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17/02/2023

Perpetual Corporate Trust Limited
as custodian for Aliro Trusco 1 Pty Ltd
as trustee for Harris Street Sub Trust

c/o Jason Goldsworthy
Novus Property Development Pty Ltd

Dear Jason

**Re: Novus on Harris**

**39 – 43 Hassall Street, Parramatta – Development Application**

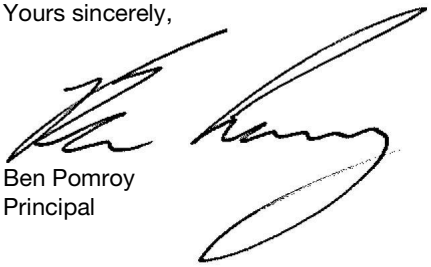
I, Ben Pomroy confirm that pursuant to Clause 29 (1 & 2) of the Environmental Planning and Assessment Regulation 2021 (EPA Reg), I am a qualified designer, which means a person registered as an architect in accordance with the Architects Act 2003, as defined by Clause 3 of the EPA Reg.

I directed the design of the proposed development stated above and I provide the accompanying explanation to verify that the proposed development achieves the design quality principles set out in Schedule 1 of the State Environmental Planning Policy No. 65 – Design Quality of Residential Apartment Development (2002 EPI 530).

As this is a Build to Rent development, there are concessions which apply to balcony sizes, storage quantity and apartment mix. These items are addressed in detail below.

I also provide the accompanying summary to verify, in terms of the Apartment Design Guide, how the proposed development achieves the objectives of Part 3 & 4 of that guide.

Yours sincerely,



Ben Pomroy
Principal

| | |
|---|---|
| Nominated Architect (NSW): | Ben Pomroy |
| Registration Number: | 7918 |

Encl. SSDA Submission: Design Report & Architectural Drawings

CC. Nicola Eason
Frances Hall

# SEPP 65 Design Quality Principles Statement

Novus on Harris
BTR Development
39 – 43 Hassall Street
Parramatta NSW

Project no. **221095** Status **DA** Rev **-** Date **17/02/2023**

## Principle 1: Context & Neighbourhood Character

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

*Responding to context involves identifying the desirable elements of an area's existing or future character. Well-designed buildings respond to and enhance the qualities and identity of the area including the adjacent sites, streetscape and neighbourhood.*

*Consideration of local context is important for all sites, including sites in established areas, those undergoing change or identified for change.*

Comment:

The subject site is located at the eastern edge of Parramatta CBD adjacent to Clay Cliff Creek (currently a concrete stormwater channel). To the east of the site is the Robin Thomas and James Ruse Reserve, which is a key open space in Parramatta CBD and contributes to the character and amenity of the area.

The location is well serviced by schools, tertiary institutions, childcare centres, community services, recreational and sporting facilities and an established commercial centre. The locality has excellent vehicular connectivity to local arterial roads and regular public transport services. The site will be serviced by the Parramatta Light Rail, with a stop to be located 100m from the site, due to be opened in 2023. This will link the site to surrounding Parramatta landmarks and services, as well as reducing reliance on vehicles.

There is an existing residential apartment tower immediately to the west of the site, and there are proposed apartment tower developments to the south opposite the creek and to the north on Hassall Street.

The site has an important history as Burramatta- a meeting place for the Dharug people, which is a key driver for the design that encourages social interactions, fostering connection to country and interplay between the built and the natural environment.

With the site being prone to flooding events, the podium has been designed as a raft that touches the ground lightly, creating permeable activated street frontages whilst dealing with the overland flow around the site perimeter. Dual entries are connected via the central spine lobby which visually and physically links from Hassall Street through to the landscaped Harris Street entry adjacent the creek.

The new building will be a key landmark providing much need rental accommodation and amenities in this fast-developing area.

## Principle 2: Built Form & 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.*

Comment:

The podium has been designed as a permeable and interactive space which creates engagement between the public and private realms. This is evident in both plan and façade articulation.

The main Hassall Street entry is amplified by a triple height void which visually connects through the lobby spine to the Harris Street creek entry. The podium facades are characterised by extensive glazing, lightweight cladding and opportunity for integration of local Dharug artwork on solid walls.

The podium is capped by an awning which is a wind mitigation device to protect the entries and footpaths, whilst also visually acting as a marker for the corner site. The floating awning is balanced by edge planting

on the rooftop as well as a colonnade wrapping around the podium. The soffit provides opportunity for integration of local Dharug artwork which reflects the history and activity of the site.

The tower facade has been tailored to respond to different climatic orientations whilst still creating a cohesive design - either horizontality expressed with integral sunshade devises or verticality articulated with panelling and fenestration.

The tower top steps and is setback to prevent overshadowing onto the nearby Experiment Farm heritage site. The stepped form emphasises vertically and relates to the articulation on the tower façades. The built form and scale of the building is generally consistent with the Design Competition, however the way the tower top steps has changed, as a result of the Design Development process.

The new building will contribute to the identity of the area whilst will not dominate or be overbearing upon its adjoining neighbours or the streetscape, blending in with the scale of current and proposed developments.

## 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.*

Comment:

The proposed development density is appropriate for the site and existing urban context.

The site's allowable total FSR is 11.5:1 (Incentive FSR 10:1 + 15% Design Excellence Bonus 1.5:1), however a FSR of 11.7:1 is being proposed. A higher FSR is presented due to the nature of BTR with additional internalised residential amenities provided. The development provides a GFA of 17,028 sqm which is 372 sqm above the allowable 16,656 sqm. Residential area has increased since the Design Competition submission, predominantly through more efficient layout of Services and Plant rooms on the residential floors and additional communal amenity, thereby increasing the quantum of GFA on a typical floor. Commercial/Retail use ratio of 1:1 is achieved with 1448 sqm (site area is 1448 sqm). Despite these changes to GFA, the built form and scale of the building is generally consistent with the Design Competition as noted above.

The building height is restricted by requirement to prevent overshadowing on the nearby Experiment Farm heritage site; therefore, the scale of the tower is appropriate to the urban setting and consistent with other similar proposed developments in the area.

As noted above, the site is well serviced and connected by both vehicular and public transport links along with the Paramatta Light Rail.

## Principle 4: Sustainability

*Good design combines positive environmental, social and economic outcomes.*

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

Comment:

The design makes efficient use of natural resources, energy, and water throughout its full life cycle, including construction.

Energy efficient building response is developed through passive design and sun control elements. The building design is characterised by tailored facades depending on the orientation to provide qualities of

space, natural light, air flow and solar access to achieve high personal comfort and low energy consumption.

The living areas of the apartments have been orientated to maximise sunlight, daylight and natural ventilation. All apartments are accessed from efficient corridors with access to natural light and ventilation. Overall, the project has 96% (196) apartments with 2 hours' solar access between 9.00am and 3.00 pm in midwinter. All endeavours have been taken to maintain high solar amenity to south facing units through the introduction of dual aspect apartments and limiting the number of south facing apartments.

63% (31) apartments up to and including level 9 are naturally ventilated in accordance with ADG guidelines, by either cross or corner air flow.

All the units have been designed to maximise natural ventilation, through the provision of dual aspect units and kitchens within 8 metres of windows. Apartments above level 9 are deemed to have sufficient natural ventilation with wind conditions at the higher levels of the tower. The development will not be reliant upon automatic climate control to provide appropriate amenity for residents.

The carbon footprint is further reduced by high efficiency air conditioning; energy efficient appliances; fittings and services such as water reduction showerheads; dual flush toilets; fully electric building; microwave ovens; and energy efficient hot water systems. A solar panel system has been incorporated within the development to provide power to common area facilities such as lifts and lobbies.

Waste minimisation and recycling strategies have been incorporated into the development.

The development will be net zero carbon during the operational life of the building.

## Principle 5: Landscape

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

*Good landscape design enhances the development's environmental performance by retaining positive natural features which contribute to the local context, co-ordinating water and soil management, solar access, micro-climate, tree canopy, habitat values and preserving green networks.*

*Good landscape design optimises useability, privacy and opportunities for social interaction, equitable access, respect for neighbours' amenity and provides for practical establishment and long-term management.*

Comment:

The site design at the ground plane is characterised by landscaped swales around the perimeter of the floating podium jetty, which deal with overland flow and reduce the effect of flood events. The required setback to Clay Cliff Creek is utilised as a structured deep soil area and landscaped swale. Floating platforms above are utilised for café seating which foster connection to the country.

The podium design includes perimeter planting within the awning, as well as interstitial planting to the level 2 residential amenity edges, which provide pockets for quiet relaxation outside the gym and wellness amenities. The communal pool is located on level 2 which is an indoor space with openable windows and landscaped deck areas with views out to the adjacent parklands.

The primary communal open space is located on level 32 of the development, which is linked to a generous indoor common lounge space and private dining room, blending from inside to outside in the landscape and façade design. Perimeter planting is employed to soften the edge condition and provide wind protection whilst maximising views.

Detailed Landscape Architect drawings and deep soil calculation are included in the proposal.

## 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 wellbeing.*

*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.*

Comment:

The architectural design provides enhanced amenity through the physical, spatial and environmental qualities of the development. The development comprises 204 residential BTR apartments with the following mix:

- 20 x Furnished Studios (10%) – Size 26 sqm
- 53 x Studios (26%) – Size range 42- 55 sqm
- 30 x 1 Bed (14%) – Size range 50- 62 sqm
- 70 x 2 Bed (34%) – Size range 76 - 96 sqm
- 29 x 2 Bed +S [Spare or MPR] (14%) – Size 91 sqm
- 3 x 3 Bed (2%) – Size range 114 - 138 sqm

Included in the development are 33 adaptable units (16%) and 44 Silver LHA units (22%).

A total of 84 car spaces are provided through out three levels of lower basements secure parking comprising 82 residential apartments' car spaces and 2 car share spaces, including parking for the adaptable apartments at a rate of 10%. Additional residential storage is provided in the car park.

Secure bicycle parking is provided at a rate of 1 per 2 apartments and 1 per 200 sqm of retail & commercial space.

The apartments have been designed to achieve solar access, natural ventilation, visual and acoustic privacy, storage, indoor and outdoor open space, diverse layouts, service areas, outlook and ease of access and mobility for all ages.

## 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.*

Comment:

The design of the development optimises safety and security, both internal to the development and to the public domain.

The pedestrian entry points are highly visible from both the internal area of the development and the public domain which will allow safe access and egress from and to the building through the shared lobby. After hours the lobby will be secured for resident or commercial staff access only.

The porte-cochere driveway off Hassall Street will be an area that is monitored and managed by staff, with opportunity for integrated artwork on solid walls to enliven the space. The loading dock will be open and managed by staff during day hours for residents moving in and out, waste collections and large deliveries. An emergency exit pedestrian path is provided from the southern entry around via the driveway but typically would only be used by staff.

Controlled vehicular access to the building is provided by secure car park access from the driveway, with direct access from the car park to the lift lobbies for residents.

## 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 and providing opportunities for social interaction among residents.*

Comment:

All residential units and basement parking areas are accessible by lift, and close regard has been made in the design to ensure that an appropriate number of units could be adopted to suit the needs of people with disabilities or the elderly.

The building offers a variety of BTR apartment configurations ranging from compact studios and 1-bedroom apartments, to 2- & 3-bedroom apartments. The unit mix includes fully furnished BTR Studios as well as traditional BTR apartments: 1-bed, 1-bed +, 2-bed, 2-bed +, 2-bed + Spare (MPR), 3-bed, 3-bed +, and 3-bed + Spare (MPR). The unit types are spread throughout the tower and podium levels to provide a balance of orientation and location. The LHG units comprise of a variety of 1-bed, 2-bed and 3-bed to provide diversity of product.

A variety of communal spaces are provided including internal and external spaces both at ground level, level 2 and on the level 32 common roof top area.

## 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 a well-designed apartment development responds to the existing or future local context, particularly desirable elements, and repetitions of the streetscape.*

Comment:

The materiality responds to the local context with colours of the site clay, which is evident throughout the different elements of the building from the podium cladding to the tower walls and the sunshade petals.

The structure of the building is expressed in the articulation of the balcony soffits and projecting sunshades, the strong podium colonnade with the floating awning above, and the vertical wall panelling on the tower.

The internal functions of the podium are expressed by maximising glazing for retail, commercial and amenity uses, with lightweight cladding and screening where required. The Hassall Street entry with the vertical slot in the podium directly expresses the internal lobby spine circulation.

The solid services walls on ground (substation and loading dock) provide opportunity for integration of local Dharug artwork along with the awning soffit.

The residential tower façade articulation and fenestration has been tailored in a direct response to the climatic conditions of each orientation, whilst still providing a cohesive design from all aspects.

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# Apartment Design Guide Objectives – Part 3 & 4

## Novus on Harris
## BTR Development
## 39 – 43 Hassall Street
## Parramatta

Project no. **221095** Status **DA** Rev **-** Date **17/02/2023**

| Revision | Date | Notes – *Revisions are noted in bold italics* |
|---|---|---|
| A | 17/02/2023 | SSDA Submission |
| | | |

| | Objective | Design Criteria | Objective Achieved | Comment |
|---|---|---|---|---|
| Part 3 Siting the Development | | | | |
| Site Analysis | *Objective 3A-1 Site analysis illustrates that design decisions have been based on opportunities and constraints of the site conditions and their relationship to the surrounding context* | | Yes | An extensive site analysis, site concept and masterplan has been completed based on a multi-layer urban design and contest study. Further details are available in the Architectural Design Report. |
| Orientation | *Objective 3B-1 Building types and layouts respond to the streetscape and site while optimising solar access within the development* | | Yes | The proposed building is shaped with consideration to required street setbacks including Harris St future road widening, along with overland flow requirements around the building including landscape zone to Clay Cliff Creek.<br>Northern and eastern aspect apartments are achieved where possible, with most southern and western apartments provided with cross ventilation to offset their orientation. |
| | *Objective 3B-2 Overshadowing of neighbouring properties is minimised during mid-winter* | | Yes | The proposed tower and podium form follows required setbacks in a stepped fashion to minimise overshadowing on neighbours and to follow the angles of the boundaries.<br>The southern facade has a limited portion which is setback 6.85m instead of the 7.5m required setback, in order to achieve internal ADG dimensions, but due to these projections location in the centre of the southern elevation, this does not have any detrimental impact on shadows cast as demonstrated in the accompanying shadow diagrams.<br>The east and west setbacks present in a stepped fashion following the angle of the boundary such that some parts of the building are within the setbacks, but there is no detrimental impact on overshadowing or overlooking.<br>The tower upper levels are designed in a stepped form to avoid creating any additional overshadowing of the heritage Experiment Farm site. |

| | Objective | Design Criteria | Objective Achieved | Comment |
|---|---|---|---|---|
| Public Domain Interface | *Objective 3C-1 Transition between private and public domain is achieved without compromising safety and security* | | Yes | The nature of the site means that there are four frontages. Access from the two public streets to the building entries are straight, clear and legible, providing safe access to the proposed development.<br>The residential lobby entry is on Hassall Street and the commercial lobby entry is on Harris Street, providing a dual activation of both streets to a shared lobby.<br>The Harris St entry includes landscape platforms for retail use to the southern creek interface, with a pedestrian egress connection around to the driveway loading dock.<br>The loading dock and driveway entry will be adequately lit with security cameras and integration of artwork will amplify the porte-cochere frontage. |
| | *Objective 3C-2 Amenity of the public domain is retained and enhanced* | | Yes | The public domain of the two street frontages is enhanced with the podium designed as an open floating jetty, with landscaping around and underneath. This activates the street interface with retail frontages and legible lobby entries.<br>The only non-activated area is the Substation walls which incorporate artwork to soften the impact of the required services. The booster pipework is visually open and part of the landscape undercroft design. |
| Communal and Public Open Space | *Objective 3D-1 An adequate area of communal open space is provided to enhance residential amenity and to provide opportunities for landscaping* | *Communal open space has a minimum area equal to 25% of the site (see figure 3D.3)*<br>*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)* | Yes | The communal open space significantly exceeds the 25% minimum, at 593 sqm which is 41% of the site area. As part of the BTR offer, additional area is provided which compensates for the smaller balcony sizes to the apartments.<br>The communal open spaces will include high quality landscaping and place making features such as plantings, bench seating, pets play spaces, dining and BBQ facilities and lounge seating, promoting high amenity and useability of the spaces as outlined in the landscape design drawings.<br>Greater than 50% of the principal useable parts of the communal open spaces achieve a minimum of 2 hours direct sunlight between 9:00 am and 3:00pm |
| | *Objective 3D-2 Communal open space is designed to allow for a range of activities, respond to site conditions and be attractive and inviting* | | Yes | Communal open spaces provide a selection of sub-spaces with varying uses, to allow for simultaneous use by multiple groups. The architectural package and landscape architect's drawings articulate the open space and landscaping strategy. Amenities include a podium rooftop dog run and pets play space, and a level 32 rooftop private dining and communal lounge terrace, as well as interstitial spaces around the level 2 indoor amenity. |

| | Objective | Design Criteria | | | Objective Achieved | Comment |
|---|---|---|---|---|---|---|
| | *Objective 3D-3 Communal open space is designed to maximise safety* | | | | Yes | Communal open spaces are clearly defined and legible with open areas. Both level 7 dog run rooftop and level 32 rooftop terrace spaces are overlooked by apartments providing passive surveillance. The level 2 and level 32 outdoor spaces are clearly visible from the adjacent internal spaces via full height glazing. |
| | *Objective 3D-4 Public open space, where provided, is responsive to the existing pattern and uses of the neighbourhood* | | | | - | A permeable and activated ground plane provides ample external seating for the proposed F&B Retail space. The southern landscape platforms are also utilised for seating.<br>The F&B use will activate the intersection and provide additional food options for park users, in conjunction with the proposed developments opposite on Hassall St and to the southern side on Harris Street. |
| Deep Soil Zones | *Objective 3E-1 Deep soil zones provide areas on the site that allow for and support healthy plant and tree growth. They improve residential amenity and promote management of water and air quality* | *Deep soil zones are to meet the following minimum requirements:* | | | Yes | The deep soil area equals 16% of the site area, which meets the required minimum.<br>The structured deep soil area is provided to the Clay Cliff Creek interface at a minimum dimension of 6m. This location has been established due to required setbacks, overland flow path and working with country response.<br>Floating platforms within the landscaped 6m setback zone provide activation to the southern creek edge, with opportunity for café seating.<br>In addition, throughout the development there are ample structured planters to soften communal terraces and support the ESD initiatives.<br>The extent of deep soil is presented in the architectural and landscape package. |
| | | *Site Area* | *Min Dimensions* | *Deep Soil Zone (% of Site Area)* | | |
| | | *Less than 650m²* | *-* | *7%* | | |
| | | *650m²-1500m²* | *3m* | | | |
| | | *Greater than 1500m²* | *6m* | | | |
| | | *Greater than 1500m² with significant tree cover* | *6m* | | | |
| Visual Privacy | *Objective 3F-1 Adequate building separation distances are shared equitably between neighbouring sites, to achieve reasonable levels of external and internal visual privacy*<br>*Note: Separation distances between buildings on the same site should combine required building separations depending on the type of room* | *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:* | | | Part | The defined building envelope as part of the reference scheme, and DCP setbacks from Parramatta City Council, deviate partially from the minimum setbacks under the Apartment Design Guide.<br>The building has been orientated mainly to the north and east to make use of solar amenity and views overlooking parklands.<br>To the north and south are proposed residential developments of a similar nature.<br>The southern and western facades have less windows in as part of the ESD strategy. |
| | | *Building Height* | *Habitable rooms and balconies* | *Non-habitable rooms* | | |
| | | *Up to 12m (4 storeys)* | *6m* | *3m* | | |

| | Objective | Design Criteria | | | Objective Achieved | Comment |
|---|---|---|---|---|---|---|
| | | *Up to 25m (5-8 storeys)* | *9m* | *4.5m* | | The podium extent aligns to the adjacent podium on the west and the tower is setback to prevent overlooking.<br>The predominant building line meets the setback controls in a straight line on the north and in a stepped fashion along the east and west interfaces. As a result, some portions of east and west building corners are within the setbacks with no detrimental impact on overshadowing or overlooking.<br>Some southern sections of building extend into the setback zone in order to achieve ADG internal compliance, however this has no detrimental impact on overlooking or views. |
| | | *Over 25m (9+ storeys)* | *12m* | *6m* | | |
| | *Objective 3F-2 Site and building design elements increase privacy without compromising access to light and air and balance outlook and views from habitable rooms and private open space* | | | | Yes | The comprehensive solar and view analysis has allowed for the building to be sited, and heights modulated, to take advantage of keys views and solar access. Privacy between apartments has been considered in the building separation and internal space planning. |
| Pedestrian Access and Entries | *Objective 3G-1 Building entries and pedestrian access connects to and addresses the public domain* | | | | Yes | The residential lobby / retail entry is on Hassall Street and the commercial / retail entry is on Harris Street, providing a dual activation of both streets and clear entry points. |
| | *Objective 3G-2 Access, entries and pathways are accessible and easy to identify* | | | | Yes | The Hassall Street entry is identifiable in the architectural form with a double height façade and entry signage. The Harris Street entry is amplified with a bridge entry across the landscape (which doubles as emergency egress during floods). |
| | *Objective 3G-3 Large sites provide pedestrian links for access to streets and connection to destinations* | | | | Yes | The design creates a connected ground floor link for residents between the two main street frontages, with an additional egress pedestrian path via the driveway. |
| Vehicle Access | *Objective 3H-1 Vehicle access points are designed and located to achieve safety, minimise conflicts between pedestrians and vehicles and create high quality streetscapes* | | | | Yes | Car park and loading including waste collection is consolidated on the western side of the site with a porte-cochere entry incorporating artwork walls. The vehicle access point is clear and legible, and separate to the pedestrian entries. |
| Bicycle and Car Parking | *Objective 3J-1 Car parking is provided based on proximity to public transport in metropolitan Sydney and centres in regional areas* | *For development in the following locations:*<br>*on sites that are within 800 metres of a railway station or light rail stop in the Sydney Metropolitan Area; or*<br>*on land zoned, and sites within 400 metres of land zoned, B3 Commercial Core, B4 Mixed Use or equivalent in a nominated regional centre*<br>*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* | | | Yes | Car parking has been provided in accordance with the Parramatta City Council DCP requirements as is detailed in the Traffic Report. |

| | Objective | Design Criteria | Objective Achieved | Comment |
|---|---|---|---|---|
| | | *The car parking needs for a development must be provided off street.* | | |
| | *Objective 3J-2 Parking and facilities are provided for other modes of transport* | | Yes | Secure bicycle parking and motorcycle parking is provided in the basements and mezzanine levels in accordance with Parramatta City Council DCP. |
| | *Objective 3J-3 Car park design and access is safe and secure* | | Yes | The car parks are secured with electronic, automated doors triggered by residents. The aisles are clear and unobstructed with clear lines of site to fire stairs and to lift entrances. |
| | *Objective 3J-4 Visual and environmental impacts of underground car parking are minimised* | | Yes | The levels of the building are set from the lower topographical points to minimise any visual and overshadowing impacts of the building. The car park layout is efficient within the site and structure constraints. |
| | *Objective 3J-5 Visual and environmental impacts of on-grade car parking are minimised* | | - | N/A |
| | *Objective 3J-6 Visual and environmental impacts of above ground enclosed car parking are minimised* | | - | N/A |
| Solar and Daylight Access | *Objective 4A-1 To optimise the number of apartments receiving sunlight to habitable rooms, primary windows and private open space* | *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* | Yes | The proposal exceeds the minimum solar requirements, with 96% of living rooms and balconies achieving at least 2 hours of solar access between 9am and 3pm in midwinter.<br>Please refer to a breakdown of solar access in the architectural package. |
| | | *In all other areas, living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of 3 hours direct sunlight between 9 am and 3 pm at mid-winter* | N/A | |
| | | *A maximum of 15% of apartments in a building receive no direct sunlight between 9 am and 3 pm at mid-winter* | Yes | A high proportion of dual aspect apartments have been provided to limit the number of apartments with a solely southern aspect. There are only 4 Apartments which face solely south. |
| | *Objective 4A-2 Daylight access is maximised where sunlight is limited* | | Yes | Generous windows have been provided to multiple aspects of units facing south, to ensure high indoor amenity. |
| | *Objective 4A-3 Design incorporates shading and glare control, particularly for warmer months* | | Yes | The articulated facades are designed for summer shading with deep recesses and awnings to all northern and eastern glazing. Northern façade is designed with low height spandrel glazing to reduce heat gain but maximise daylight and views. West facing windows are limited and are often shaded with horizontal awnings. Apartments with western frontage are provided with cross flow ventilation to the south. |

| | Objective | Design Criteria | | Objective Achieved | Comment |
|---|---|---|---|---|---|
| Natural Ventilation | *Objective 4B-1 All habitable rooms are naturally ventilated* | | | Yes | Openable windows are proposed for all bedrooms, living rooms and spare rooms (multi-purpose rooms). Where study nooks are provided, they are open to the primary living space, within a bedroom or located within open corridors. |
| | *Objective 4B-2 The layout and design of single aspect apartments maximises natural ventilation* | | | Yes | Single aspect apartments are designed with open-plan layouts, wide frontages and large openings to balconies to maximise natural ventilation. |
| | *Objective 4B-3 The number of apartments with natural cross ventilation is maximised to create a comfortable indoor environment for residents* | *At least 60% of apartments are naturally cross ventilated in the first nine storeys of the building.*<br>*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* | | Yes | The proposal is in exceedance of the minimum cross ventilation numbers at 63% up to and including level 9.<br>The tower balconies are all open and expected to receive adequate ventilation at the upper levels.<br>Please refer to a breakdown of cross-ventilation per unit in the architectural package.<br>Cross-through apartments do not exceed 18m measured glass line to glass line. |
| | | *Overall depth of a cross-over or cross-through apartment does not exceed 18m, measured glass line to glass line* | | | |
| Ceiling Height | *Objective 4C-1 Ceiling height achieves sufficient natural ventilation and daylight access* | *Measured from finished floor level to finished ceiling level, minimum ceiling heights for apartment and mixed-use buildings are:* | | Yes | The floor-to-floor heights of the building allow 2.7m ceilings to all living areas and bedrooms.<br>2.4m bulkheads are used to conceal services in limited locations throughout habitable rooms. |
| | | *Habitable Rooms* | *2.7m* | | |
| | | *Non-Habitable* | *2.4m* | | |
| | | *For 2 Storey Apartments* | *2.7m for main living area floor*<br>*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 use areas* | *3.3m for ground and first floor to promote future flexibility of use* | | |
| | *Objective 4C-2 Ceiling height increases the sense of space in apartments and provides for well-proportioned rooms* | | | Yes | Bulkheads are to be minimised as much as possible, with bulkheads typically limited to kitchens and corridors. |

| | Objective | Design Criteria | | Objective Achieved | Comment |
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| | | | | | Air-conditioning units over kitchens result in 2400 high bulkheads over kitchens as shown on the plans. |
| | *Objective 4C-3 Ceiling heights contribute to the flexibility of building use over the life of the building* | | | Yes | 2.7m ceilings are maximised throughout the units. |
| Apartment Size and Layout | *Objective 4D-1 The layout of rooms within an apartment is functional, well organised and provides a high standard of amenity* | *Apartments are required to have the following minimum internal areas:* | | Part (BTR) | All the 1-Bed, 2-Bed and 3-Bed apartments meet the required minimum areas.<br>The Furnished Studio type apartment (Studio type D located on levels 12 – 31) is less than the ADG minimum 35sqm for a Studio Apartment. However, this apartment is a different typology from the typical Studios, as it is a fully furnished studio apartment under Build-To-Rent provision.<br>Please refer to the plans in the architectural package. |
| | | *Apartment Types* | *Minimum Internal Area* | | |
| | | *Studio* | *35m²* | | |
| | | *1 Bedroom* | *50m²* | | |
| | | *2 Bedroom* | *70m²* | | |
| | | *3 Bedroom* | *90m²* | | |
| | | *The minimum internal areas include only one bathroom. Additional bathrooms increase the minimum internal area by 5m² each.*<br>*A fourth bedroom and further additional bedrooms increase the minimum internal area by 12m² each* | | | Compliant daylight and ventilation will be provided to all habitable rooms in accordance with BCA requirements. |
| | | *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* | | | |
| | *Objective 4D-2 Environmental performance of the apartment is maximised* | *Habitable room depths are limited to a maximum of 2.5 x the ceiling height* | | Yes | Unit layouts and facades have been considered together to provide good distribution of natural light. Living and dining rooms generally have a maximum depth of 8000mm, supported by 2700mm ceilings.<br>Apartment type 2A is 8200 in depth for the Living & Kitchen however it is characterised by cross ventilation and glazing to all sides of the balcony which enhances the openness of the living/kitchen spaces. |
| | | *In open plan layouts (where the living, dining and kitchen are combined) the maximum habitable room depth is 8m from a window* | | Part | |
| | *Objective 4D-3 Apartment layouts are designed to accommodate a variety of household activities and needs* | *Master bedrooms have a minimum area of 10m2 and other bedrooms 9m2 (excluding wardrobe space)* | | Part | 82% of apartments achieve compliance in functional dimensions, meeting or exceeding minimum dimensions in most cases as shown on architectural plans except where noted below. |
| | | | | | |
| | | *Bedrooms have a minimum dimension of 3m (excluding wardrobe space)* | | Part | |

| | Objective | Design Criteria | | | Objective Achieved | Comment |
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| | | *Living rooms or combined living/dining rooms have a minimum width of:*<br>*3.6m for studio and 1-bedroom apartments*<br>*4m for 2- and 3-bedroom apartments* | | | Part | 2-Bed type 2A: There is a corner cut off the second bedroom 3m x 3m dimension, due to façade stepping. The façade has been pushed out locally beyond the minimum setbacks (as noted above) to achieve 3m throughout the dominant proportion of the room. The plans demonstrate sufficient space for functionality around the bed and additional space is provided within the length of the bedroom to offset.<br><br>Studio apartment type B: Bedroom and Living room minimum widths are slightly less than the minimum however is compensated by increased length. There is a large cavity sliding door at the interface between the rooms to open up the space and a generous area of 55 sqm to offset the slightly narrower width.<br><br>Furnished Studio apartment type D: Living room width is less than 3.6m and bedroom is less than 3m clear to joinery. This is a different Studio typology under BTR provision (as noted above). The apartment depth is limited, and full width windows are provided.<br><br>2 Bed + S (MPR) type 2J has a recessed bedroom arrangement to the Master Bedroom which is 2m wide and 1.2 deep (ratio 2:1.2 instead of 2:1). The recessed bedroom faces solely north and has a small terrace in front of it, and will therefore be provided with high amounts of daylighting. The window width is maximised allowing for downpipe nib.<br><br>Studio apartment type A: Living room width is slightly less than the minimum however is compensated by increased length.<br><br>Cross-over and cross-through apartments typically have at least 4m width internally to the Living areas unless noted otherwise above.<br><br>Please refer to the plans in the architectural package. |
| | | *The width of cross-over or cross-through apartments are at least 4m internally to avoid deep narrow apartment layouts* | | | Yes | |
| Private Open Space and Balconies | *Objective 4E-1 Apartments provide appropriately sized private open space and balconies to enhance residential amenity* | *All apartments are required to have primary balconies as follows:* | | | Part (BTR) | As part of the BTR concessions available within the SEPP, the majority of the terraces and balconies in the development are less than the minimum ADG area.<br>This reduction in area is offset by the much greater quantums of communal open, and internal spaces provided as part of the |
| | | *Dwelling type* | *Minimum Area* | *Minimum Depth* | | |
| | | *Studio* | *4m$^3$* | - | | |

| | Objective | Design Criteria | | | Objective Achieved | Comment |
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| | | *1 bedroom* | *8m³* | *2m* | | BTR provisions, with an average size of 2.5sqm per apartment reduction in balcony size, being offset by approx. 1sqm of additional outdoor communal open space, and 2.5sqm additional internal communal space per dwelling beyond the minimums stated in the apartment design guide.<br>Balcony sizes have been maximised where possible but the internal amenity such as Living and Bedroom sizes has been prioritised. Minimum balcony depth dimensions have been achieved in 48% of apartments, and in all cases the balcony shape has been provided with usable space in mind. The design employs full glazing from Living and Bedrooms to the balcony in most cases, to maximise the sense of openness and visual connection. Functional furniture layouts are shown on balconies on the drawings.<br>The Furnished all-inclusive BTR Studio (type D) does not have a balcony.<br>Please refer to the plans in the architectural package. |
| | | *2 bedrooms* | *10m³* | *2m* | | |
| | | *3+ bedrooms* | *12m³* | *2.4m* | | |
| | | *The minimum balcony depth to be counted as contributing to the balcony area is 1m* | | | | |
| | | *For apartments at ground level or on a podium or similar structure, a private open space is provided instead of a balcony. It must have a minimum area of 15m² and a minimum depth of 3m.* | | | N/A | |
| | *Objective 4E-2 Primary private open space and balconies are appropriately located to enhance liveability for residents* | | | | Yes | All primary balconies and terraces are located adjacent to a living space. |
| | *Objective 4E-3 Private open space and balcony design is integrated into and contributes to the overall architectural form and detail of the building* | | | | Yes | The balconies along with façade awnings form an integral part of the building design. |
| | *Objective 4E-4 Private open space and balcony design maximises safety* | | | | Yes | All balconies can meet the minimum safety provisions.<br>AC units are located internally within plant spaces not on balconies. |
| Common Circulation and Spaces | *Objective 4F-1 Common circulation spaces achieve good amenity and properly service the number of apartments* | *The maximum number of apartments off a circulation core on a single level is eight* | | | Yes | The maximum number of units off a single core on any level is 8.<br>3 lifts are provided to service the building, with a ratio of approx. 1 lift per 70 apartments<br>Refer to Vertical Transport Engineer advice supporting the appropriate level of service delivered in the proposal. |
| | | *For buildings of 10-storeys and over, the maximum number of apartments sharing a single lift is 40* | | | No | |
| | *Objective 4F-2 Common circulation spaces promote safety and provide for social interaction between residents* | | | | Yes | The ground floor lobbies have been designed to allow a direct, clear and legible access from the street.<br>The dual entries from Hassall Street and Harris Street promote safety and foster opportunity for connection between residents as well as commercial and retail users. |

| | Objective | Design Criteria | | Objective Achieved | Comment |
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| | | | | | The porte-cochere driveway has been designed for vehicular use only with management by BTR staff, and the space can be used for pedestrian emergency egress when necessary. |
| Storage | *Objective 4G-1 Adequate, well designed storage is provided in each apartment* | *In addition to storage in kitchens, bathrooms and bedrooms, the following storage is provided:* | | Part (BTR) | As part of the BTR concessions available within the SEPP, a proportion of the dwellings in the scheme do not provide the minimum storage areas within the individual apartment.<br>60% of Apartments achieve the required minimum internal storage within the apartment.<br>This shortfall is supplemented by a large communal basement storage which is allocated according to need of residents, due to the high level of building management provided in BTR.<br>Please refer to a per-unit schedule of internal storage sizes in the architectural package. |
| | | *Dwelling Type* | *Storage size volume* | | |
| | | *Studio* | *4m³* | | |
| | | *1 bedroom* | *6m³* | | |
| | | *2 bedrooms* | *8m³* | | |
| | | *3+ bedrooms* | *10m³* | | |
| | | *At least 50% of the required storage is to be located within the apartment* | | | |
| | *Objective 4G-2 Additional storage is conveniently located, accessible and nominated for individual apartments* | | | Yes | Secure basement storage is clearly and accessibly located in the car park. |
| Acoustic Privacy | *Objective 4H-1 Noise transfer is minimised through the siting of buildings and building layout* | | | Yes | Focussing majority of apartments to north and east (parklands and road) whilst limiting aspect to west (apartment building) and south (proposed apartment building opposite channel). |
| | *Objective 4H-2 Noise impacts are mitigated within apartments through layout and acoustic treatments* | | | Yes | Care has been taken to co-locate similar room types where possible and to use buffers, such as wardrobes, between different spaces.<br>Intertenancy walls have been designed to extend and provide noise separation and privacy between balconies. |
| Noise and Pollution | *Objective 4J-1 In noisy or hostile environments the impacts of external noise and pollution are minimised through the careful siting and layout of buildings* | | | Yes | Refer to Acoustic Report- Hassall Street and Harris Street are not considered major roads.<br>Focussing majority of apartments to north and east (parklands and road) whilst limiting aspect to west (apartment building) and south (proposed apartment building opposite channel). |
| | *Objective 4J-2 Appropriate noise shielding or attenuation techniques for the building design, construction and choice of materials are used to mitigate noise transmission* | | | Yes | Glazing specifications and façade details for all interfaces will be in accordance with Acoustic Report requirements.<br>Please refer to the Acoustic report for details. |
| Apartment Mix | *Objective 4K-1 A range of apartment types and sizes is provided to cater for different household types now and into the future* | | | Yes | The building provides a mix of studio to three-bedroom apartments to meet BTR needs. A range of apartments are provided with additional spare (multi-purpose) rooms to further diversify housing choice within the development. |

| | Objective | Design Criteria | Objective Achieved | Comment |
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| | | | | A BTR Furnished Studio type is also provided as an all-inclusive accommodation option. |
| | *Objective 4K-2 - The apartment mix is distributed to suitable locations within the building* | | Yes | Apartment types are mixed throughout the building and across the levels. |
| Ground Floor Apartments | *Objective 4L-1 Street frontage activity is maximised where ground floor apartments are located* | | N/A | |
| | *Objective 4L-2 Design of ground floor apartments delivers amenity and safety for residents* | | N/A | |
| Facades | *Objective 4M-1 Building facades provide visual interest along the street while respecting the character of the local area* | | Yes | |
| | *Objective 4M-2 Building functions are expressed by the facade* | | Yes | The internal functions of the podium are expressed by maximising glazing for retail, commercial and amenity uses, with lightweight cladding and screening where required. The Hassall Street entry with the vertical slot in the podium directly expresses the internal lobby spine circulation.<br>The tower facade has been tailored to respond to different climatic orientations whilst still creating a cohesive design - either horizontality expressed with integral sunshade devices or verticality articulated with panelling and fenestration. |
| Roof Design | *Objective 4N-1 Roof treatments are integrated into the building design and positively respond to the street* | | Yes | The tower upper floors reduce in size, and increase in setback to the East to prevent any additional overshadowing onto the nearby Experiment Farm heritage site as defined in the Parramatta DCP.<br>The stepped form emphasises vertically and relates to the articulation on the tower façades, integrating plant requirements in a cohesive manner.<br>The communal rooftop provides perimeter planting and glazed balustrade to soften the edge appearance and act as wind mitigation. |
| | *Objective 4N-2 Opportunities to use roof space for residential accommodation and open space are maximised* | | Yes | Where possible, roof spaces and the ground plane are given over to communal open spaces. |
| | *Objective 4N-3 Roof design incorporates sustainability features* | | Yes | Roof areas will be intensively thermally insulated to maximise passive thermal comfort in the upper-most apartments. The flat roof allows for provision of a solar panel system. |
| Landscape Design | *Objective 4O-1 Landscape design is viable and sustainable* | | Yes | The landscape design has a focus on amenity with the inclusion of key place making elements such as jetty platforms seating and terraces. Simple design elements, high quality materiality of hardscaping along with appropriate plant species will be a long lasting, easy to maintain landscape. |

| | Objective | Design Criteria | Objective Achieved | Comment |
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| | *Objective 4O-2 Landscape design contributes to the streetscape and amenity* | | Yes | The landscape design maximises the amenity of the communal open space by balancing planted areas with areas for residents to relax or interact.<br>The streetscape landscape design provides layered plantings to allow an appropriate transition between public and private spaces, incorporating required swale design with native grasses for flood mitigation on east and south.<br>Street trees have been added to both Harris Street and Hassall Street. |
| Planting on Structures | *Objective 4P-1 Appropriate soil profiles are provided* | | Yes | The landscape has been designed with tree planting on-structured deep soil zones alongside lower planting zones. |
| | *Objective 4P-2 Plant growth is optimised with appropriate selection and maintenance* | | Yes | The landscape has been designed with an appropriate range of native species suitable to the various areas and planting opportunities. |
| | *Objective 4P-3 Planting on structures contributes to the quality and amenity of communal and public open spaces* | | Yes | Landscape design includes a variety of plantings to soften the communal open space areas. |
| Universal Design | *Objective 4Q-1 Universal design features are included in apartment design to promote flexible housing for all community members* | | Yes | 22% of apartments can achieve the Liveable Housing Guidelines silver level. Please refer to a per-unit schedule of LHG compliance in the architectural package. |
| | *Objective 4Q-2 A variety of apartments with adaptable designs are provided* | | Yes | 16% of the units are adaptable with 10% having an accessible car space. |
| | *Objective 4Q-3 Apartment layouts are flexible and accommodate a range of lifestyle needs* | | Yes | The design offers a diverse range of apartment types and layouts tailored to the BTR market. |
| Adaptive Reuse | *Objective 4R-1 New additions to existing buildings are contemporary and complementary and enhance an area's identity and sense of place* | | - | N/A |
| | *Objective 4R-2 Adapted buildings provide residential amenity while not precluding future adaptive reuse* | | - | N/A |
| Mixed Use | *Objective 4S-1 Mixed use developments are provided in appropriate locations and provide active street frontages that encourage pedestrian movement* | | Yes | Retail F&B provision on ground activates the street interface and encourages pedestrian movement through the dual entries.<br>Office floor located on level 1podium with easy access from ground shared lobby. |
| | *Objective 4S-2 Residential levels of the building are integrated within the development, and safety and amenity are maximised for residents* | | Yes | As the building is predominantly residential, this objective has been achieved with the integration of a shared lobby and shared residential and commercial amenity spaces. |
| Awnings and Signage | *Objective 4T-1 Awnings are well located and complement and integrate with the building design* | | Yes | The podium is capped by an awning which is a wind mitigation device to protect the entries and footpaths, whilst also visually acting as a marker for the corner site. The floating awning is balanced by edge planting on the rooftop as well as a |

| | Objective | Design Criteria | Objective Achieved | Comment |
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| | | | | colonnade wrapping around the podium. The soffit provides opportunity for integration of local Dharug artwork which reflects the history and activity of the site. |
| | *Objective 4T-2 Signage responds to the context and desired streetscape character* | | Yes | Building identification signage will be located at the site entries and incorporated into the façade design. |
| Energy Efficiency | *Objective 4U-1 Development incorporates passive environmental design* | | Yes | Passive environmental design features are provided including WSUD planting on common terraces for reduction of temperature and façade design tailored for each orientation.<br>Refer to ESD initiatives in Design Report for further details. |
| | *Objective 4U-2 Development incorporates passive solar design to optimise heat storage in winter and reduce heat transfer in summer* | | Yes | Climatic conditions are dealt with by orienting apartments north and east where possible and using sun shading devices. Windows on south and west are minimised within the predominantly solid walls.<br>Operable windows are provided throughout. |
| | *Objective 4U-3 Adequate natural ventilation minimises the need for mechanical ventilation* | | Yes | Refer to BASIX assessment |
| Water Management and Conservation | *Objective 4V-1 Potable water use is minimised* | | Yes | Refer to BASIX assessment |
| | *Objective 4V-2 Urban stormwater is treated on site before being discharged to receiving waters* | | Yes | Refer to civil engineer's details |
| | *Objective 4V-3 Flood management systems are integrated into site design* | | - | N/A |
| Waste Management | *Objective 4W-1 Waste storage facilities are designed to minimise impacts on the streetscape, building entry and amenity of residents* | | Yes | Waste management is handled entirely within the building envelope to minimise impact on the streetscape. |
| | *Objective 4W-2 Domestic waste is minimised by providing safe and convenient source separation and recycling* | | Yes | Separate recycling facilities are provided. Refer to Waste Management Report. |
| Building Maintenance | *Objective 4X-1 Building design detail provides protection from weathering* | | Yes | Robust finishes have been selected for maintenance and high durability. |
| | *Objective 4X-2 Systems and access enable ease of maintenance* | | Yes | All of the plant and services are located within the building form. |
| | *Objective 4X-3 Material selection reduces ongoing maintenance costs* | | Yes | The nature of BTR requires the materials to be robust and long lasting. This includes painted walls and soffits with specifications for long wear periods suitable to the climate, as well as glazed facades with aluminium framing.<br>A façade access strategy for maintenance access and cleaning will be implemented. |