of any tree. Trees to be removed during Early Works are only those associated with the Early Works scope. Tree removal which requires a heritage permit will progress in accordance applicable conditions and in consultation with Heritage Victoria.
			AK2	For works outside of areas which are required for the main construction works (i.e. service relocation works well removed from shafts and station boxes), reinstatement will be undertaken. In instances where soil is being replaced for the purpose of future tree planting, quality soil will be used in sufficient volumes and works will be undertaken in consultation with the applicable land or asset owner/manager. The quality of this soil will support the long-term viability of trees planted within the area. Any such areas designed for future plantings will also give consideration to incorporation of Water Sensitive Urban Design (WSUD), to be agreed with the asset owner. For construction sites which are to be handed over to the Main Contractor (i.e. the shafts), the Early Works scope does not include soil replacement.





Category	Applicable EPRs	licable EPRs Overarching Early Works Management Response	Specific Early Works Management EPR response		
			AR4	Tree Protection Plans are being developed for all precincts across the Project where works have the potential to affect trees. The Tree Protection Plans, developed by the Project Arborist, will be in accordance with <i>AS4970-2009 Protection of Trees on Development Sites</i> , as well as council policies as they relate to the works. The Project Arborist participates in the review of design and construction method, providing guidance at each stage with the aim of maximising tree and canopy retention. Management measures in the Tree Protection Plans include the installation of structural barriers, guidelines on branch or root trimming, and, where necessary, requirements around arborist supervision of works. Where these Tree Protection Plans relate to a heritage place, works are to commence in consultation with Heritage Victoria and/or the relevant Council (as appropriate). This includes compliance with conditions of any heritage permit. For City of Melbourne trees that are to be retained and protected, a bank guarantee or bond of the trees value will be held against the approved Tree Protection Plan for the duration of the works (in accordance with the City of Melbourne Tree Retention and Removal Policy).	
<u>Business</u>	B2-B5	The Managing Contractor has prepared a Community and Stakeholder Engagement Management Plan, precinct-specific working documents and Sub-Plans specific for packages of work and a Business Continuity Plan. The Community and Stakeholder Engagement Management Plan identifies at a high level how the Managing Contractor will proactively engage with each stakeholder group and manage their concerns, issues and interests. This plan seeks to manage effects on the social fabric of the community during Early Works, including possible impacts associated with land use changes, business functionality and access to services and facilities. The plan has been refined through consultation between MMRA, the Managing Contractor and key stakeholders. The Plan guides future consultation with stakeholders, including but not limited to: • Statutory Authorities; • Local Councils; • Traditional owners;	B2	Prior to the commencement of Early Works, the Managing Contractor will prepare a Business Continuity Plan which reflects the requirements of MMRA's Business Support Guidelines for construction (BSGC). This process aims to manage potential impacts to non-acquired businesses and commercial property owners and details a methodology for ongoing engagement with affected businesses. Prior to the commencement of Early Works, the Managing Contractor will prepare a Business Continuity Plan which reflects the requirements of MMRA's Business Support Guidelines for construction (BSGC). Furthermore, the CEMP and Sub-Plans which relate to potential amenity impacts such as those relating to noise, vibration, and air quality will address this EPR. The Managing Contractor has planned for amenity impacts by engaging an acoustic and vibration specialist to undertake impact assessments and inform mitigation measures within the Noise and Vibration Sub-Plan.	
		Community groups;Sensitive receptors;Education facilities;	B4	Vehicular and pedestrian access to hospital emergency departments will be maintained during Early Works. This will be outlined in the Transport Management Implementation Plan (refer to Section 5.1.6).	
		 Key stakeholders Other residents; and Local business owners. 	B5	Prior to Early Works commencing in the Parkville precinct, a Parkville Precinct Working Plan is to be developed which will include a stop work contingency plan for Class 1 emergencies, as defined in the <i>Emergency Management Act 2013</i> . This plan will be developed in consultation with relevant medical institutions and will seek to minimise potential impact to emergency procedures during Early Works.	
Contaminated Land & Spoil Management	C1-C4		C1	A Contaminated Soil and Material Sub-Plan is being developed in accordance with MMRA's Spoil Management Strategy, relevant regulations and standards, and incorporating best practice guidance. This plan is being developed in consultation with the EPA, and will be approved for implementation by the Independent Environmental Auditor in advance of works taking place (refer to Section 5.1).	





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		The Contaminated Soil and Material Sub-Plan and associated spoil management strategy is being developed in consultation with EPA. These documents are being guided by findings from the Minister's Assessment of the EES and outcomes from more recent soil testing and investigation. This process will allow for <i>in situ</i> classification of areas requiring significant excavation, and subsequent development of targeted spoil management measures, in accordance with the MMRA Spoil Management Strategy. The Sub-Plan will identify and seek to prevent, potential adverse environmental effects resulting from contaminated or acid-forming material known to be present within some areas. Significant quantities of spoil will require management during construction of the shafts at CBD North, including acid rock. Some smaller quantities of spoil will be removed during utility relocation, including during the construction of the South Yarra Sewer Main. Control measures detailed in the Sub-Plan will comply with the requirements of the Environment Protection (Industrial Waste Resource) Regulations 2009, the National Environment Protection Measure (NEPM), the SEPP (Prevention and Management of Contaminated Land), and other relevant EPA publications.	C2 C3	Control measures to be adopted include, providing reports and results to contractors to support appropriate management of spoil, additional on-site testito allow classification and appropriate management, separating highly contaminated or leachable spoils from less contaminated soils for the ease of management and transportation, and development of contingency measures for discovery of unknown contaminated soil. Further details relating to the disposal of material as 'waste' are contained in the Sustainability Management Plan, including guidelines around management of waste in accordance with the waste hierarchy, waste minimisation strategies, a details of waste as it relates to the ISCA sustainability targets. An Acid Sulfate Soil Management Plan is being developed to address the presence of known acidic material at CBD North, and will form part of the Contaminated Soil and Material Sub-Plan. The Plan will be developed in consultation with the EPA and approved for implementation by the Independent Environmental Auditor prior to shaft construction. It will incorporate control measures that have been developed in accordance with the excavation Industr Waste Management Policy (Waste Acid Sulfate Soils) 1999 EPA Publication 655.1 Acid Sulfate Soil and Rock, including details on characterisation and quantification of material prior to excavation. If required, a Remedial Management Plan will be developed to guide remediate of contaminated land or groundwater. This Plan would be developed in accordance with relevant regulation and guidelines, and to the satisfaction of the EPA. This plan will also address whether or not further plans need to be developed in accordance with the EPR. The Hazardous Materials Management Sub-Plan will provide details on the safi handling and storage of hazardous substances, and will be to the satisfaction of WorkSafe and in consultation with the EPR. This Plan will operate in conjunction with the Emergency Response and Incide Management Sub-Plan to manage risks to the environment, em
<u>Historical Cultural</u> <u>Heritage</u>	· · · · · · · · · · · · · · · · · · ·	CH1	Works have been designed to avoid and minimise impacts on the cultural heritage values of heritage places. The is guided through control measures incorporated into the Heritage Management Sub-Plan, which include the identification of heritage places on design and construction drawings, the monitoring of vibration and ground movement when working near heritage places, and consultation with Heritage Victoria and heritage specialists in advance of works taking place.	
		heritage specialists to advise on heritage protection and undertake further desktop and detailed assessments. Recommendations and outcomes of the specialist investigations and assessment will be incorporated into the Heritage Management	CH2	As detailed above, a Heritage Management Sub-Plan will be developed which identifies mitigation measures to avoid or minimise impacts on cultural heritage and heritage places. Measures are to include the engagement of heritage consultants to advise on work methodologies, undertake precondition surveys and identify mitigation measures where necessary. A contingency protocol for the discovery of heritage sites or artefacts will also be included within the Sub-Plan and made available on all work sites.





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		In accordance with the <i>Heritage Act 1995</i> , heritage permits are to be issued in advance of Early Works involving the South African Soldiers Memorial, St Kilda Road, and Royal Parade. In addition, heritage consents will be obtained in advance of any Early Works occurring within a site identified on the Victorian Heritage Inventory. Once issued, all applicable conditions of the Heritage Permits and consents will be incorporated into the project License and Approvals Register.	СНЗ	Vibration and ground movement assessments are being undertaken in accordance with the applicable EPRs in order to understand the risk to heritage values and places. In addition, condition assessments are being undertaken for heritage places situated in close proximity to proposed works. Should works result in damage to a heritage places, rectification would be undertaken in accordance with accepted conservation practice (including the <i>Australia ICOMOS Burra Charter 2013</i>), with input from a qualified heritage practitioner, consultation with Heritage Victoria and applicable stakeholders.		
			CH4	Where demolition or modification of heritage places is required, archival photographic recording will occur prior to construction in accordance with Heritage Victoria's <i>Specification for the Archival: Photographic Recording for Heritage Places and Objects.</i> This process will be agreed with Heritage Victoria or the relevant Council, and be outlined in the Heritage Management Sub-Plar The Sub-Plan will detail places to be recorded prior to demolition, including the Railway Reserve Precinct in Arden, which is considered to be of local heritage significance.		
			СН5	Where dismantling, storage and reconstruction of a heritage structure or place required suitable methodologies will be developed with reference to the Austra ICOMOS Burra Charter 2013, and in consultation with Heritage Victoria, or the relevant council or landowner. Any such works would be overseen and documented by an appropriately qualified heritage practitioner. Heritage structures to be dismantled for storage include the South African Soldiers Memorial, the Burke and Wills Monument, and various objects within City Square Heritage Overlay. The process for dismantling and storage of the South African Soldiers Memorial will be captured within the Heritage Permit. Whilst the process for dismantling and storing the Burke and Wills Monument be discussed and agreed with City of Melbourne Council. A Heritage Interpretation Strategy will be delivered in consultation with Heritage Victoria, Aboriginal Victoria and local Councils (as relevant), to guide delivery heritage interpretation as it relates to Early Works. This will include display of material associated with dismantled or removed objects, such as the South African Soldiers Memorial and the Burke and Wills Monument. Early Works are not anticipated to require the dismantling of the University of Melbourne Main Entrance Gate.		
			CH6	Control measures for the protection of heritage places and their settings will be detailed in the Heritage Management Sub-Plan. Recommended control and protection measures will include: Designing to avoid significant trees within heritage places; Use of physical boundaries, such as fencing to avoid accidental impact. Where required by the asset owner, retaining removed features (such bluestone kerb) for storage and reuse; Training and induction of staff regarding heritage values; Regular inspection and monitoring of controls. These measures will be undertaken in addition to conditions stipulated in any applicable heritage approval, in consultation with Heritage Victoria, Council		





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			СН7	Archaeological Management Plans will be prepared in accordance with heritage consents issued under the <i>Heritage Act 1995</i> , and in consultation with Heritage Victoria. Should detailed investigations be required due to uncovered archaeology, they will be undertaken in accordance with the <i>Guidelines for Investigating Historical Archaeological Artefacts and Sites, Heritage Victoria 2014</i> . A contingency protocol for the unexpected discovery of artefacts will also be included within the Heritage Management Sub-Plan and made available on all work sites.	
			СН8	The Heritage Interpretation Strategy will be developed in consultation with Heritage Victoria and the relevant councils, and will be captured under the overarching Urban Design Plan. The Interpretation Strategy will reflect the principles of the MMRA Creative Strategy, the Urban Design Strategy, and other relevant council or heritage documentation. The Interpretation Strategy will guide the delivery of interpretation as it relates to the Early Works, and will identify and address potential impacts on historical or Aboriginal cultural heritage of state or local significance. The Interpretation Strategy will consider sites such as the South African Soldiers Memorial, the Burke and Wills Monument, and the heritage fabric and buildings within the Railway Reserve Precinct at Arden. Development of interpretative material will also be undertaken in consultation with relevant stakeholders, including historical societies or interest groups where required and will be guided by appropriately qualified heritage consultants.	
			СН9	The Heritage Management Sub-Plan includes measures to avoid, minimise and mitigate impacts to the heritage fabric (including trees) in sensitive areas such a within heritage places. Tree Protection Plans will be prepared where works have the potential to affect trees, providing control measures to safely manage works in the vicinity of trees (refer to Section 3.3).	
			CH10	Design is being undertaken to be responsive to adjacent heritage places, including with regard to height, massing, form, façade articulation and materials. Though the majority Early Works activities comprise buried infrastructure, permanent and temporary above ground structures, such as the acoustic sheds at CBD North, will be designed and developed in consultation with the relevant authority or owner of the heritage place.	
			CH11	Early Works activities within the former Glueworks site in Kensington are limited to the south-east corner of the site, and are significantly distanced from any heritage buildings.	
			CH16	In consultation with the City of Melbourne, a detailed strategy for the dismantling storage and relocation of the Burke and Wills Monument will be prepared prior to the commencement of applicable works. The strategy will provide contractors with a detailed methodology for the recording, dismantling, storing and reconstruction of the statue. This strategy will also include a condition assessment and specify conservation and repair works, where required.	
			CH18	Given the scope of the Early Works Package, there is limited opportunity for tree replacement to be undertaken. However, where tree replacement can occur it will be undertaken in consultation with the relevant asset owner, and in accordance with the relevant conservation management plan.	





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			CH20	A Heritage Interpretation Strategy will be developed in consultation with Heritage Victoria and relevant councils to guide the delivery of heritage interpretation as it relates to the Early Works, including with respect to the South African Soldiers Memorial. Any interpretive material for the Memorial will be developed in consultation with the City of Port Phillip and Heritage Victoria, and will reflect the broader principles of the Creative Strategy and the Urban Design Plan. Detailed design of the Domain Station is not part of the Early Works Package.	
			CH23	Where heritage street fabric and infrastructure is impacted by the Early Works, it will be conserved and/or reconstructed. This will be undertaken in accordance with statutory controls as detailed in heritage approvals (including heritage exemptions). Conservation and reconstruction requirements will be agreed in consultation with Heritage Victoria and/or the applicable local council. The Managing Contractor will conduct completion inspections of each works area to confirm that any reinstatement has been appropriately undertaken.	
<u>Electro Magnetic</u> <u>Interference</u>	EMI1-EMI2	Several health and research facilities are located close to the Early Works, which may contain equipment which is sensitive to Electro-magnetic Interference (EMI). These include the University of Melbourne, RMIT, the Royal Melbourne Hospital and other health facilities in Parkville and CBD North. Where organisations require notification of the upcoming works, this has been addressed by the Community and Stakeholder Engagement Management Plan. Electro Magnetic Interference has minimal relevance to Early Works and is of greater consideration for the operational elements of the Project.	EMI1	Given the scope of the Early Works Package there is limited risk for electromagnetic interference impacts. However, consultation with owners of sensitive equipment will be undertaken where required, to determine the need for detailed assessment, including at Parkville and CBD North.	
			EMI2	Where required, an Electro Magnetic Compatibility Management Plan will be developed, noting above that there is a limited risk for electromagnetic interference impacts from the Early Works.	
<u>Terrestrial Flora &</u> <u>Fauna</u>	FF1-FF3	No impacts to protected flora or fauna species are anticipated during Early Works. Some indigenous planted native trees located within the works area maybe impacted, and commonly occurring urban species fauna may be encountered during tree removal and building demolition works. Protection measures for tree and fauna management will be outlined in the Tree Removal Sub-Plan and the Fauna Management Protocol. The measures identified in these plans aim to minimise adverse impacts on native terrestrial and aquatic flora and fauna associated with the Early Works.	FF1	Where native vegetation removal is unavoidable as part of Early Works, it will be undertaken in accordance with the requirements of the <i>Permitted Clearing of Native Vegetation – Biodiversity Assessment Guidelines</i> and in accordance with Clause 4.10.1 of the Incorporated Document. This will be outlined in the Tree Management and Removal Sub-Plan.	
			FF2	Weed management measures to reduce the likelihood of the spread of weeds during construction will be captured as part of the Tree Management and Removal Sub-Plan.	
			FF3	The Tree Management and Removal Sub-Plan will provide control measures developed to minimise impacts on native terrestrial and aquatic flora and fauna. Control measures will include conduct of pre-clear surveys to determine species and numbers of fauna present within trees earmarked for removal, and staging of clearing to minimise impacts on fauna present. The Fauna Management Protocol will be developed in consultation with the project arborist and fauna handling specialists to capture best practice fauna management. The Protocol will include contingency measures in the event that listed fauna species are unexpectedly discovered during works.	
<u>Greenhouse Gas</u>	GHG1-GHG2	The Managing Contractor has prepared a Sustainability Management Plan (SMP) which has been developed to address the MMRA Sustainability Policy, the MMRA Sustainability Management Plan, and to provide a tool for achieving the Infrastructure Sustainability Council of Australia (ISCA) targets, and targets set by MMRA.	GHG1	The SMP has been developed to provide a tool to meet the sustainability targets set by MMRA, including achieving the specified ratings under the ISCA's Infrastructure Sustainability Rating Tool. This will be achieved by various sustainability initiatives, including consideration of: materials used, waste disposal, energy use and supply chain. The Project seeks to achieve an 'Excellent' As Built rating under ISCA as measured against an agreed base case.	





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			GHG2	Monitoring will be undertaken during the works to identify shortfalls or opportunities for further improvements to sustainability initiatives. These are addressed in the SMP and design reports. Where necessary, management actions may be taken, such as delivery of sustainability training and awareness programs. The SMP also details processes for modelling, monitoring and reporting on greenhouse gas abatement measures, and the investigation and implementation (where appropriate) of renewable energy opportunities. The aim of the Early Works is to help contribute to the Project goal of an overall reduction in emissions on a base case footprint.
Ground Movement & Land Stability	GM1-GM6	shaft construction, i.e. piling, excavating and rock breaking works, or use of equipment required for compaction works. Specialist advice has been sought by the Managing Contractor to understand the potential risks and impacts regarding ground movement. This includes the	GM1	Geological models are being developed for the Early Works at CBD North and CBD South, and will be reviewed and updated as required during design and construction. A groundwater model is being developed for CBD North. These models will identify trigger levels for implementing additional mitigation measures to minimise potential consolidation settlement and ground movement effects.
			GM2	Works associated with Early Works shaft construction will be designed to limit ground movement to within acceptability criteria for vertical, horizontal, and angular deformation. The acceptability criteria will be agreed with the relevant land or asset owner, and will reflect the findings from the Minister's Assessment of the EES and more recent modelling and investigation.
			GM3	Outcomes from the geological modelling will identify structures and assets potentially impacted by the Early Works due to settlement. As noted above, the acceptability criteria will be agreed with the relevant land or asset owner, and will reflect the findings from the Minister's Assessment of the EES and more recent modelling and investigation.
				A comprehensive monitoring program will be implemented during shaft excavation, with monitoring results checked against the predicted model outputs, assumptions, and acceptability criteria. Additional controls will be adopted where acceptability criteria are not met. Consultation with potentially affected land and asset owners will be undertaken prior to and during construction, including with Heritage Victoria and the relevant local council.
			GM4	Outcomes of the geological modelling and settlement investigation allow identification of potentially affected assets, which require a pre-construction condition survey. The Managing Contractor will conduct pre-construction condition surveys as relevant to Early Works activities, and where relevant, outcomes of surveys will guide design and the construction techniques employed.
				A database of condition information and consultation outcomes for each potentially affected asset will be developed and maintained by the Managing Contractor throughout the Early Works. All stakeholder consultation will be performed in accordance with the Community and Stakeholder Engagement Management Plan, including the process for sharing pre and post-construction conditions surveys.
			GM5	Shaft construction techniques will be adopted to limit ground movement to within acceptability criteria agreed in consultation with potentially affected land and asset owners, and will reflect the findings from the Minister's Assessment of the EES and more recent modelling and investigation.





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			GM6	Where ground movement affects properties or assets, repair works will be conducted with consideration to pre-condition surveys, and in agreement with the relevant stakeholder.
<u>Groundwater</u>	GW1-GW5	Groundwater will be encountered during excavation of the shafts at CBD North. A groundwater model has been developed to help understand the local environment and potential impacts of shaft construction on groundwater. The potential impacts will be managed through implementation of control measures to be detailed in the Groundwater Management Sub-Plan. The groundwater model will be reviewed and independently audited during design in accordance with the Australian Groundwater Modelling Guidelines. The Sub-Plan will be developed in consultation with the EPA and relevant water authorities to protect groundwater quality and levels, waterways and waterway function in accordance with statutory objectives. The Sub-Plan will also detail a comprehensive monitoring and testing program to be implemented throughout construction.	GW1	Design of the shaft at CBD North aims to minimise changes to groundwater levels, in order to reduce potential impacts to groundwater dependent values, ground movement, or existing contamination sources. The design process considers outcomes the modelled groundwater zone of influence, and recommends control measures or construction techniques to minimise the influence. There are no registered and active groundwater bores within the Early Works groundwater zone of influence.
			GW2	A groundwater model has been developed to help understand the local environment and potential impacts of shaft construction on groundwater levels, flow and quality. This model has informed design and refinement of construction techniques, and will guide the development of the Groundwater Management Sub-Plan. The groundwater model will be reviewed and independently audited during
			GW3	design in accordance with the Australian Groundwater Modelling Guidelines, an will be updated as required to reflect outcomes of a comprehensive construction monitoring program to be detailed in the Sub-Plan. The Groundwater Management Sub-Plan will be developed prior to shaft
				 construction, and where relevant will address: Potential impacts on groundwater quality from known or unknown contamination, including acid sulfate conditions; Potential impacts on groundwater quantity and drawdown; Potential impacts on groundwater dependant ecology or vegetation; Risk of vapour intrusion; Approach to collection, treatment and disposal of groundwater accordance with the MMRA Groundwater Disposal Strategy and meet sustainability targets; Approaches to control contaminant migration in consultation with the EPA; Mitigation measures to protect groundwater and groundwated dependent values and to minimise drawdown;
				 Monitoring of controls measures for effectiveness; Contingency measures in the case of encountering unexpected groundwater conditions. The Sub-Plan will be developed in consultation with the EPA and relevant water authorities.
			GW4	The Groundwater Management Sub-Plan (incorporating details of disposal requirements) will be used to obtain necessary Trade Waste Agreements from the relevant water retailers.





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			GW5	 The Groundwater Management Sub-Plan will include a comprehensive monitoring program to monitor potential impacts from shaft construction on groundwater levels. Specific elements to be considered in the monitoring program include: Ongoing monitoring of groundwater levels and flow to compare against the predicted model Interaction with acidic conditions and potential groundwater acidification; Monitoring groundwater quality required in accordance with obtained Trade Waste Agreements. There are no registered and active groundwater bores or groundwater dependant ecosystems within the Early Works groundwater zone of influence.
Land Use & Planning	LU1; LU4	Given the scope of Early Works comprises little permanent above-ground infrastructure there is limited potential to impact on land use and planning matters, including with respect to impacts on public open space. However, temporary works or infrastructure to be designed and constructed by the Managing Contractor includes construction sites and associated way-finding, hoardings, heritage interpretation material, and the acoustic sheds at CBD North. These elements will be design and constructed in accordance with the existing open space master plans (as relevant), the MMRA Creative Strategy, the Green Growing Guide 2014, and in consultation with the relevant stakeholders, such as City of Melbourne or University of Melbourne. Further considerations of land use and urban design are included in Section 5.2.	LU1	An Urban Design Plan will be developed to guide design and construction in a manner which minimises impacts on land use, and will consider the relevant sections of the Urban Design Strategy and the MMRA Creative Strategy. The Plan will consider potential impacts of Early Works on existing public open space, with the aim of minimising footprints of temporary works area and utilising existing disturbed areas where practical. The design and construction planning process will also give due consideration to the aesthetics of elements such as the acoustic sheds and hoardings, and as guided by the Urban Design Plan. This process will include ongoing consultation with affected land managers or asset owners, local councils, and key stakeholders, in accordance with the Community and Stakeholder Engagement Management Plan. An Urban Design Plan will be developed to provide guidance to design of relevant Early Works elements such as construction sites and associated way-
				finding, hoardings, heritage interpretation material, and the acoustic sheds at CBD North. This plan will consider will consider the relevant sections of the Urban Design Strategy, the Growing Green Guide, and the principles of the MMRA Creative Strategy. The strategies in the Urban Design Plan will be developed in consultation with the relevant councils and land managers. Prior to the commencement of the relevant works, the Urban Design Plan will be referred to the Urban Design and Architectural Advice Panel (UDAAP).
Landscape & Visual	LV1-LV4	The majority of works undertaken by the Managing Contractor comprises underground services work and limited above ground infrastructure, and therefore there are few potential impacts on landscape and visual amenity. However, temporary works or infrastructure to be designed and constructed by the Managing Contractor includes construction sites and associated way-finding, hoardings, heritage interpretation material, and the acoustic sheds at CBD North. Management of the visual amenity impacts of the above elements will be guided by the Urban Design Plan which will be developed in accordance with the Urban Design Strategy and the principles of the MMRA Creative Strategy. The Urban Design Strategy should not be limited to construction impacts, and also apply to sites (not only acoustic sheds).	LV1	Section 3.5 of the UDS details design solutions to manage construction impacts, however it provides direction on management of broader matters including reinstatement, traffic management, and principles of Crime Prevention Through Environmental Design (CPTED). Other sections providing guidance relevant to the Managing Contractor include Section 3.2 Make Great Public Places. Whilst this section focuses on station design and broader land use and planning issues, there may be some opportunities for the Managing Contractor to implement management actions which align with the aims of this section of the UDS. For example, with respect to activation of open spaces and provision of elements of heritage interpretation. This will be addressed within the Urban Design Plan where relevant to the Managing Contractor. The Managing Contractor's response contained within Section 5.2 of the Early Works Plan has been updated to further clarify this detail. Key visual amenity sensitive receptors include RMIT, City Baths, and A'Beckett Street and Franklin Street residents and businesses. Consideration of the visual impacts of tree removal will also be addressed within the Tree Management and Removal Sub-Plan, and visual impacts on heritage





Category	Applicable EPRs	Overarching Early Works Management Response		Specific Early Works Management EPR response
				An Urban Design Plan will be developed in accordance with the relevant sections of the Urban Design Strategy, the Growing Green Guide, and the principles of the MMRA Creative Strategy. The strategies in the Urban Design Plan will be developed in consultation with the relevant councils and land managers. As the Early Works scope includes limited reinstatement or re-establishment activities, the Urban Design Plan will focus instead on management of temporary works areas during their operation.
			LV3	Any night works required for the Project are to be undertaken in accordance with EPA Guidelines, council requirements and relevant standards. Measures to minimise light spillage are addressed in the Air Quality and Dust Management Sub-Plan, which will be actioned on site through the implementation of the 'Out of Hours Work Permits'. Control measures detailed in the Air Quality and Dust Management Sub-Plan will include, prioritising works to be undertaken during daylight hours, maintaining existing street lighting wherever possible, installing downward facing directional lighting or using diffused lighting sources, and, inspecting lighting setup and plans to minimise impacts to sensitive receptors including residential dwellings.
			LV4	The Urban Design Plan will consider the use of temporary landscape and other features or structures during construction to minimise impacts to visual amenity. When considering use of temporary visual amenity solutions consideration will be given the sustainability and reuse opportunities it presents.
Noise & Vibration	NV1; NV3-NV7-15; NV21	and vibration potentially resulting from the Early Works, including as a result of piling, excavation and demolition works associated with shaft construction at CBD	NV1	The Noise and Vibration Sub-Plan will be developed in accordance with the EPA <i>Publication 1254 Noise Control Guidelines</i> , and to address the requirements of the noise and vibration EPRs.
		North and CBD South. The objective of the Sub-Plan will be to minimise adverse noise and vibration effects on the amenity of nearby residents and businesses, as far as practicable during the construction of the Early Works. The Sub-Plan will be supported by noise and vibration modelling and assessment to be undertaken within each precinct. The modelling will consider the guideline targets, location of sensitive receptors, construction method, equipment, and duration of various activities. The assessment will identify potential impacts to sensitive receptors, for which mitigation measures are required. The assessment report will detail a comprehensive monitoring program, and contingency measures in the event that guideline targets are not achieved.	NV3	Noise and vibration predictive modelling is being undertaken across each precinct to assess the potential Early Works impacts, including impacts from airborne noise, ground borne noise, and ground borne vibration. The modelling will consider the construction method, equipment, location and duration of various activities. Modelling will be used to identify potential impacts to sensitive receptors, for which mitigation measures are required. The outcomes of modelling will be described in the Construction Noise and Vibration Assessment Reports, which will be used to inform the Noise and Vibration Sub-Plan. The assessment reports will be reviewed by the Independent Environmental Auditor.
		A Noise and Vibration Communications Plan will be developed in consultation with relevant stakeholders, to guide communications specifically relating to potential noise and vibration impacts. It will form part of the Noise and Vibration Sub-Plan, but will also reference the Community and Stakeholder Engagement Management Plan and associated complaints management procedures.	NV4	The noise and vibration modelling and assessment will be informed by monitoring results from the EES, and additional monitoring undertaken by the Managing Contractor. The modelling will assess construction noise and vibration against the Guideline Targets described by the EPRs. Where exceedances occur, or are predicted to occur, management actions will be implemented. The model will be calibrated as required following construction monitoring, and will be updated to reflect significant changes to construction method or scope.
			NV5	A Noise and Vibration Communications Plan will be developed to guide communications specifically relating to potential noise and vibration impacts. The Plan will consider outcomes of the noise and vibration assessment, and will be developed in consultation with relevant stakeholders including councils, the EPA and RMIT. It will form part of the Noise and Vibration Sub-Plan, but will also reference the Community and Stakeholder Engagement Management Plan and associated complaints management procedures.





Category	Applicable EPRs	Overarching Early Works Management Response		Specific Early Works Management EPR response
			NV6	The Noise and Vibration Sub-Plan will incorporate control measures for implementation where construction noise is predicted to, or does, exceed the <i>Guideline Noise Levels at residential locations</i> as specified in EPA Publication 1254.
			NV7	The Noise and Vibration Sub-Plan will incorporate control measures for implementation where construction noise is predicted to, or does, exceed international noise levels for relevant Sensitive Areas, and adversely impacts noise sensitive receptors within the Sensitive Areas. The noise assessment will take into consideration parameters such as the duration of the construction noise, the ambient noise levels, and specific acoustic requirements of the relevant Sensitive Area. Consultation with relevant stakeholders will further assist the assessment in determining the level of impact, and whether further control measures are required.
			NV8	The Noise and Vibration Sub-Plan will incorporate control measures to address instances where the <i>DIN4150 Guideline Targets for Structural Damage to Buildings</i> are predicted to be exceeded, or are not achieved. Control measures may include completion of pre-construction condition survey, monitoring of vibration-causing activities to confirm the findings of the predictive modelling, and changes to construction technique or equipment used to reduce vibration levels. Where the building in question is a heritage building, consultation with Heritage Victoria will be undertaken to determine suitable control measures.
			NV9	Where modelling identifies the potential for works to impact on above ground utility assets and infrastructure, a condition assessment will be undertaken, the asset owner will be consulted, and vibration targets will be established. The Noise and Vibration Sub-Plan will include a vibration monitoring program, which will aim to demonstrate compliance with the relevant vibration guideline targets, and will include details of remedial action where required.
			NV10	Where modelling identifies the potential for works to impact on below ground infrastructure, a condition assessment will be undertaken, the asset owner will be consulted, and vibration targets will be established. The Noise and Vibration Sub-Plan will include a vibration monitoring program, which will aim to demonstrate compliance with the relevant vibration guideline targets, and will include recommended management actions where targets are not achieved.
			NV11	The Noise and Vibration Sub-Plan will outline management actions to be implemented in cases where the guideline targets for continuous, intermittent, or impulsive vibration are not able to be achieved as per the locations specified. Control measures may include scheduling of construction activities to occur outside of certain hours, and changes to construction technique or equipment used to reduce vibration levels.
			NV12	The Noise and Vibration Sub-Plan will outline management actions to be implemented in cases where equipment manufacturer specifications, agreed levels, or measured background levels are expected to be exceeded for vibration sensitive equipment. Consultation with relevant equipment owners or operators will be undertaken to determine the appropriate guideline targets. The Noise and Vibration Sub-Plan will include a construction monitoring program, which will incorporate continuous monitoring during certain activities, and establishment of an alert system.





Category	Applicable EPRs	Overarching Early Works Management Response		Specific Early Works Management EPR response
			NV13	The Noise and Vibration Sub-Plan will outline management actions to be implemented in order to protect amenity at residences, sleeping areas in hospital wards, student accommodation and hotel rooms where the ground-borne (internal) noise guideline targets are exceeded, or predicted, to be exceeded during construction. Where ground-borne noise has been determined to unreasonably limit usage of teaching spaces in educational institutions, consultation with the affected stakeholder will be undertaken to determine management actions to be implemented.
			NV14	The current Early Works scope does not include blasting. If this changes and blasting is required, Australian Standard AS2187.2-2006, Explosives – Storage and Use Part 2 – Use of Explosives for all Blasting will be complied with, and the Noise and Vibration Sub-Plan will be updated to reflect any additional requirements.
			NV15	The Noise and Vibration Sub-Plan will outline management actions to be implemented where relevant guideline targets for bio-resources and sensitive research are exceeded, or predicted to be exceeded, due to the Early Works at Parkville and CBD North. The Sub-Plan will include a construction monitoring program, and where necessary, will incorporate continuous noise monitoring in the vicinity of bio-resources and sensitive research.
			NV21	 A Noise and Vibration Sub-Plan will be developed in consultation with the EPA Victoria and the relevant councils. The Sub-Plan will be informed by the modelling and assessment undertaken by the acoustic and vibration consultant, and in addition to the information detailed above, will include: Identification of sensitive receptors and details of construction activities and equipment relevant to noise and vibration; Details of adopted daytime management levels for airborne noise; Control measures to address airborne noise impacts in accordance with EPA Publication 1254 Noise Control Guidelines, the NSW ICNG and the TfNSW Construction Noise Strategy; Operational procedures and controls to minimise impacts from haulage noise, including limiting heavy vehicle movement to normal working hours and avoiding local roads;
				Details of unavoidable works as assessed and agreed with the Independent Environmental Auditor. The Sub-Plan will be supported by a Noise and Vibration Communications Plan. This will guide communications specifically relating to potential noise and vibration impacts, and will reference the Community and Stakeholder Engagement Management Plan and the associated complaints management procedure.
Social & Community	SC1-4; SC6-8; SC10	The Community and Stakeholder Engagement Management Plan, precinct specific working documents and Sub-Plans specific for packages of work have been developed to address disruption to residents, landowners and businesses. The Plan provides the overarching framework for managing stakeholder impacts, and where suitable, has been developed in consultation with key stakeholders. Integrated into these documents are processes and measures for managing issues such as:	SC1	The Community and Stakeholder Engagement Management Plan details processes for managing temporary occupations, noting that the Early Works scope requires limited use of land other than that already acquired or leased by MMRA through the broader project planning process. Where the Managing Contractor requires additional areas for temporary occupation, i.e. for construction site or laydown purposes, it will be agreed with the relevant landholder.





Category	Applicable EPRs	Overarching Early Works Management Response		Specific Early Works Management EPR response
		 Communication and notification regarding works potentially impacting amenity, such as noise, vibration, air quality and tree removal; Communication and notification regarding utility disruptions; Communication and notification regarding major public events; and Complaint management. This Plan manages effects on the social fabric of the community during Early Works, including with regard to land changes, community cohesion, business functionality and access to services and facilities. 	SC2	A Respite Plan is under development and will be developed in accordance with MMRA's Residential Impact Mitigation Guidelines. The Respite Plan will take into account potential impacts resulting from effects on amenity and loss of access. These matters will also be dealt with through precinct-specific Sub-Plans.
		Traffic impacts (for all modes of transport, including pedestrian and cycle traffic) are managed through the development and implementation of the TMP and TMIPs, which addresses access to key public and private infrastructure, including health and education facilities.	SC4	The Community and Stakeholder Engagement Management Plan has been developed in accordance with the MMRA Community and Stakeholder Engagement Management Framework. This Plan provides an overarching approach to the engagement of affected stakeholders, strategies for communication and notification of Project activities, a complaints management procedure consistent with <i>Australian Standard 100002:2014 Guidelines for Complaint Management in Organisations</i> , and targeted mitigation measures to avoid or minimise impacts on residents and businesses. Supporting the Community and Stakeholder Engagement Management Plan are precinct-specific Sub-Plans which are working documents detailing stakeholders and management actions relevant to each precinct.
			SC6	The Community and Stakeholder Engagement Management Plan and precinct-specific working documents include details on major public events. The Managing Contractor has established relationships with councils and event organisers to facilitate provision of construction schedules and timely notification of works.
			SC7	The current Early Works scope does not result in the relocation of recreational facilities. However, in the instance that the impact to Edmund Herring Memorial Oval requires it, a relocation strategy for directly affected recreational users and sports clubs will be prepared in consultation with the City of Melbourne.
			SC8	Based on the current Early Works scope the potential occupation of open space is minor. However, in instances where this does occur, impacts to public land will be minimised and appropriate reinstatement undertaken.
			SC10	The Community and Stakeholder Engagement Management Plan outlines an engagement process for adjoining landholders. As part of this process written notice will be provided prior to the commencement of relevant Early Works. The notice will outline the nature of the works being undertaken, duration, any potential local impacts and contact details for further information.
<u>Surface Water</u>	SW1-SW2	A Water Management Sub-Plan will be developed and provide control measures required to protect surface water quality, and waterways and waterway function. Key impacts from Early Works are likely to result from overland flows collecting sediments and pollutants, inappropriate discharge to stormwater, and floods or other emergency events (i.e. spills). The works are generally low impact from a water quality perspective, and at a distance from potentially sensitive receiving waters.	SW1	Project design is being undertaken in consultation with the relevant council and asset-owner or operator. Where relevant, the project design considers flood modelling results, and integrates emergency flood management measures. As the majority of the Early Work comprises buried infrastructure, there is limited design consideration required. Methods for management and treatment of stormwater and overland flow during construction are outlined in the Water Management Sub-Plan.





Category	Applicable EPRs	Overarching Early Works Management Response		Specific Early Works Management EPR response
		The Water Management Sub-Plan aims to prevent impacts to stormwater and other beneficial uses through implementation of best practice environmental measures (EPA Publication 480), including installing sediment controls and planning for and mitigating flood or emergency events (i.e. spills). Disposal of wastewater is a key consideration. The Sub-Plan documents any required contingency measures in the event of a pollution event to stormwater, including monitoring and reporting requirements in accordance with SEPP (Waters of Victoria).	SW2	Where required, Melbourne Water will be consulted to make sure that flood plain storage capacity, flood level risks or flow velocities do not increase as a consequence of Early Works. The relevant parameters are to be incorporated into design. Liaison with water authorities to obtain relevant approvals will be undertaken in the event of required discharge of groundwater or other wastewaters to sewer, for example through a Trade Waste Agreement. Where necessary, WSUD measures and integrated water management principles are to be incorporated as part of the design process.
Transport	T1 –T6; T10	The Transport Management Plan (framework) (TMP) provides a context for traffic and transport management across the site, with Transport Management Implementation Plans (TMIPs) developed to address each precinct, and reflecting requirements of the relevant EPRs (refer to Section 5.1.6). Together this documentation manages the effects of the works on the broader transport network during Early Works addressing impacts and interactions with rail, road, public transport, pedestrians, cyclists and other specialist users (including waste collection services and emergency services). Outcomes of stakeholder consultation undertaken by either MMRA or the Managing Contractor are captured within these plans, including through the Traffic and Transport Working Group (TTWG). Key stakeholders which have been consulted to inform development of the plans	Т2	The project Transport Management Plan (framework) (TMP) provides a context for traffic and transport management across the site, while the precinct-specific TMIPs will be developed to minimise disruption to local land uses, traffic, car and bicycle parking, on-road public transport, pedestrians and bicycle movements. Major areas of disruption relevant to the Early Works scope include around Franklin Street and A'Beckett Street (CBD North Station Precinct) due to the closures required for shaft construction. Monitoring of the impacts of traffic changes will be undertaken by both the Managing Contractor and MMRA and will support ongoing network planning.
		includes, Yarra Trams, City of Melbourne, waste transporters, Bicycle Victoria, Metro Trains, VicTrack and PTV. The Community and Stakeholder Engagement Management Plan links into the objectives of the Transport Management Plan. The Community and Stakeholder Engagement Management Plan guides consultation with relevant stakeholders related to cyclists and pedestrians to achieve connectivity during construction and stipulate communication standards and guidelines for re-routing and way-finding in the lead up to, and during works.	Т3	The TMP and TMIPs provide the framework and localised precinct-specific measures to manage potential traffic and transport impacts across the Early Works Project, including those issues relating to road network management, truck movements, and parking. Relevant stakeholders have been, and will continue to be, consulted when developing traffic management measures, including the TTWG, road and public transport authorities, councils, waste transporters, emergency service authorities, and other potentially impacted businesses and residents.
				Sites where higher numbers of truck movements are anticipated include CBD North and CBD South. Works in these areas are to be planned to minimise the use of local streets (where practical). A Green Travel Strategy is being developed to provide strategies for the
				Managing Contractor office workforce and the construction workforce to minimise individual car use and maximise public transport use.
			Т4	The TMP and TMIPs are being prepared to address potential impacts to public transport, including in relation to pedestrian and cycle connectivity and tram and bus networks. These documents will be developed in consultation with the relevant road management and public transport authorities, and the TTWG.
			Т5	The TMP and TMIPs outline transport management measures for cyclists and pedestrians, to maintain connectivity throughout Project construction. This includes provision of active controls and way-finding information to maintain safety, and avoiding potential conflicts between trucks, pedestrians and cyclists.
			Т6	MMRA has developed a Travel Demand Management Strategy to promote specific transport behaviour changes in response to road, bicycle and pedestrian paths closures/modifications and to reduce traffic congestion around construction sites. The Managing Contractor has supported MMRA during the development of this strategy and relevant measures will be implemented during Early Works.





Category	Applicable EPRs	Overarching Early Works Management Response		Specific Early Works Management EPR response
			T10	Local councils and private waste management services will be consulted throughout construction to manage changes to road access, and subsequent impacts to waste collection and storage. Businesses and residents will be informed of changes as described in the Community and Stakeholder Engagement Management Plan and precinct-specific Sub-Plans.





5.2 Urban Design Strategy

The UDS has been developed to provide urban design guidance relating to the design, procurement and implementation of the project in its entirety. Although the primary focus of the UDS is on the finished built form of the project, it also provides guidance relevant to design of temporary works and broader construction impacts. Temporary design to be undertaken by the Managing Contractor includes design of acoustic sheds at CBD North and design of hoardings across various precincts. Whilst these elements are temporary in nature, in some cases they occupy a prominent position in the landscape. Section 3.5 of the UDS describes aims, objectives and Design Guidelines related to managing temporary design and construction impacts of the Metro Tunnel project. The aim stated within this section of the UDS is to manage construction in a manner which minimises and mitigates adverse impacts on the valued fabric of the city and ongoing urban activities.

Table 15 summarises how the Managing Contractor is addressing the Design Guidelines as outlined under Section 3.5 of the UDS. Section 3.5 of the UDS details design solutions to manage construction impacts, however it provides direction on management of broader matters including reinstatement, traffic management, and principles of Crime Prevention Through Environmental Design (CPTED). An Urban Design Plan is being developed by the Managing Contractor to guide design and construction of elements such as hoardings, acoustic sheds, gantries, and way-finding. The Plan will also detail opportunities for heritage interpretation or enhancement and open space activation.

During the later phases of the project, Development Plans will be prepared as required by the Incorporated Document, which will further reflect and build on the requirements of the UDS. These will detail the incorporation of broader urban design principles into the permanent design elements of the project (i.e. stations, tunnels, entrances, connectivity to other transport) and are not relevant to Early Works.

Other sections of the UDS which provide guidance relevant to the Managing Contractor include Section 3.2 Make Great Public Places. Whilst this section focuses on station design and broader land use and planning issues, there may be some opportunities for the Managing Contractor to implement management actions which align with the aims of this section of the UDS. For example, with respect to activation of open spaces and provision of elements of heritage interpretation. This will be addressed within the Urban Design Plan where relevant to the Managing Contractor.

Table 15. Integration of the UDS during Early Works

Design Guideline (refer to Section 3.5 of the UDS)	Early Works Response
1. Maintain circulation and transport operations during the construction process.	The Managing Contractor has developed a Transport Management Plan (strategic) and Transport Management Implementation Plans (TMIPs) to address movement of all modes of transport, including cycle and pedestrian, around and within the project as it relates to the Early Works. These plans are being developed in consultation with VicRoads, City of Melbourne, City of Port Phillip, City of Stonnington, and Yarra Trams.
	Mitigation measures identified/considered within these plans include:
	 Measures to redirect pedestrian and cyclist movements as necessary to allow for safe access around construction work





Design Guideline	Early Works Response
(refer to Section 3.5 of the UDS)	
	sites, businesses and properties immediately adjacent to
	construction work sites;
	 Provisions for universal access, amenity and safety;
	 Provisions for emergency and maintenance access on nearby sites;
	Timing and locality of public events;
	 Provisions for temporary bus and tram stops, including
	shelters where appropriate;
	Provisions for direction signage and temporary signs for
	businesses and properties which may be obscured by
	construction activities.
	Impacts on local pedestrian traffic will be minimised through safe and accessible detours with way-finding signage, noting that planned staging and location of works has been carefully selected to minimise impacts on vehicular traffic.
	Where impacts are unavoidable, diversions have been identified and will be implemented and communicated for safe and efficient circulation of traffic, acknowledging that a broader Network Enhancement Program is presently being undertaken to help mitigate against impacts associated with temporary and permanent road modifications.
	All works are to be coordinated with local councils and key stakeholders to plan around major public events (refer to EPR SC6), and broader stakeholder engagement is to progress in accordance with the MMRA Community and Stakeholder Engagement Management Framework.
	In the context of Early Works and traffic considerations, key legacy items which require specific attention include impacts associated with the long-term closure of Franklin Street and A'Beckett Street in CBD North, and the closure of part of Domain Road and Albert Road (temporary closure of part of the road to facilitate the construction of South Yarra Sewer Main) in Domain to facilitate construction activities (noting that Early Works within other precincts will only result in temporary modification to traffic circulation as services are being re-routed).





Design Guideline (refer to Section 3.5 of the	Early Works Response
2. Protect the viability of, and amenity for, activities at and near construction work sites.	The principles of Crime Prevention Through Environmental Design will continue to be applied when considering access routes, hoardings and other features during the construction period. This has been a particularly important consideration in the context of planning for Early Works in areas where works are to interface with important pedestrian routes and/or significant areas of public open space (i.e. Parkville (around University Square), CBD North (in Franklin Street and A'Beckett Street), CBD South (City Square) and
	Domain (Shrine)). Where possible, design features such as transparent fencing, lighting, way-finding signage and other security based initiatives are to be adopted around critical work sites to help manage public safety and improve the potential for the passive surveillance of public open space. Design of these features will be captured within the Urban Design Plan, which will also identify opportunities for enhancement and activation of open space or public land as it relates to the Early Works Package. Further creative guidance to help make sure that temporary infrastructure requirements align with future land use renewal, public realm activation and uplift opportunities, is being provided to the Managing Contractor by MMRA (in accordance with the Creative Strategy).
	In terms of monitoring potential amenity impacts during the delivery of the Early Works Package, acoustic, vibration and air quality consultants have been engaged to prepare models (where required) and develop monitoring programs as part of managing potential noise, vibration and air quality impacts during construction activities. These measures will be captured within the CEMP and Sub-Plans prepared to help make sure that any potential impacts on amenity of the local area are minimised.





Design Guideline (refer to Section 3.5 of the	Early Works Response	
3. Protect features from damage.	Key features impacted upon by the Early Works Package include significant trees and important heritage sites situated within the public	
	realm. To help protect these features and mitigate against adverse impacts, a qualified arborist, archaeologist and heritage consultant have been engaged to inform design requirements and, where necessary, oversee construction works.	
	Mitigation measures include the relocation of monuments, plaques and other sensitive features to help protect them from damage during construction works, and the development of appropriate plans prior to the commencement of works occurring within close proximity to sensitive features. This includes the preparation of Tree Protection Plans for works within close proximity to trees identified for retention, and consultation with Heritage Victoria in instances where works could impact upon sites listed on the Victorian Heritage Inventory and/or the Victorian Heritage Register (with documentation prepared as required in accordance with the heritage approval process).	
	Specific measures to protect or reuse features include the following:	
	 Works within tree protection zones (including the pruning of trees) are to be supervised by a qualified arborist (refer to Section 3.3); 	
	Excavation works within a registered heritage site are to be supervised by a qualified archaeologist;	
	 Monument removal and reinstatement/storage are to be directed and, where necessary, supervised by a qualified heritage consultant; and 	
	Salvage and reuse of materials including blue stone, timber, and street furniture.	
	In the context of landscape and amenity impacts in areas that are unlikely to be required for the delivery of Main Works, reinstatement and remediation measures are to be implemented in consultation with the applicable landowner/manager.	
	In the context of utility services, an extensive service proving program has been undertaken to identify existing service alignments so that design measures can be adopted to protect, reinstate or upgrade assets as appropriate.	





Design Guideline	Early Works Response	
(refer to Section 3.5 of the UDS)		
4. Maintain an attractive presentation to surrounding areas.	The delivery of the Early Works Package will seek to maintain a clean and attractive presentation to surrounding areas during construction works.	
	All temporary enclosures, hoardings and screens are to be designed to be as unobtrusive as possible within the urban environment to help maintain a positive visual presentation to prominent sites, busy pedestrian areas, residential areas and key tourism precincts.	
	MMRA branded scrim/screens/hoardings will be used as per the Metro Tunnel Project branding suite to make sure there is consistency across the Metro Tunnel Project, with interpretive displays and features to be utilised to add to visual interest and assist in the minimisation of graffiti, bill-posting and other unauthorised advertising. In the context of interpretive displays, MMRA and the Managing Contractor are to investigate opportunities to convey information about the history of the site and further details about the Project. This will include interpretation of Aboriginal, archaeological and historical heritage.	
	In accordance with the overarching Creative Strategy, design is to allow (wherever safe and practical) for temporary uses (including landscaping), programs of events, and pop-up public spaces to offset the impact of construction activities. Further measures are to be taken to ensure that acoustic sheds and hoardings contribute to the image and identity of the City, whilst respecting the character of their individual settings.	





6 Early Works Communication and Stakeholder Approach

The communications engagement approach to the Metro Tunnel Early Works is based upon developing relationships at a local level before activities start to impact. It is about recognising and understanding that works John Holland is responsible for overseeing as the Managing Contractor will have an impact on stakeholders and local communities, so it is critical that the right measures are in place to ensure those impacts are mitigated wherever possible.

The Project is a complex, multi-faceted, multi-site project with local, state and national stakeholder groups requiring a diverse range of communication and engagement needs. Having a consistent and agreed approach to stakeholder management will help maintain the credibility and authority of MMRA and its project partners.

All Managing Contractor team members will interact closely with the Communications team, taking on board issues and concerns and working as a team to find solutions. This team approach will ensure that issues are appropriately managed and that there is a clear and shared understanding of major concerns and paths to resolution.

For this reason, Managing Contractor staff will adhere to the Principles of Engagement as identified within Table 15 when interacting with stakeholders.

Table 15. Principles of Engagement as have been adopted by the Managing Contractor.

Principle	Approach
Relationship management	Initially engage at senior levels within stakeholder organisations to understand their overarching business drivers and needs to establish relationships to support delivery of the project.
No Surprises	Engage early with stakeholders to gain an understanding of their interests, concerns and preferred outcomes for the project. Close the loop with stakeholders to demonstrate how feedback has been considered.
Be open, honest, collaborative, fair and respectful	Start engagement from an open and collaborative perspective. Treat stakeholders fairly and be respectful of their interests, desires and concerns. Really listen to their feedback.
Be Prepared	Before engaging with stakeholders, consider the best approach, anticipate queries or concerns, have clarity around what the stakeholder can reasonably influence and what will be decided by others, and prepare appropriate materials to help aid the conversation and achieve the desired outcome.
Communicate early and with real value	Provide as early as possible, relevant and detailed information about activities that will impact stakeholders and in a way that is respectful and empathetic.
Keep records	Maintaining accurate and timely records of stakeholder interactions will assist in ensuring we keep our commitments and our stakeholders do too.





A multi-layered approach to communications ensures a comprehensive methodology to the management of communications and stakeholder engagement for the early works project. This multi-layered approach can be evidenced in Figure 16.

The overarching Community and Stakeholder Engagement Management Plan details the community and stakeholder activities that will be carried out by the Managing Contractor. The plan describes the commitment to develop relationships with key community groups and stakeholders and work collaboratively with MMRA's Communications and Stakeholder Engagement team.

It also outlines how we will ensure communications are clear, timely, transparent and achieve nominated notice periods. In line with this approach, the document will also reflect how we will work in line with relevant EPRs for managing impacts on the community including businesses and ensure it is in keeping with MMRA's overarching framework for managing business impacts and residential mitigation measures. Compliance with EPRs relevant to the community and businesses will be reflected across communication activities.

Critical to the success of the communications approach will be to quickly gain an understanding of community and stakeholder triggers around issues, concerns and impacts and to continually modify and update the communications approach in-line with the changing landscape and needs of stakeholders and the community.

The Managing Contractor will ensure that potential impacts are identified and, where possible, mitigated, works will be communicated in advance, and specific mitigation measures will be employed in-line with the Community and Stakeholder Engagement Management Plan and the applicable EPRs.

To successfully deliver communications externally, an internal project education approach ensures all Project staff and subcontractors remain aware of the importance of stakeholder and community relations. Internal consultation and communication will include:

- Project induction as ambassadors for the project all members of the project team and contractors
 working on the project are required to undertake compulsory induction training, which includes
 community relations awareness.
- Participation in construction precinct meetings enables the Communications team to discuss key
 construction issues, impacts and mitigation strategies and agree with the broader team on risk
 mitigation strategies and communications and engagement actions.
- Participation in toolbox meetings provides an opportunity to educate contractors and subcontractors on the importance of stakeholder engagement; current issues facing stakeholders and the community and to reinforce the project expectations in community consultation.
- One-on-one meetings individual meetings to inform, discuss and resolve Project related issues
 which may impact stakeholders or the community and agree an approach to reduce impacts
 including use of way-finding signs for businesses etc.
- Information sharing share Project information across Precincts with staff, contractors and subcontractors and continue to highlight the importance of positive community and stakeholder engagement.
- Work packs inclusion of Communications check-list in work packs to help make sure that no work commences until the relevant notification periods have been met.
- Regular project report will highlight communication and engagement activities, issues and achievements and will be prepared weekly and monthly.





6.1 Early Works Plan Consultation Process

As part of the approval of the Metro Tunnel Project, the Minister for Planning directed that the Early Works Plan must undergo consultation with key stakeholders prior to the submission of the final plan to the Minster for Planning for approval.

A Consultation Summary Report (dated 16 March 2017) has been prepared to capture feedback received in response to the Managing Contractor's Early Works Plan which was released for Public Display (dated 16 February 2017), and to provide a summary of consultation and response to issues raised during consultation (in accordance with Clause 4.9.5 of the Incorporated Document).

In addressing these requirements, the Consultation Summary Report provides details on:

- O How draft copies of the Managing Contractor's Early Works Plans (including the Managing Contractor's Early Works Plan (for Early Engagement dated 29 November 2016) and the Managing Contractor's Early Works Plan (for Public Display dated 16 February 2017)) were made available to prescribed stakeholders for consultation (noting that consultation with prescribed stakeholders commenced from October 2016); and
- How the Managing Contractor's Early Works Plan (for Public Display dated 16 February 2017) was made publically available for inspection and comment between 17 February and 9 March 2017 (in accordance with the requirements stipulated under Clause 4.9.4 of the Incorporated Document).





7 Change Management

As detailed under Clause 4.9.9 of the Incorporated Document, an Early Works Plan may be prepared and approved in stages or parts and may be amended from time to time with the approval of the Minister for Planning. Where change is sought that is not contemplated within this Early Works Plan, then the Early Works Plan will need to be amended in accordance with the Clause 4.9.9 process.

As detailed within the Incorporated Document, an amendment made under the Clause 4.9.9 process must comply with the requirements of clauses 4.9.3, 4.9.4, 4.9.5, 4.9.6 unless, in the opinion of the Minister:

- a) the proposed amendment:
 - i) does not result in a material detriment to any person; or
 - ii) a person who may suffer a material detriment as a result of the Minister's approval of the amendment has already been sufficiently consulted in respect of the amendment; and
- b) any amendment does not involve any change to an approved Environmental Performance Requirement.





8 Conclusion

This Early Works Plan has been prepared to address the requirements of the Melbourne Metro Rail Project Incorporated Document (dated December 2016).

Consistent with the requirements of Clause 4.9 of the Incorporated Document, the Early Works Plan establishes the context for, and provides a description of, the Early Works Package to provide clear understanding of activities that need to be undertaken in advance of Main Works.

To help delineate between activities and provide clarity in the context of the Early Works Plan, three works phases have been attributed to the delivery of the Early Works Package:

- Enabling Works;
- Preparatory Works; and
- · Early Works.

In accordance with the rationale detailed under this Early Works Plan, the plan has been prepared to specifically address the scope of works associated with the delivery of Early Works; acknowledging that whilst Enabling Works and Preparatory Works do not require statutory approval under this Early Works Plan, it is the Managing Contractor's responsibility to deliver all works in accordance with regulatory, statutory and contractual obligations.

Early Works are referred to under Clause 4.9 of the Incorporated Document and are intended to commence prior to the approval of Development Plans but after the approval of the EMF (including EPRs) and UDS. They include works such as:

- Utility service relocation and protection of utility assets;
- Site preparation works, including demolition works, removal or relocation of trees and monuments, minor road / transport network changes; and
- Works for construction of shafts at CBD North and CBD South Station precincts.

The Early Works Plan also identifies the environmental, cultural heritage and social controls applicable to the delivery of the Early Works Package, including providing a summary of the EMF process and outlining how the delivery of Early Works will be performed in accordance with the requirements of the applicable EPRs. In the context of Early Works, the Plan also outlines how the applicable works will be managed in accordance with relevant aspects of the UDS, and provides a summary of the approach taken in terms of stakeholder consultation. Once approved, this Early Works Plan will allow for Early Works to commence in accordance with the obligations identified/summarised within the plan.



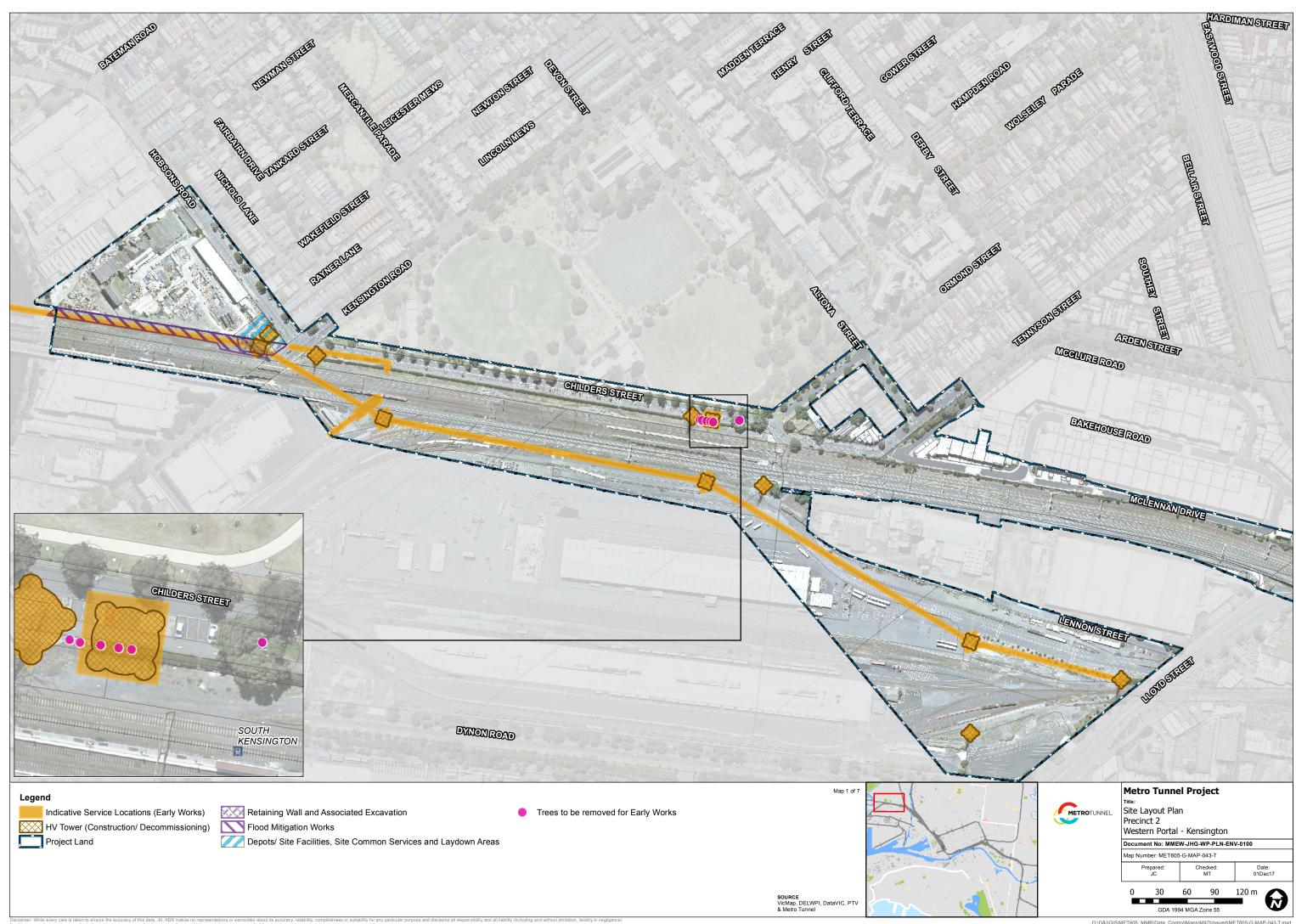


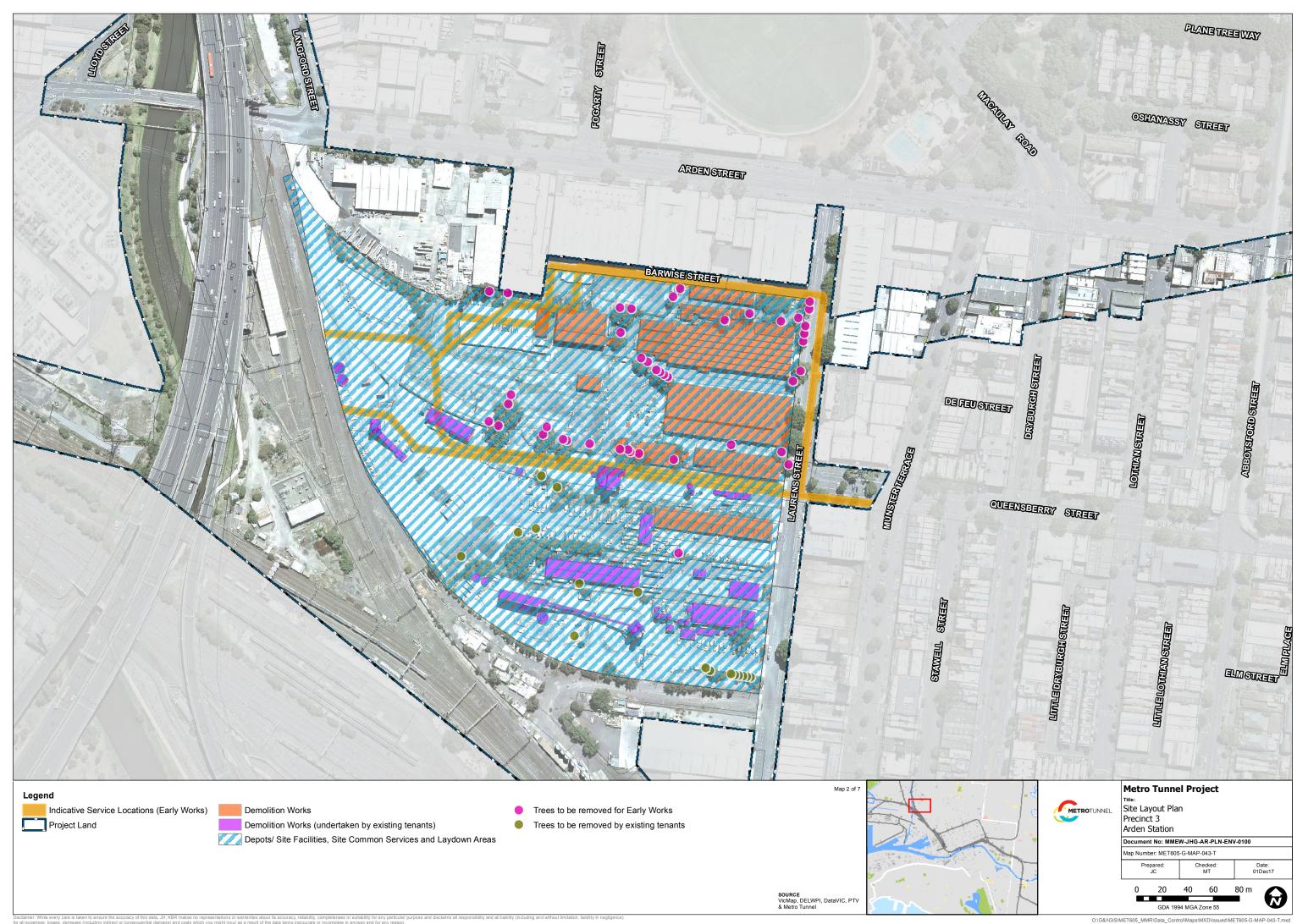
APPENDIX 1 – SITE LAYOUT PLANS

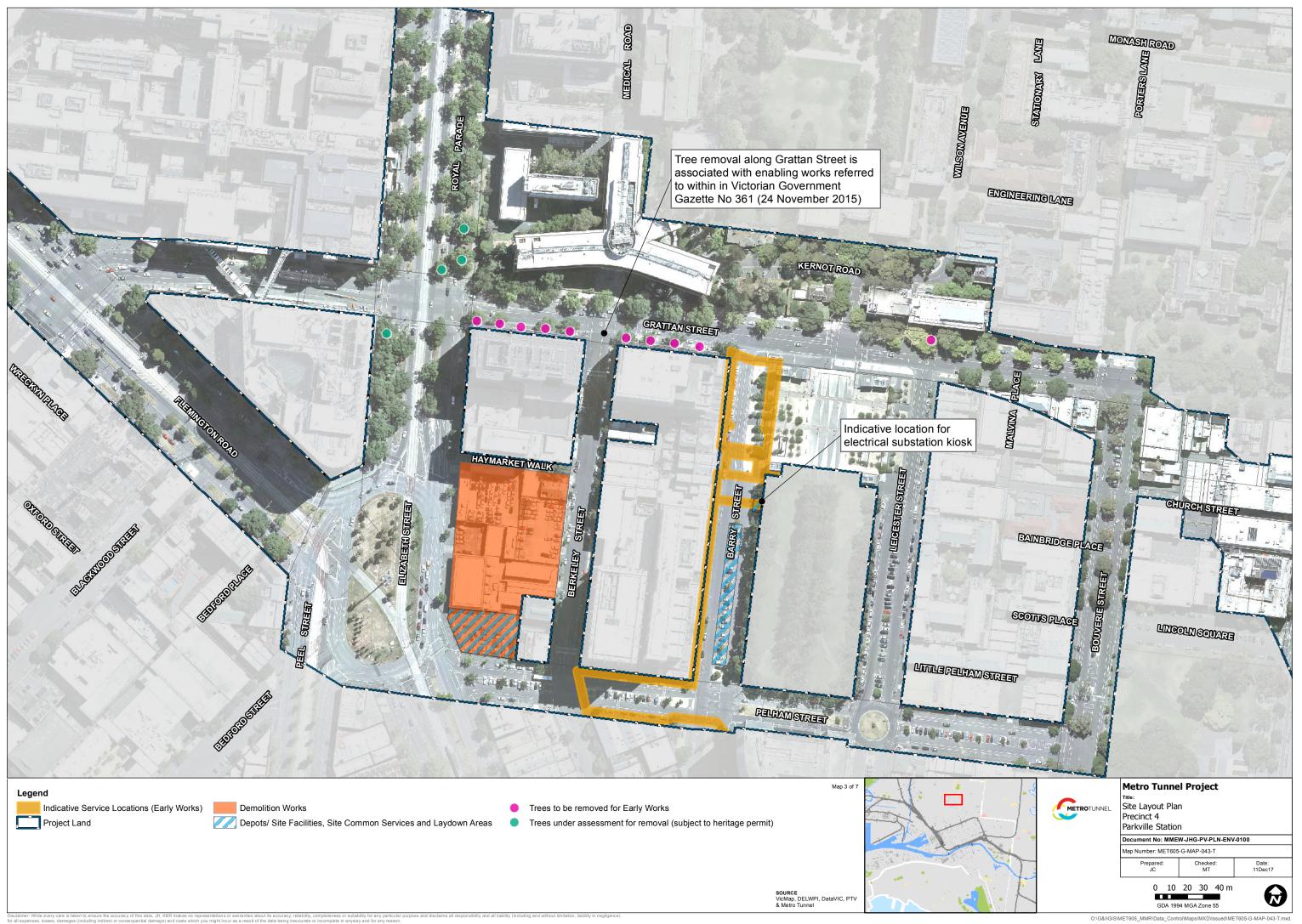
Seven Sheets

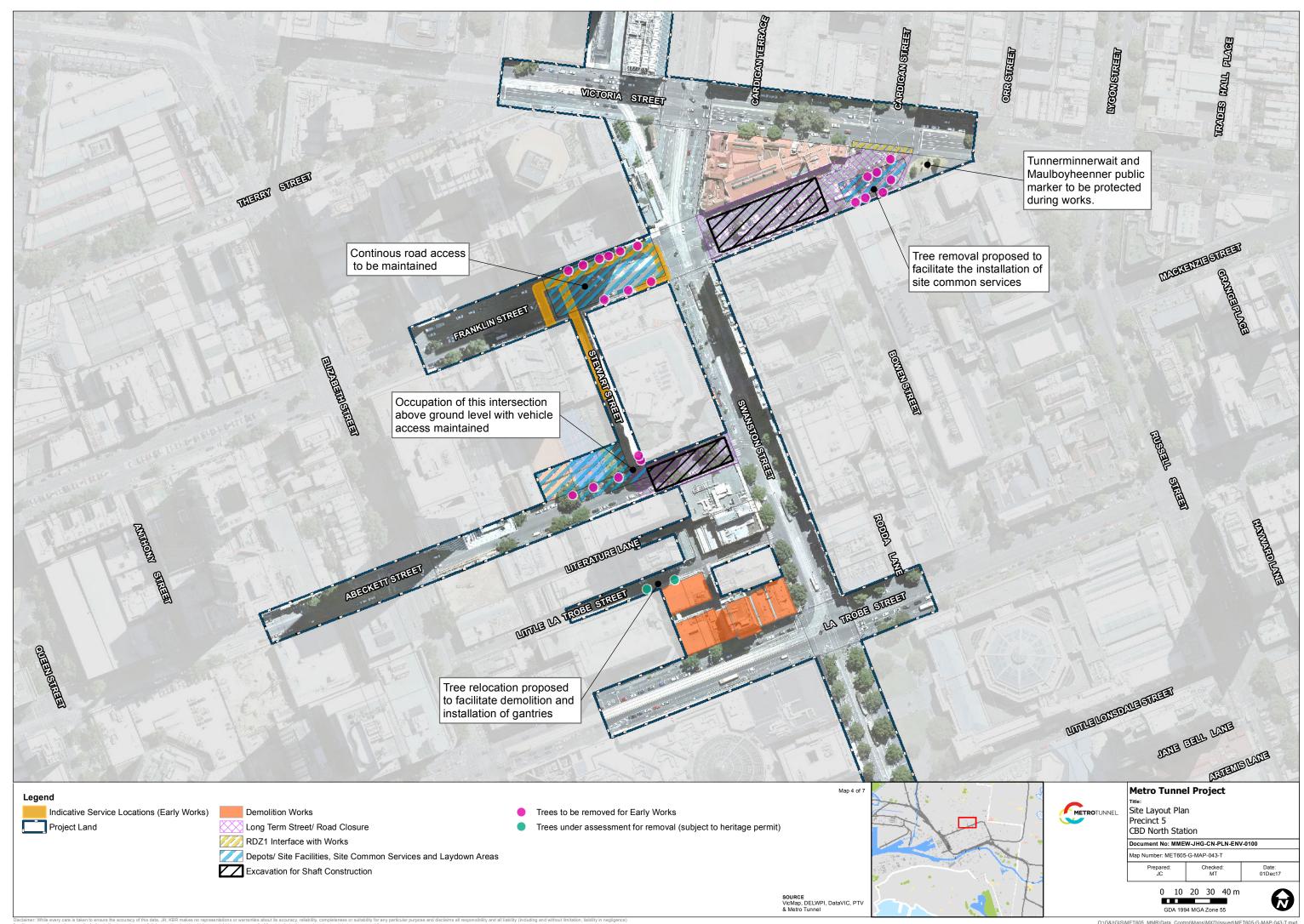
Western Portal: MMEW-JHG-WP-PLN-ENV-0100
Arden Station: MMEW-JHG-AR-PLN-ENV-0100
Parkville Station: MMEW-JHG-PV-PLN-ENV-0100
CBD North Station: MMEW-JHG-CN-PLN-ENV-0100
CBD South Station: MMEW-JHG-CS-PLN-ENV-0100
Domain Station: MMEW-JHG-DM-PLN-ENV-0100

Eastern Portal: MMEW-JHG-EP-PLN-ENV-0100

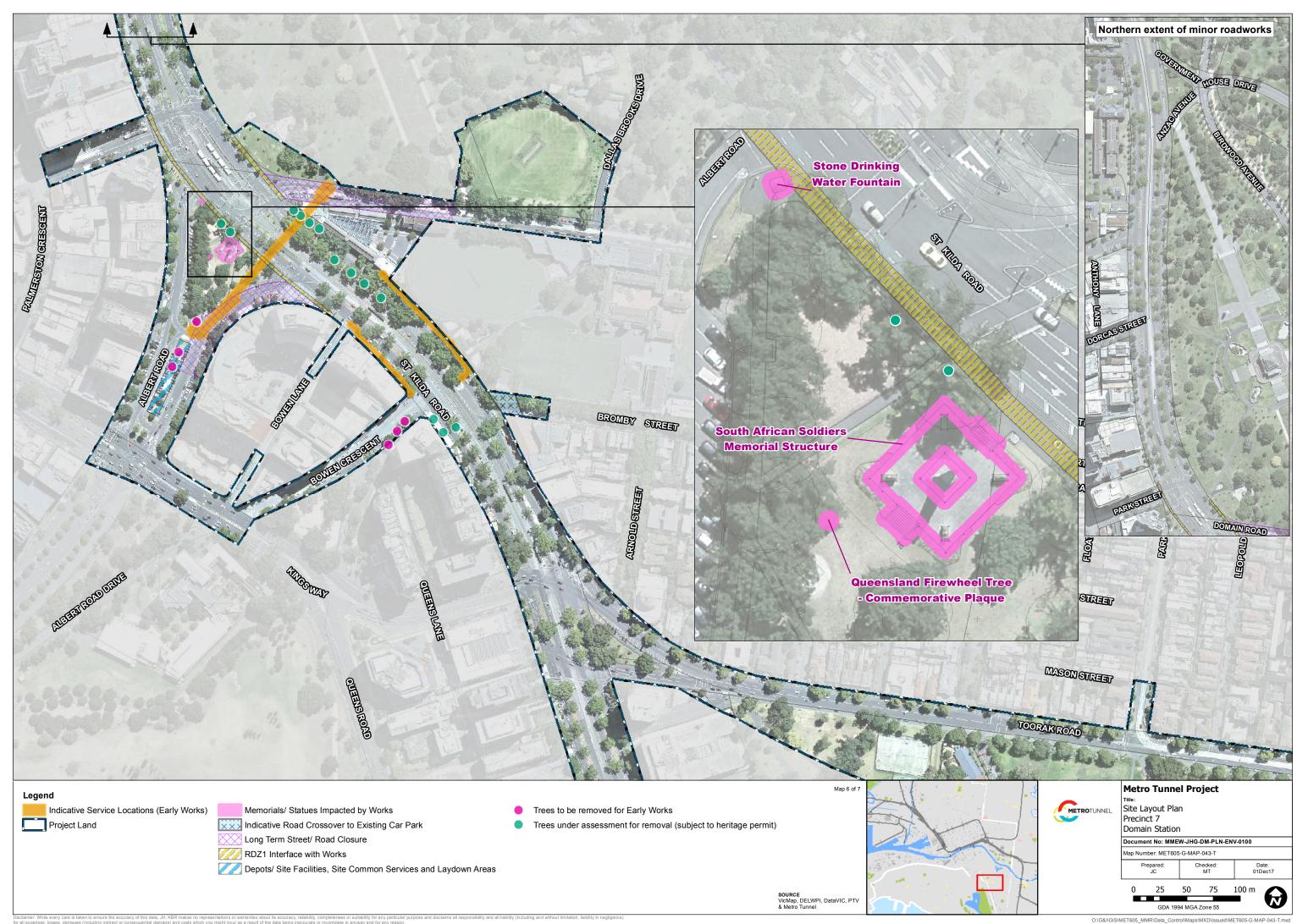


















APPENDIX 2 - EARLY WORKS TREE REMOVAL PLANS

WESTERN PORTAL - EARLY WORKS TREE REMOVAL (SUBJECT TO FINAL DESIGN AND CONSIDERATION OF THE HIERARCHY IDENTIFIED UNDER SECTION 3.3)

Tree Identification

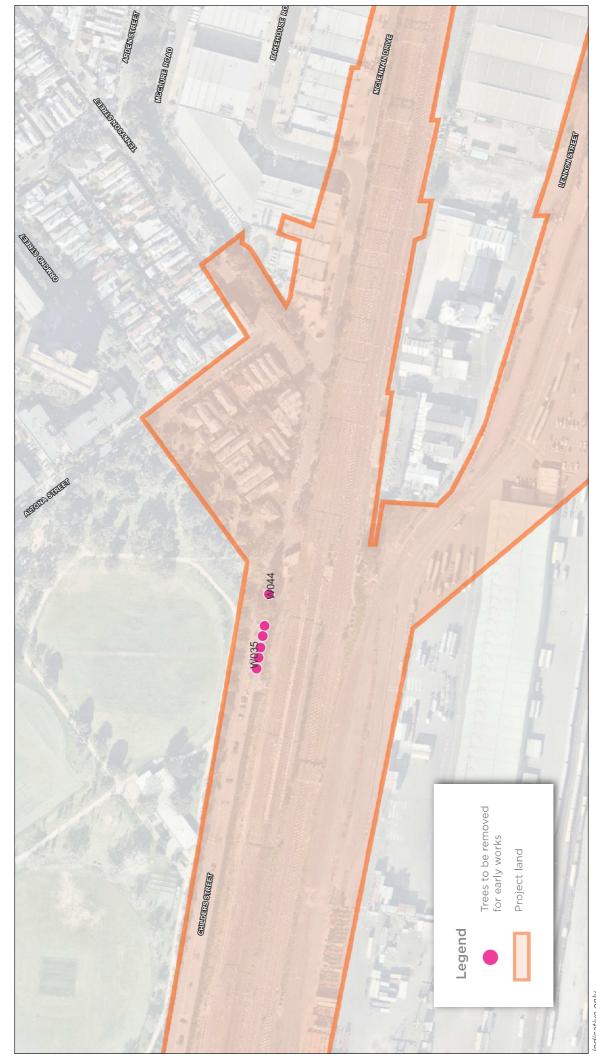
 Number
 Common Name (Scientific Name)
 Owner
 Reason for impact/removal

 W035 (hedge row)
 Weeping Bottlebrush (Callistemon viminalis)
 City of Melbourne
 Service Relocation Works.

 W044
 Spotted Gum (Corymbia maculata)
 City of Melbourne
 Service Relocation Works.

State Government

METROTUNNEL WESTERN PORTAL TREE REMOVAL EARLY WORKS



Indicative only.

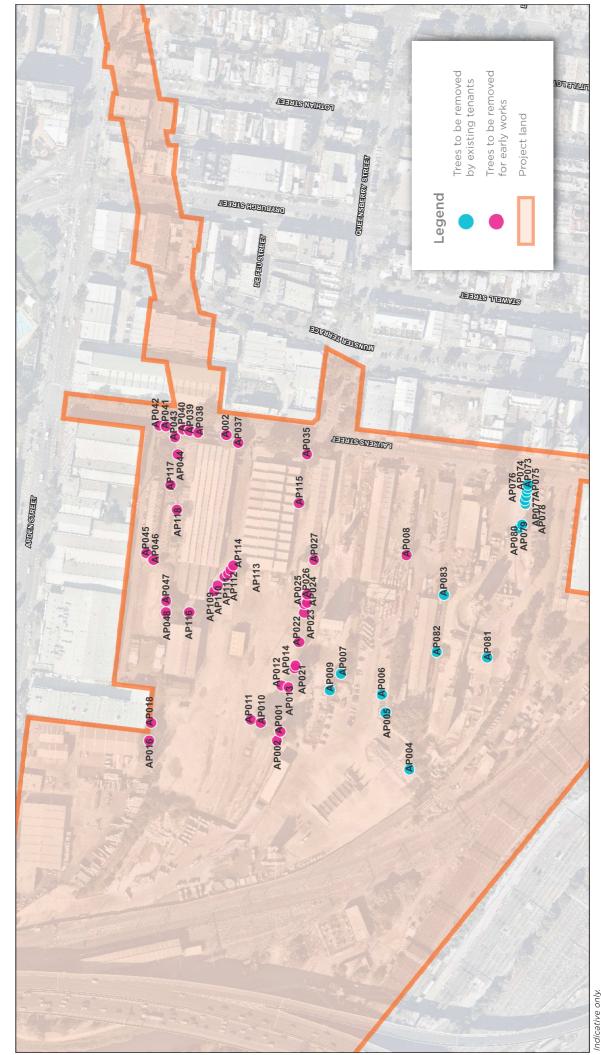




ARDEN STATION - EARLY WORKS TREE REMOVAL (SUBJECT TO FINAL DESIGN AND CONSIDERATION OF THE HIERARCHY IDENTIFIED UNDER SECTION 3.3)

Number	Common Nama (Scientific Nama)	0	Descen for impact/removal
Number	Common Name (Scientific Name) London Plane (Platanus acerifolia)	Owner	Reason for impact/removal
A002	, , ,	City of Melbourne	Site establishment in prep. for PPP
AP001	London Plane (<i>Platanus acerifolia</i>)	VicTrack	Site establishment in prep. for PPP
AP002	Rough Barked Manna Gum (Eucalyptus viminalis)		Site establishment in prep. for PPP
AP004	Peppercorn Tree (Schinus areira)	VicTrack	Site establishment in prep. for PPP
AP005	Peppercorn Tree (Schinus areira)	VicTrack	Site establishment in prep. for PPP
AP006	Peppercorn Tree (Schinus areira)	VicTrack	Site establishment in prep. for PPP
AP007	Peppercorn Tree (Schinus areira)	VicTrack	Site establishment in prep. for PPP
AP008	Peppercorn Tree (Schinus areira)	VicTrack	Site establishment in prep. for PPP
AP009	Peppercorn Tree (Schinus areira)	VicTrack	Site establishment in prep. for PPP
AP010	Peppercorn Tree (Schinus areira)	VicTrack	Site establishment in prep. for PPP
AP011	London Plane (<i>Platanus acerifolia</i>)	VicTrack	Site establishment in prep. for PPP
AP012	Peppercorn Tree (Schinus areira)	VicTrack	Site establishment in prep. for PPP
	Peppercorn Tree (Schinus areira)		• •
AP013		VicTrack	Site establishment in prep. for PPP
AP014	Peppercorn Tree (Schinus areira)	VicTrack	Site establishment in prep. for PPP
AP016	Lombardy Poplar (Populus nigra)	VicTrack	Site establishment in prep. for PPP
AP018	Peppercorn Tree (Schinus areira)	VicTrack	Site establishment in prep. for PPP
AP021	Blackwood (<i>Acacia melanoxylon</i>)	VicTrack	Site establishment in prep. for PPP
AP022	Blackwood (Acacia melanoxylon)	VicTrack	Site establishment in prep. for PPP
AP023	Peppercorn Tree (Schinus areira)	VicTrack	Site establishment in prep. for PPP
AP024	Peppercorn Tree (Schinus areira)	VicTrack	Site establishment in prep. for PPP
AP025	Desert Ash (Fraxinus angustifolia)	VicTrack	Site establishment in prep. for PPP
AP026	Desert Ash (Fraxinus angustifolia)	VicTrack	Site establishment in prep. for PPP
AP027	Magenta Cherry (Syzygium paniculatum)	VicTrack	Building demolition access
AP035	Monterey Cypress (Cupressus macrocarpa)	VicTrack	Site establishment in prep. for PPP
AP037			
	Desert Ash (Fraxinus angustifolia)	VicTrack	Building demolition access
AP038	Lilly Pilly (Syzygium smithii)	VicTrack	Building demolition access
AP039	Peppercorn Tree (Schinus areira)	VicTrack	Building demolition access
AP040	Lilly Pilly (Syzygium smithii)	VicTrack	Building demolition access
AP041	Bracelet Honey-myrtle (<i>Melaleuca armillaris</i>)	VicTrack	Site establishment in prep. for PPP
AP042	Peppercorn Tree (Schinus areira)	VicTrack	Site establishment in prep. for PPP
AP043	Box Elder (<i>Acer negundo</i>)	VicTrack	Building demolition access
AP044	Peppercorn Tree (Schinus areira)	VicTrack	Removal of substation
AP045	Peppercorn Tree (Schinus areira)	VicTrack	Site establishment in prep. for PPP
AP046	Unknown	VicTrack	Site establishment in prep. for PPP
AP047	Peppercorn Tree (Schinus areira)	VicTrack	Site establishment in prep. for PPP
AP048	Peppercorn Tree (Schinus areira)	VicTrack	Site establishment in prep. for PPP
	,		
AP073	Bald Island Marlock (Eucalyptus conferruminata)	VicTrack	Site establishment in prep. for PPP
AP074	Bottlebrush (Callistemon sp.)	VicTrack	Site establishment in prep. for PPP
AP075	Bottlebrush (<i>Callistemon sp.</i>)	VicTrack	Site establishment in prep. for PPP
AP076	Yellow Gum (Eucalyptus leucoxylon)	VicTrack	Site establishment in prep. for PPP
			Site establishment in prep. for PPP
AP077	Yellow Gum (Eucalyptus leucoxylon)	VicTrack	
AP078	Yellow Gum (<i>Eucalyptus leucoxylon</i>)	VicTrack	Site establishment in prep. for PPP
4.0070	D - 1 - 11	10 T	City of Hills and Company
AP079	Bracelet Honey-myrtle (Melaleuca armillaris)	VicTrack	Site establishment in prep. for PPP
AP080	Peppercorn Tree (Schinus areira)	VicTrack	Site establishment in prep. for PPP
AP081	Peppercorn Tree (Schinus areira)	VicTrack	Site establishment in prep. for PPP
AP082	Peppercorn Tree (Schinus areira)	VicTrack	Site establishment in prep. for PPP
AP083	Peppercorn Tree (Schinus areira)	VicTrack	Site establishment in prep. for PPP
AP109	Red-flowering Gum (Corymbia ficifolia)	VicTrack	Site establishment in prep. for PPP
AP110	Red-flowering Gum (Corymbia ficifolia)	VicTrack	Site establishment in prep. for PPP
AP111	Red-flowering Gum (Corymbia ficifolia)	VicTrack	Site establishment in prep. for PPP
	· /,		in diameter
AP112	Norfolk Island Pine (Araucaria heterophylla)	VicTrack	Site establishment in prep. for PPP
AP113	Hoop Pine (Araucaria cunninghamii)	VicTrack	Site establishment in prep. for PPP
AP113 AP114	Red-flowering Gum (<i>Corymbia ficifolia</i>)	VicTrack	Site establishment in prep. for PPP
OI 114	nea nowering dam (corymbia jicijolia j	VICTION	Site establishment in prep for PPP, building
AD11E	Apricat (Prunus armanis)	\/iaTra al-	
AP115	Apricot (Prunus armeniaca)	VicTrack	demolition
AP116	Peppercorn Tree (Schinus areira)	VicTrack	Site establishment in prep. for PPP
AP117	Desert Ash (Fraxinus angustifolia)	VicTrack	Site establishment in prep. for PPP
AP118	Desert Ash (Fraxinus angustifolia)	VicTrack	Site establishment in prep. for PPP

METROTUNNEL EARLY WORKS









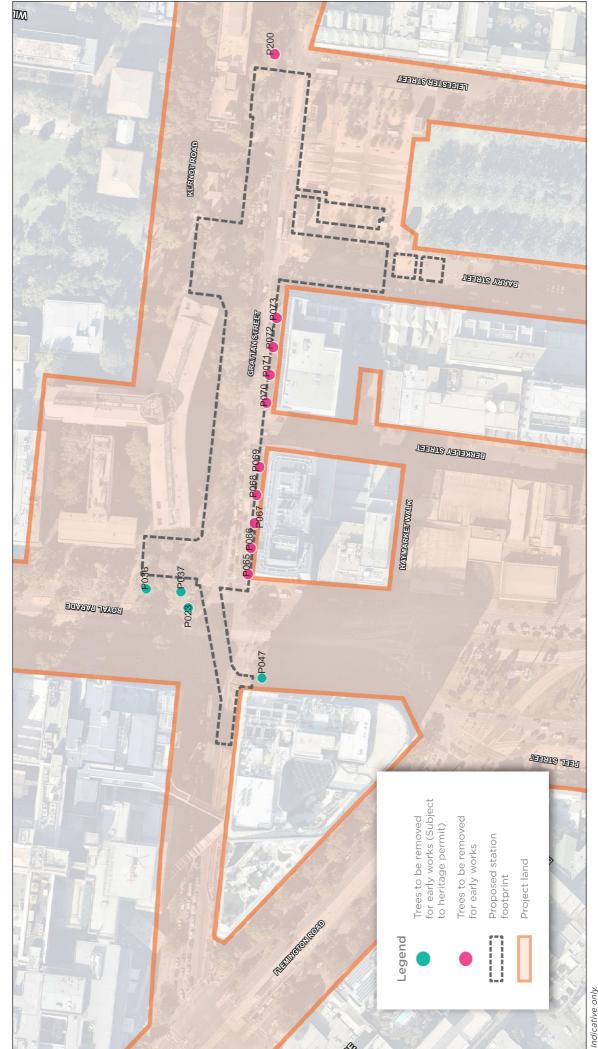


PARKVILLE STATION - EARLY WORKS TREE REMOVAL (SUBJECT TO FINAL DESIGN AND CONSIDERATION OF THE HIERARCHY IDENTIFIED UNDER SECTION 3.3) Tree Identification

Number	Common Name (Scientific Name)	Owner	Reason for impact/removal
P023	Elm (Ulmus sp.)	City of Melbourne	Service relocation works/station box.
P036	Elm (Ulmus sp.)	City of Melbourne	Service relocation works/station box.
P037	Elm (Ulmus sp.)	City of Melbourne	Service relocation works/station box.
P047	Elm (Ulmus sp.)	City of Melbourne	Service relocation works/station box.
P065	Elm (Ulmus sp.)	City of Melbourne	Service relocation works/station box.
P066	Elm (Ulmus sp.)	City of Melbourne	Service relocation works/station box.
P067	Elm (Ulmus sp.)	City of Melbourne	Service relocation works/station box.
P068	Elm (Ulmus sp.)	City of Melbourne	Service relocation works/station box.
P069	Elm (Ulmus sp.)	City of Melbourne	Service relocation works/station box.
P070	Elm (Ulmus sp.)	City of Melbourne	Service relocation works/station box.
P071	Elm (Ulmus sp.)	City of Melbourne	Service relocation works/station box.
P072	Elm (Ulmus sp.)	City of Melbourne	Service relocation works/station box.
P073	Elm (Ulmus sp.)	City of Melbourne	Service relocation works/station box.
P200	Elm (Ulmus sp.)	City of Melbourne	Service relocation works/station box.

METROTUNNEL

PARKVILLE PRECINCT TREE REMOVAL EARLY WORKS









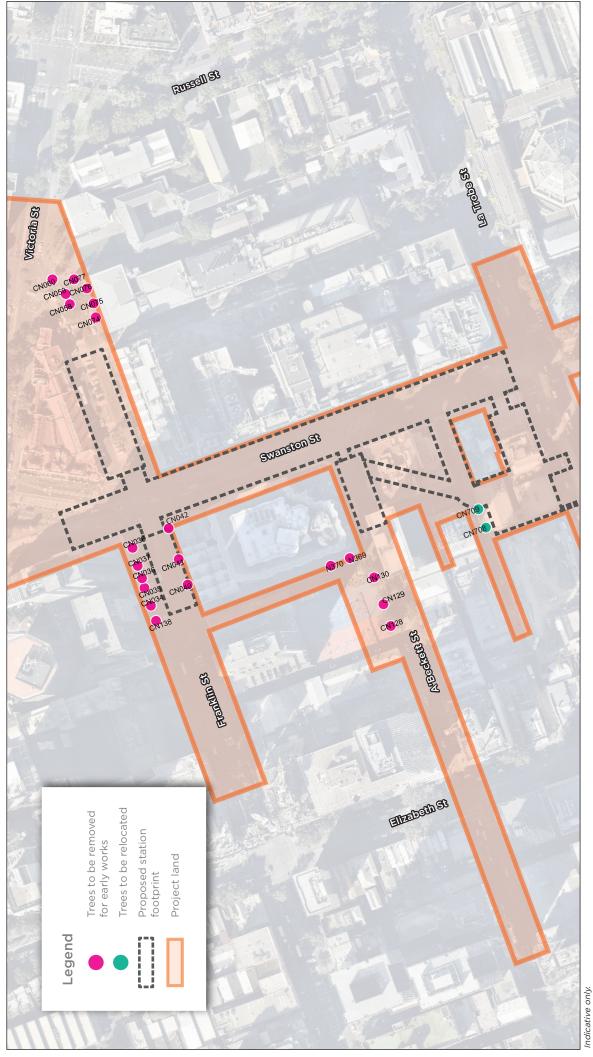


CBD NORTH - EARLY WORKS TREE REMOVAL (SUBJECT TO FINAL DESIGN AND CONSIDERATION OF THE HIERARCHY IDENTIFIED UNDER SECTION 3.3) Tree Identification

Tree Identification Number	Common Name (Scientific Name)	Owner	Reason for impact/removal
CN034	Kurrajong (Brachychiton populneus)	City of Melbourne	Service relocation works/shaft preparation works.
CN035	Kurrajong (Brachychiton populneus)	City of Melbourne	Service relocation works/shaft preparation works.
CN036	Kurrajong (Brachychiton populneus)	City of Melbourne	Service relocation works/shaft preparation works.
CN037	Kurrajong (Brachychiton populneus)	City of Melbourne	Service relocation works/shaft preparation works.
CN038	Firewheel Tree (Stenocarpus sinuatus)	City of Melbourne	Service relocation works/shaft preparation works.
CN040	Kurrajong (Brachychiton populneus)	City of Melbourne	Service relocation works/shaft preparation works.
CN041	Kurrajong (Brachychiton populneus)	City of Melbourne	Service relocation works/shaft preparation works.
CN042	Kurrajong (Brachychiton populneus)	City of Melbourne	Service relocation works/shaft preparation works.
CN058	Spotted Gum (Corymbia maculata)	City of Melbourne	Service relocation works/shaft preparation works.
CN059	Spotted Gum (Corymbia maculata)	City of Melbourne	Service relocation works/shaft preparation works.
CN060	Spotted Gum (Corymbia maculata)	City of Melbourne	Service relocation works/shaft preparation works.
CN074	Kurrajong (Brachychiton populneus)	City of Melbourne	Service relocation works/shaft preparation works.
CN075	Kurrajong (Brachychiton populneus)	City of Melbourne	Service relocation works/shaft preparation works.
CN076	Spotted Gum (Corymbia maculata)	City of Melbourne	Service relocation works/shaft preparation works.
CN077 CN128 CN129 CN130	Spotted Gum (<i>Corymbia maculata</i>) London Plane (<i>Platanus acerifolia</i>) London Plane (<i>Platanus acerifolia</i>) London Plane (<i>Platanus acerifolia</i>)	City of Melbourne City of Melbourne City of Melbourne City of Melbourne	Service relocation works/shaft preparation works. Opening of Stewert Street. Opening of Stewert Street. Opening of Stewert Street.
CN138	Kurrajong (Brachychiton populneus)	City of Melbourne	Service relocation works/shaft preparation works.
N369 N370	Blueberry Ash (<i>Elaeocarpus reticulatus</i>) Blueberry Ash (<i>Elaeocarpus reticulatus</i>)	City of Melbourne City of Melbourne	Service relocation works/shaft preparation works. Service relocation works/shaft preparation works. Access for demolition and installation of gantries (trees to
CN708	Small-leaved Lime (<i>Tilia cordata</i>)	City of Melbourne	be relocated as per discussions with CoM) Access for demolition and installation of gantries (trees to
CN709	Small-leaved Lime (<i>Tilia cordata</i>)	City of Melbourne	be relocated as per discussions with CoM)



CBD NORTH PRECINCT TREE REMOVAL EARLY WORKS









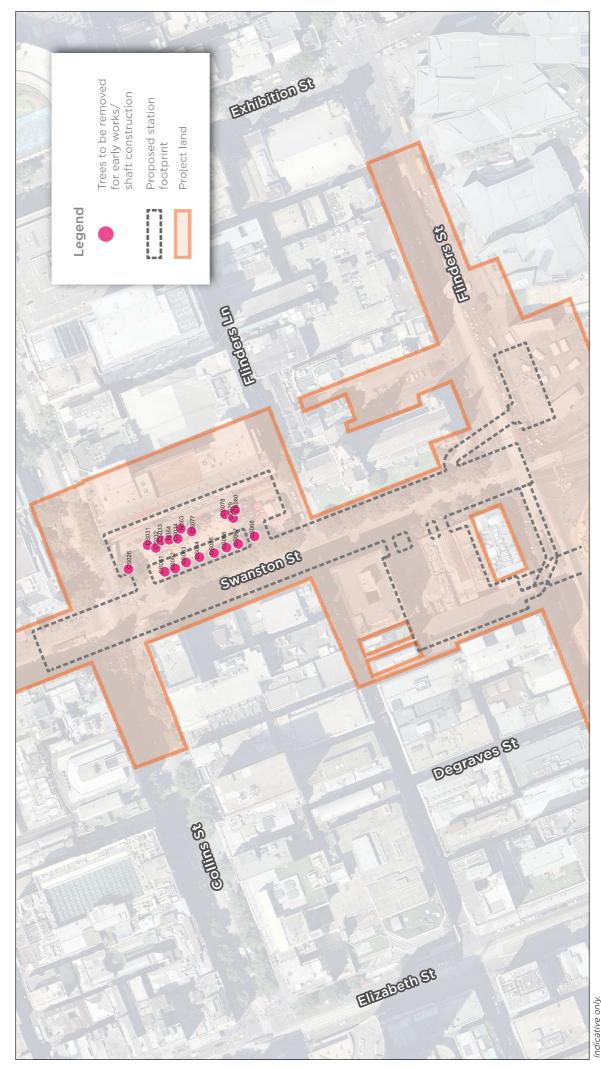


CBD SOUTH - EARLY WORKS TREE REMOVAL (SUBJECT TO FINAL DESIGN AND CONSIDERATION OF THE HIERARCHY IDENTIFIED UNDER SECTION 3.3] Tree Identification

Number	Common Name (Scientific Name)	Owner	Reason for impact/removal
CS026	Elm (<i>Ulmus sp.</i>)	City of Melbourne	City square demolition.
CS031	Spotted Gum (Corymbia maculata)	City of Melbourne	City square demolition.
CS032	Spotted Gum (Corymbia maculata)	City of Melbourne	City square demolition.
CS033	Spotted Gum (Corymbia maculata)	City of Melbourne	City square demolition.
CS034	Spotted Gum (Corymbia maculata)	City of Melbourne	City square demolition.
CS061	London Plane (Platanus acerifolia)	City of Melbourne	City square demolition.
CS062	London Plane (<i>Platanus acerifolia</i>)	City of Melbourne	City square demolition.
CS063	London Plane (Platanus acerifolia)	City of Melbourne	City square demolition.
CS064	London Plane (Platanus acerifolia)	City of Melbourne	City square demolition.
CS065	London Plane (Platanus acerifolia)	City of Melbourne	City square demolition.
CS066	London Plane (<i>Platanus acerifolia</i>)	City of Melbourne	City square demolition.
CS067	London Plane (Platanus acerifolia)	City of Melbourne	City square demolition.
CS068	London Plane (Platanus acerifolia)	City of Melbourne	City square demolition.
CS077	Spotted Gum (Corymbia maculata)	City of Melbourne	City square demolition.
CS078	Spotted Gum (Corymbia maculata)	City of Melbourne	City square demolition.
CS079	Spotted Gum (Corymbia maculata)	City of Melbourne	City square demolition.
CS080	Spotted Gum (Corymbia maculata)	City of Melbourne	City square demolition.
N363	Spotted Gum (Corymbia maculata)	City of Melbourne	City square demolition.
N364	Spotted Gum (Corymbia maculata)	City of Melbourne	City square demolition.

METROTUNNEL

CBD SOUTH PRECINCT TREE REMOVAL EARLY WORKS







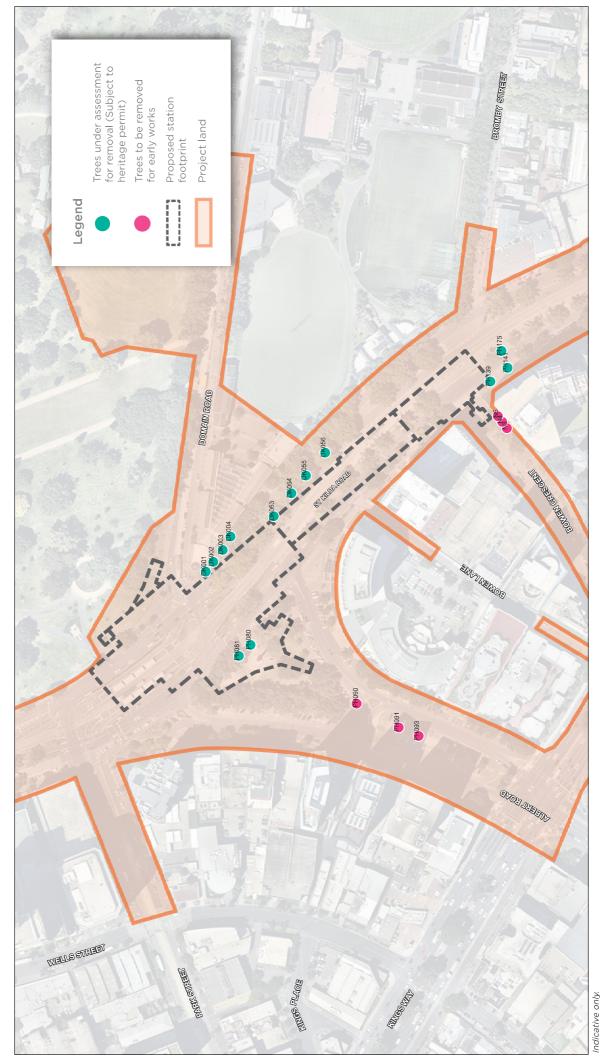




Tree Identification			
Number	Common Name (Scientific Name)	Owner	Reason for impact/removal
			Service relocation works (subject to heritage
DK001	Elm (<i>Ulmus sp.</i>)	City of Melbourne	permit).
			Service relocation works (subject to heritage
DK002	Elm (<i>Ulmus sp.</i>)	City of Melbourne	permit).
			Service relocation works (subject to heritage
DK003	Elm (<i>Ulmus sp.</i>)	City of Melbourne	permit).
			Service relocation works (subject to heritage
DK004	Elm (<i>Ulmus sp.</i>)	City of Melbourne	permit).
			Service relocation works (subject to heritage
DK053	London Plane (<i>Platanus acerifolia</i>)	City of Melbourne	permit).
			Service relocation works (subject to heritage
DK054	London Plane (<i>Platanus acerifolia</i>)	City of Melbourne	permit).
			Service relocation works (subject to heritage
DK055	London Plane (<i>Platanus acerifolia</i>)	City of Melbourne	permit).
			Service relocation works (subject to heritage
DK056	London Plane (<i>Platanus acerifolia</i>)	City of Melbourne	permit).
	- 11 - 1 ///	6	Monument removal works (subject to heritage
PH080	English Elm (<i>Ulmus procera</i>)	City of Port Phillip	permit)
DU004	5 1: 1 51 (III	C:	Monument removal works (subject to heritage
PH081	English Elm (<i>Ulmus procera</i>)	City of Port Phillip	permit)
PH090	English Elm (<i>Ulmus procera</i>)	City of Port Phillip	Service relocation works.
PH091	English Elm (<i>Ulmus procera</i>)	City of Port Phillip	Service relocation works.
PH093	English Elm (<i>Ulmus procera</i>)	City of Port Phillip	Service relocation works.
PH139	English Flor ////mus process	City of Dout Dhillin	Service relocation works (subject to heritage
PH139	English Elm (<i>Ulmus procera</i>)	City of Port Phillip	permit). Service relocation works (subject to heritage
PH141	English Elm (<i>Ulmus procera</i>)	City of Port Phillip	permit).
PH141	Eligiisti Eliti (Olinus proceru)	City of Port Prinip	Service relocation works (subject to heritage
PH175	London Plane (<i>Platanus acerifolia</i>)	City of Port Phillip	permit).
N1	English Elm (<i>Ulmus procera</i>)	City of Port Phillip	Service relocation works.
N2	English Elm (<i>Ulmus procera</i>)	City of Port Phillip	Service relocation works.
N3	English Elm (<i>Ulmus procera</i>)	City of Port Phillip	Service relocation works.
143	English Enti (Olinus proceru)	City of Fort Filling	Service relocation works.

METROTUNNEL

DOMAIN PRECINCT TREE REMOVAL EARLY WORKS











EASTERN PORTAL - EARLY WORKS TREE REMOVAL (SUBJECT TO FINAL DESIGN AND CONSIDERATION OF THE HIERARCHY IDENTIFIED UNDER SECTION 3.3]

Tree Identification Numb Common Name (Scientific Name)			Owner	Reason for impact/removal	
	EP067	Cyprian Plane (Platanus orientalis 'Digitata')	City of Stonnington	Service relocation works.	
	EP069	Claret Ash (Fraxinus angustifolia 'Raywood')	City of Stonnington	Service relocation works.	
	EP073	Smooth-barked Apple (Angophora costata)	VicTrack	Service relocation works.	
	No Council ID	Smooth-barked Apple (Angophora costata)	City of Stonnington	Service relocation works	

METROTUNNEL EASTERN PORTAL TREE REMOVAL EARLY WORKS

