

EXECUTIVE SUMMARY

The Planning Proposal and amendment to the approved Concept DA for Macarthur Gardens North (MGN) focuses on varying the approved Height of Building, which resulted in an increase in Gross Floor Area (GFA) and the subsequent additional residential dwellings.

The proposed amendment to the approved maximum Height of Building (HOB) is limited to part of the sites, also known as, Lots 11 (Block R1), 12 (Block M1), 13 (Block R2), 15 (Block R4) and 17 (Block M2), where all remaining lots are to be retained as 32m in height in accordance with the approved Concept Plan - DA/3944/2021/DA-SW (as modified).

This proposal is in line with the changing strategic context, and the urgency associated with unlocking greater housing supply close to the train stations and taking into consideration alignment with the vision of Reimagining Campbelltown.

The proposal to amend the maximum Height of Building of 32m across the whole site considered a new approach of varying heights ranging from 32m (9 storeys) up to 85m (24 storeys) closer to the train station.

The approved Concept Plan is also to be amended to reflect the varied building heights sought in the Planning Proposal, across parts of proposed Lots 11, 12, 13, 15 and 17 that will enable the delivery of a high density residential and mixed-use development across six (6) development blocks.

The remainder of the site will retain the approved Height of Building provision of 32m. The proposed additional building heights is anticipated to yield an additional 375 dwellings when compared to the previous approval, increasing the overall yield from 1,250 to 1,625 dwellings. Along with the increase in number of dwellings, the amended Concept Plan proposes to deliver 10% affordable housing across the whole development as a minimum.

Aside from the amendment to maximum Height of Building, the proposal maintains its consistency with the Approved Concept Plan outcomes as follows:

- Solar amenities and overshadowing impacts,
- Retain all the amenities provided in the approved Concept DA.

 Table 1
 Development Comparison - Approved Concept DA / Proposed

DEVELOPMENT COMPARISON	APPROVED CONCEPT DA	PLANNING PROPOSAL & CONCEPT PLAN AMENDMENT	CHANGES
Total Developable Area (sqm)	34,380	34,380	-
Maximum Height of Building (m)	32.0	85.0	+ 53.0
Maximum Height of Building (#st)	9	24	+ 15
Total GFA (sqm)	102,487	138,197	+ 35,710
Residential GFA (sqm)	100,527	136,237	+ 35,710
Commercial GFA (sqm)	1,960	1,960	-
Approximately Total Dwelling Yield	1,250	1,625	+ 375
Communal Open Space (sqm)	11,902	15,973	+ 4,071
Public - Active Open Space (sqm)	11,981	11,981	-
Public - Passive Open Space (sqm)	96,766	96,766	-
Creek (sqm) (sqm)	6,854	6,854	-
Road (sqm)	15,191	15,191	-
Utility (sqm)	602	602	-



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"We acknowledge the Traditional Owners of the country on which we meet today, the Dharawal people and their unique and spiritual connections to the land, waters and culture. We pay our respects to their Elders past, present and emerging."

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INTRODUCTION

PROJECT BACKGROUND

In 2015 Landcom prepared a concept plan for the Macarthur Gardens North site, which proposed the subdivision of the site into terrace lots and the realignment of Bow Bowing Creek to facilitate a maximised development footprint. Subsequently, Landcom lodged and received a Development Approval consent and a Controlled Activity Approval (CAA) for Macarthur Gardens North for earthworks and the Bow Bowing Creek realignment through the site.

Since this approval, significant strategic and local planning has been undertaken in Sydney including the development of the Region and District plans for metropolitan Sydney by the Greater Sydney Commission (GSC), the preparation of Local Strategic Planning Statement (LSPS) by local councils in 2019 and the preparation of Reimagining Campbelltown City Centre Master Plan 2020 (RCCCMP) by Campbelltown City Council.

In parallel to the above, Campbelltown City Council have amended their Local Environmental Plan (LEP) 2015 which identified high-density/ mixed-use development within the Macarthur Gardens North site through R4-High Density Residential and B4-Mixed Use zones.

Landcom prepared an updated concept plan for the site which responded to the strategic planning directions outlined in the documents mentioned above. The updated Concept Plan DA submission was granted consent on 14 December 2022 i.e. 3944/2021/DA-SW (as modified), for a concept masterplan involving a "high density residential and mixed-use development (to be known as Macarthur Gardens North)".

In accordance with the recent approval over the site under 3944/2021/DA-SW/A, a new subdivision layout comprising of various superlots (Lots 11-20) is expected to be registered over the MGN Precinct by June 2025.

Subsequently, a revision of the approved building envelope designs under the latest Concept DA have been considered to bring the proposal more in line with the changing strategic context, and the urgency associated with unlocking greater housing supply close to the train stations. To achieve this, a site specific LEP amendment to increase the current maximum height of buildings in select locations and the preparation of a new concept development application (DA) to capture a new set of maximum building envelopes are proposed to be lodged concurrently over the site. The proposal can be summarised as follows:

- **LEP Amendment:** amendment to the maximum Height of Building (HOB) control from 32m to steeped heights ranging from 32m (9 storeys) up to 85m (24 storeys), as required to facilitate an overall total dwelling yield of 1,625 dwellings (+375 dwellings over the previous concept DA). The scope of the LEP amendment is isolated to parts of proposed Lots 11, 12, 13, 15 and 17. All remaining lots are proposed to be retained in accordance with the Concept Plan DA 2022 approval. Additionally:
 - Change the Zoning plan to include Bow Bowing Creek Reserve as RE1 Public Recreation.
 - Remove Height of Building controls in the proposed RE1 Public Recreation zone.
- Concept DA: establish a new concept DA with new building envelopes across proposed Lots 11, 12, 13, 15 and 17 that will enable the delivery of a high density residential and mixed-use development comprising six (6) mixed use towers, whereby the new concept DA equates to approximately an additional 375 dwellings when compared to the previous approval.

PURPOSE OF THIS REPORT

Urbis has been engaged by Landcom to prepare this Urban Design and Visual Impact Assessment Report (UDVIAR) to support the Planning Proposal submission that seeks approval to vary the 32m Height of Building provision in the Approved Concept DA. The proposed height will be varied as follows:

- 49m for Lot R2;
- 56m for Lot M1;
- 62m for Lot R1 and R4; and
- 85m for Lot M2.

The rest of the site will remain under the approved Height of Building provision of 32m. The proposed additional Height of Building will also accommodate an additional 375 dwellings, increasing the overall yield from 1,250 to 1,625 dwellings.

This report outlines the rationale of the proposed amendments, considering their consistency with the Approved Concept DA outcomes as follows:

- Solar amenities and overshadowing impacts,
- Retain all the amenities provided in the approved Concept DA.

APPROVED CONCEPT DA MASTER PLAN

The MGN Precinct Structure Plan brings together the layered strategies identifying the key outcomes for the site as follows:

■ ENHANCED BOW BOWING CREEK

The project will significantly enhance the natural amenity of Bow Bowing Creek as it restores the creek and provides 57.0% of the total site area as an open space reserve along the riparian corridor.

INCREASED TREE CANOPY

The revegetation of Bow Bowing Creek and the provision of new public domain and communal open spaces will enable the precinct to increase the tree canopy from the current 26.75% to 53.6%.

■ IMPROVED PUBLIC DOMAIN

The master plan provides three new active open spaces being the Station Arrival Plaza, the Central Park and the Fitness Park, which enrich both leisure and recreational opportunity across the precinct.

STATION ARRIVAL ACTIVATION

Deliver four high density residential development lots that are located along Goldsmith Avenue and anchored around the station;

■ BETTER CONNECTIVITY

The proposal will provide a safe and improved pedestrian connection to both Western Sydney University and TAFE through activated streets. The project also provides a dedicated pedestrian/ cycleway network along Bow Bowing Creek that connects Macarthur Station with Gilchrist Oval and Mount Annan Botanical Gardens.

MIX OF HOUSING OFFER CLOSE TO THE TRAIN STATION

The project is anticipated to deliver up to 1,250 apartments with varied unit types. The development application seeks the approval of a building envelope that can accommodate up to 1,250 apartments.

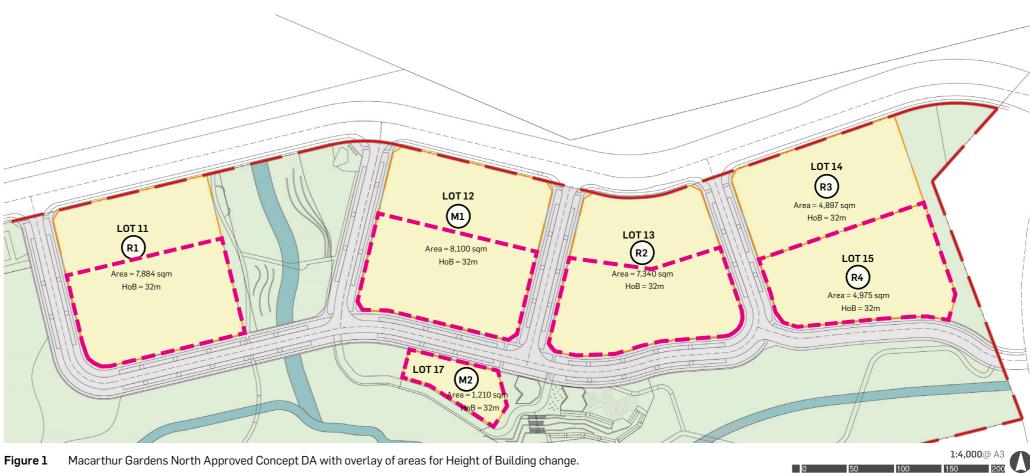
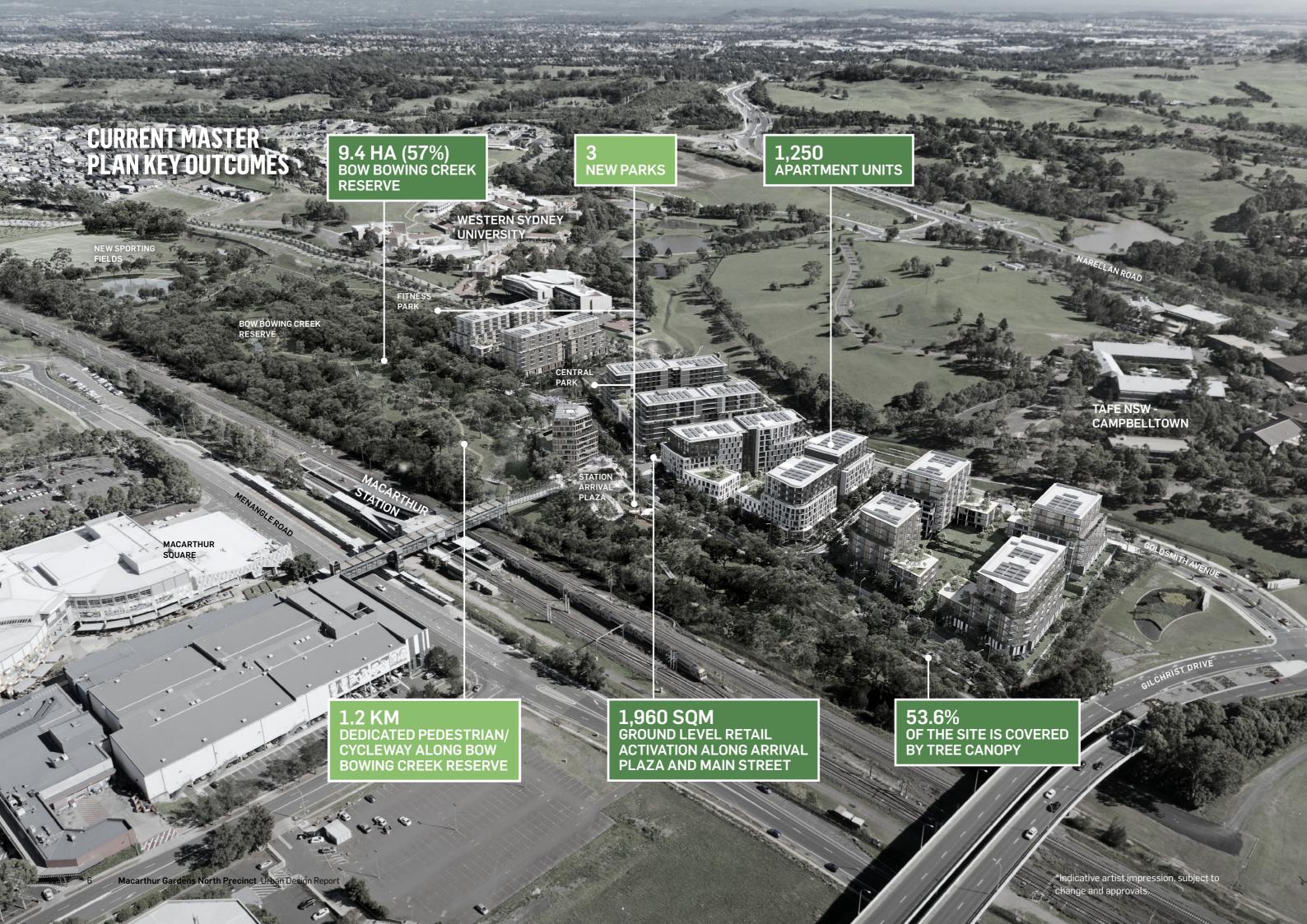


Figure 1 Macarthur Gardens North Approved Concept DA with overlay of areas for Height of Building change.

LEGEND Macarthur Gardens North - Approved Concept Plan Boundary LOT ## Future Lot Subdivision Proposed Block Reference Proposed Areas for change in Height of Building



SITE LOCATION & CONTEXT

Macarthur Gardens North site is located within the Macarthur Region in South-West Sydney - one of the fastest growing areas in Western Sydney over the next 10 years.

The site is located on the northern side of Macarthur Station in Campbelltown LGA. The station is a major transport interchange being the termination of the Sydney trains T8 Airport and South line and the southern extremity of the electrified Sydney Trains network. It provides interchange with the NSW Trainlink Southern Highlands Line services.

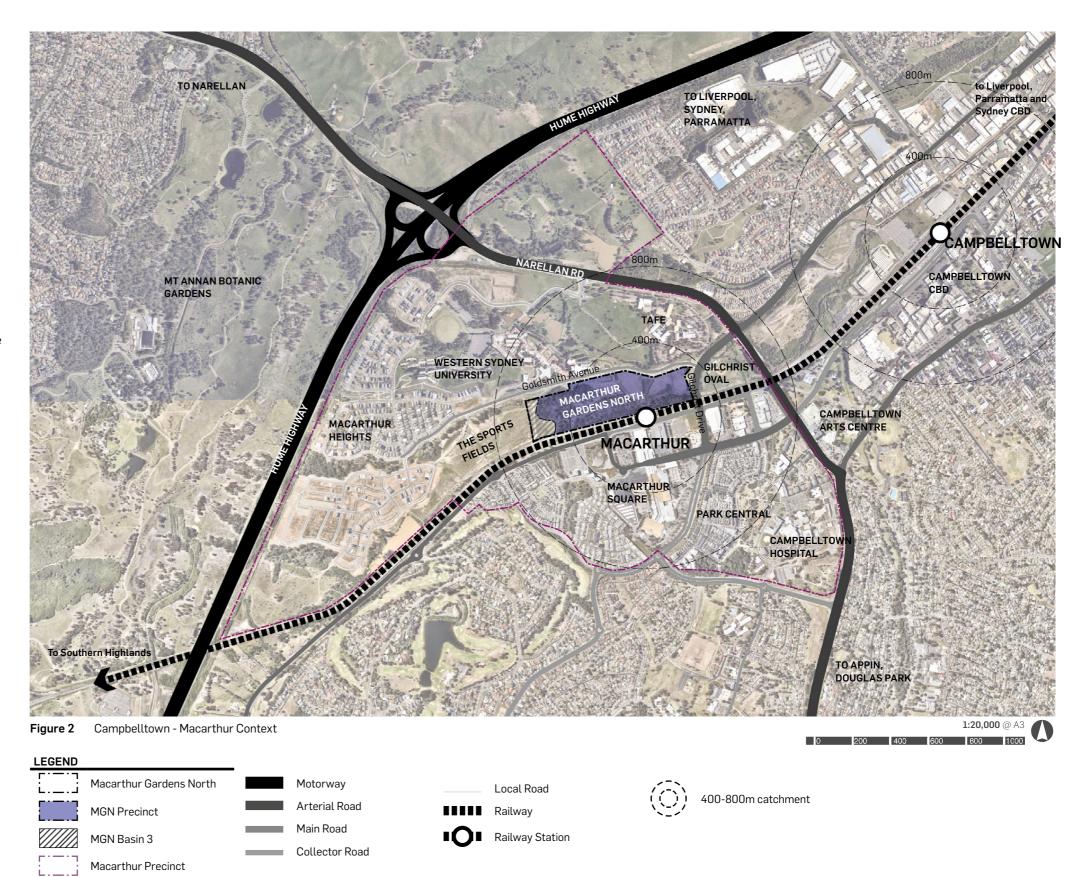
The site is located in an identified heath and education precinct with nearby facilities including:

- Western Sydney University located to the north-west of the site;
- Campbelltown TAFE located to the north-east of the site
- Macarthur Square Regional Shopping Centre on the southern side of the train station;
- Campbelltown Hospital to the south east of the train station:
- Campbelltown CBD located at Campbelltown Station 2km to the north east; and
- Campbelltown Arts Centre located on the southern side of the railway to the east of Narellan Road.

The site is also surrounded by network of open spaces that includes:

- Gilchrist Oval, a sporting fields situated to the east of the site across Gilchrist Avenue.
- The Sports Field located to the west of the site; and
- Mount Annan Botanic Gardens approximately 2km to the west on the other side of the Hume Highway.

Vehicle access to the site is via Goldsmith Avenue.



SITE DESCRIPTION

The Macarthur Gardens North site (Lot 1097 / DP 1182558) bound by Goldsmith Avenue to the North, Gilchrist Drive to the East and the southern railway line to the South with a total area of 18.52ha.

It is comprises two separate sub-precincts identified as:

- Macarthur Gardens North Precinct (MGN Precinct): The subject site for the DA referred to in this report; and
- Macarthur Gardens North Basin 3 (MGN Basin 3, DA 854/2015): Located to the western end and associated with the sporting fields to the west.

Macarthur Gardens North Precinct

The MGN Precinct has a total area of 16.58 hectares. The site is bounded by:

- Goldsmith Avenue to the north;
- The railway line to the south; and
- The future sporting fields and Basin 3 to the west.

The site includes the following features:

- Bow Bowing Creek which flows from west to east of the site including two tributaries from Western Sydney University to the north and Barber Reserve to the south.
- A pedestrian Connection from Goldsmith Avenue to Macarthur Station concourse and Macarthur Square through a pedestrian bridge.

The following aerial and site photos illustrates the features of the MGN Precinct.

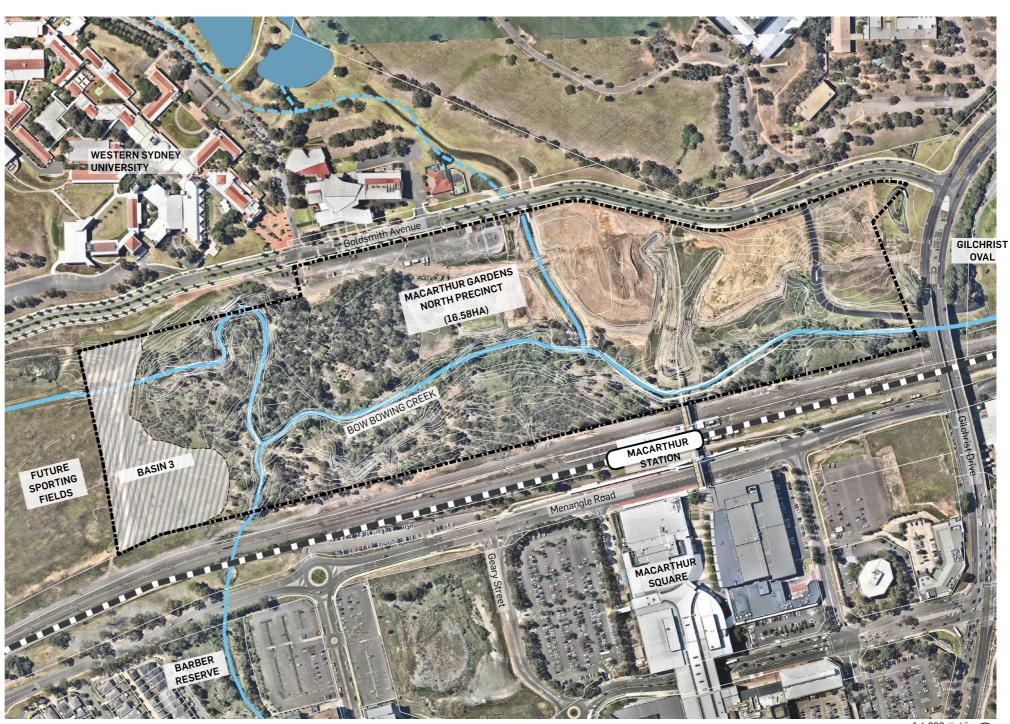


Figure 3 Macarthur Gardens North Site Description

Macarthur Gardens North
MGN Basin 3
Existing Water Way



1.0 PLANNING DIRECTIONS

A significant amount of strategic planning has already been undertaken in relation to the Macarthur locality and the MGN Precinct. The following section summarises the key strategic and local planning directions for the MGN Precinct as outlined in the following documents:

- Western City District Plan (2018);
- Campbelltown Local Strategic Planning Statement (2019);
- Glenfield to Macarthur Urban Renewal Strategy -Macarthur Precinct Plan (2015);
- Campbelltown Macarthur Place Strategy (2020);
- Reimagining Campbelltown City Centre Master Plan (2020);
- Campbelltown LEP (2002 and 2015); and
- Campbelltown DCP (2015).

1.1 OVERVIEW

STRATEGIC PLANNING

In 2018, the New South Wales Government set out its strategy to boost growth and liveability through a redesign of Greater Sydney as a 'metropolis of three cities' where "most residents live within 30 minutes of their jobs, education and health facilities, services and great places". This vision seeks to rebalance the economic and social opportunities and deliver a more equitable Greater Sydney. The three cities are:

- The Western Parkland City;
- The Central River City; and
- The Eastern Harbour City.

To deliver this vision, a suite of strategic planning documents have been prepared. In relation to the MGN Precinct these include:

- Western City District Plan (2018) Prepared by the Greater Sydney Commission (GSC) in 2018 it outlines a 20-year plan to manage growth and provides a bridge between regional and local planning.
- Campbelltown Local Strategic Planning Statement (LSPS 2020) prepared by Campbelltown City Council (CCC). It provides context and direction for land use decision making within the Campbelltown Local Government Area (LGA) over the next 20 years. The LSPS responds to region and district planning initiatives and the communities priorities identified through the Community Strategic Plan.
- Campbelltown Macarthur Place Strategy (2020) Prepared by the GSC and developed through the Collaboration Area process, the place strategy brings together local councils, NSW and Australian Government agencies as well as key local institutions and organisations. The Place Strategy identifies impediments and opportunities and sets out a shared 20-year vision and the priorities and actions to guide the delivery of that vision.
- Reimagining Campbelltown City Centre Master Plan (RCCCMP 2020) Prepared by Campbelltown City Council in parallel with the Place Strategy, RCCCMP from Leumeah to Macarthur, is a 20-year master plan and decision-making framework for the city's future growth and prosperity.
- Glenfield to Macarthur Urban Renewal Strategy Prepared in 2015 by the NSW Department of Planning, Housing and Infrastructure (DPHI), the renewal area is identified in the Western City District Plan. Final amendments occurred in 2017 through the Greater Macarthur Growth Area Implementation Plan. Rezoning within this precinct can now occur through planning proposals submitted by landowners to Campbelltown City Council or Council led local environmental plan amendments. Planning proposals need to be consistent with the Greater Macarthur Growth Area Implementation Plan and relevant precinct plan.

Given the alignment of strategic planning across each of these documents, A high level review has been undertaken for each of the documents except RCCCMP for which a detailed review has been completed. This is considered appropriate as RCCCMP is consistent with strategic planning prepared by the GSC whilst providing site specific outcomes.

EXISTING PLANNING CONTROLS (LEP)

In response to the preparation of strategic planning directions, All Councils are required to review and amend their Local Environment Plan (LEP) to ensure consistency with the directions of the Western City District Plan.

In May 2020 CCC exhibited proposed amendments to CLEP 2015. These sought to repeal other LEPs and Interim Development Orders so that only one LEP would apply to Campbelltown LGA. This included resolving 'deferred matters' including the MGN site. These amendments to CLEP 2015 have now been gazetted.

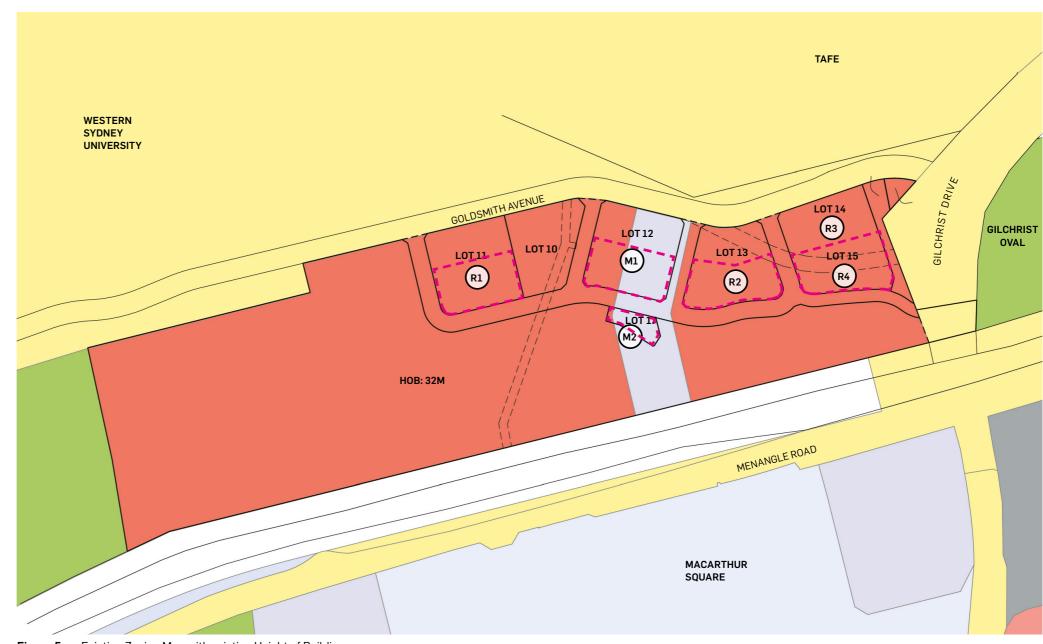
For the MGN Precinct, the existing LEP controls are as follows:

- CLEP 2015
 - R4 High Density Residential zone with a section of B4 Mixed Use Zone perpendicular to the railway station.
 - A maximum Height of Building of 32m (approx. 10 storeys) across the whole site.
 - No FSR and Minimum Lot Size controls identified.

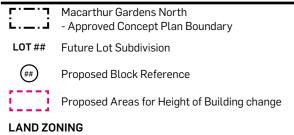
Given the alignment of the CLEP 2015 with strategic planning directions, and the almost 20-year time frame back to the CLEP 2002 controls, it is considered that the outcomes for the site identified within the CLEP 2015 are most relevant to the site.

EXISTING PLANNING CONTROLS (DCP)

A Site Specific DCP was prepared and has been adopted to supplement the Campbelltown Development Control Plan (CDCP) 2015 and to ensure that the MGN Master Plan objectives and urban design outcomes are achieved.



LEGEND



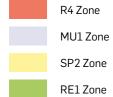


Figure 5 Existing Zoning Map with existing Height of Building.

1.2 REIMAGINING CAMPBELLTOWN CITY CENTRE MASTER PLAN 2020

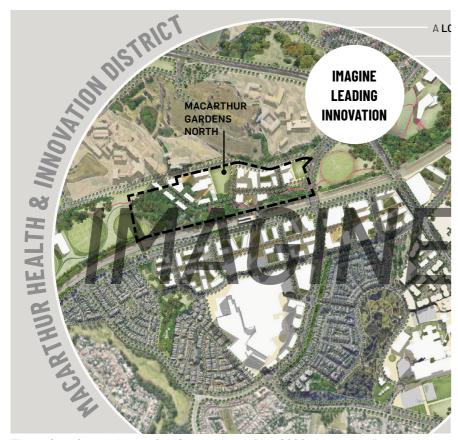


Figure 6 Campbelltown City Centre Master Plan 2020 - Macarthur Precinct

The Reimagining Campbelltown City Centre Master Plan (RCCCMP) was released in April 2020 and provides a place framework to guide the decision-making process of the City Centre's future. It covers the centres of Campbelltown, Macarthur and Leumeah.

The document is prepared by Campbelltown City Council and prepared in parallel with the Campbelltown Macarthur Place Strategy 2020.

The framework reinforces the role of Macarthur as the city's Health, Knowledge and Innovation District. Macarthur is envisioned to be a district that fosters growth and collaboration.

The opposite table identifies the key Growth Pillars, Commitments and Key Outcomes that are relevant to the Planning Proposal for MGN Precinct.

Pillar 5 City and Bush

5.1 Deliver an abundance of multi-use, high-performance open spaces accessible by all

Passive recreation and community life - An abundance of accessible and connected open spaces supporting a range of passive recreational activities.

Active and programmed recreation - Open spaces will vary in size, scale and function to cater for a range of active and programmed recreation uses.

5.2 Enrich the urban experience through a network of varied urban spaces that invite occupancy and activity

Small scale spaces - Provision of small scale spaces that enrich and diversify the city experience.

Great civic spaces - A series of generous, flexible civic plazas and squares where social exchanges take place.

Fine grain connections - A network of safe, legible and interesting pedestrian linkages to create a permeable city centre.

5.3 Create a memorable, legible and green built form which celebrates its 'City Centre In A Valley' setting

A city skyline framed in green - Varied and diverse skyline, with buildings heights contributing to visual interest and overall legibility and embraces their location at the heart of the valley.

Memorable green arrivals - Create a memorable and green arrival journey into our City Centre

A city centre infused in green - A city infused in green whereby the buildings, infrastructure and public spaces embrace green infrastructure to enrich the character, deliver first-class environmental results, and create great places for people to live, work and play.

Place-responsive buildings and spaces to navigate the city centre - Buildings and places within Campbelltown's City Centre respond to place, contributing to city centre legibility and wayfinding.

5.4 Celebrate Campbelltown's Identity as a campus city through built form that embraces local character and place identity

Hillside campus - The hillside campus takes advantage of the city's topographical setting to capture views across the valley and offer visual presence contributing to the city's image.

KEY INSIGHTS

Campbelltown City Centre Master Plan sets out several guiding principles in shaping the three main precincts, including Macarthur. The guiding principles in most relevance to the amendment of the concept plan:

A city skyline framed in green - Varied and diverse skyline, with varied building heights contributing to visual interest and overall legibility and embraces their location at the heart of the valley.

Place-responsive buildings and spaces to navigate the city centre - Buildings and places within Campbelltown's City Centre respond to place, contributing to city centre legibility and wayfinding.

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2.0 URBAN DESIGN DIRECTIONS

The Planning Proposal and proposed amendment to the Approved Concept Plan 2022 are limited to its built form component i.e. building envelope / height, in line with the changing strategic context, and the urgency associated with unlocking greater housing supply close to the train stations.

In general, the main considerations are formed around maintaining the outcomes of the Approved Concept Plan 2022 and appropriate scale of building envelope such as:

- The Site's strategic location,
- Maintaining the outcomes of the approved Concept DA
- Built Form Strategy covered in the subsequent chapter.

2.1 SITE'S STRATEGIC LOCATION

MGN Precinct is located next to Macarthur Station and surrounded by residential communities, regional retail centre, and significant social and green infrastructure including:

- Macarthur Heights;
- Park Central;
- Western Sydney University;
- TAFE NSW Campbelltown;
- Macarthur Square;
- Campbelltown Public Hospital;
- Campbelltown Private Hospital;
- Gilchrist Oval;
- University Oval;
- Future Sporting Fields; and
- Mt. Annan Botanical Garden.

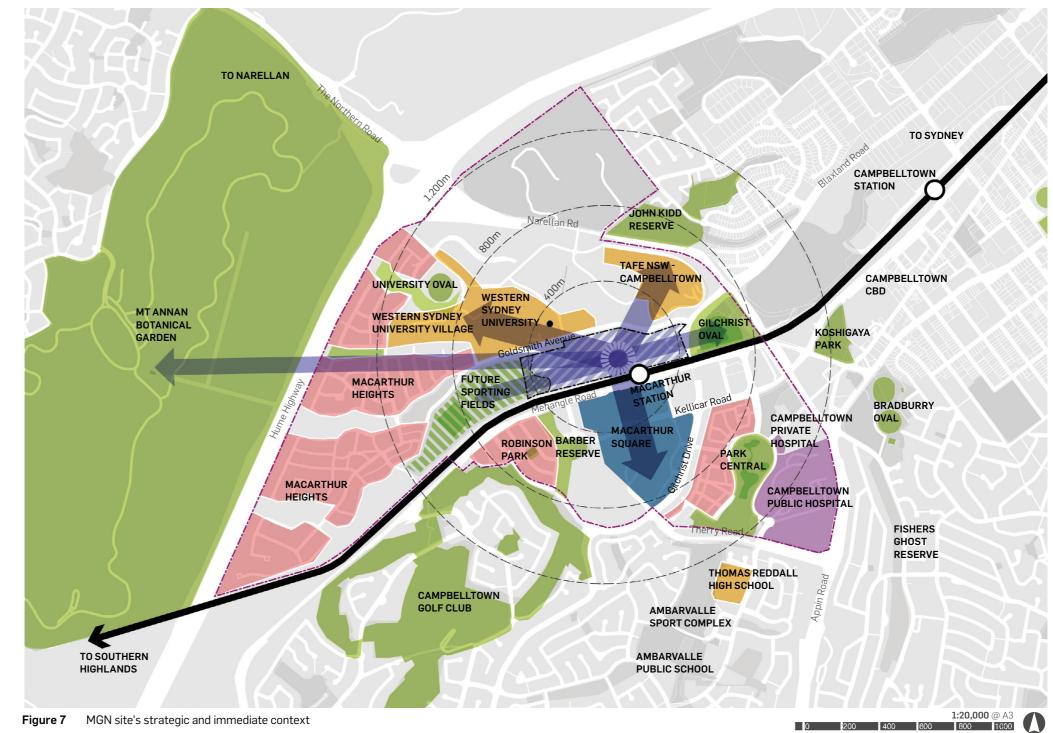
The railway corridor runs east to west dissecting the precinct and creating an infrastructure barrier between north and south of the railway.

Being at the heart of the precinct next to the railway station, MGN Precinct, which adjoins the station, provides an opportunity to stitch these communities, amenities and facilities into an integrated and well connected precinct. Consistent with the changing strategic context, the site also has the potential to unlock greater housing supply close to the train stations. This also aligns with our target to deliver a minimum of 10% affordable housing units across the whole precinct.

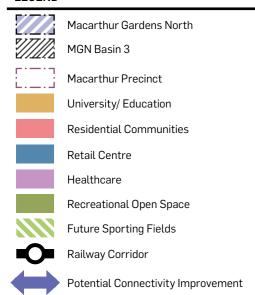
The following diagram depicts the immediate context for MGN site's strategic location.

KEY DESIGN DIRECTION

- Provision of greater housing supply close to the train station.
- Intensification of the utilisation of the existing as well as planned social, green and transport infrastructure



LEGEND



Potential Activation

Figure 7 MGN site's strategic and immediate context

2.2 CONSISTENCY WITH THE APPROVED CONCEPT PLAN

STRATEGIC PLANNING

One of the main considerations for the Planning Proposal is to maintain the outcomes in the Approved Concept Plan 2022 in proposing the limited scope to the amendment, isolated to the blanket Height of Building of 32m within Macarthur Gardens North as follows:

- 49m to the southern part of proposed Lot 13 (Block R2);
- 56m to the southern part of proposed Lot 12 (Block M1);
- 62m to the southern part of proposed Lot 11 (Block R1) and Lot 15 (Block R4); and
- 85m to the southern part of proposed Lot 17 (Block M2).

The rest of the site will remain under the approved Height of Building provision of 32m. The proposed additional building height will also accommodate an additional 375 dwellings, increasing the overall yield from 1,250 to 1,625 dwellings. This is accompanied with additional Communal Open Space provision to maintain and improve amenities for the residents.

The approved Concept Plan 2022 outcomes are maintained as follows:

- Solar amenities and overshadowing impacts,
- Retain all the amenities provided in the approved Concept DA.

The following aerial and site photos illustrates the extent of amendments against the approved Concept Plan 2022

KEY DESIGN DIRECTION

- No change in spatial layout such as road reserve, public open space provision, built form sitting and other environmental and social commitments
- Height intensification closer to the train station contained within the approved building footprints.

LEGEND



Macarthur Gardens North



Maintained Human-scaled Interface along the Goldsmith Avenue



Increased Communal Open Space



Proposed Height Increase



Figure 8 Proposed Change to Height of Building



ACTIVE TRANSPORT NETWORK

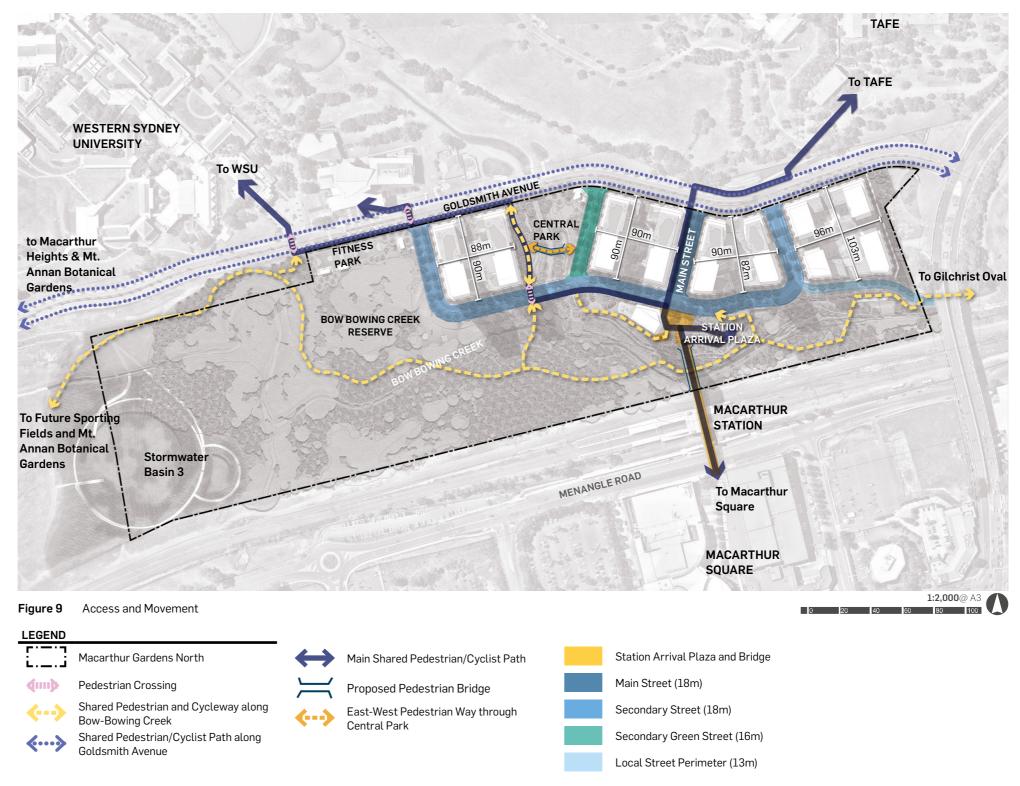
A safe, accessible and integrated active transport network around the precinct has been promoted in the Approved Concept Plan 2022. The proposed outcomes will be maintained with no changes from the Planning Proposal, which include:

- Provide 1.2km shared pedestrian/ cycleway along Bow Bowing Creek connecting Macarthur Station to future sporting fields and Mt. Annan Botanical Gardens to the west and Gilchrist Oval a to the east. This is also linking back to the main street network within Site and existing cycleway along Goldsmith Avenue.
- Permeable pedestrian network along the streetscape and public open spaces that promotes safe pedestrian environment with three main pedestrian priority crossings along Goldsmith Avenue.
- Identifies main pedestrian routes from Macarthur Station to WSU and TAFE via station arrival plaza, Main street, Central Park and Goldsmith Avenue.
- Provide an accessible pedestrian access from Macarthur Station to Station Arrival Plaza via 1:20 bridge and 1:19 ramps in response to the level changes between these places.
- Provide pedestrian access to lift lobbies within the northern and southern part of the residential blocks.

The MGN precinct is designed with high permeability, where each precinct block is relatively compact, approximately 90m by 90m (check this) wide and is bound by internal streets and/ perimeter roads providing either pedestrian or shared pedestrian/cycling connection throughout the precinct.

KEY DESIGN DIRECTION

 No changes will be made to the active transport network in the Planning Proposal.



LANDSCAPE AND PUBLIC DOMAIN

The Approved Concept Plan 2022 proposes a set of landscape places, aiming to create spaces for people to connect to the wider precinct. Varying scales of form, function and planting offer residents a variety of outdoor experiences.

As illustrated in the opposite diagram, the outcomes are identified as four key landscape places within MGN Precinct. This includes:

Public Domain

- Station Arrival Park;
- Central Park; and
- Fitness Park.

Private Domain

Communal Open Space (Ground level and podium rooftop)

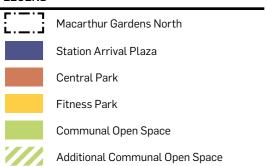
The above outcomes regarding landscape and public realm will be maintained, with opportunities to increase communal open space (podium rooftop) provision benefiting from building height variations.

In Lot M1, R1 and R2, the proposed height difference of the building envelope between south and north allows for additional communal open space (podium rooftop) on the rooftop of the lower towers.

KEY DESIGN DIRECTION

- No changes will be made to any landscape spaces in the public domain.
- Opportunities for additional communal open space (podium rooftop) in Lot M1, R1 and R2.

LEGEND



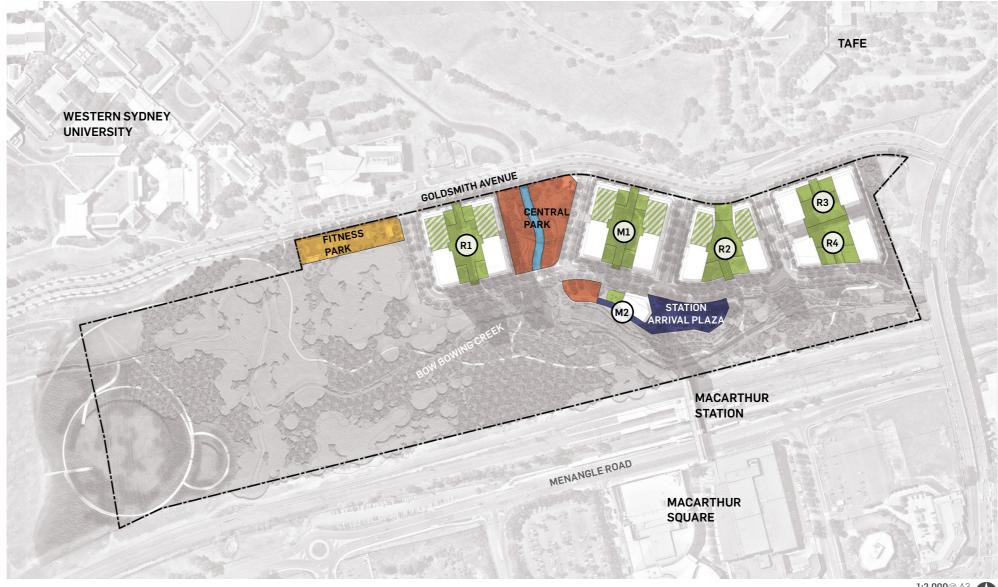


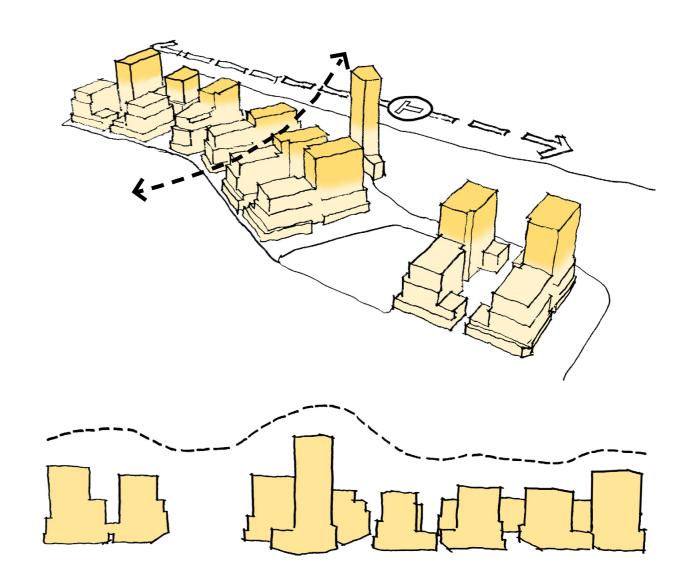
Figure 10 Landscape and Public Domain

3.0 BUILT FORM STRATEGY

The proposed change to Height of Building is guided by the following design strategies:

- Introducing a variation of heights that ascends closer to the train station, and
- Bringing a varied and diverse skyline, where building heights contribute to visual interest, overall legibility and placemaking.

VARIED HEIGHTS ASCENDING TOWARDS TRAIN STATION



VARIED SKYLINE

4.0 THE REFINED MASTER PLAN





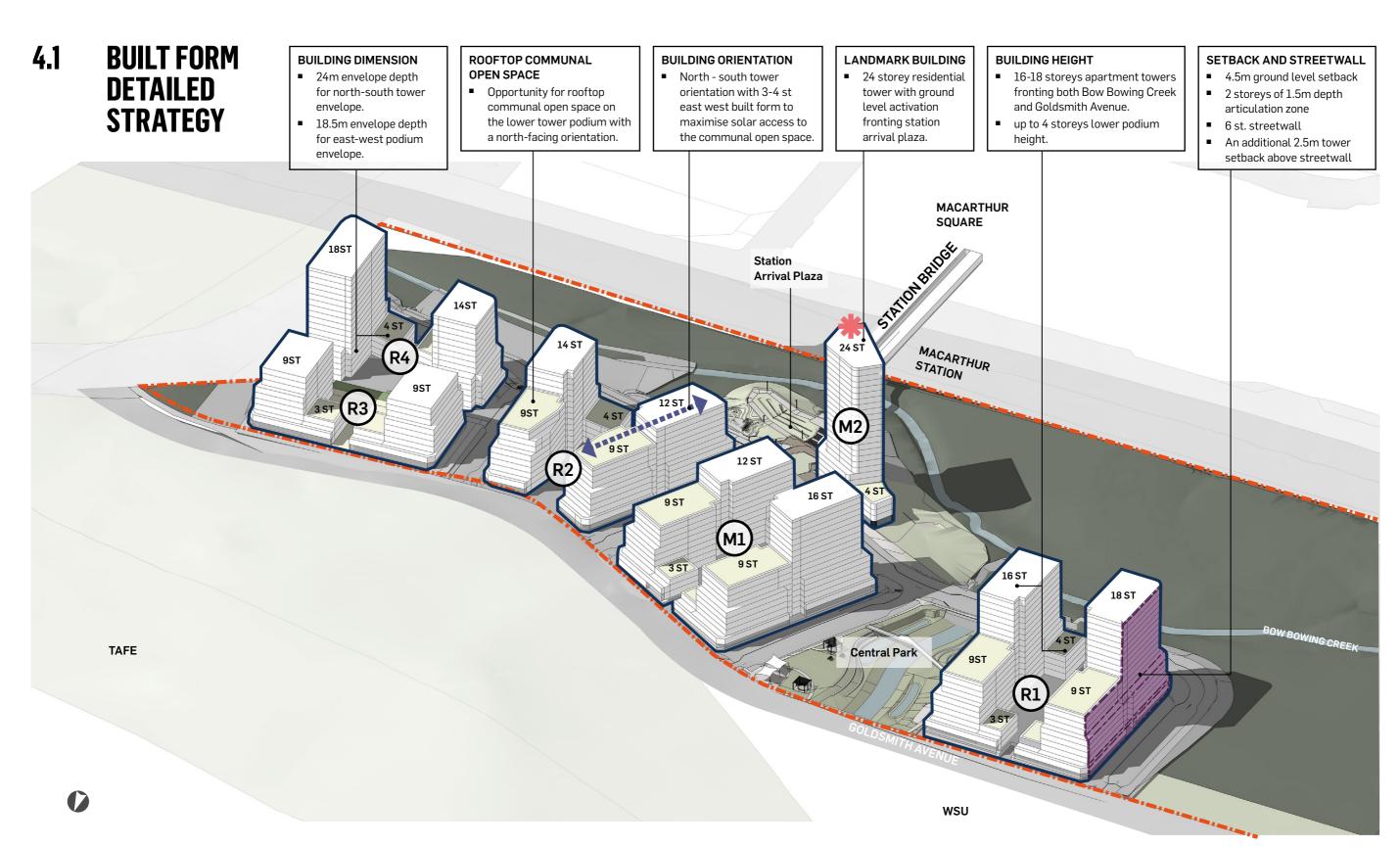


Figure 12 Overall Built Form Strategy

BUILT FORM DETAILED STRATEGY (CONT'D)

The proposed variation to Height of Building across some of the development lots in the MGN Precinct maintains the vision and objective of the approved Concept Plan and is consistent with the setback provision in the Site Specific DCP Part 16 for Macarthur Gardens North.

As an overview, the overall built form provides the following key outcomes and illustrated in the opposite diagram and 3D axonometric.

Transitional Podium Height

- 1.5m deep articulation zone on the first 2 storeys to delineate the terrace typology and frontage across the whole precinct.
- Additional 2.5m setback above the 6th storey to define the streetwall and provide transition to the tower element.

North-South Orientated Residential Blocks and Sensible Height

- Orientation all residential blocks north-south length-ways to ensure residential units achieve internal amenity.
- Appropriate placement of varied heights from 3 to 24 storeys in response to context, amenity and potential impacts.
- Limit of up to 4 storeys to the east-west longitudinal podium levels to maximise solar access to communal open space.

Landmark Building

 A maximum 24-storey landmark residential building next to station arrival plaza to define a bold arrival into Macarthur Gardens North and provide a visual marker within the urban fabric.

Building Envelope Dimension and Separation

- Provide building separation in accordance with the ADG Design Criteria.
- Provide a residential block envelope of generally 24m x 40.5m dimension to allow for flexibility to the design of the internal layouts.
- 18.5m building depth for east-west longitude podium envelopes to allow for single loaded typology and enable corner apartments.

Yield Summary

■ The residential unit layout testing indicates the proposed building envelopes are able to deliver 1,625 residential apartment units and 1,960 sqm ground floor retail / commercial. Refer to Appendix section for the indicative layout plan testing for each lot.

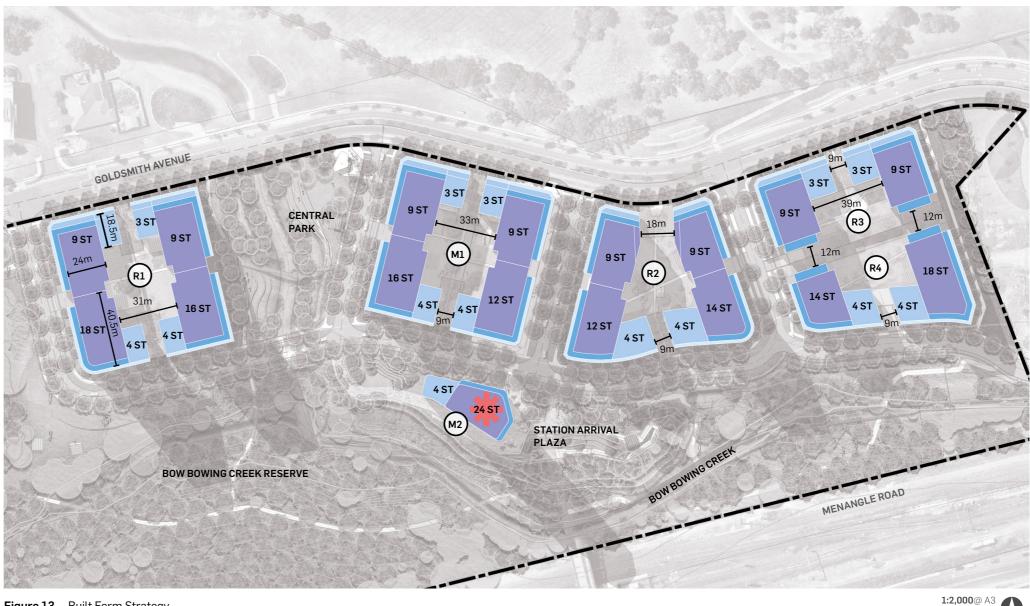


Figure 13 Built Form Strategy



BUILDING CONFIGURATION CONSISTENCY WITH APPROVED CONCEPT PLAN

STREET WALL, BUILDING SEPARATION AND SETBACKS

4.2 TYPICAL RESIDENTIAL BLOCK

Further to the overall built form strategy identified in the previous section, the implementation of these principles for the proposed varied building heights are consistent with the approved Concept Plan and illustrated in the following axonometric diagram of typical residential block. This includes:

- Residential Block Dimension
- Building Separation
- Building Setbacks
- Building Envelope Dimension;
- Building Orientation and Streetwall Strategy.

Further assessment of the ADG Design Criteria identified in chapter "5.0 ADG and DCP Compliance" on page 26.

Residential Block Dimension

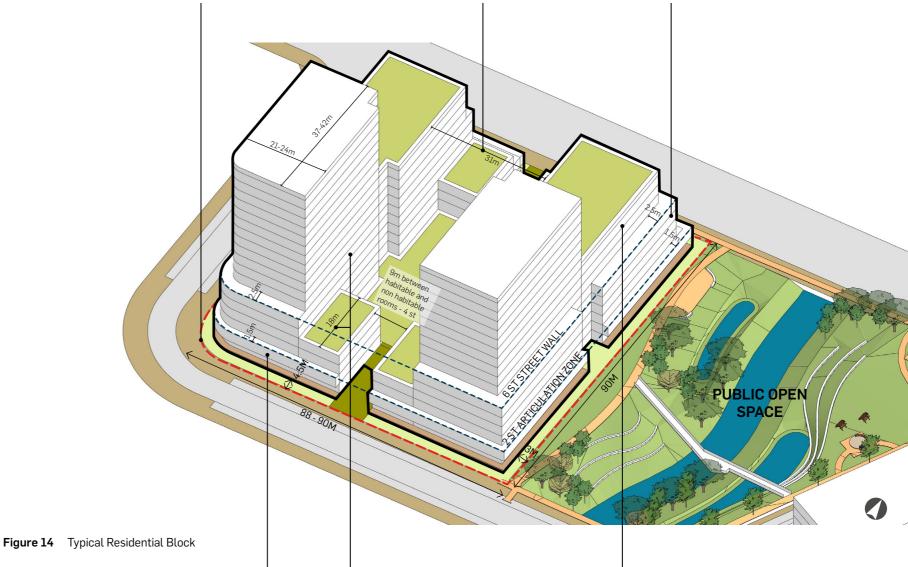
The typical residential blocks adopts a 90mx90m block to optimise building envelope dimension whilst provides adequate separation and amenities. This includes communal open spaces and solar access.

Building Separation

Provide minimum building separation in accordance with the ADG i.e. 18m for 5-8 storeys and 24m for 9 storeys and above, between habitable rooms ensuring privacy is achieved.

Streetwall Strategy

- 1.5m depth articulation for the first two storeys with 6 storeys streetwall.
- Further setback of 2.5m applied to the podium element (6th - 9th storey) to provide a smooth transition towards the tower element.



Building setbacks

- 4.5m ground floor setback and 3m level 1 front setback are applied along the block to provide sufficient space between the public and private interface.
- 4.5m setback has been applied for upper podium levels to provide articulation.
- An additional 2.5m upper setback from the street for the tower elements to avoid building bulk to overpower street experience.

Building Envelope Dimension

- Apartment tower has general dimension of 37 - 42m length with 24m depth to allow for internal amenity and flexibility in architectural expression.
- Podium apartment has 18.5m building depth assuming these are single loaded.

Building Orientation

North-south building lengths ensures faster moving shadows and maximises solar access to the residential units and communal open space.

1,625 APARTMENT UNITS

4.3 YIELD CALCULATION

Testing of indicative floor plans has been undertaken to all residential lots to demonstrate that the internal layout fits the proposed envelope with a total 1,250 apartment units. Refer to Appendix section - Indicative Floor Plan Layout Testing for the indicative floor plan layout detail.

The following table summarises the yield calculation of each of residential lots of MGN Precinct based on the indicative floor plans and following assumptions.

DEVELOPMENT ASSUMPTIONS

BUILDING HEIGHT

4.40m Ground level commercial floor to floor height3.80m Ground level residential level floor to floor height

3.20m Upper level residential level floor to floor height

BUILDING EFFICIENCY

85-90% Commercial GBA to GFA

85-90% Residential Apartment GBA to GFA

RESIDENTIAL UNIT

47 Average Studio GFA/ unit (sqm)

67 Average 1BR GFA/ unit (sqm)

87 Average 2BR GFA/ unit (sqm)

107 Average 3BR GFA/ unit (sqm)

PARKING REQUIREMENTS

0.6 Car Parking Space/ Studio Unit

0.6 Car Parking Space/ 1BR Unit

0.9 Car Parking Space/ 2BR Unit

1.4 Car Parking Space/ 3BR Unit

0.1 Car Visitor Parking Space/ Dwelling

0.0067 Car Sharing Rate/ dwelling

45 Gross parking space area (sqm)

95 sqm GFA retail / commercial Car Parking space

0.33 residents bicycle park/ dwelling

0.0833 visitor bicycle parking/dwelling

2 basement floors per residential lot

2 sqm/ bike parking space

 Table 2
 MGN Precinct Yield Calculation

						(F	\o					UNIT MI	X			,		NO	NO
					_	(SQM)	(SQM)			8%	32%	45%	15%		IRED	IRED		VISIO	PROVISION
LOT	LAND USE	LAND AREA (SQM)	LAND AREA (%)	MAXSTOREYS	TOTAL HEIGHT (M)	RESIDENTIAL GFA	COMMERCIAL GFA	TOTAL GFA	FSR	STUDIO	1BR	2 BR	3 BR	TOTAL UNITS	CAR PARKS REQUIRED RESIDENTIAL	CAR PARKS REQUIRED - RETAIL	BICYCLE PARKING REQUIRED	CAR SHARING PROVISION (ON STREET)	CAR PARKING PRC (BASEMENT)*
M1**	High Density Residential with GF Retail / Commercial	8,101	4.9%	16	56.0	29,981	1,608	31,589	3.9	45	128	161	39	373	342	17	155	3	287
M2**	High Density Residential with GF Retail / Commercial	1,208	0.7%	24	85.0	11,331	352	11,683	9.7	0	24	82	22	128	133	4	53	1	47
R1**	High Density Residential	7,885	4.8%	18	62.0	34,438		34,438	4.4	33	104	197	70	404	400	-	167	3	281
R2**	High Density Residential	7,336	4.4%	14	49.0	26,699		26,699	3.6	36	143	138	26	343	305	-	142	3	262
R3**	High Density Residential	4,895	3.0%	9	32.0	12,585		12,585	2.6	6	64	53	21	144	136	-	60	1	175
R4**	High Density Residential	4,955	3.0%	18	62.0	21,203		21,203	4.3	17	48	97	71	233	252	-	97	2	164
SUB-T	OTAL DEVELOPABLE AREA	34,380	20.7%	24	85.0	136,237	1,960	138,197	4.0	137	511	728	249	1,625	1,568	21	674	13	1,216
TOTA	L MGN Precinct DA AREA	165,782	100.0%	24	85.0		1,960							1,625	1,5	89		13	1,216
WEST	ERN STORMWATER BASIN 3	17,379																	
	. MACARTHUR GARDENS H AREA	183,161																	

Note:

^{*}Carparking provision is calculated based on the assumption of 45 sqm per gross parking space against the basement floor plate area.

^{**} Proposed 2 levels of basement carparking for all Lots.

5.0 ADG AND DCP COMPLIANCE

The proposed building envelope aims to be consistent with the design criteria identified in the Apartment Design Guide (ADG) and Site Specific DCP Part 16 Macarthur Gardens North.

Design Criteria that has been considered includes:

- Minimum building separation;
- Communal open space provision;
- Deep soil zone provision;
- Solar access for communal open space;
- Solar access to residential units; and
- Cross ventilation to residential units.

The opposite table provides a high-level compliance summary of the proposed scheme with the ADG and DCP.

Each design criteria assessment are outlined in the following pages.

Refer to the end of this section for Campbelltown DCP compliance checklist and Appendix section for a detailed ADG compliance checklist.

5.1 HIGH LEVEL ADG & DCP COMPLIANCE OVERVIEW

 Table 3
 High Level Apartment Design Guide and Campbelltown DCP Compliance Check List

3	1 1		
DESIGN CRITERIA/ OBJECTIVES	APARTMENT DESIGN GUIDE	CAMPBELLTOWN DCP 2015	PROPOSED OUTCOME
BUILDING SEPARATION	UP TO 4 STOREYS: 12M MIN. 5 TO 8 STOREYS: 18M MIN. OVER 9 STOREYS: 24M MIN.	N/A	 A minimum separation of 18m is maintained between buildings with a height of five to eight storeys. Wider separation of a minimum 24m is applied to the ninth storey.
COMMUNAL OPEN SPACE	MIN. 25% OF SITE AREA	N/A	Each residential lots provides area for communal open space between 28.5%-51.9% of lot area that well exceeds the minimum 25% requirement.
DEEP SOIL ZONE	MIN. 7% OF SITE AREA (WITHIN COMMUNAL OPEN SPACE)	MIN. 25% OF REQUIRED OPEN SPACE OR 15% OF TOTAL SITE AREA * Whichever is higher	 Each of residential lots provides a min. 7% deep soil zone within the communal open space. When combined with the private open spaces, the proposal delivers a total of 18.5% deep soil zone throughout the residential lots.
SOLAR ACCESS TO COMMUNAL OPEN SPACE	MIN. 50% WITH DIRECT SUNLIGHT TO THE PRINCIPAL USABLE SPACE	N/A	The location and orientation of building envelopes minimise overshadowing impact on communal open space and public open spaces. This results 81.1% of total communal open space receives a min. 2 hr. sunlight in mid winter, exceeding the minimum 50% minimum area.
SOLAR ACCESS TO RESIDENTIAL UNITS	MIN. 70% OF RESIDENTIAL UNITS RECEIVE A MINIMUM OF 2 HOURS DIRECT SUNLIGHT BETWEEN 9AM TO 3PM * A maximum of 15% residential units receive no direct sunlight	N/A	 The indicative internal layout testing of residential buildings envelopes are designed to maximise apartment units with western and northern aspect. 77.0% of total units receives a min. 2 hours sunlight in mid winter. 4.5% of the total residential units have no direct sunlight, which is less than 15% maximum requirement.
CROSS VENTILATION	MIN. OF 60% APARTMENTS ARE NATURALLY CROSS VENTILATED IN THE FIRST NINE STOREYS	N/A	The indicative internal layout testing of residential buildings envelopes demonstrates that at least 62.2% of total residential units achieves natural cross ventilation.

KEY SUMMARY

■ The MGN Precinct building envelope is ADG compliant

5.2 BUILDING SEPARATION

ADG MINIMUM REQUIREMENT

The Apartment Design Guide (ADG) identifies the following minimum building separation for residential apartment development:

Up to Four Storeys (approximately 12m):

- 12m between habitable rooms/balconies
- 9m between habitable and non-habitable rooms
- 6m between non-habitable rooms

Five to Eight Storeys (approximately 25m):

- 18m between habitable rooms/balconies
- 12m between habitable and non-habitable rooms
- 9m between non-habitable rooms

Nine Storeys and above (over 25m):

- 24m between habitable rooms/balconies
- 18m between habitable and non-habitable rooms
- 12m between non-habitable rooms

BUILDING SEPARATION SUMMARY

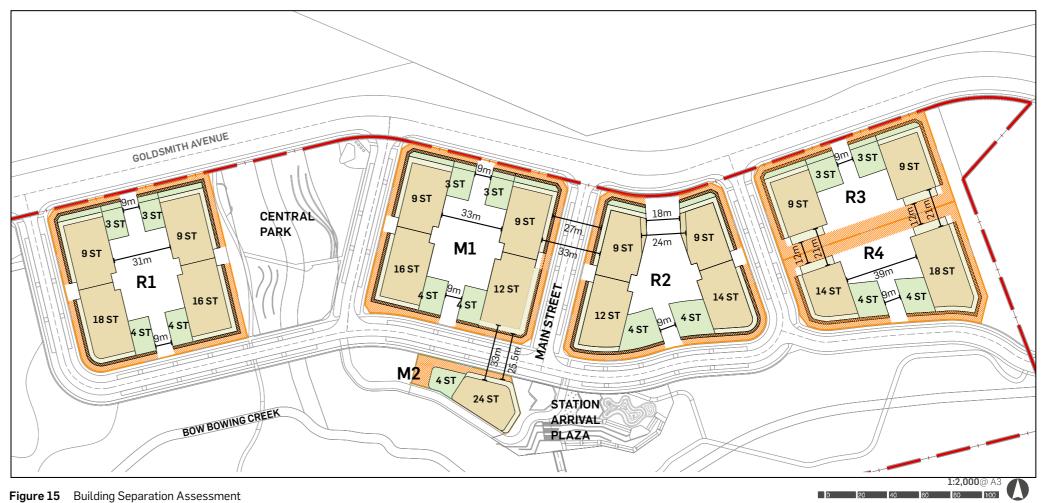
MGN Precinct envelopes adopt the following building separation:

- A min. 18m building separation between habitable rooms to the first 8 storeys of lot R2 and 24m for the ninth storey.
- A min. 24m building separation between habitable rooms to envelope up to 9 storeys
- A min. 9m separation between habitable and non-habitable rooms to the northern and southern podium of lot M1, R1, R2, R3 and R4 up to four storeys.
- A min. 21m separation between non-habitable and habitable rooms between R3 & R4 tower components. This building separation occurs only on one level i.e. Level 9.

Detail design for these buildings will dictate the separation required to achieve compliance with ADG. Refer to the Appendix section for built form cross sections for each residential lot.

KEY SUMMARY

■ The proposal complies with the minimum building separation identified in the ADG





5.3 COMMUNAL OPEN SPACE AND DEEP SOIL ZONE PROVISION

ADG & CDCP 2015 DESIGN CRITERIA

The ADG identifies the following minimum requirements for residential apartment development:

- Communal Open Space: min. 25% of development site area; and
- Deep soil zone: min. 7% with min. dimension of 6m.

The CDCP 2015 identifies the following minimum requirements for residential apartment development:

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

KEY SUMMARY

 The proposal exceeds the minimum communal open space and deep soil zone requirement identified in ADG and CDPC 2015

MASTER PLAN PROVISION

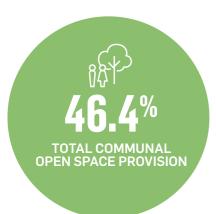
The following table and opposite diagram identifies MGN communal open space and deep soil zone provision to each of development lots:

 Table 4
 MGN Communal Open Space Provision

					COMMUNAL	OPEN SPACE
LOT NO	LOT AREA (SQM)	Communal Open Space - Ground Level	Communal Open Space - Podium Rooftop	Additional Communal Open Space - Podium Rooftop	Total Communal Open Space (sqm)	Total Communal - ADG Compliance (%)
M1	8,100	1,920	816	1,467	4,203	51.9%
M2	1,210	145	200		345	28.5%
R1	7,884	1,832	748	1,478	4,058	51.5%
R2	7,340	1,725	696	1,296	3,717	50.6%
R3	4,897	1,368	468		1,836	37.5%
R4	4,957	1,237	576		1,814	36.6%
	34,388				15,973	46.4%

Table 5MGN Deep Soil Zone Provision

					DEEP	SOIL ZONE
LOT NO	LOT AREA (SQM)	Deep Soil Zone - ADG Compliance (sqm)	Deep Soil Zone - ADG Compliance (%)	Deep Soil Zone - Private Open Space (sqm)	Total Deep Soil Zone (sqm)	Deep Soil Zone - CDCP 2015 Compliance (%)
M1	8,100	570		561	1,131	14.0%
M2	1,210	145	12.0%	0	145	12.0%
R1	7,884	558	7.1%	973	1,531	19.4%
R2	7,340	527	7.2%	929	1,456	19.8%
R3	4,897	360	7.4%	552	912	18.6%
R4	4,957	577	11.6%	598	1,176	23.7%
	34,388	2,737	8.0%	3,613	6,351	18.5%



TOTAL DEEP SOIL ZONE PROVISION WITHIN COMMUNAL OPEN SPACE





Figure 16 Communal Open Space and Deep Soil Zone Provision

Macarthur Gardens North

Residential Lot Boundary

Communal Open Space - Rooftop

Communal Open Space - Podium

Additional Communal Open Space Deep Soil Zone Deep Soil Zone - within Private Open Space

5.4 INDICATIVE RESIDENTIAL UNIT SOLAR ACCESS ANALYSIS

ADG DESIGN CRITERIA

Apartment Design Guide (ADG) identifies the following requirements for solar access to habitable rooms/ private open space:

A min. 70% of private open space/ habitable rooms receives a min. 2 hrs. sunlight in mid winter between 9AM to 3PM.

ANALYSIS SUMMARY

The following diagram analyses the indicative solar access study to the private open space/ balconies/ living room based on the indicative floor plans testing to demonstrate the ADG compliance.

Refer to the Appendix section for a detailed unit solar access analysis per floor.

 Table 6
 Lot R1 Units Solar Access Summary

	M1	M2	R1	R2	R3	R4	TOTAL
TOTAL UNITS	373	128	404	343	144	233	1625
Total Units with no sunlight (dw.)	16	5	13	24	8	15	81
Total Units with no sunlight (%)	4.3%	3.9%	3.2%	7.0%	5.6%	6.4%	5.1%
Total Units receives min. 2hr sunlight. (dw.)	339	115	285	250	101	174	1264
Total Units receives min. 2hr sunlight.	90.9%	89.8%	70.5%	72.9%	70.1%	74.7%	78.2%

UNITS RECEIVES NO SUNLIGHT IN MID WINTER GOLDSMITH AVENUE CENTRAL PARK STATION ARRIVAL PLAZA

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Figure 17 Level 2 - Indicative Floor Plan (Typical)

KEY SUMMARY

- 78.2% of all residential units receives a minimum 2 hours sunlight in mid winter, complies with the 70% minimum requirement.
- 5.1% of all residential units with no solar access, this is lower than the ADG 15% limit.

Lot Boundary Units receive min. 2hr sunlight Units receive no sunlight

INDICATIVE RESIDENTIAL UNIT CROSS VENTILATION ANALYSIS

ADG DESIGN CRITERIA

The ADG identifies the following requirements for residential unit cross ventilation:

■ A min. 60% of residential units are cross ventilated.

ANALYSIS SUMMARY

The following diagram analyse the indicative cross ventilation study to residential units based on the indicative floor plans testing of Lot R1, R2, R3, R4, M1 and M2 to demonstrate the ADG compliance.

Refer to the Appendix section for a detailed unit cross ventilation analysis

Cross ventilation can be further investigated in detail design stage and improved with considerations of fenestrations layout and building articulation.

Lot R1 Units Cross Ventilation Summary Table 7

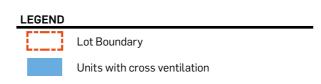
	M1	M2	R1	R2	R3	R4	TOTAL
Total Units	373	128	404	343	144	233	1,625
Total Units with cross ventilation (dw.)	248	97	248	227	108	144	1,072
Total Units with cross ventilation (%)	66.5%	75.8%	61.4%	66.2%	75.0%	61.8%	66.0%

KEY SUMMARY

 At least 66% of the total residential units are cross ventilated, hence achieves ADG minimum requirement of 60%.



Figure 18 Level 2 - Indicative Floor Plan (Typical)



5.6 SOLAR ACCESS ANALYSIS

ADG DESIGN CRITERIA

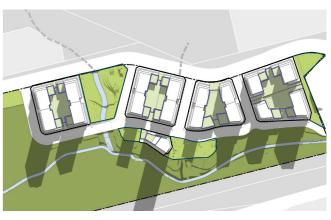
The ADG identifies the following minimum requirements for solar access to communal open space:

■ A min. 50% of principal communal open space receives a min. 2 hrs. sunlight in mid winter between 9AM to 3PM.

The following study analyse the solar access to the active open space and communal open space taken between 9AM - 3PM in mid winter.







9AM

10AM

11AM







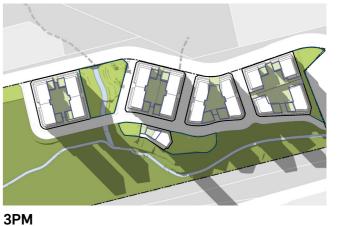


Figure 19 Shadow Analysis

1:6,000@ A3 0 25 50 75 100 125 150

SOLAR ACCESS ANALYSIS SUMMARY

The following diagram and below table summarise the solar access analysis to the active open spaces and communal open spaces to each residential lots.

 Table 8
 MGN Communal Open Space Solar Access Analysis

		COMMUNAL OPEN SPAC						
LOT NO	LOT AREA (SQM)	Total COS (sqm)	Area >2hr solar access	Area receiving >2hr solar access (%)				
M1	8,100	4,203	3,610	85.9%				
M2	1,210	345	338	98.0%				
R1	7,884	4,058	3,510	86.5%				
R2	7,340	3,717	2,717	73.1%				
R3	4,897	1,836	1,023	55.7%				
R4	4,957	1,814	1,752	96.6%				
	34,388	15,973	12,950	81.1%				

 Table 9
 MGN Active Open Space Solar Access Analysis

		ACTI	VE OPEN SPACE
	LOT AREA (SQM)	Area >2hr solar access	Area receiving >2hr solar access (%)
Station Arrival Plaza	2,946	1,594	54.1%
Central Park Main	5,210	5,210	100.0%
Central Park South	796	762	95.8%
Fitness Park	3,029	3,029	100%
	11,981	10,595	88.4%

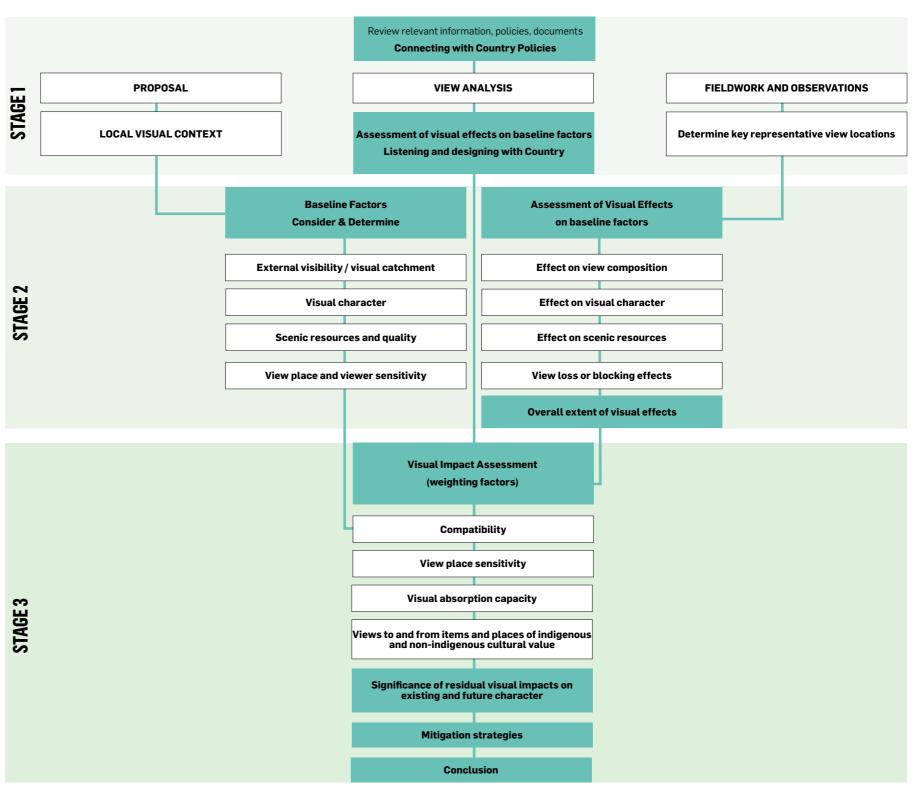
KEY SUMMARY

- 81.1% of the total communal open spaces receive a min. 2hrs sunlight in mid winter between 9AM-3PM.
- 88.4% of all active open spaces that includes Station Arrival Plaza, Central Park and Fitness Park receives a min. 2 hrs. sunlight in mid winter between 9AM-3PM.



6.0 VISUAL IMPACT ASSESSMENT

6.1 VISUAL ASSESSMENT METHODOLOGY FLOWCHART



6.2 URBIS METHODOLOGY

The methodology employed by Urbis to assess visual impacts is based on a combination of established methods used in NSW. It is based on widely adopted concepts and terminology included in multiple LVIA methods, guidelines and objectives.

In addition the Urbis VIA method draws on 30 years of academic research and publications by industry leaders whom have considered a more tailored response to assess the visual impacts of built forms in urban settings rather than landscape character visual impacts assessments (LCVIA).

An LCVIA takes a more holistic approach to changes proposed to the physical and visual landscape, which in our opinion is more appropriate to assess the impacts of development in greenfield locations or sites that are predominantly characterised by rural or open, less developed landscapes.

Reviewing and combining industry best practice, Urbis continually refines its VIA methodology so that it is appropriate for application across an urban visual context. The Urbis methodology identifies objective 'visual baseline' information about the site and surrounds, analyses the extent of visual effects or quantum of change using visual aids from key locations, and considers the importance of that change. The significance of the extent of visual effects, is explained and determined in the visual impact assessment section of the method and this report.

The Urbis method, takes into consideration other relevant factors such as the underlying strategic planning intent of the site, its immediate or wider setting. For example other methods do not consider visual compatibility with the existing or desired future character for the site or area which may allow for transformational visual change.

The Urbis method also distinguishes and places 'weight' on key factors such as view place and viewer sensitivity, physical absorption capacity etc. and considers impacts on unique settings near the site that could be potentially affected, including for example heritage items, conservation areas, views to icons and areas of high scenic quality.

Separating objective facts from subjective opinion provides a robust and comprehensive matrix for analysis and final assessment of visual impacts.

The sequence of steps and logic flow is shown graphically in the method flow chart.

Our method also has regard to:

The Landscape Institute Technical Guideline Note-Visual Representation of Development Proposals (AILA 2019)

Guidance note for Landscape and Visual Assessment (AILA 2018)

Guidelines for Landscape Character and Visual Impact assessment, Environmental Impact Assessment practice note EIA -NO4 prepared by the Roads and Maritime Services 2018 (RMS LCIA)

Urbis rely on accurately prepared and certifiable photomontages prepared by ourselves or others to satisfy the NSW Land and Environment Court photomontage policy.

6.3 VISUAL CONTEXT

The MGN Precinct is located next to Macarthur Station and surrounded by residential communities, a regional retail centre, and significant social and green infrastructure including:

- Macarthur Heights;
- Park Central;
- · Western Sydney University;
- TAFE NSW Campbelltown;
- Macarthur Square;
- · Campbelltown Public Hospital;
- · Campbelltown Private Hospital;
- · Gilchrist Oval;
- University Oval;
- · Future Sporting Fields; and
- The Australian Botanic Garden Mt Anan

A railway corridor runs east to west dissecting the precinct and creating an infrastructure barrier between north and south of the railway.

There are number of open spaces situated to the north of railway corridor within the MGN Precinct which includes Main Ridge Park, Gilchrist Oval, University Oval, John Kidd Reserve and Harvey Brown Reserve. Gilchrist Oval and John Kidd reserve are the only open space situated within 800m/ 10 mins walking from the Site.

The major open space and recreational facilities within Macarthur Precinct i.e. Park Central and Ambarvalle Sport Complex are generally located to the southern side of the rail corridor.

A number of existing vegetation communities are identified within Macarthur Precinct including the MGN Precinct. They are generally located along the waterway network that links to Mt Annan Botanical Garden to the west that is identified as Cumberland Regional Biodiversity Corridor. This vegetation is the main contributor to tree canopy cover within the area. Bow Bowing Creek is part of regional waterway network that runs from the western side of Glen Alpine to the south to Ingleside to the north. The creeks transverses the southern part of the MGN Precinct. Most of the creek has been channelised with the natural edge condition only situated within MGN Precinct and to the southwest of Campbelltown Station.

A variety of built-form typologies surrounds the site which includes low height, detached residential buildings, contemporary campus style development and commercial developments that include buildings low and mid-height buildings with large floorplates, such as Macarthur Square south of the site.

Examples of mid-height residential development are present south of the site along Stowe Street, as well as east of the site in Campbelltown.



Figure 22 View south from the Australian Botanic Garden Mt Anan.



Figure 21 Macarthur Square Shopping Centre.

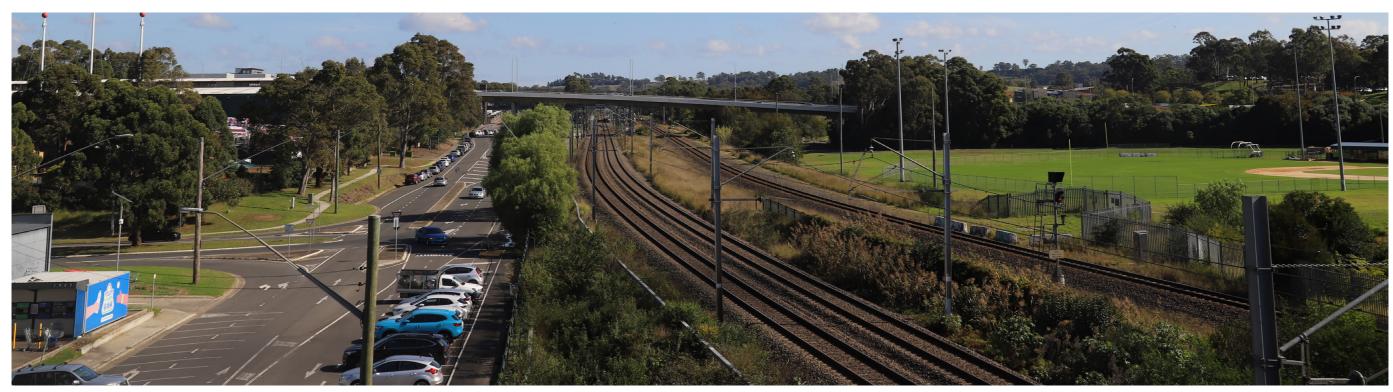


Figure 23 View west from Narellan Road bridge towards the site.



Figure 24 South-east view from elevated position in the WSU campus.



Figure 25 View south from Harvey Brown Reserve.



Figure 26 Residential flat buildings to the north-east within Campbelltown.

6.4 VISUAL CATCHMENT

The potential visual catchment is the theoretical area within which parts of the site and proposal may be visible, and, in this regard, the visual catchment is larger than the area within which there would be discernible visual effects of the proposal. The visibility of any proposed development varies depending on constraints such as the blocking effects of intervening built form, vegetation or topography.

Visibility refers to the extent to which the proposal would be physically visible, identifiable for example as a new, novel, contrasting element or alternatively as a recognisable but compatible feature.

Prior to undertaking fieldwork, Urbis undertook a desktop review of all relevant statutory and non-statutory documents in relation to views, analysed aerial imagery and topography.

PUBLIC DOMAIN VISIBILITY

- The site is adjacent to a rail corridor to the south which has a large number of daily users which would have close views to the site, but typically would be from moving situations for short durations of time.
- Similarly, close views are possible from Goldsmith Ave to the north and Gilchrist Drive to the east which include a similar composition and duration of views as from the rail corridor and Macarthur Station. Views of the proposal from these locations will be retained.
- Middle distance views to the existing site are possible from sections of Macarthur Square south of the site, WSU campus and the TAFE campus, with further middle distance views largely blocked or heavily filtered by intervening elements including built forms and vegetation which limits the visual catchment from this distance. Visibility of the proposal from this distance will increase, with the tallest tower form being a proposed 24 storeys which will increase visibility to include almost an entire 1km radius and large area of the surrounding 2km radius.
- Long distance views of the existing site are not possible due to intervening elements. The proposal will be visible from distant locations north, east and south of the site, but is largely blocked from view from the west due to topography.

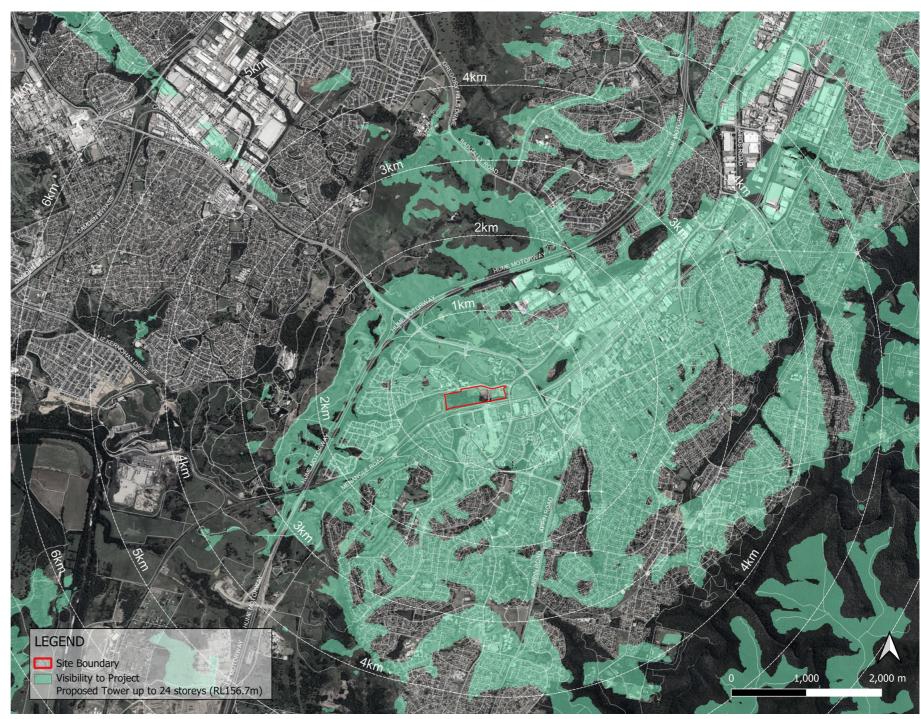


Figure 27 Viewshed Analysis

6.5 VISUAL CHARACTER OF THE SITE

The site is visually separated into two broad areas. The north eastern part of the site is a highly modified landscape that is currently undergoing extensive earthworks and includes informal roads, stockpiles and has been cleared of nearly all vegetation.

The south-western part of the site is largely undisturbed and includes large expanses of native vegetation groupings with mature trees and shrubs, as well as expanses of open grassed areas, predominantly in the western part of the site.

6.6 SCENIC QUALITY

Scenic quality relates to the likely expectations of viewers regarding scenic beauty, attractiveness, or preference. Scenic preferences typically relates to the variety of features that are present, and the uniqueness or combination of those features. Scenic quality of the visual setting of the subject site is a baseline factor against which to measure visual effects. Criteria and ratings for preferences of scenic quality and cultural values of aesthetic landscapes are based on empirical research undertaken in Australia and internationally.

Therefore, analysis of the existing scenic quality of a site or its visual context and understanding the likely expectations and perception of viewers is an important consideration when assessing visual effects and impacts.

Comment:

Approximately half of the site is a highly modified landscape which is almost entirely devoid of original vegetation or landform.

The retained vegetation on the south-west part of the site, while native, is undistinguished and lacks any unique features or compositions which sets it apart from other surrounding vegetation patches in the surrounding context.

There are no unique built forms or heritage items within or adjacent to the site.

As such, the site has a low level of scenic quality.

6.7 VIEW PLACE SENSITIVITY

This factor relates to the likely level of public interest in a view of the proposed development. The level of public interest includes assumptions made about its exposure in terms of distance and number of potential viewers. For example, close and middle-distance views from public places such as surrounding roads and intersections that are subject to large numbers of viewers, would be considered as being sensitive view places. However, the level of sensitivity depends on the nature of the view and whether it is gained from either a moving viewing situation and the duration of exposure to the view for example for short periods of time or for sustained periods.

Comment:

The proposal is in proximity to several transport corridors that have high numbers of users including the adjacent rail corridor, Menangle Road, Gilchrist Drive, Goldsmith Avenue. Views from these locations however would typically be from moving situations for brief periods of time.

Middle distance views to the existing site are possible from sections of Macarthur Square south of the site, WSU campus and the TAFE campus, with further middle distance views largely blocked or heavily filtered by intervening elements including built forms and vegetation which limits the visual catchment from this distance. Visibility of the proposal from this distance will increase, with the tallest tower form being a proposed 24 storeys which will increase visibility to include almost an entire 1km radius and large area of the surrounding 2km radius.

6.8 VIEWER SENSITIVITY

Viewer sensitivity is a judgment as to the likely level of private interest in the views that include the proposed development and the potential for private domain viewers to perceive the visual effects of the proposal. The spatial relationship (distance), the length of exposure and the viewing place within a dwelling are factors which affect the overall rating of the sensitivity to visual effects.

Comment:

Residential development surrounding the proposal is characterised by low height, detached residential built-form. As such, views from internal ground floors are unlikely to include views of the proposal due to their relative viewing height and proximity to neighbouring dwellings blocking views to the proposal. Dwellings with second stories will potentially have views towards the proposal but will be limited by neighbouring development of a similar height, dwelling orientation and intervening elements including large, mature vegetation.

Residential flat buildings in close proximity to the site and proposal with elevated views are limited to three buildings south-west of the site along Stowe Avenue. Dwellings with north and north-east orientations are likely to have clear views of the proposal due to their proximity and a currently open expanse of undeveloped land between the RFB's and the proposal site.



Figure 28 Narellan Road east of the site.



Figure 29 The site viewed from Macarthur Station

6.9 USE OF PHOTOMONTAGES

Prior to undertaking fieldwork, Urbis undertook a desktop review of all relevant statutory and non-statutory documents, an analysis of aerial imagery and topography and lidar data to establish the potential visual catchment to inform fieldwork inspections. Following fieldwork Urbis selected and recommended 4 public view locations for further analysis.

View No.	VIEWPOINT LOCATION
View 01	North-west view from Appin Road & Therry Road
View 02	View west from Narellan Road bridge
View 03	View south-east from Khosa Lookout
View 04	Narellan Road West

6.10 CERTIFICATION OF PHOTOMONTAGES

The accuracy of the locations of the 3D model of the proposed development inserted into digital photographs has been checked by Urbis in multiple ways:

- 1. The model was checked for alignment and height with respect to the 3D survey and adjacent surveyed reference markers which are visible in the images.
- 2. The location of the camera in relation to the model was established using the survey model and the survey locations, including map locations and RLs. Focal lengths and camera bearings in the meta data of the electronic files of the photographs are known.
- 3. Reference points from the survey were used for cross-checking accuracy in all images.
- 4. No significant discrepancies were detected between the known camera locations and those predicted by the computer software. Minor inconsistencies due to the natural distortion created by the camera lens, were reviewed by Urbis and were considered to be within reasonable limits.

Urbis is satisfied that the photomontages have been prepared in accordance with the Land and Environment Court of New South Wales practice direction.

Urbis certifies, based on the methods used and taking all relevant information into account, that the photomontages are as accurate as is possible in the circumstances and can be relied upon by the Court for assessment.



Figure 30 Viewpoint location map.

NORTH-WEST VIEW FROM APPIN ROAD & THERRY ROAD

DISTANCE CLASS

- Distant
- 1450m

EXISTING COMPOSITION OF THE VIEW

The foreground composition is characterised by an open expanse of sloped turf bordered by a turfed embankment adjacent to Therry Road and a row of large, mature trees adjacent to low density residential development.

The mid-ground composition includes tree canopy north of Therry Road and residential roof forms beyond.

Distant views include further tree canopy with undulating, vegetated topography beyond which includes the Australian Botanic Garden Mount Annan and rural and conservation land north of Narellan Road.

VISUAL EFFECTS OF THE PROPOSED DEVELOPMENT ON THE COMPOSITION AS MODELLED

The foreground and mid-ground composition are unaffected by the proposal, with mid-ground elements partially blocking the proposal.

The proposal introduces new, contemporary built-form to the distant composition, with proposed built-form to the west of the site, including the proposed landmark building visible. The majority of the proposed built-form remains below the ridgeline beyond, with only the upper part of the landmark building projecting above.

The proposal is viewed in a wide visual composition with the intrinsic character of the view retained.

The proposal does not block views to any heritage items.

Visual effects of proposed development (quantum of	change)	
Visual Character	low	
Scenic Quality	low	
View Composition	low	
Viewing Period	low	
Viewing Distance	low	
View Blocking of Scenic Elements	low	
Overall rating of effects on baseline factors	low	
Weighting Factors		
Public Domain View Place Sensitivity	medium-low	
Physical Absorption Capacity	high	
Compatibility with Urban Context and Visual Character	medium-high	

See section 6.18 for overall visual impact rating.



Figure 31 Viewpoint location.



Figure 32 Viewpoint 01 existing view.



Figure 33 Viewpoint 01 photomontage.

VIEW WEST FROM NARELLAN ROAD BRIDGE

DISTANCE CLASS

- Medium
- 475m

EXISTING COMPOSITION OF THE VIEW

The composition includes road and rail corridors in the foreground and mid-ground composition that recede west into the distance.

Adjacent to the rail corridor in the mid-ground is the open expanse of Gilchrist Oval which includes a baseball diamond and small associated structures including change rooms and duqout.

The long distance composition is characterised by gently undulating vegetated topography west of the site.

VISUAL EFFECTS OF THE PROPOSED DEVELOPMENT ON THE COMPOSITION AS MODELLED

The foreground composition is unaffected by the proposal, including the public recreation open space Gilchrist Oval and surrounding vegetation.

New, contemporary built-form is introduced to the mid-ground composition which blocks a small amount of mature vegetation beyond and sections of open sky.

The proposal is viewed in a moderately wide visual composition where the proposal appears as taller and bulkier built-form to what is currently visible.

The proposal does not block views to scenic or highly valued features and does not block views to any heritage items.

medium-low low medium-low low
medium-low
low
LOVV
medium
low
Medium-low

Weighting Factors

Public Domain View Place SensitivitylowPhysical Absorption CapacitymediumCompatibility with Urban Context and Visual
Charactermedium-high

See section 6.18 for overall visual impact rating.



Figure 34 Viewpoint location.



Figure 35 Viewpoint 02 existing view.



Figure 36 Viewpoint 02 photomontage.

VIEW SOUTH-EAST FROM KHOSA LOOKOUT

DISTANCE CLASS

- Distant
- 1750m

EXISTING COMPOSITION OF THE VIEW

The foreground composition is comprised of a solid line of large, mature trees within the north-eastern section of Australian Botanic Garden which blocks views to the mid-ground composition beyond.

Distant views are characterised by a wide expanse of upper tree canopy cover and low height building roof forms due to the elevated viewpoint location. Isolated examples of taller built forms are present including Campbelltown Hospital and medium height residential flat buildings within Macarthur to the right of the view.

VISUAL EFFECTS OF THE PROPOSED DEVELOPMENT ON THE COMPOSITION AS MODELLED

The foreground and mid-ground composition are unaffected by the proposal, with mid and upper sections of the proposal visible above intervening elements.

The lower height buildings (ranging from 9 to 16 stories) appear as comparable scale built-form to some existing buildings in the view composition including the Campbelltown Hospital and residential flat buildings west of Macarthur Square.

The proposed landmark building (24 stories) appears as a tall, slim tower form that does not project above the distant ridgeline and blocks a small section of nondescript canopy cover and roof forms beyond.

The proposal is viewed in a wide visual composition amongst existing examples of similar scale built-forms, with the intrinsic character of the wider composition remaining intact.

Visual effects of proposed development (quantum of change)					
Visual Character	low				
Scenic Quality	low				
View Composition	low				
Viewing Period	medium				
Viewing Distance	low				
View Blocking of Scenic Elements	low				
Overall rating of effects on baseline factors	low				
Overall rating of effects on baseline factors Weighting Factors	low				
	low				
Weighting Factors					

See section 6.18 for overall visual impact rating.



Figure 37 Viewpoint location.



Figure 38 Viewpoint 03 existing view.



Figure 39 Viewpoint 03 photomontage.

NARELLAN ROAD WEST

DISTANCE CLASS

- Medium
- 600m

EXISTING COMPOSITION OF THE VIEW

The foreground is characterised by undulating turfed topography north of the Western Sydney University campus.

The mid-ground composition is comprised of a large landscaped area that includes water bodies and groups of large, mature trees which block views to the built-form within the campus.

The distant view is a wide composition that includes tree canopy cover, mid and upper sections of development around Macarthur Square, Campbelltown Hospital and distant ridgelines to the south-east.

VISUAL EFFECTS OF THE PROPOSED DEVELOPMENT ON THE COMPOSITION AS MODELLED

The foreground composition is unaffected by the proposal, including the public recreation open space Gilchrist Oval and surrounding vegetation.

New, contemporary built-form is introduced to the mid-ground composition which blocks a small amount of mature vegetation beyond and sections of open sky.

The proposal is viewed in a moderately wide visual composition where the proposal appears as taller and bulkier built-form to what is currently visible.

The proposal does not block views to scenic or highly valued features and does not block views to any heritage items.

Visual effects of proposed development (quantum of ch	nange)		
Visual Character	medium-low		
Scenic Quality	low-medium		
View Composition	medium-low		
Viewing Period	low medium		
Viewing Distance			
View Blocking of Scenic Elements	low		
Overall rating of effects on baseline factors	low-medium		
Overall rating of effects on baseline factors Weighting Factors	low-medium		
	low-medium		

medium

See section 6.18 for overall visual impact rating.

Compatibility with Urban Context and Visual



Figure 40 Viewpoint location.



Figure 41 Viewpoint 04 existing view.



Figure 42 Viewpoint 04 photomontage.

Having determined the extent of the visual change based on the 3 representative modelled views (photomontages) Urbis have applied relevant weighting factors to determine the overall level of visual impacts or importance of the visual effects. The factors have been considered in relation to the visual effects to provide up-weight or down-weights and to determine a final impact rating.

The weighting factors include sensitivity, visual absorption capacity and compatibility with urban features.

6.11 SENSITIVITY

The overall rating for view place sensitivity was weighted according to the influence of variable factors such distance, the location of items of heritage significance or public spaces of high amenity and high user numbers.

Urbis Comment:

The proposal is not adjacent to or in close proximity to any locally listed or State heritage items.

The site is adjacent to a rail corridor, Menangle Road and Goldsmith Avenue which all would typically have a large number of daily users who would have close views and include pedestrians, cyclists, vehicles and train passengers.

The site is adjacent to a specialised recreation space to the east which is occupied by a baseball diamond (as opposed to a more general open space designed to cater for varied uses that would likely be utilised by a larger number of users).

View place sensitivity is rated as low.

6.12 PHYSICAL ABSORPTION CAPACITY

Physical Absorption Capacity (PAC) means the extent to which the existing visual environment can reduce or eliminate the perception of the visibility of the proposed redevelopment.

PAC includes the ability of existing elements of the landscape to physically hide, screen or disguise the proposal. It also includes the extent to which the colours, material and finishes of buildings and in the case of buildings, the scale and character of these allows them to blend with or reduce contrast with others of the same or closely similar kinds to the extent that they cannot easily be distinguished as new features of the environment.

Prominence is also an attribute with relevance to PAC. It is assumed in this assessment that higher PAC can only occur where there is low to moderate prominence of the proposal in the scene.

- Low to moderate prominence means:
 - Low: The proposal has either no visual effect on the landscape or the proposal is evident but is subordinate to other elements in the scene by virtue of its small scale, screening by intervening elements, difficulty of being identified or compatibility with existing elements.
 - Moderate: The proposal is either evident or identifiable in the scene, but is less prominent, makes a smaller contribution to the overall scene, or does not contrast substantially with other elements or is a substantial

element, but is equivalent in prominence to other elements and landscape alterations in the scene.

Urbis Comment:

The existing visual environment has a medium capacity to absorb the visual changes demonstrated in the assessed views.

Built form, vegetation and topography in both the immediate and more distant context screen lower sections of the proposal from view to varying degrees and limits the ability to perceive changes in the assessed existing visual compositions.

More distant and elevated views provide opportunities to view the proposal as a whole (or larger sections of the proposal) however it is typically viewed in a wide composition where the proposal occupies a small section of the existing composition and may be viewed amongst existing comparable built forms (eg View 3).

6.13 VISUAL COMPATIBILITY

Visual Compatibility is not a measure of whether the proposal can be seen or distinguished from its surroundings. The relevant parameters for visual compatibility are whether the proposal can be constructed and utilised without the intrinsic scenic character of the locality being unacceptably changed. It assumes that there is a moderate to high visibility of the project to some viewing places. It further assumes that novel elements which presently do not exist in the immediate context can be perceived as visually compatible with that context provided that they do not result in the loss of or excessive modification of the visual character of the locality.

A comparative analysis of the compatibility of similar items to the proposal with other locations in the area which have similar visual character and scenic quality or likely changed future character can give a guide to the likely future compatibility of the proposal in its setting.

Urbis Comment:

The proposal is located within an urbanised area that includes existing contemporary built forms including examples of building with large floorplates (Macarthur Gardens) and medium height residential development to the south of the site along Stowe

All views were rated as having a medium-high to high compatibility which provides a 'down-weight' to the level of visual effects, reducing their importance.

As such, the proposal has a medium-high level of visual compatibility with the existing visual environment.

6.14 VIEWING PERIOD

Viewing period in this assessment refers to the influence of time available to a viewer to experience the view to the site and the visual effects of the proposed development. Longer viewing periods, experienced either from fixed or moving viewing places such as dwellings, roads or waterways, provide for greater potential for the viewer to perceive the visual effects.

Urbis Comment:

Visual effects of the proposal with regard to viewing periods from close locations in the public domain are low, typically from moving viewing situations (including

pedestrian, vehicle and train users) and experienced for short periods from surrounding transport corridors.

Similarly, viewing periods from more distant public domain locations are for short durations of time, with the exceptions being from distant public domain open recreation space including from the Australian Botanic Garden where the views may be viewed for more sustained periods of time but viewed in a wide visual composition.

6.15 VIEWING DISTANCE

Viewing distance can influence on the perception of the visual effects of the proposal which is caused by the distance between the viewer and the development proposed. It is assumed that the viewing distance is inversely proportional to the perception of visual effects: the greater the potential viewing distance, experienced either from fixed or moving viewing places, the lower the potential for a viewer to perceive and respond to the visual effects of the proposal.

Urbis Comment:

Views of the proposal are possible from close, medium and distant locations. Close view locations will typically include only partial views of the proposal (the lower and mid-sections) or be partially be blocked by intervening elements, whereas more distant views locations have the potential to view the entirety of the proposal in a wide visual compositional.

6.16 SIGNIFICANCE OF RESIDUAL VISUAL IMPACTS

The final question to be answered after the mitigation factors are assessed, is whether there are any residual visual impacts and whether they are acceptable in the circumstances. These residual impacts are predominantly related to the extent of permanent visual change to the immediate setting.

In terms of the urban component of the development, residual impacts relate to individuals' preferences for the nature and extent of change which cannot be mitigated by means such as colours, materials and the articulation of building surfaces. These personal preferences are to, or resilience towards change to the existing arrangement of views. Individuals or groups may express strong preferences for either the existing, approved or proposed form of urban development.

Urbis Comment:

The residual impacts are considered low and acceptable given the location of the site and surrounding visual context which is urbanised and includes varied examples of built-form development.

While the proposed landmark building is taller from what is in the immediately surrounding visual context, it is visually compatible with existing examples of built-forms adjacent to major transport corridors and would be unlikely to be viewed as an unexpected feature of the visual composition given its location. The lower height proposed built-form is comparable to existing examples in the medium catchment including residential development on Stowe Avenue and Campbelltown Hospital.

6.17 APPLYING THE 'WEIGHTING' FACTORS

To arrive at a final level of significance of visual impact, the weighting factors are applied to the overall level of visual effects.

Table 2 - Summary of Visual Effects and Weighting Factors.

Visual Effect Rating	VP1	VP2	VP3	VP4
Visual Character	Low	Medium-low	Low	Medium-low
Scenic Quality	Low	Low	Low	Low-medium
View Composition	Low	Medium-low	Low	Medium-low
Viewing Period	Low	Low	Medium	Low
Viewing Distance	Low	Medium	Low	Medium
View Blocking of Scenic Elements	Low	Low	Low	Low
Weighting Factors				
Public Domain View Place Sensitivity	Medium-low	Low	High	Low-medium
PAC	High	Medium-low	High	Low-medium
Compatibility with Urban & Visual Context	Medium-low	Medium-high	High	Medium

6.18 OVERALL VISUAL IMPACTS

VP1 - Low

VP2 - Low

VP3 - Low

VP4 - Low-medium.

Taking into consideration the existing visual context and baseline factors against which to measure change, the level of visual effects of the proposed development and in the context of additional weighting factors, the visual impacts of the proposed development were found to be acceptable.

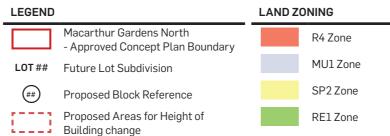
6.19 SUMMARY

- The built form proposed is not dissimilar in character, form and height to those in the surrounding visual context.
- Analysis of 4 public domain photomontages found that:
 - The proposal creates low to medium visual effects (extent of visual change) on the majority of baseline factors.
 - The visual impacts for the assessed viewpoints ranges from Low to Lowmedium.
 - The proposal does not block views to any heritage items or areas of unique scenic quality.
 - From distant views the proposal is viewed in a wide visual composition which reduces the visibility and visual impact of the proposal.
- Physical Absorption Capacity (PAC) within the close surrounding context is medium to high and lessens the visual effects and impacts of the proposal.
- The proposal has a high level of compatibility with similar developments located along major transport corridors.

7.0 PROPOSED LEP AMENDMENTS

LAND ZONING MAP





7.2 HEIGHT OF BUILDING MAP

The Planning Proposal is to maintain the outcomes in the Approved Concept Plan 2022 and proposing a limited scope to the amendment, isolated to the blanket Height of Building (HoB) of 32m within Macarthur Gardens North as follows:

- 49m to the southern part of proposed Lot 13 (Block R2);
- 56m to the southern part of proposed Lot 12 (Block M1);
- 62m to the southern part of proposed Lot 11 (Block R1) and Lot 15 (Block R4); and
- 85m to the southern part of proposed Lot 17 (Block M2).

All remaining lots are to be retained as 32m in height .

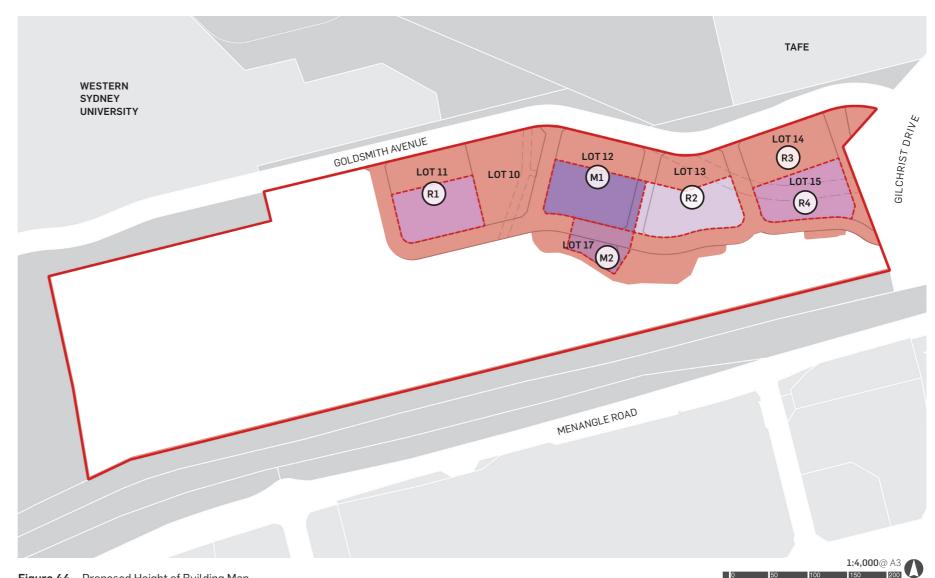


Figure 44 Proposed Height of Building Map

