

# 309 KING STREET, NEWCASTLE

## DESIGN VERIFICATION STATEMENT

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REV G - 26 MARCH 2025



## **PROJECT CONTACT**

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# INTRODUCTION

## PROJECT OVERVIEW

This Verification Statement and Response to the design quality principles has been prepared by FK on behalf of GWH in support of a Development Application for 309 King Street, Newcastle.

This report should be read in conjunction with architectural drawings prepared by FK, the Statement of Environmental Effects prepared by the planners of GWH. Other accompanying documents include Site Survey, BASIX Report prepared by BSA, Traffic Report prepared by Intersect Traffic, WMP prepared by Elephants Foot Recycling Solutions, Landscape Plan prepared by Oculus and Access Report prepared by Lindsay Perry Access.

## **HOUSING SEPP (CHAPTER 4) DESIGN VERIFICATION STATEMENT**

Rob Mirams is a Registered Architect in New South Wales and a member of the Australian Institute of Architects Registration number is 7272. He is a qualified Architect with extensive experience in the design of residential housing developments of varying scale.

We confirm that Rob Mirams has directed the design of this modified multi - residential development at 309 King Street, Newcastle, and verify he has directed the design of the development for which the original 2017 development was granted. He has worked alongside a professional consultant team to produce a development that is respectful of local planning and design controls.

FK architects verify the modification does not diminish or detract from the original design quality of the original development or compromise the design intent of the original development.

Further to this, FK architects verify that the design quality principles and requirements set out in Chapter 4 of the Housing State Environmental Planning Policy – Design Quality of Residential Apartment Development have been achieved.



Rob Mirams  
Director  
Registered Architect NSW, No. 7272

## SITE DESCRIPTION

The subject site comprises of a single lot which is:

Lot 1 (DP 826956)

Site area approximately 6 622m<sup>2</sup>.

It is located at 309 King Street and bounded by Ravenshaw Street to the west and Bull Street to the south. The site is triangular with its longest boundary approximately 136m along Bull Street and 103m along King Street. There is a 6m wide public access easement to the east.

The site has a crossfall from Bull Street to King Street of approximately 4m with its high point at the south-eastern corner on Bull Street sloping down to the north-west corner on King Street.

The precinct is experiencing gradual change in development from older building stock to new developments in keeping with the Council's vision for the future of Newcastle.

The site is located with-in 1 Kilometre of the greater Newcastle CBD.



*Aerial image of subject site (highlighted)*



# DESIGN PROPOSAL

2 free standing residential towers of 15 levels plus 2 in ground basement levels. Tower A consists of a total of 129 residential apartments and Tower B 151 residential apartments with both towers featuring a highly architectural built form, maximizing views, surrounding outlook and solar access to many of the apartments.

The proposed development helps create a vibrant and active new street address along King Street that supports the Council's planning strategy by invigorating this area whilst providing local housing of high quality and amenity.

The Development Proposal incorporates:

- Demolition of existing structures and ancillary structures on site.
- 15 storey buildings including 2 levels of below ground carparking.
- Apartments to be split across 2 separate buildings, Tower A comprising of 129 apartments and Tower B comprising of 151 apartments.
- Carpark accommodates 372 resident spaces, 8 retail spaces, 2 visitor spaces, 4 DDA visitor spaces, 1 car wash bay, 1 delivery vehicle bay, 23 motorcycle bays and 27 visitor bicycle spaces. All residences are provided with space for bicycle storage.

APARTMENT MIX	NO.
1 BED	34
2 BED	154
3 BED	92
TOTAL	280





# PRINCIPLE 1: CONTEXT AND NEIGHBOURHOOD CHARACTER

*Good design responds and contributes to its context. Context is the key natural and built features of an area, their relationship and the character they create when combined. It also includes social, economic, health and environmental conditions.*

*Responding to context involves identifying the desirable elements of an area's existing or future character. Well-designed buildings respond to and enhance the qualities and identity of the area including the adjacent sites, streetscape and neighborhood. Consideration of local context is important for all sites, including sites in established areas, those undergoing change or identified for change.*

## PROPOSAL

The proposed residential development includes 280 apartments accommodated in 2 x 15 storey buildings bounded by King Street to the North, Bull Street to the South and the existing Sports Club to the East. Additional street trees have been proposed for Bull Street and part of King Street with existing mature street trees to King Street being retained.

The twin residential tower building design will have identity with both King Street and Bull Street and will activate both street frontages. The design of the built form is a considered pair of residential buildings that responds to the direct context and successfully interacts at street level, with the surrounding amenity and future neighborhood.

The mix of 1-, 2-, and 3- bedroom residential apartments offer a holistic approach to the overall development and will allow for security and surveillance of the communal open space and general streetscape, resulting in a safer urban environment.

## 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.*

### PROPOSAL

The proposed built form is consistent with the envisaged and intended building typology of the greater Newcastle Precinct.

Pedestrian entry is highlighted with an expressed architectural language around the recessed entry points.

The communal facilities have been provided with landscaping, softening the building edges between both towers. Careful consideration of the landscape design was undertaken to ensure no adverse impacts to the future populated public domain.

The scale and bulk of the built form is broken down into 2 buildings, the separation of the 2 buildings uses 'through' access zones as the Communal Open Space and the public open space to the East between Building B and the existing Sports Club. This also creates a dynamic 'in the round' feel and a distinctive overall residential built form.

The proposed development responds positively to the topography and its site constraints. Building A, the westernmost building has its main entry from King Street and a secondary entry via Bull Street due to a 1 level change in height across the site. Building B has its main entry off Bull Street and a retail zone facing King Street – these levels assist in keeping the buildings profiled to the existing site contours and keeping it restrained beneath the height controls.

## 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.*

### PROPOSAL

There is a total of 280 apartments in the development comprising of 34 x 1-bedroom, 154 x 2-bedroom and 92 x 3-bedroom apartments. The density of the development is considered sustainable within the existing and future availability of infrastructure, public transport community, culturally significant facilities, and environmental qualities of the site.

The proposed density and uses within the site are consistent with the planning strategies promoting sustainable growth, physical development and needs of Newcastle. The various communal and recreational facilities on site enhance the livability of the development and proposed density. This includes rooftop and podium level communal open space, public open space to the East and indoor recreational space including recreational activities such as pools and gym. These comprehensive facilities all contribute to the desired future character for the precinct, improving the amenity of the area for residents within the development and the broader community.

## 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.*

*A comprehensive analysis of the building has been undertaken as part of the Basix Assessment however we note the following general inclusions as part of the proposal:*

### PROPOSAL

The development has been designed to embrace ESD principles. The orientation apartment, apartment planning, passive and active building systems have all been incorporated into the planning of the development to minimise energy use, resources and provide a high level of amenity to the residents.

The proposed residential development is separated into 2 Buildings on the site; therefore, articulation and distribution of built form has enabled cornered and dual aspect north facing apartments. Shading to the façades is provided by subtle horizontal ledges and vertical solid elements.

Building materials have been selected for ESD compliance and longevity. A large area of the rooftop to have solar panels. The BASIX Certificate confirms the developments resource, energy, and water efficiency commitments.

## 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, coordinating 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.*

### PROPOSAL

The proposal provides a variety of landscaped areas with a composition of both hardscape and softscape planting providing a hierarchy of communal and private open space. The lower-level apartments have larger private balcony areas with built in planter boxes creating a 'Garden' Apartment feel.

The ground level Communal Open Space provides vast amounts of area dedicated to landscaping, gardens, activity, and contemplation spaces.

Upper level and rooftops also provide for communal open space areas.



## 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.*

### PROPOSAL

The future residents of the development will benefit from a high degree of amenity including the following, a good variety of apartment mix, size, and orientation. Many apartments have access to easy natural ventilation and garden or rooftop amenity.

Within this development a complying portion of apartments are provided that are capable of achieving Silver livable housing requirements. Adequate storage opportunities have been provided within the units plus further storage cages in the carpark. Large balconies provide meaningful outdoor space.

## 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.*

### PROPOSAL

The organisation of the site provides a safe and secure private and public domain with a clear distinction between the two. The entry at ground level provides access via lift and stair to the upper-level apartments. The communal open space is proposed to be gated providing a safe and secure environment.

The surrounding public domain is well surveyed by apartments and communal facilities.

Entry paths will be well lit at night to ensure adequate and safe access to and from the entry foyer and egress stairs.

The proposal will be a secure building with restricted access to lifts and lobbies, controlled entry car parking and communal facilities for residents and guests only.

## 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.*

### PROPOSAL

The proposal provides a mix of 12% 1 bedroom, 55% 2-bedroom and 33% 3-bedroom apartments. Within each apartment type there is also a range of sizes, orientations and balcony or terrace size. The accommodation mix and size of apartments have been determined to appeal to a diverse range of occupant profiles.

20% of apartments are compliant in achieving Silver living requirements. Adequate storage opportunities have been provided within the units plus further storage cages in the carpark. Large balconies provide meaningful outdoor space.

The communal facilities with large, landscaped terrace provide for both formal and inter formal social interaction, as does the provision of the retail tenancies based within the development.

The site is located within proximity to necessary facilities including buses, shops, education, and leisure facilities.

## 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.*

### PROPOSAL

The building has been designed to express its own identity and respond to the surrounding Newcastle landscape and direct environmental conclusions.

The 2 buildings have subtle points of difference to create a diverse neighborhood but have a common theme of design, details, and materials to create a wholistic environment. The podium links the 2 towers together with the materials of the 2 towers taken from a shared palette.

The western façade responds to the solar impact, a series of vertical wall panels. Vertical blade louvres also protect the façades from sun but allow more visibility through for western views. The buildings have 15 levels, and the lower 3 podium level apartments have integrated garden beds and larger terraces.

Materials are selected from a natural palette of quality low maintenance materials and the use of a warm palette of colours is intended to unify the building with its immediate context.





# APARTMENT DESIGN GUIDE AND COMPLIANCE TABLE

The following **Housing SEPP Apartment Design Guide Criteria** table outlines the compliance between the new DA Application AND the previously Approved Development Consent. The report is to be read in conjunction with the current Architectural Drawings.

## PROPOSED MODIFICATIONS AND CLARIFICATIONS FOR REVISED 4.55 DA APPLICATION

- Revised GFA and FSR calculations\*
- Deep Soil – refer to Landscape Consultant drawings\*
- Overshadowing Analysis\*
- Apartment Size and Layout\*
- Waste Collection and Servicing\*
- Parking Allocation\*
- Changes to Memorial Walkway design\*\*
- Changes to internal corner apartment in Tower A\*\*
- Changes to corridor length and cross ventilation\*\*

\*based on Councils RFI letter dated 6<sup>th</sup> March 2025

\*\*based on UDRP Report dated 29<sup>th</sup> January 2025

**Design Criteria:** shown in grey tone provide the measurable requirements for how an objective can be achieved.

**Design Guidance:** provides advice on how the objectives and design criteria can be achieved through appropriate design responses, or in cases where design criteria cannot be met

**N/A:** means this clause is not applicable to this application.

**Complies:** means this proposal fully complies with the adjacent clause

**Capable of compliance:** means this proposal is able to comply with the clause, but the fulfilment of such is likely to occur later in the project in future documentation and not at DA stage

**Partial compliance:** means this proposal complies with the clause in some areas but not in others, detail is then given to explain the non-compliant portion.

**Does not comply:** means this proposal does not comply with the essential parts of this clause.

<b>Objective 3A-1</b> <i>Site analysis illustrates that design decisions have been based on opportunities and constraints of the site conditions and their relationship to the surrounding context</i>	
<b>Design Guidance</b>	<b>Proposed Design</b>
<i>Each element in the Site Analysis Checklist should be addressed</i>	<b>Complies</b> See Architectural Plans DA003

<b>Objective 3B-1</b> <b>Building types and layouts respond to the streetscape and site while optimizing solar access within the development</b>	
<b>Design Guidance</b>	<b>Proposed Design</b>
<i>Buildings along the street frontage define the street, by facing it and incorporating direct access from the street (see figure 3B.1)</i>	<b>Complies</b> See Architectural Plans DA031&32
<i>Where the street frontage is to the east or west, rear buildings should be orientated to the north</i>	<b>Complies</b> See Architectural Plans DA031&32
<i>Where the street frontage is to the north or south, overshadowing to the south should be minimized and buildings behind the street frontage should be orientated to the east and west (see figure 3B.2)</i>	<b>Complies</b> See Architectural Plans DA031&32

<b>Objective 3B-2</b> <b>Building types and layouts respond to the streetscape and site while optimizing solar access within the development</b> <b>Overshadowing of neighbouring properties is minimised during mid winter</b>	
<b>Design Guidance</b>	<b>Proposed Design</b>
<i>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</i>	<b>Complies</b> See Architectural Plans DA560 & DA561

<i>Solar access to living rooms, balconies and private open spaces of neighbours should be considered</i>	<b>Complies</b> See Architectural Plans DA560 & DA561
<i>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%</i>	<b>Complies</b> See Architectural Plans DA560 & DA561
<i>If the proposal will significantly reduce the solar access of neighbours, building separation should be increased beyond minimums contained in section 3F Visual privacy</i>	<b>Complies</b> See Architectural Plans DA560 & DA561
<i>Overshadowing should be minimised to the south or down hill by increased upper level setbacks</i>	<b>Complies</b> See Architectural Plans DA560 & DA561
<i>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</i>	<b>Complies</b> See Architectural Plans DA560 & DA561
<i>A minimum of 4 hours of solar access should be retained to solar collectors on neighbouring buildings</i>	<b>Complies</b> See Architectural Plans DA560 & DA561

<b>Objective 3C-1 Public Domain Interface</b> <b>Transition between private and public domain is achieved without compromising safety and security</b>	
<b>Design Guidance</b>	<b>Proposed Design</b>
<i>Terraces, balconies and courtyard apartments should have direct street entry, where appropriate</i>	<b>N/A</b> Terraces are on upper levels Street level contains access to retail, residential lobbies and communal open space. No apartments have a direct street frontage.
<i>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)</i>	<b>Complies</b>
<i>Upper level balconies and windows should overlook the public domain</i>	<b>Complies</b>
<i>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</i>	<b>Complies</b>
<i>Length of solid walls should be limited along street frontages</i>	<b>Complies</b>
<i>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</i>	<b>Complies</b> – various design opportunities include seating, memorial and through site link
<i>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</i>	<b>Complies</b> – Plans indicate location of main entries to each building using semi-recessed and covered awning to King Street and grand stairs and entry gates to Bull Street.
<i>Opportunities for people to be concealed should be minimised</i>	<b>Complies</b>

<b>Objective 3C-2 Public Domain Interface</b> <b>Amenity of the public domain is retained and enhanced</b>	
<b>Design Guidance</b>	<b>Proposed Design</b>
<i>Planting softens the edges of any raised terraces to the street, for example above sub-basement car parking</i>	<b>Complies</b>
<i>Mail boxes should be located in lobbies, perpendicular to the street alignment or integrated into front fences where individual street entries are provided</i>	<b>Complies</b>
<i>The visual prominence of underground car park vents should be minimised and located at a low level where possible</i>	<b>Capable of compliance</b> – landscape buffers & integrated screening design have been provided to minimize any visual impacts. A low impact sculptural design is proposed with fan rooms located in a below-ground location.
<i>Substations, pump rooms, garbage storage areas and other service requirements should be located in basement car parks or out of view</i>	<b>Complies</b> Garbage and other service requirements located in basement carparks, substation concealed at ground floor
<i>Ramping for accessibility should be minimised by building entry location and setting ground floor levels in relation to footpath levels</i>	<b>Complies</b>
<i>Durable, graffiti resistant and easily cleanable materials should be used</i>	<b>Capable of compliance</b> – drawings do not extend to that level of detail. A honed finished is proposed at ground level columns along public colonnade for the first 3m in height.
<i>Where development adjoins public parks, open space or bushland, the design positively addresses this interface</i>	<b>N/A</b>

On sloping sites protrusion of car parking above ground level should be minimised by using split levels to step underground car parking	Complies
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<b>Objective 3D-1 Communal and Public Open Space</b> An adequate area of communal open space is provided to enhance residential amenity and to provide opportunities for landscaping	
<b>Design Criteria</b>	<b>Proposed Design</b>
Communal open space has a minimum area equal to 25% of the site	Complies Site Area = 6,631m <sup>2</sup> x 0.25 = 1,657.75 m <sup>2</sup> Required. 3,526m <sup>2</sup> provided – Refer DA524
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)	Complies
<b>Design Guidance</b>	
Communal open space should be consolidated into a well designed, easily identified and usable area	Complies
Communal open space should have a minimum dimension of 3m, and larger developments should consider greater dimensions	Complies
Communal open space should be co-located with deep soil areas.	Partial Compliance – communal open space is located in amongst detailed landscape zones consisting of minimum 600mm deep planter beds with areas of mounded landscaping of 600mm to 900mm to support the growth of small trees and large shrubs – Refer to Oculus Landscape Plans L001 Rev B
Direct, equitable access should be provided to communal open space areas from common circulation areas, entries and lobbies	Complies
Where communal open space cannot be provided at ground level, it should be provided on a podium or roof	Complies
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...	N/A

<b>Objective 3D-2 Communal and Public Open Space</b> Communal open space is designed to allow for a range of activities, respond to site conditions and be attractive and inviting	
<b>Design Guidance</b>	<b>Proposed Design</b>
Facilities are provided within communal open spaces and common spaces for a range of age groups incorporating some of the following elements: <ul style="list-style-type: none"> <li>Seating for individuals or groups</li> <li>Barbecue areas</li> <li>Play equipment or play areas</li> <li>Swimming pools, gyms, tennis courts or common rooms</li> </ul>	Complies – Multiple spaces both internal and external include elements to accommodate a wide range of age groups and will allow for active and passive recreational pursuits.
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	Complies – Orientation, shade and shelter devices incorporated to design of communal spaces.
Visual impacts of services should be minimised, including location of ventilation duct outlets from basement car parks, electrical substations and detention tanks	Capable of compliance – Landscape buffers & integrated screening design have been provided to minimise any visual impacts. Other services that vent from building façade have been designed to be integrated & discrete.

<b>Objective 3D-3 Communal and Public Open Space</b> Communal open space is designed to maximise safety	
<b>Design Guidance</b>	<b>Proposed Design</b>
Communal open space and the public domain should be readily visible from habitable rooms and private open space areas while maintaining visual privacy.	Complies
Communal open space should be well lit	Capable of compliance – Drawings do not extend to that level of detail. We would expect that this be included in the DA Conditions of Consent

Where communal open space/facilities are provided for children and young people they are safe and contained	<b>Complies</b> - balustrades, passive surveillance, security gates and placement of entries contribute to safety and containment
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Objective 3D-4 Communal and Public Open Space Public open space, where provided, is responsive to the existing pattern and uses of the neighborhood	
Design Guidance	Proposed Design
The public open space should be well connected with public streets along at least one edge	<b>Complies</b> – King Street and Bull Street connected via through site link
The public open space should be connected with nearby parks and other landscape elements	<b>Complies</b> – National Park No.1 Sports ground accessible approx. 250m from site, civic space located approx. 250m from site
Public open space should be linked through view lines, pedestrian desire paths, termination points and the wider street grid	<b>Complies</b> – Public open spaces can be viewed from streets directly adjacent to the site
Solar access should be provided year round along with protection from strong winds	<b>Complies</b> – Open spaces have been located in a north south orientation through the length of the site without obstructions. The buildings provide protection from strong SW, EW and NE winds, but also awnings and pergolas.
Opportunities for a range of recreational activities should be provided for people of all ages	<b>Complies</b> – Multiple spaces for multiple intended uses provided for communal use
A positive address and active frontages should be provided adjacent to public open space.	<b>Complies</b> – Retail and hospitality frontage activates King Street and communal space/recreation spaces activates Bull Street as well. Public open space directly links King Street and Bull Street.
Boundaries should be clearly defined between public open space and private areas	<b>Complies</b> – Most private areas all located above street level, the exception of a couple of apartments separated by hard and soft landscaping

Objective 3E-1 Deep Soil Zones Deep soil zones provide areas on the site that allow for and support healthy plant and tree growth.	
Design Criteria	Proposed Design
Deep soil zones are to meet the following minimum requirements:	<p><b>Partial Compliance</b> – 25% of the site area achieves large areas of soft landscaping on Level 1 Podium Communal Open Space and Roof Top Terrace Communal Open Space. Balcony planter boxes have NOT been included.</p> <p>The site achieves 6% Natural Deep Soil, 10% soil depth between 600 – 900mm – Refer to Oculus Landscape Plans L001 Rev B</p> <p>The ADG that provides that: Achieving the design criteria may not be possible on some sites including where:</p> <ul style="list-style-type: none"> <li>The location and building typology have <b>limited or no space</b> for deep soil at ground level (e.g. central business district, constrained sites, high density areas, or in centres)</li> <li>There is 100% site coverage or <b>non-residential uses</b> at ground floor level</li> </ul> <p>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</p>

Site area	Minimum dimensions	Deep soil zone (% of site area)
less than 650m <sup>2</sup>	-	7%
650m <sup>2</sup> - 1,500m <sup>2</sup>	3m	
greater than 1,500m <sup>2</sup>	6m	
greater than 1,500m <sup>2</sup> with significant existing tree cover	6m	

	<p>This is complemented by Councils DCP that does not require deep soil planting in the City Centre as per 6.01 City Centre A9.</p> <p>Landscaping:</p> <p><i>Acceptable solutions</i></p> <p>4. Residential buildings in the city centre <b>do not require</b> the provision of a deep soil zone.</p> <p>Refer to Landscape drawings.</p>
<b>Design Guidance</b>	
<p><i>Achieving the design criteria may not be possible on some sites including where:</i></p> <ul style="list-style-type: none"> <li><i>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 centers)</i></li> <li><i>There is 100% site coverage or non-residential uses at ground floor level</i></li> </ul> <p><i>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</i></p>	<p>N/A</p> <p>N/A</p>

<b>Objective 3F-1 Visual Privacy</b> Adequate building separation distances are shared equitably between neighbouring sites, to achieve reasonable levels of external and internal visual privacy			
<b>Design Criteria</b>		<b>Proposed Design</b>	
<i>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:</i>		<b>Partial Compliance</b> – The proposed building separation is generally in compliance with the requirements of the <b>Apartment Design Guide</b> (ADG), with the following 2 exceptions being sought: <ul style="list-style-type: none"><li>– a reduced setback at King Street of 4.5m for Tower B</li><li>– a reduced separation between balcony ‘tips’ between Tower A and Tower B of 20. Tower A now has sawtooth balconies introduced to match Tower B. The setback between buildings is generally 24.50m exceeding the 24m separation and it should be noted that only 16% of the balcony area is encroaching the air space. The balcony is also directed away to the view in its geometry and materiality.</li></ul> Refer to drawings DA101 to DA104 for additional setback dimensions for clarification.	
Building height	Habitable rooms and balconies		Non-habitable rooms
up to 12m (4 storeys)	6m		3m
up to 25m (5-8 storeys)	9m		4.5m
over 25m (9+ storeys)	12m	6m	

<p><b>Objective 3F-2 Visual Privacy</b></p> <p>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</p>	
<b>Design Guidance</b>	<b>Proposed Design</b>
<i>Communal open space, common areas and access paths should be separated from private open space and windows to apartments, particularly habitable room windows.</i>	<b>Complies</b> – Communal open space and private open spaces and apartments are continually separated by soft and hard landscaping and privacy screens to maintain privacy.
<i>Bedrooms, living spaces and other habitable rooms should be separated from gallery access and other open circulation space by the apartment’s service areas</i>	<b>Complies</b>
<i>Balconies and private terraces should be located in front of living rooms to increase internal privacy</i>	<b>Complies</b>
<i>Windows should be offset from the windows of adjacent buildings</i>	<b>N/A</b> – the adjacent building doesn’t affect the residential level of the proposed
<i>Recessed balconies and/or vertical fins should be used between adjacent balconies</i>	<b>Complies</b>



<b>Objective 3G-1 Pedestrian Access and Entries</b> <b>Building entries and pedestrian access connects to and addresses the public domain</b>	
Design Guidance	Proposed Design
<i>Multiple entries (including communal building entries and individual ground floor entries) should be provided to activate the street edge</i>	Complies
<i>Entry locations relate to the street and subdivision pattern and the existing pedestrian network</i>	Complies
<i>Building entries should be clearly identifiable and communal entries should be clearly distinguishable from private entries</i>	Complies
<i>Where street frontage is limited and multiple buildings are located on the site, a primary street address should be provided with clear sight lines and pathways to secondary building entries</i>	N/A – the street frontage of King Street and Bull Street is substantial

<b>Objective 3G-2 Pedestrian Access and Entries</b> <b>Access, entries and pathways are accessible and easy to identify</b>	
Design Guidance	Proposed Design
<i>Building access areas including lift lobbies, stairwells and hallways should be clearly visible from the public domain and communal spaces</i>	Complies – the proposal complies however the visibility of the lift lobbies and entrances from various points may require assistance through wayfinding signage
<i>The design of ground floors and underground car parks minimise level changes along pathways and entries</i>	Complies
<i>Steps and ramps should be integrated into the overall building and landscape design</i>	Complies
<i>For large developments 'way finding' maps should be provided to assist visitors and residents.</i>	Capable of compliance – drawings do not extend to that level of detail. Details would be included in the Construction Certificate Phase of the Development and / or expected to be included in the DA Conditions of Consent
<i>For large developments electronic access and audio/video intercom should be provided to manage access</i>	Capable of compliance – drawings do not extend to that level of detail. Details would be included in the Construction Certificate Phase of the Development and / or expected to be included in the DA Conditions of Consent

<b>Objective 3G-3 Pedestrian Access and Entries</b> <b>Large sites provide pedestrian links for access to streets and connection to destinations</b>	
Design Guidance	Proposed Design
<i>Pedestrian links through sites facilitate direct connections to open space, main streets, centres and public transport</i>	Complies
<i>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</i>	Complies

<b>Objective 3H-1 Vehicle access</b> <b>Vehicle access points are designed and located to achieve safety, minimise conflicts between pedestrians and vehicles and create high quality streetscapes</b>	
Design Guidance	Proposed Design
<i>Car park access should be integrated with the building's overall facade.</i>	Complies
<i>Car park entries should be located behind the building line</i>	Complies
<i>Vehicle entries should be located at the lowest point of the site minimising ramp lengths, excavation and impacts on the building form and layout</i>	Complies
<i>Car park entry and access should be located on secondary streets or lanes where available</i>	Complies – Drop off/pick up zones accessible King Street and Bull Street
<i>Vehicle standing areas that increase driveway width and encroach into setbacks should be avoided</i>	Complies
<i>Access point locations should avoid headlight glare to habitable rooms</i>	Complies
<i>Adequate separation distances should be provided between vehicle entries and street intersections</i>	Complies

<i>The width and number of vehicle access points should be limited to the minimum</i>	<b>Complies</b> – minimised to one lane in and one lane out
<i>Visual impact of long driveways should be minimised through changing alignments and screen planting</i>	<b>N/A</b>
<i>The need for large vehicles to enter or turn around within the site should be avoided</i>	<b>Complies</b> – Waste collection is via Bull Street. There is no requirement for large vehicles to enter the basement car park.
<i>Garbage collection, loading and servicing areas are screened</i>	<b>Complies</b> – Waste collection is via Bull Street. Storage and servicing areas are located in the ground floor carpark. Waste collection will be managed, and bins will be kept in an enclosed bin holding room off Bull Street.
<i>Clear sight lines should be provided at pedestrian and vehicle crossings</i>	<b>Complies</b>
<i>Traffic calming devices such as changes in paving material or textures should be used where appropriate</i>	<b>Capable of compliance</b> – drawings do not extend to that level of detail. Details would be included in the Construction Certificate Phase of the Development and / or expected to be included in the DA Conditions of Consent
<i>Pedestrian and vehicle access should be separated and distinguishable.</i>	<b>Complies</b>

<b>Objective 3J-1 Bicycle and Car Parking</b> Car parking is provided based on proximity to public transport in metropolitan Sydney and centres in regional areas	
<b>Design Criteria</b>	<b>Proposed Design</b>
<i>For development on land zoned, and sites within 400 metres of land zoned, B3 Commercial Core, B4 Mixed Use or equivalent in a nominated regional centre the minimum car parking requirement for residents and visitors is set out in the Guide to Traffic Generating Developments, or the car parking requirement prescribed by the relevant council, whichever is less The car parking needs for a development must be provided off street</i>	<b>Complies</b> – Refer to Traffic Report accompanying this DA Application.
<i>Where a car share scheme operates locally, provide car share parking spaces within the development. Car share spaces, when provided, should be on site</i>	<b>Capable of compliance</b> – Space is available if such a scheme is required.
<i>Where less car parking is provided in a development, council should not provide on street resident parking permits</i>	<b>N/A</b>

<b>Objective 3J-2 Bicycle and Car Parking</b> Parking and facilities are provided for other modes of transport	
<b>Design Guidance</b>	<b>Proposed Design</b>
<i>Conveniently located and sufficient numbers of parking spaces should be provided for motorbikes and scooters</i>	<b>Complies</b> – Refer to Traffic Report accompanying this DA Application.
<i>Secure undercover bicycle parking should be provided that is easily accessible from both the public domain and common areas</i>	<b>Complies</b> – Refer to Traffic Report accompanying this DA Application.
<i>Conveniently located charging stations are provided for electric vehicles, where desirable</i>	<b>Complies</b> – Ground Floor Parking will be provided with EV charging points and Basements 1, 2 and Level 1 will also be fitted with the provision of future EV points with all EV outlets being metered to each relevant apartment. Details would be included in the Construction Certificate Phase of the Development

<b>Objective 3J-3 Bicycle and Car Parking</b> Car park design and access is safe and secure	
<b>Design Guidance</b>	<b>Proposed Design</b>
<i>Supporting facilities within car parks, including garbage, plant and switch rooms, storage areas and car wash bays can be accessed without crossing car parking spaces</i>	<b>Complies</b>
<i>Direct, clearly visible, and well-lit access should be provided into common circulation areas</i>	<b>Capable of compliance</b> – Drawings do not extend to that level of detail, as the lighting plan has yet to be finalised
<i>A clearly defined and visible lobby or waiting area should be provided to lifts and stairs</i>	<b>Complies</b>

<i>For larger car parks, safe pedestrian access should be clearly defined, and circulation areas have good lighting, colour, line marking and/or bollards</i>	<b>Capable of compliance</b> – Drawings do not extend to that level of detail, as the lighting plan has yet to be finalized. Details would be included in the Construction Certificate Phase of the Development and / or expected to be included in the DA Conditions of Consent
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<b>Objective 3J-4 Bicycle and Car Parking</b> <b>Visual and environmental impacts of underground car parking are minimised</b>	
<b>Design Guidance</b>	<b>Proposed Design</b>
<i>Excavation should be minimised through efficient car park layouts and ramp design</i>	<b>Partial Compliance</b> – Excavation is required for Basement 1 & 2, and part of Ground Floor. The car parking layout has been designed to ensure that aisles serve multiple rows of parking spaces and other uses to ensure efficiency and thus minimizing excavation. <b>A small amount of parking is also located on Level 1 to minimise excavation.</b>
<i>Car parking layout should be well organised, using a logical, efficient structural grid and double loaded aisles.</i>	<b>Capable of compliance</b> – As provided in the intersect Traffic Impact Assessment, the car parking arrangements are Capable of compliance with AS2890.1 – parking Facilities
<i>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</i>	<b>Partial Compliance</b> – Slope of land on site allows carparking to be located behind the retail frontage on King Street and not visible from Bull Street
<i>Natural ventilation should be provided to basement and sub basement car parking areas</i>	<b>Capable of compliance</b> – Drawings do not extend to that level of detail
<i>Ventilation grills or screening devices for car parking openings should be integrated into the facade and landscape design</i>	<b>Capable of compliance</b> – Drawings do not extend to that level of detail

<b>Objective 3J-5 Bicycle and Car Parking</b> <b>Visual and environmental impacts of on-grade car parking are minimised</b>	
<b>Design Guidance</b>	<b>Proposed Design</b>
<i>On-grade car parking should be avoided</i>	<b>Complies</b>
<i>Where on-grade car parking is unavoidable, the following design solutions are used:...</i>	<b>N/A</b>

<b>Objective 3J-6 Bicycle and Car Parking</b> <b>Visual and environmental impacts of above ground enclosed car parking are minimised</b>	
<b>Design Guidance</b>	<b>Proposed Design</b>
<i>Exposed parking should not be located along primary street frontages</i>	<b>N/A</b>
<i>Screening, landscaping and other design elements including public art should be used to integrate the above ground car parking with the facade:...</i>	<b>N/A</b>
<i>Positive street address and active frontages should be provided at ground level</i>	<b>Complies</b>

<b>Objective 4A-1 Solar and daylight access</b> <b>To optimise the number of apartments receiving sunlight to habitable rooms, primary windows and private open space</b>	
<b>Design Criteria</b>	<b>Proposed Design</b>
<i>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.</i>	<p><b>Partial Compliance</b> – Tower A achieves 71% of apartments with &gt;2 hours solar access, 1% &lt;2 hours solar access and 28% with no direct solar access. Tower B achieves 68% of apartments with &gt; 2 hours solar access, 26% &lt;2 hours solar access and 7% with no direct solar access.</p> <p>The total Solar calculation: 69% &gt;2 hours, 14% &lt;2 hours and 17% no direct solar access is a positive result.</p>

<i>In all other areas, living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of 3 hours direct sunlight between 9 am and 3 pm at mid-winter.</i>	<b>Partial Compliance</b> - The development does however have a minor non-compliance with Tower A south-east corner apartment and Tower B south-west corner apartment not receiving direct solar access.
<i>A maximum of 15% of apartments in a building receive no direct sunlight between 9 am and 3 pm at mid-winter.</i>	<b>Does not comply</b> - 17% receive no direct sunlight between 9 am and 3 pm at mid-winter
<b>Design Guidance</b>	<b>Proposed Design</b>
<i>The design maximises north aspect and the number of single aspect south facing apartments is minimised</i>	<b>Partial Compliance</b> – The residential tower shape and orientation north south to maximise the northern aspect, has only one out of four facade facing south.
<i>Single aspect, single storey apartments should have a northerly or easterly aspect</i>	<b>Partial Compliance</b> – Out of the 281 single aspect apartments, 184 Apartments have a northerly or easterly aspect. 91 apartments have a Southerly or Westerly aspect.
<i>Living areas are best located to the north and service areas to the south and west of apartments</i>	Where possible, living areas are located to the north and service areas to the south and west of apartments
<i>To optimise the direct sunlight to habitable rooms and balconies a number of the following design features are used</i> <ul style="list-style-type: none"> <li>• dual aspect apartments</li> <li>• shallow apartment layouts</li> <li>• two storey and mezzanine level apartments</li> <li>• bay windows</li> </ul>	<b>Complies</b>
<i>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</i>	<b>Complies</b>
<i>Achieving the design criteria may not be possible on some sites.</i>	<b>Note</b> - Regarding the solar access the design development process has sought to maximize the number of units with northerly or easterly aspect. Whilst a percentage of units face south, this is felt appropriate to ensure the development presents appropriately to Bull Street, situated to the south of the site. Additionally, those residential units with southerly aspect will benefit from district views and at upper levels will include views of iconic surf beach Merewether.

<b>Objective 4A-2 Solar and daylight access</b> <b>Daylight access is maximised where sunlight is limited</b>	
<b>Design Guidance</b>	<b>Proposed Design</b>
<i>Courtyards, skylights and high level windows (with sills of 1500mm or greater) are used only as a secondary light source in habitable rooms</i>	<b>Complies</b> - Habitable rooms all have glazing with sill heights lower than 1500mm.
<i>Where courtyards are used :</i>	<b>N/A</b>
<i>Opportunities for reflected light into apartments are optimised through:</i> <ul style="list-style-type: none"> <li>• reflective exterior surfaces on buildings opposite south facing windows</li> <li>• positioning windows to face other buildings or surfaces (on neighbouring sites or within the site) that will reflect light</li> <li>• integrating light shelves into the design</li> <li>• light coloured internal finishes</li> </ul>	<b>Capable of compliance</b> – drawings do not extend to that level of detail

<b>Objective 4A-3 Solar and daylight access</b> <b>Design incorporates shading and glare control, particularly for warmer months</b>	
<b>Design Guidance</b>	<b>Proposed Design</b>
<i>A number of the following design features are used:</i> <ul style="list-style-type: none"> <li>• balconies or sun shading that extend far enough to shade summer sun, but allow winter sun to penetrate living areas</li> <li>• shading devices such as eaves, awnings, balconies, pergolas, external louvres and planting</li> <li>• horizontal shading to north facing windows</li> <li>• vertical shading to east and particularly west facing windows</li> <li>• operable shading to allow adjustment and choice</li> </ul>	<b>Complies</b> Note: Glass specifications yet to be determined

<ul style="list-style-type: none"> <li>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)</li> </ul>	
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Objective 4B-1 Natural Ventilation All habitable rooms are naturally ventilated	
Design Guidance	Proposed Design
The building's orientation maximises capture and use of prevailing breezes for natural ventilation in habitable rooms	Complies
Depths of habitable rooms support natural ventilation	Complies
The area of unobstructed window openings should be equal to at least 5% of the floor area served	Capable of compliance – drawings do not extend to that level of detail
Light wells are not the primary air source for habitable rooms	Complies
Doors and openable windows maximise natural ventilation opportunities	Complies – Balconies and winter garden doors maximise natural ventilation opportunities.
Objective 4B-2 Natural Ventilation The layout and design of single aspect apartments maximises natural ventilation	
Design Guidance	Proposed Design
Apartment depths are limited to maximise ventilation and airflow	Complies
Natural ventilation to single aspect apartments is achieved with the following design solutions: 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	Complies

Objective 4B-3 Natural Ventilation The number of apartments with natural cross ventilation is maximised to create a comfortable indoor environment for residents	
Design Criteria	Proposed Design
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.	Complies – 57% (101 out of 178 apartments from level 1 – 9) are naturally cross – ventilated. Tower A achieves 50% naturally ventilated and Tower B achieves 63% naturally ventilated apartments.
Overall depth of a cross-over or cross-through apartment does not exceed 18m, measured glass line to glass line	Complies
The building should include dual aspect apartments, cross through apartments and corner apartments and limit apartment depths	Complies
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)	N/A
Apartments are designed to minimise the number of corners, doors and rooms that might obstruct airflow	Complies – Fairly open apartment design
Apartment depths, combined with appropriate ceiling heights, maximise cross ventilation and airflow	Complies

Objective 4C-1 Ceiling Heights Ceiling height achieves sufficient natural ventilation and daylight access													
Design Criteria	Proposed Design												
Measured from finished floor level to finished ceiling level, minimum ceiling heights are:	Complies – Habitable Rooms Complies – Non-habitable Rooms N/A – (No two storey apartments) N/A – (No Attic spaces) Partial Compliance – The Ground Floor of Tower A achieves a 2.7m to 3.3m Floor to Ceiling height allowing for a 500mm services zone over and the remaining residential levels of Tower A achieves 3.2m floor to floor = 2.7m Floor to Ceiling.  Similarly, the Ground Floor of Tower B retail area achieves a 2.7m to 3.0m Floor to Ceiling height allowing for a 500mm services zone over and the remaining residential levels of Tower B												
<table border="1"> <thead> <tr> <th colspan="2">Minimum ceiling height for apartment and mixed use buildings</th></tr> </thead> <tbody> <tr> <td>Habitable rooms</td><td>2.7m</td></tr> <tr> <td>Non-habitable</td><td>2.4m</td></tr> <tr> <td>For 2 storey apartments</td><td>2.7m for main living area floor 2.4m for second floor, where its area does not exceed 50% of the apartment area</td></tr> <tr> <td>Attic spaces</td><td>1.8m at edge of room with a 30 degree minimum ceiling slope</td></tr> <tr> <td>If located in mixed used areas</td><td>3.3m for ground and first floor to promote future flexibility of use</td></tr> </tbody> </table>	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 degree minimum ceiling slope	If located in mixed used areas	3.3m for ground and first floor to promote future flexibility of use	
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If located in mixed used areas	3.3m for ground and first floor to promote future flexibility of use												



	<p>achieves 3.2m floor to floor = 2.7m Floor to Ceiling.</p> <p>It should be noted that additional areas can achieve 3.3m in zones that do not have any services above.</p>
<b>Design Guidance</b>	
<i>Ceiling height can accommodate use of ceiling fans for cooling and heat distribution</i>	<b>Complies</b> – All apartments meet the minimum 2.7m ceiling height, and can therefore accommodate ceiling fans.

<b>Objective 4C-2 Ceiling Heights</b> Ceiling height increases the sense of space in apartments and provides for well-proportioned rooms	
<b>Design Guidance</b>	<b>Proposed Design</b>
<i>A number of the following design solutions can be used:</i>	<b>Complies</b> – 3.2m floor to floor distances will allow flexibility in ceiling heights.

<b>Objective 4C-3 Ceiling Heights</b> Ceiling height increases the sense of space in apartments and provides for well-proportioned rooms	
<b>Design Guidance</b>	<b>Proposed Design</b>
<i>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</i>	<b>Partial Compliance</b> – Proposed ceiling heights are as follows: <ul style="list-style-type: none"> <li>Tower A = 2.7 m</li> <li>Tower B = 2.7 m</li> </ul>

<b>Objective 4D-1 Apartment Size and Layout</b> The layout of rooms within an apartment is functional, well organised and provides a high standard of amenity											
<b>Design Criteria</b>	<b>Proposed Design</b>										
<p><i>Apartments are required to have the following minimum internal areas:</i></p> <table border="1"> <thead> <tr> <th>Apartment type</th><th>Minimum internal area</th></tr> </thead> <tbody> <tr> <td>Studio</td><td>35m<sup>2</sup></td></tr> <tr> <td>1 bedroom</td><td>50m<sup>2</sup></td></tr> <tr> <td>2 bedroom</td><td>70m<sup>2</sup></td></tr> <tr> <td>3 bedroom</td><td>90m<sup>2</sup></td></tr> </tbody> </table> <p><i>The minimum internal areas include only one bathroom. Additional bathrooms increase the minimum internal area by 5m<sup>2</sup> each. A fourth bedroom and further additional bedrooms increase the minimum internal area by 12m<sup>2</sup> each</i></p> <p><i>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</i></p>	Apartment type	Minimum internal area	Studio	35m <sup>2</sup>	1 bedroom	50m <sup>2</sup>	2 bedroom	70m <sup>2</sup>	3 bedroom	90m <sup>2</sup>	<p>N/A</p> <p><b>Complies</b></p> <p><b>Complies</b></p> <p><b>Complies</b></p>
Apartment type	Minimum internal area										
Studio	35m <sup>2</sup>										
1 bedroom	50m <sup>2</sup>										
2 bedroom	70m <sup>2</sup>										
3 bedroom	90m <sup>2</sup>										
<b>Design Guidance</b>											
<i>Kitchens should not be located as part of the main circulation space in larger apartments (such as hallway or entry space)</i>	<b>Complies</b>										
<i>A window should be visible from any point in a habitable room</i>	<b>Complies</b>										
<i>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</i>	N/A										

<b>Objective 4D-2 Apartment Size and Layout</b> Environmental performance of the apartment is maximised	
<b>Design Criteria</b>	<b>Proposed Design</b>
<i>Habitable room depths are limited to a maximum of 2.5 x the ceiling height.</i>	<b>Complies</b>

<i>In open plan layouts (where the living, dining and kitchen are combined) the maximum habitable room depth is 8m from a window.</i>	<b>Complies</b>
<b>Design Guidance</b>	
<i>Greater than minimum ceiling heights can allow for proportional increases in room depth up to the permitted maximum depths</i>	<b>N/A</b> – (no proportional increase in room depth proposed)
<i>All living areas and bedrooms should be located on the external face of the building</i>	<b>Complies</b> – Glass façade and recessed balconies allows all habitable rooms to be located on the external face of the building
<i>Where possible:</i> <ul style="list-style-type: none"> <li><i>bathrooms and laundries should have an external openable window</i></li> <li><i>main living spaces should be oriented toward the primary outlook and aspect and away from noise sources</i></li> </ul>	<b>Complies</b> – Where possible  <b>Partial Compliance</b> – Where appropriate double glazing is proposed to mitigate noise impacts generated from the surrounding urban environment. The site offers 360-degree outlooks, with North, East, partial West views towards the harbor, light rail and TAFE, southern views to Pacific Ocean and the sportsground.

<b>Objective 4D-3 Apartment Size and Layout</b>	
<b>Apartment layouts are designed to accommodate a variety of household activities and needs</b>	
<b>Design Criteria</b>	<b>Proposed Design</b>
<i>Master bedrooms have a minimum area of 10m<sup>2</sup> and other bedrooms 9m<sup>2</sup> (excluding wardrobe space)</i>	<b>Complies</b>
<i>Bedrooms have a minimum dimension of 3m (excluding wardrobe space)</i>	<b>Complies</b>
<i>Living rooms or combined living/dining rooms have a minimum width of:</i> <ul style="list-style-type: none"> <li><i>3.6m for studio and 1 bedroom apartments</i></li> <li><i>4m for 2 and 3 bedroom apartments</i></li> </ul>	<b>Complies</b>
<i>The width of cross-over or cross-through apartments are at least 4m internally to avoid deep narrow apartment layouts</i>	<b>N/A</b>
<b>Design Guidance</b>	
<i>Access to bedrooms, bathrooms and laundries is separated from living areas minimising direct openings between living and service areas</i>	<b>Complies</b>
<i>All bedrooms allow a minimum length of 1.5m for robes</i>	<b>Complies</b>
<i>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</i>	
<i>Apartment layouts allow flexibility over time:</i> <ul style="list-style-type: none"> <li><i>Dimensions that facilitate a variety of furniture arrangements and removal</i></li> <li><i>Spaces for a range of activities and privacy levels between different spaces within the apartment</i></li> </ul>	<b>Complies</b>

Objective 4E-1 Private open space and balconies																	
Apartments provide appropriately sized private open space and balconies to enhance residential amenity																	
Design Design Criteria		Proposed Design															
<p><i>All apartments are required to have primary balconies as follows:</i></p> <table><tr><th>Dwelling type</th><th>Minimum area</th><th>Minimum depth</th></tr><tr><td>Studio apartments</td><td>4m<sup>2</sup></td><td>-</td></tr><tr><td>1 bedroom apartments</td><td>8m<sup>2</sup></td><td>2m</td></tr><tr><td>2 bedroom apartments</td><td>10m<sup>2</sup></td><td>2m</td></tr><tr><td>3+ bedroom apartments</td><td>12m<sup>2</sup></td><td>2.4m</td></tr></table> <p><i>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.</i></p>		Dwelling type	Minimum area	Minimum depth	Studio apartments	4m <sup>2</sup>	-	1 bedroom apartments	8m <sup>2</sup>	2m	2 bedroom apartments	10m <sup>2</sup>	2m	3+ bedroom apartments	12m <sup>2</sup>	2.4m	<p>N/A</p> <p>Complies</p> <p>Complies</p> <p>Complies</p> <p>Partial Compliance – 12 of the 17 ground level and podium apartments comply with the min balcony space, the minor shortfall has been offset by the increased area</p>
Dwelling type	Minimum area	Minimum depth															
Studio apartments	4m <sup>2</sup>	-															
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3+ bedroom apartments	12m <sup>2</sup>	2.4m															
Design Guidance																	
<p><i>Increased communal open space should be provided where the number or size of balconies are reduced</i></p>		<p>Complies – 40% of communal open space has been provided (Minimum is 25%)</p>															

Storage areas on balconies is additional to the minimum balcony size	N/A
<p>Balcony use may be limited in some proposals by:</p> <ul style="list-style-type: none"> <li>consistently high wind speeds at 10 storeys and above</li> <li>close proximity to road, rail or other noise sources</li> <li>exposure to significant levels of aircraft noise</li> <li>heritage and adaptive reuse of existing buildings</li> </ul> <p>In these situations, Juliet balconies, operable walls, enclosed winter gardens 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.</p> <p>Natural ventilation also needs to be demonstrated</p>	<p>N/A – No apartments have been designed without a balcony.</p> <p>Complies – See DA 514, 515 &amp; 516</p>

<b>Objective 4E-2 Private open space and balconies</b> <b>Primary private open space and balconies are appropriately located to enhance liveability for residents</b>	
<b>Design Guidance</b>	<b>Proposed Design</b>
Primary open space and balconies should be located adjacent to the living room, dining room or kitchen to extend the living space	Complies
Private open spaces and balconies predominantly face north, east or west	Complies
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.	Complies

<b>Objective 4E-3 Private open space and balconies</b> <b>Private open space and balcony design is integrated into and contributes to the overall architectural form and detail of the building</b>	
<b>Design Guidance</b>	<b>Proposed Design</b>
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	Complies
Full width full height glass balustrades alone are generally not desirable	Complies – The building has a mix of half and full height glass balustrades. Full height glass balustrades are located in areas where privacy is not an issue and are short in length.
Projecting balconies should be integrated into the building design and the design of soffits considered	Complies
Operable screens, shutters, hoods and pergolas are used to control sunlight and wind	Complies
Balustrades are set back from the building or balcony edge where overlooking or safety is an issue	Complies
Downpipes and balcony drainage are integrated with the overall facade and building design	Capable of compliance – drawings and consultant information do not extend to that level of detail however consideration has been given to specials to accommodate for CC
Air-conditioning units should be located on roofs, in basements, or fully integrated into the building design	Complies – Tower A and B has A/C condensers located & fully screened from view on the balconies. The area for the condenser is not included in balcony floor area. The A/C units are fully integrated.
Where clothes drying, storage or air conditioning units are located on balconies, they should be screened and integrated in the building design	Capable of compliance – drawings do not extend to that level of detail
Ceilings of apartments below terraces should be insulated to avoid heat loss	Complies - insulation requirement noted in BASIX documents
Water and gas outlets should be provided for primary balconies and private open space	Capable of compliance – drawings do not extend to that level of detail Details would be included in the Construction Certificate Phase of the Development

<b>Objective 4E-4 Private open space and balconies</b>
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Private open space and balcony design maximises safety	
Design Guidance	Proposed Design
<i>Changes in ground levels or landscaping are minimised</i>	<b>Complies</b> – landscaping typically on street frontage and flat podium levels, except through the memorial site link from King Street and Bull Street where there is a level change, and common area between the two buildings
<i>Design and detailing of balconies avoids opportunities for climbing and falls</i>	<b>Capable of compliance</b> – drawings do not extend to that level of detail however standards will be met with compliant heights of non climbable balustrades being specified. Details would be included in the Construction Certificate Phase of the Development
Objective 4F-1 Common circulation and spaces Common circulation spaces achieve good amenity and properly service the number of apartments	
Design Criteria	Proposed Design
<i>The maximum number of apartments off a circulation core on a single level is eight.</i>	<b>Complies</b>
<i>For buildings of 10 storeys and over, the maximum number of apartments sharing a single lift is 40</i>	<b>Complies</b> – In design development consultation with lift service providers, showed that the number of lifts, speed and size, adequately serve the number of apartments proposed.
Design Guidance	
<i>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</i>	<b>Complies</b> Corridor Widths below: Tower A = 2.0m and 2.5m at the lift lobby Tower B = 1.8m and 2.3m at the lift lobby
<i>Daylight and natural ventilation should be provided to all common circulation spaces that are above ground</i>	<b>Capable of compliance</b> – drawings do not extend to that level of detail
<i>Windows should be provided in common circulation spaces and should be adjacent to the stair or lift core or at the ends of corridors</i>	<b>Complies</b> - at least one window opening at the end of corridor and lift core
<i>Longer corridors greater than 12m in length from the lift core should be articulated.</i>	<b>Complies</b> – Western Tower Corridors longer than 12m are articulated with increased corridor width in front of lifts and at least one window opening <b>Partial Compliance</b> – Eastern Tower Corridors are longer than 12m with minimal articulation, doors are recessed at end.
<i>Design common circulation spaces to maximise opportunities for dual aspect apartments, including multiple core apartment buildings and cross over apartments</i>	<b>N/A</b>
<i>Achieving the design criteria for the number of apartments off a circulation core may not be possible. Where a development is unable to achieve the design criteria, a high level of amenity for common lobbies, corridors and apartments should be demonstrated</i>	<b>Complies</b> - Corridors longer than 12m are articulated with recessed apartment door entries, increased corridor width and at least one window opening, furniture with seating options can be provided in lift lobbies, generous entry lobby with lounge area for seating and gathering, flexible space for meetings, as well as roof terrace with pool, bbq, seating and gathering amenity.
<i>Where design criteria 1 is not achieved, no more than 12 apartments should be provided off a circulation core on a single level</i>	<b>Complies</b>
<i>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</i>	<b>Complies</b>

Objective 4F-2 Common circulation and spaces Common circulation spaces promote safety and provide for social interaction between residents	
Design Guidance	Proposed Design
<i>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</i>	<b>Partial Compliance</b> – corridors are direct, legible and straight, recessed apartment door entry create increased widths of corridors
<i>Tight corners and spaces are avoided</i>	<b>Complies</b>

<i>Circulation spaces should be well lit at night</i>	<b>Capable of compliance</b> – drawings do not extend to that level of detail Details would be included in the Construction Certificate Phase of the Development
<i>Legible signage should be provided for apartment numbers, common areas and general wayfinding.</i>	<b>Capable of compliance</b> – drawings do not extend to that level of detail Details would be included in the Construction Certificate Phase of the Development
<i>Incidental spaces, for example space for seating in a corridor, at a stair landing, or near a window are provided</i>	<b>Complies</b> – Corridor are designed to include furniture, offer natural light and have recessed door entries to apartments.
<i>In larger developments, community rooms for activities such as owners corporation meetings or resident use should be provided and are ideally co-located with communal open space</i>	<b>Complies</b> – A number of communal spaces in the buildings can be adapted for this use.
<i>Where external galleries are provided, they are more open than closed above the balustrade along their length</i>	N/A

<b>Objective 4G-1 Storage</b> <b>Adequate, well designed storage is provided in each apartment</b>											
<b>Design Criteria</b>	<b>Proposed Design</b>										
<i>In addition to storage in kitchens, bathrooms and bedrooms, the following storage is provided:</i> <table border="1" data-bbox="145 819 590 1021"> <thead> <tr> <th>Dwelling type</th><th>Storage size volume</th></tr> </thead> <tbody> <tr> <td>Studio apartments</td><td>4m<sup>3</sup></td></tr> <tr> <td>1 bedroom apartments</td><td>6m<sup>3</sup></td></tr> <tr> <td>2 bedroom apartments</td><td>8m<sup>3</sup></td></tr> <tr> <td>3+ bedroom apartments</td><td>10m<sup>3</sup></td></tr> </tbody> </table>	Dwelling type	Storage size volume	Studio apartments	4m <sup>3</sup>	1 bedroom apartments	6m <sup>3</sup>	2 bedroom apartments	8m <sup>3</sup>	3+ bedroom apartments	10m <sup>3</sup>	<b>Complies</b> – At least 50% of required storage areas are provided in each apartment, refer to DA121 to DA170. The remaining area is provided in basement areas, refer DA098, DA099 and DA100 See DA550 to DA556 for storage breakdown.
Dwelling type	Storage size volume										
Studio apartments	4m <sup>3</sup>										
1 bedroom apartments	6m <sup>3</sup>										
2 bedroom apartments	8m <sup>3</sup>										
3+ bedroom apartments	10m <sup>3</sup>										
<i>At least 50% of the required storage is to be located within the apartment.</i>											
<b>Design Guidance</b>											
<i>Storage is accessible from either circulation or living areas</i>	<b>Complies</b>										
<i>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</i>	N/A										
<i>Left over space such as under stairs is used for storage</i>	N/A										

<b>Objective 4G-2 Storage</b> <b>Additional storage is conveniently located, accessible and nominated for individual apartments</b>	
<b>Design Guidance</b>	<b>Proposed Design</b>
<i>Storage not located in apartments is secure and clearly allocated to specific apartments</i>	<b>Capable of compliance</b> – Storage is located securely in the basement. Allocation of storage units is not detailed in the drawings and would occur on preparation of strata plans.
<i>Storage is provided for larger and less frequently accessed items</i>	<b>Complies</b> – e.g. Christmas tree, suitcases.
<i>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</i>	<b>Complies</b>
<i>If communal storage rooms are provided they should be accessible from common circulation areas of the building</i>	N/A
<i>Storage not located in an apartment is integrated into the overall building design and is not visible from the public domain</i>	<b>Complies</b>

<b>Objective 4H-1 Acoustic Privacy</b> <b>Noise transfer is minimised through the siting of buildings and building layout</b>	
<b>Design Guidance</b>	<b>Proposed Design</b>
<i>Adequate building separation is provided within the development and from neighboring buildings/adjacent uses</i>	<b>Complies</b>
<i>Window and door openings are generally orientated away from noise sources</i>	<b>Partial Compliance</b> – main noise sources of King Street, Bull Street and the Wests Club surround the site, however windows and balcony doors have been orientated towards



	sun. to maximise solar access, where appropriate, double glazing may be proposed to ensure internal amenity is not compromised, if detailed in the Acoustic Report
Noisy areas within buildings including building entries and corridors should be located next to or above each other and quieter areas next to or above quieter areas	Complies
Storage, circulation areas and non-habitable rooms should be located to buffer noise from external sources	<b>Partial Compliance</b> – main noise sources of King Street, Bull Street and the Wests Club surround the site, however Storage and circulation spaces have been located to produce an efficient design and allow habitable rooms to access light and air. Where appropriate, double glazing is proposed to ensure internal amenity is not compromised. Further detail on the location of double glazing may be proposed to ensure internal amenity is not compromised, if detailed in the Acoustic Report and façade design.
The number of party walls (walls shared with other apartments) are limited and are appropriately insulated	Complies - Insulation
Noise sources such as garage doors, driveways, service areas, plant rooms, building services, mechanical equipment, active communal open spaces and circulation areas should be located at least 3m away from bedrooms	Complies However, one apartment on level 1 is located adjacent to the pool area without 3m distance to the bedroom. Blade wall and landscape screening has been proposed for this area.

<b>Objective 4H-2 Acoustic Privacy</b> Noise impacts are mitigated within apartments through layout and acoustic treatments	
<b>Design Guidance</b>	<b>Proposed Design</b>
Internal apartment layout separates noisy spaces from quiet spaces	Complies
Where physical separation cannot be achieved noise conflicts are resolved	<b>Capable of compliance</b> – drawings do not extend to that level of detail. Refer to the Acoustic Report for recommended acoustic specifications.

<b>Objective 4J-1 Noise and Pollution</b> In noisy or hostile environments the impacts of external noise and pollution are minimised through the careful siting and layout of buildings	
<b>Design Guidance</b>	<b>Proposed Design</b>
To minimise impacts the following design solutions may be used <ul style="list-style-type: none"> <li>• non-residential uses are located at lower levels vertically separating the residential component from the noise or pollution source.</li> <li>• buildings should respond to both solar access and noise.</li> <li>• where solar access is in the same direction as the noise source, dual aspect apartments with shallow building depths are preferable</li> <li>• landscape design reduces the perception of noise and acts as a filter for air pollution generated by traffic and industry</li> </ul>	<b>Complies</b> – Retail and carparking occupy the lowest levels of the building  <b>Complies</b> <b>Complies</b>  <b>Complies</b> – Design intent for landscaping around the building, on terraces, balcony planters and podium roof.  <b>Capable of compliance</b>
Achieving the design criteria in this Apartment Design Guide may not be possible in some situations due to noise and pollution. Where developments are unable to achieve the design criteria, alternatives may be considered in the following areas: <ul style="list-style-type: none"> <li>• solar and daylight access</li> <li>• private open space and balconies</li> <li>• natural cross ventilation</li> </ul>	

<b>Objective 4J-2 Noise and Pollution</b> Appropriate noise shielding or attenuation techniques for the building design, construction and choice of materials are used to mitigate noise transmission	
<b>Design Guidance</b>	<b>Proposed Design</b>
Design solutions to mitigate noise include: <ul style="list-style-type: none"> <li>• limiting the number and size of openings facing noise sources</li> <li>• providing seals to prevent noise transfer through gaps</li> </ul>	<b>Complies</b> – Refer to the Acoustic Engineers Assessment for recommended acoustic specifications.



<ul style="list-style-type: none"> <li>• using double or acoustic glazing, acoustic louvres or enclosed balconies (winter gardens)</li> <li>• using materials with mass and/or sound insulation or absorption properties e.g. solid balcony balustrades, external screens and soffits</li> </ul>	
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<b>Objective 4K-1 Apartment Mix</b> <b>A range of apartment types and sizes is provided to cater for different household types now and into the future</b>	
<b>Design Guidance</b>	<b>Proposed Design</b>
<i>A variety of apartment types is provided</i>	<a href="#">Complies</a>
<i>The apartment mix is appropriate, taking into consideration:</i> <ul style="list-style-type: none"> <li>• the distance to public transport, employment and education centres</li> <li>• the current market demands and projected future demographic trends</li> <li>• the demand for social and affordable housing</li> <li>• different cultural and socioeconomic groups</li> </ul>	<a href="#">Complies</a>
<i>Flexible apartment configurations are provided to support diverse household types and stages of life including single person households, families, multi-generational families and group households</i>	<a href="#">Complies</a>

<b>Objective 4K-2 Apartment Mix</b> <b>The apartment mix is distributed to suitable locations within the building</b>	
<b>Design Guidance</b>	<b>Proposed Design</b>
<i>Different apartment types are located to achieve successful facade composition and to optimise solar access</i>	<a href="#">Complies</a>
<i>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</i>	<a href="#">Complies</a>

<b>Objective 4L-1 Ground Floor Apartments</b> <b>Street frontage activity is maximised where ground floor apartments are located</b>	
<b>Design Guidance</b>	<b>Proposed Design</b>
<i>Direct street access should be provided to ground floor apartments</i>	N/A
<i>Activity is achieved through front gardens, terraces and the facade of the building</i>	<a href="#">Complies</a>
<i>Retail or home office spaces should be located along street frontages</i>	<a href="#">Complies</a>
<i>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</i>	N/A – Retail and Commercial offerings already provided on King St and higher floor ceiling heights have been used for the communal areas on ground floor in Building A facing Bull Street.

<b>Objective 4L-2 Ground Floor Apartments</b> <b>Design of ground floor apartments delivers amenity and safety for residents</b>	
<b>Design Guidance</b>	<b>Proposed Design</b>
<i>Privacy and safety should be provided without obstructing casual surveillance.</i>	<a href="#">Complies</a>
<i>Solar access should be maximised</i>	<a href="#">Complies</a> Refer comments in 4A-1 Solar and Daylight access

<b>Objective 4M-1 Facades</b> <b>Building facades provide visual interest along the street while respecting the character of the local area</b>	
<b>Design Guidance</b>	<b>Proposed Design</b>
<i>Design solutions for front building facades may include:</i> <ul style="list-style-type: none"> <li>• a composition of varied building elements</li> <li>• a defined base, middle and top of buildings</li> <li>• revealing and concealing certain elements</li> <li>• changes in texture, material, detail and colour to modify the prominence of elements</li> </ul>	<a href="#">Complies</a>
<i>Building services should be integrated within the overall facade</i>	<a href="#">Capable of compliance</a> – drawings do not extend to that level of detail Details would be

	included in the Construction Certificate Phase of the Development
<i>Building facades should be well resolved with an appropriate scale and proportion to the streetscape and human scale</i>	<b>Complies</b>
<i>Building facades relate to key datum lines of adjacent buildings through upper level setbacks, parapets, cornices, awnings or colonnade heights</i>	<b>Complies</b>
<i>Shadow is created on the facade throughout the day with building articulation, balconies and deeper window reveals</i>	<b>Complies</b>

<b>Objective 4M-2 Facades</b> <b>Building functions are expressed by the facade</b>	
<b>Design Guidance</b>	<b>Proposed Design</b>
<i>Building entries should be clearly defined</i>	<b>Complies</b> – building entries are expressed with an entry canopy
<i>Important corners are given visual prominence through a change in articulation, materials or colour, roof expression or changes in height</i>	<b>Complies</b>
<i>The apartment layout should be expressed externally through facade features such as party walls and floor slabs</i>	<b>Complies</b> – Windows, balcony doors, Party Walls contribute to the facade features

<b>Objective 4N-1 Roof Design</b> <b>Roof treatments are integrated into the building design and positively respond to the street</b>	
<b>Design Guidance</b>	<b>Proposed Design</b>
<i>Roof design relates to the street.</i>	<b>Complies</b> – The flat roof and glass balustrade design allows for communal open space, concealed services and sky lights to apartments below
<i>Roof treatments should be integrated with the building design. Design solutions may include:</i> <ul style="list-style-type: none"> <li>• Roof design proportionate to the overall building size, scale and form</li> <li>• Roof materials compliment the building</li> <li>• Service elements are integrated</li> </ul>	<b>Complies</b> – The flat roof and glass balustrade is integrated with the overall building glass facade and conceals services behind.

<b>Objective 4N-2 Roof Design</b> <b>Opportunities to use roof space for residential accommodation and open space are maximised</b>	
<b>Design Guidance</b>	<b>Proposed Design</b>
<i>Habitable roof space should be provided with good levels of amenity.</i>	<b>Complies</b>
<i>Open space is provided on roof tops subject to acceptable visual and acoustic privacy, comfort levels, safety and security considerations</i>	<b>Complies</b>

<b>Objective 4N-3 Roof Design</b> <b>Roof design incorporates sustainability features</b>	
<b>Design Guidance</b>	<b>Proposed Design</b>
<i>Roof design maximises solar access to apartments during winter and provides shade during summer.</i>	<b>Complies</b> – Horizontal and Vertical Louvres provide shade during summer
<i>Skylights and ventilation systems should be integrated into the roof design</i>	<b>Capable of compliance</b> – drawings do not extend to that level of detail. Skylights can be provided for. Provision is also made for roof top plant Details would be included in the Construction Certificate Phase of the Development

<b>Objective 4O-1 Landscape Design</b> <b>Landscape design is viable and sustainable</b>	
<b>Design Guidance</b>	<b>Proposed Design</b>
<i>Landscape design should be environmentally sustainable and can enhance environmental performance</i>	<b>Complies</b> – Refer to landscape package
<i>Ongoing maintenance plans should be prepared</i>	<b>Capable of compliance</b> – will be undertaken by Strata Management. Concept level landscape maintenance schedule included in Landscape package.

<p><i>Microclimate is enhanced by:</i></p> <ul style="list-style-type: none"> <li>• <i>appropriately scaled trees near the eastern and western elevations for shade</i></li> <li>• <i>a balance of evergreen and deciduous trees to provide shading in summer and sunlight access in winter</i></li> <li>• <i>shade structures such as pergolas for balconies and courtyards</i></li> </ul>	<p><b>Complies</b> – Guidance for ongoing maintenance of landscaped areas has been provided in Oculus landscape concept plans</p>
<p><i>Tree and shrub selection considers size at maturity and the potential for roots to compete</i></p>	<p><b>Complies</b> - Final planting plans to be provided at CC.</p>

Objective 4O-2 Landscape design contributes to the streetscape and amenity	
Design Guidance	Proposed Design
<p><i>Landscape design should be environmentally sustainable and can enhance environmental performance</i></p> <p><i>Landscape design responds to the existing site conditions including:</i></p> <ul style="list-style-type: none"> <li>• <i>changes of levels</i></li> <li>• <i>views</i></li> <li>• <i>significant landscape features including trees and rock outcrops</i></li> </ul>	<p><b>Complies</b> - Refer to Landscape package Ground floor &amp; level one incorporates soft and hard landscaping in public and private spaces, private planter boxes and podium roof planting, communal terrace areas also include both soft and hard landscaping to respond to the existing site conditions</p>
<p><i>Significant landscape features should be protected by:</i></p> <ul style="list-style-type: none"> <li>• <i>tree protection zones (see figure 4O.5)</i></li> <li>• <i>appropriate signage and fencing during construction</i></li> </ul>	<p>N/A</p>
<p><i>Plants selected should be endemic to the region and reflect the local ecology</i></p>	<p><b>Complies</b> - Refer to Landscape package</p>

Objective 4P-1 Planting on Structures Appropriate soil profiles are provided	
Design Guidance	Proposed Design
<p><i>Structures are reinforced for additional saturated soil weight</i></p>	<p><b>Capable of compliance</b> – drawings do not extend to that level of detail.</p>
<p><i>Soil volume is appropriate for plant growth</i></p>	<p><b>Capable of compliance</b> – drawings do not extend to that level of detail.</p>
<p><i>Minimum soil standards for plant sizes should be provided in accordance with Table 5</i></p>	<p><b>Capable of compliance</b> – drawings do not extend to that level of detail. Planter design and species selection meets requirements of ADG, (small tree on structure allows min. 900mm soil depth, medium tree on structure allows 1m soil depth etc). Technical details will be provided at CC.</p>

Objective 4P-2 Planting on Structures Plant growth is optimised with appropriate selection and maintenance	
Design Guidance	Proposed Design
<p><i>Plants are suited to site conditions</i></p>	<p><b>Complies</b> – Refer to landscape package for plant species proposed</p>
<p><i>A landscape maintenance plan is prepared</i></p>	<p><b>Capable of compliance</b> – will be undertaken by Strata Management. Concept level landscape maintenance schedule included in Landscape package.</p>
<p><i>Irrigation and drainage systems respond to:</i></p> <ul style="list-style-type: none"> <li>• <i>changing site conditions</i></li> <li>• <i>soil profile and the planting regime</i></li> <li>• <i>whether rainwater, stormwater or recycled grey water is used</i></li> </ul>	<p><b>Capable of compliance</b> – drawings do not extend to that level of detail. irrigation and drainage requirements have been considered as part of concept development, and intention is to use rainwater harvesting for irrigation – but technical resolution to be undertaken during detailed design</p>

Objective 4P-3 Planting on Structures Planting on structures contributes to the quality and amenity of communal and public open spaces	
Design Guidance	Proposed Design
<p><i>Building design incorporates opportunities for planting on structures</i></p>	<p><b>Complies</b> – Ground floor &amp; level one incorporates soft and hard landscaping in public and private spaces, private planter boxes and podium roof planting, communal terrace areas also include both soft and hard landscaping</p>

Objective 4Q-1 Universal Design
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Universal design features are included in apartment design to promote flexible housing for all community members	
Design Guidance	Proposed Design
<i>Developments achieve a benchmark of 20% of the total apartments incorporating the Livable Housing Guideline's silver level universal design features</i>	<b>Complies</b> – 20% of apartments are designed to achieve silver level standard

Objective 4Q-2 Universal Design A variety of apartments with adaptable designs are provided	
Design Guidance	Proposed Design
<i>Adaptable housing should be provided in accordance with the relevant council policy</i>	<b>Complies</b>
<i>Design solutions for adaptable apartments include:</i> <ul style="list-style-type: none"> <li>• convenient access to communal and public areas</li> <li>• high level of solar access</li> <li>• minimal structural change and residential amenity loss when adapted</li> <li>• larger car parking spaces for accessibility</li> <li>• parking titled separately from apartments or shared car parking arrangements</li> </ul>	<b>Partial Compliance</b> – 20% of apartments have been designed to achieve Silver livable housing design compliance. A further 10 apartments could be upgraded to Gold Livable but are not included in this application.

Objective 4Q-3 Universal Design Apartment layouts are flexible and accommodate a range of lifestyle needs	
Design Guidance	Proposed Design
<i>Apartment design incorporates flexible design solutions which may include:</i> <ul style="list-style-type: none"> <li>• rooms with multiple functions</li> <li>• dual master bedroom apartments with separate bathrooms</li> <li>• larger apartments with various living space options</li> <li>• open plan 'loft' style apartments with only a fixed kitchen, laundry and bathroom</li> </ul>	<b>Complies</b> <b>Complies</b> <b>Complies</b> <b>N/A</b>

Objective 4R-1 Adaptive Reuse New additions to existing buildings are contemporary and complementary and enhance an area's identity and sense of place	
Design Guidance	Proposed Design
<i>Design solutions may include:</i> <ul style="list-style-type: none"> <li>• new elements to align with the existing building</li> <li>• additions that complement the existing character, siting, scale, proportion, pattern, form and detailing</li> <li>• use of contemporary and complementary materials, finishes, textures and colours</li> </ul>	<b>N/A</b>
<i>Additions to heritage items should be clearly identifiable from the original building</i>	<b>N/A</b>
<i>New additions allow for the interpretation and future evolution of the building</i>	<b>N/A</b>

Objective 4R-2 Adaptive Reuse Adapted buildings provide residential amenity while not precluding future adaptive reuse	
Design Guidance	Proposed Design
<i>Design features should be incorporated sensitively into adapted buildings to make up for any physical limitations, to ensure residential amenity is achieved.</i>	<b>N/A</b>
<i>Some proposals that adapt existing buildings may not be able to achieve all of the design criteria in this Apartment Design Guide.</i>	<b>N/A</b>

Objective 4S-1 Mixed Use Adapted buildings provide residential amenity while not precluding future adaptive reuse	
Design Guidance	Proposed Design
<i>Mixed use development should be concentrated around public transport and centres</i>	<b>Complies</b> – King Street Bus stop & Light Rail access. Close proximity to Market town Shopping Centre and nearby 'Commercial Core' Zones.
<i>Mixed use developments positively contribute to the public domain</i>	<b>Complies</b> – Retail tenancies activate street edge along King Street and Memorial through site link encourages pedestrian activity

<b>Objective 4S-2 Mixed Use</b> Residential levels of the building are integrated within the development, and safety and amenity is maximised for residents	
<b>Design Guidance</b>	<b>Proposed Design</b>
<i>Residential circulation areas should be clearly defined</i>	<b>Complies</b>
<i>Landscaped communal open space should be provided at podium or roof levels</i>	<b>Complies</b>

<b>Objective 4T-1 Awnings and Signage</b> Awnings are well located and complement and integrate with the building design	
<b>Design Guidance</b>	<b>Proposed Design</b>
<i>Awnings should be located along streets with high pedestrian activity and active frontages</i>	<b>Complies</b>
<i>Awnings should be located over building entries for building address and public domain amenity</i>	<b>Complies</b>
<i>Awnings relate to residential windows, balconies, street tree planting, power poles and street infrastructure</i>	<b>Complies</b>
<i>Gutters and down pipes should be integrated and concealed</i>	<b>Capable of compliance</b> – drawings do not extend to that level of detail. Details would be included in the Construction Certificate Phase of the Development
<i>Lighting under awnings should be provided for pedestrian safety</i>	<b>Capable of compliance</b> – drawings do not extend to that level of detail. Details would be included in the Construction Certificate Phase of the Development

<b>Objective 4T-2 Awnings and Signage</b> Signage responds to the context and desired streetscape character	
<b>Design Guidance</b>	<b>Proposed Design</b>
<i>Signage should be integrated into the building design and respond to the scale, proportion and detailing of the development</i>	<b>Capable of compliance</b> – drawings do not extend to that level of detail.
<i>Legible and discrete way finding should be provided for larger developments</i>	<b>Capable of compliance</b> – drawings do not extend to that level of detail.
<i>Signage is limited to being on and below awnings and a single facade sign on the primary street frontage</i>	<b>Capable of compliance</b> – drawings do not extend to that level of detail.

<b>Objective 4U-1 Energy Efficiency</b> Development incorporates passive environmental design	
<b>Design Guidance</b>	<b>Proposed Design</b>
<i>Adequate natural light is provided to habitable rooms</i>	<b>Complies</b>
<i>Well located, screened outdoor areas should be provided for clothes drying</i>	<b>Capable of compliance</b> – drawings do not extend to that level of detail.

<b>Objective 4U-2 Energy Efficiency</b> Development incorporates passive solar design to optimise heat storage in winter and reduce heat transfer in summer	
<b>Design Guidance</b>	<b>Proposed Design</b>
<i>A number of the following design solutions are used:</i> <ul style="list-style-type: none"> <li><i>the use of smart glass or other technologies on north and west elevations</i></li> <li><i>thermal mass in the floors and walls of north facing rooms is maximised</i></li> <li><i>polished concrete floors, tiles or timber rather than carpet</i></li> <li><i>insulated roofs, walls and floors and seals on window and door openings</i></li> <li><i>overhangs and shading devices such as awnings, blinds and screens</i></li> </ul>	<b>Capable of compliance</b> – design considerations include <ul style="list-style-type: none"> <li>- Vertical and Horizontal louvres for shading,</li> <li>- recessed balconies</li> <li>- balcony overhangs,</li> <li>- <b>smart glazing</b></li> </ul>
<i>Provision of consolidated heating and cooling infrastructure should be located in a centralised location</i>	<b>N/A</b>

<b>Objective 4U-3 Energy Efficiency</b> Adequate natural ventilation minimises the need for mechanical ventilation	
<b>Design Guidance</b>	<b>Proposed Design</b>



<p>A number of the following design solutions are used:</p> <ul style="list-style-type: none"> <li>rooms with similar usage are grouped together</li> <li>natural cross ventilation for apartments is optimised</li> <li>natural ventilation is provided to all habitable rooms and as many non-habitable rooms, common areas and circulation spaces as possible</li> </ul>	<p>– 60% (102 out of 178 apartments from level 1 – 9) are naturally cross – ventilated. Tower A achieves 50% naturally ventilated and Tower B achieves 63% naturally ventilated apartments.</p>
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Objective 4V-1 Water Management and Conservation Potable water use is minimised	
Design Guidance	Proposed Design
Water efficient fittings, appliances and wastewater reuse should be incorporated	Capable of compliance – requirements are noted in BASIX documentation
Apartment should be individually metered	Capable of compliance – drawings do not extend to that level of detail. Details would be included in the Construction Certificate Phase of the Development
Rainwater should be collected, stored and reused on site	Complies
Drought tolerant, low water use plants should be used within landscaped areas	Capable of compliance Refer to Landscape Package

Objective 4V-2 Water Management and Conservation Urban stormwater is treated on site before being discharged to receiving waters	
Design Guidance	Proposed Design
Water sensitive urban design systems are designed by a suitably qualified professional	Complies Refer to Civil & Hydraulic Services reports
<p>A number of the following design solutions are used:</p> <ul style="list-style-type: none"> <li>runoff is collected from roofs and balconies in water tanks and plumbed into toilets, laundry and irrigation</li> <li>porous and open paving materials is maximised</li> <li>on site stormwater and infiltration, including bio-retention systems such as rain gardens or street tree pits</li> </ul>	Complies Refer to Civil & Hydraulic Services reports

Objective 4V-3 Water Management and Conservation Flood management systems are integrated into site design	
Design Guidance	Proposed Design
Detention tanks should be located under paved areas, driveways or in basement car parks	Capable of compliance – drawings do not extend to that level of detail.
On large sites parks or open spaces are designed to provide temporary on-site detention basins	N/A

Objective 4W-1 Waste management Waste storage facilities are designed to minimise impacts on the streetscape, building entry and amenity of residents	
Design Guidance	Proposed Design
Adequately sized storage areas for rubbish bins should be located discreetly away from the front of the development or in the basement car park	Complies – Bin Store is located in basement discreetly positioned, enclosed and mechanically ventilated.
Waste and recycling storage areas should be well ventilated	Capable of compliance – drawings do not extend to that level of detail. Details would be included in the Construction Certificate Phase of the Development
Circulation design allows bins to be easily maneuvered between storage and collection points	Complies – Bin Store Rooms are provided for each tower with direct waste chutes from apartment levels to bin store. Bins to be taken to Bin Holding Room located on Level 1 and collected in Bull Street.
Temporary storage should be provided for large bulk items such as mattresses	Complies – Bulky Items Area is available in Bin Store Room on Ground Level
A waste management plan should be prepared	Complies

Objective 4W-2 Waste management Domestic waste is minimised by providing safe and convenient source separation and recycling	
Design Guidance	Proposed Design
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	Complies – refer to Waste management Plan



<i>Communal waste and recycling rooms are in convenient and accessible locations related to each vertical core</i>	<b>Complies</b> – 2 waste & recycling rooms located in Ground Floor.
<i>For mixed use developments, residential waste and recycling storage areas and access should be separate and secure from other uses</i>	<b>Complies</b> – Waste management plan includes provision for waste associated with residential and retail areas
<i>Alternative waste disposal methods such as composting should be provided</i>	<b>Capable of compliance</b> – drawings do not extend to that level of detail.

Objective 4X-1 Building maintenance Building design detail provides protection from weathering	
Design Guidance	Proposed Design
<p><i>A number of the following design solutions are used:</i></p> <ul style="list-style-type: none"> <li>• roof overhangs to protect walls</li> <li>• hoods over windows and doors to protect openings</li> <li>• detailing horizontal edges with drip lines to avoid staining of surfaces</li> <li>• methods to eliminate or reduce planter box leaching</li> <li>• appropriate design and material selection for hostile locations</li> </ul>	<p><b>Partial Compliance</b> – Most balconies are recessed allow some protection for walls</p> <p><b>Complies</b> – Podium has an articulated façade allowing windows to be recessed</p> <p><b>Capable of compliance</b> – drawings do not extend to that level of detail. Details would be included in the Construction Certificate Phase of the Development</p> <p><b>Capable of compliance</b> – drawings do not extend to that level of detail. Details would be included in the Construction Certificate Phase of the Development</p> <p><b>Capable of compliance</b> – drawings do not extend to that level of detail. Details would be included in the Construction Certificate Phase of the Development</p>

Objective 4X-2 Building maintenance Systems and access enable ease of maintenance	
Design Guidance	Proposed Design
<i>Window design enables cleaning from the inside of the building</i>	<b>Capable of compliance</b> – drawings do not extend to that level of detail. Details would be included in the Construction Certificate Phase of the Development
<i>Building maintenance systems should be incorporated and integrated into the design of the building form, roof and facade</i>	<b>Capable of compliance</b> – drawings do not extend to that level of detail. Details would be included in the Construction Certificate Phase of the Development
<i>Design solutions do not require external scaffolding for maintenance access</i>	<b>Capable of compliance</b> – drawings do not extend to that level of detail. Details would be included in the Construction Certificate Phase of the Development
<i>Manually operated systems such as blinds, sunshades and curtains are used in preference to mechanical systems</i>	<b>Capable of compliance</b> – drawings do not extend to that level of detail. Details would be included in the Construction Certificate Phase of the Development
<i>Centralized maintenance, services and storage should be provided for communal open space areas within the building</i>	<b>Complies</b>

Objective 4X-3 Building maintenance Material selection reduces ongoing maintenance costs	
Design Guidance	Proposed Design
<p><i>A number of the following design solutions are used:</i></p> <ul style="list-style-type: none"> <li>• sensors to control artificial lighting in common circulation and spaces</li> <li>• natural materials that weather well and improve with time such as face brickwork</li> <li>• easily cleaned surfaces that are graffiti resistant</li> <li>• robust and durable materials and finishes are used in locations which receive heavy wear and tear, such as common circulation areas and lift interiors</li> </ul>	<b>Capable of compliance</b> – drawings do not extend to that level of detail. Details would be included in the Construction Certificate Phase of the Development.

End of Report