

ESQ1818_Mixed Use Development

Ransley Street, Panthers North Precinct
Penrith NSW 2750

DA Submission
Architectural Statement

Incorporating :
SEPP 65 and the Apartment
Design Guide

March 2016_Rev A



Site context

Project Overview

This design report and SEPP65 design verification response is prepared by Turner on behalf of ESQ1818 Panthers Pty Ltd in support of the Development Application [DA] for the mixed-use development known as ESQ1818. The project is located at Ransley Street within the Panthers North Precinct and is also bounded by Mulgoa Road to the south and bisected by Retreat Drive.

The DA submission and Design Report represents a considered approach to the development of the site.

The proposal was developed in collaboration with a comprehensive consultant team to address both strategic and detailed issues associated with the site and overall context. Council was consulted during the development of the design to ensure consistency with planning objectives, precinct strategy and matters pertaining to infrastructure.

This report is to be read in conjunction with architectural drawings prepared by Turner, landscape documentation prepared by Oculus and planning report prepared by SJB.



Site analysis plan



ESQ1818
Mulgoa Road Perspective

Location

The project is located at Ransley Street within the Panthers North Precinct and is also bounded by Mulgoa Road to the south and bisected by Retreat Drive.

The site is bound to the west by the existing lake and opens up to the recreational open space to the north.

The site has an irregular form, is split across multiple lots and has a total area of 66,656m².

The site currently contains hardstand carparking, lawn, a marquee and a drainage channel along the eastern boundary.

Design

The design intent of the proposal is to bring residential, retail and recreational elements together in a cohesive development that fits within and contributes to the existing and desired future context of Panthers North Precinct and the greater Penrith community.

The immediate and surrounding landscape elements - including the parklands, lake and mountains beyond - have been the key driver in the development of the proposal.

Connections and outlook to and through the site have been carefully planned to maximise the visual and physical permeability of the proposal.

The DA proposal defines envelopes and heights within a consideration of the building programme, massing, articulation, amenity, public domain and landscape integration. Further information about these elements is described under the SEPP65 - 9 principles heading below.

The development is designed to connect into and expand the pedestrian and cycle networks surrounding the site, with a network of linkages connecting the site with the greater Panthers precinct, the Nepean River, the River walk and Penrith station.

Internally, the site is designed to be highly permeable for pedestrians with the new road, foreshore promenade and nature walk connecting to the open recreational space to the north of the site.

Design Concept

The design concept for the development is to weave the natural environment into the site and continue the surrounding green space into the development.

The resultant massing is a series of ribbon forms that allow visual and physical permeability to the mountains and landscape areas to the north.

The green spines that run through the site provide a varied series of public and communal landscaped spaces, each with a unique character and programme.

The water elements within the site - the lake and the creek to the eastern boundary - have also been linked by splitting these ribbon forms to create pedestrian through links.

Use

The proposal seeks consent for 859 apartments, 3,305sqm of retail, associated parking, a new road and a series of communal and public open spaces.

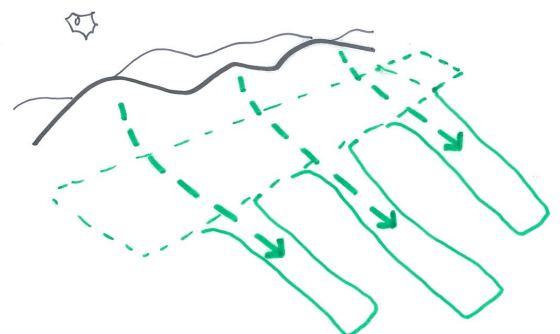
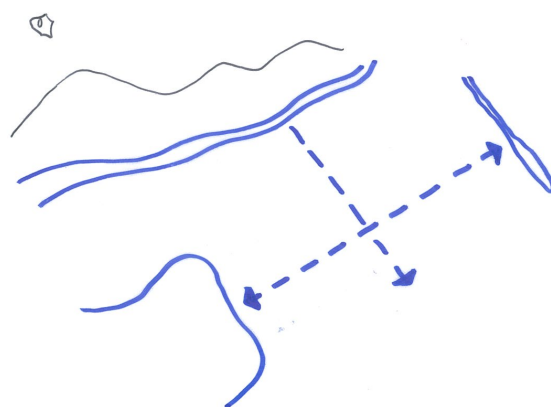
SEPP 65 Verification Statement

We confirm that Jason Goggi has directed the DA design and documentation of the ESQ1818 project at Ransley Street, Penrith.

The design is prepared in accordance with the design quality principles set out in Part 2 of State Environmental Planning Policy No.65-Design Quality of Residential Flat Development.

Jason Goggi is a registered architect under the NSW Architects Act 2003, registration number 8709.

Turner
Jason Goggi
Associate



Concept sketch

Design Quality 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 area, those undergoing change or identified for change.

Proposal

The proposal seeks to respond and contribute to the immediate context of the Panthers precinct as well as the surrounding area and greater community.

Responding the present context, the development maintains a buffer to the adjoining seniors housing to the east, opens up to the recreation areas to the north and provides an enhanced interface with the lake to the west.

Building heights have been lowered considerably below the permissible height adjacent to the adjoining seniors living dwellings on Retreat Drive to create a height transition to the existing buildings.

The taller buildings are located along the lakefront to the western edge of the site and consolidated to create a localised destination marker to the development.

The ground plane is designed to produce an attractive vibrant place with links within and around the site opening up to the open space beyond.

The development proposes a new road through the middle of the site along with public pedestrian pathways along the eastern and western boundaries in the form of the nature walk and lakefront promenade respectively. These public areas encourage community activation and interaction with the development and open space beyond.

Vehicle movement is limited to a central road with residential and retail parking areas separated.

The materials and finishes for the development are of a high standard and contextual to the setting. The development is intended as a landmark to create a destination for the precinct and wider community and promote the benefits of living in a area well serviced by transport, services and recreational facilities.



Permissible height across the site



Height reduced adjoining neighbouring properties



Building height reduced to create horizontal streetscapes



CEH redistributed to create landmark buildings to define the area

Massing Strategy

Design Quality 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

Envelopes have been developed with a consideration of the surrounding context, building programme, massing, articulation, amenity, public domain and landscape integration.

The concept of ribbon forms sitting in the landscape allows for increased separation between buildings while also bringing the landscape in to meet the buildings. This provides a green outlook from all apartments in the development while also opening up the site to the views and open space to the north.

The design proposes a redistribution of height across the site to better respond to the existing and future context.

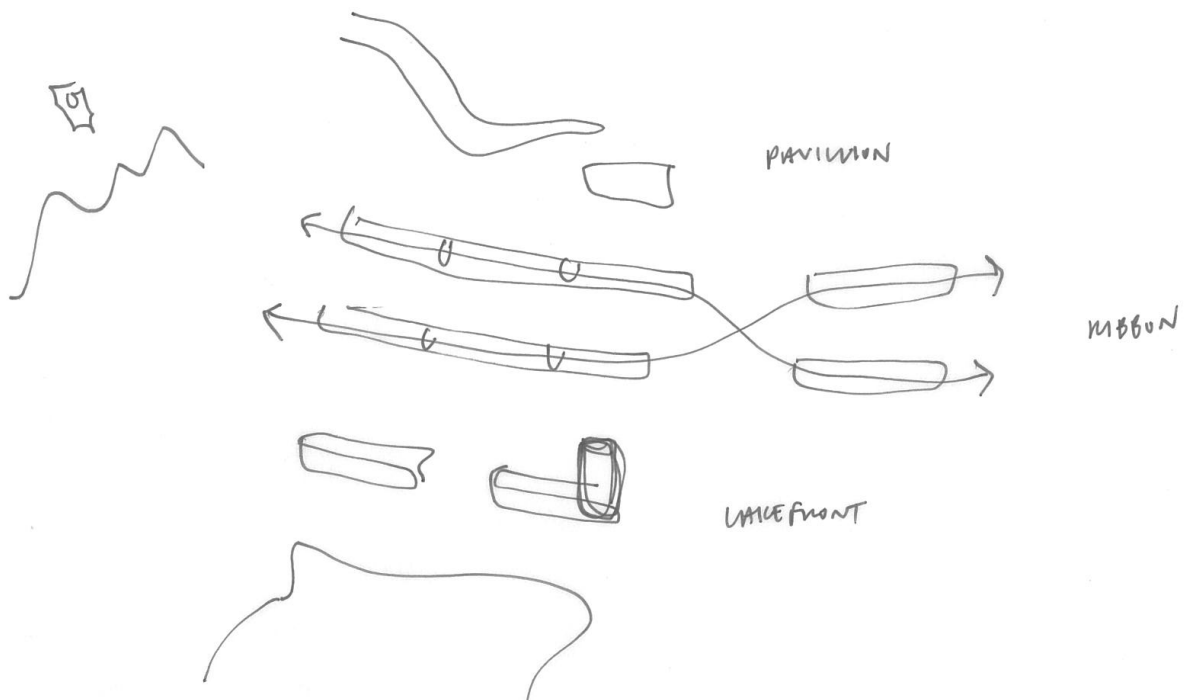
Buildings near the adjoining dwellings have been reduced significantly in height, with height increased to the two buildings fronting the lake. This lakefront cluster provides a landmark at the end of Ransley Street and a backdrop to the lake.

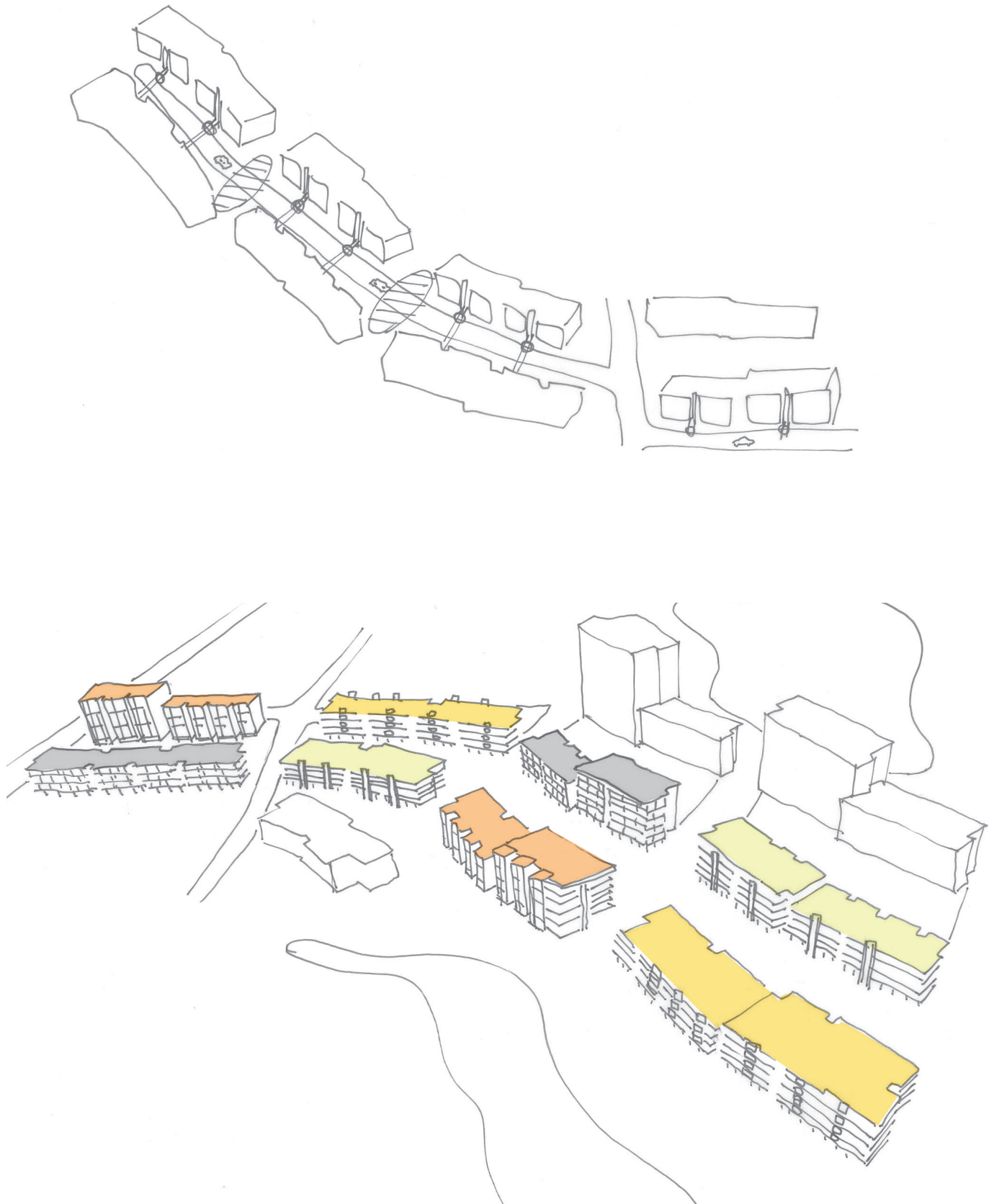
The heights of the buildings along each streetscape/landscape spine are stepped to create interest and variation in the roofscape.

Strategies have been introduced to reduce the mass of the buildings by breaking the overall form into smaller elements.

Buildings are split into two forms and rotated to emphasise the break. This provides a dynamic streetscape when viewed on the approach along the street/open space.

Furthermore, each form is split into smaller modules, with the lobby entry marked as a full height glass cut to the building. This not only serves not only to reduce the scale of the building but also to provide a very tangible reading of the functions of the buildings and point of entry.





Building massing and composition

Design Quality 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

The DA proposal is designed to maximise the amenity of all apartments.

The proposal proposes a GFA, number of apartments and uses appropriate for the site.

The GFA and FSR of each lot is compliant with the LEP.

There are a total of 859 apartments, comprised of a range of 1 bed, 2 bed, 3 bed and 4 bed apartments. This allows for a diversity of typologies and living patterns.

The site is located within close proximity to Penrith Station, as well as local bus routes.

Given the proximity to infrastructure, services and recreational areas for future residents in the immediate and local context, the proposed residential development is well suited to the site.

The proposed public landscaped areas and retail uses are also appropriate for the locality and are designed to work with the wider community context.

Further detail on density may be found in the planning report submitted as part of this DA.



Site plan

Design Quality 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.

Proposal

The massing, orientation and internal apartment planning have been organised to maximise natural daylighting and solar access to the primary living spaces, external living areas, communal courtyards and public open spaces.

The proposal achieves and improves on the natural cross ventilation and solar access recommendations of SEPP65.

The development achieves the deep soil and open space recommendations of the ADG and in doing so provides numerous varied areas of open space and landscape for the use of residents and the general public.

A BASIX report is included in the DA documentation outlining the thermal performance of the apartments. Additional sun shading is provided to apartments exposed to western sun through the integration of operable screens.

Within the apartments, hydraulic fixtures are specified as low-water use types and lights are low energy fittings.

General waste and recycling facilities are associated with each core on each level. Bulky-waste areas are allocated in the basement.

Water sustainable urban design principles are also featured in the proposal through a series of raingardens.

For further information on the WSUD strategies, refer to the Landscape and ESD reports submitted with this proposal.



Naturewalk Perspective

Design Quality Principle 5

Landscape

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

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

Proposal

The proposal has a comprehensive landscape concept and design, integrated with the architecture. It includes extensive deep soil zones, a range of unique public, communal and private open spaces, the naturalisation of the existing drainage channel to the west and, a rejuvenated interface to the existing lakefront and recreational areas beyond.

Further information on the landscape concept is outlined in the Landscape Design plans and statement, included as part of this DA proposal.



Landscape Plan

Design Quality 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 key concept for the development is to orient and separate the buildings to allow good visual and pedestrian permeability through the site.

Building orientation responds to solar access and maximises the views to the mountains and across the lake. Furthermore the proposed nature walk provides a new destination and outlook, for not only the development but the adjoining properties and wider public.

Given the considerable area of varied and unique landscaped areas proposed, the vast majority of apartments enjoy views over either communal or public landscaped space.

The proposed apartments are designed to have excellent levels of amenity. All apartments meet the minimum apartment size recommendations of the ADG, with the majority of living areas pulled to the facade line to encourage interaction with the external environment.

Solar access and cross-ventilation recommendations are achieved and many apartments have excellent views to the lake, nature walk, open space and mountains further afield.

Internally, the ADG building separation distances are not just achieved but significantly exceeding the relevant habitable-habitable distance.

Visual and acoustic privacy is considered with building mass, window location, screens and semi-opaque glass utilised to achieve the privacy recommendations of the ADG.

Accessible apartments are provided to meet the 10% DCP requirement.

Apartment amenity diagrams are included in the architectural drawing package lodged as part of this DA.



Apartment Amenity Diagram_Typical Level

Design Quality 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 DA proposal optimises safety and security by carefully delineating the retail and residential components and optimizing activation of the public domain to produce a safe and secure environment for all user groups.

The development proposes a new road through the middle of the site, along with public pedestrian pathways along the eastern and western boundaries in the form of the nature walk and lakefront promenade respectively.

The residential levels are separated from the ground floor via secured lobbies and lifts. The ground floor area is activated by the retail and is serviced by management personnel and CCTV.

There are clear pedestrian routes enable safe access to and from the site with lobbies and building entries legible and easily located from the public domain. All foyers include clear lines of site to the street frontages and will be fully glazed.

Active and passive surveillance to the public domain is achieved by the placement of residential apartments

with windows and balconies overlooking the ground plane. Dwellings at ground level are provided with terraces that allow passive surveillance over the street, the building entry and the adjoining open space areas. Direct street access to these ground floor also creates an activated street frontage along the full length of the streetscape

The building will utilise a security system at all entry points, and within the lifts. Podium communal areas are only accessible to residents via the main entry.

A single point of vehicular access is provided to each basement and secured by an automatic roller door.

There will be appropriate lighting to public and private areas facilitating a secure environment while also avoiding problematic light spill for residents and neighbours.



The Address_New road perspective

Design Quality Principle 8

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 development contains a mix of 1-, 2- 3- and 4-bedroom apartments. Within this range there are multiple apartment types and sizes allowing a variety of options for different demographics and price points.

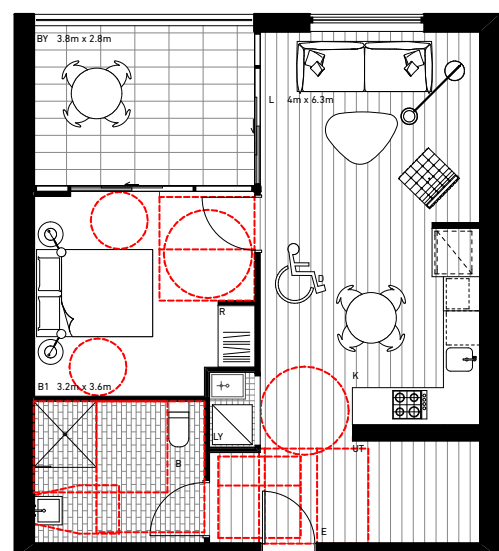
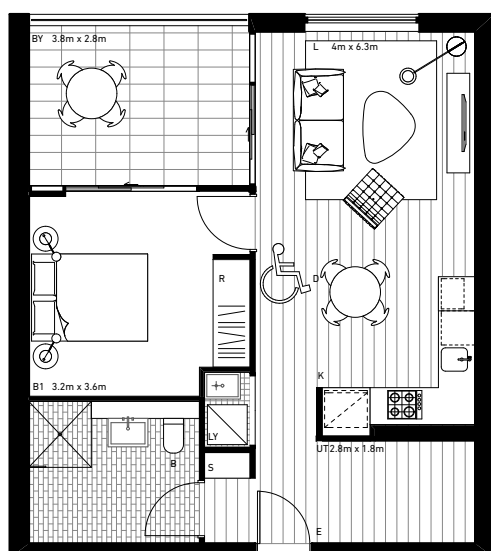
Ground floor and podium level apartments are provided with generous terraces that allow planting and direct access to the road/open space where achievable.

A portion of 2- and 3-bedroom apartments are designed to facilitate dual-key arrangements to allow flexibility of use throughout their life.

10% of apartments are designed as adaptable apartments and 20% of apartments incorporate the liveability standards at a silver level.

Communal spaces are designed to engender community spirit for residents within the development by offering north facing private and public open spaces including areas for groups to congregate and also for more private activities. Common areas are designed for equitable access.

The park, retail, foreshore and public domain at ground level are well aligned with the residential use and will provide additional levels of community interaction and activation for the development.



Adaptable apartment layout - 1 bed

Design Quality 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 proposal is designed with a number of different architectural strategies in order to achieve a well-balanced aesthetic and an appropriate visual presence from vantage points both near and far from the site.

As discussed previously, these strategies include splitting the overall building mass, building rotations and the expression of recessive cuts.

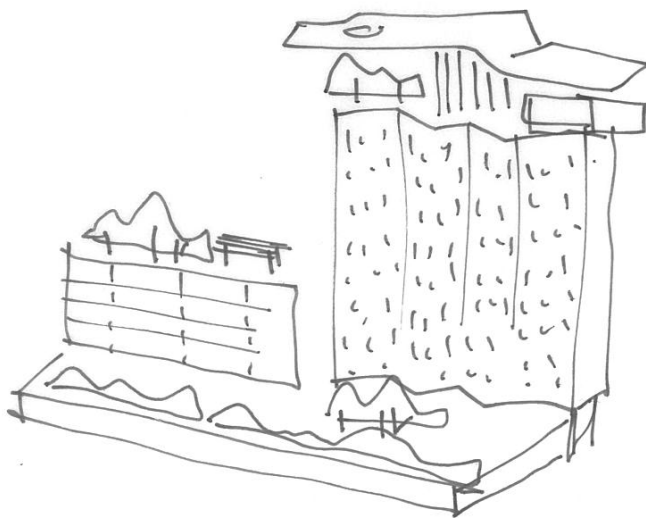
The facade is also broken down in scale, with the introduction of datumns, double-height scaled elements and unique roof and base expressions.

The overall horizontal language of the ribbon is carried through to the facade expression with the breaks, turns and ends of the ribbon celebrated as unique moments along the run of the ribbon.

The tower buildings to the lakefront are broken into a podium, body and roof with each bringing a unique expression.

Materials and finishes vary across buildings but maintain a familiarity across the site to a set of distinctive forms linked by thematic 'family resemblances'.

Further information regarding the finishes, materials and elevational composition can be found in the elevations and perspective images submitted as part of this application.



CROWN / FREEFORM

BODY / VELL

PODIUM / LANDSCAPE

Tower composition



Lakefront Perspective

Note: The following guidelines must be read in conjunction with detailed text contained in the Design Code.

Objectives	Comment
3A Site analysis [p.47]	
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	- The key driver in the location and layout of the buildings is the principle of green spines linking to the existing recreation space and mountain views to the north. - The frontage to the lake and existing Panthers precinct along Ransley Street is activated with retail premises to create a lively precinct and destination place. - The proposal forms links with the existing infrastructure and amenities to link the Panthers club around the lake with the open recreation space opposite. - A site analysis plan is included in the architectural drawings for this proposal.
3B Orientation [p.49]	
Objective 3B-1 Building types and layouts respond to the streetscape and site while optimising solar access within the development	This north-south axis also maximises solar access for the apartments and communal open space and responds to the orientation of the existing lake.
Objective 3B-2 Overshadowing of neighbouring properties is minimised during mid winter Design Guidance - 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% - A minimum of 4 hours of solar access should be retained to solar collectors on neighbouring buildings.	The solar access to neighbouring properties is unaffected as the buildings are generously setback from adjoining allotments.
3C Public Domain Interface [p.51]	
Objective 3C-1 Transition between private and public domain is achieved without compromising safety and security	Residential access points are located appropriately to improve legibility for residents and visitors. The entry points for the residential buildings are typically located along the new street frontage away from the retail areas of the development.

Objectives	Comment
Objective 3C-2 Amenity of the public domain is retained and enhanced	- Residential lobbies are secure to control access and to appropriately separate circulation routes. - Apartment windows and balconies overlook the public domain to encourage passive surveillance. - The proposed design has minimised any opportunities for people to be concealed. - The landscape for the public domain is designed to integrate with the architecture and to soften building edges to form a transition from soft to hard elements. - The design minimises the prominence of the car parks. - Ramping for accessibility is minimised and integrated into the development, including landscape treatments and paths through the public domain.
3D Communal and public open space [p.55]	
Objective 3D-1 An adequate area of communal open space is provided to enhance residential amenity and to provide opportunities for landscaping. Design Criteria - Communal open space has a minimum area equal to 25% of the site - 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) - The communal open space should have a minimum dimension of 3m	- The proposal contains a number of communal and outdoor spaces for the enjoyment of residents and visitors to the site. - The area of communal open space is in excess of the ADG requirements. - The principal ground level outdoor space is the nature walk to the east of the site, along with the communal landscape areas between buildings D and E, and A and B. - There are also private communal landscape spaces at podium level connected to buildings J,K,L,M. - The communal apces are generally located in a north-south direction with appropriate solar access, enjoying sun throughout the day during mid winter.
3E Deep soil zones [p.61]	
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 Design criteria Deep soil zones are to meet the following minimum requirements: 7% of site area <650sqm – no min dimension 650sqm-1500sqm – 3m min dimension >1500sqm – 6m min dimension	The nature walk to the east of the site and the new street through the site provide deep soil zones well in excess of the minimum ADG requirements. In addition to this there are deep soil zones along most boundaries.

Objectives	Comment
3F Visual privacy [p.63]	
Objective 3F-1 Adequate building separation distances are shared equitably between neighbouring sites, to achieve reasonable levels of external and internal visual privacy Design criteria • 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: • 4 storeys: 6m for habitable rooms and balconies; 3m for non-habitable rooms. • 5-8 storeys: 9m for habitable rooms and balconies; 4.5m for non-habitable rooms. • 9+storeys: 12m for habitable rooms and balconies; 6m for non-habitable rooms. • Separation distances between buildings on the same site should combine required building separations depending on the type of room (see figure 3F.2)	• The buildings are positioned with considerable open space, setbacks and separation across the site. • The separation dimensions provided between buildings is well in excess of the ADG habitable-habitable distance requirements. Refer to the Building Separation Diagram included in the Architectural drawings.
3G Pedestrian access and entries [p.67]	
Objective 3G-1 Building entries and pedestrian access connects to and addresses the public domain	• Multiple pedestrian links are provided through the site to increase permeability.
Objective 3G-2 Access, entries and pathways are accessible and easy to identify	• The proposed building access areas including residential lobbies, mailrooms and lift lobbies are clearly distinguishable from other functions. • Level changes on the ground level are minimised with level changes, ramps and steps integrated into the overall building, public domain and landscape design.
Objective 3G-3 Large sites provide pedestrian links for access to streets and connection to destinations	• Pedestrian links are direct, have clear sight lines and are overlooked by communal and public landscape areas.
3H Vehicle Access [p.69]	
Objective 3H-1 Vehicle access points are designed and located to achieve safety, minimise conflicts between pedestrians and vehicles and create high quality streetscapes	• The car park entry points are located to allow the smooth ingress of traffic and to avoid conflicts with pedestrian routes. • Retail, loading and residential parking is kept apart with separate entry, circulation and access points for each type. • The width of car park entries is minimised and clear sight lines are provided at vehicle crossings. • Pedestrian and vehicle access points are separated • A new road is proposed to service the development, in line with the provisions of the Local Road illustrated in figure C10.2. This road has been designed to allow for future connection with a potential low speed road within the Panthers open space corridor. • A traffic report prepared by GHD is submitted with this proposal.

Objectives	Comment
3J Bicycle and car parking [p.71]	
Objective 3J-1 Car parking is provided based on proximity to public transport in metropolitan Sydney and centres in regional areas Design criteria The car parking needs for a development must be provided off street	- Bicycle and car parking meets the requirements of the Transport Access and Parking DCP. - Parking areas for bicycles and are provided in separate areas for residential and retail uses.
Objective 3J-2 Parking and facilities are provided for other modes of transport	- Bicycle spaces are provided throughout the development, along with dedicated on-street car spaces within the new road. - Charging stations for electric cars are provided in each basement.
Objective 3J-3 Car park design and access is safe and secure	Car park access is secured at appropriate levels for retail and residential uses with clear sightlines at all entry points.
Objective 3J-4 Visual and environmental impacts of underground car parking are minimised	Underground and above ground parking levels are appropriately screened and buffered with integrated landscape.
Objective 3J-6 Visual and environmental impacts of above ground enclosed car parking are minimised	Parking located above grade is integrated into the architecture of the building to minimise visual impact from the public domain.
4A Solar and daylight access [p.79]	
Objective 4A-1 To optimise the number of apartments receiving sunlight to habitable rooms, primary windows and private open space Design criteria - 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 - A maximum of 15% of apartments in a building receive no direct sunlight between 9 am and 3 pm at mid winter	- Buildings have been oriented predominantly on a north-south axis to create an open landscape corridor and maximise solar access. 72% of apartments achieve the ADG recommendation for solar access of 2hrs between 9am to 3pm in mid-winter. Additionally, 82% of apartments receive 2hrs direct sunlight between 9am and 4pm at mid-winter. 13% of apartments receive no direct sunlight during 9am – 3pm at mid-winter.
Objective 4A-2 Daylight access is maximised where sunlight is limited	The proposed development does not need to rely on the use of courtyards or lightwells.
Objective 4A-3 Design incorporates shading and glare control, particularly for warmer months.	The proposed development incorporates shading devices such balconies, pergolas, external louvres and planting to control heat load during the warmer months.

Objectives	Comment
4B Natural ventilation [p.83]	
Objective 4B-1 All habitable rooms are naturally ventilated	Window and door openings have been sized to allow the ADG and NCC recommendations for ventilation to be achieved.
Objective 4B-3 The number of apartments with natural cross ventilation is maximised to create a comfortable indoor environment for residents Design criteria - 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 - Overall depth of a cross-over or cross- through apartment does not exceed 18m, measured glass line to glass line	61% of apartments achieve the ADG recommendation. Cross through apartments have a length of less than 18m. Refer to the Apartment Amenity Diagrams for further information.
4C Ceiling Heights [p.87]	
Objective 4C-1 Ceiling height achieves sufficient natural ventilation and daylight access Design criteria - Measured from finished floor level to finished ceiling level, minimum ceiling heights are: - Habitable rooms: 2.7m - Non-habitable: 2.4m - If located in mixed use area: 3.3m for ground and first floor to promote flexibility	- A floor-to-floor height of 3.1m is provided to allow the ADG recommendation to be achieved in living, dining and bedroom areas. - The site is not located in a mixed use area.
Objective 4C-2 Ceiling height increases the sense of space in apartments and provides for well proportioned rooms	The proposed provides the required 2.7 metres floor to ceiling for all habitable rooms. Ceiling heights are maximised in habitable rooms by ensuring that bulkheads do not intrude and the stacking of ducts and service rooms from floor to floor where possible.
Objective 4C-3 Ceiling heights contribute to the flexibility of building use over the life of the building	As a mixed use development, generous floor-to-floor heights are used at retail levels to allow flexibility of uses.

Objectives	Comment
4D Apartment size and layout [p.89]	
Objective 4D-1 The layout of rooms within an apartment is functional, well organised and provides a high standard of amenity Design criteria • Apartments are required to have the following minimum internal areas: • Studio: 35sqm • 1 bedroom: 50sqm • 2 bedroom: 70sqm • 3 bedroom: 90sqm The minimum internal areas include only one bathroom. Additional bathrooms increase the minimum internal area by 5m² each A fourth bedroom and further additional bedrooms increase the minimum internal area by 12m² each • 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 Design Guidance • A window should be visible from any point in a habitable room	• All apartments meet the minimum requirements of the ADG. Two and three bedroom apartments with two bathrooms include the additional 5m². • Four bedroom apartments include the additional areas for the extra bathrooms and bedroom. • Window and door openings have been sized to allow the ADG and NCC minimum recommendations for daylight to be achieved.
Objective 4D-2 Environmental performance of the apartment is maximised Design criteria • Habitable room depths are limited to a maximum of 2.5 x the ceiling height • In open plan layouts (where the living, dining and kitchen are combined) the maximum habitable room depth is 8m from a window	• Open plan living areas have been designed with the rear wall of kitchens located within 8m of a window or glazed door suite. • Refer to the architectural drawings for further information on apartment layouts.
Objective 4D-3 Apartment layouts are designed to accommodate a variety of household activities and needs Design criteria • Master bedrooms have a minimum area of 10m² and other bedrooms 9m² (excluding wardrobe space) • Bedrooms have a minimum dimension of 3m (excluding wardrobe space) • Living rooms or combined living/dining rooms have a minimum width of: - 3.6m for studio and 1 bedroom apartments - 4m for 2 and 3 bedroom apartments • The width of cross-over or cross-through apartments are at least 4m internally to avoid deep narrow apartment layouts	• Bedrooms in all apartments are design to allow a minimum of 10m² in master bedrooms and 9m² in other bedrooms. • All living rooms typically have a minimum width of 4m [including 1 bedroom apartments]. • The width of cross-through apartments is a minimum of 4m. • All bedrooms have built-in robes with a minimum lineal dimension of 1.5m • Main bedrooms have built-in robes with a minimum dimension of 1.8 x 0.65 x 2.4m. • Refer to the architectural drawings for further information.

Objectives	Comment
4E Private open space and balconies	
Objective 4E-1 Apartments provide appropriately sized private open space and balconies to enhance residential amenity Design criteria - All apartments are required to have primary balconies as follows: - Studio: 4sqm min 1 bed: 8sqm min and 2m depth 2 bed: 10sqm min and 2m depth 3 bed: 12sqm min and 2.4m depth 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.	- All apartments meet the ADG requirements for balcony areas and depths. - Ground floor and podium terraces achieve the area and depth requirements.
Objective 4E-2 Primary private open space and balconies are appropriately located to enhance liveability for residents	Balconies are recessed within the building to provide full cover and present as an extension of the living area.
Objective 4E-3 Private open space and balcony design is integrated into and contributes to the overall architectural form and detail of the building	Balconies recesses are framed and celebrated to create niches within the building form.
4F Common circulation and spaces [p.97]	
Objective 4F-1 Common circulation spaces achieve good amenity and properly service the number of apartments Design criteria - The maximum number of apartments off a circulation core on a single level is eight - For buildings of 10 storeys and over, the maximum number of apartments sharing a single lift is 40 - Where design criteria 1 is not achieved, no more than 12 apartments should be provided off a circulation core on a single level	- Most circulation cores service seven to nine apartments. These buildings are generally 4 to 5 stories only. - Buildings over 10-storeys high have multiple lifts servicing residential lobbies.
Objective 4F-2 Common circulation spaces promote safety and provide for social interaction between residents	All lobbies have high amenity as they connections to the façade to facilitate the ingress of daylight and natural ventilation.

Objectives	Comment
4G Storage [p.101]	
Objective 4G-1 Adequate, well designed storage is provided in each apartment Design criteria • In addition to storage in kitchens, bathrooms and bedrooms, the following storage is provided: - 1 bed: 6m³ - 2 bed: 8m³ - 3 bed: 10m³ At least 50% of the required storage is to be located within the apartment	• Apartments are provided with storage facilities meeting or exceeding the ADG recommendations. Most apartments meet the requirements within the apartment.
Objective 4G-2 Additional storage is conveniently located, accessible and nominated for individual apartments	• Storage not located in apartments will be secure in the basement and clearly allocated to specific apartments.
4H Acoustic Privacy [p.103]	
Objective 4H-1 Noise transfer is minimised through the siting of buildings and building layout.	• Adequate building separation is provided within the development and from neighbouring buildings/adjacent uses • Where possible, bedrooms of adjacent apartments have been located next to each other and likewise with living areas. Storage, circulation areas and non-habitable rooms are located to buffer noise from external sources • The party walls (walls shared with other apartments) will be appropriately insulated in accordance with NCC requirements
Objective 4H-2 Noise impacts are mitigated within apartments through layout and acoustic treatments	• Where possible, bedrooms of adjacent apartments have been located next to each other and likewise with living area. • Storage, circulation areas and non-habitable rooms are located to buffer noise from external sources • The party walls (walls shared with other apartments) will be appropriately insulated in accordance with NCC requirements.
4K Apartment Mix [p.107]	
Objective 4K-1 A range of apartment types and sizes is provided to cater for different household types now and into the future	• A variety of apartment types is provided. The proposal incorporates dual-key type apartments to allow greater flexibility for end users throughout their life. • The proposed apartment mix is considered appropriate, taking into consideration the distance to public transport, employment and education centres, as well as the current apartment stock, market demands and projected future demographic trends within the area. • Different apartment types have been located to achieve successful facade composition and to optimise solar access.
Objective 4K-2 The apartment mix is distributed to suitable locations within the building	• Larger apartment types have been located to the lakefront and upper levels to optimise views as well as on the corners of the building where more frontage is available.

Objectives	Comment
4L Ground floor apartments [p.109]	
Objective 4L-1 Street frontage activity is maximised where ground floor apartments are located	Ground level apartments are provided with private entries accessed from the footpath.
Objective 4L-2 Design of ground floor apartments delivers amenity and safety for residents	All ground level apartment are provided with private terraces located at a height above the footpath level to promote privacy while allowing for casual surveillance and activation of the streetscape
4M Facades [p.111]	
Objective 4M-1 Building facades provide visual interest along the street while respecting the character of the local area	- The building characterisation approach across the site links buildings within the same precinct and applies a familial approach, while creating diversity through variations in composition and materiality. - The language of ribbon buildings, pavilions and landmark buildings clearly defines the contextual response of each typology. - The proposed façade design generates shadow throughout the day as a result of building articulation and balconies.
Objective 4M-2 Building functions are expressed by the facade	Entries to the residential buildings are clearly defined in the building composition with recessed glazed slots
4N Roof design [p.113]	
Objective 4N-1 Roof treatments are integrated into the building design and positively respond to the street	The roof treatments have been integrated with the building design and roof materials to compliment the building.
Objective 4N-2 Opportunities to use roof space for residential accommodation and open space are maximised	Rooftop terraces are provided to the lakefront buildings to provide communal breakout space with views out over the lake and mountains beyond. These terraces are provided with landscape and cover to provide amenity for the residents.
4O Landscape design [p.115]	
Objective 4O-1 Landscape design is viable and sustainable	The development application is accompanied by a landscape plan which enhances the environmental performance of the development by incorporating diverse planting including appropriately planted shading trees
Objective 4O-2 Landscape design contributes to the streetscape and amenity	The proposed landscape includes significant public domain design including a new streets, a publicly accessible nature walk, a foreshore promenade and a new plaza to the retail areas.
4P Planting on structures [p.117]	
Objective 4P-1 Appropriate soil profiles are provided	The proposed development includes planting over the basement parking, on the podium level and on rooftop terraces. Appropriate soil volume is provided to facilitate plant growth with plants selected to suit the site conditions.
Objective 4P-3 Planting on structures contributes to the quality and amenity of communal and public open spaces	The proposed development incorporates planting on the podium structures which will contribute positively to the ground floor apartments as well as the higher level apartments which look onto this space.

Objectives	Comment
4Q Universal Design [p.119]	
Objective 4Q-1 Universal design features are included in apartment design to promote flexible housing for all community members Developments achieve a benchmark of 20% of the total apartments incorporating the Livable Housing Guideline's silver level universal design features	The development provides 10% adaptable apartments. These apartments, along with and additional 10% of apartments (20% total) are designed to also allow compliance with the silver level universal design standard.
Objective 4Q-2 A variety of apartments with adaptable designs are provided	Adaptable apartments are provided in both ground/podium level and upper level apartments, with varying sizes and types.
Objective 4Q-3 Apartment layouts are flexible and accommodate a range of lifestyle needs	Apartment layouts include dual key typologies to allow flexibility throughout their life.
4S Mixed Use [p.123]	
Objective 4S-1 Mixed use developments are provided in appropriate locations and provide active street frontages that encourage pedestrian movement	The ground floor frontages to Ransley Street and the lake are generally activated with retail uses.
Objective 4S-2 Residential levels of the building are integrated within the development, and safety and amenity is maximised for residents	Residential lobbies and circulation is separated from the retail and public domain with designated secure points to control access.
4T Awnings and Signage [p.125]	
Objective 4T-1 Awnings are well located and complement and integrate with the building design	- Awnings and covered areas are provided over building entries and mailboxes for building address and public domain amenity. - Full retail length awnings are provided along the Ransley Street and Lakefront frontages.
Objective 4T-2 Signage responds to the context and desired streetscape character	Retail signage is proposed to be integrated into lower elevations so as not to interfere with the residential levels above.
4U Energy Efficiency [p.127]	
Objective 4U-1 Development incorporates passive environmental design	Adequate natural light is provided to all habitable rooms.
Objective 4U-2 Development incorporates passive solar design to optimise heat storage in winter and reduce heat transfer in summer	The proposed development incorporates passive solar design measures including overhangs and shading devices, insulated walls, roofs and floors.
Objective 4U-3 Adequate natural ventilation minimises the need for mechanical ventilation	- The proposed development optimises natural cross-ventilation for apartments. - Natural ventilation is provided to all habitable rooms and lift lobbies.

Objectives	Comment
4V Water management and conservation [p.129]	
Objective 4V-1 Potable water use is minimised	The development incorporates water efficient fittings, appliances and waste-water re-use.
Objective 4V-2 Urban stormwater is treated on site before being discharged to receiving waters	The proposal incorporates rainwater collection, storage and re-use on site.
Objective 4V-3 Flood management systems are integrated into site design	- Plant selections are designed for the microclimate and are typically low-water use. Further details about the proposed planting and landscape concept will be detailed in the landscape package submitted as part of the development application. - The proposal incorporates water-sensitive urban design systems and flood management systems, with the existing creek to the east of the site resculpted to improve flood conveyance and create a publicly accessible nature walk.
4W Waste management [p.131]	
Objective 4W-1 Waste storage facilities are designed to minimise impacts on the streetscape, building entry and amenity of residents	Communal waste chutes are provided for residents in convenient and accessible locations related to each vertical core.
Objective 4W-2 Domestic waste is minimised by providing safe and convenient source separation and recycling	A garbage holding area and bulk-waste area for residents is located in each basement. Waste and recycling storage areas are well ventilated and have durable and washable finishes



Naturewalk Perspective

turner.