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AJC for Cottonwood Development Pty Ltd

26 June 2026

88 Waterloo Road Development

Response to Submissions (Architecture & Urban Design)

Macquarie Park is within Wallumattagal Country of the Dharug Nation. AJC’s Chippendale office is in Turpentine-Ironbark Country within the traditional lands of the Gadigal people of the Eora Nation.

We acknowledge that by operating within this Country we have a responsibility to contribute to its care.

We pay our respects to Elders past, present and emerging; recognising their culture, wisdom and knowledge.

Lisa-Jane Van Dyk

This artwork represents the Southern Cross in the night sky, which First Nations tribes used for travelling. Each dot represents a star in the constellation. For some tribes, the position of certain stars within the constellation indicated if it was nesting season for certain animals, and therefore eggs could be harvested.

88 Waterloo

Response to Submissions (Architecture & Urban Design)

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Date	Rev.	Status	By	Checked
26.06.2026	B	Issue for RtS	KG	MG

Executive Summary

This report has been prepared in response to the Department of Planning, Housing and Infrastructure's ('DPHI') request for a Response to Submissions ('RtS') for the proposed mixed-use development at 15–21 Cottonwood Crescent, Macquarie Park ('88 Waterloo').

The Department's RtS letter is the primary document guiding this response. It requires the proponent to address matters raised during the public exhibition of the Environmental Impact Statement, including submissions from Council and advice received from government agencies

The purpose of this report is to contribute to the proponent's response to those matters insofar as they relate to architecture and urban design. It should therefore be read as one component of the broader Response to Submissions package. Matters outside the scope of architecture and urban design are addressed separately in the urban planner's Response to Submissions report or in the relevant specialist consultant reports. This includes a number of agency responses including advice from Sydney Water, Transport for NSW, CASA and DCCEEW relating to infrastructure servicing, transport, aviation, biodiversity, flooding, groundwater and water management.

Particular attention in this report is given to the City of Ryde submission, Council's comments are specifically relevant to many of the architecture and urban design issues identified through the Department's RtS process. Council's submission raises a range of themes relating to built form, density, tower arrangement, public domain interface, residential amenity, overshadowing, landscaping, tree retention, access, servicing and the proposal's relationship to surrounding residential development and nearby open space.

This report responds to those themes by explaining the design rationale for the proposal and the way in which the scheme has been reviewed, clarified and refined following exhibition. The response considers the proposal's strategic and urban context, the role of the site within the continuing renewal of Macquarie Park, and the suitability of the proposed built form for a high-density, transit-oriented location.

In this RtS report the 88 Waterloo proposal is considered against relevant design principles including apartment amenity, solar access, natural ventilation, private and communal open space, building separation, facade articulation, podium design, ground plane activation, landscape integration and the interface with Elouera Reserve, Waterloo Road and Cottonwood Crescent. The report demonstrates that the proposal is capable of delivering a high level of residential amenity while contributing positively to the character and evolution of the locality.

Overall, the proposal has been appropriately considered in response to the Department's Request for Response to Submissions and the key architecture and urban design matters raised during exhibition. The design provides a considered built form, strong residential amenity, an improved public domain relationship and a high-quality contribution to the ongoing evolution of Macquarie Park. On this basis, the project is supported.



1. Responses to DPHI Commentary



1.1. Compliance with the NSW Apartment Design Guide (ADG)

The Response to Submissions (RtS) summary from DPHI requests further clarification on most major items of the NSW Apartment Design Guide (ADG) compliance.

Note that, although the term 'compliance' is used in the RtS and repeated in this document, the ADG is not intended to be a strict compliance document. As per DPHI Guide Notes and confirmed by recent LEC rulings, the Apartment Design Guide is a flexible policy document rather being intended as a rigid, strictly enforceable rulebook.

The current proposal is for a very tall building, which has significantly different requirements than the buildings used in most examples in the ADG.

1.1.1 Cross Ventilation

ISSUE RAISED

"Cross ventilation is achieved only with reliance on a 'potential cross ventilation design solution' which has not been validated. Drawings illustrate the use of entryways and internal corridors for ventilation."

ADG Design Criteria

At least 60% of apartments are naturally cross ventilated in the first nine storeys of the building.

RESPONSE

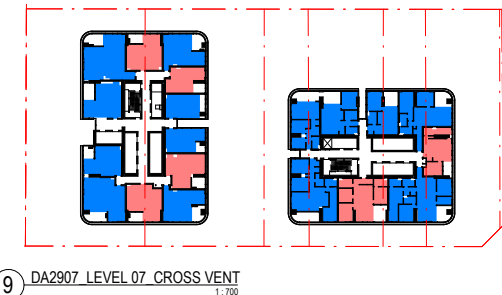
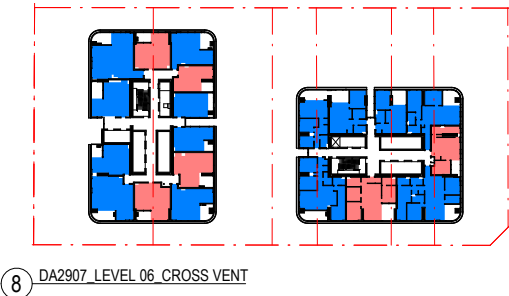
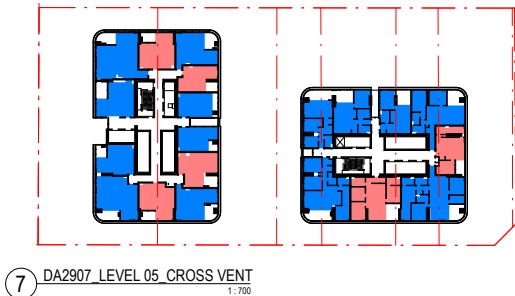
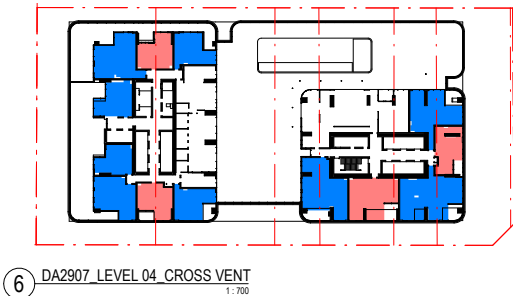
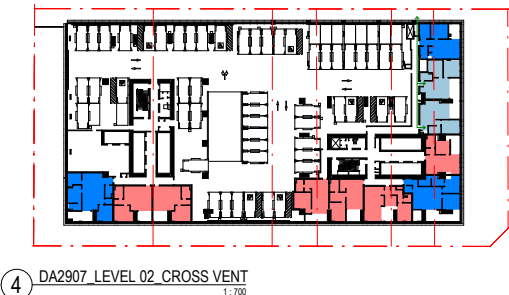
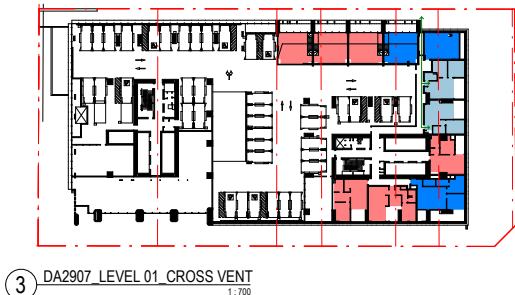
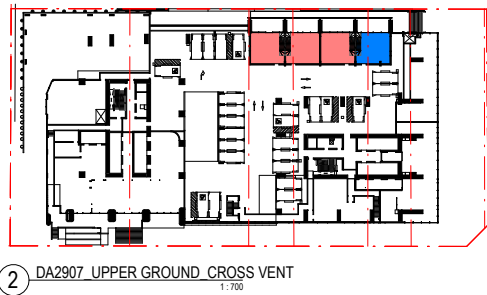
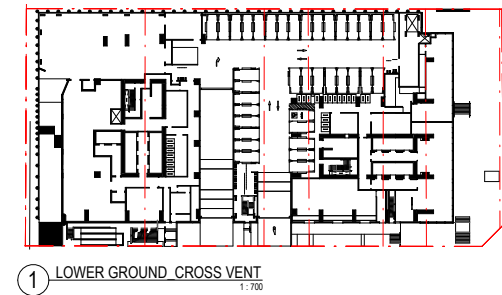
The drawings below illustrate how ADG Natural Cross Ventilation targets are met.

Many of the units on the lower floors 'sleeve' the above ground parking levels. These make strict compliance with ADG guidance more difficult to meet than a mid-rise building. The lower levels to which the ADG applies cross-ventilation guidance only represent <15% of the units in the building.

The drawings show cross-ventilation is achieved through a) corner apartments and b) deep recesses.

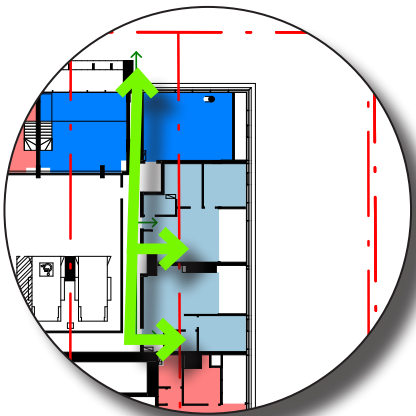
The solution for an additional 4 apartments in the podium along Waterloo Road is to use a ducted plenum to the adjacent corner of the building. An internal louvre inside the apartment will allowing the resident to control the natural flow of ventilation.

Number of Apartments (first 9 storeys)	106
Apartments naturally cross ventilated	64
60.4% (Complies with ADG Guidance)	



LEGEND

YES_C	NATURAL CROSS VENTILATION.
YES_V	CROSS VENTILATION THROUGH DUCTED PLENUM
NO	NO



ROUTE OF DUCTED PLENUM

1.1.2 Number of Dwellings Per Core

ISSUE

"Levels 5 to 9 and 11 to 22 of the Cottonwood Tower have more than eight dwellings off a single circulation core."

ADG Objective 4F-1

Common circulation spaces achieve good amenity and properly service the number of apartments.

Design criteria

1. The maximum number of apartments off a circulation core on a single level is eight.

Design guidance

Achieving the design criteria for the number of apartments off a circulation core may not be possible. Where a development is unable to achieve the design criteria, a high level of amenity for common lobbies, corridors and apartments should be demonstrated, including:

- sunlight and natural cross ventilation in apartments
- access to ample daylight and natural ventilation in common circulation spaces
- common areas for seating and gathering
- generous corridors with greater than minimum ceiling heights
- other innovative design solutions that provide high levels of amenity

Where design criteria 1 is not achieved, no more than 12 apartments should be provided off a circulation core on a single level"

RESPONSE

As copied to the left, although one of the ADG Design Criteria mentions a maximum eight dwellings off a circulation core, this is not typically interpreted as a strict requirement. The ADG itself immediately clarifies the criteria with Design Guidance.

That Design Guidance states that "where Design Criteria 1 is not achieved, no more than 12 apartments should be provided off a circulation core on a single level."

Levels 5 to 9 and level 11 to 22 of the Cottonwood Tower have 12 and 11 apartments per core. This complies with the guidance.

The rest of the objectives of the Design Guidance are also met through the prioritisation of a high level of amenity for common lobbies, corridors and apartments.

Specifically:

- All corridors have access to natural light and natural ventilation (ventilation needs to be controlled at upper levels)
- Corridor lengths are reduced (no gun barrel corridors)
- Private entries are created through the use of alcoves
- Sunlight and natural cross ventilation to apartments

Additionally the proposed design complies with all accessible, BCA and fire engineering requirements.

As per Objective 4F-1 the proposed design achieves a high level of amenity to the common circulation spaces.



1.1.3 Internal Area

ISSUE
Several dwellings do not meet the minimum requirements for internal area.

ADG Objective 4D-1
The layout of rooms within an apartment is functional, well organised and provides a high standard of amenity.

Design Criteria
1. Apartments are required to have the following minimum internal areas:

Apartment type	Minimum internal area
Studio	35m ²
1 bedroom	50m ²
2 bedroom	70m ²
3 bedroom	90m ²

The minimum internal areas include only one bathroom. Additional bathrooms increase the minimum internal area by 5m² each.

A fourth bedroom and further additional bedrooms increase the minimum internal area by 12m² each

2. Every habitable room must have a window in an external wall with a total minimum glass area of not less than 10% of the floor area of the room. Daylight and air may not be borrowed from other rooms.

RESPONSE
The apartment areas generally comply. There are some minor non compliances of 1m² to apartment areas as noted in the apartment schedule in the RtS Architectural Documentation.

The structure has been rationalised so that apartment layouts are highly functional, well organised and provide a high standard of amenity. Apartments have open plan kitchens, can be fully furnished, complying storage, solar access, and a high area of glass for natural light and ventilation.

However not complying with the Design Criteria numeric requirement the Apartment sizes and layouts meet the ADG Objectives 4D-1.

1.1.4 Private Open Space

ISSUE
Several dwellings do not meet the minimum requirements for primary private open space because balconies are undersized or because the location of structural elements reduce the usable area.

ADG Objective 4E-1
Apartments provide appropriately sized private open space and balconies to enhance residential amenity.

Design Criteria
1. All apartments are required to have primary balconies as follows:

Dwelling type	Minimum area	Minimum depth
Studio	4m ²	-
1 bedroom	8m ²	2m
2 bedroom	10m ²	2m
3+ bedroom	12m ²	2.4m

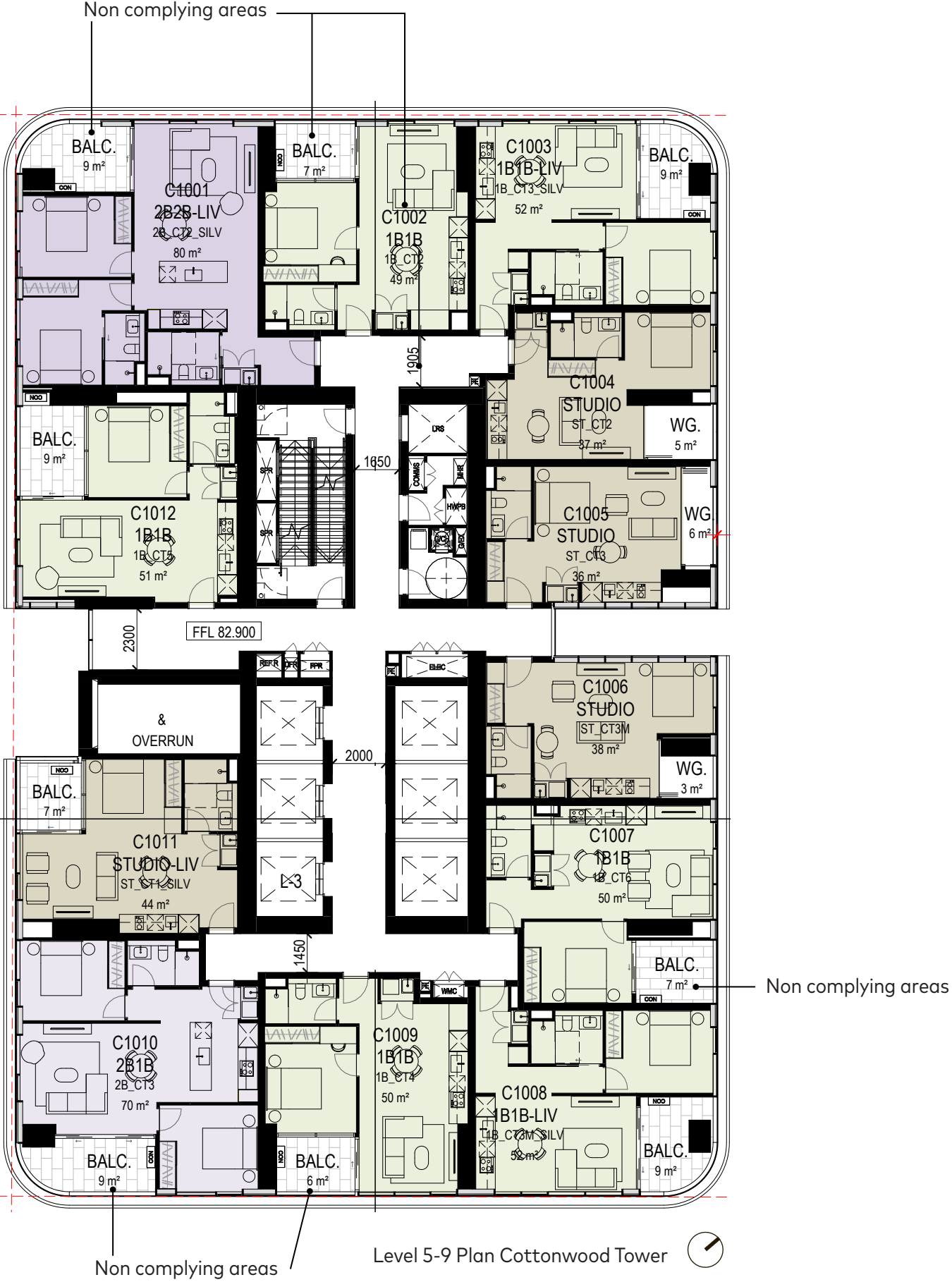
The minimum balcony depth to be counted as contributing to the balcony area is 1m.

2. For apartments at ground level or on a podium or similar structure, a private open space is provided instead of a balcony. It must have a minimum area of 15m² and a minimum depth of 3m.

RESPONSE
The private open space (POS) areas generally comply. There are some minor non compliances of 1m² to POS areas as noted in the apartment schedule in the RtS Architectural Documentation.

The balcony and wintergarden layouts are highly functional, rectangular in form with columns located to the perimeter of the space. Wintergardens have frameless glass bi-fold doors that allow seamless connection with the living rooms and an extension of the living area. POS comply with minimum depth requirements and apartments located on the Level 4 podium roof have larger terrace POS where possible.

However not complying with the Design Criteria numeric requirement the Apartment sizes and layouts meet the ADG Objectives 4E-1.



1.1.5 Habitable Space

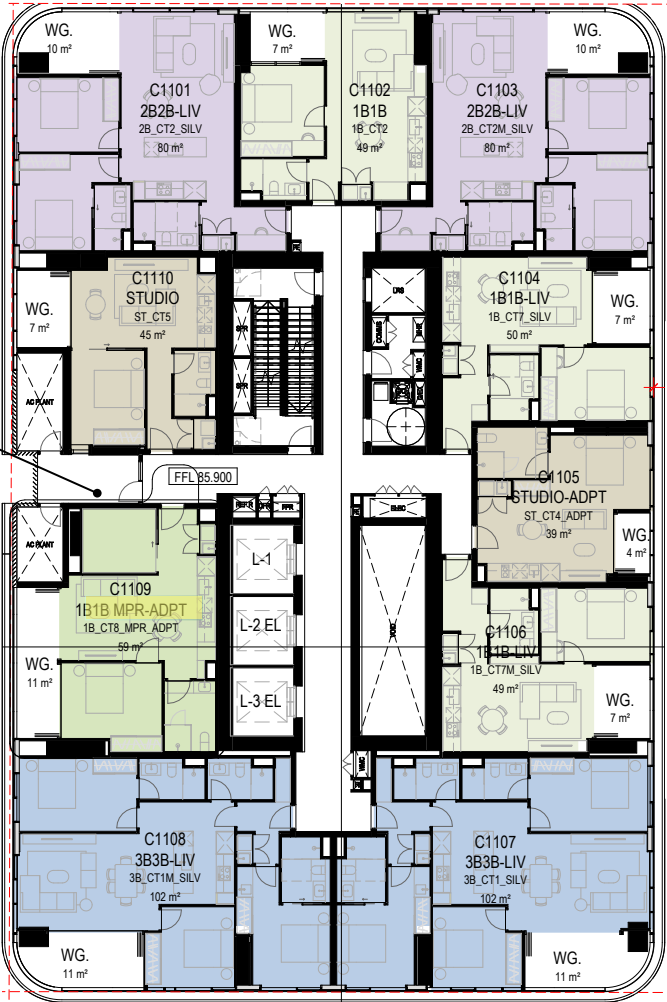
ISSUE

Several dwellings are illustrated as having a habitable MPR (assumed to mean multi -purpose room) that do not have windows.

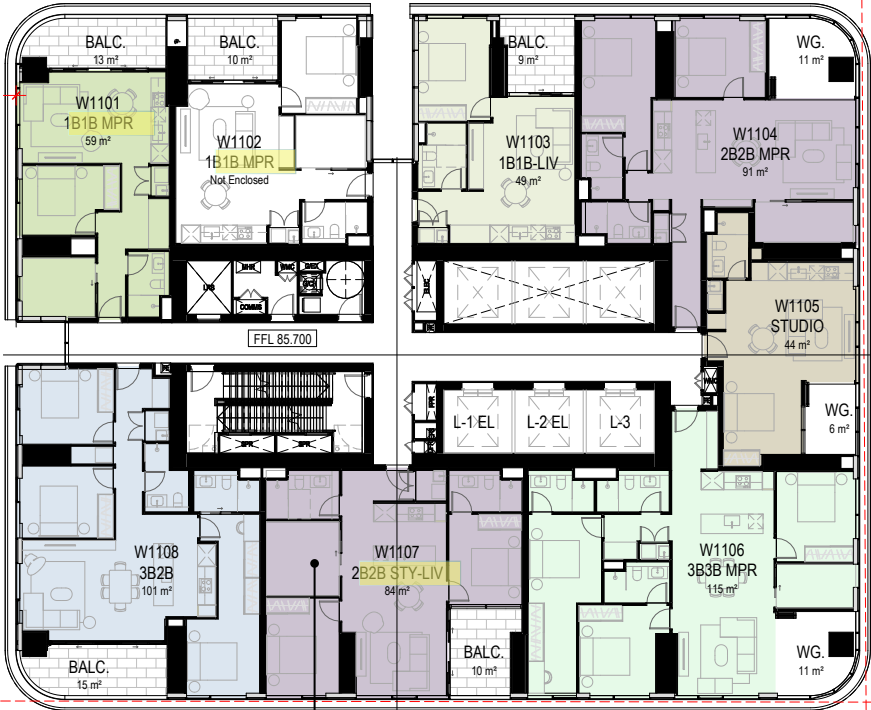
RESPONSE

MPR is an abbreviation for Multi Purpose Room.
This has abbreviation has been added to the abbreviations list on the Project Summary Sheet DA0001.
Apartments indicated as an MPR that have no windows to the MPR have been amended to STR - Store Room on the SSDA plans.

MPR - Multi Purpose Room (high level window)



Level 11-19 Plan



STR - Store Room

1.1.6 Sunlight Access

ISSUE

Only 68.3% of the proposed dwellings achieve appropriate sunlight access at midwinter.

ADG Objective 4A-1

To optimise the number of apartments receiving sunlight to habitable rooms, primary windows and private open space.

Design criteria

1. Living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of 2 hours of direct sunlight between 9am and 3pm mid winter in Sydney Metropolitan area.

Design Guidance

Achieving the design criteria may not be possible on some sites. This includes:

- where greater residential amenity can be achieved along a busy road or rail line by orientating the living rooms away from the noise source
- on south facing sloping sites
- where significant views are oriented away from the desired aspect for direct sunlight

Design drawings need to demonstrate how site constraints and orientation preclude meeting the design criteria and how the development meets the objective

RESPONSE

As described previously, the ADG is intended to serve as a flexible policy document rather than rigid, strictly enforceable rulebook. In the case of the 1.7% 'miss' on technical compliance with solar access guidance, this is due to an intentional design decision that aligns with the ADG's Design Guidance that again clarifies the numeric ADG Design Criteria.

The technical numerical non-compliance is caused by 13 apartments on the Cottonwood Tower, one run from Level 45 - 57, that have been intentionally designed to face south towards the significant city and harbour bridge views, instead of towards north where the views are considered inferior.

If the ADG was intended as a rigid rulebook analogous to an LEP, then the plan could have been mirrored to face these 13 apartments to the north which would then achieve 70% solar access. Instead, the design team has noted the row of units are in a location "where significant views are oriented away from the desired aspect for direct sunlight", being a specific example called out the ADG's Design Guidance, and instead prioritised that alternative amenity over strict compliance with a numeric Design Criteria.

Cottonwood Tower – 69.9%
302 apartments from 432 receive 2 hours of solar access.
Waterloo Tower – 67.1%
286 apartments from 426 receive 2 hours of solar access.
Subtotal 68.5%

If Daylight Access was instead prioritised over City Views, an additional 1.5% of units could increase their solar access for a total of **70% (which would comply)**.



1.1.7 Deep Soil & Landscaping Outcomes

ISSUE

A number of deep soil zones do not meet the minimum 6m dimension.

ADG Objective 3E-1

Deep soil zones provide areas on the site that allow for and support healthy plant and tree growth. They improve residential amenity and promote management of water and air quality.

Design Criteria

1. Deep soil zones are to meet the following minimum requirements:

7% of site area and minimum dimensions 6m.

Design Guidance

Achieving the design criteria may not be possible on some sites including where:

- the location and building typology have limited or no space for deep soil at ground level (e.g. central business district, constrained sites, high density areas, or in centres)
- there is 100% site coverage or non-residential uses at ground floor level

Where a proposal does not achieve deep soil requirements, acceptable stormwater management should be achieved and alternative forms of planting provided such as on structure.

RESPONSE

As described, the ADG is guidance rather than fixed controls. The Design Guidance for Deep Soil specifically calls out high density areas in centres like 88 Waterloo in Macquarie Park, as being areas where the Design Criteria for Deep Soil may not be met.

("Achieving the design criteria may not be possible on some sites including where the location and building typology have limited or no space for deep soil at ground level (e.g. central business district, constrained sites, high density areas, or in centres").

The scheme nevertheless aims to comply with the objectives of deep soil. The ADG allows for deep soil zones as narrow as 3m on smaller sites, acknowledging that 6m is not always achievable. That is, 3m depths are still considered deep soil on many sites, achieving the same objectives as the 6m expectation in larger sites outside of centres.

It is therefore considered that, in the current proposal, the 3m and 5m wide deep soil zones contributes to the ADG's objectives of deep soil and should be counted. This is particularly true since these zones are immediately adjacent the road reserve, and so may consolidate with the deep soil there.

Site Area	5,130m ²
Required Deep Soil Area	359m ²
Proposed Deep Soil 6x6m	236m ² - 4.6%
Proposed Deep Soil 3x3m	128m ² - 2.5%
Total Deep Soil Area	7.1% Complies

DEEP SOIL CALCULATION (PLACE DESIGN GROUP)



1.2. Design Quality

1.2.1 Side Setback

ISSUE

"The proposed 800mm side setback to the southern boundary does not serve as a 'biodiversity corridor' as noted on the landscape masterplan. This setback must be increased to at least 3m to establish a vegetation buffer to help screen the development when viewed from adjoining properties."

RESPONSE

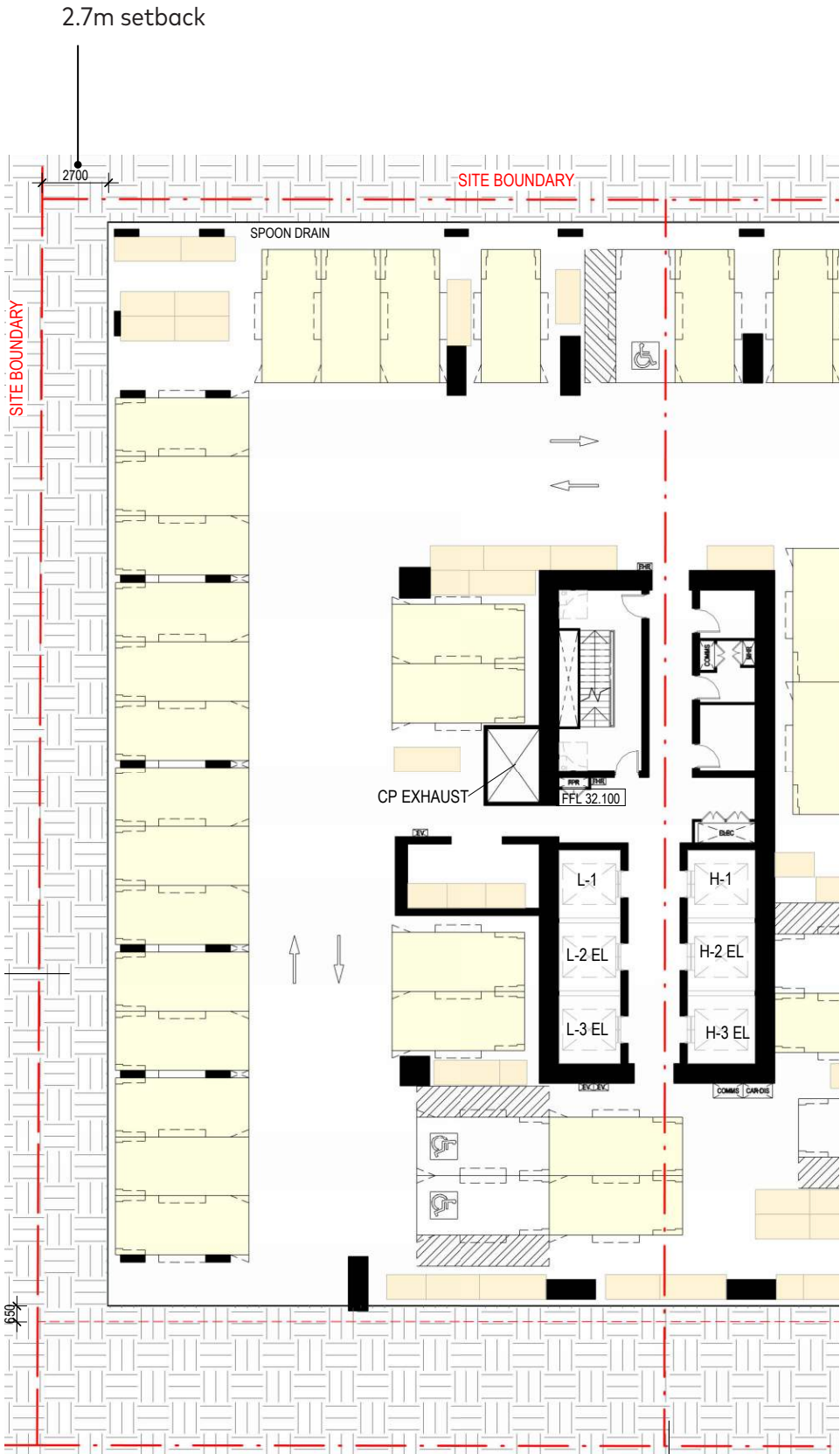
Refer to updated Landscape Architect documentation that shows 'biodiversity corridor' note deleted and additional screening vegetation.

In terms of the setback, we have provided a 6m landscaped setback where practicably possible.

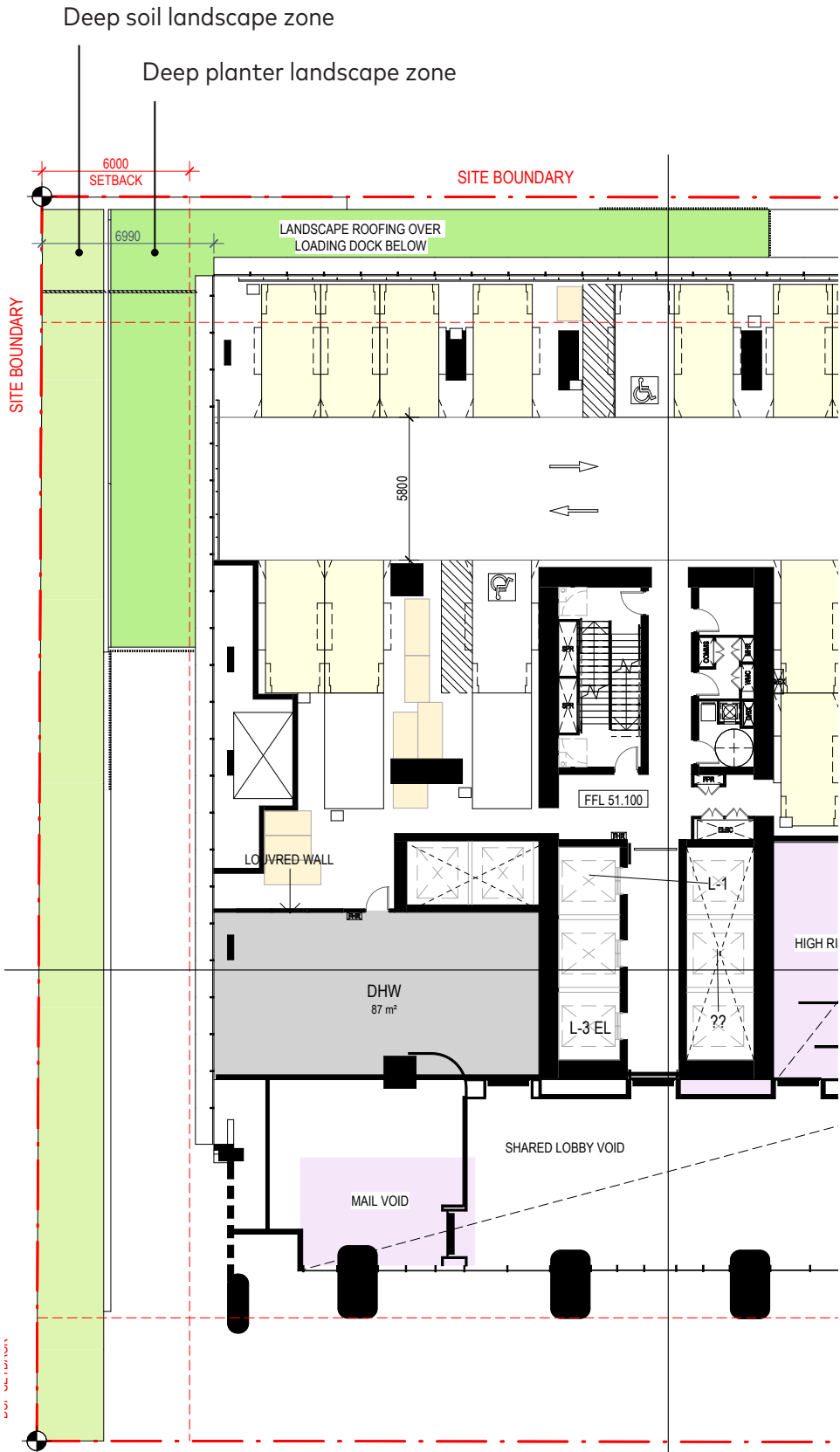
The excavation line to the basement has been increased to 2,7m providing a deep soil planting zone along the boundary.

Additionally the roof of the loading dock is landscaped. The planting on structure has a 1.2m deep soil zone that will allow for mature height planting.

The landscaping, combined with the physical structure of walls and roof, will reduce direct views to/from ground and lower levels of adjoining properties.



Basement Level 4 Plan



Level 1 Plan

1.2.2 Podium Interface

ISSUE

"The proposal's podium interface with Elouera Reserve is suboptimal due to limited setbacks and four levels of car park screening across approximately half of the frontage. While three trees are proposed along this boundary to offset the visual bulk of the podium, their establishment and growth would be constrained by the podium two storeys above and basement parking below. The podium setback to Elouera Reserve must be increased to facilitate tree retention, additional tree planting, improved building interface and reduce perceived bulk."

RESPONSE

The site is positioned within the Metro Line's 'Second Reserve', increasing the cost of basement excavation. The above ground podium allows for more dwellings to be provided within this constraint. Increasing the setback of the entire podium - to create an area for trees - is not possible without losing a level of parking that makes the efficiency of above-ground parking unfeasible to deliver.

To limit the impact of the parking podium on the public domain:

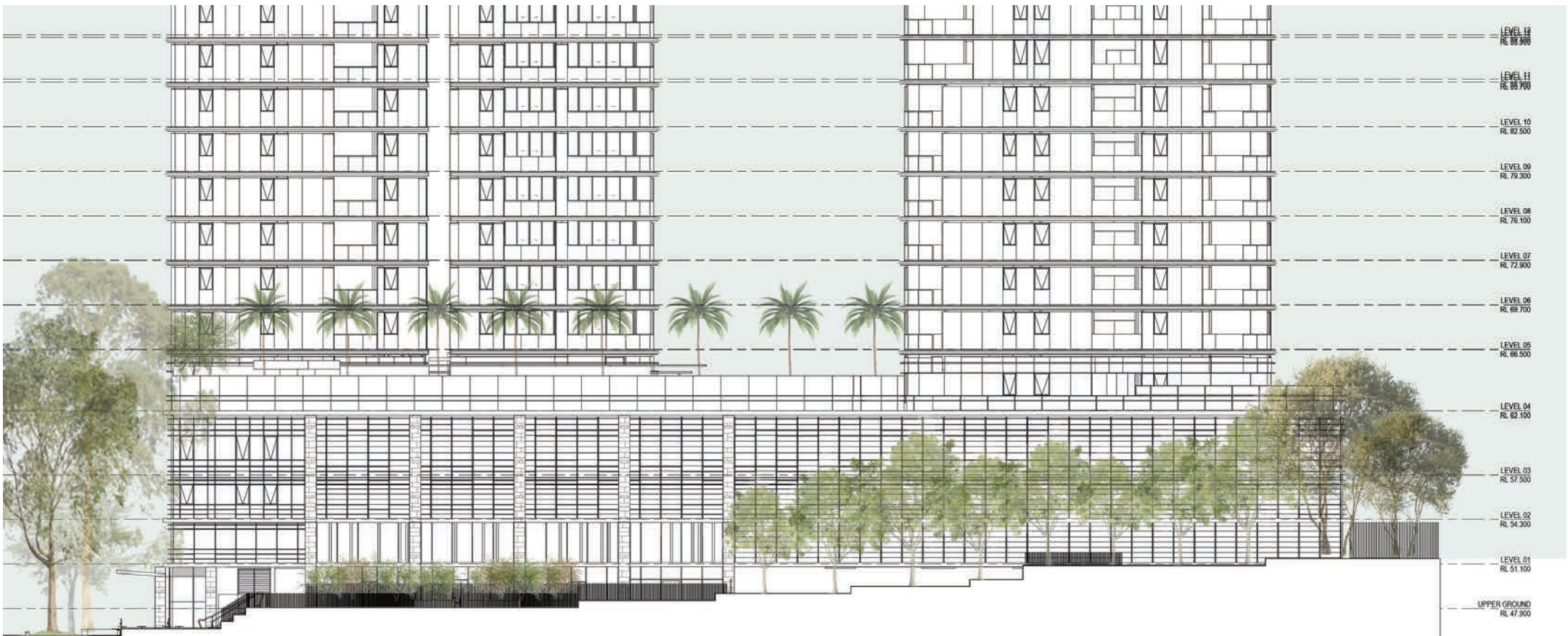
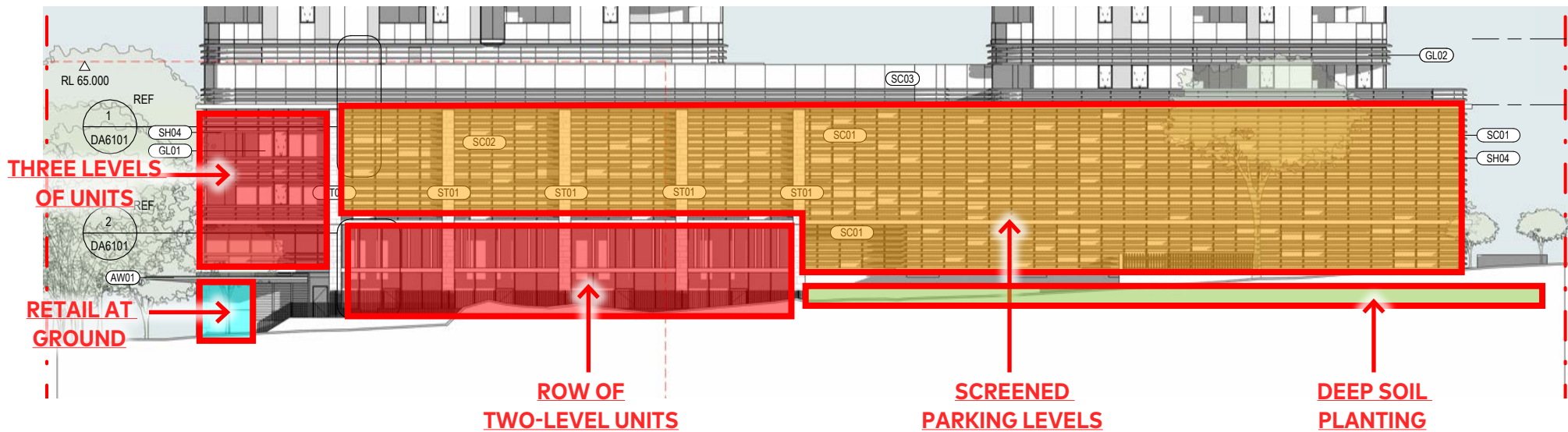
- Three levels of units above ground level retain on the most prominent north western corner.
- A line of 2-storey dwellings facing onto the park along the half of the western ground level.
- An articulated architectural facade screening the remaining parking and service areas.
- 1.2m deep soil planters along half the western frontage at ground level allow for mature height planting and the appearance that it is an extension of the park. landscaping of the park

Further to this increasing the setback by 2m would not significantly reduce the bulk or scale of the development on Elouera Reserve. The landscaping within Elouera Reserve will also act as a natural screening towards the development.

The proposed design provides activation and connection to the park from the town houses while providing deep soil planting and screening elsewhere. This new urban interface provides a balanced response between public and private, and active and passive spaces.

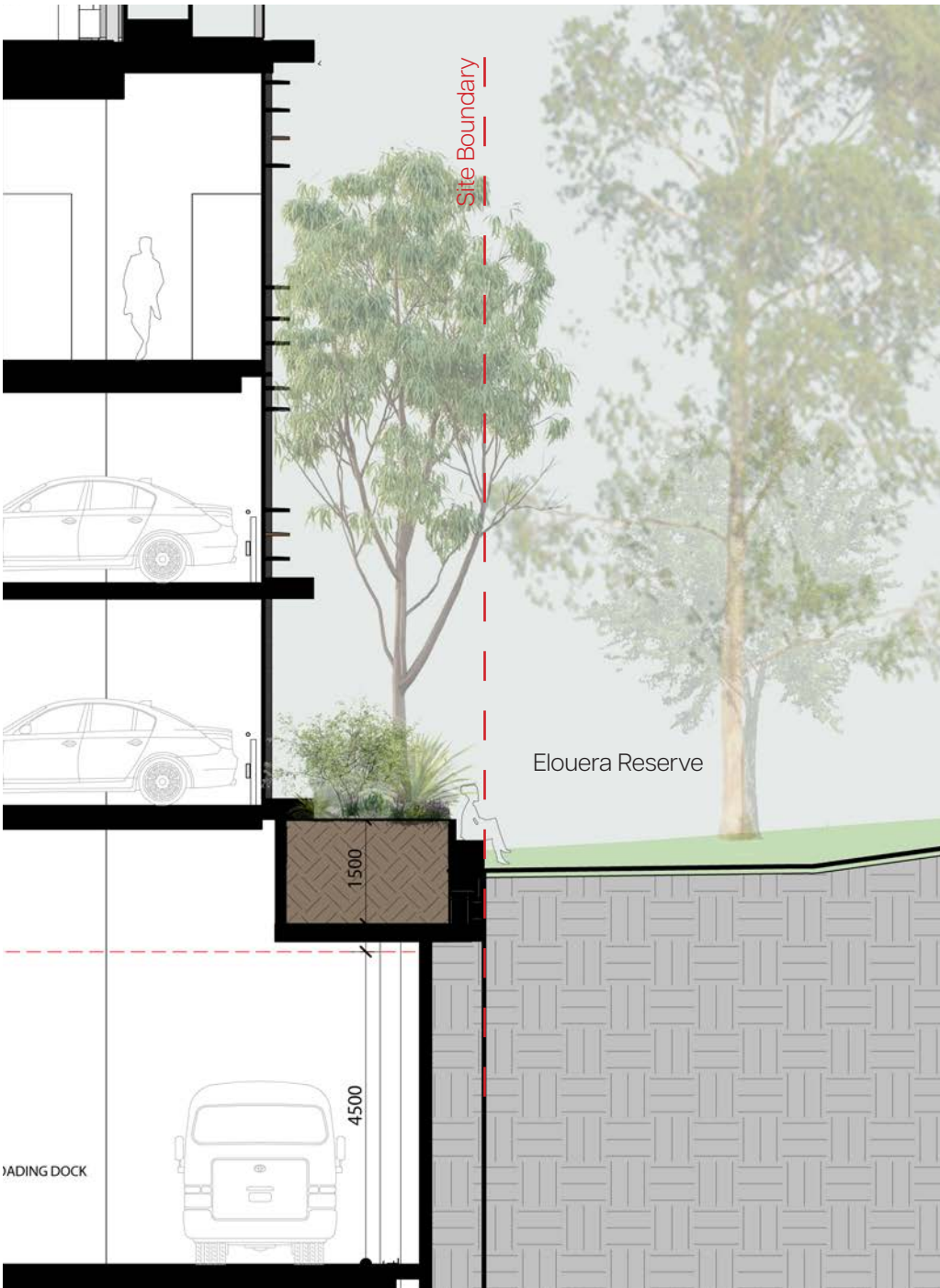
PODIUM WEST ELEVATION

The building elevation along the northwestern face of the building shows how a combination of 'sleeving' units and louvres screen the parking podium:

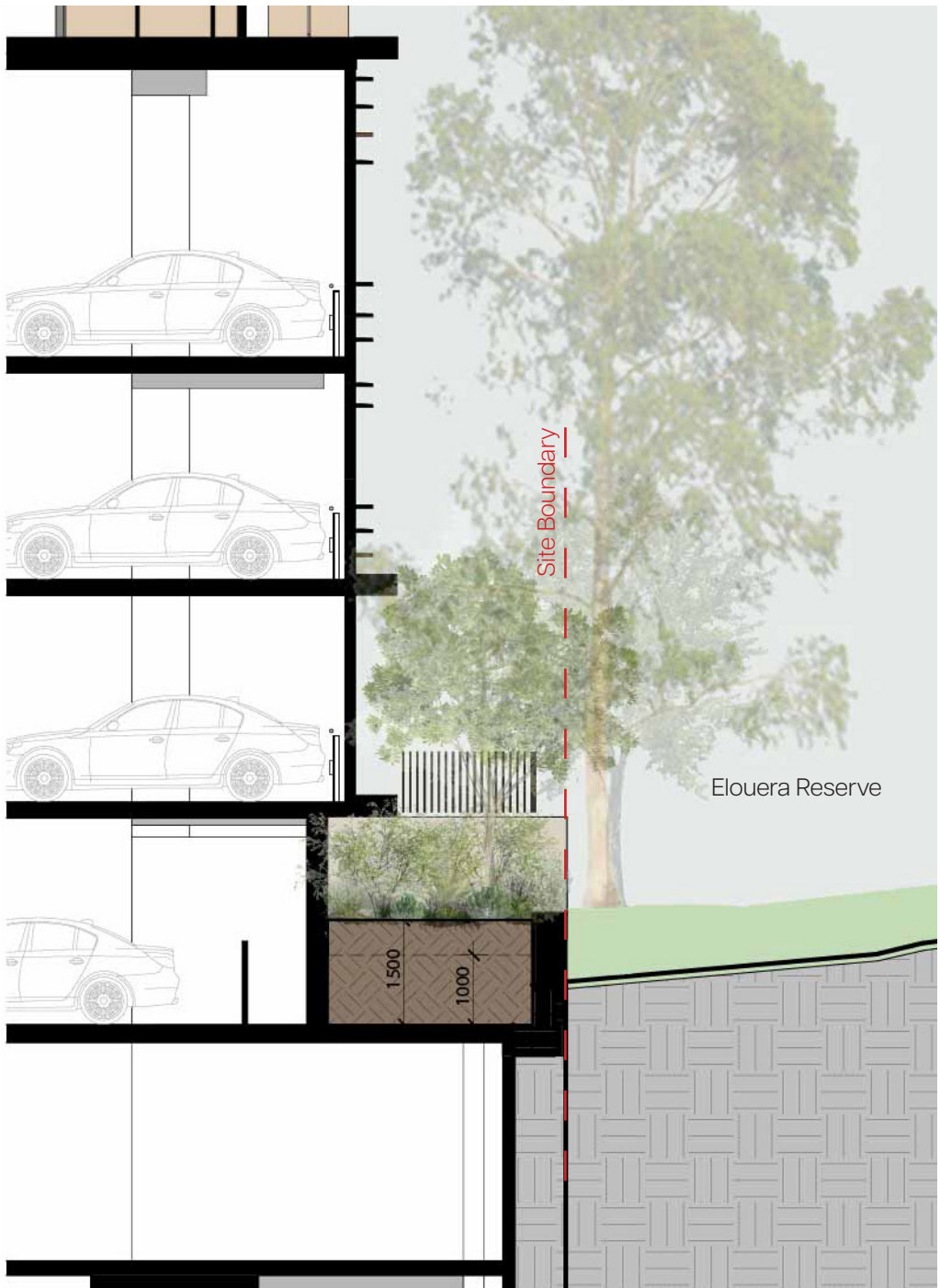
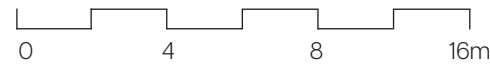


Landscape Elevation (Place Design Group)

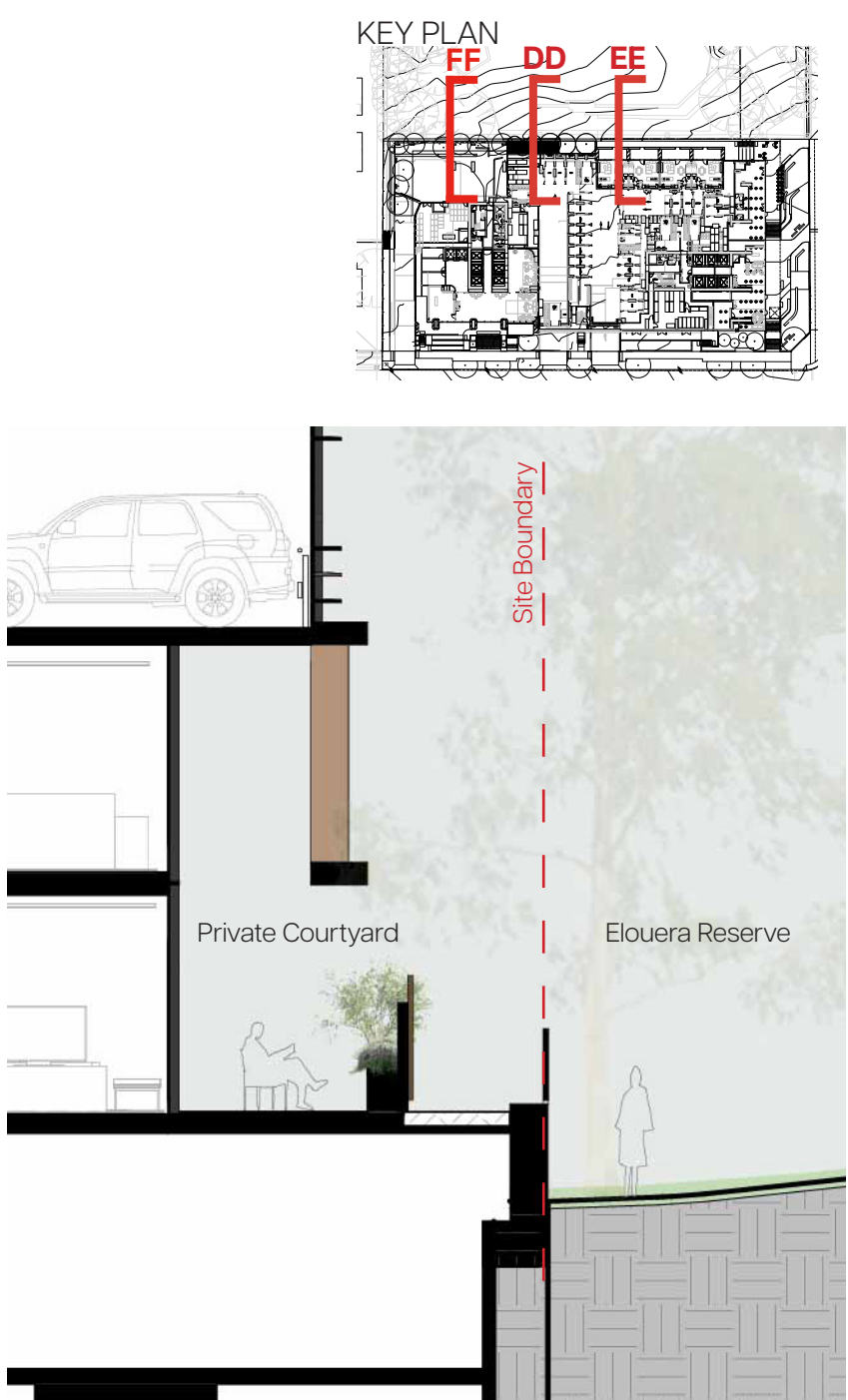
Podium Interface (cont.)



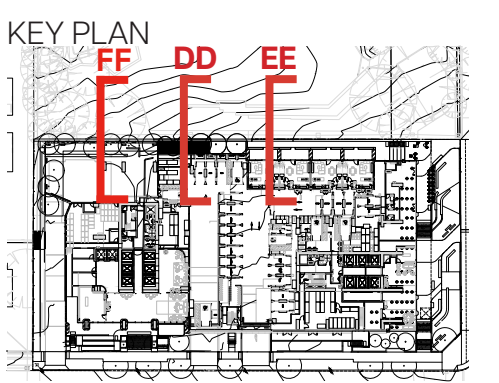
Section FF



Section DD



Section EE



1.2.3 Accessible Entry Lobby

ISSUE
"The accessible entry to the Waterloo Tower lobby is through an informal decked seating area. This does not present as a clear and legible main building entry. The design and location of accessibility points to main residential lobbies must be prioritised to establish a clear and publicly accessible street interface."

RESPONSE
The entry of the Waterloo Tower has been located on the prominent corner of Waterloo Road and Cottonwood Crescent. As can be seen in the image to the right, the entrance will be prominent when viewed from the publicly accessible street interface.

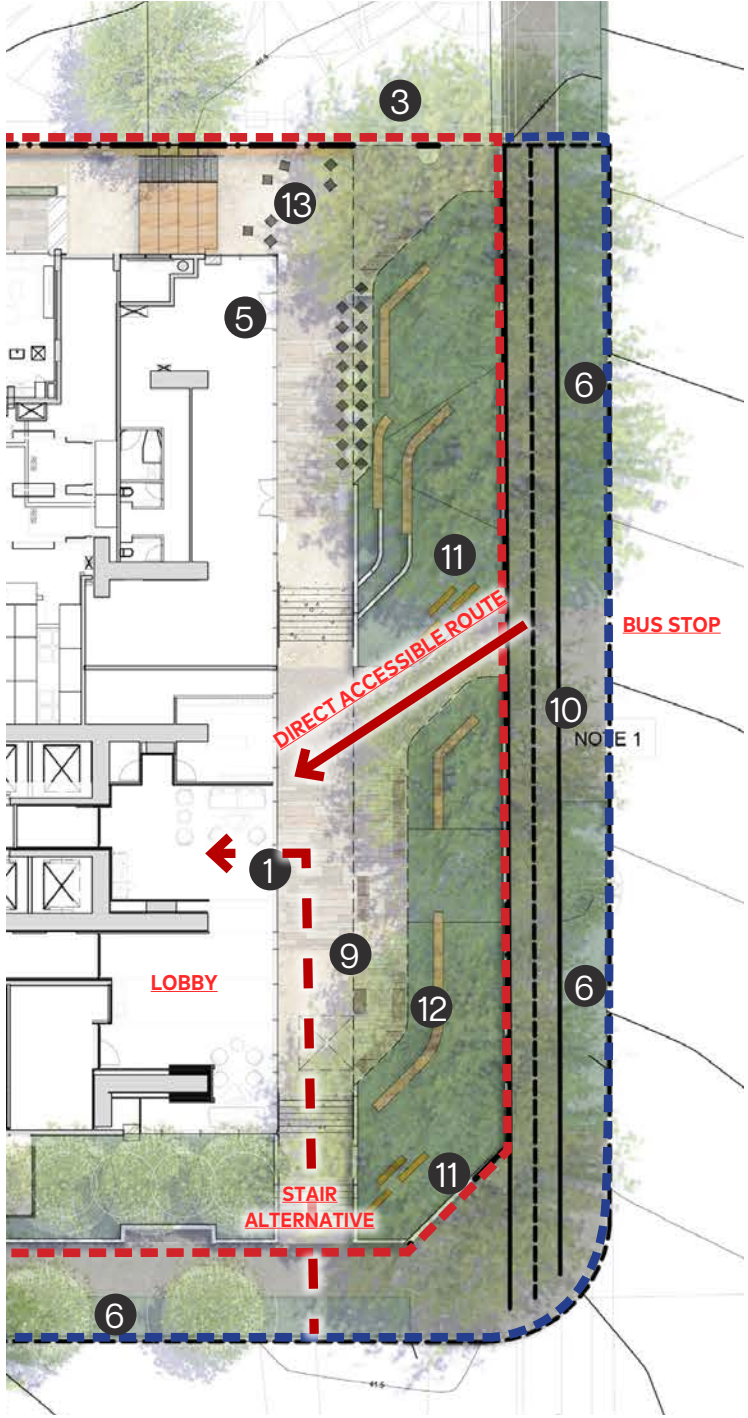
The entrance sequence has been further rationalised to make the accessible route more direct.

The floor level of the lobby is based on the flood levels, and as such there is a significant height difference from street level. While the level difference is unavoidable, we have worked with Landscape Architect Place Design Studio to provide the main accessible entry pathway to the lobby from Waterloo Road in an alignment that maximises deep soil planting and the retention of the existing mature trees, while providing a clear and accessible entry.

The location selected for the main accessible pathway was from the adjoining bus stop.

Additional accessible pathways are also provided (including the link mentioned above) to maximise accessible access - however these are not considered the primary residential entrance. They are primarily provided to allow for accessible entrance to the retail, although for residents they can also be used to continue onto the residential.

For ambulant visitors there is also a stair access to the lobby from the corner.



1.2.4 Communal Space

ISSUE

"The proposed communal spaces on the level 4 podium rooftop are considered insufficient in size to service 858 apartments. Additional internal and external communal spaces should be provided for residents and visitors. Residential entry and retail areas should not be calculated as part of COS."

ADG Objective 3D-1

An adequate area of communal open space is provided to enhance residential amenity and to provide opportunities for landscaping.

Design Criteria

- 1. Communal open space has a minimum area equal to 25% of the site.
- 2, Developments achieve a minimum of 50% direct sunlight to the principal usable part of the communal open space for a minimum of 2 hours between 9 am and 3 pm on 21 June (mid winter).

Design Guidance

Communal open space should be consolidated into a well designed, easily identified and usable area.

Communal open space should have a minimum dimension of 3m, and larger developments should consider greater dimensions

Communal open space should be co-located with deep soil areas

Direct, equitable access should be provided to communal open space areas from common circulation areas, entries and lobbies

Where communal open space cannot be provided at ground level, it should be provided on a podium or roof

Where developments are unable to achieve the design criteria, such as on small lots, sites within business zones, or in a dense urban area, they should:

- provide communal spaces elsewhere such as a landscaped roof top terrace or a common room
- provide larger balconies or increased private open space for apartments
- demonstrate good proximity to public open space and facilities and/or provide contributions to public open space

RESPONSE

The proposed communal open space is well designed and easily identifiable centrally located between both towers.

Their are numerous spaces, varied in use, a combination of active, passive and entertaining - pool, splash area, BBQ entertaining, small lawn areas, gym, palates, wellness, golf simulator, karaoke, ma jong, dining and work from home spaces.

The external communal open space is provided on the Level 4 roof top with a great north facing aspect, and deep planter beads that allow for mature height planting. It is a generous 43m-52m in length and 14m - 18m in depth, large enough to be usable and broken into numerous functions.

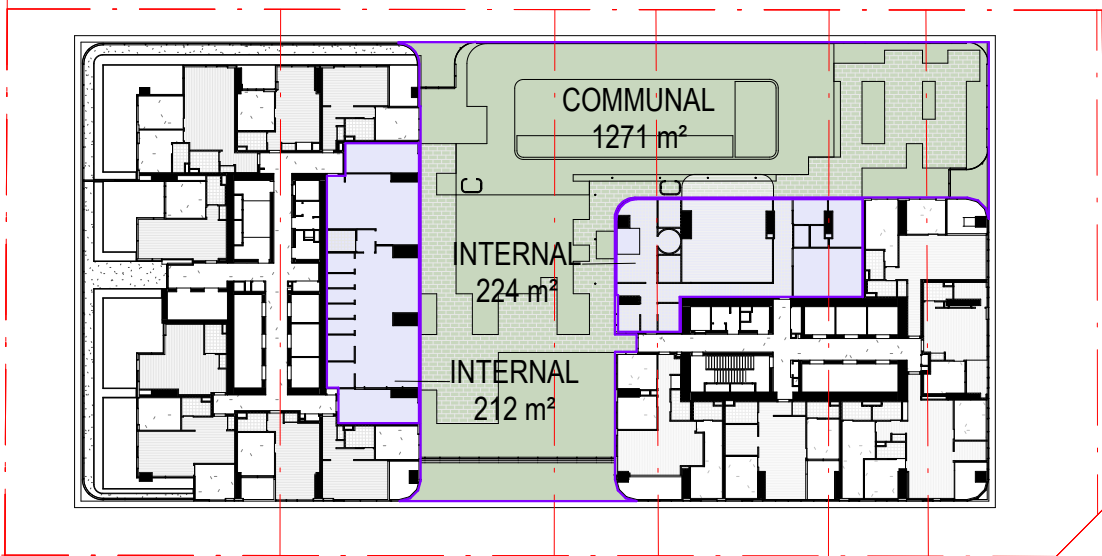
Due to the 4.7m floor to floor height on Level 4 the internal communal spaces have 3.8m ceiling heights, providing generous feeling spaces.

As well as these qualitative qualities, we note that the communal open space also meets the quantitative guidance set in the ADG:

Site Area	5,130m ²
Required Communal Open Space	1,282.5m ²
Proposed External Communal Space	1,271m ² - 24.7%
Proposed Internal Communal Space	436m ² - 8.5%
Total Communal Area	33.3% Complies

This is in addition to the publicly accessible privately owned open spaces along Waterloo Road, which is available for use by residents, and the public park directly adjacent.

The proposed communal open spaces are of a high quality, will provide resort-quality amenity for the residents and offer significant landscaping integrated into the spaces. The objectives of the ADG are considered well met.



Level 4 Plan



View of Level 4 Communal Open Space

1.2.5 Structural Alignment

ISSUE

Structural alignments do not integrate with the proposed apartment layouts leading to columns being located in the middle of kitchens, living areas and balconies. Structural grids and alignments must be rationalised to ensure that dwelling amenity is not compromised.

RESPONSE

The apartment layouts and structural columns have been further co ordinated to rationalise the design and improve room layouts. Columns have been moved to align with walls or engaged with the facade.



1.2.6 Tower Articulation

ISSUE

"Increase the width of the tower recesses to improve vertical façade articulation and visual interest. This will also reduce perceived bulk and support improved cross-ventilation for the towers."

RESPONSE

The vertical articulation of the towers has been emphasised through removing the canterlevered sun hoods from the vertical slots. This helps define the vertical articulation and maximise the break between the built form. Additionally where plant rooms are located adjacent the slots the vertical louvres are expressed as a vertical element to further emphasis the vertical expression in the facade.

As a high-density, very tall high-rise, wind control considerations mean that much of the tower relies on mechanical ventilation. Natural ventilation has nevertheless been prioritised on lower levels - despite a large number of 'sleeving' units along the parking podium, the lower nine-storeys have an ADG compliant number of naturally cross-ventilated units (as described previously).



View of Waterloo Tower Western Facade



View of Cottonwood Tower Southern Facade

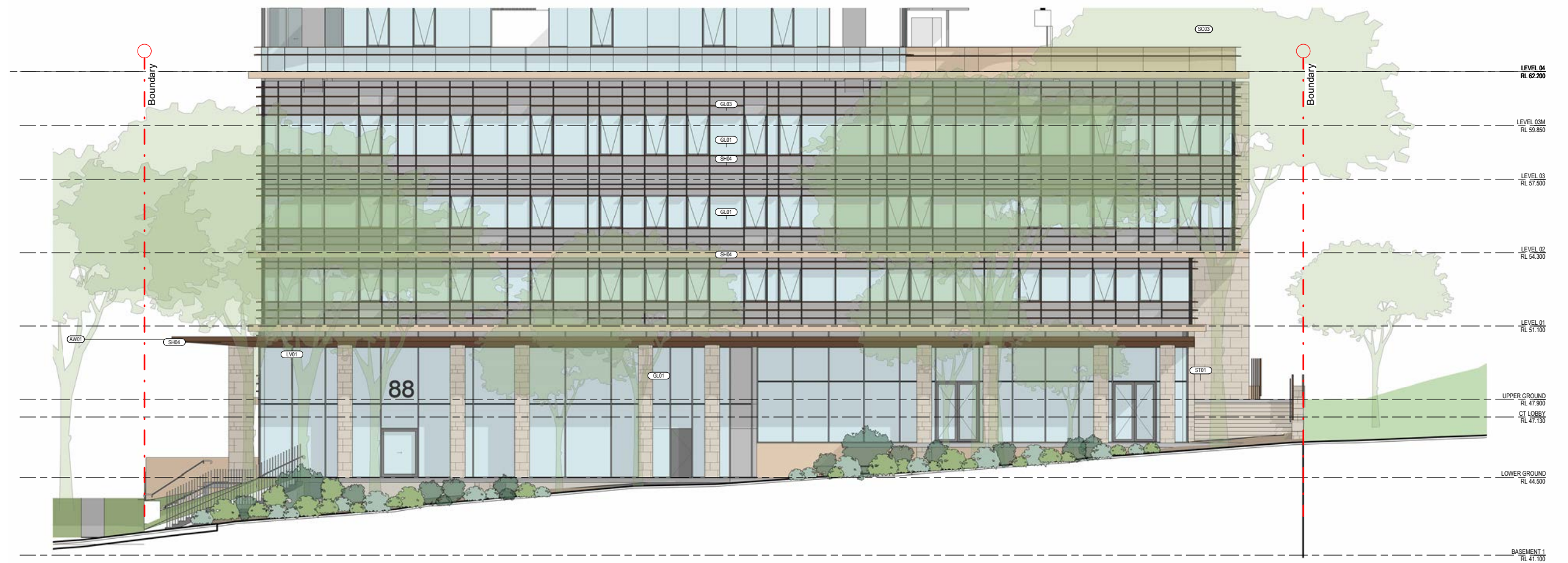
1.2.7 Streetscape, Context and Public Domain

ISSUE

"The submitted elevation drawings do not sufficiently detail the proposal's design response to streetscape, context and public domain."

RESPONSE

Additional 1:100 streetscape elevations have been provided with the RtS Architectural Documentation set.

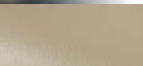
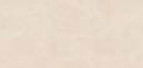
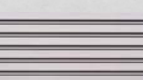


Waterloo Road Elevation - Podium Levels

Podium Interface (cont.)

Materials Legend

REPRESENTATIVE BUILT EXAMPLE

AW01	METAL ENTRY AWNING	
SC01	SCREEN PERFORATED - EARTH TONES	
SC02	SCREEN PERFORATED - GREY	
SC03	WIND SCREEN - PODIUM	
SC04	PERFORATED SCREEN - COLOUR TO MATCH GLAZING	
GL01	EXTERNAL VISION GLASS - LIGHT GREY GLAZING	
GL02	EXTERNAL VISION GLASS - BLUE GREY GLAZING	
GL03	GLAZING WITH BACK PAN	
GR01	PAVING	
LV01	FIXED MECHANICAL LOUVRES -COLOUR TO MATCH GLAZING FRAME	
SH01	METAL - NATURAL	
SH02	METAL - CHAMPAGNE	
SH03	METAL - DARK GREY	
SH04	METAL - MEDIUM BRONZE	
ST01	LIGHT SANDSTONE CLADDING OR EQUIVALENT	
RE01	PAINTED MASONRY	
RE02	PAINTED MASONRY - DARK GREY	
RE03	PAINTED MASONRY - LIGHT GREY	
RS01	METAL ROLLER SHUTTER	



1.2.8 Tower Facade

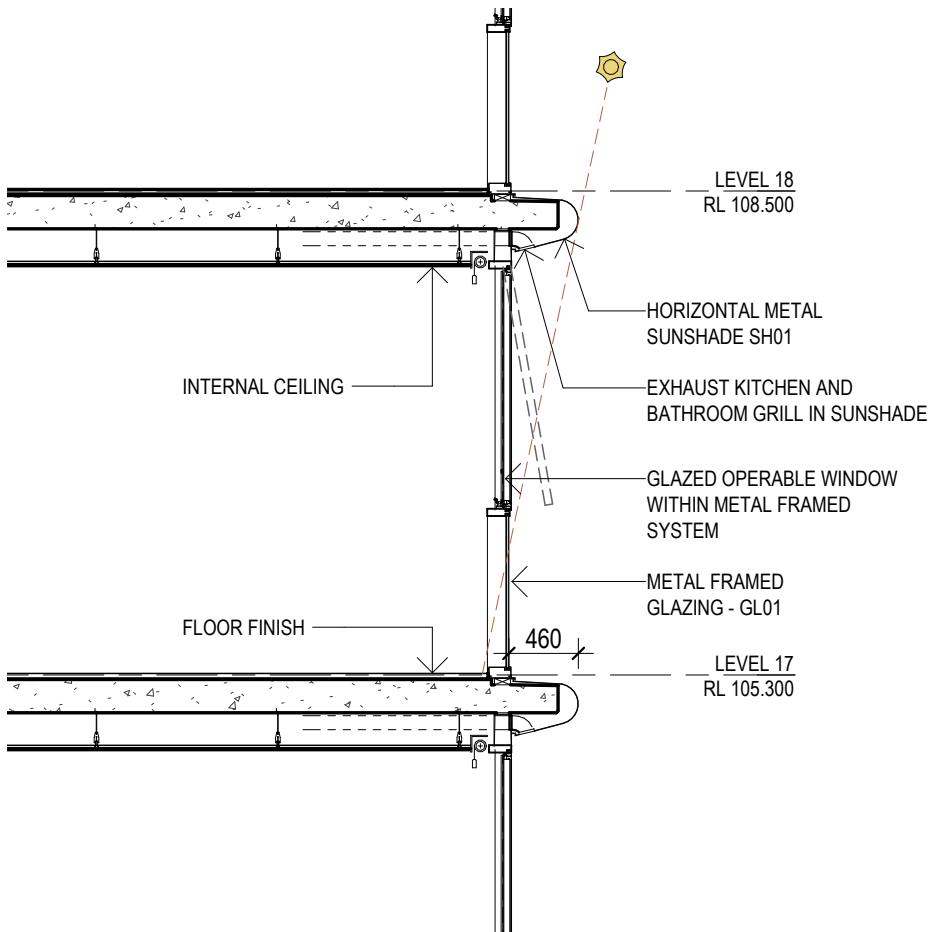
ISSUE

"The submitted architectural drawings do not include sufficient information to properly assess the design quality and environmental performance of tower facades, including proposed materiality, detailing, glazing types and depth of external shading."

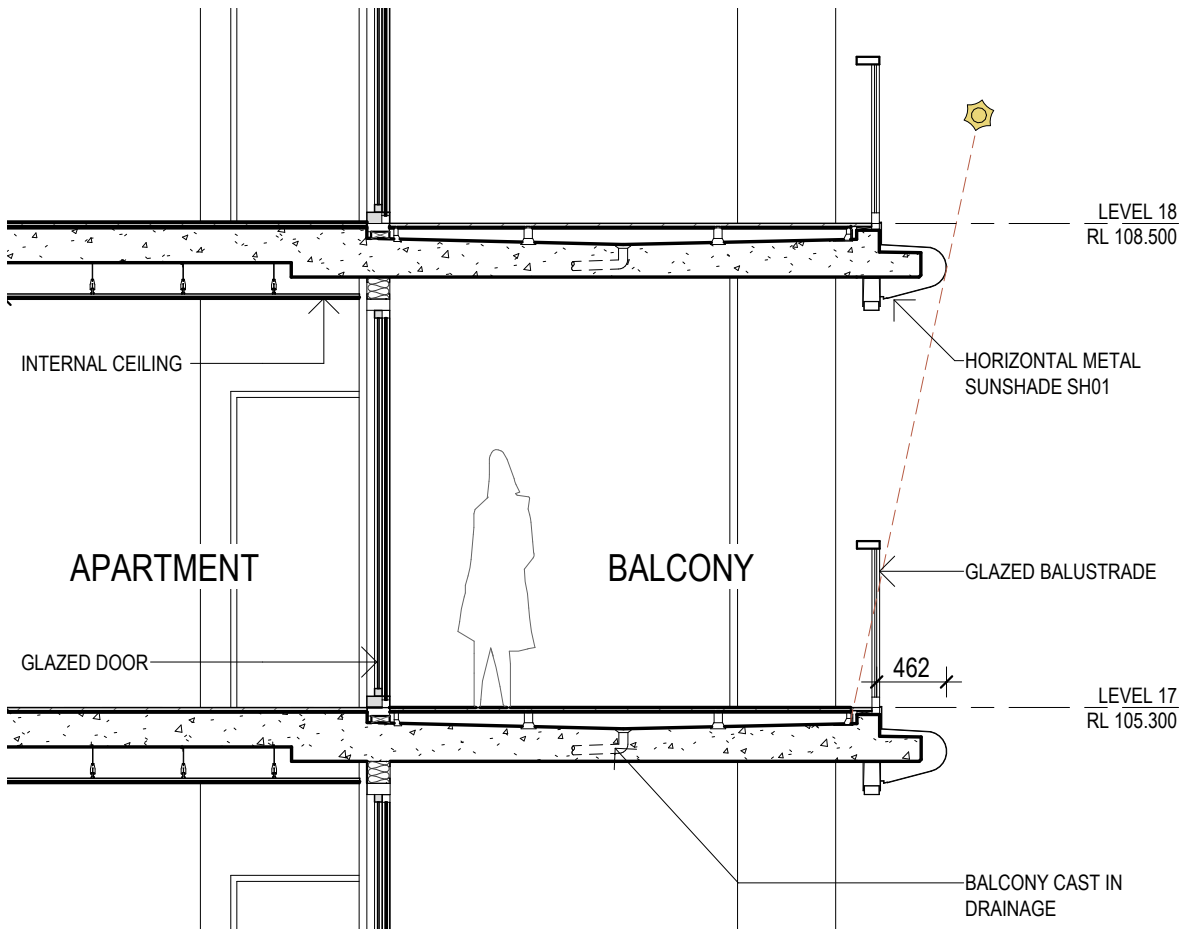
RESPONSE

The tower facades consist of a glazed wall system, with integrated 460mm horizontal sunhoods wrapped in metal to match the glazing system. This provides a framework for a the various glazing systems - fixed, awning, balcony, and insulated wall systems to sit within.

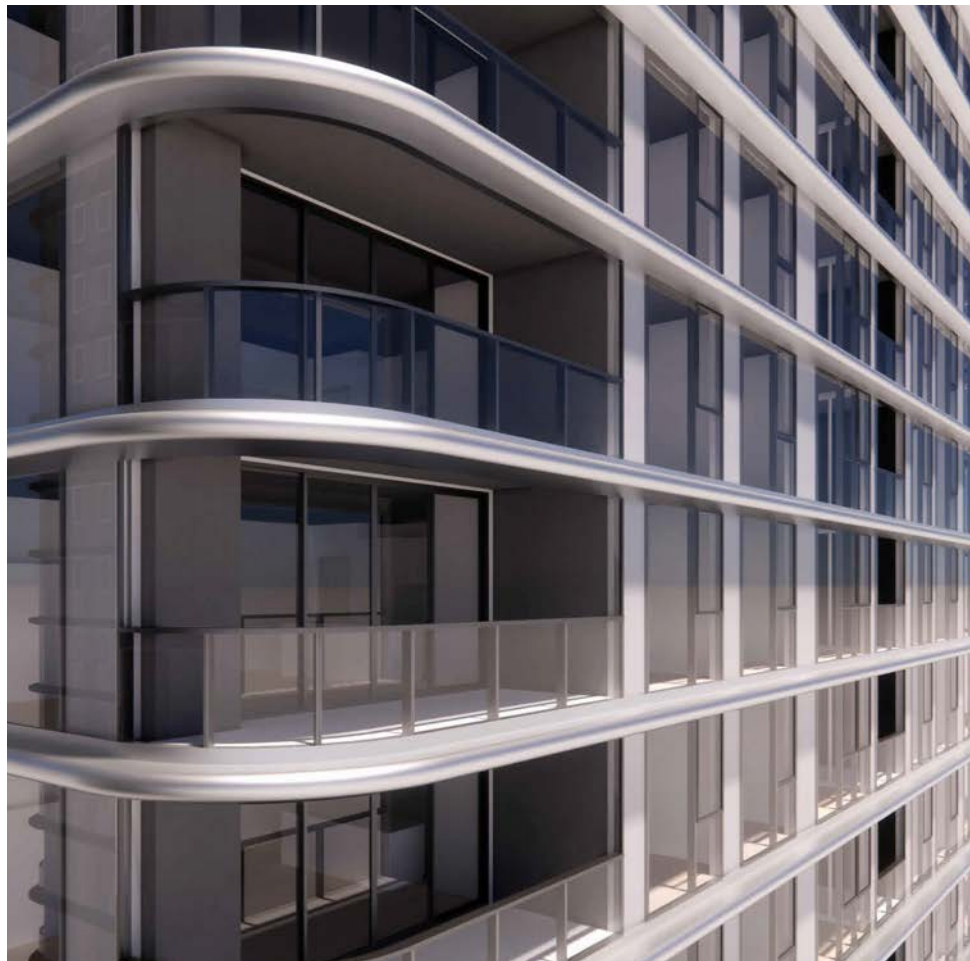
Additional 1:50 annotated sections of all the tower facades have been provided with the RtS Architectural Documentation set which outline the proposed materiality, detailing, glazing types and depth of external shading.



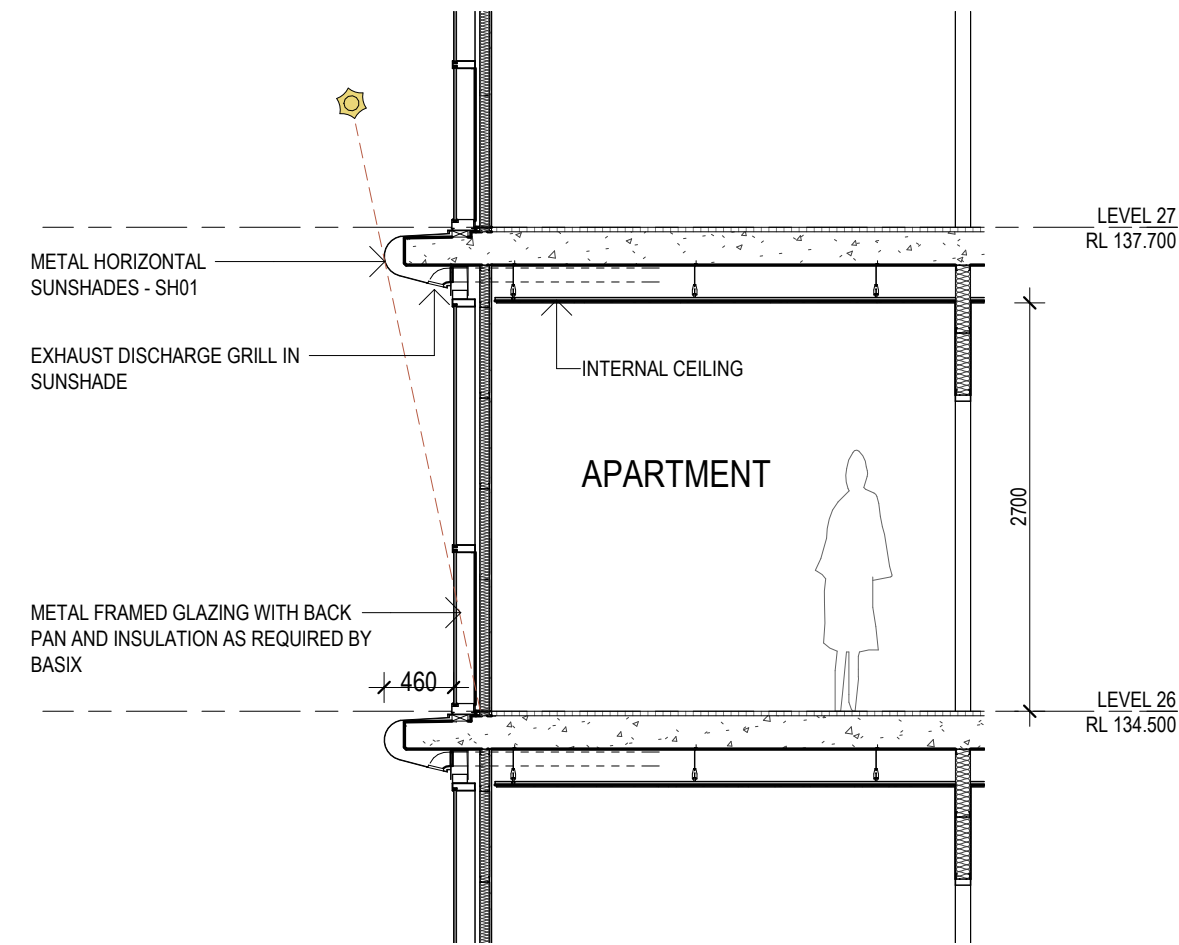
Typical Glazed Wall Section



Typical Balcony Section



Perspective view of facade



Typical Insulated Wall Section

1.2.9 Connecting to Country

ISSUE

"The Connecting to Country concept discussed in the urban design study does not appear evident in the current design, including the selection of glazing types."

RESPONSE

The Connecting with Country concept was developed in a collaboration between AJC and WSP Indigenous Design Unit. The Connecting with Country process included a Walk on Country, discussion with Elders and then several design workshops with AJC, Place Design Group and WSP.

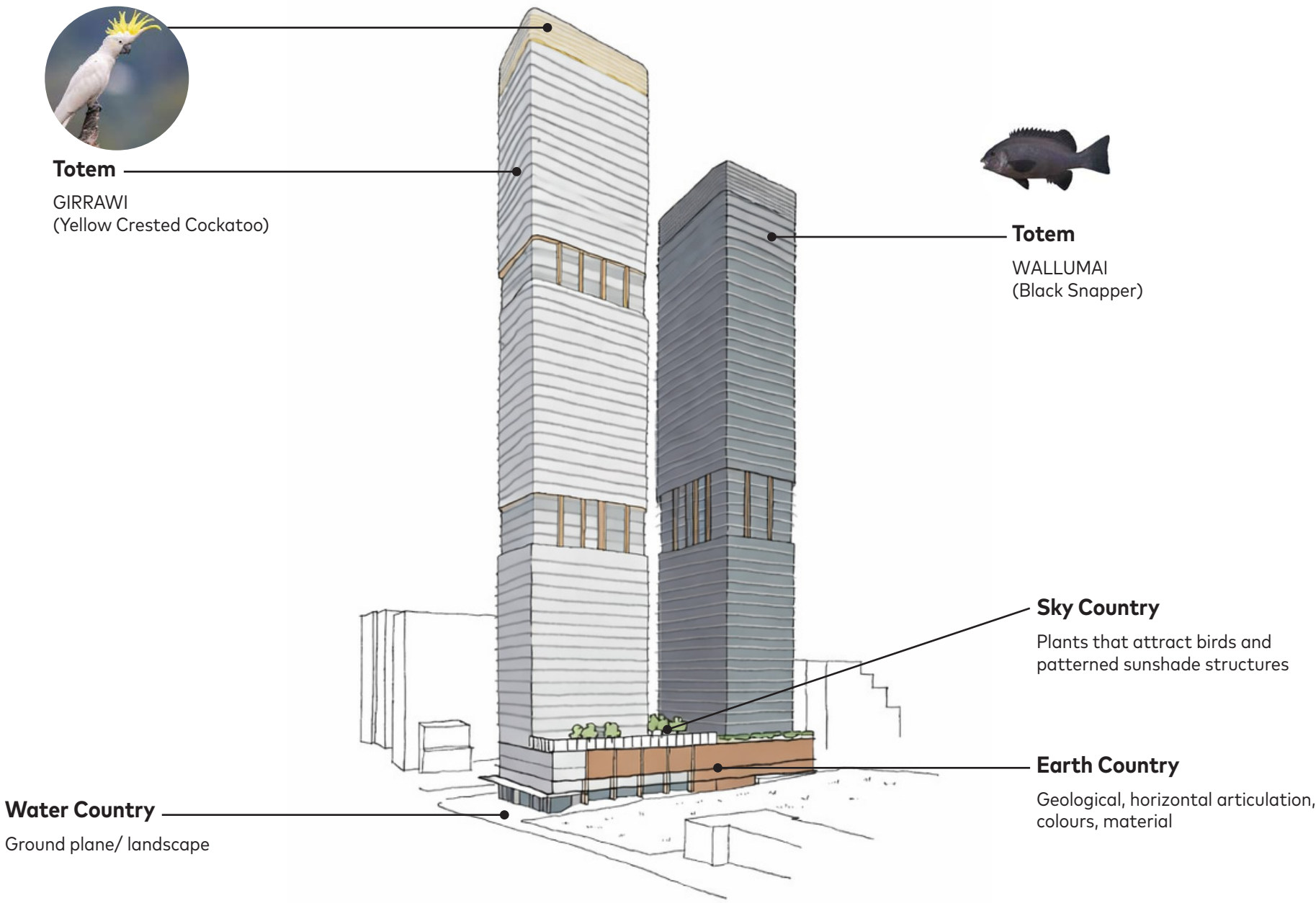
It is intended that each building tells the story of the WALLUMAI (Black Snapper) and the GIRRAWI (Yellow Crested Cockatoo).

The WALLUMAI (Black Snapper) is the Wallumedegal totem animal and traverses the local water ways between the fresh and salt water of the harbour.

The GIRRAWI (yellow crested cockatoo) was also another important animal and where present on the site during the Walk on Country.

In the architectural design, the darker glazing representing the Wallumai and the lighter glazing representing the Girrawi with champagne coloured metalwork distinguishing the crest of the Girrawi.

GL01	EXTERNAL VISION GLASS - LIGHT GREY GLAZING	
GL02	EXTERNAL VISION GLASS - BLUE GREY GLAZING	



Connecting to Country (cont.)

WSP also helped frame the different building envelopes through concepts of Country:

Water Country

The ground plane and landscape design will connect to Water Country and use species that reinforce the original landscape.

Earth Country

Connecting to Earth Country and the 'living zone' informs the podium design that connects people and the streetscape to Country.

Sky Country

Through the use of certain species that will help attract birds and insects to the communal open space on the podium rooftop, along with sunshade structures that are inspired by the Emu in the sky.

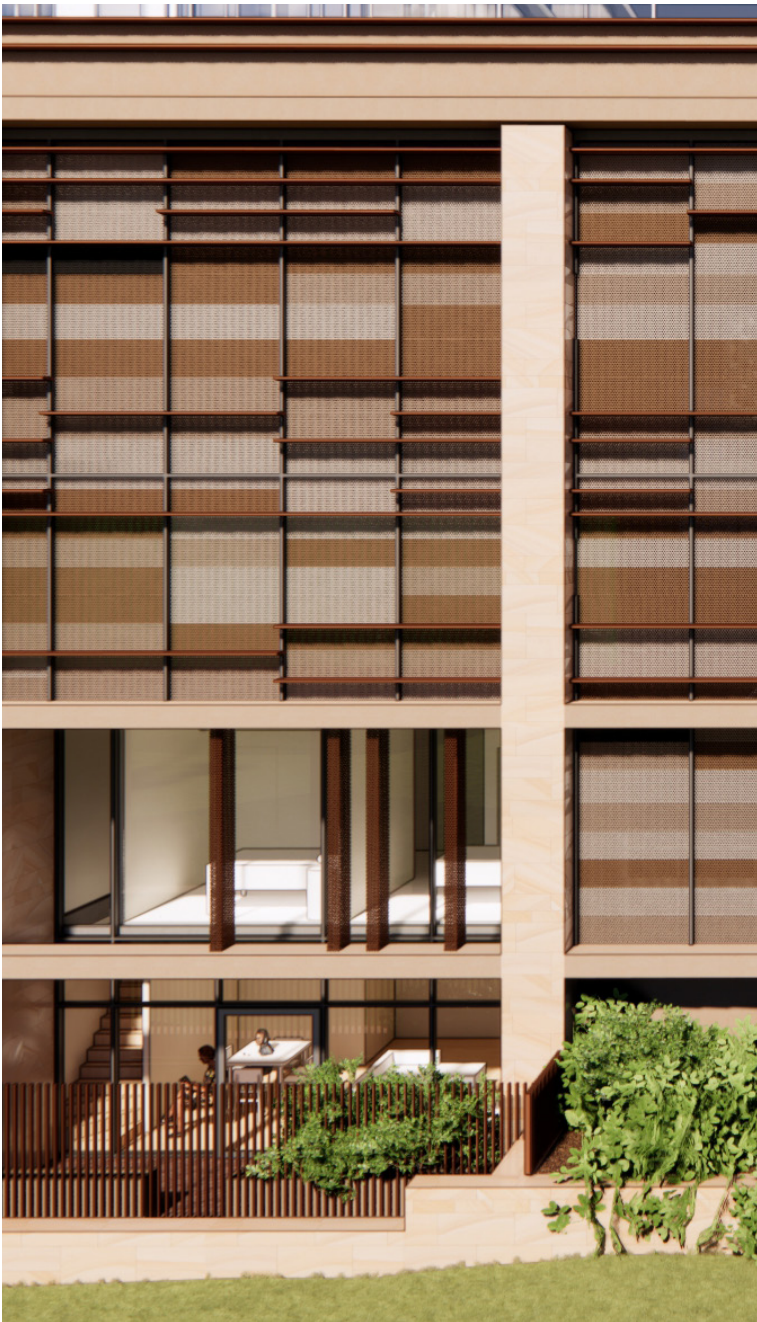
Totem

Each building will tell the story of the WALLUMAI (Black Snapper) and GIRRAWI (Yellow Crested Cockatoo). The colours of the animals inform the colours of the tower forms.



Water Country

The retention of the large gum trees reinforced with new endemic planting throughout the ground plane connects to Water Country restoring the natural habitat.



Earth Country

The podium reflects Earth Country through the use of horizontal fenestration - cantilevered masonry blades, perforated metal screens and metal battens - and a warm earthy coloured palette. This provides a rich character and human scale to the streetscape.



Totem

Each building tells the story of the WALLUMAI (Black Snapper) and GIRRAWI (Yellow Crested Cockatoo). The darker glazing representing the Wallumai and the lighter glazing representing the Girrawi with champagne coloured metalwork distinguishing the crest of the Girrawi.

1.2.10 Design Quality - Information Required

INFORMATION REQUEST / RESPONSE

"Increasing building setbacks to No. 13 Cottonwood Crescent and Elouera Reserve."

Refer to 1.2.1 and 1.2.2 within this RtS report.

"Details of glazing types and their relationship to Country."

Refer to 1.2.9 within this RtS report.

"Additional 1:50 annotated sections of all typical facade details (including winter gardens, super structure floors)"

Additional 1:50 annotated sections provided with RtS Architectural Documentation Set.

"Updated building elevations (shaded, not greyscale) "

Coloured building elevations provided with RtS Architectural Documentation Set.

"Confirm depth/dimensions of horizontal and vertical external shading."

Horizontal and vertical external shading dimensioned in additional 1:50 annotated sections provided with RtS Architectural Documentation Set.

" Include key dimensions (e.g. width of common circulation spaces)"

Additional dimensions added in RtS Architectural Documentation Set.

"Updated photomontages that are consistent with the proposed materiality, glazing and facade details."

The previous photomontages are consistent with the proposed materiality, glazing and facade intent.

"1:100 streetscape elevations with proposed materials, details and finishes."

Updated streetscape elevations provided with RtS Architectural Documentation Set.

"The ESD Report must be updated to validate how passive design measures, including selection of glazing types, proportion of glazed vs solid facades and external shading contribute to improved environmental performance."

Refer to ESD Report.

1.3. Overshadowing of Existing & Future Public Open Space

ISSUE

The Macquarie Park Design Guide (November 2024) (Design Guide) includes a control stating that at least 50% of the future Shrimpton’s Parkland must receive midwinter sunlight at any time between 9am and 3pm. Despite the concurrent rezoning proposing a site -specific control for solar protection towards Shrimpton’s Parkland and Wilga Park, the shadow diagrams submitted for assessment illustrate that the height and scale of the proposal in its current form would not comply with the Design Guide control. The proposal results in extensive overshadowing impacts to Shrimpton’s Parkland and Wilga Park particularly between 11am and 12 noon.

INFORMATION REQUIRED

The proposal must be amended to demonstrate that it does not contribute to more than 50% of Shrimpton ’s Parkland and Wilga Park being overshadowed at any hour between 9am and 3pm on the winter solstice. This will likely result in:

a. A reduction in building height, gross floor area and dwelling yield .

RESPONSE

Based on hourly measurement, the proposed development will most significantly affect Wilga Park at 11am (>60% of the Park). The impact is brief, with overshadowing falling to <15% for the hours either side (10am and 12pm) and no overshadowing (caused by 88 Waterloo) at either 9am or 1pm.

Although no solar access protections currently apply to Wilga Park, in either the Macquarie Park Design Guide or the City of Ryde Development Control Plan, this impact is acknowledged.

However, Wilga Park will still receives a significant amount of solar access through the day. It would, for example, comply with the Macquarie Park DCP’s control for future open spaces, whereby “At least 50% of new public space is to receive 3 hours direct sunlight between 9am and 3pm on the 21st of June” (DCP 2014 Part 4.5 Control 5.2g”).

Separately, the proposal for 88 Waterloo affects a proposed future park. The concept for this park was established in the State-led rezoning: the Macquarie Park Design Guide and associated Urban Design Framework envisages a future park opposite Wilga Park called the ‘Shrimptons Parklands’.

The Design Guide sets a solar protection control for this future park that solar access should be maintained to 50% of the future park area from 9am-3pm in mid-winter. Unlike the DCP, the 50% solar access objective is applied through the entire day rather than for 3 hours spread across the day.

Based on hourly measurement, the proposed development will most significantly affect the Shrimptons Parklands at 12pm, when it overshadows approximately 25% of the future park (without accounting for overlapping overshadowing by other and future buildings). Although this does not contravene the Design Guide control by itself, if existing the indicative envelopes shown in the Macquarie Park Precinct Urban Design Framework were also delivered, then the future Shrimptons Parklands would be overshadowed by more than 50% at 12pm, contravening the Design Guide control if applied strictly.

A Design Guide is analogous to a Development Control Plan, meaning it is a set of flexible guidance to inform development rather than planning controls to be strictly followed. The Macquarie Park Design Guide applies only to the site area of the State-led Rezoning of Macquarie Park Innovation District. The western extent of that site area stopped at Shrimptons Creek. The Rezoning did not consider the potential for future building envelopes of increased/equivalent heights to the west of the rezoning area, outside of the Macquarie Park Innovation District, as is now being proposed in this application. As described in the original application, it is proposed that the control should be reconsidered due to this.

Consequently we propose reviewing the application’s impacts across Wilga Park and Shirmptons Parklands taken together: that the 50% solar access should be measured of the total area of the adjoining protected and unprotected open spaces, rather than only the protected future open space. The extent of the proposed ‘consolidated’ open space, and the degree to which it may be overshadowed by the proposal for 88 Waterloo as well as other potential future envelopes, is illustrated on the next page.

It is also important to note that, to be delivered, the future Shrimptons Parklands park will require the collaboration of private landowners across five landholdings. The park was not proposed by those landholders, and no public funding has been dedicated nor a compulsory acquisition layer applied. Its delivery is therefore not assured. This must be considered against the permissibility of a confirmed project in an area that the State-led Rezoning had no remit to consider.

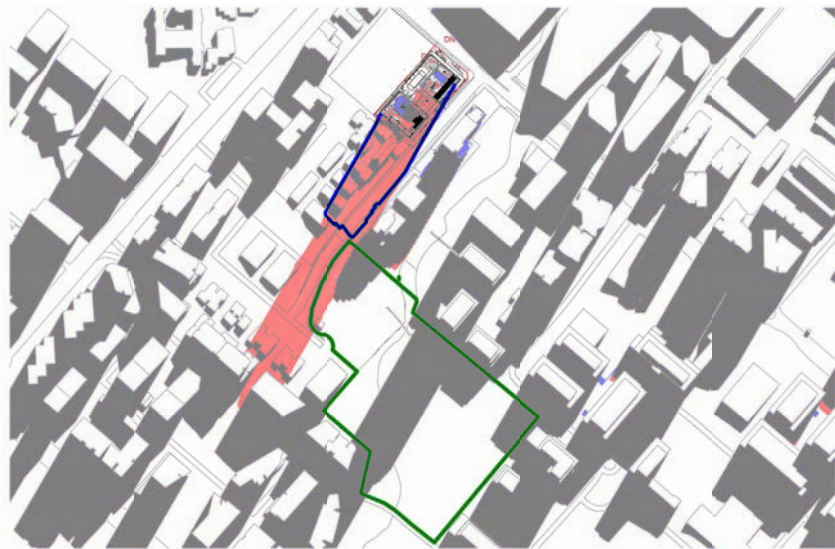
Taking into account all of the above, the overshadowing of Wilga Park and Shrimptons Parklands is considered acceptable in the context of major housing development in a well located location. In summary, this is because:

- The development does not contravene any solar protections for Wilga Park, since there are none.
- Wilga Park maintains 50% solar access through more than 3 hours of a mid-winter day, which would align with the DCP control for a new park in this area.
- Shrimptons Parklands maintains 50% solar access through more than 3 hours of a mid-winter day, which would align with the DCP control for a new park in this area.
- Although 88 Waterloo would contribute to a future Shrimptons Parklands being overshadowed more than the Design Guide control, this park does not exist and the buildings that would contribute to the majority of its overshadowing also do not yet exist.
- The solar access control for the Shrimptons Parklands was defined to apply only to the area within the State-led rezoning, and did not consider future uplift west of the State-led rezoning.
- A redefined site area for the control covering all the abutting public open space (existing and proposed) across Wilga Park, Shrimptons Creek and the Shrimptons Parklands could meet both the DCP control and the Design Guide control. Refer to shadow diagrams on the following page.

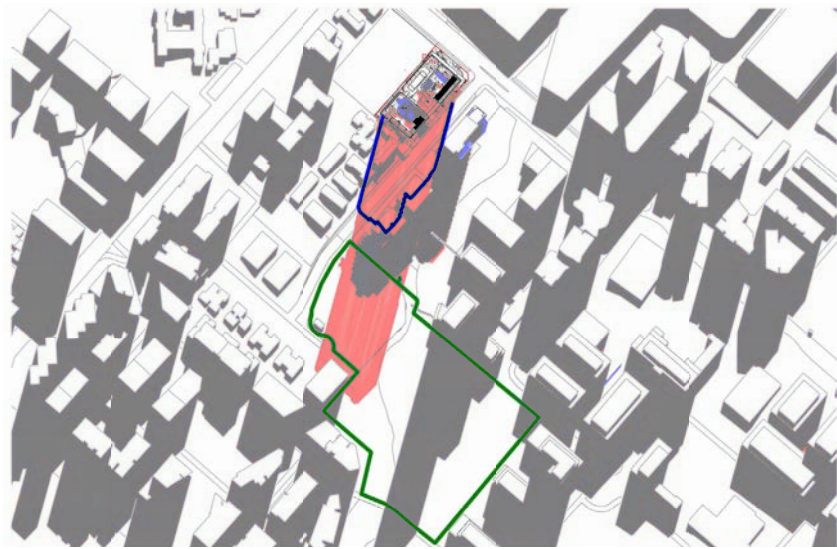
Overshadowing Open Space (cont.)



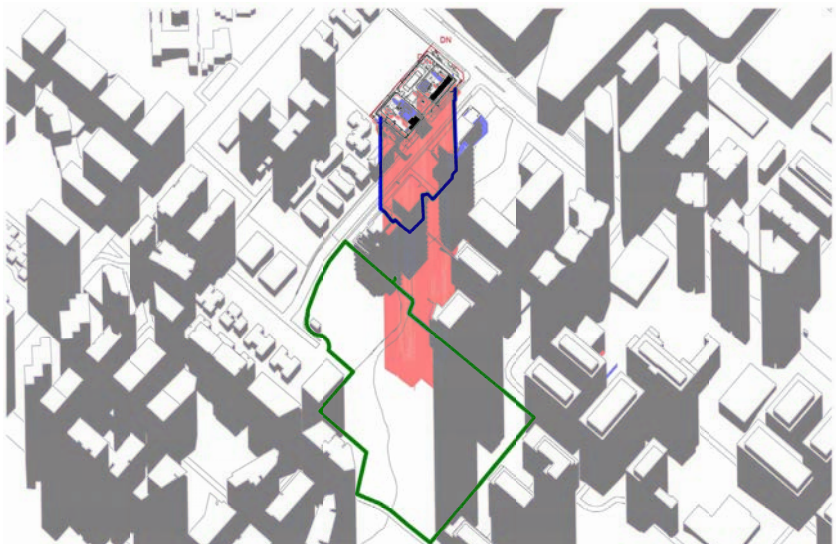
9am



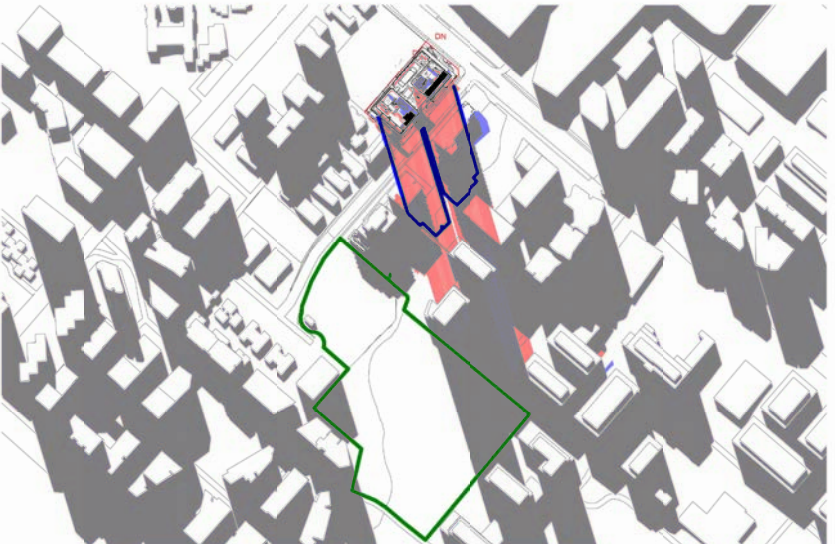
10am



11am



12pm



1pm



2pm



3pm

RESERVE	9am	10am	11am	12pm	1pm	2pm	3pm	AVERAGE
Wilga Park, Shrimptons Creek & Shrimptons Parkland	54%	62%	50%	56%	76%	82%	77%	65%
Solar Access of subject site with no context	100%	62%	80%	84%	98%	100%	100%	89%

1.4. Overshadowing & Solar Access to Adjoining Residential Developments

ISSUE

The proposal reduce s midwinter sunlight access to existing dwellings at 2-10 Cottonwood Crescent from 70% of apartments to 58%. This reduction is not supported.

- The solar heat map study of 33 surrounding properties indicates that a majority would maintain two hours of solar access to their north -east and north -west facades. However, this does not demonstrate that the surrounding properties would receive ADG compliant solar access to their dwellings or communal open spaces (COS) .

INFORMATION REQUIRED

The application must be updated to demonstrate how the proposal would affect the 33 surrounding properties in terms of midwinter solar access to dwellings and COS.

The proposal must be amended to avoid or minimise impacts that prevent surrounding residential developments, such as 2 -10 Cottonwood Crescent, from achieving compliance to midwinter solar access to dwellings and COS in accordance with the ADG. This is likely to result in:

a. A reduction in building height, gross floor area and dwelling yield.

RESPONSE

The proposed reduction of 70% to 58% units in 2-10 Cottonwood Crescent is overstated, as it compares the existing condition (that is, with no development) rather than the figure compared to the approved development application for 88 Waterloo.

The approved development has would already reduce the percentage of units receiving solar access at 2-10 Cottonwood Crescent's from 70% to 66%.

The proposed development further reduces solar access from 66% to 61% of apartments, representing an additional impact of 5% of units representing 10 additional apartments.

Of the 10 additional apartments impacted from the Approved DA 4 apartments receive 1.5 hours of solar access, and 6 receive 0.5 hours of solar access in mid winter - a relatively minor impact given the additional height facilitates >600 additional units compared to the approved DA.

However those apartments based on extended sun hours from 8am-3:15pm. The 4 apartments achieve 2.5 hours and the 6 apartments achieve 1 hour & 53minutes.

Based on the extended hours the additional 10 apartments would meet the ADG objective 4A-1. The proposed development achieves 66% solar access. (137 apartments out of 207). Refer to Section 1.4.2 for details.

As described previously, the ADG is intended to serve as a flexible policy document rather than rigid, strictly enforceable rulebook. The ADG's solar access controls are not equally relevant to different contexts, and in the high-density, high-rise environment of Macquarie Park it is expected that solar access will become more constrained.

Refer to the following pages that address the impacts to the surrounding propoerties.

Overshadowing Adjoining Residential (cont.)

Item #	Address	Building Type	Recieves 70%+ Solar Access		Communal Open Space (CoS) 50% Solar Access	Comments
			East Facade	North Facade		
1	12 LACHLAN AVENUE, MACQUARIE PARK	Multi Res	✓	✓	✓	No CoS Provided. Assessed front setback
2	10 LACHLAN AVENUE, MACQUARIE PARK	Multi Res	✓	✓	✓	No CoS Provided. Assessed front setback
3	6 LACHLAN AVENUE, MACQUARIE PARK	Multi Res	✓	✓	✓	No CoS Provided. Assessed front setback
4	2-4 LACHLAN AVENUE, MACQUARIE PARK	Multi Res	✓	✓	✓	
5	13 COTTONWOOD CRESCENT, MACQUARIE PARK	Multi Res	✗	✓	No CoS Provided	Refer Section 5.11.8.5. No additional impact.
6	11 COTTONWOOD CRESCENT, MAC. PARK	Multi Res	✓	✓	No CoS Provided	
7	9 COTTONWOOD CRESCENT, MAC. PARK	Multi Res	✓	✓	No CoS Provided	
8	7 COTTONWOOD CRESCENT, MAC. PARK	Multi Res	✓	✓	No CoS Provided	
9	5 COTTONWOOD CRESCENT, MAC. PARK	Multi Res	✓	✓	No CoS Provided	
10	1-3 COTTONWOOD CRESCENT, MAC. PARK	Multi Res	✓	✓	✓	
11	121-129 MAHOGANY AVENUE, MAC PARK	Future Multi Res	✓	✓	✓	
12	2 MAHOGANY AVENUE, MACQUARIE PARK	Multi Res	✓	✓	✓	
13	1 MAHOGANY AVENUE, MACQUARIE PARK	Multi Res	✓	✓	No CoS Provided	
14	1 PEACH TREE ROAD, MACQUARIE PARK	Multi Res	✓	✓	No CoS Provided	
15	3 PEACH TREE ROAD, MACQUARIE PARK	Multi Res	✓	✓	No CoS Provided	
16	5 PEACH TREE ROAD, MACQUARIE PARK	Multi Res	✓	✓	✓	No CoS Provided. Assessed front setback
17	7 PEACH TREE ROAD, MACQUARIE PARK	Multi Res	✓	✓	✓	No CoS Provided. Assessed front setback
18	9 PEACH TREE ROAD, MACQUARIE PARK	Multi Res	✓	✓	✓	
19	14-16 COTTONWOOD CRESCENT, MAC. PARK	Multi Res	✓	✓	✓	Refer page 27 for detailed analysi
20	2-10 COTTONWOOD CRESCENT, MAC PARK	Multi Res	✗	✓	✓	
21	82-84 WATERLOO ROAD, MAC. PARK	Multi Res	✓	✓	✓	Refer page 27 for detailed analysis
22	80 WATERLOO ROAD, MACQUARIE PARK	Multi Res	✗	✓	✓	Achieves 65.4% to eastern & 93.3% to northern facade. Refer page 28.
23	78 WATERLOO ROAD & 31 BYFIELD, MACQUARIE PARK	Commercial	✓	✓	N/A	Commercial Buildings Solar Access N/A
24	68 WATERLOO ROAD, MACQUARIE PARK	Commercial	✓	✓	N/A	
25	66 WATERLOO ROAD, MACQUARIE PARK	Commercial	✓	✓	N/A	
26	60 WATERLOO ROAD, MACQUARIE PARK	Commercial	✓	✓	N/A	
27	3 BYFIELD STREET, MACQUARIE PARK	Future Multi Res	✗	✓	✓	Achieves 69% to eastern facade. Refer page 28.
28	5 BYFIELD STREET, MACQUARIE PARK	Future Multi Res	✓	✓	✓	
29	6-8 BYFIELD STREET, MACQUARIE PARK	Future Multi Res	✓	✓	✓	Refer page 27 for detailed analysis
30	10 BYFIELD STREET, MACQUARIE PARK	Commercial	✗	✗	N/A	Commercial Building Solar Access N/A
31	12 LYON PARK ROAD, MACQUARIE PARK	Future Multi Res	✓	✓	✓	
32	13-15 LYON PARK ROAD, MACQUARIE PARK	Future Multi Res	✓	✓	✓	
33	16-20 GIFFNOCK AVENUE, MACQUARIE PARK	Future Multi Res	✓	✓	✓	

Schedule of Neighbouring Buildings

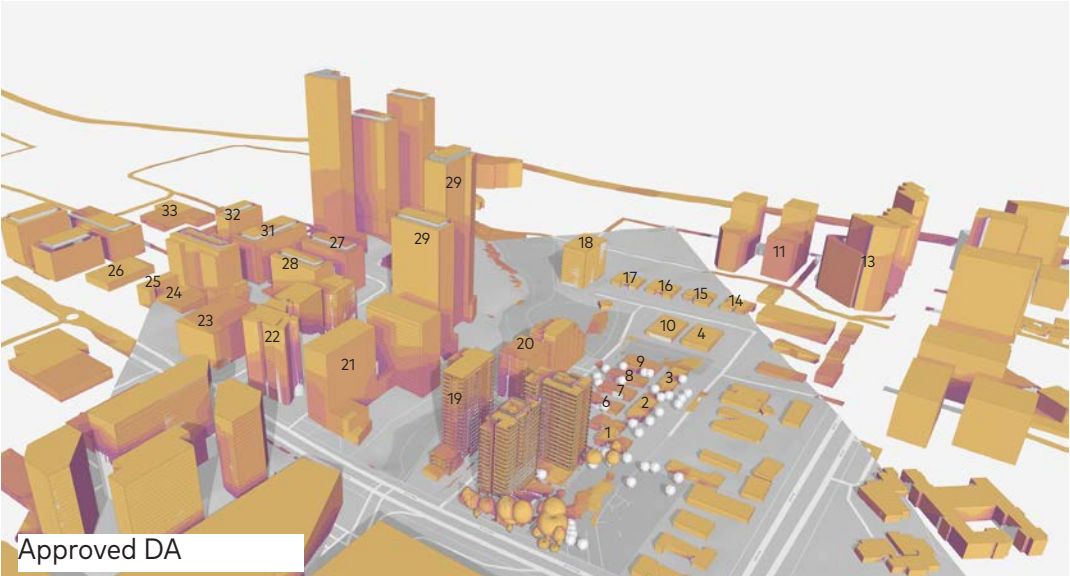


Location Plan

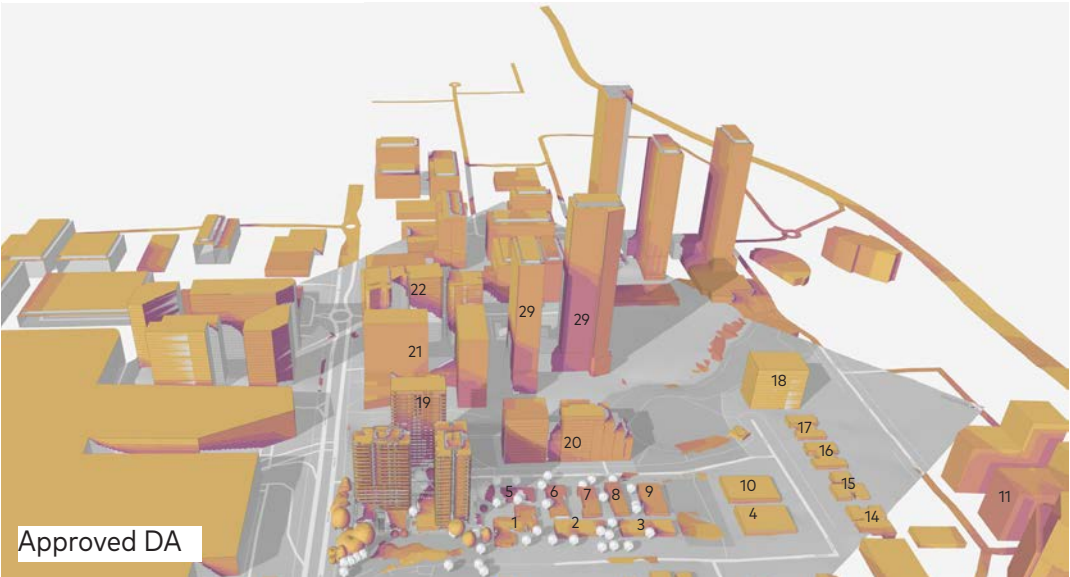
Precinct Analysis

A solar heat map study of the precinct with existing, approved DA's and possible future built form was completed to review overshadowing impacts to the surrounding context. The heat maps show no significant overshadowing. That the majority of the buildings will maintain 2 hours of solar access to their north east and north west facades (the south western facades don't receive solar access due to the orientation to the sun).

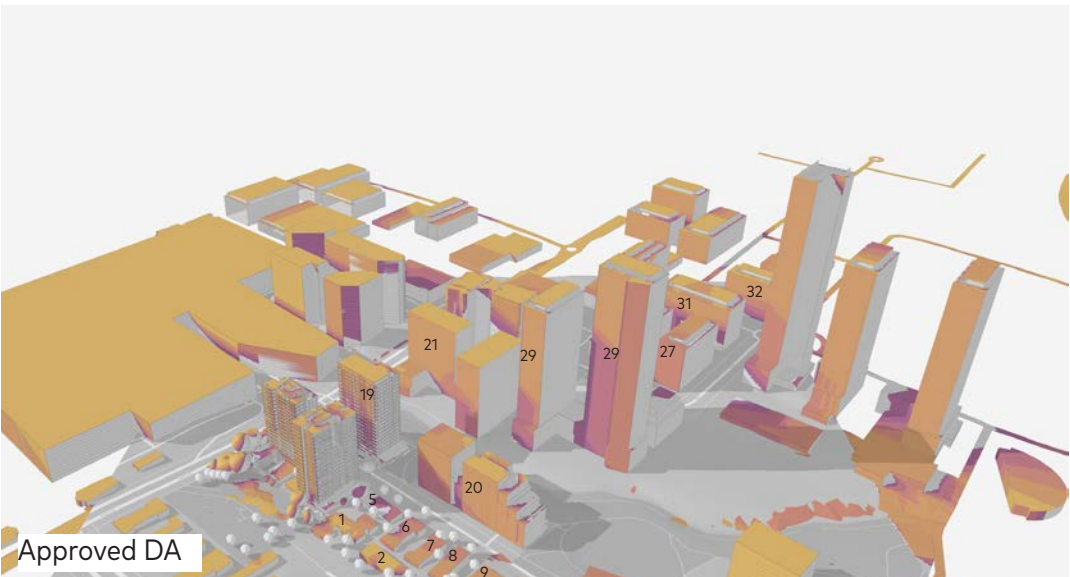
Heat map study of future context with Approved



View from the north

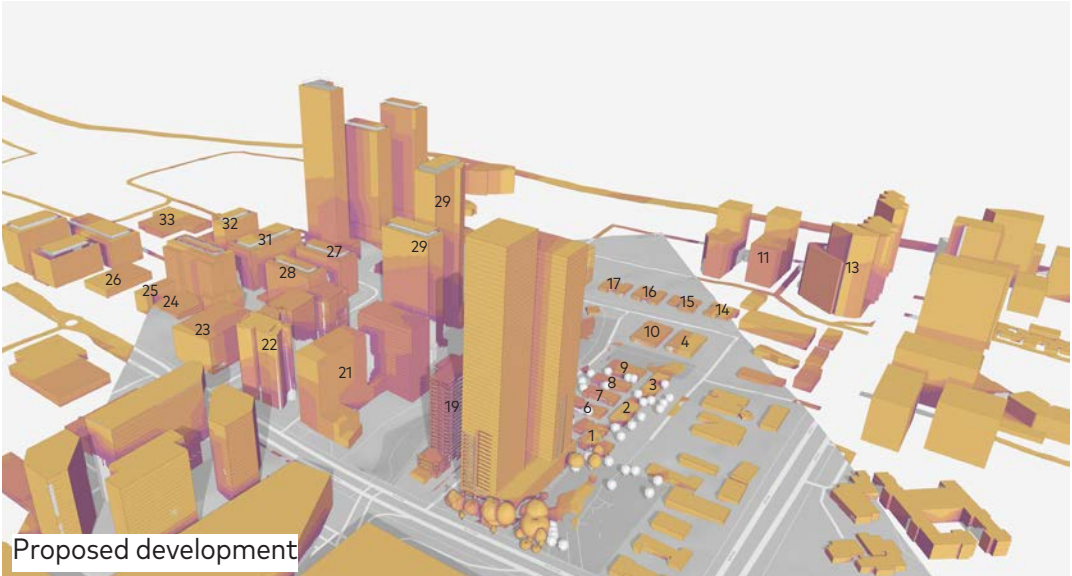


View from the north west

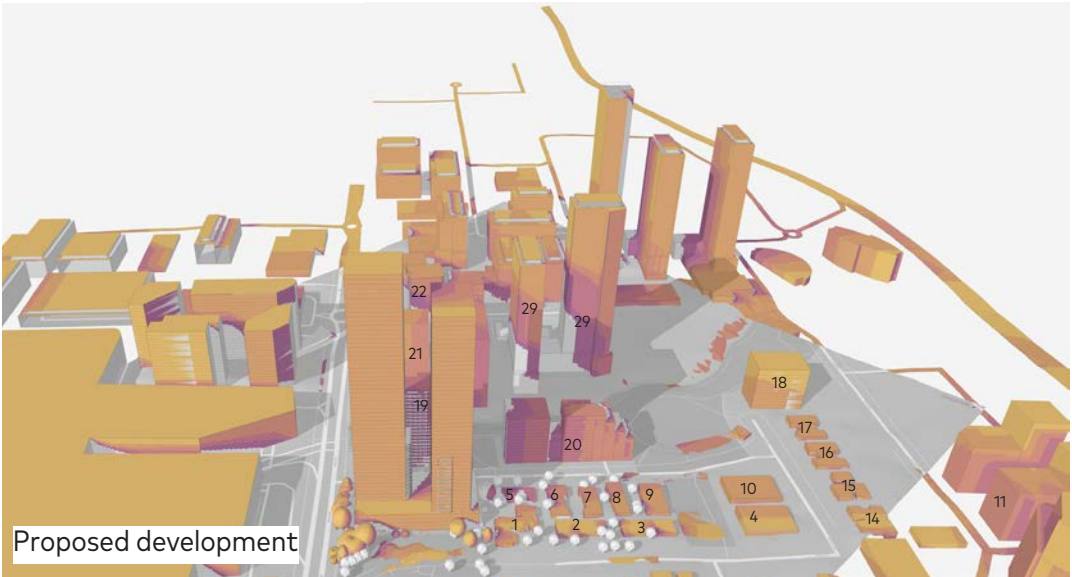


View from the south

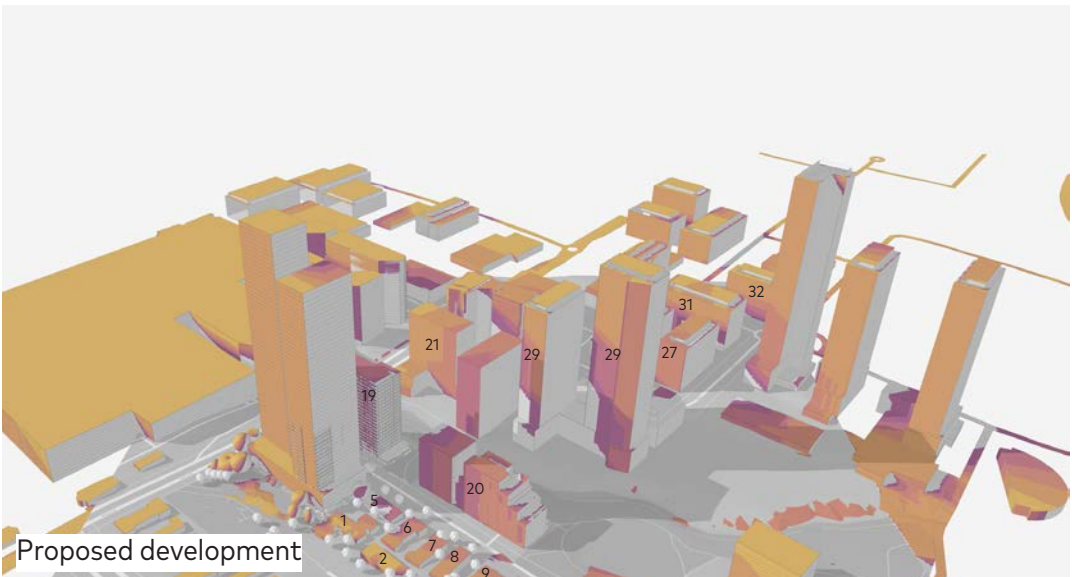
Heat map study of future context with proposed development



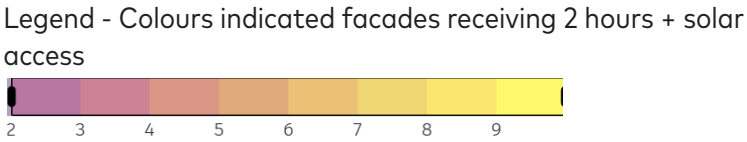
View from the north



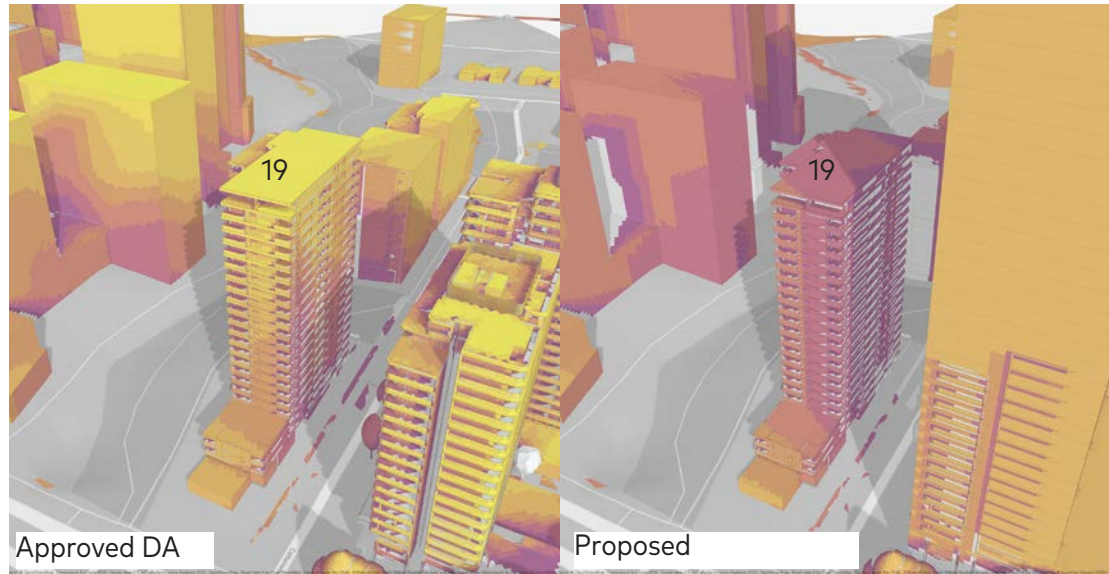
View from the north west



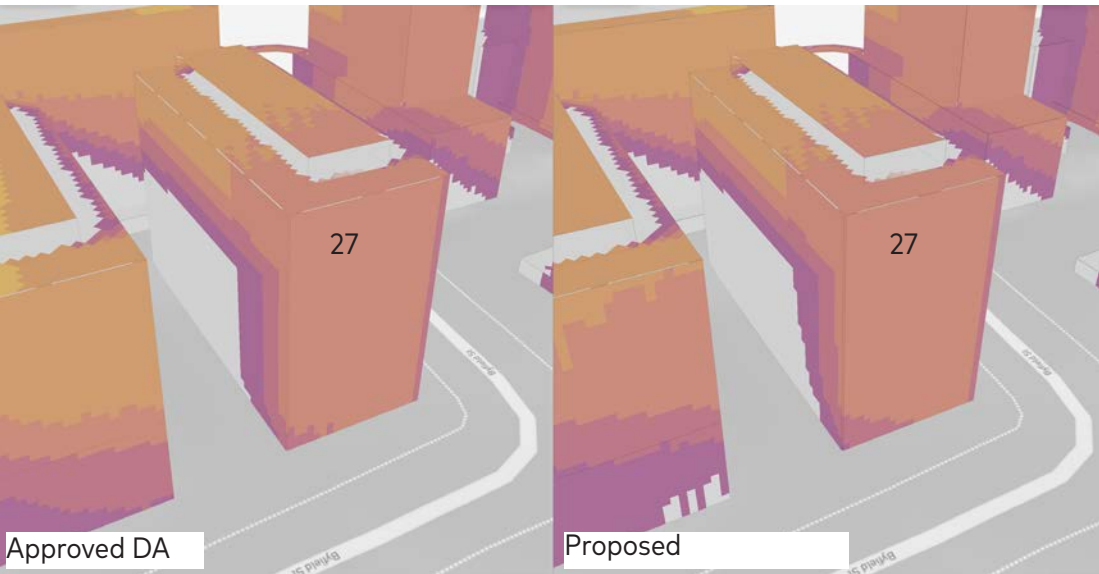
View from the south west



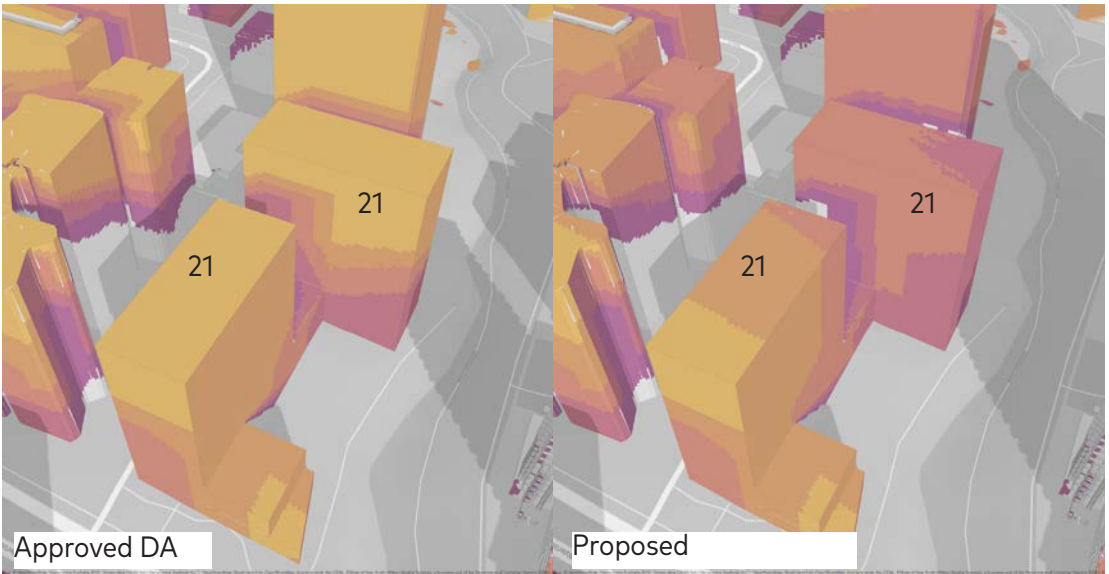
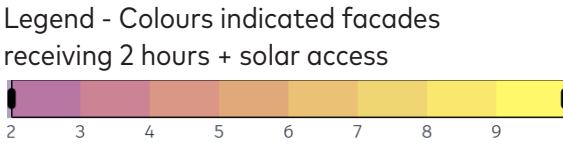
Detailed Solar Anyalsis of Neighbouring Buildings



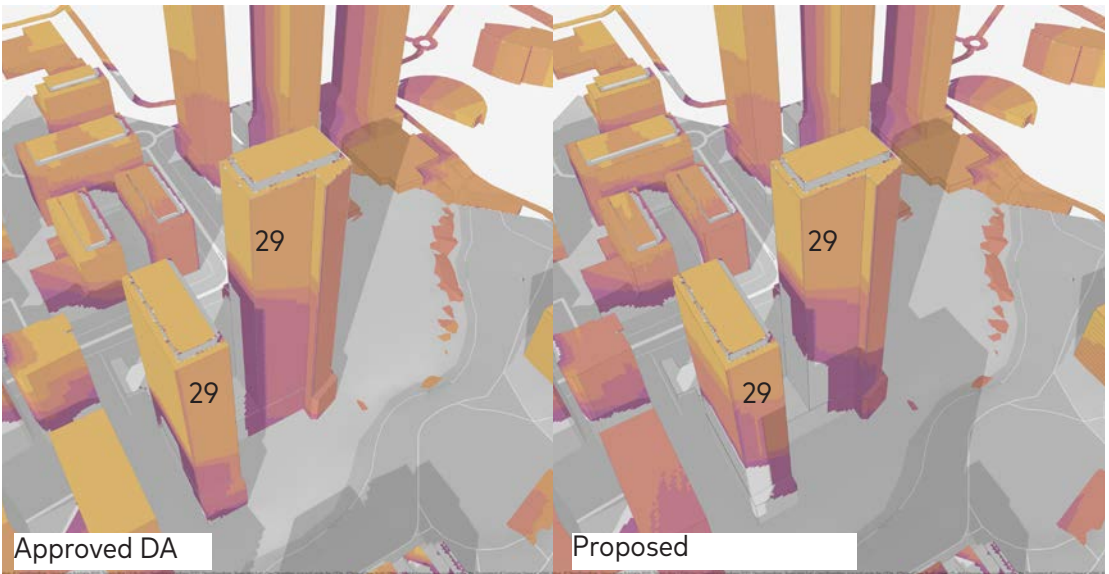
Item 19 14-16 COTTONWOOD CRESCENT, MACQUARIE
The development achieves 82.5% solar access under the Approved DA scheme, the number remains the same with the Proposed Development. Refer Section 1.4.2.



Item 27 3 BYFIELD STREET, MACQUARIE PARK
The eastern facade achieves 71.8% solar access under the Approved DA scheme, this is reduced to 69% with the Proposed Development. The northern facade is unaffected and achieves 100% solar access. Based on the cumulative impacts shown above, the future development potential of 3 Byfield Street could still be achieved.

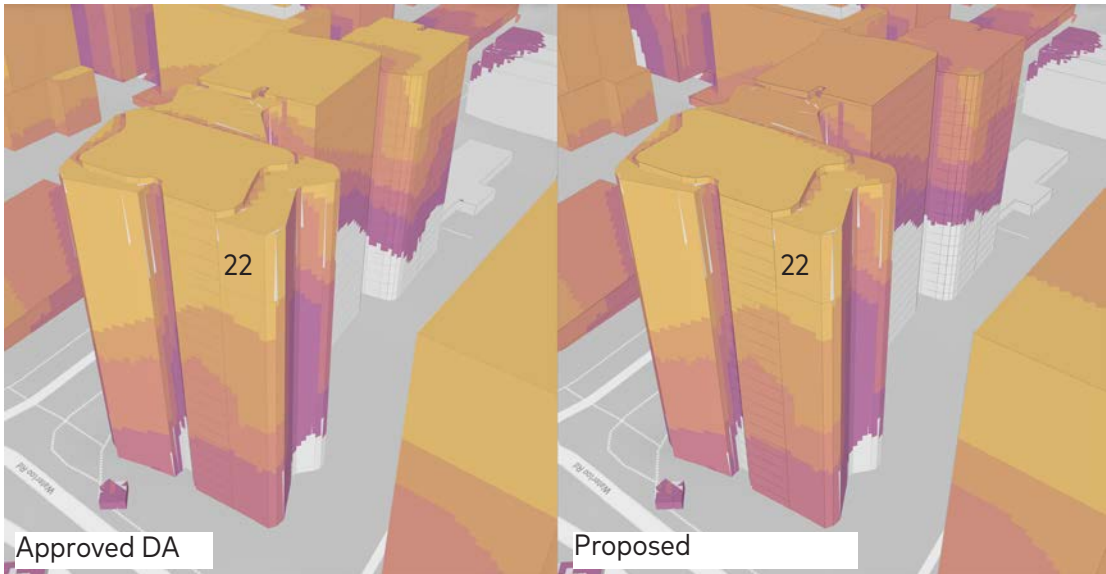


Item 21 82-84 WATERLOO ROAD, MACQUARIE PARK
The eastern facade achieves 100% solar access under the Approved DA scheme, this is reduced to 91% with the Proposed Development. The northern facade is unaffected and achieves 100% solar access. Based on the cumulative impacts shown above, the future development potential of 3 Byfield Street could still be achieved.

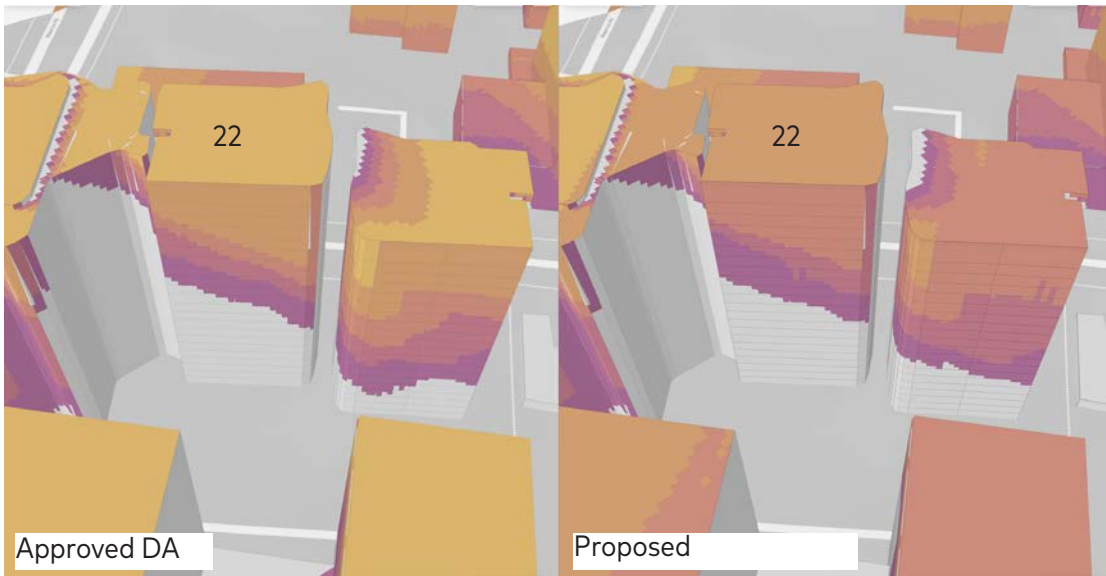


Item 29 6-8 BYFIELD STREET, MACQUARIE PARK
The eastern facade achieves 87% solar access under the Approved DA scheme, this is reduced to 76% with the Proposed Development. The northern facade achieves 94% solar access under the Approved DA scheme, this is reduced to 86% with the Proposed Development. Based on the cumulative impacts shown above, the future development potential of 6-8 Byfield Street could still be achieved.

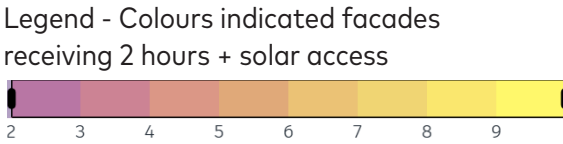
Detailed Solar Anyalsis of Neighbouring Buildings



Item 22 80 WATERLOO ROAD, MACQUARIE
The eastern facade achieves 94.2% solar access under the Approved DA scheme, this is reduced to 93.3% with the Proposed Development.



Item 22 80 WATERLOO ROAD, MACQUARIE PARK
The northern facade achieves 67.6% solar access under the Approved DA scheme, this is reduced to 65.4% with the Proposed Development. Based on the cumulative impacts to the eastern and northern facades the existing development will still achieve an average of 80.9% solar access to these facades.



Communal Open SPacedetailed Solar Anyalsis of Neighbouring Buildings



Aerial View

1.4.2 Metric impacts on Adjoining Residential

13 Cottonwood Crescent, Macquarie Park

Existing: 0% of apartments will receive at least two hours of sunlight to the balcony and living spaces between 9am-3pm

Proposed: 0% of apartments will receive at least two hours of sunlight to the balcony and living spaces between 9am-3pm

2-10 Cottonwood Crescent, Macquarie Park

Existing: 70% of apartments will receive at least two hours of sunlight to the balcony and living spaces between 9am-3pm (146 apartments out of 207)

Approved DA: 66% of apartments will receive at least two hours of sunlight to the balcony and living spaces between 9am-3pm (137 apartments out of 207)

Proposed: 61% of apartments will receive at least two hours of sunlight to the balcony and living spaces between 9am-3pm (127 apartments out of 207)

Of the 10 additional apartments impacted from the Approved DA 4 apartments receive 1.5 hours of solar access, and 6 receive 0.5 hours of solar access in mid winter. Based on extended sun hours from 8am-3:15pm. The 4 apartments achieve 2.5 hours and the 6 apartments achieve 1 hour & 53minutes.

Based on extended hours the additional 10 apartments would meet the ADG objective 4A-1. The proposed development achieves 66% solar access. (137 apartments out of 207)

14-16 Cottonwood Crescent, Macquarie Park

(Based on current application under assessment)

Existing: 82.5% of apartments will receive at least two hours of sunlight to the balcony and living spaces between 9am-3pm. (104 apartments out of 126 total)

Approved DA: 82.5% of apartments will receive at least two hours of sunlight to the balcony and living spaces between 9am-3pm. (104 apartments out of 126 total)

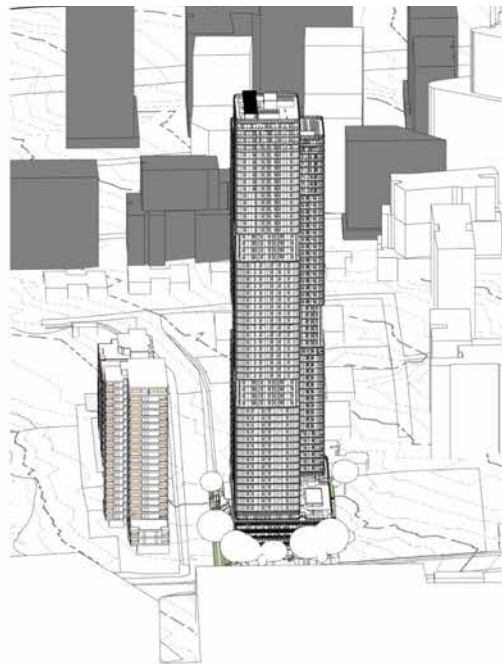
Proposed: 82.5% of apartments will receive at least two hours of sunlight to the balcony and living spaces between 9am-3pm. (104 apartments out of 126 total)



7 DA2605 - 21 JUNE 2050 - 8 00AM



8 DA2605 - 21 JUNE 2050 - 10 15AM



1 DA2605 - 21 JUNE 2050 - 9 00AM



4 DA2605 - 21 JUNE 2050 - 11 00AM



2 DA2605 - 21 JUNE 2050 - 9 45AM



5 DA2605 - 21 JUNE 2050 - 11 37AM



3 DA2605 - 21 JUNE 2050 - 10 00AM



6 DA2605 - 21 JUNE 2050 - 12 00PM

Overshadowing Adjoining Residential (cont.)



1.5. Wind Assessment

ISSUE

The Pedestrian Wind Assessment identifies that wind conditions for areas within and surrounding the development do not all achieve safe and comfortable wind conditions, with some areas achieving uncomfortable wind conditions. This includes the proposed COS on the level 4 podium rooftop which would compromise residential amenity.

INFORMATION REQUIRED

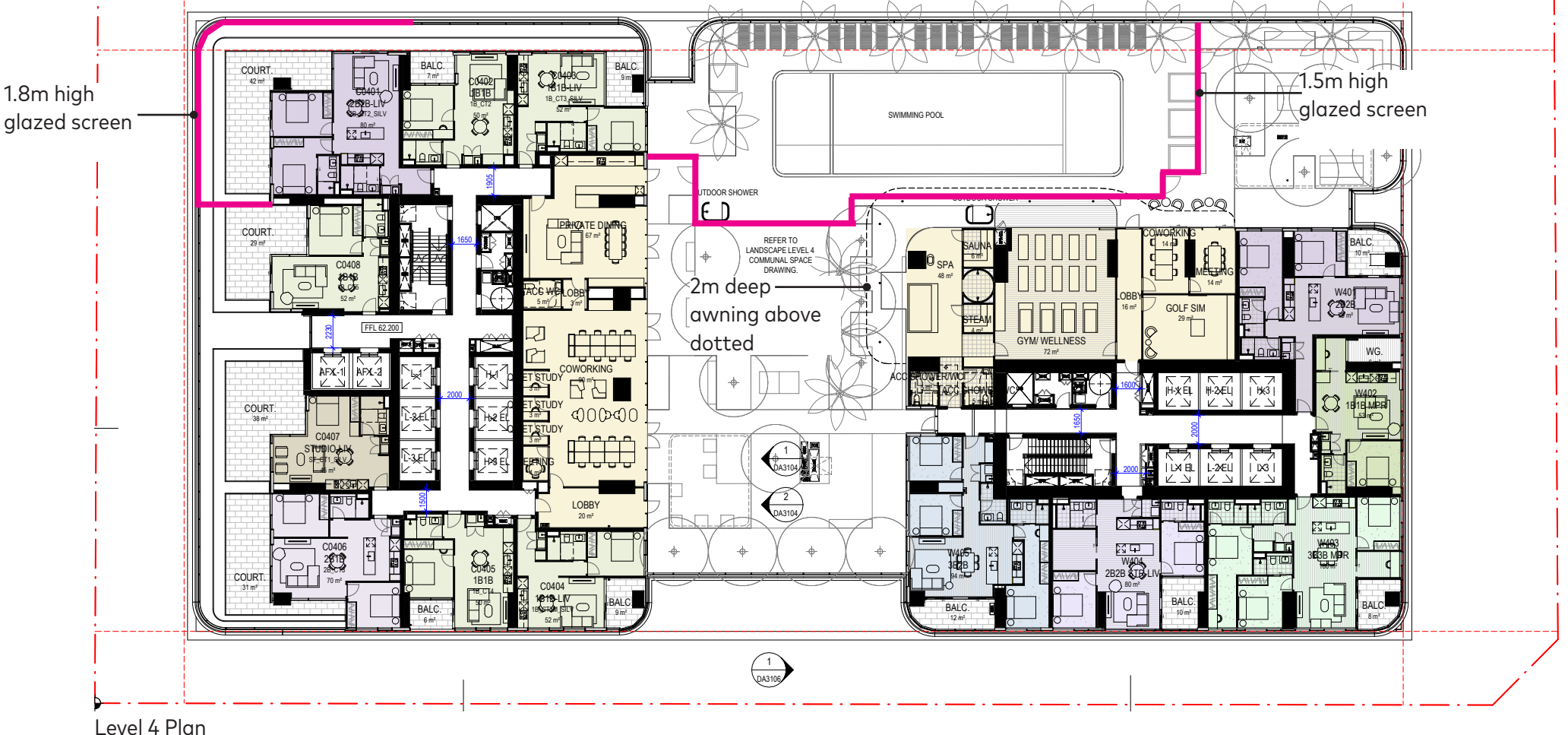
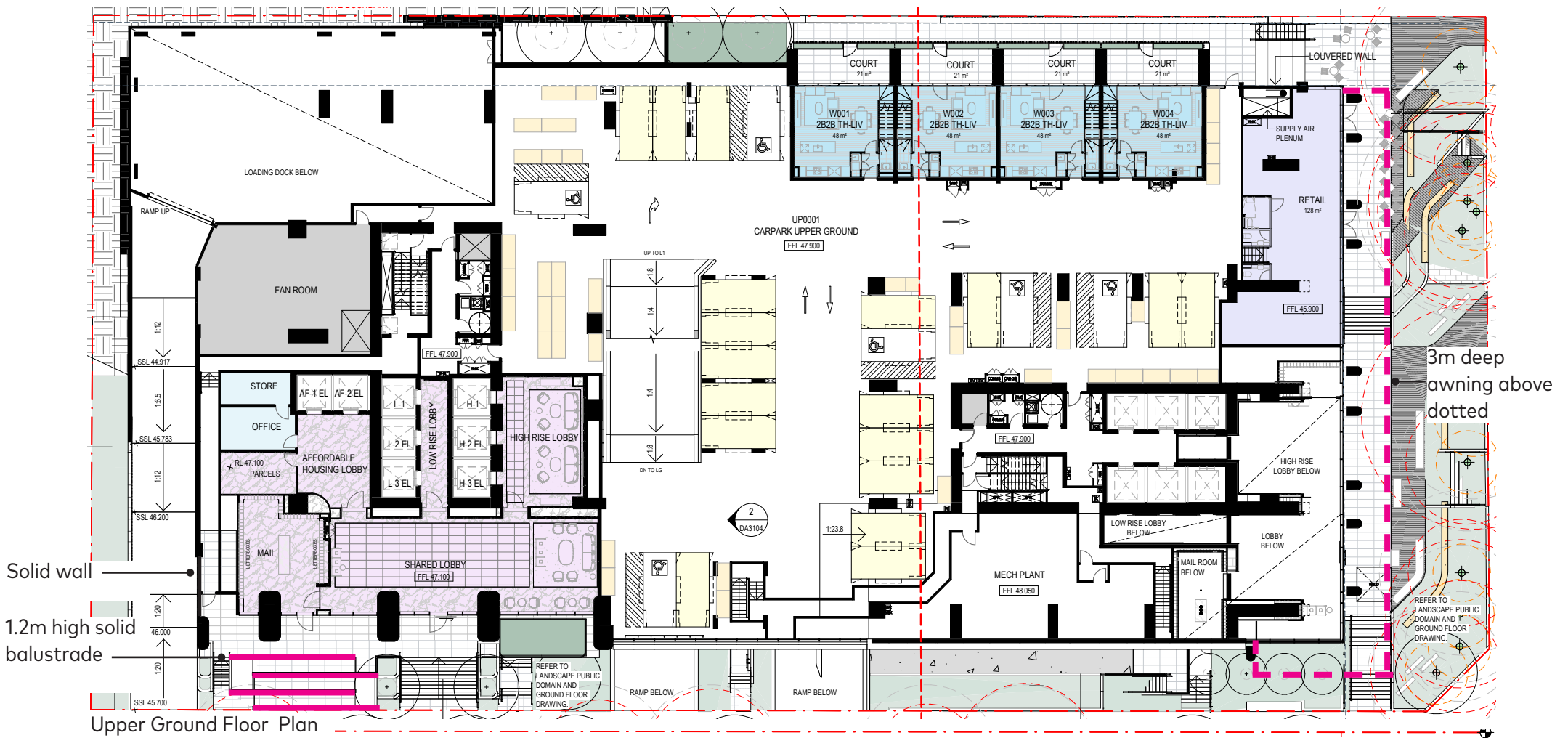
Detailed plans showing wind comfort conditions for all open spaces noting alignment with intended use and how comfort and safety will be achieved. Where a space includes seating or areas for standing, the comfort levels must be appropriate for this use.

The proposal is to demonstrate how wind impacts have been mitigated through the proposed building design and massing and that any mitigation measures will not impact solar access and the design of the building.

The Pedestrian Wind Assessment must be updated to confirm the effectiveness of all proposed wind mitigation strategies that have been integrated into the design.

RESPONSE

The revised Pedestrian Wind Assessment has identified several areas in the development that require mitigation. These have been addressed in the proposed design. Refer to updated Wind Assessment report.



1.6. Tree Retention

ISSUE

The subject site benefits from existing trees along Cottonwood Crescent, Waterloo Road and Elouera Reserve. These trees provide shade, natural screening and contribute to streetscape character. Of the 65 trees identified in the Arboricultural Impact Assessment, the proposal seeks to remove 49 of them. It is unclear why more trees, especially those located close to site boundaries or on adjoining land, cannot be retained. The retention of existing trees, supported by additional plantings and landscaping will help preserve streetscape character and increase public domain amenity including along the interface to Elouera Reserve.

INFORMATION REQUIRED

A greater number of existing trees must be retained along Cottonwood Crescent, Waterloo Road and frontage with Elouera Reserve . Consider the retention of the following trees that are currently marked for removal: 25, 26 , 27, 28, 30, 38, 39 , 41, 45 and 46 . This may be achieved by increasing basement and podium setbacks to all property boundaries (this could also assist with points 1 and 2 above).

RESPONSE

The revised design proposes to remove 45 trees. A reduction of 4 trees from the Approved DA. Refer to Arborist Report and Landscape Design Report for approach to tree retention and new planting.

We note that most of the trees flagged have already been approved for removal in the existing Development Approval:

DPHI flagged list of trees to consider for retention:
25, 26 , 27, 28, 30, 38, 39 , 41, 45 and 46 .

Flagged list of trees approved for removal in existing DA:
25, 26, 27, 28, 30, 45, 46

Flagged trees not approved for removal in existing DA:
38, 39, 41. Of which Tree 41 in the revised design has been proposed to be retained.

The removal of each of these two additional trees is due to the encroachment within their Notional Root Zone (NRZ) by the basement extent. The reduction in basement extent was reviewed but was not considered viable given the already very high cost of the basement, which is significantly impacted by the Metro Second Reserve. While it was not considered appropriate to significantly increase basement cost for these trees, additional planting has been provided to offset their loss.

1.7. General

ISSUE

Several abbreviated notations used in the architectural plans are not explained, such as rooms labelled MPR in certain dwellings or G/EX, WMC and MATV on the roof plans. All abbreviations must be accounted for.

RESPONSE

All abbreviations have been added to the list on the Project Summary Sheet DA0001 in the RtS Architectural Documentation Set.

2. Responses to City of Ryde Submissions



2.1. Strategic Inconsistency

COUNCIL SUBMISSION

"The application states that the project aligns with the Local Planning Strategies, however, inadequate planning and urban design justification has been demonstrated, rather the application relies heavily on Ministers declaration of the SSD pathway and provision of housing supply as part of the proposal. However, this does not justify the excessive height and FSR on this site.

The subject site is not identified as benefiting from any increase in height of FSR in any of Council's or DPHI's adopted strategic policies. In addition, the subject site is not identified as being within Macquarie Park Corridor, for the purposes under the Ryde LEP2014 (part 7) or any of the Departments rezoning of Macquarie Park. The site is located outside the Macquarie Park Stage 1 and Stage 2 rezoning boundaries. The site is located within the Herring Road Activation Precinct, which around 2010-2016 went through a state rezoning process and received uplift to the current controls under the RLEP 2014, which are already generous and are based on the level of infrastructure that can cope with the density on the site. The proponent is seeking to further increase the height and FSR, this highlights that the applicant's proposal is an out of sequence rezoning that is not responding to existing infrastructure and the strategic planning frameworks.

The proposal seeks a maximum building height of 205.5 m (now 212m), which substantially exceeds both:

- the tallest building currently approved in Macquarie Park (Trilogy by Meriton), and*
- the future height framework envisaged for identified key sites within the Macquarie Park TOD Precinct.*

A detailed strategic and site-specific assessment is required with the planning proposal, including assessment against the 9.1 Ministers Directions. Details provided in the EIS are not adequate and the proposed height and FSR as proposed cannot be justified. Council seeks that the building height and FSR be reduced and or additional community benefit be provided to address the increased infrastructure demand imposed by this development."

RESPONSE

Council's primary concern is that the design represents a major uplift in allowable height and density, which is not currently envisaged in the planning framework.

The proposal is being submitted through the HDA pathway which attempts to specifically address well located sites that can support housing, including where this challenges the existing planning framework.

The context of Macquarie Park has significantly changed since the planning controls that apply to 88 Waterloo were defined. A subsequently Planning Proposal hugely changed the area's expected height datum, allowing a 58-storey Meriton tower much further from the station (and without adjacent amenity) than 88 Waterloo. At the time, that planning proposal was not envisaged by any planning policy, and was approved before the Draft Sydney Plan and/or TOD Precincts were announced. The planning context then further changed when a subsequent State-led Rezoning of Macquarie Park's Enterprise areas ('the Macquarie Park TOD') extended these 'very tall' building heights across almost the full east-to-west length of the Macquarie Park suburb.

Although the State-led Rezoning only applied to the Enterprise zoned areas of Macquarie Park, tall building heights at 88 Waterloo would align with the principles - particularly the Skyline Strategy - that the State-led rezoning used to select locations for tall buildings. In particular, the State-led rezoning aimed to position buildings of a similar height to the proposal in areas of high amenity and gateways into the innovation precinct.

The proposal is justified as a high-density, transit-oriented residential/mixed-use development in a location with exceptional access to Macquarie University Metro Station, Macquarie Centre, Macquarie University, Elouera Reserve and the Shrimptons Creek open space network.

2.2. Lack of Infrastructure & Infrastructure Impact/ Demands not addressed - Key Sites in Macquarie Park

COUNCIL SUBMISSION

"There is an existing DA approval, determined by Council in April 2025, under LDA2024/0158 which approved a residential development comprising 255 dwellings. The SSD is seeking an approximate 374% increase in Gross Floor Area (GFA) from the approved 23,071m² to 86,224m² with no provision of additional infrastructure above the required s7.12 levy. ... [Commentary on S27.12 Contributions not relevant to this discipline] ...

Key Sites in Macquarie Park

The NSW Government's recent rezoning of the Macquarie Park Transport Oriented Development (TOD) Precinct facilitated increased development capacity in 13 key sites.

The increase in permissible GFA on these sites ranged from 120% to 253%. This additional yield can only be accessed if specific additional open space, access infrastructure, and affordable housing is provided on the respective sites. The additional open space requirements on key sites is an average of 20% of the uplift. This infrastructure is identified in Part 7 of RLEP and is in addition to the 7.12 levy for local infrastructure.

The NSW Government's rezoning was informed by economic analysis to balance feasibility with an appropriate level of infrastructure provision. This application seeks significant uplift that is far greater than the key sites, i.e. 373% increase in GFA uplift.

Therefore, the application should include similar infrastructure considerations as the key sites."

RESPONSE

Council raises that the proposed changes to the planning framework are out of step with those made in the recent State-led Macquarie Park Transport Oriented District immediately adjacent. We note that Floor Space Ratio is primarily a function of site area; the precise % uplift is relevant to achievable number of units but not necessarily the difference in built form.

The proposal at 88 Waterloo increases building height from a recent approval of 22-storey shoptop apartment building to a proposed 62-storey shoptop apartment building. The State-led rezoning of Macquarie Park provided uplift from 8-storey commercial sites to 58-storey residential towers. The uplift at 88 Waterloo is not, therefore, considered to represent "uplift that is far greater than the key sites [in the State-led rezoning]"; nor should this necessarily be considered relevant, given this is a separate planning process and is being funded by the proponent rather than directly by State Government.

Similarly, the inclusion of public open space in incentive clauses for key sites in the Macquarie Park TOD is less relevant to 88 Waterloo since it is already abutting a large park. The site is also not large enough to deliver additional open space, nor is the immediate area in need of it.

Instead, the 'social infrastructure' that the proposal will deliver is Affordable Housing. This is extensively detailed elsewhere in the Response to Submissions.

2.3. Waste Management Issues

COUNCIL SUBMISSION

"During consultation with Council the applicant was requested to provide additional information and was provided with advice regarding the required Waste Management arrangement on the site. However, this matter has not been addressed in the SSDA.

Council strongly objects to the proposal on these grounds.

The following issues must be addressed:

The applicant is required to redesign the waste storage and collection area and provide details to demonstrate full compliance with Council requirements. The following has not been addressed and is required:

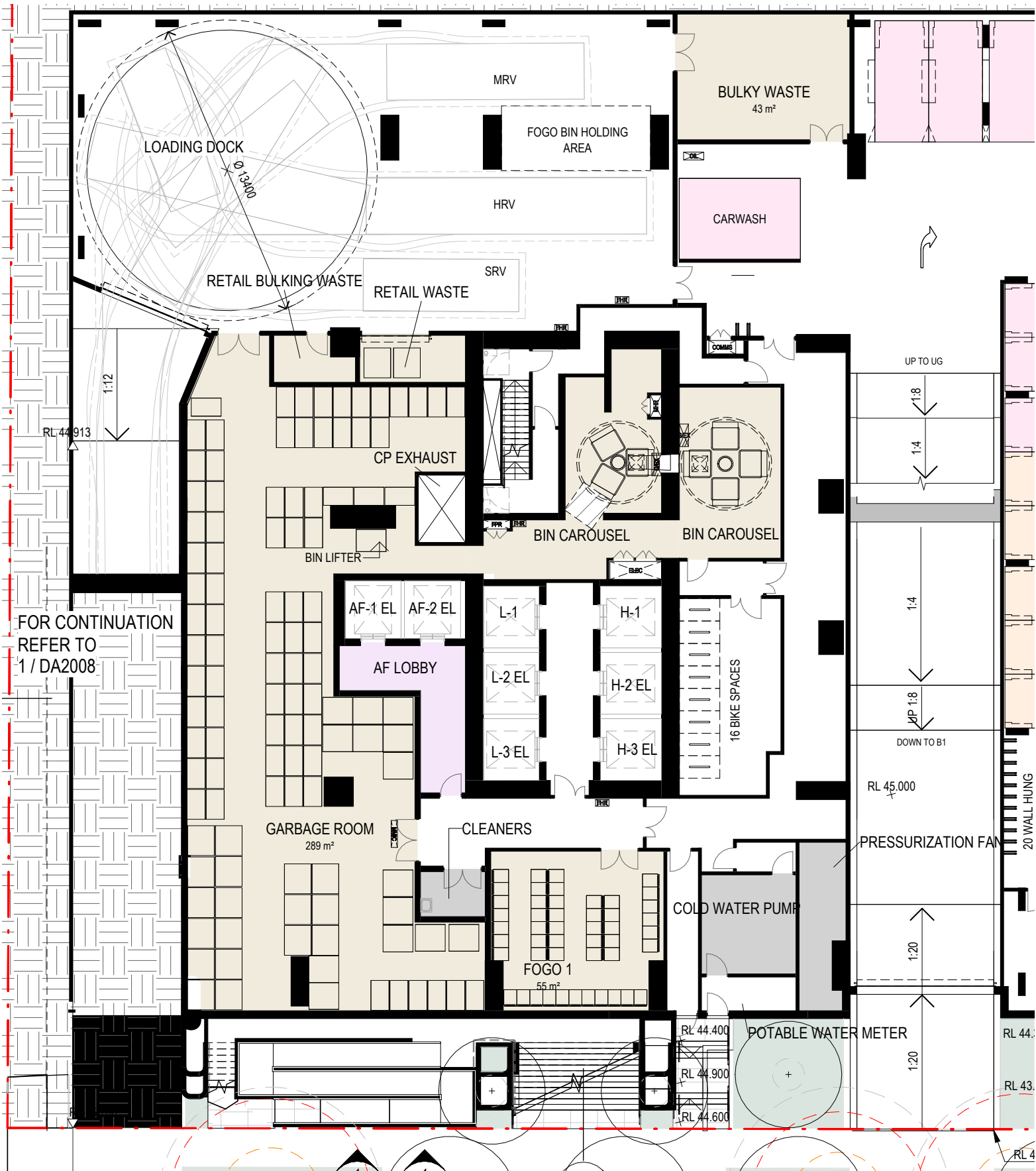
- Provide swept paths for a heavy rigid vehicle in accordance with AS 2890.02 to ensure waste collection vehicles can safely access the site for servicing. The swept paths provided cannot be used to clearly identify the proposed transit of the 12.5 metre HRV utilised for waste collection. Swept paths must be clearly identified for each vehicle type.
- The paths detailed in the Traffic Impact Assessment do not clearly show the vehicle body therefore conflicts cannot be determined.
- The provided swept paths do not clearly demonstrate whether the proposed turntable is unobstructed from bins doors, or support structures. This space must remain clear of all obstructions to support safe and efficient servicing.
- Provide a minimum 1.5 metre door to support efficient access to bins for servicing and rotation.
- FOGO waste rooms shown demonstrate a single doorway.
- The provision of 1.5m doorways support more convenient access with bin movement equipment and future proof waste room design for larger bins or equipment.
- Provide a bin movement aid (e.g. tug and trailer) and suitable storage beside the waste collection area. The proposed bin movement paths are excessive for the manual movement of bins for servicing.
- Provide a minimum 5 square metres for the storage of bulky items from the commercial tenants, including furniture and pallets to reduce potential illegal dumping.
- Provide an updated waste management plan which reflects the required changes."

RESPONSE

Refer primarily to Waste Management report for details and responses to Waste Management Issues.

Updated DA drawings have been provided to ensure that:

- Garbage room and FOGO rooms have compliant doorway widths.
- Truck swept paths are illustrated.
- Bin movement aid to be shown (follows Waste Management consultant advice).
- Commercial Bulky storage added to Lower Ground level next to loading dock.



Lower Ground Plan

2.4. Vehicle Access, Servicing Facilities and Parking

COUNCIL SUBMISSION

The development proposes to provide the maximum level of off-street parking based on the parking rates in the DCP Part 9.3 (Parking Controls). Considering the site is opposite a major public transport hub, having access to many multiple bus services and Metro train service, this is an unacceptable arrangement and disregards the principals of a Transport Oriented Development. The objectives of the parking controls in the Macquarie Park corridor seek to reduce the reliance of private motor vehicles as a means of public transport

The proposal also exacerbates the matter by providing only 38% of the maximum residential visitor parking allocation. Given that restriction of resident visitor spaces has no effect in terms of vehicle ownership, it is also far less to influence the mode of transport for transient visitors to the site. Noting this and the very high demand for on-street parking in the surrounding area, it is strongly advised that the allocation of visitor parking be maximized (86 spaces).

With respect to vehicle access, the following matters are noted and require attention;

- The service area accommodates only a single lane of service vehicle traffic. It is warranted that the entry to the facility be widened or a waiting bay be provided inside the property at the entry (so as to allow two way, opposing vehicle flow). The possibility of service vehicles having to stand and block through traffic in Cottonwood Crescent whilst waiting for an opposing vehicle to exit cannot be supported.
- The architectural plans should include a section taken through both internal ramps so as to confirm that the required grades and height clearances are achieved. It is understood that the driveway may require crest thresholds to be provided to prevent inundation by flood waters and therefore this may complicate a typical stacked ramp
- The visitor parking section on Lower Ground is noted to terminate in a dead end aisle that is longer than 6 parking bays. As per AS2890.1, the arrangement will warrant a turning bay to be provided at the end of the aisle.

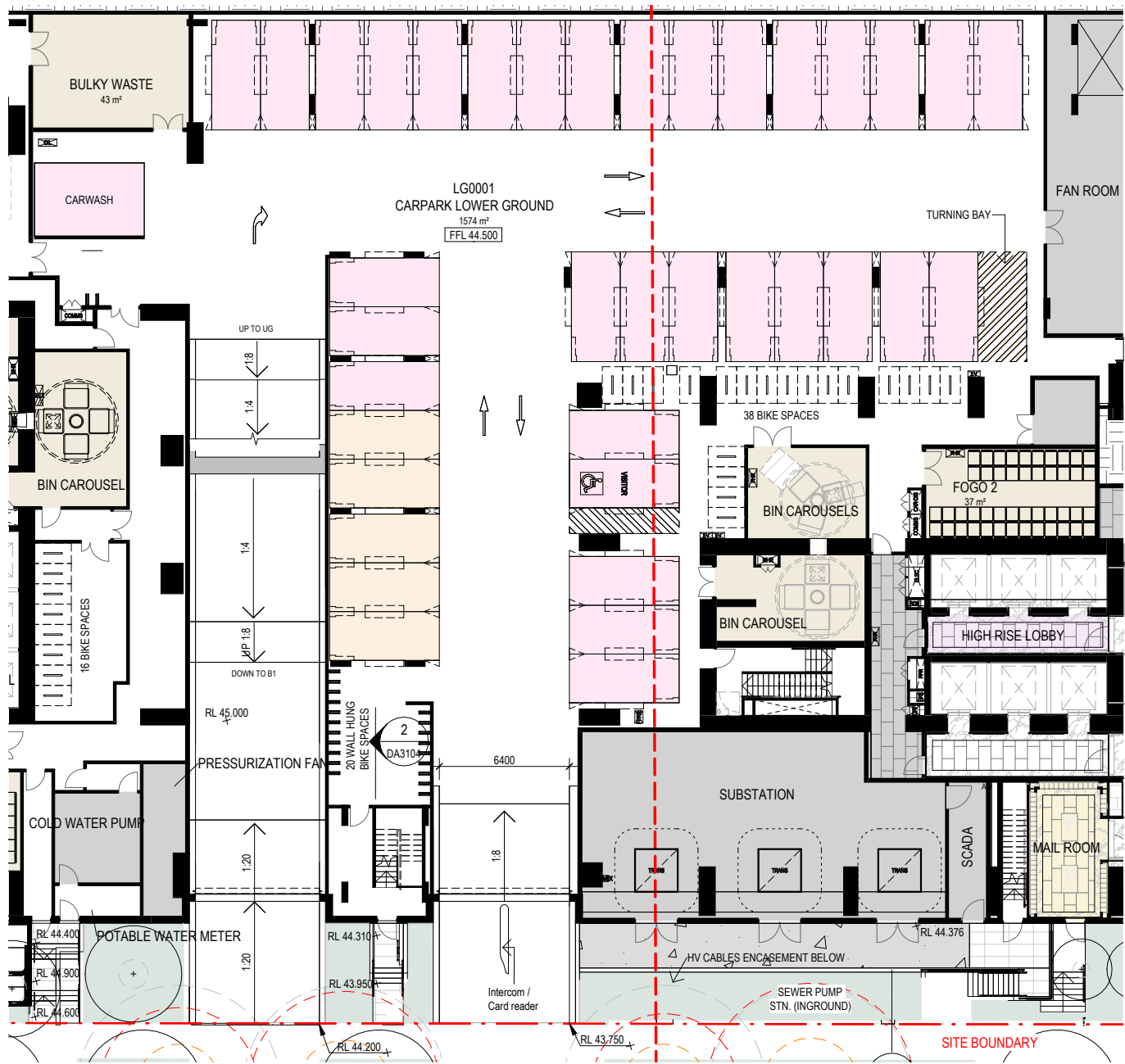
The proposal is noted to accommodate tandem parking and this will warrant that such spaces be allocated to the same unit. This matter could be addressed by condition.

RESPONSE

Refer generally to Transport Report by JMT for service vehicle access strategy, and visitor parking allocation.

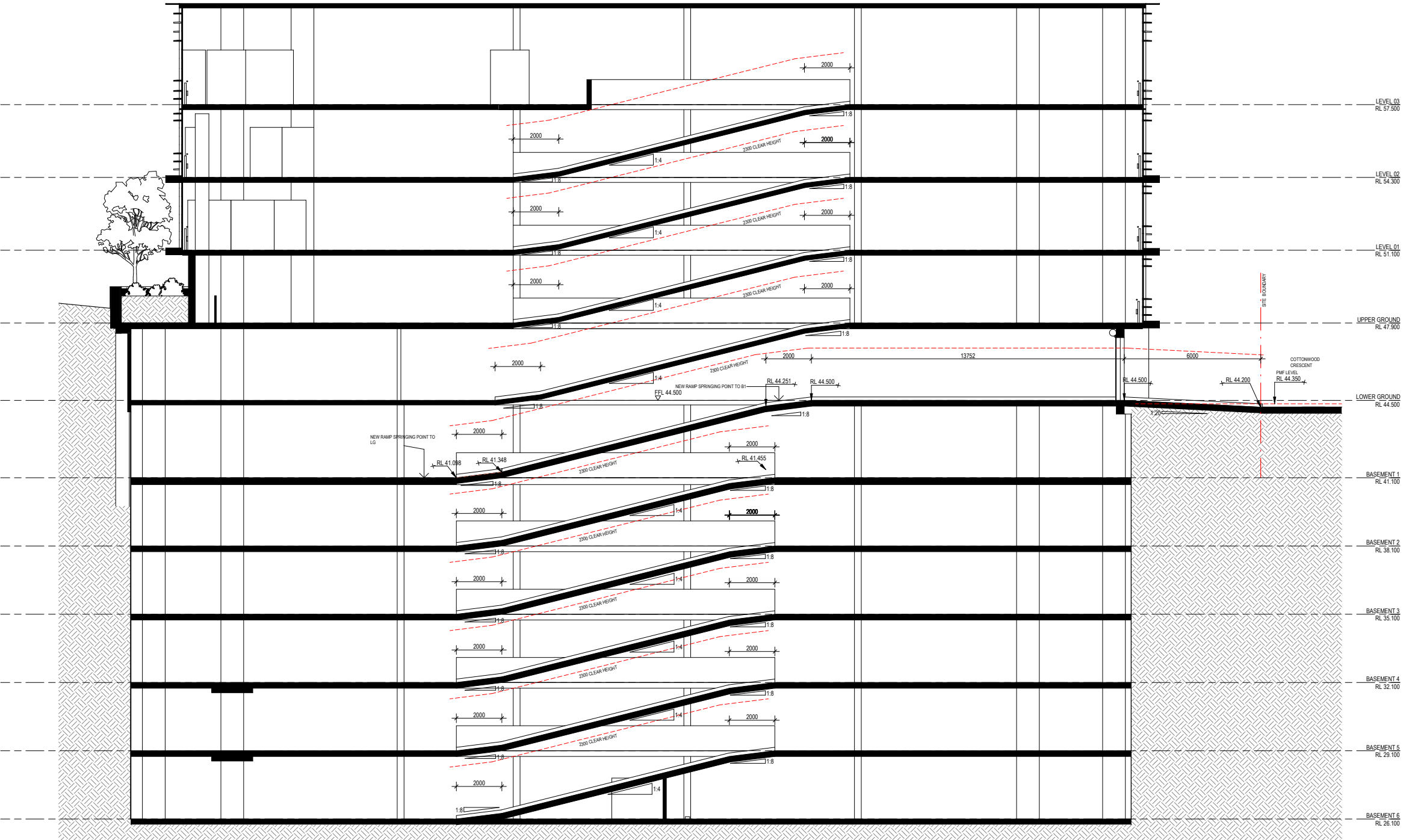
In terms of physical design, the documentation has been amended to meet the specific matters for attention:

- The Loading Dock driveway has been reduced in width to allow for sufficient clearance for the existing sewer mains running along the southern boundary. This has increased the basement setback off the boundary to 2.7m.
- A loading dock management plan will be provided to address the single lane access to and from the site.
- Additional vehicle ramp sections have been provided showing complying clearance heights and gradients and PMF levels, refer following pages.
- A turning bay has been included to the dead end aisle on the Lower Ground Plan, refer adjacent plan.

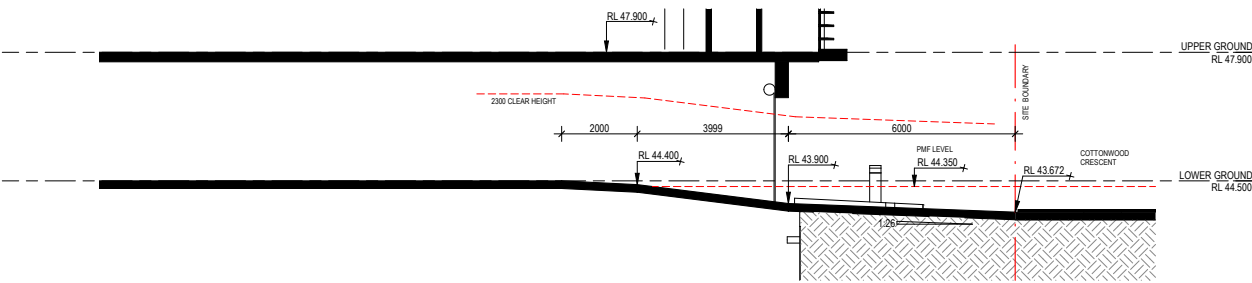


Lower Ground Plan

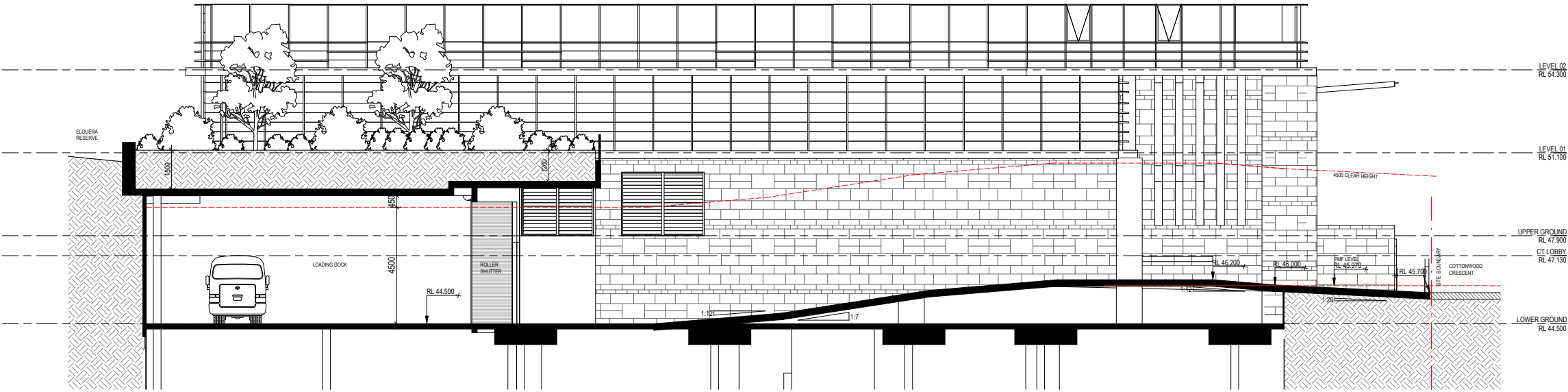
Vehicle Access, Servicing Facilities and Parking (cont.)



Carpark Ramp Section 2



Carpark Ramp Section 1



Truck Ramp Section

2.5. Drainage Issues

COUNCIL SUBMISSION

"Flood impact statement to be prepared and reflect the following:

- The applicant shall prove that the proposed development is not adversely affecting the flood conditions of neighbouring properties or downstream catchment.*
- The proposed development shall not obstruct or redirect overland flow paths, including impacts from buildings, driveways, landscaping, etc.*
- Any proposed cut and fill is to be clearly identified and demonstrated to not adversely affect flood behaviour.*
- Basement Ramp to raise to PMF level before descending to the basement to ensure basement flood immunity.*
- Please provide the certificate from the flood engineer that the proposed basement openings are not inundated during PMF flood event.*
- A cross section of the basement ramp to be provided and clearly demonstrate that the crest of the basement ramp is designed up to PMF level.*

Stormwater Management Plan to Be Provided and reflect the following:

- Details of the connection to Council pit/pipe shall be included in the Stormwater Management Plan.*

RESPONSE

Refer primarily to Flood Impact Statement and Stormwater Management Plan (by others).

Refer also to previous response that includes a section through basement ramp entrance, which shows a crest threshold above the PMF.

2.6. Stormwater Management Issues

COUNCIL SUBMISSION

A review of the proposed stormwater management system highlights the following issues:

- The applicant has sought exemption from the provision of onsite detention by analysis of various discharge configurations and the modelled peak overland flow from the 1%AEP flood event. The analysis however draws some concern however given that there appears to be very minor difference between the peak discharge arising from the scenario having no OSD system at all (unrestricted discharge) and that with OSD (discharge is attenuated by OSD). This is illogical outcome. Details of the OSD model have not been provided however it is possible that the designed system (and DRAINS model) may not have been designed to account for a "submerged outlet" due to the flood affectation in Cottonwood Crescent. In which case, the modelled system would simply result in failure of the OSD (surcharge) and unrestricted runoff back to the trunk drainage. If this is the case, the analysis will need to be revisited and further, the DRAINS model will need to be submitted for review.*
- The WSUD treatment tank is located at the lower end of the site and the base of this tank is marginally above the invert level of the kerb inlet pit into which it discharges to. Accordingly it is very likely that, in the event of a significant storm event, backflow will occur into the private drainage system. To resolve this requires elevating the WSUD tank so as to achieve a free draining system, warranting the base of the tank to be above the level of flood water in Cottonwood Crescent.*
- Similarly any rising main will need to discharge to a surface inlet pit above flood levels, however this could readily be addressed by condition.*

RESPONSE

Refer to Flood Impact Statement and Stormwater Management Plan (by others).

2.7. Design Issues

2.7.1 Strategic Basis

COUNCIL SUBMISSION

"There is no strategic basis or policy alignment to justify the proposed height or density on this site.

Relative to the built form outcomes and public contributions expected from the identified key sites in the Macquarie Park rezoning, the proposed scale and intensity of development on this comparatively small site is not appropriate.

Council also holds significant concerns regarding the absence of the necessary transport, social, recreational, educational, and other infrastructure required to support the level of density proposed."

RESPONSE

Refer to Section 2.1 for commentary on strategic basis and policy alignment.

The site is considered one of the best located sites in Sydney, with exceptional access to transport and other social infrastructure to support the density proposed:

- 0m to Elouera Reserve, a 6500sqm local park with playground and kick-about space.
- 30m to the Macquarie Centre, a super regional retail centre including two department stores, two supermarkets, a cinema, an ice-rink and hundreds of specialty shops and restaurants.
- 120m to Christie Park, an existing 13,000sqm district open space that will be doubled in size by the future Shrimptons Parklands proposed immediately adjacent.
- 120m to Macquarie University Metro Station, rapid mass transport to Sydney CBD.
- 200m to Macquarie University, one of Sydney's largest and best known Universities.
- 210m to Macquarie Park Bus Interchange, providing access to 1440 buses each weekday across all nearby major and local routes.
- 270m to the Macquarie Park Innovation Precinct, NSW's largest non-CBD job centre.
- 580m to Midtown Public School, an new primary school shortly to finish construction.
- 735m to Christie Park, a 52,000sqm district active sports facility.
- Within 2km of Epping Boys Public High School and the new Macquarie Park High School in advanced planning.

2.7.2 Tower Form Configuration

COUNCIL SUBMISSION

“The proposed scheme includes two towers with a minor height variation and an 18 m building separation. Council notes a considerable increase in overall building bulk compared to the previous DA scheme, particularly building depth.

- *The Cottonwood tower has an approximate depth of 26 m.*
- *The Waterloo tower has an approximate depth of 28 m.*

These larger floor-plates appear to have been maximised to achieve a high GFA.

Council is concerned about the resulting impacts on design quality and residential amenity, including:

- *reduced solar access for apartments and communal open space,*
- *limited opportunities for natural ventilation at podium levels.*

Council also has concerns regarding potential wind, visual, and overshadowing impacts on the public domain, communal open spaces, neighbouring residential areas, and the broader precinct due to the excessive building height and built form.”

RESPONSE

Solar access, natural ventilation, wind, visual and overshadowing impacts are extensively described in the 88 Waterloo Design Report and specialist reports as well as further clarified in Section 1 of this Response to Submissions Report. We further note that each of these attributes is improved by the decision to use two towers, rather than one conjoined/larger tower. A single tower was also explored, with an upper level setback to provide the same variation, however it was found that a two-tower scheme had better results for solar access to apartments (with more window line), communal open space (within the space between buildings) and natural ventilation (with more corners).

The building depths of 26-28m are primarily set by the large core and structural columns required for tall buildings. We note that the overall plate size is still quite small for both towers - approx 670sqm GFA for one tower and 785sqm for the other.

The proposal uses two distinct tower forms above a podium. There is an 8-storey height variation between the towers - this is not considered minor, and was established through design review from Government Architect urban staff (the initial submission to the GANSW had two towers of the same height). The varied tower heights serve to reduce perceived bulk and create skyline modulation.

2.7.3 Car Parking and Podium Parking

COUNCIL SUBMISSION

The proposal includes 695(now increased as well) parking spaces, distributed across six basement levels and five podium levels.

While the proponent states that parking will comply with the Ryde DCP, Council strongly encourages reduced parking provision given the site’s proximity to the metro station. Excessive parking generates additional private vehicle use and local traffic impacts—particularly problematic in a proposal seeking such a substantial uplift.

The presence of two vehicle access points and one loading dock along Cottonwood Crescent poses additional risks to pedestrian movement and safety.

RESPONSE

Parking rates are covered in the Transport Report authored by JMT.

From an urban design perspective, reduced car reliance is supportable through proximity to Metro, the bus interchange, open space and cycling connections.

Reduced visitor parking is supported, given the abundance of public transport options, as is providing the minimum market supported residential parking.

We note that we had originally proposed only 2 vehicle access points. However as discussed with DPHI it was agreed that separating the loading and residential vehicles provided a safer solution for the development, and due to the number of car parking spaces 2 access points for residential vehicles was preferred as this would reduce queuing and provide safer access of movement of cars between basement and podium levels.

2.7.4 Setbacks and Public Domain Interface

COUNCIL SUBMISSION

Varied setbacks are proposed along the western boundary adjoining Elouera Reserve. The podium levels (Level 1- 3) provide setbacks of less than 3 m, which does not comply with the minimum 5 m setback required under the Ryde DCP. It also presents a solid wall as an interface with Elouera Reserve, raising safety concerns that require a CEPTED approach.

It requires design considerations to minimise visual and environmental impacts from podium car parking, and provide better interfaces with Elouera Reserve.

It is recommended that all carparking is located below ground to improve the interface with Elouera reserve.

RESPONSE

The proposal includes a four-to-five-storey podium intended to create a clear base to the tall towers above, with communal open space on the podium roof providing visual connection to the public domain.

The proposal's ground plane is activated by grand entry lobbies, retail uses and townhouse frontages. Service and vehicle entries have been consolidated on Cottonwood Crescent as far as practical, while active uses and landscape setbacks are prioritised on Waterloo Road.

A 10m Waterloo Road setback supports the future Waterloo Road Linear Park and the broader public-domain vision for the corridor. This is a key public-realm contribution, with retail and lobby activation along Waterloo Road.

Elouera Reserve frontage is understood to be along a sensitive boundary condition and the podium built form has a setback that varies from 2.95m-3m to the facade line due to the boundary misalignment. The parking in the podium requires a reduced setback due to grid requirements, and so the façade has been carefully considered to screen the parking within.

The elements that protrude within 3m of the bundary are the horizontal projections that assist in defining the character of the facade and Connecting with Country.

Futher to this the carpark screening is broken down into multicoloured horizontal panels that are in shades of earthy tones that break down the scale of the facade and provides visual interest from the park. A metal screen is also proposed inside the carpark facade to minimise car lights shining out.

Refer to Section 1.2.2 & the Typical Wall Detail Sheets in the RtS Architectural Documentation Set.

2.7.5 Tree Retention

COUNCIL SUBMISSION

Existing mature trees along site boundaries currently provide shade and environmental value. The provided tree removal and retention plan indicates that most trees will be removed. All mature trees should be retained to the street edge at both Cottonwood Crescent and Waterloo Rd. Council requires a detailed arborist report for the removal of any existing mature trees.

RESPONSE

4 additional trees are proposed to be retained compared with the existing [local] Development Approval from 2025 that applies to the site. Numerous trees within the site along Cottonwood Crescent and Waterloo Road frontages are retained.

Trees along Cottonwood and Waterloo frontages will be retained aside from design parameters such as access points and public domain works (Applicant and Council requested items) impacting the potential retention.

An arborist report has been submitted with the application.

Refer to Section 1.6 and the Landscape Design Report for landscape strategy including replacement trees.

2.7.6 Deep Soil Zone

COUNCIL SUBMISSION

The ADG requires deep soil areas with a minimum dimension of 6m at either side, and a total deep soil provision of at least 7% of the site area.

Deep soil zones along Cottonwood Crescent fall within the 5m building setback area and therefore:

- do not meet the minimum dimension, and
- fail to achieve the minimum 7% requirement.

RESPONSE

Refer Section 1.1.7.

2.7.7 Overshadowing Impact

COUNCIL SUBMISSION

Impact on nearby open space.

No additional shadow analysis diagrams provided for review. Previous documents demonstrated that a 65m building height produced no additional overshadowing to Wilga Park, while the proposed 205.5m height casts additional overshadowing to Wilga Park from 9:35am – 12:15pm on 21 June.

The proponent argues this reserve is currently significantly overshadowed. This should not be justification for making the situation much worse where the development will result in Cottonwood Reserve being almost completely overshadowed through the winter period.

It is noted that the proposal will significantly overshadow the Shrimpton’s Creek area which results in it barely achieving the solar access requirements for public open space. There is also a significant impact on the solar access to Wilga Park up until 12 noon through the winter period. This will significantly impact on the amenity of these spaces for the broader community.

The potential reduction in sunlight for Shrimpton’s Creek riparian corridor could negatively affect ecological functions. The mitigation measures proposed are vague. Long-term shadowing impacts on canopy growth, seedling establishment and ecological functions should be further investigated accompanied by detailed mitigation strategies.

Overshadowing impact on other residential development.

The proposed 205.5m height (now 212) results in significant overshadowing of a broad south-eastern area, particularly impacts on:

- the solar access of the balconies and living rooms on the north-western facades of nearby residential buildings, and
- the rooftop communal open space at 82 Waterloo Road, highlighted in the snip below..

RESPONSE

It appears Council’s comments are potentially carried from an earlier review, as extensive additional overshadowing diagrams were submitted with the SSDA.

As well as the overshadowing commentary in the responses to DPHI information requests in this report, we note:

- Rather than there being “a significant impact on the solar access to Wilga Park up until 12 noon through the winter period”, when measured at hourly intervals the scheme “significantly” affects Wilga Park - which has no State or Local DCP protections - at 11am only. The proposal’s contribution to any overshadowing of Wilga Park is 0% at 9am, less than 15% of the area at 10am and less than 15% at 12pm.
- The proposal has minimal impacts on Shrimpton’s Creek riparian corridor, which is largely overshadowed by other buildings in the hours in which it is affected by the proposed development.

Refer to Section 1.3 & 1.4 and the Design Report for further information and justification of overshadowing of other residential developments.

2.7.8 Council Design Recommendations

COUNCIL SUBMISSION / AJC RESPONSE

i. Revisit the proposed uplift to better align with Macquarie Park’s context and strategic role. Consider including non-residential GFA controls to support employment growth and deliver public benefits.

Refer to #1. It is considered that the height will align with the context established by the nearby Meriton towers, as well as with the many new towers of similar heights made permissible under the State-led Macquarie Park TOD.

ii. Reduce building height, bulk and depth and increase tower separation to improve solar access, natural ventilation and residential amenity as well as mitigating visual, wind, noise and other environmental impacts.

Refer to #1 and 7(b) above.

iii. Ensure compliance with building setbacks controls and provide well-designed interfaces with streets and Elouera Reserve.

Refer to 7(d) above.

iv. Locate all parking below ground and reduce car parking provision to reflect proximity to the metro station and minimise traffic impacts.

Refer to 7(c) above. Above-ground podium parking is driven by the Metro tunnel zone of influence, which limits the feasibility of deeper basement excavation. The podium parking is screened and integrated into the podium façade so that the public-domain presentation reads as high-quality architecture rather than exposed parking. Parking rates are covered in relevant reports and described previously.

v. Increase building separation to min. 24 metres (currently 18 metres) to comply with the Apartment Design Guide.

The ADG’s guidance on building separation is part of its Privacy chapter. The 18m separation between towers generally complies with these provisions. Separation has been balanced against site constraints, tower slenderness, orientation, and visual privacy measures. The 18m separation is also consistent with the approved DA for the site.

vi. Revise the layouts to increase the number of ADG compliant cross-ventilated apartments, particularly to the podium levels.

The ADG is guidance rather than fixed controls. Units designed to sleeve parking and service frontage can reduce technical compliance with cross-ventilation guidance, however serve important function that aligns with other objectives in the ADG as well as good urban design.

vii. Ensure that social access plan incorporates overshadowing impact from one tower onto the other within the site.

Refer to 7(g) above.

viii. Revise the west-facing two storey 2B ‘Townhouse’ typologies to the podium, to provide better access to natural light and cross ventilation. Currently these are single west-facing with no light to internal circulation spaces.

Refer to 7(h)(vi) above. Townhouses are designed to improve ground level interfaces and sleeve parking/service uses.

ix. Retain all existing mature trees to street interface.

Refer to 7(e) above.

x. Provide compliant deep soil zones.

Refer to 7(f) above.

xi. Provide 10% of total dwelling as affordable housing, secured in perpetuity.

Not considered a design issue, refer to other documentation.

2.8. Traffic Issues

COUNCIL SUBMISSION

[Comments on modelling concluding that all intersections retain their level of service after the development, with no issues raised] ...

Loading Dock Considerations

An internal loading dock is proposed within the lower ground level. This internal loading area provides three (3) loading bays (one for HRV, one for MRV and one for SRV) and a turn table to accommodate the needs of the site based on the yields achievable under the development proposal.

Access to the loading dock is proposed via a one-way ingress/egress driveway connecting with Cottonwood Crescent at the south-western corner of the site. All vehicles will enter and exit the site from Cottonwood Crescent in a forward direction with the aid of a turntable.

The TIA report indicates that The building management team will be required to engage and maintain a Loading Dock Manager to organise and supervise delivery and removal activities while a delivery schedule will be organised by management to stagger and control arrival of deliveries.

To ensure that servicing arrangements including waste collection will be wholly accommodated within the site without interfering with the safety of all road users and the efficiency of traffic movements on the public road, a condition for Loading Dock Management Plan will be imposed as part of consent for this SSDA.

The above are noted and Council will recommend conditions to be imposed should the development be approved on this site.

RESPONSE

Noted. All servicing movements have been designed to occur within the building footprint without reliance on on-street collection.

2.9. Vibration & Noise Assessment

COUNCIL SUBMISSION

The applicant is required to provide the following additional information to enable assessment of the proposal:

1. A revised noise assessment, prepared by a suitably qualified consultant that considers the operation noise of the common areas of the development.

Considerations should consider the internal and external noise generated by the:

a. Wellness area (including clarification if this will include a gym)

b. Swimming pool

c. Games area

d. Golf simulator (including structural noise impacts)

2. Submission of the contamination assessments including the Preliminary site investigation (contamination) (PSI) / detailed site investigation (contamination) (DSI) (JBS&G, 2024), referenced in the groundwater Impact Assessment

RESPONSE

No design commentary to add, refer to relevant reports.

2.10.Wind and Other Impact[s] on Open Space and Parks

COUNCIL SUBMISSION

The Wind Assessment indicates that the proposal will increase the wind velocity in the Southeastern corner of the Park. Mitigation Options for this issue should be identified and included with any conditions of consent for the development.

The area identified along Waterloo Road for setback associated with linear park should not include confirmed space for commercial purpose (i.e outdoor retail space). Use of this area should be confirmed by Council post development following application process and obtaining the necessary approvals. Design of area should allow for use of space as a linear park. This should be redesigned.

RESPONSE

A 10m landscaped setback is provided along Waterloo Road, with the intent that this be privately owned but publicly accessible open space. The high-level design guidance for spaces along the 10m landscaped setbacks for Waterloo Road is contained within the ‘Waterloo Road Master Plan’.

The master plan nominates the open space within the subject site along Waterloo Road as an "open dwell zone"m with design guidance largely limited to noting that "Urban dwell zones will be within setback zones and subject to site specific design proposals by developers and/or council." Refer to the Landscape Design Report for the developer's proposed design proposal for this space.

The master plan does not appear to prohibit cafe tables / commercial use of outdoor spaces, not does the current design for 88 Waterloo seek to identify specific areas for commercial use.

Refer to Section 1.5.

2.11. Social Impact Assessment

COUNCIL SUBMISSION

The report indicates that the development is relying on the ability of the incoming residents to access the existing Open Space for recreation. The report does not adequately consider strategic analysis Council has done in respect to the capacity for Active Recreation (i.e capacity has been reached). Nor does it consider what the capacity is for the existing passive parks in the area giving consideration to the cumulative demand of development in the area. The proponent should be asked to indicate what additional open space infrastructure is required to meet the demand being generated by the proposal. This should be beyond those within existing infrastructure plans as the proposal is creating additional demand to what is outlined in those plans. This should refer to opportunities detailed in Council strategies and identify if these can be me through the additional Developer Contribution Funds being provided.

The communal Open Spaces proposed will not have a material impact on meeting the recreation needs of the incoming community.

The following concerns are being raised in regard to social impact of the development:

a. Inadequate Open Space ...

b. Potential disruption to current residents’ daily living patterns ...

c. Demographic profile ...

d. Increased demand for community services and facilities ...

RESPONSE

This commentary is directed towards the Social Impact Assessment and a response is provided in that report. From an urban design perspective, we note that an increase in housing density at this location aligns with the State level strategic planning to position housing in areas with existing high levels of amenity. Macquarie Park, as has been described previously, has one of the highest levels of available social, transport and jobs infrastructure in Sydney. While the above comments are noted and the need for public infrastructure is supported, spatially this is considered a very appropriate location for infill housing of the maximum density the site can sustain.

2.15. Arboricultural Impact

COUNCIL SUBMISSION

49 trees are scheduled for removal; these should be replaced on a 3 for 1 basis in accordance with the City of Ryde’s Development Control Plan. As replacement is not shown to occur on site, a fee will need to be paid by the proponent for replacement plantings to occur at other locations within the LGA in accordance and should be set in accordance with Councils Fees and Charges.

The proposed impacts to biodiversity require further analysis and commitment to stronger mitigation measures. While the development is located in a highly urbanised area with limited direct impacts on native vegetation and habitats, the following issues need to be addressed:

[response ends, no other issues identified to address]

RESPONSE

Refer to Landscape Design Report for landscape design including replacement trees. We note that a 3:1 replacement ratio is not sensibly achievable given the existing condition vs. the proposed development type - it is proposed to move from four low-rise walk-ups with low site coverage to two towers connected by a podium, resulting in less landscaped area on site. It is to be expected that the total number of trees on site might be reduced through this change.

We further note that, under the conditions approved under the existing development approval on the site (LDA2024/0158), 39 trees (including street trees) were to be removed with 53 compensatory trees provided, equating to a much lower replacement ratio of 1.36:1. It is not clear why or how a higher replacement ratio would be implemented in the current proposal.

2.12. Biodiversity Impacts

COUNCIL SUBMISSION

The report does not adequately address cumulative impacts from nearby developments or the issue of regional habitat loss and fragmentation in the Macquarie Park precinct.

The cumulative impacts of habitat loss on identified threatened fauna species like the Grey-headed Flying-fox, Little Lorikeets, and micro-bat species are not fully assessed, including effects on population dynamics and regional connectivity. The assessment should include a detailed cumulative impact assessment, considering nearby development, regional biodiversity and impacts to connectivity from habitat fragmentation, noting the location of the development between Elouera Reserve and Shrimpton’s Creek Riparian Corridor.

RESPONSE

No design commentary to add, refer to relevant reports. We note that the site is currently occupied by private residential flat buildings; the proposal at 88 Waterloo does not interrupt any public connections between Elouera Reserve and Shrimpton’s Creek Riparian Corridor.

2.13. Indirect Impacts on the Creek

COUNCIL SUBMISSION

Indirect impacts such as sedimentation, erosion, noise, dust, light pollution, and fertiliser drift are mentioned but not sufficiently mitigated. Further planning is required to ensure surrounding natural areas are not impacted during the demolition, construction and operation of the development.

RESPONSE

No design commentary to add, refer to relevant reports.

2.14. Public Domain

COUNCIL SUBMISSION

a. Consideration shall be given for any opportunity to reduce the extent of on-street parking being lost due to the current design.

b. Any additional street trees proposed for removal, which were not previously approved in LDA 2024/158 must referred to Council Tree officers for assessment.

c. Removal of all redundant driveway laybacks along Cottonwood Crescent.

d. Road pavement reconstruction: - Cottonwood Crescent: Half-road width, full depth reconstruction. Waterloo Road: One-lane width, full-depth reconstruction.

e. Upgrade of footpaths along both frontages to granite paving.

f. Reconstruction of all kerb and gutter along both street frontages. Proposed kerb alignments and profiles must demonstrate appropriate integration with existing infrastructure.

g. Upgrade of street lighting – luminaires and columns to be replaced with Multi-Function Poles compliant with AS/NZS 1158 and the Macquarie Park Street Lighting Masterplan. Lighting must be powered by a metered supply.

h. Upgrade of the existing bus stop (Stop ID: 2113213) on Waterloo Road to meet DDA compliance requirements.

RESPONSE

The notes above refer to upgrades to works to the surrounding public streets. The design of any required improvements to surrounding local roads will be subject to review and approval by Council before construction.



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