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DEFINITIONS

Active frontages occur when people can interact between the buildings and the streets and public spaces, such as shop fronts, building entrances and transparent building facades.

Active travel is travel that involves physical activity such as walking and cycling.

Active uses are uses that generate activity at the ground floor. Active uses include cafés, shop fronts and building entrances.

Blocks and sections are how areas of land are identified in the ACT. Land is divided into divisions, suburbs, sections and blocks. Territory Plan zoning determines what activities/uses can occur on the blocks. Blocks are usually leased to one entity.

Built form relates to the buildings, associated structures and surrounding public spaces.

Human scale reflects a sympathetic proportional relationship between the built form and human dimensions where people are not overwhelmed by the built form. Human scale contributes to a person's perception of buildings or other features in the public domain. It is typically referred to when discussing the bulk and scale of development.

Land use zones are allocated by the Territory Plan to all land within the ACT. They define what land uses can or cannot occur on a piece of land. See the Territory Plan and more about the zoning system at www.legislation.act.gov.au/ni/2008-27

Living (green) infrastructure is the integrated system of vegetation, open spaces and waterways in urban areas. It also includes the soil and ground surfaces.

Mixed-use development includes a mix of complementary land uses such as restaurants and small shops at ground level and residences above. Mixed-use development can be horizontal or vertical.

Podium or building base refers to the lower storeys of a tall building that people passing by see and interact with. It is designed to present an appropriate human scale to the streets and public spaces. Podiums can be used to transition down to

lower-scale buildings, and minimise the impact of car parking and servicing areas.

Public domain refers to spaces that belong to or are available to the public, including parks, streets and other public spaces such as plazas, courtyards and open spaces.

Shared use is a path for non-motorised transport, with the exception of motorised wheelchairs and power-assisted pedal cycles. Both pedestrians and cyclists share these paths.

Shared zone (or shared space) is a road or place that is shared safely by vehicles, cyclists and pedestrians. A shared zone may include the removal of traffic lights, pedestrian barriers, road markings and kerbs to give equal priority to all users and require negotiation between users.

Solar access is the ability of a building or public space to receive sunlight without obstruction from other buildings.

Surveillance or passive surveillance is the 'eyes on the street' from residents and people going about their daily activities, which creates a sense of safety onto streets and public spaces.

Urban heat island effect is a metropolitan area that is significantly warmer than its surrounding areas. The main cause of the heat island effect is the use of materials that store and radiate heat into the surrounding areas, for example concrete and bitumen.

Visual cues are elements in the public domain that contribute to a person's understanding of a place. For example, buildings may gradually get taller as you travel closer to a town centre, providing an understanding that you are approaching a major centre.

Water sensitive urban design (WSUD) is the planning, design and/or construction of the built environment to minimise water run-off and ensure any run-off causes the least amount of damage. It is also about wise use of that water to improve our urban environment.

EXECUTIVE SUMMARY

The ACT Government has prepared a master plan for the Curtin group centre (the centre) that sets out a vision, planning principles, spatial framework and planning strategies to guide the growth and development in the centre over time.

This Curtin Group Centre Master Plan has been prepared in response to actions outlined in the ACT Planning Strategy (2012). These actions include the need to: investigate opportunities for urban intensification for the centre; to ensure everyone has access to a range of facilities, services and opportunities for social interaction; and to encourage active travel to and from the centre.

Curtin is located in the north of Woden Valley, with the centre positioned atop a knoll providing views to the adjacent suburbs of Deakin and Hughes to the east. The centre is approximately 3 kilometres north of Woden town centre and services Curtin and the neighbouring suburbs of Yarralumla, Deakin, Hughes and Lyons.

The centre displays a diverse mix of commercial uses in the retail core precinct including small specialty shops, a supermarket and a hotel. This mix of commercial and retail activity contributes to the centre's 'urban village' feel and style of development. The central courtyard and pedestrian-only spaces play an important role for the community, allowing people to relax and enjoy the centre, and providing meeting and market spaces.

Preparation of this master plan involved extensive background research and analysis, including:

- consideration of strategic planning directions and policies
- consideration of background research, reports and analysis
- establishment of a community panel process to discuss the development and redevelopment opportunities for the centre, and
- responding to outcomes from community and stakeholder engagement activities undertaken as part of the master planning process.

The key findings of this research and analysis are:

- The centre benefits from a good mix of shops and services and a useable public domain.
 However, since the time the shops on the western edge of the central courtyard closed, community perceptions of the centre, and especially the level of activity, had changed.
- There are limited opportunities for new residential development in the centre; however potential nearby developments such as the Yarralumla Brickworks and the expanding Molonglo Valley could contribute to an increase in visitors to the centre.
- The central courtyard, including the associated walkways and public spaces, are highly valued by the community. The existing green spaces and the large canopy trees in Curtin are also highly valued by the community.
- The design of existing parking areas is inefficient, with poor pedestrian amenity. Parking is close to capacity during a typical weekday at peak periods.
- Connections into the centre are not formalised in some places and are challenging for cyclists, however there is a good network of established open spaces.
- Very few uses in the retail core operate after 6pm on a typical weekday.

In response to these findings, this master plan outlines a vision that captures what is valued about the centre and sets out what it may become in the future.

CURTIN GROUP CENTRE IS AN ACTIVE AND INCLUSIVE MEETING PLACE FOR THE LOCAL COMMUNITY. AS A SUCCESSFUL URBAN VILLAGE, THE CENTRE WILL BE EASILY ACCESSIBLE AND WILL PROVIDE A CONVENIENT VARIETY OF BUSINESSES AND SERVICES.

The vision is supported by five planning principles, which inform the planning strategies. The principles and strategies provide direction and guidance for the future development of the centre over the long term, considering the varied range of issues identified during community engagement and in the background research and analysis.

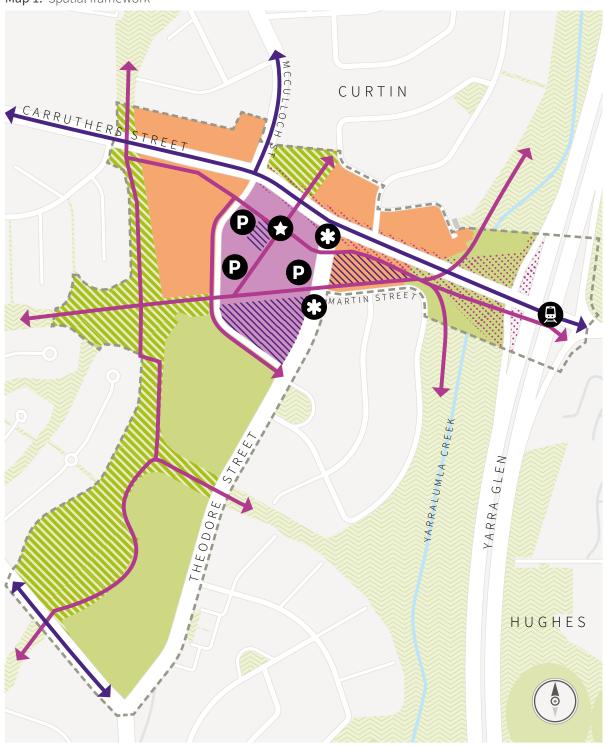
Key recommendations proposed by this master plan as indicated in **Map 1** include:

- protecting the central courtyard as a focal point for community life, including limiting building heights around the eastern, western and northern edges of the courtyard to keep sunlight in this space, and identifying opportunities for future upgrades to support community activities and business
- identifying new opportunities for development and redevelopment in and close to the centre; detailed planning controls will ensure there is a balance between future development that contributes to the centre's village character and the economic viability of the whole centre into

- providing opportunities to improve neighbourhood walking and cycling links, including a primary east-west link to better connect the existing suburban areas to the future light rail station on Yarra Glen
- identifying future upgrades in the public domain and western open space, including new entry signage, cultural heritage signage and public art that can further add to the character of the centre as a place for people to shop, meet and socialise
- identifying strategies to improve the pedestrian experience and efficiency of parking areas, including retention of surface parking on the eastern and western edges of the centre, and
- promoting environmentally sustainable design measures in the future buildings and public spaces in the centre, such as additional large tree plantings and water sensitive urban design.



Map 1: Spatial framework







1. INTRODUCTION

Curtin Group Centre Master Plan



1. INTRODUCTION

PURPOSE AND SCOPE

The ACT Government is committed to the renewal and revitalisation of Canberra's neighbourhood centres, which include suburban group centres such as Curtin. This master plan is the result of extensive community and stakeholder engagement and has been informed by background studies and analysis. This master plan outlines strategies and makes recommendations that aim to provide an integrated and community-supported vision for the Curtin group centre (the centre).

Over the past few years, key strategic documents for the ACT have been introduced including the ACT Planning Strategy (2012); Transport for Canberra (2012); AP2: A New Climate Change Strategy and Action Plan for the ACT (2012); the Active Travel Framework (2015); Business Development Strategy (2015); and the Minister for Planning's Statement of Planning Intent (2015).

The ACT Planning Strategy encourages a more compact city by focusing urban intensification in town centres, group centres and along major public transport routes. It identified the centre as an area to be further investigated for urban intensification, associated with the rapid transit route on Yarra Glen. The ACT Planning Strategy also calls for opportunities for new enterprises to be investigated, such as small and mediumsized business, to be located as part of mixed-use developments along the major public transport routes and in group centres. To help achieve this goal, the Environment, Planning and Sustainable Development Directorate (EPSDD) has prepared this master plan for the centre.

The master plan process included four stages of community engagement. Stages 3 and 4 were in addition to the usual master plan engagement processes to provide the community with more opportunities to be informed and provide input to the development of the master plan. EPSDD consulted local residents, local businesses, community groups, private interest groups and ACT Government agencies.

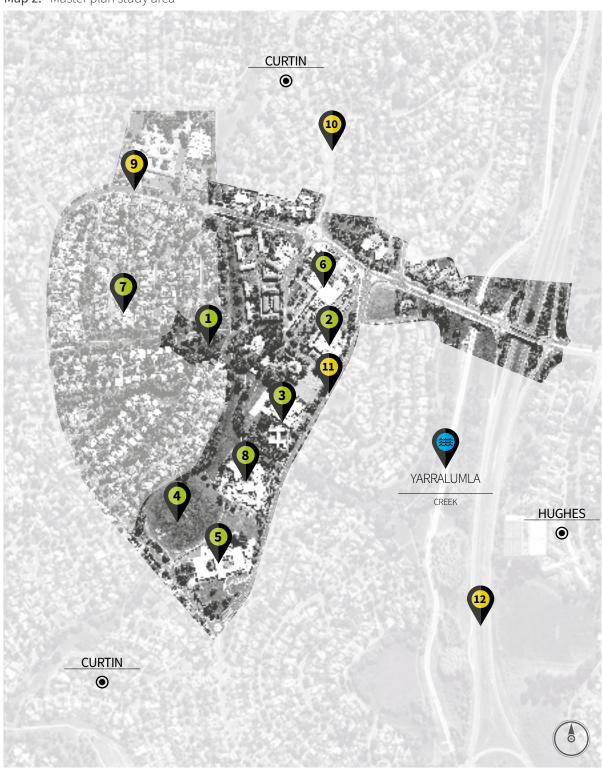
The first stage of community engagement began with the release of information posters in April 2015. The information posters and associated community engagement activities outlined key planning issues and sought feedback on the preliminary challenges and opportunities that exist in the centre. This informed the second stage of engagement from November 2015 to February 2016, which sought feedback on the draft master plan. There was strong community interest in the recommendations of the draft master plan, including new opportunities being identified for the centre and the announcement of light rail from the city centre to Woden.

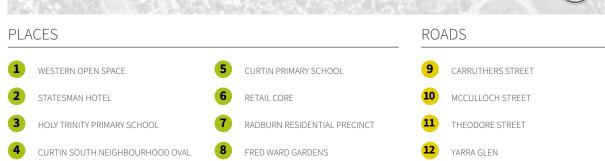
To address these new opportunities, the ACT Government undertook a third stage of community engagement by establishing a community panel to discuss development and redevelopment opportunities for the centre. The community panel met in July, August and November 2017 with representation from the community, lessees, traders, developers and government. At the final community panel meeting, revised master plan diagrams were presented by the ACT Government for consideration and discussion by panel members. The community panel generally supported the revisions; however, building heights adjacent to the existing central courtyard were contested.

The fourth stage of community engagement, held between April and June 2018, sought feedback on the revisions to the draft master plan in response to the outcomes of the community panel process. This stage of engagement informed the finalisation of this master plan.

This master plan provides an overview and background analysis of the study area. It recommends a vision, spatial framework, planning principles and strategies that respond to existing and potential development pressures in the centre. Key strategies and recommendations are based on the background analysis and community engagement feedback received as part of the master plan process. Map 2 illustrates the master plan study area.

Map 2: Master plan study area





MASTER PLAN STUDY AREA

Curtin is located approximately 3 kilometres north of Woden town centre and 8 kilometres south-west of Canberra's city centre. The suburbs of Lyons and Phillip are to the south of the centre, and Hughes and Deakin to the east. The centre is the closest group centre for residents in Yarralumla, although the two suburbs are separated by the Cotter Road, a busy arterial road.

The Curtin Group Centre Master Plan study area is illustrated in Map 2. The study area includes the retail core, community uses, medium-density residential development and urban open spaces. It is bounded by the open space corridor to the west, Carruthers Street to the south, Theodore Street to the east and community facilities and land zoned medium-density residential along Carruthers Street to the north.

The study area extends east to the Yarra Glen and Carruthers Street intersection to ensure opportunities to connect to the rapid public transport corridor and the employment hub in West Deakin were investigated. The surrounding local context is predominantly comprised of low-density residential suburban character.

BLOCK AND SECTION MAP

Under the Territory Plan, Canberra is divided into divisions, suburbs, sections and blocks, with blocks usually leased to one entity. Blocks and sections are referred to in this document.

Map 3 provides a quick reference to help the reader identify blocks and sections within the master plan area.

WHAT A MASTER PLAN DOFS

A master plan is a non-statutory document that can recommend planning policies, opportunities for land release, public domain upgrades and further studies. A master plan defines what is important about a place and identifies opportunities for preserving and enhancing the quality of that place.

A master plan investigates opportunities for urban intensification for the centre and ensures everyone has access to a range of facilities and services. It aims to improve vibrancy by providing opportunities for social interaction by reinforcing the role of the centre as a community hub. A master plan offers town and group centres long-term planning frameworks for urban renewal and is guided by key actions and strategies identified in the ACT Planning Strategy.

PLANNING POLICIES

The Territory Plan is the key ACT statutory planning document that provides the policy framework for the administration of land use and planning. It specifies what may and may not happen on each block of land. Potential changes and inclusions in the Territory Plan for the centre would take the form of a new or revised precinct code for the centre.

A precinct code sits within the Territory Plan and provides place-specific planning controls. This master plan, which is informed by community input, makes recommendations for revisions to the Curtin Precinct Map and Code in regards to appropriate land use, building heights, building setbacks and location of active frontages.

Map 3: Block and section CURTIN CARRUTHERS 100 STREET 13 63 5 6 62 60 14 61 YARRA GLEN HUGHES LEGEND STUDY AREA SECTION BOUNDARY 10 SECTION NUMBER BLOCK BOUNDARY 10 BLOCK NUMBER

OPPORTUNITIES FOR LAND RELEASE

Land release is the sale of Territory-owned land. The supply and release of land in the ACT considers factors such as forecast population changes, household changes, demand for land and the capacity to cost-effectively deliver key infrastructure and services.

PUBLIC DOMAIN UPGRADES

Infrastructure and public space improvements are required to realise the vision and some of the strategies of this master plan. There are opportunities for the private sector to contribute to the public domain through partnerships with the government, or as part of off-site works. Works to undertaken by the ACT Government in the future will involve further investigations by responsible government agencies and funding consideration through future government budget requests.

FURTHER STUDIES

These may be required to progress some strategies that are either outside of what a master plan may deliver, or may take more time to investigate.

MASTER PLAN PROCESS

The master plan process for the Curtin group centre included four main stages as illustrated in Figure 1, with opportunities for stakeholders and the public to provide input in all stages of the master plan development.

The process commenced with Stage 1, which involved the gathering and analysis of information, including community engagement, to help inform the preparation of the draft master plan.

The draft master plan represented Stage 2 of the process. Feedback received from stakeholders and the community during the twelve-week engagement period was used to inform the following stages of community engagement.

A community panel process was undertaken as part of stage 3 of community engagement. The community panel was formed to discuss the development and redevelopment opportunities for the group centre that arose during the engagement process for the draft master plan. This process was designed to facilitate discussion on the future of the group centre with representation from community groups, lessees, traders, developers and government.

As a result of outcomes from the community panel, revisions to the draft master plan were proposed over an eight-week community engagement period. Feedback received from this fourth and final round of community engagement informed the preparation of this master plan.

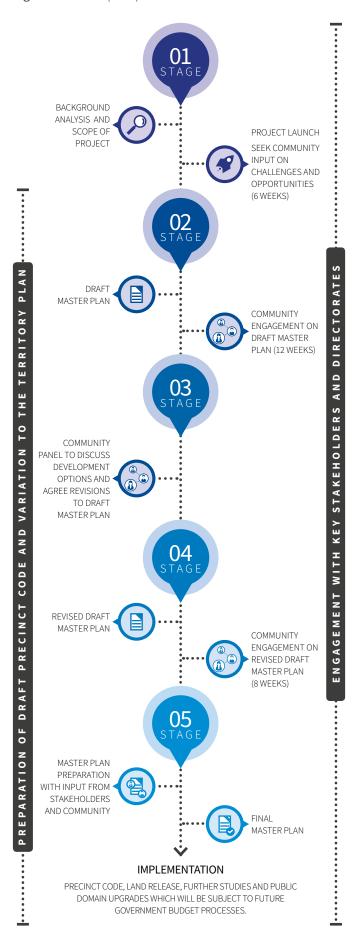
The implementation of the master plan will include new planning controls in the form of a precinct code in the Territory Plan, potential land release, public domain upgrade recommendations subject to future budgets and potential further studies. Figure 1 illustrates how the preparation of a precinct code runs concurrently with the master planning process.

COMMUNITY ENGAGEMENT

Community engagement forms a critical part of the analysis in the early stages of the master planning process and in refining recommendations in the master plan.

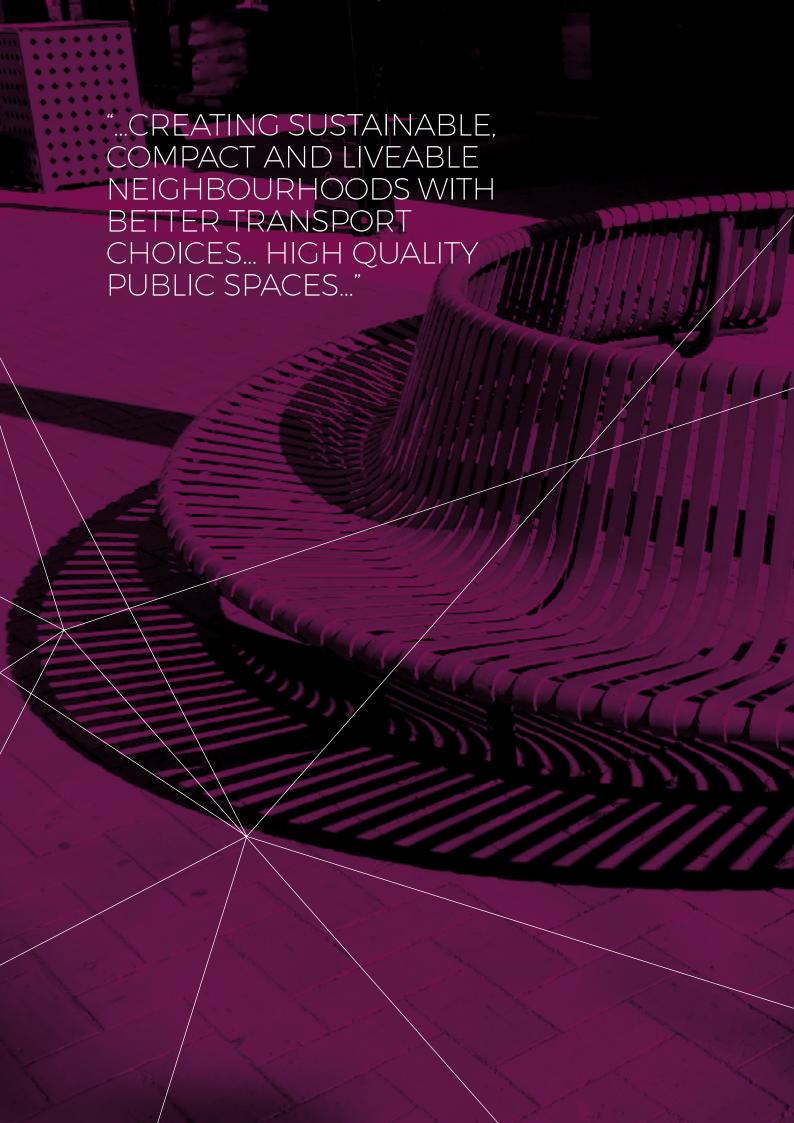
The background and analysis section of this master plan, the community engagement reports and the community panel outcomes report provide details of how community engagement was undertaken and a summary of feedback received. The community engagement report, which includes a summary of messages heard from each stage of community engagement, may be seen at www.planning.act.gov.au

Figure 1: Master plan process



2. PLANNING CONTEXT

Curtin Group Centre Master Plan



2. PLANNING CONTEXT

STRATEGIC PLANNING

The Curtin Group Centre Master Plan is a strategic policy document that amongst other things, seeks to translate the ACT Government's broader metropolitan policies at a local level. This section outlines the policy context that applies to the centre.

THE MINISTER FOR PLANNING'S STATEMENT OF PLANNING INTENT

The Minister for Planning released his Statement of Planning Intent in 2015. The statement sets out the key planning priorities for the ACT Government for the next three to five years.

The statement establishes four key planning priorities and associated actions:

- Creating sustainable, compact and liveable neighbourhoods with better transport choices
- Delivering high quality public spaces and streets through placemaking
- Delivering an outcome-focused planning system to reward design excellence and innovation
- · Engaging with the community, business and research sectors to optimise planning outcomes.

The Curtin Group Centre Master Plan has incorporated and progresses these high-level priorities.

ACT PLANNING STRATEGY

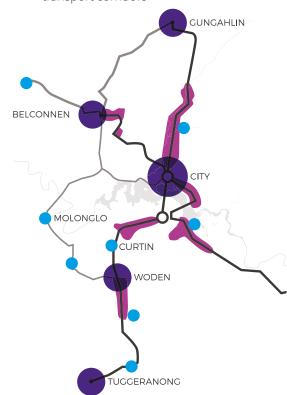
The ACT Planning Strategy (2012) was prepared in response to the changes in ACT's economic, demographic and environmental circumstances. The strategy outlines a series of directions that will create a more sustainable city by:

- focusing urban intensification in town centres and group centres supported by public transport to improve the vibrancy of centres
- · improving the urban quality and liveability of Canberra

- · managing the land and natural resources of the area to conserve where appropriate and to manage growth to ensure a prosperous region, and
- supporting convenient access to a range of facilities, services and opportunities for social interaction by reinforcing the role of group centres as community hubs.

The ACT Planning Strategy's first direction is of particular relevance to this process and promotes a more compact and efficient city by focussing urban growth in town centres, group centres such as Curtin and along main transit corridors, as illustrated in Map 4.

Map 4: ACT Planning Strategy focusses growth in town centres, group centres and along transport corridors



LEGEND

GROUP CENTRES



URBAN INTENSIFICATION LOCALITIES



EMPLOYMENT CENTRES/TOWN CENTRES

TRANSPORT FOR CANBERRA

Transport for Canberra (2012) is a companion policy to the ACT Planning Strategy. It seeks to integrate urban planning and transport to ensure Canberra grows in a way that is sustainable, compact and vibrant and that maximises opportunities for urban renewal. Key policy directions include:

- integrating land use and transport through the frequent network of public transit corridors
- making walking and cycling the easiest travel options to encourage active travel, and
- strategically managing the road network and parking.

In addition, the importance of building an integrated transport network will help improve the efficiency and effectiveness of Canberra's transport network. Integrated transport networks generate economic opportunities and jobs. They are also a catalyst for creating vibrant and attractive urban environments.

ACTIVE TRAVEL FRAMEWORK

Building an Integrated Transport Network—Active Travel (2015) outlines how the government can better integrate planning and the delivery of active travel initiatives to further encourage and support walking, cycling and use of public transport (which also involves walking/riding to the bus stop or final destination). Effective urban planning will shape our suburbs to encourage people to walk, cycle or ride for recreation and social interaction.

CLIMATE CHANGE ACTION PLAN

AP2: A New Climate Change Strategy and Action Plan for the ACT (2012) is the ACT Government's strategic policy on climate change. AP2 guides the Territory's strategy to reduce greenhouse gas emissions by 40% of 1990 levels by 2020 and to transition the ACT to zero net emissions by 2060. In May 2018, the ACT Government brought forward its target for net zero carbon emissions to 2045 at the latest.

AP2 provides a pathway to achieve emission reductions through energy efficiency and increased use of renewable energy. The ACT Government is on track to have 100% renewable electricity by 2020. It also identifies opportunities for improved environmental performance of buildings and infrastructure.

In response to projections for the ACT and region for an increasingly hotter and drier climate with more extreme weather events, the ACT Government has been taking mitigation action to reduce greenhouse gas emissions by minimising use of fossil fuels for heating, cooling and transport, and increasing the efficiency of energy use.

The ACT Government Climate Change Adaptation Strategy (2016) is guiding the community, city and natural environment to adapt to climate change and become more resilient to its impacts.

ACT WATER STRATEGY AND CATCHMENT MANAGEMENT

The ACT Water Strategy 2014-44: Striking the Balance was endorsed by the ACT Government in July 2014. The strategy incorporates three themes and a detailed implementation plan. It is guiding the management of the Territory's water supply, water resources and catchment practices over the next 30 years. It builds on the original ACT Water Strategy, Think Water, Act Water.

While the emphasis of the original strategy was on water security following the 2003 bushfires and the Millennium Drought, the new strategy focuses on improving water quality and ecosystem health of the region's rivers and streams.

The ACT and Region Catchment Strategy 2016–46 details factors that affect the wider catchment and includes actions to promote a healthy catchment region. The strategy aims to coordinate governments, community and industry to produce a healthy, productive, resilient and liveable catchment region.

HEALTHY WEIGHT ACTION PLAN

The Healthy Weight Action Plan (2013) sets the ACT Government's target of 'zero growth' for obesity in the ACT and guides policies toward this goal.

One guarter of children and two-thirds of adults in the ACT are overweight or obese (2016). While our rates of these measures were slightly below the national average, they are still a major concern. As a result, a growing number of people are at risk of developing chronic health diseases such as cardiovascular disease, diabetes, and some cancers. Obesity is associated with complex healthcare needs, poor quality of life and early death.

Effective urban planning and design is a key area of action, due to the ability of the built environment to shape locations that encourage incidental physical activity through active travel and recreation.

STATUTORY PLANNING

NATIONAL CAPITAL PLAN

The National Capital Plan is the strategic plan for the ACT managed by the National Capital Authority on behalf of the Australian Government. The National Capital Plan ensures Canberra and the Territory are planned and developed in accordance with their national significance.

The National Capital Plan includes 'designated' areas, which are areas considered to be of national importance and include the central national area, national institutions, diplomatic areas, Lake Burley Griffin, approach routes to the city, and hills, ridges and buffers. Although there are no designated areas within the study area, there is designated land immediately to the north-east, reserved for diplomatic missions, and hills, ridges and buffers to the west of Curtin.

TERRITORY PLAN

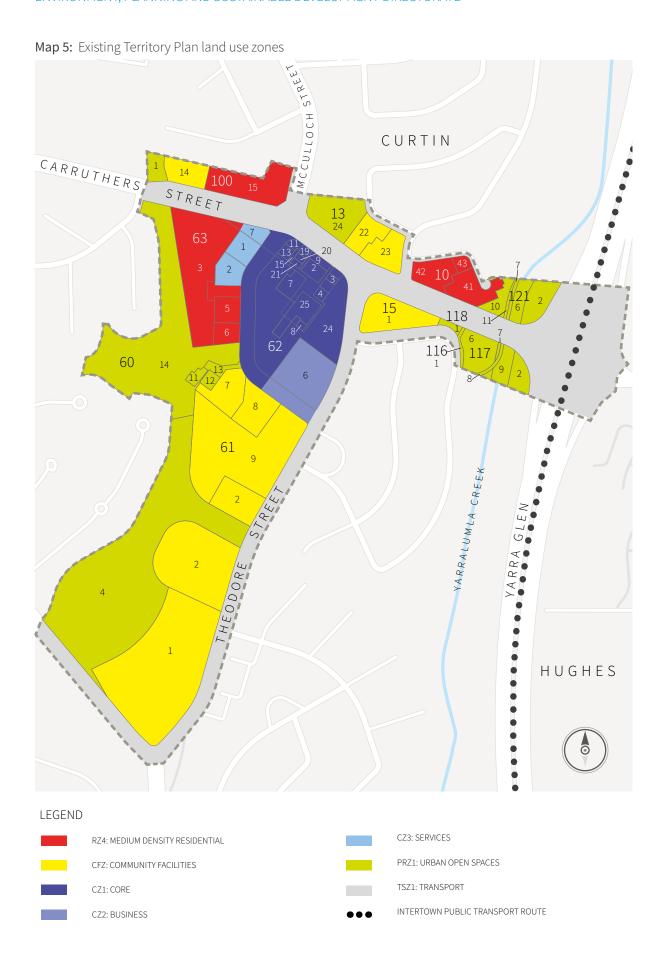
The Territory Plan is the key statutory planning document in the ACT, providing the policy framework for the administration of land use and planning in the ACT. The purpose of the Territory Plan is to manage land use change in a manner consistent with strategic directions set by the ACT Government, Legislative Assembly and the community. The provision and administration of the Territory Plan must be "in a manner not inconsistent with the National Capital Plan".

The retail core of the Curtin group centre is zoned commercial and includes Commercial Zone 1: Core Zone (CZ1: Core Zone) and Commercial Zone 2: Business Zone (CZ2: Business Zone) as indicated in Map 5. A small amount of land to the north-west of the retail core is zoned Commercial Zone 3: Services (CZ3: Services). Immediately adjacent to the retail core is a mix of land use zones including: residential, Residential Zone 2: Suburban Core Zone outside of the immediate study area (RZ2: Suburban Core) and Residential Zone 4: Medium Density Residential (RZ4: Medium Density Residential); community (Community Facility Zone: Community Facility Zone (CFZ: Community Facility Zone); and parks and recreation (Parks and Recreation Zones 1: Urban Open Space Zone (PRZ1: Urban Open Space Zone). A high proportion of land—approximately 35% of the total study area—is currently zoned for community use.

CURTIN PRECINCT MAP AND CODE

A Territory Plan variation is required to implement this master plan. The variation will contain revisions to the existing Curtin Precinct Map and Code. A precinct code outlines place-specific planning controls such as land use, building heights, building design elements, building setbacks, and where active frontages should be located.

Development applications for development in the centre are submitted and assessed against the Curtin Precinct Map and Code and other general codes of the Territory Plan.



SPATIAL CONTEXT

Canberra is a planned city. In the 1960s, the National Capital Development Commission (NCDC) identified several districts outside of the central area for future urban development through the Metropolitan Plan for Canberra. This was known as the 'Y Plan', with Tuggeranong at the base of the Y and Belconnen and Gungahlin at the top. The Curtin group centre is located within Woden Valley, one of the first districts to be developed.

Each district was planned with a hierarchy of commercial centres including town, group and local centres. This structure was intended to help develop strong communities that had good access to services and jobs, and to reinforce Canberra's relationship with its landscape. Town centres generally serve their wider district as the main commercial focus. Group centres provide shops and services for a 'group' of suburbs, while local centres typically cater for a single suburb or precinct. The ACT Planning Strategy supports this centres hierarchy approach and encourages a more compact city by focusing urban intensification in town centres, group centres and along major public transport corridors. This master plan considers how urban intensification and improved access to public transport may be achieved for the Curtin group centre.

Curtin is located in the north of Woden Valley, with the retail core positioned atop a knoll providing natural sightlines to the adjacent suburbs of Deakin and Hughes to the east. The suburb is adjacent to Oakey Hill Nature Reserve in the south-west and close to Red Hill Nature Reserve in the east. A gentle ridge to the east of Curtin measures approximately 1.2 kilometres and runs from and parallel to Yarralumla Creek

The spatial context of the centre is illustrated in Map 6. Major arterial roads link the centre to the Woden town centre (3 kilometres) and the city centre (8 kilometres). Local centres exist in the adjacent suburbs of Yarralumla, Deakin, Hughes and Lyons.

The West Deakin office and health precinct lies immediately east of the study area and includes Calvary John James Hospital and a range of ancillary and allied health providers. This precinct, along with the Curtin group centre and the nearby Weston group centre, will help provide essential services and amenities for Molonglo Valley residents until the Molonglo commercial centre is established. The nearest public hospital is The Canberra Hospital in the suburb of Garran, which provides services for Canberra and the greater Canberra region.

Map 6: Spatial context





10 7 CURTIN GROUP CENTRE MANUKA OVAL RED HILL WODEN TOWN CENTRE 11 DEAKIN HEALTH PRECINCT LAKE BURLEY GRIFFIN CANBERRA HOSPITAL CITY CENTRE 12 OAKEY HILL PARLIAMENT HOUSE NATIONAL ARBORETUM ROYAL CANBERRA GOLF CLUB

PLANNING HISTORY

The Woden Valley District was the Territory's first satellite city, originally designed in the 1960s as a discrete unit of twelve suburbs. A key driver for its development was to decentralise employment and retail centres.

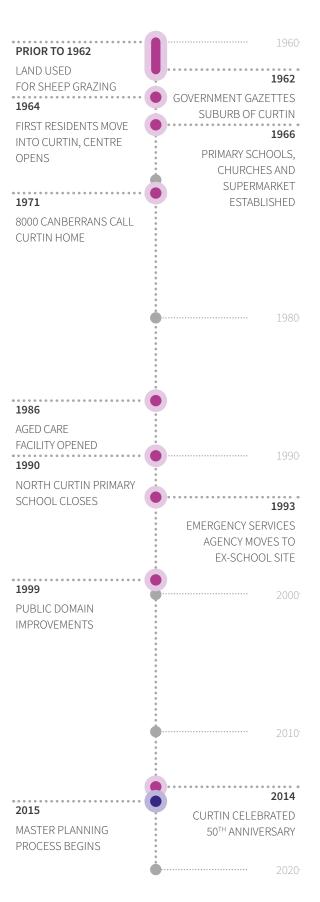
The suburb of Curtin is named after John Curtin, the fourteenth Prime Minister of Australia, who is acknowledged with an entry sign on Carruthers Street at the centre. The community celebrated the fiftieth birthday of the suburb in 2014 with events held in the centre's central courtyard.

Land in the Curtin area was originally used for sheep grazing prior to gazettal of the suburb in 1962 and the centre's establishment. Families moved into the residential area in 1964 and by 1971 there were 8000 residents.

Throughout the 1960s, the NCDC experimented with a variety of housing designs. These included residential estates planned using 'Radburn' design principles, which aimed to separate pedestrian and vehicular traffic and face living and sleeping spaces to the rear. Vehicle access to houses was via smaller access streets, while pedestrian walkways connected the house frontages to urban parkland and local amenities. Curtin, the first precinct in the ACT to be planned on these principles, was designed by Jack Venn between 1961 and 1962.

Curtin was designated a group centre, to be anchored by a supermarket, have 4000 m2 to 6000 m2 of retail floor space and located to serve between three and five suburbs within walking distance. The centre currently services Curtin and the neighbouring suburbs of Yarralumla, Deakin, Hughes and Lyons. However, it operates more like a local centre for the Curtin residents.

Figure 2: Timeline of major development





CURTIN GROUP CENTRE IN THE LATE 1960S (COURTESY ARCHIVES ACT)



CURTIN GROUP CENTRE IN THE LATE 1960S (COURTESY ARCHIVES ACT)

Three primary schools, three churches and a supermarket were established in the suburb by the mid-1960s. The aged-care facility opened in 1986. The North Curtin Primary School was closed in 1990 due to low student numbers, and remained vacant until 1993 when the ACT Government Emergency Services Agency moved part of its operations to Curtin. The Queen Elizabeth II Family Centre was established on the old primary school oval in 1995.

The retail core public spaces have not been upgraded since the late 1990s.

A timeline of major development in the Curtin group centre is indicated at Figure 2.

CHARACTER AND HERITAGE

CHARACTER

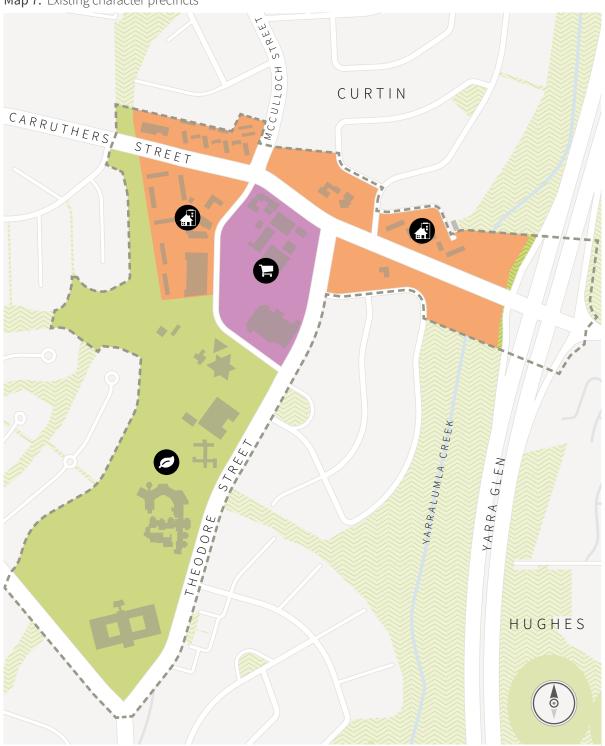
The Curtin group centre is made up of three existing character precincts (Map 7). These precincts are identifiable by their land use, location, street character and built form:

The **commercial core precinct** is a diverse range of commercial spaces that face inwards onto internal pedestrian-only walkways and paved courtyards. Tenancies in this precinct are generally small. Buildings are one or two storeys high, although two of the single storey buildings have an underground basement. This precinct includes heavily used surface parking. The Statesman Hotel is located at the southern edge of the precinct.

The Carruthers Street community and living precinct includes mixed uses such as a service station, medium-density residential living and community uses such as churches, an early childhood centre and a family centre. It is difficult to easily and safely walk or ride into the centre from this precinct, particularly across Carruthers Street.

The recreation, community and open space precinct contains established community facilities including two schools, an aged care facility, a neighbourhood oval and a church. The western open space network provides good connections to the commercial (retail) core and residential areas beyond.

Map 7: Existing character precincts



LEGEND

COMMERCIAL CORE PRECINCT

COMMUNITY AND LIVING PRECINCT

0 RECREATION, COMMUNITY AND OPEN SPACE PRECINCT

HERITAGE

As part of the master plan process, an assessment of existing buildings, places, objects and artwork was undertaken in March 2015 to assess the potential for new nominations to the ACT Heritage Register of places or objects with any heritage significance. This assessment included consideration of the Radburn residential precinct to the west of the study area.

There are currently no listed heritage items within the study area, however two items were determined to have merit and could potentially be new heritage places or objects:

- Holy Trinity Catholic Church and Bell Tower (1975) and Parish Office (2010) at Strangways Street
- Curtin Radburn Residential Precinct (1962) bounded by Carruthers, Theodore and Strangways Streets.

The Holy Trinity Catholic Church was designed by architect Kevin Joseph Curtin in 1975. The church is constructed of brickwork with a steel frame and steeply pitched, pyramid-shaped tiled roof. A parish office was built in 2010 and replicates the form, materials and details of the church building. The steel bell tower complements the forms of the adjacent structures and completes a pleasing townscape composition.

The Curtin Radburn Residential Precinct is considered to have social significance for the Curtin area, is considered a community landmark and has been a point of orientation in north Woden since 1975. The precinct was designed in 1961–62 by Jack Venn, a town planner for the NCDC. Venn laid out the housing in Curtin as per Radburn planning philosophies that originated from New Jersey, USA in the 1920s. These philosophies encouraged neighbourhoods to segregate vehicular and pedestrian movement, incorporated communal spaces and parkland areas, and provided pedestrian-friendly residential houses that faced onto the communal spaces.

The NCDC experimented with Radburn planning principles through the 1960s and 1970s in five Canberra suburbs: Hughes, Garran, Curtin, Fisher and Charnwood. Of these, only the Curtin and Fisher precincts remain significant and intact examples of Radburn neighbourhood planning in Canberra. The Curtin Radburn Residential Precinct is considered to have a significant and successful planning layout and subdivision. The design of the individual houses was less of a consideration for this precinct in terms of heritage value.

These places and objects have not been nominated to the ACT Heritage Register and require further assessment to determine if they are of heritage value.

A thorough archaeological field survey of the study area was undertaken in March 2015 and identified no new Aboriginal heritage sites or areas with potential to reveal subsurface Aboriginal site deposits. This could be due to the significant level of ground surface disturbance that has occurred in the area over time.

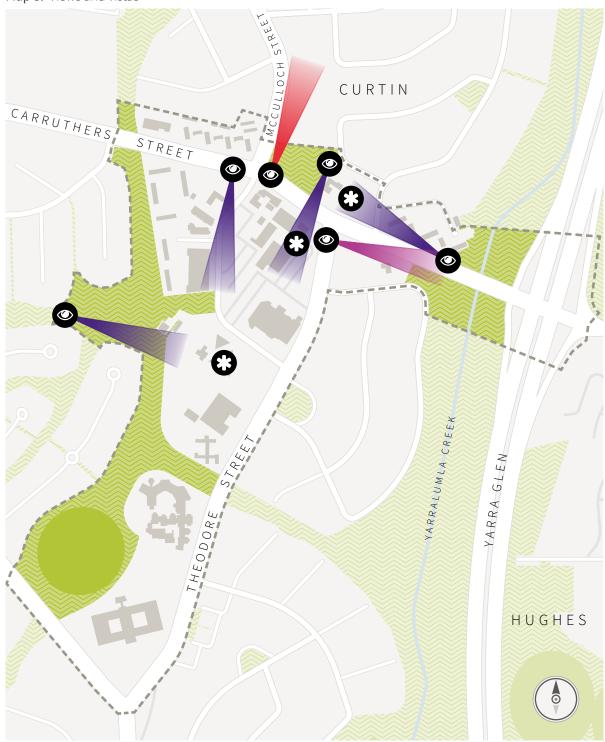
VIEWS AND VISTAS

Several key views and vistas are considered in this master plan as they are deemed to contribute to the character of the centre. Some key views and vistas are indicated in Map 8 and described below:

- From the north-eastern corner of the retail core. there are hilltop views to Red Hill, vistas of the adjacent suburbs of Hughes and Deakin, and a view of the Parliament House flagpole.
- Views of the Holy Trinity Catholic Church steeple, Australia Post building roof feature and Anglican Church of the Good Shepherd steeple are readily visible from several areas in the centre and contribute to the character of Curtin.
- Views to Black Mountain and the National Arboretum can be seen from the north-western corner of the retail core.

The approach from the east along Carruthers Street is important for people arriving to the centre by car, public transport, walking or cycling. The design of the street could be improved to become a significant vista that provides a greater sense of arrival into the suburb of Curtin and makes the centre more easily identifiable as a destination for people.

Map 8: Views and vistas



LEGEND

LANDMARK FEATURES

VIEWS TO RED HILL

VIEWS TO BLACK MOUNTAIN

VIEWS TO LANDMARK FEATURES

ENVIRONMENT, PLANNING AND SUSTAINABLE DEVELOPMENT DIRECTORATE



VIEW ALONG STRANGWAYS STREET



SWEEPING VIEW APPROACHING THE CENTRE



VIEW TO BLACK MOUNTAIN



VIEW TO THE CENTRE



VIEW TO RED HILL



VIEW TO ST JAMES UNITING CHURCH

LAND USE

LAND CUSTODIANSHIP

Land in the centre is leased by a mix of private leaseholders and the ACT Government (Map 9). Unleased Territory-owned land is managed by the ACT Government; within the study area it is mainly in the form of large surface parking.

A key function of this master plan is to identify opportunities for private leaseholders to redevelop and contribute to an improved public domain. This master plan identifies where it is appropriate to sell unleased land or land currently leased to the ACT Government and the types of land uses that could occur on this land. Redevelopment opportunities for leased Territory-owned land are identified in this master plan. Unleased land is managed by the ACT Government.

COMMERCIAL AND RETAIL

The centre primarily serves the residents of Curtin. It only partially performs its intended role to serve the suburbs of Hughes, Lyons, Yarralumla and Deakin. This potential catchment area for the centre has a resident population of approximately 17,500 residents.

Key commercial and retail uses in the retail core include the supermarket, hotel and smaller specialty shops. Uses within the hotel include commercial accommodation, a licensed bistro and bar, and a drive-through liquor store.

Most of the smaller specialty shops and services are located along the pedestrian pathways of the retail core and include a post office/newsagent, barber, greengrocer, pharmacist, gym, cafés, a bakery, duty free store and other general retail uses (Table 1).

Prior to the shops closing on the western edge of the central courtyard (Block 7 Section 62 Curtin) shops included a liquor store, bookshop, pharmacist (now located across the courtyard), milk bar and other specialty shops. Other commercial uses in the retail core include a bank, real estate agent, veterinarian, accountant, recruitment agency and home loan agent.

In 2015, the centre had 11,173 m2 of floor space of which 0.7% (75 m2) was vacant. The main retail outlet is the supermarket, with a floor space of approximately 1444 m2. The hotel development takes up approximately 4340 m2 of floor space. Table 1 lists the types of commercial and retail floor space in Curtin and their total floor space areas.

Community engagement on the draft master plan found that the community wanted more variety in the retail offerings at the centre, such as restaurants, a bar or a local pub.

Table 1: Commercial and retail floor space in Curtin by type (2015)

TYPE OF COMMERCIAL/	FLOOR SPACE AREA	
RETAIL FUNCTION	M2	%
Food	1851	16.6%
Restaurants/cafes	216	1.9%
Petrol station	273	2.4%
Other retail	1443	12.9%
Other services	2665	23.9%
Hotel (and associated functions)	4340	38.8%
Other	310	2.8%
Vacant	75	0.7%
Total	11,173	100%

Future increases in expenditure at the centre will be influenced by the overall growth in retail expenditure, the population growth in the area (centre's catchment area) and the increase in the supply of floor space at nearby centres such as Woden town centre.

Major developments that could affect the use of the group centre—as well as potentially increase retail expenditure in Curtin—include the planned Canberra Brickworks redevelopment and Molonglo Valley development (until the Molonglo commercial centre is established). Future residents of the Yarralumla Brickworks precinct are likely to use the centre for local shopping. Depending on the mix of development, the Yarralumla Brickworks precinct could provide up to a maximum of 380 dwellings.

Map 9: Existing land custodianship CURTIN CARRUTHERS 100 STREET 13 24 63 5 15 6 60 61 YARRA GLEN HUGHES LEGEND TCCS - PUBLIC PLACES LEASED TERRITORY LAND TCCS - OTHER UNLEASED ASSETS GOVERNMENT LEASE - PUBLIC LAND TCCS - VACANT (OTHER) GOVERNMENT LEASE - NOT PUBLIC LAND TCCS - ROADS TCCS - PUBLIC LAND

RESIDENTIAL

Curtin contains a significantly higher proportion of detached dwellings (84%) compared to the whole of the ACT (72%), and a significantly lower proportion of semi-detached houses or townhouses (4% in Curtin compared to 15% for the ACT).

Table 9 (page 95) indicates the proportion of dwelling structures in Curtin, Woden Valley and the ACT, highlighting a particularly low supply of semidetached dwellings in Curtin.

There are several three-storey residential apartment buildings close to the retail core; these developments are located in the RZ4: Medium Density Residential land use zone. Given the centre's proximity to frequent public transport services and a future light rail station at the Yarra Glen and Carruthers Street intersection, further residential development and intensification would be appropriate in and around the centre. This would also increase the long-term viability of the centre and support many initiatives and recommendations of this master plan such as attracting new investment in the centre, encouraging new day and night-time activity and enhancing public safety through passive surveillance.

The Yarralumla Brickworks precinct, located north of the master plan study area, has the potential to provide up to a maxumim of 380 new dwellings under the existing Territory Plan land use zoning. While this is outside the master plan study area, the Yarralumla Brickworks precinct has the potential to bring more visitors to the centre for local shopping.

COMMUNITY FACILITIES

Woden town centre plays an important district and regional role, providing essential facilities and services for Woden Valley, Weston Creek and the greater region. Facilities that serve the combined Woden Valley-Weston Creek catchment include Canberra College, Woden Library, Phillip Community Health Centre, CIT Woden and Woden Senior Citizens Club. The Curtin group centre plays an important role in providing community facilities at the local and neighbourhood level.

The current demographic of the Curtin catchment area is considered to be well provided for by existing community facilities within the study area and the health services precinct in West Deakin. A general practitioner, counsellor, dentist, optometrist and chiropractor operate out of the retail core. A specialist family centre is located on Carruthers Street.

Young children are well catered for by two primary schools (one public and one private), three preschools or early learning centres, and two childcare centres. The two primary schools also offer onsite after-hours care. Alfred Deakin High School is located to the east of the study area in the suburb of Deakin.

Three churches in the study area were all established in the early 1960s. Churches are not only important as places of worship for the community, but have the potential to act as safe places of refuge and community meeting points.

An aged-care facility within the study area provides residential care for older people with high support needs as well as respite care. Additional facilities are located nearby in Deakin and Hughes. Other non-profit community organisations are also located within the study area. Currently, no space is set aside for community gardens in Curtin or adjacent suburbs.

All sites within the study area zoned CFZ: Community Facilities Zone are occupied by existing uses. However, Block 1 Section 15, at the corner of Carruthers and Theodore streets, is largely undeveloped. Community facilities located in this zone in the study area are listed in Table 2 and shown in Map 10.

Table 2: Community facilities located within the study area

FACILITY	TYPE	LOCATION
Anglican Church of the Good Shepherd	Place of Worship	Block 23 Section 13
Fred Ward Gardens	Aged care	Block 2 Section 60
Catholic Social Services Australia	Community facility	Block 2 Section 61
Curtin Medical Practice	Health and medical	Block 11 Section 62
Curtin Primary School	Education	Block 1 Section 60
Holy Trinity Catholic Church	Place of Worship	Block 8 Section 61
Holy Trinity Early Learning Centre	Child care	Block 9 Section 61
Holy Trinity Primary School	Education	Block 9 Section 61
Peter Pan Early Learning Centre	Child care	Block 14 Section 100
St James Uniting Church	Place of Worship	Block 22 Section 13

SPORT AND RECREATION FACILITIES

The 2.1 hectare Curtin South Neighbourhood Oval in the southern end of the study area is used primarily for football, gridiron and school activities, but is also used for rugby league and rugby union. The oval includes a small amenities block with toilet facilities. There are currently no plans to upgrade these facilities.

The two children's playgrounds within the study area are located in public urban open space. One playground is on the corner of Carruthers Street and McCulloch Street, next to St James' Uniting Church (Figure 3). The other is in urban open space behind the Ron Reynolds Training Centre off Strangways Street. A community safety audit in March 2015 observed limited use of both playgrounds, particularly the one next to St James' Uniting Church, and recommended this playground be more appropriately located. However, some members of the community said during community engagement that the play equipment was well used. The use of children's play equipment could be further increased if it were better located where there are more people, such as closer to shops and services.

A private gymnasium is located at the basement level of the northern block of shops in the retail core. Available for use 24 hours a day, seven days a week, it is a well-used facility with patrons from a wide area.

The North Curtin District Playing Fields are approximately 600 metres north of the retail core, and the Illoura Horse Holding Paddocks are a further 600 metres north. These sport and recreation facilities cater for the broader catchment area.

CURTIN THERS STREET TO YARRA GLEN HUGHES

Map 10: Existing community and recreation facilities





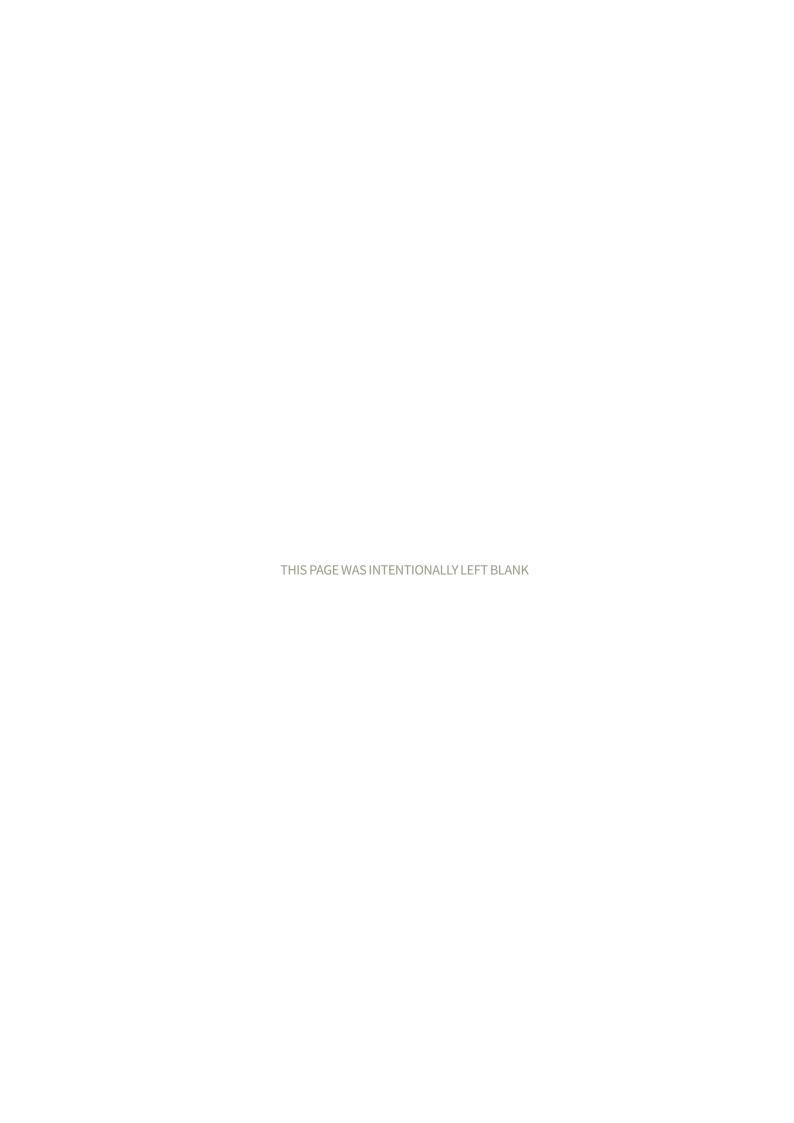


Figure 3: Existing playground on the corner of Carruthers Street and McCulloch Street

SERVICES AND TRADES

The study area for this master plan includes three blocks that are zoned CZ3: Services Zone. This services and trades area includes a service station at the corner of Strangways and Carruthers streets (Block 1 Section 63). The other two blocks are currently used for residential dwellings and urban open space. The block that currently exists as open space provides important link into the centre and includes two land use zones.

Although this area provides for a mix of uses, the service station is the only use that would typically be found in this land use zone. The Phillip service trades precinct, approximately 3 kilometres to the south of Curtin, provides district level services and is considered to be a more appropriate location for service trades uses in the Woden Valley.



3. CHALLENGES AND **OPPORTUNITIES**

Curtin Group Centre Master Plan



3. CHALLENGES AND **OPPORTUNITIES**

The main challenges and opportunities identified for the Curtin group centre are outlined below and illustrated in Maps 11 and 12. This list is not exhaustive, however it outlines the outcomes of planning investigations and community engagement, which have informed the development of this master plan. Certain items identified as challenges may also present opportunities and therefore some overlap may result.

CHALLENGES

LIMITED SPACE AND OPPORTUNITIES FOR NEW DEVELOPMENT

There is a limited amount of unleased land in the centre that may be considered for alternative uses. Many commercial buildings in the retail core and adjacent residential apartment blocks have multiple leases or are managed by a body corporate. These two factors make it difficult to consolidate land and intensify urban development in and around the centre. Other sites that could accommodate new uses include the surface parking areas. However, these are needed to ensure the centre remains accessible, competitive and convenient.

Additionally, there is a strong desire from the community to maintain a high level of amenity in and close to the central courtyard. Limiting building heights and opportunities for redevelopment in the retail core area could result in fewer sites being redeveloped in the near to long-term future.

USES THAT MOSTLY OPERATE DURING THE DAY TIME

There is a very limited amount of night-time activity in the retail core, with only the existing supermarket offering some activity after hours. Previously, two takeaway shops were open for a limited time after general business hours. A private gymnasium is open 24 hours a day but is not staffed after business hours. The combination of these factors creates public spaces that are perceived to be unsafe after dark.

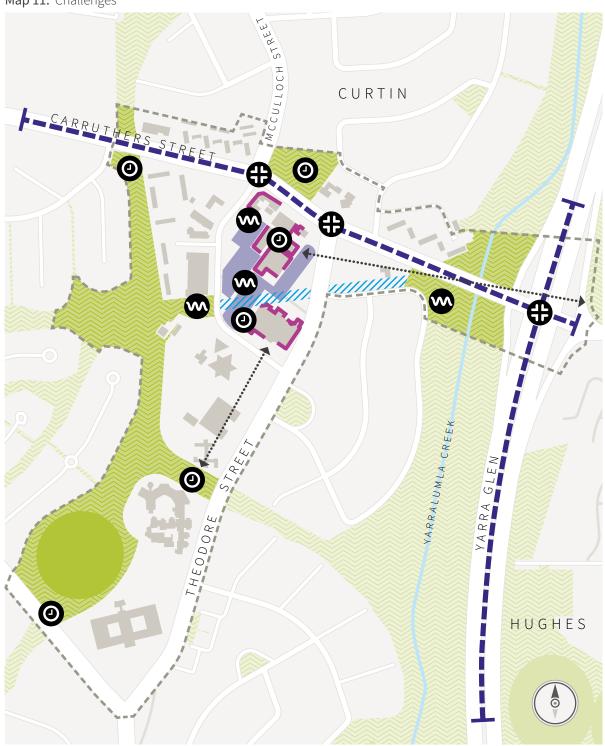
With no residential development or other uses that are active in the evenings currently in the retail core, opportunities for passive surveillance in the evenings are limited.

POOR WALKING AND CYCLING CONNECTIONS TO SURROUNDING RESIDENTIAL **AREAS**

Several community facilities and public spaces in the study area do not have easy or continuous access to the retail core. Although residential areas to the west have reasonable connections to the retail core, the surrounding roads such as Carruthers Street, Theodore Street and Yarra Glen are difficult to cross easily, other than at the signalised pedestrian crossing on Carruthers Street.

There are places through the centre where level changes are challenging for pedestrians, cyclists and other personal mobility devices, such as wheelchairs, to pass (Map 11). Most existing paths cater only for pedestrians, with limited paths suitable for bicycles and other personal mobility devices.







POOR CONNECTIONS WIDE ROADS PARKING LAYOUT CHALLENGES AND SERVICING AREAS

////// MAJOR WATER EASEMENT INACTIVE FRONTAGES TO EXISTING BUILDINGS

LIMITED NIGHT-TIME SURVEILLANCE

LEVEL CHANGES

BUSY INTERSECTION



AGEING BUILDINGS IN THE CENTRE CORE

LACK OF VISUAL IDENTITY FOR THE CENTRE

Curtin exhibits a strong sense of community as demonstrated through the various community activities undertaken throughout the week and on weekends. However, the centre itself looks tired and the buildings are ageing. The centre lacks a presence from the street, particularly on approach from Yarra Glen. The existing height of buildings, limited activity on the Carruthers Street frontages and lack of distinctive entry signage further exacerbates this issue.



INEFFICIENT PARKING LAYOUT AND DESIGN

INEFFICIENT PARKING LAYOUT AND DESIGN

The centre is surrounded by large areas of surface car parking, making it convenient for people to access the centre by car. The eastern and western short-stay car parking spaces often reach capacity during peak periods. The southern car park has much lower usage, even though it is conveniently located. Inadequate street lighting and poor pedestrian access through the surface car parking areas may contribute to this inefficient use of parking and a desire for centre visitors to park as close as possible to the central courtyard. The multiple entry and exit points, tight vehicular manoeuvring space and lack of well-located accessible car parking spaces are also important issues to consider.

The areas of green space at the edges of the surface car parking on Strangways and Theodore streets are not used and could be better located closer to shops to provide more useable green spaces.



POOR WALKING AND CYCLING CONNECTIONS TO SURROUNDING AREAS

OPPORTUNITIES

ATTRACTIVE AND APPROPRIATE LOCATION FOR SOME INCREASED RESIDENTIAL DEVELOPMENT

The ACT Planning Strategy supports the introduction of residential development into Canberra's commercial centres to encourage activity in the evenings, provide new commercial opportunities and housing choice, and grow a more compact and energy-efficient city.

The centre will become more attractive and accessible when a rapid public transport stop (light rail stop) is built near the intersection of Carruthers Street and Yarra Glen. This will provide new longterm opportunities for the centre, including the potential for a more diverse range of housing to meet the changing needs of the Woden Valley population. This may include housing to support ageing in place and younger people, and diverse family compositions that are beginning to enter the suburb. Further, the outcomes of stakeholder engagement identified a desire from some of the existing building owners to refurbish or redevelop the existing buildings in the near future. This could present a new future direction for the centre.

DIVERSE ECONOMIC OPPORTUNITIES IN THE CENTRE

A key objective of this master plan is to consider how the centre could support jobs and a diverse range of economic opportunities. New opportunities for commercial developments in the retail core that are in keeping with the centre's character will allow the centre to grow and will introduce new shops and services over time, including redevelopment of some of the larger sites in the centre (Map 12). This could be supported with upgrades to the public domain as new development is introduced.

As Curtin is close to Woden, the centre must not try to directly compete with the town centre. Rather, the centre can provide a different shopping experience that is convenient, diverse and maintains its village-style atmosphere.

The high level of convenience was consistently mentioned in community and stakeholder engagement. The convenient shopping and diverse range of shops and services are an important advantage that will ensure the centre can continue to be an attractive destination for the local community.

ATTRACTIVE AND WELL-USED **PUBLIC SPACES**

Public spaces in the centre include formal parks, informal green spaces and paved courtyards that could be enhanced through better connectivity and cohesion in the way the spaces are designed.

Urban design elements such as signage, lighting, pavement, building design, landscaping and street tree plantings can all contribute to an improved character, safety and usability of the public domain in the centre.

The existing surface car parking and informal areas of unused open space offer the opportunity to reconfigure the design of these spaces to provide high quality useable spaces for visitors to the centre. If the surface car parking is redesigned, it should include large canopy shade tree plantings, in improved growing conditions, to set up the future landscape character of the centre for the next generation of people who live, work and visit the centre.

Curtin's urban design quality can also be improved through better pedestrian and cyclist connections. The pedestrian and cyclist network could be better integrated into an improved green space network, making it a more convenient and pleasant experience for people. For example, the trunk water mains running east-west through the centre could be an opportunity to create a pedestrian and cyclist axis instead of being perceived as a constraint to the future growth of the centre (Map 12).

Map 12: Opportunities







CENTRAL COURTYARD AS FOCUS FOR COMMUNITY LIFE

SUSTAINABLE DEVELOPMENT AND DESIGN TO REDUCE ENERGY, WATER AND PRIVATE VEHICLE USAGE

Opportunities for water sensitive urban design in the centre will help filter pollution out of stormwater and irrigate new plantings. These could include potential urban wetlands in the western open space and stormwater harvesting measures throughout the centre.

The built environment may be designed to reduce urban heat island effects with the use of light-coloured materials and permeable paving materials. Shading structures and large trees should be integrated on main pedestrian routes and in public spaces to increase opportunities for shade on hot days.

A rapid public transit stop (light rail stop) at the Carruthers Street and Yarra Glen intersection will make public transport more accessible and convenient to a wider range of the community (Map 12). This, together with improved pedestrian and cycle networks, could have flow-on effects to reduce private vehicle use and traffic congestion, as well as improve air quality.

RENEWING THE VISION FOR **CURTIN AS A WALKING AND** CYCLING NEIGHBOURHOOD

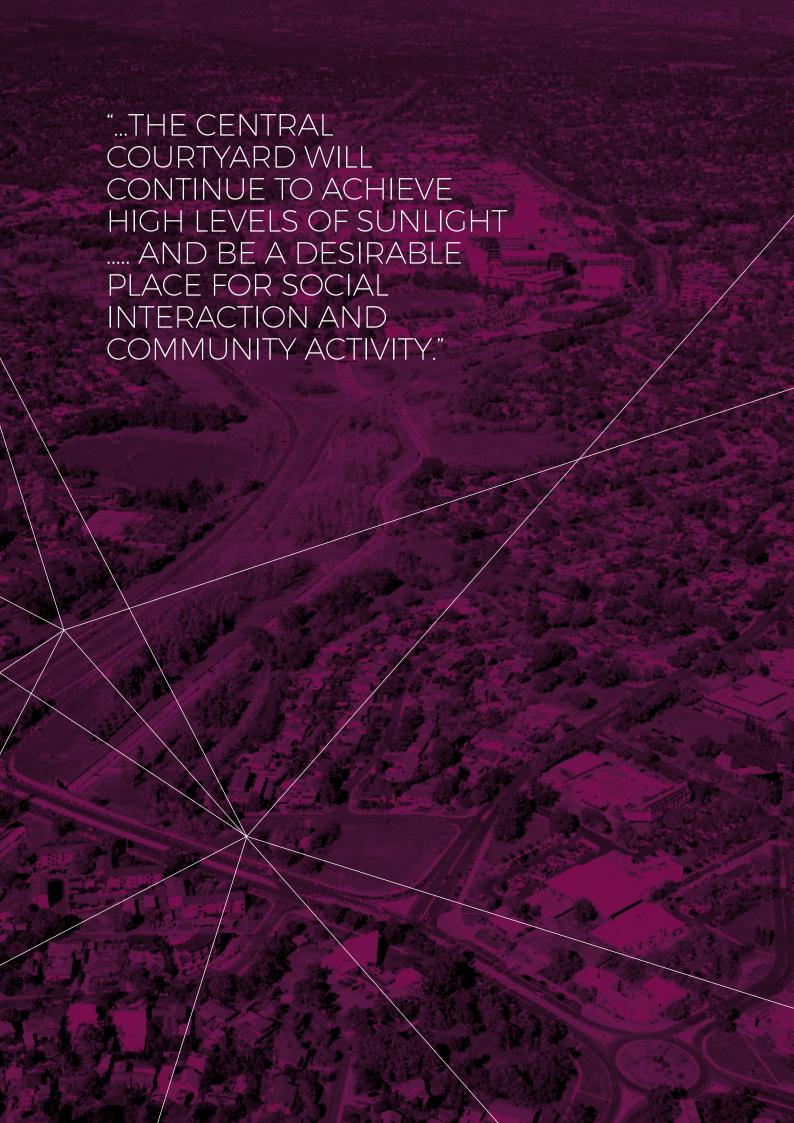
Curtin has a relatively good underlying neighbourhood structure to support walking as part of daily life. The centre is within a 10-minute walk for most Curtin residents through the extensive network of green spaces, particularly through the Radburn precinct to the west of the centre. Access through the green spaces is safe for a wide range of pedestrians and cyclists, including school students who attend the two centrally located primary schools. Additionally, the Woden town centre, where one guarter of Curtin's labour force works, is within a comfortable cycling distance of approximately 3 kilometres.

However, due to a combination of factors, very few Curtin residents choose to walk or cycle as part of their daily travel. Most residents choose to drive to work. Curtin may renew its original intention to be a walking and cycling neighbourhood by improving:

- pedestrian conditions within the core shopping area, in particular routes through the surrounding parking areas
- cycle and shared path networks throughout Curtin to provide better access to the shops, schools, public transport stops and regional cycle routes, including directional signage, better lighting, wider paths and planting more shade trees, and
- safety and convenience for pedestrians at road crossing points on important pedestrian routes within the neighbourhood.

These improvements may be considered as a contemporary update to the Radburn principles that were originally applied to large parts of the nearby neighbourhood.

4. THE MASTER PLANCurtin Group Centre Master Plan



4. THE MASTER PLAN

MASTER PLAN STRUCTURE

The master plan structure indicates how the planning strategies and policies support achievement of the vision and principles (Figure 4).

Figures 5, 6 and 7 indicates some of the key master plan assumptions that were used to develop the planning principles and strategies.

VISION

The vision for the Curtin group centre has been developed with feedback from stakeholders and the community. It captures what is valued about the centre and sets out what the centre could be in the future.

CURTIN GROUP CENTRE IS AN ACTIVE AND INCLUSIVE MEETING PLACE FOR THE LOCAL COMMUNITY. AS A SUCCESSFUL URBAN VILLAGE, THE CENTRE WILL BE EASILY ACCESSIBLE AND WILL PROVIDE A CONVENIENT VARIETY OF BUSINESSES AND SERVICES.

CHARACTER STATEMENT

The Curtin group centre is a busy community hub that offers a broad range of services and facilities to diverse user groups in the catchment area. Sustainable and high-quality housing options attract residents to the area, while local retailers and other businesses see the centre as an attractive place to do business. There are opportunities for evening activities, as well as informal recreation, community and leisure uses.

Pedestrians and cyclists will be able to access the centre safely and efficiently and be connected to nearby facilities such as schools, aged care accommodation and the future City to Woden light rail on Yarra Glen.

As the community's needs change over time, there is opportunity to reinforce and enhance the following three character precincts (Map 13).

Figure 4: Master plan structure



The retail core precinct will allow for a range of building heights that respond to the human scale of this area and preserve solar access to the existing courtyards. Some opportunity for increased building height in key locations will provide more diversity in the built form and allow for a more diverse range of uses to support the economic viability of the centre for future generations. This precinct will balance the centre's predominantly low-scale character, which is highly valued by the community, with the ability for the centre to grow, adapt to changing community needs and secure the future economic prosperity for businesses. The central courtyard will continue to achieve high levels of sunlight in the winter months and be a desirable place for social interaction and community activity. Areas away from the central courtyard will provide a higher density of development to encourage a greater mix of commercial and residential options.

The Carruthers Street community and living precinct will be an important gateway to the centre. It provides residential development that will be supported by rapid transit (light rail) on Yarra Glen. Residential development in this area could include medium to high density housing and supportive housing. Existing community facilities will be protected and encouraged to diversify their services as community needs change over time.

The community and open space precinct will retain its formal outdoor sporting facilities, such as the existing oval. The western open space will provide school students and the local community with safe and efficient access to the centre and public transport stops. Improvements to the public domain will strengthen these linkages and make the open spaces more functional and attractive for the community. The surrounding residential areas will continue to provide opportunities for passive surveillance over the area and further activate this precinct.

Figure 5: Population

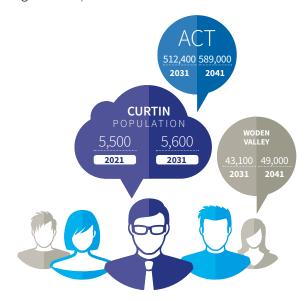
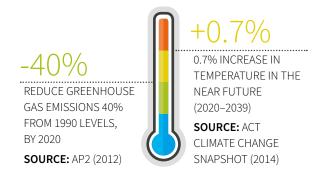


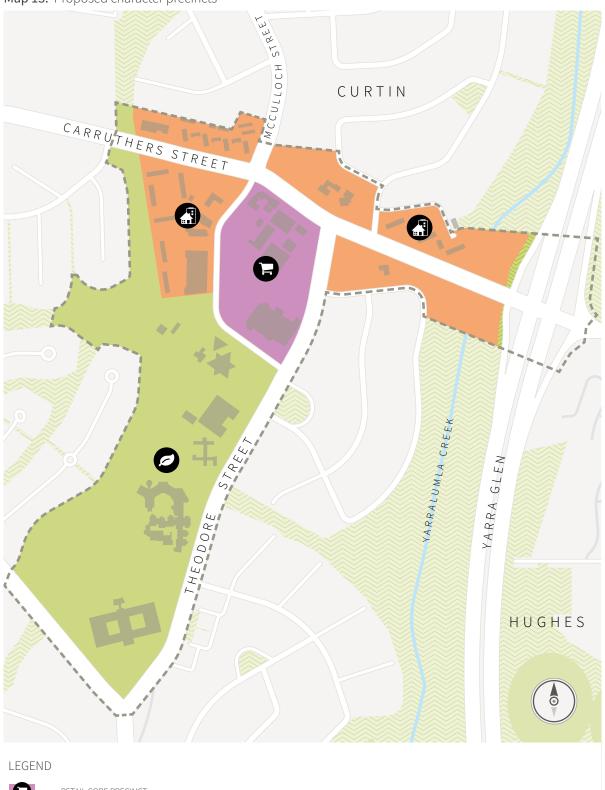
Figure 6: Retail catchment



Figure 7: Environment



Map 13: Proposed character precincts







COMMUNITY AND OPEN SPACE PRECINCT

PLANNING PRINCIPLES

The following planning principles are applied to guide this master plan, its vision, strategies and implementation. The principles reflect the future desired outcomes for the centre. Table 3 indicates how the planning principles are supported by the planning strategies. Figures 5, 6 and 7 indicate some of the key assumptions that were used to develop the principles and strategies.

PROMOTE THE CENTRE AS A CONVENIENT AND ACCESSIBLE PLACE FOR PEOPLE OF ALL **ABILITIES**

Build on the centre's strengths, such as the existing central courtyard and pedestrian walkways, to create an attractive and walkable public domain. Ensure the centre and surrounding residential areas are easy to access by walking, cycling or other mobility devices from surrounding suburban areas through improvements to the public domain, paths and the design of new developments.

Provide safe areas of parking with direct access to shops and services. Improve the connections to public transport to ensure the centre is a safe, connected and convenient place for people to shop and enjoy.

SUPPORT VARIED LIFESTYLE **OPTIONS FOR A DIVERSE COMMUNITY**

Continue to provide for the diverse needs of young and old, singles and families, and the most vulnerable in the community by encouraging and providing opportunity for a range of residential housing options and a more diverse range of shops, services and outdoor recreational uses. New residential development will provide affordable options and opportunities for Curtin residents to downsize, commonly referred to as 'ageing in place'.

CELEBRATE THE RETAIL CORE AREA AS AN ATTRACTIVE **HUMAN SCALE URBAN VILLAGE**

Encourage evening activities, such as restaurants, to make the centre feel safer for visitors and be more active after dark. This is particularly important for the central courtyard and its connections to the suburban areas.

Increase development opportunities and a complementary mix of uses such as residential, commercial, health services, retail and hospitality in the centre where possible. The design of new development, particularly in the retail core area and close to the central courtyard, will respect the human-scale village character of the centre. The sunlit central courtyard is an important social meeting space for the community and will continue to function as a space for community activities and markets.

STRENGTHEN THE SENSE OF COMMUNITY AND PRIDE OF PLACE

Strengthen the successful and well-used public spaces by providing new opportunities for incidental social interaction and recreation. As new development is introduced over time, the pedestrian walkways and existing central courtyard will be improved to provide high quality public spaces and to encourage people to walk and cycle to and through the centre. These spaces will continue to be a focus for the community.

The existing large trees in and around the centre should be retained where possible and incorporated as part of public domain upgrades, including in and around the parking areas.

ENSURE THE GROUP CENTRE IS RESILIENT TO A CHANGING CLIMATE

Provide new opportunities for redevelopment in the centre for people to live and work in a more sustainable urban environment. Better connect Curtin residents to efficient public transit options and ensure the centre can adapt to a changing climate through a focus on providing more green spaces, more plantings adjoining paved areas and more large canopy trees for shade.

Ecological connectivity should be considered in the design of the public spaces in Curtin to allow wildlife to easily move between nearby reserves and parks such as Oakey Hill to the west and Red Hill to the east.

Table 3: Summary of planning principles and planning strategies

PLANNING PRINCIPLES	PLANNING STRATEGIES THAT SUPPORT THE PLANNING PRINCIPLES
Promote the centre as a convenient and accessible place for people of all abilities	 Reinforce the vibrant, urban village character and social identity of the centre Improve the pedestrian experience and efficiency of parking in the centre Improve neighbourhood walking and cycling links including a new east-west link Enhance the public domain and western open spaces Incorporate environmentally sustainable design measures in the future buildings and public spaces in the centre Strengthen the role of the central courtyard for generations to come
Support varied lifestyle options for a diverse community	 Reinforce the vibrant, urban village character and social identity of the centre Support development that is consistent with the village character of the centre Improve neighbourhood walking and cycling links including a new east-west link Incorporate environmentally sustainable design measures in the future buildings and public spaces in the centre
Celebrate the retail core area as an attractive human scale urban village	 Reinforce the vibrant, urban village character and social identity of the centre Support development that is consistent with the village character of the centre Enhance the public domain and western open spaces Strengthen the role of the central courtyard for generations to come
Strengthen the sense of community and pride of place	 Reinforce the vibrant, urban village character and social identity of the centre Support development that is consistent with the village character of the centre Enhance the public domain and western open spaces Incorporate environmentally sustainable design measures in the future buildings and public spaces in the centre Strengthen the role of the central courtyard for generations to come
Ensure the group centre is resilient to a changing climate	 Improve neighbourhood walking and cycling links including a new east-west link Enhance the public domain and western open spaces Incorporate environmentally sustainable design measures in the future buildings and public spaces in the centre

SPATIAL FRAMEWORK

The spatial framework (Map 14) sets out how the broad structure of the centre could be arranged in the long term. The spatial framework shows how land use, public domain and connections could be arranged and delivered.

The spatial framework recognises the challenges in the centre and brings together the opportunities, vision and planning principles to illustrate how the centre could change over the lifetime of this master plan.

PLANNING STRATEGIES

These planning strategies are informed by the vision and planning principles in the previous section (Table 3). They provide direction and guidance for the future development of the centre over the long term, considering the broad range of issues identified in the Appendix (background and analysis) section.

The planning strategies identify opportunities for private sector investment and will be achieved through provisions to be included in the Territory Plan, land releases, public domain upgrades (which will be subject to consideration by the ACT Government through future budget processes) and completion of further studies.

Outcomes from all community engagement activities identify the central courtyard as historically the most important community space in the centre. To provide clarity for the future of this space, this master plan summarises all the key recommended planning policies, public domain upgrades and future studies into a single strategy.

REINFORCE THE VIBRANT, URBAN VILLAGE CHARACTER AND SOCIAL IDENTITY OF THE CENTRE

The centre is compact and walkable with a mix of shops and services that bring people and activity to the area. As the suburb and community change over time, it will be important to attract new residents to the area to maintain the centre's viability. The centre should also remain attractive to small business.

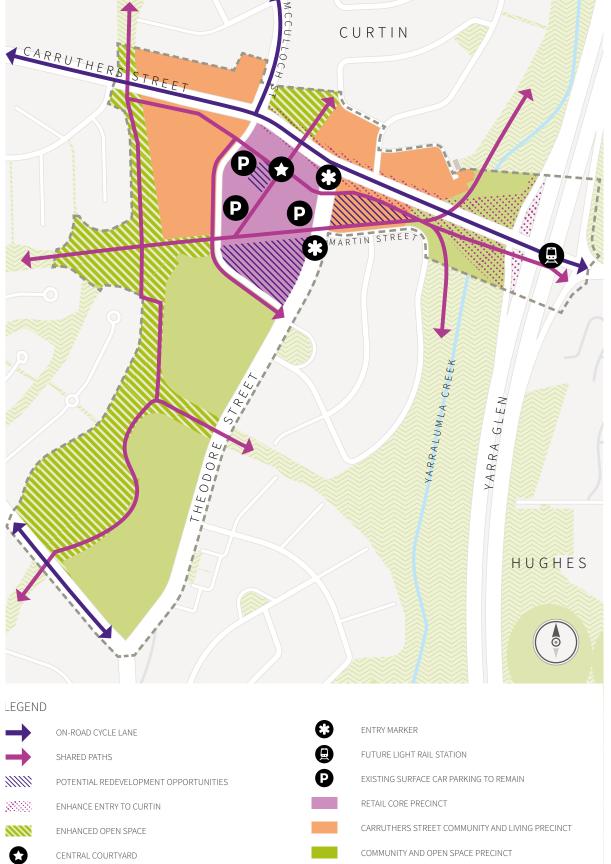
Feedback from the Curtin community indicated the village-style atmosphere of the centre is valued for its intimacy, sun-lit courtyards, pedestrian amenity and opportunities for social interaction. The internal courtyards are important elements to ensure the centre can continue to meet the needs of the Curtin community and to provide opportunities for outdoor dining, market space and community activities. Additionally, the buildings and style of architecture contribute to the centre's character, allowing for sunlight to reach the existing central courtyard and adjoining public spaces.

The opportunity for a children's playground in the retail core was consistently raised as a positive addition to the centre, allowing greater visibility through co-location with other uses that attract people, such as cafés and shops. A shaded outdoor performance space could also be provided in the retail core to encourage informal community interactions, performances and music. In future upgrades, the courtyards and pedestrian walkways could become more pet friendly, as suggested by some members of the community. This could include simple solutions such as dog tie-up areas and pet-friendly drinking fountains integrated with any future public domain upgrades.

The existing large trees in the central courtyard and along main pedestrian routes will be retained and made a feature as the public spaces are incrementally upgraded over time.

The Holy Trinity Catholic Church, Parish Office and Bell Tower, and the Curtin Radburn Residential Precinct (to the west of the centre) are considered to have heritage value and contribute to the character of the suburb. These will require further assessment to determine if they should be considered for nomination to the ACT Heritage Register.

Map 14: Spatial framework CURTIN CARRUTHERS YARRA GLEN HUGHES LEGEND ENTRY MARKER ON-ROAD CYCLE LANE







RECOMMENDED PLANNING POLICIES AND ACTIONS

- Reaffirm the existing three character precincts indicated in Map 13 through the proposed land uses (Map 15) and recommended planning controls outlined in this master plan. This includes a change to the Commercial Zone 1: Core Zone (CZ1: Core Zone) and Commercial Zone 2: Business Zone (CZ2: Business Zone) in the retail core precinct. This change will focus the larger scale 'anchor' shops in the northern end of this precinct (in the CZ1 land use zone), to maintain the majority of the retail and community activity close to the central courtyard.
- Rezone Block 7 Section 63 Curtin to PRZ1: Urban Open Space to ensure this block continues to perform its existing role as an important pedestrian route and as part of the wider open space network (Map 15).
- Require active uses such as shops, restaurants and cafés on the ground floor in the retail core precinct (Map 16). Active uses will be mandated onto the central courtyard and the walkways entering the centre. A greater focus of retail and commercial activity will be encouraged on Carruthers Street to provide a more active and attractive frontage to the centre. This will encourage greater use of the wide verges and public spaces along Carruthers Street. Redevelopment of the Statesman Hotel will be required to provide a dual frontage, with entrances to Strangways Street and facing towards the centre.
- · New buildings fronting primary active frontages, as indicated in Map 16, will:
 - > be oriented towards the streets and courtyards
 - > be required to incorporate transparent frontages, at least 70% of the building frontage
 - > be required to have active uses such as shops, restaurants, cafés and community facilities fronting the primary active frontage
 - > restrict residential use on the ground floor, and
 - > provide awnings designed to shelter pedestrians and create a sense of human scale and enclosure.

- New buildings fronting secondary active frontages, as indicated in Map 16, will:
 - > be oriented towards the street and parking areas, and
 - > be adapted at the ground floor for commercial uses; for example, new buildings will have a floor to ceiling height that is appropriate for commercial use.

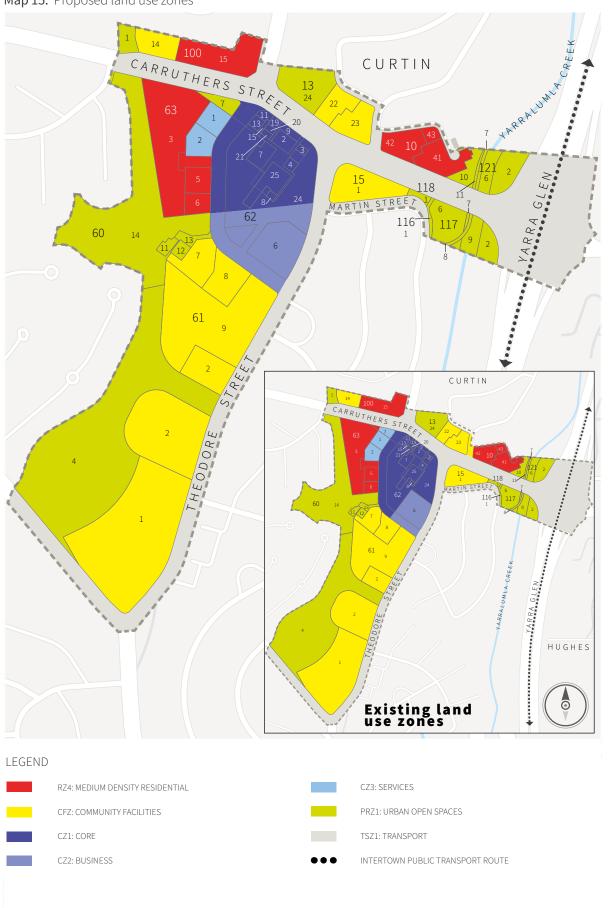
RECOMMENDED PUBLIC DOMAIN UPGRADES

- Upgrade public domain elements in the central courtyard, smaller connected courtyards and entrance pathways to incorporate seating, lighting, signage, rubbish bins, level pavement and landscaping. These areas are the focus of main pedestrian activity, weekend markets and community life. Upgrades in the centre core precinct also provide the opportunity to celebrate the suburb's heritage and history through historical information signage and public art.
- · Provide entry markers, such as signage and urban art, on the centre's verges close to the intersections of Carruthers Street/Theodore Street and Theodore Street/Curtin Place. These elements will help guide new visitors into the centre and will be designed to contribute towards the centre's urban village character. (Map 16).
- Identify opportunities to incorporate children's play activities in the central areas of the centre, including the north-east corner close to cafés and courtyard spaces (Map 16). The children's playground should be designed to be integrated with signage and other infrastructure in the centre to ensure children can play safely and allow for co-location with other active uses such as cafés.

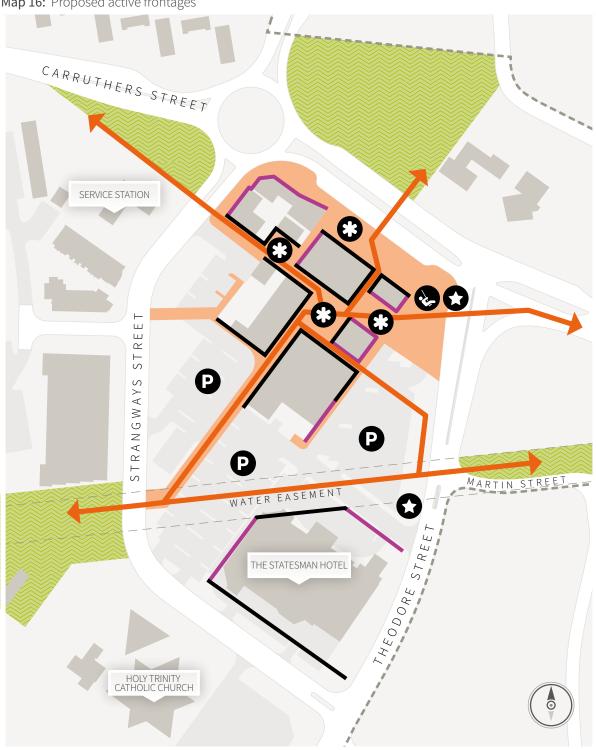
RECOMMENDED FURTHER STUDIES

• Prepare detailed heritage assessments for the Holy Trinity Catholic Church, Parish Office and Bell Tower, and the Curtin Radburn Residential Precinct. Where appropriate, planning controls could be recommended to guide future development in each precinct.

Map 15: Proposed land use zones



Map 16: Proposed active frontages







SUPPORT DEVELOPMENT THAT IS CONSISTENT WITH THE VILLAGE CHARACTER OF **CENTRE**

The mix of uses in the existing retail core has worked well in the past with a single supermarket and a range of small-scale tenancies. This master plan seeks to encourage a greater mix of uses and building heights to promote sustainable growth of the centre over time and to cater for future community needs.

The existing retail core area provides the opportunity for some increase in building height that is complementary to the centre's urban village character. The human scale of the retail core will be protected by stepping back upper floors of buildings, providing a mix of building heights and protecting solar access to key public spaces, particularly the central courtyard.

In Stage 4 community engagement, a solar fence provision was proposed for development at the edges of the central courtyard to limit potential overshadowing. The solar fence provision is not proposed in this master plan as building height controls have been changed to limit all development on the eastern, western and northern boundaries of the central courtyard to a single storey.

The Statesman Hotel site has been identified in this master plan as an opportunity to provide a greater range of night-time uses and to provide surveillance across the centre in the evenings to improve safety. Two options for redevelopment are illustrated in this master plan to allow for an opportunity to realise a new internal street structure in the south of the centre that will better integrate the Statesman Hotel site and the existing retail core area.

The ACT Government is committed to ensuring a diverse choice of housing is available to Canberrans. This policy was supported during stage 1 of community engagement, where 56% of Curtin residents expressed interest for more housing options in Curtin. However, stage 4 community engagement found that while the community want greater housing diversity, concerns were raised with introducing residential development in the retail core area, including potential conflicts between people living close to noisy community and retail

activities that may occur in the central courtyard. This master plan identifies potential sites in and close to the centre that have the opportunity to provide additional housing choices in Curtin and includes strategies to mitigate conflicting issues (such as noise) between residential use and well utilised public spaces.

As the centre grows over time, there will be a need for new development or redevelopment that provides additional retail and commercial uses to cater for any expansion of these suburbs.

RECOMMENDED PLANNING **POLICIES AND ACTIONS**

- Permit building heights for the centre as indicated in Map 17 to allow for a diverse range of land uses, including greater housing choice, and to better support local business in the centre.
- For buildings facing the existing central courtyard, building heights are to be limited to a single storey for development on the eastern, western and northern boundary of the courtyard (Map 17). On the southern boundary of the central courtyard, development above the ground floor is to be set back a minimum 3 metres.
- For buildings in the retail core that face Strangways Street, Carruthers Street or Theodore Street, buildings are to be set back a minimum of 3 metres above the first floor.
- Require that individual development proposals limit potential overshadowing of the existing central courtyard, and adjoining smaller courtyard, by demonstrating how solar access to public spaces is provided in the winter months. Shadow diagrams are required to show potential overshadowing of public spaces, demonstrating that reasonable sunlight can be maintained on the winter solstice between 9am and 2:30pm, when sunlight is most desirable.
- Provide new planning controls that allow for new development and redevelopment to occur in the centre that promote additional activity in the evenings. This could include new commercial development and redevelopment of large sites, such as the Statesman Hotel (Maps 18 and 19).

- Buildings may be considered above two storeys and to a maximum of 18 metres (up to 5 storeys) as indicated on Maps 17 and 26, where they achieve the following in addition to the above requirements:
 - > Buildings are designed to reflect the local character of the group centre.
 - > Buildings do not overshadow living spaces of adjacent dwellings.
 - > The development contributes to the mix of uses and/or housing diversity of Curtin.
- Ensure that access to Curtin Place on Block 7 Section 62 Curtin is enhanced to ensure future development can be accessed by large vehicles, such as waste collection vehicles, along with improved pedestrian access to the adjacent medical centre.
- Provide improved access to new developments to allow for safe and easy access for future visitors, residents and service vehicles.

BLOCK 6 SECTION 62 CURTIN (STATESMAN HOTEL SITE)

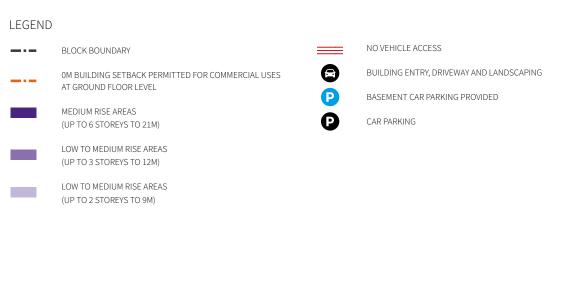
- Provide a building setback (minimum 6 metres) from Theodore Street block boundary to protect the existing large eucalypts. These trees contribute to the centre's character and provide a green 'buffer' to the nearby residential development (Figures 8, 9 and 10).
- A zero metre setback is permitted to the Strangways Street block boundary at the ground floor level as indicated on Maps 18 and 19, for commercial development on Block 6 Section 62 Curtin.
- Permit a range of building heights with a maximum of six storeys (up to 21 metres) on Block 6 Section 62 Curtin to encourage redevelopment of this site, to provide opportunities for night-time activity and to promote passive surveillance across the surface parking areas in the centre. Any proposed redevelopment must consider overshadowing impacts on adjacent residential dwellings on the eastern side of Theodore Street (Figures 8 and 9).

- Provide an appropriate interface between Block 6 Section 62 Curtin and existing nearby development by limiting the maximum building height to two and three storeys facing Theodore Street and two storeys facing Strangways Street. A minimum three metre setback above the first floor is to be provided for development facing Strangways Street. These height limits will help reduce the potential bulk, scale and overshadowing of development facing the streets (Maps 18 and 19, Figures 8 and 9).
- If residential development is proposed at the ground floor level on Block 6 Section 62 Curtin, facing either Theodore Street or Strangways Street, the ground floor design is to:
 - > Be generally consistent with Figure 10.
 - > Be setback a minimum 4 metres from the front block boundary facing Strangways Street to allow for a raised courtyard and landscaping.
 - > Provide a ground floor courtyard that is raised 600-900mm above the verge level. The courtyard shall be setback:
 - > a minimum 2 metres from the Theodore Street block boundary, and/or
 - > a minimum 800mm from the Strangways Street block boundary.
 - > Provide screen plantings between the raised courtyard and front block boundary.
 - > Provide a low transparent fence at the edge of the raised courtyard that is no higher than 1.8 metres above the verge level. Where possible, the fence is to include a gate with pedestrian access provided between an individual courtyard and public footpath (where a public footpath exists).

Map 17: Proposed building heights CURTIN CARRUTHERS STREET Refer to maps 18 and 19 YARRA GLEN HUGHES LEGEND MEDIUM RISE AREAS LOW RISE AREAS (UP TO 6 STOREYS TO 21M) (UP TO 2 STOREYS TO 9M) MEDIUM RISE AREAS LOW RISE AREAS Ш (UP TO 5 STOREYS TO 18M MAY BE CONSIDERED WHERE THEY MEET ADDITIONAL CRITERIA) (SINGLE STOREY BUILDING) 3M SETBACK ABOVE GROUND FLOOR LOW TO MEDIUM RISE AREAS (UP TO 4 STOREYS TO 15M) SURFACE CAR PARKING RETAINED 0 LOW TO MEDIUM RISE AREAS RETAIN EXISTING BUILDING HEIGHT CONTROLS (UP TO 3 STOREYS TO 12M)

WATER EASEMENT BUILDING ENTRY
FACING THE CENTRE STRANGWAYS STREET HOLY TRINITY CATHOLIC CHURCH

Map 18: The Statesman Hotel indicative development option 1



BUILDING ENTRY
FACING THE CENTRE
3m
3m WATER EASEMENT THEODORE STREET P NEW RETAIL STRANGWAYS STREET STREET HOLY TRINITY CATHOLIC CHURCH

Map 19: The Statesman Hotel indicative development option 2

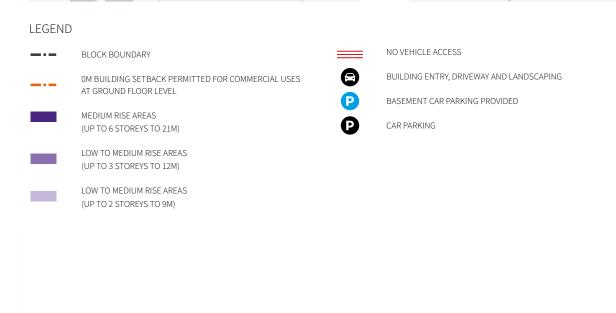


Figure 8: Theodore Street cross-section



Figure 9: Strangways Street (south) cross-section

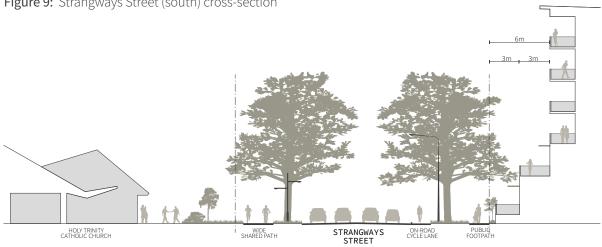
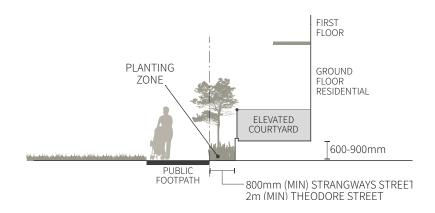
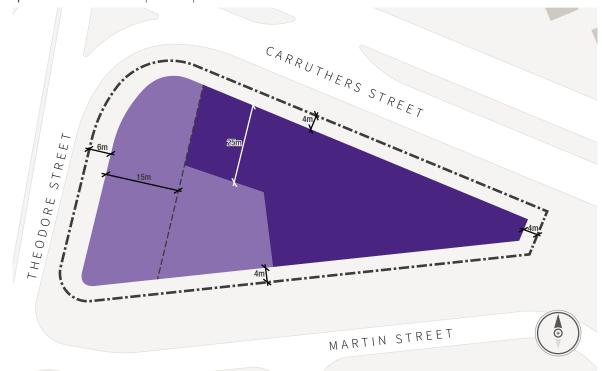


Figure 10: Residential interface at the ground floor level





Map 20: Indicative development option for Block 1 Section 15 Curtin

LEGEND

BLOCK BOUNDARY MEDIUM RISE AREAS (UP TO 6 STOREYS TO 21M)

LOW TO MEDIUM RISE AREAS (UP TO 3 STOREYS TO 12M)

BLOCK 1 SECTION 15 CURTIN (VACANT BLOCK ON THE CORNER OF THEODORE AND CARRUTHERS STREETS)

- Encourage development of community uses (such as supportive or community housing) on Block 1 Section 15 Curtin at the corner of Theodore and Carruthers Streets. Allow for a mix of building heights across the site, with lower building heights at the western end of the block and increasing in height at the eastern end, where the site is lower and buildings will be less prominent in the landscape. Lower building heights are also proposed facing on to Martin Street to provide an appropriate interface with the adjacent existing one and two storey residential development. Buildings heights are to be generally consistent with Map 20.
- Block 1 Section 15 Curtin offers opportunities for a diverse mix of community uses to support the community. Due to the site's proximity to future rapid public transport on Yarra Glen, the shops/services in the centre, schools and regional facilities provided in the nearby Woden town centre, part of the site should be investigated for a recognised form of affordable housing.

IMPROVE THE PEDESTRIAN **EXPERIENCE AND EFFICIENCY** OF PARKING IN THE CENTRE

Group centres in Canberra are valued for their convenience, ease of access, choice of shops and services, and availability of car parking. There is opportunity to improve pedestrian connectivity and accessibility through the surface car parking areas and along the streets. Provision should be made for additional accessible car parking. Improved connections into the centre will better cater for an ageing population and for school children looking to visit the centre in the afternoons.

In early 2015, Strangways Street was established as a low speed vehicle environment (40 km/h). This has improved safety for all road users and will draw more pedestrian activity to the area. Strangways Street could be further emphasised as a pedestrianoriented street by: introducing new development that faces onto the street; improving the pedestrian experience; introducing traffic-calming measures to the street to further slow traffic; and providing accessible paths suitable for people with mobility needs.

Providing efficient and safe traffic and car parking will remain an important consideration for the centre into the future. To achieve this, there must be complementary strategies to reduce the number of people who choose to travel to the centre by car and encourage more people to access the centre in more sustainable ways such as walking, cycling or public transport.

Traffic speed along Theodore Street is a community concern, particularly for vehicles turning from Carruthers Street and close to the two primary schools and the aged care facility. As the centre grows and develops, it may be necessary to upgrade some of the busier intersections, including investigation of new traffic signals. Two intersections—Carruthers Street/Theodore Street and Carruthers Street/Strangways Street—may need to be upgraded to ensure efficient and safe traffic movements in the future. This will also provide an opportunity to improve the pedestrian crossings at these intersections. The final design solution for these two intersections would benefit from an integrated approach to the design and

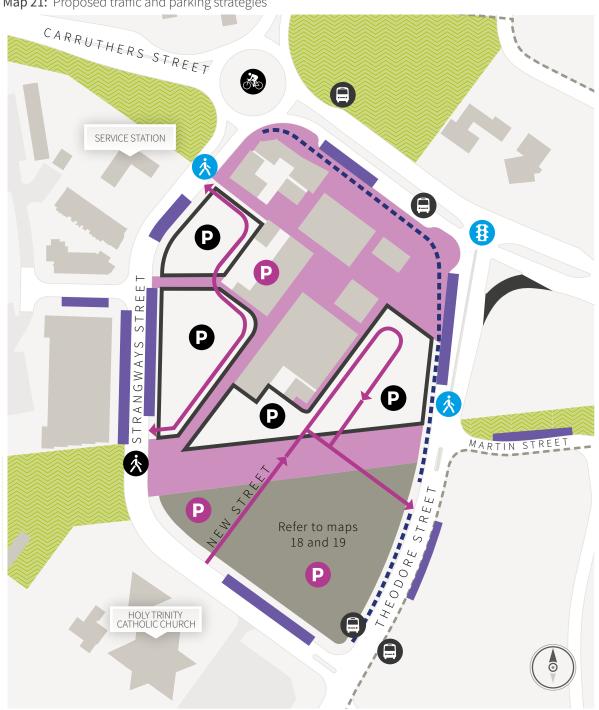
coordination with the existing signalised pedestrian crossing on Carruthers Street. This approach would help provide a safe and practical arrangement for people walking, cycling and travelling by car. Additional traffic calming measures may include the reduction of speed limits, traffic-control devices such as speed humps and reducing road widths through the provision of wider verges and on-street parking spaces.

The eastern and western car parking areas are recommended to be retained and could be extended to provide some additional spaces. The design of these surface car parks could be improved to make it easier and safer for people to walk through these areas. The recommendation for a new retail street from Strangways Street to the existing surface car park on the east of the centre will help formalise pedestrian paths between the Statesman Hotel site and the shops close to the central courtyard.

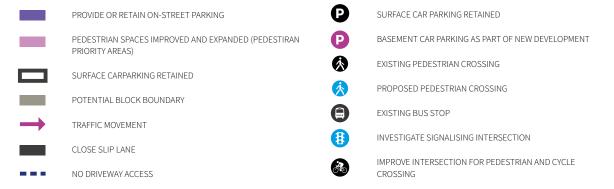
RECOMMENDED PLANNING **POLICIES AND ACTIONS**

- Require future development in the centre to incorporate passive surveillance opportunities over the car parking areas, such as balconies, to improve safety.
- Retain areas of on-street parking on Theodore and Carruthers Streets. Introduce new on-street parking areas along the northern verge of Martin Street (Map 21).
- Rezone Block 7 Section 63 Curtin from its current dual zoning of Services Zone (CZ3) and Medium Density Residential Zone (RZ4) to Urban Open space (PRZ1). This rezoning ensures this block will continue to function as an important part of the centre's pedestrian and open space networks.

Map 21: Proposed traffic and parking strategies







RECOMMENDED PUBLIC DOMAIN UPGRADES

CAR PARKING AREAS

- Rationalise the design of the surface car parking areas and adjoining pockets of grassed areas. Locate the green spaces closer to the commercial uses and pedestrian walkways in the centre and replace the current green spaces at the edge of the retail core area with parking (Map 22). Encourage new development and redevelopment to face the car parking areas. Redesigning the car parking areas will provide an opportunity to potentially increase the number of car parking spaces, including accessible spaces. More importantly, this will present an opportunity to improve the pedestrian connections into the centre for people of all abilities.
- Investigate ways to improve parking management for the surface car parking areas. This could include providing all short-stay parking close to shops, providing additional mobility parking spaces and relocating the existing Park and Ride facility spaces outside of the centre. Relocating the Park and Ride spaces out of the centre should be coordinated with the Woden town centre facility and planning for Light Rail to Woden.
- Provide better lighting, signage and infrastructure along key pedestrian pathways and cycleways through the centre. This is particularly important for the surface car parking areas and walkways into the centre.
- Provide clearer line marking and additional lighting in the southern parking area.
- · Extend the eastern parking area to the southeast (over the grassed area) and provide additional shade trees between the car spaces. Retain the three large eucalypts close to Theodore Street and ensure they are appropriately integrated as part of the public spaces.
- · Redesign surface parking areas to the west of the centre to provide additional parking spaces, where possible, and provide easy access to shops and services in the retail core area.

INTERSECTIONS

- Investigate signalising the Carruthers Street and Theodore Street intersection, including the removal of the existing slip lane. Investigations will focus on the improvements to make it easier and safer for people accessing the centre from north Curtin and the potential future light rail station on Yarra Glen (Map 21).
- Investigations for both intersections will need to consider the future use of the pedestrian crossing on Carruthers Street and the large roundabout as a coordinated system of intersections. These investigations should also consider whether through traffic has alternative options.

CARRUTHERS STREET

- Provide entry plantings (canopy trees, low shrubs and ground cover) between Yarra Glen and Strangways Street to provide an improved entry to the suburb, shade for pedestrians and to reduce the visual scale of the road reserve. In the short term, low ground cover plantings on the Carruthers Street/Strangways Street roundabout will help improve the visual amenity into the centre and wider suburb.
- Further encourage the use of public transport through imrpovements to the bus stops on Carruthers Street and the immediate surrounds.

THEODORE STREET

- Investigate opportunities for a new pedestrian crossing in Theodore Street, immediately north of the intersection of Martin Street (Map 21). This will further improve connections between the centre and the future rapid transport stop on Yarra Glen.
- Investigate opportunities to increase the number of on-street parking spaces along Theodore Street. This will also assist to slow traffic along this street.

STRANGWAYS STREET

· Investigate opportunities for formalised onstreet parking on sections of Strangways Street to further calm traffic speeds and provide parking spaces close to shops and services; this will support business on the western side of the centre (Map 21).

- Provide safe, direct and easy pedestrian access across Strangways Street by constructing a pedestrian crossing south of the roundabout at Carruthers and Strangways streets (Map 21).
- Upgrade and widen the north-south pedestrian connection between Strangways Street (south) and the central courtyard to provide for pedestrian and cyclists. New canopy tree plantings should be provided along this pedestrian connection.
- Improve pedestrian amenity along Strangways Street through new tree plantings, seating, signage and landscaping.

RECOMMENDED FURTHER STUDIES

• If required, prepare a detailed car parking study to determine the number of additional parking spaces that could be achieved in the eastern and western surface car parking areas. Include identifying further opportunities for better pedestrian connections through these areas.

IMPROVE NEIGHBOURHOOD WALKING AND CYCLING LINKS INCLUDING A NEW EAST-WEST LINK

Ensuring safe and well-connected access for people of all abilities is essential for Curtin. Pedestrian pathways and cycleways to nearby residential areas could be improved through better lighting, signage, infrastructure and 'filling in the gaps' where there are currently no connections. Formalised pedestrian crossings are recommended at key locations to improve pedestrian safety, particularly for children and older people.

Public spaces in the centre are major attractors for residents and visitors. They include green spaces, paved courtyards, streets, parks and playgrounds. This master plan proposes to better connect these public spaces and to ensure they are walkable, safe and attractive.

Two existing water trunk mains run east-west through Curtin and nearby suburbs, requiring a minimum 20-metre wide easement. This infrastructure limits the ability to construct buildings along the easement. However, the water easement provides an opportunity to create the east-west pedestrian and cyclist connection and associated landscaping that would provide a

thoroughfare for residents accessing the centre. future rapid transit stop on Yarra Glen, and the health and education facilities in West Deakin.

RECOMMENDED PLANNING POLICIES AND ACTIONS

• Reflect the future pedestrian and cycle network in the ACT Government's online Active Practitioners Tool to ensure these routes are considered as part of development applications in the area and as part of public infrastructure upgrades.

RECOMMENDED PUBLIC DOMAIN UPGRADES

PATHS AND MAIN ACTIVE TRAVEL ROUTES

- Expand the existing cycle network that connects to the wider city cycle network (Map 23). Provide cycle and pedestrian facilities in the centre and along main pedestrian routes. These facilities could include bike racks in the centre and seating along main pedestrian paths.
- Upgrade the existing shared-path active travel network to encourage more walking and cycling through wider paths.
- Establish an east-west link for pedestrians and cyclists, including better conections with the new bus network and to a future light station on Yarra Glen (Maps 23 and 24). This connection should be made accessible to allow for a wide range of users with varying abilities, particularly as there are several level changes through the centre. The design of this connection will need to consider how people will navigate through the parking and service areas in the centre. Changes in the ground levels will need to be resolved through more detailed design.
- Improve pedestrian amenity along the east-west pedestrian and cyclist link to Yarra Glen and Deakin by providing co-ordinated landscaping and tree planting, improving street lighting and providing public seating and informal rest areas. This is particularly important for the area between the centre and the potential future public transport stop on Yarra Glen as there is a gradual incline between these areas that may be more difficult for less mobile members of the community.



- To accommodate cyclists and pedestrians, provide a wider north-south shared path through the western open space that connects to the cycle network (Maps 23 and 24). This will make it easier and safer for school children to walk and cycle through the western open space and reduce conflicts between pedestrians and cyclists in this area.
- Provide a wide shared path along Strangways Street (west) that connects to the greater shared path and on-road network and allows for less confident cyclists to more easily access the centre and nearby community facilities and services (Map 24).
- Improve the access to the current established off-road cycling network.
- Provide additional lighting in pedestrian underpasses and along the associated pathways.

NEW CROSSINGS

- Investigate the potential for improvements to the pedestrian crossing at the Carruthers and Theodore Street intersection to provide safe and convenient access to the east of the centre. This will be particularly important when the light rail station is built on Yarra Glen. The removal of the Carruthers Street slip lane is proposed to slow turning traffic into Theodore Street and make it safer for people to cross in this location (Map 24).
- Provide additional formalised pedestrian crossings on Theodore Street and Strangways Street to further strengthen the connections into the centre from the suburbs (Map 22).

RECOMMENDED FURTHER STUDIES

• Prepare a feasibility study that investigates, in more detail, improvements to the pedestrian and cycle connections outlined in this master plan. A feasibility study will assist in prioritising upgrades to the active travel network over the short and medium to long term, considering other ACT Government capital works projects such as road upgrades. A feasibility study will provide more detailed information to understand the potential design challenges and costs. Current investigation into the development of a slip lane from Yarra Glen to Cotter Road may assist in determining whether or not such an investment would reduce the amount of "rat-running" that is undertaken through the Curtin centre.

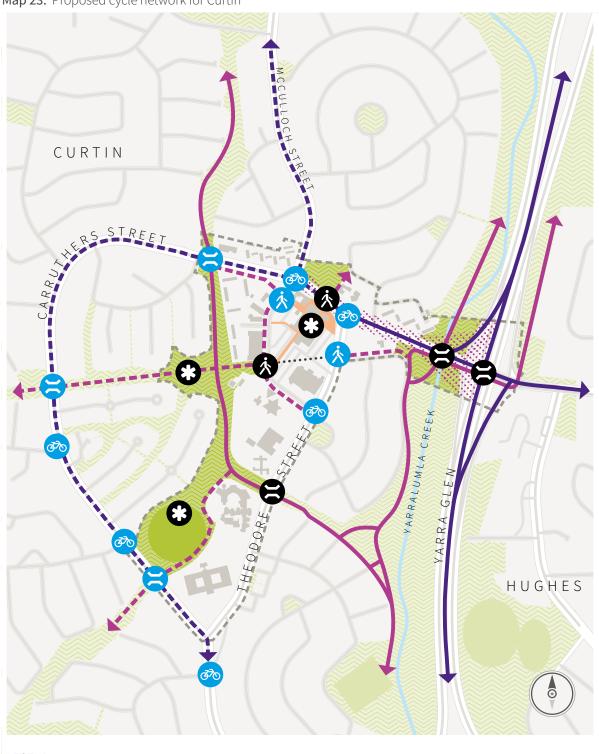
ENHANCE THE PUBLIC DOMAIN AND WESTERN OPEN SPACES

The open space network to the west of the retail core is a valued community asset. The western open space (Map 25) also plays an important role as an overland flow path for stormwater, which will need to be considered as new recreational uses and pathways are introduced. This master plan provides an opportunity to preserve what is valued by the community in the open spaces and investigate opportunities to improve these spaces to further benefit the greater community. This direction was strongly supported by the community, including engagement activities undertaken with local school children.

Design workshops with primary school and high school students in May 2015 and May 2018 revealed that the open spaces could be upgraded to be more functional and accessible, particularly for people with disabilities, cyclists and elderly people. Ideas for the public spaces included providing water bubblers, wider paths, places for younger people to socialise, opportunities for informal recreation and more trees for shade.

There is an opportunity to create attractive destinations appropriate to the demographic profile of Curtin, including young families and older people. There is also opportunity to improve the pedestrian and cycle networks by formalising some of the informal pathways and providing wider cycleways to increase pedestrian safety.

Map 23: Proposed cycle network for Curtin





ON-ROAD CYCLE LANE

PROPOSED ON-ROAD CYCLE LANE

EXISTING SHARED PATH

PROPOSED SHARED PATH

••••• CONNECTION THROUGH RETAIL CORE AREA

ENHANCE ENTRY TO CURTIN

PEDESTRIANISED 'HEART' OF THE CENTRE

3

KEY PUBLIC SPACES



EXISTING CROSSING



PROPOSED PEDESTRIAN CROSSING



IMPROVE PEDESTRIAN AND CYCLIST CROSSING POINTS



IMPROVE CONNECTION BETWEEN UNDERPASS AND ROADSIDE FOOTPATH



UNDERPASS

Map 24: Proposed cycle network for the Curtin group centre CURTIN ARRUTHERS HUGHES LEGEND ON-ROAD CYCLE LANE KEY PUBLIC SPACES PROPOSED ON-ROAD CYCLE LANE EXISTING CROSSING EXISTING SHARED PATH PROPOSED PEDESTRIAN CROSSING PROPOSED SHARED PATH IMPROVE PEDESTRIAN AND CYCLIST CROSSING POINTS CONNECTION THROUGH RETAIL IMPROVE CONNECTION BETWEEN UNDERPASS AND ROADSIDE CORE AREA FOOTPATH ENHANCE ENTRY TO CURTIN UNDERPASS PEDESTRIANISED 'HEART' OF THE CENTRE

RECOMMENDED PLANNING POLICIES AND ACTIONS

- · Protect the western open spaces by maintaining the existing PRZ1: Urban Open Space land use zoning and providing new recreation uses.
- Rezone Block 7 Section 63, at the corner of Strangways and Carruthers streets, to Urban Open Space (PRZ1) to recognise this block's functions as an important extension of the centre's pedestrian and open space networks.

RECOMMENDED PUBLIC DOMAIN **UPGRADES**

RETAIL CORE AREA AND STRANGWAYS STREET

- Provide new 'entry markers' and signage at the main entrances into the centre to make it easier for new visitors to more readily identify the centre. These should be located at key entrances including the corners of Carruthers Street/ Theodore Street and Theodore Street/Curtin Place (Map 25).
- Ensure future design and upgrades of the central courtyard will allow for community activities and events to successfully continue, such as the weekend market stalls.
- Improve the streetscape of Strangways Street to create a more pedestrian-oriented and slowspeed vehicle environment. This could include additional plantings of large canopy shade trees, upgraded signage, improvements to verge pavements and building awnings incorporated as part of new commercial development. A new shared path along the western verge, where there is opportunity for a continuous path with fewer driveways, will improve pedestrian and cycle access along Strangways Street.
- Provide a new play space close to the corner of Carruthers Street and Theodore Street. This play space could be designed to be integrated with entry signage and located close to the cafés and courtyards in the centre (Map 25). This space will need to be designed to be safe for children to play in, through the provision of low fencing and landscape elements.

CARRUTHERS STREET. MARTIN STREET AND MCCULLOCH STREET PARK

- Provide new areas of landscaping and shade trees along Carruthers Street (between Yarra Glen and Strangways Street) to make it more attractive and comfortable for pedestrians and cyclists to enter the suburb. The entry plantings will further contribute to the leafy character of Curtin and provide a greater level of shade and comfort for pedestrians walking between the potential future public transport stop on Yarra Glen and the centre. Tree selection and lower plantings in this area are to be carefully selected to contribute to the sense of arrival when driving from the east of the centre (Map 25).
- Upgrade the pavements and landscaping at the Carruthers Street frontage to allow for more active uses, such as restaurants and cafés, and license these spaces for outdoor dining. This can be coordinated with local community groups, such as the Curtin Shops Garden Group, to establish new uses that will attract more people to use the Carruthers Street open spaces.
- Improve the landscaping and tree plantings along Martin Street to provide a more comfortable pedestrian experience between the centre and the future rapid public transit stop on Yarra Glen. Upgrades to Martin Street could include seating and improved lighting, and be coordinated with any new development at the corner of Carruthers, Theodore and Martin Streets.
- · Upgrade the pocket park on the corner of McCulloch and Carruthers Streets (Map 25) to create a safer and more accessible park. The perimeter screen planting around the park will need to be reduced to provide a greater level of visibility from nearby houses and from the street.

WESTERN OPEN SPACE

- Provide active outdoor uses, such as outdoor fitness equipment and informal areas for play, along the green corridor near the existing residential apartments and Holy Trinity Catholic Primary School (Map 25).
- Ensure the future design of the western open space considers facilities for the community such as covered picnic areas, public seating and sheltered performance spaces.
- · New recreational uses and the design of pathways must cater for a broad range of the community with varying abilities. To create a child-friendly space, incidental play should be allowed for through the use of landscaping and/ or high quality public art in the open space.
- Retain and improve the shared-path network in the western open space through additional shade tree plantings, wider paths and directional signage. The shared paths should be accessible for people with a range of ages and abilities.

INCORPORATE ENVIRONMENTALLY SUSTAINABLE DESIGN MEASURES IN THE FUTURE BUILDINGS AND PUBLIC SPACES IN THE CENTRE

Improving the centre's environmental sustainability will enhance the local economy and further strengthen the sense of pride in Curtin. New development and redevelopment provides an opportunity to improve the overall sustainability of the centre. New buildings are to be designed to provide optimum northerly orientation for solar access, and to capture cooling breezes. The use of more sustainable building materials, energy efficient fittings and water efficient innovations can be incorporated in new developments and the redevelopment of existing buildings.

Providing green spaces in the centre and increasing shade trees on main pedestrian routes and public spaces will help reduce the urban heat island effect. New development or redevelopment should be encouraged to use lighter building materials and permeable paving materials. Living infrastructure, such as green roofs and walls, should be

encouraged, particularly in the retail core to help reduce urban heat and further contribute to the suburb's 'leafy' character.

Water sensitive urban design is an approach to urban planning and design that aims to integrate the management of the urban water cycle into the urban development process. Key measures include minimising disruption to natural drainage pathways, minimising impervious areas, incorporating rainwater retention capacity and reducing stormwater run-off. These measures could be used in the future design of Curtin's public spaces to ensure the longevity of plantings and amenity of the centre.

RECOMMENDED PLANNING POLICIES **AND ACTIONS**

- Provide new planning controls to mitigate impacts on the centre's microclimate, such as limiting the potential over shadowing of residential development and public courtyards in the colder months.
- Require residential development to be oriented and designed to maximise the benefits of solar passive design. This includes providing solar access to residential living spaces in winter and shade in summer through landscaping and sunshading devices.
- Retain the PRZ1 Urban Open Space land use zone for the western open space and the urban park on the corner of Carruthers Street and McCulloch Street. Rezone Block 7 Section 63 Curtin from the existing dual zoning to PRZ1 – Urban open Space. Protecting these important open spaces will provide opportunity to further improve ecological connectivity, at local and regional scales, by connecting urban green spaces and streets with nature parks and reserves such as the Oakey Hill Nature Reserve to the west and Red Hill Nature Park to the east. Ecological connectivity improvements will encourage local wildlife movements and facilitate migration patterns of species for foraging and breeding (Figure 11).

Map 25: Proposed open space network CURTIN CARRUTHERS **6** YARRA GLEN CURTIN PRIMARY SCHOOL HUGHES

LEGEND

IMPROVE URBAN PUBLIC SPACES

NEW STREET TREES AND IMPROVED PEDESTRIAN AMENITY ON STRANGWAYS STREET

NETWORK OF GREEN SPACES

••• NEW ENTRY PLANTINGS

////// WATER EASEMENT



UPGRADE CENTRAL COURTYARD



OPPORTUNITY FOR CHILDREN'S PLAY AREA

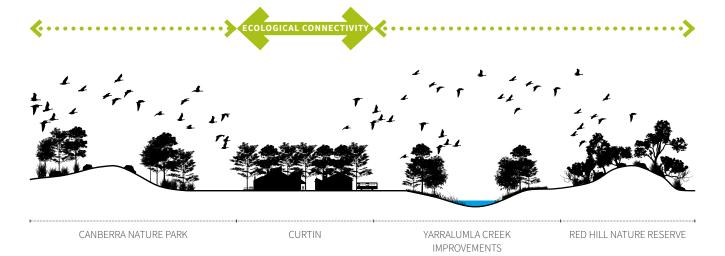


OPPORTUNITY FOR ADDITIONAL RECREATIONAL USES



NEW ENTRY 'MARKERS'

Figure 11: Ecological connectivity through Curtin



RECOMMENDED PUBLIC DOMAIN UPGRADES

- Provide large shade trees along Strangways
 Street, Carruthers Street (between Strangways
 Street and Yarra Glen) and throughout the
 western open space to improve biodiversity,
 community health and wellbeing, and to help
 the city adjust to a changing climate.
- Include the planting of a variety of tree and shrub species in the design of new east-west pedestrian and cycle connections to improve the ecological connectivity between the nearby nature reserves and parks. Where possible, pedestrian and cycle routes should connect to other green spaces and parks to promote, community health and wellbeing.
- Improve amenity for pedestrians and cyclists through provision of rest areas and seating along major cycle and pedestrian routes. These measures, which will further encourage more people to walk and cycle to the centre, are particularly important along the connections between the centre and the future rapid transport stop on Yarra Glen.

- Encourage community groups to be involved in the upgrade and maintenance of key public spaces in and close to the centre.
- Continue to investigate improvements for Yarralumla Creek, consistent with the ACT Basin Priority Project, to further improve water sensitive urban design, water quality and ecological connectivity through measures such as wetlands, bio-retention systems or naturalisation of the concrete channel, where feasible (Figure 11).
- Investigate opportunities to capture stormwater run-off and improve water quality through the design of the public spaces including tree pits and rain gardens.





STRENGTHEN THE ROLE OF THE CENTRAL COURTYARD FOR GENERATIONS TO COME.

This master plan acknowledges the importance of the central courtyard to community life. This importance is reflected in the planning strategies that consider pedestrian and cycle networks, development types, shade, sunlight, bulk and scale of buildings, sustainability measures, public domain improvements, and availability and management of parking spaces.

Through an integrated planning and design approach, this master plan addresses all the above considerations to further strengthen the central courtyard as an important space for the existing community and future generations.

In Stage 4 community engagement, a solar fence provision was proposed for development at the edges of the central courtyard to limit potential overshadowing. The solar fence provision is not proposed in this master plan, as building height limits have made clear that development on the eastern, western and northern boundaries of the central courtyard is limited to a single storey.

This strategy summarises and provides greater detail for the key design principles and recommended planning policies, public domain upgrades and future studies that are specific to the central courtyard. While this strategy may repeat recommendations under the other strategies already outlined in this master plan, it highlights the future role and significance of this public space for the community, now and into the future.



DESIGN PRINCIPLES FOR THE CENTRAL COURTYARD

The following design principles for the central courtyard have been prepared as a result of the key outcomes of community engagement:

- Be a place for the community—the future design and placement of street furniture, plantings and landscape elements are to facilitate active community uses such as markets. The design of buildings and the public domain are to reflect the local character and history of the group centre.
- · Be the focus for commercial activity and business—require active frontages facing the central courtyard, such as cafés, restaurants and shops and focussing the commercial core zoning in the northern part of the centre.
- Be comfortable all year round—maintain day and night access to the central courtyard and the adjoining minor courtyard including access to sunlight through the colder months to allow people to comfortably use these spaces. The large deciduous trees are important to provide shade in the warmer months.
- Be designed with a 'human scale' development at the edge of the central courtyard to be designed to be a 'human scale' by maintaining a single ground floor storey profile facing the central courtyard. On the southern boundary of the courtyard, where buildings can be built above a single storey, the upper floor levels are to be set back from the square.
- Be well connected—connect the central courtyard to the broader pedestrian, cycle and open space networks to encourage more people to visit the centre through more sustainable modes of travel.

RECOMMENDED PLANNING POLICIES AND ACTIONS

- Amend the CZ1 Core Zone land use zoning to be focussed around the central courtyard and adjacent buildings to ensure large-scale 'anchor' shops, such as supermarkets, are located in the northern area of the centre. This will strengthen the future role of the central courtyard as the main focus for people and businesses.
- Require active uses such as shops, restaurants and cafés on the ground floor of buildings facing the central courtyard and walkways entering the centre. Active frontages will also be required on the Carruthers Street frontage to ensure retail activity is focussed around the pedestrian only areas of the centre and make the most of the northern aspect and wide verges in this location.
- New buildings fronting the central courtyard and walkways will:
 - > be oriented towards the courtyards and walkways
 - > be required to incorporate transparent frontages, in at least 70% of the building frontage
 - > be required to have active uses such as shops, restaurants, cafés and community facilities at the ground floor
 - > restrict residential use on the ground floor, and
 - > provide awnings designed to shelter pedestrians and create a sense of human scale and enclosure.
- · For buildings facing the central courtyard, building heights are to be limited to a single storey (5 metres) for development on the eastern, western and northern boundary of the existing central courtyard (Map 26, Figures 12 and 13).
- Development on the southern boundary of the central courtyard is to be set back a minimum 3 metres above the ground floor (Figure 12).

- Require that individual development proposals limit potential overshadowing of the existing central courtyard, and adjoining smaller courtyard, by demonstrating how solar access to public spaces is provided in the colder months. Shadow diagrams are required to show potential overshadowing of public spaces, demonstrating that reasonable sunlight can be maintained on the winter solstice between 9am and 2:30pm, when sunlight is most desirable.
- Require future development in the centre to incorporate passive surveillance opportunities, such as balconies facing the parking areas, to improve safety through the evening and on weekends.

RECOMMENDED PUBLIC DOMAIN UPGRADES

CENTRAL COURTYARD AND ADJOINING WALKWAYS

- Upgrade public domain elements in the central courtyard, smaller connected courtyards and entrance walkways to incorporate seating, lighting, signage, level pavement and landscaping. These areas are the main focus of pedestrian activity, weekend markets and community life.
- Provide historical signage and public art as part of upgrades to the public domain that celebrates the suburb's history and community spirit.
- Identify opportunities to incorporate children's play activities in the central areas of the centre, including the north-east corner close to cafés and courtyard spaces. The children's playground should be designed to be integrated with signage and other public domain furnishings so children can play safely, and allow for colocation with other active uses in the centre.

ACCESS TO THE CENTRAL COURTYARD

- Provide better lighting, directional signage and infrastructure along key pedestrian pathways and cycleways through the centre. This is particularly important for the surface parking areas and walkways that lead into the central courtyard to provide a safe and comfortable access at different times of the day and evenings (Map 27).
- Provide safe, direct and easy pedestrian access across Strangways Street by constructing a pedestrian crossing south of the roundabout at Carruthers and Strangways streets.
- Investigate opportunities for a new pedestrian crossing on Theodore Street, immediately north of the intersection with Martin Street. This will further improve connections between the centre and the future light rail stop on Yarra Glen.
- Upgrade and widen the north–south pedestrian connection between Strangways Street (south) and the central courtyard to provide for pedestrian, cyclists and other mobility devices. New canopy tree plantings should be provided along this pedestrian connection to provide shade in the warmer months.
- Establish an east-west link for pedestrians and cyclists through the centre between the western open space to the Yarra Glen and Carruthers Street intersection. This connection should be made accessible to allow for a wide range of users with varying abilities and will connect to the walkways that lead into the central courtyard.
- Include the planting of a variety of tree and shrub species in the design of new east-west pedestrian and cycle connections to improve the ecological connectivity between the nearby nature reserves and parks. Where possible, pedestrian and cycle routes should connect to other green spaces and parks to promote, community health and wellbeing, and to help the city to better adjust to a changing climate.
- Rationalise the design of the surface parking areas and adjoining pockets of grassed areas to better locate the green spaces closer to the commercial uses, pedestrian walkways and courtyards.

MAINTENANCE

• Encourage the existing and active community groups, such as the Curtin Shops Garden Group, to be involved in the upgrade and maintenance of key public spaces to realise a shared vision for the public domain. This could include providing simple pieces of infrastructure, such as a water tap, to help community groups to continue to successfully contribute to areas of the public domain.

Figure 12: Proposed north-south cross section

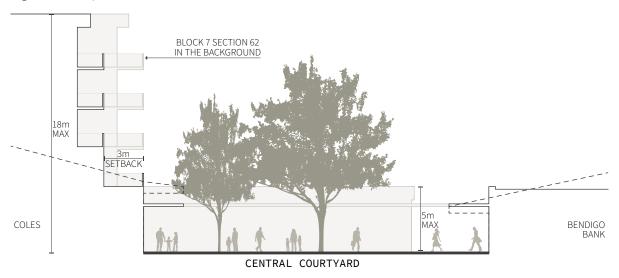
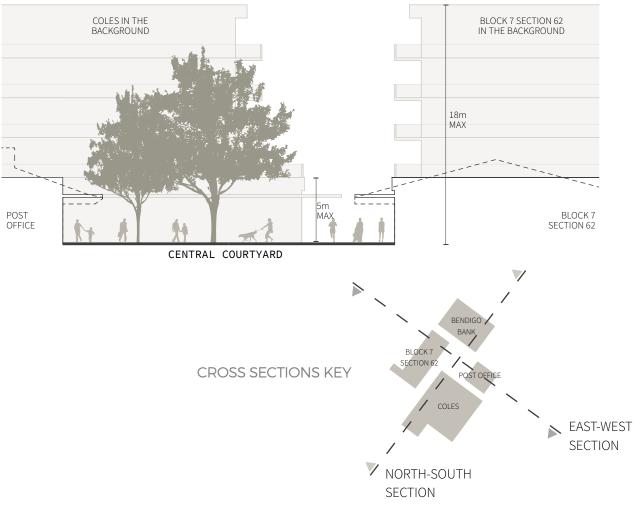


Figure 13: Proposed east-west cross section



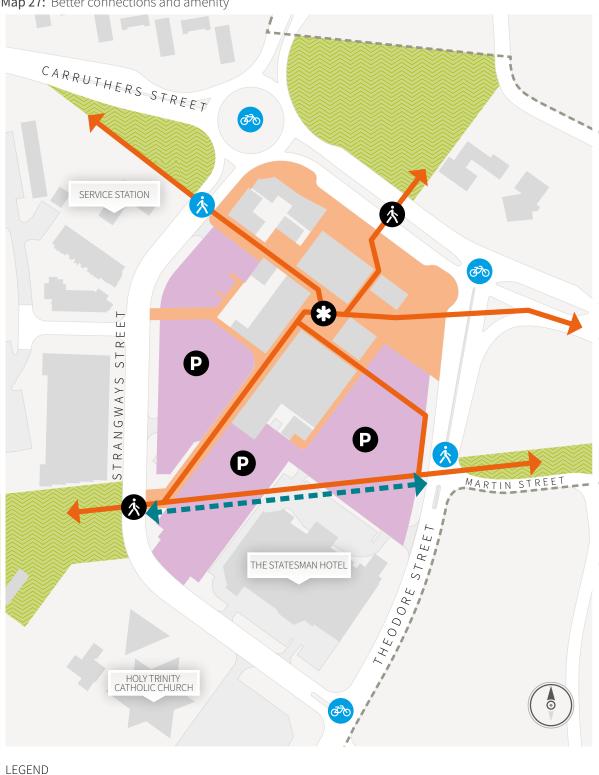
CARRUTHERS STREET CENTRAL \vdash COURTYARD α S STRANGWAYS MARTIN STREET THEODORE STREET Refer to maps 18 and 19 HOLY TRINITY CATHOLIC CHURCH

Map 26: Proposed building height in the retail core area

LEGEND



Map 27: Better connections and amenity





PEDESTRIANISED 'HEART' OF THE CENTRE KEY PEDESTRIAN ROUTES REDESIGN SURFACE CARPARKING AREAS NETWORK OF GREEN SPACE ECOLOGICAL CONNECTIVITY

CENTRAL COURTYARD EXISTING PEDESTRIAN CROSSING PROPOSED PEDESTRIAN CROSSING IMPROVE PEDESTRIAN AND CYCLIST CROSSING POINTS CAR PARKING



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5. RECOMMENDATIONS FOR IMPLEMENTATION

Curtin Group Centre Master Plan



5. RECOMMENDATIONS FOR **IMPLEMENTATION**

THE PROCESS OF CHANGE

Implementation of the master plan will be progressive over the longer term as implementation is dependent on investment decisions by private business, land availability and capital works funding for public domain upgrades from the ACT Government.

Implementation of this master plan can be through:

- a Territory Plan variation, including a new precinct code for the centre
- sale of Territory-owned land, otherwise known as land release
- public domain upgrades
- · commercial opportunities, and
- further studies

ACT Government Directorates such as TCCS, CSD, JACS and CMTEDD may be involved in relation to implementing the recommendations of this master plan. Therefore inter-directorate coordination will contunue in relation to realising this master plan's vision for the centre.

The ways the master plan can be implemented are described in more detail below.

TERRITORY PLAN VARIATION

A variation to the Territory Plan to revise the existing Curtin Precinct Map and Code will realise some of the planning policy recommendations outlined by the master plan. The precinct code will provide the opportunity for the building heights, setbacks and land uses outlined in the master plan to be realised as development and redevelopment occurs.

There will be opportunity for the community to provide feedback on the precinct code through a separate community engagement process.

LAND RELEASE

There are currently no blocks within the study area that are nominated for land release on the ACT Government's Indicative Land Release Program. However, this master plan does provide options for new development and redevelopment in the centre, such as the expansion of the Statesman Hotel development. Map 28 illustrates a possible development sequence and includes unleased and currently leased sites. The development sequence could vary as circumstances and needs change for the centre.

PUBLIC DOMAIN UPGRADES

Infrastructure and public space improvements are required to realise the vision and some of the strategies of this master plan. There are opportunities for the private sector to contribute to the public domain through partnerships with the government or as part of off-site works.

Works undertaken by the ACT Government will involve further investigations by various government agencies and funding consideration through future government budget processes. Public domain upgrades undertaken by the ACT Government are based on a number of considerations including population growth, the age of existing assets and infrastructure and the wider budget context within the Territory.

COMMERCIAL **OPPORTUNITIES**

Business, commercial developers and the wider community are responsible for taking advantage of opportunities identified within the master plan. A number of changes indicated in the master plan are on existing developed sites or require substantial investment. Therefore, implementation of the master plan will be progressed over the longer term as investment opportunities are realised.

Map 28: Indicative development sequence CURTIN CARRUTHERS 3 YARRA GLEN HUGHES LEGEND STAGE 1 POTENTIAL REDEVELOPMENT

STAGE 2 POTENTIAL REDEVELOPMENT

STAGE 3 POTENTIAL REDEVELOPMENT 3

FURTHER STUDIES

Potential further studies include:

HERITAGE ASSESSMENT AND **PUBLIC WORKS**

Complete heritage assessments and investigate opportunities for information signage for the Holy Trinity Catholic Church and the Radburn residential precinct. Where appropriate, planning controls could be recommended to guide future development in each precinct.

CYCLE AND PEDESTRIAN **UPGRADES - FEASIBILITY**

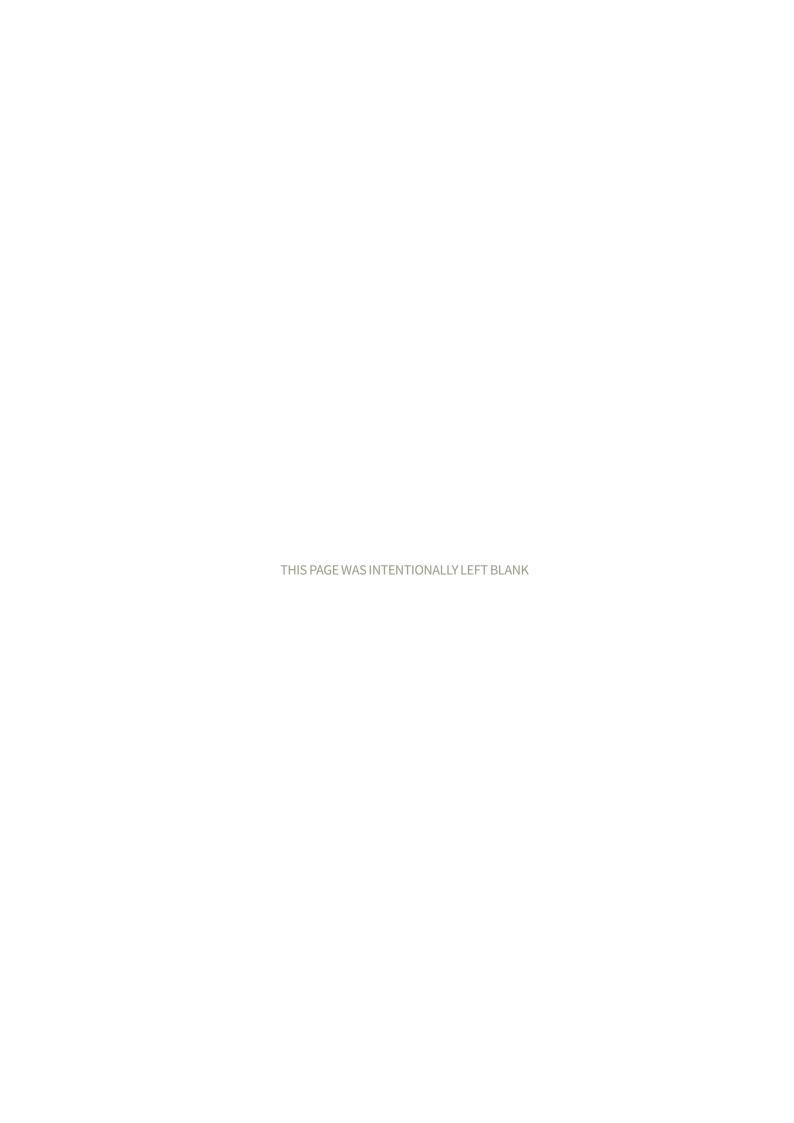
Prepare a feasibility study that further investigates improvements to the cycle and pedestrian networks to prioritise and cost the proposed works. This includes assessment of public domain upgrades in the retail core area and the park on the corner of Carruthers and McCulloch Streets to provide quality public spaces that encourage more people to walk.

INTERSECTION UPGRADES -**FEASIBILITY**

Prepare a feasibility study that investigates upgrades to the Carruthers Street intersections with Theodore Street and Strangways Street (the large roundabout).

PARKING AREA UPGRADES -**FEASIBILITY**

Prepare a detailed parking study to determine the number of additional parking spaces that could be achieved in the eastern and western surface parking. Improvements to pedestrian connections through parking areas into the centre will need to form part of this study.



6. APPENDIX (BACKGROUND **AND ANALYSIS)** Curtin Group Centre Master Plan



6. APPENDIX (BACKGROUND AND ANALYSIS)

COMMUNITY ENGAGEMENT

Community engagement for the Curtin Group Centre Master Plan included four stages as described below. Each stage informed the master plan as it evolved.

A range of engagement activities were undertaken for each stage of engagement, including:

- 'Meet the Planners' sessions
- feedback forms (online and paper copies)
- meetings with individual key stakeholders including the Curtin Residents Association, Curtin Shops Garden Group, local churches, school students, community groups, concerned residents, lessees and traders
- information displays at the Curtin shops and Woden Library
- · information, feedback, quick polls and community forums through project and engagement webpages and social media presence through the Environment, Planning and Sustainable Development Directorates' (EPSDD) Facebook and Twitter accounts and the ACT Government's engagement portal, 'Your Say'
- a community panel, and
- · written submissions.

STAGE 1 - ISSUES STAGE

The first stage of community engagement was held from April to June 2015. The engagement informed the community and other key stakeholders about the master plan process, as well as challenges and opportunities for the centre. Approximately 300 people attended the 'meet the planners' sessions and 168 students attended the student workshops. Almost 200 feedback forms were received from the community in this stage.

Key messages from Stage 1 of community engagement included the desire to:

- · protect solar access to internal courtyards
- address parking capacity and layout issues
- maintain western open spaces (however opportunities to enhance them would be valued, especially by children)
- improve bike path connections to the centre
- provide a rapid transit stop in the area
- make the connection between schools and shops safer and more attractive, particularly for people with disabilities
- provide more diverse spaces for older children
- improve street lighting in key public spaces, including courtyards and underpasses, and
- make the central courtyard smoke free.

There were mixed views regarding provision of diverse housing, with some members of the public feeling that townhouses were required and others commenting that they would prefer detached dwellings to remain.

All feedback was considered by the master plan project team. Where appropriate, key messages and relevant background information informed the development of the draft master plan. Further information on this stage of community engagement can be found in the Community Engagement Report—Stage 1, available at www. planning.act.gov.au.

STAGE 2 - DRAFT MASTER PLAN

The second stage of community engagement sought community feedback on the draft master plan over 12 weeks. Analysis of the 17 submissions lodged and 80 feedback forms completed showed strong support for the proposals in the draft master plan to upgrade the public domain and western open space. There were mixed views about the increase in building height for some areas of the centre.

Key messages from Stage 2 community engagement included:

- strong support for improvements to walking and cycling connections
- strong support for improvements to open spaces, including the western open space
- support to retain the village character in the centre, in particular the low-scale building heights around the central courtyard; three to four storeys were considered compatible with the village character for the central core area. Building heights up to six storeys were generally supported for the Statesman Hotel site, provided the building does not over-shadow nearby houses, and the bulk and scale of the building is reduced, and
- parking availability is considered to be central to the centre's convenience and function.

STAGE 3 – CURTIN COMMUNITY PANEL

In response to the emergence of new opportunities being identified for the centre the ACT Government established a community panel to discuss the development and redevelopment options for the centre, particularly in relation to how the spatial framework, connectivity, building heights, planning controls and parking within the centre could be better addressed.

The community panel met three times between July and November 2017 to discuss the future opportunities for the centre. The panel meetings were framed around the master plan process, development proposals, infrastructure, things that make the area special to the community and business in the group centre. The panel was composed of representatives from the community, lessees, business owners, developers and government.

At the third and final community panel meeting, revised master plan diagrams were presented by the ACT Government for consideration and discussion by panel members. The community panel generally supported the revisions; however, building heights adjacent to the existing central courtyard remained an issue.

The community panel also agreed that:

- there was support for the vision, character statement, planning principles and high-level strategies as outlined in the draft master plan
- design details of individual development proposals should be resolved through development approval processes
- the revised spatial framework, active travel, land use zones, parking and traffic diagrams were supported
- mature trees in and around the retail core area should be retained as they contribute to the centre's character
- the next stage of community engagement would communicate clearly about what is proposed to change from the draft master plan and include the reasons for that change
- · finalisation of the master plan and the subsequent Territory Plan variation were to be undertaken as quickly as possible to ensure the centre will continue to operate, and
- allowable building heights in the retail core area of the centre remained contested by panel members, particularly for the buildings surrounding the existing central courtyard.

The outcomes from the community panel process informed revisions to the draft master plan that were further tested with the community in the following stage of engagement.

More details of the community panel and the outcomes from the process can be found in the Curtin Group Centre Master Plan Community Panel Outcomes Report at www.planning.act.gov.au

STAGE 4 - REVISIONS TO THE DRAFT MASTER PLAN

The fourth stage of community engagement sought community feedback on the revisions made to the draft master plan as a result of the outcomes of the community panel process. Analysis of the 102 emails, 36 postcards and 5 personal submissions suggested that while there was support for several of the revisions, some key issues remained a concern for the community including building heights above two storeys, solar access to the central courtyard, the quality and maintenance of the public domain, village character and residential use in the retail core area.

Other key issues included potential loss of amenity in the courtyard as new development is introduced, parking availability and opportunities to improve the proposed active travel network.

Key messages from Stage 4 of community engagement:

- Building height and design remained the most contentious issue, particularly in regard to concerns for overshadowing, bulk and scale of development close to the central courtyard. There was some support for building heights up to four storeys in the retail core area. Building heights up to six storeys for the Statesman Hotel site and areas outside of the retail core as proposed in the revisions to the draft master plan were generally supported.
- The open spaces and quality of landscaping in and around the retail core area were consistently raised by the community as issues. There was a strong desire to maintain and increase the amount and improve the quality of the green spaces, particularly close to the shops. There was also a desire to keep the existing large trees and to plant more trees in the retail core area and in the western open space to better support wildlife (birdlife) and provide shade and amenity for people using these areas.
- The village character of the centre is highly valued by the community. Ways to enhance the village character to lift the amenity of the centre were expressed in various ways, including keeping views from the centre to Red Hill, more

landscaping, ensuring new development is designed to be at a human scale, integrating the vision, planning principles and character statement from the 2015 draft master plan in the final master plan, and upgrading the public spaces in the retail core.

- Differing views were raised about residential land uses being introduced close to the central courtyard. While some respondents thought it would be an attractive place to live and further add to the character of the centre, others were concerned about potential conflicts between residential development and noisy community activities that could occur in the central courtyard.
- Parking availability was raised to ensure that the centre's convenience and access is maintained.
- · Opportunities to improve the proposed pedestrian and cycle networks were provided.

Further information on community feedback can be found in the Community Engagement Report— Stage 2, 3 and 4 available at www.planning.act. gov.au. Where appropriate, these key messages informed the development of this master plan.

DEMOGRAPHICS

POPULATION

Growth and change in Canberra's population will generate demand for housing, offices, retailing, services, community facilities and associated infrastructure. At June 2017, the ACT population was estimated to be 411,667 with the population projected to reach approximately 512,400 residents by 2031 and 589,000 residents by 2041.

In the Woden Valley, growth is projected to be steady. The latest (June 2017) ABS resident population estimates indicate 35,800 residents for this area. Approximately 42,900 residents are forecast by 2031 and 49,200 residents by 2041.

Settlement in Curtin began in 1964, with the suburb's population peaking at 8000 residents in 1971. The population decreased from 5701 residents in 1991 to 5,322 residents in June 2017 (Table 4). In the past decade, the population has declined by 36 residents (1% of residents).

In 2006, the median age in Curtin was 40.8 years. By 2016, the median age in the suburb of Curtin had increased to 41.2 years. This is older than the median age for Woden Valley (40 years in 2016) and the ACT (34.9 years in 2016). Refer Table 6.

A significantly higher proportion of adults aged 45 and above live in Curtin compared to the whole of the ACT. There is a significantly lower proportion of adults aged between 20 and 34 compared to the rest of the ACT. Generally, the household composition in Curtin is diverse, with 37% being couples with children, 27% couples with no children, and 23% being a lone person household (Table 7).

The need to support an older population has implications for the provision of facilities and services. The design of the public domain will have to meet the needs of a diverse population and respond to issues such as mobility and access. Providing housing close to services and facilities is another way an ageing population can be supported.

EMPLOYMENT

The 2016 ABS Census recorded 2630 people in Curtin as being part of the labour force, with a participation rate of 96%. This rate is similar to employment levels across the ACT. In 2016, 54% of Curtin residents in the work force worked in Canberra Central and 26% in Woden. Slightly lower percentages worked in other areas of the city, with 5% in Canberra's east, 5% in Belconnen, 5% in Tuggeranong, 2% in Weston Creek and 2% in Gungahlin.

Table 4: Population in Curtin over the past 20 years

YEAR	POPULATION
1991	5,701
2001	5,423
2011	5,360
2017	

Table 5: Resident population projections to 2041

	ACT	WODEN VALLEY
2017	411,667	35,800
2031	512,400	42,900
2041	589,000	49,200

Table 6: Median age

	2006	2016
Curtin	40.8	41.2
Woden Valley	39.8	40.0
ACT	34.4	34.9

Table 7: Household composition in Curtin

HOUSEHOLD FAMILY COMPOSITION	CURTIN (%)	ACT (%)
Couple Family with children	37%	34%
One parent family	10%	11%
Couple family with no children	27%	26%
Other family	1%	1%
Group household	3%	5%
Lone person household	23%	23%
Total	100%	-

Table 8: Mode of travel to Curtin centre (place of work)

MODE	%
Private vehicle (car, motorbike, other)	89%
Public transport (bus, taxi)	5%
Active travel (walking, cycling)	5%
Other	1%

Table 9: Dwelling structure

	CURTIN	WODEN VALLEY	ACT
Detached	83%	6%	11%
Semi-detached	61%	21%	17%
Apartment	65%	18%	17%

TRANSPORT AND **MOVEMENT**

PUBLIC TRANSPORT

Transport for Canberra (2012) includes targets to increase use of public transport in journeys to work in the ACT to 10.5% by 2016. ABS census data (2016) indicates that approximately 5% of people travelled to work in the centre by public transport compared to 5.6% across the Territory.

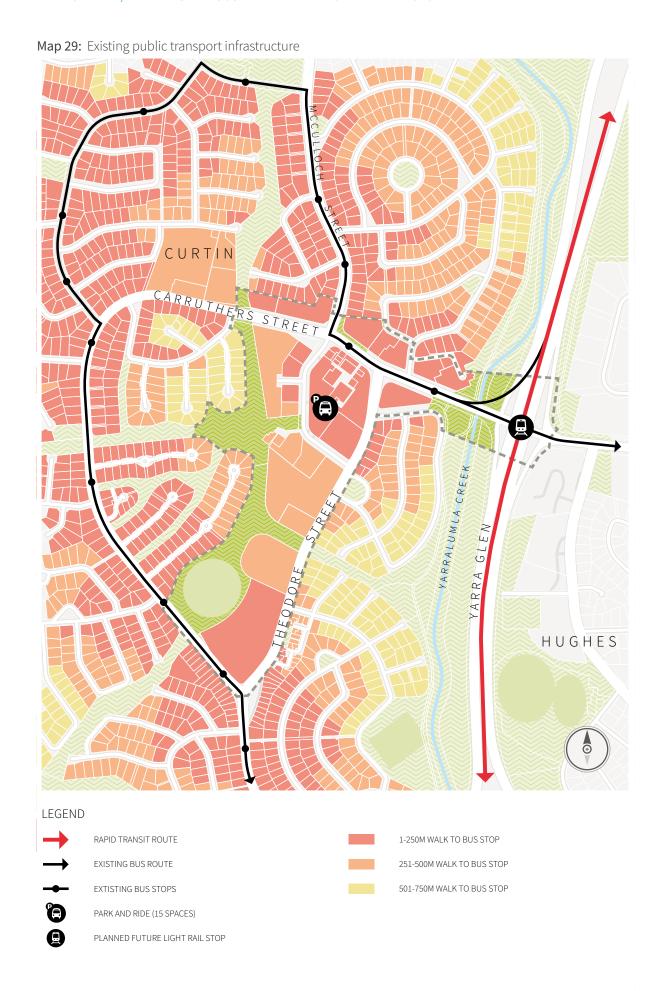
Transport Canberra provides the primary form of public transport to the centre and currently offers three bus services: weekday services (Route 2), express peak hour services (Route 732) and weekend services (Route 932). Recent changes to public transport across the ACT will provide local service through Curtin every day of the week. This will use the Carruthers Street stops.

Buses travel to Woden and the city centre every 10–15 minutes during morning and afternoon peak periods, and every 30 minutes during the middle of the day. There are longer waiting times (60 minutes or greater) between services in the evenings and on weekends. Bus stops are located along Carruthers Street and McCulloch Street. Two bus stops along Theodore Street, adjacent to the primary schools, are for school buses. Map 26 illustrates the existing public transport infrastructure within the study area and approximate walking distances to each bus stop.

The ACT Government have been working on new bus routes across the city. Phase 2 of the public consultation on the proposed bus network for Canberra closed on 12 August 2018. In this phase, it was proposed that a new bus (bus number 58) is introduced, passing the Curtin group centre. This service goes to:

- Parliament House, Deakin Shops, Yarralumla Shops, John James Hospital, Curtin Shops and Park and Ride and Woden Bus Station/Mall/Park and Ride
- The following schools at: Canberra Girls Grammar, Yarralumla Primary, Alfred Deakin High, Holy Trinity Primary, Curtin Primary and Canberra College.
- Connections with: Light Rail and Rapid 3 at City Interchange, Rapid 2, 4, 6, 7 and 10 at Parkes and Rapid 4, 5 and 6 at Woden.

The outcomes of community engagement are continuing to inform the implementation of the new network.



LIGHT RAIL

The ACT Government is committed to delivering a city-wide light rail network. Transport for Canberra (2012) established a Frequent Network of rapid public transport corridors with high frequency, all day transport services. Transport Canberra are currently revising the transport strategy to reflect an integrated public transport system involving light rail, buses, active travel, private vehicles and future transport.

Light rail from Gungahlin to Woden will create a north-south public transport spine for Canberra, significantly improving transport accessibility in Curtin. It will provide access to major educational institutions, employment hubs and retail and entertainment precincts, enhance connectivity between key inner city activity centres on both sides of Lake Burley Griffin, and provide a seamless public transport option between north and south Canberra, linking with other public and private transport options.

The City to Woden light rail is currently being planned and proposes to include a stop in the median of the Yarra Glen, at Carruthers Street. The Curtin Group Centre Master Plan identifies enhancements to active travel infrastructure that supports the implementation of light rail and facilitate movement in to the Curtin precinct.

ACTIVE TRAVEL

Active travel involves physical activity such as walking and cycling. More Canberrans will lead fitter and healthier lives if active travel options are seamlessly integrated into everyday life. The city will also become more vibrant and safe through increased pedestrian and cycling activity.

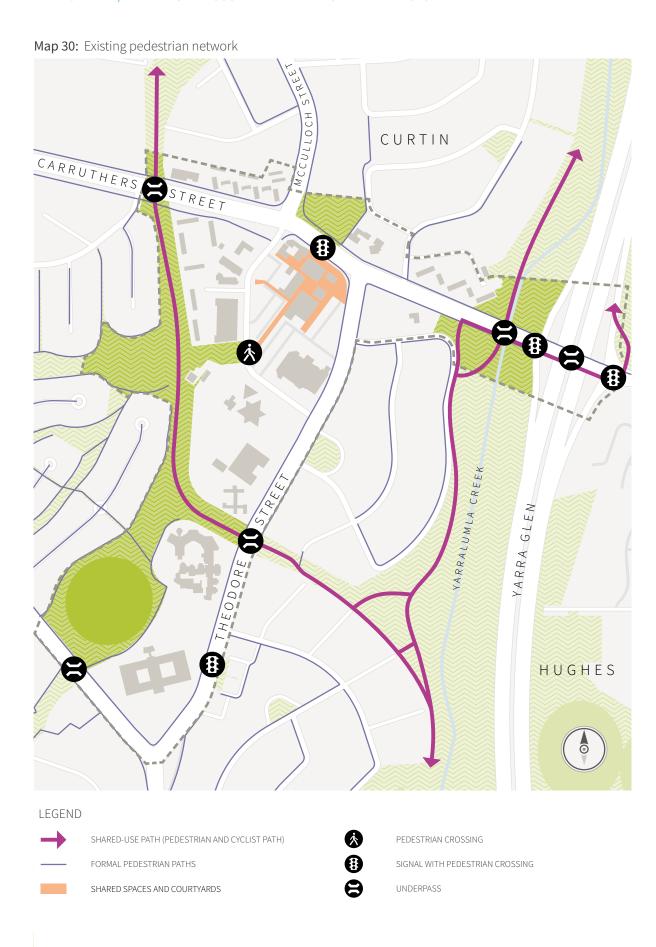
The ABS Census 2016 recorded a cycling rate of 1% and a walking rate of 4% for people travelling to the centre for work. This is well below the targets set in Transport for Canberra (2012). Improvements to the existing walking and cycle infrastructure, upgrades to the public domain and providing accessible paths for people with varying abilities will help encourage more people to access the centre by these more sustainable modes of travel.

In Curtin, there are good pedestrian connections to the retail core, particularly from the Radburn residential area via the western open space (Map 30) and from residential areas in the south via the neighbourhood oval. Connections to the eastern residential area and the West Deakin office and health precinct (including Alfred Deakin High School) are not as well defined and could be improved. Map 30 illustrates the existing pedestrian network in the centre.

Pedestrian amenity within the retail core is reasonable, with shaded seating areas and pedestrian-only zones. However, there is poor connectivity between adjacent surface parking spaces and the shops, as well as surrounding land uses (such as the churches, schools and aged care facility) and the shopping area. Level changes and uneven paths detract from the centre's accessibility for people with disabilities, the elderly and parents with prams.

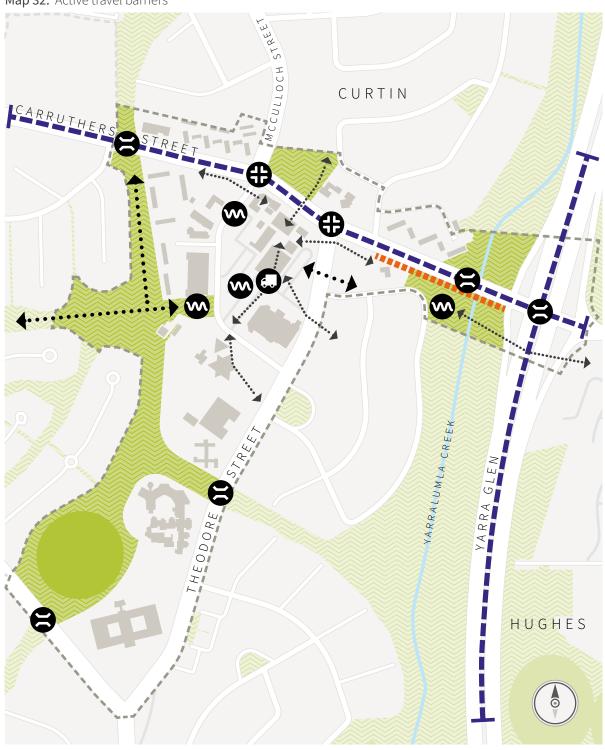
Cyclists in the area are reasonably well catered for, with a shared-use path running north-south through the western open space and along Carruthers Street, connecting to a cycle network that leads to both the City and Woden (Map 31). These shared paths do not directly connect to the retail core.

Map 32 illustrates the various pedestrian and cyclist barriers that make it difficult for people to walk and cycle. Yarra Glen and Carruthers Street are major roads that act as physical and perceived barriers to residents accessing the centre from outer areas. This is due to the road being too wide and intersections designed in such a way that prevents the safe and effective crossing of pedestrians and cyclists. There are poor connections between the retail core and adjacent land uses due to level changes, crossings that prioritise vehicles, lack of street lighting and disconnected footpaths.



Map 31: Existing cycle network CURTIN CARRUTHERS YARRA GLEN HUGHES LEGEND ON-ROAD CYCLE LANES ON BOTH SIDES OF THE ROAD SIGNALISED PEDESTRIAN CROSSING SHARED-USE PATHS UNDERPASS SHARED SPACES AND COURTYARDS

Map 32: Active travel barriers







LEVEL CHANGES

BUSY INTERSECTION

LOADING DOCK

UNDERPASSES

ROAD NETWORK AND TRAFFIC

The centre is convenient for people to drive to by private car. The feedback from community engagement found that approximately half the visitors to the centre travel by car and ABS census data (2016) reflects a much higher proportion of people who travel to the centre for work by car (89%). This reliance on private vehicles to access the centre can increase traffic congestion and demand for parking.

The road network with the study area includes arterial roads, collector roads and local access streets. Yarra Glen, an arterial road, provides access between Woden town centre and the city centre. Carruthers Street and Theodore Street are collector roads within the study area and all other streets are identified as access streets with lower vehicle speed limits.

The ACT Government introduced additional traffic calming devices along McCulloch Street as part of the Cotter Road duplication project. This included a raised pedestrian crossing on the corner of Reynolds Street and McCulloch Street that services the bus stops on both sides of the road. These devices, along with the existing roundabouts, reduce the use of McCulloch Street as a 'rat run' between Tuggeranong Parkway or Cotter Road and the Woden area.

Two intersections within the study area experience high levels of traffic and are difficult for pedestrians to cross: the Carruthers Street and Theodore Street intersection; and the Carruthers Street and Strangways Street roundabout. These intersections encourage vehicles to turn corners at speed, making it difficult for pedestrians to cross. It is also difficult for cyclists to move through these intersections, particularly the roundabout on the Carruthers and Strangways Streets intersection. The slip lane at the corner of Carruthers and Theodore streets is particularly challenging for pedestrians to cross at this point, due to the speed of vehicles as they turn into Theodore Street.

Access to future development sites within the centre is an important consideration. Larger vehicles, such as waste collection trucks, require specific width and height clearances in order for

these vehicles to access and service developments. The future function and layout of the road network will need to consider manoeuvring of larger vehicles to allow the centre to continue to function as a focus of retail and commercial uses.

PARKING

Parking was consistently raised as a key issue for the community throughout engagement.

A parking study completed as part of the background analysis for this master plan found a considerable amount of parking capacity in the on-street parking or in areas that are further away from shops and that the surface parking close to the shops is well used.

For parts of the study area outside the core area, typical utilisation of parking was low (10-30% utilisation), which indicates that it is relatively easy to find a space to park. However, utilisation in the core area was close to 90% at peak periods, particularly in the eastern and western parking areas (Map 33). Outside of peak periods, there is considerable capacity for parking, as indicated in Figures 14 and 15.

Parking capacity issues are mainly experienced with the timed parking spaces, generally the spaces closest to shops in the retail core area. On a typical weekday, the short-stay (timed spaces) parking operates close to capacity during the day time and significantly reduces by the evening. The long-stay parking (unrestricted spaces) operates at a little over 50%. This could be due to these spaces being located slightly further away from the shops. On a typical weekend, the long-stay parking is used significantly more in the evenings, likely due to people attending church services.

Map 33 indicates that off-street parking in the core area peaks in the range of 70–100% during the weekday daytime period. During the weekday evening peak period, carparks in this area operate at 60-80%.

There is limited lighting and poor visibility of line marking in the southern parking area. The layout of this carpark does not allow for good internal circulation, and southbound vehicles must exit the parking onto Strangways Street to search

both aisles. The layout and design of the eastern and western parking areas are considered to be inefficient and provide poor pedestrian access to the shops. The grassed areas at the edges of the parking areas on Strangways Street and Theodore Street are not used and could be better located closer to the shops. This will provide the opportunity to increase parking spaces and provide more usable green spaces.

Parking will continue to remain a challenge for the centre unless improvements are made. However, there is not one simple solution. Measures to reduce the pressure on parking for the centre could include changes to parking time restrictions, re-design of the surface parking areas to increase the number of spaces, and requirements for new developments to incorporate parking onsite. Other ways to reduce demand for parking will be to realise improvements to pedestrian, cycle and public transport facilities; these will be more effective and sustainable in the long term to reduce pressure on parking. Additionally, the existing park and ride currently occupies parking spaces that would be better prioritised for people working at or visiting the centre.

Figure 14: Thursday parking utilisation (Core area)

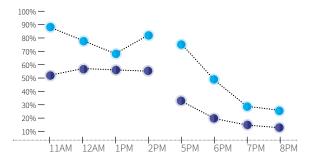
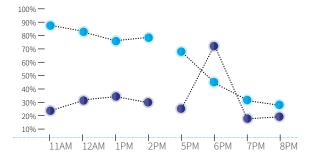


Figure 15: Saturday parking utilisation (Core area)



PUBLIC DOMAIN

STREETS. PARKS AND PUBLIC SPACES

The centre's open space network includes a public park north of the retail core, the western open space and courtyards, grassed areas and established gardens through the retail core. The open space network is illustrated in Map 34.

The centre is a well-used community hub and a vibrant meeting place. The diversity of land and building uses, shaded central courtyard, subsidiary green spaces with good solar orientation and strong sense of community help enhance this character. It is a convenient place to run personal errands but is a popular destination—particularly on weekends—for people to spend time relaxing in the courtyards or in one of the cafes. The central courtyard and adjoining walkways are the heart of community life and activity.

The retail core area is heavily urbanised, active and includes a mix of native and deciduous trees. The existing large canopy trees in the central courtyard and parking areas contribute to the local character of the centre. In contrast, the western open space is comparatively underutilised but provides a safe and pleasant environment for pedestrians and cyclists to access the centre. Large canopy trees are planted throughout the western open space and include a diverse mix of native and exotic tree species. The western open space forms an important element of the Radburn planning that was implemented in this part of the neighbourhood.

The western open space and wider landscape, such as parks, gardens, trees and vegetated open space, provide several benefits in urban areas for biodiversity, community health and wellbeing, and help the city adjust to a changing climate. One example to improve the landscape in Curtin is to ensure large canopy trees continue to be planted in the streets, parks and public spaces. This will allow for wildlife, such as native birds, to move through the Curtin area to the nature reserves to the east (Red Hill Nature Reserve) and west (Oakey Hill Nature Reserve). Large canopy trees also provide benefits for people walking through the centre, including shade for warmer days of the year.

Map 33: Car parking utilisation



THE CURTIN SHOPS GARDEN GROUP

The local community can play an important role in the quality, amenity and usability of public spaces.

The Curtin Shops Garden Group consists of community residents who give their time to improve the public spaces, trees and gardens around the shops and in the main entry points into the suburb. To date, the group has worked with the ACT Government, Curtin residents and traders to upgrade and improve several areas in and around the centre. A major project includes the restoration and improvement of the John Curtin Memorial Garden on Carruthers Street

There is an opportunity for government and developers to work with local community groups, such as the Curtin Garden Group, to realise the full potential of the suburbs public domain.

PUBLIC FURNITURE, SIGNAGE. ART AND SCULPTURE

The existing central courtyard was rejuvenated in 1999 as part of a government initiative to improve Canberra's public spaces. Playful and sculptured seating and metal craftworks of birds perched on lighting poles were installed. Motifs of Australian birds were integrated into the public furniture, pavement and artworks, which were designed using colourful mosaic tiles.

A memorial to former Prime Minister John Curtin after whom the suburb is named—is located at the northern entry point to the retail core and doubles as an entry sign. The area surrounding the sign is being upgraded by a local community group, the Curtin Shops Garden Group, to encourage more people to use the Carruthers Street frontage to the centre and bring more prominence to the memorial sign. Upgrades to the Carruthers Street verge would also encourage more businesses to upgrade building frontages and provide space for outdoor dining and cafés.

BUILDING DESIGN AND HEIGHT

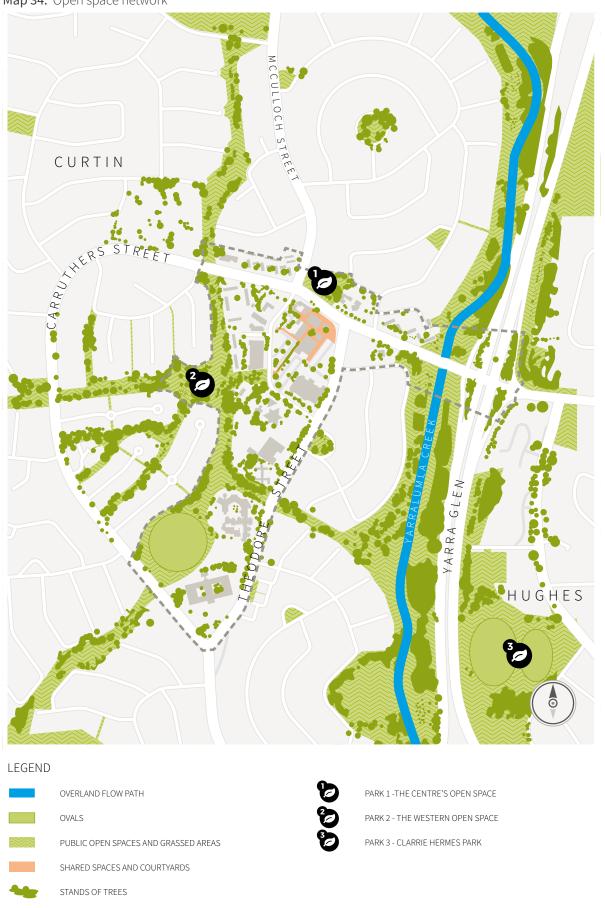
The Curtin group centre was opened in 1967 with the introduction of a department store (JB Young's), a butcher, shoe store and children's library. The original design of the centre featured a central courtyard measuring 26 by 24 metres, providing a public area away from traffic. Today, the central courtyard remains an important and highly valued space by the community. The buildings at the edges of the central courtyard were designed to block the cold southerly winds and provide shade from the late summer sun from the west. The other buildings including the post office, banks and shops completed the other sides of the central courtyard.

The buildings at the edges of the central courtyard still exist, and are constructed of painted or rendered brick masonry and corrugated iron roofs. Shopfront facades are predominantly aluminiumframed glazing. The wide cantilevered eaves, up to 3 metres in depth, are characteristic of the centre and provide good opportunities for outdoor seating and protection from the elements. Several people expressed a desire for better maintenance of the existing buildings through the master plan process. As buildings are privately owned, maintenance of buildings will need to be undertaken by individual building owners.

The central core buildings are one and two storeys in height. The two-storey buildings are located in the north-western corner of the centre and include an underground basement. The hotel to the south is two storeys with under croft parking. While several single storey buildings exist, the Territory Plan currently permits development in the centre up to two storeys.

The Australia Post building, Anglican Church of the Good Shepherd and Holy Trinity Catholic Church incorporate spire-type motifs in their building design. These spires, particularly atop the Holy Trinity Catholic Church, can be seen from various locations around the study area and contribute to the centre's character.

Map 34: Open space network



Three-storey residential buildings are located immediately north-east, north-west and west of the retail core; these developments are located within the master plan study area. The surrounding residential dwellings are mostly one-storey detached dwellings with some two-storey units and a very small number of semi-detached dwellings.

The existing building heights are illustrated in Map 35.

EXISTING BUILDING HEIGHT CONTROLS

The existing building height rules for the Curtin group centre are currently set out in the Commercial Zones Development Code within the Territory Plan. This code includes specific controls for group centres. The building height controls and associated commercial land uses in the retail core area allows for a mix of uses, including retail, commercial (offices and the like), community facilities and residential development.

The existing building height limit for the centre is expressed as a 'Rule' that allows for development up to 2 storeys in the retail core (the area currently bounded by Carruthers Street, Strangways Street and Theodore Street). The Rule is associated with a 'Criterion' that allows for development to be considered above two storeys where it meets the current set of criteria, including addressing desired character, scale, function and overshadowing. As such there is no maximum building height limit provided in the current 'Criteria' within the Territory Plan.

Allowable building height limits have been a key concern for the community as identified through community engagement activities.

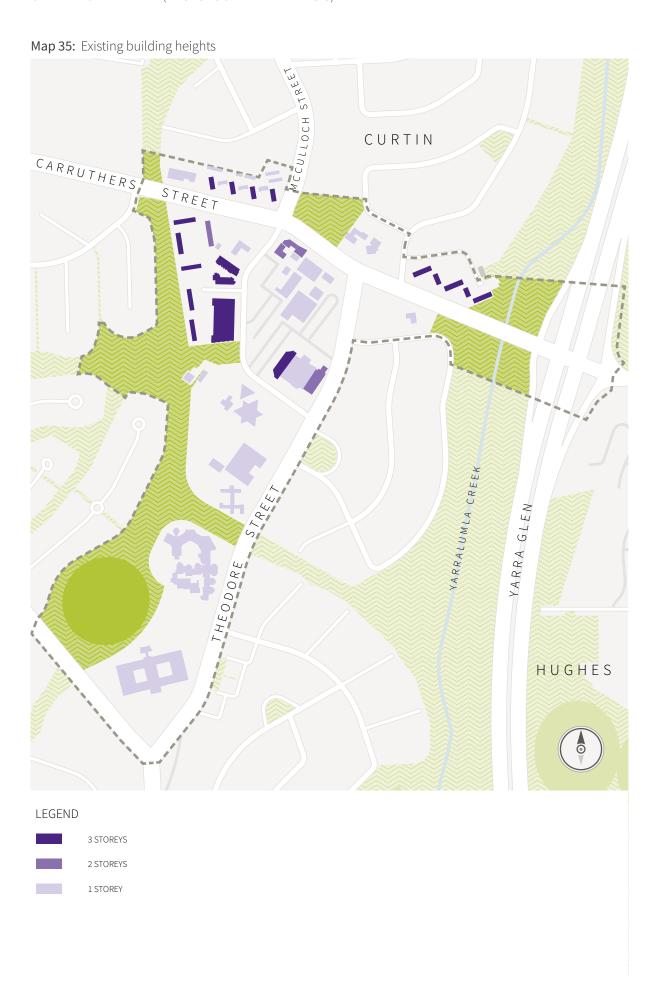
PUBLIC SAFETY

Generally, the centre is a safe place to visit. However, the perception of safety in and around the retail core is diminished by potential entrapment areas (particularly around existing rubbish and 'back of house' areas), lack of appropriate lighting in the southern surface parking and pedestrian underpasses on Carruthers Street, and minimal passive surveillance of the existing internal central courtyard after dark and of the children's playgrounds at all times of the day.

The building frontages in the retail core are well activated with shops and building entrances facing the central courtyard and walkways. However, the outer frontages that face the parking areas are mostly blank walls and service areas. Additionally, the supermarket, a restaurant, private gymnasium and hotel are the only uses open after usual business hours. Two takeaway shops in the retail core have limited opening hours after 5.00pm on weekdays. Map 36 illustrates the existing active frontages in the retail core and buildings with 'after hours' uses (prior to the closure of the shops at Block 7 Section 62 Curtin).

A number of community stakeholders expressed concern regarding the speed of traffic and lack of convenient pedestrian crossings on Theodore Street. There are few direct and safe pedestrian crossings and access between the schools to the south and the centre.

In 2011, the ACT Government commenced to introduction of 40 km/h speed limit precincts in Canberra's town centres, with low speed zones now successfully introduced in Woden, Gungahlin, Tuggeranong, Belconnen and the city centre. From 2015, the government extended the 40km/h speed limit precincts to include 18 group centres, including the Curtin group centre. The extent of the speed limit precinct in Curtin includes the retail core parking areas and Strangways Street. While this slows traffic, it is important to look at the design and function of the streets, particularly Strangways Street, to ensure there are safe pedestrian environments for people accessing the centre.



Map 36: Active frontages in the retail core CARRUTHERS STREET SERVICE STATION STRANGWAYS STREET 0 MARTIN STREET THEODORE STREET IE STATESMAN HOTEL 0 HOLY TRINITY CATHOLIC CHURCH LEGEND ACTIVE FRONTAGES INACTIVE FRONTAGES 0 AFTER HOURS ACTIVITY

ENVIRONMENTAL SUSTAINABILITY

Sustainability is critical to the built environment. ACT Government policies and strategies provide guidance for integrating sustainability measures into our urban environment. The following key sustainability measures are to be considered in master plans and their implementation.

RESPONDING TO CLIMATE **CHANGE**

Master plans provide opportunities to respond to climate change at a place-specific scale. This takes two forms:

- Mitigation—reducing greenhouse gas emissions by minimising use of fossil fuels (towards net zero emissions by 2045) for transport and the heating and cooling of buildings. Measures such as increasing energy efficiency help this transition. (Refer to Energy section below.)
- Adaptation—taking actions to reduce vulnerability to the risks from climate change impacts. This will help our city and community become more resilient when extreme events occur (like heatwaves, droughts, storms with flash flooding and bushfires). (Measures are included below.)

REDUCING RESOURCE CONSUMPTION AND **ENVIRONMENTAL HARM**

- · Reduce the amount of land used for the growing city through urban renewal and intensification.
- Reduce the amount of energy and emissions by investing in renewable energy and installing energy efficient lighting and appliances.
- Reduce the amount of potable water used by harvesting, storing and using rainfall.
- Reduce flash flooding by increasing permeable pavements and harvesting stormwater to water vegetation (e.g. rain gardens and kerb design).
- · Conserve significant landscapes with key features and components, including key views and vistas.

- Increase wildlife biodiversity by increasing habitat connectivity.
- Improve air quality and remove pollutants by increasing the quantity of trees and shrubs beside emission sources.
- Reduce urban heat (see measures below).

REDUCE URBAN HEAT

An urban heat island is a metropolitan area that is significantly warmer than its surrounding areas. The main cause of the heat island effect is from the use of materials such as concrete and bitumen that store and radiate heat to surrounding areas.

Thermal comfort can significantly change the way we use outdoor areas. Urban environments, such as the Curtin group centre, contain significant areas of concrete and asphalt in the roads, car parks and footpaths. Mapping of surface urban heat in Canberra in February 2017 found that the Curtin group centre has temperatures of +2C to +4C above the mean land surface temperature. Higher temperatures may be acceptable in the cooler months, but some urban environments can become uncomfortable in summer and cause heatrelated illness.

Reducing urban heat in the built environment can be achieved by using:

- light coloured and low thermal mass building materials
- trees with high levels of shade, particularly in summer
- permeable surfaces to let rain into the ground
- watered grass and water features, and
- plants on roofs and walls (e.g. roof gardens, climbers).

BETTER BUILDINGS

• Improve the design and construction of buildings to be fit-for-purpose for the future climate, including high heat, extreme winds and intense rain; these 'climate wise' buildings should last for the life of the building or at least 50 years and include passive heating and cooling (orientation, insulation, air sealing and ventilation).

- Ameliorate the microclimate impacts of buildings by their siting and design as well as in the surrounding surface treatments and landscape.
- Increase diversity in housing types to meet lifestyle choices and adaptability of design and construction to suit whole-of-life needs.

PLANNING AND DESIGN FOR SAFE AND PLEASANT PLACES

- Improve microclimate year-round (less temperature extremes and less wind) through site design and choices in materials (reflective roofs, light-coloured building materials and low thermal mass) and use of vegetation and water.
- Increase amenity and comfort in outdoor places (playgrounds, pathways, plazas and parklands) by including seats, drinking fountains with water bottle recharge taps, and microclimate improvement through shade and shelter.
- Design the public domain to be fit-for-purpose in the future climate, that is 'climate wise' for the life of the asset (at least 50 years), reducing the risks from extreme events of storm winds, flash flooding, urban heat, drought and bushfires:
 - > Reduce storm damage by choice of tree species (also affected by quality of growing conditions and maintenance).
 - > Reduce flash flooding and sub-catchment run-off by reducing amount of impermeable surface and detaining water flow.
 - > Reduce drought impacts by harvesting and use of rain and stormwater.
 - > Reduce bushfire risk by reducing fire fuel (from the ground to the tree crown) and use less flammable plants beside buildings.
 - > Plan for more than one route in and out of the centre with emergency services access to public spaces and buildings.

ENERGY

The ACT Sustainable Energy Policy 2011–2020 stated objectives are to achieve reliable and affordable energy, smarter use of energy, cleaner energy and growth in the clean economy.

A district energy system could contribute to achieving these objectives and could be commercially viable with a commercial/residential development or expansion. District energy systems produce electrical energy locally and use 'waste heat' from electricity generation to heat and cool buildings.

Electricity and/or thermal energy is generated close to where it is used. Energy systems such as co-generation (electricity and heat) or trigeneration (electricity, heat and cooling) need the combination of commercial and residential uses to be efficient as the load for commercial is generally during the day and the load for residential is generally out of hours. The use of such energy systems can achieve social, economic and environmental benefits.

New commercial and residential development and/ or redevelopment in the centre has the potential to incorporate such sustainable initiatives to improve centre's sustainability.

WATER

Water is an important natural resource that is under significant pressure from population growth and climatic conditions. There is a need to reduce broader social, economic and environmental costs associated with potable water distribution.

The Sullivan's Creek and Inner North Reticulation Network, Canberra's first neighbourhood-scale stormwater harvesting and managed aquifer recharge system, captures and treats urban stormwater in constructed wetlands before pumping it though a reticulation network for irrigation of urban green spaces.

For Curtin, the reuse of stormwater and rainwater could reduce the use of potable water for irrigation and domestic and commercial uses that do not require treated water, such as toilet flushing or clothes washing.

ACT HEALTHY WATERWAYS PROJECT

The ACT Government has integrated Water Sensitive Urban Design (WSUD) principles into new developments and constructed new water infrastructure, like wetlands and ponds, in older more established suburbs. The ACT Healthy Waterways Project is adding more water quality treatments across the ACT and region, such as wetlands, ponds and rain gardens across the ACT and region.

In the south of Curtin, a new rain garden has been constructed in the open green space around the Flood Memorial site. The rain garden will play a role in improving water quality in Yarralumla Creek and add a greater level of amenity for people who walk or ride along the nearby path.

CIVIL INFRASTRUCTURE

Gas and telecommunications infrastructure service the study area and there are no major constraints to note. Sewage from the study area discharges north into the Woden Trunk Sewer main located near Cotter Road.

A 20 metre-wide easement exists over two trunk mains measuring 450 millimetres in diameter and 750 millimetre diameter running east-west through the study area. These pipes run through the western open space and retail core and across to the Yarra Glen and Carruthers Street intersection.

The centre is located within a stormwater catchment area of approximately 104 hectares. Piped and overland flows are conveyed from the south of the catchment through the western open space in a northerly direction. Stormwater is eventually discharged into Yarralumla Creek near the intersection of McCulloch Street and Cotter Road.

