Arden STRUCTURE PLAN

WURUNDJERI WOI WURRUNG COUNTRY
JULY 2022







Acknowledgment of Traditional Custodians

We respectfully acknowledge the Traditional Custodians of the land, the Wurundjeri Woi Wurrung people of the eastern Kulin Nation and pay respect to their Elders past, present and emerging. We are committed to our reconciliation journey, because at its heart, reconciliation is about strengthening relationships between Aboriginal and non-Aboriginal peoples, for the benefit of all Victorians.

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Forewords

Hon. Jacinta Allan MP Minister for Transport Infrastructure Minister for the Suburban Rail Loop

When you can bring a train line to an area for the very first time – you also bring a world of opportunities to grow jobs, services, and create a great place for Victorians to live.

That's exactly what we are doing at Arden – which is on the doorstep of Melbourne's CBD, the medical precinct at Parkville and the new Arden Station is set to open in 2025.

The Arden Structure Plan outlines how underutilised industrial land in Melbourne's inner north will be transformed into a thriving centre for Victoria's knowledge industries, with around 15,000 residents and 34,000 workers.

It presents a tremendous opportunity to grow Victoria's knowledge economy – through a mix of enterprise, education and research. Giving our young people access to the best chance to get a high skilled job that will set them up for life.

Arden continues the Victorian Government's unprecedented investment in vital infrastructure that drives economic growth, improves access to jobs and sparks resilient and creative urban renewal.

A target of net zero emissions across the entire precinct by 2040 will underpin all planning decisions and Arden's active transport options, enabling the new Arden precinct to support diverse economic activity. It will also promote the sustainable growth of Melbourne, which is expected to reach a population of eight million by 2050.



The Metro Tunnel delivering a new train station at the centre of the precinct will also provide rapid, low-emission connections to Parkville, the CBD and Melbourne's western and northern suburbs.

An integrated planning approach to the Arden precinct will see it cater for a diverse mix of residents, serviced by new and improved community facilities.

Development of the Arden precinct over the next three decades will provide a boost to Victoria's economy through significant construction activity less than 2km from Melbourne's CBD.

It's an exciting future for the new Arden precinct – and I look forward to those in the north-west supporting this plan.

Sally Capp Lord Mayor of Melbourne

The renewal of Arden will play an important role in Melbourne's economic revitalisation because it will create a significant new neighbourhood and commercial precinct less than two kilometres from the CBD.

The City of Melbourne remains focussed on achieving our community vision and objectives in the planning and delivery of the Arden precinct and ensuring that it builds on Melbourne's world famous liveability.

We want Arden to be part of the economy of the future. We want it to celebrate Melbourne's unique identity and place. We want it to appropriately acknowledge Aboriginal Melbourne and be conscious of our climate and biodiversity emergency. We want it to be safe, accessible and affordable.

The City of Melbourne has appreciated the opportunity to work with the Victorian Government to progress the planning for Arden and we look forward to continuing this work with Government and our community to ensure Arden is a high-quality and climate-adapted globally competitive neighbourhood and innovation district, enabling the realisation of our vision: a city of possibility.



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The Arden Vision was prepared by the State Government with the City of Melbourne and the community to establish an aspirational framework for this structure plan. Arden will be a new destination for Melbourne, setting the standard for urban renewal. It will contribute to a future Melbourne that is not only the world's most liveable city, but also one of the most forward-looking.

With its rapid rail connections to the Parkville National Employment and Innovation Cluster, the Central Business District and Melbourne's western suburbs, Arden is ideally placed to be an international innovation and technology precinct.

This new employment hub will be pivotal to the growth of Victoria's knowledge economy and advancing Melbourne's strengths as a progressive, innovative and connected local and global city.

The precinct will have its own civic heart and character. It will remain connected to its Aboriginal and industrial heritage as it changes to support a diverse resident and worker population. It will become a new neighbourhood of Melbourne with quality and affordable housing, a thriving network of open spaces, active transport links, and adaptable community facilities, schools and workspaces. Arden will be at the forefront of sustainable development, embracing new ways to live, learn, work and travel in an energy efficient district. Water will be safely managed to become a visible feature in the landscape, while green spaces, trees and water will help the precinct become a cooler, greener version of the city.

The Moonee Ponds Creek corridor will be revitalised as a new green spine for Melbourne. It will be a celebrated waterway with a valued environmental and cultural heritage, serving recreational, biodiversity habitat and active transport functions. The creek corridor will be an essential link for Arden and neighbouring urban renewal precincts.

Partnerships with all levels of government, the community and the private sector will deliver the eight key directions that support the vision for Arden.

- Arden Vision, 2018.

Executive summary

A great place – a new and integrated piece of the city

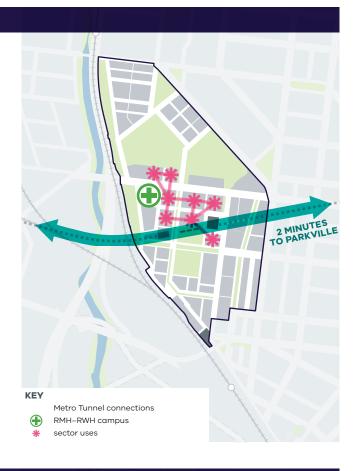
Unlocking innovation

Innovation precincts facilitate the creation and commercialisation of new ideas and support metropolitan economies.

Significant government land ownership and connections via the Metro Tunnel to Australia's pre-eminent biomedical cluster in Parkville ensure Arden will develop as an employment and innovation precinct and a hub for life sciences, health, digital technology, and education.

Jobs growth and opportunities for greater economic output will leverage these distinct economic and strategic attributes.

Land use planning controls will foster this innovation ecosystem and encourage clustering together of small and large organisations.



Land use

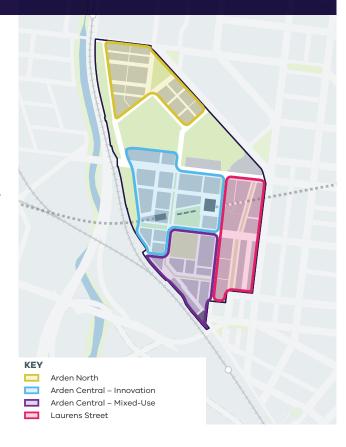
Future zoning in Arden will facilitate a mix of land uses to create an employment-focussed and amenity-rich mixed-use innovation precinct over four sub-precincts, including:

Arden Central – Innovation will create and attract investment from large anchor tenants, institutions and small businesses to showcase the precinct as a globally competitive location. A potential hospital campus will act as an anchor for innovation and education. Barwise Street will be the retail focus surrounding the station, with residential at upper levels through the sub-precinct.

Arden Central – Mixed-use will be the civic heart of the precinct, with a new neighbourhood open space, proposed government primary school and community hub. It will be home to new residential developments alongside commercial uses including offices, function centres, medical centres and research centres.

Arden North will celebrate a mix of businesses of various scales, a new community hub and creative industries such as music, media, performing arts, manufacturing and design. These uses will be supplemented by restaurants, bars, offices, retail and residential.

Laurens Street will build on its established residential uses to accommodate further residential and small-scale businesses including offices, home based businesses, retail premises and creative enterprises.



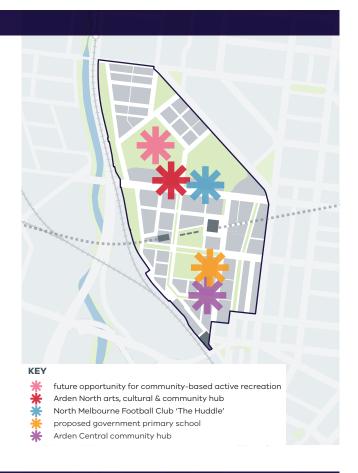
Creating a resilient neighbourhood

Arden will evolve as a distinct and thriving integrated inner-city neighbourhood in Melbourne's inner north-west.

It will showcase quality and affordable housing and workspaces, an integrated network of open spaces and adaptable community facilities, and connections to Moonee Ponds Creek environmental and recreation corridor.

Planning controls will seek an affordable housing contribution of at least six per cent. The precinct will support a diverse population across a range of ages and incomes and cater for specific housing needs, including for key workers, creative industry workers, students, families, first home buyers and pensioners.

Arden will accommodate a proposed government primary school within the Arden Central – Mixed-use sub-precinct to serve the needs of the current and future communities in and surrounding Arden.



Embedding sustainability

Arden will set the standard for best practice sustainable urban renewal. The precinct will align with the local policy of the City of Melbourne, as part of its commitment to achieve net-zero emissions by 2040.

Sustainability is embedded in every decision of the plan including transport, building design, water management, the public realm and open space. Sustainability will be a highly visible part of the identity of Arden.

The result will be a precinct that is cool and green, celebrates water in the landscape, demonstrates world-leading building design and has a visible connection with nature.

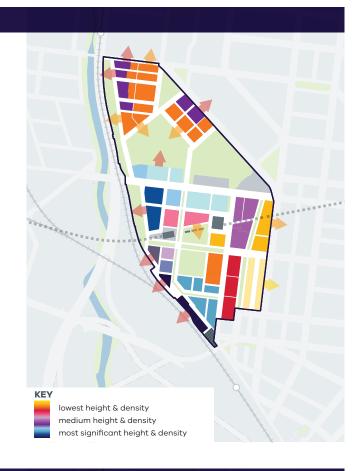


Built form

Arden's urban design strategy seeks to ensure consistent, high quality and context sensitive urban design outcomes for Arden while encouraging innovation, research and sector based uses with complementary uses within the precinct. The urban design strategy establishes and communicates the urban design requirements for the precinct, ensures proposals are developed with integrated urban design solutions and provides a framework for a performance-based assessment against the built form parameters.

The strategy seeks to drive:

- urban design excellence to benefit the wider precinct
- positive outcomes that avoid or minimise negative impacts of the precinct
- integration of high-quality urban design with effective built form outcomes, and
- manage flooding in new development.



Transport

Arden will set a new standard for sustainable transport with an ambitious mode-share target of 60 per cent public transport, 30 per cent walking and cycling, and 10 per cent private vehicle use within, to and from the precinct to establish a 20-minute neighbourhood access framework.

Arden will prioritise people walking, cycling and using public transport to meet their daily needs. A walkable street network and protected cycle lanes will connect Arden with surrounding neighbourhoods.

Vehicle access will be directed to the edge of the precincts to ensure priority for people in the precinct with service access managed to support the precinct's environmental and economic functions. Car parking will be delivered in consolidated locations and other spaces throughout the precinct.

Longer trips will be served by the new Metro Tunnel connecting Arden to the west of Melbourne, Parkville, the central city and beyond. It will be supported by the existing North Melbourne and Macaulay stations as well as high-capacity public transport capable corridors, to future-proof public transport investments and options into the future.



Public spaces and streets

Arden's generous and integrated network of open spaces will celebrate water in the landscape and be a core part of Arden's identity.

Open space and the public realm network will be designed to celebrate Aboriginal cultural values and history, support the health of the community and the environment, and create opportunities for collaboration and recreation.

The Fogarty Street and Queensberry Street urban boulevards will integrate Arden with its surrounding neighbourhood and function as integrated stormwater management open spaces, celebrating water in the streetscape and increasing the precinct's urban canopy and creating biodiversity corridors.

The intersection of Fogarty Street and Queensberry Street will create the heart of the precinct, defining Arden's identity.

A series of green links and spaces for active recreation – building on the existing North Melbourne Recreation Reserve and Aquatic Centre – will optimise opportunities to support physical and mental health and wellbeing.



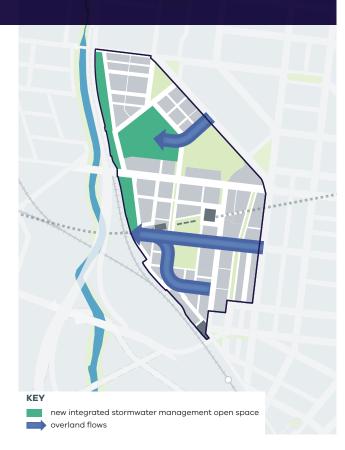
Celebrating water

Arden will incorporate water as a feature of the landscape through innovative and creative flood management solutions.

Water will be a positive, visible and ephemeral contribution to the public realm and open space, including along Arden Street, Queensberry Street and Fogarty Street. Celebrating water in the landscape will have multiple benefits by slowing and storing stormwater and providing ecological regeneration and enhanced biodiversity.

Arden North's central feature will be a new integrated stormwater management open space, designed to perform a drainage function during heavy rain events. This space will also provide a range of community and active recreation, biodiversity and cultural uses.

The Moonee Ponds Creek corridor will be valued as an environmental, recreational and active transport asset, and an integrated water management approach will ensure that water is shared and reused across the precinct.



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Commitment to deliver

The structure plan

The structure plan is organised by the following chapters to reflect the key directions for Arden's renewal established by the *Arden Vision*. Each chapter contains objectives (listed below) and strategies to guide Arden's renewal.

Introduction

- Arden's history and context
- Arden's opportunity for renewal

Transforming Arden

- Embedding Aboriginal cultural values
- Innovation
- Land use

Objective 1

Celebrate, protect and interpret Aboriginal cultural values and heritage in the planning, design and curation of Arden.

Objective 2

Create the conditions that attract and retain global talent in the life-sciences, education, health and digital technology sectors and foster interaction, collaboration and knowledge sharing between enterprise, government, and education.

Objective 3

Deliver a highly liveable, mixed-use precinct of Melbourne that aspires to accommodate approximately 34,000 jobs and around 15,000 residents with innovation at its heart.

Designing a distinctive place

- Spatial structure
- Built form
- Design excellence

Objective 4

Create a new urban structure for Arden that incorporates a high-quality network of connected streets and open spaces that help support a varied and walkable block structure.

Objective 5

Introduce density and built form controls that help transform Arden into a world leading urban renewal precinct and innovation precinct while celebrating the precinct's existing assets and surrounding neighbourhoods.

Objective 6

Recognise and celebrate the valued built form heritage and character of Arden.

Objective 7

Encourage buildings to remain adaptable as uses change over time.

Objective 8

Ensure design excellence is achieved in Arden.

Embedding sustainable change

- Reaching zero carbon
- Encouraging a circular economy
- · Managing urban heat

Objective 9

Establish strong environmental governance in Arden that provides certainty, accountability and transparency to achieve the precinct's net zero carbon emissions target by 2040.

Objective 10

Facilitate the delivery of precinct-scale infrastructure and centralised facilities that makes achieving building scale targets easier.

Objective 11

Embed sustainable living and building practices in planning and built form controls.

Objective 12

Measure the performance of the precinct, its buildings and its occupants and be able to adapt to changes in climate, lifestyle and technology in the future.

Objective 13

Minimise waste production, optimise reuse and recycling and encourage a circular economy in Arden.

Objective 14

Mitigate the urban heat island effect in the design and delivery of the public realm and private developments with desired urban greening outcomes and standards.

Prioritising active transport

- Walking and cycling
- Public transport
- Parking

Objective 15

Provide space for high capacity public transport capable options and improving transport links connecting Arden into the expanding central city.

Objective 16

Provide safe, direct and connected protected cycling routes through and to the precinct.

Objective 17

New and existing streets will be pedestrian friendly and provide comfortable, green links between open spaces and public transport routes and enhance the quality of the public realm.

Objective 18

Minimise the impact of car parking and associated vehicular movements through Arden.

Celebrating water

- Managing flooding
- Urban water cycle

Objective 19

Safely manage the risk of flooding to future development of Arden through innovative and creative flood management solutions in the natural landscape and built environment.

Objective 20

Provide access to high-quality alternative water to be used in buildings and to irrigate open spaces.

Creating diverse open spaces

- Open space network
- Open space design

Objective 21

Provide generous, well-designed and accessible open spaces that are diverse and flexible to meet the needs of Arden's evolving community and visitors to the precinct.

Objective 22

Establish design excellence and design objectives for streets, open spaces and development interfaces to ensure the public realm works as a seamless, integrated and continuous space for all people.

Accommodating diverse communities

• Affordable housing

Objective 23

Facilitate inclusive, well-designed, sustainable and accessible housing, with at least six per cent of all new housing in the precinct being affordable for very low to moderate income households and delivered as social and affordable housing or shared equity.

Investing in community infrastructure

• Community hubs

Objective 24

Deliver educational facilities to meet the anticipated demographic demand.

Objective 25

Ensure timely delivery of high-quality, accessible and integrated community infrastructure to meet the needs of existing and future residents, workers and visitors.

Delivering Arden

- Governance
- Development staging
- Early activation
- Infrastructure funding and delivery

Objective 26

Ensure coordinated and collaborative staging of development on government owned land around the new Arden Station to effectively respond to existing conditions and ongoing business requirements and create a safe and vibrant place upon opening of the station.

Objective 27

Ensure that early activation and place-shaping activities are delivered alongside early precinct development and in readiness for the Arden station opening, and that long-term planning, development and service delivery are considered early in the life of the precinct to create a distinct sense of place, promote a vibrant and interesting early local experience and ensure the long-term resilience of the precinct.

Objective 28

Ensure that new development responds to surrounding conditions including the transmission pressure gas pipelines and is not unduly impacted by noise, vibration and electromagnetic interference from the adjacent railway corridor, elevated roadway and Metro Tunnel.

Objective 29

Make Arden adaptable to change while managing the impacts of existing uses that need to transition from the precinct.

Objective 30

Provide critical infrastructure and utility services in a coordinated manner to support the planned development.

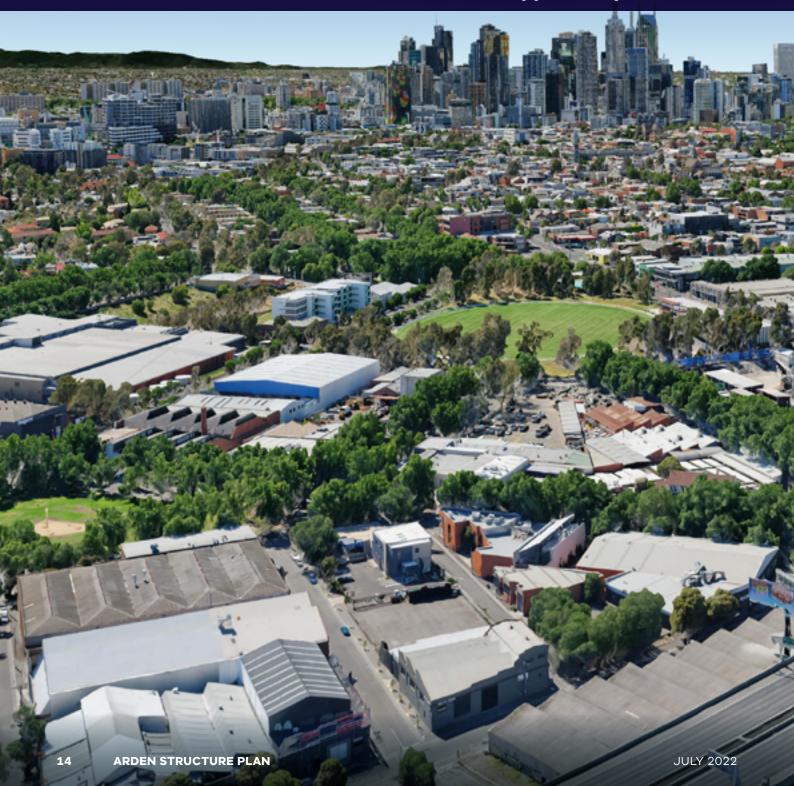
Objective 31

Provide 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.

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1 Introducing Arden

Arden's history and context Arden's opportunity for renewal



How to use this document

The Arden Structure Plan (the plan) provides the strategic land use and built form framework for the evolution of the Arden precinct to 2050.

The plan outlines 31 objectives and 107 strategies to implement the *Arden Vision* (2018) and its eight key directions.

What is Arden?

Arden is a 44.6 hectare urban renewal precinct in North Melbourne, less than 2km from the Melbourne central city. Within a walking distance of 1.6km – approximately a 20 minute walk – Arden has access to a range of open spaces, community facilities, jobs and transport infrastructure, making it an integrated area of Melbourne's inner north-west.

Arden will transform over 30 years from underutilised industrial land into an innovation and employment precinct and a thriving new neighbourhood.

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Arden's history

Arden has a rich history and character still prevalent in the topography of the land and urban fabric visible today.

For tens of thousands of years

The Aboriginal people of the eastern Kulin Nation live in close connection to the land, water and seasons. The area provides food and resources for the Aboriginal people and serves as a meeting place and camp for travelling along the coast.

1830s

Europeans first settle the Port Phillip Bay area.

1850s

Settlers dredge the
Moonee Moonee Chain of
Ponds to create a
permanent course for
what is now the Moonee
Ponds Creek. Wetland
areas are reclaimed for
railway, freight, port, and
industrial land.

1859

North Melbourne Station opens

1874

Flour milling established in Arden and surrounding industrial areas. These mills developed the process of roller milling in Australia, enabling the development of flour exports – a major component of Australia's economy.

For thousands of years

The area is a low-lying wetland with a series of ponds, named the Moonee Moonee Chain of Ponds, that appear and disappear with the seasons.

1840s

Settlers introduce pastoral animals, which changes the natural landscape. Settlers move the Kulin people out of the area and relocate them to reserves on the outskirts of the city.

1854

The Parliament of
Victoria introduces the
River Yarra Pollution
Prevention Bill which
forces noxious trades
previously found along
the Yarra River to move.
Many move to the
Moonee Ponds Creek,
triggering industrial
growth to sprawl along
the creek corridor.

1887

The Upfield train line is built along Arden's western boundary. Macaulay Station opens.

1850s-1920s

Industrial uses foster a strong working class, which comes to define the area.



Figure 2 View from Batman's Hill, overlooking the rich, watery landscape of West Melbourne Swamp. Source: National Gallery of Victoria

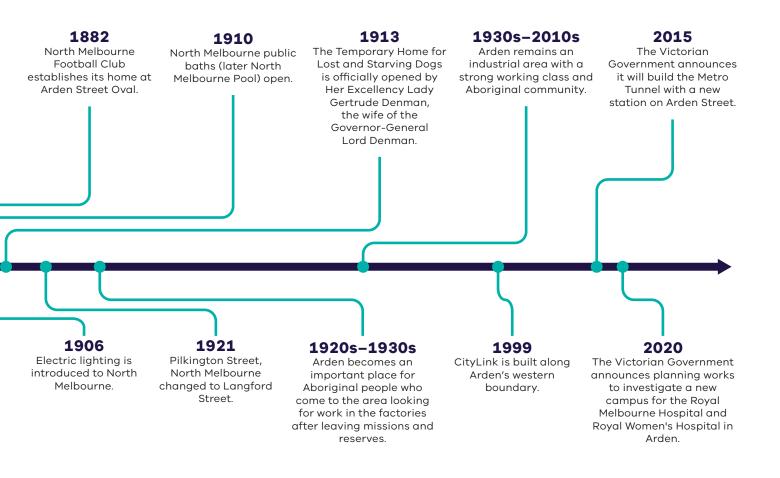




Figure 3 Aerial photograph of Arden and surrounds looking south-west, mid-20th century. Notable landmarks include the North Melbourne Gasometer, North Melbourne Oval and Moonee Ponds Creek. Source: State Library of Victoria.

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Arden today

Landmarks and views

- The Weston Milling site on Munster Terrace is a key landmark of the local area. [14]
- Vantage points provide long range views of the central city skyline.
- Looking west, the CityLink elevated roadway is a significant feature of the local area. [13]
- The Arden precinct is viewed each day by thousands of commuters from CityLink and the surrounding rail corridors.

Open space

- The North Melbourne Recreation Reserve is the largest open space in Arden. Licenced to the North Melbourne Football Club (NMFC) for use as an elite level training and competition facility. Community use of this space is encouraged but restricted to times outside NMFC use. [8]
- Clayton Reserve is a fenced off-leash dog park available for public use. [4]
- The Moonee Ponds Creek provides a large open space along Arden's western boundary, but sections of it are highly degraded and access is limited by the Upfield rail corridor. [12]

Flooding

 Formerly a low-lying wetland, much of Arden is prone to flooding today.

Land ownership and use

- Arden includes a combination of large industrial blocks and fine-grain residential blocks.
- The Victorian Government is the largest landowner, holding much of the land to the south west of the precinct around Arden Station.
- Arden has a mix of established residential neighbourhoods, industrial uses and mixed-use businesses

Heritage

 Arden is home to heritage buildings, in particular converted warehousing, sawtooth industrial buildings and 19th century homes.

Contamination

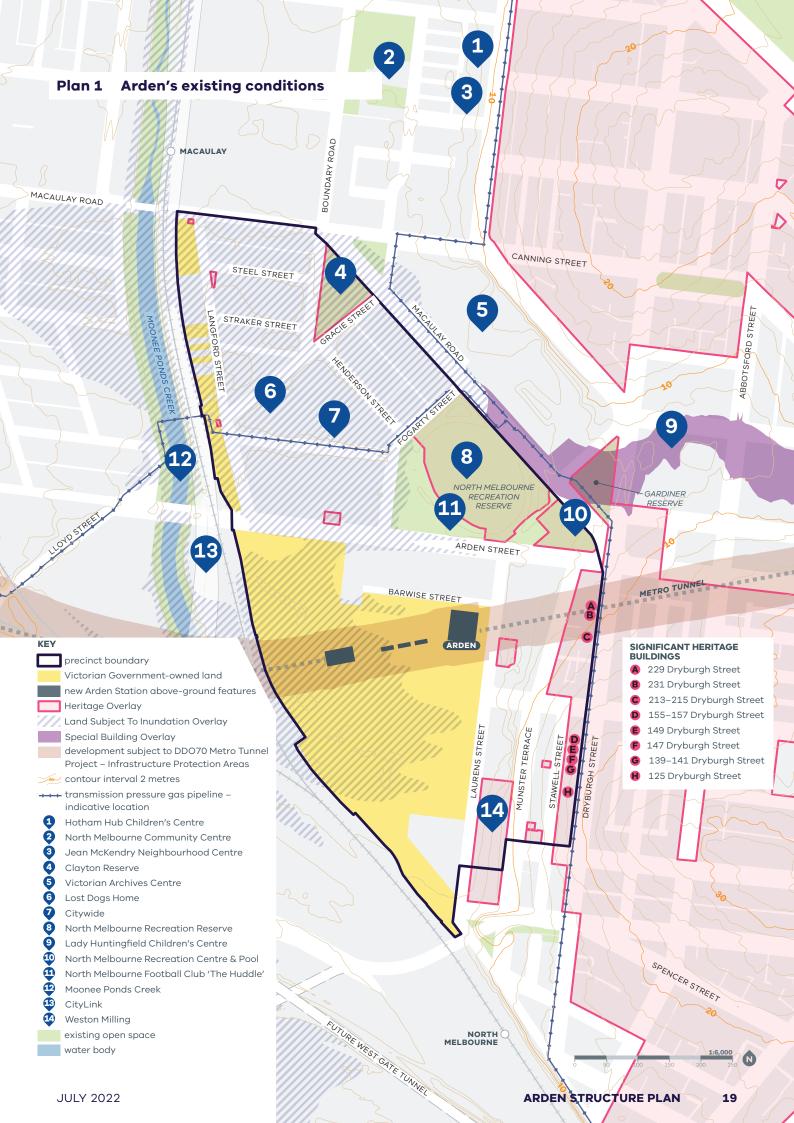
 Arden's industrial history has left a legacy of land contamination, and some sites may need remediation before they can be developed.







Figure 4 Features of the Arden landscape.



The opportunity

A transport precinct

The catalyst for Arden's urban renewal is the construction of the Metro Tunnel and new Arden Station, due to open in 2025.

The new station will connect Arden to the airport to the north-west, Footscray and Sunshine to the west, and Parkville and the central city to the east. Arden will become part of Melbourne's innovation ecosystem.

The precinct is also serviced by North Melbourne Station and Macaulay Station, multiple bus routes and the nearby route 57 tram (West Melbourne to Flinders Street via North Melbourne) route.

The Capital City Trail and the Strategic Cycling Corridor on Arden Street are the precinct's current active transport services.

Arden can build on the existing exceptional public and active transport network to create a vibrant and connected place and destination in Melbourne's inner north-west.

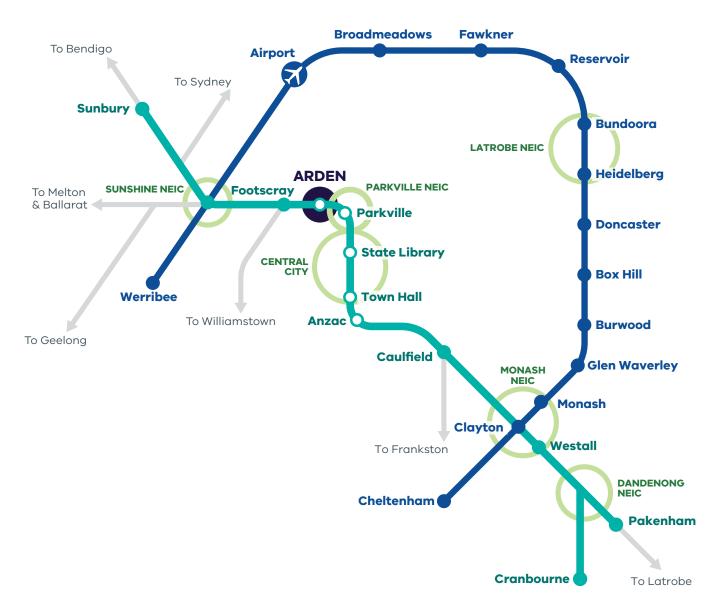


Figure 5 Melbourne's key precincts linked by the Metro Tunnel and Suburban Rail Loop.

An innovation and employment precinct

The Parkville biomedical innovation and research precinct 1km east of Arden supports over 40,000 jobs. The Metro Tunnel will connect Arden to Parkville via a two-minute train ride, with Queensberry Street and Arden Street providing safe and direct walking and cycling links. Much of the land in Arden is government-owned, offering a rare opportunity to deliver the generous public, civic and community spaces that strengthen a successful innovation precinct.

At the heart of the precinct is a proposed new campus for the Royal Melbourne Hospital and Royal Women's Hospital, that has received state government funding to investigate a business case. This hospital campus would serve as an anchor health and research institution for Arden.

Arden's proximity to Parkville, incoming anchor institutions and transport offering provide an exciting opportunity for it to develop into an innovation and employment precinct leveraging the existing innovation facility agglomeration in the area.

Arden's future land use

Arden will become a new destination for Melbourne that is a great place to live, learn, work, visit and invest.

Arden's transport and employment offerings provide a significant opportunity for it to accommodate the new jobs and residents of a growing Melbourne. The precinct will transition from the current mixed-use and industrial land uses to a new precinct of Melbourne that aspires to accommodate approximately 34,000 jobs and around 15,000 residents by 2050.

Complemented by the Parkville biomedical innovation and research precinct, Arden will be an employment and innovation precinct and a hub for life sciences, health, digital technology, and education. It will strengthen Victoria's position as Australia's top-performing economy.

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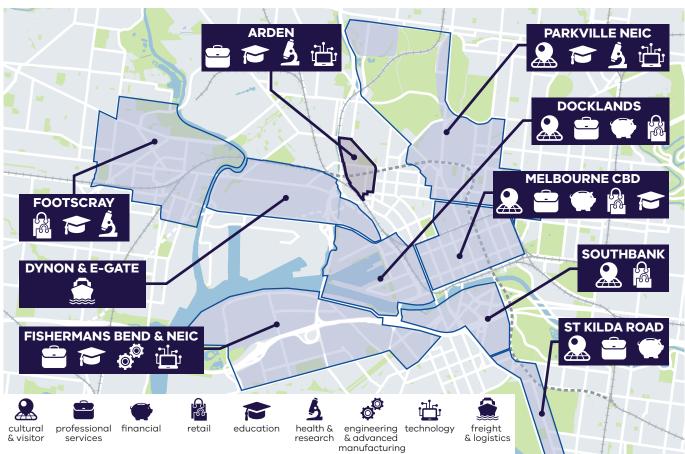
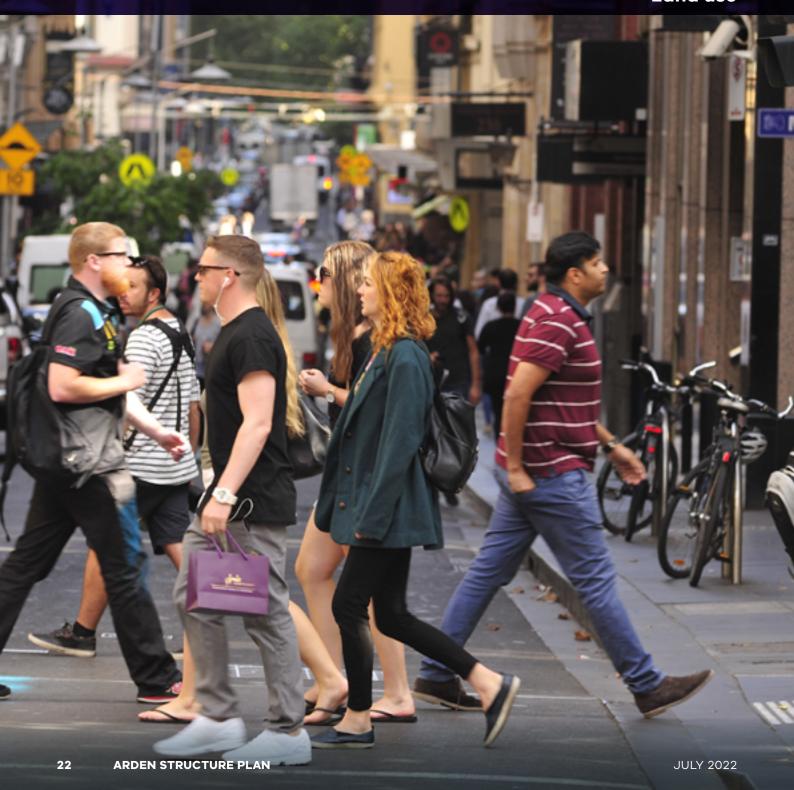


Figure 6 Surrounding land uses of Arden's inner-city area.



Embedding Aboriginal cultural values
Innovation
Land use



Arden will advance Melbourne's strengths as a progressive, innovative and connected local and global city. The new Arden Station will catalyse Arden's transformation into a new employment hub. There will be significant opportunities for better and diverse ways of working, living and learning, as it evolves from an industrial area into an innovation precinct.

- Arden Vision, 2018.

The precinct's proposed transformation to a knowledge-based economy creates a new chapter in Arden's evolution. It will remain connected and reference to its Aboriginal cultural foundations while building on and industrial heritage as it changes to support a diverse resident and worker population focused on the digital technologies, life sciences, health and education sectors.

To create an innovation ecosystem, the Brookings Institute identifies that a precinct must comprise three types of assets:

- **Economic assets** including the firms, institutions and organisations that drive, cultivate or support an innovation-rich environment.
- Physical assets including publicly- or privatelyowned spaces such as streets and other infrastructure, designed and organised to stimulate new and higher levels of connectivity, collaboration and innovation.
- Networking assets including the relationships between people, firms and places that facilitate idea generation and advances in commercialisation.

This is further supported by DELWP's "Factors driving the success of enterprise precincts" criteria in *Unlocking Enterprise in a Changing Economy*, 2018 – refer to Figure 8.

Innovation precincts...

- "... are geographic areas where leading-edge anchor institutions and companies cluster and connect with start-ups, business incubators and accelerators. They are also physically compact, transit-accessible, and technically-wired and offer mixed-use housing, office, and retail."
- "... facilitate the creation and commercialisation of new ideas and support metropolitan economies by growing jobs in ways that leverage their distinct economic attributes."
- Bruce Katz & Julie Wagner (2014)

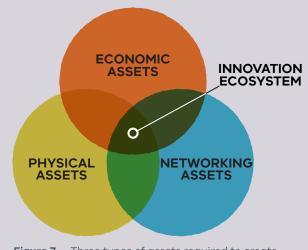


Figure 7 Three types of assets required to create an innovation precinct. Adapted from Katz & Wagner, 2014.

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Factors driving the success of innovation precincts

A checklist of nine criteria has been adopted from the Department of Environment, Land, Water and Planning's *Unlocking Enterprise in a Changing Economy* (2019) to guide the structure planning process.

These criteria can highlight how, for example, deficiencies in one of these factors, such as poor quality of place or lack of collaborative culture, could be holding back a precinct from realising its full potential despite the presence of other factors, such as strong anchor institutions or high quality information and communications technology infrastructure.

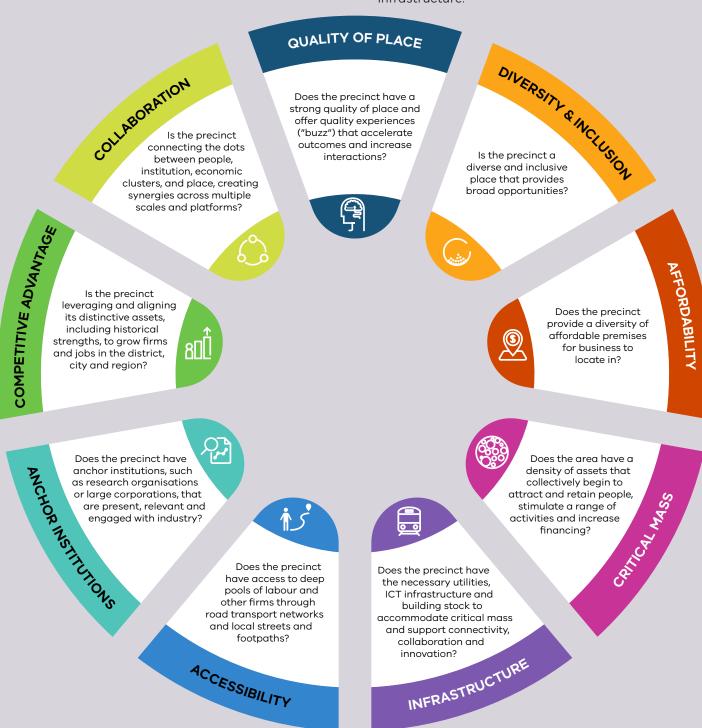


Figure 8 Factors that will drive the success of Arden as an innovation precincts. Source: DELWP.

Celebrate, protect and interpret Aboriginal cultural values and heritage in the planning, design and curation of Arden.

For millennia the eastern Kulin Nation lived in close connection with the landscape surrounding Arden. This connection to country has continued since the arrival of Europeans in a variety of traditional and contemporary ways. While there are many stories and places in Melbourne that contain evidence of this connection, this is not always something that is apparent to people who live, work or visit Melbourne

Places of contemporary and historical Aboriginal cultural significance enrich people's lives, often providing a deep and inspirational sense of connection to community and landscape.

The transformation of Arden presents an opportunity to reveal the area's rich cultural history and to create space for the ongoing interpretation and sharing of cultural values that remain an important part of contemporary Aboriginal communities.

An Aboriginal Cultural Values Assessment has been prepared in consultation with the Traditional Custodians of the land and has identified the following eight Aboriginal cultural values to underpin the planning for Arden:

- Caring for Country: Holistic approach to Country, nurturing Country, including the land, water, plants, and birds, animals and fish.
- Connections to Country: Strengthening connection to Country through stories, traditions and cultural practices, both traditional and contemporary.
- **Traditional knowledge:** Promoting, preserving and reigniting traditional knowledge, including Aboriginal languages and education.
- Celebrating community: Celebrating all of the community inclusively, including recent immigrant groups.
- Respect for ancestors: Remembering the stories of ancestors.
- **Celebrating culture:** Expressing Aboriginal identity, culture and spiritual life.

- Stories of survival and the need for healing:
 Stories of Aboriginal people finding their community and keeping community strong, for example, after leaving the missions and making
- New knowledge: Valuing archaeological and historical research that uncovers new information about Aboriginal history.

STRATEGY 1.1

new lives in Melbourne.

Plan for the inclusion of spaces in community facilities for sharing Aboriginal history, culture and values associated with the area and supporting Aboriginal business.

STRATEGY 1.2

Support the recognition and interpretation of the Aboriginal cultural values and heritage in Arden through ongoing consultation and collaboration with Traditional Custodians and engagement with the development industry and other stakeholders.

STRATEGY 1.3

Explore opportunities to reveal the history of Arden as a rich and inland water-based ecology, source of food and place of meeting through design, planting and curated programs. In particular, collaborate with the Traditional Custodians and local community to recognise this through the design of key spaces including the Arden North integrated stormwater management open space.

STRATEGY 1.4

Restore and nurture the local natural environment through indigenous planting and land management practices developed in collaboration with Traditional Custodians.

STRATEGY 1.5

Create opportunities to embed Aboriginal language, design and names in streets, parks and public buildings in consultation with Traditional Custodians.

STRATEGY 1.6

Identify opportunities for inclusive and social procurement policies and skills development for Aboriginal people in delivering Arden.

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Create the conditions that attract and retain global talent in the lifesciences, education, health and digital technology sectors and foster interaction, collaboration and knowledge sharing between enterprise, government, and education.

Successful innovation precincts have specific economic, physical and networking assets that work together to make a successful place. These criteria are described in "Factors driving the success of innovation precincts", seen at Figure 8.

This structure plan establishes the framework for a successful innovation precinct by maintaining strong urban design principles. Blocks are designed to be flexible as economic development opportunities arise over the life of the precinct, while built form controls, a walkable street network, generous open spaces and other planning controls will ensure Arden is a great place to live, work and visit.

Arden will require a range of industry-focussed facilities, such as spaces for co-working and collaboration, affordable shared research infrastructure (including labs and technical equipment), small-footprint advanced manufacturing plants, clinics for medical trials, multi-purpose education facilities and events spaces, short term accommodation for visiting experts and students, and places to showcase Melbourne's innovation and creativity to the world.

STRATEGY 2.1

Facilitate the development of anchor enterprises and industry facilities early in Arden's development to showcase innovation, create jobs in the precinct and attract ancillary, businesses and industries.

STRATEGY 2.2

Support the delivery of innovation facilities in the Arden Central – Innovation sub-precinct to provide affordable space for innovation and technology labs and co-working and collaboration spaces, complemented by presentation and seminar spaces for sharing, exhibiting and commercialising work.

STRATEGY 2.3

Support the delivery of world-class and networked facilities and equipment throughout the precinct, such as laboratories and high speed internet, to provide the tools for innovation, attract global talent and facilitate formal and informal collaboration and knowledge sharing.

STRATEGY 2.4

Explore private and public delivery models for affordable workspaces for creative and innovation industries. This includes delivering creative spaces, presentation spaces and co-working and collaboration spaces available on a variety of tenures and price-points to support Arden's future businesses, and will form an essential part of the curation and delivery strategy.

STRATEGY 2.5

Monitor and measure success against the factors driving the success of innovation precincts at two, five and 10 years

CASE STUDY Exploring design responses to innovation uses

The Melbourne Brain Centre, Parkville, VIC

The Melbourne Brain Centre is the largest brain research collaboration in the southern hemisphere. Research at the Centre is focused on translating clinical neuroscience research into improved clinical practice, policy and patient outcomes. At approximately 20,000 square metres, the centre incorporates six levels of intensive laboratories, auditorium, art gallery and MRI facilities.

Sustainability is part of the everyday operation of the centre, with water reuse and efficient energy consumption embedded within the building design. Now internationally recognised as a cutting-edge educational facility, the Melbourne Brain Centre provides a home for Australian medical research now and into the future.



Figure 9 The Melbourne Brain Centre.

Deliver a highly liveable, mixed-use precinct of Melbourne that aspires to accommodate approximately 34,000 jobs and around 15,000 residents with innovation at its heart.

The Victorian Government has significant land holdings within Arden and is taking a proactive approach to curating the precinct's development. Arden's government land holdings and the new train station uniquely position the precinct to provide homes and jobs for Melbourne's growing population. Arden's vision is to be a world leading urban renewal precinct exemplifying Melbourne's reputation for liveability.

Arden will host a productive and innovative economy specialising in digital technologies, life sciences, health and educational sectors, complementing the globally recognised biomedical precinct in nearby Parkville.

The Special Use Zone will deliver the land use framework vision for Arden to facilitate its transformation to an employment focussed and amenity-rich innovation precinct. Zoning needs to manage conflicting land uses and activities to ensure that this mix of uses creates the platform for innovation and activation and liveable places and spaces.

To be successful, Arden needs to deliver approximately two-thirds of its development for employment uses and one-third for residential uses.

STRATEGY 3.1

Facilitate use and development of land in Arden to deliver on the aspiration of approximately 34,000 jobs and around 15,000 residents in the precinct.

STRATEGY 3.2

Prepare planning controls to deliver the land use framework for Arden to implement the sub-precinct land use visions.

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Sub-precincts

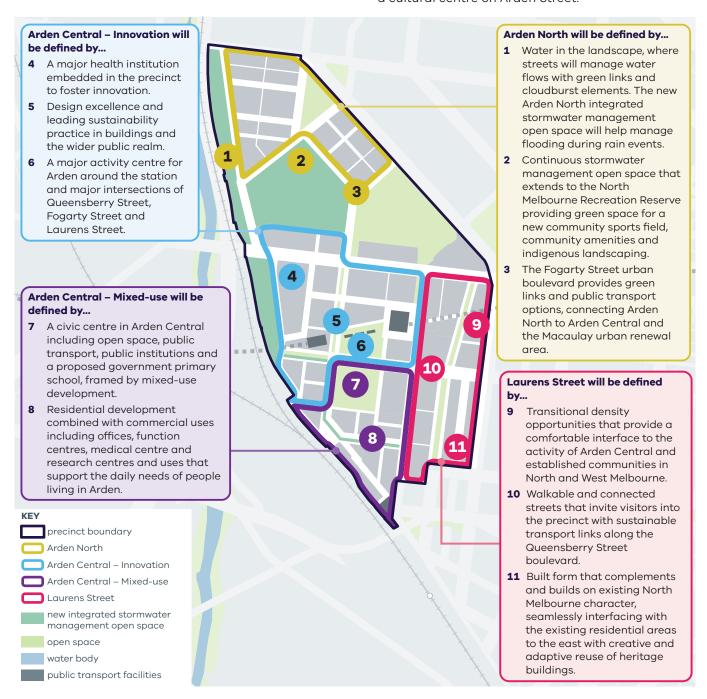
Arden is divided into four sub-precincts, each with a unique purpose and character.

Arden Central – Innovation

Arden Central – Innovation will be anchored and activated by the new Metro Station. It will be the focus for the digital technology, life sciences, health and education sectors as well as research and development, research centres and other ancillary uses to these industries.

The sub-precinct's innovation-based character will create and attract investment from large anchor tenants, institutions and small businesses that will showcase the precinct as a globally competitive location for collaboration.

Arden Central – Innovation sub-precinct will also support the implementation of facilities and infrastructure to grow Arden's innovation ecosystem, including spaces for start-ups, scaleups and spin-offs and collaboration spaces, as well as other community infrastructure including library uses, multi-purpose community spaces and a cultural centre on Arden Street.



Innovation, community and industry uses will be prioritised or encouraged over residential uses to support the growth of the sub-precinct as the innovation heart.

A retail core will develop along Barwise Street with retail activation also along Laurens Street corridor and Fogarty Street.

Buildings and the private realm will connect seamlessly and activate public spaces day and night through ground level uses such as offices, local supermarket, shops, retail, bars, restaurants, galleries and presentation spaces in fine grain building design. This will be complemented by research, office and other commercial spaces at the upper levels.

The streets within the sub-precinct will link public spaces including the Capital City and neighbourhood open spaces, the Arden Station plaza and concourse and the Moonee Ponds Creek. Improving accessibility to destinations and providing a range of experiences in the public realm will encourage those living, working and visiting to remain within the sub-precinct, increasing opportunities for collaboration and innovation. These spaces are convivial and offer a range of experiences including markets, pop up stalls, outdoor dining and other passive uses such as picnics, exercise and play.

Larger commercial car parks will be encouraged to provide precinct-based car parking access and reduce the need for smaller, individual site car parking provision.

Arden Central – Mixed-use

Arden Central – Mixed-use will accommodate residential development and commercial uses including offices, function centres, medical centres and research centres. Ground floor activation will be achieved through the provision of retail and local shops including bars, restaurants, beauty salons, galleries, presentation spaces and office space. This activation will ensure passive surveillance to help increase personal safety and security.

A new proposed government primary school and a community centre combining a kindergarten, maternal and child health rooms and general community meeting spaces will service and connect young families within Arden and its immediate surrounding area.

The precinct will access key features and destinations within and surrounding Arden Central including new open spaces, a new metro station and dining and shopping opportunities.

Arden North

Arden North will comprise a mix of businesses and creative industries such as music, media, performing arts, manufacturing and design. These industries will be supplemented by restaurants, bars, offices and retail premises.

The new integrated stormwater management open space will provide opportunities for active recreation, visual amenity and outlooks from midrise residential development on the upper floors of buildings. High amenity residential development will integrate with the mixed-use nature and will be designed to not impede on the growth and operation of this sub-precinct as a service and employment node.

The variety of commercial opportunities, and the legacy of its existing land use and heritage buildings, will create a sense of local culture which reflects the ambition of innovation and a true mix of industry where architecture firms, digital media and other technology-based businesses mix with low impact industrial uses which could include advanced manufacturing, microbreweries, bike repairs, creative industries, retail and dining opportunities.

Laurens Street

Laurens Street will strengthen its existing mixeduse composition with new residential, small-scale business and offices, home-based business, retail premises and a variety of creative enterprises.

The re-design of Laurens Street and Munster Terrace will create two green spines for the precinct, improving the public realm and creating opportunities for new business to locate on the ground floor of development for street activation.

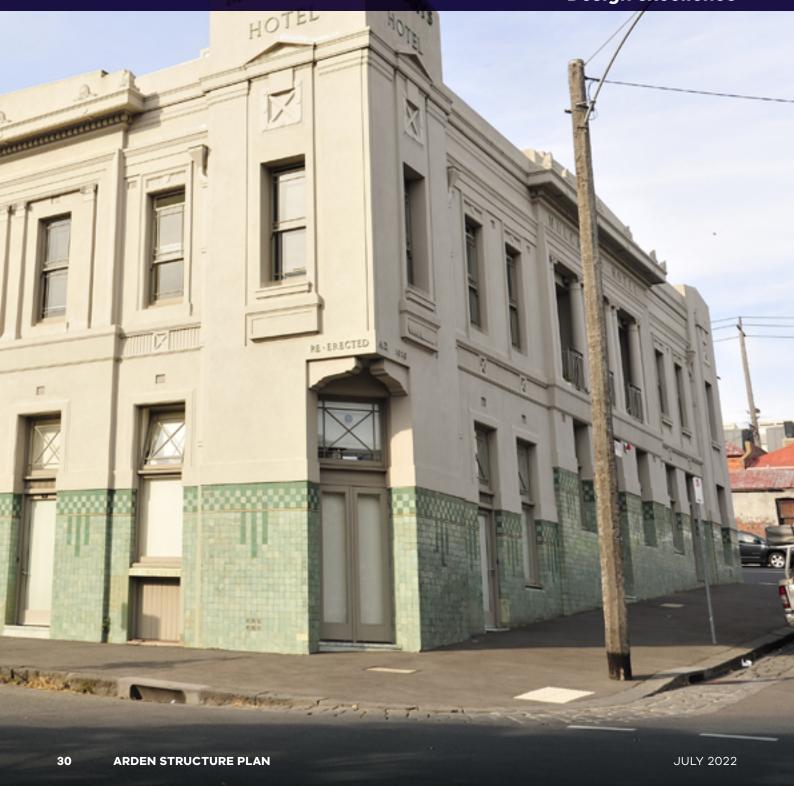
New high amenity residential development will integrate with the mixed-use nature of the precinct and will be designed to not impede the growth and operation of this sub-precinct as a service and employment node.

Heritage buildings will create a historical scale to part of the precinct, while new built form on the eastern boundary will create visual transition – in density and scale – to the existing neighbourhoods of North Melbourne.

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3 Designing a distinctive place

Spatial structure
Built form
Design excellence



Arden will be shaped by exemplary urban design and built form, anchored by the valued characteristics that make the suburbs of North and West Melbourne special to its residents and workers. Public areas will respond to the existing environment and strengthen the evolving identity of the precinct.

- Arden Vision, 2018.

Arden has a rich history and context that will help create a distinctive new piece of Melbourne and a new destination for the city. Melbourne has a proud history of being planned with a grid street network with parks and boulevards as important features of the public realm. Arden will continue this walkable grid structure while incorporating more contextual elements such as diagonal streets and angled parks that are specific to North Melbourne, West Melbourne and Kensington.

The place-based approach to Arden identified through the four sub-precincts of Arden Central – Innovation, Arden Central – Mixed-use, Arden North and Laurens Street will include a variety of building types, heights and densities that fit well within their surrounding context, while also helping to create a new and distinct character.

A high-quality and connected public realm will piece together these four distinct sub-precincts and connect Arden with neighbouring areas to help attract new businesses and residents to the area. The streets and spaces will be framed by high quality architecture – as the expectation rather than the exception – and design excellence will be expected on key sites within the area to help deliver the key directions of exemplary urban design in Arden.

The proposed spatial plan for Arden recognises the importance of creating a new part of the city where uses can change and evolve over time around a robust network of streets. The Hoddle Grid in Melbourne is a successful example of how many different uses can occupy a building over time.

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Create a new urban structure for Arden that incorporates a highquality network of connected streets and open spaces that help support a varied and walkable block structure.

The proposed spatial plan (see <u>Plan 2</u>) helps to provide certainty and control for Arden's future but also allows for a degree of variation and flexibility as the precinct develops over time. A clear, connected street network throughout the precinct helps to deliver a range of different development blocks throughout the four sub-precincts.

The proposed development blocks provide enough certainty and control to help plan for Arden's future, but also allow for robustness, variation and flexibility for future development to respond to changes that may occur as Arden gradually develops.

A wide range of development block sizes are proposed in Arden Central and Arden North. These block sizes will help support a mix of different uses, including laboratories, pharmaceutical uses, and innovation uses, as well as other commercial, retail and residential uses.

The smallest block sizes can be found in areas that have already been subdivided such as those in Arden North near Macaulay Station and Laurens Street.

There is flexibility within the proposed street network of smaller streets and laneways to ensure adaptability to future needs of new businesses and tenants while ensuring a connected, fine grain and walkable structure. As a result, some blocks could be combined to become larger or smaller according to the needs of future uses, but care needs to be taken to ensure the smaller streets and laneways still deliver a connected, permeable and safe street network.

Design of the new Arden Station has allowed for a future second entrance within Arden Central, to the west of the station building. This second entrance will improve the walkability of the precinct.

Over station development and Metro Tunnel infrastructure may shape permitted land uses in accordance with an existing Design and Development Overlay Schedule 70 (DDO70) – Metro Tunnel Project Infrastructure Protection Area in the Melbourne Planning Scheme.

The success of the proposed public spaces in Arden depends partly on a clear definition and activation of their edges. This is achieved by having consistent building frontages facing the open space, sufficient height and mass to achieve a good sense of enclosure, and good levels of sunlight. More information on the roles and functions of these spaces can be found in Chapter 7.

STRATEGY 4.1

Deliver Arden's renewal in general accordance with the future urban structure shown on Plan 2.

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Proposed floor area ratios and building heights

ID	MAXIMUM FLOOR AREA RATIO (FAR)	BUILDING HEIGHT RANGE		
Low-rise				
а	5:1	3–6 storeys (13–25 metres)		
Mid-rise				
Ь	6:1	6-8 storeys (25-33 metres)		
С	6:1	8–14 storeys (33–51 metres)		
d	7:1	12-18 storeys (49-64 metres)		
е	8:1	8–14 storeys (33–51 metres)		
f	8:1	8–16 storeys (33–65 metres)		
g	8:1	12-18 storeys (49-64 metres)		
h	9:1	12-18 storeys (49-64 metres)		
High-rise				
i	10:1	12-20 storeys (49-81 metres)		
j	12:1	12-20 storeys (49-81 metres)		
k	12:1	16-24 storeys (65-83 metres)		
1	12:1	16-24 storeys (65-90 metres)		
m	13:1	12-24 storeys (49-90 metres)		
n	13:1	16-25 storeys (65-105 metres)		
0	17:1	30–40 storeys (121–134 metres)		

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Introduce density and built form controls that assist with Arden's transformation into a world leading urban renewal and innovation precinct.

New density and built form controls will transform Arden to a new and distinctive part of the city, while being sensitive to the existing built form and character of North Melbourne. The new controls will consist of design recommendations and built form requirements (such as building heights and setbacks) and recommended floor area ratios (FARs) to help inform new Design and Development Overlays in the planning scheme amendment. These controls will allow certainty around the scale of development that can be expected within each sub-precinct of Arden, while allowing flexibility at a site level to respond to local conditions.

FARs allow for a variety of building types. When combined with built form controls, FARs create a flexible framework to achieve a variety of creative and contextually responsive building designs.

The introduction of mid-rise (7 to 15 storeys) and high-rise (16 storeys and taller) development in Arden, with some low-rise development (up to and including 6 storeys) will redefine the skyline of this part of Melbourne.

Note the existing Design and Development Overlay Schedule 70 – Metro Tunnel Project Infrastructure Protection Areas has requirements for development above and adjacent to the Metro Tunnel.

The Laurens Street sub-precinct plays an important role stepping and transitioning new developments down to an appropriate scale to integrate with the existing urban form. Building heights and types to the western and northern boundaries will vary to help create visual interest and depth while helping avoid solid walls of development.

The main elements of built form character for each sub-precinct are:

Arden Central – Innovation

Low to mid-rise development within the core surrounding the new open spaces and the heart of Arden, with denser and taller buildings layered around the edge. A range of typologies will be required to respond to the controls, specific land use needs

Arden Central - Mixed-use

Mixture of mid-rise to high-rise development in the north of the sub-precinct surrounding the new open spaces, with denser and taller buildings layered around the edge and in the south-west area.

Arden North

Mid to high-rise developments on larger sites and a hybrid of perimeter blocks and slender towers to avoid significant overshadowing of Clayton Reserve, North Melbourne Recreation Reserve and the new integrated stormwater management open spaces in Arden North.

Laurens Street

Predominantly low to mid-rise developments with some opportunities for additional upper levels that are visually recessed from the street and provide appropriate solar access to streets. Some high-rise development as appropriate near the new Arden Station.

An iterative process to ensure an appropriate balance between the future population and the desired built form has resulted in the proposed design recommendations, FARs and built form outcomes in Arden as shown in <u>Plan 3</u> and the corresponding table.

STRATEGY 5.1

Implement built form controls in the planning scheme that respond to key design recommendations, including:

- Heights
- Street wall heights
- Setbacks (street frontage)
- Setbacks (side and rear)
- Building separation
- Floor area ratios
- Laneways and through block links
- Active street frontages
- Weather protection
- Traffic conflict frontages
- Solar protection
- Wind control.

STRATEGY 5.2

Apply built form controls in Arden as shown on Plan 3.

Recognise and celebrate the valued built form heritage and character of Arden*.

The post-settlement built heritage within Arden reflect the evolution of residential and industrial development in the area. From the iconic Weston Milling site through to individual cottages and the North Melbourne Recreation Reserve – the home of the North Melbourne Football Club since 1882 – the precinct has a wealth of history that can be woven into the future fabric of the place. There will be a need to protect locally significant heritage sites from unreasonable impacts from neighbouring development. Where appropriate, heritage sites offer opportunities for sensitively designed adaptive reuse that will enable these places to contribute to Arden's distinct character as the area grows and changes.

* Recognising, protecting and interpreting Aboriginal cultural values and heritage in the planning and design for Arden is discussed in Objective 1.

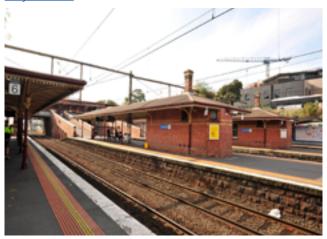




Figure 10 Examples of Arden's built form heritage features.

STRATEGY 6.1

Protect and enhance heritage features of the precinct which are identified in the Melbourne Planning Scheme as being of significance.

STRATEGY 6.2

Plan for heritage buildings to be incorporated sensitively into new development, supporting adaptive re-use where the design is of a high quality and reflects the heritage elements of the site and surrounds.





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OBJECTIVE 7 Encourage buildings to remain adaptable as uses change over time.

Buildings in Arden will need to respond to changes in technology and the way we live and work over time. As spaces such as car parking become redundant, they should be easily adaptable to alternative uses to avoid unnecessary demolition and associated environmental impact through building obsolescence. Similarly, buildings should be adaptable to accommodate new uses and needs, such as changing ways of working. Flexibility in building design will be critical to achieving this objective.

STRATEGY 7.1

Require that any new above-ground car parking facilities can be adapted to future habitable buildings for other uses, including internal layouts, adequate floor to ceiling heights and avoidance of sloping or excessively deep floorplates which preclude future use.

STRATEGY 7.2

Require that highly specific building configurations, such as student accommodation and hotels, use structural design systems which enable conversion to other uses should needs change over time.

STRATEGY 7.3

Require that commercial buildings be designed to enable subdivision of floorplates into smaller tenancies over time through the placement and configuration of cores, atria and other elements in response to evolving work patterns.

STRATEGY 7.4

Require the design of all buildings to exceed minimum required life expectancies and aim for at least 100 years of structural performance (considering future climate scenarios) with a higher expected turnover of interior fit-out.

OBJECTIVE 8 Ensure design excellence is achieved in Arden.

Design excellence describes projects that demonstrate high standards of architecture, landscape architecture and urban design, befitting the intended role of Arden. Design excellence is achieved through:

- High quality architecture, landscape architecture and urban design which demonstrates function, liveability, sustainability, and public contribution to buildings and urban spaces, and
- High quality public realm outcomes, particularly regard to wind amelioration and solar protection of key open spaces.

A standard of exemplary design excellence will be expected for Arden where proposals exceed the preferred building heights and/or floor area ratios.

To achieve a standard of exemplary design excellence one of the following processes may be appropriate prior to a planning permit application assessment:

- Design competition
- A well managed competitive design process can enable the testing of options to ensure the best development outcome for a given site.

Design review

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 are recommended 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.

STRATEGY 8.1

Encourage exemplary design excellence as supported, where appropriate, through either a design competition or design review panel.

STRATEGY 8.2

Prepared guidelines to inform design competitions in Arden.

STRATEGY 8.3

Work with the Office of the Victorian Government Architect to strengthen the quality of design review of projects within Arden, either through the Victorian Design Review panel process or any other relevant design review panel.

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Key design recommendations

Key design recommendations for Arden inform the proposed design outcomes, FARs and height ranges in the structure plan and planning scheme controls:

Scale and built form typology

- Deliver a range of built form typologies in Arden to meet the needs of different uses and users, with a layered mix of low-, mid-, high-rise and hybrid typologies (such as perimeter blocks with slender towers).
- Require spacing between taller buildings to create a skyline of separate forms, rather than a continuous wall of built form when viewed from within Arden (particularly from the new neighbourhood park and Capital City Open Space), and from surrounding areas, including those travelling on trains on the adjacent rail lines or on the elevated CityLink freeway.
- Locate taller buildings to have minimal impact on surrounding areas. Important views into and out of the precinct will be created by responding to local topography.
- Create a distinct, varied and architecturally interesting skyline for Arden that establishes a strong sense of place at a local and city scale.
- Ensure land above the Metro Tunnel complies with the requirements of Design and Development Overlay schedule 70 Metro Tunnel Project Infrastructure Protection Areas. The form of buildings above and below ground within DDO70 will be subject to the design clearances and loading allowances of the tunnels and station structures. Rail Projects Victoria is the referral authority for DDO70.
- Facilitate the transition of scale between buildings fronting Dryburgh Street and Laurens Street.
- Require development directly abutting heritage built form to respond with a respectful and contextually appropriate design.
- Ensure street wall heights throughout the precinct have been designed to ensure the streetscape experience responds to human scale, provides an appropriate level of street enclosure, respects the scale of adjoining heritage places, provides adequate opportunities for access to sunlight, daylight and sky views from the street, provides a definition of building form and ameliorates the effects of unsafe wind conditions.

Urban structure and layout

- Provide new, direct and convenient pedestrian connections that align with other streets, laneways or walking routes in new development.
- Ensure the site layout of development responds to the function and character of adjoining streets, laneways and open spaces.
- Ensure development appropriately considers the amenity impacts on neighbouring development.
- Ensure a high standard of internal amenity within the new developments.
- Deliver contextually appropriate built form interfaces to streets with regard to street width and lower street walls heights on narrower streets.
- Support equitable development by ensuring primary outlook is secured within development sites.
- Ensure buildings along Arden Street have a positive street address to both Arden Street and Barwise Street.

Wind protection and solar access

- Ensure buildings are set back sufficiently from front, side and rear boundaries (based on the height of a building) to help deliver comfortable wind conditions, enable adequate sunlight and daylight in streets, allow for views to the sky, to not overwhelm the public realm and achieve privacy.
- Deliver comfortable wind conditions in the public realm for walking, sitting or standing.
- Ensure that open spaces in the precinct, including for drainage, have controls against overshadowing as outlined in the table below:

Table: Proposed solar protection to open spaces

Space	Solar control period
New integrated stormwater management open space	11:00am to 2:00pm on 22 September
Clayton Reserve	11:00am to 2:00pm on 22 September
North Melbourne Recreation Reserve	11:00am to 2:00pm on 22 September
Arden Central Capital City Open Space	11:00am to 2:00pm on 22 September
Arden Central Neighbourhood Open Space	11:00am to 2:00pm on 22 June
Arden Station forecourt (Arden Central – Innovation)	11:00am to 2:00pm on 22 September

- Ensure new developments have consistent building lines and sufficient height and mass to positively address key spaces and manage overshadowing – the core of Arden Central around the new neighbourhood park and Capital City Open Space will be of lower rise to ensure sufficient sunlight to these spaces and provide a human scale and layering of development.
- Ensure appropriate building separation within a site to deliver high quality amenity within buildings having regard to outlook, daylight and overlooking.

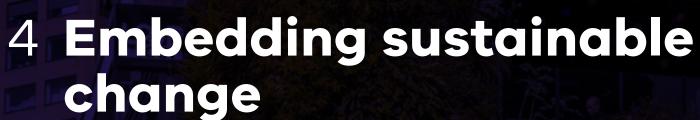
Street level activation and services

- Encourage fine grain ground floor shop fronts, lobbies and service areas.
- Ensure the design of buildings conceals service areas from the street frontage to minimise the loss of active perimeter.
- Maximise personal safety and security through activation of ground floors around open spaces and along Arden Street, Fogarty Street, Barwise Street and Laurens Street.
- Minimise the cumulative length of each service area and avoid any continuous service frontage of greater than 10 metres in length.
- Require that the design of services, loading and parking areas adopt the best practice approach comprising location, integration and decoration of elements to create a high-quality pedestrian environment.
- Ensure vehicular ingress or egress points, excluding loading and unloading bays, are not be constructed on a traffic conflict frontage.
- Ensure protection on key thoroughfares from the rain, wind and sun without causing detriment to the streetscape integrity.
- Ensure the appropriateness of active street frontages including integration of required servicing into the façade away from key pedestrian spaces and public spaces, co-location of service cabinets internal to loading, waste or parking areas where possible, and resolving interaction with the public realm to address the views of the relevant floodplain management authority.

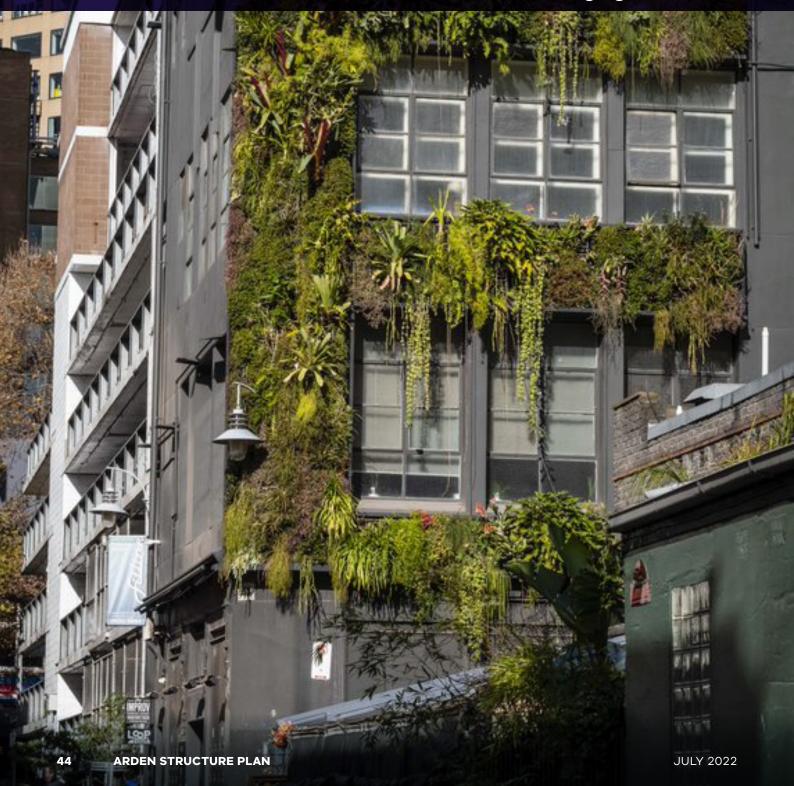
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Reaching net-zero carbon emissions by 2040
Encouraging a circular economy
Managing urban heat



Best practice standards for environmental, social and economic sustainability will underpin planning for the new communities and buildings, making Arden an exemplar of sustainable urban renewal.

- Arden Vision, 2018.

Arden will seize the opportunity to set the benchmark for best practice innovation and leadership in sustainable urban renewal, including a commitment to achieve net zero emissions for the entire precinct by 2040, aligning with City of Melbourne policy.

Beyond locking in a net-zero carbon emissions pathway, strong governance will help developments capitalise on the precinct's leading environmental credentials.

Sustainability is embedded in every element of the plan including transport, building design, water management, the public realm and open space. Sustainability will be a highly visible and celebrated part of the identity of Arden.

Better building practices will reduce the costs of owning and operating buildings, reduce the cost of expensive future retrofits, and reduce the cost of purchasing carbon offsets.

Arden's development will harness this momentum to demonstrate new ambition and scale.

The result will be a precinct that achieves a cool, green environment, celebrates water in the landscape, demonstrates world leading building design and has a visible connection with nature and reference to its historical landscape.

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CASE STUDY Sustainable development

Barangaroo, Sydney

Barangaroo in central Sydney is a national leader in sustainable urban renewal and is comparable to Arden in context. Barangaroo is atop a new metro station, is wholly owned by NSW State Government and was delivered by a government agency, Barangaroo Delivery Authority. It is a dense, mixed-use transit-oriented development with leading environmental standards including carbon positive and water positive development, which means that the treatment of alternatively sourced water on site is equal or greater than water consumption

The project provides learnings for sustainability outcomes and delivery methods. It was delivered in partnership with developer Lendlease under a 99-year lease. This enabled government to retain ownership of the land and contractually enforce sustainability outcomes. Enshrined in the planning scheme and through the leasing agreement, Lendlease is required to deliver 6 Star Green Star ratings across all commercial buildings and 5 Star rated residential buildings.



Figure 12 The view of Barangaroo from the water.

A key feature of the development is a large shared basement which enables the centralisation and coordination of key servicing requirements such as waste management and collection and freight. This increases the efficiency of services and reduces waste through better waste management practices.

Clichy-Batignolles, Paris

The Parisian 'Ecodistrict' is a dense, inner-city urban renewal area that will be home to 7,500 residents and 12,000 jobs across 54 hectares by 2022. The former railway yard is owned by a mix of private and government landholders.

The ecodistrict label is achieved through its commitment to triple-bottom line sustainability targets, covering environmental, social and economic sustainability. Environmental efficiency is maximised through precinct-wide infrastructure, including Paris' first smart energy grid distributing a substantial amount of solar generated energy, and a district heating system using geothermal energy.

Beyond the environmental credentials, a commitment to generous provision of community infrastructure and open space, including 50 per cent affordable housing and a 10 hectare park at the heart of the site, makes the precinct highly inclusive in an increasingly expensive city. Other features of the project include water positive credentials, a pedestrian prioritised street network, mandated building energy performance standards and green infrastructure standards, and limits on car parking.





Figure 13 Top: Artist's impression of Ecodistrict. Above: Open space and residential uses interact.

Establish strong environmental governance in Arden that provides certainty, accountability and transparency to achieve the precinct's net-zero carbon emissions target by 2040.

Coordination and partnership between private industry and state and local government will be critical to delivering on many of the precinct scale initiatives that are central to achieving net-zero carbon emissions by 2040 aligning with City of Melbourne policy. The significant government role in the development of the precinct offers the opportunity to negotiate partnerships, facilitate outcomes, and will assist in achieving a 6 Star Green Star sustainability rated best practice built form.

A coordinated, precinct-wide approach to sustainability will enable major infrastructure projects to be delivered, enable previously unachievable disclosure requirements to be required, and accurately monitor and evaluate performance to ensure accountability and adaptability. Beyond locking in a net-zero carbon emissions pathway, strong governance will help to capitalise on the precinct's leading environmental credentials. The sale or lease of any government land or property can be used to require a contractual carbon target requiring the net-zero carbon performance of development and use.

STRATEGY 9.1

Require developments to prepare an operational management plan encompassing energy, transport, water, waste and climate resilience.

STRATEGY 9.2

Investigate requirements for annual public disclosure of energy operating performance of all developments. This may be extended to water, transport and waste over time.

STRATEGY 9.3

Identify a delivery and operation governance model to facilitate achievement of Arden's sustainability aspirations.

OBJECTIVE 10

Facilitate the delivery of precinctscale infrastructure and centralised facilities that makes achieving building scale targets easier.

The development of government land holdings in Arden Central provide opportunities to ensure the future sustainability of Arden is embedded in the private and public realms. This is one of the defining features that enable Arden to strive for and achieve greater levels of sustainability.

Early delivery of precinct-scale services infrastructure (i.e. waste, alternative waste infrastructure) and commitment to precinct services will support development achieving sustainable outcomes and ease the cost burden of delivering highly sustainable buildings. This support will make development in the precinct more feasible and buying and living in the precinct more affordable.

STRATEGY 10.1

Facilitate a mechanism to enable developments to procure 100 per cent renewable energy. Explore opportunities for energy procurement to also address the energy needs of surrounding neighbourhoods.

STRATEGY 10.2

Facilitate and encourage the centralisation and sharing of waste and freight management locations to reduce freight and waste vehicle emissions.

STRATEGY 10.3

Require a commitment to precinct organics collection or alternative processing solution by City of Melbourne or other private operator.

STRATEGY 10.4

Deliver precinct infrastructure commensurate with the fossil fuel-free ambitions for the majority of precinct and uses to support net zero carbon emission ambitions.

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Embed sustainable living and building practices in planning and built form controls.

The plan takes a systems approach to ensure the precinct is aligned with a net-zero carbon emission and ecologically responsive future. In particular, building design, transport, public realm, open space and water management have been embedded with sustainable decision making to support these outcomes.

The success of new buildings will be measured through several recognised sustainability ratings tools. Combined with environmental disclosure requirements, these measures are recognised as part of a well-functioning building market that encourages the development of highly sustainable buildings, monitors performance and outcomes, and provides a credible means for projects to capitalise on these credentials.

STRATEGY 11.1

Require all new buildings to connect to precinct sustainability infrastructure that is available or planned at time of project completion.

STRATEGY 11.2

Require all new buildings to achieve world-leading sustainability performance as part of the Planning Scheme Amendment to implement the *Arden Structure Plan*. This may include 6 Star Green Star rating for larger buildings and 70 per cent Built Environment Sustainability Scorecard rating for smaller buildings, NABERS ratings, or equivalent rating under comparable or updated systems.

STRATEGY 11.3

Encourage all new buildings to be 100 per cent electric and facilitate access to renewable energy sources.

Measure the performance of the precinct, its buildings and its occupants and be able to adapt to changes in climate, lifestyle and technology in the future.

Best practice is inherently constantly changing. For Arden to continue as a leader and innovator in sustainability, the approach to sustainable development needs to be flexible and adaptable. Core to this is a culture of constant learning and improving. Disclosure standards and a monitoring and evaluation framework will enable data to be collected on the ongoing performance of the precinct against its targets, and strategies to be evaluated and adapted according to their performance. Buildings will be 'future-proofed' to ensure they can adapt to changes in lifestyle (such as the reducing dependence on private vehicle ownership) and the introduction of new technologies such as energy trading technology and electrification of homes. Refer to Objective 7 for direction on adaptable buildings.

STRATEGY 12.1

Design buildings with flexibility to accommodate current and future building- and precinct-scale technologies and infrastructure that contribute to the precinct's net-zero carbon emission target, minimise potable water use and waste generation and improve operational costs.

STRATEGY 12.2

Establish a robust monitoring and evaluation program across the precinct that will enable performance to be evaluated and approaches to be adapted.

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Figure 14 Example of potential urban greening anticipated for Arden.

Minimise waste production, optimise reuse and recycling and encourage a circular economy in Arden.

Released in 2020, *Recycling Victoria: A new economy* is the Victorian Government's circular economy policy and action plan.

A circular economy continually seeks to reduce the environmental impacts of production and consumption and gain more productive use from natural resources.

Resource use is minimised, and waste and pollution are avoided with good design and efficient practices. This reduces environmental impacts while maintaining or increasing the value people obtain from goods and services.

Products are designed so that they are durable and can be readily repaired, reused and recycled at the end of their lives.

Business models encourage intense and efficient product use, like sharing products between multiple users, or supplying a product as a service that includes maintenance, repair and disposal. Innovations to increase resource productivity bring a range of benefits including jobs, growth and social inclusion to local, regional and global economies.

STRATEGY 13.1

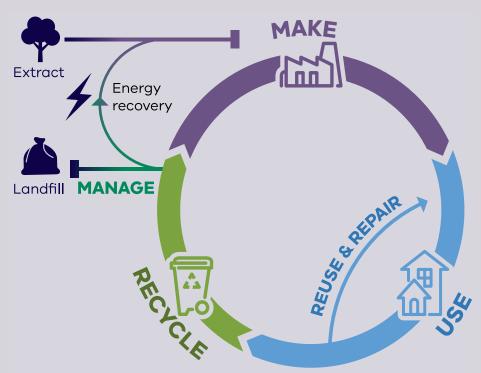
Require all new developments to meet the City of Melbourne's waste management guidelines.

STRATEGY 13.2

Require all new developments to respond to an Arden precinct wide waste management plan prepared by the City of Melbourne.

STRATEGY 13.3

Minimise the use of virgin materials and embodied emissions from materials used by encouraging in all buildings and capital works that excess or waste materials are kept to a minimum and that materials have recycled content; are non-harmful and locally sourced; are from renewable and/or low-embodied emissions feedstocks or production where possible; or can be composted, recycled and reused.



A circular economy

Around 43 per cent of waste in Victoria is generated from construction and demolition activities. There is a big opportunity in this sector to reduce waste and put recovered resources to better use.

Buildings and other civil infrastructure can be built with recovered materials and can be designed so that they can be adapted for different purposes throughout their lifetime and more readily separated and reused after demolition.

Approximately 3.9 million tonnes of recovered material are already used in road and other construction in Victoria. There is an opportunity to use more recycled materials in the construction of our public infrastructure.

Figure 15 Illustration of a circular economy, DELWP, A circular economy for Victoria (2019).

Mitigate the urban heat island effect in the design and delivery of the public realm and private developments with desired urban greening outcomes and standards.

The urban heat island effect describes the phenomena of hotter temperatures being recorded in urban areas that have high levels of impermeable surfaces and thermal mass, such as concrete. Melbourne is actively combatting this by 'greening' the public realm. This cools the environment by providing shading and transferring heat from the landscape.

Much of Arden Central currently lacks canopy cover, with very few mature trees on the land near Arden Station. Many streets in Arden North currently have strong canopy cover, which will help that area of the precinct remain cool. Accordant with City of Melbourne's *Urban Forest Strategy*, the whole of Arden will have a highly landscaped public realm that achieves a minimum canopy cover of 40 per cent by 2040 using species that are appropriate to Melbourne's climate and needs as described in the strategy. Alternative water systems will play a critical role in irrigating the urban forest sustainably, underpinning the effectiveness of these greening strategies.

Building design in Arden will also help to reduce the urban heat island effect through the use of greening, further enhancing the precinct's liveability. This will be achieved through meeting Green Star rating tool requirements.

STRATEGY 14.1

Design the public realm to provide urban cooling benefits through shading, planting and integrated water management for cooling and irrigation effects.

STRATEGY 14.2

Require all new buildings to use materials that minimise the urban heat island effect with a standard that at least 75 per cent of total project site areas should comprise of building or landscaping elements that increase the solar reflectance of the site.

STRATEGY 14.3

Prepare planning controls that require all new buildings to meet a standard of 40 per cent total surface area as green cover (green wall, rooftop, canopy and understorey planting, native and indigenous planting or maximises adjacent public realm cooling benefits), or an equivalent Green Factor tool score of 0.55 and consistent with Better Apartments Standards, 2021.

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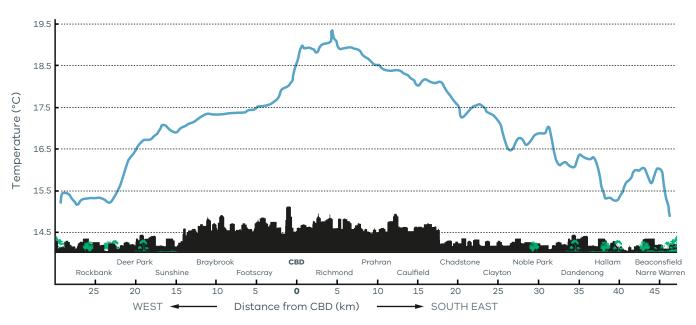


Figure 16 Illustration of the urban heat island effect across Melbourne and its suburbs. Source: *Urban Forest Strategy*, City of Melbourne.



Walking and cycling
Public transport
Parking



Arden will provide direct and efficient connections in and around the precinct through safe and attractive public areas. This will include active and public transport networks that will complement the new Arden Station.

- Arden Vision, 2018.

The new Arden Station will be the heart of the precinct, making Arden easy to access from anywhere in Melbourne via the new Metro Tunnel.

The Arden Vision includes targets for all trips to Arden to be at least 60 per cent public transport, 30 per cent walking and cycling and no more than 10 per cent private vehicles.

Arden's fully integrated transport network is designed to support its net-zero carbon emission objectives.

To support this vision, transport planning for the precinct is focussed on delivering great streets and public spaces to make walking and cycling the preferred ways to move around the precinct. Cycling connections and pedestrian links will fill in the gaps of the existing local network, promoting sustainable transport choices and making it easier for people to choose not to own a car. Planning controls will also manage the location and amount of car parking spaces throughout the precinct to reflect the uptake in other transport modes.

The Arden movement network shown in <u>Plan 4</u> Arden's Transport Network 2051 sets out a local transport network that limits vehicle circulation to create more space for people and reduce conflicts between vehicles and the walking, cycling and public transport trips Arden aims to encourage.

The proposed network also provides for the current and future requirements of businesses which are proposing to remain in the precinct or transitioning over a period of time.

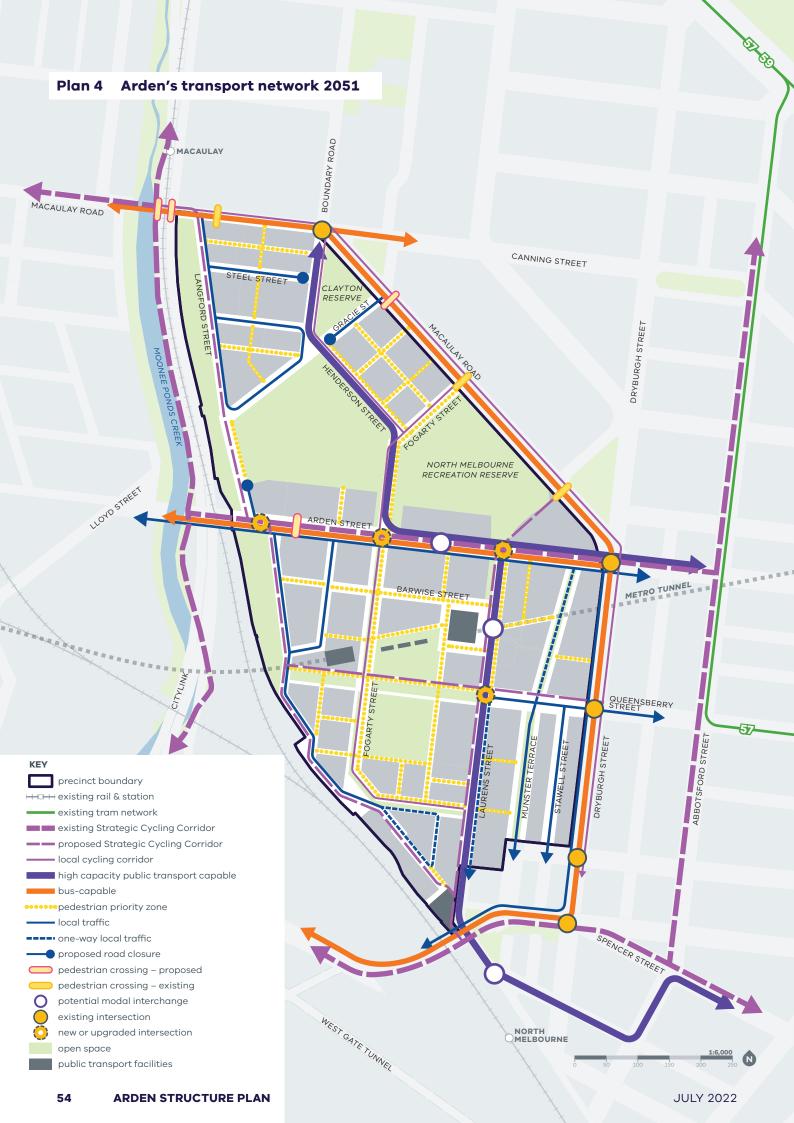
Arden's planned density and diversity of land use provides an excellent opportunity for local daily trips to be met by walking, cycling or public transport. Retail, work, health, education and community service destinations will be locally available, and accessible in accordance with the twenty-minute neighbourhood principles.

Key streets have been identified as high capacity public transport capable corridors, to future proof public transport investments in the future. To reinforce these transport investments, it is important private vehicle movements throughout the precinct are limited to areas away from those prioritised for people.

Arden will innovate the delivery of car parking by encouraging consolidated or shared parking locations and spaces and reduce the need for smaller, individual site car parking throughout the precinct. Vehicle access will be directed to the edge of the precincts to ensure priority for people in the precinct with service access managed to support the precinct's environmental and economic functions.

Longer trips will be served by the Metro Tunnel connecting Arden to the west of Melbourne, Parkville, the central city and beyond. It will be supported by the existing North Melbourne and Macaulay stations as well as high capacity public transport capable corridors.

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Provide space for high capacity public transport capable options and improving transport links connecting Arden into the expanding central city.

Dedicated public transport lanes will allow for frequent, fast and reliable public transport services to and from Arden (see Figure 21).

While at this stage it is too early to commit to a particular mode, dedicated road-space is set aside in the plan to facilitate its future delivery. The high capacity public transport capable corridors outlined in this plan are aligned with Victorian Government's longer-term tram and bus planning and transport corridors proposed in the West Melbourne Structure Plan.

The extension of the high-capacity public transport capable corridor north of Arden Street along Fogarty Street, Henderson Street and Boundary Road will connect Arden to Macaulay, Travancore and Moonee Ponds. Laurens Street will become a key public and active transport route, connecting North Melbourne and Arden stations. Ireland Street

will form a connection between Arden and West Melbourne. Arden Street will connect to the existing network at Abbotsford Street.

STRATEGY 15.1

Facilitate the potential future delivery of a high capacity public transport capable corridor along Laurens Street, Arden Street, Fogarty Street, Henderson Street and Boundary Road (south of Macaulay Road).

STRATEGY 15.2

Facilitate improvements to local bus services to improve connections between Arden, key interchanges and surrounding suburbs.

STRATEGY 15.3

Explore opportunities to reopen the northern access to North Melbourne Station for a more convenient and direct link to Arden.

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Figure 17 Arden's transport network local context.

Provide safe, direct and connected protected cycling routes through and to the precinct.

Planning for Arden will facilitate the delivery of cycling infrastructure to fill the gaps in the local network to create a safer, connected and convenient network for all users.

The Capital City Trail along Moonee Ponds Creek provides regional cycle access to the suburbs in Moonee Valley and Moreland (via Royal Park and the Upfield bike path) and on to Docklands, Footscray and Fishermans Bend. New cycling infrastructure constructed as part of the West Gate Tunnel project will provide a shared path along Dynon Road from CityLink over the Moonee Ponds Creek and the rail corridor to Dryburgh Street.

There are four proposed Strategic Cycling Corridors (SCC) within Arden. These corridors are designed to improve cycling to and around major activity centres and are routes that cater for the highest cycling volumes while offering physical protection from motor vehicles so that people of all ages and abilities can confidently use bicycles to travel the precinct. These proposed SCCs will be considered for inclusion as part of the future-revision to the Victorian Government's SCC network.

Improved cycling infrastructure on local streets will address deficiencies such as bike lane gaps at intersections and will be designed to be safe for all users.

STRATEGY 16.1

Facilitate the delivery of the Strategic Cycling Corridor along Arden Street and proposed additions to the SCC network along Queensberry Street, Langford Street and Laurens Street.

STRATEGY 16.2

Facilitate delivery of a dense network of protected local cycling corridors on Fogarty Street, Henderson Street, Boundary Road (south of Macaulay Road), Macaulay Road and Victoria Street to complement the proposed Strategic Cycling Corridors and provide bicycle access to destinations within the precinct.

STRATEGY 16.3

Facilitate safer intersections for bike riding by adopting designs which continue bicycle lanes up to and through intersections and provide physical separation for people riding bikes as shown on Plan 4

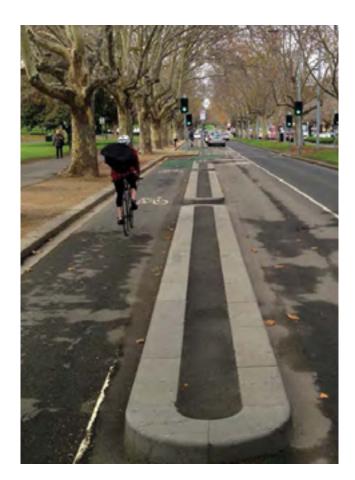




Figure 18 Examples of safe, direct and efficient on- and offroad cycle connections.

New and existing streets will be pedestrian friendly and provide comfortable, green links between open spaces and public transport routes and enhance the quality of the public realm.

Residents, workers and visitors will be able to walk and cycle around Arden with ease, making active transport part of everyday life for the Arden community. Streets will provide quick and convenient walking and cycling connections between key spaces including Macaulay, Arden and North Melbourne train stations, and the open spaces both within Arden and beyond. In addition, streets, laneways and other in-between spaces will provide for recreation and other functions that have conventionally been the domain of public open space.

To encourage people to walk, ride bikes and spend time in the streets they need to be safe, interesting and comfortable.

Arden's streets and laneways surrounding the new station and open spaces will prioritise pedestrians, using slow speed limit shared zones which will also allow access for slow moving cyclists and emergency and service vehicles. Pedestrian priority zones will be enhanced through detailed interventions such as traffic management strategies, urban design, textural pavement changes, place making and canopy cover.

Green links will provide additional shading and opportunities for water sensitive urban design and biodiversity.

Throughblock links will be provided at regular distances to enable pedestrians and cyclists direct and easy connectivity between key destinations. Links will be generously proportioned according to the transport need and the surrounding buildings' scale and use to ensure they are functional and contribute to a pedestrian friendly public realm

Fogarty Street will be a key north–south connector that enables movement throughout the precinct and connects Arden into West Melbourne in the south and Macaulay in the north. Queensberry Street will provide a direct connection to nearby Parkville and the North Melbourne Arts Precinct. As it reaches the train station Queensberry Street will transform into a wide, shared pathway for pedestrians and cyclists to allow people to move throughout and enjoy the central open space safely.

STRATEGY 17.1

Facilitate a network of permeable streets and pedestrian links through the precinct for walking and cycling that are considerate of safety and convenience and provide direct access to and from key destinations.

STRATEGY 17.2

Facilitate delivery of activated pedestrian-priority zones that provide shared space for pedestrians and slow-moving cyclists and managed access for service and emergency vehicles as shown on <u>Plan 4</u>.

STRATEGY 17.3

Deliver streetscape improvements to Queensberry Street and Fogarty Street to support their role as urban boulevards and overland flow paths.

STRATEGY 17.4

Encourage the consolidation of servicing facilities and alternative freight delivery models within the precinct to reduce the number of vehicles entering and circulating.

STRATEGY 17.5

Facilitate activation of ground floors around open spaces and key pedestrian routes to maximise personal safety and security through the use of Crime Prevention Through Environment Design principles

STRATEGY 17.6

Ensure all current and future traffic signals prioritise walking and cycling and facilitate public transport movements.

STRATEGY 17.7

Review and update speed limits in line with Arden's principles for movement.

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Minimise the impact of car parking and associated vehicular movements through Arden.

To achieve the ambitious active transport and sustainability targets for Arden, private vehicle use will be managed in the precinct.

The Arden Transport Network Plan 2051 (Plan 4) sets out a local transport network that limits vehicle circulation and requires low speed limits to reduce conflicts between pedestrians, cyclists, public transport services and private vehicle movements.

Planning will limit private vehicle access on local streets within the precinct, control the location and amount of parking spaces via a schedule to the parking overlay and other planning controls, and deliver active and public transport infrastructure to create convenient alternatives to car ownership. Car parking will also be decoupled from property ownership, to reduce the cost of living for those that do not need it and allowing those that do to purchase it.

Consolidated precinct parking facilities manage the location and supply of car parking more efficiently, providing car parking for the same number of people with fewer car parks required. These operate much like commercial car parks by providing car parking access to a catchment of people within a short walk, and provide different car parking types and levels of car parking access to meet the needs of different types of people.

This approach has several benefits, including reducing the cost of constructing parking in individual buildings, preventing ground floor carparks from detracting from the vibrancy of street life, increasing the pedestrianisation of parts of the precinct, and minimising the use footpaths for vehicle crossovers or parking by scooters and motorbikes. The approach also ensures that people who need access to car parking can still easily do it, whilst making sustainable alternatives, like carshare or cycling, easy and convenient.

These facilities will discourage the use of private vehicles. Decoupling car parking from home ownership will create car parking an incremental cost to housing rather than an inclusion. It provides greater influence over the number of cars that will be able to be housed in the precinct and ensures only those that need a car have to pay for parking, improving how car parking is shared.

Public and private sector investment will play an important role in delivering consolidated parking facilities within the controls.

A small amount of on-street car parking will be available. On-street parking that is pick up/drop off only or time limited will provide direct access to buildings for those that need it, such as the elderly, people with disabilities, families, trades people, and loading and servicing vehicles.

STRATEGY 18.1

Prepare planning controls that direct the ongoing supply and location of car parking to achieve the 10 per cent mode share target for private vehicles, car parking principles (see Arden's principles for movement and parking on page 59), public realm and sustainability objectives for the precinct including consolidated parking facilities.

STRATEGY 18.2

Ensure appropriate parking provision for different user groups at key destinations, including pick-up/drop-off spaces, disabled parking, and loading and service bays.

STRATEGY 18.3

Facilitate the ongoing supply and location of bicycle, motorbike and scooter parking within developments to minimise footpath obstructions and prioritise for pedestrians

STRATEGY 18.4

Facilitate future detailed design and planning for the provision of public bicycle parking in accordance with the principles for movement and parking to achieve the minimum mode share targets of 30 per cent walking and cycling trips and ensure footpaths are obstacle free and prioritised for pedestrians.

STRATEGY 18.5

Support shared transport schemes such as shared vehicles, e-bike and e-scooters to be delivered through private development and within the public realm in locations where it is readily accessible.

Arden's principles for movement and parking

Design a movement network to prioritise active transport over private vehicle movements

- Create a pedestrian-oriented public realm around Arden Station in the heart of Arden Central, maximising patronage from the Metro Tunnel
- Encourage convenient walking trips from the existing stations at Macaulay and North Melbourne into Arden.
- Ensure the transport network in the precinct maximises place outcomes, resulting in high levels of amenity and liveability.
- Reduce rat-running through the precinct and mitigate increases in traffic volumes arising from the West Gate Tunnel.
- Manage vehicle circulation, calm local traffic speeds and control supply and location of car parking within the four sub-precincts.
- Promote cycling in Arden by connecting to regional cycle paths and trail networks and providing a safe network that encourages cyclists of all ages and abilities.
- Mandatory minimum bicycle parking provision based upon anticipated peak occupancy/visitor rates. Bicycle parking rates are:

Residential

- Resident: 1 per bedroom
- Visitor: 2 per every 5 dwellings

Commercial

- Employee: 1 for every 100sqm net leasable area
- Visitor: 4 minimum plus 1 for every 100sqm net leasable area.

Minimise the impact of car parking and associated vehicular movements in Arden

- Avoid and discourage the provision of on-site car parking in Arden on a site-by-site basis.
- Facilitate consolidated parking facilities, uncoupled from land use and located on the primary vehicle network shown in <u>Plan 4</u>.
- Apply preferred maximum parking rates to manage the quantum of car parking:

One-bedroom dwelling

0.2 spaces per dwelling
 1 car park per 5 one-bedroom dwellings

Two-bedroom dwelling

0.3 spaces per dwelling
 3 car parks per 10 two-bedroom dwellings

Three-bedroom dwelling

0.5 spaces per dwelling
 1 car park per 2 three-bedroom dwellings

All other uses (other than car park)

- 3.2 spaces per 1,000 sqm of gross floor area
- Car parking rates for individual onsite parking may be reduced based on decision guidelines including availability of surrounding car parking, availability of alternative transport options, and the extent to which public realm impacts have been mitigated.

Operation and management

- Ownership of off-street car parking space provision to be decoupled from single dwellings/ tenancies, to ensure flexible and efficient use.
- Electric vehicle charging should be located in offstreet car parking facilities.
- On-street parking, where provided, will also be limited, instead prioritising kerbside access for deliveries and drop-offs, car-share schemes and disability parking.
- Parking controls (fees and/or time limits) will be used to ensure efficient use of on-street parking, consistent with the plan objectives. Parking permits for new residents and commercial/other occupiers will not be provided.
- Appropriate management of parking controls in streets surrounding Arden to prevent parking overspill.

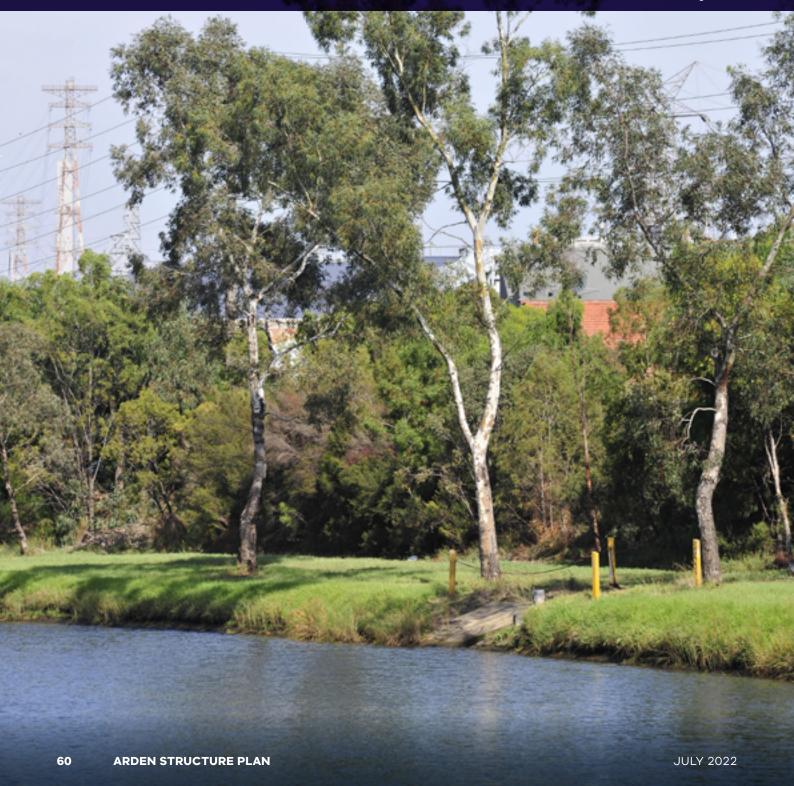
Design of car parking

- Provide for the future adaptation of any car parking facilities to other uses and innovations in transport technology and practice.
- Off-street car parking to be designed, located and managed to ensure flexible and efficient use
- Off-street car park developments to provide electric vehicle charging stations from the outset, or other technologies as they become available, and demonstrate the capacity to progressively lift rates to meet future demand.
- Individual site car parking must be fully sleeved and not provided on the ground floor.
- Consolidated car parking may have unsleeved car parking and car parking on the ground floor to the extent that it produces a net positive public realm impact by reducing the need for surrounding car parking. Other design strategies should be employed to mitigate the impact of the car parking structure on the public realm as much as possible.

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6 Celebrating water

Managing flooding
Urban water cycle



Arden will incorporate water as a feature of the landscape through innovative and creative flood mitigation solutions. The Moonee Ponds Creek corridor will be valued as an environmental, recreational and active transport asset, and an integrated water management approach will ensure that water is shared and reused across the precinct.

- Arden Vision, 2018.

Water is a fact of life in Arden and demands a comprehensive and multi-faceted approach to ensure the precinct is safe and feasible to develop.

Much of the land in Arden is impacted by flooding in a major rain event and during frequent nuisance flooding events. Flows from across Melbourne's inner north-west impact the precinct and converge on the lowest lying areas behind the existing levee banks near the Arden Street bridge and along the edges of Moonee Ponds Creek corridor. The current drainage system is not designed to manage this stormwater, resulting in unsafe flood depths in some of the lowest lying areas of the precinct.

Conveyance of water along streets, strategic flooding, and the use of natural-based water strategies to hold and filter water will play an important role in managing water and providing opportunities for urban cooling, water quality improvements and restoring biodiversity.

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Arden's flood management strategy Integrated stormwater management open space MACAULAY • Land to be used as a retarding basin to store flood waters during periods of heavy rainfall • Flood water is safely collected behind levees MACAULAY ROAD during storm events (40ML of storage to be provided) • Acts as open space for passive and active recreation STEEL STREET • To be designed in consultation with CLAYTO Traditional Custodians & the community RESERVE STRAKER STREET **Underground storage tanks** MOONEE PONDS CREEK Additional storage capacity underneath North Melbourne Recreation Reserve oval (12.5ML of storage to be provided) • Allows space to continue to operate as normal for the community and North Melbourne Football Club **Pumps** • Upgrade existing pumps RESERVE MELBOURNE LLOYDSTREET RECREATION ARDEN STREET Levees • Can be designed to reflect QUEENSBERRY STREET natural landscaping, where space is available Levees raised and extended to afford additional protection and prevent over topping precinct boundary new Capital City open space new open space existing open space Overland flow path ancillary open space (uncredited) Convey water at ground level new integrated stormwater management open space to creek new or upgraded levee Storage capacity designed new or upgraded pipe into streetscape iiii overland flow path pump station **Pipes** ■ Metro Tunnel Convey stormwater to Moonee public transport facilities Ponds Creek NOTE: Design and Development Overlay Schedule 70 -Metro Tunnel Project Infrastructure Protection Areas NORTH MELBOURNE applies to land above and adjacent to the Metro Tunnel. The form of buildings above and below ground within DDO70 will be subject to the design clearances and loading allowances of the tunnel and station infrastructure.

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ARDEN STRUCTURE PLAN

Safely manage the risk of flooding to future development of Arden through innovative and creative flood management solutions in the natural landscape and built environment.

A drainage strategy to manage the impacts of flooding has been prepared by Melbourne Water and will ensure that local stormwater runoff and riverine flooding from Moonee Ponds Creek can be managed as safely as possible at a precinct-wide level and allow for the development of other land in the precinct.

Water will be a positive, visible and ephemeral contribution to the public realm and open space, including along Arden Street, Queensberry Street and Fogarty Street. Celebrating water in the landscape will have multiple benefits by slowing and storing stormwater and providing ecological regeneration and enhanced biodiversity.

A central feature of Arden North will be a new integrated stormwater management open space which will be designed to flood during heavy rain events while also providing for active recreation and biodiversity functions, and opportunities for community and cultural uses.

Water storage areas to the west of Langford Street in Arden North and along the Upfield railway corridor in Arden Central will provide further opportunities for passive recreation and urban greening and cooling.

Detailed design work will be undertaken to finalise the design of open spaces, including the integrated stormwater management open spaces. Engagement with the community and Traditional Custodians will form part of this process to ensure that the spaces reflect the cultural values and aspirations for the area.

STRATEGY 19.1

Deliver the precinct-wide flood management strategy for Arden.

STRATEGY 19.2

Provide guidance on how development can achieve flood responsive design and good urban design outcomes that facilitates safety, equitable access and universal design.

STRATEGY 19.3

Facilitate integration of water sensitive urban design into streets and green links including along the Fogarty Street and Queensberry Street urban boulevards and Arden Street.

STRATEGY 19.4

Provide for access to the public realm and positively respond to any necessary level changes that are required for drainage purposes between development and the public realm.



Figure 19 Example of potential water sensitive urban design. Chulalongkorn University Centenary Park stores water during rain events to help manage urban flooding in Bangkok. Source: Landezine, 2016

Arden flood management strategy

The Arden flood management strategy (described in Plan 5) will include natural and built infrastructure works to manage the risk of flooding and unlock development in the precinct. This combination of works is required to ensure flooding is managed safely in Arden while also delivering opportunities for urban greening, open space, active recreation and biodiversity functions, and opportunities for community and cultural use during dry periods.

The works in the Arden flood management strategy include:

- Raising and extending the levees for the Moonee Ponds Creek
- Defining flow paths along key streets and in the landscape, including Fogarty Street and Queensberry Street. There is the opportunity to integrate flow paths with water sensitive urban design to capture, store, treat and convey water
- Creating integrated stormwater management open spaces which will double as open space
- Installing below-ground flood storage in an existing recreation area
- Upgrading pump stations and pipes
- Improvements to the public realm including raising identified streets
- Raising floor levels of buildings in some locations to manage residual flooding risk.

Changes of ground level to reshape the flood protection levee or to form overland flow paths, and the upgrading of the pump station and pipework within the Design and Development Overlay Schedule 70 – Metro Tunnel Project Infrastructure Protection Area will be subject to the design clearances and loading allowances of the tunnels and station structures.

Due to the scale of potential flooding, flood risk cannot be removed entirely. Planning controls will remain in place to ensure the safety of residents and visitors. These controls will be reviewed over time to accommodate changes in flood risk.

The major flood management works required in the precinct will be funded through an Urban Renewal Cost Recovery Scheme (URCRS) for Arden.

The URCRS will collect financial contributions from developers as development occurs. The funds will be used to build the major drainage infrastructure required, such as storages, levees, large pipes and pump stations.

Some minor drainage works, such as kerb and channel works associated with road upgrades, will be funded separately by the DCP.

Melbourne Water, VPA, DOT and City of Melbourne are working closely together to ensure all drainage works are funded appropriately through the URCRS and DCP without any overlap between these different charges

The delivery of Arden's flood management strategy will be coordinated with the aspirations of the Moonee Ponds Creek Strategic Opportunities Plan.



Provide access to high-quality alternative water to be used in buildings and to irrigate open spaces.

Securing water supply is a significant challenge for Victoria. Projected population growth and changes to climate will increase pressure on our current potable water sources and reduce the amount of water available for use.

To help meet this challenge, the Victorian Government has prepared *Water for Victoria* (2016), a strategic plan that guides the management of water to support a healthy environment, prosperous economy and thriving communities now and for the future. The plan identifies urban areas as a significant opportunity to help embed resilience in local communities, encourage better use of water and improve the environment.

The renewal of Arden is a unique opportunity to rethink the way water is managed in urban environments.

City West Water, in collaboration with the Victorian Government, City of Melbourne and members of the Maribyrnong Integrated Water Management Forum, is investigating an alternative water supply for indoor and outdoor non-potable uses in Arden. Alternative water sources under investigation include local stormwater harvesting and sewer mining

Any alternative water treatment plant will be located appropriately to best integrate with the existing infrastructure in the precinct and be designed to meet anticipated water demand. Uses for alternative water in Arden could include:

- Irrigation of sports fields, open spaces and streetscape landscaping throughout Arden
- Toilet flushing, laundry and watering of private green spaces within Arden Central and Arden North.

The supply of alternative water for internal uses is proposed for Arden Central as this area presents the greatest opportunity in the precinct to establish an alternative water system due to the proposed density and level of certainty of new development.

New developments in Arden may be responsible for providing on-site water retention infrastructure to ensure there is no net-increase to the impervious surface area per development. To meet pollution reduction requirements new development may manage stormwater runoff from the site or via centralised wetlands. This will be delivered in line with local best practice environmental management targets and could include green roofs, rain gardens and rainwater tanks

STRATEGY 20.1

Support the delivery of an alternative water treatment plant and associated third-pipe infrastructure to provide alternative water as a substitute for potable water for toilet flushing, laundry and irrigation across all public and private development in Arden Central and Arden North.

STRATEGY 20.2

Identify an appropriate location for an alternative water treatment plant (approximately 800sqm) and storage tank (approximately 800sqm) for Arden in the Arden Central – Innovation and Arden Central – Mixed-use sub-precincts.

STRATEGY 20.3

Design buildings to capture rainwater to improve stormwater quality and create an alternative water resource

The urban water cycle & integrated water management

The natural water cycle is impacted by urbanisation. Buildings, concrete and other sealed surfaces prevent water from soaking into the ground. As a result, natural water flows are altered, and surface stormwater is created contributing to surface pollutants, flooding and decreased soil moisture.

Stormwater is rain that has collected on roofs, roads, footpaths and other sealed surfaces. It flows directly into our waterways via the stormwater drainage network. When water meets surfaces such as roofs, roads and footpaths, it becomes contaminated with oils, metals, litter and other pollutants. Stormwater drains do not usually have any treatment systems, so pollutants are carried directly into our waterways, bays and oceans.

In Arden, impermeable surfaces and a lack of existing planting have already significantly altered the local water system, preventing stormwater from soaking into the ground and reducing evapotranspiration. As a result surface stormwater flowing into the Moonee Ponds Creek is heightened and worsens urban waterway pollution.

Although excess amounts of stormwater can cause problems in urban areas, it is also a very valuable resource for enhancing the liveability of our city. Significant local stormwater in Arden could be captured and treated to provide an alternative water source for the precinct. This will be achieved through the adoption of an integrated water management approach described in Chapter 4 and Chapter 6. Some of the elements of an integrated water management approach are described at right in Figure 25.

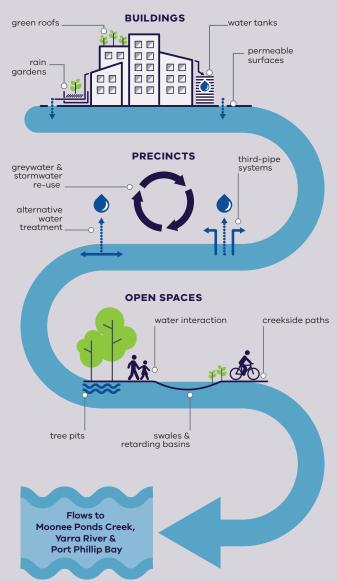


Figure 21 Elements of integrated water management. Source: *Arden Vision*, 2018.

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Arden will be a cooler and greener version of the central city, with a generous and well-connected open space network, providing multi-functional spaces for recreation, socialising, active transport and biodiversity.

- Arden Vision, 2018.

Arden's open space and public realm network will be designed to support the health of the community and the environment; celebrate cultural values and heritage and create opportunities for collaboration and innovation.

A cleverly designed, generous and integrated network of open spaces will celebrate water in the landscape and be a core part of the precinct's identity. The detailed planning of open spaces will draw on the rich Aboriginal and natural history of the area and local knowledge of the community to inform the design of the public realm and restore connections with the Moonee Ponds Creek and Arden's ecology.

It will achieve this by ensuring that all sites are located within a 300 metres walk of an open space within Arden.

Much-loved parks such as the Clayton Reserve dog park, the North Melbourne Recreation Reserve and the green streets that connect them will be retained and enhanced.

The network of existing green streets will be transformed through extensive tree planting and sustainable transport goals will be reinforced through connected, cool and safe streets.

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Figure 22 Pancras Square in Kings Cross Central, London is an example of the type and function of the future open space in Arden Central.



Provide generous, well-designed and accessible open spaces that are diverse and flexible to meet the needs of Arden's evolving community and visitors to the precinct.

Arden will have a network of high quality and connected open spaces including parks, civic plazas, urban boulevards, green links and active and passive recreation spaces. These spaces will be robust and capable of adapting to changing conditions and community demographics to ensure they can serve the needs of the many different groups and individuals of Arden's community over a long period of time.

Planning for Arden provides direction on carrying forward the industrial heritage and character into the public realm and integrating water into the spaces of everyday life.

The defining feature of Arden's open space network will be a new Capital City Open Space adjacent to Arden Station that will be delivered early in the project. This space will provide a range of functions from managing the activity and vibrancy of a major metro train station to hosting festivals and events. Directly to the south, a neighbourhood open space will serve a range of passive recreation, play and informal activities.

In Arden North an integrated water management open space will connect the existing North Melbourne Recreation Reserve to the Moonee Ponds Creek corridor. In significant rainfall events this park will temporarily collect and manage stormwater. Clever design will ensure the space safely and effectively serves its flooding function and be a great asset to the community as a location for active recreation and improved local biodiversity. Land required for flood mitigation and drainage will be enhanced through amenity improvement projects to deliver publicly accessible valued open space assets suitable to an inner urban context.

STRATEGY 21.1

Preserve opportunities for connecting spaces with the Moonee Ponds Creek by providing additional integrated stormwater management open space along the precinct western edge.

STRATEGY 21.2

Deliver the Capital City Open Space in Arden Central, integrated with the neighbourhood park and the Arden Station entrance.

STRATEGY 21.3

Deliver new open space for active recreation within integrated stormwater management open spaces in Arden North that combines the ability to safely serve a stormwater function in extreme rainfall events and be future-proofed for active recreation.

STRATEGY 21.4

Deliver a linear park along Munster Terrace and a shared path along its western edge to create green links and walking tracks.

STRATEGY 21.5

Deliver public realm and urban greening improvements along the western edge of the Arden precinct to connect North Melbourne Station and Macaulay Station via a new green link.

STRATEGY 21.6

Facilitate the provision of public open space throughout the precinct to support the needs of workers, residents and visitors.

STRATEGY 21.7

Explore opportunities to enhance existing open space assets.

STRATEGY 21.8

Collaborate across Victorian Government, local government and water authorities to realise the open space and recreational aspirations of the Moonee Ponds Creek Strategic Opportunities Plan.

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Figure 23 Example of an open space in Portland, Oregon which also manages stormwater during flood events.

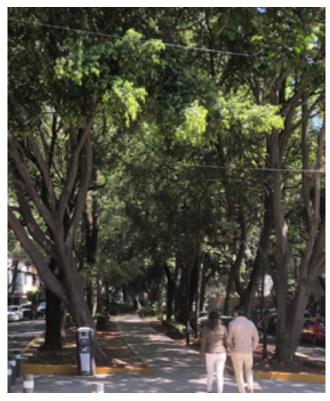


Figure 24 Increased tree canopy cover will improve urban cooling and greening in Arden.



Figure 25 Opportunities to enhance existing open space assets such as Clayton Reserve.

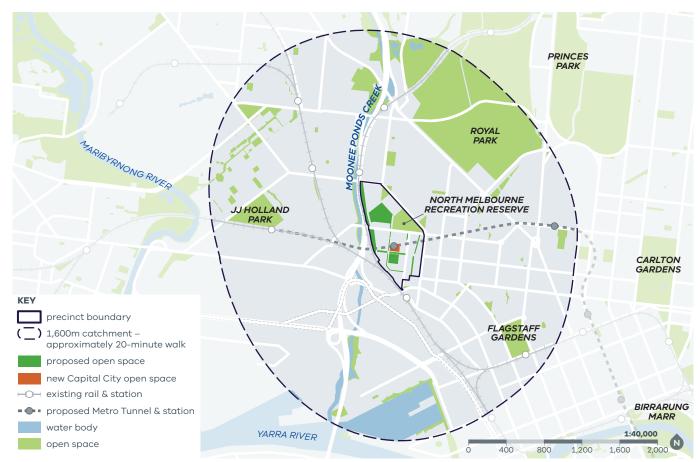


Figure 26 Arden's open space local context.

Arden's proposed open space & public realm network

ТҮРЕ	CATCHMENT	SIZE	CHARACTER
Existing open space			
North Melbourne Recreation Reserve	Municipal 2km	4.5 hectares	Restricted sportingRecreation
Clayton Reserve	Local 300m	0.7 hectare	Informal useSeating/viewing
Macaulay Road & Canning Street Reserve	Small local 300m	0.2 hectare	Informal useSeating/viewing
Railway Place & Miller Street Park	Small local 300m	0.1 hectare	Informal useSeating/viewing
Total existing unencumbered, unrestrict	ed open space	1.0 hectares	
Total existing open space		5.5 hectares	
Proposed new open space			
Arden Central – Innovation Capital City Open Space	Capital city Regional function	0.66 hectares	CivicEventsSquare or urban plazaWater feature
Arden Central – Mixed-use neighbourhood open space	Neighbourhood 500m	1.0 hectare	RecreationInformal usePlay
Integrated stormwater management open space (waterway and drainage infrastructure)	Municipal 2km	6.54 hectares	RecreationInformal useHeritageNature conservationWater feature
Fogarty Street linear reserve	Small local 300m	0.24	Informal useSeating / viewingLinear
Queensbury Street linear open space	Small local 300m	0.25	Informal useSeating / viewingLinear
Munster Terrace	Small local 300m	0.4 hectares	Informal useSeating / viewingLinear
Western edge green link	Small local link	N/A	LinearSeating/viewing
Total proposed unencumbered, unrestric	cted open space	1.24 hectare	
Total proposed open space		9.09 hectares	

What is open space?

Open space is the public land set aside primarily for recreation, nature conservation, passive outdoor enjoyment and public gatherings.

Ancillary encumbered open space is open space that is constrained in function to an extent, such as due to service use requirements or below-standard access to sunlight.

Ancillary restricted open space refers to space that is only available on a fee-paying or club membership basis some or all of the time, such as space used by professional sporting clubs.

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Establish design excellence and design objectives for streets, open spaces and development interfaces to ensure the public realm works as a seamless, integrated and continuous space for all people.

Arden's public realm and open space network will be designed to meet economic, social and environmental outcomes. Adopting a generic approach to open space would not produce the outcome and the place aspired to in the Arden Vision. Beyond simply looking at the amount of space provided, the structure plan aims to build on the existing features and characteristics of Arden, integrate principles from the surrounding area and look to international best practice to deliver a public realm and open space network that exemplifies a world leading urban renewal precinct.

Pedestrian-friendly streets and privately owned public spaces have an opportunity to extend and connect open spaces.

Design excellence will ensure that spaces and places can serve multiple different roles and functions for different people, be flexible across the day, week and year, and evolve over time as people's needs change. Co-design and programming of key spaces will be undertaken with the community and Traditional Custodians, ensuring these spaces genuinely contribute to the public realm and open space network and become valued assets to the area's existing and future community.

STRATEGY 22.1

Encourage new spaces to build on Arden's identity by integrating and enhancing existing assets of Arden's character and public realm including industrial character, the Moonee Ponds Creek cultural heritage, and existing mature planting throughout the precinct.

STRATEGY 22.2

Limit vehicle carriageways and on-street car parking next to open spaces in order to increase their usability, connectivity and safety.

STRATEGY 22.3

Expand urban forest through streetscape designs that provide ample space for street trees and people movement. A target of 40 per cent canopy coverage should be achieved in the public realm over time

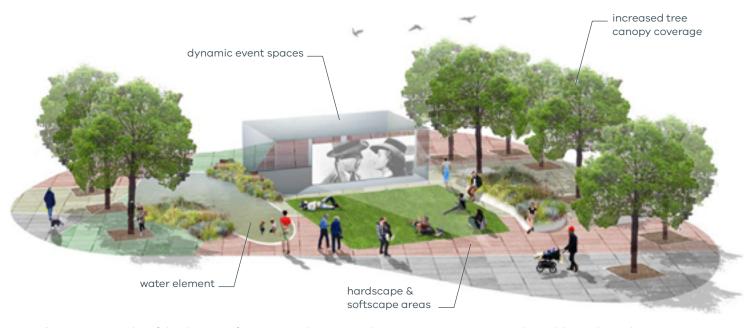


Figure 27 Examples of the diversity of activities within a Capital City open space. Source: *Arden Public Realm and Open Space Strategy*, AECOM 2020.

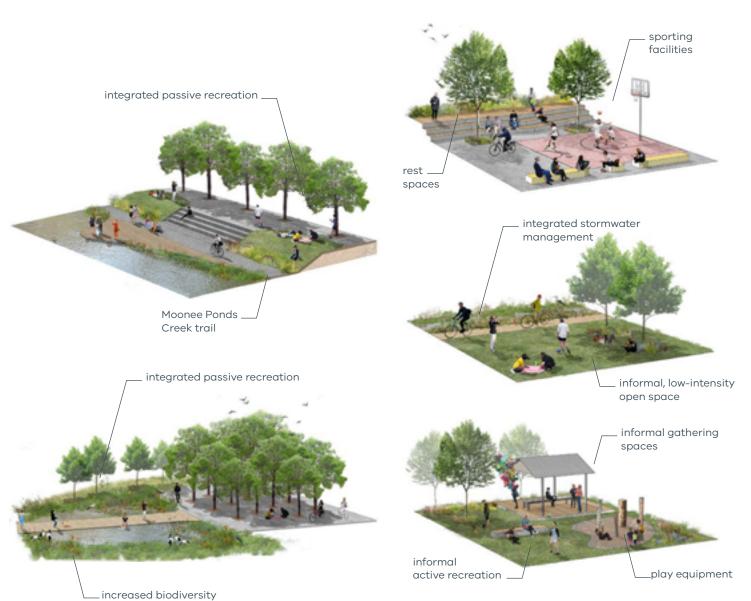


Figure 28 Examples of open spaces that also manage flooding. Source: *Arden Public Realm and Open Space Strategy*, AECOM 2020.

Figure 29 Examples of diverse activities within a neighbourhood open space. Source: *Arden Public Realm and Open Space Strategy*, AECOM 2020.

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Planning for the Moonee Ponds Creek

The Moonee Ponds Creek has a significant role as a major natural connector between several communities located along the creek. By providing better connectivity to Arden and the surrounding communities, the creek can become a recreational asset integral to the precinct's identity.

The VPA was directed to prepare the *Moonee Ponds Creek Implementation Plan* on behalf of the Victorian Government, recognising the complex challenges affecting the realisation of the vision of the waterway to become a thriving corridor that supports the liveability and resilience of the city.

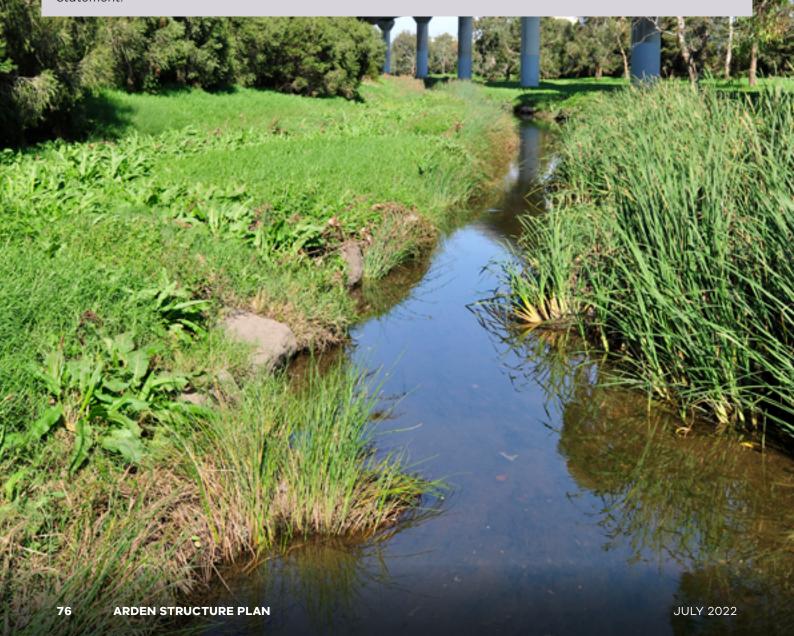
The Moonee Ponds Creek Implementation Plan is an initiative funded by the West Gate Tunnel Project as a recommendation of the project's Inquiry and Advisory Committee Report (October 2017) which assessed the project's Environmental Effects

Statement

The VPA has prepared this plan in collaboration with the City of Melbourne.

The plan summarises the key challenges that have stifled efforts to revitalise the creek, assesses each of the projects identified in the *Moonee Ponds Creek Strategic Opportunities Plan* by the City of Melbourne and recommends a proposed model for implementation of these projects.

The plan maps out the path forward for the Victorian Government and council, to guide investment and coordinate delivery that supports the long-term transformation of the Moonee Ponds Creek within Melbourne's central city. This will restore the ecological, cultural and recreational values of the creek and contribute to Melbourne's liveability and climate resilience.



Plan 7 **Key projects of the Moonee Ponds Creek Implementation Plan Stubbs Street South** East bank pedestrian links SOP: OS4 - Macaulay terraces M6 - Walking & cycling trails SOP: FLEMINGTON Land owner: VicTrack Land owner: DELWP Drainage: Required Drainage: Not required Current land use: Industrial development Land use: Waterway with private leases Funding: Land: Not required DCP (Macaulay) Funding: Land: Drainage: No Drainage: URCRS (YES) Amenity: DCP (Arden) Amenity: DCP (Macaulay) TEMING TON ROAD **Langford Street** W6 - Stormwater park Land owner: VicTrack; private KENSINGTON Drainage: Required BOUNDARY Industrial development with MACAULAY Land use: private leases MACAULAY ROAD DCP (Arden) Funding: Land: Drainage: URCRS (YES) Amenity: DCP (Arden) **Bent Street bank** ARDEN STREET OS6 - Bent Street access SOP: METRO TUNNEL **OS3** – Expanded creek environs W8 – Levee banks water storage **B5** – Moonee Ponds Creek forest & native vegetation restoration Landowner: VicTrack Drainage: Required Funding: Land: Not required QUEENSBERRY STREET Drainage: URCRS (YES) Amenity: Council ABBOTSFORD STREET KEY precinct boundary DYNON ROAD Macauley Structure Plan area open space project SPENCER STREET water & drainage project EUTURE MEST GATE TUNNEL pedestrian & cycling project pedestrian & cycling link NORTH MELBOURNE proposed pedestrian bridge drainage water body open space

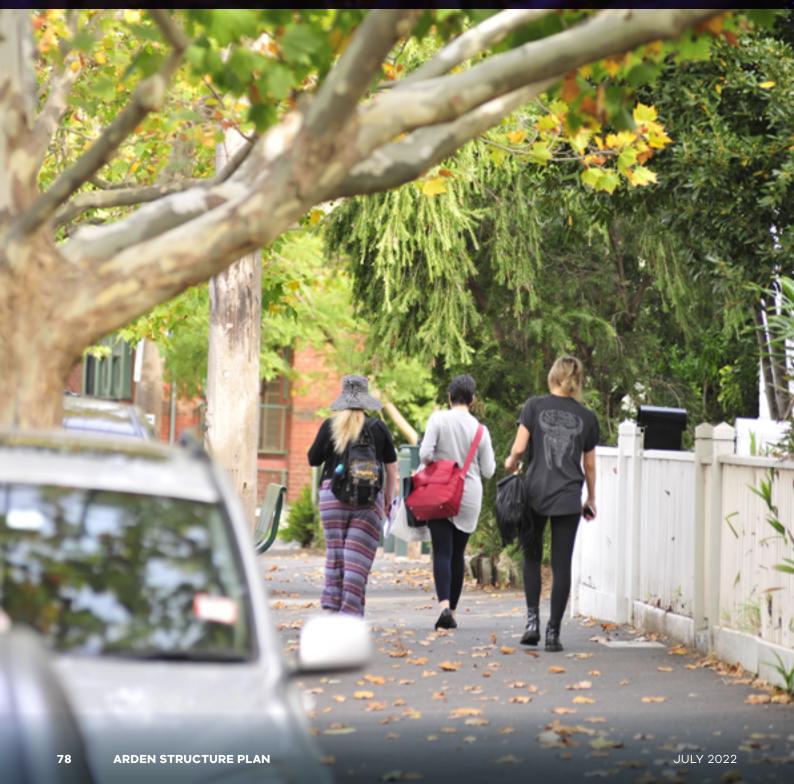
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8 Accommodating diverse communities

Affordable housing



Arden will cater to a diversity of households across a range of ages and incomes, and address different needs with affordable housing. New homes will be well-designed, accessible and sustainable.

- Arden Vision, 2018.

Across the city of Melbourne there is a shortfall of 5,500 affordable rental dwellings. With no intervention, this is expected to increase to over 23,200 dwellings by 2036.

A sustained increase in the supply of new affordable rental housing is the policy target of the City of Melbourne's *Affordable Housing Strategy* and Victorian Government housing policy.

In order to meet the future housing needs of the municipality, approximately one in four new dwellings will need to be affordable rental housing.

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.

Housing also plays a critical role in unlocking Arden's potential as an innovation precinct. Affordable housing will ensure Arden is an inclusive and affordable neighbourhood, providing housing for people like health workers, teachers, creatives and entrepreneurs.

To achieve this, planning controls that implement the *Arden Structure Plan* will introduce policies to provide for flexible delivery of affordable housing within new development.

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Facilitate inclusive, well-designed, sustainable and accessible housing, with at least six per cent of all new housing in the precinct being affordable for very low to moderate income households and delivered as social and affordable housing or shared equity.

Arden's renewal is an invaluable opportunity to contribute affordable housing supply to respond to the significant and growing shortfall in affordable housing across Melbourne. Affordable housing, as defined by the *Planning and Environment Act 1987*, is:

"housing, including social housing, that is appropriate for the housing needs of very low income households, low income households and/ or moderate income households."

Industry standard defines housing as being 'affordable' where housing costs represent less than 30 per cent of household income for these household types.

Access to diverse, high quality and affordable housing is a priority for the ongoing productivity, liveability and social equality of Melbourne and Victoria. The households requiring this housing could work in the hospitals, cafés, schools and other services that underpin Melbourne's global reputation for liveability and prosperity. To retain these qualities, we must invest in affordable housing that is located close to jobs, amenity and services.

Across a range of policies and ministerial actions, both the City of Melbourne and the Victorian Government have recognised the importance of providing a greater supply of appropriate social and affordable housing in well located areas that have access to transport, employment and services.

In 2020 the City of Melbourne released its Affordable Housing Strategy which commits to delivering up to 25 per cent of housing as affordable on residential development on Council land, and provides policy guidance for calculating and managing affordable housing. In its 2020 budget, the Victorian Government committed \$5.3 billion to the delivery of new affordable housing across Melbourne.

STRATEGY 23.1

Support and encourage the provision of six per cent affordable housing in new developments to be delivered at 50 percent (or alternative method of the equivalent value) discount to a registered housing association.

STRATEGY 23.2

Require that up to 25 per cent of new housing be made available as affordable housing where City of Melbourne-owned land is redeveloped.

STRATEGY 23.3

Encourage additional affordable and social housing provision on all types of land to achieve goals.

STRATEGY 23.4

Require that at least five per cent of all private housing be universally accessible, to encourage assisted living and help residents age in place.

STRATEGY 23.5

Facilitate a diversity of sizes of residential accommodation for all types of households.



Figure 30 Lampton Road is a new neighbourhood in London that will create over 900 new homes with 50 per cent being affordable housing. Source: Notting Hill Genesis.



Figure 31 Boyd Village is being delivered as part of the sale of City of Melbourne land and includes new community facilities and just under 15 per cent affordable housing. Source: PDG.

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9 Investing in community infrastructure

Community hubs
Schools



Arden will support the existing and new community by providing infrastructure that is integrated with the existing area. The design of community facilities such as schools, will reflect best practice and community input.

- Arden Vision, 2018.

Investment in new community infrastructure will be required to support the health and wellbeing of residents, workers and students in Arden. The new proposed government school, non-government school(s), passive and active recreation facilities, youth centres (such as the North Melbourne Football Club's The Huddle), library, arts facilities and community centres will complement the existing services on offer across North Melbourne and West Melbourne.

Community infrastructure, delivered by both public and private providers, is integral to cultivating a culturally and socially cohesive community. These spaces bring new and existing communities together and become civic landmarks.

Community infrastructure will be integrated with Arden's innovation story by designing and delivering facilities and services, creating a lifestyle and community that attracts talented individuals and involving the community in the innovation occurring in the precinct.

Beyond serving the immediate community, Arden's central location in the north-west region of inner Melbourne and high level of transport access means there are opportunities for some facilities to serve the region more broadly. Similarly, this high level of connectivity enables Arden to tap into and grow existing nearby communities, such as in the North Melbourne Arts Precinct.

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Deliver educational facilities to meet the anticipated demographic demand.

Arden is expected to generate demand for government primary school and government secondary school enrolments, as well as nongovernment primary school and non-government secondary school enrolments. There are no primary or secondary schools currently located in Arden, however several government and Catholic schools are within walking distance of the precinct. A new campus that will expand the capacity of North Melbourne Primary School is to be located nearby in Abbotsford Street (on Molesworth Street), North Melbourne.

Based on the expected student demand, it is anticipated that there will be one additional government primary and one additional government secondary school required to meet the needs of the new community of Arden and the surrounding community. There is flexibility to accommodate private education providers. There are opportunities to co-locate educational facilities with community facilities including multi-purpose

rooms, kindergartens, early learning centres and indoor/outdoor sports courts to support a healthy and engaged community.

STRATEGY 24.1

Support development of the proposed government primary school within Arden Central to serve the needs of the current and future Arden community and surrounding areas.

STRATEGY 24.2

Support development of the proposed government secondary school and non-governemnt school(s) in the North Melbourne/Macaulay area to serve the needs of the current and future Arden community and surrounding areas.

STRATEGY 24.3

Ensure schools in Arden are innovatively planned and delivered to be in proximity to or co-located with complementary services and spaces, including recreational spaces, activity centres, public transport services, kindergartens and early learning centres

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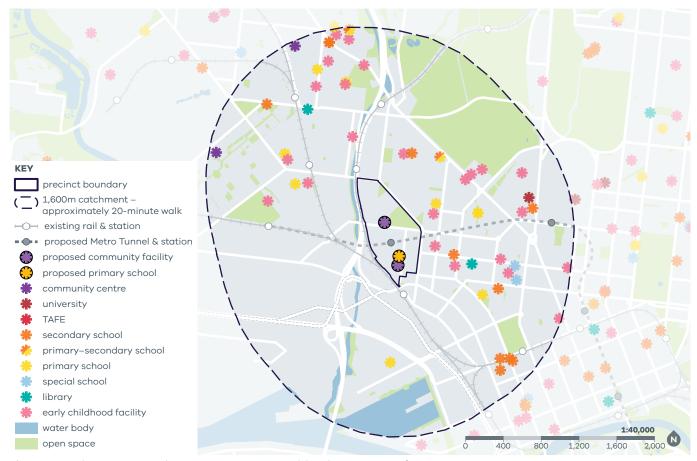


Figure 32 Arden's context within government managed, local community infrastructure.

Ensure timely delivery of high-quality, accessible and integrated community infrastructure to meet the needs of existing and future residents, workers and visitors.

Providing equal and fair access to education, arts and cultural activities is key to ensuring that the growing community feels a sense of belonging and to promote social cohesion. Spaces that support the development, production and presentation of creative work will contribute to the new identity of the precinct as a thriving innovation precinct.

Innovation-focussed infrastructure in the heart of Arden Central will provide a variety of robust studios and workspaces that can support local enterprise and encourage multi-disciplinary collaboration between creative and innovation industries. Additional facilities integrated into mixed-use developments throughout the precinct will also support this collaborative practice.

Community hubs create the opportunity to blend spaces and facilities together, enabling partnerships between local government, state government and the private and not-for-profit sector. This will allow for the co-location of services such as maternal and child health services with a proposed government primary school and privately owned/operated child-care, and provide opportunities for workers, residents and students to share spaces like conference centres and libraries.

STRATEGY 25.1

Facilitate the delivery of a family and community hub in the Arden Central – Mixed-use sub-precinct to serve the needs of the Arden community.

STRATEGY 25.2

Facilitate the delivery of an arts, cultural and community hub in Arden Central – Innovation subprecinct to serve the needs of the Arden community.

STRATEGY 25.3

Explore opportunities to upgrade and expand the North Melbourne Recreation Reserve to serve the needs of the Arden community and surrounding areas.

STRATEGY 25.4

Provide future active recreation including a sports pavilion, playing surface with lighting, playground and outdoor fitness equipment on the integrated stormwater management open space in the Arden North – Mixed-use sub-precinct.

STRATEGY 25.5

Provide diverse and adaptable community facilities to serve the changing needs of people over time, and are beneficial, supportive and appropriate for people with special needs, including families, the ageing and elderly population, people with disabilities and those with different cultural and social needs.

STRATEGY 25.6

Facilitate the delivery of creative space by private providers including live/work artist studios, gallery spaces, rehearsal and performance spaces, and creative workshops.

STRATEGY 25.7

Support and facilitate the delivery of aged care and long day childcare facilities by private providers in addition to the aged and childcare services provided within public community hubs.

CASE STUDY Community hubs



Cultural Centre Rozet Arnhem, Netherlands

The Cultural Centre Rozet is a mixed arts and culture facility located in a dense and developing neighbourhood. Incorporating two libraries, a heritage centre, art centre and community college, the 12,000 square metre project is close to a train station and was a catalyst for further urban development in the area. The project boasts exemplary and interactive sustainability credentials, complete with a public green roof that showcases water management, biodiversity and renewable energy.



Figure 33 Above & right: External and internal views of Cultural Centre Rozet.

Artscape Daniels Launchpad Toronto, Canada

Artscape Daniels Launchpad is a first-of-its-kind creative entrepreneurship hub designed to help emerging and established artists, designers and creators succeed like never before.

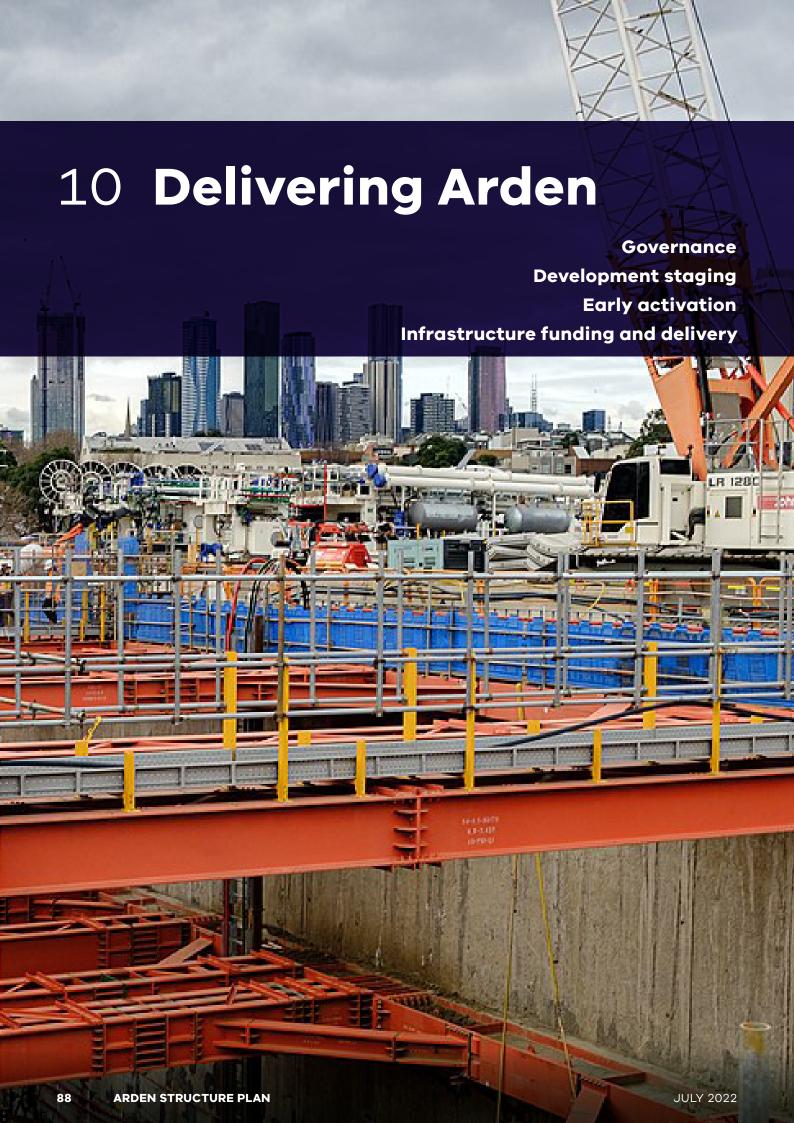


Launchpad offers members access to co-working spaces, state-of-the-art and multidisciplinary creative and technical studios, meeting and event facilities, and specialised creative entrepreneurship programs to support and inspire creative experimentation, learning and collaboration across many disciplines.



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Figure 34 Collaborative spaces at work in Artscape Daniels Launchpad.



The delivery of Arden as an innovation precinct that aspires to accommodate approximately 34,000 jobs and around 15,000 residents will be achieved over a period of more than 25 years. The complexity of delivering the strategies outlined within this structure plan and realising a world-class urban renewal precinct requires a whole of government approach and integrated and innovative approaches to governance, finance, delivery, ownership and management of infrastructure and development. This includes putting in place the servicing and utilities infrastructure required to meet future needs while responding to updates in technology, coordinating funding between all levels of government, private developers and other stakeholders to deliver a high-quality public realm, and applying the right planning controls to facilitate delivery.

Developing an agreed governance model amongst stakeholders will be an important early activity in Arden; to ensure clarity around ongoing decision making and accountability amongst delivery partners. With a robust governance structure in place, Arden will be well placed to provide a sound precinct management and stewardship strategy, and to meet the ongoing and evolving needs of the precinct.

The overall delivery model for Arden is subject to ongoing and detailed testing to inform a delivery strategy that is effective in delivering infrastructure and development outcomes when they are needed and are equitable in sharing costs. As such the delivery model is subject to change.

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Ensure coordinated and collaborative staging of development on government owned land around the new Arden Station to effectively respond to existing conditions and ongoing business requirements and create a safe and vibrant place upon opening of the station.

A coordinated and collaborative development strategy will be required to ensure the success of the project.

The Victorian Government is preparing a development strategy consistent with the key directions outlined in this structure plan. Consideration of current and future landholders, residents and employers; the delivery of major infrastructure projects in particular the Arden station due to open in 2025; attracting tenants, and the curation of government landholdings to set the precinct's economic direction. The development strategy will also consider works required to make Arden 'development-ready', including precinct-wide flood management, contamination remediation or management, facilitation of the transition of industrial businesses and noise and air pollution attenuation. The coordination of these elements is critical to place creation, investment attraction and community development.

The Victorian Government is committed to the development and curation of Arden to ensure that the objectives of a high quality place to live, and innovative place to work, are achieved. Early place shaping activities are essential to building identity and community connectedness and support Arden's innovation aspirations.

In addition to this, more detailed master-planning and delivery strategy process will follow this structure plan that will provide detail on how the precinct will be delivered and begin to work with key stakeholders, including Traditional Custodians and the community to develop concept and detailed designs of key sites, places and streets in Arden. The delivery strategy will need to provide certainty around the delivery of other critical infrastructure, including access roads, off-road connections and intersections essential to the development of any renewal precinct.

STRATEGY 26.1

Develop an agreed precinct governance model with stakeholders to provide a sound framework for ongoing decision-making.

STRATEGY 26.2

Establish a delivery strategy that outlines whole of precinct development coordination, staging and timing. This will include a strategy for government landholdings, an approach to working with the private development sector, and set out a coordinated approach to the delivery of key infrastructure items.

STRATEGY 26.3

Establish an application referrals and assessment process to ensure development outcomes are consistent with the objectives of the *Arden Vision* and Arden Structure Plan.

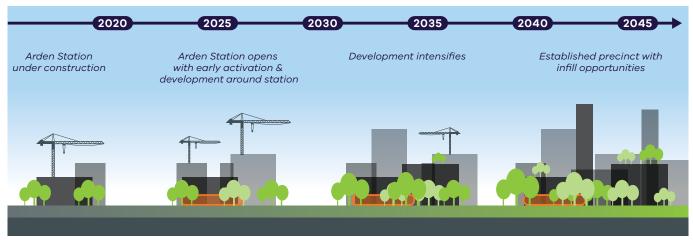


Figure 35 Timeline of Arden's anticipated transition to a mature precinct by 2050.

Ensure that early activation and place-shaping activities are delivered alongside early precinct development and in readiness for the Arden station opening, and that long-term planning, development and service delivery are considered early in the life of the precinct to create a distinct sense of place, promote a vibrant and interesting early local experience and ensure the long-term resilience of the precinct.

Successful, resilient neighbourhoods have a strong sense of place; they offer quality urban amenity and experiences that attract strong visitation, accelerate outcomes, and increase interactions. They also demonstrate awareness of the risks and vulnerabilities that they may face and build capacity of individuals, institutions, businesses and systems within them to adapt, survive and thrive no matter what kind of chronic stresses and acute shocks they experience.

Ensuring a focus on place-shaping activities and early activation in the precinct will ensure positive early experiences and support critical early investment that will contribute to creating a place identity for Arden. Alongside this focus on bringing the precinct to life, adopting a resilience lens to develop a long-term view of Arden's strengths, opportunities and potential challenges will set the precinct up for success over time. It will enable an integrated approach to placemaking and community development, climate change adaptation and economic activity. It can support actions and investments with multiple benefits, such as the establishment of tool and toy libraries in communal buildings. This should include identifying key community groups to work with in developing and implementing a plan for near-term place-making and long-term resilience, as well as subsequent actions outlined within it.

STRATEGY 27.1

Develop an Arden Place and Resilience Plan that responds to the area's unique identity and conditions and identifies, coordinates and communicates opportunities for early place creation and place-making activities and longer-term resilience-building initiatives to foster a strong sense of place and community identity and build sustained economic, social and environmental resilience, including adaptation to climate change.

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Ensure that new development responds to surrounding conditions including the transmission pressure gas pipelines and is not unduly impacted by noise, vibration and electromagnetic interference from the adjacent railway corridor, elevated roadway and Metro Tunnel.

The State Government is working to transition industrial businesses out of the precinct to ensure removal and mitigation of the adverse effects of the existing industrial land uses. Noise and vibration generated from the adjacent rail corridor, elevated roadway and Metro Tunnel will likely prevail into the future. For Arden to be a truly desirable place to live and work, new development must ensure that the place is protected from undesirable levels of noise.

The design of the Metro Tunnel includes mitigation measures which seek to achieve guideline targets for noise, vibration and electromagnetic interference (EMI) during operation. There is an onus on future developments to ensure that they are not unduly impacted by noise, vibration and EMI from surrounding uses.

Planning controls will also be critical in embedding built form controls to noise attenuate buildings and decision requirements for sensitive land uses within proximity to the gas pipeline.

STRATEGY 28.1

Manage the impacts of noise and vibration in the precinct by ensuring development includes appropriate attenuation measures.

STRATEGY 28.2

Manage the introduction of sensitive uses into the precinct coordinated with the transition of industry with adverse amenity impacts.

STRATEGY 28.3

Design public spaces to be shielded from adverse amenity through considering the placement of vegetation, siting, type and composition of buildings and other mitigation strategies.

STRATEGY 28.4

Manage the impacts of the gas pipeline running beneath the precinct, including referral of applications to the relevant gas authority.

STRATEGY 28.5

Require EMI-sensitive uses to address impacts when in proximity to the railway corridor, the Metro Tunnel or other EMI-emitting sources.

Make Arden adaptable to change while managing the impacts of existing uses that need to transition from the precinct.

Arden's long and rich industrial history dating back to the early 19th century will form an important part of the future character and identity of the precinct. However, land reclamation and filling in the late 19th century and industrial land uses have led to widespread contamination across the precinct. The precinct's renewal to a mixed-use precinct will pose challenges including the remediation of potentially contaminated land and staging of adverse land uses and new development.

Some industrial activities in the area have been identified as having potential adverse amenity impacts. As some industries will gradually transition from the area, the Victorian Government will actively assist key landowners to facilitate positive outcomes. There are existing air quality and noise standards that apply to industry, however the onus is on new sensitive land uses to ensure that they are not unduly impacted by emissions from existing industries.

Planning controls will be critical to embed design standards for industrial buffers to existing industrial land uses prior to their transition out of the precinct. Collaboration with key landholders and businesses will be essential to ensuring new development is staged and located appropriately as the adverse land uses within the precinct transition out.

STRATEGY 29.1

Plan for industries with amenity buffers to manage the staged transition of these uses away from the precinct, to support the *Arden Vision*, including application of a Buffer Area Overlay where appropriate.

STRATEGY 29.2

Manage the risk of potential land contamination through a staged environmental site assessment process where appropriate.

STRATEGY 29.3

Apply the Environmental Audit Overlay to land that is demonstrated to have a high potential for contamination to ensure appropriate remediation or management occurs.

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Provide critical infrastructure and utility services in a coordinated manner to support the planned development.

Critical to supporting the intensification of Arden will be the timely delivery of key enabling infrastructure, utilities and community services.

Projects will be identified for transport, integrated water management, social infrastructure, open space and public realm projects. Effective staging and coordination across infrastructure types will be required to enable delivery efficiencies.

Development around the new station will focus on ensuring a vibrant precinct heart, central open spaces, major tenants and industry-focussed facilities to deliver activation and establish Arden's foundation for economic productivity and innovation. As the precinct grows, community services, proposed government schools and additional open spaces will also be delivered to foster a sense of place and support the growing community and workers in the precinct.

Key streets and shared paths will be delivered to encourage walking and cycling throughout the precinct and create a connected network with the surrounding neighbourhoods. Public realm and street upgrades will be delivered accordingly to connect residents, workers and the surrounding community to new spaces and facilities as they are delivered. As Arden grows, residents, workers and visitors will have access to a multitude of active and public transport options.

A precinct infrastructure plan will be included in the *Arden Structure Plan* amendment package, providing a complete list of infrastructure items, including:

- new station at Arden and other Metro Tunnel infrastructure
- new streets
- public realm upgrades to streets for cycling, public transport, pedestrian crossings
- alterations to North Melbourne Station (to be investigated)
- centralised car parking
- open space comprising a mix of green links, small local spaces, local parks, neighbourhood parks and the Capital City Open Space

- drainage and integrated water management comprising a mix of levees, pipes, pumps, public realm water sensitive urban design features, and flood storage measures
- utilities and sustainability including centralised waste management, water supply, sewer and telecommunications
- community infrastructure including libraries, business and innovation facilities, community hubs, arts and culture facilities, sport and recreation upgrades, and provision of education facilities.

STRATEGY 30.1

Collaborate across government agencies to maximise delivery efficiencies and community benefit and enable timely urban renewal by pursuing the coordinated programming, funding and delivery of infrastructure identified in the precinct infrastructure plan.

Provide 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.

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

- works funded and delivered by state government departments and agencies
- capital works projects delivered by or on behalf of the City of Melbourne
- utility service provider requirements (for example, Melbourne Water's Urban Renewal Cost Recovery 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 Victorian Government and the City of Melbourne, developers will be required to make contributions. 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 and the wider community.

To fund the delivery of the flood management infrastructure, Melbourne Water will prepare an Urban Renewal Cost Recovery Scheme (URCRS). The URCRS will be similar to development services schemes which allow Melbourne Water to recoup costs for flood and drainage infrastructure in greenfield areas. For the most up to date information on the URCRS, please refer to the Melbourne Water website.

STRATEGY 31.1

Implement the Arden Precinct Infrastructure Plan as per Appendix 2.

STRATEGY 31.2

Prepare an Urban Renewal Cost Recovery Scheme for the Arden and Macaulay urban renewal areas in accordance with the *Flood Management Strategy*.

STRATEGY 31.3

Implement the Arden Development Contributions Plan via a Development Contributions Plan Overlay to deliver precinct infrastructure in accordance with the Arden Precinct Infrastructure Plan.

STRATEGY 31.4

Facilitate public open space contributions via clause 53.01 to the *Melbourne Planning Scheme*.

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Implementation table

The Arden Structure Plan includes **strategies** that give effect to the **objectives**. The strategies are implemented through:

Prepare planning controls	PPC	Implement through planning controls within the Arden planning scheme amendment.
Guide development	GD	Work closely with developers and the development industry to implement through existing planning controls, or by the content of the plan guiding and setting the expectation for development applications.
Deliver	D	Deliver through a commitment made by the Urban Renewal Cost Recovery Scheme, Development Contributions Plan or other confirmed investment by state government or council.
Advocate	A	Continue to work with key stakeholders to advocate for implementation.
Place curation	PC	Implement through the coordination of a coordinated precinct delivery strategy, in the precinct via a governance model and/or other similar mechanism.

STRATEGY	РРС	GD	D	A	РС	NOMINATED LEAD AGENCY
Strategy 1.1						City of Melbourne
Plan for the inclusion of spaces in community facilities for sharing Aboriginal history, culture and values associated with the area and supporting Aboriginal business.			✓			Melbourne
Strategy 1.2						State
Support the recognition and interpretation of the Aboriginal cultural values and heritage in Arden through ongoing consultation and collaboration with Traditional Custodians and engagement with the development industry and other stakeholders.		✓				Government & City of Melbourne
Strategy 1.3						City of
Explore opportunities to reveal the history of Arden as a rich and inland water based ecology, source of food and place of meeting through design, planting and curated programs. In particular, collaborate with the Traditional Custodians and local community to recognise this through the design of key spaces including the Arden North integrated stormwater management open space. Collaborate with the Traditional Custodians and local community to recognise this through the design of key spaces such as the Arden North integrated stormwater management open space and increasing opportunities to conduct Cultural Heritage Management Plans.		✓		✓		Melbourne
Strategy 1.4						City of
Restore and nurture the local natural environment through indigenous planting and land management practices developed in collaboration with Traditional Custodians.		✓				Melbourne
Strategy 1.5						City of
Create opportunities to embed Aboriginal language, design and names in streets, parks and public buildings in consultation with Traditional Custodians.				✓		Melbourne
Strategy 1.6						State
Identify opportunities for inclusive and social procurement policies and skills development for Aboriginal people in delivering Arden.				✓		& City of Melbourne
Strategy 2.1						State
Facilitate the development of anchor enterprises and industry facilities early in Arden's development to showcase innovation, create jobs in the precinct and attract ancillary businesses and industries.	✓	✓			✓	Government
Strategy 2.2						State
Support the delivery of innovation facilities in the Arden Central – Innovation sub-precinct to provide affordable space for innovation and technology labs and co-working and collaboration spaces, complemented by presentation and seminar spaces for sharing, exhibiting and commercialising work.			✓			Government

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STRATEGY	РРС	GD	D	A	РС	NOMINATED LEAD AGENCY
Strategy 2.3						State
Support the delivery of world-class and networked facilities and equipment throughout the precinct, such as laboratories and high speed internet, to provide the tools for innovation, attract global talent and facilitate formal and informal collaboration and knowledge sharing.				✓	✓	Government
Strategy 2.4						State
Explore private and public delivery models for affordable workspaces for creative and innovation industries. This includes delivering creative spaces, presentation spaces and co-working and collaboration spaces available on a variety of tenures and price-points to support Arden's future businesses, and will form an essential part of the curation and delivery strategy.					✓	Government and City of Melbourne
Strategy 2.5						State
Monitor and measure success against the factors driving the success of innovation precincts at two, five and 10 years.					✓	Government and City of Melbourne
Strategy 3.1						State
Facilitate use and development of land in Arden to deliver on the aspiration of approximately 34,000 jobs and around 15,000 residents in the precinct.	✓					Government and City of Melbourne
Strategy 3.2						Victorian
Prepare planning controls to deliver the land use framework for Arden to implement the sub-precinct land use visions.	√					Planning Authority
Strategy 4.1						State
Deliver Arden's renewal in general accordance with the future urban structure shown on <u>Plan 2.</u>	✓		✓		✓	Government and City of Melbourne
Strategy 5.1						Victorian
Implement built form controls in the planning scheme that respond to key design recommendations, including:						Planning Authority
Heights						
Street wall heights						
Setbacks (street frontage)						
Setbacks (side and rear) Dividing a grounding.	✓					
Building separationFloor area ratios	•					
Laneways and through block links						
Active street frontages						
Weather protection						
Traffic conflict frontages						
Solar protection						
Wind control.						

STRATEGY	РРС	GD	D	A	РС	NOMINATED LEAD AGENCY
Strategy 5.2	✓					VPA
Apply built form controls in Arden as shown on <u>Plan 3</u> .						
Strategy 6.1						City of
Protect and enhance heritage features of the precinct which are identified in the Melbourne Planning Scheme as being of significance.		✓				Melbourne
Strategy 6.2						City of
Plan for heritage buildings to be incorporated sensitively into new development, supporting adaptive re-use where the design is of a high quality and reflects the heritage elements of the site and surrounds.		✓				Melbourne
Strategy 7.1						State
Require that any new above-ground car parking facilities can be adapted to future habitable buildings for other uses, including internal layouts, adequate floor to ceiling heights and avoidance of sloping or excessively deep floorplates which preclude future use.	✓	✓				Government and City of Melbourne
Strategy 7.2						State
Require that highly specific building configurations, such as student accommodation and hotels, use structural design systems which enable conversion to other uses should needs change over time.	✓	✓				Government and City of Melbourne
Strategy 7.3						State
Require that commercial buildings be designed to enable subdivision of floorplates into smaller tenancies over time through the placement and configuration of cores, atria and other elements in response to evolving work patterns.	✓	✓				Government and City of Melbourne
Strategy 7.4						City of
Require the design of all buildings to exceed minimum required life expectancies and aim for at least 100 years of structural performance (considering future climate scenarios) with a higher expected turnover of interior fit-out.		✓		✓		Melbourne
Strategy 8.1						City of
Require design excellence on key strategic sites (as per criteria defined above) through either a design competition or design review panel.				✓		Melbourne
Strategy 8.2						City of
Prepare guidelines to inform design excellence competitions in Arden.		√				Melbourne

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STRATEGY	PPC	GD	D	A	РС	NOMINATED LEAD AGENCY
Strategy 8.3 Work with the Office of the Victorian Government Architect to strengthen the quality of design review of projects within Arden, either through the Victorian Design Review panel process or through a new design review panel.				✓		State Government
Strategy 9.1 Require developments to prepare an operational management plan encompassing energy, transport, water, waste and climate resilience.	✓					Victorian Planning Authority
Strategy 9.2 Investigate requirements for annual public disclosure of energy operating performance of all developments. This may be extended to water, transport and waste over time.				✓		City of Melbourne
Strategy 9.3 Identify a delivery and operation governance model to facilitate achievement of Arden's sustainability aspirations.		✓			✓	
Strategy 10.1 Facilitate a mechanism to enable developments to procure 100 per cent renewable energy. Explore opportunities for energy procurement to also address the energy needs of surrounding neighbourhoods.				✓		State Government and City of Melbourne
Strategy 10.2 Facilitate and encourage the centralisation and sharing of waste and freight management locations to reduce freight and waste vehicle emissions.		✓		✓		State Government and City of Melbourne
Strategy 10.3 Require a commitment to precinct organics collection or alternative processing solution by City of Melbourne or other private operator.		✓		✓		City of Melbourne
Strategy 10.4 Deliver precinct infrastructure commensurate with the fossil fuel- free ambitions for the majority of precinct and uses to support net- zero carbon emission ambitions.		✓		✓		State Government and City of Melbourne
Strategy 11.1 Require all new buildings to connect to precinct sustainability infrastructure that is available or planned at time of project completion.	✓					Victorian Planning Authority

STRATEGY	PPC	GD	D	A	РС	NOMINATED LEAD AGENCY
Strategy 11.2 Require all new buildings to achieve world-leading sustainability performance as part of the Planning Scheme Amendment to implement the <i>Arden Structure Plan</i> . This may include 6 Star Green Star rating for larger buildings and 70 per cent Built Environment Sustainability Scorecard rating for smaller buildings, NABERS ratings, or equivalent rating under comparable or updated systems.	✓					Victorian Planning Authority
Strategy 11.3 Encourage all new buildings to be 100 per cent electric and facilitate access to renewable energy sources.	✓					Victorian Planning Authority
Strategy 12.1 Design buildings with flexibility to accommodate current and future building- and precinct-scale technologies and infrastructure that contribute to the precinct's net-zero carbon target, minimise water use and waste generation and improve operational costs.		✓				State Government and City of Melbourne
Strategy 12.2 Establish a robust monitoring and evaluation program across the precinct that will enable performance to be evaluated and approaches to be adapted.				✓		State Government and City of Melbourne
Strategy 13.1 Require all new developments to meet the City of Melbourne's waste management guidelines.	✓	✓				City of Melbourne
Strategy 13.2 Require all new developments to respond to an Arden precinct-wide waste management plan.	✓	✓				City of Melbourne
Strategy 13.3 Minimise the use of virgin materials and embodied emissions from materials used by encouraging in all buildings and capital works that excess or waste materials are kept to a minimum and that materials have recycled content; are non-harmful and locally sourced; are from renewable and/or low-embodied emissions feedstocks or production where possible; or can be composted, recycled and reused.		✓				City of Melbourne
Strategy 14.1 Design the public realm to provide urban cooling benefits through shading, planting and integrated water management for cooling and irrigation effects.			✓			City of Melbourne
Strategy 14.2 Require all new buildings to use materials that minimise the urban heat island effect with a standard that at least 75 per cent of total project site areas should comprise of building or landscaping elements that increase the solar reflectance of the site.		✓		✓		City of Melbourne

STRATEGY	PPC	GD	D	A	РС	NOMINATED LEAD AGENCY
Strategy 14.3 Require all new buildings to meet a standard of 40 per cent total surface area as green cover (green wall, rooftop, canopy and		√		✓		City of Melbourne
understorey planting, native and indigenous planting or maximises adjacent public realm cooling benefits), or an equivalent Green Factor tool score of 0.55 and consistent with <i>Better Apartments Standards 2021</i> .		v		•		
Strategy 15.1						State
Facilitate the potential future delivery of a high capacity public transport capable corridor along Laurens Street, Arden Street, Fogarty Street, Henderson Street and Boundary Road (south of Macaulay Road).	✓			✓		Government
Strategy 15.2						State
Facilitate improvements to local bus services to improve connections between Arden, key interchanges and surrounding suburbs.				✓		Government
Strategy 15.3						State
Explore opportunities to reopen the northern entrance to North Melbourne Station for a more convenient and direct link to Arden.				√		Government
Strategy 16.1						State
Facilitate the delivery of the Strategic Cycling Corridor (SCC) along Arden Street and proposed additions to the SCC network along Queensberry Street, Langford Street and Laurens Street.	✓		✓			Government and City of Melbourne
Strategy 16.2						State
Facilitate delivery of a dense network of protected local cycling corridors on Fogarty Street, Henderson Street, Boundary Road (south of Macaulay Road), Macaulay Road and Victoria Street to complement the proposed Strategic Cycling Corridors and provide bicycle access to destinations within the precinct.	✓		✓			Government
Strategy 16.3						State
Facilitate safer intersections for bike riding by adopting designs which continue bicycle lanes up to and through intersections and provide physical separation for people riding bikes as shown on Plan 4.	✓		✓			Government and City of Melbourne
Strategy 17.1						State
Facilitate a network of permeable streets and pedestrian links through the precinct that are considerate of safety, convenience and direct access to and from key destinations.	✓	✓		✓		Government and City of Melbourne
Strategy 17.2						State
Facilitate delivery of activated pedestrian-priority zones that provide shared space for pedestrians and slow-moving cyclists and managed access for service and emergency vehicles as shown on Plan 4.	✓	✓		✓		Government and City of Melbourne

STRATEGY	РРС	GD	D	A	РС	NOMINATED LEAD AGENCY
Strategy 17.3 Deliver streetscape improvements to Queensberry Street and Fogarty Street to support their role as urban boulevards.	✓		✓			Victorian Planning Authority and City of Melbourne
Strategy 17.4 Encourage the consolidation of servicing facilities and alternative freight delivery models within the precinct to reduce the number of vehicles entering and circulating.		✓				City of Melbourne
Strategy 17.5						Victorian
Facilitate activation of ground floors around open spaces and key pedestrian routes to maximise personal safety and security through the use of Crime Prevention Through Environment Design principles.	✓					Planning Authority
Strategy 17.6						City of
Ensure all current and future traffic signals prioritise walking and cycling and facilitate public transport movements.				✓		Melbourne
Strategy 17.7						City of
Review and update speed limits in line with Arden's principles for movement.				✓		Melbourne
Strategy 18.1						Victorian Planning
Prepare planning controls that direct the ongoing supply and location of car parking to achieve the 10 per cent mode share target for private vehicles, car parking principles (see Arden's principles for movement and parking on page 59), public realm and sustainability objectives for the precinct including consolidated parking facilities.	✓					Authority
Strategy 18.2						Victorian
Ensure appropriate parking provision for different user groups at key destinations, including pick-up/drop-off spaces, disabled parking, and loading and service bays.	✓					Planning Authority
Strategy 18.3						Victorian
Facilitate the ongoing supply and location of bicycle, motorbike and scooter parking within developments to enable footpaths to be prioritised for pedestrians.	✓					Planning Authority
Strategy 18.4						City of
Facilitate future detailed design and planning for the provision of public bicycle parking in accordance with the principles for movement and parking to achieve the minimum mode share targets of 30 per cent walking and cycling trips and ensure footpaths are obstacle free and prioritised for pedestrians.				✓		Melbourne

STRATEGY	PPC	GD	D	A	РС	NOMINATED LEAD AGENCY
Strategy 18.5 Support shared transport schemes such as shared vehicles, e-bike and e-scooters to be delivered through private development and within the public realm in locations where it is readily accessible.				✓		City of Melbourne
Strategy 19.1 Deliver the precinct-wide flood management strategy for Arden.			✓			State Government and City of Melbourne
Strategy 19.2 Provide guidance on how development can achieve flood responsive design and good urban design outcomes that facilitates equitable access and universal design.	✓	✓		✓		City of Melbourne
Strategy 19.3 Facilitate integration of water sensitive urban design into streets and green links including along the Fogarty Street and Queensberry Street urban boulevards and Arden Street.		✓	✓	✓		City of Melbourne
Strategy 19.4 Provide for access to the public realm and positively respond to any necessary level changes that are required for drainage purposes between development and the public realm			✓			City of Melbourne
Strategy 20.1 Support the delivery of an alternative water treatment plant and associated third-pipe infrastructure to provide alternative water as a substitute for potable water for toilet flushing, laundry and irrigation across all public and private development in Arden Central and Arden North.				~		State Government
Strategy 20.2 Identify an appropriate location for an alternative water treatment plant (approximately 800sqm) and storage tank (approximately 800sqm) for Arden in the Arden Central – Innovation and Arden Central – Mixed-use sub-precincts.				✓		State Government
Strategy 20.3 Design buildings to capture rainwater to improve stormwater quality and create an alternative water resource.		✓				City of Melbourne
Strategy 21.1 Preserve opportunities for connecting spaces with the Moonee Ponds Creek by providing additional integrated stormwater management open space along the precinct western edge.				✓		City of Melbourne
Strategy 21.2 Deliver the Capital City Open Space in Arden Central, integrated with the neighbourhood park and the Arden station entrance.			✓			State Government

STRATEGY	PPC	GD	D	A	РС	NOMINATED LEAD AGENCY
Strategy 21.3 Deliver new open space for informal recreation integrated within drainage reserves in Arden North that is able to safely serve a stormwater function in extreme rainfall events.			✓			State Government and City of Melbourne
Strategy 21.4 Deliver a linear park along Munster Terrace and a shared path along its western edge to create green links and walking tracks.	~		✓			State Government and City of Melbourne
Strategy 21.5 Deliver public realm and urban greening improvements along the western edge of the Arden precinct to connect North Melbourne Station and Macaulay Station via a new green link.	✓		✓			State Government and City of Melbourne
Strategy 21.6 Facilitate the provision of public open space throughout the precinct to support the needs of workers, residents and visitors.	~		✓			State Government and City of Melbourne
Strategy 21.7 Explore opportunities to enhance existing open space assets.				✓		City of Melbourne
Strategy 21.8 Collaborate across Victorian Government, local government and water authorities to realise the open space and recreational aspirations of the Moonee Ponds Creek Strategic Opportunities Plan.				✓		State Government and City of Melbourne
Strategy 22.1 Encourage new spaces to build on Arden's identity by integrating and enhancing existing assets of Arden's character and public realm including industrial character, the Moonee Ponds Creek cultural heritage, and existing mature planting throughout the precinct.		✓				City of Melbourne
Strategy 22.2 Limit vehicle carriageways and on-street car parking next to open spaces in order to increase their usability, connectivity and safety.		✓				City of Melbourne
Strategy 22.3 Expand the urban forest through streetscape designs that provide ample space for street trees and people movement. A target of 40 per cent canopy coverage should be achieved in the public realm over time.		✓				City of Melbourne
Strategy 23.1 Support and encourage the provision of six per cent affordable housing in new developments to be delivered at 50 per cent (or alternative method of the equivalent value) discount to a registered housing association.	✓					State Government

STRATEGY	PPC	GD	D	A	РС	NOMINATED LEAD AGENCY
Strategy 23.2						City of Melbourne
Require that up to 25 per cent of new housing be made available as affordable housing where City of Melbourne-owned land is redeveloped.			√			
Strategy 23.3						City of
Encourage additional affordable and social housing provision on all types of land to achieve goals.				✓		Melbourne
Strategy 23.4						City of
Require that at least five per cent of all private housing be universally accessible, to encourage assisted living and help residents age in place.		✓	✓			Melbourne
Strategy 23.5						Victorian
Facilitate a diversity of sizes of residential accommodation for all types of households.		✓				Planning Authority and City of Melbourne
Strategy 24.1						State
Support development of the proposed government primary school within Arden Central to serve the needs of the current and future Arden community and surrounding areas.			✓			Government
Strategy 24.2						State
Support development of the proposed government secondary school in the North Melbourne/Macaulay area to serve the needs of the current and future Arden community and surrounding areas.			✓			Government
Strategy 24.3						State
Ensure schools in Arden are innovatively planned and delivered to be located in proximity to or co-located with complementary services and spaces, including recreational spaces, activity centres, public transport services, kindergartens and early learning centres.		✓				Government
Strategy 25.1						City of
Facilitate the delivery of a family and community hub in the Arden Central – Mixed-use sub-precinct to serve the needs of the Arden community.	✓		✓			Melbourne
Strategy 25.2						City of
Facilitate the delivery of an arts, cultural and community hub in Arden Central - Innovation sub-precinct to serve the needs of the Arden community.	✓		✓			Melbourne
Strategy 25.3						City of
Explore opportunities to upgrade and expand the North Melbourne Recreation Reserve to serve the needs of the Arden community and surrounding areas.				✓		Melbourne

STRATEGY	РРС	GD	D	A	РС	NOMINATED LEAD AGENCY
Strategy 25.4						City of
Provide future active recreation including a sports pavilion, playing surface with lighting, playground and outdoor fitness equipment on the integrated stormwater management open space in the Arden North sub-precinct.			✓			Melbourne
Strategy 25.5						City of
Provide community facilities that are diverse and adaptable to serve the changing needs of people over time, and beneficial, supportive and appropriate for people with special needs, including families, the ageing and elderly population, people with disabilities and those with different cultural and social needs.		✓		✓		Melbourne
Strategy 25.6						State
Facilitate the delivery of creative space by private providers including live/work artist studios, gallery spaces, rehearsal and performance spaces, and creative workshops.	✓	✓		✓		Government and City of Melbourne
Strategy 25.7						City of
Support and facilitate the delivery of aged care and long day childcare facilities by private providers in addition to the aged and childcare services provided within public community hubs.				✓		Melbourne
Strategy 26.1						State
Develop an agreed precinct governance model with stakeholders to provide a sound framework for ongoing decision-making.					✓	Government
Strategy 26.2						State
Establish a delivery strategy that outlines precinct development coordination, staging and timing. This will include a strategy for government landholdings, an approach to working with the private development sector, and set out a coordinated approach to the delivery of key infrastructure items.					✓	Government
Strategy 26.3						State
Establish an application referrals and assessment process to ensure development outcomes are consistent with the objectives of the <i>Arden Vision</i> and <i>Arden Structure Plan</i> .	✓					Government
Strategy 27.1						State
Develop an Arden Place and Resilience Plan that responds to the area's unique identity and conditions and identifies, coordinates and communicates opportunities for early place creation and place-making activities and longer-term resilience-building initiatives to foster a strong sense of place and community identity and build sustained economic, social and environmental resilience, including adaptation to climate change.					✓	Government
Strategy 28.1						Victorian
Manage the impacts of noise and vibration in the precinct by ensuring development includes appropriate attenuation measures.	√					Planning Authority

STRATEGY	РРС	GD	D	A	РС	NOMINATED LEAD AGENCY
Strategy 28.2						State Government
Manage the introduction of sensitive uses into the precinct coordinated with the transition of industry with adverse amenity impacts.	✓	✓			✓	
Strategy 28.3						City of Melbourne
Design public spaces to be shielded from adverse amenity through considering the placement of vegetation, siting, type and composition of buildings and other mitigation strategies.		✓				
Strategy 28.4						State
Manage the impacts of the gas pipeline running beneath the precinct, including referral of relevant applications to the relevant gas authority.	✓					Government
Strategy 28.5						Victorian
Require EMI-sensitive uses to address impacts when in proximity to the railway corridor, the Metro Tunnel or other EMI-emitting sources.	✓					Planning Authority
Strategy 29.1						State
Plan for industries with amenity buffers to manage the staged transition of these uses away from the precinct, to support the <i>Arden Vision</i> , including application of a Buffer Area Overlay where appropriate.					✓	Government
Strategy 29.2						Victorian
Manage the risk of potential land contamination through a staged environmental site assessment process where appropriate.	✓					Planning Authority
Strategy 29.3					Victorian	
Apply the Environmental Audit Overlay to land that is demonstrated to have a high potential for contamination to ensure appropriate remediation or management occurs in consultation with the Environment Protection Authority.	✓					Planning Authority
Strategy 30.1						State
Collaborate across government agencies to maximise delivery efficiencies and community benefit and enable timely urban renewal by pursuing the coordinated programming, funding and delivery of infrastructure identified in the precinct infrastructure plan.					✓	Government and City of Melbourne
Strategy 31.1		_				State
Implement the precinct infrastructure plan as per Appendix 2.		V				Government
Strategy 31.2						Melbourne
Prepare a Development Services Scheme for the Arden and Macaulay urban renewal areas in accordance with the Flood Management Strategy.		✓				Water

STRATEGY	PPC	GD	D	A	РС	NOMINATED LEAD AGENCY
Strategy 31.3 Implement the Arden Development Contributions Plan via a Development Contributions Plan Overlay to deliver precinct infrastructure in accordance with the Arden Precinct Infrastructure Plan.	✓					Victorian Planning Authority and City of Melbourne
Strategy 31.4 Facilitate public open space contributions via clause 53.01 to the Melbourne Planning Scheme.		✓				City of Melbourne



APPENDIX 1: Precinct infrastructure plan

	PROJECT & DESCRIPTION	LEAD AGENCY	POTENTIAL FUNDING SOURCE
CO	MMUNITY CENTRES		
1	Arden North and Macaulay learning and cultural hub, construction Construction of learning and cultural centre	СоМ	Arden DCP/Macaulay DCP
2	Early learning facilities, construction Construction of early years facilities within a government primary school	DET	Arden DCP
3	Arden Central family and community hub, construction Construction of family and community centre	CoM/DoT (subject to State Government resolution)	Arden DCP
4	Sporting pavilion Construction of a sporting pavilion	СоМ	Arden DCP
5	Government primary school Land and construction of government primary school in Arden Central – Mixed-use	DET	Future State Budget
6	Government secondary school Land and construction of government secondary school to service Arden North–Macaulay	DET	Future State Budget
7	Institutional use (hospital) Land and construction for State Government facility	DoH	Future State Budget
OPI	EN SPACE		
8	Capital City Open Space Construction and land acquisition for passive open space	DoT (subject to State Government resolution)	Future State Budget
9	Fogarty Street linear reserve (credited), construction Construction of open space improvements within road reserve	СоМ	Arden DCP
10	Fogarty Street linear reserve, land acquisition Land acquisition for linear open space	СоМ	Clause 53.01 of the Scheme
11	Laurens Street/Arden Street linear open space (credited), construction Construction of open space improvements	СоМ	Arden DCP
12	Laurens Street/Arden Street plaza, land acquisition Land acquisition for passive open space	СоМ	Clause 53.01 of the Scheme
13	Queensberry Street linear open space, uncredited open space improvements, construction Construction of open space improvements to encumbered open space within road reserve	СоМ	Arden DCP
14	Queensberry Street linear reserve, land acquisition Land acquisition for uncredited open space	N/A	Developer works
15	Arden Central – Mixed-use neighbourhood open space (credited), construction Construction of open space improvements	СоМ	Arden DCP

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	PROJECT & DESCRIPTION	LEAD AGENCY	POTENTIAL FUNDING SOURCE
16	Arden Central – Mixed-use neighbourhood open space (credited), land acquisition Land acquisition for passive open space	СоМ	Clause 53.01 of the Scheme
17	Active open space reserve Development of sporting surface and associated works	CoM	Arden DCP
18	Skate park Construction of skate park	СоМ	Arden DCP
МО	ONEE PONDS CREEK		
19	Moonee Ponds Creek Trail Construction of an upgrade to the existing Moonee Ponds Creek Trail	СоМ	Arden DCP
20	Drainage reserve, west of Langford Street Construction of amenity improvements to uncredited open space	СоМ	Arden DCP
21	Drainage reserve, western edge of Arden Central – Innovation Construction of amenity improvements to uncredited open space	СоМ	Arden DCP
TRA	NSPORT		
22	Macaulay Road Construction of redesigned carriageway and road reserve	СоМ	Arden DCP/Macaulay DCP
23	Boundary Road (between Macaulay Road and Gracie Street) Construction of redesigned carriageway and road reserve	СоМ	Arden DCP
24	Henderson Street (between Gracie Street and Fogarty Street) Construction of redesigned carriageway and road reserve	СоМ	Arden DCP
25	Fogarty Street (between Henderson Street and Arden Street) Construction of redesigned carriageway and road reserve	СоМ	Arden DCP
26	Arden Street (between Moonee Ponds Creek and Fogarty Street) Construction of redesigned carriageway and road reserve	СоМ	Arden DCP
27	Arden Street (between Fogarty Street and Laurens Street) Construction of redesigned carriageway and road reserve	СоМ	Arden DCP
28	Arden Street (between Laurens Street and Munster Terrace) Construction of redesigned carriageway and road reserve	СоМ	Arden DCP
29	Fogarty Street, Arden Central – Innovation (between Arden Street and Barwise Street), land acquisition Acquisition of land to facilitate the construction of road reserve	СоМ	Arden DCP
30	Fogarty Street, Arden Central – Innovation (between Arden Street and Barwise Street) Construction of new carriageway and road reserve	СоМ	Arden DCP

	PROJECT & DESCRIPTION	LEAD AGENCY	POTENTIAL FUNDING SOURCE		
31	Barwise Street Construction of redesigned carriageway and road reserve	CoM	Arden DCP		
32	Laurens Street – north of Queensberry Street Construction of redesigned carriageway and road reserve	CoM	Arden DCP		
33	Laurens Street – north of Queensberry Street, land acquisition Acquisition of land to facilitate the construction of road reserve	СоМ	Arden DCP		
34	Laurens Street (between Queensberry Street and Fogarty Street) Construction of redesigned carriageway and road reserve	СоМ	Arden DCP		
35	Laurens Street (between Queensberry Street and Miller Street), land acquisition Acquisition of land to facilitate the construction of road reserve	СоМ	Arden DCP		
36	Laurens Street (between Fogarty Street and Miller Street) Construction of redesigned carriageway and road reserve	СоМ	Arden DCP		
37	Munster Terrace (between Arden Street and Queensberry Street) Construction of redesigned carriageway and road reserve	СоМ	Arden DCP		
38	Munster Terrace (between Queensberry Street and Victoria Street) Construction of redesigned carriageway and road reserve	СоМ	Arden DCP		
CYC	CLING				
39	Cycling path, western edge of Arden Central Construction of on-road cycling path along Langford Street between Macaulay Road and Laurens Street	СоМ	Arden DCP		
40	Macaulay Road Construction of kerbside separated cycle lanes between Arden Street and Boundary Road	DoT	Funding program		
41	Cycling path, North Melbourne Recreation Reserve Construction of off-road bicycle path between Haines Street and Laurens Street	СоМ	Arden DCP		
42	Cycling path, Queensberry Street Construction of kerbside separated cycle lanes between Abbotsford Street and Laurens Street	СоМ	Arden DCP		
43	Cycling path, Victoria Street Construction of kerbside separated cycle lanes between Munster Terrace and Dryburgh Street	СоМ	Arden DCP		
PE	PEDESTRIAN IMPROVEMENTS				
44	Pedestrian-operated signal on Arden Street Pedestrian-operated signal on Arden Street, located 100m west of Fogarty Street to improve north–south connections.	СоМ	Arden DCP		

	PROJECT & DESCRIPTION	LEAD AGENCY	POTENTIAL FUNDING SOURCE
INT	ERSECTIONS		
45	Boundary Road / Macaulay Road Construction of upgraded intersection	CoM/DoT	Arden DCP/Macaulay
46	Boundary Road / Henderson Street / Gracie Street Construction of new intersection	СоМ	Arden DCP
47	Henderson Street / Fogarty Street Construction of new intersection	СоМ	Arden DCP
48	Arden Street / Fogarty Street Construction of new intersection	СоМ	Arden DCP
49	Arden Street / Laurens Street intersection Construction of new intersection	СоМ	Arden DCP
50	Arden Street / Munster Terrace intersection Construction of new intersection	СоМ	Arden DCP
51	Fogarty Street / Barwise Street Construction of new intersection	СоМ	Arden DCP
52	Queensberry Street / Laurens Street Construction of new intersection	СоМ	Arden DCP
53	Queensberry Street / Munster Terrace Construction of new intersection	СоМ	Arden DCP
54	Laurens Street / Fogarty Street Construction of new intersection	СоМ	Arden DCP
55	Munster Terrace / Victoria Street Construction of new intersection	СоМ	Arden DCP
56	Laurens Street / Miller Street Construction of new intersection	СоМ	Arden DCP
57	Arden Street / Langford Street Construction of new intersection	СоМ	Arden DCP
INT	EGRATED WATER MANAGEMENT		
58	Above-ground flood storage area – west side of Langford Street, land acquisition Land acquisition for retarding basin	DoT (subject to State Government resolution)	Arden DCP
59	Above-ground flood storage area – west side of Langford Street, construction Construction and excavation for retarding basin and water quality treatment wetland	MW	URCRS
60	Above-ground flood storage, east of Langford Street, land acquisition Land acquisition for retarding basin	DoT (subject to State Government resolution)	Arden DCP
61	Above-ground flood storage, east of Langford Street, construction Construction and excavation for retarding basin	MW	URCRS
62	Above-ground storage, Arden Central – Innovation, land acquisition Land acquisition for retarding basin	DoT (subject to State Government resolution)	Arden DCP

	PROJECT & DESCRIPTION	LEAD AGENCY	POTENTIAL FUNDING SOURCE
63	Above-ground storage – west side adjoining railway reserve, construction Construction and excavation for retarding basin and water quality treatment wetland	MW	URCRS
64	Overland flow path – Queensberry Street extension, construction Construction and excavation for overland flow path (construction to be delivered as a part of broader road project)	MW	URCRS
65	Overland flow path – Queensberry Street extension, land acquisition DoT (subject to State Government resolution)	DoT (subject to State Government resolution)	DCP
66	Overland flow path – Fogarty Street extension, south of Queensberry Street, construction Construction and excavation for overland flow path (construction to be delivered as a part of broader road project)	MW	URCRS
67	Overland flow path – Fogarty Street extension, land acquisition DoT (subject to State Government resolution)	DoT (subject to State Government resolution)	Arden DCP
68	Above-ground flood storage, Stubbs Street, construction Construction and excavation for retarding basin	MW	URCRS
69	Above-ground flood storage, Stubbs Street, land acquisition Land acquisition for retarding basin	DoT (subject to State Government resolution)	Macaulay DCP
70	Gravity pipe upgrade Construction to upgrade existing gravity drain and connect to Langford Street PS1	MW	URCRS
71	Pressure drainage pipe Pressurise existing Arden Street gravity drains, north and south side of Arden Street	MW	URCRS
72	Arden Street Oval, below ground storage Construction of underground stormwater tank	MW	URCRS
73	Pump station upgrades Construction to upgrade pump stations	MW/CoM	URCRS
74	Moonee Ponds Creek – raising of existing and creation of new levees East and west side of Moonee Ponds Creek – raising of existing and creation of new levees	MW	URCRS
75	Pressure drainage pipe, multiple locations Construction of new pressure drainage pipes	MW/CoM	URCRS
76	Gravity pipe upgrade – Alfred Street & southwards to Sutton Street pump station Upgrade existing gravity drain and connect to Sutton Street pump station	MW/CoM	URCRS
77	Gravity pipe upgrade – Boundary Road Upgrade existing gravity drain	MW/CoM	URCRS

	PROJECT & DESCRIPTION	LEAD AGENCY	POTENTIAL FUNDING SOURCE
78	Gravity pipe upgrade – Laurens Street/Barwise Street Upgrade existing drainage system away from Arden Street drain.	MW	URCRS
79	Gravity pipe upgrade – Laurens Street south Realign and upgrade existing gravity pipe	MW/CoM	URCRS
80	Gravity pipe upgrade – Queensberry Street extension Realign and upgrade existing gravity pipe	MW/CoM	URCRS
81	Pressure drainage pipe – Queensberry Street extension New pressure drain	MW/CoM	URCRS
82	Pressure drainage pipe – Laurens Street New pressure drain	MW/CoM	URCRS
83	Proposed alternative water treatment plant Alternative water treatment plant – land and construction	CWW	NCC
84	Proposed alternative water storage tanks Alternative water storage tanks – land and construction	CWW	NCC
85	Alternative water supply network Distribution and reticulation mains within road reserve to supply alternative water	CWW	NCC or borne by the developer – dependent on individual asset
UTI	LITY AND SERVICE UPGRADES		
86	Arden Station and Metro Tunnel works Construction work for the new Arden Station, including a second station entrance and associated public realm and street upgrades	DoT (subject to State Government resolution)	Funding Program
87	High capacity public transport capable corridor TBC	DoT (subject to State Government resolution)	Funding Program
88	Waste management service centre Land and construction of centralised waste management centre	DoT (subject to State Government resolution)	TBD
89	Freight service centre Land and construction of centralised freight management centre	DoT (subject to State Government resolution)	TBD
90	Upgrades to electricity substation Construction to upgrade existing substation	AusNet services	TBD
91	Water supply upgrades and reticulation Upgrades to the water supply network to increase capacity to service the development as well as reticulation mains within the road reserves to supply potable water to the development	CWW	NCC or borne by the developer – dependent on individual asset
92	Sewer upgrades Upgrades to the sewerage network to increase capacity to service the development as well as reticulation mains within the road reserves to discharge sewerage for the development	CWW	NCC or borne by the developer – dependent on individual asset

	PROJECT & DESCRIPTION	LEAD AGENCY	POTENTIAL FUNDING SOURCE
93	Gas pipeline within active sports reserve Construction of protection works to gas pipeline including recoating and installation of an inverted culvert over the pipeline with the active sports reserve.	DoT (subject to State Government resolution)	DCP

Acronyms

CoM City of Melbourne **CWW** City West Water

DCP Development Contribution Plan

DET Department of Education and Training

DoH Department of Health

DoT Department of Transport

MW Melbourne Water

NCC new customer contribution

TBC to be confirmedTBD to be determined

URCRS Urban Renewal Cost Recovery Scheme

APPENDIX 2: Glossary

Active perimeter / edge / frontage

Street frontages or edges where there is an active visual engagement between those in the street and those on the ground and upper floors of buildings.

Active recreation

Leisure time physical activity undertaken outside of structured, competition sport. Activities within the wider range of physical activity options including walking, running, cycling and other sports.

Active uses

Uses that generate many visits, in particular pedestrian visits, over an extended period of the day.

Activity area

An area that provides a focus for enterprises, services, shopping, employment, housing, transport and social interaction. They range in size, intensity and composition

Adaptive reuse

The capacity of a building or space to respond to changing community needs and to accommodate new land uses and users.

Affordable housing

Housing, including social housing, that is appropriate for the housing needs of very low-income households, low income households and moderate income households, as defined in the *Planning and Environment Act 1987.* See the Act for further details and definitions.

Amendment C309

Implements the West Melbourne Structure Plan's land use and development recommendations by making changes to the 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.

Amenity

The features of an area, street or building, that provide facilities and services that contribute to physical or material comfort and benefit and are valued by users. An amenity can be tangible, such as open space, seating, a swimming pool or gym; or intangible, such as pleasant views, air quality, or proximity to a local school or supermarket.

Anchor enterprises / institutes

Entities with a large stake and economic role in a city or place, usually through a combination of important economic and spatial impacts due to their physical size, sector impacts, employment generating and spending role.

Australian Height Datum (AHD)

The adopted national height datum that generally relates to height above mean sea level. Elevation is in metres.

Blue-green space

Spaces that are designed to integrate natural systems that provide the ecological and amenity value associated with urban greening and also provide stormwater management functions.

Built form

The function, shape and configuration of buildings and their relationship to streets and open spaces.

Capital City Open Space

Open spaces that are iconic and synonymous with the character and identity of Melbourne and often used to stage activities and events of international, national, state and metropolitan importance.

Examples include Federation Square (Capital City), Domain Parklands (Capital City) and Royal Park (State). The size varies to suit the identified purpose and urban context in which they are located

Capital works

Building and engineering works that create an asset in the public realm such as park upgrades, street upgrades or pipe upgrades.

Cloudburst streets

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.

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 housing

Secure, affordable, long term rental housing managed by not-for-profit organisations for people on low incomes or with special needs.

Community infrastructure

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.

Density

The number of measured units in an urban area divided by the area of the land that they occupy, for example dwelling density would comprise the number of dwellings that occupy a land area expressed as dwellings per hectare.

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.

Development contributions

Document that sets out the contributions expected from each individual landowner to fund infrastructure and services. Refer to Part 3B of the *Planning and Environment Act 1987*.

Dwelling

A place of residence, such as house or apartment.

Fine grain design

An urban environment with small-scale spaces, street blocks and a mix of uses to foster diverse activities and walkability.

Floor area ratio (FAR)

The ratio of allowable total floor area to the site area

Floorplates

The shape and amount of leasable area on an individual floor of a building.

Green street

A public thoroughfare that integrates garden beds, tree planting and water sensitive urban design (WSUD).

Gross floor area (GFA)

The total floor area contained within the building.

Housing stress

When housing costs rise too high relative to household incomes. Households are typically considered to be in housing stress when the household has an income level in the bottom 40 per cent of the nation's income distribution and is paying more than 30 per cent of its income in housing costs.

Interface

The space between buildings and the urban space demarcated by that building.

Knowledge economy

Production and services based on knowledgeintensive activities that contribute to an accelerated pace of technical and scientific advancement.

Land use

The primary purpose for which the land is used or may be developed.

Local open space

Open spaces that complement the larger reserves and provide smaller, more intimate spaces within safe and easy walking distance of the local community. Examples include Golden Elm Reserve in South Yarra and Chapman Street Reserve in North Melbourne.

Levee

An embankment built to prevent the overflow of a water body.

Liveability

A measure of city users' quality of life used to benchmark cities around the world. It includes socioeconomic, environmental, transport and recreational measures.

Mixed-use

The composition of land use mix. The arrangement – quantity and distribution – and type of uses within a geographic area or development site.

Neighbourhood open space

Open spaces that provide a diversity of character and facilities that appeal to the local community at a neighbourhood level. Examples include Argyle Square and North Melbourne Community Centre.

Open space

Publicly-owned land set aside for recreation, nature conservation, passive outdoor enjoyment and public gatherings. This includes public parks, gardens, reserves, waterways, forecourts and squares.

Overland flow path

Overland flow occurs in heavy rainfall when water runs off neighbouring properties and driveways, following natural paths and into stormwater drains or local creeks.

Overlay

The planning scheme maps zoning and overlays of land. Overlays only apply where there is a special feature of the land.

Passive recreation

Casual use of open space such as sitting, walking, reading a book, meeting people enjoying the ambience and relaxing.

Permeability

The extent to which the urban form permits or restricts the movement of people and vehicles in different directions.

Place creation

A multi-faceted approach to the planning, design and management of spaces that collaborates with a community with the intention of co-creating a place that promote people's health, happiness, and well-being.

Planning controls

The zones, overlays, and particular provisions contained within the planning scheme.

Planning scheme

The rules for the use and development of land, set out by the Victorian Government and local councils.

Planning Scheme Amendment

Changes to the planning scheme are called amendments.

Potable water

Water that is safe to drink or to use for food preparation.

Protected bicycle lane

Also known as a separated bicycle lane. An onroad or off-road bicycle facility that is physically protected and separated from motor vehicles.

Public housing

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.

Resilience

The capacity of individuals, institutions, businesses and systems within a city to adapt, survive and thrive no matter what kind of chronic stresses and acute shocks they experience.

Scale

The size of a building in relation to its surroundings, or the size of parts or details of the building, particularly in relation to the scale of a person.

Sensitive use

A land use, such as residential uses, that is sensitive to emissions from industry and infrastructure.

Setback

The distance of a building wall from any lot boundary. A building front setback can add to the perceived width of the street, provide additional public or private space, and allow space for landscaping.

Shared equity

A housing model in which the home buyer shares the capital cost of purchasing a home with an equity partner, allowing lower income home buyers to buy sooner as they need a lower initial deposit and have lower ongoing housing costs.

Sleeving

The process of surrounding infrastructure or services with other uses on the outside of the building to produce a better interface with streets, for example sleeving car parking with active uses such as retail.

Social housing

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

Topography

The arrangement of the natural and artificial physical features of an area.

Typology

The classification of (usually physical) characteristics commonly found in buildings and urban places, according to their association with different categories, such as intensity of development, land use or architectural style.

Urban heat island effect

A worldwide phenomenon where cities become warmer than nearby suburban and regional areas, particularly at night due to a range of factors include higher thermal mass and lower urban greening.

Urban renewal

The redevelopment of land in established parts of the city from industrial or low-intensity precincts to precincts with more employment, commercial or residential opportunities.

Urbanisation

The process of making an area more urban.

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Phone interpreters in all languages: 03 9651 0716



Arden STRUCTURE PLAN

WURUNDJERI WOI WURRUNG COUNTRY
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