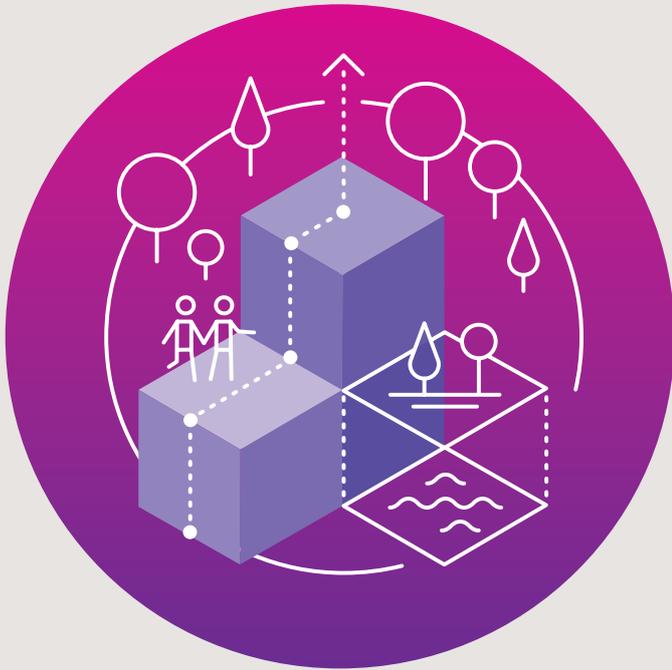


**MACAULAY
DRAFT STRUCTURE PLAN REFRESH
2020**





A CITY PLANNING FOR GROWTH

Melbourne will be a leader in planning for growth and technological advancement. We will guide and influence the future development of the city for the benefit of all city users and in a way that values and celebrates its historical and cultural identity.

Acknowledgement of Traditional Owners

The City of Melbourne respectfully acknowledges the Traditional Owners of the land, the Boon Wurrung and Woiwurrung (Wurundjeri) peoples of the Kulin Nation and pays respect to their Elders, past and present.

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Version 9 - Approved by the Future Melbourne Committee (7 July 2020) for engagement.

July 2020

Cover Image: The former Victorian Producers' Co-Operative Company store. A heritage listed four storey brick warehouse built in the early 1950's.

Disclaimer

This report is provided for information and it does not purport to be complete. While care has been taken to ensure the content in the report is accurate, we cannot guarantee it is without flaw of any kind. There may be errors and omissions or it may not be wholly appropriate for your particular purposes. In addition, the publication is a snapshot in time based on historic information which is liable to change. The City of Melbourne accepts no responsibility and disclaims all liability for any error, loss or other consequence which may arise from you relying on any information contained in this report.

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PART ONE: INTRODUCTION

In this Part you will find the vision for Macaulay including an illustrative masterplan, the key drivers of change influencing the plan, an introduction to the study area and a summary of how the plan was developed.

We want to ensure that Macaulay is highly liveable, sustainable and prosperous. The draft structure plan provides a framework to guide development and investment in the Macaulay urban renewal area which incorporates parts of Kensington and North Melbourne. It has been prepared to engage with the community and other stakeholders on the future of Macaulay. The engagement findings will be used to inform the preparation of the final structure plan.

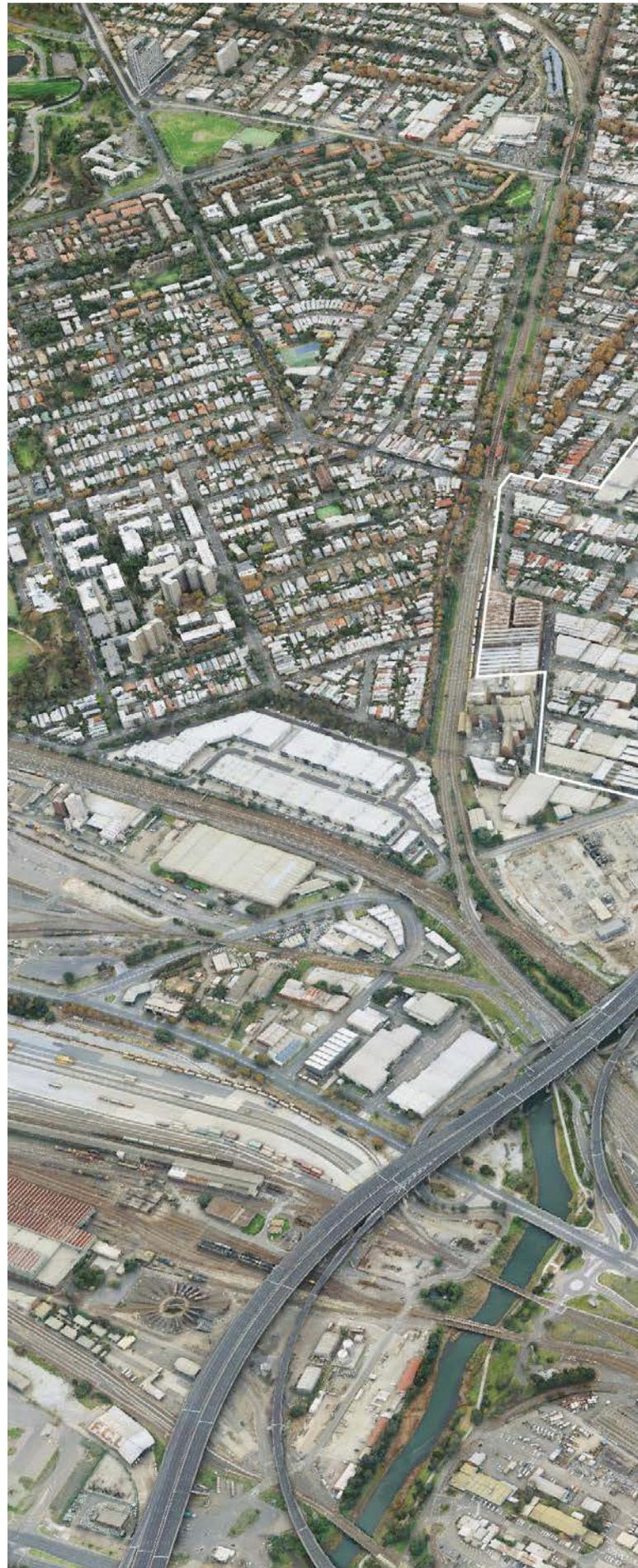
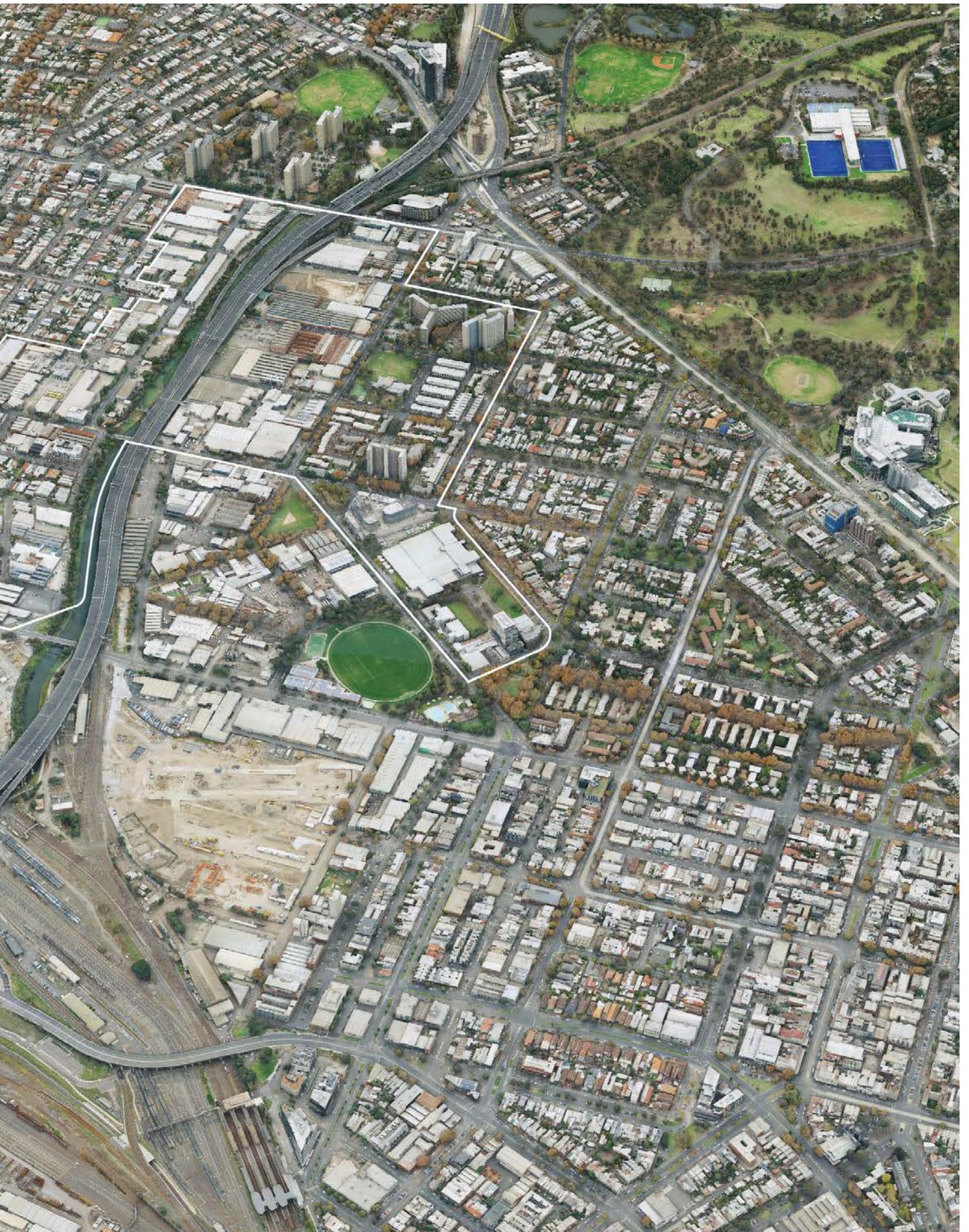


Image 1: Aerial view of the Arden and Macaulay urban renewal areas located within the suburbs of North Melbourne and Kensington



1.1 CONTEXT

The study area

The Macaulay urban renewal area covers approximately 90 hectares of land north-west of the Central City and incorporates parts of Kensington and North Melbourne.

Macaulay is one of several precincts at various stages of planning, development or completion within inner metropolitan Melbourne. It is located directly north of the Arden urban renewal area and in close proximity to the Parkville National Employment and Innovation Cluster, Melbourne Innovation District City North, Dynon, E-Gate, West Melbourne and the central city.

Why a refreshed structure plan?

The City of Melbourne adopted the Arden-Macaulay Structure Plan in 2012 to guide future growth and development in parts of Kensington and North Melbourne. It outlines the preferred land use, building design, open space, transport and infrastructure outcomes to deliver a thriving and liveable place.

Since adopting the structure plan there have been changes to the planning context affecting the area, including the Minister for Planning asking Council to review the planning controls (see page 14). In response to these changes we are preparing a refreshed structure plan for Macaulay that will:

- Maintain the approach to future growth and development from the 2012 structure plan.
- Outline how we will plan for the changes that have occurred since 2012.

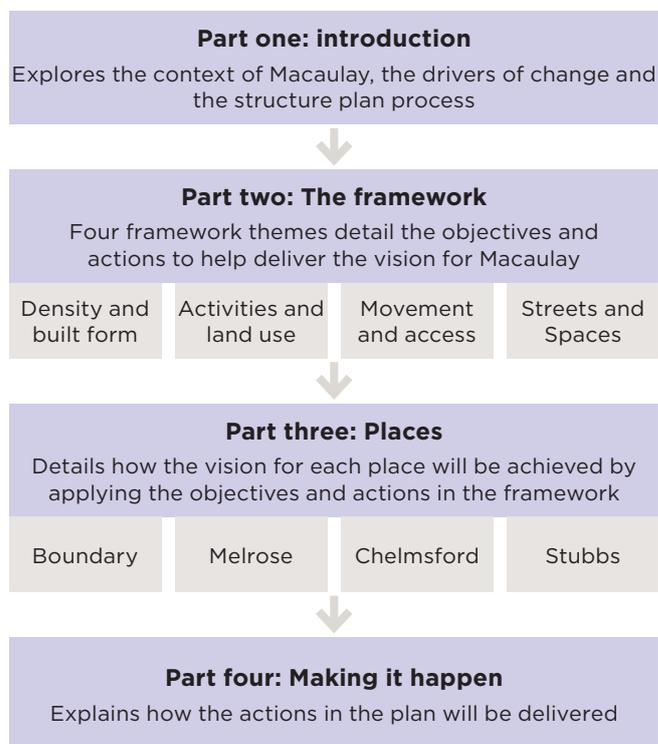
Objectives of the structure plan

The key aims of structure planning are to plan for and develop a shared vision for an area and to identify the type and scope of change projected within an area over time. A structure plan helps give effect to state and local planning policy and is a tool to help influence, facilitate and manage change.

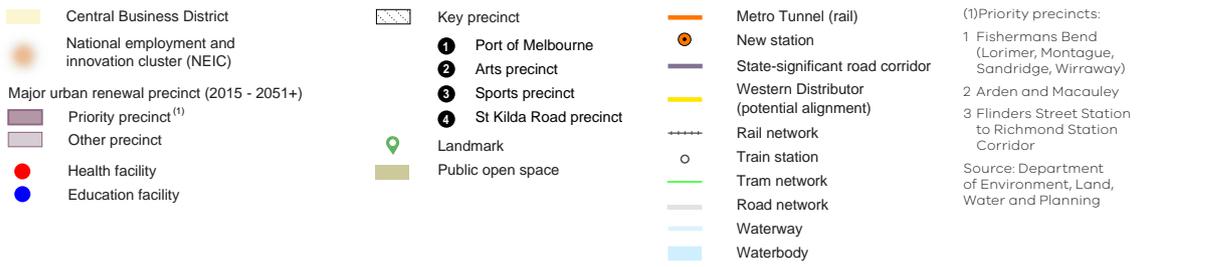
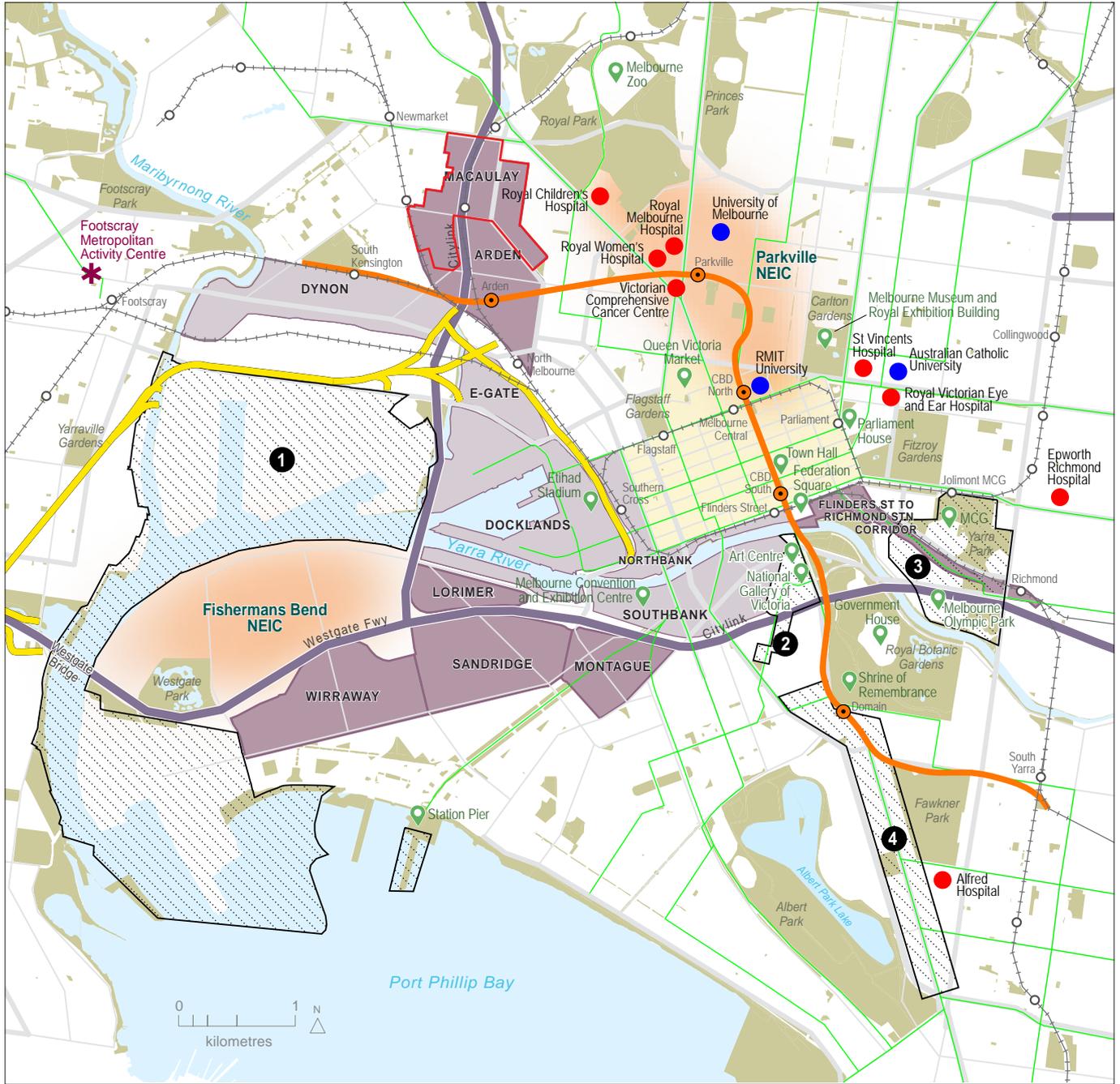
There are five key objectives of the refreshed structure plan:

- To reinforce and consolidate the vision and framework for the long-term future growth, development and character of Macaulay.
- To give clarity and certainty about the level and type of development that can occur in the area in terms of built form and land use.
- To ensure that community infrastructure, open space and transport provisions meet the needs of a growing population.
- To help deliver City of Melbourne and Victorian Government strategies and policies related to Macaulay.
- To identify a set of actions to deliver the vision and framework for the future development of Macaulay, including planning scheme amendments and capital works projects.

Format of the structure plan



A glossary of terms is provided in Appendix I.



Map 1: Key features in and around Melbourne's central city from Plan Melbourne, the Victorian Government's metropolitan planning strategy. The Macaulay structure plan area is outlined in red.

Planning for Macaulay

The draft Macaulay Structure Plan (the plan) has been developed using a 'place based' approach by identifying four distinct places in Macaulay, each with its own character and qualities. These four places are referred to as Boundary, Melrose, Chelmsford and Stubbs (see image below).

A separate structure plan for Arden is being developed by the Victorian Planning Authority and the City of Melbourne. While Macaulay and Arden each have a distinct role and character, both plans are being developed to be complementary to each other and co-ordinated in their delivery. Other major projects occurring in the area are described in Appendix III.

The study area for Macaulay has changed since the Arden-Macaulay Structure Plan 2012 Structure Plan and Planning Scheme Amendment C190. The area excludes the Allied Mills site in Kensington. Site on the south side of Macaulay Road between Boundary Road and Langford Street are now within the Arden Structure Plan to align with the boundary as proposed by the Arden Vision.



Image 2: A map of Macaulay showing the study area and the four places identified in the plan.

Engaging with the community and stakeholders

In November 2019, the Outcomes for Macaulay Discussion Paper was released to engage with the community and other stakeholders on the future of Macaulay.

The engagement phase ran for five weeks through November and December. In total, six local events were hosted, six digital platforms were utilised, over one hundred thousand people were reached, and 269 ideas recorded.

A summary report and full report on the engagement process and findings can be accessed online at participate.melbourne.vic.gov.au/macaulay-refresh.

The draft structure plan and subsequent planning scheme amendments provide further engagement opportunities for the community and stakeholders.

Discussion paper engagement findings

95% of respondents supported or somewhat supported the vision. Analysis of the consultation identified the following key messages:

A place prepared for the future

- Making provisions to ensure that our housing, transport systems and employment opportunities can support a growing population.
- Looking ahead to a changing climate, focusing on flood management, increased green spaces, and improving pedestrian, cycling and public transport networks.

A nice place to live

- Making sure that Macaulay is a nice place to live, work, play and relax.
- Ensuring that employment opportunities, housing, and transport options allow for a good quality of life.

A place for the community

- A desire for inclusive community spaces where all are welcome, including green spaces, sports facilities and community buildings.
- Having accessible community spaces will facilitate and encourage social connection within the community.

The key messages and findings have helped shape the draft structure plan.



Image 3: Participate Melbourne project page (participate.melbourne.vic.gov.au/macaulay-refresh)

Background studies

Alongside the community and stakeholder engagement, a number of background studies were undertaken to help further analyse and understand Macaulay including:

- Community infrastructure
- Transport and access
- Population and employment forecasts
- Development feasibility
- Affordable housing
- Retail demand

The reports will be made public with the final structure plan.

Independent review

An independent design review of the contents of the draft structure plan will be undertaken by the Victorian Design Review Panel, run by the Office of the Victorian Government Architect. The purpose of this review will be to ensure that the proposals in the draft plan, particularly those focussed around the built form, are well considered and would achieve the vision for Macaulay and its four distinct places. Feedback from the review will help shape the final plan.

1.2 VISION AND KEY MOVES

Vision

Macaulay will transition into a mixed use, mid-rise neighbourhood with a distinct inner urban character. New development will be high quality and deliver amenity for residents, workers and visitors.

Improvements to public transport services, walking and cycling will be prioritised to support sustainable modes of travel.

Greening of streets, enhancing the Moonee Ponds Creek and the delivery of new open spaces will provide connections and a network of local places.

Public and private investment will deliver community infrastructure to meet the needs of a growing and diverse neighbourhood.

Macaulay will be a climate ready precinct that supports accelerated action in reaching our goal of zero emissions by 2040.

We have consolidated and simplified the six theme based visions from the 2012 structure plan into a single vision for Macaulay. The vision will be delivered through a number of objectives and actions that relate to built form and density, uses, activities and infrastructure, movement and access, and streets and spaces (see Part Two: The Framework).

“Unlike other renewal areas in Melbourne, this part of Arden-Macaulay is not an extension of the CBD. The area has a future as a mid-rise precinct that is part of the broader North Melbourne and Kensington areas.”

– Planning Scheme Amendment C190 Panel Report

Key moves

- Celebrate the unique existing and future character of Macaulay’s four distinct places.
- Improve built form controls to achieve the vision of a climate ready, well designed mid-rise neighbourhood.
- Deliver land use and built form controls to ensure that Macaulay provides a mix of uses and is able to accommodate population forecasts.
- Prioritise walking, cycling and public transport and improve connectivity through new streets and laneways.
- Revitalise the Moonee Ponds Creek and reconnect the creek corridor to its Aboriginal heritage.
- Deliver new open space and expand existing open space by closing roads and consolidating open space contributions from new developments.
- Ensure adequate provision and good access to community infrastructure within and around Macaulay and help to deliver affordable and diverse housing.

The key features proposed are:

1. **New density and built from controls**
2. **New and enhanced open spaces**
3. **New local activity centres**
4. **Redeveloped recreation and community facilities**
5. **New and improved bike lanes**
6. **Improved and new walking routes, crossings and connections**
7. **A new network of streets and laneways**



Map 2: The key moves for Macaulay (indicative only for illustrative purposes)

1.3 ABOUT MACAULAY

The history of Macaulay

Between six and eight thousand years ago, the area now known as North Melbourne and Flemington was included within the extent of Port Philip Bay before the sea retreated. The remaining low-lying areas formed a picturesque saltwater lake near to what is now Southern Cross Station, which was fed by the Moonee Ponds Creek.

The Creek - which was a chain of ponds during drier months and a flood plain during heavy rains - was a travel route and water and food source for the Aboriginal peoples of the Kulin nation. Food sources included the tuber daisy yam - of which Moonee Ponds Creek was a noted source - and bull-rush roots which were collected from the waterway and roasted; and eels, which were a seasonal food caught in stone weirs and long fibre nets.

In the decades after 1835, everything changed and the Creek's cultural importance to local Aboriginal people was ignored. For much of the next 150 years, the creek and surrounding land served as an industrial and warehousing hub around Melbourne's port and railway facilities. Storehouses and manufacturing centres were located next to workers cottages.

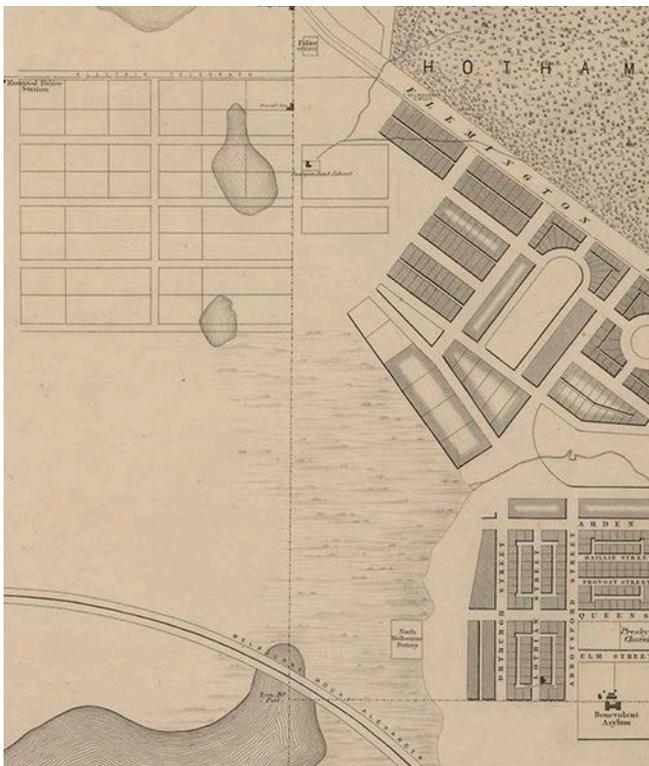


Image 4: A map published by Andrew Clarke, Surveyor General in 1855 showing the former chain of ponds. (Image: Melbourne and its suburbs, compiled by James Kearney, David Tulloch and James D. Brown, State Library of Victoria)

Timeline

Macaulay is the country of the Wurundjeri and Boon wurrung people of the Kulin Nations and has been for tens of thousands of years.	
Europeans arrive in Melbourne	1835
Robert Hoddle lays down the town grid	1837
Hotham Ward is incorporated into the City of Melbourne	1855
Maribyrnong River experiences 1 in 20 year flood	1871
Macaulay railway station opens as Macaulay Road	1887
The Town of North Melbourne, along with the Boroughs of Flemington and Kensington, became the Hopetoun Ward of the City of Melbourne	1905
Maribyrnong River experiences a 1 in 100 year flood, among the largest on record with the Maribyrnong gauge measuring waters at 5.18 metres.	1906
Maribyrnong River experiences a 1 in 25 year flood	1916
Slum reclamation area declared between Molesworth and Haines Streets	1940
Abbotsford Street estate completed	1950s
Boundary Road and Melrose Street estates completed	1960s
Maribyrnong River experiences 1 in 40 year flood	1974
CityLink completed	1999
Public Record Office Victoria opens on the former sites of the Victorian Government Printing Office and Melbourne Gas Company	2004
Rejuvenation of the Youngusband woolstore built in 1906 now underway	Today

Macaulay today

Macaulay has evolved as a mixed-use area, supporting a diverse community of residents and businesses. Workers cottages, brick factories and industrial units are found side by side, reflecting the mixed history of the area.

Buildings are predominantly low rise, with the exception of the public housing towers near Boundary Road. Lot sizes vary, with pockets of residential lots under 500 square metres, to larger industrial land holdings of more than 10,000 square metres. Some heritage buildings have been repurposed for residential and business uses. The retention and adaptation of heritage buildings contributes to the character of the area. There are a small number of residential and commercial developments of varying scale underway or completed throughout the precinct.

Streets are generally wide and have been planted with native and exotic trees. On-street parking is provided throughout the precinct. The poor quality public realm and limited open space reflects the industrial past of Macaulay.

The land in Macaulay slopes gently towards the Moonee Ponds Creek, Upfield Rail Line and Citylink which dissect the precinct and create a barrier to east-west movement. The raised infrastructure of the Citylink is a dominating presence while the Moonee Ponds Creek is channelised and often hidden from view.

As the economy recovers from COVID-19 and continues to transition to jobs focused on knowledge, retail and services, there will be continued pressure to redevelop sites for higher value uses including residential developments and employment space that support future jobs.

Economic role

Macaulay currently accommodates a diverse mix of commercial, retail and industrial uses such as manufacturing, wholesale trade and warehousing, typically accommodated in larger floor plate buildings.

Macaulay is adjacent to Arden and in close proximity to the Parkville National Employment and Innovation Cluster, Melbourne Innovation District City North and the central city. Metro Tunnel is a major transport project with a new station in Arden. These developments will attract large numbers of residents and employments, with a focus on supporting higher-order technology, research, and advanced manufacturing jobs.

This strategic positioning will underpin Macaulay's competitive advantage in accommodating demand for lower-cost space for small and medium sized enterprises and start-ups that are seeking to link with businesses and institutions in Arden and the surrounding areas.

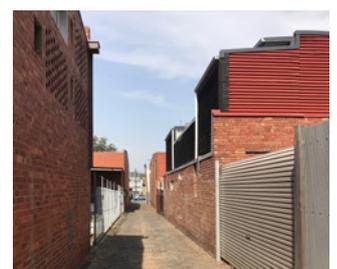


Image 5: A selection of images showing some of the diverse buildings, streets and places of Macaulay.

Urban renewal areas: places for growth and change

A significant amount of future growth and change will be accommodated in the municipality's urban renewal areas. These places are transitioning from industrial and manufacturing uses to mixed-use inner city neighbourhoods. They are often located in low-lying, flood prone areas.

Each urban renewal area has, or will have, its own vision, role and character that will contribute to a highly liveable and prosperous city. They will accommodate different levels of growth and change with corresponding built form and public realm outcomes influenced by the existing and future character, transport connectivity and local assets. **Macaulay will transition to a mid-rise, mixed use neighbourhood** in comparison to places like Arden which will accommodate higher levels of growth supported by the new Metro Tunnel station.

Current planning in Macaulay

The Arden-Macaulay Structure Plan was completed in 2012 and informed the existing planning controls for the area. The area was rezoned to encourage residential development and allow other uses such as shops, offices, education and entertainment. Interim built form controls were introduced that allow medium density development with lower building heights near existing low-rise neighbourhoods.

Current profile and future projections

Macaulay is a home to a diverse population of workers and residents. Macaulay and the surrounding areas, including the neighbouring Arden precinct, are undergoing a period of significant change, which is projected to continue into the future. This is part of a broader trend in Australian cities as former industrial and manufacturing uses transition to mixed use areas with new residential, commercial and retail development. It is reflected in the shifting profile of Macaulay's population, household size and structure, and allocation of floor space.

This change must be managed to ensure that the existing community can flourish and social equity is realised. Long term affordability will be a key success factor. Without appropriate provision of affordable housing, households experiencing housing stress face increased risk of homelessness and people experiencing homelessness have greater difficulty finding safe and appropriate accommodation.

The forecasts below provide an estimate of possible change into the future. It should be noted that estimating the current population in Macaulay is challenging as the study area does not correspond to census data boundaries. Future population forecasts were also produced prior to the COVID-19 pandemic.

Population

Around 3,150 people currently live in Macaulay (2016 Census). The average household size is 2.2 persons in Kensington and 2.1 in North Melbourne. These are lower than the Greater Melbourne average of 2.7. The median age in Kensington is 33 and 29 in North Melbourne. These are also lower than the Greater Melbourne average of 36.

Employment

There are around 3,580 jobs located in Macaulay (2018 CLUE). The number of jobs have increased by around 18 per cent over the last 10 years. Service industry, construction, and health care and social assistance jobs have increased. Jobs in manufacturing, wholesale trade, public administration and safety, and transport, postal and storage jobs have decreased.

Forecasts

Victorian Government population forecasts indicate that Macaulay could accommodate 10,000 residents and 9,500 workers by 2051. The City of Melbourne commissions its own population forecasts. These forecasts indicate that Macaulay could accommodate 9,300 residents and 4,700 workers by 2036.



Changes to the planning context

Since adoption of the Arden-Macaulay Structure Plan in 2012 there have been a number of changes to the planning context affecting the Macaulay area. These have informed the development of the draft structure plan.

1. Opportunity to review and improve built form controls

The Minister for Planning requested a review of the built form controls and identified a number of improvements which could be made (see Appendix II for more detail). These include better management of density through the development of a Floor Area Ratio control. The interim controls were recently extended until 30 September 2021.

2. Separate planning processes for Arden and Macaulay

The Victorian Planning Authority and the City of Melbourne are leading the planning for Arden. The City of Melbourne is leading the planning for Macaulay. New structure plans are being prepared concurrently that recognise the different futures expected for these two distinct areas. These plans will supersede the 2012 structure plan.

3. Metro Tunnel is under construction

The 2012 structure plan was developed with the assumption that Metro Tunnel would be built. Construction commenced in 2016 and the tunnel is due to open in 2025. While the project will deliver a direct benefit for Arden, it will also improve public transport options in Macaulay.

4. Revised population forecasts

The 2012 structure plan forecast 20,500 residents and 22,500 jobs by 2040+ for both Arden and Macaulay. The Victorian Government has subsequently revised forecasts for the area as part of the Metro Tunnel business case.

POPULATION (2051)	ARDEN	MACAULAY	TOTAL
Residents	15,000	10,000	25,000
Workers	34,000	9,500	43,500
TOTAL	49,000	19,500	68,500

5. New approaches to flood mitigation

The precinct is located in low-lying, flood prone land and is bisected by the Moonee Ponds Creek. More extreme rainfall events and sea level rise will exacerbate flooding and water management issues in the area.

Growth and development in the area offers an opportunity to celebrate water so that it is part of the future character of Macaulay. This will be achieved by developing an integrated approach to water management in the public realm and private developments.

6. Development contributions

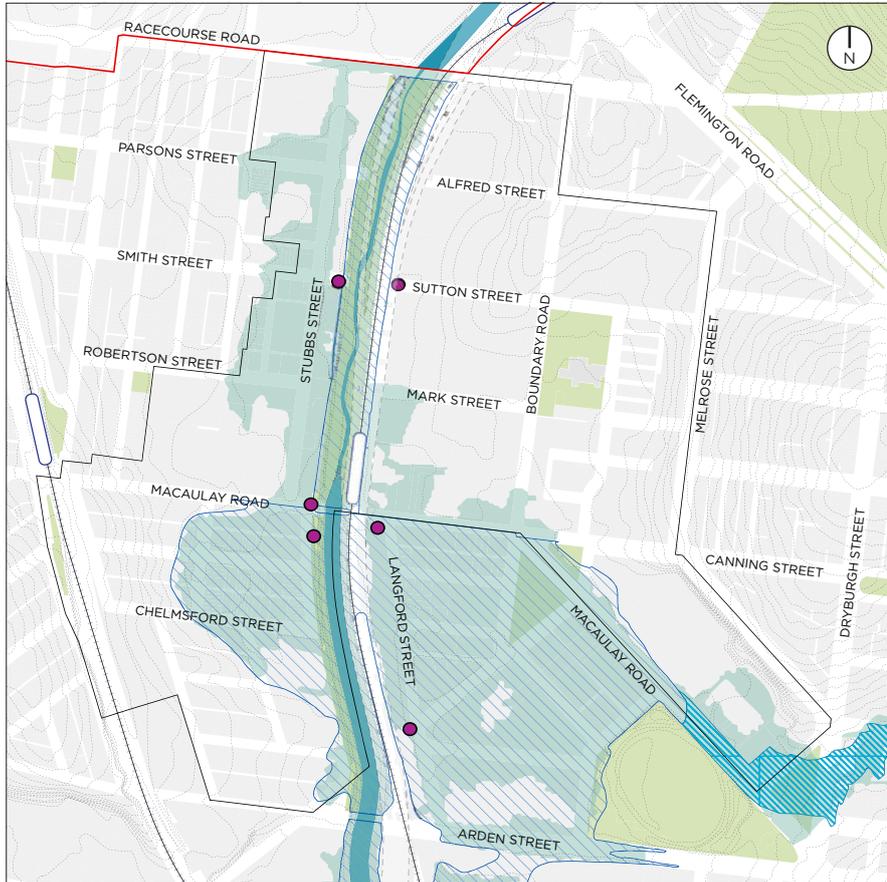
Ministerial Amendment C295 introduced an interim Development Contributions Plan Overlay (DCPO) for Macaulay. Under the DCPO, a developer is required to make a monetary contribution to help fund new and upgraded infrastructure.

The interim DCPO is set to expire 30 June 2020 and will be extended. A detailed Development Contributions Plan (DCP) identifying infrastructure requirements to support future population growth is being prepared. The DCP will then be implemented through a Planning Scheme Amendment. The DCPO will also be updated to reflect the contribution rates under the new DCP.

7. Affordable housing

Without affordable housing options, many people cannot afford to live in, and be part of, our communities. We have identified a current shortfall of 5,500 affordable homes across the municipality. By 2036 there is expected to be approximately 27,100 people in need of social and affordable housing.

Affordable housing is essential infrastructure to our city. Our focus is on mechanisms to increase the supply of affordable rental housing in the municipality which can be managed through registered community housing organisations.



- Key**
- Macaulay study area
 - City link
 - Contour lines
 - Moonee Ponds Creek
 - Existing open space
 - Existing rail network
 - Current extent of 1 in 100 year flooding
 - Land Subject to Inundation Overlay (LSIO)
 - Special Building Overlay (SBO)
 - Pumping stations

Map 3: Flooding is a significant issue in Macaulay. The map shows areas affected by the Land Subject to Inundation Overlay (LSIO), Special Building Overlay (SBO) and 1 in 100 year flooding. The LSIO and SBO are currently being updated.



Image 7: Flooding in Chelmsford Street, Kensington, during a high rainfall event.

PART TWO: THE FRAMEWORK

The framework has four themes:

1. Density and built form
2. Activities, uses and infrastructure
3. Movement and access
4. Streets and spaces

Objectives and actions under each theme will help achieve the vision for Macaulay. For each objective there is a description of what is proposed, why it is important and corresponding actions.

Some objectives and actions are short term 'quick-wins' which can be achieved in the next few years. Others are medium or longer term and require more detailed design work or investigation, working with key stakeholders and partners.

Overview of the objectives and actions

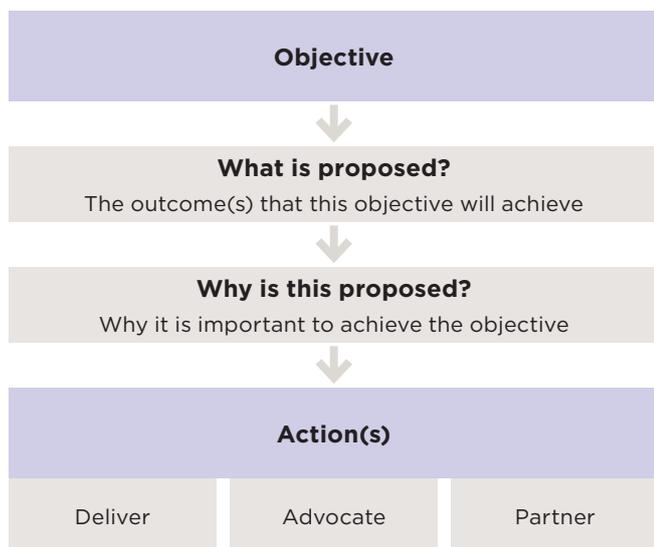


Image 8: Looking east along Parsons Street in Kensington towards Citylink.





2.1 DENSITY AND BUILT FORM

Interim built form controls in Macaulay are resulting in developments with high densities. If this trend continues the future population could significantly exceed current forecasts resulting in reduced amenity and placing pressure on infrastructure and services. Planning controls need to be updated to provide greater certainty and deliver high quality built form outcomes that align with the vision for Macaulay.

Context

What did the 2012 structure plan outline?

The plan introduced a series of strategies to deliver high quality urban design, including:

- improving walkability by introducing a finer grain network of streets and laneways
- integrating new developments with the character and scale of adjacent suburbs
- ensuring new developments contribute positively to the public realm
- ensuring buildings are designed to be flexible in use and achieve best practice sustainable design.

What do we know?

- One of the key messages from the community during the previous round of engagement is for greater certainty from the planning process, particularly related to built form controls.
- Current Victorian planning policies, as identified in Plan Melbourne encourage and support urban renewal in areas like Macaulay to accommodate future housing and employment growth and making better use of existing infrastructure.
- Macaulay is identified as an 'existing urban renewal area' in the Melbourne Planning Scheme, located between the Stable Residential Areas of North Melbourne and Kensington and the 'proposed urban renewal area' of Arden to the south.
- Flooding and water management are significant issues in Macaulay. The precinct is located in low-lying, flood prone land and is bisected by the Moonee Ponds Creek.
- Macaulay has a varied local character informed by its historic mix of industrial, commercial and residential land uses and as such the density and built form varies significantly throughout the area.
- In approving the interim built form controls, the Minister for Planning identified a number of improvements which could be made including better management of density through development of a floor area ratio control.
- Interim built form controls in Macaulay are resulting in developments with high densities. If this trend continues the cumulative effect would lead to a future population that is significantly higher than current population forecasts. This would place additional pressure on existing and proposed infrastructure.

- There are different sized sites, building typologies and heritage assets across Macaulay which add significantly to the character of the area and its potential to develop into a place with a diversity of building types and uses.
- Some of the existing building height and setback controls fail to respond to this diversity and character. The controls also result in reduced amenity including lack of daylight, sunlight, outlook, increased overshadowing and equitable development for neighbouring sites.
- There are not many examples of independently assessed high quality sustainable developments in Macaulay, particularly across residential developments.
- Servicing requirements sometimes dominate street frontages which has a detrimental impact on the quality of the public realm in Macaulay.
- Developments with 100 per cent site coverage result in poor environmental performance due to reduced site permeability (storm water cannot drain naturally) or the ability to plant trees on private land.
- There are currently more than 2,000 dwellings in the development pipeline for Macaulay, the majority of which are one and two bedroom apartments. This includes proposals under construction, approved or awaiting planning approval. If all these dwellings are built, this could more than double Macaulay's dwelling stock, without adding adequate diversity.

What are we proposing?

The objectives and actions in this section will help deliver the vision for Macaulay by supporting growth and development that:

- makes the best use of inner city land for new residential and commercial development
- responds positively to the valued existing character and contributes to the future character of places undergoing greater change
- creates great streets and spaces for people
- provides highly sustainable forms of development that will continue to support a diverse community and thriving economy.

This will be achieved by introducing new density and built form controls that:

- offer greater certainty to the community and development industry (Objective 1)
- ensure high quality building design in flood prone areas (Objective 2)
- improve the climate change adaptation and mitigation performance of new and existing buildings (Objective 3)
- recognise and celebrate the valued history, cultural values and character of Macaulay (Objective 4)
- support planning pathways that ensure design excellence is achieved for key strategic sites (Objective 5).

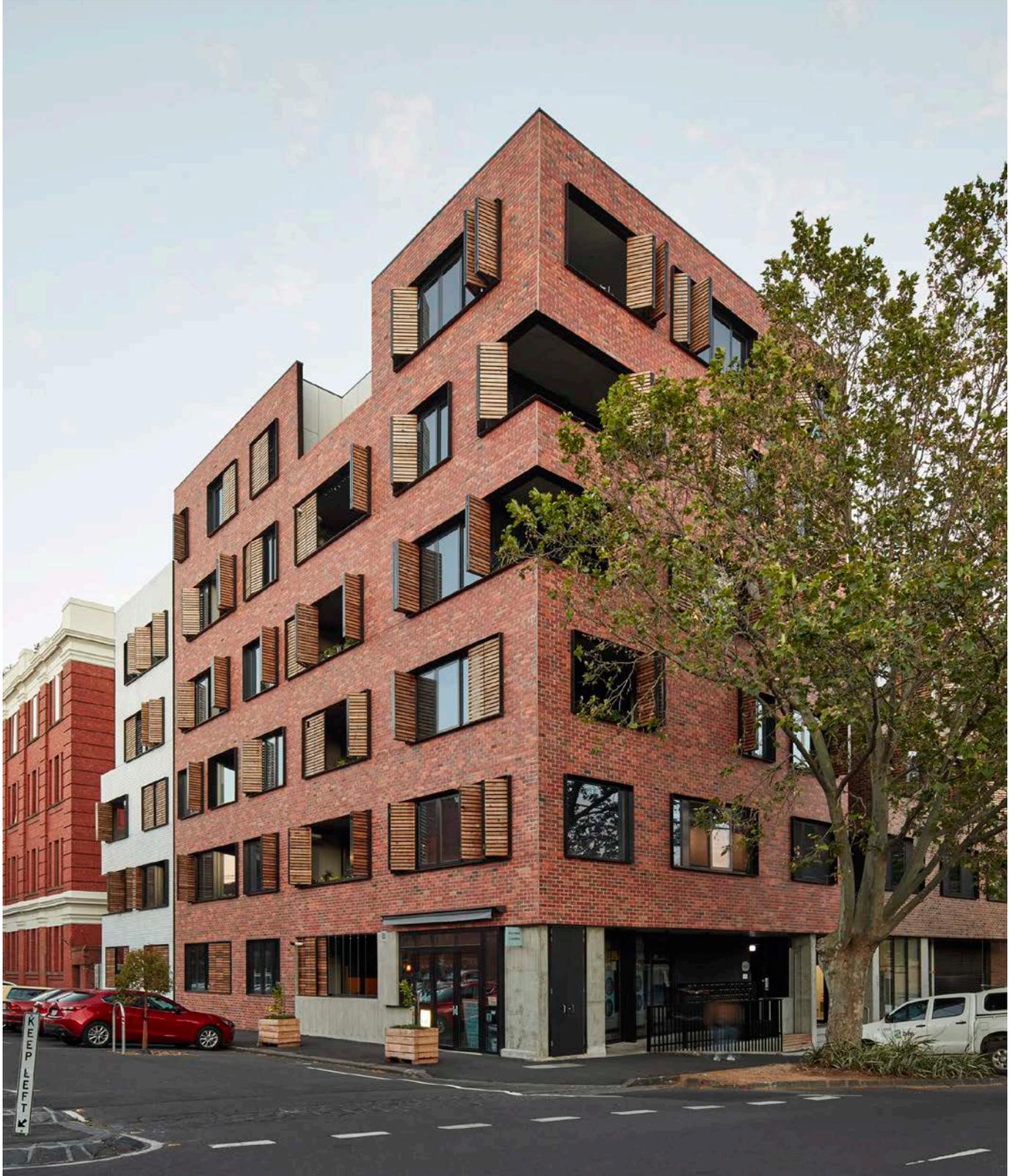


Image 9: The Oxford and Peel apartment building in Collingwood is an example of high quality design and the type of density and built form outcomes that would be appropriate in areas of Macaulay (Project: Jackson Clements Burrows Architects, Photo: Peter Clarke).

Objective 1: New density and built form controls will ensure that development is responsive to local context and character

New development will deliver high quality urban design outcomes. It will respond positively to the valued existing character of the area and contribute to the future character of places undergoing greater change as Macaulay transitions to a mid-rise urban renewal area.

Objective 1 contains three sections:

1. Develop new density controls
2. Updated built form controls
3. Proposed Design and Development Overlays

A design led approach was undertaken to develop new density controls and update the existing built form controls.

Develop new density controls

What is proposed?

A floor area ratio is a type of planning control that sets a specific amount of development that can occur on a site. When combined with other built form controls, it allows for variation in the height and shape of buildings. This will help to ensure that new development is more responsive to its site and the characteristics of an area. Figure 1 explains the concept of floor area ratios.

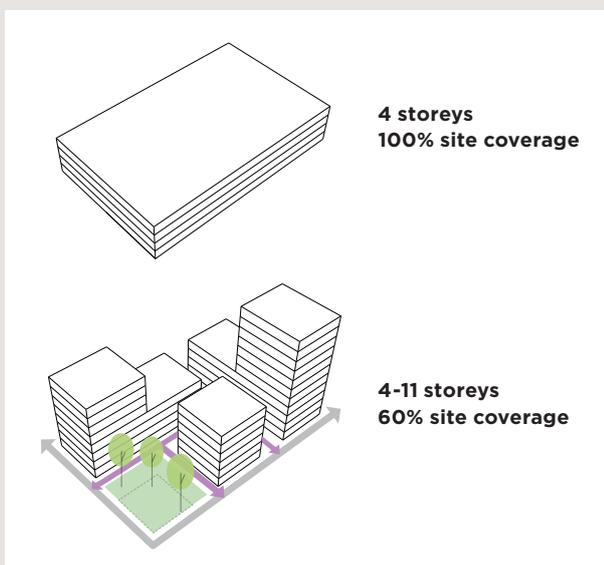
Proposed floor area ratios for Macaulay range from 3:1 to 4:1.

Why is this proposed?

Interim built form controls

The current controls (Design and Development Overlay 63) are based on building heights and setbacks. Under these controls, the density of many developments has been high. If this trend continued the cumulative effect could lead to:

- reduced amenity within development and the public realm including lack of daylight, sunlight, outlook and increased overshadowing
- a future population that is significantly higher than current population forecasts
- additional pressure on existing and proposed infrastructure, including open space and community facilities, that is being planned based on current population forecasts.



Understanding floor area ratio controls

The diagrams to the left explain the concept of floor area ratios and how it can result in different building types. For example, a floor area ratio of 4:1 allows for a total floor area up to four times the size of the site itself. This could be up to four storeys if 100 per cent of the site is developed or eight storeys if only half the site is developed.

For larger sites, a floor area ratio combined with other built form controls allows for variation in the height and shape of buildings while also enabling the delivery of new streets and open spaces. This will help ensure that the future street network is better connected to support walking and cycling in the area .

Figure 1: An example of a floor area ratio of 4:1

Building heights for much of Macaulay are expressed as a preferred maximum height or absolute maximum height with street wall heights and setbacks for different streets and interfaces. Any development that exceeds the preferred maximum height must provide a demonstrable benefit to the broader community that include among others:

- exceptional quality of design
- a positive contribution to the quality of the public realm
- high quality pedestrian links where needed
- good solar access to the public realm.

There are issues with how the benefits have been defined. This includes a lack of measurable criteria, use of subjective terms and benefits which are minimum design requirements under the Melbourne Planning Scheme.

Benefits of floor area ratios

Floor area ratios are used in many cities across the world, including in Melbourne's central city, Sydney, Hong Kong, New York and Vancouver. When used alongside design objectives, floor area ratios create a balance between promoting a suitable scale of development and adding positively to the amenity and character of an area.

The benefits of floor area ratio controls in Macaulay are that they:

- Set clear expectations about the potential development yield of each site to provide greater certainty regarding development outcomes
- Provide greater certainty on future population and job growth to ensure that supporting infrastructure meets the needs of residents and workers in Macaulay
- Facilitate the delivery of streets and open spaces on larger land holdings to ensure these sites are fully integrated into the broader area, support active transport and contribute to the provision of new open space and a climate ready precinct.
- Facilitate built form outcomes that deliver a range of building typologies, are responsive to varying property sizes, address surrounding interfaces and reflect the relevant place vision.

Accommodating future population growth

Victorian Government population forecasts indicate that Macaulay could accommodate 10,000 residents and 9,500 workers by 2051. The City of Melbourne commissions its own population forecasts. These forecasts indicate that Macaulay could accommodate 9,300 residents and 4,700 workers by 2036.

Capacity modelling was undertaken to understand how many dwellings, residents and workers could be accommodated in Macaulay by the proposed floor area ratios and built form controls. The modelling looks in detail at the total amount of floor area that could theoretically be built. It takes account of sites that are likely to develop or are under construction, current planning applications and sites unlikely to develop such as existing apartment buildings with strata titles.

The modelling indicated that the proposed floor area ratios have ample capacity to provide the gross floor area required for a population of 10,000 residents and 9,500 workers.

However, land use zoning is key to achieving this mix of residential and employment uses. The Mixed Use Zone which applies to the majority of properties in Macaulay has delivered mainly residential development. To achieve the vision for Macaulay and better align with Victorian Government forecasts, planning controls should specify a percentage of non-residential floorspace. Providing 20% of floorspace for employment uses would help to balance the mix of residents and workers.

Independent feasibility testing by SGS Economics and Planning and m3property has identified that development is likely to be feasible using the proposed floor area ratios based on average land values in the area.

Update the existing built form controls

What is proposed?

Design recommendations, including guidance on interfaces and active frontages have been developed to help inform the updated built form controls as part of the planning scheme amendment for Macaulay.

Why is this proposed?

Improving the existing controls

In approving the current interim built form controls, the Minister for Planning identified a number of improvements which could be made to the controls including:

- greater clarity on how preferred heights may be exceeded and maximum heights achieved
- better expression of side, rear and upper level setbacks and the effect of development on the public realm
- greater guidance for the City Link, railway line and Moonee Ponds Creek interface

Appendix II provides further detail on the Minister's letter.

The following design recommendations and guidance should apply to all development in Macaulay. Additional outcomes specific to each area are included in Part Three: Places.

Interfaces

Interfaces are the relationship of buildings to the site, street, neighbouring buildings and open spaces that surround it. There are many varied interfaces in Macaulay which reflect the diverse character of the area including:

- low-rise residential areas
- heritage buildings
- streets with varying widths
- open spaces
- Moonee Ponds Creek
- rail corridors
- Citylink

Interfaces require careful consideration to ensure that new buildings in Macaulay give positive definition to streets and spaces, provide an appropriate transition to low-rise residential areas, allow taller built form in appropriate locations and limit the impact on the amenity of open spaces.

More information and guidance on specific interfaces including street wall heights and setbacks is provided for each place in Part Three.

Active frontages

Active frontages are crucial to help add interest, vitality and safety to streets, while helping to encourage walking. This means having frequent doors and windows with few or no blank walls, articulation of facades and lively internal uses visible from the street. Any vehicle access and services should be provided off existing or proposed laneways rather than main streets and car parking within buildings should not be visible from the street.

Many of the different uses in Macaulay can help contribute to creating active interfaces on all streets between buildings and the public realm, particularly along Macaulay, Boundary and Racecourse Roads.



Case study: Mid-rise development in Macaulay

393 Macaulay Rd includes a mixture of studio, one, two and three-bedroom apartments. A landscaped, open-air walkway will bring cross-flow ventilation and natural light to the apartments. Communal spaces on the upper and ground floors will provide opportunities for residents to connect. The design will retain and restore the facade of the original Art Deco heritage building.

Floor Area Ratio: 3.4:1
8 Storeys
73 dwellings, 380 sqm employment floor space

Image 10: 393 Macaulay Road, Kensington.
(Project and image: Assemble)

Design recommendations

The following design recommendations are proposed for Boundary, Melrose, Chelmsford and Stubbs precincts in order to help deliver the vision for Macaulay. The recommendations including the guidance on interfaces will help inform the proposed Design and Development Overlays for Macaulay in the planning scheme amendment.

- To ensure development responds to the valued attributes of Macaulay and contributes positively to the existing and future vision and character of each of the four identified places within Macaulay - Boundary, Melrose, Chelmsford and Stubbs.
- To provide for a medium density, mid-rise, human-scaled neighbourhood with a diverse range of building types and some higher built form in specified areas.
- To maintain and enhance the valued built and social heritage characteristics of Macaulay and to ensure buildings retain their three dimensional form as viewed from the public realm to avoid 'facadism'.
- To ensure development responds appropriately to the hierarchy of main streets (Racecourse Road, Boundary Road, Macaulay Road), local streets and laneways in its address, activation and management of services.
- To achieve variable building heights, including street wall heights, that contribute positively to the specific character of each site and the surrounding context.
- To ensure larger sites are broken up into a series of building forms that relate and contribute positively to their context.
- To ensure sufficient building separation between sites and within a site to deliver high quality amenity within buildings having regard to outlook, daylight and overlooking.
- To provide a highly walkable neighbourhood by increasing permeability with new streets and laneways that are open to the sky.
- To ensure that new development delivers a safe and secure public realm through activation of ground floors and open spaces.
- To ensure development appropriately considers the amenity impacts on neighbouring development and achieves a high standard of internal amenity within the development.
- To ensure that new development at the interface with stable residential and heritage precincts respects the scale, height and setbacks of the precinct.
- To ensure that new development respects the scale of adjoining residential and heritage buildings and does not overwhelm the existing building.
- To ensure the consideration to minimise the impact of development on solar access to adjacent solar panels.
- To encourage the retention of existing buildings of character (including non-heritage) and the reuse of existing materials in new developments.
- To ensure that new development does not cast any additional shadow over Buncle Street Reserve, Canning Street and Macaulay Road Reserve, North Melbourne Recreation Reserve, Gardiner Reserve and Robertson Street Reserve from 10:00am to 3:00pm on 21 June, from buildings built to the maximum street wall height, as per the Sunlight Access to Public Parks requirements.
- To ensure developments are set back from side and rear boundaries to provide adequate daylight in streets and internal spaces, comfortable wind conditions in the public and private realm, views to the sky and privacy.
- To support equitable development by ensuring primary outlook is secured to the street or within development sites.
- To provide for fine grain adaptable tenancies within the lower levels of buildings.
- To ensure development is adaptable to changes in future land use by requiring adequate floor to ceiling heights (above and below ground).
- To encourage deep soil planting that increases permeability and supports tree planting in the private realm.
- To ensure the design of new development conceals servicing from the street frontage to minimise the loss of active frontage
- To ensure that the design of services, loading and parking areas adopt best practice approaches to contribute to a high quality public realm.

Proposed design and development overlays

PRECINCT OR AREA	EXISTING CONTROL		PROPOSED FLOOR AREA RATIO AND HEIGHT CONTROLS
	Area	Maximum height (storeys) Preferred Absolute	
New DDO Boundary Precinct	A7	9 12	<ul style="list-style-type: none"> • Maximum Floor Area Ratio of 4:1 • Preferred maximum building height of 8 storeys on Racecourse Road • Preferred maximum building height of 6 storeys on Boundary and Macaulay Roads • Preferred maximum building height of 12 storeys elsewhere
	A8	9 12	
New DDO Melrose Precinct	A2	4 6	<ul style="list-style-type: none"> • Maximum Floor Area Ratio of 4:1 • Preferred maximum building height of 4 to 12 storeys • For any future redevelopment of Victorian Government land, the City of Melbourne will work in partnership with the relevant departments and agencies to advocate for outcomes that are aligned with the vision for Macaulay as a mid-rise, mixed use neighbourhood and that the area continues to provide essential community infrastructure and services
	A5	8 N/A	
	A6	6 8	
	A8	9 12	
New DDO Chelmsford Precinct	A4	6 8	<ul style="list-style-type: none"> • Maximum floor area ratio of 3:1 for properties with boundaries to the Moonee Ponds Creek and properties fronting Chelmsford Street (see Map 4) • Maximum Floor Area Ratio of 4:1 for other properties • Preferred maximum building height up to 5 storeys on Chelmsford Street or up to 6 storeys elsewhere
New DDO Stubbs Precinct	A1	3 4	<ul style="list-style-type: none"> • Maximum floor area ratio of 3:1 for properties with boundaries to the Moonee Ponds Creek, the western end of Macaulay Road, properties fronting Hardiman Street and residential interfaces (see Map 4) • Maximum Floor Area Ratio of 4:1 for other properties • Preferred maximum building height of 6 to 8 storeys on Racecourse Road • Preferred maximum building height up to 4 storeys on the east side of Stubbs Street • Preferred maximum building height of 4 to 8 storeys on Macaulay Road • Preferred maximum building height of 4 to 6 storeys elsewhere
	A3	6 8	
	A4	6 8	
	A8	9 12	
General Residential Zone (part of Chelmsford Precinct)	<ul style="list-style-type: none"> • Maximum building height 8 metres (mandatory) 		<ul style="list-style-type: none"> • No change from existing

Proposed Design and Development Overlays (DDOs)

Following the gazettal of Planning Scheme Amendment C190 in October 2017, interim built form controls were introduced through Design and Development Overlay 63. These controls are set to expire on the 30 September 2021. It is proposed to introduce new Design and Development Overlays in Macaulay.

These proposed changes reduce the number of DDO areas from eight to four and correspond to the four identified places in the draft structure plan. No change is proposed to the residential area in Chelmsford which is subject to the General Residential Zone.

The existing and proposed controls are shown in the table opposite and spatially in maps 5 and 6 on pages 26 and 27. Proposed and existing building heights are shown in map 4 below.

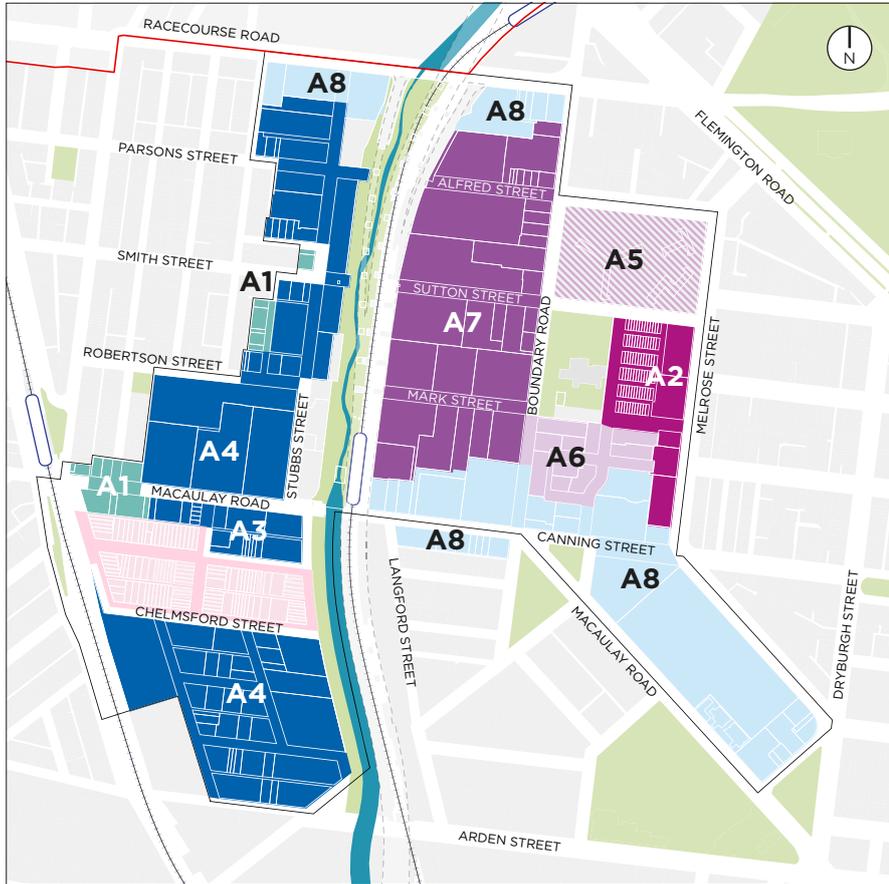
ACTIONS
DELIVER
<p>Action 1: Prepare a planning scheme amendment to implement the relevant actions of the Macaulay Structure Plan Refresh.</p> <ul style="list-style-type: none"> This will include the adoption of the built form controls and design recommendations
<p>Action 2: Improve the quality of urban design in Macaulay through the planned review of Clause 22.17 Urban Design Outside the Capital City Zone in the Melbourne Planning Scheme.</p>



Key

- Macaulay study area
- 4 storeys (proposed)
Preferred maximum building height
- 5 storeys (proposed)
Preferred maximum building height
- 6 storeys (proposed)
Preferred maximum building height
- 8 storeys (proposed)
Preferred maximum building height
- 12 storeys (proposed)
Preferred maximum building height
- Floor area ratio of 3:1
(Floor area ratio of 4:1 elsewhere)

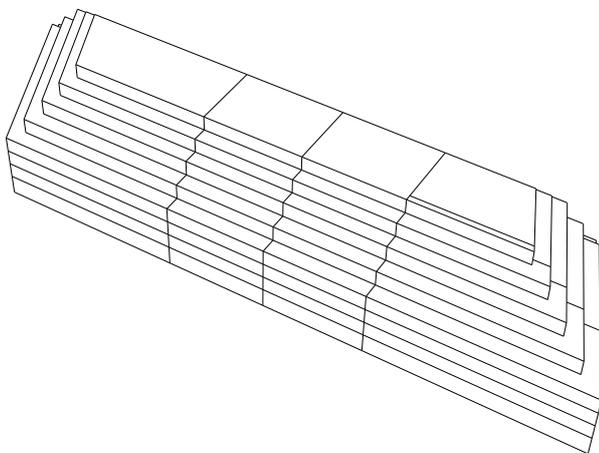
Map 4: Proposed building heights in Macaulay and properties with a floor area ratio of 3:1 (floor area ratio of 4:1 elsewhere)



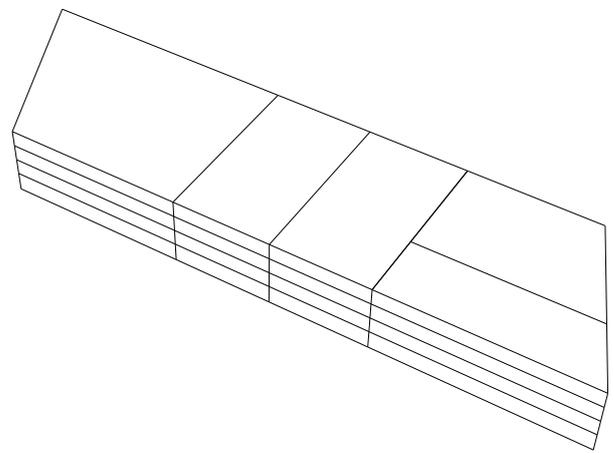
Key

	Macaulay study area	
	General Residential Zone	
	Preferred max height	Absolute max height
	3 storeys	4 storeys
	4 storeys	6 storeys
	6 storeys	8 storeys
	8 storeys	N/A
	6 storeys	8 storeys
	9 storeys	12 storeys
	9 storeys	12 storeys

Map 5: Existing Design and Development Overlay in Macaulay along with the area covered by the General Residential Zone



Existing built form controls (Design and Development Overlay 63)



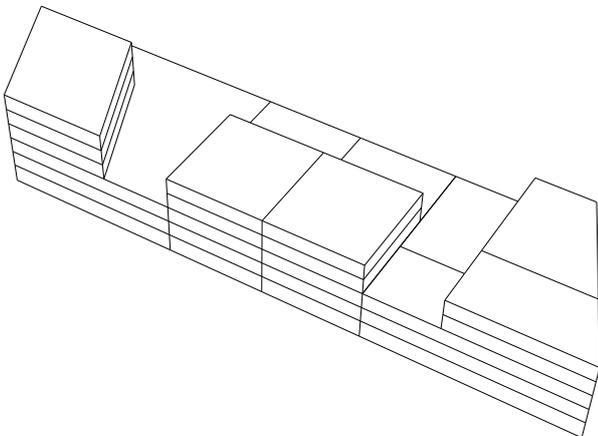
FAR 4:1 with building heights of four storeys

Figure 2: Existing built form controls and examples of different built form outcomes with an FAR of 4:1

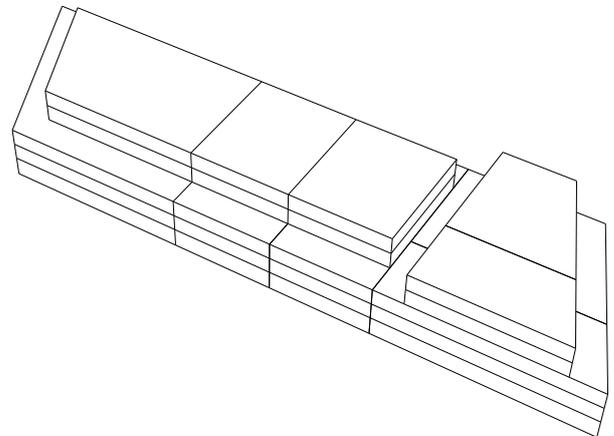


- Key**
- Macaulay study area
 - New DDO Boundary Precinct
 - New DDO Melrose Precinct
 - New DDO Chelmsford Precinct
 - New DDO Stubbs Precinct
 - General Residential Zone (no change)

Map 6: Proposed changes to the Design and Development Overlays in Macaulay



FAR 4:1 with building heights of three to six storeys



FAR 4:1 with building heights of five storeys and upper level setbacks

Objective 2: Ensure high quality building design in flood prone areas

Provide clear guidelines for buildings in flood prone areas to ensure that flood risk requirements are met, high quality urban design outcomes are achieved and equitable access is provided.

What is proposed?

Each site has its own specific context including the type and extent of flooding, site conditions, building typology, land use, street activation and interfaces. Design options are being developed to manage flooding. The most appropriate design response should be informed by a context analysis and will meet the guidelines for flood risk, urban design and access.

Why is this proposed?

Flooding in Macaulay

Flooding and water management are significant issues in Macaulay. The precinct is located in low-lying, flood prone land and is bisected by the Moonee Ponds Creek. Flooding in the area is caused by:

- stormwater runoff from upstream catchments flowing into the Moonee Ponds Creek and overtopping the levee bank
- stormwater runoff being trapped behind levees along the creek corridor when levels in Moonee Ponds Creek are high
- local pump stations only designed to a level of service for more frequent rainfall events - the pumps are not sized for larger events
- lack of permeable surfaces to absorb water

In 2018 Melbourne experienced an extreme rainfall event with 50 mm of rain falling in 15 minutes, much higher than Council's required level of service for drainage. This resulted in flash flooding, train lines suspended and power outages across the city. Climate change impacts will result in more intense rainfall events, increasing the magnitude of flooding, waterway levels and storm surges.

The need for improved design responses

The design response to flooding in some recent development has resulted in poor outcomes including:

- significant level change between the street and raised ground floor level that results in a poor interface to the public realm
- external ramps that disrupt the building edge and preclude active frontages to the street
- platform lifts in the public realm that require a high degree of maintenance and trap litter
- low floor to floor heights at ground level create dark entrances and emphasise the level change from the street to the ground floor
- external steps that become physical barriers separating the building from the public realm

The aim of preparing the guidelines is to rebalance how buildings are currently being designed so that flood risk, quality high quality urban design and equitable access for all are equally met.

Flood design response

Flood design response is defined as how a development is designed to manage the flood risk associated with a site. For example, this may include finished floor levels being set above the flood level, or enabling safe access and egress to the site for pedestrians and vehicles during a flooding event.

Urban Design

Urban design is defined as the process of designing a space that is liveable, safe and equitable. It is about ensuring built form responds to the human scale. It refers to the safety of the public realm and crime prevention through environmental design. It is about creating streets with active frontages that ensure an economically viable community.

Equitable access

Equitable access ensures that access to all public and private spaces is not discriminatory to a person with a disability. In flood prone areas it is about ensuring that ramp and lift access is located at a central, priority entrance and are not the last element to be designed.



Image 11: The design successfully addresses the transition in floor levels by incorporating a ramp, stairs, seating and planting. The double height ground floor further improves street activation and daylighting to the tenancies (Project and photo: SJB).

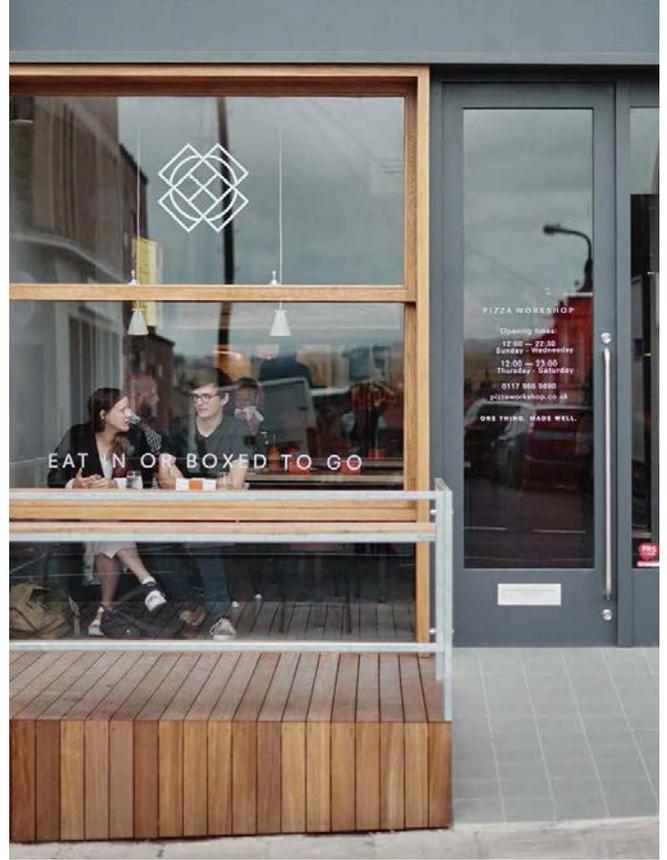


Image 12: A short ramp addresses the transition in floor levels and provides an opportunity to include a raised area for outdoor dining.

ACTIONS

DELIVER

Action 3: Prepare an urban design guide for flood prone areas. Work with Melbourne Water and the Victorian Government to develop the guide.

Objective 3: Improve the climate change adaptation and mitigation performance of new and existing buildings

The City of Melbourne declared a climate and biodiversity emergency in July 2019. We know that immediate action to reduce emissions and adapt to the impacts is needed if Melbourne is to remain a liveable city for future generations. In our response to the declaration we have committed to reaching Council's zero emissions target for the municipality 10-years earlier, by 2040. Ten priority areas have been identified where accelerated action will make the most impact including the delivery of climate ready precincts and buildings.

What is proposed?

To ensure a sustainable and resilient Macaulay, new and existing buildings should be designed or retrofitted to the highest standards for:

- energy efficiency
- integrated water management
- green infrastructure and urban ecology
- waste management and resource recovery

Mid-rise building heights and the flexibility of floor area ratio controls further support the delivery of sustainability measures by enabling:

- integrated site-wide approaches to water management, energy and waste services on larger land holdings with multiple buildings
- solar panels on buildings with good access to sunlight allowing more of the communities energy demand to be met through renewable energy
- deep soil planting for large canopy trees and green infrastructure at ground level

There is a wider opportunity to improve the climate change adaptation and mitigation performance of new and existing buildings in Macaulay. This opportunity is being explored through a review of environmentally sustainable design policy as part of the Green Our City Strategic Action Plan (GOCAP). Other opportunities include incentives such as the Urban Forest Fund to facilitate increased canopy cover and support nature in the private realm.

Why is this proposed?

Urban renewal areas such as Macaulay will accommodate a significant amount of future growth and change in the municipality. Two-thirds of the municipality's emissions are due to energy use in commercial and residential buildings. Urbanisation will continue to compound the effects of climate change with higher temperatures, greater risks of flooding due to extreme weather events and increased pressure on air quality as congestion worsens. Future development must improve the climate change adaptation and mitigation performance of new and existing buildings.

Energy efficiency, thermal comfort and greenhouse gas emissions

Melbourne's buildings are not as efficient as they could be and benchmarks for measuring the performance of buildings are not fully developed. This means residents do not have information about the building's energy performance before moving in. Similarly, in commercial office buildings, landlords can pass on the costs of higher energy bills to tenants.

Energy efficient buildings provide more comfortable internal environments, particularly during cold weather and extreme heat. Cost savings can potentially be reinvested to provide better facilities for residents and tenants.

Water efficiency and integrated stormwater management

Buildings should be designed with efficient fixtures and fittings. Alternate water sources such as rainwater tanks and greywater recycling can be used for irrigation of green infrastructure and toilet flushing. This will result in reduced use of potable water.

Best practice stormwater management is particularly important in flood prone areas such as Macaulay. This will provide benefits including passive irrigation of green infrastructure and reduce nutrient discharges to the creek. It also helps to reduce pressure on the stormwater drainage system which is overcapacity as well as reducing the magnitude of minor flood events.

Green infrastructure and urban ecology

Increasing the quantity and quality of green infrastructure in the private realm will contribute to addressing climate change impacts and help connect people to nature. Green roofs, vertical greening and on-site tree planting should be included on new buildings or retrofitted to existing buildings in line with the City of Melbourne's Green Factor tool. This supports developers and designers to optimise the delivery of green infrastructure based on their contribution to the urban fabric.

Waste management and resource recovery

The waste and resource recovery system in Victoria is facing serious challenges. We need to improve waste management in the city to reduce congestion, odour and noise, encourage sustainable practices and improve safety and amenity, particularly as Melbourne’s population grows. Apartment buildings require innovative solutions to make recycling convenient and effective. Longer term challenges include reducing greenhouse gas emissions by reducing truck movements and landfill methane.

Our vision is for Melbourne to transition toward a circular economy with zero waste to landfill. We imagine a future where people and businesses avoid generating waste where possible, and appreciate waste as a valuable resource.

New buildings must follow the City of Melbourne’s Guidelines for Preparing a Waste Management Plan 2017. Other opportunities for improving waste management and resource recovery include ensuring alignment with the City of Melbourne Waste and Resource Recovery Strategy and expanding trials into better managing food waste.



Green Factor Tool

The Green Factor Tool has been developed to help with designing and constructing new buildings that are environmentally friendly and include green infrastructure. It forms part of our work to respond to the climate and biodiversity emergency. Green Factor is free and available for anyone to benchmark their designs. The tool is currently voluntary but we are asking that all planning applications for new buildings (except single dwellings) submit a green factor scorecard, aiming to achieve a score of 0.55 or 0.25 for industrial buildings. This will help developers to get familiar with the tool and understand future requirements.

Image 13: The Venny adventure playground, Kensington

ACTIONS
DELIVER
<p>Action 4: Prepare a planning scheme amendment as part of the Green Our City Action Plan and utilise the City of Melbourne’s Green Factor Tool to ensure development delivers best practice environmentally sustainable design including:</p> <ul style="list-style-type: none"> • energy efficient buildings and use of renewable energy sources • increasing the amount and quality of urban greening, including green roofs, vertical greening and deep soil planting • reducing the urban heat island effect • water efficient buildings and integrated stormwater management
<p>Action 5: Use planning controls to promote sustainable transport options.</p>
<p>Action 6: Expand the existing resource recovery hub network to urban renewal areas.</p>
ADVOCATE
<p>Action 7: Explore ways to incentivise increased canopy cover and tree protection and support nature in the private realm in Macaulay through incentives such as the Urban Forest Fund.</p>
<p>Action 8: Investigate ways to support residential or community solar, battery storage and / or smartgrids for new and existing buildings.</p>

Objective 4: Recognise and celebrate the valued history, cultural values and character of Macaulay

Heritage is integral to a place's identity and connection of people to place. This includes both physical heritage and intangible aspects of heritage such as social heritage, memories and rituals.

What is proposed?

There is an opportunity to increase awareness of and celebrate Aboriginal heritage in consultation with Traditional Owners. The importance of the Moonee Ponds Creek to Aboriginal people can be highlighted through projects that reconnect the creek corridor to its Aboriginal heritage. There is also an opportunity for the Aboriginal naming of streets, parks, public buildings and community infrastructure.

The restoration of heritage buildings in Macaulay can be supported by encouraging landowners and developers to utilise heritage grants. In addition to buildings and places covered by a heritage overlay, character buildings have been identified and mechanisms to encourage their retention will be investigated.

Why is this proposed?

Aboriginal heritage

Before European settlement in 1835, Moonee Ponds Creek was an integral part of the 'temperate Kakadu' that was Melbourne. The Creek - which was a chain of ponds during drier months and a flood plain during heavy rains - was a travel route and water and food source for the Aboriginal peoples of the Kulin nation. It also fed into a picturesque saltwater lake near to what is now Southern Cross Station.

Heritage buildings and places

Heritage buildings and places in Macaulay have been identified and protected through the planning scheme. Amendment C207 was gazetted in July 2016 and introduced a number of Heritage Overlays to protect sites that have heritage value.

These sites tell an important story of Macaulay's former industries and the area's role in Melbourne's economy. Retained buildings and complexes include former wool stores, flour mills and biscuit makers, stables, warehouses, manufacturing complexes and the cottages which housed workers for these industries. Painted ghost signs tell the stories of businesses that used to occupy these sites. Railway infrastructure and bridges along the train line represent the response to increased transport needs of suburban residential growth. Pump stations along the creek reflect earlier flood management works and remain operational today.

Moonee Ponds Creek

The Moonee Ponds Creek is protected as one of the early water courses of central Melbourne, however in the decades after 1835 the Creek's cultural importance to local Aboriginal people was ignored. The saltwater lake was turned into a tip, then filled in and for much of the next 150 years, Moonee Ponds Creek was treated as an industrial drain and transport corridor.

More recently, the creek has become a popular active transport route from north to south, with the Capital City Trail giving cyclists and pedestrians direct access to the central city and Docklands.

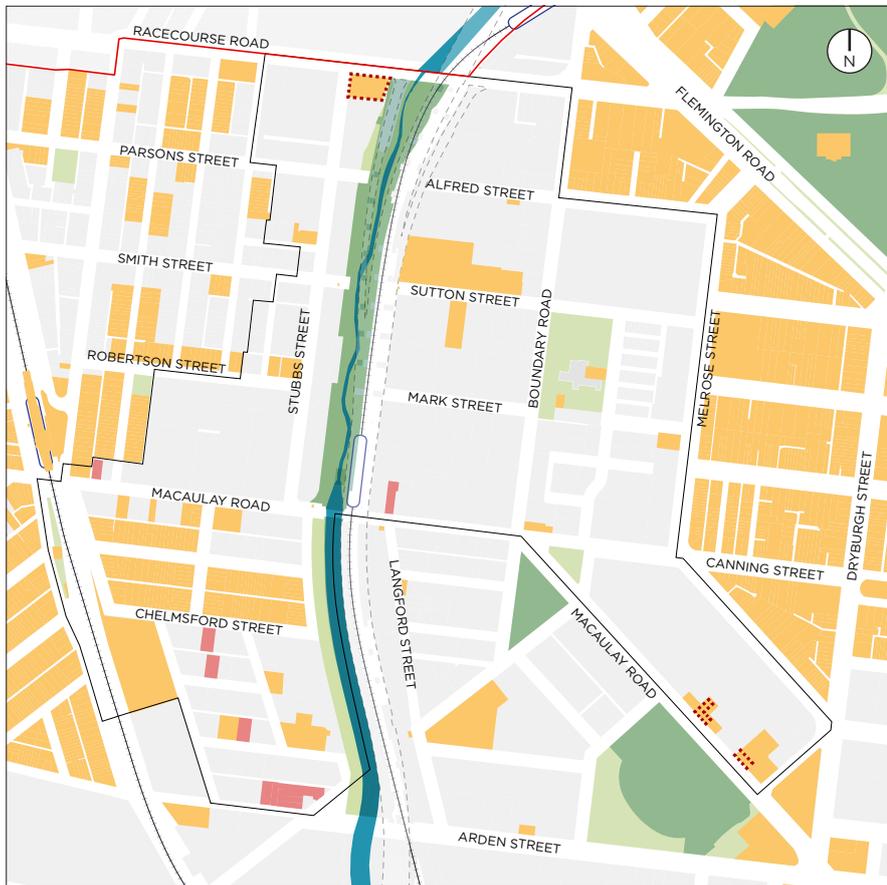
Character buildings

Along with identified heritage buildings there are some 'character' buildings that are not protected through the planning scheme but which contribute to Macaulay's identity and character.

The use of floor area ratio controls could be investigated to help incentivise the retention of character buildings to ensure that the visual identity of Macaulay is celebrated and retained.

The following criteria were used to select buildings of special character (see map 7 opposite):

- the building is distinctive architecturally
- the building is an older brick warehouse that demonstrates a link to the industrial history of the area
- the building is located adjacent to a laneway, the side elevation is intact and the three dimensional form of the building can be seen from the public domain
- the front elevation of the building contains interesting detailing and provides visual interest at street level
- the building has large window openings, with potential for a positive interface with the public domain
- the building has a large floorplate.



Key

- Macaulay study area
- Heritage Overlay
- Open space with Heritage Overlay
- Victorian Heritage Register
- Character building

Map 7: Heritage controls for Macaulay showing sites subject to a Heritage Overlay and identified character buildings



Image 14: Aerial view of factories, warehouses and residential streets taken between 1950 and 1960. Macaulay Station is in the right foreground with the Gasometer in the background on Macaulay Road.

ACTIONS
DELIVER
Action 9: Support the Aboriginal naming of streets, parks, public buildings and community infrastructure.
Action 10: Investigate projects along the Moonee Ponds Creek that reconnect the creek corridor to its Aboriginal heritage including revitalisation of the creek, public art and naming opportunities.
Action 11: Investigate using floor area ratio controls to encourage the retention of character buildings.
ADVOCATE
Action 12: Encourage developers and landowners to utilise heritage grants including the Melbourne Heritage Restoration Fund to assist in the restoration of heritage buildings.

Objective 5: Ensure design excellence is achieved for key strategic sites in Macaulay

Design excellence describes projects that demonstrate exceptional standards of architecture, landscape architecture and urban design, befitting of the intended role of Macaulay.

What is proposed?

Design excellence will be measured by the function, liveability, sustainability and public contribution of buildings and urban spaces. Design excellence will be required for strategic sites in Macaulay as defined by criteria or attributes which could include the following.

Development scale

Where a development exceeds:

- threshold scale (measured in gross floor area)
- capital investment (measured in gross realisation value)
- building height (measured in metres above natural ground level)
- allotment size (measured in square metres).

Sensitivity criteria

- identified gateway location
- location on or adjacent to a heritage property
- masterplanned development comprising multiple stages
- adjacent to public spaces or major public infrastructure such as railway stations, civic buildings, etc.

The final criteria and/or provisions that trigger the requirement for design excellence and identification of key strategic sites in Macaulay will be identified in the final structure plan and implemented through a planning scheme amendment. The requirements will ensure that planning applications are assessed after one of the following processes has taken place.

Design competitions

The establishment of mandatory design competitions for key strategic sites and civic works can foster design excellence. A well-managed competitive design process can enable the testing of options to ensure the best development outcome for a given site. Guidelines will be prepared to inform design excellence competitions in Macaulay and will include the calculation of potential development incentives for pursuing a competition.

Design review panel

Independent expert design review enables peer-to-peer assessment by design experts whose knowledge, experience and industry credibility provide leverage to support outcomes that achieve design excellence.

Independent expert panel review of projects on key strategic sites could be required at pre-lodgement and at key approval phases where the impact is greatest. Early engagement of the panel provides the best opportunity to increase the quality of a design proposal.

Why is this proposed?

Design excellence ensures that buildings on key strategic sites in Macaulay demonstrate an exceptional standard of innovation and creativity. Buildings of outstanding quality and character have an enduring legacy, influencing the character of an area, its liveability, attractiveness and quality of place.

ACTIONS

DELIVER

Action 13: Through the final structure plan and subsequent planning scheme amendment, require key strategic sites to deliver design excellence through either a design competition or design review panel.

Action 14: Prepare guidelines to inform design excellence competitions in Macaulay.

PARTNER

Action 15: Work with the Office of the Victorian Government Architect (OVGA) to strengthen the quality of design review within Macaulay - either through the Victorian Design Review Panel process or through a new City of Melbourne design review panel that includes Arden and Macaulay.



Image 15: Sydney's competitive design competition process has resulted in buildings that deliver higher design quality, innovation and an improved public realm. Arkadia comprises 152 dwellings across four buildings, each with their own communal spaces and productive garden, a shared rooftop and new park (Project: Breathe Architecture and DKO Architecture, Photo: Martin Siegner).

2.2 ACTIVITIES AND USES

Macaulay will continue to evolve as a mixed use, inner city neighbourhood, providing a range of shops, services and jobs a short distance from homes. This promotes local living options, supports more sustainable transport options, improves quality of life and encourages a vibrant and interesting neighbourhood, with activity day and night.

The area will accommodate activities that benefit from the proximity of Macaulay to Arden, the Parkville National Employment and Innovation Cluster, Melbourne Innovation District City North and the central city.

Land uses will respond to key challenges in Macaulay including flooding. They will also provide a share of affordable dwellings, responding to the opportunity to take a proactive role in the provision of affordable housing to address the housing crisis that our communities are experiencing.

Context

What did the 2012 structure plan outline?

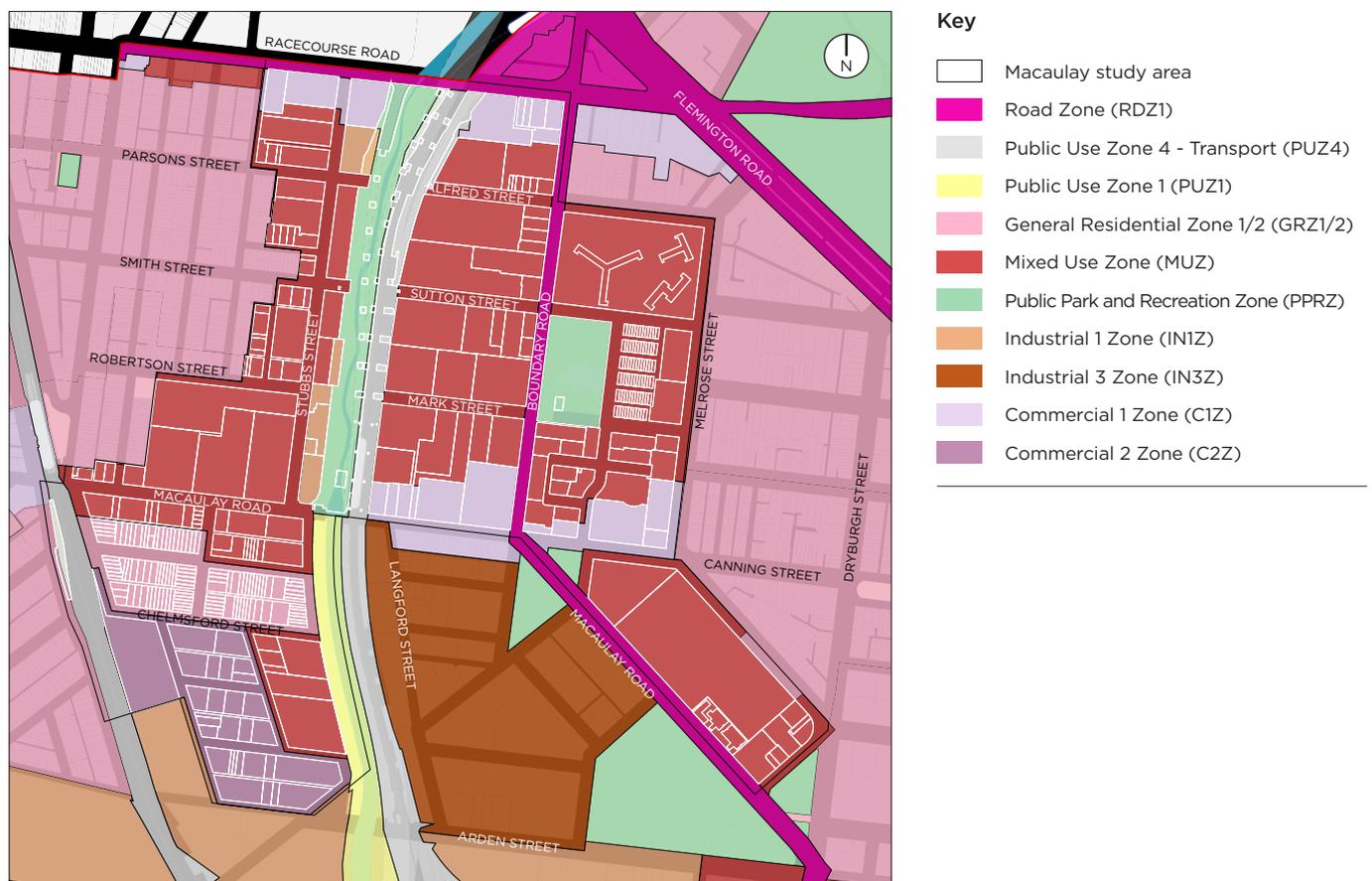
Land uses within Arden and Macaulay generally represent an underutilisation of the area considering its proximity to the central city and to existing and future transport infrastructure.

There is the need for a greater supply of affordable, accessible and diverse housing. It acknowledged that Arden and Macaulay should be contributing towards the provision of affordable housing.

There are limited community and cultural facilities in Arden-Macaulay and existing facilities in Macaulay are at capacity. The plan identified the need to upgrade existing community facilities, establish a new community centre and select a suitable location for a new school.

What do we know?

- Macaulay accommodates a diverse mix of housing, commercial, retail and industrial uses as well as community facilities.



Map 8: Existing land use zoning in Macaulay

- Macaulay contains a mix of land use zones; the Mixed Use Zone, Industrial 1 Zone, Commercial 1 and 2 Zones, and the General Residential Zone.
- Current development activity within the Mixed Use Zone has been predominantly residential and has not delivered a genuine mix of uses. If this trend was to continue it would undermine the future vision.
- Comments from the community during the previous round of engagement indicate support for a true mix of uses within Macaulay.

What are we proposing?

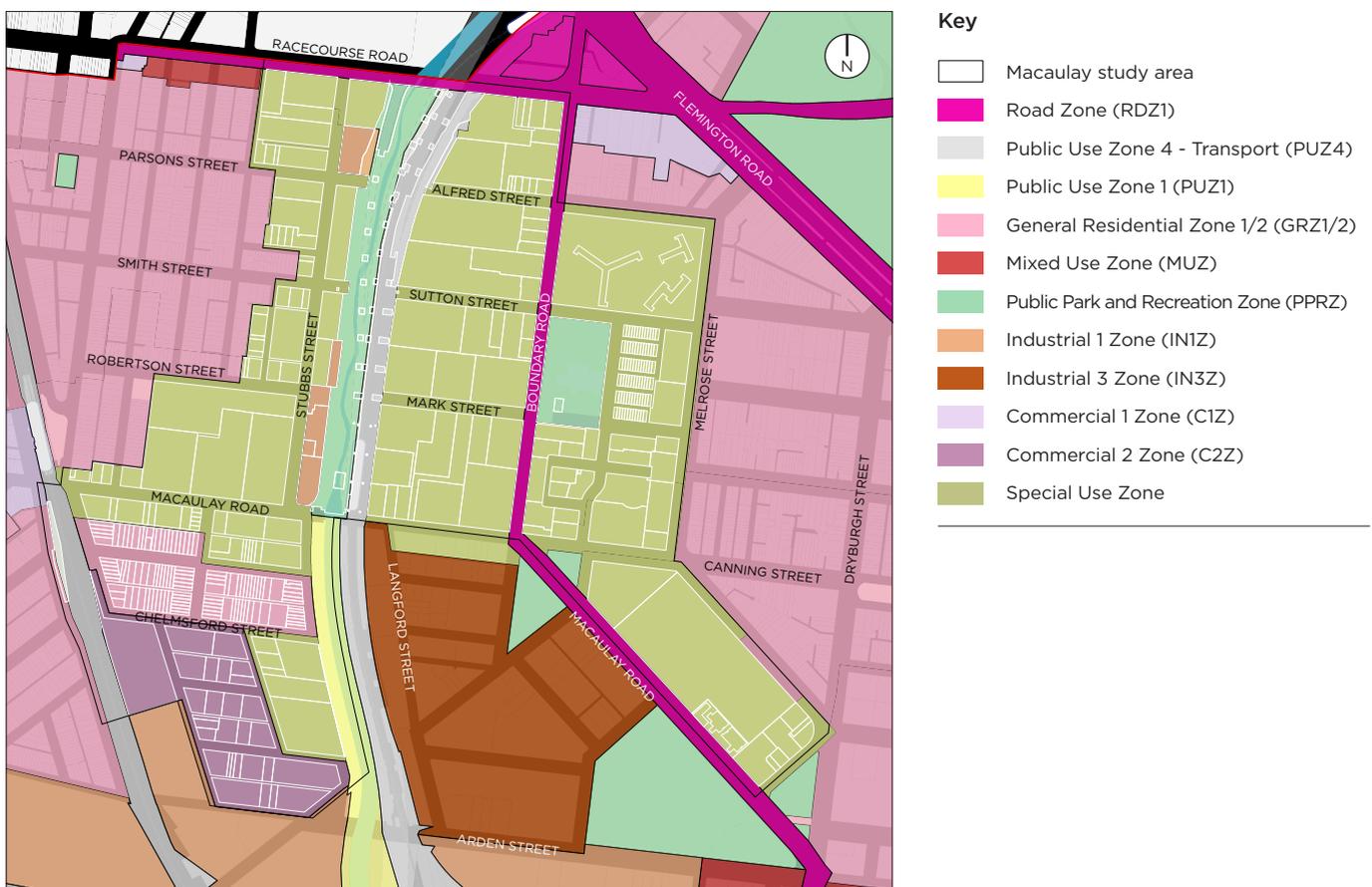
The objectives and actions in this section will help to ensure that Macaulay supports a true mix of uses by:

- utilising Macaulay’s location and competitive advantage to accommodate demand for small and medium sized enterprises and start-ups that are seeking to link with businesses and institutions in Arden, the Parkville National Employment and Innovation Cluster, Melbourne Innovation District City North and the central city.

- providing local access to goods, services and jobs through local activity centres
- managing sensitive land uses within flood prone areas to minimise risk
- enabling a range of housing types including the provision of affordable housing to support a diverse community that will be well serviced by local community facilities.

This will be achieved by:

- using planning controls to support mixed use development, facilitating a range of business and employment opportunities (Objective 6)
- using planning controls to strengthen existing local activity centres in Macaulay (Objective 7)
- ensuring adequate provision and good access to community infrastructure within and around Macaulay (Objective 8)
- helping to deliver affordable and diverse housing in Macaulay (Objective 9).



Map 9: Proposed land use zoning in Macaulay

Objective 6: Support mixed use development to facilitate a range of business and employment opportunities

Macaulay accommodates a mix of land uses and activities, including a diversity of housing, community uses and a vibrant mix of commercial and retail uses.

What is proposed?

Proposed planning controls will maintain and enhance the mix of uses by seeking to encourage a proportion of the proposed floor area ratio to be allocated to a non-residential (employment) use. This will support the delivery of jobs and employment floorspace necessary to deliver the vision for Macaulay as a mixed use precinct and provide a significant contribution to the area's vibrancy and productivity.

The controls will also ensure that consideration is given to development proposals in flood prone areas that are looking to include sensitive uses at ground floor by making them a permit requirement rather than 'as or right'.

Why is this proposed?

Macaulay has a history of providing housing and jobs. A genuine mix of uses including housing, shops, services and jobs contributes to make a place more interesting and lively, at a range of times throughout the day and across different days of the week. Plan Melbourne 2017-50 supports creating mixed use neighbourhoods that support living locally (Principle 5), enabling people to meet most of their daily needs close to home. Neighbourhoods that support local living should have access to local employment opportunities, shops and services, schools and other learning opportunities, parks, sport and recreation facilities, affordable and inclusive housing and a range of transport options including walking, cycling and public transport. These features are important to deliver more inclusive, vibrant and healthy neighbourhoods.

Current development activity within the Mixed Use Zone has been predominantly residential and has not delivered a genuine mix of uses, including employment uses. If this trend was to continue it would undermine the historic role of the area and future vision for a mixed use precinct that supports the transition to more knowledge-intensive, retail and service-based employment.

Proximity to Arden, Parkville National Employment and Innovation Cluster, Melbourne Innovation District City North and the central city will underpin Macaulay's competitive advantage in accommodating demand for low-cost space for small and medium sized enterprises (SMEs) and start-ups that are seeking to link to these nearby places.

Revising planning controls that apply to Macaulay to encourage a true mix of uses will support local living options and enhance the local economy of the area.

It is proposed to use the Special Use Zone (or an equivalent) to support mixed use development. The zone can be tailored to enable place specific land use outcomes. It can include requirements for non-residential (commercial and retail) uses and can include similar requirements to the Commercial 1 Zone to create vibrant and active ground floor uses in local activity centres. The zone can also allow for the inclusion of an affordable housing percentage.

Land uses in flood prone areas

Flooding is a major issue affecting Macaulay now, and this is expected to intensify over the coming years as the effects of climate change continue to be felt. In September 2017, the Minister for Planning approved interim built form controls for Macaulay, and in doing so, identified a number of improvements that could be made including potential Melbourne Water flooding requirements. Planning controls can play a role to ensure that sensitive uses are not located below flood levels in flood prone areas.

ACTIONS

DELIVER

Action 16: Rezone Mixed Use Zone areas in Boundary, Chelmsford and Stubbs to the Special Use Zone to encourage a proportion of the proposed floor area ratio to be allocated to a non-residential (commercial and retail) use. Providing 20% of floorspace for employment uses would help to balance the mix of residents and workers.

Action 17: Further investigate sensitive uses in flood affected areas and where appropriate use planning controls to regulate sensitive uses in the planning scheme.



Case study: Innovative mixed use development

Bernard Works in South Tottenham, London, will comprise 100 apartments and 26 creative workspace studios providing 25,000 square feet of affordable commercial space that will be prioritised to local businesses. 12 of the apartments will be tethered to the creative workspace, incorporating a substantial discount over market levels.

The scheme guarantees and enshrines affordable workspace for the next 50 years and will provide employment opportunities for the local community. In addition to workspace and living space, it is about fostering and cultivating genuine community engagement.

Image 16: View of the proposed Bernard Works mixed use development

Objective 7: Strengthen existing local activity centres in Macaulay

Local activity centres will be enhanced with retail and commercial uses. This will support local access to goods, services and jobs.

What is proposed?

Activity centres in Macaulay are anticipated to cater primarily for the basic daily needs of residents, complementing the surrounding existing and anticipated retail offer. This includes Arden Gardens which incorporates a supermarket and 15 shops, the small group of shops on Melrose Street and the strip centres of Kensington, Flemington and North Melbourne. Three additional local activity centres are proposed:

Macaulay Road, Kensington

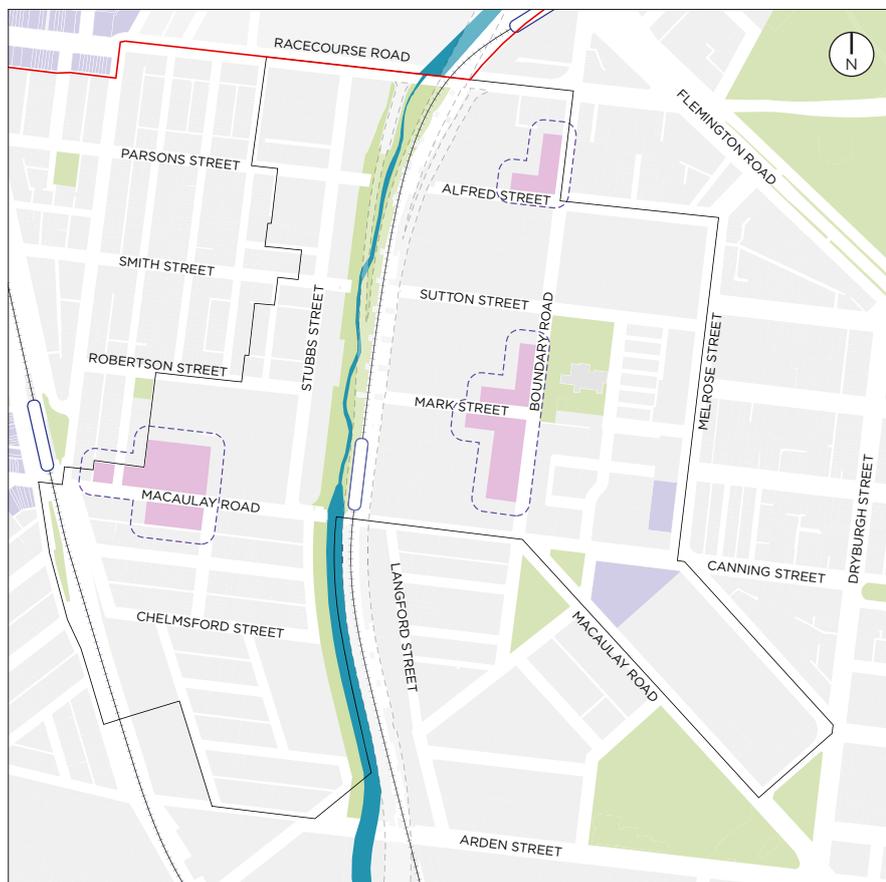
This centre reflects the intent of the 2012 plan, however it more tightly consolidates the area, avoiding flood prone land to the east and connecting with the existing centre around Kensington Station to expand and complement the retail offering.

Central Macaulay (Boundary Road)

The major proposed change to the 2012 structure plan is to re-orient the local centre from Macaulay Road and Canning Street to Boundary Road, just north of Macaulay Road. This addresses issues with flooding and provides retail in closer proximity to development in Boundary Precinct.

Racecourse Road / Boundary Road (north)

Due to role of Racecourse Road this area should provide office uses and residential development. A small local retail node could be considered to service future employment uses and localised residential demand. This would ideally be situated on the north section of Boundary Road.



Key

- Macaulay study area
- Existing local activity centre
- Proposed local activity centre

Map 10: Existing and proposed local activity centres

Why is this proposed?

The Arden Macaulay Structure Plan (2012) identified three street-based Local Activity Centres:

- Macaulay Central (Canning Street - Macaulay Road)
- Kensington (Macaulay Road)
- Flemington Bridge (Boundary Road and Racecourse Road)

These local activity centres were intended to meet local needs, providing a focus for community life through shopping, dining, community facilities and commercial premises. The refreshed structure plan has enabled a review of local activity centres taking account of changes to the planning context affecting the Macaulay area since 2012.

Local activity centres in Macaulay will be strengthened, responding to the surrounding context to contribute to the vision for Macaulay as a vibrant, active, mixed-use neighbourhood that supports local businesses and provides for local needs.

Macaulay Road and Macaulay Central

Updated flood mapping shows that parts of Macaulay Road between Stubbs Street and Boundary Road are particularly flood prone. The amenity of this area is also affected by CityLink. Reorienting the centre along Boundary Road and further west on Macaulay Road close to Kensington station will better support local street amenity.

Boundary Road (north) / Racecourse Road

Racecourse Road carries large volumes of traffic and provides access to and from Citylink. The environment is less likely to attract high levels of foot traffic. With close proximity to Flemington Bridge Station, tram stops and the Capital City Trail, the area is better suited to office and residential buildings.



Case study: Shop fronts and street life

The ground floor of buildings plays an essential role in creating streets which feel comfortable, safe and interesting. Good design should present well to the street, include high quality materials and offer a sense of activity such as places to sit or large windows to enable views of the internal space.

Image 17: Short stop cafe in Melbourne
(Project: Foolscape Studio, Photo: Tom Blachford)

ACTIONS

DELIVER

Action 18: Rezone sites along Macaulay Road and Boundary Road to the Special Use Zone with requirement to provide retail and commercial activity in local activity centres.

Action 19: Use built form planning controls to strengthen active ground floor frontages in local activity centres.

Action 20: Identify opportunities for place creation, place-making and economic activity that fosters a strong sense of place and community identity.

Objective 8: Ensure adequate provision and good access to community infrastructure within and around Macaulay

Good access to community infrastructure will be provided to meet the needs of the growing population in Macaulay.

What is proposed?

Analysis of community infrastructure requirements for Arden and Macaulay recommended the delivery of several community hubs over the next 20 years. Two hubs are recommended for the Macaulay area:

- Development of a new community hub in North Melbourne to expand and better integrate existing community and recreation facilities and services.
- An additional community hub on or near Macaulay Road to the west of Moonee Ponds Creek.

It is also recommended that a Government Primary School is provided in Arden Central and a Government Secondary School in Macaulay.

Why is this proposed?

Community infrastructure refers to public places and spaces that accommodate community facilities and services that help people meet their social needs, maximise their potential and enhance community wellbeing. The majority of existing community infrastructure in Macaulay is located around Buncle Street and Melrose Street in North Melbourne:

North Melbourne Community Centre

- gym with personal trainers and fitness classes
- outdoor synthetic soccer pitch, stadium and playground
- community spaces available for use and hire including a community hall, kitchen, meeting and games room
- maternal, child and family health services

Hotham Hub Children's Centre

- child care, long day care and an integrated kindergarten program

Jean McKendry Neighbourhood Centre

- aged services and activities
- a large bookable main hall, kitchen and separate meeting rooms

Additional community infrastructure

- Buncle Street Reserve
- Buncle Street Community Garden

Facilities are at capacity and unable to meet current demand. There is also a lack of local services co-located with these facilities.

School provision

The Department of Education and Training will ultimately determine where new schools will be delivered to service inner Melbourne. We will continue to advocate that the Public Record Office Victoria site is considered as a potential location for a future secondary school.

Community infrastructure in Arden

Community infrastructure will be delivered as part of the Arden Urban Renewal Precinct. It is important to ensure that Arden and Macaulay are well connected by walking and cycling routes and public transport.

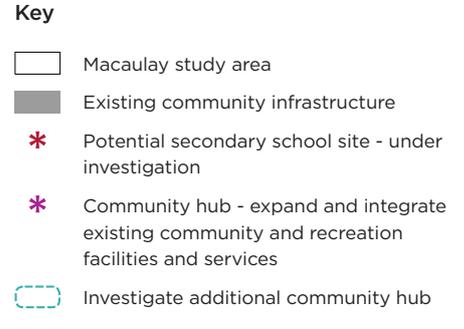
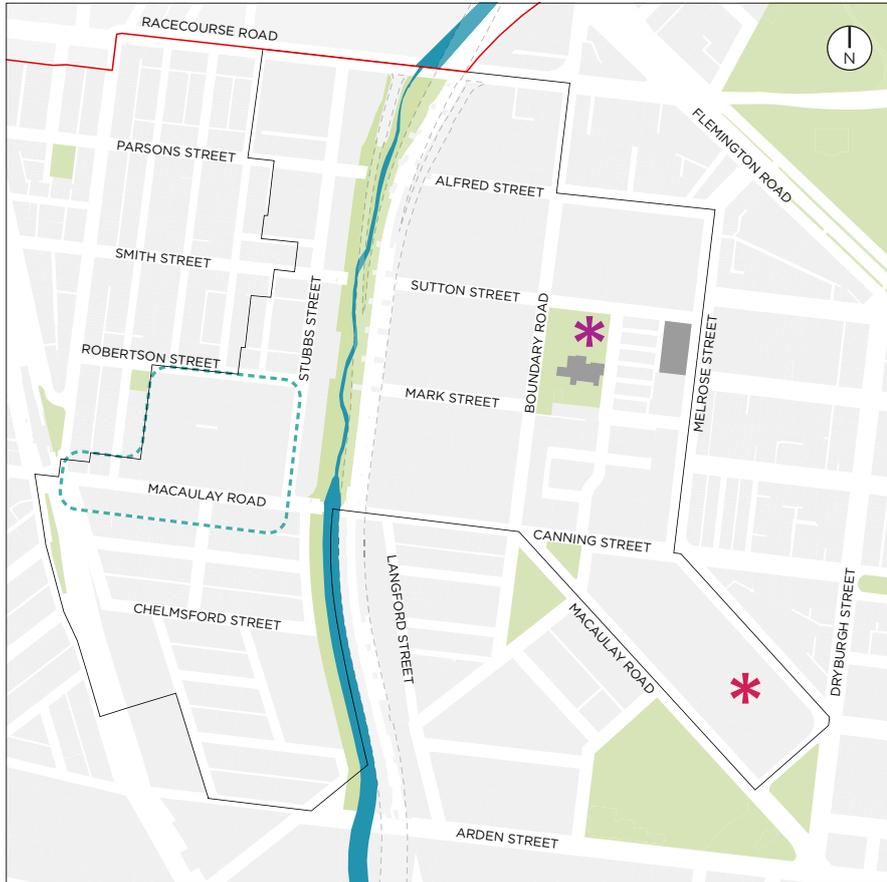
Future population growth in Macaulay will place further pressure on existing facilities and services. With higher land values in the inner city there is a need for innovative approaches to delivering community infrastructure including shared facilities and partnerships between government and the private sector. This is particularly relevant for any future community infrastructure in the Kensington area of Macaulay where land is privately owned.



Case study: South Melbourne Primary School

South Melbourne Primary School will eventually be home to more than 525 primary school students. The school operates as a genuine community hub accommodating a number of other community services and facilities at ground level, including a 44 student early learning centre and two external outdoor play and learning areas to ensure students can continue to play and be active.

Image 18: South Melbourne Primary School
(Project: Hayball, Photo: Dianna Snape)



Map 11: Existing and proposed community infrastructure



Image 19: The existing North Melbourne Community Centre. Development of a new community hub in North Melbourne is required to expand and better integrate existing community and recreation facilities and services.

ACTIONS

DELIVER

Action 21: Further investigate future community infrastructure needs and identify the location, concept design and delivery arrangements for the redevelopment of community and recreation facilities and services in North Melbourne.

Action 22: Further investigate the delivery of an additional hub in Kensington including opportunities to partner with the private sector.

ADVOCATE

Action 23: Work with the Department of Education and Training in its delivery of a Secondary School in North Melbourne.

Action 24: Advocate for public transport improvements to enable improved access to community infrastructure in Arden and Macaulay. This includes the extension of any future high capacity public transport to Arden along Boundary Road.

Objective 9: Help deliver affordable and diverse housing in Macaulay

Affordable and diverse housing is required in Macaulay to help provide housing for very low, low and moderate income households within close proximity to transport and a wide range of jobs. This includes public housing, but also extends to include community housing and some private market housing.

What is proposed?

Between six and ten per cent of all housing in Boundary, Melrose and Stubbs Precincts will be affordable housing (one in sixteen to one in ten dwellings). This target will be adjusted if Victorian Government affordable housing policies are updated. Where it is agreed that providing affordable housing within the development is not practical or appropriate, a cash contribution to the same value should be made instead.

There is a significant amount of public housing in Macaulay located in the area bounded by Alfred, Melrose and Canning Streets and Boundary Road. The City of Melbourne's Draft Affordable Housing Strategy identifies the need for the Victorian Government to make more substantial investments in social housing to ensure new stock is increased and older stock is kept fit for purpose.

Why is this proposed?

We have identified a current shortfall of 5,500 affordable homes across the municipality. By 2036 there is expected to be approximately 27,100 people in need of social and affordable housing. These figures were modelled before the COVID-19 outbreak. As a result, the real housing need may be higher than previously estimated.

Affordable housing is essential infrastructure to our city. A wide spectrum of professionals including nurses, administration officers, child care workers, artists, hospitality and service industry workers contribute directly to our local community and economy. Without affordable housing options, many of these people cannot afford to live in, and be part of, our communities.

Our focus is on mechanisms to increase the supply of affordable rental housing in the municipality which can be owned and managed by registered community housing organisations. Rental housing is more accessible than ownership, it doesn't require people to have a substantial deposit to access the housing, it provides certainty over the ongoing affordability of the housing, and it can affordably house people for the length of time they need it.

There is a need for sustained investment in the supply of safe, high-quality affordable rental housing offering secure tenure to residents. Urban renewal areas such as Macaulay will experience the highest levels of growth and development in the municipality. They are best placed to deliver the majority of affordable housing that will be required to meet future demand.

Affordable housing in Macaulay

A large area of public housing comprising apartment towers built in the 1960s and townhouses built in the 1990s is located between Alfred Street, Melrose Street, Canning Street and Boundary Road in North Melbourne.

A recently completed apartment building in North Melbourne includes 34 apartments, with 28 of these sold at a discounted rate to former public housing tenants previously living within 4km of the site.

A development with planning approval in Kensington for 146 dwellings will provide 10 per cent of the dwellings to key workers with a 20 per cent discount applied to their rent. This formed part of the demonstrable benefits to justify exceeding the preferred maximum building height.

Affordable housing on City of Melbourne land

There is an opportunity to set ambitious affordable housing targets for development on government owned land. In our Draft Affordable Housing Strategy, we have committed to deliver up to 25 per cent affordable housing where land that we own is used to develop housing. We will consider higher targets in urban renewal areas where possible.

Public housing

Existing public housing is owned and managed by the Victorian Government. While we do not have direct control over its future, we can use our position as a capital city council to advocate for the protection and improvement of public housing stock.

There is a need for the Victorian Government to make a more substantial investment in social housing. We must ensure that new stock is increased and old stock is kept fit for purpose. We advocate for additional public housing in our municipality, for Council to play a strategic role in the renewal of public housing sites, and for existing public housing tenants and communities to be supported through future renewal projects.



Case study: delivering inner city affordable housing

A mix of private and affordable housing is provided in this 59 unit development in Gipps Street, Abbotsford on the site of a former boot factory.

Using a co-operative housing model, not-for-profit developer Common Equity Housing Limited invested profits from the sale of the project's 34 private dwellings to ensure its 25 social housing dwellings are affordable to low-income tenants.

205 Gipps Street won the Victoria Affordable Development award in 2014 by the Urban Development Institute of Australia and provides a model for similar scale and mixed tenure housing in Macaulay close to a range of jobs and services.

Image 20: 205 Gipps Street, Abbotsford.
(Project: Kann Finch, Photo: Emma Cross)

ACTIONS

DELIVER

Action 25: Include a requirement in new planning controls for the provision of between six and ten per cent of housing in Boundary, Chelmsford and Stubbs Precincts to be affordable housing (one in sixteen to one in ten dwellings). This target will be adjusted if Victorian Government affordable housing policies are updated. Where it is agreed that providing affordable housing within the development is not practical or appropriate, a cash contribution to the same value should be made.

Action 26: Where land owned by the City of Melbourne is used to develop housing, ensure that up to up to 25 per cent is affordable housing and consider accommodating greater than 25 per cent on City of Melbourne owned land in Macaulay.

PARTNER

Action 27: Facilitate and strengthen the partnership between registered community housing organisations and the development industry to help increase the supply of affordable rental housing.

ADVOCATE

Action 28: Advocate for the Victorian Government to make more substantial investments in social housing to ensure new stock is increased and older stock is kept fit for purpose.

2.3 MOVEMENT AND ACCESS

Macaulay's movement and access network will evolve to create a 20-minute neighbourhood. The transport system will move more people more efficiently in the future. Walking, cycling, and public transport will be prioritised. (for more details see Streets and Spaces on page 54).

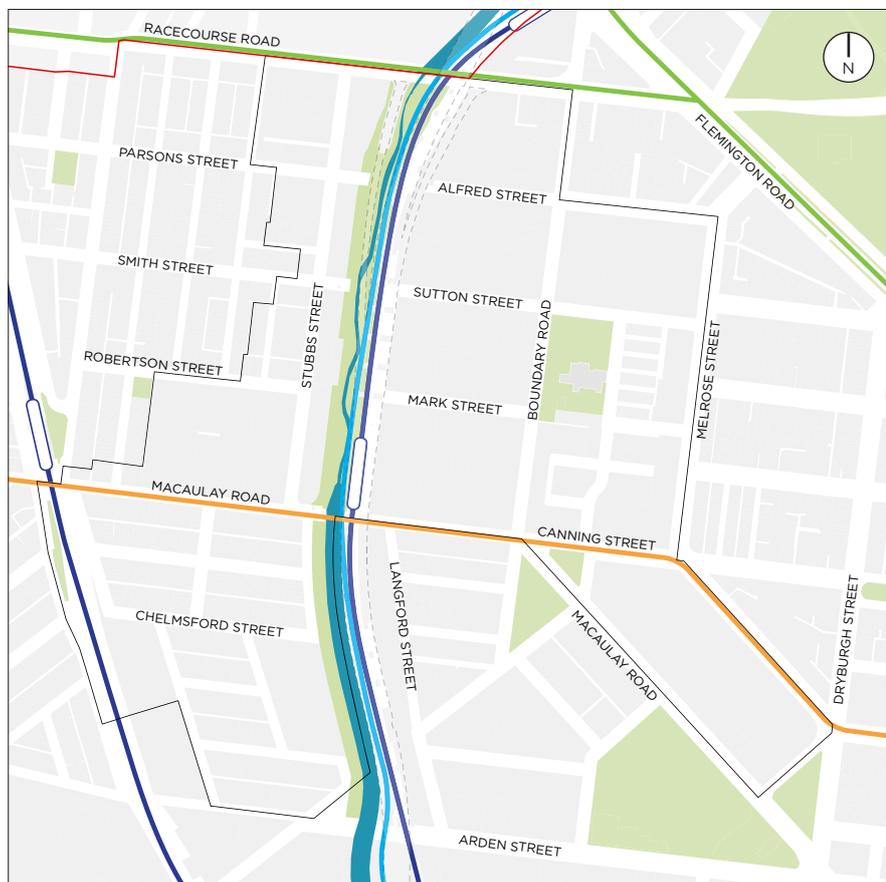
Context

What did the 2012 structure plan outline?

The plan emphasised the need for high quality public transport infrastructure, streets designed to prioritise pedestrians, cyclists, trams and buses, safe and effective traffic management and limited car parking provision.

What do we know?

- The Upfield rail line, Citylink and Moonee Ponds Creek divide the area and create a barrier to movement. Racecourse and Macaulay Roads and Arden Street provide the only crossing points.
- Walking and cycling access through Macaulay can be difficult and unsafe. Speed limits are high on main streets and pedestrian and cyclist priority is low.
- Streets are currently designed to prioritise motor vehicles ahead of other modes of transport.
- Local streets have been observed to be used as 'short cuts' for vehicles, reducing safety and amenity for other road users.
- The West Gate Tunnel (under construction) will have residual traffic impacts in Macaulay as motor vehicles will be directed towards Macaulay and Boundary Roads.
- Racecourse Road connects to CityLink encouraging high volumes of through-traffic.
- The Metro Tunnel station in Arden will expand public transport options.
- Macaulay is relatively well serviced by public transport, however service frequency is low at all times.
- Community feedback indicates that stations are perceived to have access, amenity and safety issues.
- 78% of those travelling to Macaulay for work typically arrive by car, well short of our goal to increase the total mode share of people walking, riding bikes, and using public transport to 70% of all trips.
- On-street parking is generally unrestricted and there is currently an oversupply of off-street parking in most of Macaulay.



Key

- Macaulay study area
- Existing train line
- Existing tram
- Existing bus route
- Existing bicycle path

Map 12: Existing transport network in Macaulay

What are we proposing?

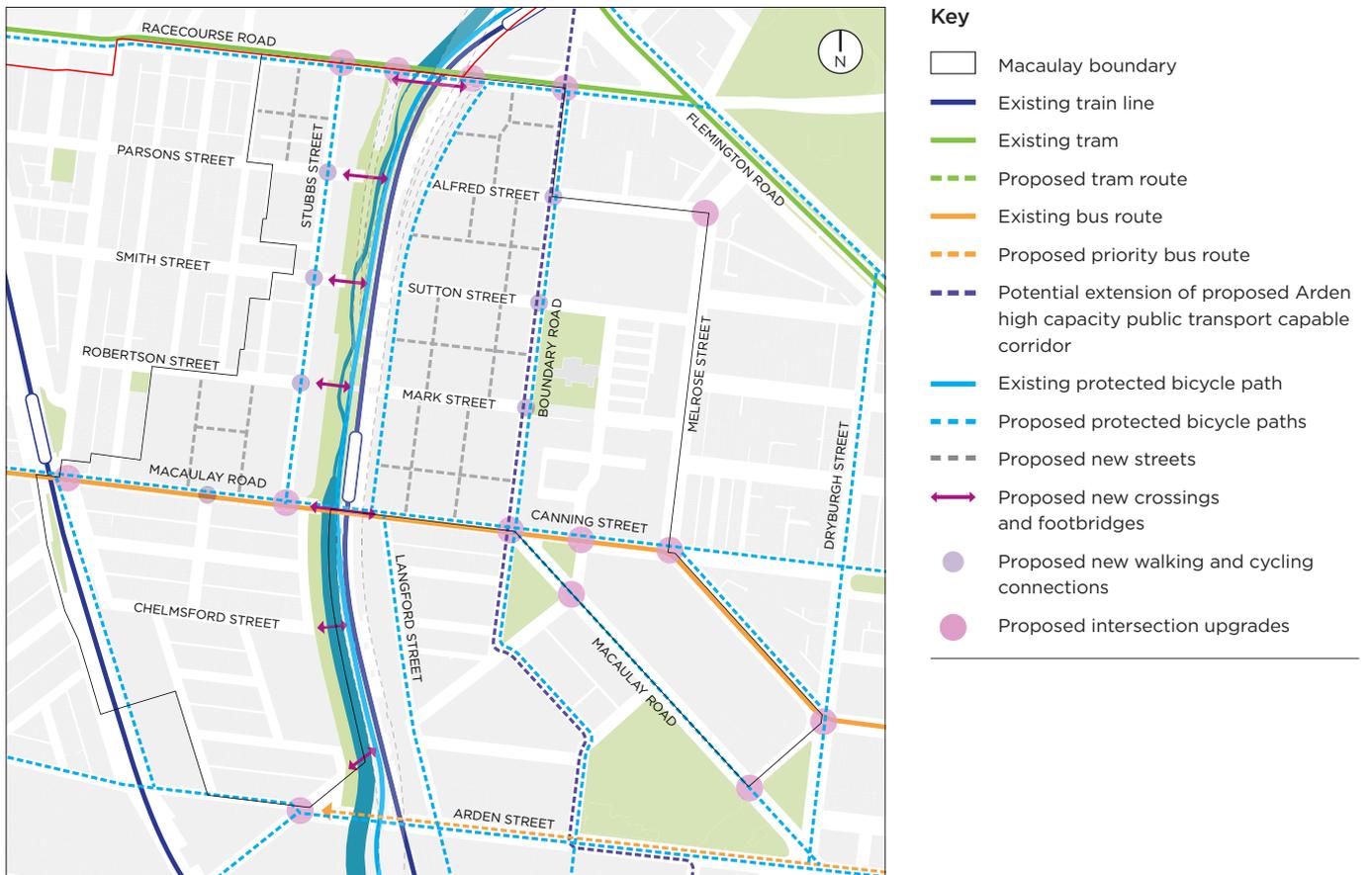
The objectives and actions in this section will help deliver the vision for Macaulay by seeking to change the way traffic moves through Macaulay and encourage foot, bicycle, and public transport.

- The transport network will support Macaulay as a 20-minute neighbourhood, a destination, and a place to travel through.
- Macaulay Road and Stubbs Street will become attractive, low-speed streets where people walking are provided with continuous footpaths and people riding bicycles are provided with safe and comfortable lanes. All main streets and roads will be provided with a high level of amenity including lighting, planting, seating, bicycle parking, and rubbish bins.
- Macaulay will leverage its proximity to high value destinations with improved foot and bicycle routes. Residents and visitors will have easy access to existing shopping strips including Macaulay Road at Kensington Station and Racecourse Road at Newmarket Station.

- The supply of on-street parking will be gradually reduced, to provide space for much needed greening and priority for people walking, riding bikes, and using public transport. On street car parking will be prioritised for existing residents and businesses. Maximum parking rates in the Planning Scheme will ensure that off-street parking is not oversupplied, enable higher and better use of floor space, facilitate greater amenity, and encourage the use of sustainable transport modes.

This will be achieved by seeking to change the way traffic moves through Macaulay by:

- prioritising active transport by designing streets that are safe and accessible for people walking and riding bikes (Objective 10)
- advocating for, and helping deliver, public transport that meets the needs of the Macaulay population (Objective 11)
- improving car parking requirements to support a less car dependent transport system (Objective 12).



Map 13: Proposed changes to the transport network in Macaulay

Objective 10: Prioritise active transport by designing streets that are safe and accessible for people walking and riding bikes

Travel by foot and bicycle will be designed and prioritised to ensure good access to destinations in Macaulay and surrounding areas. Streets will be safe and accessible for everyone and provide high levels of amenity.

What is proposed?

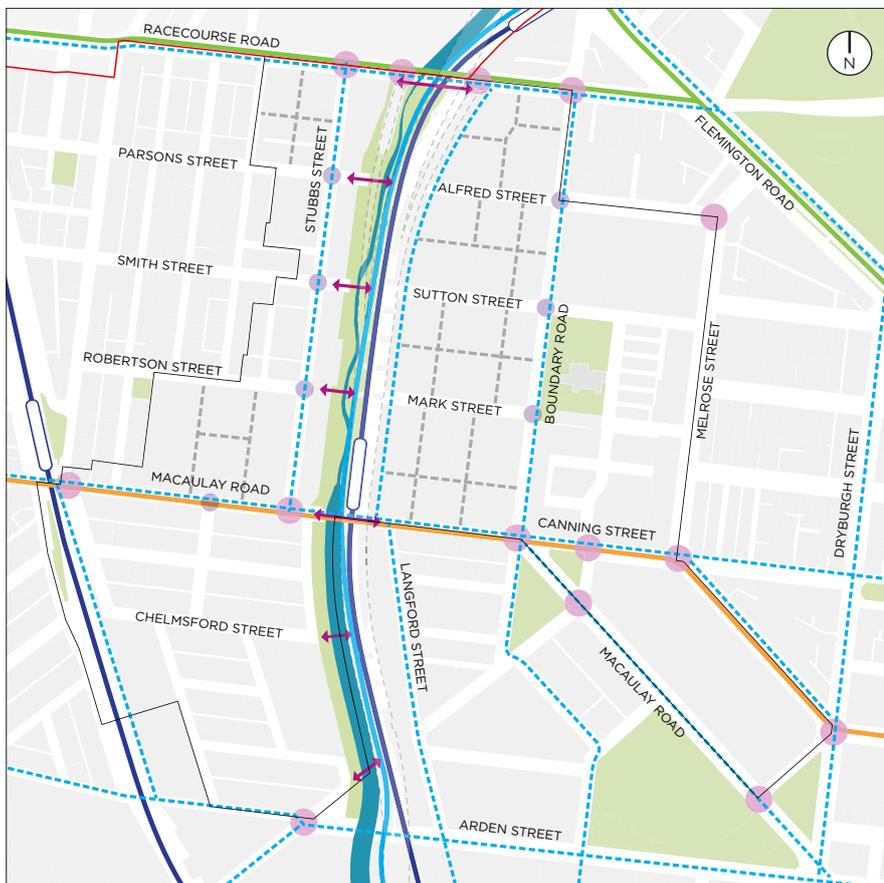
Walking will be encouraged through footpath widening and improved road crossings. Increased amenity will be provided through the use of high quality materials, increased street tree planting and urban greening, and active uses on the street.

Riding bikes in Macaulay will be made safer and more attractive by expanding the existing network and providing high-quality protected bicycle lanes and intersections. Future protected lanes have been identified for Racecourse, Boundary and Macaulay Roads and Canning Street. There is also potential for protected lanes on Stubbs Street.

Requirements for bicycle parking in new developments will be increased. On-street bicycle parking will be expanded, particularly outside local retailers, businesses and community facilities.

New walking and bicycle connections across the Moonee Ponds Creek will better connect the west of Macaulay with the Capital City Trail. We will advocate for improved connectivity east of the creek as part of any future grade separation of the Upfield rail line. This would greatly improve local access between Kensington and North Melbourne.

We will work with the Department of Transport to provide a safer environment by lowering motor vehicle speeds. Through-vehicle movements on local streets will be discouraged.



Key

-  Macaulay study area
-  Existing train line
-  Existing bicycle path
-  Proposed bicycle path
-  Proposed new street
-  Proposed new crossings and footbridges
-  Proposed new walking and cycling connections
-  Proposed intersection upgrade

Map 14: Proposed changes to walking and cycling in Macaulay



Image 21: Existing poor quality cycling infrastructure on Macaulay Road provides an opportunity to improve the safety, comfort and convenience of cycling.

Why is this proposed?

Population growth and increased economic activity will generate more trips by foot and bicycle. The current design of streets prioritises motor vehicles and does not adequately support people walking and riding bikes. Improvements to public transport services and amenity (see Objective 9) will also encourage more people to walk and cycle to public transport.

Macaulay Road, Boundary Road, and Stubbs Street are the most direct routes through Macaulay, but they are dominated by motor vehicle traffic and on-street car parking. They do not provide a sufficient level of safety and amenity to encourage walking and riding bikes.

Improvements to active transport deliver a range of additional benefits. Cities with streets that enable walking and bike riding that is safe, accessible and convenient have healthier populations and more sustainable environments. Walkable streets support business and activity, which is dependent on face-to-face interaction. Streets, laneways and other in-between spaces can also provide additional places for recreation.

ACTIONS

DELIVER

Action 29: Prioritise walking on Macaulay Road, Boundary Road, and Stubbs Street with wide, unobstructed footpaths. Provide raised continuous footpaths across intersections with side streets where possible.

Action 30: Minimise the number of vehicle crossovers from all streets and encourage the servicing of buildings via rear laneways.

Action 31: Provide regular crossings of main streets for people walking and riding bikes, especially at intersections with side streets and incorporate these crossings into public transport stops where applicable.

Action 32: Discourage through-vehicle movement on the local street network.

Action 33: Make streets safer for bikes and deliver the protected bicycle network shown in Map 14.

Action 34: Ensure new development provides secure and easy to use bicycle parking and end-of-trip facilities (see Objective 12 – Parking).

Action 35: Pursue the outcomes of the Racecourse Road Strategic Opportunities Plan as they relate to Council's obligations, and work with the City of Moonee Valley and Department of Transport for a whole of government approach to safety and amenity improvements.

ADVOCATE

Action 36: Advocate for new and improved crossings of the Moonee Ponds Creek.

Action 37: Advocate that any future grade separation of the Upfield rail line provides improved walking and cycling connections from North Melbourne to the Moonee Ponds Creek.

Action 38: Advocate for secure bicycle parking to be installed at Macaulay Station.

Action 39: Advocate for upgrades to Racecourse Road to improve safety and amenity.

Objective 11: Advocate for, and help deliver, public transport that meets the needs of the Macaulay population

High quality, frequent, and reliable public transport will be supported in Macaulay. This will provide a convenient option for residents, workers, and visitors to get around.

What is proposed?

In the longer term, the proposed high capacity public transport capable corridor in Arden should be extended along Boundary Road. This would provide a more direct connection to the new Metro Tunnel station in Arden. Future grade separation of the Upfield rail line at Arden Street and Macaulay Road would unlock significant potential for the area. This would improve connections between North Melbourne and Kensington over the Moonee Ponds Creek and make land available for flood mitigation and open space. Grade separation would also provide a new station with a higher level of amenity and facilities. It should be noted that both long term projects are subject to Victorian Government approval and funding.

In the short term, increased service frequencies on the Upfield line and 402 bus would make existing public transport more convenient and reliable.

It should be easier for people to connect with public transport services. This can be improved through pedestrian-priority crossings to public transport stops and short traffic signal cycle times at intersections to reduce delays. A high level of amenity and safety should be provided at all public transport stops.

Why is this proposed?

As Macaulay's population grows, the public transport system will need to move an increasing number of people. The transport system will need to evolve alongside redevelopment to influence the travel behaviour of residents, workers and visitors.

Macaulay's existing public transport services offer a strong basis for improvement. The Upfield and Craigieburn rail lines provide access to the north and south, and the 402 bus allows people to travel east and west.

Extending the proposed high capacity public transport capable corridor in Arden along Boundary Road will facilitate increased local movements by public transport.

The Upfield rail corridor is a significant barrier to east-west movement. Racecourse Road, Macaulay Road and Arden Street are the only crossing points at around 700 and 500 metres apart. They do not provide a safe and convenient environment for people walking or riding bikes. Elevated rail would provide an opportunity to improve existing connections and create new ones.

ACTIONS

ADVOCATE

Action 40: Advocate for the Upfield rail line to be grade separated to enable improved connectivity across the precinct and access to the Moonee Ponds Creek.

Action 41: Advocate for the extension of the high capacity transport corridor in Arden along Boundary Road to better connect Macaulay with Arden and other destinations including West Melbourne and the central city.

Action 42: Advocate for at least 10-minute frequencies from 6AM to midnight seven days a week on the Upfield and Craigieburn rail lines.

Action 43: Advocate for accessibility, amenity and safety upgrades at Macaulay and Flemington Bridge Stations.

Action 44: Advocate for service upgrades to the 402 bus including greater signal priority at the intersection of Macaulay and Boundary Roads.

Action 45: Advocate for improved public transport services, accessibility and amenity surrounding Macaulay including Flemington Bridge Station, tram route 57, and other priorities included in the Transport Strategy 2030.

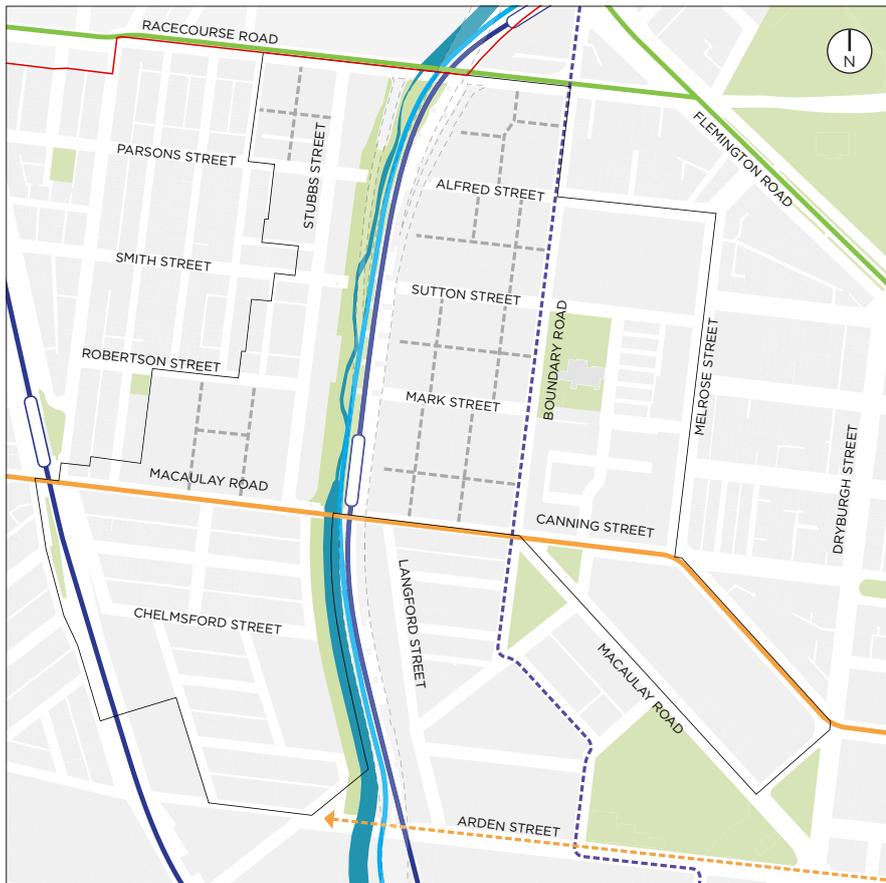
Action 46: Advocate for high capacity trams and DDA compliant stops on Racecourse Road.



Image 22: While most areas of Macaulay are within ten minutes' walk of a train station, community feedback indicates that stations are perceived to have poor safety and amenity.



Image 23: The new Rosanna Station as part of the Victorian Government's Level Crossing Removal Project (Project: MGS Architects, Photo: Andrew Latreille).



Key

- Macaulay study area
- Existing train line
- Existing tram
- Existing bus route
- Proposed priority bus route
- Potential extension of proposed Arden high capacity public transport capable corridor

Map 15: Potential changes to the public transport network in Macaulay

Objective 12: Improve car parking requirements to support a less car dependent transport system

Parking controls and supply will be managed to efficiently and fairly prioritise street space allocation. This will encourage walking, bike riding and use of public transport while minimising motor vehicle dependency. Some on-street car parking spaces will be prioritised for businesses and existing residences.

What is proposed?

On-street car parking supply and controls will be reviewed to provide space of wider footpaths, protected bike lanes, street tree planting and improved amenity. New parking controls in places which were previously uncontrolled will aim to increase access to local businesses with the inclusion of loading bays and time limits that encourage short-stay parking and higher turnover.

Off-street parking requirements in the planning scheme will be replaced by maximum car parking rates. We will also investigate consolidated parking solutions, including precinct parking facilities and/or 'unbundling' of car parking from land titles in private development. These measures will prevent the oversupply of parking and allow floor space in developments to be used more efficiently. This will be further supported by requirements for ample bicycle parking and end-of-trip facilities.

Why is this proposed?

All public space in Macaulay, including the space set aside for car parking, will be under increased pressure as the population, number of jobs and activity grows. The larger industrial and commercial landholdings will be divided into smaller lots with new streets that connect into the existing street network in Kensington and North Melbourne. Parking space will need to be managed to provide the highest value use to residents, businesses, and visitors.

On-street parking is generally unrestricted and uncontrolled except where it is adjacent to residences where parking permits are available. Unrestricted parking incentivises driving and storing of vehicles for long periods. It also inflates parking demand as some who have the option to travel without a car may choose to drive because they know unrestricted parking is available. These factors increase road congestion and reduce the space available for other transport modes. Better managing kerbside space exposes excess parking supply that can be transitioned to higher value uses.

Currently, developments in Macaulay must provide a minimum number of parking spaces regardless of demand. Applying a maximum car parking rate in Macaulay and ensuring the appropriate provision of bicycle parking facilities will help optimise the use of space. Unbundling off-street parking space from property titles establishes a market for car parking. This allows unused and underutilised car parking bays in a building to cater for external demand or facilitate conversion of car parking space to other uses, including commercial or residential space. Supporting the inclusion of shared mobility services, such as car share, will also give greater transport choice and make it easier to live in the area without needing to own a car.

Off-street car parking spaces in private buildings have other impacts on area including poor building design and public realm outcomes due to multiple crossovers and vehicle movements.



Image 24: Car share programs reduce car ownership and travel. Every car share vehicle in the municipality takes nine private vehicles off the road, while car share members drive half as many kilometres each year as non-members

ACTIONS

DELIVER

Action 47: Introduce on-street parking controls on Macaulay Road, Boundary Road, and Stubbs Street to encourage short-stay use that supports local businesses. This will likely include time-restricted parking, loading and drop-off bays, and demand-based paid parking.

Action 48: Extend on-street parking controls to other streets in Macaulay in consultation with existing residents, businesses, and land owners.

Action 49: Transition excess on-street parking to higher value uses including wider foot paths, safer bike lanes and new open space.

Action 50: Ensure the safety of people walking and riding bikes as short-stay parking controls will increase the rate of turnover with increased vehicle movements across bike lanes and next to footpaths.

Action 51: Investigate the optimum mechanism/s and locations to consolidate parking supply and avoid an oversupply of off-street parking. This will be achieved through precinct parking facilities, unbundling of car parking bays, or a combination of both.

Action 52: Apply a maximum off-street parking rate for new development. Benchmark the rate with international best practice and the rates applied in Fishermans Bend, Arden and West Melbourne.

Action 53: Require the inclusion of publicly accessible car share vehicles in private developments that provide this service.

2.4 STREETS AND SPACES

Macaulay's streets and public spaces will be enhanced as green, vibrant and diverse places for the community. Local streets, larger land holdings, Buncle Street Reserve and the Moonee Ponds Creek corridor present the greatest opportunities for increasing the quantity and quality of open space and achieving other sustainability goals.

Context

What did the 2012 structure plan outline?

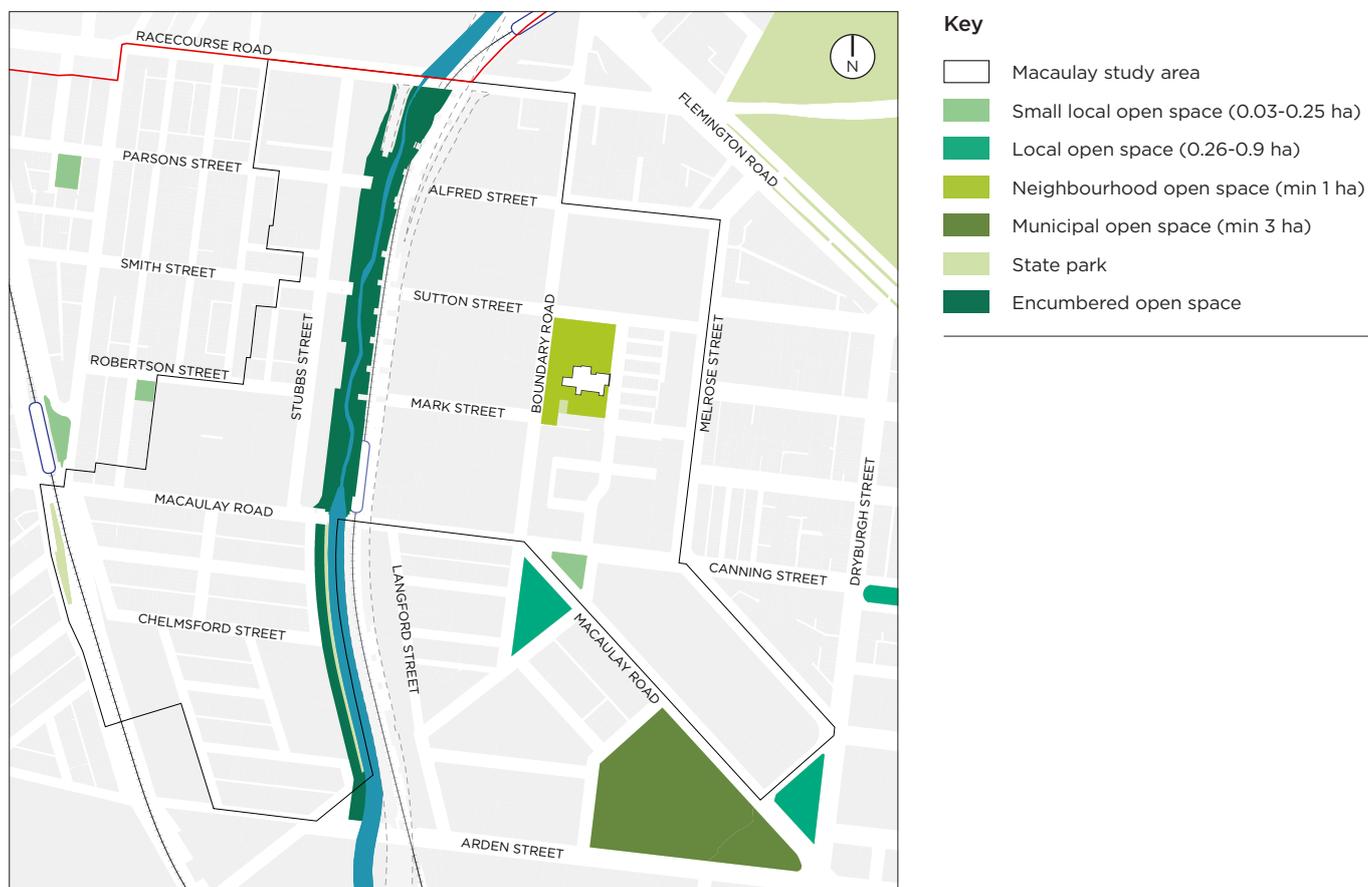
The plan identified how Macaulay's streets and spaces can improve the quality of the public realm, including:

- introducing five new local parks
- revitalising existing open spaces like the Moonee Ponds Creek
- the role of the future street network should not only prioritise pedestrian and cycling access, but strengthen the local ecosystem
- delivery of new streets and open space on large sites
- buildings contribute positively to the public realm to create safe and inviting spaces for the community.

What do we know?

The industrial history of Macaulay means there are few open spaces and many large land holdings. This makes for a poor walking environment with limited connectivity across the precinct.

Open space within Macaulay is limited to the Buncle Street Reserve, Canning Street and Macaulay Road Reserve and the Moonee Ponds Creek corridor, however the precinct is in close proximity to a number of open spaces. These include Clayton Reserve, Gardiner Reserve and Royal Park. The oval at the North Melbourne Recreation Reserve is oval is leased to the North Melbourne Football Club which limits community use. There is a higher concentration of open space to the east of the rail corridor, with less open space on the western side of Macaulay. Connections and access to open space is often poor due to the quality of the public realm and infrastructure barriers. This includes the rail corridors and crossing Flemington Road to access Royal Park.



Map 16: Existing open space network in Macaulay

What are we proposing?

The objectives and actions in this section will help deliver the vision for Macaulay, improving streets and spaces by:

- redesigning and upgrading of streets to enhance the walking experience and provide dedicated cycle routes protected from vehicular traffic.
- creating new streets on larger development sites that will further enhance the street network and improve connectivity across the Macaulay area.
- providing blue and green infrastructure in streets and open spaces to help reduce flooding, increase the urban forest and improve biodiversity
- working with stakeholders to improve access and revitalise the Moonee Ponds Creek corridor
- creating a network of new open space across the precinct and ensuring they are accessible to the growing community.

This will be achieved by implementing works to:

- create a network of high quality open spaces in Macaulay (Objective 13)
- create high quality green streets including a network of new streets on larger land holdings (Objective 14)
- ensure Integrated Water Management is incorporated into Macaulay to support a resilient and liveable neighbourhood (Objective 15)
- enhance the Moonee Ponds Creek to become a thriving corridor that supports the liveability and resilience of Macaulay (Objective 16).



Map 17: Proposed open space network in Macaulay

Objective 13: Create a network of high quality open spaces in Macaulay

Open space will be delivered in Macaulay by improving and expanding existing open spaces, revitalising the Moonee Ponds Creek corridor, providing new open space on larger land holdings and reallocating some roadway and parking in the street network.

What is proposed?

New open spaces will be delivered in Macaulay by reallocating some roadway and parking to create additional public open space and through contributions from private developments. Buncle Street Reserve will be upgraded and potentially expanded as part of the development of a new community hub in Melrose Precinct.

Improved access to a revitalised Moonee Ponds Creek (see Objective 16 on page 65) will further enhance open space amenity in the area. This will include addressing the status

of the Industrial 1 Zone land between Stubbs Street and the Moonee Ponds Creek and its use as open space once land management arrangements with VicTrack are resolved.

All open space in Macaulay will provide a range of benefits including:

- passive and active recreation
- mental health, wellbeing and social connectedness
- water sensitive urban design including on-site water retention
- mitigation of the urban heat island effect
- connecting streets and open spaces to create biodiversity corridors.



Map 18: Proposed open space opportunities in Macaulay

Why is this proposed?

The City of Melbourne’s Open Space Strategy (2012) discusses how a network of different types and sizes of open spaces can be achieved throughout the city, and highlights areas where new open spaces of different types are needed.

The need for two new neighbourhood parks in Kensington with a minimum size of one hectare has been identified for the areas bounded by:

- Smith and Stubbs Streets and Macaulay and Rankins Roads.
- Macaulay Road, Moonee Ponds Creek, Arden Street and the Craigieburn Rail Line.

The need for a new local open space in Kensington of 0.26 - 0.9 hectares in size has been identified for the area bounded by:

- Racecourse Road and Stubbs, Smith and Collett Streets.

The need for two new local open spaces in Macaulay of 0.26 - 0.9 hectares in size has been identified for the area bounded by:

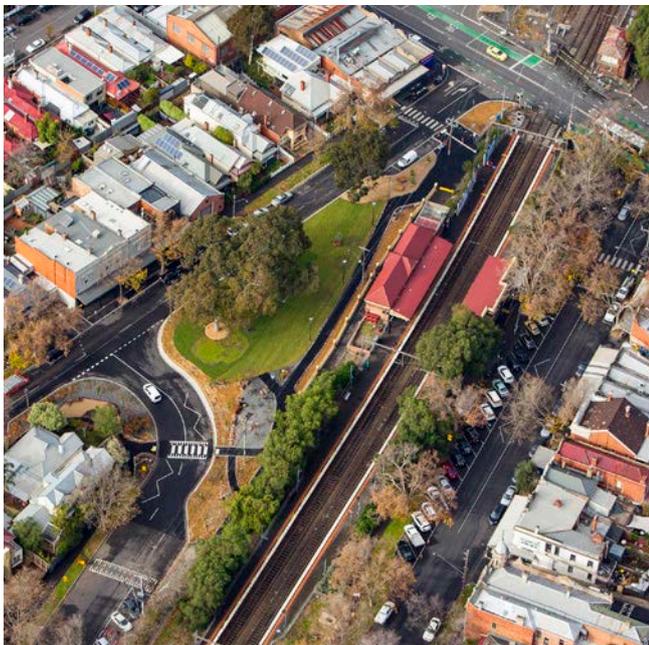
- Racecourse, Boundary and Macaulay Road and the Upfield Railway Line.

The existing Buncle Street Reserve is identified as a location that can be upgraded to potentially improve sporting use, picnic facilities and continue to support the community garden.

Delivering open space

Potential open spaces and public realm improvements can be delivered in a variety of ways, including:

- public open space contribution
- capital works program
- road closures
- acquisition of land
- utilising the flexibility of Floor Area Ratio controls (see Objective 1 on page 20).



Case study: Eastwood and Rankins Road Reserve, Kensington

By expanding two small traffic islands and closing part of Eastwood Street the amount of green open space has more than doubled, providing much needed open space for the residents of Kensington.

Image 25: Aerial view of East and Rankins Road Reserve

ACTIONS

DELIVER

Action 54: Further investigate future community infrastructure needs and identify the location, concept design and delivery arrangements for the redevelopment of community and recreation facilities and services in North Melbourne.

Action 55: Investigate and pursue opportunities to expand the Robertson Street Reserve.

Action 56: Investigate and pursue opportunities to provide new open space at the western end of Alfred, Sutton and Mark Streets incorporating integrated water management.

Action 57: Create new public open space adjacent to the Moonee Ponds Creek corridor incorporating integrated water management within Stubbs and Chelmsford precincts.

Action 58: Investigate and pursue opportunities to rezone existing and proposed public open spaces to Public Park and Recreation Zone (PPRZ).

Action 59: Embed caring for country principles in the design and management of open spaces.

Objective 14: Create high quality green streets including a network of new streets on larger land holdings

The design principles in the Urban Forest Strategy and Nature in the City Strategy will be implemented in Macaulay to create high quality green streets.

What is proposed?

The North and West Melbourne and Kensington Urban Forest Precinct Plans guide the tree planting in Macaulay's streets until 2024 and contribute to the Urban Forest Strategy target of 40 per cent canopy cover by 2040. The map below identifies priority street tree planting and recently completed streets such as Shiel Street in North Melbourne.

A number of streets have the potential for increased tree planting along footpaths or existing painted central medians such as Robertson Street in Kensington. This would extend the street tree planting found in existing residential areas into the former industrial and warehousing areas.

Potential street redesign and greening opportunities are identified in multiple streets including Stubbs and Arden Streets and Macaulay Road. These will be considered over the next three years. Climate change adaptation opportunities have also been identified where additional greening will be considered in addition to tree planting such as Scarborough Place in Kensington.

To ensure long term healthy growth of street trees it is essential to have good quality soil and sufficient soil volume. The use of water sensitive urban design will provide passive irrigation of trees and stormwater treatment. If any trees need to be replaced, the City of Melbourne Tree Retention and Removal Policy (2012) will ensure the replacement process is aligned with community expectations.



Map 19: Street greening in Macaulay

Larger land holdings

Historically, Macaulay has served as an industrial and warehousing hub around Melbourne’s port and railway facilities. This resulted in a subdivision pattern of varying lot sizes with many larger land holdings.

New streets and laneways must be delivered on larger land holdings. One connection should be provided where the average length of a street block exceeds 100 metres and at least two connections where the block exceeds 200 metres. Connections should be located centrally within the block and less than 70 metres from the next intersection. This will support people walking and riding bikes, delivery of appropriate building typologies, street access to individual buildings and enable staging of development. New streets and laneways will also allow increased tree planting and urban greening to:

- establish a more resilient and diverse urban forest
- improve thermal comfort by shading and cooling the environment
- increase surface permeability
- mitigate the impacts of a changing climate
- improve biodiversity and allow people to connect with nature.



Case study: Howard Street, North Melbourne

Part of the roadway in Howard Street was closed and turned it into parkland. The public open space includes three raingardens that capture and clean stormwater runoff. Two large raingardens at the intersection of Howard and Rosslyn Streets capture water running down the gutters on Howard Street before it reaches the stormwater drains. The third raingarden captures runoff from William Street.

Image 26: Water sensitive urban design in Howard Street, North Melbourne

Why is this proposed?

When compared with other neighbourhoods in the municipality, Macaulay has relatively few parks, gardens and green streetscapes. This contributes to poor biodiversity which impacts on critical ecosystem services such as climate regulation and the provision of clean air and water.

The impacts of climate change through the urban heat island effect are also a significant concern for Macaulay. There is a need to increase tree canopy cover to help cool streets and mitigate the impacts.

The Nature in the City Strategy outlines the need to create a more diverse, connected, and resilient natural environment. Macaulay’s lack of green spaces also limits opportunities for people to connect with nature. A connection with nature is not only vital for community health and wellbeing, but is at the heart of many cultural values.

ACTIONS
DELIVER
Action 60: Deliver a network of new streets and laneways on larger land holdings.
Action 61: Deliver street planting priorities in the North and West Melbourne and Kensington Urban Forest Precinct Plans to increase tree canopy cover to 40 per cent by 2040 and increase urban forest diversity.
Action 62: Deliver a 20 per cent increase in understorey habitat on land managed by the City of Melbourne that supports ecological connectivity across the city.
Action 63: Investigate green streets connecting Macaulay and Royal Park to provide improved access for people walking and riding bikes and biodiversity corridors to the Moonee Ponds Creek.
Action 64: Continue to engage, involve and collaborate with the Macaulay community in the process of planning and growing the urban forest.

Objective 15: Ensure Integrated Water Management is incorporated into Macaulay to support a resilient and liveable neighbourhood

Water can be celebrated as a feature of Macaulay. This can be achieved by incorporating stormwater treatment and reuse into streets and open space.

What is proposed?

Streets and spaces in Macaulay will need to play a greater role in stormwater management and flood mitigation. This means embracing water as part of the identity of the area through:

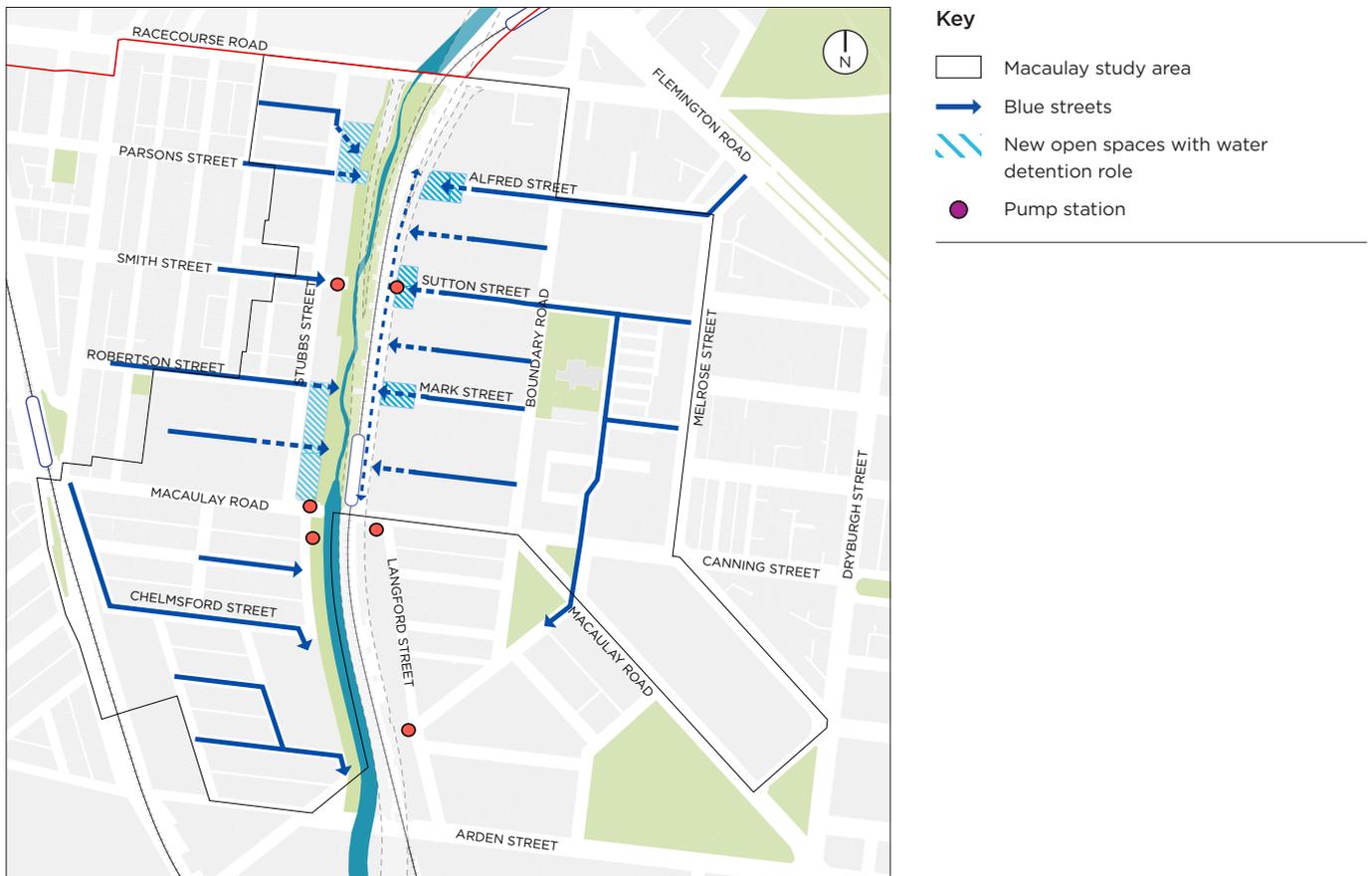
- streets and open spaces with blue-green infrastructure designed to manage, treat and reuse stormwater
- use of alternative (non-potable) water sources including potential stormwater harvesting in Arden and the use of water sensitive urban design to provide passive irrigation
- reducing the volume of pollution that enters our waterways

- upgrades to existing infrastructure including pump stations, levees and stormwater drains
- updated funding mechanisms to help pay for the required works.

Why is this proposed?

Flooding and water management are significant issues in Macaulay. The precinct is located in low-lying, flood prone land and is bisected by the Moonee Ponds Creek. Flood mitigation measures in the area currently include six pumping stations and levees located on both sides of the creek corridor and the existing network of stormwater drains. Flooding in the area is caused by:

- stormwater runoff being trapped behind levees along the creek corridor
- local pump stations failing to keep up with the volume of stormwater runoff



Map 20: Proposed open space network in Macaulay

- stormwater runoff from upstream catchments flowing into the creek
- lack of permeable surfaces to absorb water.

Modelling indicates that, by 2100, flooding risks will significantly increase in Macaulay. This is due predominantly to increasing runoff from urban densification and more extreme rainfall events and rising sea levels due to climate change.

Managing flood risk in the Melbourne Planning Scheme

The Melbourne Planning Scheme contains two overlays to manage flood risk in Macaulay:

- The Land Subject to Inundation Overlay (LSIO) applies to land affected by flooding associated with waterways and open drainage systems
- The Special Building Overlay (SBO) identifies areas prone to overland flooding. The overlay sets appropriate conditions and floor levels to address any flood risk to developments.

The purpose of the overlays is to protect life, assets and the environment and to minimise flood damage. They set appropriate conditions and floor levels to address any flood risk to developments. The overlays are currently being updated.

Drainage contribution rates

Melbourne Water is proposing to deliver extensive measures to mitigate flooding in Macaulay to allow for safe development in the area. The required works will be funded by financial contributions collected by Melbourne Water through a new Drainage Services Scheme. Consultation with affected land owners is planned for 2020.



ACTIONS

DELIVER

Action 65: Investigate and pursue opportunities for the integration of water sensitive urban design in streets and open spaces to provide for passive irrigation of street trees and urban greening.

Action 66: Investigate and pursue the use of blue-green infrastructure to manage, treat and utilise stormwater in the street network (see Appendix 4).

Action 67: Investigate whether potential stormwater harvesting in Arden could also be used to irrigate open spaces in Macaulay.

PARTNER

Action 68: Work in partnership with Melbourne Water and the Victorian Government to update the Land Subject to Inundation Overlay and Special Building Overlay.

Action 69: Work in partnership with Melbourne Water on the updated Drainage Services Scheme.

Case study: Celebrating water in the landscape

Tanner Springs Wetland Park has been designed to uncover the natural infrastructure of the landscape beneath to manage flooding in this former wetland area of Portland, Oregon. This working wetland attracts birds, showcases native species and stormwater runoff is fed into a natural water feature with a spring and natural cleansing system. The park serves the developing surrounding neighbourhood as well as visitors to the area, creating a refuge for people and wildlife in the midst of this bustling downtown neighbourhood.

Image 27: Tanner Springs Wetland Park in Portland, Oregon

Objective 16: Enhance the Moonee Ponds Creek to become a thriving corridor that connects the community

The creek corridor through Macaulay needs to be revitalised so it connects and supports the growing communities to the east and west of the creek.

What is proposed?

The Moonee Ponds Creek Strategic Opportunities Plan proposes a series of strategic opportunities to transform the creek corridor by restoring its ecological, cultural and recreational values.

The City of Melbourne does not own or control the Moonee Ponds Creek corridor. The creek corridor is largely controlled by Victorian Government agencies. Consequently, our role is that of an advocate for current and future residents and communities. That is why we want to work in partnership with the Victorian Government, neighbouring councils, community groups and other partners to revitalise the Moonee Ponds Creek.

Opportunities identified in the strategic opportunities plan have influenced the future character of Boundary, Chelmsford and Stubbs precincts. Further detail is provided for each of these areas in Part 3: Places.



Image 28: Flooding along Moonee Ponds Creek impacting the Capital City Trail during a high rainfall event.

Why is this proposed?

Renewing the creek corridor will ensure the creek can meet current and future requirements for:

1. Water management

Ensure that the creek copes with increased flooding risk caused by urban densification as well as climate change-induced sea level rises and more frequent extreme weather events.

2. Open space

Create a diverse network of open spaces large and numerous enough to cater to a rapidly-growing population.

3. Biodiversity

Revitalise the creek so that it becomes a rich corridor of biodiversity and a thriving habitat for native flora and fauna.

4. Movement

Create safe, accessible paths that connect pedestrians and cyclists to local communities and facilities on either side of the Creek, as well as the central city.

5. History and culture

Ensure that the revitalised creek corridor celebrates and connects to its Aboriginal heritage and local history, and provides new spaces for creativity and public art.

ACTIONS

DELIVER

Action 70: Explore opportunities to improve access and passive recreation opportunities along the western creek bank, south of Macaulay Road.

PARTNER

Action 71: Work in partnership with the Victorian Planning Authority to finalise the Implementation Plan for the Moonee Ponds Creek corridor.

Action 72: Continue to work within the Chain of Ponds Catchment Collaboration Group to support a whole of creek approach and the Moonee Ponds Creek Strategic Opportunities Plan.



Image 29: Macaulay Terrace on a sunny afternoon and during a major rain event. The project could provide a major new open space connecting to the Moonee Ponds Creek Trail, Macaulay railway station and surrounding neighbourhoods.

PART THREE: PLACES

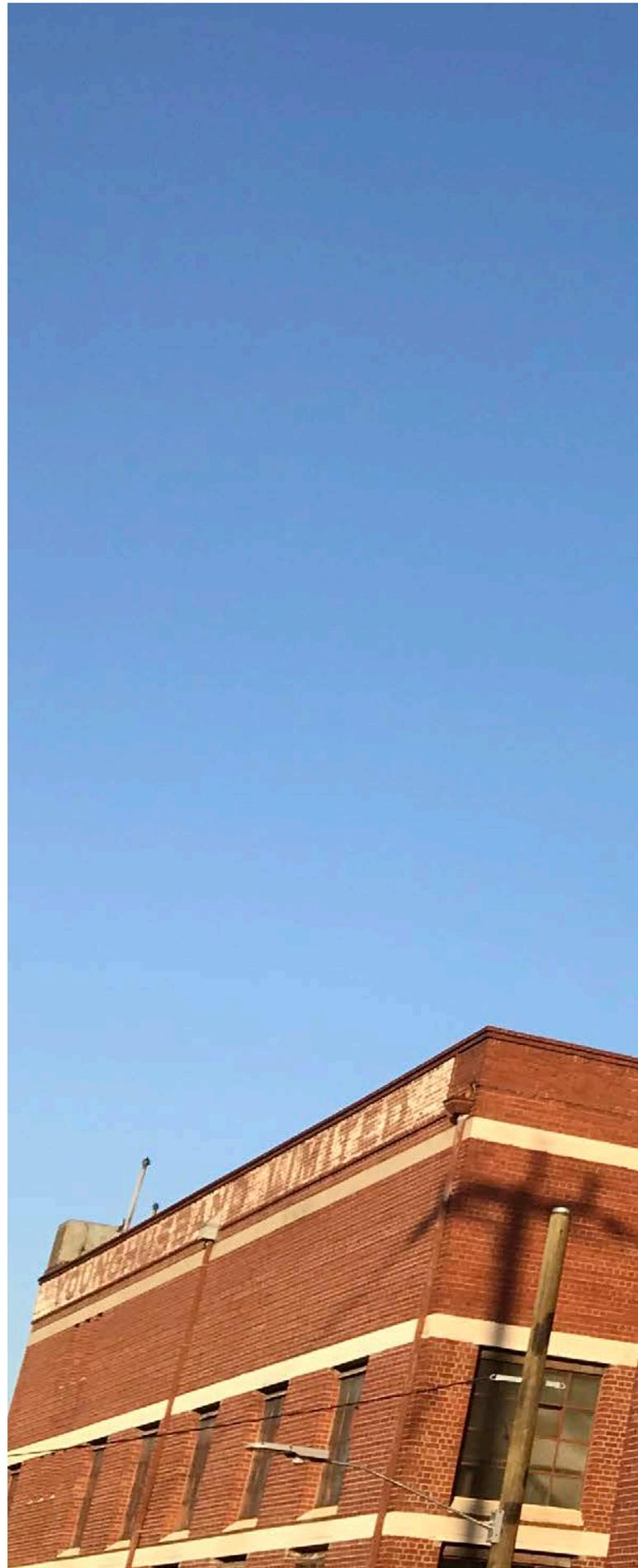
There are four distinct places within Macaulay, each with its own individual characteristics and economic functions.

This part details how the vision for Boundary, Melrose, Chelmsford and Stubbs Precincts will be achieved through the application of the objectives, proposals and actions outlined in Part Two: The Framework.

Overview of the places



Image 30: The former Younghusband Wool Store. A heritage listed four storey brick woolstore built in 1900. Rejuvenating the building is the first stage of a broader precinct that will provide a range of workspaces and open space.





3.1 BOUNDARY PRECINCT



Image 31: Aerial view of Boundary Precinct

Where is Boundary Precinct?

Boundary Precinct is located in North Melbourne and is bounded by Racecourse Road to the north, Boundary Road to the east, Macaulay Road to the south and the Upfield rail corridor and elevated Citylink to the west.

What is the area like now?

Boundary Precinct has a predominantly industrial and commercial land use character. There has been recent planning applications for residential and mixed use development to the north.

Connectivity within this area is limited by the current street network, large lot sizes, rail corridor and Citylink. Alfred, Sutton and Mark Streets all terminate at the interface with the rail corridor and Citylink. The majority of street space is occupied by roadway with narrow footpaths and few street trees. There are no north-south streets providing connectivity within Boundary Precinct. Racecourse, Boundary and Macaulay Roads are often congested by trips from outside the Macaulay area. The rail corridor and Citylink form a major physical and visual barrier. They reduce connectivity across Macaulay and block access to the Moonee Ponds Creek. The eastern bank of the creek and Capital City Trail can be accessed from Racecourse and Macaulay Roads.

Lot sizes vary, but the majority are larger sites between 1,500 and 10,000 sqm. Medium and large format warehouse buildings are typical in the area with some commercial and retail buildings fronting Boundary Road. While many buildings are built to the street frontage, some are setback from the street. On-site surface car parking is common. Building heights are predominantly one to two storeys. There are four buildings with a heritage overlay including warehouses, a stable and pump station.

Flooding is an issue along the western boundary which runs parallel to the Moonee Ponds Creek along with sites in the low-lying land to the north of Macaulay Road.

The vision for Boundary Precinct

A new urban fabric of streets and laneways provides connectivity across the precinct and broader Macaulay area. This supports people walking and riding bikes. Street trees and integrated water management contribute to a climate ready precinct.

Boundary has the capacity for higher levels of growth and change with taller buildings. The area supports a vibrant mix of uses. Retail and commercial activity is focused on Racecourse, Boundary and Macaulay Roads.

Buildings are set back from Citylink to reduce amenity impacts and create a linear open space along the western boundary of the precinct.

To support sustainable transport and manage road congestion, innovative solutions to car parking are required including precinct parking and maximum car parking rates.

If the proposed high capacity public transport corridor is delivered in Arden, the service is extended along Boundary Road to enhance public transport options for Macaulay.

Density and built form

Larger sites with multiple buildings will adopt a diversity of forms, typologies, building and street wall heights and architectural language. The use of multiple design practices working together can assist in achieving this outcome.

Some tall and slender tower forms built to the street frontage will be encouraged on larger sites to enable the delivery of new streets and open spaces and to reduce bulk and overshadowing impacts.

Buildings with a wide street frontage are broken up into smaller vertical sections, with a range of parapet heights and rebates of sufficient depth to provide modulation in the street facade.

Heritage and character buildings will be reused or sensitively redeveloped to retain the integrity of the building and a sense of history.

Proposed controls

Density control

- mid-rise precinct with a maximum floor area ratio of 4:1

Building heights

- preferred maximum building height of 6 to 8 storeys on Racecourse Road
- preferred maximum building height of 6 storeys on Boundary and Macaulay Roads
- preferred maximum building height of 12 storeys elsewhere (on larger sites a 'tooth and gap' approach can be utilised with the street wall height for tall and slender tower elements increased up to the preferred maximum building height if appropriate building separation is achieved and other outcomes including on-site public open space or communal courtyards are provided)
- street wall height range of 3 to 6 storeys or up to the maximum building height as above

Setbacks

- minimum building setback of 20 metres for properties with boundaries to the Upfield rail corridor and Citylink

Floor to ceiling heights

- minimum floor-to-ceiling height of 3.3 metres for non-residential uses or 4 metres if ground floor

Interfaces

The proposed built form and density controls for Boundary Precinct will enable new development to respond positively to important interfaces in the area. They include:

- the interface to the Upfield rail corridor and Citylink with taller built form
- the interfaces of Racecourse, Boundary and Macaulay Roads with taller built form to help define these streets.
- the interface on parts of Boundary Road will be lower to avoid development that overshadows Buncle Street Reserve.
- the interface on Boundary Road with the low rise residential area between Mark and Canning Streets.
- the interface with Macaulay Station to ensure passive surveillance of the station environment.
- the interfaces with heritage and brick warehouses that help characterise the area.

Active frontages

The need for active frontages throughout the area with a focus on active retail and commercial uses along Racecourse, Boundary and Macaulay Roads.

See Objective 1 on page 20 for more detail on the proposed controls.

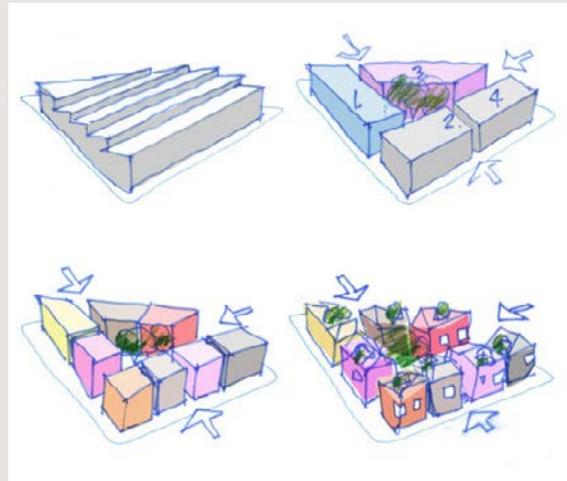
Case studies



Tooth and gap approach

The 'tooth and gap' approach allows for buildings to be built to the street frontage including varying building heights with some taller and slender towers. This creates greater diversity in the urban form and the experience at street level. In combination with a floor area ratio control, this approach can be utilised to deliver different building typologies and improved amenity.

Image 32: Massena Quarter, Paris



New development on former industrial sites

A former light industrial building covered the entire site fronting Courtney and Queensbury Streets in North Melbourne. The new residential development comprises four individual buildings that define the street edge, provide individual entrances and create a central courtyard. The design of the facades, use of materials and different roof pitches results in a finer grain development. Each building has its own individuality character while being part of a consistent design strategy for the site.

Image 34: Assembly Apartments, North Melbourne (project and images: Woods Bagot)



Design diversity in the development of large sites

The integration of a variety of streetwall heights, built form typologies and overall heights provides the perception and diversity of a successful precinct built organically over time. The use of multiple design practices working together can assist in achieving this outcome.

Image 33: West End, West Melbourne



Figure 3: Artist's impression of Boundary Precinct looking west along Mark Street towards Citylink (indicative only)

Activities and Uses

Boundary will be a mixed use area with retail uses more prevalent on Boundary and Macaulay Road, and commercial uses on Racecourse Road. Some of these uses will turn the corner into the quieter, greener side streets providing an opportunity for more fine grain retail and commercial space.

Residential buildings will offer some affordable housing and a mix of dwelling types including housing suitable for families and other larger households.

The mix of activities and uses will be achieved by rezoning the area from the Mixed Use Zone and Commercial 1 Zone to the Special Use Zone (see Part Two: The Framework for more information).

Movement and access

The proposed high capacity public transport capable corridor in Arden should be extended along Boundary Road. This would enhance public transport options including a more direct connection to the new Metro Tunnel station in Arden. Future grade separation of the Upfield rail line would enable improved access to the Moonee Ponds Creek including the Capital City Trail. It should be noted that both projects are subject to Victorian Government approval and funding.

Walking and riding bikes will be prioritised with wider, continuous footpaths and protected bicycle lanes. Additional pedestrian crossings on Boundary Road will improve safety and connectivity including access to Buncl Street Reserve.

Street space currently occupied by excess car parking will be reclaimed to provide more space for walking, riding bikes, street trees and new public spaces. Active and public transport will support reduced car parking in private development. This will result in fewer private vehicles using the road network.

Streets and Spaces

A network of new streets will increase permeability and provide a safe environment for people walking and riding bikes. New streets and laneways must be delivered on larger land holdings. One connection should be provided where the average length of a street block exceeds 100 metres and at least two connections where the block exceeds 200 metres. Connections should be located centrally within the block and less than 70 metres from the next intersection. This would result in at least one east-west street and two north-south streets in each of the four large blocks.

Street tree planting and water sensitive urban design will be provided in all streets. New open space at the western end of Alfred, Sutton and Mark Streets will also have a important flood mitigation role by providing space for water detention during high rainfall events. This will reduce pressure on existing infrastructure including the levee walls along the Moonee Ponds Creek, drains and pumps.

On larger sites, floor area ratio controls and new built form controls will allow for public open space to be delivered on site. This can provide a new network of small open spaces through the area.

Any new off-street car parking entrances will be accessed from side streets or rear laneways to improve the public realm for active and public transport.



Figure 4: Opportunities to revitalise and improve access along the Moonee Ponds Creek corridor in Boundary Precinct

A revitalised Moonee Ponds Creek

The following strategic opportunities have been proposed to improve the creek corridor in Boundary Precinct:

1. Macaulay Green Links

Increase green spaces and boost stormwater management and biodiversity links on the east side of the creek by expanding the creek parklands to include roads that currently connect to railways.

2. Moonee Ponds Creek Civic Overflow Route

Create an overflow creek pathway behind the levee that connects Racecourse and Macaulay Roads.

3.2 MELROSE PRECINCT



Image 35: Aerial view of Melrose Precinct

Where is Melrose Precinct?

Melrose Precinct is located in North Melbourne. The northern portion is bounded by Alfred Street to the north, Melrose Street to the east, Canning Street to the south and Boundary Road to the west. The southern portion is bounded by Canning Street to the north, Shiel Street to the east, Haines Street to the south and Macaulay Road to the west.

What is the area like now?

The northern portion of Melrose Precinct is predominantly public housing. There is a range of community facilities including the North Melbourne Community Centre, Jean McKendry Centre and Hotham Hub Children's Centre. A small local retail centre including a supermarket is located on Melrose Street.

The Public Record Office Victoria occupies the majority of land in the southern portion of Melrose Precinct. The recently completed Arden Gardens comprises apartments and additional retail including a second supermarket. A number of apartment buildings have been completed at the southern end of Macaulay Road and Haines Street. The topography slopes down to the south-west from Shiel Street providing glimpses of the central city skyline.

The street network to the north of Canning Street generally provides good connectivity, however there are limited connections through the Alfred Street public housing towers which occupy a large site. To the south of Canning Street the only movement is along the streets which form the boundary of the area. Streets are generally 20 or 30 metres wide with more extensive street tree planting including central medians.

Buncle Street Reserve is a major open space asset within Melrose Precinct and the wider area. It provides sports facilities, recreational opportunities and a children's playground.

Lot sizes vary from small sites under 500 sqm to larger sites greater than 10,000 sqm. The built form is varied with the northern area comprising three public housing towers surrounded by a mix of apartments and townhouses. To the south, Arden Gardens consists of a large podium and two towers next to the low, horizontal buildings of the Public Record Office Victoria. Recent apartment buildings at the southern end of Macaulay Road and Haines Street are generally mid-rise. There are six properties with a heritage overlay including the former Gas Regulating House on Macaulay Road.

Flooding is an issue along Macaulay Road and for the low-lying properties on Haines Street.

The vision for Melrose Precinct

Melrose supports social connection within the community. The precinct provides essential community facilities and services with public housing, a community and recreation hub, potential government secondary school and the Public Record Office Victoria.

An upgraded and expanded reserve on Buncle Street provides improved open space. Existing streets with their broad canopy trees have been enhanced. Shops on Melrose Street and at Arden Gardens serve the local community and the broader area.

If the proposed high capacity public transport corridor is delivered in Arden, the service is extended along Boundary Road to enhance public transport options for Macaulay.

Density and built form

Melrose Precinct contains significant areas of land owned by the Victorian Government. Public housing towers mid-rise apartments and townhouses are located within Alfred, Melrose and Canning Streets and Boundary Road. To the south-east is the Public Record Office Victoria accessed from Shiel Street. There are limited private land holdings in this area that are likely to develop.

For any future redevelopment of Victorian Government land, the City of Melbourne will work in partnership with the relevant departments and agencies to advocate for outcomes that are aligned with the vision for Macaulay as a mid-rise, mixed use neighbourhood and that the area continues to provide essential community infrastructure and services.

Proposed controls

Density control

- maximum floor area ratio of 4:1

Building heights

- preferred maximum building height of 4 to 12 storeys
- preferred maximum building height of 6 to 8 storeys on Macaulay Road
- street wall height range between 3 to 6 storeys
- street wall height of 3 to 4 storeys on Shiel, Melrose and Alfred Streets

Floor to ceiling heights

- minimum floor-to-ceiling height of 3.3 metres for non-residential uses or 4 metres if ground floor

Interfaces

The proposed built form and density controls for Boundary Precinct will enable new development to respond positively to important interfaces in the area. They include:

- the interface with Bunclie Street Reserve
- the interface on Alfred, Melrose and Shiel Streets with the low rise residential areas in North Melbourne
- the interfaces of Boundary Road and Canning Street with taller built form to help define these streets
- the interfaces with heritage buildings in the area.

Active frontages

The need for active frontages throughout the area with a focus on active retail and commercial uses along Boundary Road and Melrose and Canning Streets and all community facilities.

See Objective 1 on page 20 for more detail on the proposed controls.

Activities and uses

A new community hub will support the need for additional community and recreation facilities and services. This provides an opportunity to consolidate and expand existing facilities at North Melbourne Community Centre, Hotham Hub Children’s Centre and Jean McKendry Neighbourhood Centre.

The Melrose Street shopping strip will continue to provide small, local retail with the full-size supermarket at Arden Gardens servicing a wider catchment.

The Department of Education and Training will ultimately determine where new schools will be delivered to service inner Melbourne. We will continue to advocate that the Public Record Office Victoria site is considered as a potential location for a future school.

We will also advocate for additional public housing in our municipality, for Council to play a strategic role in the renewal of public housing sites, and for existing public housing tenants and communities to be supported through future renewal projects.

No changes to the Mixed Use Zone or Commercial 1 Zone are proposed in Melrose Precinct.

Movement and access

The proposed high capacity public transport capable corridor in Arden should be extended along Boundary Road. This would enhance public transport options including a more direct connection to the new Metro Tunnel station in Arden. It should be noted that both projects are subject to Victorian Government approval and funding.

Amenity on local streets will be enhanced and people walking or riding bikes will be prioritised ahead of through-vehicle movements. Traffic calming will be investigated along Melrose Street to reduce the number of through vehicles. On-street parking priority for existing residents will be retained.

Safe and comfortable transport links will be provided to the neighbouring Arden precinct. Street space currently occupied by excess car parking will be reclaimed to provide more space for walking, riding bikes, street trees and new public spaces.

Streets and spaces

Buncle Street Reserve will be upgraded to provide open space improvements in the area. The potential to expand the Canning Street and Macaulay Road Reserve will be investigated. Improved links from Macaulay and across Flemington Road to Royal Park will be investigated.

Street improvements will provide a safe environment for people walking and riding bikes. Street tree planting and water sensitive urban design will be provided. This will reduce pressure on existing stormwater infrastructure.



Case study: Maximising the benefit of community infrastructure

An existing three-storey school building was transformed to include an integrated early learning centre, family services centre and community hub. With its signature element, the Covered Outdoor Learning Area (COLA), the project has raised the profile of the primary school and created a hub of community facilities. Rather than building an enclosed gymnasium, the COLA can be used by school children and the broader community outside school hours.

Image 36: Carlton Learning & Community Hub (Project and photo: Law Architects)

3.3 CHELMSFORD PRECINCT



Image 37: Aerial view of Chelmsford Precinct

Where is Chelmsford Precinct?

Chelmsford Precinct is located in Kensington and is bounded by Hardiman and Little Hardiman Streets to the north, Bent Street and Moonee Ponds Creek to the east, Arden Street to the south and Elizabeth Street and the Craigieburn rail corridor to the west.

What is the area like now?

Chelmsford Precinct has a mixed character with a fine grain residential north of Chelmsford Street and industrial and commercial uses to the south. The Younghusband Woolstore is an exemplar for adapting existing buildings to accommodate new employment opportunities and deliver broader community benefits.

The street network within the area generally provides good connectivity, however the Moonee Ponds Creek and Craigieburn rail corridor are barriers to east-west movement. Streets in the residential area provide higher amenity with increased street tree planting.

A small public open space has been provided through road closures at the corner of Albermarle and Hardiman Streets. There is informal access to the western bank of the Moonee Ponds Creek from Bent and Bruce Streets.

Lot sizes vary from small sites under 500 sqm to a large site greater than 10,000 sqm. The built form is varied and includes single storey workers' cottages, former brick warehouses converted to apartments and workspaces, and more recent light industrial and commercial buildings. Building heights vary from one to five storeys. Heritage overlays apply to the fine grain residential area and four properties in the commercial area.

Flooding is an issue along the Moonee Ponds Creek and for properties along sections of Bent, Hardiman, Chelmsford and Albermarle Streets.

The vision for Chelmsford Precinct

Chelmsford will retain its valued heritage character with intact rows of workers cottages and brick warehouses. To the south, a dynamic and vibrant employment area emerges. With close proximity to the new Arden Station, small to medium sized businesses are established in a variety of workplaces including co-working spaces, maker spaces and studios. The diverse activities planned for the Younghusband Woolstore expand across the precinct to also attract residents and visitors.

Existing streets evolve to support people walking and riding bikes. Additional street trees and integrated water management contribute to climate resilience in the precinct. To support sustainable transport and manage road congestion, innovative solutions to car parking are required including precinct parking and maximum car parking rates.

There is improved access to a revitalised Moonee Ponds Creek. Nearby development is carefully designed to avoid overshadowing of the creek corridor.

Density and built form

Lower building heights will respond to the narrower streets and laneways in the area to ensure a high level of amenity in the public realm. This is particularly relevant given the increased floor-to-floor heights of commercial buildings.

The size of land parcels and commercial building typologies will likely result in higher levels of site coverage. This provides an opportunity to significantly increase the extent of green roofs and walls.

Former warehouses and other heritage and character buildings will be reused or sensitively redeveloped to retain the integrity of the building and a sense of history.



Case study: Younghusband woolstore

The Younghusband site is a collection of buildings centred on a Kensington woolstore built in 1906. Once completed, the development will be spread across four warehouse levels and two neighbouring properties with a laneway, communal greenspace and high quality workspaces. Work began with exterior rejuvenation of the heritage red-brick woolstore by restoring the existing fabric of bricks, steel and wood. Interior works include upgrading the services, offices, shops, studios and suites, and opening up new communal indoor spaces.

Image 38: Interior of Younghusband woolstore (Project and photo: Impact Investment Group)

Proposed controls

Density control

- mid-rise precinct with a maximum floor area ratio of 3:1 for properties with boundaries to the Moonee Ponds Creek and properties fronting Chelmsford Street (see Map 4)
- floor area ratio of 4:1 for other properties

Building heights

- preferred maximum building height of 5 storeys on Chelmsford Street, or up to 6 storeys elsewhere
- street wall height of 3 to 4 storeys on Chelmsford Street, 2 to 3 storeys at interfaces with existing residential properties south of Fink Street and 3 to 6 storeys elsewhere

Setbacks

- building setback of 15 m for properties with boundaries to the Moonee Ponds Creek
- ground floor setback of 3 metres from the laneway centre line

Floor to ceiling heights

- minimum floor-to-ceiling height of 3.3 metres for non-residential uses or 4 metres if ground floor

Interfaces

The proposed built form and density controls for Chelmsford Precinct will enable new development to respond positively to important interfaces in the area. They include:

- the interface with the Moonee Ponds Creek to reduce overshadowing of the creek corridor
- the interfaces on Chelmsford Street with low rise residential area to the north
- the interface with laneways
- the interfaces with heritage and brick warehouses that help characterise the area.

Active frontages

The need for active frontages throughout the area including the laneways and Moonee Ponds Creek.

See Objective 1 on page 20 for more detail on the proposed controls.



Figure 5: Artist's impression of Chelmsford Precinct looking west along Fink Street towards the Younghusband woolstore (indicative only)



Case study: Burnley Living Roofs

Commercial buildings in Chelmsford Precinct are likely to have high site coverage providing an opportunity for green roofs and walls. The Burnley Living Roof at the University of Melbourne was designed to trial Australian native plants and support biodiversity in a rooftop location. It includes plants indigenous to Melbourne and recycled elements such as logs, sticks, roof tiles and different aggregate types. The project has been a great success and has enabled the University of Melbourne to reach out to the wider community as an advocate for the broad application of green roofs in Australia.

Image 39: Burnley Living Roofs, University of Melbourne (Project: Hassell, Photo: Peter Bennetts)

Activities and uses

Chelmsford precinct will be a mixed use area with the majority of new development providing commercial floorspace. The area will contribute to the wider vision for Macaulay to become a truly mixed use precinct, supporting local jobs and enhancing economic activity.

Located a short distance from Arden, Chelmsford is ideally situated to accommodate demand for lower-cost space for small and medium sized enterprises and start-ups that are seeking to link with businesses and institutions in Arden and the surrounding areas.

Commercial buildings will provide flexible and adaptable workspaces to meet this demand. There are opportunities to provide co-working spaces, maker spaces and studios. Some retail space including cafés will support the needs of people working in the area and local residents.

Employment uses in the area will be supported by the existing Commercial 2 Zone. There will be no change to the General Residential Zone. The area covered by the Mixed Use Zone will be rezoned to the Special Use Zone.

Movement and access

Amenity on local streets throughout the existing residential area will be enhanced. People walking or riding bikes will be prioritised ahead of through-vehicle movements. On-street parking priority for existing residents will be retained. Walking and riding bikes will also be prioritised in the area between Arden and Chelmsford Streets. Safe and comfortable transport links will be provided to Arden.

Street space currently occupied by excess car parking will be reclaimed to provide more space for walking, riding bikes, street trees and new public spaces. Active and public transport will support reduced car parking in private development. This will result in fewer private vehicles using the road network. The commercial area is compact and highly walkable providing an opportunity to investigate a precinct based car parking solution.

Streets and spaces

Street improvements will provide a safe environment for people walking and riding bikes. Street tree planting and water sensitive urban design will be provided. This will reduce pressure on existing infrastructure including the levee walls along the Moonee Ponds Creek, drains and pumps.

Existing bluestone laneways will be enhanced or reinstated to reflect the character and history of the area. Development should seek to activate laneways.

Access to the western bank of the Moonee Ponds Creek will be improved between Macaulay Road and Arden Street. Potential new bridges will be investigated to provide improved access to the Capital City Trail for people walking and riding bikes. There is an opportunity to expand the creek environs to the south of Chelmsford Street through building setbacks to reduce overshadowing of the creek corridor.



Figure 6: Opportunities to revitalise and improve access along the Moonee Ponds Creek corridor in Chelmsford Precinct

A revitalised Moonee Ponds Creek

The following strategic opportunities have been proposed to improve the creek corridor in Chelmsford Precinct:

1. Arden and Macaulay Pedestrian Bridges

To connect Arden and Macaulay with existing communities through new lightweight pedestrian bridges that could incorporate art initiatives.

2. Moonee Ponds Creek Art Trail (length of creek)

Investigate creative art and naming opportunities along the creek that celebrate the Aboriginal and local heritage of the area and the role of the creek in water management.

3. Moonee Ponds Creek Forest (length of creek)

Increase vegetation, in particular canopy tree coverage, in appropriate open space zones along the length of the creek.

4. Bent Street Access

Explore enhanced access points on the western bank of the creek along Bent Street to improve opportunities for passive recreation.

5. Levee Banks Water Storage

Investigate constructing culverts under levees to re-engage the floodplain storage and improve use of western creek berms in the central reach to improve open space.

3.4 STUBBS PRECINCT



Image 40: Aerial view of Stubbs Precinct

Where is Stubbs Precinct?

Stubbs Precinct is located in Kensington and is bounded by Racecourse Road to the north, Moonee Ponds Creek to the east and Macaulay Road to the south. It includes properties on the south side of Macaulay Road between Bent and Eastwood Streets. The western boundary follows a number of smaller local streets and laneways.

What is the area like now?

Stubbs Precinct has a predominantly commercial and industrial character. The western boundary shares an interface with a fine grain residential area.

Racecourse and Macaulay Roads provide important east-west connections within the broader road network. Stubbs Street provides a north-south connection, however is overly used for through-vehicle movement. The street network within the area generally provides good connectivity, but larger sites reduce movement and access. Streets are typically 20 metres wide with irregular tree planting.

Robertson Street Reserve, a small local open space is located to the west of the area. There is informal access to the western bank of the Moonee Ponds Creek from Parsons Street.

Lot sizes vary greatly. The built form is predominantly light commercial buildings, warehouses and workshops with an increasing number of apartment buildings. Building heights are generally one to two storeys with pockets of higher buildings along parts of Macaulay Road. Heritage overlays apply to eight properties including former brick factories and a steel clad factory built around 1920.

Flooding is an issue along the Moonee Ponds Creek and for properties along Stubbs Street, sections of Racecourse and Macaulay Roads and sections of Parsons, Smith and Robertson Streets.

The vision for Stubbs Precinct

Stubbs will evolve into a mixed use area with residential development and some commercial and retail activity including a retail strip at the western end of Macaulay Road near Kensington Station.

Improvements to existing streets will continue to support people walking and riding bikes. New streets and laneways will be delivered on larger land holdings. Robertson Street Reserve has been expanded to provide additional open space. Additional street trees and integrated water management, including along Stubbs Street, contribute to climate resilience in the precinct.

There is improved access to a revitalised Moonee Ponds Creek. Nearby development is carefully designed to avoid overshadowing of the creek corridor.

Density and built form

The variety of land parcels and different interfaces require a sensitive response to built form in the precinct. The majority of the precinct will comprise mid-rise development up to six storeys with taller buildings up to eight storeys fronting Racecourse and Macaulay Roads.

Larger sites with multiple buildings will adopt a diversity of forms, typologies, building and street wall heights and architectural language. The use of multiple design practices working together can assist in achieving this outcome.

Buildings with a wide street frontage are broken up into smaller vertical sections, with a range of parapet heights and rebates of sufficient depth to provide modulation in the street facade.

Former warehouse and other heritage and character buildings will be reused or sensitively redeveloped to retain the integrity of the building and a sense of history.

Proposed controls

Density control

- mid-rise precinct with a maximum floor area ratio of 3:1 for properties with boundaries to the Moonee Ponds Creek, the western end of Macaulay Road, properties fronting Hardiman Street and residential interfaces (see Map 4)
- floor area ratio of 4:1 for other properties

Building heights

- preferred maximum building height of 6 to 8 storeys on Racecourse Road
- preferred maximum building height of 4 storeys on the east side of Stubbs Street
- preferred maximum building height of 4 to 8 storeys on Macaulay Road
- preferred maximum building height of 4 to 6 storeys elsewhere
- street wall height of 2 to 3 storeys at interfaces with existing residential areas and 3 to 6 storeys elsewhere

Setbacks

- ground floor setback of 3 metres from the laneway centre line

Floor to ceiling heights

- minimum floor-to-ceiling height of 3.3 metres for non-residential uses or 4 metres if ground floor



Case study: Homes built for people

Nightingale 1 in Brunswick is an example of high quality design and the type of density and built form outcomes that would be appropriate in Stubbs Precinct. The development provides apartments that are socially, financially and environmentally sustainable.

Image 41: Nightingale 1 in Brunswick
(Project: Breathe Architecture, Photo: Peter Clarke)



Figure 7: Artist's impression of Stubbs Precinct looking north towards the intersection of Stubbs and Smith Streets (indicative only)

Interfaces

The proposed built form and density controls for Boundary Precinct will enable new development to respond positively to important interfaces in the area. They include:

- the interfaces of Racecourse and Boundary Roads with taller built form to help define these streets
- the interface with the low rise residential area to the west in Kensington
- the interface with the Moonee Ponds Creek to reduce overshadowing of the creek corridor
- the interfaces with heritage and brick warehouses that help characterise the area.

Active frontages

The need for active frontages throughout the area with a focus on active retail and commercial uses along Racecourse and Macaulay Roads and Stubbs Street.

See Objective 1 on page 20 for more detail on the proposed controls.

Activities and uses

A cluster of retail uses with some commercial activity on Macaulay Road near Kensington Station will be supported by the increasing number of local residents and passing commuters walking to Chelmsford Precinct and Arden.

Development along Stubbs, Parsons, Smith and Robertson Street will provide a mix of residential and commercial uses with a focus on commercial uses fronting Racecourse Road.

The mix of activities and uses will be achieved by rezoning the area from the Mixed Use Zone to the Special Use Zone (see Part Two: The Framework for more information).

Movement and access

Macaulay Road and Stubbs Street will be redesigned into safe, comfortable, and attractive streets for people walking and riding bikes. Potential new bridges will be investigated to provide improved access to the Capital City Trail for people walking and riding bikes.

Bus stop access and amenity will be improved along Macaulay Road and links to nearby railway stations will be enhanced. Street space throughout the precinct currently occupied by excess parking and traffic capacity will be reclaimed to enable plantings and the creation of new parks.



Image 42: Pedestrian and cycling bridge over Darebin Creek. Similar bridges would improve access from Kensington to the Moonee Ponds Creek and Capital City Trail.

Streets and spaces

Street improvements will provide a safe environment for people walking and riding bikes. Street tree planting and water sensitive urban design will be provided. This will reduce pressure on existing infrastructure including the levee walls along the Moonee Ponds Creek, drains and pumps.

New streets and laneways must be delivered on larger land holdings. One connection should be provided where the average length of a street block exceeds 100 metres and at least two connections where the block exceeds 200 metres. Connections should be located centrally within the block and less than 70 metres from the next intersection. This would result in at least one east-west street and two north-south streets in each of the four large blocks.

At least one east-west street and additional north-south streets should be provided in each of the two large blocks. Floor area ratio controls and new built form controls will allow for public open space to be delivered on site.

There is an opportunity to expand the Robertson Street Reserve into the road space and by providing the public open space contribution as a land contribution on the site to the east of the reserve.

Improved access to a revitalised Moonee Ponds Creek will provide much needed additional open space in the area and improved stormwater and flood management.

The existing street network will be enhanced with the addition of new streets and laneways through larger land holdings. The provision of walking and cycling infrastructure will be improved through footpath and bicycle lane upgrades which will also include water sensitive urban design. Access to the Moonee Ponds Creek will be improved and the amenity of the creek corridor enhanced.



Figure 8: Opportunities to revitalise and improve access along the Moonee Ponds Creek corridor in Stubbs Precinct

A revitalised Moonee Ponds Creek

The following strategic opportunities have been proposed to improve the creek corridor in Stubbs Precinct:

1. Arden and Macaulay Pedestrian Bridges

To connect Arden and Macaulay with existing communities through new lightweight pedestrian bridges that could incorporate art initiatives.

2. Moonee Ponds Creek Art Trail (length of creek)

Investigate creative art and naming opportunities along the creek that celebrate the Aboriginal and local heritage of the area and the role of the creek in water management.

3. Moonee Ponds Creek Forest (length of creek)

Increase vegetation, in particular canopy tree coverage, in appropriate open space zones along the length of the creek.

4. Expanded Creek Environs

Merge existing open spaces with the waterway, create a new pedestrian connection along the western edge of the creek and expanding the creek environs to facilitate recreation opportunities and extensive tree planting.

5. Bent Street Access

Explore enhanced access points on the western bank of the creek along Bent Street to improve opportunities for passive recreation.

6. Levees as Places for People

Design levees that as well as increasing flood capacity also create places for recreation and habitats to support ecology.

7. Macaulay Terraces

Create a major new open space connecting to the Moonee Ponds Creek Trail, Macaulay Train Station, and surrounding neighbourhoods.

8. Redesign of Bridges

Remove or re-construct pipe bridges and transport bridges to reduce the hydraulic constraints they impose, while improving cycle and pedestrian connections and respecting heritage constraints.

PART FOUR: MAKING IT HAPPEN

The Structure Plan provides an agreed vision with the community and stakeholders to ensure a coherent, clear and exciting way forward for Macaulay.

This Part sets out a plan for how the vision and objectives will be implemented, through the statutory framework, infrastructure planning and delivery, urban design and planning principles that have guided the structure plan, the importance of good design and how all the proposed actions in the plan will be implemented.

Overview of making it happen

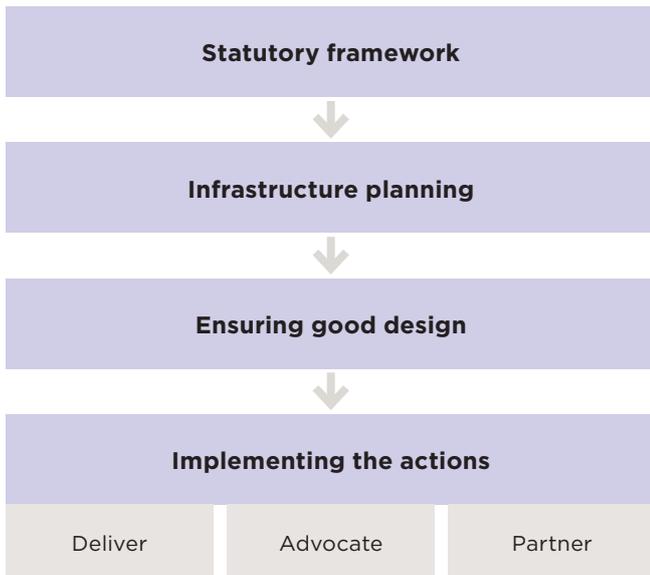


Image 43: Looking south along Moonee Ponds Creek from Racecourse Road.



4.1 THE STATUTORY FRAMEWORK

The statutory planning framework, provided by the Melbourne Planning Scheme, is an integral part of implementing the Structure Plan.

State and Regional Planning Policy

The existing Planning Policy Framework (PPF), contains a number of clauses and principles that are directly relevant to the planning and development of Macaulay. These include, but are not limited to:

Clause 11 ‘Settlement’, particularly Clause 11.01-R ‘Metropolitan Melbourne’ seeking to create mixed-use neighbourhoods including through the development of urban-renewal precincts that offer more choice in housing, create jobs and opportunities and deliver better access to services and facilities, and 11.02-2S ‘Structure Planning’ requiring the preparation of Structure Plans to facilitate the orderly development of urban areas.

Clause 15 ‘Built Environment and Heritage’, which recognises the role urban design, building design, heritage and energy and resource efficiency in delivering liveable and sustainable cities, towns and neighbourhoods, and seeks to ensure that all land use and development appropriately responds to its surrounding landscape and character, valued built form and cultural context.

Clause 15.01-4R ‘Healthy neighbourhoods – Metropolitan Melbourne’ seeks to create a city of 20 minute neighbourhoods, that give people the ability to meet most of their everyday needs within a 20 minute walk, cycle or local public transport trip from their home.

Clause 15 also seeks consideration of a number of key design guidelines which will influence built form outcomes within Macaulay, including:

- Urban Design Guidelines for Victoria (Department of Environment, Land, Water and Planning, 2017)
- Apartment Design Guidelines for Victoria (Department of Environment, Land, Water and Planning, 2017)
- Also of direct relevance to Macaulay are Clause 16 Housing, Clause 17 Economic Development, Clause 18 Transport, and Clause 19 Infrastructure.

Municipal Strategic Statement

The 2013 Municipal Strategic Statement (MSS) sets out the vision, objectives and strategies for managing land use change and development in the City of Melbourne.

In the MSS, Macaulay is currently identified as a ‘Proposed Urban Renewal Area’ that is in transition. It is adjacent to the areas of Flemington and Kensington and North Melbourne, and Arden that is currently identified as a ‘Proposed Urban Renewal Area’.

It is proposed to include new policy directions and changes to the MSS in order to achieve the strategies and outcomes sought for land use and development within Macaulay.

Reference Documents provide context to decision making under the planning scheme. The Macaulay Structure Plan Refresh should be included in the Planning Scheme as a Reference Document. The MSS is due to be refreshed.

Local Policy

When urban character has been defined and objectives are clear, a local policy is a useful tool for guiding decision making by providing local context, objectives and strategies for future development.

A local policy can be used to outline objectives, strategies and policy guidelines.

Local policies are supported by planning controls elsewhere in the Planning Scheme, including particular provisions, overlays such as Design and Development Overlays and zones, including local schedules to zones.

4.2 INFRASTRUCTURE PLANNING

Infrastructure delivery

Providing for the timely and coordinated funding and delivery of public open space, transport upgrades and community and social infrastructure to meet the needs of the new community is crucial to ensuring the best outcomes for Macaulay.

A range of funding and delivery mechanisms will be required to enable the delivery of the infrastructure required to support precinct development. These include:

- Capital works projects delivered by or on behalf of the City of Melbourne;
- Works funded and delivered by state government departments and agencies;
- Utility service provider requirements (for example, Melbourne Water's Drainage Services Scheme);
- Development contributions;
- Open space contributions; and
- Developer works – infrastructure and works which have a direct nexus to development and required to be fully funded by the developer as part of development of the land.

In addition to investment by the City of Melbourne, developers will be required to make contributions towards infrastructure delivery. These may be in the form of direct delivery for works directly supporting their site, or cash or works-in-kind for infrastructure identified under a contributions scheme.

To support the funding and delivery of key infrastructure items, a development contributions plan will be prepared. The development contributions plan will ensure that the cost of providing new infrastructure to meet the demands of the new population, is shared equitably between developers, the adjoining Arden Renewal Area and the wider community. In the interim, Development Contributions will be secured via agreement in accordance with the DCPO2.

Next Steps

The Development Contributions Plan will be part of the final planning scheme amendment package.

4.3 ENSURING GOOD DESIGN

Urban design and planning principles

The Draft Macaulay Structure Plan Refresh has been guided by good urban design and planning principles to help create great places and enable the vision to be realised.

The eight urban design principles listed in this table are based on an extensive global literature review establishing the economic, environmental and social benefits of urban design.

Achieving high quality design

To support high quality design in Macaulay, we recommend proponents:

- Adopt quality based selection processes to appoint highly skilled, multidisciplinary teams (including architects, landscape architects, urban designers and planners) to develop integrated proposals in line with the vision, design objectives and controls established in the structure plan.
- Engage early and proactively in pre-application discussions which will involve a structured, expert design review process.
- Seek expert heritage advice early if their site has, or is adjacent to, heritage buildings.
- Depending on the complexity and significance of the proposal, City of Melbourne may request an independent peer review by the Victorian Design Review Panel run by the Office of the Victorian Government Architect.

Principles for ensuring good design outcomes

PRINCIPLES	ACHIEVING THE PRINCIPLES
Local character	The proposed new design and development overlays (DDOs), design outcomes and capital works projects have been created to respond to the distinctive identity and special character of the particular places in Macaulay.
Connectivity	Objectives and actions propose to improve pedestrian, cycle and public transport connections through and to Macaulay.
Density	Density is the concentration of population and activity in an urban area. Macaulay’s high level of accessibility makes it a sustainable location for growth in population and activity. Floor area ratio controls have been developed to set a specific amount of development that can occur on a site while allowing for variation in the height and shape of buildings. Capacity modelling shows that there is an adequate supply of floor area to meet the residential and employment forecasts across Macaulay.
Mixed use	The current mixed use zone in Macaulay is delivering predominantly residential development. It is important that a genuine mix of uses is supported in Macaulay. Having a range of shops, services and jobs available within a short distance of homes supports living locally, encourages more sustainable transport choices and improves people’s quality of life.
Adaptability	Adaptability considerations are included in the structure plan to ensure that new and existing buildings are able to evolve over time. Specific actions regarding mitigating the heat island effect, promoting the uptake of solar and incorporating Integrated Water Management will give Macaulay the ability to adapt to the impacts of climate change.
High quality public realm	Macaulay’s wide sunny streets, narrow bluestone laneways, open space, the Moonee Ponds Creek, varied topography, and architecture provide the foundations for a high quality public realm. Capital works projects will make the most of these assets by creating new areas of open space, improving existing open space and reallocating parking space to green space.
Integrated decision making	The Macaulay Structure Plan Refresh is being developed with significant input from the community, businesses, landowners, government stakeholders and built environment professionals.
User participation	The Macaulay Structure Plan Refresh is being developed in close collaboration with the community - see Part 1.1 for more information..

4.4 IMPLEMENTING THE ACTIONS

The following implementation program articulates the actions necessary to implement the structure plan, including timelines i.e. short term (0 - 3 years), medium term (4 - 7 years) and long term (8+ years). When adopted by Council, the implementation program will be linked to the Council Plan, Annual Plans and budget process to ensure a whole of Council approach.

The implementation program identifies the stakeholders who need to support and agree to the implementation mechanisms outlined in the structure plan, and defines responsibilities for each project and process.

Planning Scheme Amendment

One of the most important elements of implementing the structure plan is pursuing the subsequent Planning Scheme Amendment or Amendments. The most significant Amendment will be to introduce many of the objectives in the Density and Built Form and Activities, Uses and Infrastructure chapters into the planning scheme. Planning Scheme Amendments are conducted in accordance with Part 3 of the *Planning and Environment Act 1987*.

Council will seek authorisation from the Minister for Planning to commence the Amendment process following the endorsement of the final Structure Plan. This process typically takes 18 months and includes multiple opportunities for written and verbal submissions. Final approval for the Amendment is required from the Minister for Planning.

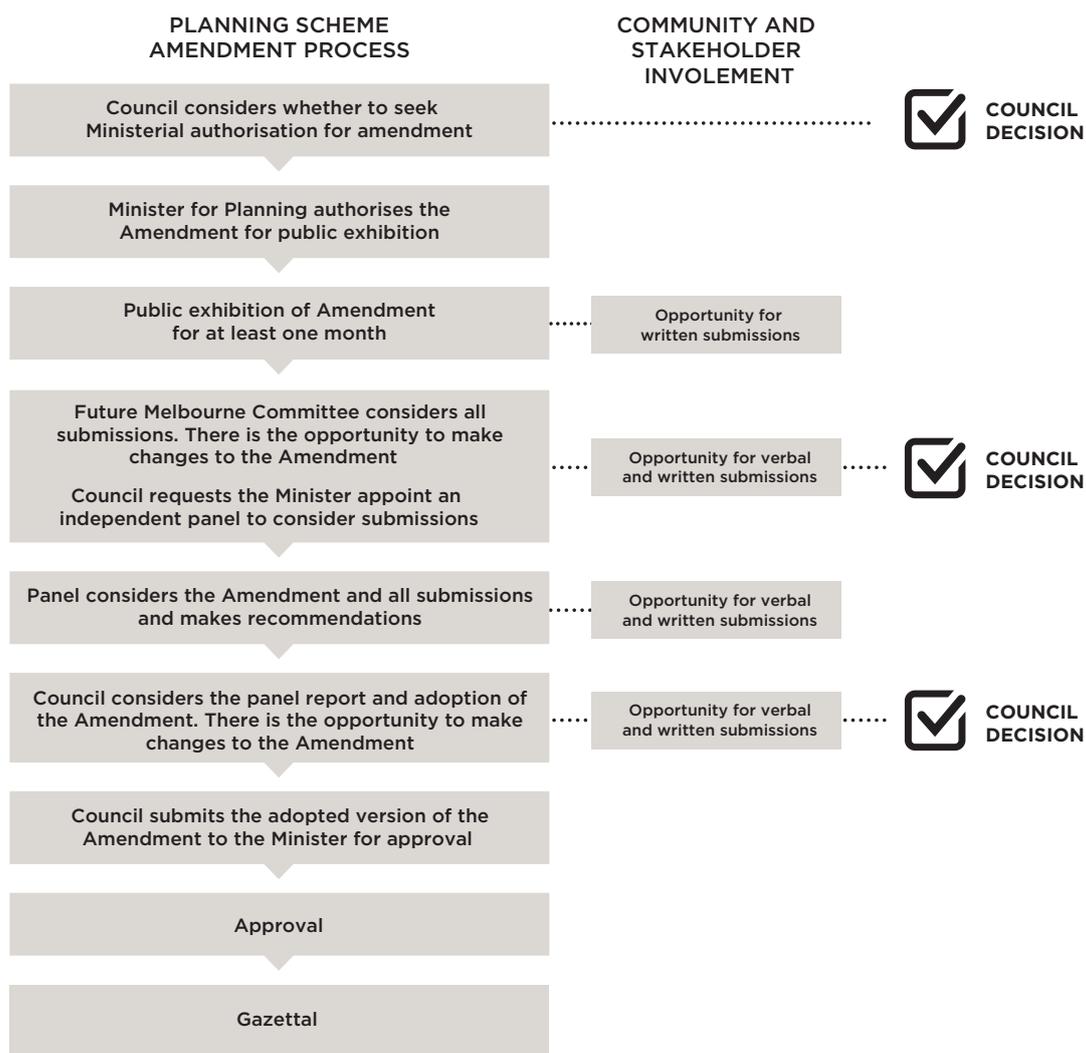


Figure 9: Overview of the planning scheme amendment process

	ACTION	TIMING	STAKEHOLDERS
 Deliver	<p>Action 1: Prepare a planning scheme amendment to implement the relevant actions of the Macaulay Structure Plan Refresh.</p> <ul style="list-style-type: none"> This will include the adoption of the built form controls and design recommendations 	Short Term	City of Melbourne, Victorian Government, Community
 Deliver	<p>Action 2: Improve the quality of urban design in Macaulay through the planned review of Clause 22.17 Urban Design Outside the Capital City Zone in the Melbourne Planning Scheme.</p>	Short Term	City of Melbourne, Victorian Government, Community
 Deliver	<p>Action 3: Prepare an urban design guide for flood prone areas. Work with Melbourne Water and the Victorian Government to develop the guide.</p>	Short Term	City of Melbourne, Victorian Government, Melbourne Water
 Deliver	<p>Action 4: Prepare a planning scheme amendment as part of the Green Our City Action Plan and utilise the City of Melbourne's Green Factor Tool to ensure development delivers best practice environmentally sustainable design including:</p> <ul style="list-style-type: none"> energy efficient buildings and use of renewable energy sources increasing the amount and quality of urban greening, including green roofs, vertical greening and deep soil planting reducing the urban heat island effect water efficient buildings and integrated stormwater management 	Short Term	City of Melbourne, Victorian Government, Development industry, Community
 Deliver	<p>Action 5: Use planning controls to promote sustainable transport options.</p>	Short Term	City of Melbourne, Victorian Government
 Deliver	<p>Action 6: Expand the existing resource recovery hub network to urban renewal areas.</p>	Short to Medium Term	City of Melbourne, Development industry, Community
 Advocate	<p>Action 7: Explore ways to incentivise increased canopy cover and tree protection and support nature in the private realm in Macaulay through incentives such as the Urban Forest Fund.</p>	Short Term	City of Melbourne, Development Industry, Building owners, Community
 Advocate	<p>Action 8: Investigate ways to support residential or community solar, battery storage and / or smartgrids for new and existing buildings.</p>	Short to Medium Term	City of Melbourne, Victorian Government, Development industry, Building owners, Community
 Deliver	<p>Action 9: Support the Aboriginal naming of streets, parks, public buildings and community infrastructure.</p>	Short Term	City of Melbourne, Traditional Owner Groups, Community
 Deliver	<p>Action 10: Investigate projects along the Moonee Ponds Creek that reconnect the creek corridor to its Aboriginal heritage including revitalisation of the creek, public art and naming opportunities.</p>	Short Term	City of Melbourne, Traditional Owner Groups, Community
 Deliver	<p>Action 11: Investigate using floor area ratio controls to encourage the retention of character buildings.</p>	Short Term	City of Melbourne, Victorian Government, Community

	ACTION	TIMING	STAKEHOLDERS
 Advocate	Action 12: Encourage developers and landowners to utilise heritage grants including the Melbourne Heritage Restoration Fund to assist in the restoration of heritage buildings.	Short to Long Term	City of Melbourne, Development industry, Building owners
 Deliver	Action 13: Through the final structure plan and subsequent planning scheme amendment, require key strategic sites to deliver design excellence through either a design competition or design review panel.	Short to Medium Term	City of Melbourne, Victorian Government,
 Deliver	Action 14: Prepare guidelines to inform design excellence competitions in Macaulay.	Short Term	City of Melbourne
 Partner	Action 15: Work with the Office of the Victorian Government Architect (OVGA) to strengthen the quality of design review within Macaulay - either through the Victorian Design Review Panel process or through a new City of Melbourne design review panel that includes Arden and Macaulay.	Short Term	City of Melbourne, Office of the Victorian Government Architect
 Deliver	Action 16: Rezone Mixed Use Zone areas in Boundary, Chelmsford and Stubbs to the Special Use Zone to encourage a proportion of the proposed floor area ratio to be allocated to a non-residential (commercial and retail) use. Providing 20% of floorspace for employment uses would help to balance the mix of residents and workers.	Short Term	City of Melbourne, Victorian Government
 Deliver	Action 17: Further investigate sensitive uses in flood affected areas and where appropriate use planning controls to regulate sensitive uses in the planning scheme.	Short Term	City of Melbourne, Victorian Government, Melbourne Water
 Deliver	Action 18: Rezone sites along Macaulay Road and Boundary Road to the Special Use Zone with requirement to provide retail and commercial activity in local activity centres.	Short Term	City of Melbourne, Victorian Government
 Deliver	Action 19: Use built form planning controls to strengthen active ground floor frontages in local centres.	Short to Term	City of Melbourne, Victorian Government
 Deliver	Action 20: Identify opportunities for place creation, place-making and economic activity that fosters a strong sense of place and community identity.	Short to Medium Term	City of Melbourne, Development industry, Building owners, Community
 Deliver	Action 21: Further investigate future community infrastructure needs and identify the location, concept design and delivery arrangements for the redevelopment of community and recreation facilities and services in North Melbourne.	Short to Medium Term	City of Melbourne, Victorian Government, Community agencies, Community
 Deliver	Action 22: Further investigate the delivery of an additional hub in Kensington including opportunities to partner with the private sector.	Short Term	City of Melbourne, Victorian Government, Community agencies, Development industry, Community
 Advocate	Action 23: Work with the Department of Education and Training in its delivery of a Secondary School in North Melbourne.	Short Term	City of Melbourne, Victorian Government

	ACTION	TIMING	STAKEHOLDERS
 Advocate	Action 24: Advocate for public transport improvements to enable improved access to community infrastructure in Arden and Macaulay. This includes the extension of any future high capacity public transport to Arden along Boundary Road.	Short to Medium Term	City of Melbourne, Victorian Government
 Deliver	Action 25: Include a requirement in new planning controls for the provision of between six and ten per cent of housing in Boundary, Chelmsford and Stubbs Precincts to be affordable housing (one in sixteen to one in ten dwellings). This target will be adjusted if Victorian Government affordable housing policies are updated. Where it is agreed that providing affordable housing within the development is not practical or appropriate, a cash contribution to the same value should be made.	Short to Long Term	City of Melbourne, Victorian Government, Community housing organisations, Development industry
 Deliver	Action 26: Where land owned by the City of Melbourne is used to develop housing, ensure that up to up to 25 per cent is affordable housing and consider accommodating greater than 25 per cent on City of Melbourne owned land in Macaulay.	Short to Long Term	City of Melbourne
 Partner	Action 27: Facilitate and strengthen the partnership between registered community housing organisations and the development industry to help increase the supply of affordable rental housing.	Short to Long Term	City of Melbourne, Community housing organisations, Development industry
 Advocate	Action 28: Advocate for the Victorian Government to make more substantial investments in social housing to ensure new stock is increased and older stock is kept fit for purpose.	Short to Long Term	City of Melbourne, Victorian Government
 Deliver	Action 29: Prioritise walking on Macaulay Road, Boundary Road, and Stubbs Street with wide, unobstructed footpaths. Provide raised continuous footpaths across intersections with side streets where possible.	Short to Medium Term	City of Melbourne
 Deliver	Action 30: Minimise the number of vehicle crossovers from all streets and encourage the servicing of buildings via rear laneways.	Short to Long Term	City of Melbourne, Development Industry
 Deliver	Action 31: Provide regular crossings of main streets for people walking and riding bikes, especially at intersections with side streets and incorporate these crossings into public transport stops where applicable.	Short to Medium Term	City of Melbourne, Victorian Government, Community
 Deliver	Action 32: Discourage through-vehicle movement on the local street network.	Short to Medium Term	City of Melbourne, Community
 Deliver	Action 33: Make streets safer for bikes and deliver the protected bicycle network shown in Map 14.	Short to Medium Term	City of Melbourne, Victorian Government, Community
 Deliver	Action 34: Ensure new development provides secure and easy to use bicycle parking and end-of-trip facilities (see Objective 12 - Parking).	Short to Long Term	City of Melbourne, Victorian Government, Development Industry
 Deliver	Action 35: Pursue the outcomes of the Racecourse Road Strategic Opportunities Plan as they relate to Council's obligations, and work with the City of Moonee Valley and Department of Transport for a whole of government approach to safety and amenity improvements.	Short Term	City of Melbourne, City of Moonee Valley Department of Transport

	ACTION	TIMING	STAKEHOLDERS
 Advocate	Action 36: Advocate for new and improved crossings of the Moonee Ponds Creek.	Short to Medium Term	City of Melbourne, Victorian Government, Community
 Advocate	Action 37: Advocate that any future grade separation of the Upfield rail line provides improved walking and cycling connections from North Melbourne to the Moonee Ponds Creek.	Medium to Long Term	City of Melbourne, Victorian Government, Community
 Advocate	Action 38: Advocate for secure bicycle parking to be installed at Macaulay Station.	Short Term	City of Melbourne, Victorian Government, Community
 Advocate	Action 39: Advocate for upgrades to Racecourse Road to improve safety and amenity.	Short to Medium Term	City of Melbourne, Victorian Government, Moonee Valley City Council, Community
 Advocate	Action 40: Advocate for the Upfield rail line to be grade separated to enable improved connectivity across the precinct and access to the Moonee Ponds Creek.	Medium to Long Term	City of Melbourne, Victorian Government, Community
 Advocate	Action 41: Advocate for the extension of the high capacity transport corridor in Arden along Boundary Road to better connect Macaulay with Arden and other destinations including West Melbourne and the central city.	Medium to Long Term	City of Melbourne, Victorian Government, Community
 Advocate	Action 42: Advocate for at least 10-minute frequencies from 6AM to midnight seven days a week on the Upfield and Craigieburn rail lines.	Short to Medium Term	City of Melbourne, Victorian Government, Community
 Advocate	Action 43: Advocate for accessibility, amenity and safety upgrades at Macaulay and Flemington Bridge Stations.	Short to Medium Term	City of Melbourne, Victorian Government, Community
 Advocate	Action 44: Advocate for service upgrades to the 402 bus including greater signal priority at the intersection of Macaulay and Boundary Roads.	Short Term	City of Melbourne, Victorian Government, Community
 Advocate	Action 45: Advocate for improved public transport services, accessibility and amenity surrounding Macaulay including Flemington Bridge Station, tram route 57, and other priorities included in the Transport Strategy 2030.	Short Term	City of Melbourne, Victorian Government, Community
 Advocate	Action 46: Advocate for high capacity trams and DDA compliant stops on Racecourse Road.	Short Term	City of Melbourne, Victorian Government, Community
 Deliver	Action 47: Introduce on-street parking controls on Macaulay Road, Boundary Road, and Stubbs Street to encourage short-stay use that supports local businesses. This will likely include time-restricted parking, loading and drop-off bays, and demand-based paid parking.	Short to Medium Term	City of Melbourne, Victorian Government, Community
 Deliver	Action 48: Extend on-street parking controls to other streets in Macaulay in consultation with existing residents, businesses, and land owners.	Short to Medium Term	City of Melbourne, Victorian Government, Community

	ACTION	TIMING	STAKEHOLDERS
 Deliver	Action 49: Transition excess on-street parking to higher value uses including wider foot paths, safer bike lanes and new open space.	Short to Long Term	City of Melbourne, Victorian Government, Community
 Deliver	Action 50: Ensure the safety of people walking and riding bikes as short-stay parking controls will increase the rate of turnover with increased vehicle movements across bike lanes and next to footpaths.	Short to Long Term	City of Melbourne, Victorian Government, Community
 Deliver	Action 51: Investigate the optimum mechanism/s and locations to consolidate parking supply and avoid an oversupply of off-street parking. This will be achieved through precinct parking facilities, unbundling of car parking bays, or a combination of both.	Short Term	City of Melbourne, Victorian Government, Development industry, Community
 Deliver	Action 52: Apply a maximum off-street parking rate for new development. Benchmark the rate with international best practice and the rates applied in Fishermans Bend, Arden and West Melbourne.	Short Term	City of Melbourne, Victorian Government, Community
 Deliver	Action 53: Require the inclusion of publicly accessible car share vehicles in private developments that provide this service.	Short Term	City of Melbourne, Victorian Government, Development industry, Community
 Deliver	Action 54: Further investigate future community infrastructure needs and identify the location, concept design and delivery arrangements for the redevelopment of community and recreation facilities and services in North Melbourne.	Short to Medium Term	City of Melbourne, Victorian Government, Community
 Deliver	Action 55: Investigate and pursue opportunities to expand the Robertson Street Reserve.	Short - Medium Term	City of Melbourne, Community
 Deliver	Action 56: Investigate and pursue opportunities to provide new open space at the western end of Alfred, Sutton and Mark Streets incorporating integrated water management.	Short - Medium Term	City of Melbourne, Victorian Government, Melbourne Water, Development industry, Community
 Deliver	Action 57: Create new public open space adjacent to the Moonee Ponds Creek corridor incorporating integrated water management within Stubbs and Chelmsford precincts.	Short - Medium Term	City of Melbourne, Melbourne Water, Community
 Deliver	Action 58: Investigate and pursue opportunities to rezone existing and proposed public open spaces to Public Park and Recreation Zone (PPRZ).	Short Term	City of Melbourne, Victorian Government
 Deliver	Action 59: Embed caring for country principles in the design and management of open spaces.	Short to Medium Term	City of Melbourne, Traditional Owner Groups, Community
 Deliver	Action 60: Deliver a network of new streets and laneways on larger land holdings.	Short to Long Term	City of Melbourne, Victorian Government, Development industry

	ACTION	TIMING	STAKEHOLDERS
 Deliver	Action 61: Deliver street planting priorities in the North and West Melbourne and Kensington Urban Forest Precinct Plans to increase tree canopy cover to 40 per cent by 2040 and increase urban forest diversity.	Short to Long Term	City of Melbourne, Community
 Deliver	Action 62: Deliver a 20 per cent increase in understorey habitat on land managed by the City of Melbourne that supports ecological connectivity across the city.	Short to Long Term	City of Melbourne, Community
 Deliver	Action 63: Investigate green streets connecting Macaulay and Royal Park to provide improved access for people walking and riding bikes and biodiversity corridors to the Moonee Ponds Creek.	Short to Medium Term	City of Melbourne, Victorian Government, Community
 Deliver	Action 64: Continue to engage, involve and collaborate with the Macaulay community in the process of planning and growing the urban forest.	Short to Long Term	City of Melbourne, Community
 Deliver	Action 65: Investigate and pursue opportunities for the integration of water sensitive urban design in streets and open spaces to provide for passive irrigation of street trees and urban greening.	Short Term	City of Melbourne, Victorian Government, Melbourne Water, Community
 Deliver	Action 66: Investigate and pursue the use of blue-green infrastructure to manage, treat and utilise stormwater in the street network (see Appendix 4).	Short Term	City of Melbourne, Victorian Government, Melbourne Water, Community
 Deliver	Action 67: Investigate whether potential stormwater harvesting in Arden could also be used to irrigate open spaces in Macaulay.	Short Term	City of Melbourne, Victorian Government
 Partner	Action 68: Work in partnership with Melbourne Water and the Victorian Government to update the Land Subject to Inundation Overlay and Special Building Overlay.	Short Term	City of Melbourne, Victorian Government, Melbourne Water, Community
 Partner	Action 69: Work in partnership with Melbourne Water on the updated Drainage Services Scheme.	Short Term	City of Melbourne, Victorian Government, Melbourne Water, Community
 Deliver	Action 70: Explore opportunities to improve access and passive recreation opportunities along the western creek bank, south of Macaulay Road.	Short Term	City of Melbourne, Victorian Government, Melbourne Water, Community
 Partner	Action 71: Work in partnership with the Victorian Planning Authority to finalise the Implementation Plan for the Moonee Ponds Creek corridor.	Short Term	City of Melbourne, Victorian Government, Melbourne Water, Community
 Partner	Action 72: Continue to work within the Chain of Ponds Catchment Collaboration Group to support a whole of creek approach and the Moonee Ponds Creek Strategic Opportunities Plan.	Short to Medium Term	City of Melbourne, Chain of Ponds Catchment Collaboration Group

APPENDIX I – GLOSSARY OF TERMS

Built form: refers to the function, shape and configuration of buildings and their relationship to streets and open spaces.

Cloudburst: an extreme amount of precipitation in a short period of time.

Cloudburst street: used to channel and direct the large amounts of water that can be dumped during a cloudburst. By using a v-shaped profile and raised kerbs, water will flow to the middle of the street and away from buildings.

Commercial 1 Zone: to create mixed use commercial centres for retail, office, business, entertainment and community uses and provide for residential uses.

Commercial 2 Zone: encourages offices, appropriate manufacturing and industries, bulky goods retailing, other retail uses, and associated business and commercial services.

Community benefit: while there is no explicit definition of community benefit in the relevant legislation or planning policy context in Victoria, it typically refers to items such as open space, roads and drainage, affordable housing, community infrastructure and strategic land uses.

Community infrastructure: refers to public places and spaces that accommodate community facilities and services and support individuals, families and groups to meet their social needs, maximise their potential and enhance community wellbeing.

Development application: a formal application for development of a site. The application is usually made to local council and consists of an application form, supporting reports and plans of the proposed building or works.

Green street: a street that provides public thoroughfare whilst integrating garden beds, tree planting and water sensitive urban design (WSUD). Green streets would provide upstream connections to all cloudburst streets.

Floor Area Ratio: the ratio between the allowable total floor area developed on a site to the site area. A Floor Area Ratio of 3:1 would permit 3,000 square metres of floor area to be developed on a 1,000 square metre site.

Land use zones: the planning scheme zones land for different uses and sets out each zones purpose and set of requirements.

Mixed use zone: provides for a range of residential, commercial, industrial and other uses.

Open space: the publicly-owned land that is set aside primarily for recreation, nature conservation, passive outdoor enjoyment and public gatherings. This includes public parks, gardens, reserves, waterways, forecourts and squares.

Overlay: the planning scheme maps zoning and overlays of land. Not all land has an overlay on it and only applies if there is a special feature of the land. For example a heritage building or a flood risk.

Permeability: describes the extent to which the urban form permits or restricts the movement of people or vehicles in different directions.

Planning controls: include zones, overlays, and particular provisions that are contained within the planning scheme.

Planning scheme: the Victorian Government and local councils develop the planning scheme to set out rules about the use and development of land.

Planning scheme amendment: changes to the planning scheme are called amendments.

Planning scheme amendment C190: implements the Arden-Macaulay Structure Plan's Stage 1 land use and development recommendations by making changes to the planning scheme.

Planning panel: appointed by the Minister for Planning to hear submissions made about a planning scheme amendment and make recommendations or provide advice about whether the amendment should proceed or not.

Public housing: is a form of long-term rental social housing for people on low incomes that are most in need. Public housing is owned and managed by the Victorian Government.

Public realm: external urban spaces that are publicly accessible and belong to everyone. This includes streets, squares, parks, green spaces and other outdoor spaces.

Social housing: is short and long-term rental housing that is owned and run by the Victorian Government or not-for-profit agencies.

Structure plan: is a document with a shared vision for an area and identifies the type and scope of change projected within an area over time.

Urban heat island effect: is common worldwide as cities become warmer than nearby suburban and regional areas, particularly at night.

Urban renewal areas: are areas to be redeveloped from industrial or low-intensity land uses to mixed-use precincts. Urban renewal areas in the municipality include Fishermans Bend, Arden and Macaulay.

APPENDIX II – BUILT FORM IMPROVEMENTS IDENTIFIED BY THE MINISTER FOR PLANNING

On 26 September 2017, the Minister for Planning approved Part 1 of Planning Scheme Amendment C190 with changes. This included placing a two-year expiry date until 30 September 2019 over the amendment area and amended built form requirements.

The following extract from the Minister's letter approving the amendment identified a number of improvements which could be made to the built form provisions:

- provision of affordable housing, in line with the policy within the Arden-Macaulay Structure Plan 2012 and the State Government's Homes for Victorians
- housing and employment growth necessary to support the government's significant investment in public transport infrastructure and opportunities achieved through site consolidation and master planning
- better management of density through development of a Floor Area Ratio control, and potential to maximise development outcomes in exchange for public benefit through a Floor Area Uplift and public benefits schedule
- greater clarity on how preferred heights may be exceeded and maximum heights achieved
- better integration with the Victoria Planning Authority's Arden Structure Planning work
- better expression of side, rear and upper level setbacks and the effect of development on the public realm
- greater guidance for the City Link, railway line and Moonee Ponds Creek interface
- viability of development necessary to fund development contribution infrastructure requirements
- potential Melbourne Water flooding requirements
- greater clarity on the most appropriate location for a school site
- improved structure to meet requirements of the Ministerial Direction on the Form and Content of Planning Schemes.

APPENDIX III – PROJECTS IN THE AREA

The Macaulay urban renewal area is one of several major projects occurring in North Melbourne, Kensington and beyond. The draft structure plan has considered how these projects relate to the Macaulay area.

Metro Tunnel

Metro Tunnel will enhance network capacity by taking three of Melbourne's busiest train lines through a new tunnel under the city. This will free up space in the City Loop to run more trains on other lines including the Craigieburn and Upfield lines that serve Macaulay. Arden Station in Arden Central is one of five new underground stations. Metro Tunnel is due to open in 2025.

West Gate Tunnel

The Victorian Government has partnered with Transurban to deliver the West Gate Tunnel. The project which will give Melbourne a second freeway link between the west and the city, providing an alternative to the West Gate Bridge. West Gate Tunnel is due to open in 2022.

West Gate Tunnel Mitigation Impacts

The Victorian Government and Council each committed up to \$50 million for streetscape improvements in North and West Melbourne to mitigate the potential impacts of the West Gate Tunnel. The project study area includes Arden and Macaulay.

Land Subject to Inundation and Special Building Overlay

Flood risk in the Melbourne Planning Scheme is managed through two overlays – the Land Subject to Inundation Overlay and the Special Building Overlay. The purpose of these overlays is to protect life, assets and the environment and to minimise flood damage.

The City of Melbourne is working in partnership with Melbourne Water and the Victorian Government to progress a whole of municipality Planning Scheme Amendment to update the overlays.

Arden Structure Plan

The final Arden Vision was released in July 2018. The Victorian Planning Authority (VPA) and the City of Melbourne are leading the preparation of the Arden Structure Plan in partnership with other government departments and agencies. The aim is to have a Planning Scheme Amendment approved by the Minister for Planning by the end of 2020.

Melbourne Innovation Districts

Melbourne Innovation Districts (MID) is a partnership between the City of Melbourne, RMIT University, and the University of Melbourne, to develop urban innovations in Melbourne, for the benefit of the whole city. Melbourne Innovation District City North is an opportunity to shape Melbourne's future through open collaborations that deepen the city's capacity for applied innovation.

West Melbourne Structure Plan

West Melbourne is a long-established area with a strong community, diverse mix of housing, warehouses and businesses, and a rich cultural and architectural heritage. The City of Melbourne has developed a new structure plan that takes a place-based approach to guide the development of future growth in West Melbourne.

E-Gate and Dynon

E-Gate and Dynon are identified as major urban renewal precincts in Plan Melbourne 2017-2050, the Victorian Government's long-term metropolitan planning strategy. Major urban renewal precincts will play an important role in accommodating future housing and employment growth and making better use of existing infrastructure.

Moonee Ponds Creek Strategic Opportunities Plan

The City of Melbourne has developed a draft Strategic Opportunities Plan to revitalise Moonee Ponds Creek. The plan outlines a vision to connect communities along the creek corridor through a series of parklands, open spaces and wetlands.

The City of Melbourne is working in partnership with the VPA. The VPA is responsible for preparing an Implementation Plan for the creek corridor which will identify project priorities, make recommendations for governance arrangements and accountabilities and facilitate the commencement of 'quick win' projects.

Racecourse Road Strategic Improvements Plan

Council has committed since 2016 to the creation of a Racecourse Road Strategic Improvements Plan, to improve the amenity and safety of Racecourse Road. As the northern boundary to Macaulay, the plan for Racecourse Road aims to improve the experience of the public realm.



Key

- | | | |
|---------------------------------------|--|---|
| City of Melbourne Municipal Boundary | Macaulay study area | West Melbourne Structure Plan |
| Existing public open space | Urban renewal areas (Maribyrnong Waterfront, Arden, Fishermans Bend) | Moonee Ponds Strategic Opportunities Plan |
| Waterways | Dynon & E-Gate | Hoddle Grid and surrounds |
| Existing train lines | Melbourne Innovation District City North | Racecourse Road Strategic Improvements Plan |
| Metro Tunnel line and future stations | | |

Map 21: Urban renewal areas and major projects in the City of Melbourne.

APPENDIX IV – INDICATIVE STREET PROFILES

Boundary Road

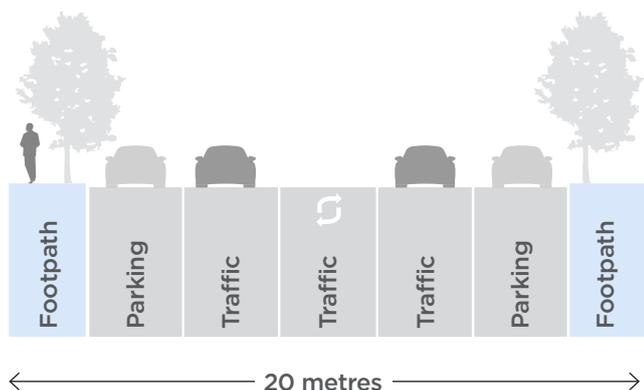


Figure 10: Existing typical street section of Boundary Road

Macaulay Road



Figure 12: Existing typical street section of Macaulay Road

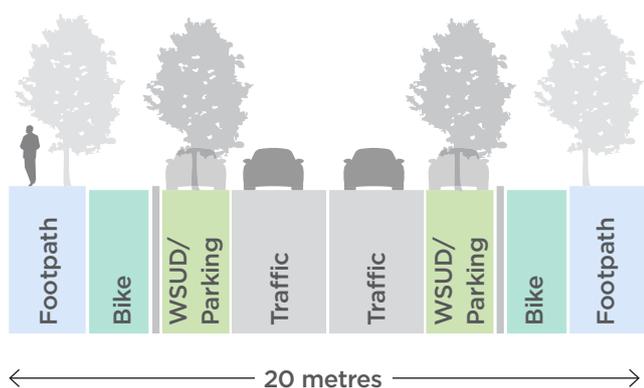


Figure 11: Potential typical street section for Boundary Road



Figure 13: Potential typical street section for Macaulay Road

Mark Street

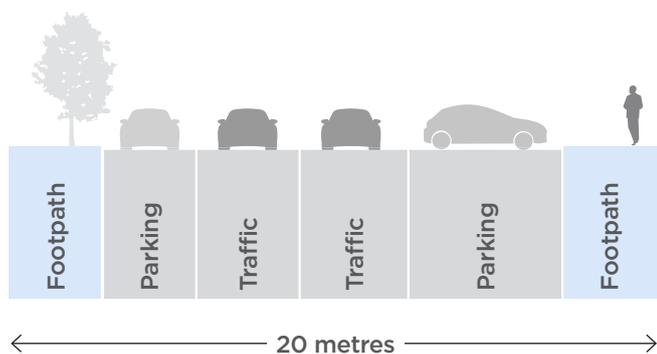


Figure 14: Existing typical street section of Mark Street

Fink Street

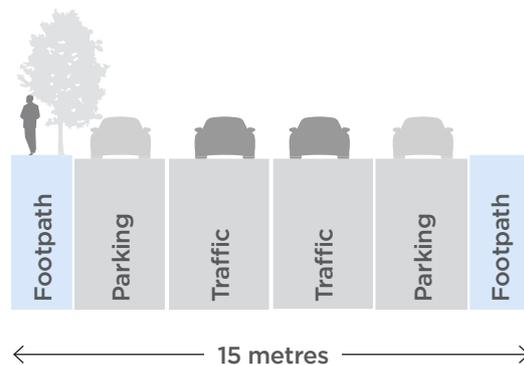


Figure 16: Existing typical street section of Fink Street

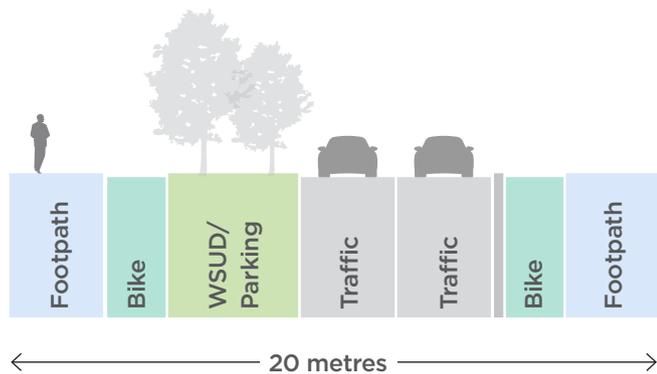


Figure 15: Potential typical street section for Mark Street

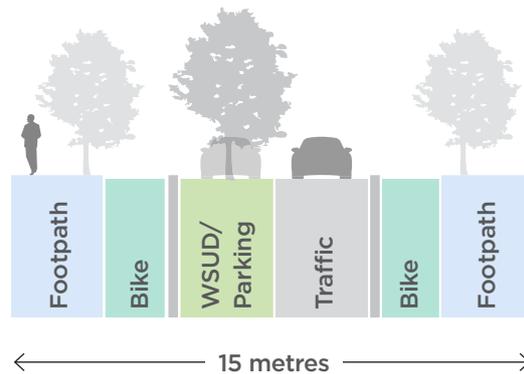


Figure 17: Potential typical street section of Fink Street

New street

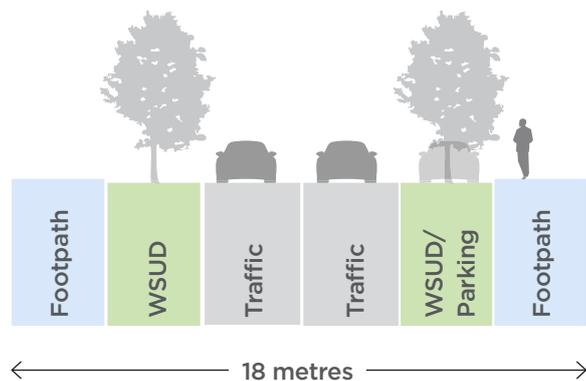


Figure 18: Potential new street section for larger land holdings

New laneway

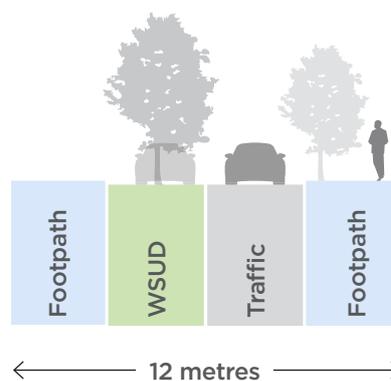


Figure 19: Potential new laneway section for larger land holdings

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