

SJB Architects



SEPP65 Design Statement

149-163 Milton Street
Ashbury
NSW 2193

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

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Prepared for
Ashbury FMBM Pty Ltd

Issued
September 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: #6119
Version: 01
Prepared by: WG
Checked by: AH

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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.



Prepared to accompany the Development Application submitted to Council

14.09.2020

Project Address

149-163 Milton Street
Ashbury
NSW 2193

Prepared on behalf:
Ashbury FMBM Pty Ltd

Prepared by:
SJB Architects NSW

Verification of Qualifications

John Pradel and Adam Haddow are registered as Architects in New South Wales and are enrolled in the Division of Chartered Architects in the register of Architects pursuant to the Architect Act 1921.

Their registration Numbers are 7004 and 7188.

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.

Adam Haddow

Director
Registered Architect NSW, No. 7188

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 in Ashbury which is encompassed by low-density residential neighbourhoods, many of which fall within Conservation Areas designated under the Canterbury LEP.

The streetscape along Milton Street is defined by single storey detached dwellings, including a series of Inter-War Californian Bungalows with a very consistent architectural language. These dwellings define the scale and architectural expression of Milton Street.

The proposal responds to this context by proposing a 2 storey scale along Milton Street. These dwellings have a single storey address to the street with two storeys behind. A series of expressed skillion roofs are repeated consistently as a direct response to the existing streetscape.

The brick materiality of the proposal draws from the neighbouring context and historical use of the site as a brick quarry. Utilising this materiality with scale and form, the proposal is responsive to the existing character of the area while providing a transition from the Milton Street scale to that of the larger development along W H Wagener Oval.

Utilising the sloping site topography has allowed for smaller dwellings along Milton Street to mask the additional height of the apartment buildings along the Western Boundary. From W.H. Wagener Oval these apartment buildings are further masked behind the existing tree canopy along the site boundary.

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.

In addition to responding to its natural, built and historical context, the proposed built form enhances the public domain and maximises internal amenity.

Two storey dwellings are proposed along Milton Street. These include a single storey element addressing the street, with 2 storeys behind. These dwellings are setback from the street boundary with a garden address to Milton Street, including a feature tree to each garden.

The single and double storey volumes have opposing skillion roofs, repeated along the length of Milton Street, a direct interpretation of the existing streetscape expression.

Along the Northern building, a residential interface, the allowable 3 storey built form has been expressed as 2 storeys plus roof. This allows for a dwelling expression to the Ashbury interface.

Along W.H Wagener Oval the apartment buildings, which are 4, 5 and 6 storeys, are a height and scale that allow for the, to be generally masked by the existing mature trees along the boundary. They are setout along the boundary to maximise retention of existing trees, sculpting around the TPZ of the existing trees. The architecture is expressed as horizontal spandrel ribbons on both buildings in order to provide a consistent and calm architectural edge to the oval.

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 under 1.1:1, responsive to the site specific council controls.

A large proportion of the dwellings are terraces and 3 bedroom apartments (approximately 130sqm). This reduces the density of dwellings on the site and provides dwellings that are appropriate for the Ashbury precinct.

There is a variety of dwelling types, all of which experience a high level of amenity. This includes views to W.H Wagener Oval, generous private open space and access to high quality communal open space.

Apartment mix:

• Studio Apartments	0%
• 1 Bedroom Apartments	6% 50-55sqm
• 2 Bedroom Apartments	12% 75-80sqm
• 3 Bedroom Apartments	33% 120sqm+
• 3 Bedroom Terraces	49% 130sqm+

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:

- Extensive landscaping to roofs and over structure, minimising stormwater run-off
- On-site rainwater detention and re-use
- Natural ventilation to corridors and the majority of apartments (**90% of dwellings are cross-ventilated**)
- Maximising direct sun to apartments (**76% of apartments receive minimum 2 hours of direct sunlight**)
- Predominantly constructed from locally produced, sustainable materials chosen favouring longevity and minimising maintenance.
- Energy-efficient lighting and appliances
- Water-efficient fixtures

2.5 Principle 5: Landscape

Good design recognises that together landscape and buildings operate as an integrated and sustainable system, resulting in attractive developments with good amenity. A positive image and contextual fit of well designed developments is achieved by contributing to the landscape character of the streetscape and neighbourhood.

Good landscape design enhances the development's environmental performance by retaining positive natural features which contribute to the local context, co-ordinating water and soil management, solar access, micro-climate, tree canopy, habitat values, and preserving green networks. Good landscape design optimises usability, privacy and opportunities for social interaction, equitable access, respect for neighbours' amenity, provides for practical establishment and long term management.

The proposal incorporates a integrated landscaping scheme throughout the development.

The public domain is enhanced along Milton Street and a new street is built along the Southern boundary providing a link between Milton Street and W.H Wagener Oval.

Existing trees along W.H Wagener Oval have been retained to allow the development to sit within an existing landscape setting.

Along Milton Street dwellings are provided with a landscaped address, including a tree in each garden. These trees have been selected as a variety of species to allow the development to read as part of the Streetscape, which has varied species within private gardens.

Extensive high quality communal open space is provided within the site, as well as on the rooftops of building B and Building C.

Private courtyards enhance the amenity to the ground floor apartments and provide a planted interface to the public domain, side boundaries and communal open space.

A high proportion of soft landscaping to roof areas and basement effectively minimises stormwater runoff.

Plant species have been selected to suit the location and climate, maximising the use of native species.

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.

The proposal has a high level of amenity throughout the various dwelling types and communal open space. This includes;

- Access to daylight for the general amenity of all apartments. While driven by the DCP orientations, the location and design of the dwellings maximise daylight access and minimising apartment depth.
- Lobbies to each level are naturally ventilated and lit
- Significant communal landscaped spaces have been provided for the residents, both a ground level and on the rooftops of buildings B and C.
- The development contributes to the general public amenity at ground floor level through the activation of frontages along Milton Street, the new street and W.H Wagener Oval.
- Generous private open space has been provided. All terraces have at least 2 areas of private open.
- Views to W.H Wagener Oval are provided from both private dwellings and communal spaces.

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 proposed layout of the building provides an improved relationship to the public domain. This includes;

- A new street is created. It provides a connection between Milton Street and W.H Wagener Oval. New dwellings address this street and provide passive surveillance.
- 2 new site entries are created from Milton Street which provide site permeability and visual corridors to W.H Wagener Oval.
- A new connection is provided between Yabsley Ave and W.H Wagener Oval.
- A new 'pedestrian' street is provided between Milton Street and Yabsley Ave (accessed via the Northern Milton Street site entry).

Additional design initiatives which have been incorporated into the design are:

- Principle building entrances are clearly identifiable and allow for passive surveillance;
- Building entrances have secure access points
- Car park layouts are designed to minimise opportunities for alcoves, and are generally open.
- Entries are well lit;
- Passive surveillance is provided with dwellings facing all communal open space and public domain interfaces.
- Increased pedestrian traffic will be a result of this development.

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.

The proposal provides a diverse mix of dwelling types including terrace housing and apartments. Apartments range from 50sqm up to +130sqm.

5 terrace types are proposed, including 2 and 3 storey dwellings further providing a choice of typology.

The scheme turns an industrial site into a new high quality residential precinct with upgraded public domain interfaces, new public connections and multiple communal spaces. All of which provide opportunities for social interaction among both residents, but also the broader community.

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.

The proposal is carefully considered, with material choices specific and responsive to its location.

Massing and detailing is designed to respond to the existing surrounding building fabric. The following principles have been observed in the design process:

- Proposed colours are those which are found naturally rather than primary colours, ensuring that the building sits comfortably within the urban scape.
- Articulation of the building forms has been adopted to reduce the perceived bulk of the building. The terrace typology has been used to articulate the buildings as single dwellings.
- The use of 'natural' materials which do require minimal maintenance
- Robust materials which are long lasting and weather naturally,
- Extensive use of landscaping elements and screening devices.
- Roof expression, and material selection provides a link to the surrounding context.
- Brickwork is detailed in order to articulate the building, with the use of a variety of coursing and brick mixes. This still allows for a consistent language throughout the development.
- Brick tones are referenced from the existing Milton Streetscape.

ADG response table

3

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

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)	•		Milton Street terraces (Building F) address the street.
		Where the street frontage is to the east or west, rear buildings should be orientated to the north	•		.
		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)	•		Building A/E- The majority of terraces face North. Terraces to the South are wide and shallow minimising the number of South facing dwellings. Building B/C - Building orientation responds to the park and DCP. Building D - The majority of terraces face North. Terraces to the South are wide and shallow minimising the number of South facing dwellings. Building F - The building orientation addresses Milton Street and the DCP.
	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 impact on solar access to adjacent properties.
		Solar access to living rooms, balconies and private open spaces of neighbours should be considered	•		No impact on neighbouring dwellings.
		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

Part No.	Objective No.	Objective Design criteria Design guidance	Complies		
			Yes	No	Notes
		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 - in accordance with DCP
		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			N/A - in accordance with DCP
		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	•		Building A/E - Direct access is provided from the new street and the primary pedestrian network. Building B/C - Ground floor apartments have direct access to the new street and primary pedestrian network. Building D - Direct access is provided from the pedestrian street. Building F (Milton Street) - Direct access is provided to Milton street.
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)	•		Building A/D/E/F - Ground floor level is higher than the adjacent public domain.
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	•		A low height timber palisade fence is provided along Milton Street.
Length of solid walls should be limited along street frontages	•		There are no solid walls proposed along Milton Street.
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	•		There is a strong focus on casual interaction in the common areas.

Part No.	Objective No.	Objective Design criteria Design guidance	Complies		
			Yes	No	Notes
3C-2		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 	•		Typology changes in the architecture and associated changes in the entry/public domain interface provide a clear differentiation.
		Opportunities for people to be concealed should be minimised	•		
		Amenity of public domain is retained and enhanced			
		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	•		All waste storage and associated waste collection spaces are located in the basement. Pump room is located in the basement. Substation is located on Milton Street, integrated into the architecture, as brickwork element.
		Ramping for accessibility should be minimised by building entry locations and setting ground floor levels in relation to footpath levels	•		Refer Arcadia Plan
		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 	•		The apartments address W.H Wagener Oval with a garden interface provided. There are no blank walls on the boundary. Refer Arcadia Plan

Part No.	Objective No.	Objective Design criteria Design guidance	Complies		
			Yes	No	Notes
		On sloping sites protrusion of car parking above ground level should be minimised by using split levels to step underground car parking	•		The carpark is completely concealed.
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	•		Site wide - The communal open space is 4120m ² equating to 25% of the site Ground Level - 3585m ² Building B Rooftop - 260m ² Building C Rooftop - 275m 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)	•		
		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	•		Deep soil provided in the main ground level communal space between building D+C/E
		Direct, equitable access should be provided to communal open space areas from common circulation areas, entries and lobbies	•		All communal open space can be access from the main circulation areas at ground floor.
		Where communal open space cannot be provided at ground level, it should be provided on a podium or roof			N/A
		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			N/A

Part No.	Objective No.	Objective Design criteria Design guidance	Complies		
			Yes	No	Notes
3D-2		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 	•		Refer Arcadia plans.
		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	•		Refer Arcadia plans.
		Visual impacts of services should be minimised, including location of ventilation duct outlets from basement car parks, electrical substations and detention tanks	•		Services concealed.
3C-3		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 	•		Balconies, terraces, gardens and living rooms overlook communal open space and the public domain.
		Communal open space should be well lit	•		
		Where communal open space/facilities are provided for children and young people they are safe and contained	•		
3D-4		Public open space, where provided, is responsive to the existing pattern and uses of the neighbourhood			
		The public open space should be well connected with public streets along at least one edge	•		New pedestrian connections are made between; Milton Street and Yabsley Avenue Milton Street and W.H Wagener Yabsley Ave and W.H Wagener Oval
		The public open space should be connected with nearby parks and other landscape elements	•		A new street is provided to connect Milton Street and W.H Wagener Oval.
		Public open space should be linked through view lines, pedestrian desire paths, termination points and the wider street grid	•		

Part No.	Objective No.	Objective Design criteria Design guidance	Complies		
			Yes	No	Notes
		Solar access should be provided year round along with protection from strong winds	•		
		Opportunities for a range of recreational activities should be provided for people of all ages	•		Refer Arcadia plan
		A positive address and active frontages should be provided adjacent to public open space	•		
		Boundaries should be clearly defined between public open space and private areas	•		Refer Arcadia Plan - landscape treatments define edges.

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.

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	

On some sites it may be possible to provide larger deep soil zones, depending on the site area and context:

- 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

• Deep soil provided is well in excess of the minimum requirement.

The deep soil is approximately 2930m², which equates to 18% of the site area (16 220m²).

• Larger deep soil zones have been provided (exceeding 15%)

Part No.	Objective No.	Objective	Complies		
		Design criteria	Yes	No	Notes
3F-1		Design guidance			
		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	•		Large deep soil zones (and increased setbacks) have been provided along the Western boundary in order to retain the existing trees along the interface with W.H Wagener Oval.
		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
3F-1		Adequate building separation distances are shared equitably between neighbouring sites, to achieve reasonable levels of external and internal visual privacy			

Part No.	Objective No.	Objective	Complies														
		Design criteria	Yes	No	Notes												
		<p>Design guidance</p> <p>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:</p> <table><tr><th>Building Height</th><th>Habitable Room and Balconies</th><th>Non Habitable</th></tr><tr><td>Up to 12 (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 12 (4 storeys)	6m	3m	Up to 25m (5-8 storeys)	9m	4.5m	Over 25m (9+ storeys)	12m	6m	•		<p>Building separation distances are as follows;</p> <p>_Building A to E (3 storeys) separation is greater than 12m.</p> <p>_Building B to C (5 storeys) separation is minimum 12m, The southern facade of building C consists of lift, fire stair (habitable to non-habitable).</p> <p>_Building A to B (3 storeys) separation is 12m.</p> <p>_Building E to C (3 storeys) separation is 12m.</p> <p>_Building E/C (3 storeys) to D separation is minimum 12m.</p>
Building Height	Habitable Room and Balconies	Non Habitable															
Up to 12 (4 storeys)	6m	3m															
Up to 25m (5-8 storeys)	9m	4.5m															
Over 25m (9+ storeys)	12m	6m															
		<p>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</p>	•														
		<p>For residential buildings next to commercial buildings, separation distances should be measured as follows:</p> <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												
		<p>New development should be located and oriented to maximise visual privacy between buildings on site and for neighbouring buildings. Design solutions include:</p> <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)	•														

Part No.	Objective No.	Objective Design criteria Design guidance	Complies		
			Yes	No	Notes
3F-2		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)	•		There is a 12m setback provided to the Northern boundary (single residential zone adjacent). Upper storeys are further setback to this Northern boundary.
		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 	•		Gardens and landscape are provided as a buffer between private open space and communal open space. Apartment buildings (building B and C) have solid brick spandrels that provide visual privacy between the interior of the apartment and the public domain.
		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	•		

Part No.	Objective No.	Objective Design criteria Design guidance	Complies		
			Yes	No	Notes
		Recessed balconies and/or vertical fins should be used between adjacent balconies	•		
3G Pedestrian Access and Entries					
3G-1 Building entries and pedestrian access connects to and address the public domain					
		Multiple entries (including communal building entries and individual ground floor entries) are provided to activate the street edge	•		Individual entries are provided for all terrace (building A/D/E/F) activating the ground plane. Apartment buildings have 2 access points to the lobby (North and South).
		Entry locations relate to the street and subdivision pattern and the existing pedestrian network	•		A North South pedestrian path is provided from the site, allowing access to all buildings. The 2 apartment buildings (A/B) have lobbies aligned along a North / South axis for continuity.
		Building entries are clearly identifiable. Communal entries are clearly distinguishable from private entries	•		
		Where street frontage is limited and multiple buildings are located on the site, a primary street address is provided with clear sight lines and pathways to secondary building entries	•		A new street is provided which acts as the primary address. A North South pedestrian path is provided from the site, allowing access to all buildings.
3G-2 Access, entries and pathways are equitable and easy to identify					
		Building access areas including lift lobbies, stairwells and hallways are clearly visible from the public domain and communal spaces	•		Refinements have been made to the DCP to provide a more legible pedestrian network through the site.
		The design of ground floors and underground car parks minimise level changes along pathways and entries	•		Refer Arcadia plans.
		Steps and ramps are integrated into the overall building and landscape design	•		Refer Arcadia plans.
		For large developments 'way finding' maps should be provided to assist visitors and residents (see figure 4T.3)			Noted
		For large developments electronic access and audio/video intercom should be provided to manage access			Noted
3G-3 Pedestrian links through developments provide access to streets and connect destinations					

Part No.	Objective No.	Objective Design criteria Design guidance	Complies		
			Yes	No	Notes
		Pedestrian links through sites facilitate direct connections to open space, main streets, centres and public transport	•		The DCP has been refined to provide clear connections between Milton Street, W.H Wagener Oval and Yabsley Ave.
		Pedestrian links should be direct, have clear sight lines, be overlooked by habitable rooms or private open spaces of dwellings, be well lit and contain active uses, where appropriate	•		The refinements improve the DCP sight lines.

3H Vehicle Access

3H-1 Vehicle access points are designed and located to achieve safety, minimise conflicts between pedestrians and vehicles and create high quality streetscapes

Car park access is integrated with the building's overall facade, design solutions may include:	•		The car park entry is integrated into building B.
<ul style="list-style-type: none"> the materials and colour palette minimise visibility from the street security doors or gates at entries that minimise voids in the facade where doors are not provided, the visible interior reflects the facade design and the building services, pipes and ducts are concealed 			
Car park entries are located behind the building line	•		The carpark is located from the new street, setback from the building face.
Vehicle entries are located at the lowest point of the site minimising ramp lengths, excavation and impacts on the building form and layout		•	The vehicle entry is located in building B which is at the bottom of the new street.
Car park entry and access is located on secondary streets or lanes where available	•		The car park entry is from new street, not Milton Street.
Vehicle standing areas that increase driveway width and encroach into setbacks should be avoided	•		Noted
Access point locations avoid headlight glare to habitable rooms	•		
Adequate separation distances are provided between vehicular entries and street intersections	•		
The width and number of vehicle access points is limited to the minimum	•		One vehicle access point for the whole site.
Visual impact of long driveways is minimised through changing alignments and screen planting	•		The new street will be as per the DCP. It includes a direct view to W.H Wagener.
The requirement for large vehicles to enter or turnaround within the site is avoided		•	Pick up of garbage is within the basement, as per the DCP

Part No.	Objective No.	Objective Design criteria Design guidance	Complies		
			Yes	No	Notes
		Garbage collection, loading and servicing areas are screened	•		Garbage collection occurs within the basement.
		Clear sight lines should be provided at pedestrian and vehicle crossings	•		
		Traffic calming devices such as changes in paving material or textures should be used where appropriate			N/A
		Pedestrian and vehicle access should be separated and distinguishable. Design solutions may include: <ul style="list-style-type: none"> • changes in surface materials • level changes • the use of landscaping for separation 	•		
3J Bicycle and Car Parking					
3J-1		Car parking is provided based on proximity to public transport in metropolitan Sydney and centres in regional areas			
		For development in the following locations: <ul style="list-style-type: none"> – on sites that are within 800 metres of a railway station or light rail stop in the Sydney Metropolitan Area; or – on land zoned, and sites within 400 metres of land zoned, B3 Commercial Core, B4 Mixed Use or equivalent in a nominated regional centre The minimum car parking requirement for residents and visitors is set out in the Guide to Traffic Generating Developments, or the car parking requirement prescribed by the relevant council, whichever is less The car parking needs for a development must be provided off street	•		Carparking in accordance with the DCP
		Where a car share scheme operates locally, provide car share parking spaces within the development. Car share spaces, when provided, should be on site	•		Car share schemes not provided
		Where less car parking is provided in a development, council should not provide on street resident parking permits			Noted
3J-2		Parking and facilities are provided for other modes of transport			
		Conveniently located and sufficient numbers of parking spaces should be provided for motorbikes and scooters		•	In accordance with the DCP

Part No.	Objective No.	Objective Design criteria Design guidance	Complies		
			Yes	No	Notes
3J-3		Secure undercover bicycle parking should be provided that is easily accessible from both the public domain and common areas	•		
		Conveniently located charging stations are provided for electric vehicles, where desirable	•		
		Car park design and access is safe and secure			
		Supporting facilities within car parks, including garbage, plant and switch rooms, storage areas and car wash bays can be accessed without crossing car parking spaces	•		Waste rooms and bulky storage rooms are generally located adjacent the lift lobbies.
		Direct, clearly visible and well lit access should be provided into common circulation areas	•		
3J-4		A clearly defined and visible lobby or waiting area should be provided to lifts and stairs	•		
		For larger car parks, safe pedestrian access should be clearly defined and circulation areas have good lighting, colour, line marking and/or bollards	•		Pedestrian access ways have been provided with in the basement.
		Visual and environmental impacts of underground car parking are minimised			
		Excavation should be minimised through efficient car park layouts and ramp design	•		
		Car parking layout should be well organised, using a logical, efficient structural grid and double loaded aisles	•		
3J-5		Protrusion of car parks should not exceed 1m above ground level. Design solutions may include stepping car park levels or using split levels on sloping sites	•		No protrusion of the carpark.
		Natural ventilation should be provided to basement and sub-basement car parking areas		•	Not possible due to the size of the basement and the provision of private open space on ground level.
		Ventilation grills or screening devices for car parking openings should be integrated into the facade and landscape design			N/A
		Visual and environmental impacts of on-grade car parking are minimised			
		On-grade car parking should be avoided	•		No on-grade parking is provided

Part No.	Objective No.	Objective Design criteria Design guidance	Complies		
			Yes	No	Notes
		Where on-grade car parking is unavoidable, the following design solutions are used: <ul style="list-style-type: none"> • parking is located on the side or rear of the lot away from the primary street frontage • cars are screened from view of streets, buildings, communal and private open space areas • safe and direct access to building entry points is provided • parking is incorporated into the landscape design of the site, by extending planting and materials into the car park space • stormwater run-off is managed appropriately from car parking surfaces • bio-swales, rain gardens or on site detention tanks are provided, where appropriate • light coloured paving materials or permeable paving systems are used and shade trees are planted between every 4-5 parking spaces to reduce increased surface temperatures from large areas of paving 			N/A
3J-6 Visual and environmental impacts of above ground enclosed car parking are minimised					
		Exposed parking should not be located along primary street frontages			N/A
		Screening, landscaping and other design elements including public art should be used to integrate the above ground car parking with the facade. Design solutions may include: <ul style="list-style-type: none"> • car parking that is concealed behind the facade, with windows integrated into the overall facade design (approach should be limited to developments where a larger floor plate podium is suitable at lower levels) • car parking that is 'wrapped' with other uses, such as retail, commercial or two storey Small Office/Home Office (SOHO) units along the street frontage (see figure 3J.9) 			N/A
		Positive street address and active frontages should be provided at ground level	•		
4 DESIGNING THE BUILDING					
4A Solar and daylight access					

Part No.	Objective No.	Objective Design criteria Design guidance	Complies		
			Yes	No	Notes
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	•		76% (98 dwellings out of 129 dwellings) receive minimum 2 hours of sunlight
		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% (17 dwellings out of 129 dwellings) receive less than 15 mins midwinter sunlight
		The design maximises north aspect and the number of single aspect south facing apartments is minimised	•		
		Single aspect, single storey apartments should have a northerly or easterly aspect	•		There are only 4 apartments that are single storey South facing units. This equates to 3% (Building B, level 1-4).
		Living areas are best located to the north and service areas to the south and west of apartment	•		This is achieved to the majority of apartments.
		To optimise the direct sunlight to habitable rooms and balconies a number of the following design features are used: • dual aspect apartments • shallow apartment layouts • two storey and mezzanine level apartments • bay windows	•		Apartment types include terrace typology (multi storey apartments) and dual aspect apartments. Where South facing, apartments/terraces are shallow.
		To maximise the benefit to residents of direct sunlight within living rooms and private open spaces, a minimum of 1m ² of direct sunlight, measured at 1m above floor level, is achieved for at least 15 minutes	•		This is achieved to the majority of apartments.

Part No.	Objective No.	Objective Design criteria Design guidance	Complies		
			Yes	No	Notes
		<p>Achieving the design criteria may not be possible on some sites. This includes:</p> <ul style="list-style-type: none"> • 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 <p>Design drawings need to demonstrate how site constraints and orientation preclude meeting the design criteria and how the development meets the objective</p>			N/A
4A-2		Daylight access is maximised where sunlight is limited			
		Courtyards, skylights and high level windows (with sills of 1,500mm or greater) are used only as a secondary light source in habitable rooms	•		
		<p>Where courtyards are used:</p> <ul style="list-style-type: none"> • use is restricted to kitchens, bathrooms and service areas • building services are concealed with appropriate detailing and materials to visible walls • courtyards are fully open to the sky • access is provided to the light well from a communal area for cleaning and maintenance • acoustic privacy, fire safety and minimum privacy separation distances (see section 3F Visual privacy) are achieved 			N/A
		<p>Opportunities for reflected light into apartments are optimised through:</p> <ul style="list-style-type: none"> • reflective exterior surfaces on buildings opposite south facing windows • positioning windows to face other buildings or surfaces (on neighbouring sites or within the site) that will reflect light • integrating light shelves into the design • light coloured internal finishes 	•		Internal finishes on balconies are a light colouring
4A-3		Design incorporates shading and glare control, particularly for warmer months			

Part No.	Objective No.	Objective Design criteria Design guidance	Complies		
			Yes	No	Notes
		<p>A number of the following design features are used:</p> <ul style="list-style-type: none"> • balconies or sun shading that extend far enough to shade summer sun, but allow winter sun to penetrate living areas • shading devices such as eaves, awnings, balconies, pergolas, external louvres and planting • horizontal shading to north facing windows • vertical shading to east and particularly west facing windows • operable shading to allow adjustment and choice • high performance glass that minimises external glare off windows, with consideration given to reduced tint glass or glass with a reflectance level below 20% (reflective films are avoided) 	•		Glazing in accordance with BASIX. In addition balconies are covered and shaded from summer sun.
4B Natural Ventilation					
	4B-1	All habitable rooms are naturally ventilated			
		The building's orientation maximises capture and use of prevailing breezes for natural ventilation in habitable rooms	•		
		Depths of habitable rooms support natural ventilation	•		
		The area of unobstructed window openings should be equal to at least 5% of the floor area served	•		
		Light wells are not the primary air source for habitable rooms			N/A
		<p>Doors and openable windows maximise natural ventilation opportunities by using the following design solutions:</p> <ul style="list-style-type: none"> • adjustable windows with large effective openable areas • a variety of window types that provide safety and flexibility such as awnings and louvres • windows which the occupants can reconfigure to funnel breezes into the apartment such as vertical louvres, casement windows and externally opening doors 	•		
	4B-2	The layout and design of single aspect apartments maximises natural ventilation			

Part No.	Objective No.	Objective Design criteria Design guidance	Complies		
			Yes	No	Notes
		Apartment depths are limited to maximise ventilation and airflow (see also figure 4D.3)	•		Building C terrace typology is deeper to accommodate appropriate apartment depths on the levels above. To mediate the depth, the centre of the plan is used for storage, stair and service areas. The living areas are a compliant depth.
		Natural ventilation to single aspect apartments is achieved with the following design solutions: <ul style="list-style-type: none"> • primary windows are augmented with plenums and light wells (generally not suitable for cross ventilation) • stack effect ventilation / solar chimneys or similar to naturally ventilate internal building areas or rooms such as bathrooms and laundries • courtyards or building indentations have a width to depth ratio of 2:1 or 3:1 to ensure effective air circulation and avoid trapped smells 		•	Minimal single orientation apartments are provided.
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	•		116 of 129 (90%) of apartments achieve cross ventilation
		2. Overall depth of a cross-over or cross-through apartment does not exceed 18m, measured glass line to glass line		•	Building C terrace typology is deeper to accommodate appropriate apartment depths on the levels above. To mediate the depth, the centre of the plan is used for storage, stair and service areas. The living areas are a compliant depth.
		The building should include dual aspect apartments, cross through apartments and corner apartments and limit apartment depths	•		Cross over, multi storey apartments and corner apartments represent the majority of apartments.
		In cross-through apartments external window and door opening sizes/areas on one side of an apartment (inlet side) are approximately equal to the external window and door opening sizes/areas on the other side of the apartment (outlet side) (see figure 4B.4)	•		Multiple openings on the facades allow the openable area at either side of the apartment to be similar.
		Apartments are designed to minimise the number of corners, doors and rooms that might obstruct airflow	•		Internal apartment design avoids dead corners and the like.

Part No.	Objective No.	Objective	Complies														
		Design criteria	Yes	No	Notes												
		Design guidance															
		Apartment depths, combined with appropriate ceiling heights, maximise cross ventilation and airflow	•		3200mm floor to floor ensure high ceilings.												
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 minimum 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			Ground Floor apartments have higher floor to floor heights.
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															
		Ceiling height can accommodate use of ceiling fans for cooling and heat distribution	•														
4C-2		Ceiling height increases the sense of space in apartments and provides for well-proportioned rooms															

Part No.	Objective No.	Objective	Complies											
		Design criteria Design guidance	Yes	No	Notes									
4C-3		<p>A number of the following design solutions can be used:</p> <ul style="list-style-type: none">· The hierarchy of rooms in an apartment is defined using changes in ceiling heights and alternatives such as raked or curved ceilings, or double height spaces· Well-proportioned rooms are provided, for example, smaller rooms feel larger and more spacious with higher ceilings· Ceiling heights are maximised in habitable rooms by ensuring that bulkheads do not intrude. The stacking of service rooms from floor to floor and coordination of bulkhead location above non-habitable areas, such as robes or storage, can assist	•		Rational apartment design and similar layouts from level to level allow for stacking of services and high ceiling heights in the living rooms.									
	Ceiling heights contribute to the flexibility of building use over the life of the building													
		<p>Ceiling heights of lower level apartments in centres should be greater than the minimum required by the design criteria allowing flexibility and conversion to non-residential uses (see figure 4C.1)</p>	•		Ground Floor apartments have higher ceiling heights as a result of a higher floor to floor.									
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														
	<p>1. Apartments are required to have the following minimum internal areas:</p> <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> <p>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</p>	Apartment Type	Minimum Internal Area	Studio	35m ²	1 bedroom	50m ²	2 bedroom	70m ²	3 bedroom	90m ²	•		<p>The apartments have been designed with compliant internal areas.</p> <p>3 bedroom apartments are over sized to provide a generous internal layout.</p> <p>Approximate areas for apartments; 1 Bed = 50m² 2 Bed = 80m² 3 Bed = 130m²</p>
Apartment Type	Minimum Internal Area													
Studio	35m ²													
1 bedroom	50m ²													
2 bedroom	70m ²													
3 bedroom	90m ²													
	<p>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</p>	•		No borrowed light to habitable rooms.										

Part No.	Objective No.	Objective Design criteria Design guidance	Complies		
			Yes	No	Notes
		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	•		
		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	•		Measured to the face of wall joinery at the back of the apartment.
		Greater than minimum ceiling heights can allow for proportional increases in room depth up to the permitted maximum depths	•		3200mm floor to floor allows for higher ceilings
		All living areas and bedrooms should be located on the external face of the building	•		
		Where possible: • 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	•		• Living areas are orientated towards W.H Wagener Oval, or primary garden spaces.
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	•		

Part No.	Objective No.	Objective Design criteria Design guidance	Complies		
			Yes	No	Notes
		4. The width of cross-over or cross-through apartments are at least 4m internally to avoid deep narrow apartment layouts	•		Cross through apartments are 4.7m wide
		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 	•		Generous 3 bedroom apartments allow flexibility for occupants.
4E Private Open Space and Balconies					
	4E-1	Apartments provide appropriately sized private open space and balconies to enhance residential amenity			

Part No.	Objective No.	Objective Design criteria Design guidance	Complies																	
			Yes	No	Notes															
4E-2		All apartments are required to have primary balconies as follows:	•		All apartments have at least the minimum area; 1 bedroom - min. 8m ² 2 bedroom - min. 10m ² 3 bedroom - min. 12m ²															
		<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	4m ²	-	1 bedroom apartments	8m ²	2m	2 bedroom apartments	10m ²	2m	3+ bedroom apartments	12m ²	2.4m
	Dwelling Type	Minimum Area				Minimum Depth														
	Studio Apartments	4m ²				-														
	1 bedroom apartments	8m ²				2m														
	2 bedroom apartments	10m ²	2m																	
	3+ bedroom apartments	12m ²	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 balcony. It must have a minimum area of 15m² and a minimum depth of 3m	•		Terraces and garden apartments have gardens, balconies and terraces much larger than the minimum requirements. All have two or more areas of private open space.																
	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	•		Noted																
	Balcony use may be limited in some proposals by: <ul style="list-style-type: none">consistently high wind speeds at 10 storeys and aboveclose proximity to road, rail or other noise sourcesexposure to significant levels of aircraft noiseheritage 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																
	Primary private open space and balconies are appropriately located to enhance liveability for residents																			

Part No.	Objective No.	Objective Design criteria Design guidance	Complies		
			Yes	No	Notes
4E-3	Private open space and balcony design is integrated into and contributes to the overall architectural form and detail of the building	Primary open space and balconies should be located adjacent to the living room, dining room or kitchen to extend the living space	•		
		Private open spaces and balconies predominantly face north, east or west	•		
		Primary open space and balconies should be orientated with the longer side facing outwards or be open to the sky to optimise daylight access into adjacent rooms	•		
		Solid, partially solid or transparent fences and balustrades are selected to respond to the location. They are de-signed to allow views and passive surveillance of the street while maintaining visual privacy and allowing for a range of uses on the balcony. Solid and partially solid balustrades are preferred	•		Balcony design on the apartments (building B + C) are expressed as a solid brick spandrel. This typology provides privacy to occupants and a consistent architectural language to the buildings. Corner apartments are provided with a smaller Juliet balcony which has a permeable balustrade that a contrast and allows occupants to move 'outside' the facade.
		Full width full height glass balustrades alone are generally not desirable	•		No glass balustrades have been included
		Projecting balconies should be integrated into the building design and the design of soffits considered	•		Corner apartments are provided with a smaller Juliet balcony. These are used to articulate side facades.
		Operable screens, shutters, hoods and pergolas are used to control sunlight and wind	•		Balconies are covered and protected as they are set within the building (not projecting).
		Balustrades are set back from the building or balcony edge where overlooking or safety is an issue	•		Common area rooftop have the usable area setback from the edge to provide privacy.
		Downpipes and balcony drainage are integrated with the overall facade and building design	•		Noted.
		Air-conditioning units should be located on roofs, in basements, or fully integrated into the building design	•		Condensers are located on the rooftops of Building B + C or in gardens of Building A/D/E/F. They will not be visible
		Where clothes drying, storage or air conditioning units are located on balconies, they should be screened and inte-grated in the building design	•		No storage or air conditioning provided on balconies. Solid balustrades allow for concealed clothes drying.
		Ceilings of apartments below terraces should be insulated to avoid heat loss	•		Noted. In accordance with BASIX.

Part No.	Objective No.	Objective Design criteria Design guidance	Complies		
			Yes	No	Notes
4E-4		Water and gas outlets should be provided for primary balconies and private open space	•		To be determined at design development
		Private open space and balcony design maximises safety			
		Changes in ground levels or landscaping are minimised	•		
		Design and detailing of balconies avoids opportunities for climbing and falls	•		
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	•		Maximum 8 apartments per level.
		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	•		1600mm wide corridors provided throughout. Potential for higher ceilings due to the 3200mm floor to floor heights provided.
		Daylight and natural ventilation should be provided to all common circulation spaces that are above ground	•		Natural ventilation and daylight is provided to common areas.
		Windows should be provided in common circulation spaces and should be adjacent to the stair or lift core or at the ends of corridors	•		Windows are provided adjacent lifts allowing for amenity and views for common circulation spaces.
		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			Noted - Ceiling heights can be varied along the corridor length in building C
		Design common circulation spaces to maximise opportunities for dual aspect apartments, including multiple core apartment buildings and cross over apartments	•		Cross over apartments are provided in Building C.

Part No.	Objective No.	Objective Design criteria Design guidance	Complies		
			Yes	No	Notes
		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 	•		<ul style="list-style-type: none"> • Common circulation spaces have sunlight and views. • Common circulation spaces are naturally ventilated
		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 controlled	•		
4F-2 Common circulation spaces promote safety and provide for social interaction between residents					
		Direct and legible access should be provided between vertical circulation points and apartment entries by minimising corridor or gallery length to give short, straight, clear sight lines	•		
		Tight corners and spaces are avoided	•		
		Circulation spaces should be well lit at night			Noted
		Legible signage should be provided for apartment numbers, common areas and general wayfinding			Noted
		Incidental spaces, for example space for seating in a corridor, at a stair landing, or near a window are provided			Noted
		In larger developments, community rooms for activities such as owners corporation meetings or resident use should be provided and are ideally co-located with communal open space	•		A common room is provided in Building C associated with the Lobby.
		Where external galleries are provided, they are more open than closed above the balustrade along their length			N/A

Part No.	Objective No.	Objective Design criteria Design guidance	Complies												
			Yes	No	Notes										
4G	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:	•		Oversized apartments allow for minimum storage requirements to be met within the apartments. Additional storage capacity is allowed for in the basements, including within the private garages.										
		<table><tr><th>Dwelling type</th><th>Storage size</th></tr><tr><td>Studio apartments</td><td>4m3</td></tr><tr><td>1 bedroom apartments</td><td>6m3</td></tr><tr><td>2 bedroom apartments</td><td>8m3</td></tr><tr><td>3 bedroom apartments</td><td>10m3</td></tr></table>				Dwelling type	Storage size	Studio apartments	4m3	1 bedroom apartments	6m3	2 bedroom apartments	8m3	3 bedroom apartments	10m3
Dwelling type	Storage size														
Studio apartments	4m3														
1 bedroom apartments	6m3														
2 bedroom apartments	8m3														
3 bedroom apartments	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													
		Left over space such as under stairs is used for storage	•		Under stair space can be 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 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										
4H	Acoustic Privacy														
	4H-1	Noise transfer is minimised through the siting of buildings and building layout													

Part No.	Objective No.	Objective Design criteria Design guidance	Complies		
			Yes	No	Notes
4H-2		Adequate building separation is provided within the development and from neighbouring buildings / adjacent uses (also see section 2F Building separation and section 3F Visual Privacy)	•		
		Window and door openings are generally orientated away from noise sources	•		
		Noisy areas within buildings including building entries and corridors are located next to or above each other and quieter areas next to or above quieter areas	•		The floor plans are replicated from the ground to the top level.
		Storage, circulation areas and non-habitable rooms are located to buffer noise from external sources	•		Service cupboards and circulation areas are centrally located, with bedrooms sitting on the outside of the apartments and non- habitable spaces on the inside of the apartments.
		The number of party walls (walls shared with other apartments) are limited and are appropriately insulated	•		
		Noise sources such as garage doors, driveways, service areas, plant rooms, building services, mechanical equipment, active communal open spaces and circulation areas are located at least 3m away from bedrooms	•		Plantrooms have been designed in the basement. Mechanical equipment has been placed on the roof.
		Noise impacts are mitigated through internal apartment layout and acoustic treatments			
		Internal apartment layout separates noisy spaces from quiet spaces, using a number of the following design solutions: · rooms with similar noise requirements are grouped together · doors separate different use zones · wardrobes in bedrooms are co-located to act as sound buffers	•		
		Where physical separation cannot be achieved noise conflicts are resolved using the following design solutions: · double or acoustic glazing · acoustic seals · use of materials with low noise penetration properties · continuous walls to ground level · courtyards where they do not conflict with streetscape or other amenity requirements	•		
	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				

Part No.	Objective No.	Objective Design criteria Design guidance	Complies		
			Yes	No	Notes
		<p>To minimise impacts the following design solutions may be used:</p> <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 	•		
		<p>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:</p> <ul style="list-style-type: none"> • solar and daylight access • private open space and balconies • natural cross ventilation 	•		Noted
4J-2		Appropriate noise shielding or attenuation techniques for the building design, construction and choice of materials are used to mitigate noise transmission			

Part No.	Objective No.	Objective Design criteria Design guidance	Complies		
			Yes	No	Notes
		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 	•		Some noise will be associated with Milton Street. These dwellings have a landscape buffer to the street, and dual aspect orientation which allows for living spaces away from the Street.
4K Apartment Mix					
	4K-1	A range of apartment types and sizes is provided to cater for different household types now and into the future			
		A variety of apartment types is provided	•		1Bed / 2 Bed / 3 Bed / Terrace Housing
		The apartment mix is appropriate, taking into consideration: <ul style="list-style-type: none"> the distance to public transport, employment and education centres the current market demands and projected future demographic trends the demand for social and affordable housing different cultural and socioeconomic group 	•		1Bed= 8 (6%) 2 Bed= 16 (12%) 3 Bed= 42 (33%) Terrace = 63 (49%) Larger apartments are provided typically, which reduces the density of the proposal.
		Flexible apartment configurations, such as dual key apartments, are provided to support diverse household types and stages of life including single person households, families, multi-generational families and group households	•		Larger apartments (i.e. 130sqm 3 bedroom apartments) allow for flexible configuration.
	4K-2	The apartment mix is distributed to suitable locations within the building			
		Different apartment types are located to achieve successful facade composition and to optimise solar access. See figure 4A.3	•		
		Larger apartment types are located on the ground or roof level where there is potential for more open space and on corners where more building frontage is available	•		Larger 3 Bedroom apartments exist on each floor
4L Ground Floor Apartments					
	4L-1	Street frontage activity is maximised where ground floor apartments are located			
		Direct street access should be provided to ground floor apartments	•		Direct access is provided from Milton Street.

Part No.	Objective No.	Objective Design criteria Design guidance	Complies		
			Yes	No	Notes
4L-2		Activity is achieved through front gardens, terraces and the facade of the building. Design solutions may include: <ul style="list-style-type: none"> • both street and foyer entrances to ground floor apartments • private open space is next to the street • doors and windows face the street 	•		Terraces are the typical typology on ground floor providing activation to the street, public domain and communal open space.
		Retail or home office spaces are located along street frontages			N/A
		Ground floor apartment layouts support small office home office (SOHO) use to provide future opportunities for conversion into commercial or retail areas. In these cases provide higher floor to ceiling heights and ground floor amenities for easy conversion			N/A
		Design of ground floor apartments delivers amenity and safety for residents			
		Privacy and safety is provided without obstructing causal surveillance. Design solutions may include: <ul style="list-style-type: none"> • elevation of private gardens and terraces above the street level by 1m – 1.5m (see Figure 4L.4) • landscaping and private courtyards • window sill heights that minimise sight lines into apartments • integrating balustrades, safety bars or screens with the exterior design 	•		Terraces are provided with landscaped gardens as a buffer to the public domain.
4M	Facades	Solar access is maximised through: <ul style="list-style-type: none"> • high ceilings and tall windows • trees and shrubs that allow solar access in winter and shade in summer 			Noted
4M-1		Building facades provide visual interest along the street respecting the character of the local area			
		Design solutions for front building facades may include: <ul style="list-style-type: none"> • A composition of varied building elements • A defined base, middle and top of the buildings • Revealing and concealing certain elements • Changes in texture, material, detail and colour to modify the prominence of elements 	•		The textures and coursing of the brick facade is changed for different facade elements; _The ground floor level of the apartment buildings are expressed as a base with a solid soldier coursing. _The typical brickwork is stretcher bond _The balcony and spandrel is expressed as a soldier coursing.
		Building services should be integrated within the overall façade	•		

Part No.	Objective No.	Objective Design criteria Design guidance	Complies		
			Yes	No	Notes
4M-2		Building facades should be well resolved with an appropriate scale and proportion to the streetscape and human scale. Design solutions may include: <ul style="list-style-type: none"> Well composed horizontal and vertical elements Variation in floor heights to enhance the human scale Elements that are proportional and arranged in patterns Public artwork or treatments to exterior blank walls Grouping of floors or elements such as balconies and windows on taller buildings 	•		Brick coursing is varied depending on the architectural element and to articulate the facade. A roofed expression is incorporated along Milton Street, on the Northern terraces and for top storey elements on building B + C.
		Building facades relate to key datum lines of adjacent buildings through upper level setbacks, parapets, cornices, awnings or colonnade heights	•		The Milton Street terraces (building F) introduce a roofed datum to relate to the existing single dwelling bungalows along Milton Street.
		Shadow is created on the façade throughout the day with building articulation, balconies and deeper window re-veals	•		Recessed balconies create shadow. Where windows are located near the face of the building, vertical metal elements are introduced to provide privacy shading and variation of shadow on the facade.
	Building functions are expressed by the façade				
		Building entries should be clearly defined	•		Building entries are clearly legible. An 'arched' expression provides a consistent architectural language to entries of building B + C.
		Important corners are given visual prominence through a change in articulation, materials or colour, roof expression or changes in height	•		Balconies are typically located the corner to introduce a play of light and shadow.
			•		The apartment layout should be expressed externally through façade features as party walls and floor slabs
4N Roof Design					
4N-1 Roof treatments are integrated into the building design and positively respond to the street					
		Roof design relates to the street. Design solutions may include: <ul style="list-style-type: none"> Special roof features and strong corners Use of skillion or very low pitch hipped roofs Breaking down the massing of the roof by using smaller elements to avoid bulk Using materials or a pitched form complementary to adjacent buildings 	•		A roofed expression is introduced on the Milton Street terraces (building F) to relate to the existing single dwelling bungalows along Milton Street.

Part No.	Objective No.	Objective Design criteria Design guidance	Complies		
			Yes	No	Notes
		<p>Roof treatments should be integrated with the building design. Design solutions may include:</p> <ul style="list-style-type: none"> • Roof design proportionate to the overall building size, scale and form • Roof materials complement the building • Service elements are integrated 	•		A roofed expression is introduced in building D to reduce the perceived scale.
4N-2		<p>Opportunities to use roof space for residential accommodation and open space are maximised</p> <p>Habitable roof space should be provided with good levels of amenity. Design solutions may include:</p> <ul style="list-style-type: none"> • Penthouse apartments • Dormer or clerestory windows • Openable skylights 			N/A
		<p>Open space is provided on roof tops subject to acceptable visual and acoustic privacy, comfort levels, safety and security considerations</p>	•		<p>Roof terraces are provided on Building A +E.</p> <p>Communal open space is provided on building B +C.</p>
4N-3		<p>Roof design incorporates sustainability features</p> <p>Roof design maximises solar access to apartments during winter and provides shade during summer. Design solutions may include:</p> <ul style="list-style-type: none"> • The roof lifts to the north • Eaves and overhangs shade walls and windows from summer sun 	•		Terraces incorporate North facing windows within skillion roofs in building F.
		<p>Skylights and ventilation systems should be integrated into the roof design</p>	•		Skylights are providing to Building C + Building A + E.
4O	Landscape Design				
4O-1		<p>Landscape design is viable and sustainable</p> <p>Landscape design should be environmentally sustainable and can enhance environmental performance by incorporating:</p> <ul style="list-style-type: none"> • Diverse and appropriate planting • Bio-filtration gardens • Appropriately planted shading trees • Areas for residents to plant vegetables and herbs • Composting • Green roofs or walls 	•		Refer Arcadia Plan
		<p>Ongoing maintenance plans should be prepared</p>	•		Refer Arcadia Plan

Part No.	Objective No.	Objective	Complies		
		Design criteria	Yes	No	Notes
40-2		Design guidance			
		Microclimate in enhanced by: <ul style="list-style-type: none">· Appropriately scaled trees near the eastern and western elevations for shade· A balance of evergreen and deciduous trees to provide shading in summer and sunlight access in winter· Shade structures such as pergolas for balconies and courtyards	•		Refer Arcadia Plan
		Tree and shrub selection considers size at maturity and the potential for roots to complete (see table 4)	•		Refer Arcadia Plan
		Landscape design contributes to the streetscape and amenity			
		Landscape design responds to the existing site conditions including: <ul style="list-style-type: none">· Changes of levels· Views· Significant landscape features including trees and rock outcrops	•		Refer Arcadia Plan
		Significant landscape features should be protected by: <ul style="list-style-type: none">· Tree protection zones (see figure 40.5)· Appropriate signage and fencing during construction	•		Existing trees along W.H Wagener Oval have been retained by providing an extra setback to building B + building C. Refer arborist report.
	Plants selected should be endemic to the region and reflect the local ecology	•		Refer Arcadia Plan	
4P	Planting on Structures				
4P-1	Appropriate soil profiles are provided				
		Structures are reinforced for additional saturated soil weight			Noted
		Soil volume is appropriate for plant growth, considerations include: <ul style="list-style-type: none">· Modifying depths and widths according to the planting mix and irrigation frequency· Free draining and long soil life span· Tree anchorage	•		Refer Arcadia Plan
		Minimum soil standards for plant sizes should be provided in accordance with Table 5	•		Refer Arcadia Plan
4P-2	Plant growth is optimised with appropriate selection and maintenance				
		Plants are suited to site conditions, considerations include: <ul style="list-style-type: none">· Drought and wind tolerance· Seasonal changes in solar access· Modified substrate depths for diverse range of plants· Plant longevity	•		Refer Arcadia Plan
		A landscape maintenance plan is prepared	•		Refer Arcadia Plan

Part No.	Objective No.	Objective Design criteria Design guidance	Complies		
			Yes	No	Notes
		Irrigation and drainage systems respond to : • Changing site conditions • Soil profile and the planting regime • Whether rainwater, stormwater or recycled grey water is used	•		Refer Arcadia Plan
4P-3		Planting on structure contributes to the quality and amenity of communal and public open spaces			
		Building design incorporates opportunities for planting on structures. Design solutions may include: • Green walls with specialised lighting for indoor green walls • All design that incorporates planting • Green roofs, particularly where roofs are visible from public domain • Planter boxes Note: structures designed to accommodate green walls should be integrated into the building façade and consider the ability of the façade to change over time	•		Refer Arcadia Plan
4Q	Universal Design				
4Q-1		Universal design features are included in apartment design to promote flexible housing for all community members			
		Developments achieve a benchmark of 20% of the total apartment incorporating the Liveable Housing Guideline's silver level universal design features	•		Liveable Housing Guideline's silver level universal design features are incorporated. Refer access report.
4Q-2		A variety of apartments with adaptable designs are provided			
		Adaptable housing should be provided in accordance with the relevant council policy	•		Adaptable housing is provided in accordance with the DCP. Refer access report.
		Design solutions for adaptable apartments include: • Convenient access to communal and public areas • High level of solar access • Minimal structural change and residential amenity loss when adapted • Larger car parking spaces for accessibility • Parking titled separately from apartments or shared car parking arrangements			Noted
4Q-3		Apartment layouts are flexible and accommodate a range of lifestyle needs			

Part No.	Objective No.	Objective Design criteria Design guidance	Complies		
			Yes	No	Notes
		Apartments design incorporates flexible design solutions which may include: <ul style="list-style-type: none"> • Rooms with multiple functions • Dual master bedroom apartments with separate bathrooms • Larger apartments with various living space options • Open plan 'loft' style apartments with only a fixed kitchen, laundry and bathroom 	•		Large apartments are provided (130sqm 3 bedroom).
4R Adaptive Reuse					
	4R-1	New additional to existing buildings are contemporary and complementary and enhance an area's identity and sense of place			
		Design solutions may include: <ul style="list-style-type: none"> • New elements to align with the existing building • Additions that complement the existing character, siting, scale, proportion, pattern form and detailing • Use of contemporary and complementary materials, finishes, textures and colours 			N/A
	4R-2	Adapted buildings provide residential amenity while not precluding future adaptive reuse			
		Design features should be incorporated sensitively into adapted buildings to make up for any physical limitations, to ensure residential amenity is achieved. Design solutions may include: <ul style="list-style-type: none"> • Generously sized voids in deeper buildings • Alternative apartment types when orientation is poor • Using additions to expand the existing building envelope 			N/A

Part No.	Objective No.	Objective Design criteria Design guidance	Complies		
			Yes	No	Notes
		<p>Some proposals that adapt existing buildings may not be able to achieve all of the design criteria in this Apartment Design Guide. Where developments are unable to achieve the design criteria, alternatives could be considered in the following areas:</p> <ul style="list-style-type: none"> Where there are existing higher ceilings, depths of habitable rooms could increase subject to demonstrating access to natural ventilation, cross ventilation (when applicable) and solar and daylight access (see also sections 4A Solar and daylight access and 4B Natural ventilation) Alternatives to providing deep soil where less than the minimum requirement is currently available on the site Building and visual separation – subject to demonstrating alternative design approaches to achieving privacy Common circulation Car parking Alternative approaches to private open space and balconies 			N/A
4S Mixed Use					
	4S-1	Mixed use developments are provided in appropriate locations and provide active street frontages that encourage pedestrian movement			
		Mixed use development should be concentrated around public transport and centres			N/A
	4S-2	Residential levels of the building are integrated within the development, and safety and amenity is maximised for residents			
		<p>Residential circulation areas should be clearly defined. Design solutions may include:</p> <ul style="list-style-type: none"> Residential entries are separated from commercial entries and directly accessible from the street Commercial service areas are separated from residential components Residential car parking and communal facilities are separated or secured Concealment opportunities are avoided 			N/A
		Landscape communal open space should be provided at podium or roof levels			N/A
4T Awnings and Signage					
	4T-1	Awnings are well located and complement and integrate with the building design			

Part No.	Objective No.	Objective Design criteria Design guidance	Complies		
			Yes	No	Notes
		Awnings should be located along streets with high pedestrian activity and active frontages			N/A (Pedestrian activity will be low in this development)
		A number of the following design solutions are used: <ul style="list-style-type: none"> Continuous awnings are maintained and provided in areas with existing pattern Height, depth, material and form complements the existing street character Protection from the sun and rain is provided Awnings are wrapped around the secondary frontages of corner sites Awnings are retractable in areas without an established pattern 			N/A
		Awnings should be located over building entries for building address and public domain amenity		•	The building proposes recessed entries.
		Awnings relate to residential windows, balconies, street tree planting, power poles and street infrastructure			N/A
		Gutters and down pipes should be integrated and concealed			N/A
		Lighting under awnings should be provided for pedestrian safety			N/A
4T-2		Signage responds to the context and desired streetscape character			
		Signage should be integrated into the building design and respond to the scale, proportion and detailing of the development	•		Noted
		Legible and discrete way finding should be provided for larger developments	•		Noted
		Signage is limited to being on and below awnings and in single façade sign on the primary street frontage	•		Noted
4U Energy Efficiency					
4U-1		Development incorporates passive environmental design			
		Adequate natural light is provided to habitable rooms (see 4A Solar and daylight access)	•		
		Well located, screened outdoor areas should be provided for clothes drying	•		Solid balcony upstands have been provided to allow balcony drying facilities to be screened from the public domain. Terrace gardens allow area for clothes drying.
4U-2		Development incorporates passive solar design to optimise heat storage in winter and reduce heat transfer in summer			

Part No.	Objective No.	Objective Design criteria Design guidance	Complies		
			Yes	No	Notes
4U-3		A number of the following design solutions are used: <ul style="list-style-type: none"> • The use of smart glass or other technologies on north and west elevations • Thermal mass in the floors and walls of north facing rooms is maximised • Polished concrete floor, tiles, or timber rather than carpet • Insulated roofs, walls and floors and seals on window and door openings • Overhangs and shading devices such as awnings, blinds and screens 	•		In accordance with BASIX.
		Provision of consolidated heating and cooling infrastructure should be located in a centralised location (e.g. the basement)	•		
		Adequate natural ventilation minimises the need for mechanical ventilation			
		A number of the following design solution are used: <ul style="list-style-type: none"> • Rooms with similar usage are grouped together • Natural cross ventilation for apartments is optimised • Natural ventilation is provided to all inhabitable rooms and as many non-habitable rooms, common areas and circulation spaces as possible 	•		
4V	Water Management and Conservation				
4V-1	Potable water use is minimised				
		Water efficient fittings, appliances and wastewater reuse should be incorporated	•		In accordance with BASIX
		Apartments should be individually metered	•		
		Rainwater should be collected, stored and reused on site	•		In accordance with BASIX
		Drought tolerant, low water use plants should be used within landscaped areas	•		Refer Arcadia plan.
4V-2	Urban stormwater is treated on site before being discharged to receiving waters				
		Water sensitive urban design systems are designed by a suitably qualified professional	•		Refer Civil + Stormwater plans

Part No.	Objective No.	Objective Design criteria Design guidance	Complies		
			Yes	No	Notes
		A number of the following design solutions are used: <ul style="list-style-type: none"> Runoff is collected from roofs and balconies in water tanks and plumbed into toilets, laundry and irrigation Porous and open paving materials is maximised On site stormwater and infiltration, including bio-retention systems such as rain gardens or street tree pits 	•		Refer Civil + Stormwater plans
4V-3		Flood management systems are integrated into site design			
		Detention tanks should be located under paved areas, driveways or in basement car parks	•		Refer Civil + Stormwater plans
		On large sites parks or open spaces are designed to provide temporary on site detention basins	•		Refer Civil + Stormwater plans
4W		Waste Management			
4W-1		Waste storage facilities are designed to minimise impacts on the streetscape, building entry and amenity of residents			
		Adequately sized storage areas for rubbish bins should be located discreetly away from the front of the development or in the basement car park	•		Storage of rubbish bins is within the basement levels. All waste collection is to occur within the basement. Refer Waste Management Plan.
		Waste and recycling storage areas should be well ventilated	•		
		Circulation design allows bins to be easily manoeuvred between storage and collection points	•		
		Temporary storage should be provided for large bulk items such as mattresses	•		Multiple bulk storage is provided. Refer Waste Management Plan.
		A waste management plan should be prepared	•		Refer Waste Management Plan.
4W-2		Domestic waste is minimised by providing safe and convenient source separation and recycling			
		All dwellings should have a waste and recycling cupboard or temporary storage area of sufficient size to hold two days' worth of waste and recycling	•		
		Communal waste and recycling rooms are in convenient and accessible locations related to each vertical core	•		In accordance with the DCP and single waste chute with recycling cupboard is provided.
		For mixed use developments, residential waste and recycling storage areas and access should be separate and secure from other uses			N/A

Part No.	Objective No.	Objective Design criteria Design guidance	Complies		
			Yes	No	Notes
		Alternative waste disposal methods such as composting should be provided			Noted
4X	Building Maintenance				
	4X-1	Building design detail provides protection from weathering			
		<p>A number of the following design solutions are used:</p> <ul style="list-style-type: none"> • Roof overhangs to protect walls • Hoods over windows and doors to protect openings • Detailing horizontal edges with drip lines to avoid staining of surfaces • Methods to eliminate or reduce planter box leaching • Appropriate design and material selection for hostile locations 	•		
	4X-2	Systems and access enable ease of maintenance			
		Window design enables cleaning from the inside of the building			Noted
		Building maintenance systems should be incorporated and integrated into the design of the building form, roof and façade			Noted
		Design solutions do not require external scaffolding for maintenance access			Noted
		Manually operated systems such as blinds, sunshades and curtains are used in preference to mechanical systems			Noted
		Centralised maintenance, services and storage should be provided for communal open space areas within the building			Noted
	4X-3	Material selection reduces ongoing maintenance costs			
		<p>A number of the following design solutions are used:</p> <ul style="list-style-type: none"> • Sensors to control artificial lighting in common circulation and spaces • Natural materials that weather well and improve with time such as face brickwork • Easily cleaned surfaces that are graffiti resistant • Robust and durable materials and finishes are used in locations which receive heavy wear and tear, such as common circulation areas and lift interiors 	•		<p>Face brickwork is as a long lasting and durable material.</p> <p>Typically materials have been selected with no applied finishes to reduce maintenance.</p>

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