Part 16
Macarthur Gardens North Precinct

16.1 Application

16.1.1 Land to which this Part applies

This Part applies to the Macarthur Gardens North Precinct which is located immediately north of the Macarthur train station and south of both the Western Sydney University and TAFE sites (refer Figure 16.1 and 16.2 below).

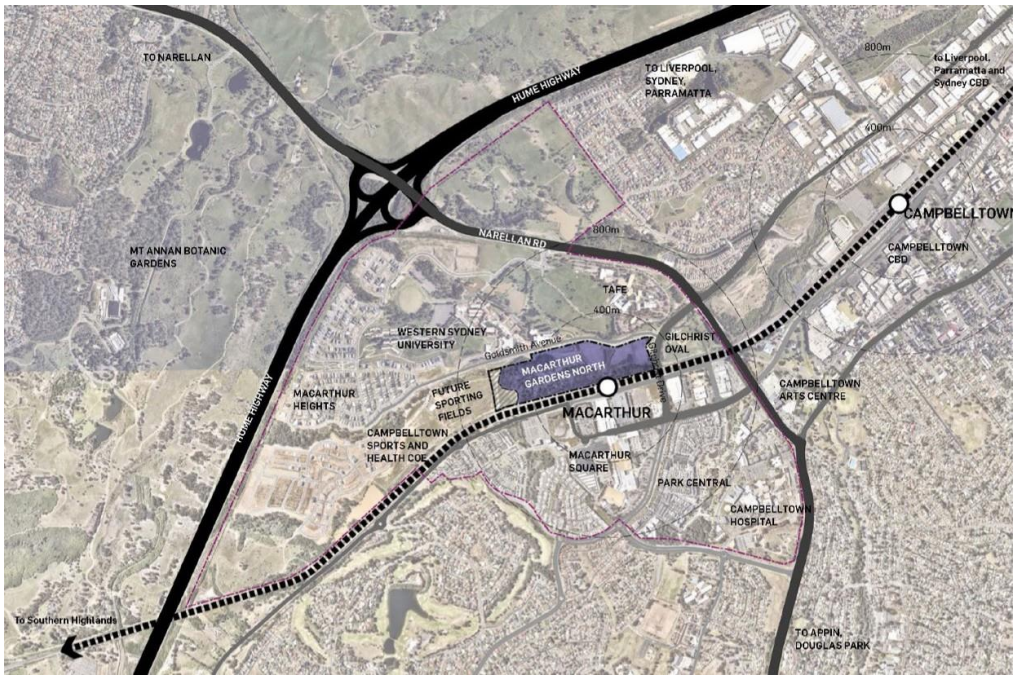

Figure 16.1: Macarthur Gardens North Precinct

Figure 16.2: Macarthur Gardens North Precinct

16.1 Application

As illustrated above, the Macarthur Gardens North site comprises two separate sub-precincts:

i) Macarthur Gardens North Apartment Precinct (MGN Precinct): The subject site of this Part (Part 16)

ii) Macarthur Gardens North Basin 3 (MGN Basin 3 Precinct): Located to the western end of the Precinct.

Figure 1.3 below illustrates the 2 sub precincts that comprise Macarthur Gardens North.

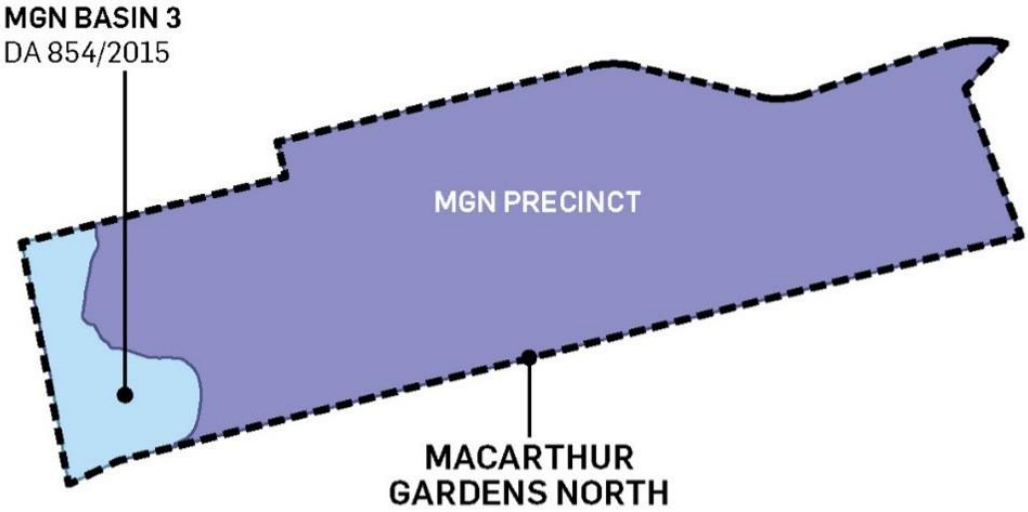

Figure 16.3: Macarthur Gardens North Sub Precincts

The following parts of the Campbelltown (Sustainable City) Development Control Plan apply to the land within the MGN Precinct (the subject of this Part) as shown in Figure 16.3 above:

Volume 1: Part 2 Requirements applying to all Types of Development

Volume 1: Part 9 Public Consultation, and

Volume 2: Part 16 Macarthur Gardens North Precinct.

Notes:

i) Where a site specific DCP does not include specific development controls for a certain type of development, the development controls under Volume 1 of Campbelltown City Councils' Sustainable City Development Control Plan (SCPDCP) shall be used to assess the development applications received by Council.

ii) Where there is an inconsistency between the provision of Part 16 and Volume 1 of the Plan, the provision under Part 16 shall prevail to the extent of the inconsistency.

iii) Campbelltown City Council Engineering Design Guide for Development also applies to development specified in this Part.

16.1.2 Structure Plan

The overall Macarthur Garden North Precinct (Lot 1097 / DP 1182558) is bound by Goldsmith Avenue to the North, Gilchrist Drive to the East and the southern railway line to the South. The site sits in the broader Macarthur region, which is a rapidly expanding and developing area. The region is the major destination for retail, tertiary education and health services.

The Precinct is located immediately north of the Macarthur train station and south of both the Western Sydney University and TAFE sites. In addition to public transport and education establishments MGN has good access to local services and amenities including the Macarthur Square Shopping Centre, Campbelltown Mall and Campbelltown Hospital and network of open spaces that includes Gilchrist Oval and new sporting fields on the south western end of the site.

The MGN Precinct is to be developed in accordance with the Structure Plan at Figure 16.4 below. The Structure Plan provides for the retention of the existing Bow Bowing Creek alignment and its biodiversity as an open space asset that is accessible and creates amenity to the future community. The plan provides for an arrival plaza and park to Macarthur Station that integrates the Precinct with the Western Sydney University and TAFE through a series of activated streets and open spaces. A regional east-west cycleway network traverses the open space to be retained along the existing creek which will enhance access to and an appreciation of the biodiversity values within the Precinct.

The overall Macarthur Garden North Precinct has an area of 18.52ha with the MGN Precinct (the subject of this Part) comprising 16.6ha centrally located within the Precinct. The sub-precinct is bookended to the east by Gilchrist Drive and to the west by Basin 3 and the future Macarthur Heights sporting fields. The MGN Precinct includes the Bow Bowing Creek and associated open space areas and the proposed Station Arrival Precinct located on the proposed north south spine connection and high density residential and mixed use development to the north adjacent to Goldsmith Avenue (as illustrated in Figure 16.4 below).

16.1 Application

In summary the Structure Plan for the MGN provides for:

- the retention of 87% of the existing Bow Bowing Creek alignment and its biodiversity as an open space asset which is accessible and creates amenity to the future communities;
- a station arrival plaza and park connected to Macarthur Station that integrates the Western Sydney University and TAFE through a series of activated streets and open spaces
- six (6) high density residential development lots located along Goldsmith Avenue and anchored around the station;
- a dedicated pedestrian/ cycleway along Bow Bowing Creek Reserve connecting Gilchrist Oval to the new Sporting Field complex and ultimately to Mt Annan Botanical Garden to the west;
- ground level retail / commercial along the station arrival plaza and main street to provide vibrancy and activation;
- three new active open spaces comprising the Station Arrival Plaza, Central Park and Fitness Park; and
- well-connected and permeable streets.

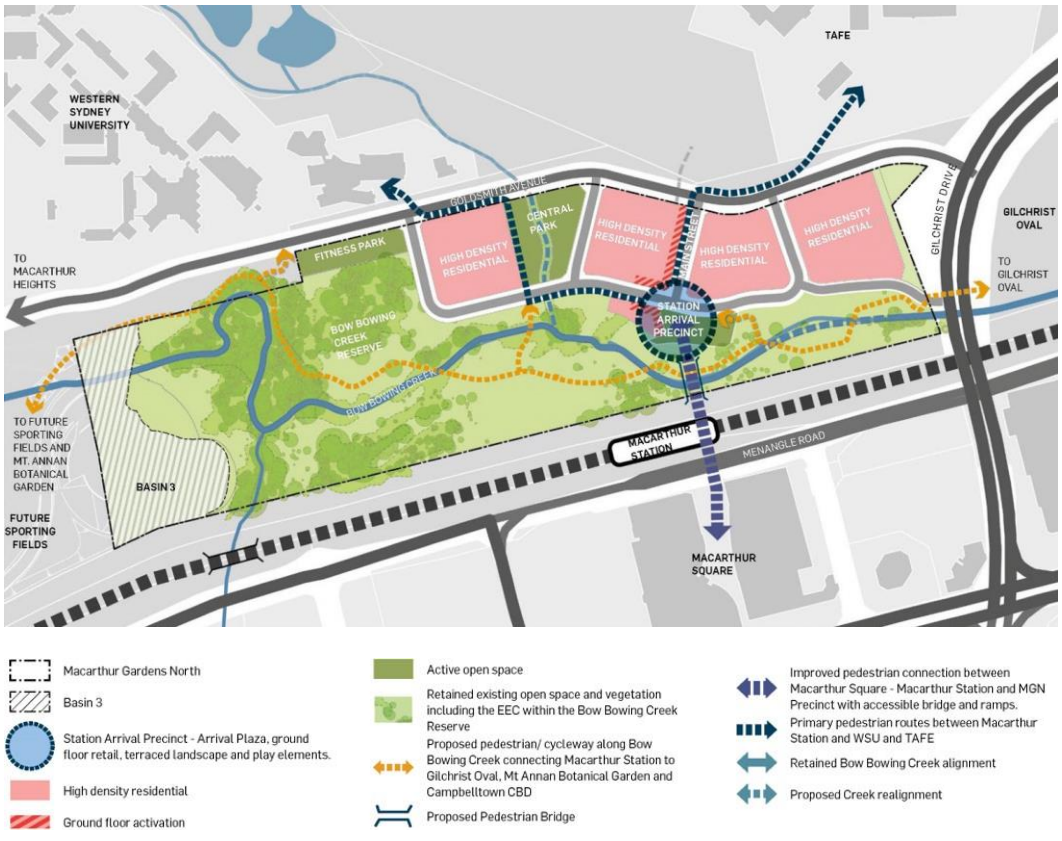

Figure 16.4: Macarthur Gardens North Overall Structure Plan

16.2 Vision and Objectives

16.2.1 Guiding Principles

The MGN Precinct is to be developed having regard to the following guiding principles:

- **Celebrate the Natural Assets**
  Embrace the natural asset provided by Bow Bowing Creek Reserve, and extend the landscape feature across the whole precinct. This landscape feature enriches leisure and recreational opportunities at MGN whilst maintaining the natural frontage along the railway corridor;
- **Seamless Connections to Key Destinations**
  Create an active transport network that is well integrated with both the natural amenity of Bow Bowing Creek Reserve and Macarthur Station. This integration will enhance the pedestrian and cyclist experience, provide better connectivity to WSU and TAFE and ultimately, encourage the use of active transport;
- **A New Community with Access to Jobs**
  Provide a mix of dwelling typologies, close to the amenity of Bow Bowing Creek and with convenient access to Macarthur Station to support a diverse community;
- **Contextual Built Form Responses**
  Adopt a sensible building envelope that responds to the surrounding context and public domain to optimise visual and solar amenity within the Precinct; and
- **Activated Places for People**
  Create a series of activated places that includes a station arrival precinct at the heart of MGN, a community park that integrates the north south tributary to Bow Bowing Creek and a fitness park close to WSU.

16.2 Vision and Objectives

16.2.2 Vision

The MGN Precinct will celebrate the natural assets of Bow Bowing Creek and connect this to the community. It will be an attractive urban place for people to live in - a diverse, healthy, vibrant and sustainable new neighbourhood. Designed with 'place' in mind, the new community is underpinned by sustainability principles and high-quality public domain and built form outcomes.

To enable this vision, the MGN Precinct will deliver:

- A new residential community who will live in high-density apartment buildings;
- Ground floor retail to support the new community and active the public domain;
- An arrival plaza and park on the northern side of Macarthur Station that links to the precinct's key destinations being Western Sydney University, TAFE, MGN and Bow Bowing Creek;
- Active transport via a regional East-West cycle network and walking paths around significant area of open space that retains the existing creek and biodiversity values;
- Safer and more comfortable connections from the site to the station, WSU, TAFE, Gilchrist Oval and the new Sporting Field complex through a series of high quality new open spaces such as the Bow Bowing Creek Reserve;
- Attractive and tree covered streets and public places; and
- Retention and enhancement of Bow Bowing Creek, the local blue grid.

16.2.3 Masterplan

The MGN Precinct is to be developed generally in accordance with the Masterplan illustrated at Figure 16.5:

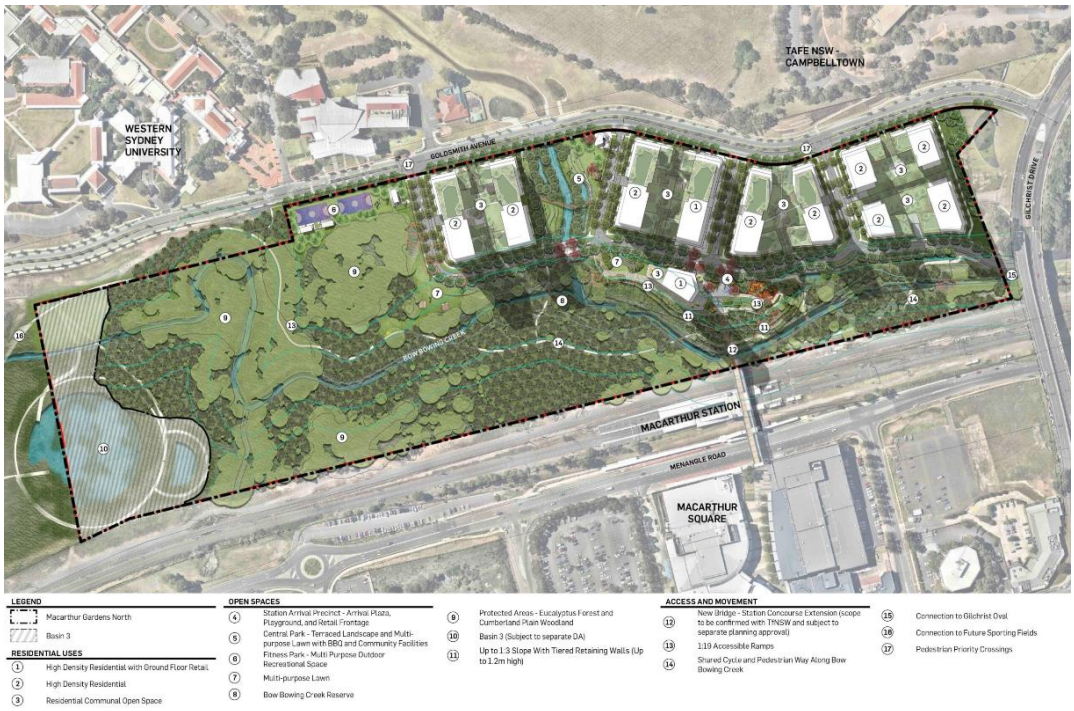

Figure 16.5: Macarthur Gardens North Precinct Masterplan

Development within the site is to be in accordance with the strategies and controls outlined below under the key headings of:

- Natural Systems;
- Access and Movement;
- Land Use;
- Built form; and
- Landscape and Public Domain

as well as other relevant controls outlined herein.

16.3 Natural Systems

16.3 Natural Systems

16.3.1 Objectives

3.1.1 Protect and enhance MGN's natural assets including Bow Bowing Creek and its biodiversity values.

3.1.2 Provide new open spaces around this amenity and increase tree canopy cover.

3.1.3 Maintain and enhance the existing 'green edge' north of the railway line.

16.3.2 Required Outcomes

Bow Bowing Creek Reserve and Riparian Corridor

3.2.1 Development is to provide for the protection and enhancement of the Bow Bowing Creek Reserve generally in accordance with Figure 16.6.

3.2.2 Bow Bowing Creek Reserve is to serve as a passive recreational amenity for the surrounding communities and include a shared pedestrian / cycleway that runs along the creek.

3.2.3 A native vegetation buffer is to be provided adjacent to the rail corridor to reduce its visual impact and provide a landscape setting for the future development.

3.2.4 All riparian and revegetation works are to be in accordance with the Riparian Assessment (Eco Logical Australia, 2021) and Bushfire Protection Assessment (Eco Logical, 2021) and are to improve the biodiversity corridor for the native flora and fauna by offsetting and revegetating impacted riparian zones.

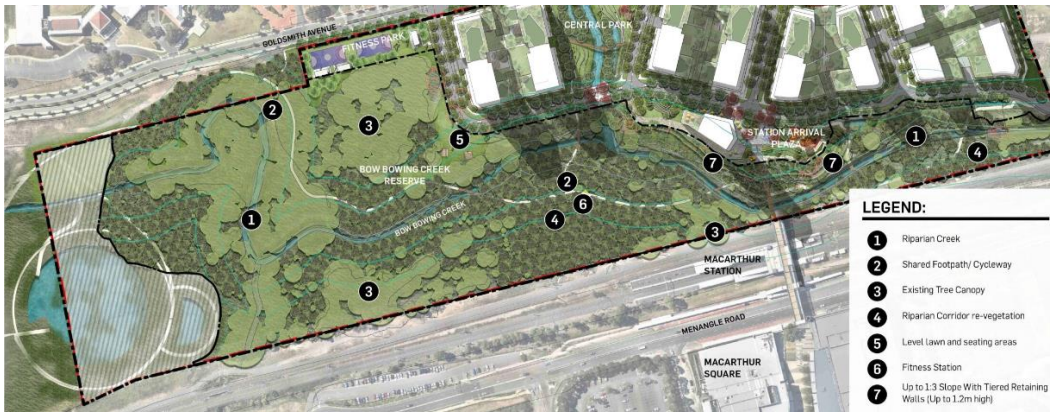

Figure 16.6: Bow Bowing Creek Reserve

Vegetation and Tree Canopy Cover

3.2.5 Development on site is to provide for an increase in the tree canopy cover (over and above the standard minimum of 40%) to greater than 50% of the Precinct generally in accordance with Figure 16.7.

3.2.6 Strategies to increase tree canopy cover are to include:

a) Revegetation of Bow Bowing Creek Reserve with native species, and

b) Implementation of a tree planting strategy within the public and private domains including the streetscape, active parks, private open space and communal open space.

3.2.7 Cumberland Plain Woodland & Riverflat Eucalyptus vegetation communities that are classified as Endangered Ecological Communities (EECs) are to be managed in accordance with the Biodiversity Development Assessment Report prepared by Eco Logical (2021).

Figure 16.7: Proposed Tree Canopy Cover

16.4 Access and Movement

16.4 Access and Movement

16.4.1 Objectives

4.1.1 Ensure integration of a variety of transport modes and ensure safety and accessibility for pedestrians and cyclists.

4.1.2 Prioritise public and active transport as a mode of transport over private motor vehicles.

16.4.2 Required Outcomes

4.2.1 Development within the Precinct is to be generally in accordance with the access and movement strategy illustrated in Figure 16.8.

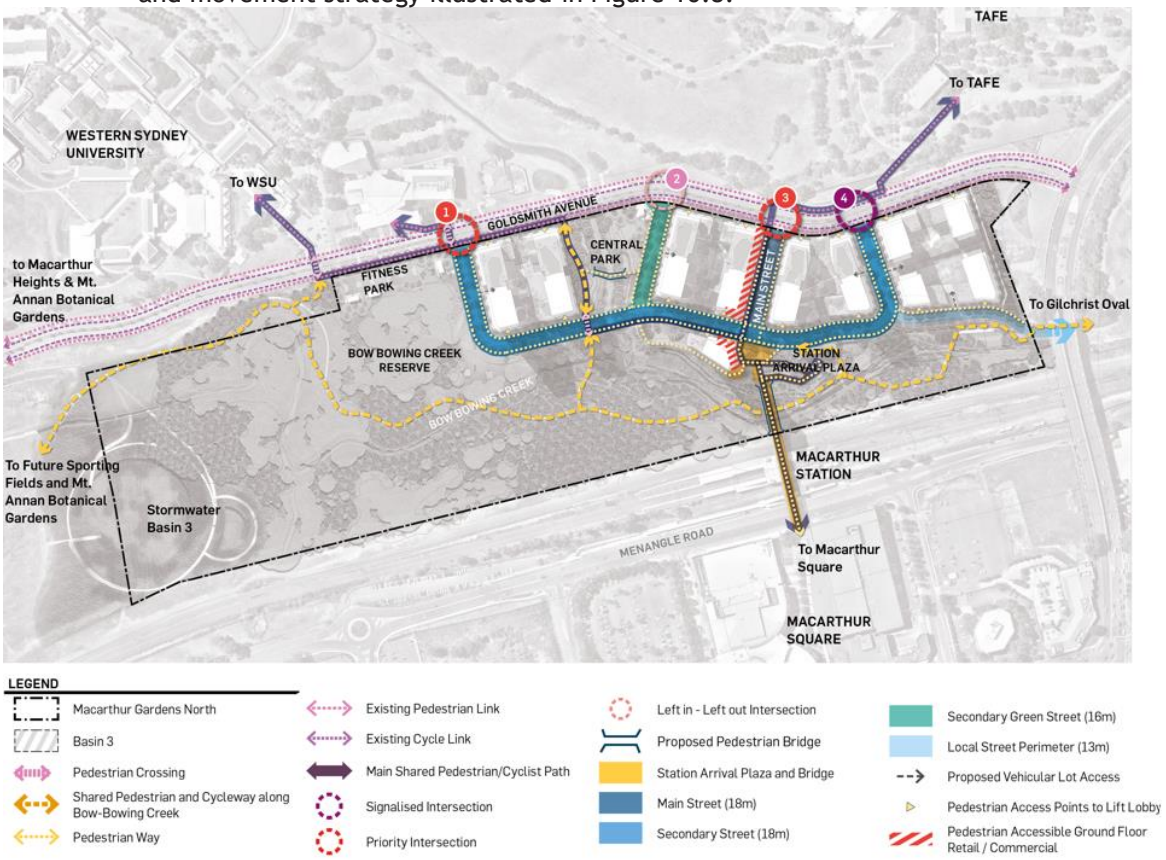

Figure 16.8: Access and movement strategy

Active Transport Network

4.2.2 A shared pedestrian/ cycleway is to be provided along Bow Bowing Creek connecting Macarthur Station to future sporting fields and Mt. Annan Botanical Gardens to the west and Gilchrist Oval to the east. It is also to link to the main street network within the Precinct and existing cycleway along Goldsmith Avenue.

4.2.3 A permeable and continuous pedestrian network along streets and public open spaces is to be provided to create connectivity with Macarthur Station, the University and TAFE, and surrounding residential areas that promotes a safe pedestrian environment ~~with~~ including three main pedestrian priority crossings along Goldsmith Avenue generally as illustrated on Figure 16.8.

4.2.4 An accessible pedestrian access is to be provided from Macarthur Station to the Station Arrival Plaza via an appropriate bridge and ramps.

Note: It is recommended to consult with TfNSW and Sydney Trains as part of the design and construction phases of the Pedestrian Bridge.

4.2.5 Accessible pedestrian access is to be provided to lift lobbies within the northern and southern part of the residential blocks.

Street Network

4.2.6 An interconnected street network is to be provided that promotes a safe pedestrian environment with varied typologies based on the lot frontage and streetscape treatment.

4.2.7 All street sections are to provide a min. 6.0m carriageway and to be generally in accordance with the key plan and relevant sections illustrated in Figures 16.9 – 16.12 (incl.) below:

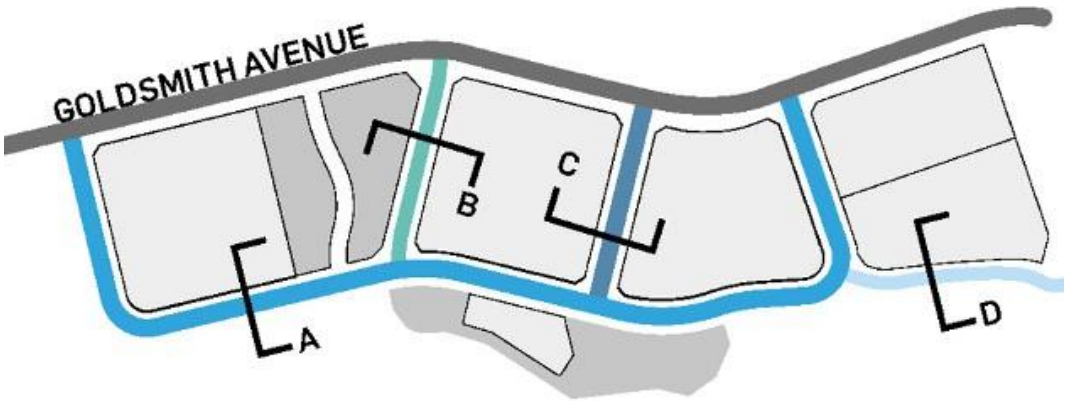

Figure 16.9: Street section key plan

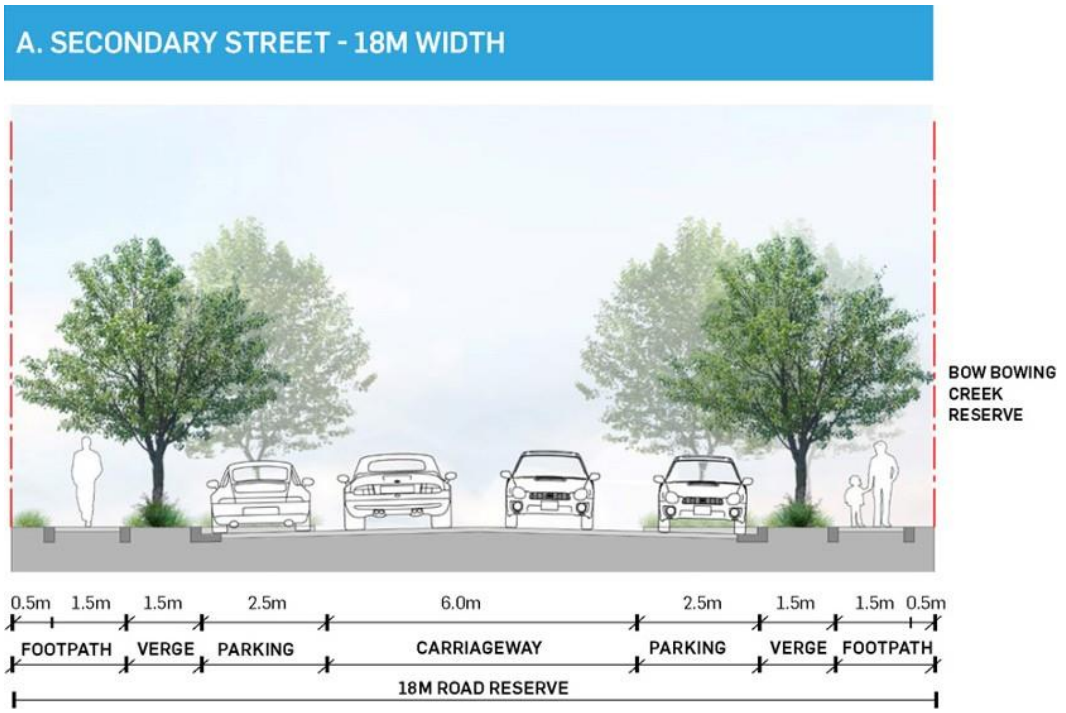

Figure 16.10: A - Secondary Street – 18m width

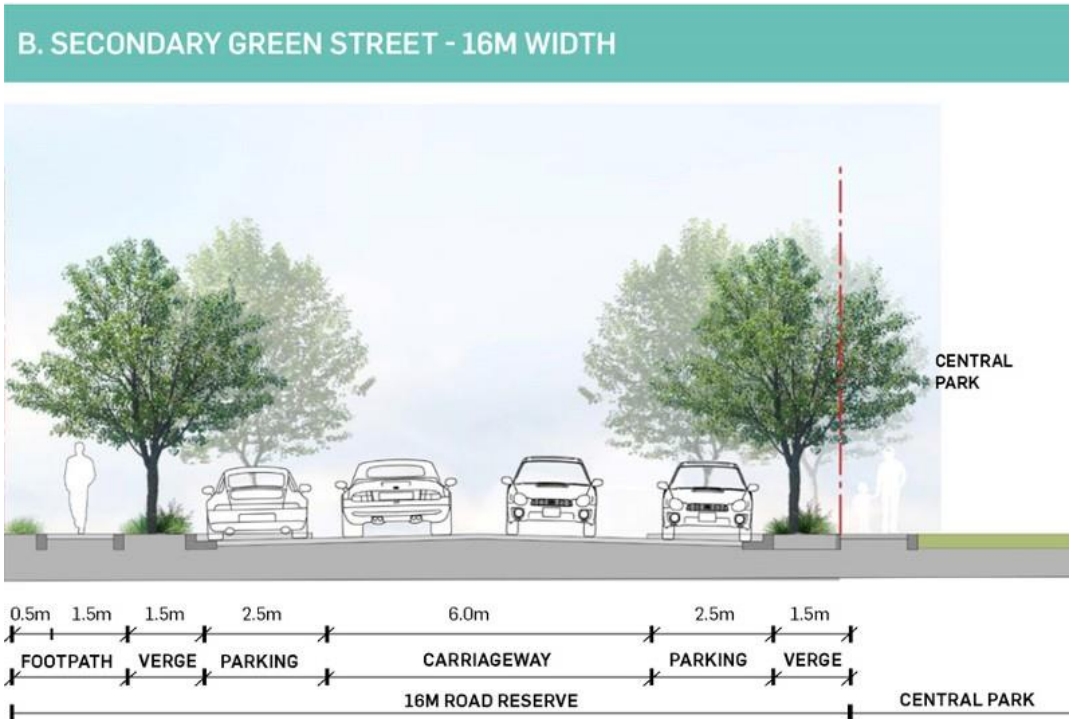

Figure 16.11: B - Secondary Green Street – 16m width

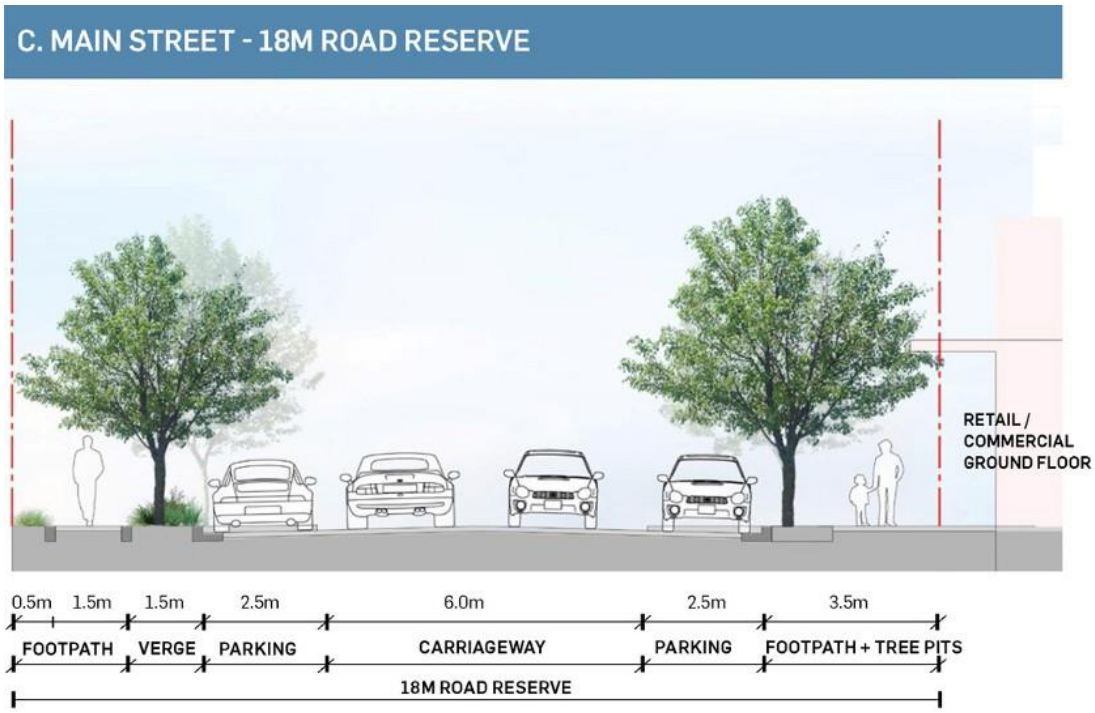

Figure 16.12: C - Main Street – 18m Road Reserve

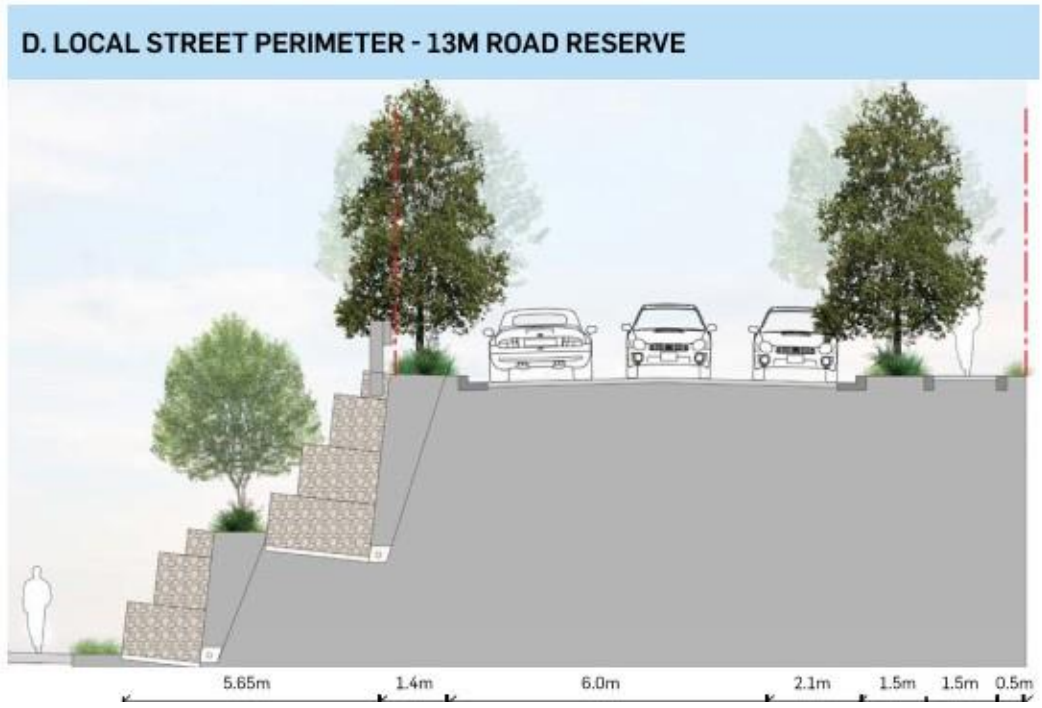

Figure 16.13: D – Local Street Perimeter – 13m Road Reserve

16.4 Access and Movement

Parking Requirements

4.2.8 Car parking is to be provided at a rate of:

a) 0.6 Car Parking Space / Studio Unit / 1 BR Unit

b) 0.9 Car Parking Space / 2BR Unit

c) 1.4 Car Parking Space / 3BR Unit

d) 0.1 Car Visitor Parking Space / Dwelling

e) 1 space per 95m^2 of retail GFA

4.2.9 A minimum of 10 car share spaces are to be provided within the development.

4.2.10 Bicycle parking is to be provided at a rate of one space per 3 apartments and one visitor space per 12 apartments.

4.2.11 All car parking and access for vehicles, including disabled access spaces, shall be in accordance with AS2890 parts 1 and 2 (as amended), except as otherwise specified in this Plan.

4.2.12 For development incorporating 20 or more dwellings, the DA shall be accompanied by a 'Traffic Impact Assessment Report'.

Note: For requirements relating to the preparation of a 'Traffic Impact Assessment Report' refer to Appendix 12 of Volume 1 of the SCDCP.'

4.2.13 All required private car parking is to be provided at basement level.

4.2.14 Pedestrian access to residential flats shall be separated from the commercial/ retail uses.

4.2.15 Development shall provide adequate space for the on-site parking, loading and unloading of all delivery/ service vehicles.

4.2.16 The design of car parking spaces shall take into consideration the principles of Crime Prevention Through Environmental Design (CPTED) to minimise opportunities for crime and enhance security.

16.5 Built Form

16.5.1 Objectives

5.1.1 Provide for development of the site in accordance with the principles of design excellence and best practice consistent with the Apartment Design Guide (ADG).

5.1.2 Ensure territorial definition between private and public realm to ensure privacy, passive surveillance and safety.

16.5.2 Required Outcomes

5.2.1 Development within the Precinct is to be generally in accordance with the Built Form Strategy illustrated in Figure 16.13 below in terms of maximum height in storeys and building footprint.

5.2.2 Residential flat and mixed use buildings are to comply with the requirements of the Apartment Design Guide.

5.2.3 Building setbacks are to comply with Table 16.1, Figure 16.14 and street sections Figures 16.15 – 20 below

Figure 16.14: Built Form Strategy

Note:

All residential flat buildings and mixed-use development containing 3 or more storeys and 4 or more dwellings shall satisfy the standards of SEPP 65 - Design Quality of Residential Apartment Development and the Apartment Design Guide (NSW Department of Planning and Environment, July 2015). SEPP 65 and the ADG shall prevail in the event of any inconsistency with this DCP.

16.5
Built Form

	Goldsmith Avenue frontage	Main Street frontage	Station Arrival Main Street frontage	Secondary Street and Central Park frontage	Station Arrival Plaza frontage
GF	4.5m	3.0m	5.0m	4.5m	2.0m
L1	4.5m with 1.5m articulation zone	4.5m with 1.5m articulation zone	3.0m	4.5m with 1.5m articulation zone	0m (zero setback)
L2-L5	7.5m	4.5m	3.0m	4.5m	0m (zero setback)
L6 - L9	+2.5m	+2.5m	+2.5m	+2.5m	+2.5m

Note: this provision takes precedence over setback controls contained in Campbelltown DCP 2015 in respect of the subject land.

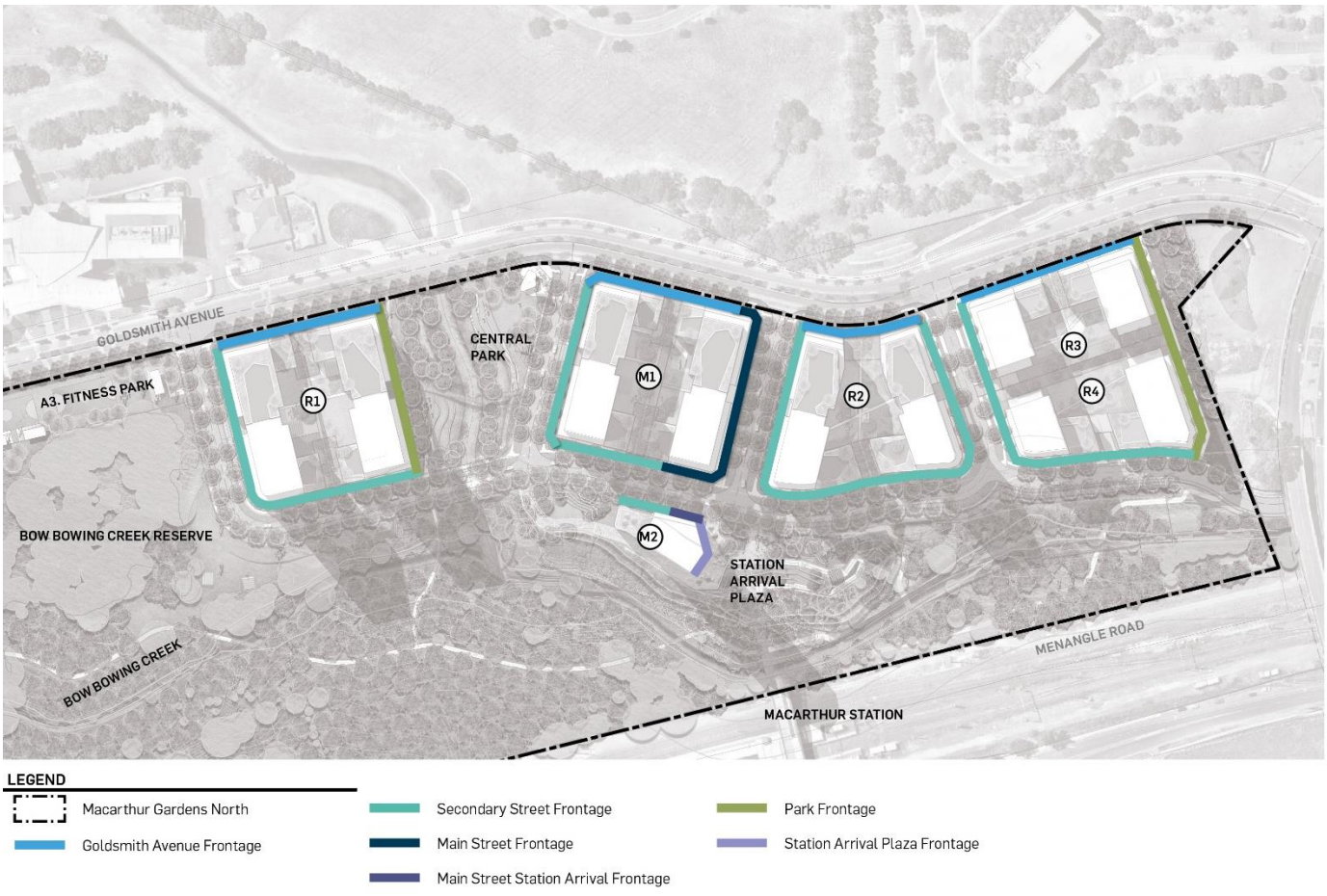

Figure 16.15: Setback Strategy

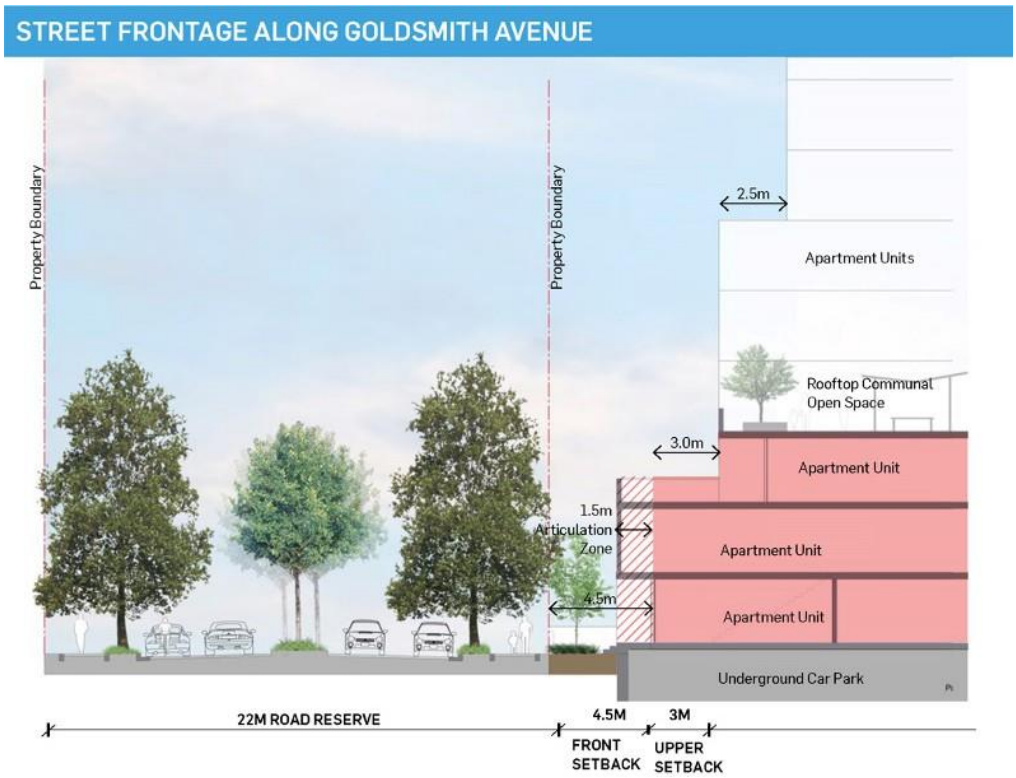

Figure 16.16: Goldsmith Avenue frontage setbacks

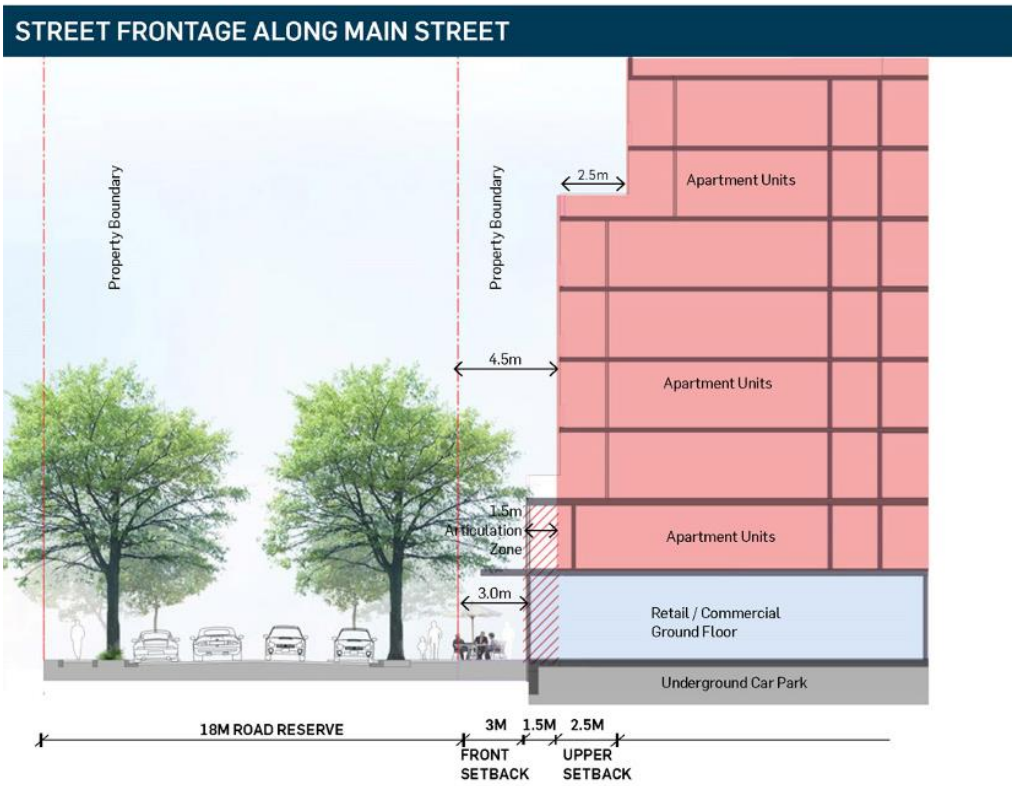

Figure 16.17: Main Street frontage setbacks

16.5
Built Form

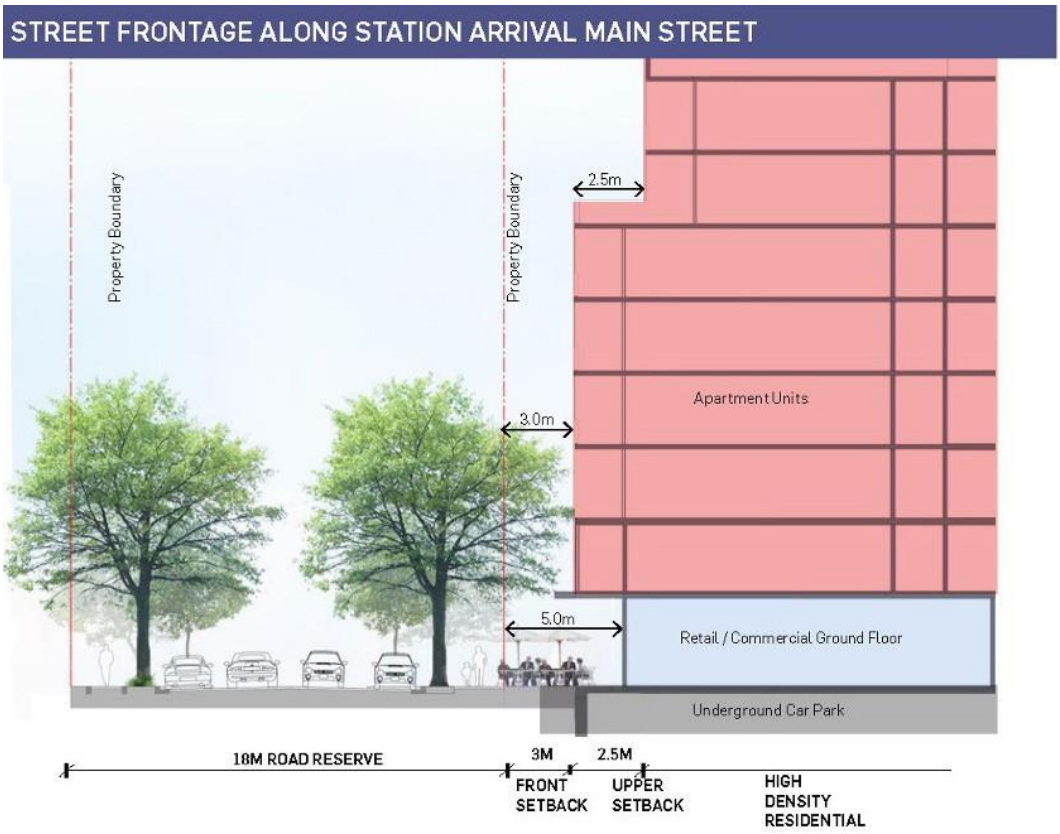

Figure 16.18: Station Arrival Plaza frontage setbacks

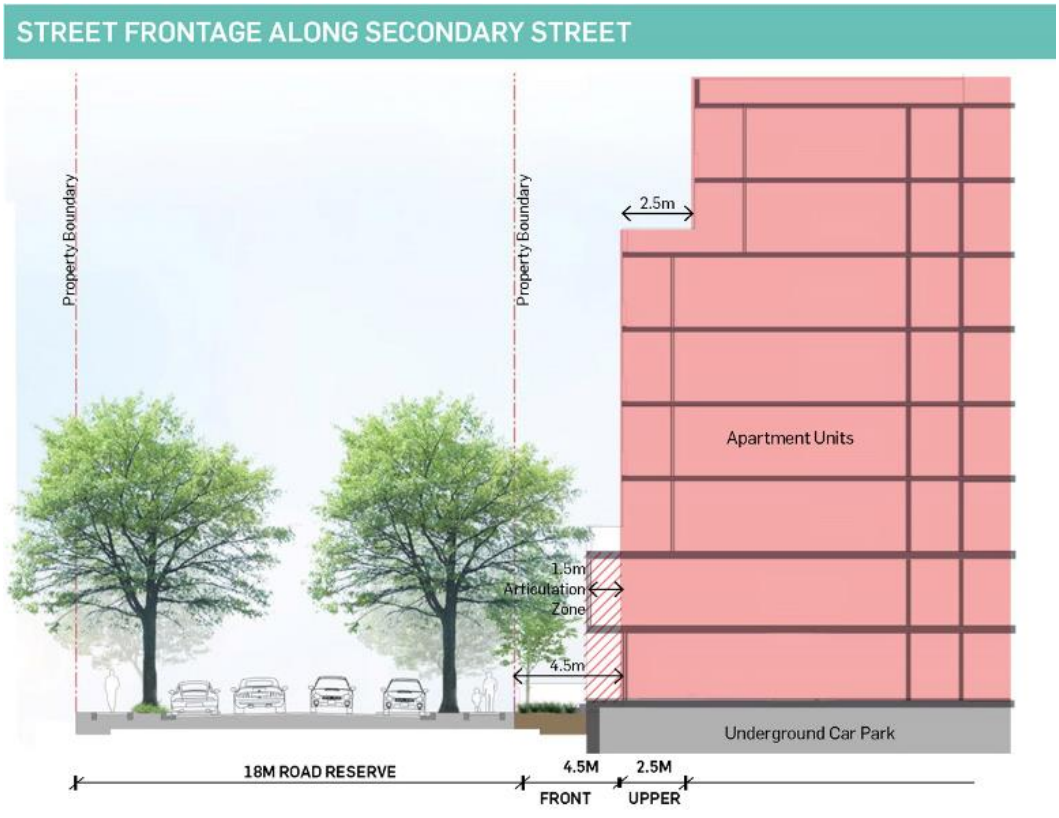

Figure 16.19: Secondary Street frontage setbacks

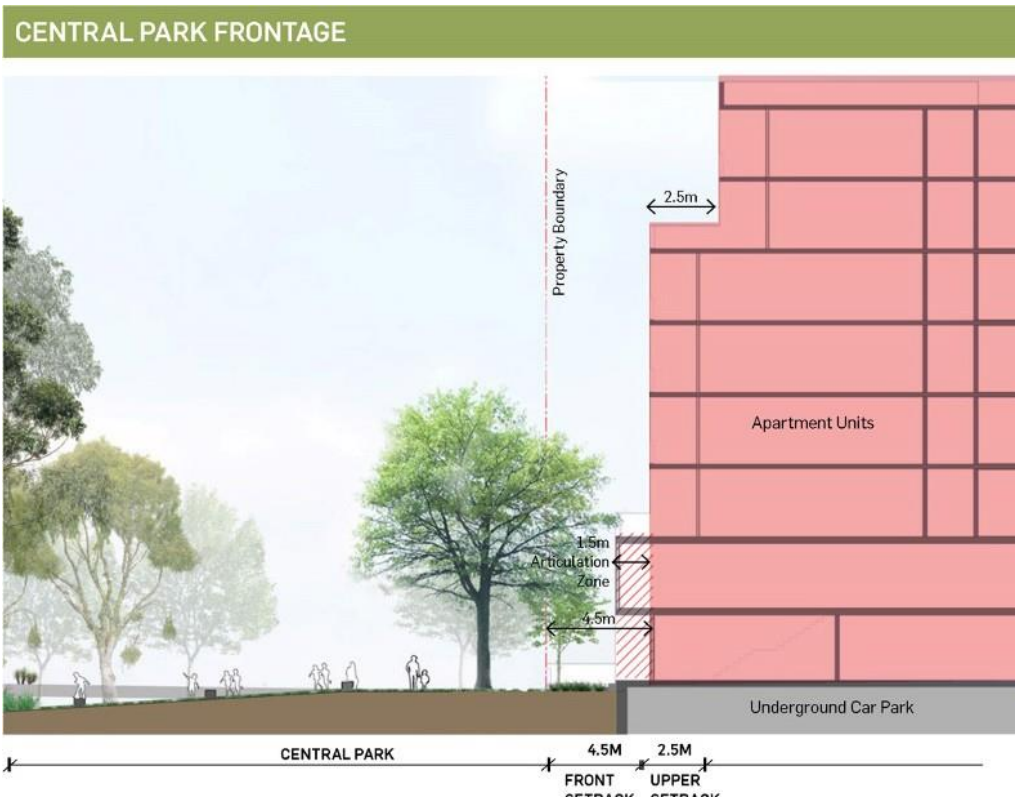

Figure 16.20: Central Park frontage setbacks

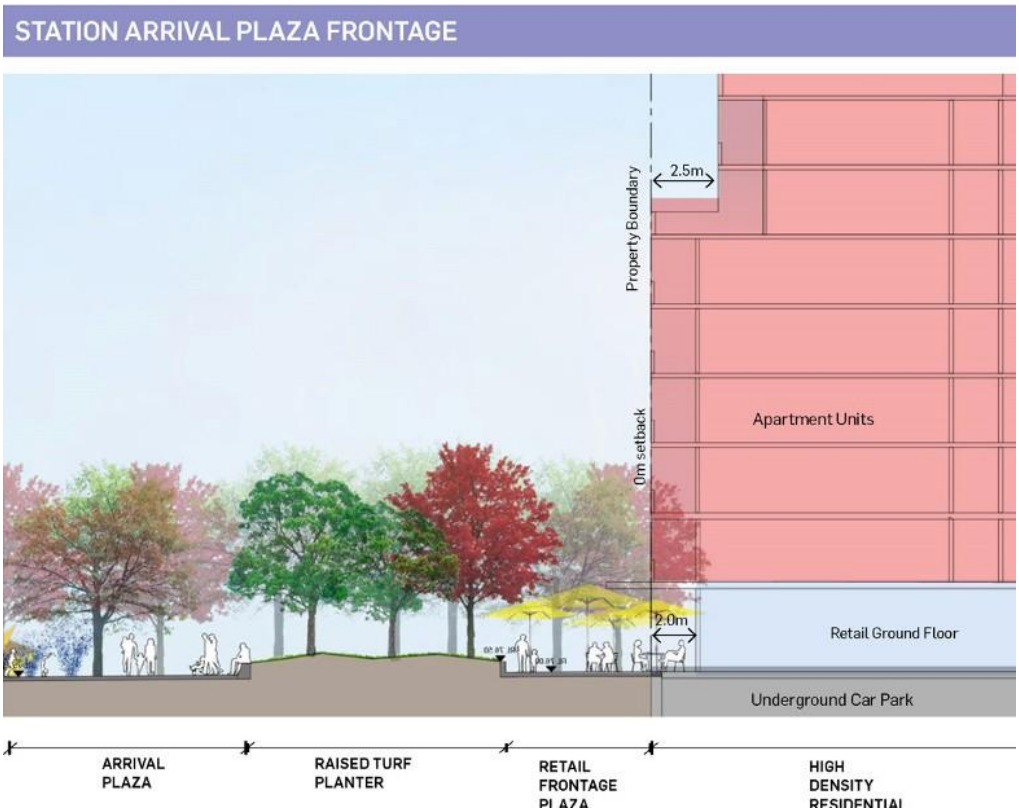

Figure 16.21: Station Arrival Plaza frontage setbacks

16.5 Built Form

Residential buildings should preferably be oriented north south to maximise internal residential amenity to apartments.

5.2.4 East west oriented podium buildings (as shown light blue in Figure 16.14 above) are to be limited to a maximum height of 3-4 storeys to maximise solar access to communal open space.

5.2.5 Building frontage length shall be generally consistent with Figure 16.22 and Figure 16.23 below, and must include articulation, to avoid one continuous building plane.

5.2.6 East west oriented buildings (maximum 3-4 storey podium buildings – refer Figure 16.13 above) are to have a depth of not greater than 18.5m to allow for single loaded typologies and to enable corner apartments.

5.2.7 The mixed use buildings M1 and M2 (as shown in light blue in Figure 16.22 below) shall provide the commercial GFA as shown in Figure 16.23.

Figure 16.22: Commercial Floorspace (indicative location in blue)

Lot	Land Use	Land Area (SQM)	Land Area (%)	Max Stories	Total Height	Residential GFA (SQM)	Commercial GFA (SQM)	Total GFA	FSR
M1	High Density Residential with GF Retail / Commercial	8,101	4.9%	16	56.0	29,981	1,608	31, 589	3.9
M2	High Density Residential with GF Retail / Commercial	1,208	0.7%	24	85.0	11,331	352	11,683	9.7
R1	High Density Residential	7,885	4.8%	18	62.0	34,438	-	34,438	4.4
R2	High Density Residential	7,336	4.4%	14	49.0	26,699	-	26,699	3.6
R3	High Density Residential	4,895	3.0%	9	32.0	12,585	-	12,585	2.6
R4	High Density Residential	4,955	3.0%	18	62.0	21,203	-	21,203	4.3
Sub-total Developable Area		**34,380**	**20.7%**	**24**	**85.0**	**136,237**	**1,960**	**138,197**	**4.0**
Total MGN Precinct DA Area		**165,782**	**100.0%**	**24**	**85.0**		**1,960**		

Figure 16.23: Macarthur Gardens North Precinct Area Calculations

16.6 Residential Flat Buildings and Mixed Use Development

16.6.1 Objectives

6.1.1 Ensure that residential flat buildings and mixed-use development offer a high level of residential amenity and make a positive contribution to the creation of new, high quality and contemporary urban streetscapes by:

a) achieving well articulated building forms that avoid a plain bulky and monolithic appearance

b) adopting appropriate building scale, massing and proportions that best reflect the desired future character of the area, and

c) demonstrating high architectural value.

6.1.2 Ensure that residential dwellings within mixed use development include design measures that minimise the impact of the normal operation of non-residential activities on the amenity of the occupants of the residential dwellings.

6.1.3 Ensure that non-residential components of the building (i.e. lower level retail and commercial) include design measures to minimise noise, odour, light spill, and air pollution impacts upon residential properties.

16.6.2 Required Outcomes

Building Form and Character

6.2.1 Building design shall consider foremost the qualities (both natural and built) and the desired future character of the area.

6.2.2 Building design shall incorporate the following features to assist in the achievement of high quality architectural outcomes:

a) incorporation of appropriate facade treatments that help the development properly address the respective street frontages, key vistas and to add visual interest to the skyline;
b) incorporation of articulation in walls, roof lines, variety of roof pitch, individualised architectural features (balconies, columns, porches, colours, materials etc.) into the facade of the building;
c) variation in the vertical planes of exterior walls in depth and/or direction;
d) variation in the vertical and horizontal planes of the building so that the building appears to be divided into distinct base, middle and top massing elements;
e) articulation of building facade (including rear and side elevations visible from a public place) by appropriate use of colour, arrangement of facade elements, and variation in the types of materials used;
f) utilisation of landscaping and interesting architectural detailing at the ground level; and
g) avoidance of blank walls at ground and lower levels.

6.2.3 Building design shall demonstrate that the development will:

a) facilitate casual surveillance and active interaction with the street;

b) be sufficiently setback from the property boundary to enable the planting of vegetation to soften the visual impact of the building at street level (with the exception of Main Street and Station Arrival frontages); and

c) maximise cross flow ventilation, therefore minimising the need for air conditioning.

6.2.4 Building colours, materials and finishes shall generally achieve subtle contrast. The use of highly reflective or gloss materials or colours shall be minimised to feature and highlight element only.

6.2.5 Building materials shall be high quality, durable and low maintenance.

6.2.6 The design, materials and colours of all new buildings shall demonstrate cohesion across all built forms within the precinct (i.e. All new buildings in the area should look like they belong together).

Entrances to Buildings

6.2.7 Main entrances and exits are to be located at the front of the site and be visible from the street.

6.2.8 Car park entries and exits shall not be located along primary street frontages;

6.2.9 The primary means of pedestrian access to retail, commercial and upper floor residential uses shall be undertaken from the street frontage, rather than from the rear of the building

6.2.10 Entrances and exits shall be incorporated into the overall architectural design of a development

6.2.11 Entrances are not to be obscured by landscaping or other obstacles and shall have clear sight lines

6.2.12 Entrances shall be clearly identifiable to reduce confusion and unintentional entry by incorporating measures such as:

- Architectural features and articulation;
- Awnings;
- Variations in colours and materials;
- Changes in paving;
- Landscaping; and
- Signage (including for emergency services).

These measures shall be shown on the building plans and the landscaping plan.

Design Requirements

6.2.13 A minimum of: 5% of the total number of dwellings within a residential flat building shall be one (1) bedroom apartment(s) or a studio(s).

6.2.14 A minimum of 10% of the total number of dwellings within a residential flat building shall be adaptable.

New proposed developments are encouraged to be designed to accommodate multi-generational families.

6.2.15 All residential flat buildings shall contain at least one (1) lift for access from the basement to the upper most storey that provide access to a dwelling space. Further, the lift(s) shall extend to provide access to the roof space if the roof is intended for use by occupants of the building as a roof terrace.

6.2.16 Access to lifts shall be direct and well illuminated.

6.2.17 A minimum of 25% of the required open space area, or 7% of the total site area, whichever is the greater, shall be available for deep soil planting.

6.2.18 Each apartment building shall include a study/nook area that is capable of accommodating a desk for working/studying from home purposes. Such area shall be shown furnished on the proposed plans and shall have a minimum width 1.6 m.

Site Services

6.2.19 The location, design and construction of utility services shall satisfy requirements of the relevant servicing authority and Council.

6.2.20 Development shall ensure that adequate provision has been made for all essential services (i.e. water, sewerage, electricity, gas, telephone, internet and stormwater drainage).

6.2.21 All roof-mounted air conditioning or heating equipment, vents or ducts, lift wells and the like shall not be visible from any public place and shall be integrated into the design of the development.

6.2.22 All communication dishes, antennae and the like shall be located or integrated into the built form so as to minimise visual prominence.

6.2.23 An external lighting plan shall be prepared by a suitably qualified person and submitted with the development application.

6.2.24 All site services areas including any associated equipment and storage structures shall be incorporated into the design of the building and screened from public view.

Thermal Management

6.2.25 Residential flat buildings and mixed use developments shall be designed to maximise natural thermal comfort for occupants through the use of appropriate building materials. Examples include the use of energy efficient glazing and/or shading devices for windows and the like

16.6 Residential Flat Buildings and Mixed Use Development

Communal Recreation Facilities

6.2.26 Each residential flat building shall be provided with communal recreation facilities for the use of all the occupants of the building consistent with the ADG.

6.2.27 Communal recreation facilities shall not be located within the primary or secondary street boundary setback.

6.2.28 All communal recreational facilities shall be provided on the same land as the residential flat building.

6.2.29 Communal open space provided on the roof of a building shall not be included as part of the required communal open space and shall be well-designed and functional with adequate shade and recreational facilities.

6.2.30 All required communal and recreational facilities are required to be constructed prior to the issue of an interim occupation certificate for any residential units within a staged development.

Accessibility

6.2.31 Residential flat buildings and mixed use development shall comply with the minimum access requirements contained within the BCA , the Disability (Access to Premises — Buildings) Standards 2010 and Australian Standard 1428 – Design for Access and Mobility (as amended).

Advertising Material

6.2.32 As part of the letter box design for residential flat buildings and mixed use development a special container shall be provided for the placement of advertising and newspaper materials. Such container shall be located behind the building line and designed to be part of the letter box arrangement for the development.

6.2.33 The newspaper/advertisement container shall be regularly emptied by the manager/caretaker of the building.

16.7 Landscape and Public Domain

16.7.1 Objectives

7.1.1 Create a natural environment for residents and visitors to enjoy that is people centred and that aims to form a sanctuary for human interaction.

7.1.2 Create an exemplar urban landscape that will set a new benchmark and act as a catalyst to change the urban landscape of Macarthur and beyond.

7.1.3 Define residential communal open spaces from public places and provide activities to enhance recreational amenity and vibrancy.

7.1.4 Create ground floor landscape spaces for people to connect to the wider precinct in varying scales of form, function and planting to offer a variety of outdoor experiences to residents and visitors.

7.1.5 Create four key landscape places (in addition to the Bow Bowing Creek Reserve) within the development generally in accordance with Figure 16.21 below comprising:

Public Domain

a) Station Arrival Park;

b) Central Park; and

c) Fitness Park.

Private Domain

d) Communal Open Space (Ground level and podium rooftop)

7.1.1 Use plants in such a way to foster energy efficient development that relies on passive energy principles for heating and cooling.

7.1.2 Reduce maintenance and water consumption through appropriate species selection;

7.1.3 Create buffer zones and add to existing areas of remnant vegetation with locally indigenous species including supplementary River-Flat Eucalyptus Forest on Cumberland Plain Woodland planting.

16.7

Landscape and Public Domain

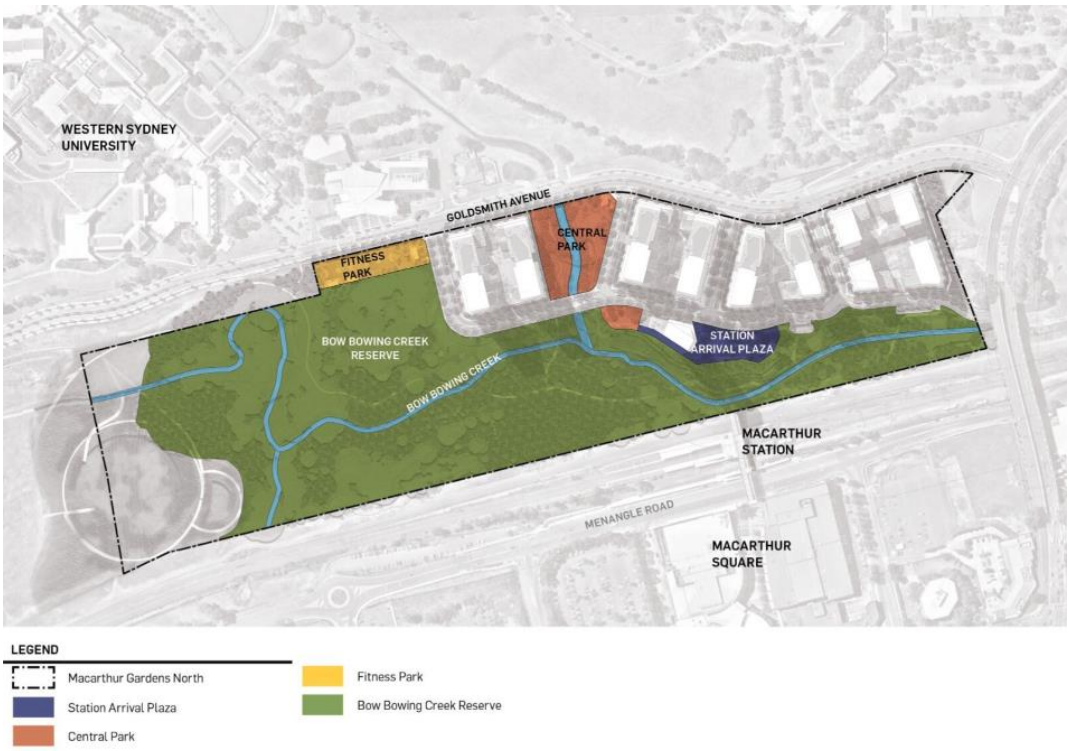

Figure 16.21: Landscape and Public Domain Strategy

16.7.2 Required Outcomes

Station Arrival Precinct

7.2.1 The 'Station Arrival Precinct' will act as the primary civic place and front door of the Precinct when accessed from Macarthur station with an area of approximately 5,200m^2.

The entry space will offer residents and visitors a vibrant public space with associated retail and food and beverage break out spaces designed to offer flexibility and activation.

The space is generally to include features such as:

a) Ground floor activation through retail / commercial frontages and food and beverage offers;

b) Flexible plaza spaces allowing for marketing and gatherings;

c) Adventure playground for informal and programmed play;

d) Terracing to alleviate level changes and provide passive surveillance to adjacent plaza and play area;

e) Accessible bridge and ramp from station concourse to the arrival plaza with integrated edges for seating;

f) incidental seating opportunities and feature shade trees

g) or the like.

50% of the Station Arrival Plaza will receive at minimum 2 hours of solar access during mid-winter

Central Park

7.2.2 The 'Central Park' is to be the main green active open space with an area of approximately 2,300m2 situated next to Goldsmith Avenue. It will provide visitors with informal open space, vegetated retreat spaces and a connection with nature.

The Park will be connected through a secondary creek that runs north to south connecting back to Bow Bowing Creek. The design will integrate water sensitive urban design principles for stormwater management whilst providing an attractive place to the residents and visitors. The space is generally to include features such as:

a) Terraced amphitheatre walls to connect & improve the connection to the creek;
b) Open lawn areas for informal play and recreation;
c) BBQ area and amenity block with handstand corner to Goldsmith Ave;
d) Wetland detention basins incorporating WSUD principles;
e) Suspended board walk with viewing platforms improving North South access between lots and providing a lookout opportunity to the creek or the like.

50% of the Central Park will receive at minimum 3 hours of solar access during mid-winter

Fitness Park

7.2.3 A 'Fitness Park' - Multi Purpose Outdoor Recreational Space is also to be provided with an area of approximately 3,000m2 adjacent to Goldsmith Ave and WSU that will offer fitness and active recreational facilities for all ages.

The space is generally to include features such as:

a) basketball courts;
b) terraced seating edges and breakout recreational spaces;
c) multi purpose outdoor space including table tennis and fitness equipment; or the like.

50% of the fitness park will receive at minimum 3 hours of solar access during mid-winter

Communal Open Spaces

7.2.4 'Communal open spaces' within residential lots are to be located centrally on ground level and/or at rooftops to provide shared amenity for residents. These communal spaces are to be designed in accordance with the ADG.

Key features of these spaces may include:

a) Seating areas;
b) Shade areas;
c) BBQ/picnic areas;
d) Play areas;
e) Primary tree canopy within deepsoil zone ;
f) Secondary tree canopy withinground level and podium rooftop;
g) Balance of private and openspaces;
h) Rooftopdecide to maximise elevated views;
i) Community gardens or the like

16.7 Landscape and Public Domain

Public Domain Materials and Quality

7.2.5 Development is to adopt a landscape design strategy to provide a durable and high quality landscaped building setting with a consistency of quality and treatments across the site selected to complement the character of the architecture. Considerations are to include durability and practicality for ongoing maintenance.

7.2.6 Feature granite paving is to be provided throughout. Paving in the public domain is to be in accordance Council's standards for public domain works. Material, finishes, furniture and fixtures are to be selected with consideration to whole of life costs, detailed and installed to minimize ongoing maintenance needs.

7.2.7 Furniture is to be durable, easily cleaned and include anti-graffiti coatings where necessary to reduce vandalism. Tactiles and other pedestrian safety devices are to be installed as required by the relevant standards. Bike racks are to be provided on Entry thresholds to facilitate to bike parking provisions.

Accessibility and Safety

7.2.9 Paving materials, inclusion of tactiles and other relevant measures are to be implemented as part of the landscape works for compliance with the relevant standards.

7.2.10 The proposed landscape design is to consider the principles of Crime Prevention Through Environmental Design (CPTED) and enhancement of personal safety throughout the site. Places of concealment are to be minimised and clear signage / way-finding is to be incorporated. The main thoroughfare and internal street is to have direct access through the site and maintain a clear visual link to the wider context.

7.2.11 Planting treatments will maintain clear sight lines through the use of clear trunked trees and lower level under story species where visibility for safety is required.

7.2.12 An integrated approach to safety is to be incorporated into the landscape design to improve actual and perceived personal security in pedestrian public domain areas. Measures include:

a) All paths are to be overlooked from adjoining buildings and adjacent streets to provide a high level of passive surveillance;

b) All external spaces will have multiple clear sight lines without obstacles and proposed shrub planting is low level which to prevent avoid predator traps;

c) All paths will be well lit at night time and designed to meet relevant Australian Lighting Standards; and

d) Signage will be provided across the precinct to assist with wayfinding and navigation through the site.

7.2.13 All external areas are to be designed to meet relevant Australian Lighting Standards.

7.2.14 Relative to their particular mounting orientation all external public lighting luminaries within the site boundary must have an Upward Light Output Ratio less than 5%. (Public Lighting — Any light not on private property and includes street lights, path lighting, public space lighting and public sports field lighting. Event and temporary lighting are excluded. Upward Light Output Ratio (ULOR) — The ratio of the luminous flux emitted by a luminaire above the horizontal to that emitted by the lamp, as defined in AS/NZS 1158.0:2005 – Lighting for roads and public spaces.

Drainage and Water Management

7.2.15 Water sensitive urban design (WSUD) principles are to be incorporated into the landscape design in a way that celebrates a sustainable water cycle. WSUD measures may include:

a) Irrigation systems comprising subsurface drip systems and automatic timers with rainwater / soil moisture sensor controls;

b) Where possible storm water runoff will be directed to the lawn and garden beds;

c) Irrigation will be provided to all soft landscape areas;

d) Low water demand shrub planting.

Landscaping

7.2.16 Landscape planting for the site is to comprise a minimum of 75% of indigenous / water sensitive planting species and extensive native canopy;

7.2.17 Water sensitive design principles and environmentally sensitive design such as a WSUD swale and riparian zones will be incorporated into the landscape design to create a low maintenance, environmentally sensitive landscape that has a distinctive tree canopy with diverse low shrub groundcover.

7.2.18 Landscape planting is to be in accordance with the signature Indicative Plant List at Appendix 1 and is to complement the existing CDCP 2015 planting list.

16.8 ESD

16.8 ESD

16.8.1 Objectives

8.1.1 Encourage energy efficient building design and operation that exceed statutory benchmarks in sustainable development

8.1.2 Minimise energy and resource consumption during construction and operation

8.1.3 Consider local climatic conditions and ensure that the design of centres maximises amenity and activity within the public domain during a wide range of weather conditions.

8.1.4 Reduce the demand for waste disposal by maximising the reuse and recycling of building/ construction materials

8.1.5 Promote development which maximises the opportunities for energy efficient uses of resources, particularly in regard to solar power and water management.

16.8.2 Required Outcomes

8.2.1 In addition to compliance with other controls outlined in this part, all development is to comply with the following minimum ESD initiatives:

Energy and greenhouse gas emmission	Beyond code minimum BASIX performance for energy: **Energy:** – Detached and semi-detached: 60 – Low Rise BASIX 55 – Mid-Rise BASIX 45 – High Rise BASIX 40
EV charge points	Electric vehicle charging infrastructure is available to at least 10% of the parking spaces.
WSUD	Total target removal rate: – Nitrogen 45% – Phosphorus 65% – Suspended Solids 85% – Gross Pollutants 90%
Potable water	Beyond code minimum BASIX performance for energy: **Water:** – Detached and semi-detached: 60
Built form up-lighting	Reduction in light pollution to the night sky from any external up-lighting on built form. It must be demonstrated that one of the following specified reductions in light pollution has been acheived by the project: a) Control of upward light output ratio (ULOR) that exceeds 5%, relative to it's actual mounted orientation; or b) Control of direct illuminance, in accordance with from external luminaries on the the project produces a maximum initial point illuminance value no greater than: – 0.5 Lux to the site boundary; and – Lux to 4.5 metres beyond the site into the night sky, when modelled using a calculation plane set at the highest point of the building. Calculations shall be in accordance with AS 4282:1997. Lumanaries inside glazed atria and those on the uppoermost (uncovered) deck of an outdoor car park are considered to be external.
Urban heat island	Minimum solar reflective index performance for all rooftops across the precinct, in line with the Green Star SRI criteria as follows: **Roofing materials, including shading structures, having the following SRI values:** i) For roof pitched <15°: a three-year SRI>64 ii) For roof pitched >15°: a three-year SRI>34 **Only where three-year SRI for products is not available, use the following:** iii) For roof pitched <15°: an initial SRI>82 iv) For roof pitched >15°: an initial SRI>39

16.8 ESD

8.2.2 The residential elements of the Precinct shall achieve an energy efficiency rating equivalent to 7 star NatHERS average across all dwellings.

8.2.3 Internally applied paint, adhesives, sealants and carpets shall have low-Volatile Organic Compound emissions and all engineered wood products shall be zero or very low in formaldehyde emissions.

8.2.4 Timber used in building and construction works shall be either certified by a forest certification scheme or reused from previous building or construction works or procured from a second-hand source.

8.2.5 A Construction Environmental Management Plan is to be submitted prior to the issue of a construction certificate prepared in accordance with NSW EMS Guidelines (New South Wales Government Construction Consultative Committee (2009) and Environmental Management Systems Guidelines, New South Wales Government Procurement, Sydney, detailing:

a) Measures to reduce the consumption of materials and resources during construction.

b) The use of recycled or reclaimed materials in construction.

c) Construction waste minimisation measures, including opportunities to re-use materials on site.

d) Measures to minimise the use of water and maximise water re-use during construction.

e) The embodied energy of the main construction materials, options considered to reduce the embodied energy of materials and (if applicable) the reasons for not choosing materials with the least embodied energy.

f) Training, monitoring and reporting on the compliance of construction contractors with the requirements of the CEMP.

16.9 General Controls

In addition to the above and the general controls contained in Volume 1: Part 2 Requirements applying to all Types of Development of Campbelltown (Sustainable City) Development Control Plan the following general controls also apply to the land shown in Figure 16.1:

16.9.1 Acoustic Privacy

9.1.1 The proposed dwellings are to be designed to achieve acceptable internal noise levels, based on and in accordance with the following:

a) recognised Australian Standards;

b) standard measures recommended in the NSW Department of Planning guideline "Development near Rail Corridors and Busy Roads – Interim Guideline (December 2008)"; and

c) Transport and Infrastructure SEPP 2021, under Division 15, Subdivision 2.

9.1.2 Facade treatment is to be provided to dwellings in accordance with the recommendations of the Environmental noise and vibration assessment (Renzo Tonin & Associates, 3 December 2021) to achieve suitable internal noise levels as outlined in Table 16.2 below.

9.1.3 On-site noise generating sources including, but not limited to, plant rooms and equipment, air conditioning units, pool pumps, and recreation areas shall be designed and located to ensure that the noise levels generated by such facilities do not exceed 5dB(A) above background levels at the property boundary.

9.1.4 An acoustic and a vibration report shall be prepared as part of any mixed used development application where the proposed development is adjacent to residential or other sensitive uses area.

16.9 General Controls

Table 16.2 Acoustic treatment category requirements

Category No.	Building Element	Required Acoustic Rating of Building Element, RW	Construction Recommendation		
1	Windows / Sliding doors	24+	Openable with minimum 4mm monolithic glass and standard weather seals		
	Facade	38+	Cladding Construction: 9mm fibre cement sheeting or weatherboards or plank cladding externally, 90mm timber stud, batts in wall cavity, 10mm standard plasterboard internally.	Brick Veneer Construction: 110mm brick, 90mm timber stud, minimum 40mm clearance between masonry and stud frame, R2 insulation batts in wall cavity. 10mm standard plasterboard internally.	Cavity Brick Construction: 2 leaves of 110mm brickwork separated by 50mm gap.
	Roof	40+	Pitched concrete or terracotta tile or metal sheet roof, 10mm plasterboard ceiling fixed to ceiling joists, bulk insulation in roof cavity.		
	Door	28+	35mm solid core timber door fitted with full perimeter acoustic seals		
2	Windows / Sliding doors	27+	Openable with minimum 6mm monolithic glass and full perimeter acoustic seals		
	Facade	45+	Cladding Construction: 9mm fibre cement sheeting or weatherboards or plank cladding externally, 90mm timber stud, batts in wall cavity, 10mm standard plasterboard internally.	Brick Veneer Construction: 110mm brick, 90mm timber stud, minimum 40mm clearance between masonry and stud frame, R2 insulation batts in wall cavity. 10mm standard plasterboard internally.	Cavity Brick Construction: 2 leaves of 110mm brickwork separated by 50mm gap.
	Roof	43+	Pitched concrete or terracotta tile or metal sheet roof, 10mm plasterboard ceiling fixed to ceiling joists, bulk insulation in roof cavity.		
	Door	30+	40mm solid core timber door fitted with full perimeter acoustic seals		
3	Windows / Sliding doors	32+	Openable with minimum 6.38mm laminated glass and full perimeter acoustic seals		
	Facade	52+	Brick Veneer Construction: 110mm brick, 90mm timber stud, minimum 40mm clearance between masonary and stud frame, R2 insulation batts in wall cavity, 10mm standard plasterboard internally.		Cavity Brick Construction: 2 leaves of 110mm brickwork separated by 50mm gap.
	Roof	48+	Pitched concrete or terracotta tile or metal sheet roof, 1 layer of 13mm sound-rated plasterboard fixed to ceiling joists, bulk insulation in roof cavity.		
	Door	33+	45mm solid core timber door fitted with full perimeter acoustic seals		
4	Windows / Sliding doors	35+	Openable with minimum 10.38mm laminated glass and full perimeter acoustic seals		
	Facade	55+	Brick Veneer Construction: 110mm brick, 90mm timber stud, minimum 40mm clearance between masonary and stud frame, R2 insulation batts in wall cavity, 10mm standard plasterboard internally.		Cavity Brick Construction: 2 leaves of 110mm brickwork separated by 50mm gap.
	Roof	52+	Pitched concrete or terracotta tile or metal sheet roof, 2 layers of 13mm sound rated plasterboard fixed to ceiling joists, bulk insulation in roof cavity.		
	Door	33+	45mm solid core timber door fitted with full perimeter acoustic seals		

Table 16.2 Acoustic treatment category requirements (cont'd)

Notes:

- Where a room has different category recommendations on two or more facades, the roof recommendation for the highest category applies.
- Any wall, roof or ceiling penetrations shall be accoustically sealed so as to not reduce the acoustic performance of the element.
- The acoustic performance of glazed doors should be in accordance with the window glazing requirement of the applicable category.
- Development Near Rail Corridors and Busy Roads – Interim Guideline recommends solid core timber doors of 45mm thickness for treatment categories 3 and 4. To align with current industry construction methods, solid core door recommendations have been limited to no more than 40mm thickness.

The required acoustic rating is for the entire system. For example, for windows this includes the glass, frame and seals including perimeter seal at the wall junction.

By way of explanation, the Sound Insulation Rating Rw is a measure of the noise reduction property of the glazing assembly, a higher rating implying a higher sound reduction performance.

Note that the Rw rating of systems measured as built on site (R'w Field Test) may be up to 5 points lower than the laboratory result.

The client is advised not to commence detailing or otherwise commit to systems which have not been tested in an approved laboratory or for which an opinion only is available. Testing of systems and assemblies is a component of the quality control of the design process and should be viewed as a priority because there is no guarantee the forecast result will be achieved. No responsibility is taken for use of or reliance upon untested systems, estimates or opinions. The advice provided here is in respect of acoustics only.

The advice provided here is in respect of acoustics only. Supplementary professional advice may need to be sought in respect of fire ratings, structural design, buildability, fitness for purpose and the like.

Notes for glazing constructions:

ALl openable glass windows and doors shall incorporate full perimeter acoustic seals equivalent to Q-Lon, which enable the Rw rating performance of the glazing to not be reduced.

The above glazing thickness should be considered the minimum thickness to achieve acoustical ratings. Greater glazing thickness may be required for structural loading, wind loading etc.

General:

The sealing of all gaps in acoustic rated glazing assemblies and facades is critical in a sound rated contruction. use only sealer approved by the acoustic consultant.

Check design of all junction details with acoustic consultant prior to construction.

Check the necessity for HOLD POINTS with the acoustic consultant to ensure that all building details have been correctly interpreted and constructed.

The information provided in this table isd subject to modification and review without notice.

Ther advice provided here is in respect of acoustics only. Supplementary professional advice may need to be sought in respect of fire ratings, structural design, buildability, fitness for purpose and the like.

\

16.9 General Controls

16.9.2 Waste Management

9.2.1 Development shall comply with the requirements of Volume 1: Part 2 and Part 5, of Campbelltown (Sustainable City) Development Control Plan 2.15 Waste Management.

9.2.2 A waste management plan shall be submitted with all development applications within the Precinct which identifies and nominates opportunities to reuse materials from the demolition and excavation phase for the proposed new use as well as potential waste materials (such as recyclable packaging, off cuts and other excess materials as part of the construction process.

9.2.3 All dwellings shall be provided with waste and recycling bins that are conveniently located.

9.2.4 A development application shall detail the following (as applicable):

a) the size and location of waste and recycling storage areas

b) routes for occupants to access waste and recycling areas;

c) Collection point and/or access route for collection vehicles;

d) Ventilation of waste and recycling storage areas;

e) Bin and storage area washing facilities; and

f) Occupant's disposal points for all waste streams.

9.2.5 In mixed use buildings self contained and lockable areas shall be provided for commercial and residential waste.

9.2.6 Areas for commercial and residential waste shall be kept separate.

16.9.3 Site Services

9.3.1 The location, design and construction of utility services shall satisfy the requirements of the relevant servicing authority and Council.

9.3.2 Adequate provision shall be made available for all essential services (i.e. water, sewerage, electricity, gas, telephone, internet and stormwater drainage).

9.3.3 All site services shall be placed underground.

9.3.4 All communication dishes, antennae and the like shall be located to minimise visual prominence.

9.3.5 All habitable buildings are to be provided with Fibre-to-the-Premises (FTTP). The term FTTP is used as a blanket term for both Fibre-to-the-Home (FTTH) and Fibre-to-the-Business, Building, or Basement (FTTB) because the fibre network includes both homes and businesses.

9.3.6 Mixed-use developments must incorporate dedicated and adequately sized waste storage areas, including provisions for commercial waste and liquid waste from grease arrestors, in accordance with council waste management guidelines. Developments must ensure appropriate vehicle access for waste collection services, with waste storage areas designed to minimise visual and odour impacts on residential dwellings.

Note: It is recommended that consultation occurs with Council's Resource Recovery and Waste Services at the design stage.

9.3.7 Mixed-use developments must incorporate suitable ventilation systems designed to comply with relevant Australian Standards and environmental regulations. Ventilation systems must be positioned and designed to prevent adverse impacts such as noise, odour, or air pollution on residential and public areas. Adequate provisions must be made for the maintenance and operation of these systems to ensure ongoing compliance and amenity protection.

16.9.4 Stormwater management

9.4.1 In accordance with Campbelltown City Council requirements, the minor (pit and pipe network) system is to be designed for a minimum 5-year ARI storm, while the major has been assessed against the 100-year ARI design storm event.

9.4.2 Where possible rainwater tanks are to be provided within each development to collect roof water for re-use on-site within the new buildings and for irrigation of garden areas. Overflows from the rainwater tanks are to be directed to the new street drainage system.

16.9.5 Fencing

9.5.1 Front fences:

a) are to be visually permeable (no more than 50% of the allowable fence area should be solid masonry, timber or metal)

b) have an average height not greater than 1.2m

c) have a consistent character with other front fences in the street, and

d) are not be constructed of solid metal panels or unfinished timber palings.

9.5.2 High solid walls located within the front and rear boundaries are only to be used to shield a dwelling from the noise of classified roads. These walls are to have a maximum height of 2.1m and be setback at least 1.5m from the property boundary. Landscape planting is to be provided between the wall and the boundary, with a mature height of at least 1.5m.

9.5.3 Retaining walls greater than 600mm high within the front setback are to be softened by planting for a minimum depth of 600mm on the low side of the retaining wall.

1

Appendix

Appendix 1

Indicative Plant List

Streetscape and Public Reserves

Botanic Name	Common Name	Native/ Exotic	Size
Angophora costata	Sydney Red Gum	Native	200L
Angophora floribunda	Rough Barked Apple	Native	200L
Callitris endlicheri	Black Cypress Pine	Exotic	200L
Flindersia australis	Crow's Ash	Exotic	200L
Fraxinus raywoodii	Claret Ash	Exotic	200L
Banksia integrifolia	Coastal Banksia	Native	200L
Corymbia maculata	Spotted Gum	Native	200L
Elaeocarpus reticulatus	Blue Berry Ash	Native	100L
Eucalyptus crebra	Narrow Leaved Iron Bark	Native	200L
Eucalyptus haemastoma	Scribbly Gum	Native	200L
Eucalyptus punctata	Grey Gum	Native	200L
Eucalyptus tereticornis	Forest Red Gum	Native	200L
Pyrus calleryana 'Bradford'	Pyrus Bradford	Exotic	200L
Waterhousia floribunda	Weeping Lilli Pilli	Native	200L
Tristaniopsis laurina	Water Gum	Native	200L
Shrubs, and ground covers			
Acacia implexa	Hickory	Native	150mm
Asplenium australasicum	Bird's Nest Fern	Native	150mm
Dodonaea viscosa	Hop Bush	Native	150mm
Banksia spinulosa	Hair Pin Banksia	Native	200mm
Correa alba	White Correa	Native	150mm
Dianella caerulea var caerulea	Blue flax lily	Native	150mm
Dodonaea viscosa	Hop Bush	Native	150mm
Grevillea linearifolia	White spider flower	Native	150mm
Grevillea'Poorinda Royal Mantle'	Prostrate Grevillea	Native	150mm
Hakea sericea	Bushy Needlebush	Native	150mm
Hardenbergia violacea	False sarsparilla	Native	200mm
Hibbertia scandens	Golden Guinea flower	Native	150mm
Indigofera australis	Indigofera	Native	150mm
Lomandra longifolia	Mat Rush	Native	200mm
Pennisetum alopecuroides 'PA300'	Pennisetum Nafray	Native	150mm
Pittosporum undulatum	Sweet pittosporum	Native	200mm
Poa labillardierei	Tussock grass	Native	150mm
Pandorea pandorana	Wonga wonga vine	Native	150mm
Themeda australis	Kangaroo Grass	Native	150mm
Viola hederacea	Native Violet	Native	150mm
Westringia fruticosa	Coastal Rosemary	Native	200mm

Rain garden planting and creek edges

Botanic Name	Common Name	Native/ Exotic	Size
Corymbia maculata	Spotted Gum	Native	200L
Elaeocarpus reticulatus	Blue Berry Ash	Native	100L
Eucalyptus crebra	Narrow Leaved Iron Bark	Native	200L
Eucalyptus haemastoma	Scribbly Gum	Native	200L
Eucalyptus punctata	Grey Gum	Native	200L
Eucalyptus microcarpa	Grey Box	Native	200L
Shrubs, and ground covers			
Carex appressa Tussock Sedge HIKO 6	Tussock Sedge	Native	HIKO 6
Ficinia nodosa	Knobby Club Rush	Native	HIKO 6
Jun usi Juncus usitatus	Common Rush	Native	HIKO 6
Lomandra longifolia 'Hystrix'	Lomandra Hystrix	Native	HIKO 6
Lomandra longifolia 'Katrinus'	Lomandra Katrinus	Native	HIKO 6
Hakea sericea	Bushy Needlebush	Native	150mm
Hardenbergia violacea	False sarsparilla	Native	200mm
Hibbertia scandens	Golden Guinea flower	Native	150mm
Indigofera australis	Indigofera	Native	150mm
Lomandra longifolia	Mat Rush	Native	200mm
Pennisetum alopecuroides 'PA300'	Pennisetum Nafray	Native	150mm
Pittosporum undulatum	Sweet pittosporum	Native	200mm
Poa labillardierei	Tussock grass	Native	150mm
Pandorea pandorana	Wonga wonga vine	Native	150mm
Themeda australis	Kangaroo Grass	Native	150mm
Viola hederacea	Native Violet	Native	150mm
Westringia fruticosa	Coastal Rosemary	Native	200mm

Indicative quantities subject to design development

1

Appendix

This page is intentionally left b