

SJB Architects

STRATHFIELD COUNCIL
RECEIVED

DA2020/08/01
16 January 2020



SEPP65 Design Statement

5 Powell Street & 17-35 Parramatta Road
Homebush NSW

We create spaces people love.
SJB is passionate about the
possibilities of architecture,
interiors, urban design
and planning.
Let's collaborate.

Level 2, 490 Crown Street
Surry Hills NSW 2010
Australia
T. 61 2 9380 9911
architects@sjb.com.au
sjb.com.au

Prepared for
Hyside Projects Subtwo Pty Ltd

Issued
13 January 2020

We create amazing places



At SJB we believe that the future of the city
is in generating a rich urban experience
through the delivery of density and activity,
facilitated by land uses, at various scales,
designed for everyone.

Ref: #6136
Version: 02
Prepared by: JS
Checked by: NH

Contact Details:

SJB Architects
Level 2, 490 Crown Street
Surry Hills NSW 2010
Australia

T. 61 2 9380 9911
architects@sjb.com.au
sjb.com.au

SJB Architecture (NSW) Pty Ltd
ABN 20 310 373 425
ACN 081 094 724
Adam Haddow 7188 John Pradel 7004

Contents



1	Design Verification Statement	4
2	SEPP65 Design Quality Principles	6
2.1	Principle 1: Context and Neighbourhood Character	7
2.2	Principle 2: Built Form and Scale	9
2.3	Principle 3: Density	10
2.4	Principle 4: Sustainability	11
2.5	Principle 5: Landscape	12
2.6	Principle 6: Amenity	13
2.7	Principle 7: Safety	14
2.8	Principle 8: Housing Diversity and Social Interaction	15
2.9	Principle 9: Aesthetics	16
3	ADG response table	17

Design Verification Statement

1

The purpose of this statement is to outline the design rationale and process that was adopted to prepare the application scheme.

Design Verification Statement

Prepared to accompany the Development Application submitted to Council

17 December 2019

Project Address:
5 Powell Street & 17-35 Parramatta Road
Homebush NSW 2140

Prepared on behalf of:
Hyside Projects Subtwo Pty Ltd

Prepared by:
SJB Architects NSW

Verification of Qualifications

Nick Hatzi is a registered architect in New South Wales and is enrolled in the Division of Chartered Architects in the register of Architects pursuant to the Architect Act 1921. His registration number is 9380.

Statement of Design

SJB have been responsible for the design of the project since its inception and have worked with related professionals and experts in respect of the matter. The project has been designed to provide a development that is respectful of local planning and design controls and responds to the nine design quality principles of SEPP No. 65.

SJB verify that as required by the Clause 50 (1AB) of the Environmental Planning and Assessment Regulation 2000 the design quality principles set out in Schedule 1, design quality principles of the State Environmental Planning Policy No. 65 – Design Quality of Residential Apartment Development and the objectives in Part 3 and Part 4 of the Apartment Design Guide have been achieved for the proposed development as described in the following document.

Nick Hatzi
Director
Registered Architect NSW, No. 9380

SEPP65 Design Quality Principles

2

The following content outlines the architectural scheme against the nine Principles of Design.

2.1 Principle 1: Context and Neighbourhood Character

Good design responds and contributes to its context. Context is the key natural and built features of an area, their relationship and the character they create when combined. It also includes social, economic, health and environmental conditions. Responding to context involves identifying the desirable elements of an area’s existing or future character.

Well designed buildings respond to and enhance the qualities and identity of the area including the adjacent sites, streetscape and neighbourhood. Consideration of local context is important for all sites, including sites in established areas, those undergoing change or identified for change.



The site is located on a prominent corner between Parramatta Road and the M4 Motorway. It’s immediate context is typified by 2-3 storey retail and commercial buildings, interspersed with low to medium density residential developments up to 8 storeys high.

The site has high connectivity to its immediate and surrounding context. It is located within 150m of Homebush Station, while Parramatta Road is a major road with bus stops nearby. Adjacent to the site is Ismay Reserve, a park that offers connectivity to the Bakehouse Quarter and Arnotts Reserve further north.

Onsite, two 8 storey residential buildings (Buildings A and B) have already been completed. At 24 storeys, the proposal will be one of the first developments in the area of a higher density, with several other sites in the area also seeking consideration of increased heights and densities over that permitted by the current controls.

The proposed scheme will respond to the following site context conditions:

1. **Ismay Reserve** - Functioning as a backdrop to the park, the eastern edge will be activated by retail.
2. **Parramatta Road Retail** - The scheme will continue the colonnade of the existing development and retail streetscape.
3. **8 Storey Datum** - The podium of the development will reflect the scale of existing and proposed developments on both streets, creating a cohesive streetscape.
4. **Parramatta Road and the M4** - The tower of the development will function as a landmark at the fork between Parramatta Road and the M4.

SEPP65 Design Quality Principles



Ismay Reserve



Eastern boundary facing Ismay Reserve



Horse and Jockey Hotel, 70 Parramatta Road



Southern site boundary, showing the existing Stage 1 buildings



Existing Stage 1 along Parramatta Road



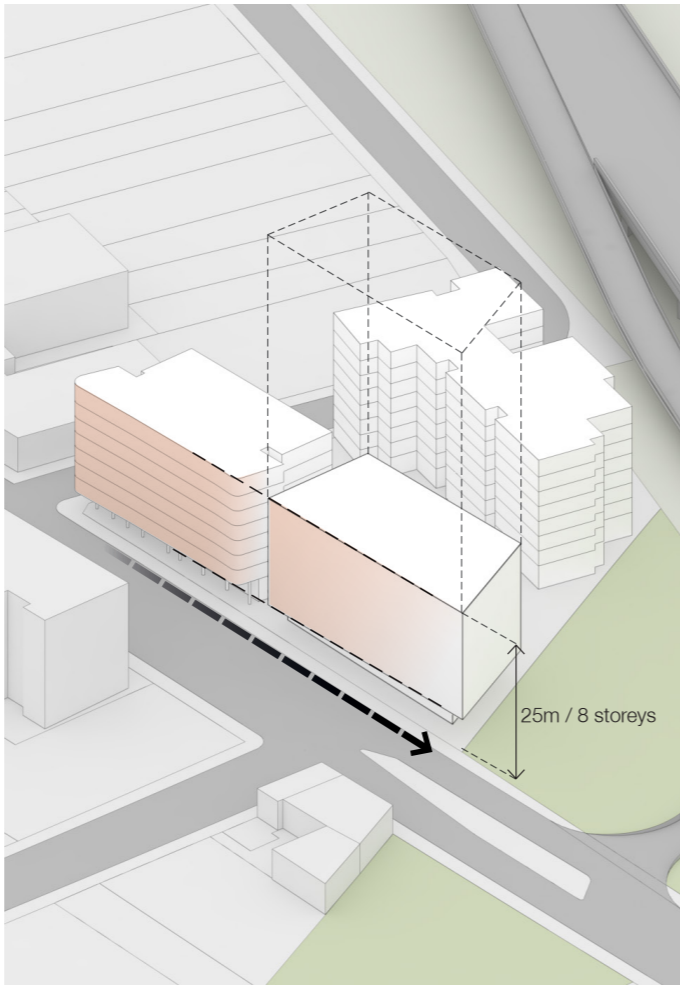
View west along Parramatta Road, away from site

2.2 Principle 2: Built Form and Scale

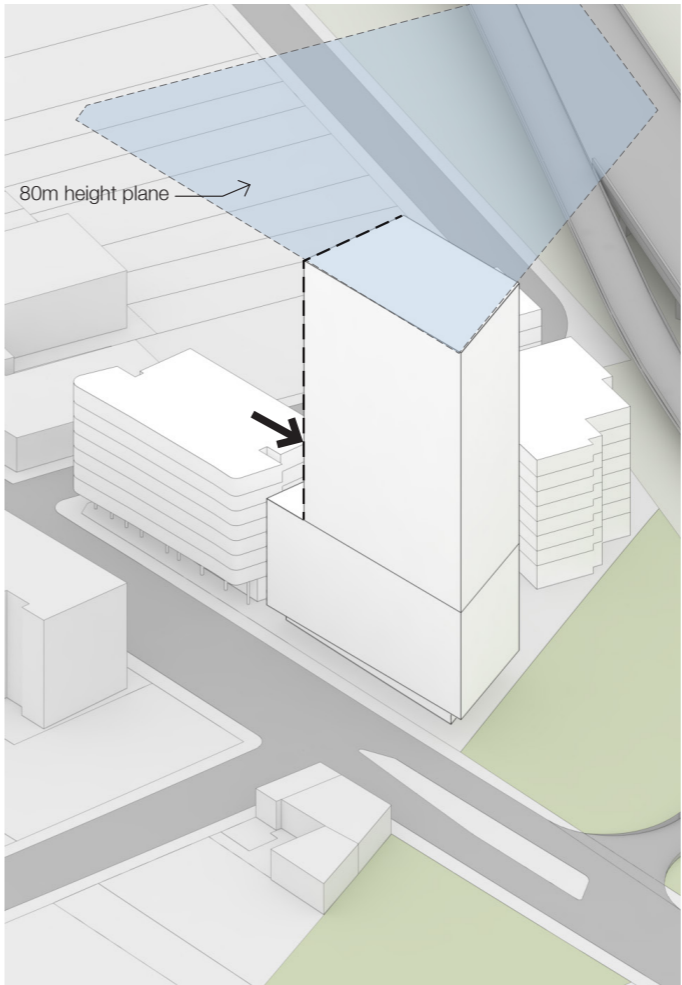
Good design achieves a scale, bulk and height appropriate to the existing or desired future character of the street and surrounding buildings.

Good design also achieves an appropriate built form for a site and the building's purpose in terms of building alignments, proportions, building type, articulation and the manipulation of building elements.

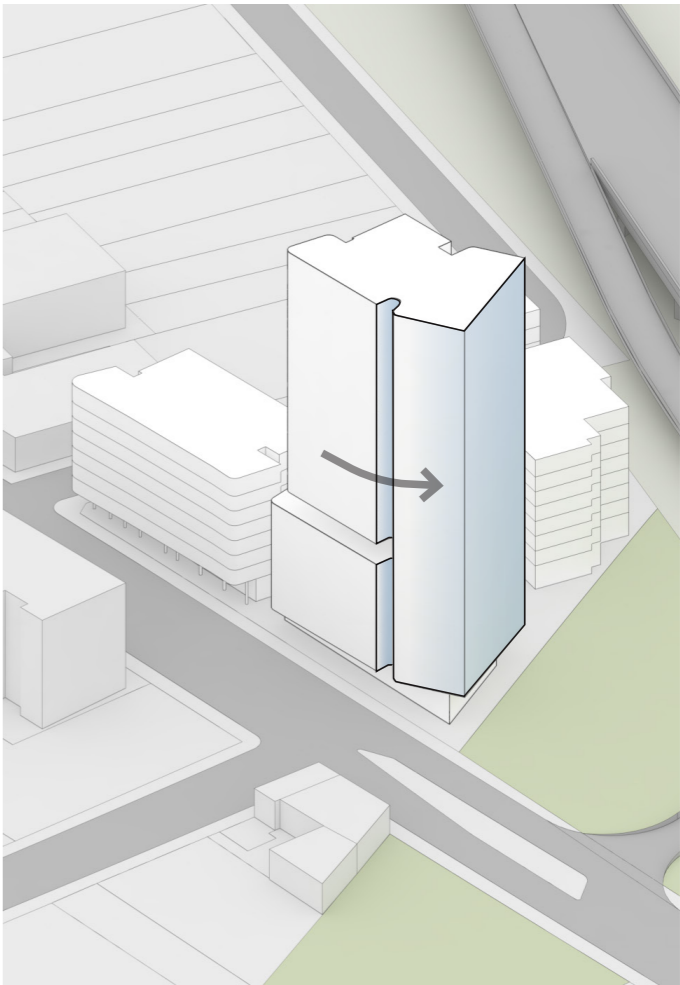
Appropriate built form defines the public domain, contributes to the character of streetscapes and parks, including their views and vistas, and provides internal amenity and outlook.



The proposal will respond to the existing built environment in a variety of ways. Firstly 8 storey podium is established that is similar in size to the existing Building B. The ground level set back and colonnade is carried through from Stage 1, resulting in a retail space that activates the ground plane.



A tower element is then introduced for the residential component of the proposal. It is set back from the western edge of the podium up against the eastern boundary, to emphasise the corner and location of site.



The eastern portion of tower is 'split' and oriented east, reducing the perceived bulk of the tower and directing views away from Parramatta Road.

Through these manoeuvres, the proposal responds to the existing low to medium density built form of the area while providing a transition to that of the new and future higher density surrounding development.

2.3 Principle 3: Density

Good design achieves a high level of amenity for residents and each apartment, resulting in a density appropriate to the site and its context. Appropriate densities are consistent with the area’s existing or projected population. Appropriate densities can be sustained by existing or proposed infrastructure, public transport, access to jobs, community facilities and the environment.

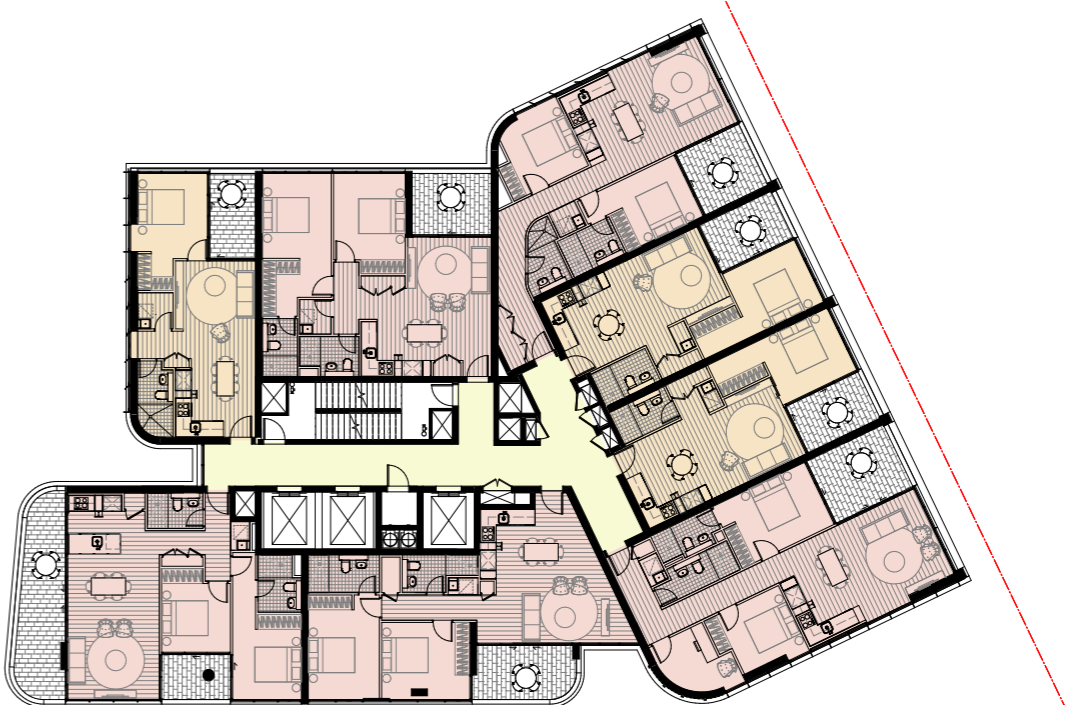
The proposal has a floor space ratio of 2.6:1, which contributes to a total site FSR of 4.5:1 and is consistent LEP and council controls.

The number and mix of dwelling types achieves the objectives and goals of the Apartment Design Guidelines, particularly in regards to privacy, orientation, cross flow ventilation and diversity of housing choice

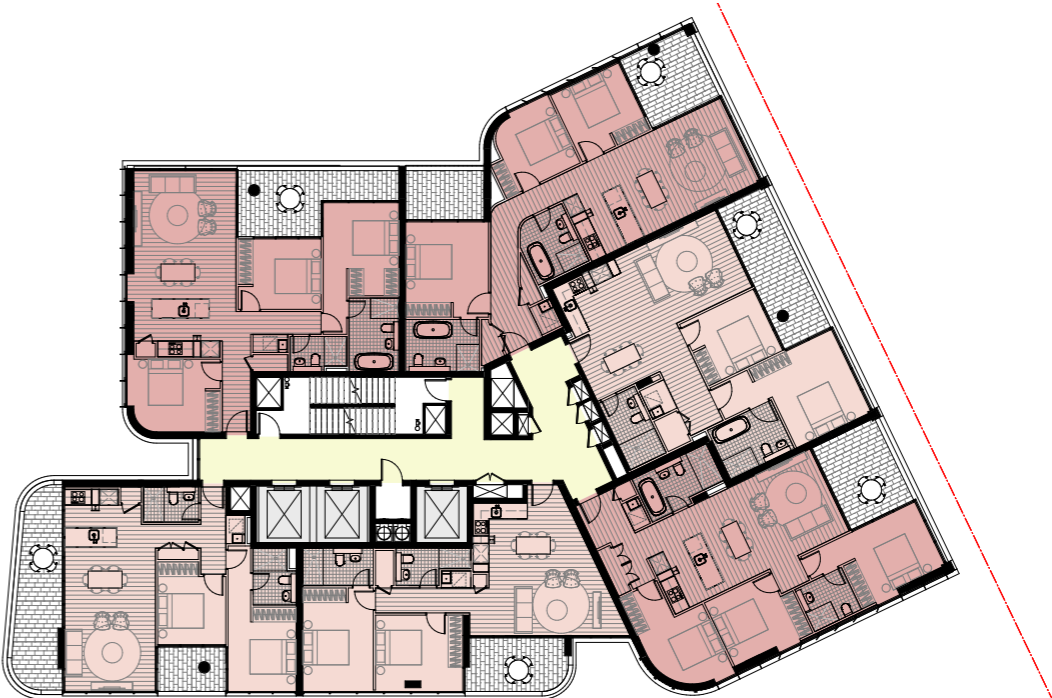
The proposal is well served by public transport, with Parramatta Road a primary connection between Parramatta and the CBD with a number of bus services. It is also within walking distance of Homebush train station, with ferry services to both Parramatta and the CBD. The majority of apartments are provided with a carspace.

Residential Apartment mix:

- 1 Bedroom Apartments 30% 50-52m²
- 2 Bedroom Apartments 60% 77-91m²
- 3 Bedroom Apartments 10% 101-160m²



Floorplan, Level 9-20



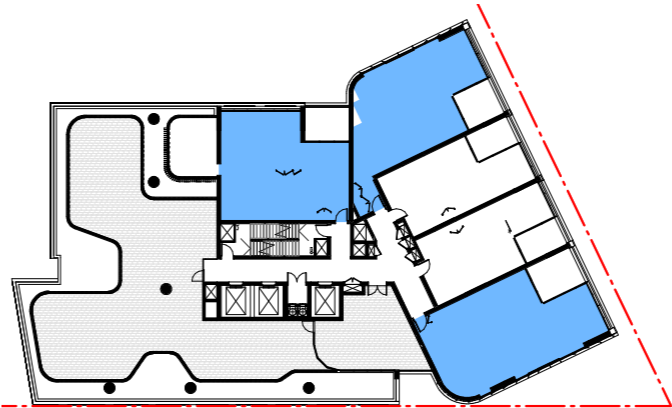
Floorplan, Level 21-23



2.4 Principle 4: Sustainability

Good design combines positive environmental, social and economic outcomes. Good sustainable design includes use of natural cross ventilation and sunlight for the amenity and liveability of residents and passive thermal design for ventilation, heating and cooling reducing reliance on technology and operation costs. Other elements include recycling and reuse of materials and waste, use of sustainable materials, and deep soil zones for groundwater recharge and vegetation.

- The proposal incorporates a number of principles of sustainability:
- Maximising direct sun to apartments while utilising overhangs and shading devices to control summer heat gain (87% of residential apartments receive a minimum of 2 hours direct sunlight in mid-winter);
 - Natural ventilation to the majority of apartments (60% of residential units in the first 9 levels are cross-ventilated);
 - Provision of bicycle parking facilities for visitors and residents;
 - A material palette that has longevity, low embodied energy and minimise maintenance;
 - Waste management including seperation of household waste by general and recyclables;
 - Energy and water efficient fixtures and appliances;
 - Proximity to public transport and local shops;
 - Compliance with BASIX requirements.



Level 8
60% of residential apartments in the first 9 levels are cross ventilated



Level 9-20



Level 21-24
87% of residential apartments receive 2 hours of sunlight in mid -winter

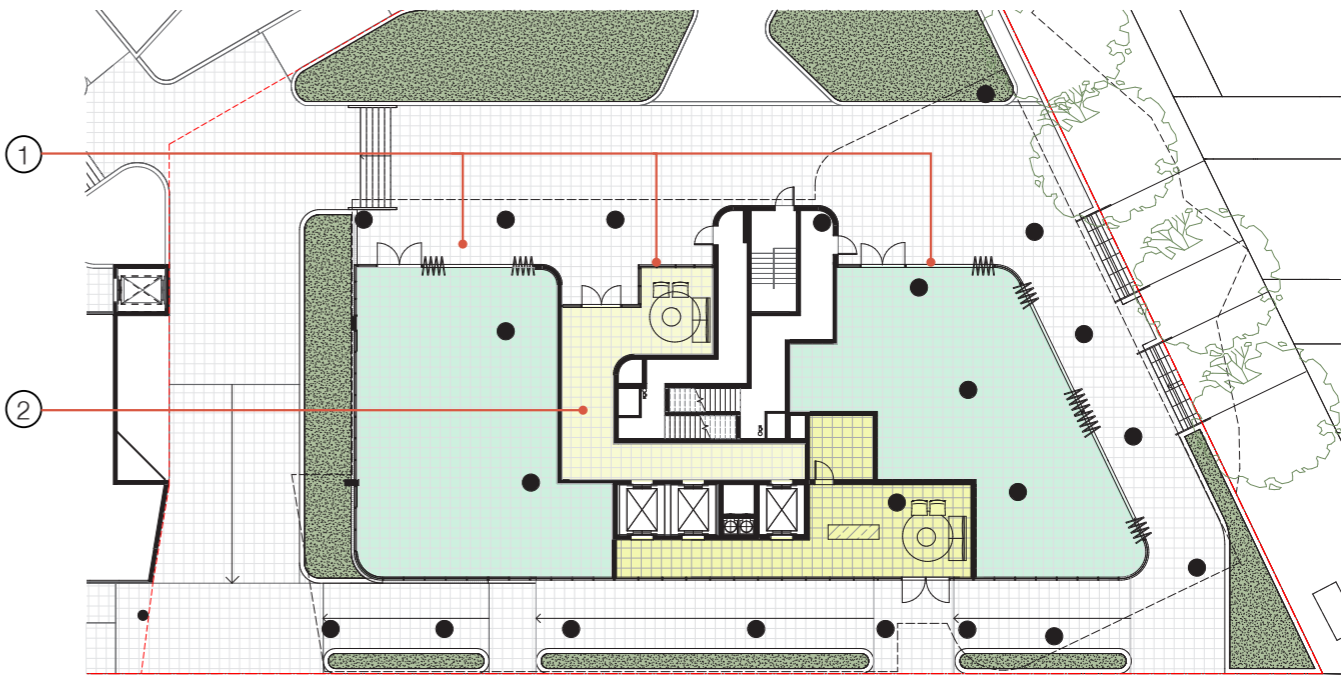
2.6 Principle 6: Amenity

Good design positively influences internal and external amenity for residents and neighbours. Achieving good amenity contributes to positive living environments and resident well being.

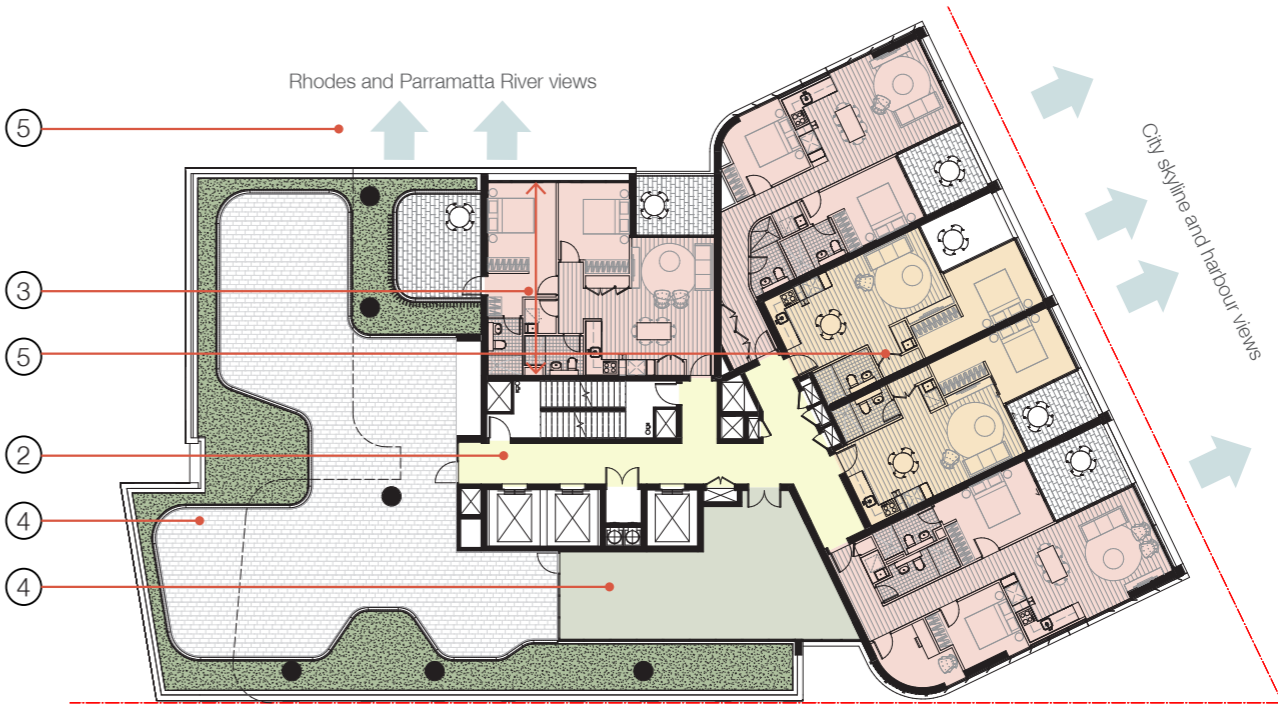
Good amenity combines appropriate room dimensions and shapes, access to sunlight, natural ventilation, outlook, visual and acoustic privacy, storage, indoor and outdoor space, efficient layouts and service areas, and ease of access for all age groups and degrees of mobility.

Through the development of the scheme design the following issues have been considered:

- 1. The development contributes to the general public amenity at ground floor through the activation of frontages via retail, lobby spaces, access and balcony orientation
- 2. Public spaces within the buildings such as common lobbies at each level are naturally lit
- 3. Apartment depths have been restricted to maintain reasonable access to natural daylight to all rooms.
- 4. Significant communal landscaped spaces and communal facilities have been provided for residents
- 5. Majority of apartments have views directed away from Parramatta Road
- 6. Residential levels are located on upper levels to mitigate noise and pollution from Parramatta Road and the M4
- 7. A maximum of 8 apartments per floor plate



Ground Level



Levels 9-19

2.7 Principle 7: Safety

Good design optimises safety and security, within the development and the public domain. It provides for quality public and private spaces that are clearly defined and fit for the intended purpose. Opportunities to maximise passive surveillance of public and communal areas promote safety.

A positive relationship between public and private spaces is achieved through clearly defined secure access points and well lit and visible areas that are easily maintained and appropriate to the location and purpose.

The safety and security of residential apartment buildings is a function of both the private and public realm. In this regard principles have been established for the interfaces between the public and private domain to ensure that safe and equitable spaces are supported.

The following safety initiatives have been incorporated into the design:

- 1. Principle building entrances are highlighted through the use of building form and articulation of materials, well lit, and allow for passive surveillance.
- 2. Retail tenancies and apartments fronting Parramatta Road, Ismay Reserve and the existing courtyard encourage activity and passive surveillance
- 3. The use of appropriately scaled landscaping and built form elements to ensure privacy without creating spaces to hide.
- 4. Car park layouts are designed to minimise opportunities for alcoves. Columns or walls do not obstruct sight lines and the car parks are generally open. Security access in the form of swipe card access will be provided.



View from Parramatta Road



View from Ismay Reserve

2.8 Principle 8: Housing Diversity and Social Interaction

Good design achieves a mix of apartment sizes, providing housing choice for different demographics, living needs and household budgets.

Well designed apartment developments respond to social context by providing housing and facilities to suit the existing and future social mix. Good design involves practical and flexible features, including different types of communal spaces for a broad range of people, providing opportunities for social interaction amongst residents.

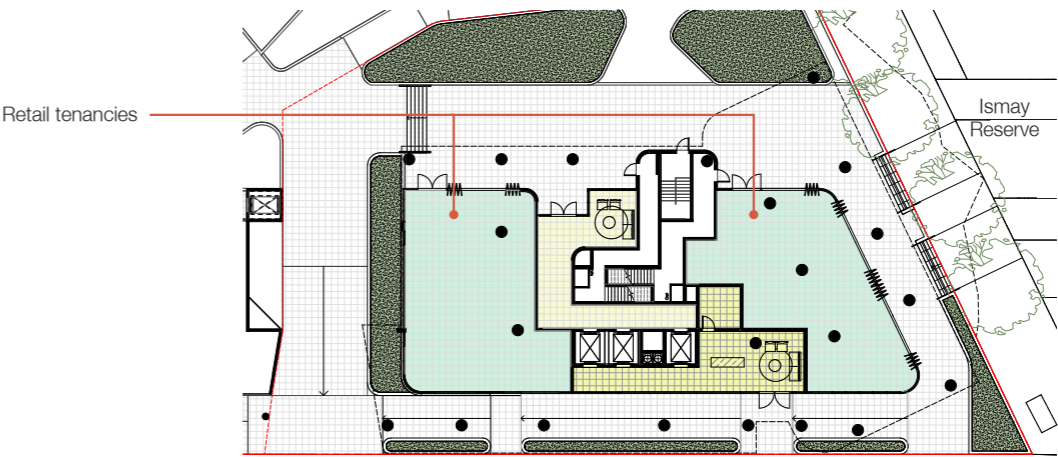
There will be a diverse range of residential product within the project, as well as facilities to catalyse social interaction and a sense of community. These include:

- Residents communal facilities on Level 8
- A landscaped communal open space
- A mix of apartment sizes and types:

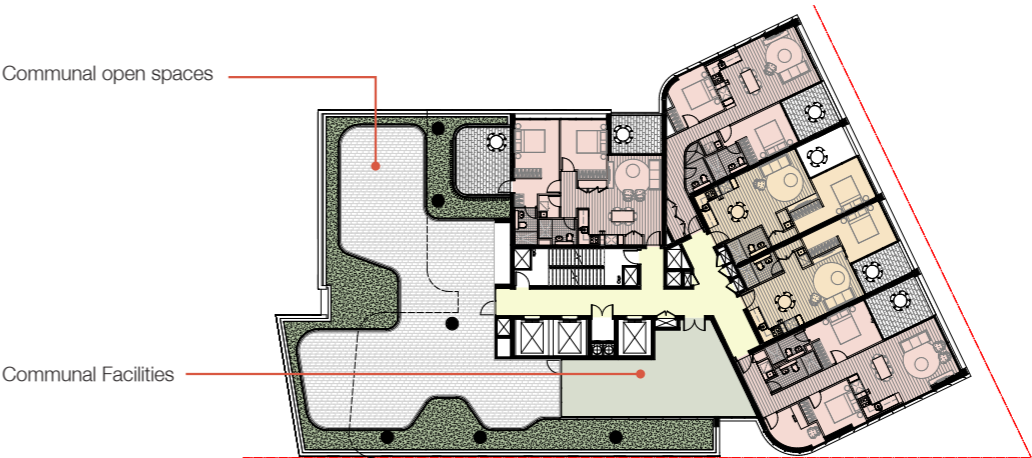
1 Bedroom Apartments	30% 50-52m ²
2 Bedroom Apartments	60% 77-91m ²
3 Bedroom Apartments	10% 101-102m ²

The project will contribute in this regard within the wider Homebush context by providing:

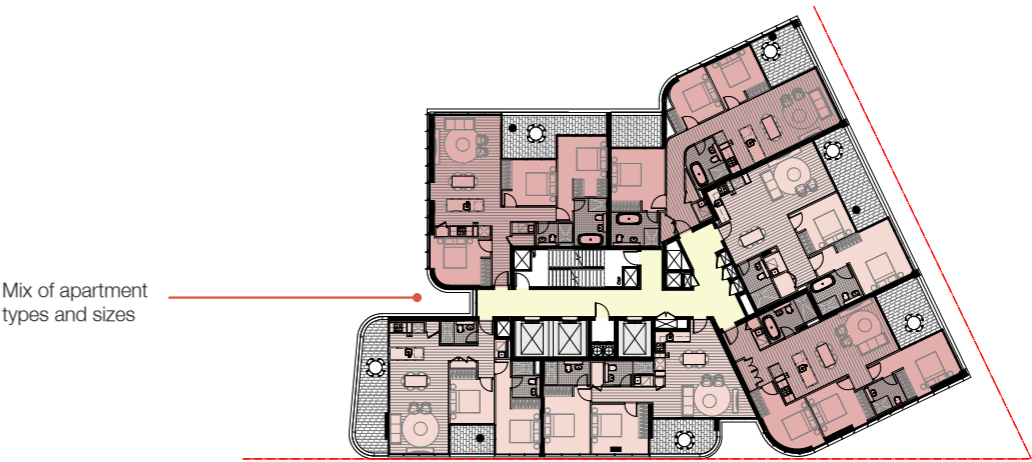
- Retail tenancies at ground level
- Housing within walking distance to public amenities and employment
- Bicycle parking for residents and visitors
- Adaptable housing in accordance with council’s controls
- Activation of the building edges facing Ismay Reserve



Floorplan, Ground Level



Floorplan, Level 8



Floorplan, Level 21-23

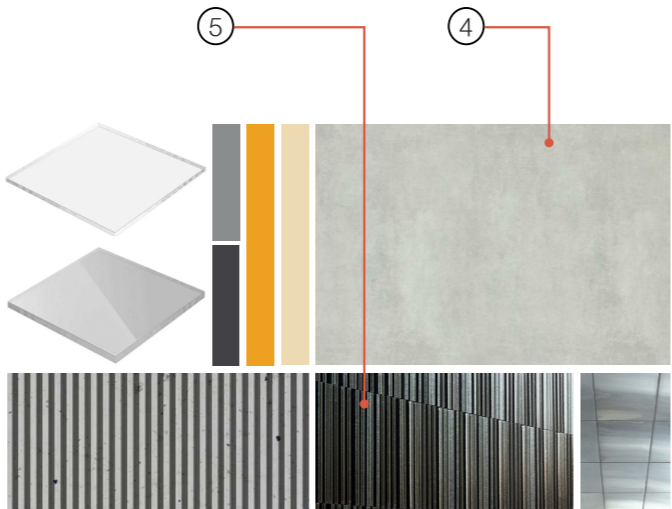
2.9 Principle 9: Aesthetics

Good design achieves a built form that has good proportions and a balanced composition of elements, reflecting the internal layout and structure. Good design uses a variety of materials, colours and textures.

The visual appearance of well designed apartment development responds to the existing or future local context, particularly desirable elements and repetitions of the streetscape.

Massing and detailing is designed to respond to both the emerging character of the area and the existing surrounding context. The following principles have been observed in the design process:

- 1. Subtle hue variations will shift across the tower shading fins, creating a play of light and allowing a change in expression at each aspect. Changes in the sky, season and time of day will be reflected in these facades, forming a backdrop to the public life below.
- 2. A building which is scaled sensibly, incorporating careful articulation of the building form to reduce the perceived bulk of the building
- 3. Landscaping elements at ground, middle and roof levels.
- 4. The use of 'natural' and robust materials such as concrete and glazed tiles which require minimal maintenance, are long lasting and weather naturally,
- 5. The use of darker recessive colours so the building is not 'shouting' to the surrounding context



External material palette



View from Parramatta Road

ADG response table

The following content outlines the architectural scheme’s response to Part 3 & Part 4 of the Apartment Design Guide.

ADG response table

Part No.	Objective No.	Objective Design criteria Design guidance	Complies		
			Yes	No	Notes
3	SITING THE DEVELOPMENT				
3A	Site Analysis				
	3A-1	Site analysis illustrates that design decisions have been based on opportunities and constraints of the site conditions and their relationship to the surrounding context	•		
		Each element in the Site Analysis Checklist should be addressed (see ADG Appendix 1)			
3B	Orientation				
	3B – 1	Building types and layouts respond to the streetscape and site while optimising solar access within the development			
		Buildings along the street frontage define the street, by facing it and incorporating direct access from the street (see figure 3B.1)	•		
		Where the street frontage is to the north or south, overshadowing to the south should be minimised and buildings behind the street frontage should be orientated to the east and west (see figure 3B.2)	•		Street frontage along Parramatta Road faces south. There is only one building in the proposal.
	3B-2	Overshadowing of neighbouring properties is minimised during midwinter			
		Living areas, private open space and communal open space should receive solar access in accordance with sections 3D Communal and public open space and 4A Solar and daylight access	•		No significant impact on solar access to adjacent properties.
		Solar access to living rooms, balconies and private open spaces of neighbours should be considered	•		
		Where an adjoining property does not currently receive the required hours of solar access, the proposed building ensures solar access to neighbouring properties is not reduced by more than 20%			N/A
		If the proposal will significantly reduce the solar access of neighbours, building separation should be increased beyond minimums contained in section 3F Visual privacy			N/A
		Overshadowing should be minimised to the south or downhill by increased upper level setbacks			N/A
		It is optimal to orientate buildings at 90 degrees to the boundary with neighbouring properties to minimise overshadowing and privacy impacts, particularly where minimum setbacks are used and where buildings are higher than the adjoining development	•		
		A minimum of 4 hours of solar access should be retained to solar collectors on neighbouring buildings	•		Neighbouring houses have the opportunity to receive 4 hours of sunlight to roof spaces
3C	Public Domain Interface				
	3C-1	Transition between private and public domain is achieved without compromising safety and security			
		Terraces, balconies and courtyard apartments should have direct street entry, where appropriate		•	Apartments do not have direct street access.
		Changes in level between private terraces, front gardens and dwelling entries above the street level provide surveillance and improve visual privacy for ground level dwellings (see figure 3C.1)	•		
		Upper level balconies and windows should overlook the public domain	•		
		Front fences and walls along street frontages should use visually permeable materials and treatments. The height of solid fences or walls should be limited to 1m	•		
		Length of solid walls should be limited along street frontages	•		

ADG response table

Part No.	Objective No.	Objective Design criteria Design guidance	Complies		
			Yes	No	Notes
3C-2	Amenity of public domain is retained and enhanced	Opportunities should be provided for casual interaction between residents and the public domain. Design solutions may include seating at building entries, near letter boxes and in private courtyards adjacent to streets	•		
		In developments with multiple buildings and/or entries, pedestrian entries and spaces associated with individual buildings/entries should be differentiated to improve legibility for residents, using a number of the following design solutions: <ul style="list-style-type: none">• architectural detailing• changes in materials• plant species• colours	•		
		Opportunities for people to be concealed should be minimised	•		
		Planting softens the edges of any raised terraces to the street, for example above sub-basement car parking	•		
		Mail boxes should be located in lobbies, perpendicular to the street alignment or integrated into front fences where individual street entries are provided	•		
		The visual prominence of underground car park vents should be minimised and located at a low level where possible			
		Substations, pump rooms, garbage storage areas and other service requirements should be located in basement car parks or out of view	•		
		Ramping for accessibility should be minimised by building entry locations and setting ground floor levels in relation to footpath levels	•		
		Durable, graffiti resistant and easily cleanable materials should be used	•		
		Where development adjoins public parks, open space or bushland, the design positively addresses this interface and uses a number of the following design solutions: <ul style="list-style-type: none">• Street access, pedestrian paths and building entries which are clearly defined• Paths, low fences and plating that clearly delineate between communal/private open space and the adjoining public open space• Minimal use of blank walls, fences and ground level parking	•		Retail tenancies at ground level open directly onto a raised platform that overlooks Ismay Reserve. There are no blank walls on the boundary
3D	Communal and public open space				
3D-1	An adequate area of communal open space is provided to enhance residential amenity and to provide opportunities for landscaping.				
		Communal open space has a minimum area equal to 25% of the site		•	There is an existing courtyard on site.
		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)	•		
		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	•		A new communal open space is located on Level 8

ADG response table

Part No.	Objective No.	Objective	Complies		
		Design criteria Design guidance	Yes	No	Notes
3D	3D–2	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: <ul style="list-style-type: none">· 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	•		
		Communal open space is designed to allow for a range of activities, respond to site conditions and be attractive and inviting			
		Facilities are provided within communal open spaces and common spaces for a range of age groups (see also 4F Common circulation and spaces), incorporating some of the following elements: <ul style="list-style-type: none">· seating for individuals or groups· barbecue areas· play equipment or play areas· swimming pools, gyms, tennis courts or common rooms	•		
		The location of facilities responds to microclimate and site conditions with access to sun in winter, shade in summer and shelter from strong winds and down drafts	•		
	3C–3	Visual impacts of services should be minimised, including location of ventilation duct outlets from basement car parks, electrical substations and detention tanks	•		
		Communal open space is designed to maximise safety			
		Communal open space and the public domain should be readily visible from habitable rooms and private open space areas while maintaining visual privacy. Design solutions may include: <ul style="list-style-type: none">· bay windows· corner windows· balconies	•		
		Communal open space should be well lit	•		
		Where communal open space/facilities are provided for children and young people they are safe and contained	•		
3E Deep soil zones					
3E–1	Deep soil zones provide areas on the site that allow for and support healthy plant tree growth. They improve residential amenity and promote management of water and air quality				
	Deep soil zones are to meet the following minimum requirements.				There is an existing courtyard in Stage 1 of the development with approximately 480m ² of deep soil planting.
	Site area	Minimum dimensions	Deep soil zone (% of site area)		
	Less than 650m ²	–	7%		
	650m ² – 1,500m ²	3m			
	Greater than 1,500m ²	6m			
	Greater than 1,500m ² with significant existing cover	6m			

ADG response table

Part No.	Objective No.	Objective	Complies														
		Design criteria Design guidance	Yes	No	Notes												
3F–1		On some sites it may be possible to provide larger deep soil zones, depending on the site area and context: <ul style="list-style-type: none">• 10% of the site as deep soil on sites with an area of 650m²– 1,500m²• 15% of the site as deep soil on sites greater than 1,500m²			N/A												
		Deep soil zones should be located to retain existing significant trees and to allow for the development of healthy root systems, providing anchorage and stability for mature trees. Design solutions may include: <ul style="list-style-type: none">• basement and sub-basement car park design that is consolidated beneath building footprints• use of increased front and side setbacks• adequate clearance around trees to ensure long term health• co-location with other deep soil areas on adjacent sites to create larger contiguous areas of deep soil			N/A												
		Achieving the design criteria may not be possible on some sites including where: <ul style="list-style-type: none">• 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			N/A												
		Adequate building separation distances are shared equitably between neighbouring sites, to achieve reasonable levels of external and internal visual privacy															
		Separation between windows and balconies is provided to ensure visual privacy is achieved. Minimum required separation distances from buildings to the side and rear boundaries are as follows: <table><tr><th>Building Height</th><th>Habitable Room and Balconies</th><th>Non Habitable</th></tr><tr><td>Up to 12m (4 storeys)</td><td>6m</td><td>3m</td></tr><tr><td>Up to 25m (5-8 storeys)</td><td>9m</td><td>4.5m</td></tr><tr><td>Over 25m (9+ storeys)</td><td>12m</td><td>6m</td></tr></table> <p>Note: Separation distances between buildings on the same site should combine required building separations depending on the type of room (see figure 3F.2) Gallery access circulation should be treated as habitable space when measuring privacy separation distances between neighbouring properties</p>	Building Height	Habitable Room and Balconies	Non Habitable	Up to 12m (4 storeys)	6m	3m	Up to 25m (5-8 storeys)	9m	4.5m	Over 25m (9+ storeys)	12m	6m	•		Separation between Building B and C on the first 8 levels are as per existing DA conditions.
	Building Height	Habitable Room and Balconies	Non Habitable														
	Up to 12m (4 storeys)	6m	3m														
	Up to 25m (5-8 storeys)	9m	4.5m														
	Over 25m (9+ storeys)	12m	6m														
	Generally one step in the built form as the height increases due to building separations is desirable. Additional steps should be careful not to cause a ‘ziggurat’ appearance	•															
	For residential buildings next to commercial buildings, separation distances should be measured as follows: <ul style="list-style-type: none">• for retail, office spaces and commercial balconies use the habitable room distances• for service and plant areas use the non-habitable room distances		•	N/A													
	New development should be located and oriented to maximise visual privacy between buildings on site and for neighbouring buildings. Design solutions include: <ul style="list-style-type: none">• site layout and building orientation to minimise privacy impacts (see also section 3B Orientation)• on sloping sites, apartments on different levels have appropriate visual separation distances (see figure 3F.4)	•															
	Apartment buildings should have an increased separation distance of 3m (in addition to the requirements set out in design criteria 1) when adjacent to a different zone that permits lower density residential development to provide for a transition in scale and increased landscaping (figure 3F.5)		•	N/A													

ADG response table

Part No.	Objective No.	Objective Design criteria Design guidance	Complies		
			Yes	No	Notes
4	3F-2	Direct lines of sight should be avoided for windows and balconies across corners	•		
		No separation is required between blank walls	•		
		Site and building design elements increase privacy without compromising access to light and air and balance outlook and views from habitable rooms and private open space			
		Communal open space, common areas and access paths should be separated from private open space and windows to apartments, particularly habitable room windows. Design solutions may include: <ul style="list-style-type: none">• setbacks• solid or partially solid balustrades to balconies at lower levels• fencing and/or trees and vegetation to separate spaces• screening devices• bay windows or pop out windows to provide privacy in one direction and outlook in another• raising apartments/private open space above the public domain or communal open space• planter boxes incorporated into walls and balustrades to increase visual separation• pergolas or shading devices to limit overlooking of lower apartments or private open space• on constrained sites where it can be demonstrated that building layout opportunities are limited, fixed louvres or screen panels to windows and/or balconies	•		Landscaping and screening is provided as a buffer between private open space and communal open space on Level 8.
		Bedrooms, living spaces and other habitable rooms should be separated from gallery access and other open circulation space by the apartment's service areas	•		
		Balconies and private terraces should be located in front of living rooms to increase internal privacy	•		
		Windows should be offset from the windows of adjacent buildings	•		
		Recessed balconies and/or vertical fins should be used between adjacent balconies	•		
4	DESIGNING THE BUILDING				
4A	Solar and daylight access				
	4A-1	To optimise the number of apartments receiving sunlight to habitable rooms, primary windows and private open space			
		1. Living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of 2 hours direct sunlight between 9 am and 3 pm at mid-winter in the Sydney Metropolitan Area and in the Newcastle and Wollongong local government areas	•		87% of residential apartments achieve direct sunlight to living rooms and private open space in mid winter
		2. In all other areas, living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of 3 hours direct sunlight between 9 am and 3 pm at mid-winter			N/A
		3. A maximum of 15% of apartments in a building receive no direct sunlight between 9am and 3pm at mid winter	•		13% of residential apartments receive no direct sunlight in mid winter
4B	Natural Ventilation				
	4B-3	The number of apartments with natural cross ventilation is maximised to create a comfortable indoor environment for residents			
		1. At least 60% of apartments are naturally cross ventilated in the first nine storeys of the building. Apartments at ten storeys or greater are deemed to be cross ventilated only if any enclosure of the balconies at these levels allows adequate natural ventilation and cannot be fully enclosed	•		60% of residential apartments achieve cross ventilation in the first nine levels.

ADG response table

Part No.	Objective No.	Objective Design criteria Design guidance	Complies														
			Yes	No	Notes												
		2. Overall depth of a cross-over or cross-through apartment does not exceed 18m, measured glass line to glass line															
4C	Ceiling heights																
4C-1	Ceiling height achieves sufficient natural ventilation and daylight access																
	Measured from finished floor level to finished ceiling level, minimum ceiling heights are:		•		Habitable rooms are 2.7m ceiling height and non-habitable are 2.4m												
	<table><tr><th colspan="2">Minimum ceiling height for apartment and mixed use buildings</th></tr><tr><td>Habitable rooms</td><td>2.7m</td></tr><tr><td>Non-habitable rooms</td><td>2.4m</td></tr><tr><td>For 2 storey apartments</td><td>2.7m for main living area floor 2.4m for second floor, where its apartment area does not exceed 50% of the apartment area</td></tr><tr><td>Attic spaces</td><td>1.8m at edge of room with a 30 people degree minimum ceiling slope</td></tr><tr><td>If located in mixed use areas</td><td>3.3m for ground and first floor to promote future flexibility of use</td></tr></table>					Minimum ceiling height for apartment and mixed use buildings		Habitable rooms	2.7m	Non-habitable rooms	2.4m	For 2 storey apartments	2.7m for main living area floor 2.4m for second floor, where its apartment area does not exceed 50% of the apartment area	Attic spaces	1.8m at edge of room with a 30 people degree minimum ceiling slope	If located in mixed use areas	3.3m for ground and first floor to promote future flexibility of use
Minimum ceiling height for apartment and mixed use buildings																	
Habitable rooms	2.7m																
Non-habitable rooms	2.4m																
For 2 storey apartments	2.7m for main living area floor 2.4m for second floor, where its apartment area does not exceed 50% of the apartment area																
Attic spaces	1.8m at edge of room with a 30 people degree minimum ceiling slope																
If located in mixed use areas	3.3m for ground and first floor to promote future flexibility of use																
	These minimums do not preclude higher ceilings if desired																
4D	Apartment size and layout																
4D-1	The layout of rooms within an apartment is functional, well organised and provides a high standard of amenity																
	1. Apartments are required to have the following minimum internal areas:		•		The apartments have been designed with generous internal areas: 1 bedroom apartments = 50-52m² 2 bedroom apartments = 77-91m² 3 bedroom apartments = 101-102m²												
	<table><tr><th>Apartment Type</th><th>Minimum Internal Area</th></tr><tr><td>Studio</td><td>35m²</td></tr><tr><td>1 bedroom</td><td>50m²</td></tr><tr><td>2 bedroom</td><td>70m²</td></tr><tr><td>3 bedroom</td><td>90m²</td></tr></table>					Apartment Type	Minimum Internal Area	Studio	35m²	1 bedroom	50m²	2 bedroom	70m²	3 bedroom	90m²		
Apartment Type	Minimum Internal Area																
Studio	35m²																
1 bedroom	50m²																
2 bedroom	70m²																
3 bedroom	90m²																
	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																
	Kitchens should not be located as part of the main circulation space in larger apartments (such as hallway or entry space)		•														
	A window should be visible from any point in a habitable room		•														

ADG response table

Part No.	Objective No.	Objective Design criteria Design guidance	Complies		
			Yes	No	Notes
		Where minimum areas or room dimensions are not met apartments need to demonstrate that they are well designed and demonstrate the usability and functionality of the space with realistically scaled furniture layouts and circulation areas. These circumstances would be assessed on their merits			N/A
	4D-2	Environmental performance of the apartment is maximised			
		1. Habitable room depths are limited to a maximum of 2.5 x the ceiling height	•		
		2. In open plan layouts (where the living, dining and kitchen are combined) the maximum habitable room depth is 8m from a window	•		
		Greater than minimum ceiling heights can allow for proportional increases in room depth up to the permitted maxi-mum depths	•		
		All living areas and bedrooms should be located on the external face of the building	•		
		Where possible: <ul style="list-style-type: none">• bathrooms and laundries should have an external openable window• main living spaces should be oriented toward the primary outlook and aspect and away from noise sources	•		
	4D-3	Apartment layouts are designed to accommodate a variety of household activities and needs			
		1. Master bedrooms have a minimum area of 10m² and other bedrooms 9m² (excluding wardrobe space)	•		
		2. Bedrooms have a minimum dimension of 3m (excluding wardrobe space)	•		
		3. Living rooms or combined living/dining rooms have a minimum width of: 3.6m for studio and 1 bedroom apartments 4m for 2 and 3 bedroom apartments	•		
		4. The width of cross-over or cross-through apartments are at least 4m internally to avoid deep narrow apartment layouts		•	There are no cross-over or cross through apartments in the proposal.
		Access to bedrooms, bathrooms and laundries is separated from living areas minimising direct openings between living and service areas	•		
		All bedrooms allow a minimum length of 1.5m for robes	•		
		The main bedroom of an apartment or a studio apartment should be provided with a wardrobe of a minimum 1.8m long, 0.6m deep and 2.1m high	•		
		Apartment layouts allow flexibility over time, design solutions may include: <ul style="list-style-type: none">• dimensions that facilitate a variety of furniture arrangements and removal• spaces for a range of activities and privacy levels between different spaces within the apartment• dual master apartments• dual key apartments• Note: dual key apartments which are separate but on the same title are regarded as two sole occupancy units for the purposes of the Building Code of Australia and for calculating the mix of apartments• room sizes and proportions or open plans (rectangular spaces (2:3) are more easily furnished than square spaces (1:1))• efficient planning of circulation by stairs, corridors and through rooms to maximise the amount of usable floor space in rooms	•		There are no dual apartment or dual key apartments in the proposal.

ADG response table

Part No.	Objective No.	Objective Design criteria Design guidance	Complies																	
			Yes	No	Notes															
4E	Private Open Space and Balconies																			
4E-1	Apartments provide appropriately sized private open space and balconies to enhance residential amenity																			
	All apartments are required to have primary balconies as follows:		•																	
	<table><tr><th>Dwelling Type</th><th>Minimum Area</th><th>Minimum Depth</th></tr><tr><td>Studio Apartments</td><td>4m²</td><td>-</td></tr><tr><td>1 bedroom apartments</td><td>8m²</td><td>2m</td></tr><tr><td>2 bedroom apartments</td><td>10m²</td><td>2m</td></tr><tr><td>3+ bedroom apartments</td><td>12m²</td><td>2.4m</td></tr></table>		Dwelling Type	Minimum Area	Minimum Depth	Studio Apartments	4m²	-	1 bedroom apartments	8m²	2m	2 bedroom apartments	10m²	2m	3+ bedroom apartments	12m²	2.4m			
Dwelling Type	Minimum Area	Minimum Depth																		
Studio Apartments	4m²	-																		
1 bedroom apartments	8m²	2m																		
2 bedroom apartments	10m²	2m																		
3+ bedroom apartments	12m²	2.4m																		
	The minimum balcony depth to be counted as contributing to the balcony area is 1m																			
	For apartments at ground level or on a podium or similar structure, a private open space is provided instead of a bal-cony. It must have a minimum area of 15m² and a minimum depth of 3m		•																	
	Increased communal open space should be provided where the number or size of balconies are reduced		•																	
	Storage areas on balconies is additional to the minimum balcony size		•																	
	Balcony use may be limited in some proposals by: • consistently high wind speeds at 10 storeys and above • close proximity to road, rail or other noise sources • exposure to significant levels of aircraft noise • heritage and adaptive reuse of existing buildings In these situations, Juliet balconies, operable walls, enclosed wintergardens or bay windows may be appropriate, and other amenity benefits for occupants should also be provided in the apartments or in the development or both. Natural ventilation also needs to be demonstrated				N/A															
4F	Common Circulation and Spaces																			
4F-1	Common circulation spaces achieve good amenity and properly service the number of apartments																			
	1. The maximum number of apartments off a circulation core on a single level is eight		•																	
	2. For buildings of 10 storeys and over, the maximum number of apartments sharing a single lift is 40			•	N/A															
	Greater than minimum requirements for corridor widths and/or ceiling heights allow comfortable movement and access particularly in entry lobbies, outside lifts and at apartment entry doors		•		The entry corridors are 2.5m wide which is greater than the minimum 2m and allows for comfortable entry.															
	Daylight and natural ventilation should be provided to all common circulation spaces that are above ground		•	•	Partial compliance Common circulation spaces receive daylight.															
	Windows should be provided in common circulation spaces and should be adjacent to the stair or lift core or at the ends of corridors		•																	
	Longer corridors greater than 12m in length from the lift core should be articulated. Design solutions may include: • a series of foyer areas with windows and spaces for seating • wider areas at apartment entry doors and varied ceiling heights		•																	

ADG response table

Part No.	Objective No.	Objective	Complies												
		Design criteria Design guidance	Yes	No	Notes										
4G		Design common circulation spaces to maximise opportunities for dual aspect apartments, including multiple core apartment buildings and cross over apartments	•												
		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: <ul style="list-style-type: none">· 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			N/A Design criteria for number of apartments off a circulation core is achieved.										
		Where design criteria 1 is not achieved, no more than 12 apartments should be provided off a circulation core on a single level			N/A										
		Primary living room or bedroom windows should not open directly onto common circulation spaces, whether open or enclosed. Visual and acoustic privacy from common circulation spaces to any other rooms should be carefully con-trolled	•												
Storage															
4G–1	Adequate, well designed storage is provided in each apartment														
	In addition to storage in kitchens, bathrooms and bedrooms, the following storage is provided:		•												
	<table><tr><th>Dwelling type</th><th>Storage size</th></tr><tr><td>Studio apartments</td><td>4m3</td></tr><tr><td>1 bedroom apart-ments</td><td>6m3</td></tr><tr><td>2 bedroom apart-ments</td><td>8m3</td></tr><tr><td>3 bedroom apart-ments</td><td>10m3</td></tr></table>		Dwelling type	Storage size	Studio apartments	4m3	1 bedroom apart-ments	6m3	2 bedroom apart-ments	8m3	3 bedroom apart-ments	10m3			
Dwelling type	Storage size														
Studio apartments	4m3														
1 bedroom apart-ments	6m3														
2 bedroom apart-ments	8m3														
3 bedroom apart-ments	10m3														
	At least 50% of the required storage is to be located within the apartment														
	Storage is accessible from either circulation or living areas		•												
	Storage provided on balconies (in addition to the minimum balcony size) is integrated into the balcony design, weather proof and screened from view from the street			•	No storage is provided on balconies.										
	Left over space such as under stairs is used for storage		•												
4G–2	Additional storage is conveniently located, accessible and nominated for individual apartments														
	Storage not located in apartments is secure and clearly allocated		•												
	Storage is provided for larger and less frequently accessed items, where practical		•		Storage rooms are located in the basement for larger storage items										
	Storage space in internal or basement car parks is provided at the rear or side of car spaces or in cages so that allocated car parking remains accessible		•		Storage will not be designed to impede the car parking spaces.										
	If communal storage rooms are provided they should be accessible from common circulation areas of the building				N/A										
	Storage not located in an apartment is integrated into the overall building design and not visible from the public domain		•		Additional storage is located in the basement										

ADG response table

Part No.	Objective No.	Objective Design criteria Design guidance	Complies		
			Yes	No	Notes
4J	Noise and Pollution				
	4J-1	In noisy or hostile environments the impacts of external noise and pollution are minimised through the careful siting and layout of buildings			
		To minimise impacts the following design solutions may be used: <ul style="list-style-type: none">· physical separation between buildings and the noise or pollution source· residential uses are located perpendicular to the noise source and where possible buffered by other uses· non-residential buildings are sited to be parallel with the noise source to provide a continuous building that shields residential uses and communal open spaces· Non-residential uses are located at lower levels vertically separating the residential component from the noise or pollution source. Setbacks to the underside of residential floor levels should increase relative to traffic volumes and other noise sources· Buildings should respond to both solar access and noise. Where solar access is away from the noise source, nonhabitable rooms can provide a buffer· Where solar access is in the same direction as the noise source, dual aspect apartments with shallow building depths are preferable (see figure 4J.4)· Landscape design reduces the perception of noise and acts as a filter for air pollution generated by traffic and industry	•		Residential apartments are located on upper levels, away from noise and pollution.
		Achieving the design criteria in this Apartment Design Guide may not be possible in some situations due to noise and pollution. Where developments are unable to achieve the design criteria, alternatives may be considered in the following areas: <ul style="list-style-type: none">· solar and daylight access· private open space and balconies· natural cross ventilation	•		
	4J-2	Appropriate noise shielding or attenuation techniques for the building design, construction and choice of materials are used to mitigate noise transmission			
		Design solutions to mitigate noise include: <ul style="list-style-type: none">· limiting the number and size of openings facing noise sources· providing seals to prevent noise transfer through gaps· using double or acoustic glazing, acoustic louvres or enclosed balconies (wintergardens)· using materials with mass and/or sound insulation or absorption properties e.g. solid balcony balustrades, external screens and soffits	•		

SJB Architects

sjb.com.au

We create spaces people love.
SJB is passionate about the
possibilities of architecture,
interiors, urban design
and planning.
Let's collaborate.

Level 2, 490 Crown Street
Surry Hills NSW 2010
Australia
T. 61 2 9380 9911
architects@sjb.com.au
sjb.com.au