HOUSING SEPP DESIGN STATEMENT

1 CRESCENT STREET, HOLROYD

W–B
WOODS BAGOT

HOUSING SEPP Design Statement
Crescent Parklands, 1 Crescent Street, Holroyd

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Checked by: JF

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DESIGN VERIFICATION STATEMENT

Design Verification Statement

8th November 2024

Prepared on behalf:
Tiberius, PTY LTD

Prepared by:
Woods Bagot

To whom it may concern,

Architectural Design Verification Statement
Proposed mixed use development a 1 Crescent Street, Holroyd

I can confirm that I designed, or directed the design of, the proposed mixed-use development at Crescent Parklands, 1 Crescent Street, Holroyd, NSW.

I believe the proposal addresses:
- the **design principles for residential apartment development**
- each of the **objectives in Parts 3 and 4** of the *Apartment Design Guide* (ADG)

I am a registered architect in New South Wales and am enrolled in the Division of Chartered Architects in the register of Architects pursuant to the Architect Act 1921.
My registration number is 8431.

Please don't hesitate to contact us for further information.

Jason Fraser
Registered NSW Architect #8431
Principal
Woods Bagot

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HOUSING SEPP DESIGN PRINCIPLES

Housing SEPP Design Principles 2

2.1 Principle 1: Context and Neighborhood 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 Holroyd on the south side of the M4 Motorway adjoining Woodville Road and Crescent Street. To the north of the site a culvert (A Becketts Creek) which separates the site from the Holroyd Sports Playing Field.

Holroyd has historically been an industrial area, with low to medium density suburban housing in the surrounding neighbourhoods; Granville, Parramatta, Merrylands and Harris Park. Holroyd Gardens to the southwest is a heritage item that reflects the significant industrial past of the area.

The development aims to double Holroyd's residential population providing much needed apartment living to market. Additionally, it will contribute to job creation beyond construction through the integration of a new supermarket with supporting retail and commercial offerings.

Central to the proposal is a new park designed with amenities that complement the surrounding parks, offering residents and visitors a respite from the nearby transport infrastructure. This park will create a green corridor linking the existing Memorial Park to the Playing Fields. The incorporation of nature and generous planting responds to a "Designing with Country" masterplan developed for the site.

Changes in building heights decrease from the corner of Woodville Road towards the leafy suburbs to the south and southwest. The massing has been arranged to maximise predominant wide façade faces with the best outlooks. The apartments will feature spectacular views of Parramatta, Sydney CBD and the surrounding district.

The proposed façades reflect the material character of the surrounds, seeking to create a diverse community of buildings. This material choice sets a new standard for residential developments in the area and references various through a mix of natural appearing finishes.

There are public domain works proposed along Crescent Streets that will improve the quality of the precinct including new pedestrian footpaths and landscaping. Other green travel improvements include a new bridge to link to the sports field and Parramatta cycle network beyond.
A new community bus will connect future residents to Harris Park Station.

Housing SEPP Design Principles 2

2.2 Principle 2: Built Form and Scale

Good design achieves a scale, bulk and height appropriate to the existing or desired future character of the street and surrounding buildings. Good design also achieves an appropriate built form for a site and the building's purpose in terms of building alignments, proportions, building type, articulation and the manipulation of building elements. Appropriate built form defines the public domain, contributes to the character of streetscapes and parks, including their views and vistas, and provides internal amenity and outlook.

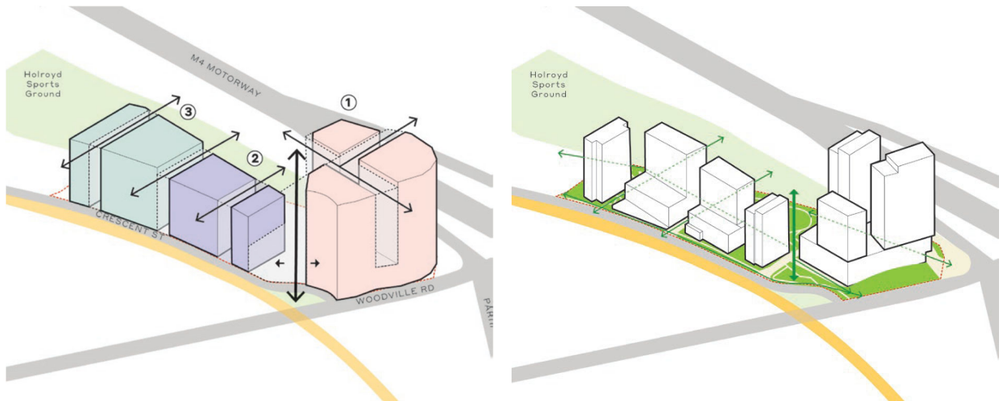
The proposal sits within the allowable LEP height planes with the addition of the affordable housing bonus 30% uplift.

These envelopes (height planes & FSR maps) were defined in response to the precinct surroundings, overshadowing and urban form as part of the rezoning and site specific DCP.

Within the envelope the proposal responds to the Design Quality Guidelines to result in an appropriately articulated massing and varied façade.

Each building typically grounds maintaining a consistent colour tone. The lower 2 -3 storey's changes the predominant material to define the human scale or civic high street character. Emphasis is placed on vertical articulation to define the idea of living in the park. For the most part each building turns towards the best aspect ensuring best views or solar orientation. The massing scales down towards the south and west to minimize overshadowing to the surroundings.

The combination of approved envelopes and a proposal that appropriately responds to the Design Quality Guidelines ensures the proposal's-built form and scale sit appropriately within the context of Crescent Parklands.



Proposed Massing

Housing SEPP Design Principles 2

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 at Crescent Parklands responds to the increasing density needs of Western Sydney, providing housing growth near major business centres like Parramatta. The proposal seeks to achieve an appropriate scale that will support a small retail hub, providing convenience and amenity to future residents and the surrounding community.

The built form of the proposal is formed in response to the wider precinct masterplan where it transitions from the high density of Parramatta, down to a more residential neighbourhood scale towards Holroyd and Granville.

The proposed development is located within an area well connected by major transport arteries like the M4, while also being well connected to public transport options with Harris Park, Granville and Parramatta being within short distance. On the southern edge of Parramatta CBD and Merryland's, the site is seamlessly connected to a range of lifestyle options. The site is located a stone's throw to larger format retail, cafés, bars, fine dining, gyms, health and childcare facilities.

Residents will also enjoy the convenience of having a pocket park centralised to the development.

Park front retail

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 livability 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 design proposal is structured around the concepts of sustainability and building longevity. It incorporates several strategies to achieve a positive environmental outcome, including:

- Solar renewable energy generation and water capture
- Rainwater reuse for irrigation
- Passive design shading
- Connection to nature through biophilic design
- Low embodied-carbon materials
- Naturally lit and ventilated carparks
- Minimised excavation and cut & fill
- Tree canopies and awnings for pedestrian comfort

NatHERS

The project is designed to Australian Excellence NatHERS targets. The NatHERS targets are 6 Star minimum, 7 Star average. These targets exceed Green Star 5 Star requirements and have been achieved by very few multi-unit residential projects across Australia to-date.

Additional Sustainability Excellence Initiatives

- Maximum solar PV to offset energy consumption of common areas
- Rainwater capture and reuse, water efficient fixtures and fittings, recirculation of fire sprinkler test water.
- Automated control of building systems such as motion sensors for lighting and CO sensors for carpark fans
- Energy efficient lifts

Housing SEPP Design Principles 2

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.

Central to the design of the proposal is maximising deep soil area and communal landscape space for both residents and the surrounding community to come and enjoy.
Along the eastern boundaries of the site the majority of the existing native trees and landscaping will be retained as part of the TfNSW road reserve.

The proposal is focused around the central park with most buildings either having an address on or view towards the park.

A generous communal rooftop space on the podium between buildings 1, 2 & 3 provides residents and guests with access to natural elements; direct sunlight, shaded outdoor space, swimming pool and barbeque facilities.
Buildings 4 & 5 and 6 & 7 also have access to similar private open space with communal facilities.

The current DwC strategy is looking to replant endemic species of planting as an opportunity for the community to learn about native species and Indigenous practices of care and propagation.

Park Landscape

Housing SEPP Design Principles 2

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.

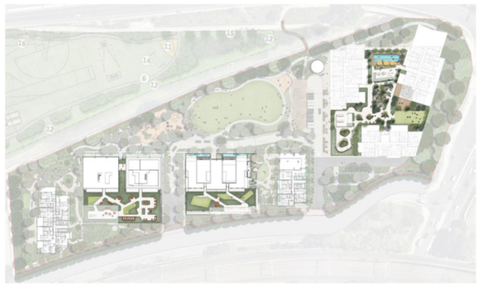
The proposed building design achieves a high degree of resident amenity, maximising access to natural light and air while placing almost all living space and balcony areas on the face of the facade. Good outlooks toward Sydney CBD, Parramatta Skyline and the surrounding district are achieved through the directionality of the massing typically looking passed one another towards the outlook. The building forms have been placed as far from noises sources as possible to improve acoustic comfort.

Where possible living rooms have been placed on corners to provide the most expansive views and cross ventilation. All bedrooms access natural light with generous openings that also form part of the apartment cross ventilation strategy. On building 1 openings have typically been focused to balconies improve acoustic comfort to Woodville Road.

All lift lobbies have natural light and an outlook.

A feature of the proposal are the roof terraces; additional amenity for the residents that is envisioned with generous planting for the residents to overlook.

Levels throughout the development have been determined to maintain accessibility to every element of the proposal.



Activated Landscaped roof tops

Housing SEPP Design Principles 2

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 building design incorporates a number of planning initiatives to optimise safety and security within private spaces and the public domain.

a) Easily identified and visible entries from streets and parkside laneways for residents and public.
b) Highly visible retail precinct.
c) Activated street edges with residential amenity providing passive surveillance from apartments.
d) Clearly separated public and private communal open space with enhanced visibility.
e) Rooftop gardens and open space areas provide for an enhanced residential experience within the site where neighbourly interaction are encouraged.
f) Public and private open space encourage social interaction and shared ownership.

Crescent Street Entrance

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 proposed development located in Crescent Parklands incorporates an appropriate selection of apartment types to balance market availability in the area. The apartment mix is targeted towards an array of demographics including single or shared living, young families and multi-generational families.

Apartment types all sit above ADG guidelines in terms of overall areas, living areas and balcony sizes depending on type. A total number of 1227 apartments.

In consideration of the view opportunities surrounding the development the glazing in all apartments is generous with a deep façade articulation for protection from the summer sun.

Open space areas provide for a variety of enhanced residential experiences catering for a broad range of residents, whilst common circulation areas provide further opportunities for social interaction.

Diverse apartment types and building characters

Housing SEPP Design Principles 2

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 built form design is a considered response to the surrounding interfaces.

The buildings respond to its existing and future context through several initiatives:

- The proposed forms have been articulated to create varied building envelopes including a staggered building height plane.
- The adoption of a diverse variety of architectural aesthetics.
- For each building the tone and texture of materials have been selected to complement the existing local context while equally responding to creating a modern architectural composition.
- The use of different materials to each building.
- Fine detailing and texture of the materiality overlay an additional layer of consideration especially at the ground plane when experienced at a more intimate scale.
- Varied expressions in the building façades will imbue the development with a unique, design led character within the emerging precinct.

Diverse apartment types and building characters

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APARTMENT DESIGN GUIDE ASSESSMENT

ADG Assessment 3

Item	3A – Site Analysis	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Site analysis illustrates that design decisions have been based on opportunities and constraints of the site conditions and their relationship to the surrounding content	✓									
	Refer to Site Analysis Checklist Sheet.	✓		✓	✓	✓	✓	✓	✓	✓	

Item	3B – Orientation	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	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.	✓									
Design Guidance	Solar access to living rooms, balconies and private open spaces of neighbours should be considered	✓									Buildings have been sited to reduce impacts on surrounding residents.
	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%	✓									
	If the proposal will significantly reduce the solar access of neighbours, building separation should be increased beyond minimums contained in section 3F Visual privacy	✓									
	Overshadowing should be minimised to the south or downhill by increased upper-level setbacks	✓									The massing has been pushed towards the north to minimise overshadowing
	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	✓									The proximity to adjoining residential properties greatly exceeds minimum building separation distances
	A minimum of 4 hours of solar access should be retained to solar collectors on neighbouring buildings.	✓									The envelope has been defined to reduce impacts on surrounding residents

Item	3C – Public Domain Interface	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 3C 1 Transition between private and public domain is achieved without compromising safety and security	✓									
Design Guidance	Terraces, balconies and courtyard apartments should have direct street entry, where appropriate			N/A	N/A	N/A	Has direct access via a street level communal open space.	✓	✓	Has direct access via a street level communal open space.	Ground or podium level apartments have direct secondary entry points to the street or communal open space.
	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)			N/A	N/A	N/A	Not considered necessary between communal open space and private terrace	500mm height difference between the street and apartment courtyards have been provided for street facing apartments.	500mm height difference between the street and apartment courtyards have been provided for street facing apartments.	Not considered necessary between communal open space and private terrace	
	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			N/A	N/A	N/A	Permeable fencing is proposed for apartments that are adjacent to communal open space	The height of solid fences or walls has been limited to 1.2m from within the courtyards to allow passive surveillance from within the apartments	The height of solid fences or walls has been limited to 1.2m from within the courtyards to allow passive surveillance from within the apartments	Permeable fencing is proposed for apartments that are adjacent to communal open space	
	Length of solid walls should be limited along street Frontages. 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			N/A	N/A	N/A	N/A	The main building entry has been centrally located to break up the street fences. Landscape climbers are proposed to grow up the front fences. Gates also provide a break to the street wall.	The main building entry has been centrally located to break up the street fences. Landscape climbers are proposed to grow up the front fences. Gates also provide a break to the street wall.	N/A	

	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: - architectural detailing - changes in materials - plant species - colours Opportunities for people to be concealed should be minimised.	✓		Building 1 will have dual access via the corner of Woodville Rad as well as Park side through building 2's main lobby via a sky lobby. Wayfinding signage will aid in identifying the most direct entry point for buildings 1, 2 & 3.	The entry for Building 2 will utilise wayfinding techniques such as recessing the entry, changing materials and architectural detailing to distinguish the lobby from the retail.	The entry for Building 3 could adopt a different street address to distinguish it between Buildings 1 & 2.	A defined Park Side Laneway street address will clearly identify Building 4 entry.	A defined Park Side Laneway street address will clearly identify Building 5 entry.	A defined Park Side Laneway street address will clearly identify Building 6 entry.	A defined Crescent Street address will clearly identify Building 7 entry.	

Item	3D – Communal/Public Open Space	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 3D 1 An adequate area of communal open space is provided to enhance residential amenity and to provide opportunities for landscaping	✓									
Design Criteria	Communal open space has a minimum area equal to 25% of the site. See figure 3D.3	✓		Additionally to the park Buildings 1, 2 & 3 share roof top private communal space.	Additionally to the park Buildings 1, 2 & 3 share roof top private communal space.	Additionally to the park Buildings 1, 2 & 3 share roof top private communal space.	Additionally to the park Buildings 4 & 5 share roof top private communal space on top of building 5 carpark and at ground level between Buildings 4 & 5.	Additionally to the park Buildings 4 & 5 share roof top private communal space on top of building 5 carpark and at ground level between Buildings 4 & 5	Additionally to the park Buildings 6 & 7 share roof top private communal space on top of building 6 carpark and at ground level between Buildings 6 & 7	Additionally to the park Buildings 6 & 7 share roof top private communal space on top of building 6 carpark and at ground level between Buildings 6 & 7	The contribution of the communal park (RE1 zone), Road reserves (SP2)) A mix of roof top and ground level communal open space has been proposed. Rooftop communal open space has been proposed with direct sunlight for the majority of a mid winter day.
Design Guidance	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)	✓		Combined with the Park offering there are a diverse array of spaces that offer extensive sun access through mid winter.	Combined with the Park offering there are a diverse array of spaces that offer extensive sun access through mid winter.	Combined with the Park offering there are a diverse array of spaces that offer extensive sun access through mid winter.	Combined with the Park offering there are a diverse array of spaces that offer extensive sun access through mid winter.	Combined with the Park offering there are a diverse array of spaces that offer extensive sun access through mid winter.	Combined with the Park offering there are a diverse array of spaces that offer extensive sun access through mid winter.	Combined with the Park offering there are a diverse array of spaces that offer extensive sun access through mid winter.	
	Communal open space should be consolidated into a well-designed, easily identified and usable area	✓		✓	✓	✓	✓	✓	✓	✓	
	Communal open space should have a minimum dimension of 3m, and larger developments should consider greater dimensions	✓		✓	✓	✓	✓	✓	✓	✓	
	Communal open space should be co-located with deep soil areas	✓		✓	✓	✓	✓	✓	✓	✓	A dedicated park with deep soil will be provided.
	Direct, equitable access should be provided to communal open space areas from common circulation areas, entries and lobbies	✓		✓	✓	✓	✓	✓	✓	✓	Equitable access to all private communal open space is provided from lobbies.
	Where communal open space cannot be provided at ground level, it should be provided on a podium or roof	✓		✓	✓	✓	✓	✓	✓	✓	There is a mix of ground and podium level open space.
	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:	✓		✓	Building 2 provides larger than minimum balconies.	✓	✓	✓	✓	✓	Most apartments achieve larger than minimum balconies.

	- 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										
Item	**3D – Communal/Public Open Space**	**Yes**	**No**	**Building 1**	**Building 2**	**Building 3**	**Building 4**	**Building 5**	**Building 6**	**Building 7**	**Notes**
Objective	Objective 3D 2 Communal open space is designed to allow for a range of activities, respond to site conditions and be attractive and inviting.	✓									
Design Guidance	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: - seating for individuals or groups - barbecue areas - play equipment or play areas - swimming pools, gyms, tennis courts or common rooms	✓		Pool & barbecue areas, common room	Pool & barbecue areas, common room	Pool & barbecue areas, common room	Has access to roof top of Building 5. Common room on ground level of Building 4.	Barbecue areas on carpark roof. Amenity space to the rear of Building 5 on Crescent Street.	Barbecue areas on carpark roof. Amenity space to the rear of Building 6 on Crescent Street.	Has access to roof top of Building 6 and access to Amenity room at the rear of Building 6.	Pool, barbeques, seating and planted areas have been proposed
	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	✓		✓	✓	✓	✓	✓	✓	✓	The facilities are spread throughout a variety of micro climates to allow residents to access different spaces depending on the time of year and weather conditions
	Visual impacts of services should be minimised, including location of ventilation duct outlets from basement car parks, electrical substations and detention tanks.	✓		✓	✓	✓	✓	✓	✓	✓	Where possible services have been located away from building entries and prime frontages

Item	3D – Communal/Public Open Space	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 3D 3 Communal open space is designed to maximize safety	✓									
Design Guidance	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 - bay windows - corner windows - balconies	✓		The communal open space is centralized between Buildings 1, 2 & 3 which allows clear sightlines to the communal open space	The communal open space is centralized between Buildings 1, 2 & 3 which allows clear sightlines to the communal open space. Building 2 faces the park and provides passive surveillance.	The communal open space is centralized between Buildings 1, 2 & 3 which allows clear sightlines to the communal open space	The communal open space is centralized between Buildings 4 & 5 which allows clear sightlines to the communal open space	The car park roof top communal open space is clearly visible from the adjoining Building 5 apartments.	The car park roof top communal open space is clearly visible from the adjoining Building 6 apartments.	The communal open space is centralized between Buildings 6 & 7 which allows clear sightlines to the communal open space	Communal open space has been located to allow visibility
	Communal open space should be well lit	✓		✓	✓	✓	✓	✓	✓	✓	
	Where communal open space/facilities are provided for children and young people they are safe and contained.	✓		✓	✓	✓	✓	✓	✓	✓	

Item	3D – Communal/Public Open Space	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 3D 4 Public open spaces where provided is responsive to the existing pattern and uses of the neighbourhood										
Design Guidance	The public open space should be well connected with public streets along at least one edge	✓		✓	✓	✓	✓	✓	✓	✓	The central Park is accessible from multiple points around the site. Ground level communal open spaces between the buildings provide a sense of landscape continuation to the central park, blurring the boundary between public and private space. The Park has an extensive northern aspect. The Park allows for a variety of activities including socialising, playing and relaxing.
	The public open space should be connected with nearby parks and other landscape elements	✓		✓	✓	✓	✓	✓	✓	✓	
	Public open space should be linked through view lines, pedestrian desire paths, termination points and the wider street grid	✓		Along the northern edge of Building 1 an accessible Path provide equitable access to the park. The undercroft of Building 1 has been opened up to allow clear site lines through to the Park from Woodville Rd.	✓	✓	A road along the eastern façade of Building 4 provides clear access to the Park	A road between Building 5 & 6 provides clear access to the Park	✓	✓	
	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	✓		✓	✓	✓	✓	✓	✓	✓	
	A positive address and active frontages should be provided adjacent to public open space	✓		Retail under Buildings 2 & 3 provide an active frontage to the Park		✓	The commercial tenancies for Building 4 have been located adjacent to the Park to create a continuation to the retail offering under Building 2 & 3	✓	✓	✓	

	Boundaries should be clearly defined between public open space and private areas	✓		The private open space has been elevated on top of the podium to distinguish from the public open space.	The private communal open space between Building 4 has been elevated and adopted discrete access to help define the private space. Fencing will provide security of the space.	The private open space has been elevated on top of the Building 5 carpark to distinguish from the public open space.	The private open space has been elevated on top of the Building 6 carpark to distinguish from the public open space.	The private communal open space between Building 7 has been elevated and adopted discrete access to help define the private space. Fencing will provide security of the space.	

<table>
<tr><th>Item</th><th>3E – Deep Soil Zones</th><th>Yes</th><th>No</th><th>Building 1</th><th>Building 2</th><th>Building 3</th><th>Building 4</th><th>Building 5</th><th>Building 6</th><th>Building 7</th><th>Notes</th></tr>
<tr><td>Objective</td><td>Objective 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.</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td rowspan="3">Design Criteria

Design Guidance</td><td>Deep soil zones are to meet the following minimum requirements.

<table><tr><th>Site Area</th><th>Min Dimensions</th><th>Deep Soil Zone (% of site area)</th></tr><tr><td><650m^2</td><td></td><td rowspan="4">7%</td></tr><tr><td>650-1500m^2</td><td>3m</td></tr><tr><td>>1500m^2</td><td>6m</td></tr><tr><td>>1500m^2 with significant tree cover</td><td>6m</td></tr></table>
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</td><td>✓</td><td></td><td colspan="7">Achieved through Park contribution, setbacks to Crescent Street and the new park opposite the Memorial Park.</td><td rowspan="3">The dedicated central park contributes to at least 25% of the deep soil area. The majority of the trees along the culvert and Woodville Road will be retained. TFNSW road reserve SP2 modification along Crescent Street contributes to the largest amount of trees to be removed. Many new trees will be planted.</td></tr>
<tr><td>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:
- 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</td><td>✓</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>Achieving the design criteria may not be possible on some sites including where:
- The location and building typology have limited or no space for deep soil at ground level (e.g. central business district, constrained sites, high density areas, or in centres).
- There is 100% site coverage or nonresidential 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.</td><td>✓</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
</table>

<table>
<tr><th>Item</th><th>3F – Visual Privacy</th><th>Yes</th><th>No</th><th>Building 1</th><th>Building 2</th><th>Building 3</th><th>Building 4</th><th>Building 5</th><th>Building 6</th><th>Building 7</th><th>Notes</th></tr>
<tr><td>Objective</td><td>Objective 3F 1
Adequate building separation distances are shared equitably between neighbouring sites, to achieve reasonable levels of external and internal visual privacy</td><td>✓</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>Design Criteria

Design Guidance</td><td><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</td><td>9m</td><td>4.5m</td></tr><tr><td>Over 25m</td><td>12m</td><td>6m</td></tr></table>
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:
- 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.</td><td>✓</td><td></td><td>Building 1 separation to:
a. Building 2 ranges approximately 24 meters between habitable rooms and 26m at its closest point.
b. Building 3 is approximately 21 meters between habitable rooms.

<u>Note:</u>
Building 2 setback from Building 1 at its south-east building corner. Due to building separation between Building 1 and 3 is less than 24 meters, the apartments orientation of Building 1 apartments avoid direct sightlines towards Building 03.</td><td>Building 2 separation to:
a. Building 1 is approximately 24 meters between habitable rooms and 26m when Building 1is closest to Building 2 south east corner.
b. Building 3 is approximately 21 meters between habitable rooms.

<u>Note:</u>
Façade articulation, setback and window orientation are to prevent internal privacy impact.</td><td>Building 3 separation to:
a. Building 1 is approximately 21 meters between habitable rooms.
b. Building 2 is approximately 21 meters between habitable rooms.

<u>Note:</u>
Due to building separation between Building 3 and 1 is less than 24 meters, the apartments orientation of Building 3 apartments avoid direct sightlines towards Building 01 along the north west corner. In addition, Building 3 north facing apartments include deep balconies to prevent internal privacy impact.</td><td>Building 4 separation to:
a. Phase 1 podium is approximately 14.8 meters between habitable rooms to balconies and 19 meters between habitable rooms.
b. Building 5 is approximately 24 meters between habitable rooms

<u>Note:</u>
Building separation to Phase 1 podium includes a setback and apartment orientation with no direct sightlines to prevent internal privacy impact. Podium height includes 8 storeys; 2 levels for commercial and 5 residential levels between Level 2-6.</td><td>Building 5 separation to:
a. Building 4 is approximately 24 meters between habitable rooms.
b. Building 6 is approximately 18 meters between habitable rooms.

<u>Note:</u>
Building 5 apartments along the western building edge have dual aspect orientation, oblique sightlines from bedrooms and façade articulation to prevent internal privacy impact.</td><td>Building 6 separation to:
a. Building 5 is approximately 18 meters between habitable rooms.
b. Building 7 is approximately 14 meters between habitable rooms.

<u>Note:</u>
Building 6 apartments along the western building edge have dual aspect orientation, oblique sightlines from bedrooms and façade articulation to prevent internal privacy impact.</td><td>Building 7 separation to:
a. Building 6 is approximately 14 meters between habitable rooms.

<u>Note:</u>
Building 7 north facing apartments include deep balconies to prevent internal privacy impact.</td><td>Due to the island nature of the site the closest neighbour is towards the west. Proposal meets set back requirements for potential surrounding developments to their current maximum allowable height.

Buildings not meeting required building separation incorporate façade articulation, layout orientation, window locations that avoid direct sightlines with the overall objective for preventing internal visual privacy.</td></tr>
</table>

	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	✓		Building 1 provides a stepped setback along the eastern facade for added future building separation.				One step has been adopted for Building 5 along Crescent Street	One step has been adopted for Building 5 along Crescent Street	One step has been adopted towards the west to provide a buffer to future developments to the west. Landscaping softens the top of the step.	
	For residential buildings next to commercial buildings, separation distances should be measured as follows: - for retail, office spaces and commercial - balconies use the habitable room distances - for service and plant areas use the non-habitable room distances	✓									
	New development should be located and oriented to maximise visual privacy between buildings on site and for neighbouring buildings. Design solutions include: - 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)	✓							The siting of Building 6 and layouts of apartments have been design so that apartments look passed Building 7	The siting of Building 7 and layouts of apartments have been design so that apartments look passed Building 6	
	Apartment buildings should have an increased separation distance of 3m (in addition to the requirements set out in design criteria 1) when adjacent to a different zone that permits lower density residential development to provide for a transition in scale and increased landscaping (figure 3F.5)	✓		N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	Direct lines of sight should be avoided for windows and balconies across corners	✓									
	No separation is required between blank walls.	✓									

Item	3F – Visual Privacy	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 3F 2 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.	✓									
Design Guidance	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: - 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	✓									A mix of solid and dense balustrades have been used at lower levels to improve privacy from communal open space.
	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	✓									Naturally apartments have increased privacy with height of development
	Windows should be offset from the windows of adjacent buildings	✓									
	Recessed balconies and/or vertical fins should be used between adjacent balconies.	✓									

Item	3G – Pedestrian Access and Entries	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 3G 1 Building entries and pedestrian access connects to and address the public domain	✓									
Design Guidance	Multiple entries (including communal building entries and individual ground floor entries) are provided to activate the street edge	✓									A degree of permeability has been created at the ground plane to allow residents with multiple entry options.
	Entry locations relate to the street and subdivision pattern and the existing pedestrian network	✓									
	Building entries are clearly identifiable. Communal entries are clearly distinguishable from private entries	✓									Private entries are shielded from the view of communal 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.	✓									

Item	3G – Pedestrian Access and Entries	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 3G 2 Access, entries and pathways are equitable and easy to identify	✓									
Design Guidance	Building access areas including lift lobbies, stairwells and hallways are clearly visible from the public domain and communal spaces	✓		The lift lobby is visible from Woodville Road, Secondary access is Building 2 which is accessed via the Park adjacent to the vehicle drop off.	The lift lobby is visible from the Park adjacent to the vehicle drop off.	The lift lobby is accessed via the vehicle service Road. It is visible from Crescent Street.	Building 4 entry is via the Park side opposite the community bus stop.	Building 5 also has Park address with entry of the laneway.	Building 5 also has Park address with entry of the laneway.	Building 7 entry is via Crescent Street.	
	The design of ground floors and underground car parks minimise level changes along pathways and entries	✓									
	Steps and ramps are integrated into the overall building and landscape design	✓									
	Finding maps are provided to assist visitors and residents	✓									Wayfinding will be integrated into the development to guide visitors.
	For large developments electronic access and audio/video intercom should be provided to manage access	✓									Video surveillance and intercoms will be integrated into all phases of the development.

Item	3G – Pedestrian Access and Entries	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 3G 3 Pedestrian links through developments provide access to streets and connect destinations	✓									
Design Guidance	Pedestrian links through sites facilitate direct connections to open space, main streets, centres and public transport	✓		There is a direct pedestrian link that connects the park to Woodville Road		There is a direct pedestrian link that connects the park to Crescent Street		There is a direct pedestrian link that connects Crescent Street to the new Park	There is a direct pedestrian link that connects Crescent Street to the new Park		
	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.	✓		Apartments from Building 1 provide passive surveillance.	Building 2 contributes to the visibility of the pedestrian link to the north of Building 1	Building 3 & 4 overlook the pedestrian link and provides passive surveillance		Building 5 provides passive surveillance over the through street	Building 6 provides passive surveillance over the through street		

Item	3H – Vehicle Access	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 3H 1 Vehicle access points are designed and located to achieve safety, minimize conflicts between pedestrians and vehicles and create high quality streetscapes	✓									
Design Guidance	Car park access is integrated with the building's overall facade, design solutions may include: - 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	✓				The carpark for Phase 1 is integrated into the façade of building 3. The driveway entry has been positioned away from the main pedestrian circulation.		The carpark for Phase 2 is integrated into the façade of building 5. The driveway entry has been positioned away from the main pedestrian circulation.	The carpark for Phase 3 is integrated into the façade of building 6. The driveway entry has been positioned away from the main pedestrian circulation.		Carpark entries are integrated into the façade aesthetic.
	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 masterplan has been configured so that apartments look passed each other and have uninterrupted outlooks to the public domain.

	Car park entries are located behind the building line	✓				Carpark entry has been located in less prominent location on a secondary frontage, away from main roads and prime park frontages		Carpark entry has been located in less prominent location on a secondary frontage, away from main roads and prime park frontages	Carpark entry has been located in less prominent location on a secondary frontage, away from main roads and prime park frontages		
	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 for phase 1 has been elevated 1 level to create a clear distinction between retail and residential parking. It also allows minimised ramp lengths between retail and residential, conceals the retail parking level while also prioritizing on grade loading for large service vehicles.		✓	✓		
	Car park entry and access is located on secondary streets or lanes where available	✓									Carpark entries are located on secondary streets, away from prime retail frontages with high pedestrian movement.
	Vehicle standing areas that increase driveway width and encroach into setbacks should be avoided	✓				There is no pedestrian path that encourages pedestrians to cross the driveway entry to phase 1		Driveway widths have been minimised	Driveway widths have been minimised		
	Access point locations avoid headlight glare to habitable rooms	✓				No apartments are opposite the access points		No apartments are opposite the access points	No apartments are opposite the access points		Driveway entries have been located away from ground level apartments.

	Adequate separation distances are provided between vehicular entries and street intersections	✓				Separation distances have been design by the traffic engineer.		Separation distances have been design by the traffic engineer.	Separation distances have been design by the traffic engineer.		
	The width and number of vehicle access points is limited to the minimum	✓									Each phase only has one entry & exit point
	Visual impact of long driveways is minimised through changing alignments and screen planting	✓									No long driveways are proposed
	The requirement for large vehicles to enter or turnaround within the site is avoided	✓				A large loading dock serves both the commercial and residential aspects of the development.		Loading is undertaken from a dedicated loading bay on the street. Service passes allow direct access to the building away from main entries.	Loading is undertaken from a dedicated loading bay on the street. Service passes allow direct access to the building away from main entries.		
	Garbage collection, loading and servicing areas are screened	✓						Planting along the street edge soften the streetscape and screen service doors	Planting along the street edge soften the streetscape and screen service doors		
	Clear sight lines should be provided at pedestrian and vehicle crossings	✓				Clear sight lines are provided		Clear sight lines are provided	Clear sight lines are provided		
	Traffic calming devices such as changes in paving material or textures should be used where appropriate	✓			✓		✓	✓	✓		Traffic calming devices such as changes in paving material have been proposed to the park front laneway and parking area in front of the retail.
	Pedestrian and vehicle access should be separated and distinguishable. Design solutions may include: - changes in surface materials - level changes - the use of landscaping for separation	✓		✓	✓	✓	✓	✓	✓	✓	Pedestrian and vehicle access are separated.

Item	3J – Bicycle and Car Parking	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 3J 1 Car Parking is provided based on proximity to public transport in metropolitan Sydney and centres in regional areas	✓									
Design Criteria	For development in the following locations: - 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	✓									Carparking provided to DCP parking rates.
	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.	✓									
Design Guidance	Where a car share scheme operates locally, provide car share parking spaces within the development. Car share spaces, when provided, should be on site	✓									
	Where less car parking is provided in a development, council should not provide on street resident parking permits	✓									

Item	3J – Bicycle and Car Parking	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 3J-2 Parking and facilities are provided for other modes of transport	✓									
Design Guidance	Conveniently located and sufficient numbers of parking spaces should be provided for motorbikes and scooters	✓									Refer to the traffic report.
	Secure undercover bicycle parking should be provided that is easily accessible from both the public domain and common areas	✓		✓	✓	✓	✓	✓	✓	✓	Resident bicycle parking is provided in car park levels.
	Conveniently located charging stations are provided for electric vehicles, where desirable	✓		✓	✓	✓	✓	✓	✓	✓	

Item	3J – Bicycle and Car Parking	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 3J-4 Visual and experimental impacts of underground car parking are minimised	✓									
Design Guidance	Excavation should be minimised through efficient car park layouts and ramp design	✓		✓	✓	✓	✓	✓	✓	✓	Excavation of basements have been eliminated.
	Car parking layout should be well organised, using a logical, efficient structural grid and double loaded aisles	✓		✓	✓	✓	✓	✓	✓	✓	Carpark layouts have been design with efficient structural grids.
	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		✓								Elevated carparks are proposed to minimize excavation, as the cost of excavation of the contaminated fill below ground makes the development unfeasible.
	Natural ventilation should be provided to basement and sub-basement car parking areas	✓		✓	✓	✓	✓	✓	✓	✓	Natural ventilation has been provided to the majority of carparking.
	Ventilation grills or screening devices for car parking openings should be integrated into the facade and landscape design	✓		✓	✓	✓	✓	✓	✓	✓	Ventilation grills have been adopted into the façade language.

Item	3J – Bicycle and Car Parking	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 3J-5 Visual and environmental impacts of on-grade car parking are minimised	✓									
Design Guidance	On-grade car parking should be avoided		✓		Parkside on grade parking provides safe and convenient pick up and drop off spots for residents and Uber deliveries as well as quick park visits to retail.						Any entry level parking is conceal from the public domain.

	Where on-grade car parking is unavoidable, the following design solutions are used: - 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										Internal on grade car parking is screened from the street. A small number of park side external on grade street car parking spaces are provided. The paving has been adopted in these locations to emphasise the pedestrian priority of these areas. Trees to shade the paved areas have been incorporated.

Item	3J – Bicycle and Car Parking	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 3J-6 Visual and environmental impacts of above ground enclosed car parking are minimised										Not Applicable.
Design Guidance	Exposed parking should not be located along primary street frontages	✓		✓	✓	✓	✓	✓	✓	✓	Where possible carparking has been sleaved or set back from street frontages and integrated into the overall building mass. A variety of façade typologies that relate to the adjoining residential appearance have been continued to conceal the carparks.
	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: - car parking that is concealed behind the facade, with windows integrated into the overall façade 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)	✓		✓	✓	✓	✓	✓	✓	✓	
	Positive street address and active frontages should be provided at ground level	✓									

Item	4A – Solar and Daylight Access	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 4A-1 To optimize the number of apartments receiving sunlight to habitable rooms, primary windows and private open space	✓									
Design Criteria Design Guidance	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	✓		**60%** receive solar access between 9am-3pm while the remaining 40% receive solar access between 8am-4pm. A total of **100%** apartments receives 2 hours solar access between 8am and 4pm. Note: For Building 1, the remaining 40% of apartments capable to achieve 2 hours daylight are east facing and receive solar access between 8am-9am only.	**38%** receive solar access between 9am-3pm while 41% receive solar access between 8am-4pm. A total of **79%** would achieve solar between 9am and 3pm if living rooms were on the façade line. Due to the increased heat load from the west in summer we have made a conscious design decision to set living rooms back and allow extensive balconies to provide summer shading. Note: For Building 2, the remaining 41% of apartments capable to achieve 2 hours daylight are west facing and receive solar access between 3pm-4pm only.	**57%** receive solar access between 9am-3pm while 14% receive solar access between 8am-4pm. A total of **71%** apartments receives 2 hours solar access between 8am and 4pm. Note: For Building 3, the remaining 14% of apartments capable to achieve 2 hours daylight are west facing and receive solar access between 8am-9am only.	**83%** receive solar access between 9am-3pm Remaining 17% receive no direct sunlight between 9am-3pm.	**84%** receive solar access between 9am-3pm Remaining 16% receive less than 2hrs of sunlight between 9am-3pm	**68%** receive solar access between 9am-3pm while 8% receive solar access between 8am-4pm. A total of **76%** apartments receives 2 hours solar access between 8am and 4pm. Note: For Building 6, the remaining 8% of apartments capable to achieve 2 hours daylight are west facing and receive solar access between 3pm-4pm only.	**89%** receive solar access between 9am-3pm Remaining 3% receive less than 2hrs of sunlight between 9am-3pm	While some apartments buildings do not technically achieve the design criteria W-B considers the design achieves the objective of optimizing the number of apartments that receive sunlight to their habitable spaces in mid winter. Where solar is challenged apartments still achieve ample access to natural light & ventilation through dual corner frontages.

	A maximum of 15% of apartments in a building receive no direct sunlight between 9 am and 3 pm at mid-winter	✓		There are no apartments that solely face south and do not achieve some sunlight in mid-winter.	There are no apartments that solely face south and do not achieve some sunlight in mid-winter.	14% of apartments receive no direct sunlight between 9 am and 3 pm at mid-winter.	17% of apartments receive no direct sunlight between 9 am and 3 pm at mid-winter.	There are no apartments that solely face south and do not achieve some sunlight in mid-winter.	17% of apartments receive no direct sunlight between 9 am and 3 pm at mid-winter.	8% of apartments receive no direct sunlight between 9 am and 3 pm at mid-winter.	
	The design maximises north aspect and the number of single aspect south facing apartments is minimised	✓		There are no single orientation south facing apartments	There are no single orientation south facing apartments	There is 1 single orientation south facing apartment per floor.	There are no single orientation south facing apartments	The design maximises a northern park facing frontage. There are no single orientation south facing apartments	The design maximises a northern park facing frontage. There are no single orientation south facing apartments	There are no single orientation south facing apartments	
	Single aspect, single storey apartments should have a northerly or easterly aspect	✓									Buildings have been sited to allow an increased amount of apartments to look passed each other.
	Living areas are best located to the north and service areas to the south and west of apartment	✓		✓	✓	✓	✓	✓	✓	✓	Living rooms have been located towards the north.
	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	✓			Apartments which struggle to achieve the 2 hours mid-winter solar requirement have dual frontages providing access to natural light.				Building 6 has been split into 2 buildings to maximise the number of apartments with dual frontages and access to natural light.		
	- To maximise the benefit to residents of direct sunlight within living rooms and private open spaces, a minimum of 1m2 of direct sunlight, measured at 1m above floor level, is achieved for at least 15 minutes	✓		✓	✓	There is 1 single orientation south facing apartment per floor.	✓	✓	✓	✓	
	Achieving the design criteria may not be possible on some sites. This includes: - where greater residential amenity can be achieved along a busy road or rail line by orientating the living rooms away from the noise source - on south facing sloping sites - where significant views are oriented away from the desired aspect for direct sunlight Design drawings need to demonstrate how site constraints and orientation preclude meeting the design criteria and how the development meets the objective.										Where possible, living areas have been positioned as far from busy roads and noise as possible.

Item	4A – Solar and Daylight Access	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 4A-2 Daylight access is maximized where sunlight is limited	✓									
Design Guidance	Courtyards, skylights and high level windows (with sills of 1,500mm or greater) are used only as a secondary light source in habitable rooms	✓									
	Where courtyards are used: - 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	✓									
	Opportunities for reflected light into apartments are optimised through: - 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	✓									

Item	4A – Solar and Daylight Access	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 4A-3 Design incorporates shading and glare control, particularly for warmer months	✓									
Design Guidance	A number of the following design features are used: - 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)	✓		Vertical fins and a balancing of glass to solid reduce the solar heat loading.	Balconies extend across the western façade of Building 2 to reduce the summer heat loading. The balconies achieve extensive solar access through mid-winter. Reduced sized openings to the north reduce the heat load.						Façade design has been guided by ESD input and achieve compliant level of performance.

Item	4B – Natural Ventilation	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 4B-1 All habitable rooms are naturally ventilated	✓									
Design Guidance	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									No Lightwells are proposed
	Doors and openable windows maximise natural ventilation opportunities by using the following design solutions: - 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	✓		✓	✓	✓	✓	✓	✓	✓	A mix of sliding doors and awning windows are proposed.

Item	4B – Natural Ventilation	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 4B-2 The layout and design of single aspect apartments maximizes natural ventilation	✓									
Design Guidance	Apartment depths are limited to maximise ventilation and airflow (see also figure 4D.3)	✓		✓	✓	✓	✓	A dual core strategy allows for cross through apartments and maximises corner apartments	A dual core strategy maximises corner apartments	✓	
	Natural ventilation to single aspect apartments is achieved with the following design solutions: - 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	✓		N/A	Podium level single orientation apartments utilise building indentations for cross ventilation. The indentations ratio does not achieve the design guidance as they have been extended to the core to allow natural ventilation to the corridor.	N/A	N/A	N/A	N/A	N/A	

Item	4B – Natural Ventilation	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 4B-3 The number of apartments with natural cross ventilation is mazimised to create a comfortable indoor environment for residents	✓									
Design Criteria Design Guidance	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	✓		There is only one level of apartments that are required to contribute to the cross ventilation calculation. 5/9 apartments achieve cross ventilation. The cross ventilation proposed is **56%.**	**60%** of apartments achieve cross ventilation.	There is only one level of apartments that are required to contribute to the cross ventilation calculation. 4/7 apartments achieve cross ventilation. The cross ventilation proposed is **67%.**	**67%** of apartments achieve cross ventilation.	**52%** of apartments achieve cross ventilation. This is due to the sleeved nature of the podium levels which was a design request as part of the masterplan. While not technically compliant the two storey podium apartments at Ground Level facing the park will achieve better ventilation than a single storey apartment.	**48%** of apartments achieve cross ventilation. This is due to the sleeved nature of the podium levels which was a design request as part of the masterplan. While not technically compliant the two storey podium apartments at Ground Level facing the park will achieve better ventilation than a single storey apartment.	**58%** of apartments achieve cross ventilation. The building response consists of elongating the western side of the building forward in both north and south directions. Despite achieving solar access, stacking the apartments next to each other challenges the cross ventilation options available.	Approximately 60% of apartments are cross ventilated
	Overall depth of a cross-over or cross-through apartment does not exceed 18m, measured glass line to glass line	✓		N/A	N/A	N/A	N/A	✓	N/A	N/A	
	The building should include dual aspect apartments, cross through apartments and corner apartments and limit apartment depths	✓		✓	✓	✓	✓	✓	✓	✓	Corner apartments have been maximised by the building massing.
	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)	✓		N/A	N/A	N/A	N/A	✓	N/A	N/A	
	Apartments are designed to minimise the number of corners, doors and rooms that might obstruct airflow Apartment depths, combined with appropriate ceiling heights, maximise cross ventilation and airflow	✓		✓	✓	✓	✓	✓	✓	✓	

Item	4C – Ceiling Heights	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 4C-1 Ceiling height achieves sufficient natural ventilation and daylight access	✓									
Design Criteria	Measured from finished floor level to finished ceiling level, minimum ceiling heights are: Minimum ceiling height (for apartment and mixed use buildings) Habitable rooms: 2.7m Non-habitable: 2.4m For 2 storey apartments: 2.7m for main living area floor 2.4m for second floor, where its 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	✓		✓	✓	✓	✓	✓	✓	✓	2 storey apartments are proposed for ground level units to buildings 5 & 6
Design Guidance	Ceiling height can accommodate use of ceiling fans for cooling and heat distribution	✓		✓	✓	✓	✓	✓	✓	✓	

Item	4C – Ceiling Heights	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 4C-2 Ceiling height increases the sense of space in apartments and provides for well-proportioned rooms	✓									
Design Guidance	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			N/A	N/A	N/A	N/A	Ground level terrace apartments achieve double height ceilings	Ground level terrace apartments achieve double height ceilings	N/A	No curved or raked ceilings are proposed. Double height ceilings are proposed for Buildings 5&6
	well-proportioned rooms are provided, for example, smaller rooms feel larger and more spacious with higher ceilings			N/A	N/A	N/A	N/A	Ground level terrace apartments achieve double height ceilings	Ground level terrace apartments achieve double height ceilings	N/A	Ceiling heights are standard 2.7m and 2.4m. Except for Building 5&6
	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	✓		✓	✓	✓	✓	✓	✓	✓	

Item	4C – Ceiling Heights	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 4C-3 Ceiling heights contribute to the flexibility of building use over the life of the building	✓									
Design Guidance	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)			N/A due to residential starting above level 6	N/A due to residential starting above level 1	N/A due to residential starting above level 6	N/A due to residential starting above lowest ground level and sloping terrain.	Double storey Townhouses proposed	Double storey Townhouses proposed	N/A due to residential starting above lowest ground level	

Item	4D – Apartment Size and Layout	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 4D-1 The layout of rooms within an apartment is functional, well organised and provides a high standard of amenity	✓									
Design Criteria	1. Apartments are required to have the following minimum internal areas: Apartment Type / Min. Internal Area Studio / 35m² 1 bedroom / 50m² 2 bedroom / 70m² 3 bedroom / 90m² The minimum internal areas include only one bathroom. Additional bathrooms increase the minimum internal area by 5m2 each A fourth bedroom and further additional bedrooms increase the minimum internal area by 12 m² each	✓		✓	✓	✓	✓	✓	✓	✓	All apartments meet internal areas
Design Guidance	Every habitable room must have a window in an external wall with a total minimum glass area of not less than 10% of the floor area of the room. Daylight and air may not be borrowed from other rooms	✓		✓	✓	✓	✓	✓	✓	✓	
	Kitchens should not be located as part of the main circulation space in larger apartments (such as hallway or entry space)	✓		✓	✓	✓	✓	✓	✓	✓	
	A window should be visible from any point in a habitable room	✓		✓	✓	✓	✓	✓	✓	✓	
	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	N/A	N/A	N/A	N/A	N/A	N/A	Not applicable

Item	4D – Apartment Size and Layout	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 4D-2 Environmental performance of the apartment is maximised	✓									
Design Criteria	Habitable room depths are limited to a maximum of 2.5 x the ceiling height	✓									
	In open plan layouts (where the living, dining and kitchen are combined) the maximum habitable room depth is 8m from a window	✓									
Design Guidance	Greater than minimum ceiling heights can allow for proportional increases in room depth up to the permitted maximum depths	✓									
	All living areas and bedrooms should be located on the external face of the building	✓		✓	✓	✓	✓	✓	✓	✓	

Item	4D – Apartment Size and Layout	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 4D-3 Apartment layouts are designed to accommodate a variety of household activities and needs	✓									
Design Criteria	Master bedrooms have a minimum area of 10m2 and other bedrooms 9 m^2 (excluding wardrobe space)	✓		✓	✓	✓	✓	✓	✓	✓	
	Bedrooms have a minimum dimension of 3m (excluding wardrobe space)	✓		✓	✓	✓	✓	✓	✓	✓	
	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	✓		✓	✓	✓	✓	✓	✓	✓	
Design Guidance	The width of cross-over or cross-through apartments are at least 4m internally to avoid deep narrow apartment layouts Access to bedrooms, bathrooms and laundries is separated from living areas minimising direct openings between living and service areas	✓		N/A	N/A	N/A	N/A	✓	N/A	N/A	
	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: - 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.										

Item	4E – Private Open Space and Balconies	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 4E-1 Apartment provide appropriately sized private open space and balconies to enhance residential amenity	✓									
Design Criteria	All apartments are required to have primary balconies as follows: Dwelling Type / Minimum Area / Minimum Depth Studio Apartments / $4m^2$ / - 1 bedroom apartments / $8\ m^2$ / $2\ m^2$ 2 bedroom apartments / $10\ m^2$ / $2\ m^2$ 3+ bedroom apartments / $12\ m^2$ / $2.4\ m^2$ The minimum balcony depth to be counted as contributing to the balcony area is 1m		✓	For 3 bedroom apartments balcony depths are consistent 2m as per 2 bedroom apartments. In these circumstances balcony areas exceed the minimum areas	For 3 bedroom apartments balcony depths are consistent 2m as per 2 bedroom apartments. In these circumstances balcony areas exceed the minimum areas	For 3 bedroom apartments balcony depths are consistent 2m as per 2 bedroom apartments. In these circumstances balcony areas exceed the minimum areas	For 3 bedroom apartments balcony depths are consistent 2m as per 2 bedroom apartments. In these circumstances balcony areas exceed the minimum areas	For 3 bedroom apartments balcony depths are consistent 2m as per 2 bedroom apartments. In these circumstances balcony areas exceed the minimum areas	For 3 bedroom apartments balcony depths are consistent 2m as per 2 bedroom apartments. In these circumstances balcony areas exceed the minimum areas	For 3 bedroom apartments balcony depths are consistent 2m as per 2 bedroom apartments. In these circumstances balcony areas exceed the minimum areas	All apartments meet or exceed balcony areas.
Design Guidance	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	✓		Podium roof level courtyard apartments achieve larger private open space.	Podium roof level courtyard apartments achieve larger private open space.	Podium roof level courtyard apartments achieve larger private open space.	Ground level courtyard apartments achieve larger private open space.	Ground level and podium roof level courtyard apartments achieve larger private open space.	Ground level and podium roof level courtyard apartments achieve larger private open space.	Ground level level courtyard apartments achieve larger private open space.	
	Increased communal open space should be provided where the number or size of balconies are reduced			Apartments achieve minimum areas	Apartments achieve minimum areas	Apartments achieve minimum areas	Apartments achieve minimum areas	Apartments achieve minimum areas	Apartments achieve minimum areas	Apartments achieve minimum areas	Not applicable
	Storage areas on balconies is additional to the minimum balcony size	✓		N/A	N/A	N/A	N/A	N/A	N/A	N/A	No Storage currently proposed on balconies
	Balcony use may be limited in some proposals by: • consistently high wind speeds at 10 storeys and above	✓		N/A	N/A	N/A	N/A	N/A	N/A	N/A	Not applicable. All apartments achieve minimum areas.

	• close proximity to road, rail or other noise sources • exposure to significant levels of aircraft noise • heritage and adaptive reuse of existing buildings In these situations, Juliet balconies, operable walls, enclosed wintergardens or bay windows may be appropriate, and other amenity benefits for occupants should also be provided in the apartments or in the development or both. Natural ventilation also needs to be demonstrated.										

Item	4E – Private Open Space and Balconies	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 4E-2 Primary private open space and balconies are appropriately located to enhance livability for residents	✓									
Design Guidance	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	✓		✓	✓	✓	✓	✓	✓	✓	

Item	4E – Private Open Space and Balconies	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 4E-3 Private open space and balcony design is integrated into and contributes to the overall architectural form and detail of the building	✓									
Design Guidance	Solid, partially solid or transparent fences and balustrades are selected to respond to the location. They are designed 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	✓			Solid and partially solid balustrades are proposed	Solid and partially solid balustrades are proposed	Solid and partially solid balustrades are proposed	Solid and dense palisade balustrades are proposed	Solid and partially solid balustrades are proposed	Dense palisade balustrades are proposed	
	Full width full height glass balustrades alone are generally not desirable	✓		The use of glass film's are proposed to maximise privacy to apartments with glazed balustrades.	N/A	N/A	N/A	N/A	N/A	N/A	Glass balustrades have been generally avoided except in building 1.
	Projecting balconies should be integrated into the building design and the design of soffits considered			No projected balconies proposed	No projected balconies proposed	No projected balconies proposed	No projected balconies proposed	No projected balconies proposed	No projected balconies proposed	No projected balconies proposed	Not applicable

	Operable screens, shutters, hoods and pergolas are used to control sunlight and wind			No operable shading proposed	No operable shading proposed	No operable shading proposed	No operable shading proposed	No operable shading proposed	No operable shading proposed	No operable shading proposed	Not applicable
	Balustrades are set back from the building or balcony edge where overlooking or safety is an issue	✓		✓	✓	✓	✓	✓	✓	✓	
	Downpipes and balcony drainage are integrated with the overall facade and building design	✓		✓	✓	✓	✓	✓	✓	✓	Downpipes to be concealed in all buildings
	Air-conditioning units should be located on roofs, in basements, or fully integrated into the building design		✓	Condensers are on balconies	Condensers are on balconies	Condensers are on balconies	Condensers are on balconies	Condensers are on balconies	Condensers are on balconies	Condensers are on balconies	All condensers to be on balconies
	Where clothes drying, storage or air conditioning units are located on balconies, they should be screened and integrated in the building design	✓		Condensers to be set back against inner glazing line to limit visibility from the public domain	Partially solid balustrades conceal visibility of condensers from the public domain	Partially solid balustrades conceal visibility of condensers from the public domain	Partially solid balustrades conceal visibility of condensers from the public domain	Partially solid balustrades and screens conceal visibility of condensers from the public domain	Partially solid balustrades conceal visibility of condensers from the public domain	Condensers to be set back against inner glazing line to limit visibility from the public domain	Screens and solid upstand balustrades are proposed to conceal clothes and A/C units
	Ceilings of apartments below terraces should be insulated to avoid heat loss	✓		✓	✓	✓	✓	✓	✓	✓	Stepping of slabs have been avoided to address exposed sofits below apartments.
	Water and gas outlets should be provided for primary balconies and private open space			Water and gas not proposed on balconies	Water and gas not proposed on balconies	Water and gas not proposed on balconies	Water and gas not proposed on balconies	Water and gas not proposed on balconies	Water and gas not proposed on balconies	Water and gas not proposed on balconies	Water outlets are proposed for ground level courtyards apartments.

Item	4E – Private Open Space and Balconies	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 4E-4 Private open space and balcony design maximizes safety	✓									
Design Guidance	Changes in ground levels or landscaping are minimised	✓						A 500mm step between the public domain is proposed for the terrace apartments	A 500mm step between the public domain is proposed for the terrace apartments		
	Design and detailing of balconies avoids opportunities for climbing and falls	✓									All balconies will be designed in accordance with the NCC to avoid climbing aids

Item	4F – Common Circulation and Spaces	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 4F-1 Common circulation spaces achieve good amenity and properly service the number of apartments	✓									
Design Criteria Design Guidance	The maximum number of apartments off a circulation core on a single level is eight		✓	Building 1 exceeds number of apartments per core due to limited ability at ground for lobby locations. No more than 10 apartments are proposed off a single core. A centralized core limits the max travel distance.	Achieves criteria	Achieves criteria	Achieves criteria	Achieves criteria	Achieves criteria	Achieves criteria	See alternative criteria.
	For buildings of 10 storeys and over, the maximum number of apartments sharing a single lift is 40	✓		✓	✓	✓	✓	✓	✓	✓	Lifting to concept approval numbers
	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	✓		✓	✓	✓	✓	✓	✓	✓	Entry recesses at apartment entries allow relief along the corridors
	Daylight and natural ventilation should be provided to all common circulation spaces that are above ground	✓		✓	✓	✓	✓	✓	✓	✓	All corridors achieve natural light into the lift lobbies
	Windows should be provided in common circulation spaces and should be adjacent to the stair or lift core or at the ends of corridors Longer corridors greater than 12m in length from the lift core should be articulated. Design solutions may include: • a series of foyer areas with windows and spaces for seating • wider areas at apartment entry doors and varied ceiling heights	✓		Articulated apartment entries provide relief to long corridors	Articulated apartment entries provide relief to long corridors	Articulated apartment entries provide relief to long corridors	Articulated apartment entries provide relief to long corridors	Articulated apartment entries provide relief to long corridors	Articulated apartment entries provide relief to long corridors	Articulated apartment entries provide relief to long corridors	Natural light is provided to all lift lobbies
	Design common circulation spaces to maximise opportunities for dual aspect apartments, including multiple core apartment buildings and cross over apartments	✓						Multi core proposed to provide dual aspect apartments	Multi core proposed to maximise dual aspect apartments		
	Achieving the design criteria for the number of apartments off a circulation core may not be possible. Where a development is unable to achieve the design criteria, a high level of amenity for common lobbies, corridors and				Corridors have access to natural light						

	apartments should be demonstrated, including: • sunlight and natural cross ventilation in apartments • access to ample daylight and natural ventilation in common circulation spaces • common areas for seating and gathering • generous corridors with greater than minimum ceiling heights • other innovative design solutions that provide high levels of amenity				and have higher than minimum circulation						
	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.	✓		✓	✓	✓	✓	✓	✓	✓	

Item	4F – Common Circulation and Spaces	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 4F-2 Common circulation spaces promote safety and provide for social interaction between residents	✓									
Design Guidance	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	✓		✓	✓	✓	✓	✓	✓	✓	All common circulation corridors are direct and have clear sightlines
	Tight corners and spaces are avoided	✓		✓	✓	✓	✓	✓	✓	✓	
	Circulation spaces should be well lit at night	✓		✓	✓	✓	✓	✓	✓	✓	
	Legible signage should be provided for apartment numbers, common areas and general wayfinding Incidental spaces, for example space for seating in a corridor, at a stair landing, or near a window are provided	✓		✓	✓	✓	✓	✓	✓	✓	Apartment number has been composed to simplify
	In larger developments, community rooms for activities such as owners corporation meetings or resident use should be provided and are ideally collocated with communal open space	✓		Community room is proposed on Level 7 within Building 1 footprint	Community room is proposed on Level 7 within Building 1 footprint	Community room is proposed on Level 7 within Building 1 footprint	Community room is proposed on ground Level	Community room is proposed on Crescent Street	Community room is proposed on Crescent Street	Community room is proposed on Crescent Street behind Building 7	
	Where external galleries are provided, they are more open than closed above the balustrade along their length	✓									No external galleries provided

Item	4G – Storage	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 4G-1 Adequate, well designed storage is provided in each apartment	✓									
Design Criteria	In addition to storage in kitchens, bathrooms and bedrooms, the following storage is provided: Dwelling Type / Storage Size Studio Apartments / 4m3 1 bedroom apartments / 6 m3 2 bedroom apartments / 8 m3 3+ bedroom apartments / 10 m3 with at least 50% located within the apartment	✓		✓	✓	✓	✓	✓	✓	✓	All apartments typically achieve their minimum storage within the apartments. Any short fall will be located within parking areas.
Design Guidance	Storage is accessible from either circulation or living areas	✓		✓	✓	✓	✓	✓	✓	✓	Larger than minimum robes contribute to the storage provisions
	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										Not Applicable. Storage not proposed on balconies
	Left over space such as under stairs is used for storage	✓						✓	✓		Only Buildings 5 & 6 have stairs within apartments

Item	4G – Storage	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 4G-2 Additional storage is conveniently located, accessible and nominated for individual apartments	✓									
Design Guidance	Storage not located in apartments is secure and clearly allocated	✓		✓	✓	✓	✓	✓	✓	✓	Storage to be 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	✓		✓	✓	✓	✓	✓	✓	✓	Due to the open nature of the carparks, any dedicated storage space is located away from the open facades

	If communal storage rooms are provided they should be accessible from common circulation areas of the building	✓		✓	✓	✓	✓	✓	✓	✓	
	Storage not located in an apartment is integrated into the overall building design and not visible from the public domain	✓		✓	✓	✓	✓	✓	✓	✓	

Item	4H – Acoustic Privacy	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 4H-1 Noise transfer is minimised through the siting of buildings and building layout	✓									
Design Guidance	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)	✓		✓	✓	✓	✓	✓	The location of openings to the south-western façade of Building 6 has been designed to allow the apartment to look passed Building 7.	The location of openings to the north-eastern façade of Building 7 has been designed to allow the apartment to look passed Building 6.	Proposal meets set back requirements for potential surrounding developments to their current maximum allowable height. Where this does not occur, blank walls or window screening has been integrated into façade design.
	Window and door openings are generally orientated away from noise sources	✓		Openings on the façade face towards Woodville Road have been limited with most openings being located onto balconies	Openings on the façade face towards the M4 have been limited with most openings being located onto balconies	South facing apartments have been limited to mitigate noise impacts	Window openings towards the south have been limited.	The building has been setback on the south from the train line to mitigate noise impacts	The building has been setback on the south from the train line to mitigate noise impacts	Window openings towards the south have been limited.	
	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	✓		✓	✓	✓	✓	✓	✓	✓	
	Storage, circulation areas and non-habitable rooms are located to buffer noise from external sources	✓									
	The number of party walls (walls shared with other apartments) are limited and are appropriately insulated	✓		✓	✓	✓	✓	✓	✓	✓	Apartment walls 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	✓		✓	✓	✓	✓	✓	✓	✓	Noise sources such as garage doors, plant rooms etc. have been positioned away from apartments

Item	4H – Acoustic Privacy	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 4H-2 Noise transfer is minimised through the siting of buildings and building layout	✓									
Design Guidance	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	✓									

Item	4J – Noise and Pollution	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 4J-1 In noisy or hostile environments the impacts of external noise and pollution are minimized through the careful siting and layout of buildings.	✓									
Design Guidance	To minimise impacts the following design solutions may be used: • 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, non-habitable 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	✓					Buildings 4 sites the short end of the building towards the noise.	Buildings 5 is located as far from the noise sources as possible.	Buildings 6 is located as far from the noise sources as possible.	Buildings 7 sites the short end of the building towards the noise.	The massing has been configured to optimize solar compliance.
	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: • solar and daylight access • private open space and balconies • natural cross ventilation	✓									

Item	4J – Noise and Pollution	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 4J-2 Appropriate noise shielding or attenuation techniques for the building design, construction and choice of materials are used to mitigate noise transmission.	✓									
Design Guidance	Design solutions to mitigate noise include: - 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	✓		Building 1 limits the amount of operable windows located on the façade face which is facing the noise source. Where possible openings are located on the balconies.				North facing apartments have been maximised			

Item	4K – Apartment Mix	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 4K-1 A range of apartment types and sizes is provided to cater for different household types now and into the future.	✓									
Design Guidance	A variety of apartment types is provided	✓		✓	✓	✓	✓	✓	✓	✓	A mix of apartment types are provided including a number of 2 storey courtyard apartments to cater for families.
	The apartment mix is appropriate, taking into consideration: • 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 groups	✓		✓	✓	✓	✓	✓	✓	✓	The apartment mix has a high amount of 3 bedroom apartments to meet market demand. Local agents have provided advice on current market demands.
	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	✓		✓	✓	✓	✓	✓	✓	✓	A mix of apartment types allow for either shared accommodation or for families.

Item	4K – Apartment Mix	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 4K-2 The apartment mix is distributed to suitable locations within the building	✓									
Design Guidance	Different apartment types are located to achieve successful facade composition and to optimize 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	✓		✓	✓	✓	✓	✓	✓	✓	Typically 2 & 3 bedrooms apartments are provided on corners.
Item	**4L – Ground Floor Apartments**	**Yes**	**No**	**Building 1**	**Building 2**	**Building 3**	**Building 4**	**Building 5**	**Building 6**	**Building 7**	**Notes**
Objective	Objective 4L-1 Street frontage activity is maximised where ground floor apartments are located	✓									
Design Guidance	Direct street access should be provided to ground floor apartments	✓		N/A due to podium	N/A due to podium	N/A due to podium	Buildings 4 has ground floor apartments with direct street access.	Buildings 5 has ground floor apartments with direct street access.	Buildings 6 has ground floor apartments with direct street access.	Buildings 7 has ground floor apartments with direct street access.	
	Activity is achieved through front gardens, terraces and the facade of the building. Design solutions may include: • both street and foyer entrances to ground floor apartments • private open space is next to the street • doors and windows face the street	✓		N/A due to podium	N/A due to podium	N/A due to podium		Terraces and front gardens activate the park frontage	Terraces and front gardens activate the park frontage		
	Retail or home office spaces are located along street frontages	✓			Retail activates the park frontage	Retail activates the park frontage	Commercial activates the park and Crescent Street				
	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 due to podium	N/A due to podium	N/A due to podium		Generous double height apartments have been proposed	Generous double height apartments have been proposed		

Item	4L – Ground Floor Apartments	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 4L-2 Design of ground floor apartments delivers amenity and safety for residents	✓									
Design Guidance	Privacy and safety is provided without obstructing casual surveillance. Design solutions may include: • 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	✓					Full height windows to lower level apartments assist with casual surveillance.	Terraces are 0.5m above the street	Terraces are 0.5m above the street		.

	Solar access is maximised through: • high ceilings and tall windows • trees and shrubs that allow solar access in winter and shade in summer	✓									

Item	4M – Facades	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 4M-1 Building facades provide visual interest along the street respecting the character of the local area	✓									
Design Guidance	Design solutions for front building facades may include: - 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	✓					Varied materials at the first 2 storey's provide visual interest and character at the street.	Varied materials at the first 2 storey's provide visual interest and character at the street.	Varied materials at the first 2 storey's provide visual interest and character at the street.	Varied materials at the first storey provide visual interest and character at the street.	
	Building services should be integrated within the overall façade	✓		✓	✓	✓	✓	✓	✓	✓	Services are integrated into building facades
	Building facades should be well resolved with an appropriate scale and proportion to the streetscape and human scale. Design solutions may include: - 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	✓		✓	✓	✓	✓	✓	✓	✓	
	Building facades relate to key datum lines of adjacent buildings through upper level setbacks, parapets, cornices, awnings or colonnade heights	✓		✓	✓	✓	✓	✓	✓	✓	
	Shadow is created on the façade throughout the day with building articulation, balconies and deeper window reveals	✓		✓	✓	✓	✓	✓	✓	✓	

Item	4M – Facades	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 4M-2 Building functions are expressed by the facade	✓									
Design Guidance	Building entries should be clearly defined	✓		A façade indentation identify the residential entry	A façade indentation identify the residential entry		A façade indentation identify the residential entry	A break in the building form identify the residential entry	A break in the building form identify the residential entry		A variety of cues define the entries including double height, material changes or breaks in the building massing.
	Important corners are given visual prominence through a change in articulation, materials or colour, roof expression or changes in height	✓		The important corners are given visual prominence by momentarily grounding the façade type by bringing it lower than the podium datum.	The important corners are given visual prominence by momentarily grounding the façade type by bringing it lower than the podium datum.	The important corners are given visual prominence by momentarily grounding the façade type by bringing it lower than the podium datum.					
	The apartment layout should be expressed externally through façade features as party walls and floor slabs	✓			The apartment layouts are expressed externally through the facade			The apartment layouts are expressed externally through the facade			

Item	4N – Roof Design	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 4N-1 Roof treatments are integrated into the building design and positively respond to the street	✓									
Design Guidance	Roof design relates to the street. Design solutions may include: • 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										Not Applicable. The roof of the buildings is considerably distanced from street to create any meaningful relationship.
	Roof treatments should be integrated with the building design. Design solutions may include: - Roof design proportionate to the overall building size, scale and form - Roof materials complement the building - Service elements are integrated	✓					Building 4 articulates the plant core to articulate the mass	Building 5 proposes a roof feature to articulate the mass.	Building 6 proposes a roof feature to articulate the mass.	Building 7 proposes a roof feature to articulate the mass.	

Item	4N – Roof Design	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 4N-2 Roof treatments are integrated into the building design and positively respond to the street	✓									
Design Guidance	Habitable roof space should be provided with good levels of amenity. Design solutions may include: - 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	✓						The carpark roof to the south has a roof feature that both defines the form and provides amenity for residents	The carpark roof to the south has a roof feature that both defines the form and provides amenity for residents		.
	Roof treatments should be integrated with the building design. Design solutions may include: - Roof design proportionate to the overall building size, scale and form - Roof materials complement the building - Service elements are integrated	✓					The lift core side of the building extends beyond the roof of the last apartment to provide articulation. Services are integrated below the height plane. The materials compliment the façade.	The roof feature is a continuation of the façade language and playfully articulates the crown of the building	The roof feature is a continuation of the façade language. Only one side of the twin forms has a roof feature to provide variation to the building heights.	The lift core side of the building extends beyond the roof of the last apartment to provide articulation. Services are integrated below the height plane. The materials compliment the façade.	

Item	4N – Roof Design	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 4N-3 Roof design incorporates sustainability features	✓									
Design Guidance	Roof design maximizes solar access to apartments during winter and provides shade during summer. Design solutions may include: - The roof lifts to the north - Eaves and overhangs shade walls and windows from summer sun	✓						The roof lifts to the north for the Penthouse apartments			
	Skylights and ventilation systems should be integrated into the roof design	✓									No Skylights or roof ventilation systems proposed

Item	4O – Landscape Design	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 4O – 1 Landscape design is viable and sustainable	✓									
Design Guidance	Landscape design should be environmentally sustainable and can enhance environmental performance by incorporating: - Diverse and appropriate planting - Bio-filtration gardens - Appropriately planted shading trees - Areas for residents to plant vegetables and herbs - Composting - Green roofs or walls	✓		A podium roof top garden is proposed between Buildings 1, 2 & 3.			Landscaping is proposed around the base of Building 4.	A green roof is proposed to the carpark roof of building 5	A green roof is proposed to the carpark roof of building 6	Landscaping is proposed around the base of Building 7.	
	Ongoing maintenance plans should be prepared	✓									Refer to landscape documents for maintenance plan.
	Microclimate in enhanced by: - 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	✓			Shade structures are proposed in the park adjacent to Building 2			Shade structures are proposed on top of the carpark roof.	Shade structures are proposed on top of the carpark roof.		Extensive tree coverage is proposed throughout the site.
	Tree and shrub selection considers size at maturity and the potential for roots to complete (see table 4)	✓									Refer to landscape documents for planting schedule

Item	4O – Landscape Design	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 4O – 2 Landscape design is contributes to the streetscape and amenity	✓									
Design Guidance	Landscape design responds to the existing site conditions including: • Changes of levels • Views • Significant landscape features including trees and rock outcrops	✓									Existing vegetation will be retained where possible. Additional new planting will contribute to a green streetscape.
	Significant landscape features should be protected by: • Tree protection zones (see figure 40.5) • Appropriate signage and fencing during construction	✓									Many existing trees are protected within concrete planters
	Plants selected should be endemic to the region and reflect the local ecology	✓									A high percentage of endemic plant species are proposed as part of the DwC strategy.

Item	4P – Planting on Structures	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 4P – 1 Appropriate soil profiles are provided	✓									
Design Guidance	Soil volume is appropriate for plant growth, considerations include: • Modifying depths and widths according to the planting mix and irrigation frequency • Free draining and long soil life span • Tree anchorage	✓									
	Minimum soil standards for plant sizes should be provided in accordance with Table 5	✓									

Item	4P – Planting on Structures	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 4P – 2 Plant growth is optimised with appropriate selection and maintenance	✓									
Design Guidance	Plants are suited to site conditions, considerations include: • Drought and wind tolerance • Seasonal changes in solar access • Modified substrate depths for diverse range of plants • Plant longevity	✓									
	A landscape maintenance plan is prepared	✓									
	Irrigation and drainage systems respond to : • Changing site conditions • Soil profile and the planting regime • Whether rainwater, stormwater recycled grey water is used	✓									

Item	4P – Planting on Structures	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 4P – 3 Planting on structure contributes to the quality and amenity of communal and public open spaces	✓									
Design Guidance	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 form 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	✓									Landscaping is proposed to podium roof tops and connect buildings 1-3, 4-5 and 6-7 with communal open space.

Item	4Q – Universal Design	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 4Q – 1 Universal design features are included in apartment design to promote flexible housing for all community members	✓									
Design Guidance	Developments achieve a benchmark of 20% of the total apartment incorporating the Livable Housing Guideline's silver level universal design features	✓		✓	✓	✓	✓	✓	✓	✓	

Item	4Q – Universal Design	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 4Q – 2 A variety of apartments with adaptable designs are provided	✓									
Design Guidance	Adaptable housing should be provided in accordance with the relevant council policy	✓		✓	✓	✓	✓	✓	✓	✓	20% adaptable apartments are provided.
	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	✓		✓	✓	✓	✓	✓	✓	✓	Larger car parking spaces for accessibility are provided they are titled separately from apartments or shared car parking arrangements

Item	4Q – Universal Design	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 4Q – 3 Apartment layouts are flexible and accommodate a range of lifestyle needs	✓									
Design Guidance	Apartments design incorporates flexible design solutions which may include: • 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	✓		✓	✓	✓	✓	✓	✓	✓	Typical open plan living apartment design provides flexibility to meet a range of lifestyle needs. Including dual master bedroom type arrangements, spacious living areas and balconies.

Item	4R – Adaptive Reuse	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 4R – 1 New additional to existing buildings are contemporary and complementary and enhance area’s identity and sense of place	✓									
Design Guidance	Design solutions may include: • 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	✓									Not Applicable

	Additions to heritage items should be clearly identifiable form the original building	✓									Not Applicable
	New additions allow for the interpretation and future evolution of the building	✓									Not Applicable

Item	4R – Adaptive Reuse	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 4R – 2 Adapted buildings provide residential amenity while not precluding future adaptive reuse	✓									
Design Guidance	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: • Generously sized voids in deeper buildings • Alternative apartment types when orientation • is poor • Using additions to expand the existing • building envelope	✓									Not Applicable
	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: • 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 an 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	✓									Not Applicable

Item	4S – Mixed Use	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 4S – 1 Mixed use developments are provided in appropriate locations and provide active street frontages that encourage pedestrian movement	✓									
Design Guidance	Mixed use development should be concentrated around public transport and centres	✓									The development is within close proximity to Harris Park train station. A community bus will assist with conveniently transporting future residents to transport hubs.
	Mixed use developments positively contribute to the public domain. Design solutions may include: • Development addresses the street • Active frontages are provided • Diverse activities and uses • Avoiding blank walls at the ground level • Live/work apartments on the ground floor level, rather than commercial	✓		Active retail frontages below Phase 1 contribute to the public domain and park activation.			Commercial tenancies active the ground level to Crescent Street and connect to the retail offering as part of Phase 1	Communal amenity activates the Crescent Street Frontage	Communal amenity activates the Crescent Street Frontage		

Item	4S – Mixed Use	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 4S – 2 Residential levels of the building are integrated within the development, and safety and amenity is maximized for residents	✓									
Design Guidance	Residential circulation areas should be clearly defined. Design solutions may include: • 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	✓		Residential entries are separated from commercial entries and directly accessible from the street	Residential entries are separated from commercial entries and directly accessible from the street	Residential entries are separated from commercial entries and directly accessible from the street					
	Landscape communal open space should be provided at podium or roof levels	✓									

Item	4T – Awnings and Signage	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 4T – 1 Awnings are well located and compliment and integrate with the building design	✓									
Design Guidance	Awnings should be located along streets with high pedestrian activity and active frontages	✓									A colonnade is proposed along the retail frontage of the eastern precinct.
	A number of the following design solutions are used: • 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	✓									
	Awnings should be located over building entries for building address and public domain amenity	✓									
	Awnings relate to residential windows, balconies, street tree planting, power poles and street infrastructure	✓									
	Gutters and down pipes should be integrated and concealed	✓									
	Lighting under awnings should be provided for pedestrian safety	✓									

Item	4T – Awnings and Signage	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 4T – 2 Signage responds to the context and desired streetscape character	✓									
Design Guidance	Signage should be integrated into the building design and respond to the scale, proportion and detailing of the development	✓									
	Legible and discrete way finding should be provided for larger developments	✓									
	Signage is limited to being on and below awnings and in single façade sign on the primary street frontage	✓									

Item	4U – Energy Efficiency	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 4U – 1 Development incorporates passive environmental design	✓									
Design Guidance	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	✓									

Item	4U – Energy Efficiency	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 4U – 2 Development incorporates passive solar design to optimize heat storage in winter and reduce heat transfer in summer	✓									
Design Guidance	A number of the following design solutions are used: • The use of smart glass or other technologies on north and west elevations • Thermal mass in the floors and walls of north facing rooms in 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	✓									
	Provision of consolidated heating and cooling infrastructure should be located in a centralized location (e.g. the basement)	✓									

Item	4U – Energy Efficiency	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 4U – 3 Adequate natural ventilation minimizes the need for mechanical ventilation	✓									
Design Guidance	A number of the following design solution are used: • 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	✓									

Item	4V – Water management and conservation	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 4V – 1 Potable water use is minimised	✓									
Design Guidance	Water efficient fittings, appliances and wastewater reuse should be incorporated	✓									
	Apartments should be individually metered	✓									
	Rainwater should be collected, stored and reused on site	✓									
	Drought tolerant, low water use plants should be used within landscaped areas	✓									

Item	4V – Water management and conservation	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 4V – 2 Urban stormwater is treated on site before being discharged to receiving waters	✓									
Design Guidance	Water sensitive urban design systems are designed by a suitably qualified professional	✓									
	A number of the following design solutions are used: • 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	✓									

Item	4V – Water management and conservation	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	
Objective	Objective 4V – 3 Flood management systems are designed to minimise impacts on the streetscape, building entry and amenity of residents	✓									
Design Guidance	Detention tanks should be located under paved areas, driveways or in basement car parks	✓									Detention tanks are concealed in parking areas
	On large sites parks or open spaces are designed to provide temporary on site detention basins	✓									Refer to civil

Item	4W – Waste Management	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective W – 1 Flood management systems are designed to minimise impacts on the streetscape, building entry and amenity of residents	✓									
Design Guidance	Adequately sized storage areas for rubbish bins should be located discreetly away from the front of the development or in the basement car park	✓		Adequately sized waste rooms are discreetly located within the loading dock			Adequately sized waste rooms are discreetly located within the carpark with street loading access		Adequately sized waste rooms are discreetly located within the carpark with street loading access		
	Waste and recycling storage areas should be well ventilated	✓									Mechanical ventilation is proposed in waste and recycling areas.
	Circulation design allows bins to be easily maneuvered between storage and collection points	✓									
	Temporary storage should be provided for large bulk items such as mattresses	✓									
	A waste management plan should be prepared	✓									

Item	4W – Waste Management	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective W – 2 Domestic waste is minimised by providing safe and convenient source separation and recycling	✓									
Design Guidance	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	✓									Apartments will have waste and recycling built into the kitchens
	Communal waste and recycling rooms are in convenient and accessible locations related to each vertical core	✓									Waste rooms are typically located centrally within core box.
	For mixed use developments, residential waste and recycling storage areas and access should be separate and secure from other uses	✓		Residential and commercial waste is separated.			Residential and commercial waste is separated.				
	Alternative waste disposal methods such as composting should be provided		✓								Composting is not currently provided.

Item	4X – Building Maintenance	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 4 X – 1 Building design detail provides protection from weathering	✓									
Design Guidance	A number of the following design solutions are used: • 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	✓				Expressed thin profile horizontal façade elements provide protection to openings	Expressed thin profile horizontal façade elements provide protection to openings. Precast concrete provides a robust façade.				Robust and durable materials have been selected to minimize future maintenance.

Item	4X – Building Maintenance	Yes	No	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Notes
Objective	Objective 4 X – 2 Systems and access enable ease of maintenance	✓									
Design Guidance	Window design enables cleaning from the inside of the building										Large balconies limit the amount of windows that require professional access for cleaning
	Building maintenance systems should be incorporated and integrated into the design of the building form, roof and façade	✓									Residential access to the higher roof levels has been limited to simplify the maintenance access systems.
	Design solutions do not require external scaffolding for maintenance access	✓									
	Manually operated systems such as blinds, sunshades and curtains are used in preference to mechanical systems	✓									No operable face systems are proposed
	Centralised maintenance, services and storage should be provided for communal open space areas within the building	✓									