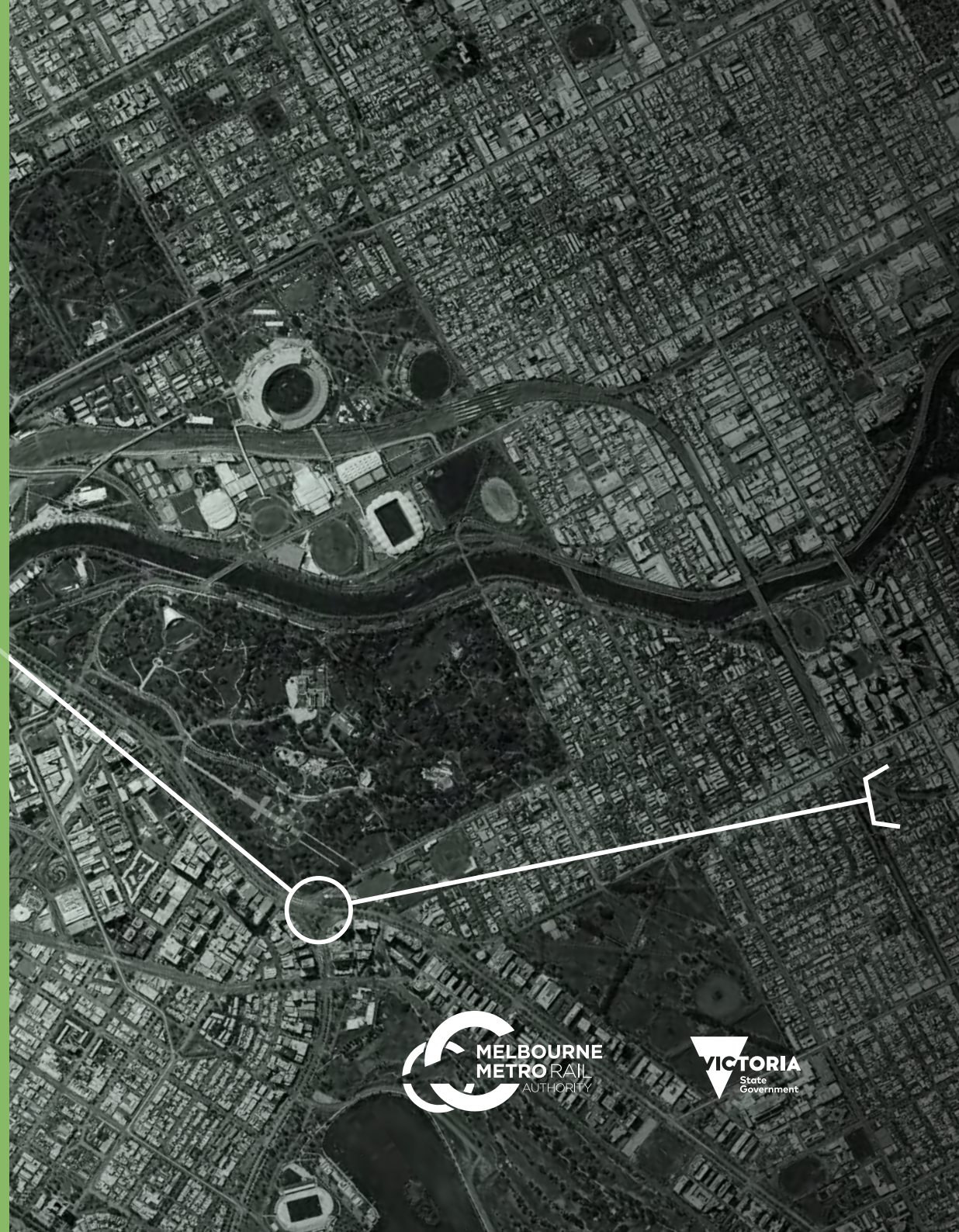




URBAN DESIGN STRATEGY



CONTENTS

1. INTRODUCTION	2
1.1 CONTEXT	3
1.1.1 THE METRO TUNNEL PROJECT	3
1.1.2 URBAN DESIGN AND METRO TUNNEL	3
1.2 PURPOSE AND SCOPE OF THIS DOCUMENT	4
1.3 CONTENT AND STRUCTURE	5
1.3.1 COORDINATING ROLE	5
1.3.2 HIERARCHY OF DESIGN PRINCIPLES, OBJECTIVES AND GUIDELINES	5
1.4 BACKGROUND FOR THIS STRATEGY	7
1.4.1 POLICY BASIS	7
1.4.2 VICTORIA'S MAJOR TRANSPORT INFRASTRUCTURE PROGRAM	7
1.4.3 CONSULTATION AND TECHNICAL INPUTS	9
1.5 RELATIONSHIP TO OTHER DOCUMENTS	10
1.5.1 METRO TUNNEL DOCUMENTATION	10
1.5.2 REFERENCE DOCUMENTS	10

2. GOOD URBAN DESIGN	12
2.1 URBAN DESIGN PRINCIPLES	14
3. KEY DIRECTIONS FOR METRO TUNNEL	16
3.1 MAKE NEW AND IMPROVED CONNECTIONS	18
3.2 MAKE GREAT PUBLIC PLACES	21
3.3 BALANCE LINE-WIDE CONSISTENCY WITH SITE RESPONSIVENESS	26
3.4 SUPPORT INTEGRATED SITE REDEVELOPMENT	30
3.5 DESIGN TO HELP MANAGE CONSTRUCTION IMPACTS	32
3.6 DESIGN FOR THE FUTURE	36

CONTENTS

4. PRECINCT-SPECIFIC DESIGN ISSUES	40
4.1 PRECINCT 1: TUNNELS	42
4.1.1 DOMAIN PARKLANDS EMERGENCY ACCESS SHAFT AND TUNNEL WORKS	42
4.1.2 FAWKNER PARK EMERGENCY ACCESS SHAFT AND CONSTRUCTION WORKS SITE	45
4.2 PRECINCT 2: WESTERN PORTAL (KENSINGTON)	48
4.2.1 HOBSONS ROAD MIXED USE PRECINCT	48
4.2.2 JJ HOLLAND PARK INTERFACE	48
4.2.3 SOUTH KENSINGTON STATION ENTRY (ORMOND STREET TO TENNYSON STREET)	51
4.3 PRECINCT 3: ARDEN STATION	52
4.4 PRECINCT 4: PARKVILLE STATION	55
4.4.1 ROYAL PARADE	55
4.4.2 GRATTAN STREET	56
4.4.3 UNIVERSITY OF MELBOURNE INTERFACE WITH GRATTAN STREET	58
4.4.4 UNIVERSITY SQUARE, BARRY STREET AND LEICESTER STREET	60
4.5 PRECINCT 5: CBD NORTH STATION	62
4.5.1 LA TROBE-LITTLE LA TROBE STREET SUB-PRECINCT	63
4.5.2 FRANKLIN STREET	65
4.5.3 A'BECKETT STREET AND STEWART STREET	66

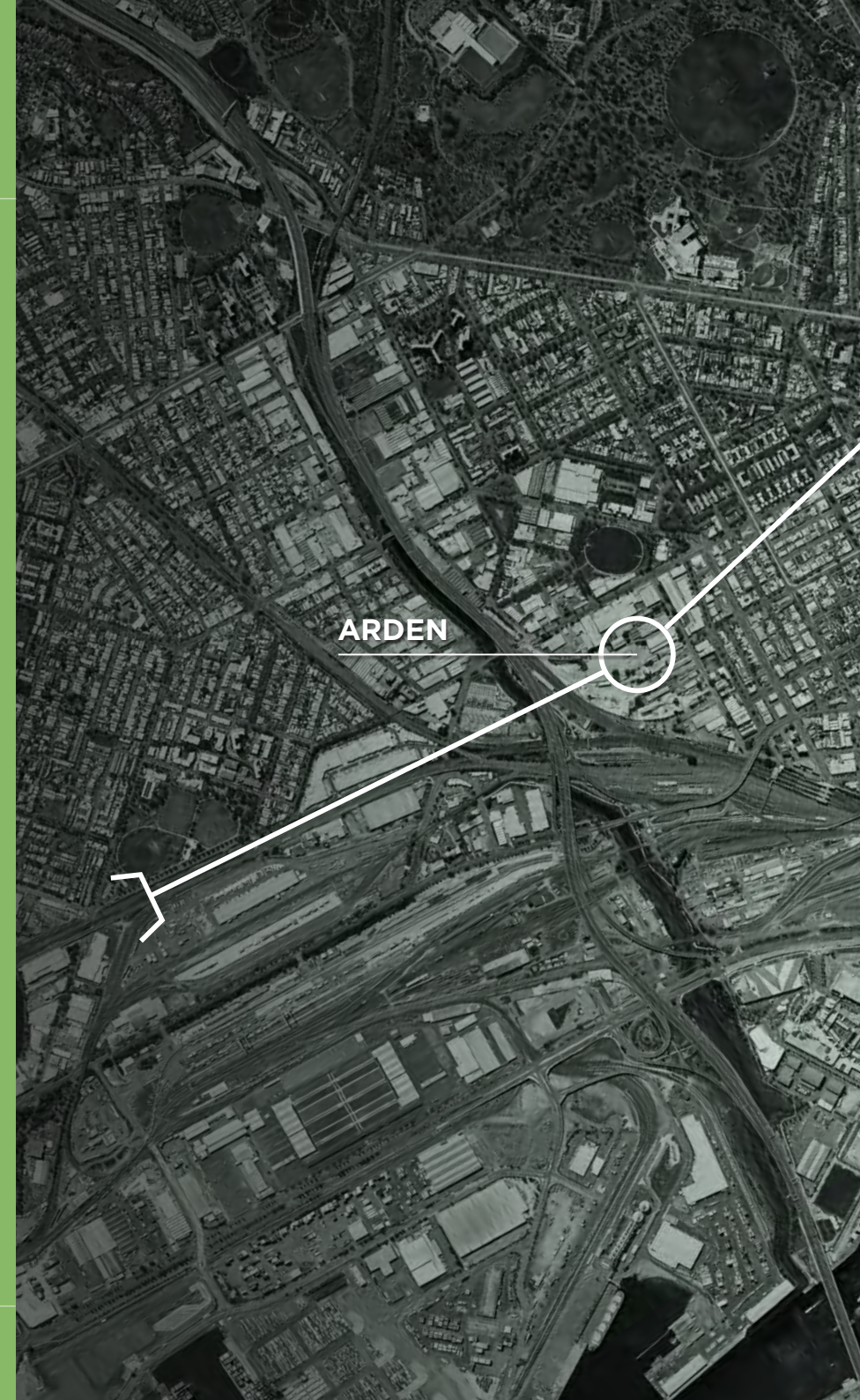
4.6	PRECINCT 6: CBD SOUTH STATION	68
4.6.1	COCKER ALLEY SUB-PRECINCT	68
4.6.2	FEDERATION SQUARE: ST PAUL'S COURT	71
4.6.3	CITY SQUARE	74
4.7	PRECINCT 7: DOMAIN STATION	78
4.7.1	ST KILDA ROAD	78
4.7.2	SHRINE RESERVE AND KINGS DOMAIN CONSTRUCTION WORKS AREAS	80
4.7.3	ALBERT ROAD RESERVE	82
4.8	PRECINCT 8: EASTERN PORTAL (SOUTH YARRA)	84
4.9	PRECINCT 9: WESTERN TURNBACK	88
5.	IMPLEMENTATION	90
5.1	URBAN DESIGN REFERENCE GROUP	91
5.2	DESIGN REVIEW AND ADVICE	91
	APPENDIX: STAKEHOLDER CONSULTATION	92

PROJECT VISION

A metro system that delivers a high quality user experience, shapes Melbourne's growth and identity, connects people with important destinations and is enjoyed by all of Melbourne's residents and visitors.

URBAN DESIGN VISION

A legacy of outstanding rail stations and associated public spaces that put people first, contribute to Melbourne's reputation for design excellence, and deliver an overall substantial benefit in terms of urban quality for Melbourne, for the transport network, and for local areas influenced by the project.





PARKVILLE

CBD NORTH

CBD SOUTH

DOMAIN

1. INTRODUCTION

Southern Cross Station, Melbourne. One of the major stations on the CBD rail loop and the central terminus of Victoria's regional rail network, Southern Cross Station was rebuilt 2002-2006.

Photo: Shannon McGrath, courtesy Grimshaw Architects

1.1 CONTEXT

1.1.1 THE METRO TUNNEL PROJECT

The Metro Tunnel Rail Project (Metro Tunnel) will transform Melbourne's congested rail network, but it is much more than an engineering project. It will shape Melbourne's future — physically, socially and economically — and underpin the city's growth for decades to come.

Delivered by the Melbourne Metro Rail Authority (MMRA), the project will comprise:

- + twin 9 km long rail tunnels, running between Kensington and South Yarra
- + five new underground stations — Arden, Parkville, CBD North, CBD South and Domain
- + rail-tunnel entrances, or portals, at Kensington and South Yarra
- + connections to existing and new train / tram and bus interchanges at Parkville, CBD North, CBD South and Domain.

1.1.2 URBAN DESIGN AND METRO TUNNEL

In transforming the rail network, Metro Tunnel will also transform Melbourne more widely by altering travel patterns and affecting how people use and perceive the city over time. However, as a project to build a new underground rail line, Metro Tunnel will only have a direct and permanent physical impact on the public realm where its infrastructure connects to the surface.

The design of the new station precincts will provide an important visible civic legacy for the project within the city fabric. In contrast, with elements including vents and emergency access shafts, the primary concerns are to minimise the occupation of valuable space, and to avoid interference with the many uses of busy streets and other precious public spaces. Across this spectrum ranging from major interventions to subtle insertions, the project must deliver overall substantial benefits in terms of urban quality for Melbourne, for the transport network, and for local areas influenced by Metro Tunnel. The ambition is to contribute to Melbourne's reputation for design excellence in the public realm, not only at special sites but in everyday spaces too.

Innovative and expressive contemporary design will be part of the project's contribution to Melbourne, but respectful integration with the public realm is of equal importance. This is the primary focus of the Urban Design Strategy and of vital importance to the project itself.



*Swanston Street at the City Square, Melbourne. (See 4.6.3)
Photo Andrew Curtis, courtesy City of Melbourne*

1.2 PURPOSE AND SCOPE OF THIS DOCUMENT

This strategy provides urban design guidance relating to the design, procurement and implementation of Metro Tunnel. It is intended to:

- + State the broad urban design expectations for Metro Tunnel.
- + Ensure that the project's landscape and visual impacts are addressed in a way that maximises the project's positive contribution to Melbourne.
- + Set out design guidelines that, along with further detailed content, will inform the technical specifications for the project's procurement phase.
- + Identify areas of concern to be assessed through an expert peer review process during the development and finalisation of designs for the project.

The Urban Design Strategy is not a set of designs for public spaces affected by the project. It is, instead, a part of a design brief or specification, setting out what the ultimate design should achieve.

Except for section 3.5, the primary focus of this Strategy is on the finished built form and use of the project and associated spaces, rather than temporary works undertaken as part of the project construction process.

The focus is also on the design of public streets and spaces at ground level and the relationships of Metro Tunnel infrastructure and other development with those spaces, rather than on underground station design, or on potential commercial redevelopment of properties above or adjoining the metro infrastructure.

1.3 CONTENT AND STRUCTURE

1.3.1 COORDINATING ROLE

The Urban Design Strategy focuses on requirements for Metro Tunnel relating to the public realm. However, the quality of the public realm depends upon how various specialist technical elements interact with one another. Good urban design is not a matter of ameliorating the undesirable impacts of difficult technical solutions, but rather helping avoid those impacts if possible. A key role for urban design is coordinating design requirements that arise from various technical streams of the project, especially in relation to their spatial organisation and physical forms.

The Urban Design Strategy therefore plays an important integrating role for the project. While it aims to avoid repeating technical requirements in other project documents, relevant proposed works are described again here, briefly, to identify urban design issues.

Most places Metro Tunnel will affect at surface level support many uses and are valued for a variety of reasons. Designs for these sites need to do a lot more than just support objectives of Metro Tunnel. Many sites fall within the scope of improvement plans for a broader area, prepared by local authorities and other land managers. The Urban Design Strategy aims to help coordinate the project with these plans, and has an important role in collating existing strategies, plans, design proposals and design standards that relate to these sites. A large proportion of the Urban Design Strategy is made up of such material.

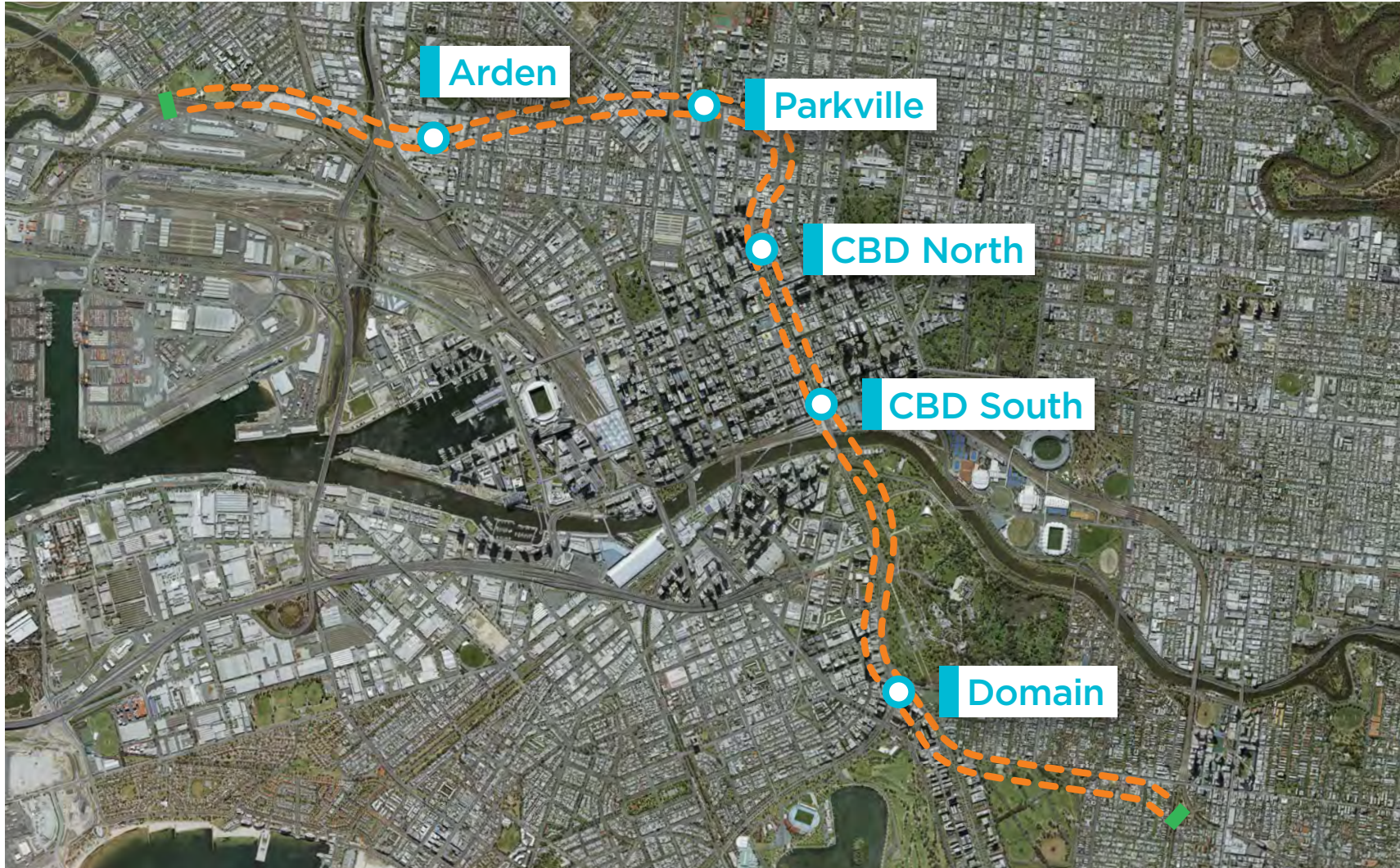
1.3.2 HIERARCHY OF DESIGN PRINCIPLES, OBJECTIVES AND GUIDELINES

Three levels of information are addressed in the Urban Design Strategy. These are:

- + high-level principles of good urban design — requirements that apply to Metro Tunnel, but which are widely applicable to many projects and therefore relatively universal
- + key design themes that inform the approach to Metro Tunnel as a whole —reflecting concerns specific to this project but relevant throughout the variety of sites involved
- + design guidelines specific to individual precincts.

The structure of the Urban Design Strategy generally follows this hierarchy. All levels apply in varying degrees to the project, and the sections of the Urban Design Strategy apply in combination.

1. INTRODUCTION



The Metro Tunnel alignment and station locations.

1.4 BACKGROUND FOR THIS STRATEGY

1.4.1 POLICY BASIS

Metro Tunnel is underpinned by legislation, strategies and policies at federal, state and local government levels. A number of documents from among these pertain specifically to urban design outcomes for the project, including:

- + Creating Places for People: an Urban Design Protocol for Australian Cities, Infrastructure Australia, 2011.
- + Our Cities, Our Future, Commonwealth of Australia, 2011.
- + Plan Melbourne: Metropolitan Planning Strategy, State Government of Victoria, 2014.
- + Cities of Melbourne, Port Phillip, Stonnington and Maribyrnong Planning Schemes as well as various local policies, structure plans, master plans and design guidelines.

1.4.2 VICTORIA'S MAJOR TRANSPORT INFRASTRUCTURE PROGRAM

The Major Transport Infrastructure Program represents one of the most significant investments in transport infrastructure in Victoria's history. The program, comprising projects that are being undertaken by the Level Crossing Removal Authority (LXRA) and the Melbourne Metro Rail Authority (MMRA) are more than just road or rail projects, they are city shaping projects that will create a lasting legacy for Melbourne. Incorporating the principles and practices of great urban design and place making is therefore a priority if this investment is to deliver a full range of benefits for current and future Victorians.

CITIES HAVE THE CAPABILITY
OF PROVIDING SOMETHING
FOR EVERYBODY, ONLY
BECAUSE, AND ONLY WHEN,
THEY ARE CREATED BY
EVERYBODY.

Jane Jacobs

URBAN DESIGN IS CONCERNED WITH THE ARRANGEMENT, APPEARANCE AND FUNCTION OF OUR SUBURBS, TOWNS AND CITIES. IT IS BOTH A PROCESS AND AN OUTCOME OF CREATING LOCALITIES IN WHICH PEOPLE LIVE, ENGAGE WITH EACH OTHER, AND THE PHYSICAL PLACE AROUND THEM... URBAN DESIGN OPERATES FROM THE MACRO SCALE OF THE URBAN STRUCTURE... TO THE MICRO SCALE OF STREET FURNITURE AND LIGHTING.

Creating Places for People: An Urban Design Protocol for Australian Cities, Infrastructure Australia, 2011

The Office of the Victorian Government Architect (OVGA) advocates for good design to be a priority throughout the project lifecycle, and has been actively involved in the development of the Major Transport Infrastructure Program. The OVGA is embedded in project teams, working with the LXRA and MMRA to develop strategies, advocating for good design and sharing learnings across the program.

Both LXRA and MMRA are working with the OVGA to develop a design approach that will consist of a number of pillars:

- + Common vision: develop an overarching design vision for major transport infrastructure projects.
- + Accountability: prepare urban design documents to guide the planning, design and evaluation of major transport projects.
- + Transparency: undertake a program of stakeholder and community engagement to inform the design of major transport infrastructure projects, including identifying key local considerations and opportunities to involve the community in the projects.
- + Governance: seek expert design advice through the whole of project life-cycle, retaining consistent design expertise from the OVGA, industry and stakeholders at all stages of the project including development, procurement and delivery.
- + Independent design review: use design experts at key milestones throughout the project lifecycle.

The Level Crossing Removal Project Urban Design Framework and Metro Tunnel Urban Design Strategy are both based on this approach.

1.4.3 CONSULTATION AND TECHNICAL INPUTS

Metro Tunnel will change the functions of the city broadly as well as in specific local spaces, and may affect (either positively or negatively) how the community uses and enjoys these spaces. Ensuring good urban design outcomes, in the context of a major infrastructure project's demanding technical criteria and complex delivery methods, is a significant challenge.

This Urban Design Strategy has been developed in consultation with key stakeholders and will be publicly exhibited for comment and debate through the Environment Effects Statement approval process.

The Urban Design Strategy has been informed by existing urban design studies, policies, strategies and plans for areas affected by the project — most of which reflect and incorporate previous consultation processes and outcomes. This approach has been applied to all levels of the Urban Design Strategy, ranging from adoption of established high-level design principles through to the incorporation of detailed recommendations for specific sites.

Additional urban design analysis has also been undertaken to consider site-specific project impacts.

The Urban Design Strategy draws heavily from, and builds lightly upon, the well-established, widely successful body of ongoing work undertaken by the cities of Melbourne, Port Phillip and Stonnington along the Metro Tunnel corridor.

1. INTRODUCTION

1.5 RELATIONSHIP TO OTHER DOCUMENTS

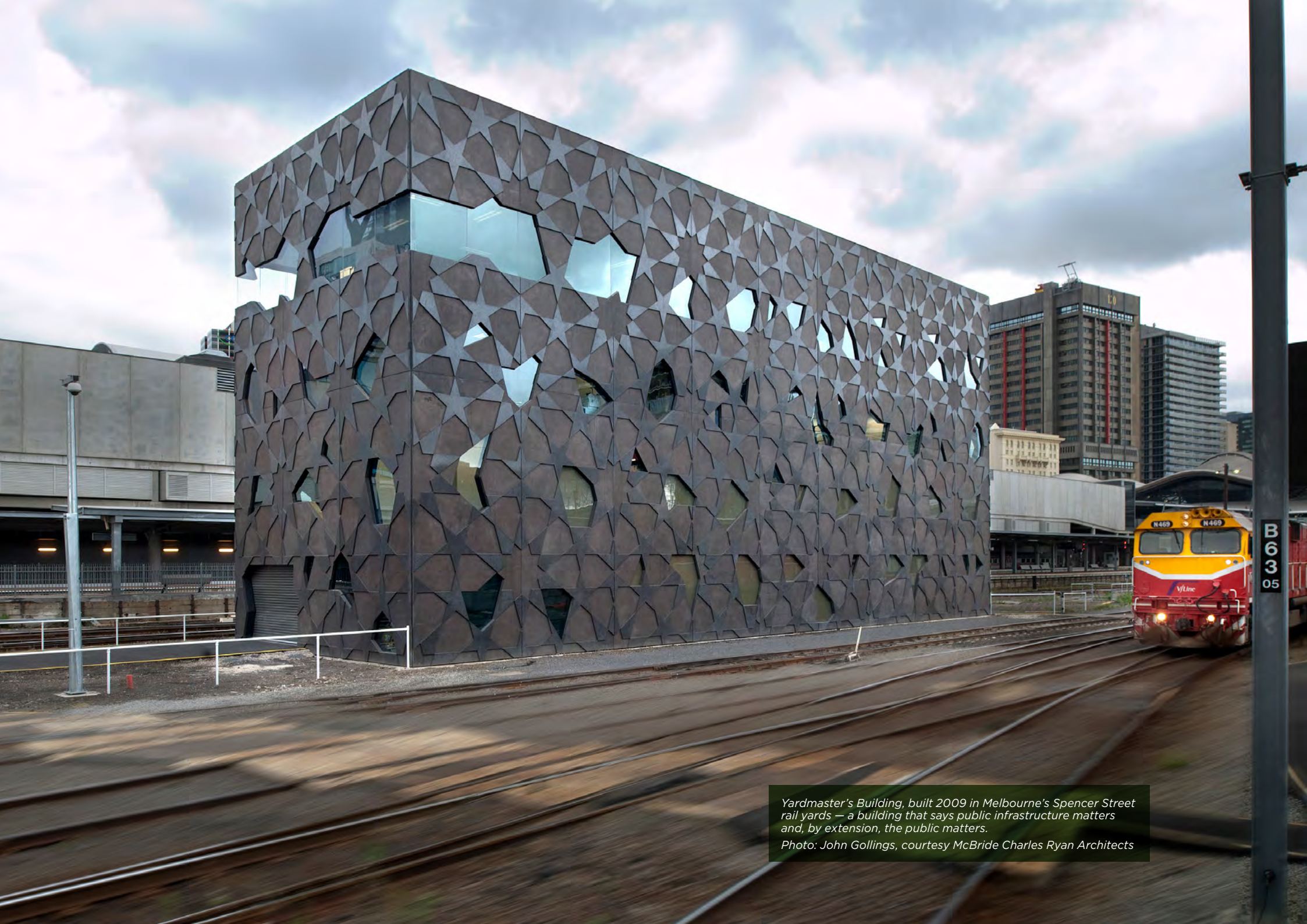
1.5.1 METRO TUNNEL DOCUMENTATION

The Urban Design Strategy is one of many documents in the full documentation suite for Metro Tunnel. The Urban Design Strategy has been written to complement these, aiming to provide sufficient information about other aspects of the project to explain how urban design considerations relate to them, but without duplicating their content.

In January 2017, Amendment GC45 introduced new planning controls into Melbourne, Port Phillip, Stonnington and Maribyrnong Planning Schemes, which gave effect to the Melbourne Metro Rail Project Incorporated Document December 2017. This Incorporated Document was prepared to facilitate the delivery of the Metro Tunnel project and requires the use and development for the project to be carried out in accordance with the approved Urban Design Strategy.

1.5.2 REFERENCE DOCUMENTS

Through their ongoing work, the Cities of Melbourne, Port Phillip and Stonnington have generated a body of design guidance for areas affected by the project, ranging from policies in local planning schemes through to design standards for street furniture. The Urban Design Strategy does not seek to supersede or replicate this previous work. In many cases existing documents continue to provide relevant guidance for areas affected by Metro Tunnel. These are listed as Reference Documents in this report. The lists of Reference Documents focus on documents specific to urban design outcomes, and do not imply that other relevant legislation, policies, plans and standards not listed do not apply. They also do not include Metro Tunnel documentation.



*Yardmaster's Building, built 2009 in Melbourne's Spencer Street rail yards — a building that says public infrastructure matters and, by extension, the public matters.
Photo: John Gollings, courtesy McBride Charles Ryan Architects*

2. GOOD URBAN DESIGN



"Melbourne has design weeks every year. It's only natural to celebrate one of them."

City Square, Melbourne. This installation for Melbourne International Design Week was part a program of changing events accommodated by the City Square. (See 4.6.3.)

Photo: Sarah Anderson

Given the extent of Metro Tunnel and its urbanised setting, the design must address a wide range of issues. Urban design excellence will rely on the input of appropriately qualified experts on the procurement and delivery sides of the project. For Metro Tunnel, this will require integration of many different disciplines including architecture, landscape architecture, industrial design, heritage, transport / land use planning, and engineering as well as the integration of artists' contributions.

The application of best practice urban design principles and approaches from the outset of the project will also ensure its successful integration with local areas in terms of land use, built form, connectivity, design character, and amenity.

There are several well-regarded versions of best practice urban design principles in circulation. For this Urban Design Strategy, the OVGAs Good Design + Transport design guidelines — which align closely with Infrastructure Australia's Urban Design Protocol — are proposed as appropriate high level principles to guide Metro Tunnel.

These guidelines provide reference points against which design quality can be judged and will therefore:

- + Provide a high level context for more site and project-specific directions recommended by the Urban Design Strategy.
- + Support the evaluation of proposals during the project procurement process to ensure that excellence in urban design outcomes is demonstrated.

WELL DESIGNED TRANSPORT FACILITIES, INTERCHANGES AND CONNECTIONS ADD VALUE TO PUBLIC PLACES AND CAN CONTRIBUTE TO OUR WELL-BEING, HEALTH, PRODUCTIVITY AND THE WAY WE ENGAGE WITH OUR COMMUNITIES. GOOD DESIGN CREATES ECONOMICALLY, SOCIALLY AND ENVIRONMENTALLY SUSTAINABLE TRANSPORT THAT SERVES OUR NEEDS AND ENRICHES OUR CULTURAL IDENTITY.

Office of the Victorian Government Architect

2. GOOD URBAN DESIGN

2.1 URBAN DESIGN PRINCIPLES

Designs must be functional, well planned and constructed with appropriate materials and technology that works well for all users. They must be:

- + legible, understandable, safe and secure feeling, and provided with good visual links and strong passive surveillance; the built form must be clear and wayfinding carefully considered as part of the project
- + seamless, with a cohesive and linked network that is easy to understand and navigate, and that integrates different transport modes, providing direct connections and easy transitions
- + universally inclusive, with main access routes that are obvious and accessible to all members of the community, whether able bodied or mobility impaired, without barriers or differentiation
- + walkable, with supporting pathways and useable public space that prioritises pedestrian connections across and between transport corridors, and that links into local streets and networks.

Designs must be enduring, relevant across lifespans of many generations, and representative of their time and of a high quality. They must be:

- + durable, easy to maintain so that they will age gracefully.

Designs must be sustainable, promoting positive environmental, social, cultural and economic values. They must assess the long-term life cycle implications and future urban renewal opportunities. They must be:

- + engaging, reflective and responsive to diverse community values, and encouraging of positive interaction
- + socially responsive, supporting community land aspirations for the place, connecting nearby facilities, and incorporating shops, art, and recreation spaces
- + site responsive, responding to specific local conditions inclusive of built form, landscape, topography and orientation
- + valuing of heritage, responding to history, memory, understanding of and continuity with the past
- + designed to utilise green infrastructure to support a high standard of amenity.

Designs must be enjoyable, creating a desire to experience the journey rather than just pass through. They must be:

- + delightful, authentic, sensitive and intelligent in design of form, space, proportion, craft and detail.



Melbourne CBD looking down the Yarra River.

3. KEY DIRECTIONS FOR METRO TUNNEL



This section of the Urban Design Strategy is focused more specifically on issues relating to Metro Tunnel, and expanded in greater detail, than the previous section on general principles of good urban design. It sets out six key design themes and related outcomes that inform the approach to Metro Tunnel as a whole:

- + Make new and improved connections.
- + Make great public places.
- + Balance line-wide consistency with site responsiveness.
- + Support integrated site redevelopment.
- + Design to help manage construction impacts.
- + Design for the future.

FIRST LIFE, THEN SPACES,
THEN BUILDINGS — THE
OTHER WAY AROUND
NEVER WORKS.

Jan Gehl

3. KEY DIRECTIONS FOR METRO TUNNEL

3.1 MAKE NEW AND IMPROVED CONNECTIONS

The purpose of Metro Tunnel is not just to run trains along the new alignment. It is foundation infrastructure that will open opportunities for more frequent services across the entire network and will change how people move around the city as a whole. This requires consideration of how the project is integrated with, and enhances, local movement networks including routes for pedestrians, cyclists, trams, buses and other vehicular traffic. It requires consideration of modal transfers, and management of potential conflicts between modes and intersecting routes.

Many other urban activities sit alongside these transport functions — and are intimately related to and supportive of them — so the project must also address how streets and other circulation spaces support:

- + commercial, social and recreational activities that are based in or intimately associated with the public realm
- + services and utilities that use streets and other open spaces as part of their distribution network
- + service and emergency access
- + on-street vehicle and bicycle parking (i.e. vehicle storage, rather than movement).

a Aims

Metro Tunnel's stations will be well connected to the surrounding city to maximise its value in provision for access and movement, and to create civic focal points that support aspirations for each precinct's long term development.

b Objectives

1. Ensure that the stations are easy to access for all people and that they are well connected to the surrounding precinct.
2. Improve provision for movement through the city, giving priority to sustainable transport modes that complement Metro Tunnel.
3. Improve inter-modal transport connectivity.
4. Provide streets and other access ways that function well for their allocated transport modes and that are also comfortable, engaging and safe places for complementary activities.
5. Recognise and enhance the importance placed on active transport.

c Design Guidelines

1. Station precinct environments must support safe and predictable movements that are prioritised along the following transport hierarchy:
 - active transport — pedestrian and cycling, including people entering the station as well as passing the station entrances
 - sustainable transport — train, tram, bus and coach
 - emergency and short-term vehicles — emergency vehicles, service vehicles, commercial / private transport, taxi ranks, kiss-and-ride
 - private transport — disabled-access car parking, staff and maintenance car parking, park and ride car parking.
2. Provide for integration of all transport modes in line with the modal hierarchy above:
 - Locate, orient and design station entries to connect via public routes into the wider pedestrian network.
 - Ensure clear visual and physical connections to nearby bus, tram and taxi stops and kiss-and-ride facilities.

3. KEY DIRECTIONS FOR METRO TUNNEL

- Maximise bicycle parking facilities associated with stations where it will expand access to Metro services by connecting to major cycling routes and key catchments, in particular at Arden, Parkville and Domain Stations.
3. Minimise conflicts between transport modes and intersecting routes of travel:
- Design station entries with adequate space for people to transition from stairs, escalators and lifts to travel routes along the ground surface so that congestion in surrounding thoroughfares is minimised and appropriately managed.
 - Define pathways and promote awareness of crossing transport modes, e.g. using changes in surface treatments and other visual cues.
 - Ensure that aboveground station infrastructure does not create unnecessary barriers or obstructions to pedestrian or cycle flows in the streets.
 - Integrate balustrades and other required barriers and safety devices into the overall precinct design.
4. Support ease of wayfinding:
- Create well-structured paths and clear sightlines so that wayfinding is intuitive and reliance on directional signage is minimised.
 - Orient station entries onto public streets where possible. Ensure that paths of travel to and from station entries that are not directly connected to main streets are easy to find and follow, and are clearly identifiable as being accessible to the general public
 - Design stations to capitalise on view lines to existing local landmarks and spaces that will assist with orientation.
- Create new visual markers and treatments that will assist with orientation and recognition of specific locations.
 - Provide clear, consistent and easy-to-follow directional signage, responding to the particular local requirements and nearby destinations.
 - Establish appropriate links between directional signage provided as part of Metro Tunnel and directional signage used in surrounding precincts.
5. Create and improve strategic walking and cycling routes that connect the stations into surrounding areas:
- Create opportunities for public pedestrian links through non-ticketed areas of station buildings to provide safe crossings of major streets.
 - Create convenient and safe alignments of footpaths and walking routes that facilitate access to the stations and to other destinations in the precinct.
 - Consider the needs of future growth, long-term development patterns, and changes to demand.
 - Provide generous path widths, safe and accessible slopes and cross-falls, and the placement of features to maintain clear circulation space, with priority generally given to circulation areas along the building line.
 - Design of crossings and Shared Zones (where pedestrians, cyclists and motorised traffic share the same road space) to ensure safety and prioritisation according to the modal hierarchy.
 - Provide bike paths, shared paths and on-street bike lanes, with widths and treatments that maximise safety and allow for future growth in demand.

3. KEY DIRECTIONS FOR METRO TUNNEL

6. Provide universal access throughout public spaces and stations, with intuitive paths of travel for people with visual impairments, accessible grades along paths, and appropriate use of ramps, kerb ramps, and tactile paving.
7. Provide for vehicular traffic lanes as appropriate, with consideration of lane widths, kerb radials at corners and intersections to suit swept paths, and appropriate levels, slopes and cross-falls.
8. Provide for vehicle parking, as appropriate, with consideration of locations and arrangements, management systems (ticket machines etc.) and motorcycle parking.

d Reference Documents

- + VicRoads Guidelines for Public Transport.¹
- + City of Melbourne Bicycle Plan 2012-2016.²
- + City of Melbourne Transport Strategy 2012.³
- + City of Melbourne Walking Plan 2014-2017.⁴
- + City of Port Phillip Sustainable Transport Strategy.⁵
- + City of Port Phillip Sustainable Transport Precinct Plans.⁶
- + City of Port Phillip Bike Plan 2011-2020.⁷
- + City of Port Phillip Safer Streets 2013-2020.⁸
- + City of Port Phillip Walk Plan 2011-2020.⁹
- + City of Stonnington Cycling Strategy 2013-2018.¹⁰
- + Inner Melbourne Wayfinding Signage, J A Grant and Associates, 2007.¹¹

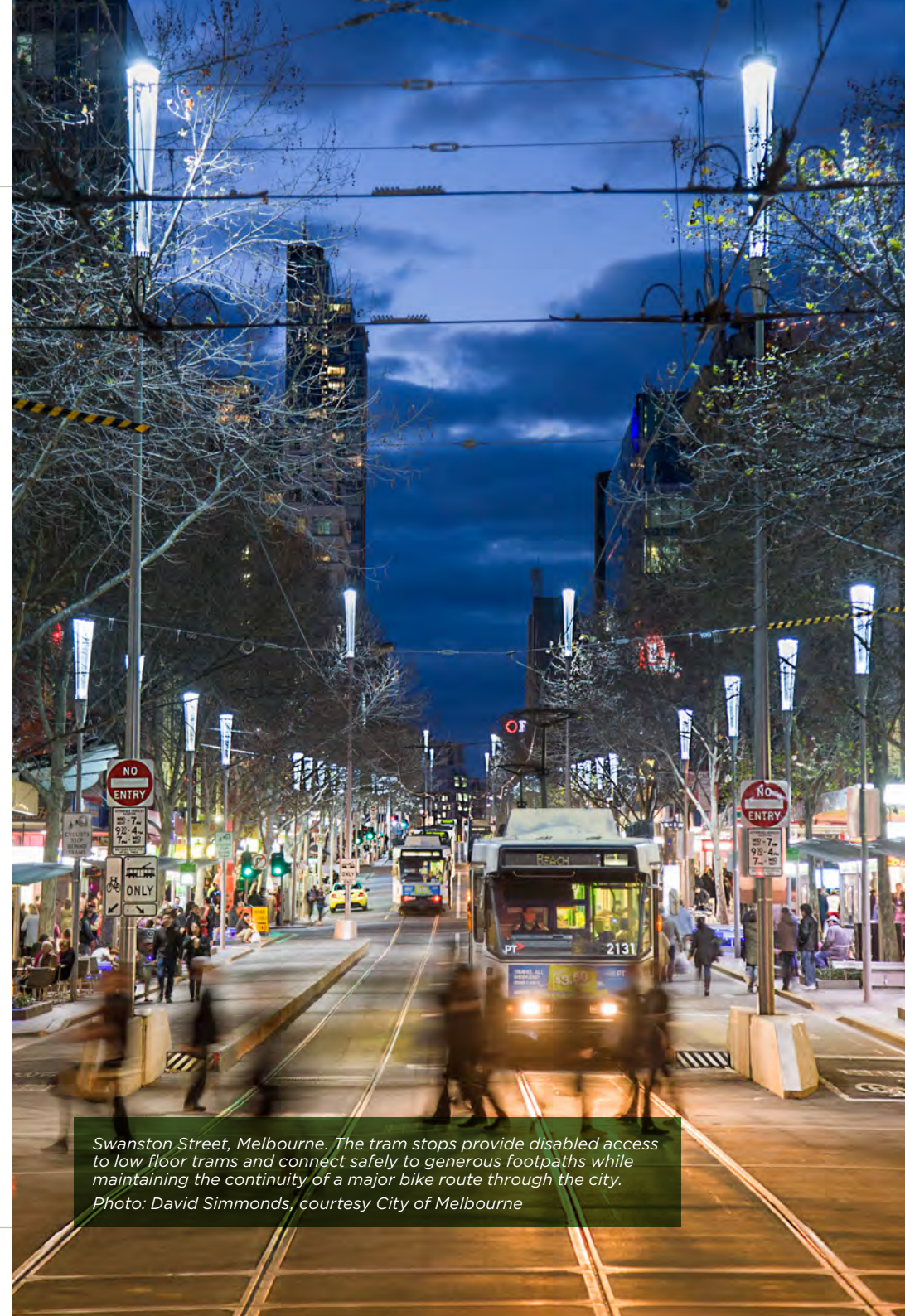
1 vicroads.vic.gov.au/business-and-industry/design-and-management/design-standards-and-manuals/guidelines-for-public-transport
2 participate.melbourne.vic.gov.au/draft-bicycle-plan-2016-2020
3 melbourne.vic.gov.au/SiteCollectionDocuments/transport-strategy-2012.pdf
4 participate.melbourne.vic.gov.au/application/files/4114/3890/9931/Walking_Plan_full_version.pdf
5 portphillip.vic.gov.au/SustainableTransportStrategy_FINAL_Dec_2014.pdf
6 portphillip.vic.gov.au/sustainable-transport-precinct-plans.htm
7 portphillip.vic.gov.au/default/SustainableEnvironmentDocuments/BikePlan_PedalPower_v14.pdf
8 portphillip.vic.gov.au/10090_Safer_Streets_3.pdf
9 portphillip.vic.gov.au/default/SustainableEnvironmentDocuments/WalkPlan_FeetFirst_v16.pdf
10 stonnington.vic.gov.au/Live/Sustainability/Sustainable-transport/Cycling-in-Stonnington#strategy
11 imap.vic.gov.au/uploads/Strategy%20Documents/IMAP_Inner%20Melbourne%20Wayfinding%20Signage_Report_Dec%2007.pdf

3.2 MAKE GREAT PUBLIC PLACES

Most of Metro Tunnel's tunnels and stations will be located beneath or within public land. The project will therefore result in some temporary construction disruption or loss of space in streets and other public spaces. These impacts could, in turn, have detrimental impacts on nearby private uses such as retail activities that rely on accessibility and visibility. Maintaining and enhancing the functionality and amenity of the public domain is key to the successful delivery of Metro Tunnel.

In recent decades the State Government of Victoria, the City of Melbourne and other inner metropolitan councils have consistently pursued an inter-related mixture of policies, planning and projects to improve inner Melbourne's public environment. This is reflected in:

- + major public space projects such as Federation Square, Birrarung Marr and Southern Cross Station
- + the long-term roll-out, through hundreds of small projects, of coordinated and high quality design standards for footpath paving, street furniture, tree planting and public lighting
- + the management of public spaces to foster social, economic and cultural vitality, reflected in an extensive calendar of public events, and in streets enlivened by retail, social and cultural activity and populated at all hours by inner-city residents, workers and visitors
- + planning policies and controls to encourage appropriate mixed use development — such as the Postcode 3000 program, which stimulated a then-new market for inner city residential development — and to ensure the contribution of private building development to the amenity of the public realm.



*Swanston Street, Melbourne. The tram stops provide disabled access to low floor trams and connect safely to generous footpaths while maintaining the continuity of a major bike route through the city.
Photo: David Simmonds, courtesy City of Melbourne*

3. KEY DIRECTIONS FOR METRO TUNNEL

The result has been significant and measurable improvement of the quality of the city's spaces as a setting for urban public life.¹²

a Aims

Metro Tunnel will be integrated into the city through places that are engaging, socially responsive, site responsive and valuing of urban ecology and heritage, and that make a significant contribution to Melbourne's status as a liveable city.

b Objectives

1. Create an activated and people oriented public realm:
 - Create welcoming and inclusive places for social and cultural interaction.
 - Create memorable and engaging spaces and places.
 - Create places, buildings and artworks that express Melbourne's culture and values.
 - Create comfortable and attractive places.
 - Create safe environments at all times of the day and night.

2. Retain and enhance the functionality, usability and amenity of public spaces:
 - Respond to places' local character and identity.
 - Respond to changed circumstances created by Metro Tunnel.
 - Maximise the extent and usability of open space in the precinct.
 - Minimise intrusive visual impacts and disruption of existing uses due to Metro Tunnel infrastructure.
 - Minimise damage to important physical features. Where damage occurs ensure replacement to an equal or better standard.

c Design Guidelines

1. Ensure that all aspects of the design are of a high quality in concept, resolution and execution. Designs must be:
 - fit for purpose
 - responsive to all users' needs
 - responsive to the site and associated cultural values
 - sustainable.

12. *Places for People: Establishing a Platform of Evidence to Shape Melbourne's Future*, City of Melbourne, 2015. melbourne.vic.gov.au/SiteCollectionDocuments/places-for-people-strategy-pt1.pdf

3. KEY DIRECTIONS FOR METRO TUNNEL

2. Design spaces to be activated by public use:
 - Provide seating and other infrastructure to encourage people to inhabit the space.
 - Support the programming of spaces for a range of event scales and types.
 - Accommodate opportunities for street trading activities as consistent with local authority policies and guidelines.
 - Locate, design and manage activities in underground stations, including business opportunities, to contribute to activation of the wider precinct.
 - Support appropriate uses of public streets and spaces to support social and recreational needs of the precinct.
3. Provide safe environments that promote safe behaviour and the feeling of safety:
 - Design spaces with consideration of Crime Prevention Through Environmental Design principles.
 - Support complementary mixes of activities, activation and passive surveillance that contribute to other users' interest and safety.
 - Maximise visual connectivity between spaces to enable passive surveillance, and arrange uses to maximise passive surveillance.
 - Design and manage entries to underground stations and pedestrian subways to ensure safe conditions in surrounding spaces and approach routes, including when the stations are closed.
4. Respect heritage and respond to local cultural and indigenous heritage issues:
 - Retain and protect significant heritage elements including spaces, views, vegetation, natural and designed landforms, and built fabric.
 - Design new works to complement heritage elements.
 - Integrate interpretative elements into designs to reflect local cultural and indigenous heritage where appropriate.
5. Make provision for stormwater drainage and management:
 - Incorporate pollution control measures to protect water quality.
 - Integrate the provision of pits, covers and grates and discharges into drains with other aspects of the design.
 - Incorporate stormwater capture and reuse as appropriate.
 - Incorporate drainage swales, bio-filtration beds and soil drainage as appropriate.
 - Respond to existing and future local flood levels and overland flow paths.
6. Select and design paving and surface finishes to be fit for purpose, durable, sustainable and easy to maintain, and to enhance the character and use of the space.
7. Integrate street and park furniture into the overall design of public spaces as appropriate to support their use and to provide for the comfort, convenience and safety of patrons and users.

3. KEY DIRECTIONS FOR METRO TUNNEL

8. Provide lighting for amenity, wayfinding, visual comfort, road safety and personal security:
 - Provide a high quality of illumination with respect to supporting people's perception at night, including minimisation of glare and the use of white light to improve colour rendition and people's ability to recognise detail.
 - Contribute positively to and integrate with the character of the area.
 - Incorporate feature lighting as appropriate to express the hierarchy and functionality of spaces.
 - Minimise light spill to adjacent sensitive land uses.
 - Use responsible management systems, efficient technology and other forms of best practice energy conservation.
 - Reinstate existing CCTV infrastructure where affected by the project.
9. Provide access to public amenities including public toilets.
10. Provide access to public transport facilities including passenger shelters, other forms of weather protection, ticket sales and validation machines, etc.
11. Incorporate public art in appropriate places:
 - Integrate site responsive art into the project design where appropriate.
 - Design the settings of existing artworks, memorials and monuments to be retained to respect the works' cultural values and formal design qualities.
 - Integrate site responsive art into the project design (e.g. facilitating playful interaction and seating opportunities) and located to optimise the legibility of the surrounding area.
12. Provide signage as appropriate and in accordance with Public Transport Victoria (PTV), VicRoads, land manager and authority standards and guidelines, including:
 - traffic and parking management signs
 - street signs, place / building name signage, and address numbers
 - pedestrian directional signs and tourist information
 - interpretive signage and commemorative plaques
 - temporary or events signage.
13. Integrate any advertising elements with public infrastructure and ensure that they complement the character, functionality and amenity of the precinct:
 - Advertising must not detract from directional or wayfinding signs.
 - Advertising must not dominate the public realm or detract from the architectural design intent of the stations.
 - Advertising must be minimised within heritage areas.
 - Advertising should be minimised at locations that are prominent in views from significant heritage sites and public parks.
 - Advertising must be in accordance with local government, VicRoads and PTV guidelines.
 - Advertising must not conflict with existing contractual relationships relating to the sites or elements on them, e.g. for the supply and maintenance of tram passenger shelters with advertising panels.

3. KEY DIRECTIONS FOR METRO TUNNEL

14. Incorporate plantings as an integral part of site designs:
 - Provide shade and shelter, screening, ornament and define of a sense of place that relates to each site and its landscape context.
 - Create good soil conditions for new planting, including consideration of the use of permeable paving materials within trees' drip zones, extensive soil preparation, and high quality structural soils beneath pavements.
 - Avoid containerised planting conditions and provide contiguous root zones where possible.
 - Contribute to increased biodiversity and resilience of plant communities in accordance with urban forest strategies.
 - Offset any vegetation loss.
 - Ensure that plantings are designed to complement and protect the functionality of other infrastructure including public lighting, CCTV surveillance systems and underground utilities.
15. Address irrigation including passive irrigation and opportunities for rainwater infiltration into the soil, options for non-potable water supplies, irrigation zones and system types, control systems and equipment.

d Reference Documents

- + Public Lighting Strategy 2013, City of Melbourne.¹³
- + Arts Strategy 2014-2017, City of Melbourne.¹⁴
- + Urban Forest Strategy: Making a Great City Greener 2012-2032. City of Melbourne.¹⁵
- + Urban Forest Diversity Guidelines. City of Melbourne, 2011.¹⁶
- + Greening Port Phillip: An Urban Forest Approach. City of Port Phillip 2010.¹⁷
- + Strategies for Creating Open Space, City of Stonnington.¹⁸
- + Public Realm Strategy, City of Stonnington 2010.¹⁹
- + City of Melbourne, Places for People, 2015. <http://participate.melbourne.vic.gov.au/placesforpeople>

13. melbourne.vic.gov.au/residents/home-neighbourhood/street-lighting/Pages/public-lighting-strategy.aspx

14. melbourne.vic.gov.au/SiteCollectionDocuments/city-of-melbourne-arts-strategy-2014-17.pdf

15. melbourne.vic.gov.au/community/parks-open-spaces/urban-forest/pages/urban-forest-strategy.aspx

16. melbourne.vic.gov.au/community/parks-open-spaces/urban-forest/pages/urban-forest-strategy.aspx

17. portphillip.vic.gov.au/greening_port_phillip.htm

18. stonnington.vic.gov.au/Vision/Council-Strategies

19. stonnington.vic.gov.au/Vision/Council-Strategies



Flinders Street Station, Melbourne CBD.

3.3 BALANCE LINE-WIDE CONSISTENCY WITH SITE RESPONSIVENESS

The new Metro Tunnel tunnels and stations will be connected to existing train lines and stations beyond the tunnel portals, creating an operating train line that is significantly larger than Metro Tunnel's construction area. The design needs to support the use of this line as a whole as a single integrated system.

The project also encompasses elements ranging from the underground rail system itself (tracks, controls etc.) through the platforms, concourses and entries of the stations, to surrounding streets, public spaces and buildings that have no direct interaction with the underground rail system, although they will be traversed by patrons and must be rebuilt and sometimes redesigned to build the underground Metro Tunnel facilities.

Across this range of works, there is a requirement to achieve a balance of design integration of the line as a whole, against designs that respond positively to local context across sites that vary significantly in their character.

a Aims

The design of components of Metro Tunnel will encompass a spectrum of treatments that range from line-wide consistency through to unique localised responses, as appropriate to particular types of elements within the project scope.

3. KEY DIRECTIONS FOR METRO TUNNEL

b Objectives

1. Present Metro Tunnel as part of an integrated transport network.
2. Respond and contribute to local context and character wherever Metro Tunnel has a presence in public spaces at the ground surface.
3. Address specific needs of commuters and user groups at each location.
4. Ensure consistency with relevant structure plans, precinct plans and master plans, where necessary adapting details to suit changed circumstances due to the Metro Tunnel while respecting their aims and objectives.

c Design Guidelines

1. Operational elements of the public transport system, involving the public and staff, must be consistent with the transport system as a whole both in terms of their functionality and style of presentation. This includes the adoption of detailed design standards and use of those details in a manner consistent with their intent and function throughout the wider system, including but not limited to:
 - ticket systems and barriers
 - timetable displays, directional signs and other information used to access platforms and services
 - ticket sales and other assistance
 - safety systems.



*Ventilation structure, Queensbridge Square, Southbank, Melbourne.
Photo courtesy City of Melbourne*

3. KEY DIRECTIONS FOR METRO TUNNEL

2. The character of individual stations may vary between sites, and should be responsive to their physical, social and functional context:
 - The architecture of the stations should be of a contemporary high quality that clearly expresses function and important civic role.
 - Station entries should be of an appropriate scale, form and design to support wayfinding and accessibility while responding to the local urban environment.
 3. Locate and design aboveground infrastructure to integrate sensitively with its surroundings and to ensure the amenity and functionality of spaces it occupies:
 - Permanent infrastructure should be located outside public spaces, utilising or expanding future over site development to accommodate above ground services such as vents and emergency accesses wherever possible.
 - Respond to the setting and complement the design of adjoining buildings and open space.
 - Give each element of Metro Tunnel infrastructure in the public realm a design character appropriate to its public function, ranging from striking visual qualities for entries and other elements that people use and interact with, or that function as landmarks for wayfinding, through to recessive treatments for service facilities.
 - Minimise detrimental impacts on uses, e.g. as may result from fragmentation of spaces by physical structures, cluttering footpaths, conflicting traffic patterns (including pedestrian traffic), and noise.
 - Where fragmentation is unavoidable, design structures and spaces to support the activation and use of surrounding spaces.
- Avoid obstructing views to building frontages or important pedestrian pathways.
 - Minimise visual conflicts with significant buildings, monuments, specimen trees, open spaces and landscape vistas, especially those with a formal character that is highly sensitive to intrusions.
 - Where possible, locate aboveground utilitarian structures near to larger nearby structures and plantings (other than sensitive ones noted above) to make the new structures seem relatively insignificant by comparison.
 - Design all structures to complement and coordinate with existing nearby structures and service infrastructure, with consideration of their cumulative impact on the visual character and uses of spaces.
 - Where appropriate, minimise the visual impact of structures with screen plantings that are consistent in character with the site.
 - Provide high quality architectural and landscape solutions including the use of forms, sustainable materials, finishes and detailing that are appropriate to their uses, responsive to the context, that present well to nearby viewers.
 - Minimise inactive and blank walls visible from the public realm, especially between ground and first floor levels.
 - Maximise levels of solar access, passive surveillance and views into, through and between pedestrian routes and open spaces.
 - Integrate acoustic treatments, where required, into the form and design of structures and equipment to minimise requirements for additional noise abatement screens.
 - Minimise opportunities for, and likely damage from, graffiti and vandalism.

3. KEY DIRECTIONS FOR METRO TUNNEL

4. Design streetscapes and open spaces to integrate with their context:
 - Use furniture and material palettes that are consistent with standards and guidelines of the Cities of Melbourne, Stonnington and Port Phillip, and the University of Melbourne.
 - Use furniture and material palettes that respond to the changed context created by Metro Tunnel, including increases in pedestrian activity and heightened prominence in certain locations.
 - Designs for streetscape works should be consistent with the remainder of the affected street, including the street layout, tree planting, paving materials and detailing (unless otherwise specified for particular sites).
 - Tree species, tree densities and their locations in the road reserve (e.g. in footpaths or medians) should be consistent with relevant local plans and strategies.

d Reference Documents

- + Public Transport Precincts Policy and Guidance, (draft) Public Transport Victoria, 2015.
- + City of Melbourne Engineering Standard Drawings.²⁰
- + City of Melbourne Design Standards.²¹
- + City of Melbourne Urban Forest Precinct Plans for Kensington, Parkville, Carlton, the Central City and South Yarra.²²
- + Turning Over a New Leaf: City of Stonnington Street Tree Strategy, 2005.²³
- + City of Melbourne, Design and Construction Standards for Public Infrastructure Works in the City of Melbourne – Metro Tunnel, July 2016.

20. melbourne.vic.gov.au/building-and-development/standards-specifications/Pages/engineering-standard-drawings.asp

21. melbourne.vic.gov.au/building-and-development/standards-specifications/Pages/design-standards.aspx

22. participate.melbourne.vic.gov.au/urban-forest-precinct-plans

23. stonnington.vic.gov.au/Vision/Council-Strategies

3. KEY DIRECTIONS FOR METRO TUNNEL



The Oxford Scholar Hotel and RMIT University's Swanston Academic Building, at the corner of A'Beckett Street and Swanston Street, Melbourne (see 4.5.3). The relationship between new development and historic corner pub is very similar to the over-site development opportunity in the Cocker Alley sub-precinct at the CBD South station (see 4.6.1).

Photo: John Gollings, courtesy RMIT University

3.4 SUPPORT INTEGRATED SITE REDEVELOPMENT

In addition to works to build the stations and other aboveground infrastructure and to integrate them into public streets and park reserves, the project requires consideration of adjacent or over site building and infrastructure redevelopment — for uses other than Metro Tunnel — on sites acquired for, or affected by, construction of the Project. This includes:

- + redevelopment of the construction works site at the Western Portal
- + redevelopment of residual land acquired for the project at the Western and Eastern Portals
- + precinct-wide redevelopment at Arden, as well as potential over-site development of the station
- + adjoining integrated development at station entries within the University of Melbourne
- + redevelopment for complementary uses integrated with and above the station entries in the CBD
- + opportunities for other interfaces below ground
- + potential future improvement of South Yarra Station and South Kensington Station
- + expansion and enhancement of public open space at the Eastern Portal.

The varied locations of these development sites raise quite different coordination issues that need to be considered in their planning.

3. KEY DIRECTIONS FOR METRO TUNNEL

The sites near the Western and Eastern Portals are in brownfield industrial and suburban residential contexts, where relatively low-rise buildings are expected. Detailed planning, design and redevelopment for their ultimate uses will be dealt with separately from, and after, the design and construction of Metro Tunnel with little risk.

However, at the central city sites where it is appropriate for large buildings to be erected above some of the station entries, there are significant coordination issues — the structural capacity for over-site development above the station entry buildings, the locations of lift and service cores, access arrangements, etc. These demand the consideration of over-site development in parallel with the design and delivery of Metro Tunnel infrastructure.

Arden Station represents an intermediate situation, where higher density and relatively high-rise construction is planned but the brownfield industrial site is now relatively unconstrained by existing development. Parkville also represents a situation where future redevelopment by the University of Melbourne is likely adjoining or partially above a proposed station entry, but the coordination of structures and services is less critical as the overall building site is larger.

a Aims

Over-site development for complementary uses will be able to be fully integrated with Metro Tunnel at the two CBD stations, while opportunities for future redevelopment will be protected at the other precincts.

b Objectives

1. Maximise opportunities for land use and transport integration.
2. Capitalise on the investment in the new rail network and meet the increasing demand for well-located residential, commercial, retail, community and institutional activities.
3. Contribute to the economic vitality through appropriate land use outcomes.
4. Consider the future development potential of adjacent land and make provision for these opportunities.
5. Support activation of the public realm by incorporating appropriate uses above, within and near stations.
6. Maximise opportunities for expansion and improvement of public open spaces.
7. Consider integrating above ground structures into over site developments to minimise encumbrances on nearby streets and public spaces due to aboveground Metro Tunnel infrastructure.

3. KEY DIRECTIONS FOR METRO TUNNEL

c Design Guidelines

1. Avoid limiting future redevelopment potential of residual properties acquired for the project at the Western Portal and Eastern Portal.
2. Consider future precinct-wide redevelopment at Arden, as well as over-site development of the station.
3. Permit adjoining and potential over-site development at station entries within the University of Melbourne, either in parallel with the project or at a future date.
4. Permanent infrastructure should be located outside public spaces, utilising or expanding future over-site development to accommodate above ground services such as vents and emergency accesses wherever possible.
5. Development plans for station infrastructure should consider, and integrate with, over-site development to provide for coordinated design outcomes.
6. Consolidate infrastructure within over-site developments so as to minimise impacts on the public realm, including:
 - minimise above ground infrastructure in the public realm.
 - minimise constraints on surface features and uses in the public realm due to underground infrastructure.

7. Integrate redevelopment for complementary uses with the station entries in the CBD, including:
 - over-site development of properties acquired at the La Trobe-Little La Trobe Sub-Precinct and the Cocker Alley Sub-Precinct
 - redevelopment of the City Square underground car park
 - reconstruction of the eastern and western shards in Federation Square.
8. Not preclude possible future bridging across, decking over or development above rail cuttings at South Yarra.

d Reference Documents

- + City of Melbourne Planning Scheme.²⁴
- + City of Port Phillip Planning Scheme.²⁵
- + City of Stonnington Planning Scheme.²⁶

3.5 DESIGN TO HELP MANAGE CONSTRUCTION IMPACTS

The project requires careful consideration of its impact on the places where construction activities are located.

Construction activity for Metro Tunnel will include:

- + the construction of the permanent elements of the project, such as station entries, portals, vents and access shafts
- + temporary works associated with the relocation of existing services such as power, communications, water, gas, trams and tram stops

24. planningschemes.dpcd.vic.gov.au/schemes/melbourne

25. planningschemes.dpcd.vic.gov.au/schemes/portphillip

26. planningschemes.dpcd.vic.gov.au/schemes/stonnington

- + works staging areas, such as tunnel boring machine launch sites, administration, equipment and materials storage compounds
- + the transport of personnel, equipment and materials (especially including excavated spoil), to and from construction sites.

Construction processes need to be managed to minimise potential detrimental impacts, but design considerations are also important with respect to:

- + the potential for the end design to make construction management easier or more difficult to achieve
- + the design of hoardings, barriers and screens that, although temporary, may occupy prominent locations for extended periods
- + the planning and management of temporary provisions in nearby spaces, such as alternative access routes and activity spaces.
- + the potential for these temporary features to achieve broader objectives. These include improving visual amenity, facilitating wider engagement in the planning and design processes, creating a canvas for the creative community and the wider community to express and develop their creativity and create design icons that can contribute to the image and identity of the city.

All of the project precincts are within established urban neighbourhoods, and most are within densely developed central city precincts that accommodate mixtures of uses that are, to varying degrees, sensitive to disruption. Many of the construction sites are also within, or adjoin, heritage precincts or highly valued structures, vegetation and artworks that require protection.

a Aims

The construction of Metro Tunnel will be managed to minimise and mitigate adverse impacts on valued fabric of the city and ongoing urban activities.



Degraves Street, Melbourne. Access to service properties in some areas is limited, and conflicts between back-of-house activities and public spaces need to be carefully managed. Photo: Rodney Dekker, courtesy of City of Melbourne

3. KEY DIRECTIONS FOR METRO TUNNEL

b Objectives

1. Manage construction activities to minimise adverse impacts on the amenity, vibrancy, economic activity and universal accessibility of the surrounding city.
2. Minimise interference with ongoing uses of nearby buildings, spaces and the transport network during the construction process.
3. Protect valued features including heritage places, trees, monuments and other structures in and near construction work sites from damage.
4. Provide appropriate temporary arrangements for access, lighting, etc. where uses are affected.
5. Create opportunities associated with the construction phase for temporary uses and providing the community with information about the project.
6. Apply an appropriately high standard of design to temporary works for the project, in due proportion to the sensitivity of the location and the duration of the interventions.

c Design Guidelines

1. Maintain circulation and transport operations during the construction process:
 - Redirect pedestrian and cyclist movements as necessary to ensure safe access around construction work sites, businesses and properties immediately adjacent to construction work sites.
 - Provide for universal access, amenity, and safety.
 - Provide for emergency and maintenance access, deliveries, access for construction projects on nearby sites, and public events.

- Provide temporary bus and tram stops, including shelters, where appropriate.
 - Provide awnings for weather protection, where appropriate.
 - Provide directional signage and temporary signs for businesses and properties obscured by construction activities.
2. Protect the viability of, and amenity for, activities at and near construction work sites:
 - Apply principles of Crime Prevention Through Environmental Design to arrangements of access routes, hoardings and other features during the construction period.
 - Ensure that the location of temporary works sites and temporary infrastructure requirements align with future land use renewal, public realm activation and uplift opportunities.
 3. Protect features from damage:
 - Where existing trees are to be retained, avoid damage to their canopies and minimise soil compaction and excavation within root zones. Where damage to existing canopies is likely, undertake advance pruning. Where damage to existing roots is likely, provide appropriate arboricultural care in preparation for and during construction including advanced root pruning and irrigation.
 - Protect, relocate, reinstate or upgrade underground and overhead services as appropriate.
 - Protect and / or temporarily remove, restore and reinstall monuments and artworks.
 - Conserve, salvage and reuse materials where possible and appropriate including bluestone kerbs and cobblestones, street furniture, etc.

3. KEY DIRECTIONS FOR METRO TUNNEL

4. Maintain an attractive presentation to surrounding areas:
- Provide enclosures, hoardings and screens that are designed to respond to the predominant viewing distance and types of activity they are exposed to (e.g. addressed to nearby pedestrians or to motorists at a distance).
 - Design all enclosures, hoardings, screens and other temporary features to create a positive visual presentation to prominent sites, busy pedestrian areas and key tourism precincts.
 - Design enclosures, hoardings, screens and other temporary features with increasing quality in proportion to the time they will be present.
 - Design all temporary elements to respect the character of their setting, to ensure a neat appearance throughout the construction process, to assist in minimisation of graffiti, bill-posting and other unauthorised advertising, and to include consistent project branding.
 - Provide opportunities to convey information about the history of the site and the Metro Tunnel to the community including explanation of the project objectives, scope of works, construction impacts, innovations and progress.
 - Design to allow for temporary uses, programs of events, and pop-up public spaces to offset the impact of construction activities, including temporary parks, outdoor dining areas, pop-up markets and community arts / music festivities.
 - Recognise the potential of acoustic sheds, in particular those at CBD North, CBD South and Domain to be designed to contribute to the image and identity of the city.

d Reference Documents

- + City of Melbourne Urban Forest Tree Protection Guidelines.
- + Melbourne Metro Rail Authority Creative Strategy.

3. KEY DIRECTIONS FOR METRO TUNNEL

3.6 DESIGN FOR THE FUTURE

The Melbourne City Rail Underground was opened in 1980, dramatically expanding the area of the CBD serviced by the metropolitan rail system. Swanston Street was closed to private vehicular traffic in 1991 and improved as a pedestrian, cyclist and tram thoroughfare, connecting the city rather than splitting it in two as the stream of car and truck traffic along it had previously. Each of these enabled a dramatic shift in the city's economic growth, liveability and increasing use of sustainable transport options.

Like those earlier projects, Metro Tunnel will shape how the city develops and how people live and work in it. Melbourne is Australia's fastest-growing city. With our growing population and congested public transport system, Metro Tunnel is the vital to the future expansion of Melbourne's rail network and, more importantly, the city's future liveability and prosperity.

Improved sustainable transport solutions, with connected and integrated urban design outcomes, combined with efficient and sustainable construction and operational functionality, will provide a legacy of enduring infrastructure that reflects best international practice. MMRA is committed to ensuring excellent environmental, social and economic outcomes are achieved across the project, adopting the Triple Bottom Line approach with commitment to incorporate best practice initiatives and innovative solutions.

a Aims

Metro Tunnel will be designed to:

- + Accommodate population growth and changing community and transport needs.
- + Ensure resilience to predicted climate change and associated weather events.
- + Create manageable infrastructure and places.
- + Support a wide range of sustainability targets throughout the project lifecycle.

b Objectives

1. Ensure that infrastructure and spaces are durable, hard wearing and easy to maintain.
2. Ensure that infrastructure and spaces are resilient to climate change and associated sea level rise and extreme weather events.
3. Improve the quality of the urban environment, including tree planting to mitigate the urban heat island effect.
4. Contribute to habitat and biodiversity values.
5. Minimise long-term constraints on the use, layout and character of spaces above Metro Tunnel due to potential conflicts with underground structures.
6. Minimise risks of damage to Metro Tunnel infrastructure due to heavy vehicle loadings, possible future works and maintenance activities.
7. Embed sustainable initiatives, use energy and resources efficiently and incorporate renewable technologies.

3. KEY DIRECTIONS FOR METRO TUNNEL

c Design Guidelines

1. Anticipate growth of Melbourne's population and future changes in activity patterns and development in response to the new Metro Tunnel services:
 - Reinstate or redesign open spaces and infrastructure to a standard that responds to heavier pedestrian traffic, heightened public profile and other changes that will be generated by Metro Tunnel, e.g. through the use of higher standards of materials and finishes, more robust surfaces, widened footpaths, etc.
 - Design to maximise long term flexibility in the management of, and options for improvement, of nearby spaces and infrastructure.
2. Although MMRA will take possession of various areas to enable construction of Metro Tunnel, many of these will revert to other owners or managers after construction is completed. Management requirements after this handover must be supported by the design:
 - Streets, spaces and assets that will be managed and maintained by a particular agency must be designed to the satisfaction of that agency.
 - Boundaries between areas and assets included in the project area and scope of works, but which are ultimately to be managed by other agencies, must be delineated and the implications of that long-term management responsibility must be reflected in the design.
 - Facilities that are managed through separate contractual processes (e.g. the City of Melbourne's self-cleaning public toilets) should, where possible, be maintained as discrete elements enabling clear demarcation of responsibilities.
3. Allow for long-term flexibility in the uses of public spaces and in the provision of facilities and services:
 - Notwithstanding the requirement for an integrated design approach, take a cautious approach in the creation of any multifunction structures — e.g. co-locating public toilets and emergency access shafts, or recreational structures and vents — in situations where demands in relation to one function are likely to vary over time but adaptive redesign may be constrained by requirements of the other function.
 - Design underground structures at any location in road reserves, parkland and other public spaces to withstand vehicular loadings as appropriate to a trafficable roadway, regardless of current carriageway layouts.
4. Support the healthy growth of canopy trees throughout parks, streets and other open spaces, and allow for the potential to plant and replant over the long-term with minimal constraints:
 - Locate underground structures at sufficient depth below the finished ground level to support healthy root systems of large canopy trees over the long-term, including provision of reserves of soil moisture to sustain trees in periods of drought and extreme heat.
 - Where underground structures must be at relatively shallow depths below the existing surface, give consideration to wholesale elevation of the finished surface to help achieve satisfactory depth of cover (within constraints relating to issues such as provision for accessibility and drainage, and protection of landscape character and heritage fabric).
 - Areas over structures where soil volumes are unavoidably too shallow to ensure long-term tree health should be designed to be successful without trees, making other provisions for shade, shelter and greening.

3. KEY DIRECTIONS FOR METRO TUNNEL

- Any new or relocated underground services should, if possible, be clustered into compact corridors and away from likely areas of planting.
 - Overhead power or telecommunication lines should be placed underground where possible to avoid interference with tree canopies.
5. Create robust and durable landscapes:
- Select plants with consideration of climate, microclimate and likely climate change.
 - Design to ensure resistance to wear due to intensive use of urban spaces and potential vandalism.
 - Minimise requirements for irrigation while ensuring appropriate landscape qualities and amenity of public spaces.
 - Design to suit relatively low-level maintenance regimes without reliance on a high level of horticultural skill.
6. Respond to changing climate and microclimate conditions to improve thermal comfort and create enjoyable places for use throughout the year:
- Incorporate climate change adaptation measures.
 - Use trees and awnings to provide shade and shelter and to mitigate the urban heat island effect.
 - Minimise tree loss as a result of construction.
 - Replace trees removed as a result of the project to improve existing landscape character and biodiversity and contribute to increased tree canopy coverage and species diversity.
7. Integrate water-sensitive urban design initiatives:
- Incorporate rainwater collection, treatment, storage and re-use systems.
 - Maximise the proportion of stormwater from within the project area that is treated, evaporated or retained within the project footprint.
 - Use permeable surfaces where possible to allow rainwater infiltration and passive irrigation.

3. KEY DIRECTIONS FOR METRO TUNNEL

8. Practice sustainable use of materials and resources:

- Use durable, high performance materials and finishes that are designed for the long-term and align with land managers' requirements.
- Use sustainable materials with low embodied energy or lifecycle impacts.
- Avoid and minimise waste and recycle where possible.
- Use rainwater harvesting and passive irrigation to support plantings.
- Apply energy efficient and renewable technologies in the design.

d Reference Documents

- + Total Watermark - City as a Catchment Strategy. City of Melbourne, 2014.²⁷
- + Zero Net Emissions Strategy. City of Melbourne, 2014 update.²⁸
- + Urban Forest Strategy: Making a Great City Greener 2012-2032. City of Melbourne.²⁹
- + Urban Forest Diversity Guidelines. City of Melbourne, 2011.³⁰

27. melbourne.vic.gov.au/about-council/vision-goals/eco-city/pages/total-watermark-city-catchment-strategy.aspx

28. melbourne.vic.gov.au/about-council/vision-goals/eco-city/Pages/zero-net-emissions-strategy.aspx

29. melbourne.vic.gov.au/community/parks-open-spaces/urban-forest/pages/urban-forest-strategy.aspx

30. melbourne.vic.gov.au/community/parks-open-spaces/urban-forest/pages/urban-forest-strategy.aspx

4. PRECINCT-SPECIFIC DESIGN ISSUES

Hosier Lane, Melbourne.
Photo: courtesy City of Melbourne

4. PRECINCT-SPECIFIC DESIGN ISSUES

This section of the Urban Design Strategy addresses site-specific issues for locations where Metro Tunnel will involve works at or above the ground surface. These guidelines are to be read in conjunction with previous sections of the report.

The precincts are as defined in other Metro Tunnel documentation. Most relate to the five stations and two portals, and are numbered sequentially from northwest to southeast along the overall route. Precinct 1 – the tunnels – includes other works scattered along the length of the project that fall outside of the project boundaries for the station and portal precincts. Precinct 9 – the proposed Western Turnback – is located well outside the tunnel zone.

For each precinct this section includes:

- + a brief description of the project works in the precinct
- + reference documents that provide urban design background information and guidance for the precinct and / or sites within it
- + key objectives relating specifically to the precinct
- + more detailed description of specific sites in the precinct and key issues relating to the project
- + site specific design guidelines, commencing with a brief statement of the overarching ambition for the site.



4. PRECINCT-SPECIFIC DESIGN ISSUES

4.1 PRECINCT 1: TUNNELS

This precinct includes the alignment of the twin tunnels between the Western Portal at Kensington and the Eastern Portal at South Yarra. Aboveground elements are likely to include:

- + intervention shafts for emergency access at Fawkner Park and the Domain Parklands
- + tunnel boring machine (TBM) launch sites at Domain and (potentially) Fawkner Park. These will be a temporary construction compounds for four to five years.

4.1.1 DOMAIN PARKLANDS EMERGENCY ACCESS SHAFT AND TUNNEL WORKS

a Relevant Metro Tunnel Scope

An emergency access shaft may be required for emergency access to the tunnels, and if required would be located above the tunnels approximately midway between the CBD South and Domain stations; the position along the tunnel route is also related to operational segments of the train system. The shaft includes an aboveground structure to house the entry to a lift and stairwell, and requires vehicular access for emergency servicing. While the permanent structure will be relatively small in area, a larger temporary works site around the shaft is necessary.

The Concept Design locates a shaft site on the north side of Linlithgow Avenue, near the King Edward VII Memorial and an existing public toilet. An alternative site has been considered, further south in the area known as Toms Block between St Kilda Road and Linlithgow Avenue, near the Police Memorial.

Metro Tunnel tunnels may follow either a shallow or deep alignment option through Tom's Block. The shallow option may require the removal of several trees and relocation of monuments in the area in order to undertake works to stabilise ground conditions near the CityLink Tunnels. No aboveground Metro Tunnel structures would remain after the works are completed, but soil reinforcement works could limit new tree planting.

b Context

The Domain Parklands are listed on the Victoria Heritage Register. Described as a 'patchwork of reserves', the landscape character and sensitivities to intrusions varies from place to place.

The area of the King Edward VII Memorial and floral clock is part of an iconic postcard image of Melbourne, and prominent in one of Victoria's most important cultural and tourism precincts. The landscape here includes raised and carefully shaped earthworks that are an intrinsic part of the monument's formal design. The principal view of the composition is from St Kilda Road, but the equestrian statue is visible in the round, with important secondary views from Linlithgow Avenue.

The area called Tom's Block is a sloping lawn dominated by large trees and a number of civic monuments addressed to St Kilda Road. The composition is informal, but the landscape is open and exposed to views from all directions.

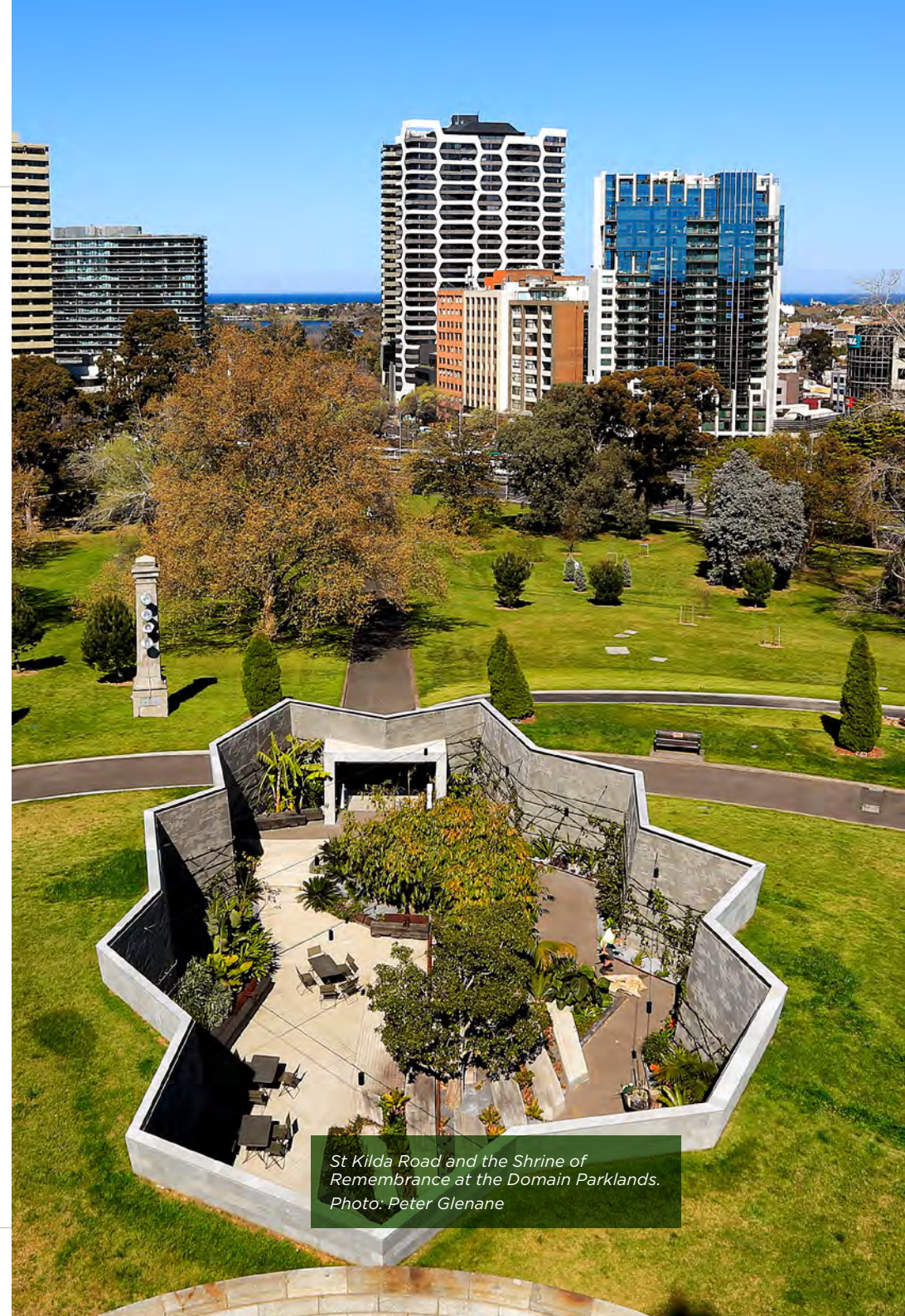
The City of Melbourne has been working to create a safe cycling route away from the Yarra River as an alternative to the congested pedestrian area along Southbank Promenade; current plans for works in Southbank Boulevard are part of this strategy. Future improvement of bike lanes along Linlithgow Avenue will form a vital component of this route, linking Southbank Boulevard to bike paths along the Yarra, and VicRoads identifies this part of Linlithgow Avenue as a bicycle priority route .

c Aims

There will be minimal long-term impact on the valued uses, character, amenity and heritage values of the Domain parklands due to the Metro Tunnel emergency access shaft and tunnel construction.

d Objectives

1. Minimise impacts on landscape character, structures and vegetation.
2. Minimise conflicts with park uses and with existing and proposed walking and cycle routes.
3. Minimise intrusion into sensitive views, and fragmentation of open landscape spaces.



*St Kilda Road and the Shrine of Remembrance at the Domain Parklands.
Photo: Peter Glenane*

4. PRECINCT-SPECIFIC DESIGN ISSUES



*Domain Interchange, Melbourne.
Photo: Peter Glenane*

e Design Guidelines

If the emergency access shaft is located near the King Edward VII Memorial:

1. Create an integrated design using landform, plantings and built elements of the emergency access shaft to form a recessive backdrop for the Edward VII Memorial and that complements the memorial's wider landscape setting.
2. Minimise the height and bulk of aboveground structures, in particular any elements higher than ground level adjacent to the Edward VII Memorial.
3. Keep clear of the shared path on the north side of Linlithgow Avenue.
4. After construction, reconstruct Linlithgow Avenue to allow for City of Melbourne plans for access improvements (generally as illustrated in 'Proposed Road Closure, Linlithgow Avenue, Domain Parklands,' City of Melbourne City Design Division, project no. 901894, drawing no. L01, September 2011.)

If the emergency access shaft is located in Tom's Block:

5. Respect the character of, cultural significance of, and views to existing memorials.
6. Create a form that presents well when viewed in the round.
7. Use recessive finishes and colours to avoid distracting from nearby monuments.

If any surface works for tunnel construction occur in Tom's Block:

8. Reinstate the existing character of gently sloping lawns with specimen trees.
9. Avoid preventing the future installation of a new path extending the King George V avenue to St Kilda Road, as proposed in the 2007 Domain Parklands Master Plan (generally as illustrated in 'King George V Avenue Extension, Kings Domain,' City of Melbourne City Projects Division, Project No. 903197, Drawing no. SD01, 2012.)

f Reference Documents

- Domain Parklands, Victorian Heritage Database Report.³¹
- Domain Parklands Master Plan, City of Melbourne, 2007.³²

31. vhd.heritagecouncil.vic.gov.au/places/165951/download-report

32. melbourne.vic.gov.au/SiteCollectionDocuments/domain-parklands-master-plan.pdf

4. PRECINCT-SPECIFIC DESIGN ISSUES

4.2 PRECINCT 2: WESTERN PORTAL (KENSINGTON)

The proposed Western Portal is south of JJ Holland Park, with the new Metro Tunnel tracks connecting to existing lines near the Maribyrnong River and the tunnel entry near South Kensington station.

4.2.1 HOBSONS ROAD MIXED USE PRECINCT

a Relevant Metro Tunnel Scope

A major construction work site is proposed on a former industrial site west of Kensington Road, near the Western Portal.

b Context

The site is part of the 'Hobsons Road Mixed Use Precinct' under an Incorporated Plan Overlay (IPO2) in the Melbourne Planning Scheme. It is anticipated as an area of future redevelopment for residential and commercial uses.

c Aims

The Hobsons Road Mixed Use Precinct will be redeveloped in accordance with existing planning controls at some time after completion of Metro Tunnel.

d Objectives

1. Support future mixed use redevelopment of the site.

e Design Guidelines

1. Leave the site in a condition with no added constraints to its future redevelopment, beyond those existing at present.

f Reference Documents

+ City of Melbourne Planning Scheme, Hobsons Road Precinct Incorporated Plan, March 2008.³⁵

4.2.2 JJ HOLLAND PARK INTERFACE

a Relevant Metro Tunnel Scope

The decline structure for the Western Portal will be north of existing rail lines along the south edge of JJ Holland Park, and will displace the shared path and perpendicular parking at the south side of Childers Street, as well as a large hedge that screens the rail embankments. It will also require relocation of high voltage transmission towers (to new positions primarily south of the rail lines, crossing back to the north side of the tracks west of Kensington Road), the widening of the embankment on the west side of Kensington Road (to accommodate new tracks) and a new rail overpass of Kensington Road.

b Context

JJ Holland Park provides one of few locations for active sports in the Kensington and Flemington neighbourhoods and is used by local schools and sports clubs, as well as being the most substantial green space for passive recreation in the area. Housing directly abuts

35. [dsewebapps.dse.vic.gov.au/Shared/ats.nsf/\(attachmentopen\)/BD32696EE6107BA7CA2579F9000376FF/\\$File/Melbourne+C124+Incorporated+Document+Hobsons+Road+Precinct+Incorporated+Plan+March+2008+Approval+Gazetted.pdf?OpenElement](https://dsewebapps.dse.vic.gov.au/Shared/ats.nsf/(attachmentopen)/BD32696EE6107BA7CA2579F9000376FF/$File/Melbourne+C124+Incorporated+Document+Hobsons+Road+Precinct+Incorporated+Plan+March+2008+Approval+Gazetted.pdf?OpenElement)

the project site near South Kensington station, with an industrial zone to the east of that. Childers Street provides access to this industrial area and the station; traffic calming measures and local road closures limit access from other directions. Childers Street also forms part of an important east-west corridor for commuter cycling.

Sports groups using facilities in JJ Holland Park rely on the car parking along Childers Street. Patrons of Kensington South Station use these parking spaces at other times. The north side of Childers Street is lined with a row of mature Casuarinas that make a valuable contribution to park amenity. There is a gravelled jogging path north of that, which forms a circuit within the park. The alignment of this path now requires a slight deviation to avoid the Bill Vanina sports pavilion, resulting in limited sightlines at a location of conflicting cross-traffic.

The new rail overpass at Kensington Road will adjoin the existing overpass structures south of the intersection with Hobsons Road.

c Aims

The Western Portal and associated infrastructure will be designed and built to:

- minimise impacts on the accessibility, use, character and amenity of JJ Holland Park,
- maintain the functionality of the east-west cross-city cycle route that follows Childers Street through this area,
- respond to views of the new rail infrastructure along Kensington Road, and
- ensure that new rail structures minimise the visual impact on surrounding areas.



*BMX track at JJ Holland Park, Kensington.
Photo: Peter Glenane*

4. PRECINCT-SPECIFIC DESIGN ISSUES

d Objectives

1. Avoid physical encroachment into JJ Holland Park.
2. Minimise visual impacts on the park and surrounds.
3. Maintain a safe east-west commuter cycling link through the area.
4. Maintain local vehicular access to the industrial precinct east of the station.
5. Provide car parking for park users.
6. Provide bicycle parking for station users.
7. Enhance the streetscape appearance and amenity for motorists, pedestrians and cyclists in Kensington Road.

e Design Guidelines

1. Generally maintain the northern kerb of Childers Street at its existing alignment.
2. Minimise physical encroachment of new rail infrastructure into Childers Street:
 - Use vertical retaining walls to support Metro Tunnel tracks, both where on a raised embankment and in a cutting.
 - Design walls and screens to prioritise preservation of space for greening and travel along Childers Street over decorative effects that increase the structure's bulk.

3. Design walls, fencing and acoustic screens facing JJ Holland Park to be visually recessive, to present a high quality finish, and to deter graffiti.
4. Provide planted screening of railway infrastructure south of Childers Street.
5. Minimise excavation within the root zone of existing trees along the north side of Childers Street and protect the trees from damage during construction.
6. Provide a continuous and east-west bicycle route connecting Kensington Road and Ormond Street, designed to minimise conflicts with park uses, to minimise conflicts between cyclists and vehicles, and to minimise potential safety issues resulting from limited sightlines and cross traffic near the Bill Vanina sports pavilion.
7. Design the overpass of Kensington Road to present a high quality finish, to present well in both distant and nearby views, to ensure a high standard of visibility and lighting to paths below it, and to deter graffiti.

f Reference Documents

- + JJ Holland Park Concept Plan, City of Melbourne, 2008.³⁶

³⁶. melbourne.vic.gov.au/SiteCollectionDocuments/concept-plan_jjholland.pdf

4.2.3 SOUTH KENSINGTON STATION ENTRY (ORMOND STREET TO TENNYSON STREET)

a Relevant Metro Tunnel Scope

The portal will be west of the South Kensington station entry, maintaining station access at its existing location.

The tunnel construction east of the portal requires acquisition of one property north of Childers Street and east of Ormond Street. The full extent of the acquired site may not be required for railway purposes in the long-term.

Childers Street will also be demolished and rebuilt in this area, to varying extents depending upon the option.

b Context

Metro Tunnel will not be operationally linked to South Kensington station.

Vehicular access from Kensington Road via Childers Street is required to service the industrial precinct east of the station area. Childers Street is also part of a major east-west cycling route across the inner city.

The residential area affected by the project is subject to a Heritage Overlay in the Melbourne Planning Scheme.

There is a slope upwards from the station entry towards the northeast, and the slope at the southern end of the laneway between Ormond and Tennyson streets is especially steep. This laneway is blocked to vehicular access at its south end by bollards.

c Aims

Metro Tunnel works will be integrated with the entry to South Kensington station and surrounds to enhance access and amenity.

d Objectives

1. Provide safe and functional access to South Kensington station.
2. Maintain a safe east-west commuter cycling link through the area.
3. Maintain local vehicular access to the industrial precinct east of the station.
4. Provide car parking for park users.
5. Provide bicycle parking for station users.
6. Support redevelopment of disturbed properties after construction of the project.

4. PRECINCT-SPECIFIC DESIGN ISSUES

e Design Guidelines

1. Architecturally integrate Metro Tunnel structures in the area with the entry to South Kensington station.
2. Contribute to visibility of the station entry, without dominating views from JJ Holland Park or visually overwhelming the scale of nearby houses.
3. Provide a forecourt to the station entry incorporating seating, lighting, bicycle parking, and car parking for JJ Holland Park users.
4. Provide canopy tree planting along the frontage to the rail corridor east of the station entry, to provide shade and visual screening.
5. Any re-alignment or widening of Childers Street at the station forecourt must resolve relationships between the new street and forecourt levels and sloping levels of intersecting streets, lanes, footpaths, and adjoining properties, to ensure accessibility and safety.
6. Maintain safe bicycle access through the area, arranged to minimise conflicts with pedestrians and car parking manoeuvres.
7. Investigate opportunities to provide additional green space at the southern end of Ormond Street, while allowing vehicular access to all adjacent properties.
8. Avoid creating encumbrances upon future medium density residential infill development of remnants of the acquired properties at the northwest of the Childers Street / Tennyson Street intersection.

4.3 PRECINCT 3: ARDEN STATION

a Relevant Metro Tunnel Scope

Arden station comprises an underground station box with connections to the surface for public access, emergency access, ventilation and servicing. Most aboveground station-related structures will be located above the station box.

In addition to construction of the station, the surrounding publicly owned (VicTrack) land will be the major staging area for Metro Tunnel's western section works. A new or upgraded electricity substation to provide power to the tunnels and stations is also proposed in the precinct.

b Context

The site is part of a fourteen hectare VicTrack property now leased for industrial and warehouse uses, on low-lying ground near Moonee Ponds Creek. Future redevelopment of the site as a high-density mixed-use urban precinct is planned. The new station and the planned redevelopment will complement and facilitate intensified land use in the surrounding Arden-Macaulay Precinct, which the City of Melbourne has identified as a major urban renewal area.

The Metropolitan Planning Authority's envisages Arden as a distinctive new central city destination, building on Melbourne's global competitiveness. It will provide a legacy for Melbourne and Victoria through a diversified economic base and investment potential with residential and leisure uses, new sustainable urban environments and thriving communities and public spaces. Arden will be linked to the west, the CBD and Australia's premier knowledge cluster at Parkville via high-capacity transport.

4. PRECINCT-SPECIFIC DESIGN ISSUES

The station design will need to be integrated with the redevelopment proposals for the entire site to maximise benefits. The day one station entrance will require a sophisticated design response to ensure presence, ease of access, legibility and connectivity.

The design needs to consider the flood-prone nature of the VicTrack site and surrounding areas, taking note of the existing Land Subject to Inundation Overlay, overland flood paths, and predicted future increases in flood levels and frequencies due to climate change. This issue applies throughout the VicTrack site. If the Metro Tunnel station is built ahead of this wider redevelopment it is likely that interim arrangements, such as provisions for access to station entries that are elevated relative to the existing surroundings, may need to be altered in relation to later works.

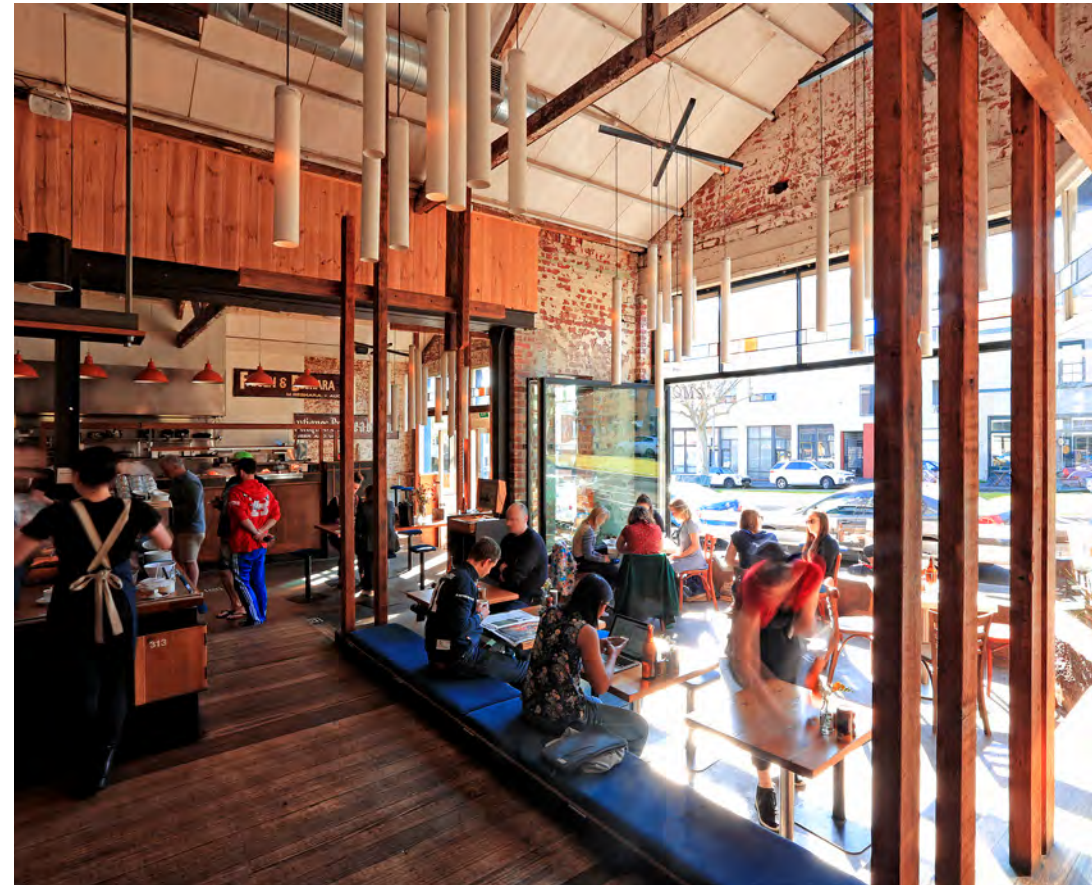
Moonee Ponds Creek is generally separated from the Metro Tunnel works by rail lines, but one of the substation site options lies between the railway and creek. Historically, the creek has been damaged as a result of its industrial history but significant effort has been made to improve access and restore its environmental values. There is now an important bike path along the creek. The riparian environment is rare in the City of Melbourne, and while degraded, still provides an important habitat for some native species.

c Aims

Arden station will act as a catalyst for redevelopment of the precinct.

In the short-term, the entry to Arden station will be set in an open space that provides access for the population working and living in surrounding neighbourhoods.

In the future, Arden station will be incorporated as a focal point of the intensive transit-oriented mixed-use development of the VicTrack site and the Arden-Macaulay Precinct as a whole.



*Cafe culture near Arden Street, North Melbourne.
Photo: Peter Glenane*

4. PRECINCT-SPECIFIC DESIGN ISSUES

d Objectives

1. Use the station design to facilitate a significant urban renewal precinct.
2. Address issues of flooding on the site and protect the station from inundation.
3. Facilitate the future intensive redevelopment of the publicly owned (VicTrack) land.
4. Allow for the integration of the station with future over-site development and redevelopment of surrounding areas.
5. Provide a high standard of amenity at and near the station before and during any wider redevelopment of the site.
6. Support the revitalisation of the Moonee Ponds Creek environs as a recreational and environmental corridor.

e Design Guidelines

1. The design of Metro Tunnel must create inviting, safe and comfortable conditions that support use of the station before and during any wider redevelopment of the site.
 - Create a station building and associated open space of high design quality that integrates with and serves as a benchmark for surrounding development.
 - Provide temporary hoardings, fencings, screens and plantings of fast-growing trees to provide amenity and shelter for public spaces near the station entry.
 - Protect the station and other Metro Tunnel infrastructure from flooding and ingress of water, while providing for access from existing nearby street levels and allowing for adaptation in response to future new development.

2. The new station and future redevelopment of the publicly owned (VicTrack) land must be integrated with surrounding areas, ensuring high levels of accessibility between the station and nearby land uses.
 - Ensure that the station and infrastructure align with the directions of the Arden Framework Plan.
 - Minimise the land area occupied by Metro Tunnel infrastructure in order to maximise the potential for future redevelopment on surrounding sites.
 - Enable future vertical loading for a mixed-use building above the station.
 - Allow for future extension of nearby streets into the site and make provision for future new station entrance(s) connecting to these.
 - Upgrade Laurens Street between Queensberry Street and Arden Street to provide a pedestrian friendly environment with improved bike lanes, taxi rank, and limited parking.
 - Upgrade Barwise Street to provide a pedestrian friendly environment, and improved access to the new station.
 - Ensure a high degree of visual prominence for the station and its public realm to assist with wayfinding.
3. Any works near Moonee Ponds Creek should:
 - Create an attractive interface with the shared path.
 - Minimise disruption or damage to habitat that supports endangered or threatened species.
 - Protect the corridor's environmental and recreational values.

f Reference Documents:

- + Arden-Macaulay Structure Plan. City of Melbourne, 2012, p. 86.

4.4 PRECINCT 4: PARKVILLE STATION

Parkville station comprises an underground station box with connections to the surface for public access, emergency access, ventilation and servicing. The station box is located below Grattan Street east of Royal Parade and a number of ventilation shafts will also be required in Grattan Street near University Square. Most other aboveground structures will be located outside of this footprint, including public entries within the University of Melbourne campus and in Grattan Street west of Royal Parade, ventilation and service structures.

Parkville is identified as a National Employment Cluster in *Plan Melbourne*. The precinct includes a cluster of hospitals and related biomedical facilities, and the University of Melbourne — which has expanded southward well beyond its traditional campus north of Grattan Street. Existing public transport services through the area include trams along Royal Parade and buses in Grattan Street. A new transport interchange in this location will be the entryway to a nationally significant employment precinct.

4.4.1 ROYAL PARADE

a Relevant Metro Tunnel Scope

Entries to the station will be located at the northeast and southwest corners of the intersection of Royal Parade and Grattan Street. While the entries themselves will be outside of the corridor of Royal Parade, a pedestrian subway below Royal Parade will link at a relatively shallow depth from the station box to the southwestern entry.



*The VCCC building on the corner of Grattan Street and Royal Parade.
Photo: Peter Bennetts*

4. PRECINCT-SPECIFIC DESIGN ISSUES

b Context

Royal Parade is listed on the Victorian Heritage Register and is notable for its formal boulevard layout and planting of mature elms. It is sensitive to visual impacts of new structures as well as to potential damage to trees during construction.

A tram super stop is proposed in Royal Parade to provide universal access and improved safety, and to facilitate exchanges with Metro Tunnel services.

c Aims

Royal Parade's heritage values and landscape character as one of Melbourne's iconic, tree-lined formal boulevards will be protected and restored.

d Objectives

1. Create an integrated transport interchange between Metro Tunnel and tram services in Royal Parade.
2. Protect heritage and civic qualities of Royal Parade.

e Design Guidelines

1. Retain and protect existing trees along Royal Parade.
2. Where tree removal is unavoidable, plant new trees in the same locations, creating favourable growing conditions with soil preparation throughout the anticipated root zone.
3. Design any aboveground Metro Tunnel structures located within Royal Parade to minimise their visual bulk or solidity, especially for elements at or above eye level.
4. Integrate with the proposed tram super stop in Royal Parade.

4.4.2 GRATTAN STREET

a Relevant Metro Tunnel Scope

Cut and cover construction is proposed for the station, requiring demolition and reconstruction of Grattan Street within the project area to a new design that incorporates the station entries along Grattan Street and a number of ventilation structures.

b Context

Grattan Street is important as an east-west traffic route, a bus route and as part of a major east-west bicycle route. It is also a busy pedestrian area, with large numbers of crossings associated with the university and hospitals. These pedestrian numbers will increase with opening of the Metro Tunnel station.

The University of Melbourne's Carlton Connect Initiative — aimed at creating Australia's largest sustainability and innovation hub — will see higher density redevelopment of the former Royal Women's Hospital site at the northeast corner of Swanston and Grattan streets, which will also add to activity in the area. This redevelopment is expected to commence in the near future.

The City of Melbourne's Walking Plan 2014-2017 recommends that Grattan Street between Flemington Road and Swanston Street should be improved and managed as a high-mobility walking street, that:

- + is shared by trams, buses, bicycles and pedestrians
- + provides a high-frequency public transport corridor but otherwise has a low-traffic function
- + supports significant interchange between the public transport, cycling and walking networks.

The City of Melbourne has undertaken tree condition surveys in Grattan Street. Many of the existing trees are senescent. Those along the frontage of University Square have already died and been removed. Most trees in the project area are due for replacement during or shortly after the planned construction period, regardless of the project design.³⁷

Reconstruction of the street should be to a new design that better caters for current and future transport needs including pedestrians, buses, and bicyclists.

Whilst the project directly affects only the area west of Leicester Street, a consistent design approach is appropriate for the length of Grattan Street between Royal Parade and Swanston Street. Similar issues — including the need for continuity of bus and bike routes — also apply to Grattan Street west of Royal Parade.

c Aims

Grattan Street will be a transport spine for the City North, University and Biomedical precinct, with priority given to active transport modes and intermodal transfers, and to the creation of an activated and people oriented public realm.

d Objectives

1. Use the new station to catalyse a new civic heart for the City North, University and biomedical precinct.
2. Enhance Grattan Street as a public transport, pedestrian and cycling corridor, including facilities for interchanges between Metro Tunnel and bus services.
3. Enhance the amenity of Grattan Street with new canopy trees and upgraded lighting, paving and furniture.

e Design Guidelines

1. Consider stakeholder requirements for Grattan Street between Flemington Road and Swanston Street, and ensure the potential for integration of works in the project area with future improvements by others beyond the project area.
2. Minimise the carriageway width while providing for local vehicular traffic and appropriate kerbside space for bus stops, loading, taxis, and emergency vehicles including ambulances (especially but not only in the block west of Royal Parade).
3. Provide dedicated bike lanes in each direction, either on street or with separation from motor vehicles and pedestrians.
4. Relate footpath width to station entries and pedestrian flows.
5. Provide clear pedestrian circulation space along the building frontages on both sides of the street, preferably wider than is currently provided.
6. Provide passenger waiting areas and shelters at bus stops.
7. Include new plantings of large canopy trees.
8. Widen signalised pedestrian crossings, potentially with carriageway pavement levels flush with footpath levels to improve accessibility near University Square.
9. Maintain access and sightlines to all building entries.

³⁷. melbourneurbanforestvisual.com.au/#mapexplore

4. PRECINCT-SPECIFIC DESIGN ISSUES

4.4.3 UNIVERSITY OF MELBOURNE INTERFACE WITH GRATTAN STREET

a Relevant Metro Tunnel Scope

Two entries for Parkville station will be located within the university campus, one at the northeast corner of Royal Parade and Grattan Street and adjoining the 'Tri-Radiate' and Howard Florey medical buildings, and the other opposite Barry Street, between the Gatekeeper's Cottage and the Tri-Radiate building.

b Context

Gate 10 to the university aligns with the formal central axis of the campus and is important for ceremonial and heritage reasons. The gate also faces across Grattan Street to University Square, making a formal connection to the wider city.

The University of Melbourne has been planning to improve connectivity and integration of the traditional campus with Grattan Street and areas to the south through the redevelopment of some university buildings, rationalisation of vehicular access into the campus, and improvement of pedestrian access routes and spaces.

The university also plans to redevelop buildings in the biosciences zone of its campus, including the Tri-Radiate building to the northeast of the intersection of Royal Parade and Grattan Street, adjoining the station box under Grattan Street and one of the entries. This reconstruction project may occur during the construction period for Metro Tunnel. One of the options under consideration is the potential to connect directly from the station into the basement levels of the new building.

c Aims

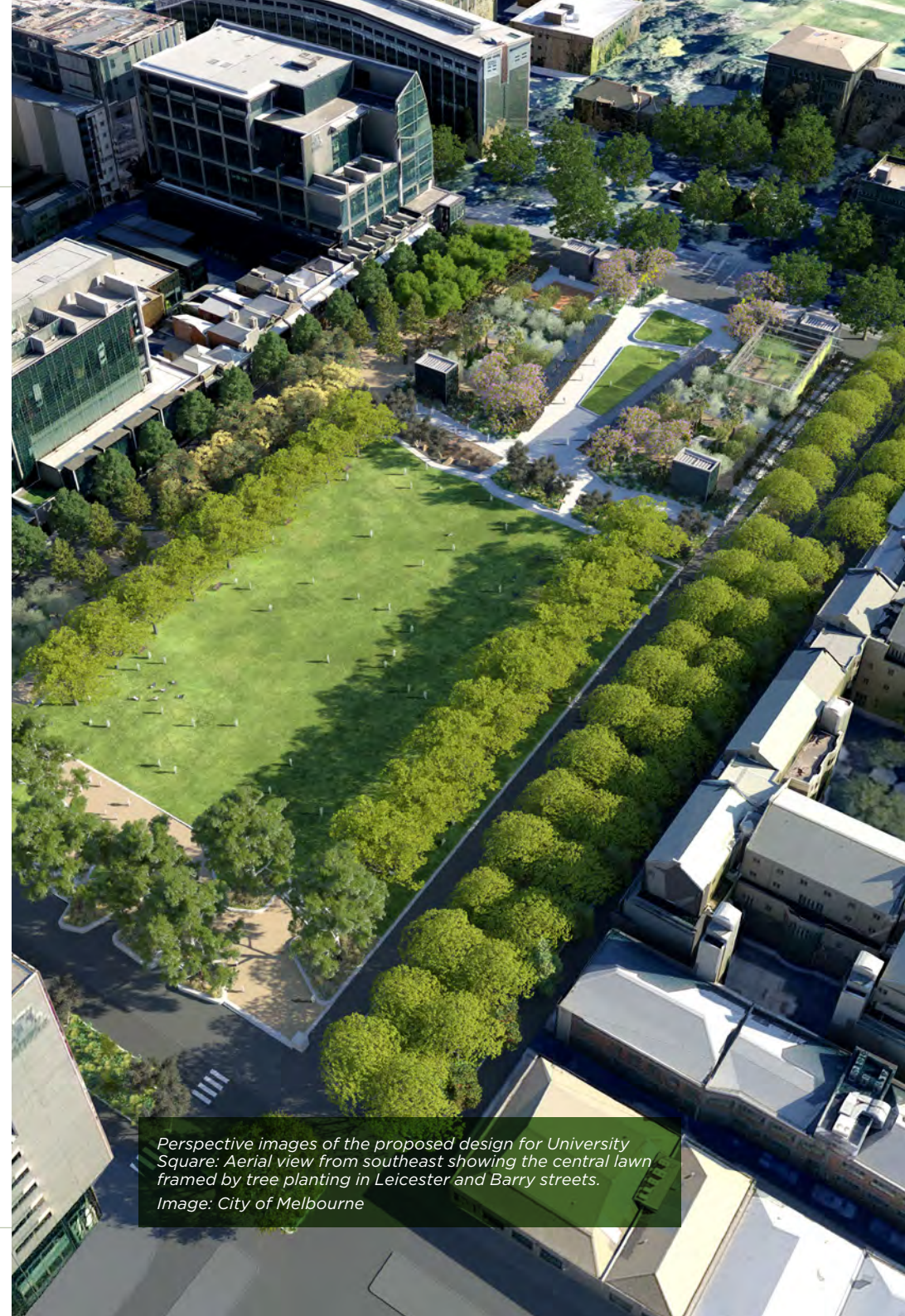
The University of Melbourne buildings and spaces will, in time, be enhanced and redeveloped to create a more active interface between the traditional campus to the north and Grattan Street while protecting important heritage structures and values.

d Objectives

1. Preserve and support options for future redevelopments within university of Melbourne land holdings to integrate with Metro Tunnel infrastructure.
2. Protect heritage qualities of buildings and spaces within the university campus.
3. Protect and reinforce formal spatial relationships between Gate 10 and spaces inside and beyond the traditional campus area.
4. Avoid confusion resulting from the location of station entries within the university campus, including issues relating to the distinct corporate identities of the University and Metro Tunnel, and public expectations of access and appropriate behaviour in public and university spaces.

e Design Guidelines

1. Design station entries that orientate towards the wider precinct and its pedestrian movements, including but not limited to the University of Melbourne, and provide a high quality arrival experience and meeting places, adequate footpath areas, and direct legible connections to the north south spine that extends across Grattan Street and which links east and west to other uses and tram connections.
2. Provide a design response that is respectful of the historic Gatekeeper's Cottage and Vice Chancellor's House, including their landscape settings.
3. Retain the remnant of the university's historic perimeter fence near Royal Parade.
4. Allow for future redevelopment of the university's Royal Parade Biosciences Zone to the northeast of the Royal Parade / Grattan Street intersection and between the two proposed station entries.
5. Ensure that paving and street furniture within the university campus adhere to the university's design standards while those within the Grattan Street road reserve adhere to City of Melbourne standards, and resolve an appropriate interface between these two sets of standards without compromising either one.
6. Relate footpath widening to station entrances and pedestrian flows.



*Perspective images of the proposed design for University Square: Aerial view from southeast showing the central lawn framed by tree planting in Leicester and Barry streets.
Image: City of Melbourne*

4. PRECINCT-SPECIFIC DESIGN ISSUES

4.4.4 UNIVERSITY SQUARE, BARRY STREET AND LEICESTER STREET

a Relevant Metro Tunnel Scope

A chiller plant, emergency access and ventilation structures are required in the area. Provision is also to be made for a possible future station entry in Barry Street south of Grattan Street. The northern part of University Square will be used as a construction work site.

b Context

University Square is an important open space serving the precinct. There is a car park beneath its northern end, with pedestrian entry and vent structures near Grattan, Barry and Leicester streets.

The City of Melbourne is currently finalising plans for a major upgrade of the square after undertaking a consultative public process for the project in 2015. The improvements will help to cater for Carlton's growing population, which is expected to increase by 28 per cent over the next 20 years. Proposals include pedestrianisation of Barry Street along the west side of the square, and partial pedestrianisation of Leicester Street along the east side, increasing the extent of recreational open space in the square by up to 40 percent.

The northern plaza area above the underground car park is proposed to be significantly redesigned with a variety of spaces that support activities including a recessed basketball half-court, table tennis and chess; communal tables with wi-fi and charging points, barbecues and picnic tables. In addition, a new building is proposed to accommodate a cafe and facilities to borrow outdoor furniture and sports equipment for use within the park. There may be potential to integrate Metro Tunnel infrastructure with this building, potentially above ground level, to help minimise its impact on ground level access and activation of the precinct.



View from the northwest, showing activated spaces over the underground car park.

Image: City of Melbourne

c Aims

University Square will be transformed into a contemporary public place in the heart of Carlton, reclaiming space from streets to enlarge the park, planting a new generation of trees, giving priority to pedestrians, preserving open lawn areas, injecting life and activity, and responding to a changing population and climate.

d Objectives

1. Preserve and support options to improve University Square as per the City of Melbourne's current plans.



View along Barry Street, showing the pedestrianised former roadway.

Image: City of Melbourne



Leicester Street, showing the roadway narrowed to a bus and bike lane.

Image: City of Melbourne

e Design Guidelines

1. Integrate aboveground Metro Tunnel infrastructure with the proposed design for University Square, Barry Street and Leicester Street, including:
 - Coordinate the location of ventilation shafts with existing ventilation and access structures for the underground car park and with the layout of proposed features in Barry, Leicester and Grattan streets.
 - Integrate aboveground elements of the chiller plant with the proposed design for the area.
2. Implement the proposed design for University Square, Barry Street and Leicester Street within the project area, and allow for its future complete implementation by others beyond the project area.

f Reference Documents

- + Concept design for University Square — Public Consultation Draft, City of Melbourne, 2015.³⁸
- + MMRA Urban Ecology Strategy.
- + Metro Tunnel Sustainability Targets — Urban Ecology and Vegetation, Communities.

38. participate.melbourne.vic.gov.au/universitysquare



*The State Library of Victoria forecourt, diagonally opposite the southern entry to the CBD North station, is one of the most popular public open spaces in Melbourne
Photo: Andrew Curtis, courtesy City of Melbourne*

4.5 PRECINCT 5: CBD NORTH STATION

CBD North station is located primarily below Swanston Street and will be linked to Melbourne Central station. There will be two major entry locations:

- + near the northwest corner of Swanston and La Trobe streets on freehold land to be acquired for the project
- + in Franklin Street east of Swanston Street.

There will also be emergency access and ventilation structures at street level.

The precinct includes notable institutions and amenities including RMIT University, Melbourne Central station, the State Library of Victoria, Melbourne City Baths, and Melbourne Central shopping centre. The city's north end is undergoing rapid change and intensified development. Many large residential towers are under construction or have recently been approved. Redevelopment of the Carlton United Breweries site north of Victoria Street is ongoing. The RMIT campus is continuing to expand west of Swanston Street, with a major new development proposed on a site in A'Beckett Street. The station will enhance public transport access to this part of the city, directly supporting the intensive land uses and indirectly enabling a greater share of street space to be allocated to sustainable transport modes, especially walking and cycling.

4.5.1 LA TROBE-LITTLE LA TROBE STREET SUB-PRECINCT

a Relevant Metro Tunnel Scope

The main CBD North station entry will be at the northwest corner of Swanston and La Trobe streets on land to be acquired for the project. The land above the station infrastructure presents a commercial development opportunity.

b Context

The Melbourne Planning Scheme allows scope for a substantial tower on the site; the major height constraint is a requirement to protect the State Library forecourt from overshadowing. The station entry and future development above it will be prominent in important views from the State Library forecourt and Swanston Street.

The City of Melbourne Walking Plan 2014-2017 identifies the intersection of Swanston and La Trobe streets as an area of existing significant pedestrian overcrowding.

c Aims

The station entry at La Trobe and Swanston streets will be integrated into an over site development that supports the animation and amenity of adjoining street spaces, and that makes a positive civic architectural contribution to the precinct.

d Objectives

1. Create a station entry that is integrated with the precinct built form while clearly defining and celebrating the Metro Tunnel entry.
2. Connect pedestrians from the station entry into the local streets and to other transport services in Swanston Street and La Trobe Street.
3. Protect the amenity of the State Library forecourt as one of the central city's key public open spaces.
4. Facilitate the redevelopment of properties acquired for the project to improve land utilisation, pedestrian permeability and urban amenity in the precinct.
5. Accommodate a mixture of uses that contribute to:
 - the accessibility and amenity of the station entry
 - retail activation and adjoining streets and laneways
 - commercial returns from the properties.
6. Make a positive architectural contribution to one of Melbourne's most important civic precincts.

4. PRECINCT-SPECIFIC DESIGN ISSUES

e Design Guidelines

1. Contribute to an integrated network of safe, high quality pedestrian routes:
 - Locate and design station access stairs, escalators and lifts to distribute pedestrian traffic safely in relation to the capacity of surrounding routes.
 - Locate and design entry points for over site development to respect pedestrian desire lines and to avoid major congestion points.
 - Create frontage activation along streets and laneways.
 - Provide appropriate weather protection to Swanston Street and La Trobe Street footpaths.
2. Allow for servicing, deliveries, and waste removal from the station and over site development, so as not to compromise frontage activation objectives.
3. Address issues of servicing neighbouring properties.
4. Ensure that over-site development is fully integrated into station design to ensure an overall cohesive, safe and functional station precinct.
5. Create clear delineation between private-sector building and station infrastructure for ease of maintenance and operation.

f Reference Documents

- + City of Melbourne Planning Scheme, with particular attention being drawn to:³⁹
 - Clause 22.01 — Urban Design in the Capital City Zone.
 - Clause 22.01 — Sunlight to Public Spaces.
 - Clauses 22.07 and 52.05 — Advertising Signs.

39. planningschemes.dpcd.vic.gov.au/schemes/melbourne

4.5.2 FRANKLIN STREET

a Relevant Metro Tunnel Scope

A station entry will be located in Franklin Street, east of Swanston Street near RMIT University (RMIT). Ventilation and emergency access structures will also be located in Franklin Street west of Swanston Street.

b Context

Franklin Street currently accommodates two traffic lanes in each direction, parallel parking on both sides, and central median parking. It is a wide major street typical of Melbourne's Hoddle Grid (30 metres wide), but carries relatively light traffic as Queen Victoria Market interrupts the route at its west end.

Over the past decade, RMIT has transformed the public spaces within its main campus. However, streetscape amenity in the wider precinct remains neglected in comparison to Melbourne's nearby retail core.

As part of the Queen Victoria Market Precinct Renewal Master Plan, the City of Melbourne plans to connect Franklin Street to Dudley Street across the south end of the Market car park (this scheme is supported through a formal Agreement with the State Government of Victoria). The new street connectivity will support more balanced distribution of east-west traffic across the north of the CBD, allowing for pedestrian improvements in Victoria Street near the Queen Victoria Market. Franklin Street is a recommended bike route in the City of Melbourne's Bike Plan, and this new link will enhance the integration of the wider cycling network.

Under this plan, Franklin Street is expected to carry traffic volumes that can be accommodated with one through traffic lane in each direction in typical mid-block locations, offering scope to improve pedestrian amenity and to provide bike lanes along its entire length. Increased pedestrian space in Franklin Street allows for the new northern entry to the Metro Tunnel station to be accommodated in the existing road reserve, and to link with this improved east-west pedestrian corridor.

c Aims

Franklin Street will be an activated, people-oriented street connecting RMIT and the CBD North station to the Queen Victoria Market precinct, with priority given to walking, cycling and local property access, and with generous greened pedestrian spaces supporting a range of social and informal recreational activities.

d Objectives

1. Improve Franklin Street as a pedestrian and cyclist link across the north side of the CBD.
2. Connect pedestrians from the station entry into local streets and to other transport services in Swanston Street.

4. PRECINCT-SPECIFIC DESIGN ISSUES

e Design Guidelines

1. Consider stakeholder requirements for the length of Franklin Street between Victoria and Queen Streets, and ensure the potential for integration of works in the project area with future improvements beyond the project area.
2. Maintain clear pedestrian circulation space along the building frontages on both sides of the street, no less than and preferably wider than at present.
3. Provide expanded pedestrian space for seating and other uses with enhanced amenity including plantings of new canopy trees, upgraded street lighting, etc.
4. Minimise carriageway widths while accommodating appropriate vehicular access including services access to the City Baths and RMIT.
5. Create a safe bicycle route along Franklin Street.
6. Minimise conflicts between turning vehicular traffic and Swanston Street trams.

f Reference Documents

- + Queen Victoria Market Precinct Renewal Master Plan, City of Melbourne, 2015.⁴⁰
- + Metro Tunnel: City North Station Franklin Street. January 2016 Draft. City of Melbourne.

4.5.3 LOCAL ACCESS NETWORK

a Relevant Metro Tunnel Scope

A ventilation and emergency access structure will be built in A'Beckett Street. Post construction, A'Beckett Street between Swanston and Stewart Streets will be partially closed, with allowance for vehicular traffic flows in one direction only.

b Context

The Swanston and Latrobe Street intersection frequently suffers from pedestrian congestion. Without careful planning and design this issue could worsen with increased pedestrian traffic around the new Metro station.

Swanston Street is now closed to vehicular traffic between Franklin and A'Beckett Streets, and south of Latrobe Street. Swanston Street between A'Beckett and Latrobe Streets therefore carries only local traffic but this is important for deliveries, waste removal and other services to properties in the precinct.

A'Beckett and Little Latrobe Streets carry only local traffic due to their limited accessibility via Swanston Street. Stewart Street, which connects Franklin and A'Beckett Streets, is blocked by bollards.

Although located between a major generator of pedestrian traffic and an important pedestrian destination — RMIT and Flagstaff Gardens, respectively — A'Beckett Street has relatively narrow footpaths (about 2.7 metres) and a generous carriageway (about 14.6 metres). Several properties along and near A'Beckett Street have been, or are about to be, redeveloped for high-rise apartment buildings, many catering to university students.

40. participate.melbourne.vic.gov.au/application/files/9214/4250/0788/QVM_Precinct_Renewal_Master_Plan.pdf

4. PRECINCT-SPECIFIC DESIGN ISSUES

There is demand for additional pedestrian circulation space and public space, including streets, for social and passive recreational activity.

The RMIT-owned site at the northwest corner of A'Beckett and Stewart streets, now with a temporary treatment as a recreational open space, will be built over in relatively near future.

c Aims

The local access network will be optimised to maintain access to properties and enhance Swanston Street's role as a tram and bike route, while maximising space for pedestrian activity within one of Melbourne's major learning precincts.

d Objectives

1. Maximise capacity and safety in Swanston Street for pedestrians, trams and bicycles.
2. Enhance A'Beckett and Little Latrobe Streets for local access by vehicular traffic and to improve pedestrian capacity and amenity.

e Design Guidelines

1. Manage local traffic to maintain access to properties, to minimise conflicts with pedestrians, bicyclists and trams, and to safely return traffic to the wider road network.
2. Manage and design Swanston Street between Latrobe and Little Latrobe Streets consistently with areas of Swanston Street south of Latrobe Street, with widened footpaths, improved tree planting, footpath paving, street furniture and lighting.



Swanston Street, Melbourne, near Melbourne Central.
Photo: David Simmonds, courtesy City of Melbourne

4. PRECINCT-SPECIFIC DESIGN ISSUES

3. Provide clear pedestrian circulation space along building frontages in all streets and laneways, maintaining existing capacity and increasing capacity where possible.
4. Maintain on-street kerbside loading and delivery facilities to provide for servicing of adjacent properties.
5. Above ground elements of the maintenance access and vent structure should be located and designed to ensure optimal flexibility in use of the public open space and to minimise visual impacts:
 - Minimise aboveground structures' width, breadth and visual bulk, especially with respect to any element higher than 1m above surrounding paving levels.
 - Use sustainable cladding materials and a high standard of architectural detailing to ensure the structures present well to nearby pedestrians, and are durable and easy to maintain in good condition.
 - Consider potential integration with other streetscape elements, such as lighting and signage, in order to minimise clutter in the street space.

4.6 PRECINCT 6: CBD SOUTH STATION

The CBD South station is located primarily below Swanston Street and will include a link to Flinders Street Station. There will be three major entry locations:

- + near the northwest corner of Swanston and Flinders streets on freehold land to be acquired for the project
- + in Federation Square, opposite St Paul's Cathedral
- + in City Square.

There will also be emergency access and ventilation structures at street level.

As one of Melbourne's busiest transport interchanges, the success of a new station in this location will rely on careful integration of all transport modes. A number of projects are planned or underway to help address congestion issues, such as the renovation of Flinders Street Station, and the Elizabeth Street master planning work by the City of Melbourne. Integration with these projects is essential.

4.6.1 COCKER ALLEY SUB-PRECINCT

a Relevant Metro Tunnel Scope

A major entry will be near the northwest corner of Swanston and Flinders streets on freehold land to be acquired for the project. The properties to be acquired form an L-shaped parcel wrapping around the historic Young and Jackson Hotel, with frontages to both Swanston Street and Flinders Street.

In addition to pedestrian links to Swanston and Flinders streets, the station entry will feed into the surrounding network of lanes and arcades. Cocker Alley will be connected to and through the acquired land between Flinders Street, Swanston Street, Flinders Lane and the station entry.

There will be an opportunity for commercial development over the station infrastructure.

b Context

The precinct's importance is reflected in its cultural places and grand public buildings including Federation Square, Flinders Street Station, St Paul's Cathedral, Melbourne Town Hall and City Square as well as in landmark private buildings such as the Manchester Unity Building and Nicholas Building.

Millions of people see the area, day and night, throughout the year. Flinders Street Station is a gateway to Melbourne by the metropolitan rail network. Swanston Street carries nine tram routes, with more frequent services than in any other corridor in Melbourne. It is the city's major ceremonial route for parades and processions, and the view line for an important vista to the Shrine of Remembrance. Laneways extending northward into the city's retail core are busy with pedestrian activity, shopping, and dining. The area's character and activities define Melbourne in the minds of many Victorians.

Given the low scale of the Young and Jackson Hotel, and the ability to build up to forty metres under local Planning Scheme controls, development above the station infrastructure will be prominent in important views from Federation Square and Princes Bridge.

Most of the laneways that the new station entry will connect to are not, at present, major through pedestrian routes; Scott Alley is paved in bluestone and connects to Port Phillip Arcade, but Cocker Alley and Royston Place now function as service lanes.



Centre Place, Melbourne, is part of the network of busy pedestrian lanes and arcades linking Flinders Street Station into the city's retail core. Photo courtesy City of Melbourne

4. PRECINCT-SPECIFIC DESIGN ISSUES

There is a significant challenge in providing access for services, waste removal, furniture delivery, etc. for the station and over site development. Opportunities for on-street loading in Swanston and Flinders Street are limited, while access from Flinders Lane is via narrow lanes that are also busy pedestrian routes.

The City of Melbourne Walking Plan 2014-2017 identifies the intersection of Swanston and Flinders streets as an area of existing severe pedestrian overcrowding.

c Aims

The station entry at Flinders and Swanston streets will be integrated into an over site development that supports the animation and amenity of adjoining street spaces, and that makes a positive civic architectural contribution to the precinct.

d Objectives

1. Create a station entry that is integrated with the precinct built form while clearly defining the Metro Tunnel entry.
2. Connect passengers to Flinders Street, Swanston Street and Flinders Lane including to other transport services.
3. Make a high quality positive architectural contribution to one of Melbourne's most important and recognisable precincts.
4. Facilitate the redevelopment of properties acquired for the project to improve land utilisation and urban amenity in the precinct.

5. Accommodate a mixture of uses that contribute to:

- the accessibility and amenity of the station entry
- retail activation of adjoining streetscapes
- complementary civic and community purposes
- commercial returns from the properties.

e Design Guidelines

1. Contribute to an integrated network of safe, high quality pedestrian routes:
 - Locate and design station access stairs, escalators and lifts to distribute pedestrian traffic safely in relation to the capacity of surrounding routes.
 - Improve pedestrian accessibility, safety and amenity in laneways connecting to the station entry.
 - Ensure safe conditions in nearby laneways when the station entry is closed.
 - Create active frontages along streets and laneways connecting to the station entry.
 - Provide appropriate weather protection along Swanston Street and Flinders Street footpaths.
 - Provide for safe crossings of Flinders Lane.
2. Allow for servicing, deliveries, and waste removal from the station and over site development, so as not to compromise frontage activation objectives.

3. Address issues of servicing neighbouring properties.
4. Integrate over site development with the station and associated infrastructure.
5. Create clear delineation between private-sector building and station infrastructure for ease of maintenance and operation.

f Reference Documents

- + City of Melbourne Planning Scheme, with particular attention being drawn to:⁴¹
 - Clause 22.01 — Urban Design in the Capital City Zone.
 - Clauses 22.07 and 52.05 — Advertising Signs.
 - Clause 22.20 — CBD Lanes.

4.6.2 FEDERATION SQUARE: ST PAUL'S COURT

a Relevant Metro Tunnel Scope

The entry to the CBD South station at Federation Square will be located at the south side of Flinders Street where two narrow buildings ('shards') frame the view of St Paul's Cathedral to create St Paul's Court. The pedestrian entry will be via the basement space now used for a visitor information centre. It is likely that one or both shards will need to be partially or entirely demolished and rebuilt to enable construction of the entry.

b Context

Federation Square is a complex of cultural and commercial buildings with spaces for sitting and casual gatherings and an open amphitheatre supporting events with up to 15,000 people. It is used intensively on a daily basis as a place for meetings and for respite, and is also Melbourne's primary civic gathering point, hosting a full calendar of community events and festivals.

The design of Federation Square, selected through an international design competition, pursues an architecture of relationships, where the focus is not on individual buildings but on their relationships to open spaces and to each other.

41. planningschemes.dpcd.vic.gov.au/schemes/melbourne



Federation Square, Melbourne.
Photo: John Gollings, courtesy
Fed Square Pty Ltd

St Paul's Court is one of the key elements of the design scheme and provides a link between the Cathedral, Flinders Street and Federation Square. Heavy foot traffic through the space makes it useful for promotional activities and events. The landscaped risers and wide steps also provide a setting for performance groups and displays, and opportunities for casual seating, ensuring a highly activated space.⁴²

In addition to architectural effect of framing the view of the Cathedral and holding the corner of Flinders Street and Swanston Street, the western shard was envisaged as accommodating a civic hospitality function. It now contains the entry to a visitor information centre, located underground within a narrow corridor between Flinders Street and the operating rail lines below the remainder of Federation Square. The eastern shard contains emergency services and fire escapes for buildings and basement areas to the east, as well as office spaces at upper levels.

As well as providing access to Federation Square, the entry will connect to a walking route extending southeast towards the Melbourne Cricket Ground, Melbourne Park, Olympic Park and AAMI Stadium.

c Aims

St Paul's Court will be maintained and enhanced in accordance with the aims of the competition-winning design for Federation Square to build on relationships with the surrounding city and to create a variety of adaptable spaces for civic events.

42. fedsquare.com/venue-hire/st-pauls-court

d Objectives

1. Ensure respectful integration of new structures and open space treatments with the Federation Square design.
2. Re-accommodate civic uses within a redeveloped western shard if complementary to the station entrance design.

e Design Guidelines

1. Maintain Federation Square's inter-relationships with Flinders Street, Swanston Street and St Paul's Cathedral:
 - Protect the framed vista from Federation Square to St Paul's Cathedral from intrusive or disruptive structures.
 - Ensure permeability, visual links and pedestrian accessibility between the Flinders Street footpath and Federation Square.
 - Create an architectural element that holds the corner at the intersection of Swanston and Flinders streets.
2. Maintain usable and activated open spaces:
 - Maintain or provide new seating ledges.
 - Maintain or provide new level areas of a size and character suitable for a range of events and activities.
3. Maintain and enhance the civic character and identity of Federation Square:
 - Achieve design integration with Federation Square as a whole.
 - Respond positively to the context established by the design of Federation Square.
 - Consider rebuilding the western shard in keeping with the original design intent, increasing its height in order to reinstate its tall vertical proportions

4. PRECINCT-SPECIFIC DESIGN ISSUES

4. New or modified structures to accommodate above ground infrastructure may be sited within or adjacent to Federation Square provided the additional shadows cast do not unreasonably affect the usage and enjoyment of the broader open space.

4.6.3 CITY SQUARE

a Relevant Metro Tunnel Scope

A major station entry will be located in the City Square. Ventilation, maintenance and emergency access structures will also be located in City Square and within the adjoining Westin Hotel.

The entry and associated infrastructure will occupy a large part of the volume of the existing public car park below City Square. The intent is to adapt the remainder for civic uses (e.g. public library, tourism information centre) and / or retail uses.

During construction, the entire City Square site will be used as a works area.

b Context

City Square serves as a local open space and as a platform for events staged to complement activity in the nearby retail core. The site was formerly occupied by buildings, which were acquired by the City of Melbourne to create a new civic space, and has since been redesigned twice. The current form was built in the 1990s in connection with restoration of the Regent Theatre and development of the adjoining Westin Hotel with active frontages onto the square.

The site selection for the square reflects its situation between the Melbourne Town Hall and St Paul's Cathedral. The Cathedral facade to Flinders Lane contains the square on its south side, and the original and current design have both emphasised a formal relationship with the Cathedral using a water feature along its central axis. The Mockridge Fountain terminates this axis at Collins Street.

The frontage to Swanston Street provides a wide promenade lined with a double row of trees, integrated with the design of Swanston Street and the adjoining tram stops.

The cafe adjoining Flinders Lane was designed to activate the open space over extended hours. It has access to the basement car park to facilitate servicing.

There is a car park beneath the entire site. The design minimises the car park's impact on the public space, with soil depths for canopy trees and pedestrian and vehicular access via the Westin Hotel.

Below the Westin Hotel, the basement level uses include Westin back of house, public and private parking. Basement level circulation for the hotel and the City Square is shared across the properties. The ventilation is also integrated, with intake via the Westin and exhaust through a shaft in City Square. Public toilets for the square are below the Westin, accessed via the pedestrian entry to the car park.

There are distinct changes in level around the site perimeter. While Swanston Street is relatively flat, both Flinders Lane and Collins Street slope more steeply, with a 2.6 metre level difference between the square's northwest and northeast corners. Managing the transitions between City Square's level central events space and the sloping streets is a key requirement of the open space design. The sloping streets create opportunities to integrate Metro Tunnel entry into the space, while also constraining locations that provide for disabled access.

There are several monuments and artworks in and around the site. Many will need to be relocated. The most important is the historic Burke and Wills Monument. The Mockridge Fountain is a memorial integrated with the current design of City Square. A number of other contemporary pieces are not integrated with the design but are valued as civic markers.

The City of Melbourne Walking Plan 2014-2017 identifies the intersection of Swanston and Collins streets as an area of existing significant pedestrian overcrowding.

c Aims

Existing valued qualities and features of City Square will be maintained in a new design for the space, including:

- + a 24 / 7 public open space that celebrates informal and formal activities
- + a civic centrepiece for the precinct between the Town Hall and Cathedral
- + a flexible event space in the central city
- + Swanston Street tree arbour and wide footpath
- + occupiable edges and seating opportunities
- + greenery in the city
- + activity fronting the square
- + opportunities for unstructured play
- + accessibility, permeability and visibility
- + public art and civic markers.

d Objectives

1. Create an integrated new design for the City Square that incorporates the aboveground Metro Tunnel infrastructure.
2. Redevelop the basement car park for uses that complement City Square and the new station.

e Design Guidelines

1. Maintain a respectful relationship with nearby civic buildings:
 - Minimise the size and visual prominence of the station entry, so that it does not appear to be disproportionately grand in relation to other civic stairs on Swanston Street.
 - Maintain uncluttered views to St Paul's Cathedral from the square, in particular to the facade and altar window facing Flinders Lane. Mirror the offset of the Westin Hotel facade from the Cathedral's central axis to define a view corridor along the axis, and avoid locating aboveground infrastructure within this corridor if possible.
 - Maintain views of the Town Hall clock tower from the square.
2. Minimise net loss or fragmentation of public open space:
 - Locate the entry and other aboveground infrastructure near to Collins Street to minimise impacts on usable public open space.
 - Where possible, locate lifts and other aboveground infrastructure within the Westin Hotel built form.
 - Where possible, co-locate aboveground infrastructure that must be in the square with the station entry or with other aboveground structures.
 - Provide pedestrian access, egress and dispersal from the station via the street, not through the body of the square.
 - Maintain generous soil depths to allow for tree planting.

4. PRECINCT-SPECIFIC DESIGN ISSUES

3. Create a high quality civic open space that accommodates passive recreational use and staged events, and achieves a balance of qualities as a place of respite and a prominent and actively used civic space:
 - Maintain or increase space for casual use including public seating.
 - Maintain accessibility for events including a large open level space equivalent to that provided in the square today, with vehicular loading capacities and surface treatment suitable for staging events without damage and / or without costly reinstatement requirements.
 - Provide vehicle access for events bump in / bump out.
 - Design so that, the square has a mix of large and more intimate spaces that can be used separately during public events.
4. Maintain and enhance active frontages onto and overlooking the square:
 - Maximise activation of the square by tenancies within the ground floor of the Westin Hotel.
 - Maintain a level paved frontage along the Westin Hotel, providing access to adjoining tenancies and associated outdoor dining / cafe spaces.
 - Maintain physical demarcation of outdoor spaces leased or licenced to adjoining hospitality businesses, to assist in their ongoing management (e.g. as with the existing water feature).
 - Consider options for replacement of the existing cafe tenancy to minimise space occupied within the square.
 - Maintain views between the Swanston Street footpath and tram stops and the open space within the square.
5. Maintain a generous shaded pedestrian promenade along Swanston Street:
 - Maintain circulation space with no less capacity than exists at present.
 - Maintain accessible tram stop facilities.
 - Maintain a double row of Plane trees.
6. Locate and design the station entry and the square as a whole to integrate with surrounding footpath levels:
 - Orient the station entry towards Swanston Street.
 - Locate and design required aboveground infrastructure to help resolve level transitions between the square and surrounding footpaths.
7. Protect, relocate and / or restore existing artworks and monuments as appropriate:
 - Retain the Burke and Wills Monument in its existing location if possible. If not, re-install the monument in its original form at a new site to be approved by the City of Melbourne. Undertake adaptive site works as required to integrate the monument with the new site.

- Work with City of Melbourne to maintain or appropriately relocate or reimagine the Mockridge Fountain.
 - Consult with the City of Melbourne to determine their intent to retain other existing artworks in the City's collection (and reinstall in the City Square or relocate as appropriate) or to de-accession. Incorporate works to be retained at the site into the new design.
8. Adapt the remaining space after the provision of the station entry below the City Square for a civic facility:
- Minimise the extent of the existing space occupied by station infrastructure, where possible using the lower levels for service functions and allowing for active uses near ground surface level.
 - Consult with the City of Melbourne to resolve the functional brief for the facility.
 - Create a more direct and positive relationship between the open space and the new civic facilities in the basement than currently exists between the car park and the square.
 - Continue to accommodate public amenities and site services as appropriate.
9. New or modified structures to accommodate above ground infrastructure may be sited within or adjacent to City Square provided the additional shadows cast do not unreasonably affect the usage and enjoyment of the broader open space.

f Reference Documents

- + Metro Tunnel Rail Project: City Square Open Space Brief. December 2015 Draft. City of Melbourne.

4. PRECINCT-SPECIFIC DESIGN ISSUES



St Kilda Road and the Domain Parklands in relation to the Melbourne CBD and Yarra River.

4.7 PRECINCT 7: DOMAIN STATION

Domain station is located below St Kilda Road at Albert Road. Three entrances are proposed: to the east into the Shrine Reserve, to the west into the Albert Road Reserve, and to the tram interchange in St Kilda Road, which will be relocated southward to sit above the new station. A number of aboveground ventilation and service structures will be required.

The station will be built using the cut and cover method, requiring reconstruction of St Kilda Road and much of the Albert Road Reserve. Additional construction work areas will be required flanking St Kilda Road. This will require temporary removal, storage, relocation and protection of various memorials and trees, and reconstruction works when Metro Tunnel is completed.

4.7.1 ST KILDA ROAD

a Relevant Metro Tunnel Scope

Construction of Domain station requires demolition and reconstruction of St Kilda Road throughout much of the project area. Relocation of the tram interchange southwards requires the redesign of St Kilda Road between Toorak Road and Dorcas Street to create a transition from the typical boulevard profile to the south with side service lanes, treed separator medians and central carriageway into a single central island at the tram interchange with carriageways to each side. The tram interchange will feature raised platforms, shelters and other passenger facilities as well as a direct entry to the Metro Tunnel station.

b Context

St Kilda Road is one of Melbourne's iconic boulevards. It provides a handsome setting for transport functions — VicRoads identifies it as a priority route for trams, buses and cyclists — as well as a frontage for state institutions, monuments and prestigious office and apartment buildings. Among these, the Shrine of Remembrance, South African Soldiers Memorial, and Melbourne Grammar School (all on the Victorian Heritage Register), and the former BP House (now called Domain Towers) are near the proposed station. St Kilda Road straddles the boundary between the Cities of Melbourne and Port Phillip.

c Aims

St Kilda Road's character as one of Melbourne's iconic, tree-lined formal boulevards will be protected and enhanced, with the new tram interchange making a positive civic contribution to this setting and contributing to better pedestrian connectivity across the intersection.

d Objectives

1. Create an integrated multi-modal transport interchange.
2. Protect and enhance St Kilda Road's formal boulevard character.

e Design Guidelines

1. Consider stakeholder requirements for St Kilda Road from Toorak Road to Dorcas Street, and ensure the potential for integration of works in the project area with future implementation of streetscape improvements by others beyond the project area.
2. Provide convenient pedestrian access:
 - Support pedestrian crossings of St Kilda Road via the proposed station subway and by improving the safety and amenity of street level crossings.
 - Enhance pedestrian links from St Kilda Road to the Park Street (South Melbourne) tram route. .
3. Provide protected bicycle lanes, connecting safely and conveniently to bike lanes north and south of the project area.
4. Complement St Kilda Road's formal boulevard character:
 - Maintain or recreate a generally symmetrically balanced layout, with regular kerb alignments typically set parallel to the road's centreline, and large canopy trees.
 - Design the island tram stop/interchange as a high quality public space with a formal design character that complements the boulevard setting.
 - Coordinate or integrate passenger shelters at the tram stop with weather protection for the Metro Tunnel station entry.
 - Arrange tram overheads to minimise visual clutter and to allow for tree planting.
 - Minimise commercial advertising except as allowed under current PTV contracts with providers of tram shelters.
 - Ensure that the design of the Park Street (South Melbourne) tram stop near Wells Street preserves views to the Shrine.

4. PRECINCT-SPECIFIC DESIGN ISSUES

5. Reconstruct the area of the existing tram interchange, north of the new one, to a design complementing and transitioning back into the typical boulevard layout of St Kilda Road with side service roads separated from the central carriageway by treed medians.
6. Locate and design vent shafts, the chiller plant and substations to minimise their visual impacts:
 - Minimise impacts on important views, in particular the Shrine of Remembrance vista.
 - Ensure safe sightlines at intersections and pedestrian crossings.
 - Integrate with the design of passenger shelters and weather protection for the Metro Tunnel entries, where possible.
 - Allow for integration with necessary signage.
 - Complement the formal design character of St Kilda Road.

f Reference Documents

- + St Kilda Road North Precinct Plan, City of Port Phillip, updated 2015.⁴³
- + St Kilda Road Precinct: Public Realm and Linkages Opportunities Study, City of Port Phillip, 2011.⁴⁴
- + Sustainable Transport Management in St Kilda Road Precinct, Ratio Pty Ltd for the City of Port Phillip, 2011.⁴⁵

43. portphillip.vic.gov.au/stkilda-rd-precinct-review.htm

44. [portphillip.vic.gov.au/default/StrategicPlanningDocuments/Public_Realm_and_Linkages_Opportunities_Study_October_2011_\(with_Disclaimer\).pdf](http://portphillip.vic.gov.au/default/StrategicPlanningDocuments/Public_Realm_and_Linkages_Opportunities_Study_October_2011_(with_Disclaimer).pdf)

45. [portphillip.vic.gov.au/default/Sustainable_Transport_Management_in_St_Kilda_Road__Draft_Study_October_2011_\(with_Disclaimer_and_maps\).pdf](http://portphillip.vic.gov.au/default/Sustainable_Transport_Management_in_St_Kilda_Road__Draft_Study_October_2011_(with_Disclaimer_and_maps).pdf)

4.7.2 SHRINE RESERVE AND KINGS DOMAIN CONSTRUCTION WORKS AREAS

a Relevant Metro Tunnel Scope

The eastern entry to the new station is proposed at the corner of St Kilda Road and Domain Road, at the base of the hill below the Shrine of Remembrance and in front of the MacPherson Robertson Fountain. This entry is expected to service a relatively small proportion of station users, except during major events at the Shrine.

During construction of Metro Tunnel, parts of the Shrine Reserve near St Kilda Road, and Edmund Herring Oval in Kings Domain, will be used in association with the Domain station site as a construction works area.

b Context

The Shrine in its setting is the most important memorial landscape in Victoria and a crucial part of the character of this area. Views through the green landscape to the Shrine are important, and the view from the intersection of St Kilda Road and Domain Road is one of the most important — the first Shrine vista presented to viewers travelling northward on St Kilda Road and often featuring in historical photos of the area. Memorial trees and other structures in the Shrine Reserve are also charged with special significance to the community.

c Aims

The Shrine of Remembrance Reserve will be carefully protected from incursions and visual impacts by Metro Tunnel infrastructure (including signage), while the new station entry will contribute to an important new visitor access route to the Shrine of Remembrance and Royal Botanic Gardens as well as other destinations in the vicinity.

At completion of Metro Tunnel, construction works areas in the Shrine Reserve and Kings Domain will be reinstated with minimal impact on their existing use, character, amenity and heritage values.

d Objectives

1. Respect and integrate with the heritage values and civic character of the area.
2. Protect and enhance existing parkland recreational values.

e Design Guidelines

1. Minimise encroachment into the Shrine of Remembrance Reserve.
2. Maintain the vista to the Shrine from St Kilda Road between Domain Road and Park Street as clear of structures as possible, and minimise any new structures that may detract from or compete with views or the experience of existing monuments including the MacPherson Robertson Fountain and Cobbers Memorial:
 - Locate aboveground structures along Domain Road if possible rather than along the St Kilda Road frontage of the Shrine Reserve.

- Locate the entry as low on the slope as possible, i.e. within or adjoining and parallel to the street.
 - Minimise any structure above balustrade height.
3. Minimise impacts on views from within the Shrine Reserve, especially from the forecourts and steps, rooftop viewing terrace, and the 'ring road' at the base of the Shrine:
 - Minimise visibility of Metro Tunnel structures within the Shrine Reserve.
 - Minimise advertising visible from the Shrine or within key vistas to the Shrine.
 4. Minimise impacts on culturally significant features and fabric:
 - Sensitively reinstate or relocate existing memorials if required.
 - Retain or replace significant trees
 - Minimise proximity impacts of the entrance's use on observances at the Battle of the Fromelles memorial.
 5. Orient and design the entry to direct users towards an accessible route of travel to the main entries of the Shrine of Remembrance and the Royal Botanic Gardens.
 6. After construction, reestablish the construction work site(s) to existing or improved conditions, including works generally as illustrated in 'Edmund Herring Oval – Kings Domain Parklands,' City of Melbourne City Projects Division, Project No. 903411, Drawing no. LA01, November 2015.

4. PRECINCT-SPECIFIC DESIGN ISSUES

f Reference Documents

- + Shrine Reserve Landscape Management Plan, Rush Wright Landscape Architects, 2015.
- + Shrine of Remembrance Conservation Management Plan, Lovell Chen, October 2010.
- + Domain Parklands, Victorian Heritage Database Report.⁴⁶
- + Domain Parklands Master Plan, City of Melbourne, 2007.⁴⁷

4.7.3 ALBERT ROAD RESERVE

a Relevant Metro Tunnel Scope

An entry to the Domain station is proposed in Albert Road Reserve, just west of St Kilda Road. The location is now dominated by the South African Soldiers Memorial, which will be temporarily removed and reinstalled as part of a new design for the site.

b Context

The City of Port Phillip's St Kilda Road North Precinct Plan recommends that the precinct surrounding Albert Road Reserve is an appropriate area for higher scale redevelopment as a focal point of the wider St Kilda Road North Precinct. The new station will service this activity cluster.

The Albert Road Reserve, at the St Kilda Road end of Albert Road, includes the South African Soldiers Memorial, a number of mature trees, barbecue facilities and seating. Through traffic is limited by the road layout within Albert Road and by the barrier created by the Domain tramway interchange in St Kilda Road. A large proportion of the roadway space is allocated to car parking. The City of Port Phillip has recommended a major streetscape upgrade for this area.

Despite large parkland areas to the east and west there is little nearby open space that caters well for passive recreational needs of local residents and workers. The formal memorial character of the Shrine Reserve suits walking but not many social or casual recreational activities. The eastern side of Albert Park is largely inaccessible.

46. vhd.heritagecouncil.vic.gov.au/places/165951/download-repor

47. melbourne.vic.gov.au/SiteCollectionDocuments/domain-parklands-master-plan.pdf

The Albert Road Reserve therefore has an important local role in terms of open space use. It also contributes to a larger-scale landscape pattern of green open spaces that sweep across this part of the city. Both of these attributes are important to protect and enhance.

c Aims

The Albert Road Reserve and Albert Road between St Kilda Road and Kings Way will be improved as a high quality pedestrian environment with better connectivity and opportunities for casual recreational use, and as a green link between Albert Park and the Domain parklands.

d Objectives

1. Enhance walking and cycling links through the area.
2. Enhance the extent and amenity of usable public open space.
3. Respect and integrate with the heritage values and civic character of the Reserve, its context and memorials within it.

e Design Guidelines

1. Consider stakeholder requirements for Albert Road and ensure the potential for integration of works in the project area with future implementation of streetscape improvements by others beyond the project area.

2. Minimise impacts on culturally significant features and fabric:

- Minimise the size and prominence of the station entry and ensure that it provides an appropriate setting for the South African Soldiers Memorial.
- Maintain the South African Soldiers Memorial's visual links to St Kilda Road and where possible, improves its prominence as the focal point of the reserve.
- Retain as many trees as possible, in particular the elms to the north of the South African Soldiers Memorial.
- Retain the Windsor Oak in situ, conserve it off site during construction, or propagate replacements from the original tree.
- Return the Cockbill Fountain and Windsor Oak (or its replacement) to the site after construction.
- Sensitively reinstate or relocate other existing plaques and memorials as required.

3. Enhance pedestrian and cyclist access to the new station:

- Widen and repave footpaths.
- Connect bike paths through the area and provide bicycle parking.

4. PRECINCT-SPECIFIC DESIGN ISSUES

4. Create a high quality open space and facilities to support cultural, social, and passive recreational activities:
 - Provide spaces for seating and casual social interaction.
 - Avoiding fragmenting useable open spaces with busy pedestrian routes.
 - Rationalise and reduce trafficable road space and car parking areas and convert to pedestrian use where possible.
 - Provide a modest congregation area near the South African Soldiers Memorial that provides access for ceremonies
5. Provide for vehicular access to properties, car parks and for servicing.

f Reference Documents

- + St Kilda Road North Precinct Plan, City of Port Phillip, updated 2015.⁴⁸
- + St Kilda Road Precinct: Public Realm and Linkages Opportunities Study, City of Port Phillip, 2011.⁴⁹
- + Sustainable Transport Management in St Kilda Road Precinct, Ratio Pty Ltd for the City of Port Phillip, 2011.⁵⁰

4.8 PRECINCT 8: EASTERN PORTAL (SOUTH YARRA)

a Relevant Metro Tunnel Scope

The Eastern Portal connects the Metro Tunnel tunnels to the Dandenong rail corridor near Chapel Street. The works will include an open-to-air decline structure and a cut and cover structure crossing under the Sandringham, Frankston and freight lines to connect to the Metro Tunnel tunnels to the west.

The rail corridor between Toorak Road and Chapel Street will be widened and the Frankston line tracks realigned and raised. This requires demolition of the existing William Street bridge; its replacement may require a design with structural members (e.g. trusses) above eye level due to clearances needed over the raised tracks. Construction of vertical retaining walls to replace battered slopes to the railway cuttings is proposed to minimise the amount of land taken (and maximise land returned for public space) but there will be some acquisition and demolition of properties. The existing car park on a deck structure over the embankment along Arthur Street will also be removed.

The South Yarra Siding Reserve and Osborne Street Reserve will be used as construction work sites for the project. A new bridge over the Sandringham line will provide construction access from Osborne Street into the South Yarra Siding Reserve, and will be adapted for pedestrian and bicycle use at completion of the project.

48. portphillip.vic.gov.au/stkilda-rd-precinct-review.htm

49. [portphillip.vic.gov.au/default/StrategicPlanningDocuments/Public_Realm_and_Linkages_Opportunities_Study_October_2011_\(with_Disclaimer\).pdf](http://portphillip.vic.gov.au/default/StrategicPlanningDocuments/Public_Realm_and_Linkages_Opportunities_Study_October_2011_(with_Disclaimer).pdf)

50. [portphillip.vic.gov.au/default/Sustainable_Transport_Management_in_St_Kilda_Road__Draft_Study_October_2011_\(with_Disclaimer_and_maps\).pdf](http://portphillip.vic.gov.au/default/Sustainable_Transport_Management_in_St_Kilda_Road__Draft_Study_October_2011_(with_Disclaimer_and_maps).pdf)

The project will result in a number of aboveground structures, including:

- + ventilation, emergency access and other structures in Osborne Street Reserve
- + noise abatement walls, safety screens, balustrades and retaining walls
- + new bridges at William Street and over the Sandringham line.

b Context

The Eastern Portal is near one of Melbourne's busiest retail, residential and entertainment precincts, the Chapel Street Activity Centre, encompassing Toorak Road and Chapel Street. Areas to the west, south and east have long been among the densest of Melbourne's residential neighbourhoods, despite the relatively low building heights. The recent construction of large apartment towers and mixed use development in the Forrest Hill Precinct north of Toorak Road has added significantly to this density.

The City of Stonnington now has the second lowest amount of public open space per person of any Victorian municipality, and the local population growth is forecast to be substantial. South Yarra has about eleven square metres of open space per person, which will be under increased usage pressure due to substantial local population growth. The South Yarra Siding and Osborne Street Reserves are important community assets to protect and enhance, despite their small size and modest amenity at present.

Public access to the South Yarra Siding Reserve is poor, with only a single entry from William Street. Lovers Walk provides an important pedestrian and cycling link along the north side of the rail corridor, connecting Toorak Road at South Yarra station to Chapel Street. The route's convenient alignment means it is heavily used despite its modest amenity, and a lack of passive surveillance that makes it a relatively threatening environment at night. Pedestrian and cycle connectivity along the south side of the Dandenong / Frankston rail line and along the Sandringham line is poor.

The location of Lovers Walk and South Yarra Siding Reserve at the rear of properties that have their main address to other streets creates problematic interfaces between public and private spaces. Key challenges include maintaining residential privacy and security while providing passive surveillance to deter vandalism and increase personal safety.

The City of Stonnington's structure and framework plans for the locality identify the need for upgraded and new connections to improve access, safety and passive surveillance in this precinct. The framework plan recommends upgrading Lovers Walk with improved activation and integration with neighbouring properties. It also proposes new connections including a link between South Yarra Siding Reserve and Toorak Road (opposite South Yarra Station), and a link south to Portland Place to contribute to a continuous walking route along the Sandringham line.

These plans also aim to increase local open space available to the community. Although dense development and high land costs generally make this difficult, the Eastern Portal precinct offers opportunities for additional open space including a future public plaza on decking above the railway on the south side of Toorak Road (as envisioned in City of Stonnington's Chapel ReVision Structure Plan), and an increased area of useable open space at South Yarra Siding Reserve and a shared path to the south of the Caulfield line level with the surrounding streets.

4. PRECINCT-SPECIFIC DESIGN ISSUES

A creative approach to acoustic treatments that abate noise while retaining the amenity and safety of public and private spaces along the rail corridor is also needed.

The South Yarra Siding currently provides railway service access.

c Aims

The area of the Eastern Portal will be an integrated open space and transport corridor in a high quality landscaped setting that maximises and enhances public open space and improves rail, pedestrian and cycle linkages while complementing neighbouring built form and the public realm.

d Objectives

1. Retain and improve walking and cycling links connecting to activity centres, local streets, South Yarra station, and the open space network.
2. Maximise the amount of accessible, usable and relatively level public open space in the precinct.
3. Improve the quality, amenity and safety of existing public open space and walking and cycling links.
4. Design all aboveground structures as part of an integrated high quality design that respects the public realm and local built form.
5. Design to help manage sensitive interfaces between neighbouring properties, project infrastructure and public spaces.
6. Contribute to a continuous corridor of vegetation along the rail lines.
7. Minimise impacts on the amount and quality of open space arising from service access to the rail lines.

e Design Guidelines

1. Provide and improve shared use paths along the rail corridors with generous path widths to support local recreational and commuter use:
 - Widen Lovers Walk, as appropriate and where possible, to support its role as a major shared path.
 - Create a shared use path to the south of the rail corridor between Chapel Street, South Yarra Siding Reserve and Osborne Street.
 - Maintain the eastern Osborne Street footpath.
2. Improve walking and cycling access across the rail lines:
 - Adopt a high quality integrated architectural and structural engineering design for the new William Street bridge including supporting structure(s), balustrades and lighting, with provision for safety, universal access and high levels of visibility.
 - Locate and design the new bridge over the Sandringham line to visually and physically connect to the South Yarra Siding Reserve and to maximise its long-term contribution to pedestrian and cycle accessibility. Adopt a high quality integrated architectural and structural engineering design including supporting structure(s), balustrades and lighting, with provision for safety, universal access and high levels of visibility.
3. Maximise permanent usable public open space in the precinct, including:
 - Construct any required vertical retaining walls to support backfilling to levels that increase the level of useable open space.
 - Design retaining walls and backfill to provide generous soil depths to support the growth of trees, and to maximise opportunities for future bridging, decking or development above the rail corridors.

- Consider future structural demands in the design of retaining walls and any other project infrastructure to support future decking across the railways for a future public plaza adjoining Toorak Road.
- 4. Provide a direct link through a new pedestrian bridge from the South Yarra Siding Reserve to Osborne Street to connect to Toorak Road.
- 5. Provide high quality contemporary public open spaces that are accessible, safe and responsive to the needs of current and future local communities:
 - Provide a balance of hardscaped and green spaces that facilitate a range of passive and active recreation, and are adaptable to varied uses over time.
 - Maximise the area of green, landscaped open space including canopy trees.
- 6. Design all structures required for and in association with the project as part of an integrated site design:
 - Consider the cumulative impact of all structures including emergency access and ventilation structures, retaining walls, bridges, balustrades, vehicular crash barriers, acoustic screens, security fences and privacy screens, and integrate all into a coordinated high quality site design.
 - Provide a high quality design response to all sensitive interfaces.

- Consider the forms, locations, materials and detailing of noise abatement screens, fences and other structures to maximise views into, through and between pedestrian routes and open spaces, and to minimise graffiti and vandalism.
- Provide transparency in acoustic screens and fencing above one metre (nominal) height at interfaces with walking routes or actively used public spaces, to improve passive surveillance and personal security.

f Reference Documents

+ Chapel reVision Structure Plan 2013-2031. Hansen Partnership for City of Stonnington, and inclusive of:

- Toorak Road Central and South Yarra Sidings Sub-Precinct Framework Plan
- Forrest Hill Sub-Precinct Framework Plan⁵¹

+ City of Stonnington Public Realm Strategy, 2010.⁵²

+ City of Stonnington, Cycling Strategy, 2013-2018.

+ City of Stonnington, Strategies for Creating Open Space, 2013.

Other relevant documents currently under preparation by the City of Stonnington and which are expected to be available to guide the design for this area include:

- + Integrated Transport Action Plan.
- + Public Realm Guidelines.

51. stonnington.vic.gov.au/Vision/Strategic-Planning/Planning-Scheme-Amendments/Amendment-C172/C172-Reference-Documents

52. stonnington.vic.gov.au/Vision/Strategic-Planning/Planning-Scheme-Amendments/Amendment-C172/C172-Reference-Documents

4. PRECINCT-SPECIFIC DESIGN ISSUES

4.9 PRECINCT 9: WESTERN TURNBACK

Operations of the new Metro Tunnel will include early termination of some westbound train services on the Sunbury line to return towards the CBD, optimising services for the overall corridor. A new turnback facility is required to support this at West Footscray.

a Relevant Metro Tunnel Scope

The Concept Design proposes a third platform and track works at West Footscray station, and modifications to the existing concourse. The scope of works with this option includes:

- + realigning regional, suburban and freight lines and construction of new tracks and turnouts
- + construction of a new passenger platform and alterations to the existing concourse.

b Context

West Footscray station is near a commercial and industrial area to the south and residential areas and recreation facilities including the Whitten Oval to the north. The proposed works are entirely within publicly owned (VicTrack) land and between existing rail lines.

c Aims

The turnback facility will be integrated with existing rail infrastructure and minimise impacts on surrounding access, streetscapes and land uses.

d Objectives

1. Maintain and enhance access to existing and new rail station platforms.
2. Maintain or enhance access for all relevant transport modes to and around the station.
3. Provide a high quality of integrated design for the station precinct.

e Design Guidelines

1. Integrate the new passenger platform and access ways with West Footscray station.



Platforms
Cross Street

Next Train	Destination	Platform	Minutes
8:46	CITY LOOP All Except SKN	1	8
8:55	CITY LOOP All Except SKN	1	15
8:38	SUNBURY Stops All Stations	2	4
8:50	SUNBURY Stops All Stations	2	13

Footbridge at West Footscray station.
Photo: Peter Bennetts

5. IMPLEMENTATION

*Swanston Street and RMIT University's Swanston Academic Building, Melbourne.
Photo: Rodney Dekker, courtesy of City of Melbourne*



5.1 DELIVERING GREAT DESIGN

Thinking about good design through the full project lifecycle is a key pillar of the design approach for Victoria's Major Transport Infrastructure Program (outlined in section 1.4.2). An urban design strategy in isolation cannot ensure great design for public spaces. Its effectiveness will only be as good as governance and processes that are established to support it.

To support the preparation of this document, expert design advice and stakeholder advisory groups were established to ensure that there was appropriate access to detailed information that is critical to deliver the urban realm outcomes contained within this Urban Design Strategy. These groups (described in more detail below) have played an important role in the process to date, and will continue to provide guidance to the Metro Tunnel project during subsequent stages.

The Victorian Government has announced that the Metro Tunnel project would be procured through four separate works packages (early works, the tunnels and stations, rail infrastructure works and rail systems) and the Urban Design Strategy was developed to ensure a cohesive approach to urban design across all of these packages. Similarly, there will be other related projects, such as over-site development proposals that will also need to be considered as an integrated part of a whole. Groups such as those listed below have an equally important coordination role to ensure that consistent design outcomes can be delivered across the full project spectrum.

5.2 URBAN DESIGN REFERENCE GROUP

The Urban Design Reference Group (see Appendix) was instrumental in the development of this document, and as a group it has developed detailed knowledge and understanding of sites and user requirements. It has been possible to capture a part of

that knowledge in this strategy, but considerably more detailed information will be relevant in subsequent project stages as designs are developed and resolved in detail.

The Urban Design Reference Group therefore represents an important urban design and place making resource to support the ongoing delivery of Metro Tunnel. Representatives of this group will continue to be engaged throughout the project, providing advice and guidance through the design development stage to ensure that public realm designs (relevant to their area of responsibility) are consistent with stakeholder requirements and are fit for purpose.

5.3 URBAN DESIGN AND ARCHITECTURE ADVISORY PANEL

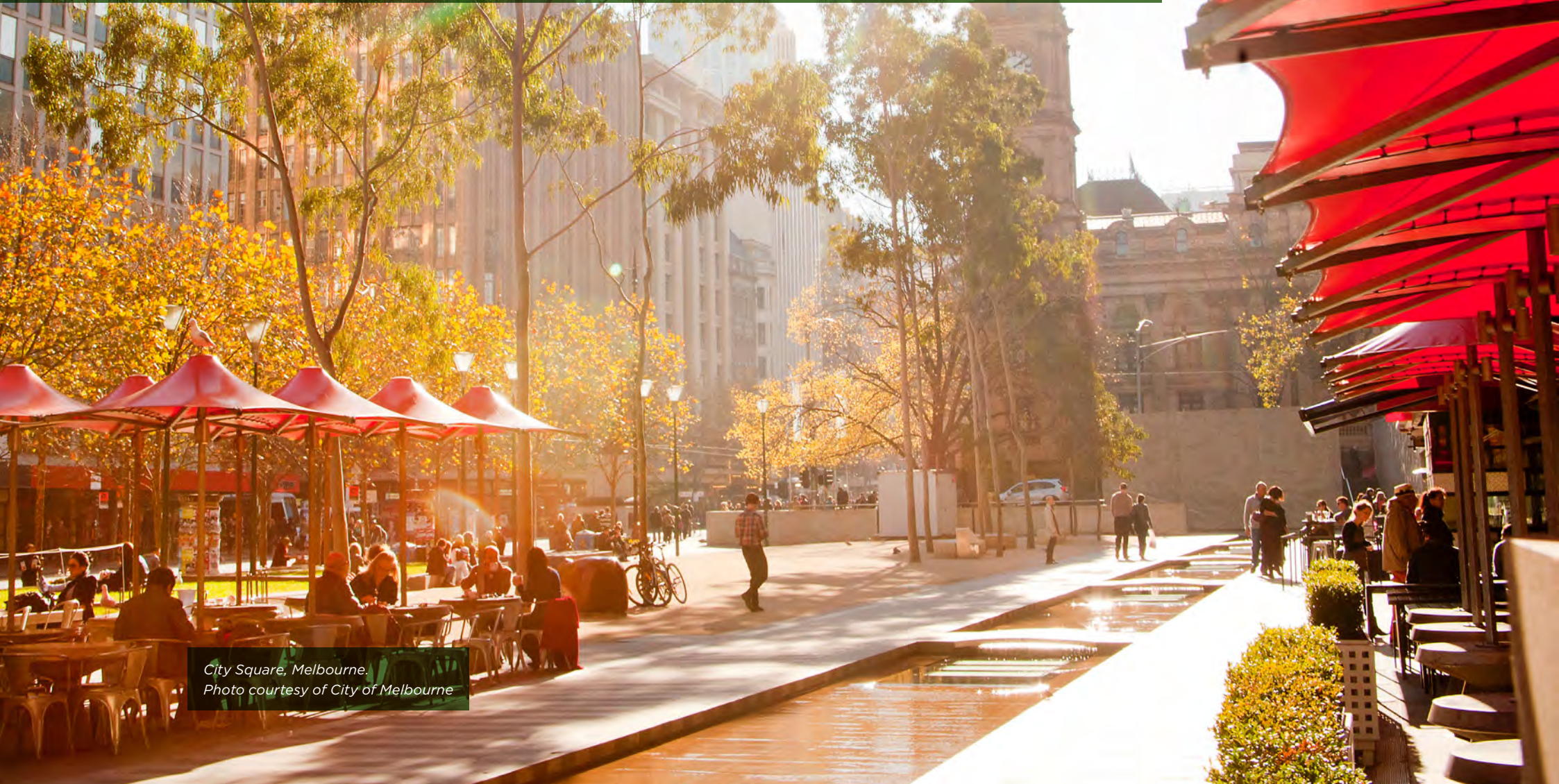
The Urban Design and Architecture Advisory Panel, chaired by the OVGA, was established to provide expert design advice for the project. The Panel consists of highly experienced built environment professionals (from the OVGA, their Victorian Design Review Panel and private practice), who provide design review at key stages of the design and development process. The Urban Design and Architecture Advisory Panel is project specific and provides for a greater degree of continuity and in-depth consideration for large and complex projects than is possible with the OVGA's standard Victorian Design Review Panel process.

Architects, urban designers, landscape architects and planners, as well as specialists in sustainability, accessibility, public art, health, place making and master planning, will be called upon as part of the Urban Design and Architecture Advisory Panel.

The Urban Design and Architecture Advisory Panel role will include:

- + Design review and advice during tender processes, and
- + Review of proponents' development plans.

APPENDIX: STAKEHOLDER CONSULTATION



*City Square, Melbourne.
Photo courtesy of City of Melbourne*

The Urban Design Strategy has been developed in consultation with stakeholders as outlined below.

LINE WIDE

Organisation	Involvement
City of Melbourne	<p>Member Urban Design Reference Group</p> <p>Role of this group, to regularly review the Urban Design Strategy for the following purposes:</p> <ul style="list-style-type: none"> + Advise MMRA regarding urban design and architecture, including the impacts of other disciplines and other decisions on these elements + Ensure the policy positions and perspective of their agencies are supported by the Strategy + Advise on specific design issues / options + Advocate for high civic quality and amenity in the public realm and quality design in all aspects of the project.
City of Port Phillip	
City of Stonnington	
Public Transport Victoria	
Department of Economic Development, Jobs, Transport and Resources	
Office of the Victorian Government Architect	
Metropolitan Planning Authority	
Department Land, Environment, Water and Planning	<ul style="list-style-type: none"> + Environment Effects Statement (EES) Technical Reference Group member + Role of the EES Technical Reference Group to provide guidance and advice to MMRA and DELWP regarding the development and technical adequacy of the EES documentation, which includes the Urban Design Strategy. + Urban Design Strategy presented 9 December 2015, 17 February 2016 and 16 March 2016.
City of Melbourne	
City of Port Phillip	
City of Stonnington	
Aboriginal Affairs Victoria	
VicRoads	
Environmental Protection Agency	
Melbourne Water	

ARDEN AND WESTERN PORTAL

Organisation	Involvement
City of Melbourne	+ Attendee stakeholder requirements workshop + Half day 24 September 2015 + Attendees provided feedback on draft document, discussed their perspectives as to physical characteristics and opportunities; issues and challenges; with a focus on access and integration.
Public Transport Victoria	
VicRoads	
VicTrack	
Metropolitan Planning Authority	
Department of Economic Development, Jobs, Transport and Resources	
Office of the Victorian Government Architect	
Bicycle Network Victoria	

PARKVILLE

Organisation	Involvement
City of Melbourne	+ Attendee stakeholder requirements workshop
Public Transport Victoria	+ Half day 21 September 2015
VicRoads	+ Attendees provided feedback on draft document, discussed their perspectives as to physical characteristics and opportunities; issues and challenges; with a focus on access and integration.
Metropolitan Planning Authority	
Heritage Victoria	
Department of Economic Development, Jobs, Transport and Resources	
Office of the Victorian Government Architect	
Bicycle Network Victoria	
University of Melbourne	
Plenary Health Group	
Royal Melbourne Hospital - Melbourne Health	
Walter and Eliza Hall Institute of Medical Research	
Peter Doherty Institute	
Department of Health & Human Services	

CBD NORTH

Organisation	Involvement
City of Melbourne	+ Attendee stakeholder requirements workshop
Public Transport Victoria	+ Half day 1 October 2015
VicRoads	+ Attendees provided feedback on draft document, discussed their perspectives as to physical characteristics and opportunities; issues and challenges; with a focus on access and integration.
Metropolitan Planning Authority	
Department of Economic Development, Jobs, Transport and Resources	
Metro Trains Melbourne	
Bicycle Network Victoria	
RMIT University	
State Library of Victoria	

CBD SOUTH

Organisation	Involvement
City of Melbourne	+ Attendee stakeholder requirements workshop
Public Transport Victoria	+ Half day 1 October 2015
VicRoads	+ Attendees provided feedback on draft document, discussed their perspectives as to physical characteristics and opportunities; issues and challenges; with a focus on access and integration.
Metropolitan Planning Authority	
Department of Economic Development, Jobs, Transport and Resources	
Metro Trains Melbourne	
Bicycle Network Victoria	
Heritage Victoria	
Office of the Victorian Government Architect	
Federation Square	+ Unable to attend 1 October meeting, separate 1:1 meeting 12 October 2015.

DOMAIN

Organisation	Involvement
City of Melbourne	+ Attendee stakeholder requirements workshop + Half day 21 September 2015 + Attendees provided feedback on draft document, discussed their perspectives as to physical characteristics and opportunities; issues and challenges; with a focus on access and integration.
City of Port Phillip	
Public Transport Victoria	
VicRoads	
Metropolitan Planning Authority	
Heritage Victoria	
Department of Economic Development, Jobs, Transport and Resources (Transport)	
Office of the Victorian Government Architect	
Bicycle Network Victoria	

EASTERN PORTAL

Organisation	Involvement
City of Stonnington	+ Attendee stakeholder requirements workshop
Metropolitan Planning Authority	+ Half day 24 September 2015
Department of Economic Development, Jobs, Transport and Resources	+ Attendees provided feedback on draft document, discussed their perspectives as to physical characteristics and opportunities; issues and challenges; with a focus on access and integration.
Office of the Victorian Government Architect	
Bicycle Network Victoria	
Heritage Victoria	


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