SEPP65 Design Statement
Area 16 & 17

12-20 Berry Road & 11-19 Holdsworth Avenue
St Leonards South NSW 2065

Prepared for
Aqualand St Leonard Development 3 Pty Ltd

Prepared by
Silvester Fuller

Issued
20 June 2022

SILVESTERFULLER

We would like to acknowledge the Gamaragal People as the traditional custodians of the land on which the project is located and pay our respects to elders, past, present and emerging.

Contents

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01 Design Verification Statement

01

Design Verification Statement

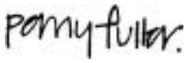
Silvester Fuller, under the guidance of registered architects Penny Fuller (7889) and Jad Silvester (8027), have been responsible for the preparation of the residential and mixed use project that is the subject of this development application.

We have done so in the context and full knowledge of SEPP65 and the Apartment Design Guide. We have prepared a compliance table, detailing the measurements and compliances with the SEPP65 requirements.

This together with the site analysis, diagrams, drawings and photomontages that are included in this submission lead us to conclude that the proposal complies with the intent of the nine (9) design quality principles in SEPP 65.

Accordingly, we verify that the scheme complies with the requirements and intentions of SEPP65 and any non-compliance that may occur does not change our views expressed above.

Your sincerely,



Penny Fuller NSW ARB 7889
Partner, Silvester Fuller

Jad Silvester NSW ARB 8027
Partner, Silvester Fuller

02 Introduction

02

Design Statement

Through a rigorous iterative design process we have conceptualised a pair of apartment buildings nestled within a native landscape in the very heart of the St Leonards South Precinct.

Our design concept for Area 16 & 17 seeks to respect the intent of the planning controls whilst enhancing both the public and private aspects of the precinct. It is a mixed-use development comprising two ten (10) storey buildings in a park-like setting between Berry Road and Holdsworth Avenue. The two buildings contain community space, a childcare centre and a diverse collection of apartment types.

Separating the two buildings is the green spine and central courtyard - a defining precinct element which we have used to create a collection of landscaped outdoor spaces supporting a range of public and private activities, whilst affording a landscaped outlook to the homes created either side. Outwardly each building presents it's address and front-door to the respective streets whilst to the North, both buildings extend to create a protected and accessible East-West pedestrian connection within the landscape. The development provides both public and private connections between Holdsworth Avenue and Berry Road through a combination of sheltered and open pathways that traverse and connect the site over three distinct ground plane levels of Holdsworth Avenue, Berry Road and the central courtyard between the two.

The primary building massing respects the DCP intent of an upper and lower mass. The upper mass is inset from the lower mass reducing the perceived bulk and scale of the building and creating open to sky terraces midway up the building. A central vertical recess in the massing articulates each building into two reducing the perceived facade length along the East and West facades whilst serving to mark the main entry for the residences.

The project is articulated vertically into three distinctive material layers: landscape, lower building and upper building. A reduced yet considered material palette is proposed for each of these layers. The landscape has been conceived as an undulating sandstone gully which traces the natural ground line as it rises between Holdsworth Avenue and Berry Road. The landscape reuses sandstone from the existing site to create new paving, steps, benches, planter walls and other landscape elements across the site. The lower building comprises warm toned brickwork anchoring the base of the building to the landscape. The upper inset building is lighter in tone, reflecting light and softer in materiality against the sky beyond. The rooftop is articulated as a collection of smaller spaces, outlined by soft pitched roof forms they define the roof top program comprising sky homes, building services and communal rooftop amenity.

The apartments themselves are diverse in their size and type. At ground level, two-storey Townhouses face the street and central courtyard with dedicated individual entrances. Midway up the building large outdoor terraces define the terrace homes. On the rooftop, four large sky homes anchor and define the rooftop geometry of the Northern elevation and between these layers are a collection of one, two and three bedroom homes with carefully considered planning and facade interfaces to optimise daylight, sound, privacy and ventilation. In addition to offering a diversity of home types, the development delivers key public amenities and infrastructure for the precinct including the pedestrian links, community space, childcare centre and accessible connections between Holdsworth Avenue with Berry Road.

Note: Images are indicative.

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03 SEPP 65 Design Quality Principles

03

Principle 1: Context Neighbourhood Character

Local Context

St Leonards south is a changing locale. Formally a predominantly single residential area, the percent is being redeveloped into a neighbourhood village with a greater level of density and increased variation in program offering.

The Berry Holdsworth project sits centrally within the new St Leonards precinct and forms the heart of this new development site. The precinct benefits from being situated within close proximity to the St Leonards train station between the Pacific Highway and River Road.

The development site itself is bounded by two roads, Holdsworth Avenue and Berry Road, and includes the properties of 12-20 Berry Road and 11-19 Holdsworth Avenue. The site is designated to house a new community centre and childcare centre and has access to great local amenities including: parks, transport, and a growing retail and commercial precinct.

Whilst the precinct is to undergo a great degree of change, there are many aspects of the natural setting that are to be retained and enhanced as described on the following page.

RNS Hospital

Gore Hill Cemetery

Parkland

Crows Nest Metro Station

St Leonards Station

03

Principle 1: Context Neighbourhood Character

Holdsworth Avenue

Holdsworth Avenue has a well established landscaped nature and is characterised by dense mature street trees and large verges. The street is also characterised by a significant fall to the south which terminates in a series of public steps leading down to River Road. Under the St Leonards South Masterplan, the public access to River Road will be retained.

The existing dwellings are predominantly mid-20th century brick bungalows. These will be demolished under the St Leonards South Masterplan. Articulated brickwork is proposed to be used on the lower levels of the development as a homage to the existing dwellings.

On street parking is located to both sides of the street. A single driveway crossing is proposed to Holdsworth avenue which will significantly increase the available on-street parking which is currently interrupted by multiple individual driveway crossings. Whilst the street planting is well established, trees on the western side of Holdsworth Avenue are impacted by overhead wires and have not grown well. It is understood that overhead lines are to be undergrounded and new street trees established.

On the western side, a steep rise in the terrain at the footpath and property interface has resulted in many properties with masonry retaining walls facing the street. These retaining walls are constructed from sandstone and brick.

Holdsworth Avenue looking South

Holdsworth Avenue Western Frontage

Berry Road

Whilst Berry Road has fewer street trees than Holdsworth Avenue the street is also characterised by a significant change in topography. The street also falls to the south and terminates in a series of public steps which lead down to River Road. Under the St Leonards South Masterplan, the public access to River Road will be retained.

As above, on street parking occurs on both sides of the street and will again be increased, no driveway crossing is proposed for the new development to Berry Road.

Being the higher street of the development, city vistas towards the south and views of the new highrise buildings in St Leonards to the north are evident.

Berry Road looking South

Berry Road looking North

03

Principle 1: Context Neighbourhood Character

Site Analysis

The St Leonards South masterplan has many positive aspects that benefit the development site. The existing landscaped character of the precinct is retained and forms the new organisational structure for the precinct. “Green Spines” are formed by central communal courtyards that run north-south. Pedestrian links which run East-west are also designated as green landscaped spaces within the precinct whole. The development fronts a northern pedestrian link that connects Holdsworth Avenue and Berry Road.

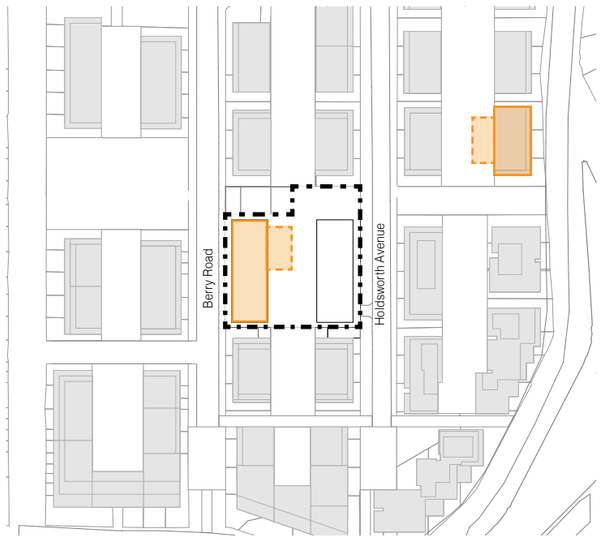
A portion of the site is dedicated to providing accessible public access between Holdsworth Avenue and Berry Road via ramps and lifts. Undercovered sheltered access is provided within the development site for this public access which provides direct entry to a community hall and childcare centre which are accommodated within the development. These are located across two levels in the Berry building.

Maximum height controls are dictated by the LEP with a max height of 37m on the Holdsworth building and 38m on the Berry building. A max height allowance of 2.5m applies to all structures within the green spine. The masterplan allows for dual 10 storey buildings separated by the green communal courtyard. The development orientation has been dictated by the masterplan, with the buildings running in a north-south direction.

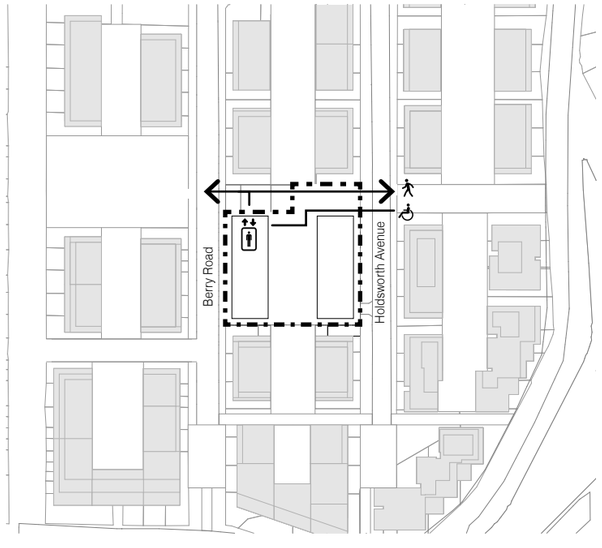
Additionally the site is located within close proximity to existing and future parks.

01 Green Spine

02 Public Parks

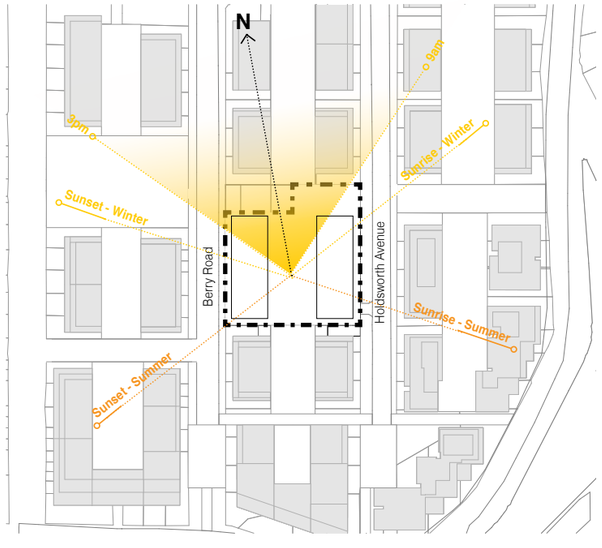


03 Community Spaces



04 Connections

05 LEP Height



06 Solar Analysis

03

Principle 1: Context Neighbourhood Character

Connection to Country

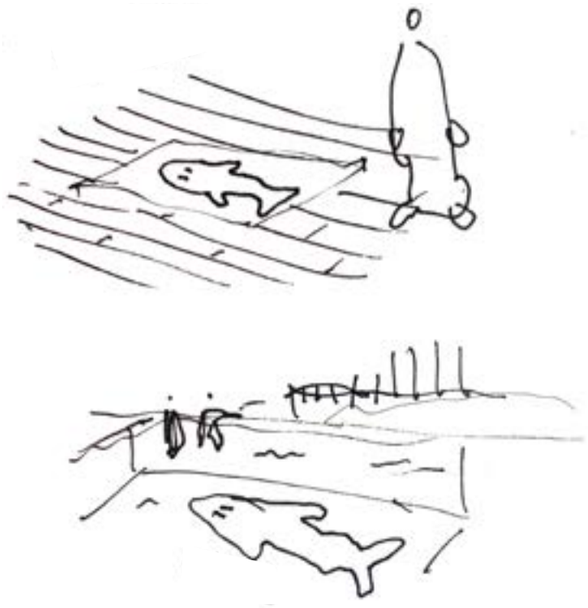
The traditional custodians of the land on which the project is located are the Gammeraigal people. We have been particularly conscious around designing a building that is respectful and pays tribute to the traditional custodians. A response that is not superficial but considered and integrated.

To assist, the team engaged Indigenous Consultant WSP who helped facilitate meetings with local elder Uncle Dennis.

The project team held workshops with WSP and Uncle Dennis to discuss the history of the site and the proposal. The team also undertook a “walk on country” tour of the site and surroundings with Uncle Dennis.

The learnings have driven the design holistically, the primary aspects are outlined further within this report under Principle 2. The are many more detailed aspects to be developed and included in the later stages of project design including, screen patternings, integrated artworks, education elements and interpretation findings, materiality and pavement inlays.

Further information can also be found in the Connection to Country Report prepared by WSP specifically for this project.



Sketches from Workshop Sessions with WSP and Unvle Dennis

Walking Country with Uncle Dennis and WSP

Mapping of Sydney Harbour, National Library of Australia

Walking Country with Uncle Dennis and WSP

03

Principle 2: Built Form and Scale

Massing Strategy

The massing of the development is largely defined by the masterplan controls:

- The LEP envelope allows for a maximum building height of 37m on the Holdsworth building and a maximum building height of 38m on the Berry building.
- The DCP dictates setback conditions for the building mass on Holdsworth Avenue, Berry Road and the pedestrian link. The southern setback is set to comply with ADG separations.

The building mass is then further rationalised into form as intended by the controls with a legible lower mass and a recessed upper mass. A central recess zone splits the building mass into northern and southern sections. A single storey step is introduced to the northern section of each building allowing the mass to follow the terrain change across the site.

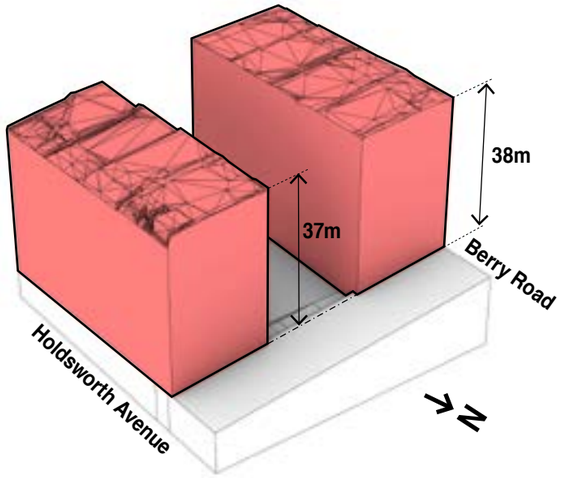
Initial studies revealed that is was not possible to achieve the allowable GFA within the masterplan envelope. It is important to attain the full development potential to allow funding for the public aspects required within the development site:

- Community Hall
- Childcare Centre
- Childcare Basement Parking
- Accessible public access and lift
- Dedicated affordable apartment

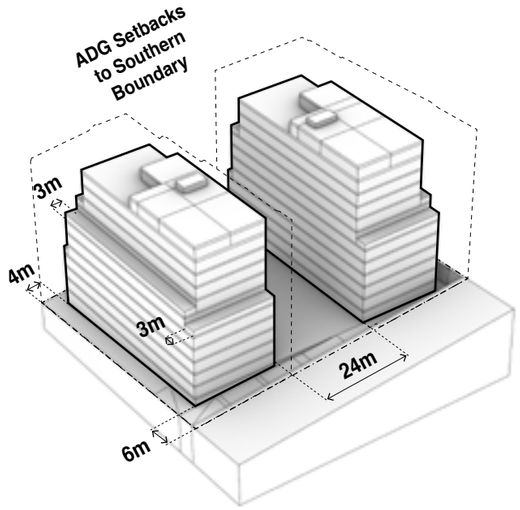
Massing opportunities were explored to achieve the allowable GFA area and were assessed by their capacity to provide additional benefits. The northern setback is adjusted to provided a sheltered public accessway and protected outdoor childcare play space. The setback remains compliant with the objectives of the DCP and ADG. Articulated balconies project on the upper levels created a distinctive and highly articulated building.

A distinctive formal identity is given to the rooftop as a means to add greater amenity to the residential and communal areas at the top of the building and providing the building a unique yet distinctively residential identity.

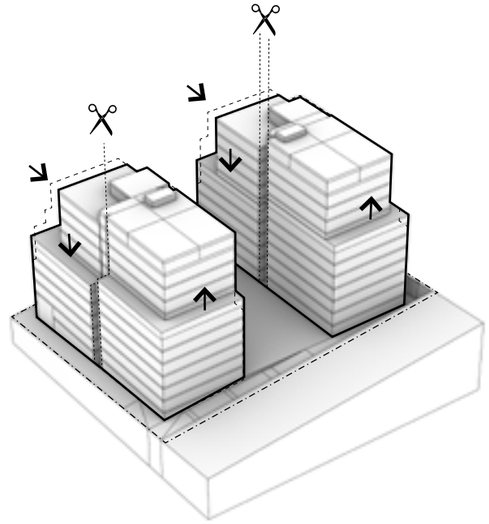
The massing moves result in a building mass that responds to the proportions and scale of the future urban context.



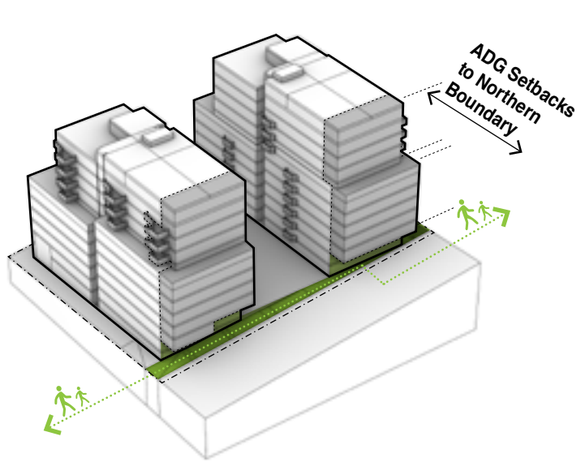
01 LEP Height Plane



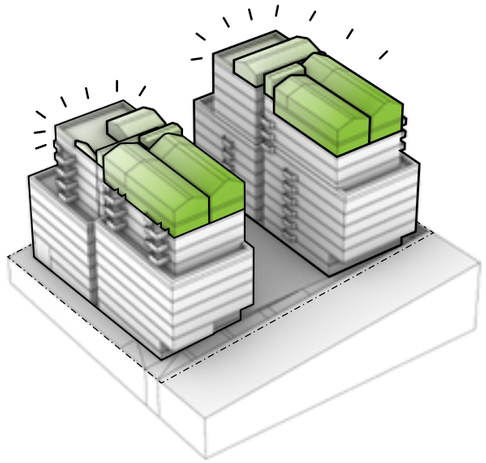
02 DCP Setbacks



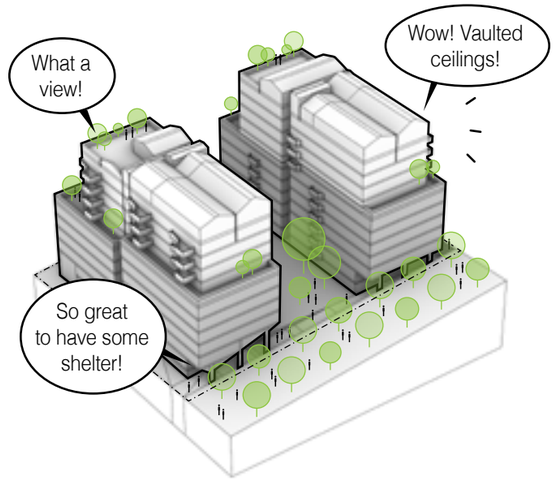
03 Rationalised Massing



04 Massing Opportunities



05 Integrated Rooftops



06 Concept Massing

03

Principle 2: Built Form and Scale

Connecting the site to Country

A material strategy that references the history of the land.

- reuse and repurposing existing sandstone from the site
- articulating the natural ground line of the site as a trace of the past
- a purposefully tactile material application at the base transitioning into smooth and light on the upper levels

Connecting people to the site

A permeable ground plane that allow residents and the public to traverse and inhabit the site with ease.

- northern setback allows for a sheltered and accessible path of travel
- residential entries connect physically and visually across three ground planes
- multiple paths of travel encourage activation and connectivity on site and to neighbouring developments

Connecting the building to local design

An opportunity to celebrate local indigenous design.

- considered and integrated approach to public art on and around the building
- story telling opportunities that can educate and inspire
- use of indigenous references and motifs to inform patterning, screens, walls, soffits and way finding

Inviting Country into the building

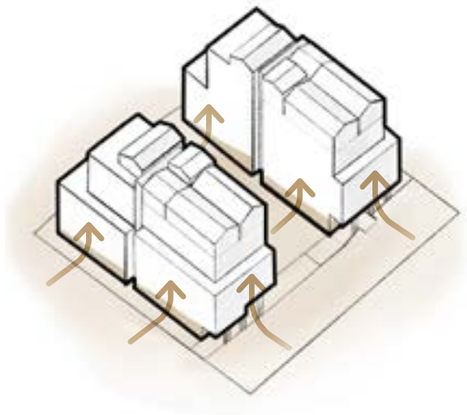
A landscape strategy that enhances connection to nature and country.

- creating a unique sense of place whilst also being complimentary to neighbouring sites and the precinct
- taking inspiration from local gullies and indigenous places of gathering
- strategic use of hard and softscape to enhance the connection with the land

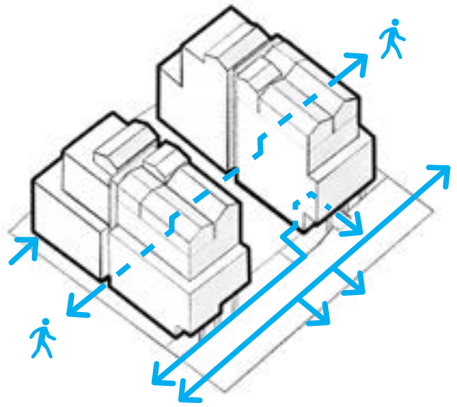
Connecting the building to culture

A diverse collection of communal spaces to gather, share stories and experiences.

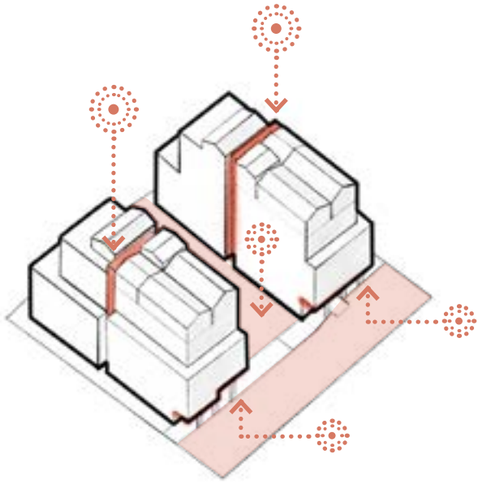
- highest and most valuable location on the project is accessible to all residents
- offering spaces to gather on land and in the sky



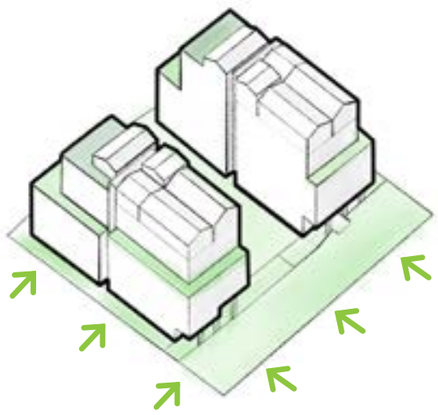
01 Materiality



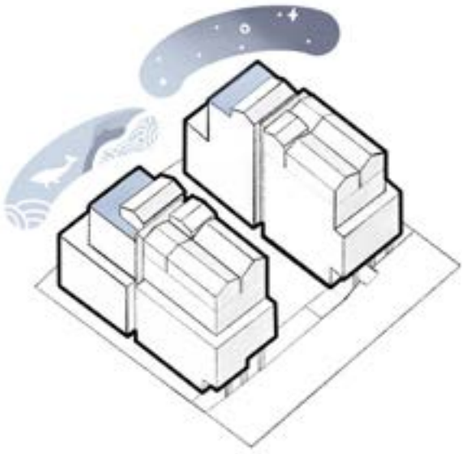
02 Permeability



03 Public Art Opportunity



04 Landscape



05 View & Prospect

03

Principle 2: Built Form and Scale

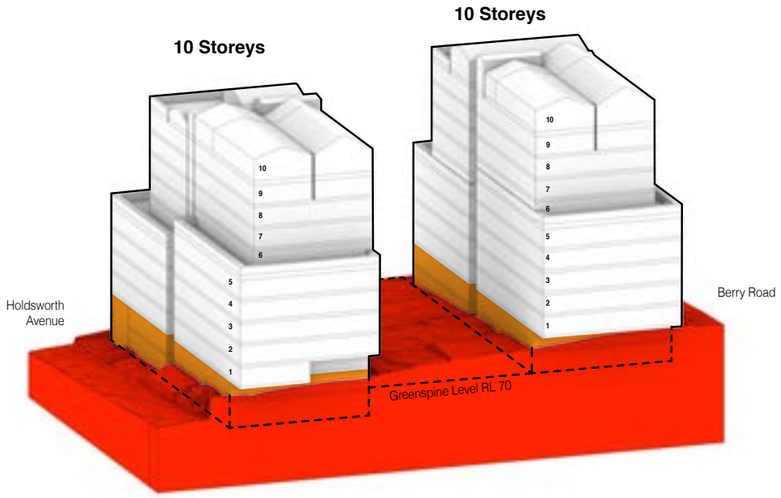
Storey & Envelope Compliance

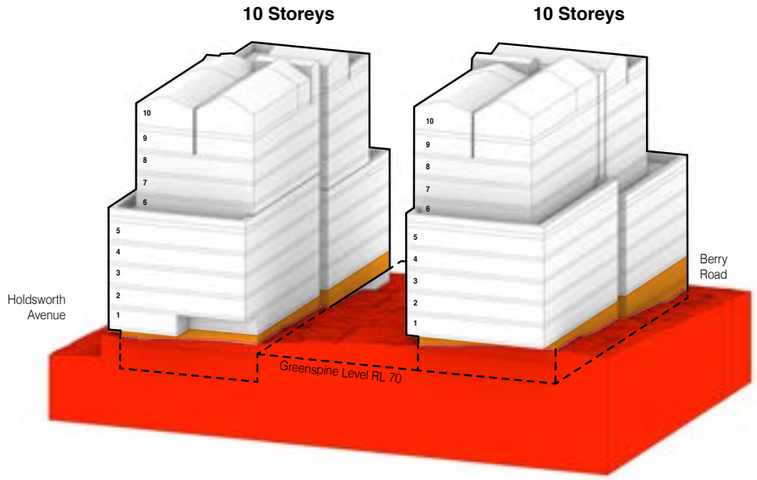
The proposed development wholly complies with the LEP height restrictions and allowable storey count.

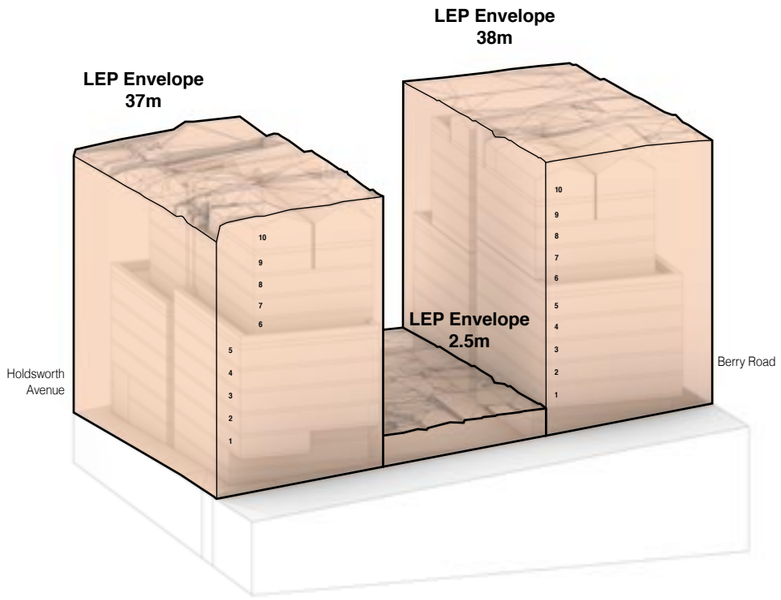
The development is sited on terrain with significant natural level changes. This results “part storeys” across both buildings. As defined by the DCP, these part storeys are not counted as storeys as per the DCP’s definition.

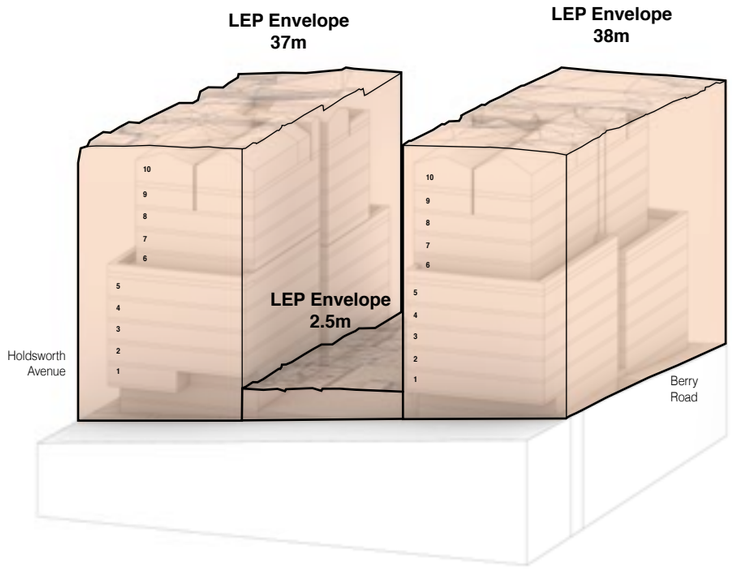
“Part storeys resulting from excavation of steep slopes or semi basement parking will not count as a storey.” Lane Cove DCP pg.45

The proposal is for two buildings at 10 storeys which will sit wholly within the LEP height envelope.









Above Natural Ground

Part Storeys Not Counted as Storeys

Natural Ground

LEP Envelope

03

Principle 2: Built Form and Scale

Note: Images are indicative.

03

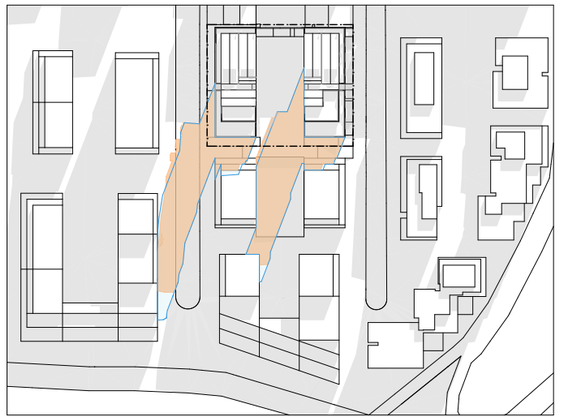
Principle 2: Built Form and Scale

Shadow Impact Analysis

The final massing and form of the proposed buildings have been largely driven by the desire to avoid any adverse shadow impacts.

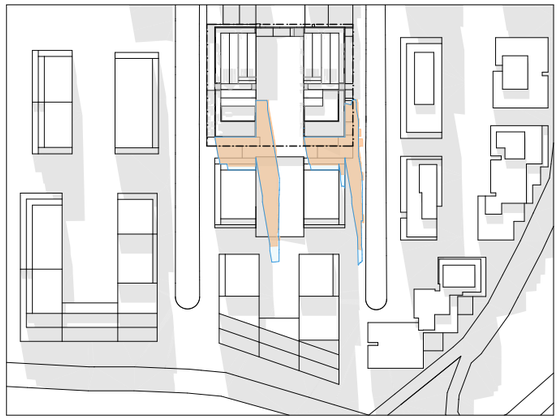
The shadow impact analysis conducted for the 21st June (mid winter) from 9:00am to 3:00pm hourly shows no significant impact from the proposed building mass when compared to the DCP envelope. The majority of the shadow cast by the development will fall within shadows already cast by the surrounding context.

09:00 am



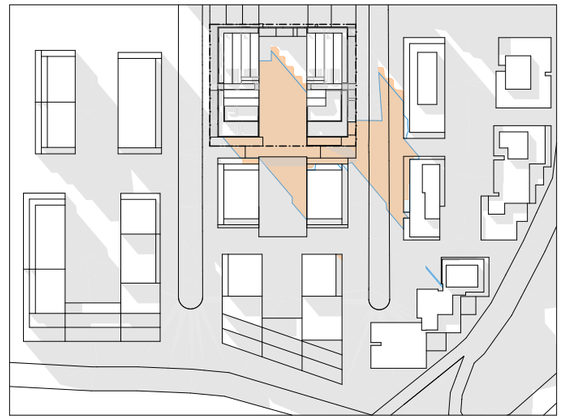
10:00 am

11:00 am



12:00 pm

01:00 pm



02:00 pm

03:00 pm

Adjacent Site Shadow

Proposed Development Shadow

DCP Envelope Shadow

03

Principle 3: Density

The density of the site has been considered carefully, both with respect to the masterplan controls and through the optimisations of the proposed envelope. The development achieves an appropriate density for the site which is aligned with the masterplan controls. The proposed FSR is aligned with the allowable FSR.

Building separations comply with the masterplan intent and requirements of the ADG both within the site and to the surrounding neighbours. Solar access is maximised to the residential homes, communal spaces and neighbouring properties.

The proposal over provides deep soil and landscaping. The central green spine and rooftop communal spaces provide amenity and generous open spaces for building residents. The building also contains additional facilities for public use that benefit the residents as well.

The building form is broken into a lower podium form and upper building mass over. The perceptible mass is further reduced through a setback which forms a terraces allowing for a planted perimeter edge. A differentiation in materiality defines the two masses being highly articulated down low and recessive to the upper levels.

Additionally, the precinct is supported by excellent public amenity including communal facilities, public open space, recreational facilities and surrounding access to public transport.

Note: Images are indicative.

03

Principle 4: Sustainability

Overview

The Berry Holdsworth development has been shaped by sustainability, embodying best practices in social, ecological, and economic design. Our vision is the creation of a new neighbourhood that extends the ecological systems of the masterplan, creates healthy new homes, energizes the public realm, and supports a culture of a creative and cohesive residential community.

Our ambitions in sustainability run the full gamut from social to technical, we have identified six major sustainability themes that help organise the developments sustainability program. Each theme and its major objectives is listed:

Regenerating Urban Ecology
- Regenerating our landscape
- Deploying locally indigenous vegetation
- Creating habitats for fauna and people

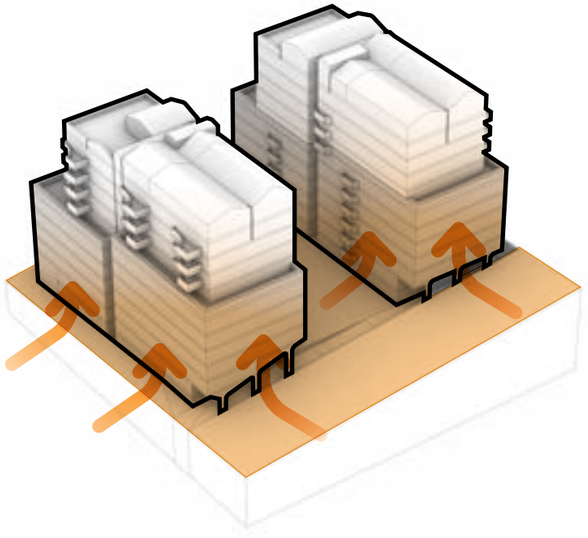
Managing Water Holistically
- Conserving potable water
- Using all rainwater
- Recycling greywater

Development
- Re-use and re-purpose materials
- High solid to glazing ratios
- Energy efficient

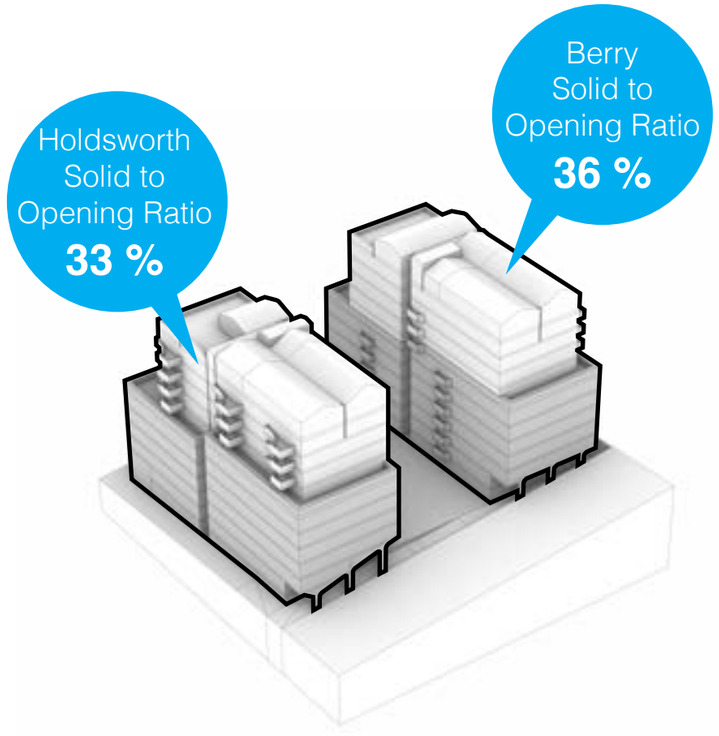
Wellness
- Healthy, reliable natural ventilation
- High thermal and visual comfort
- High indoor environmental quality
- Natural materials

Resilience
- Cool landscape
- High community connectivity

Inclusive Community
- St Leonards South community
- Residential community
- Aboriginal community

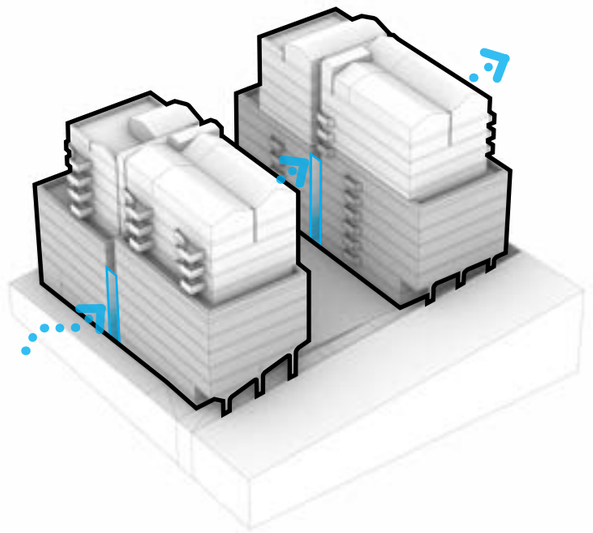


01. Materials



02. Glazing

03. Orientation



04. Ventilation

03

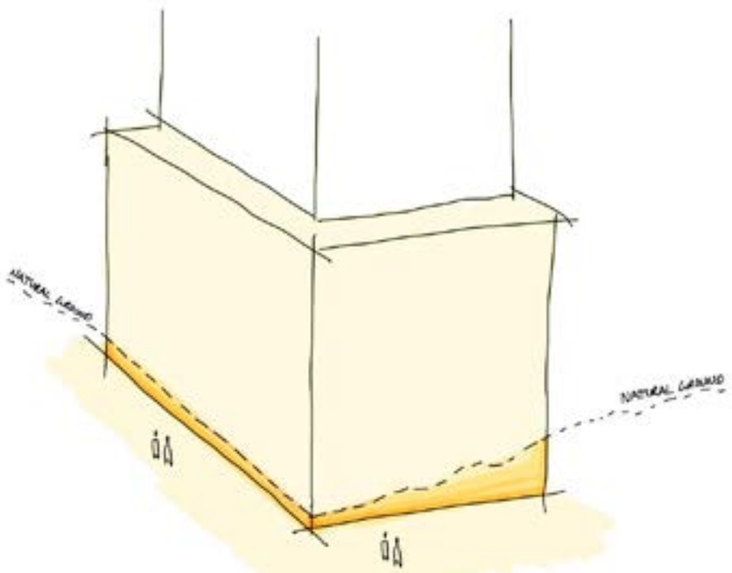
Principle 5: Landscape

The landscape and architectural design are highly integrated and have been designed collectively. The landscape proposed extends the principles established in the precinct masterplan guidelines and results in a carefully considered urban ecology appropriate to its use and location.

The primary principles and architectural interfaces are outlined following. The Landscape report prepared by RPS should be read in conjunction with this report and referred to for further information.

Due to the nature of the existing terrain and the levels required by the masterplan, the site requires some excavation thereby changing the terrain of the site. The landscape strategy looks to articulate the natural ground line prior to the ground works, communicating the site's past history.

A sandstone datum is articulated at the base of the buildings tracing the natural ground line rising from Holdsworth Avenue to Berry Road. The use of sandstone is most evident within the green spine which sits a storey lower than the natural ground line. Sandstone is re-purposed from the site to form paving, planters, gathering spaces and incorporated into shades and structures.




Barangaroo Headland Sandstone

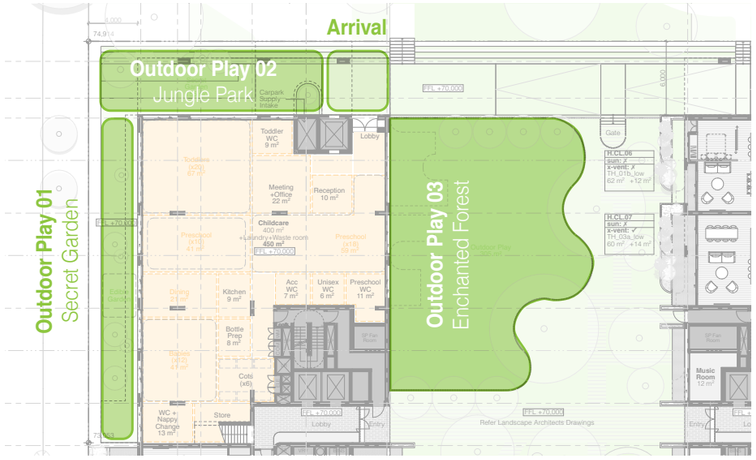

Sandstone Wall

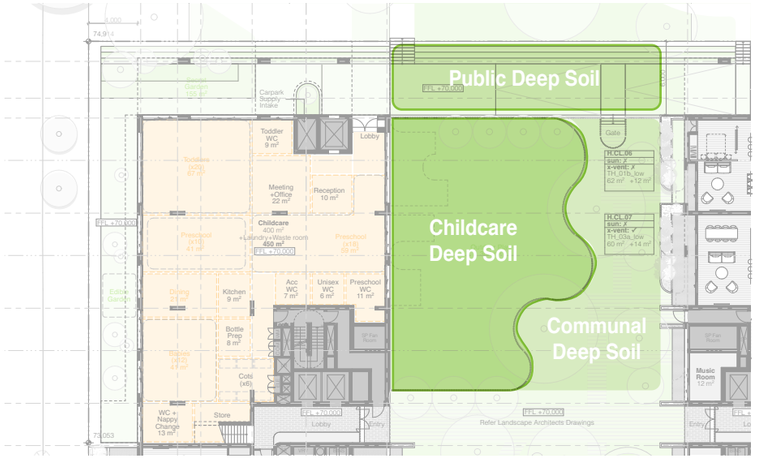

Barangaroo Headland Sandstone

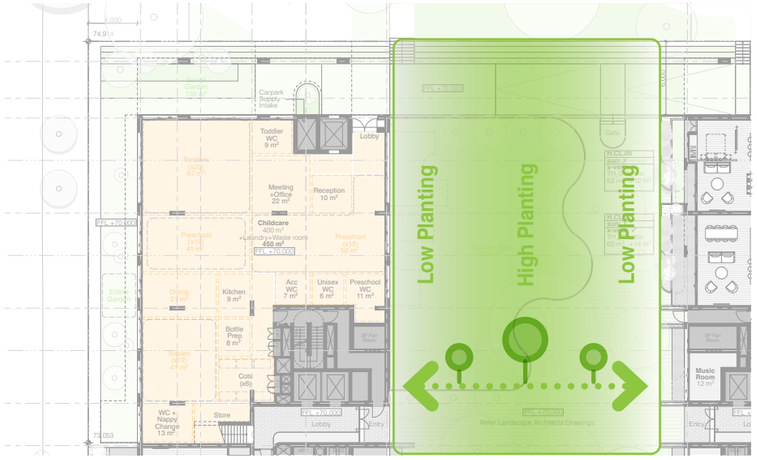

Note: Images are indicative.

03

Principle 5: Landscape







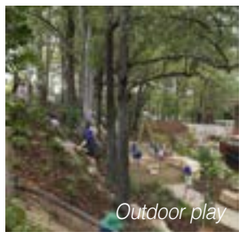

Terrain Play


Veggie Garden


Nature Play


Feathered Landscape


Courtyard Garden


Outdoor play


Feathered Landscape


Meandering Pathways


Open Midstory Planting

A Collection of Play Spaces

Three distinctive play spaces:

- Secret garden
- Jungle park; and the
- Enchanted forest

This collection of play spaces offers distinct areas for differing activities and encourages exploration and curiosity.

Louder more active all-weather play is sheltered beneath the building overhang and located away from residents. The spatial diversity also provides opportunities to cater play areas to suit different age groups, weather and seasons.

Planting Opportunity

The arrangement of programs within the green spine offers a variety of deep soil planting opportunities:

- Deep soil planting within the childcare outdoor play space is envisaged as a natural play destination with a high percentage of natural ground cover and planting for shade and cover.
- Deep soil planting within the communal courtyard will help provide privacy and buffer noise between the childcare and townhouses.
- Deep soil planting within the public space is defined by permeable paving. Planted retaining walls provide additional opportunities for deep soil planting along the public accessible pathway.

The fence line of the childcare outdoor play area is organic and meandering offering pockets for large planting and a blurring of the boundary between the communal courtyard and the secure play area.

Planting Strategy

A planting strategy that prioritises taller trees towards the centre of the green spine and lower trees and bushes on the edges. This strategy ensures the larger trees have space to grow in the future, reduces overshadowing from tall trees to the lower apartments and increases visual permeability across the courtyard whilst still maintaining a good amount of privacy and buffer between public and private spaces.

03

Principle 5: Landscape

The landscape strategy has been larger driven and shaped by our Connecting to Country learnings. Plant species, geometries, patterning and materiality are all driven by the indigenous history of the very site.

The organic and circular geometries of the landscape evoke both the language of the natural terrain found in the sandstone gullies to the south of the precinct as well as traditional motifs of gathering used by the traditional custodians of the land. These geometries help shape pathways, planting zones and gathering pods within the landscape design.

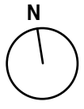
Refer to Landscape Report by RPS for further information.

Kippa (Bora) Ring
Gubbi Gubbi Dyungungoo

Sandstone Gully
Smoothey Park

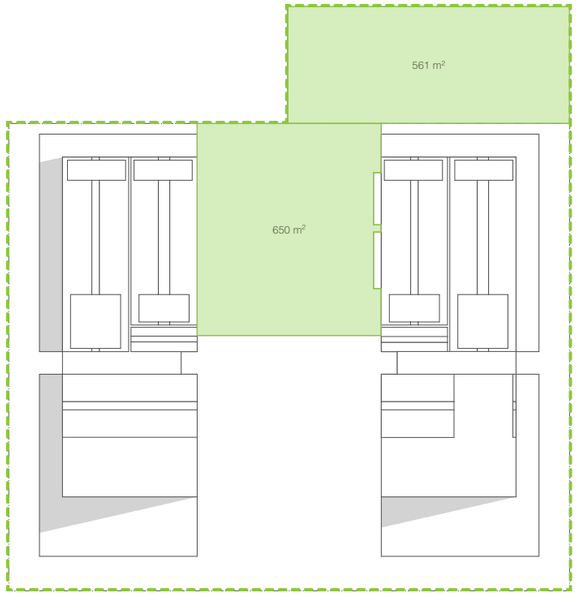
Aboriginal Symbol
Sitting

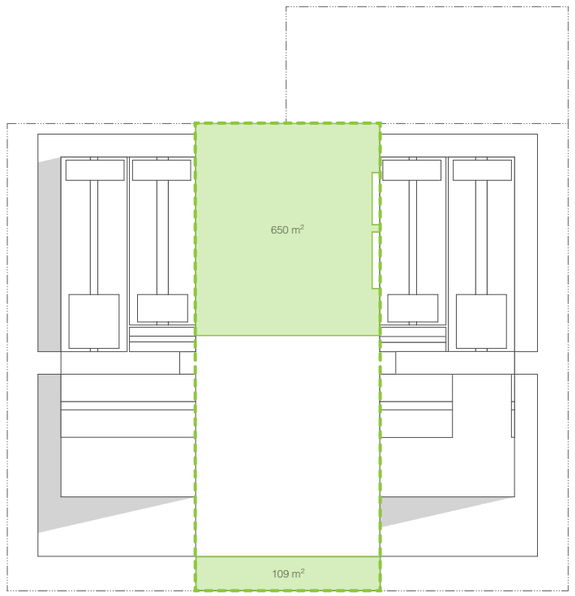
Bora Rings
Sandra Milliken

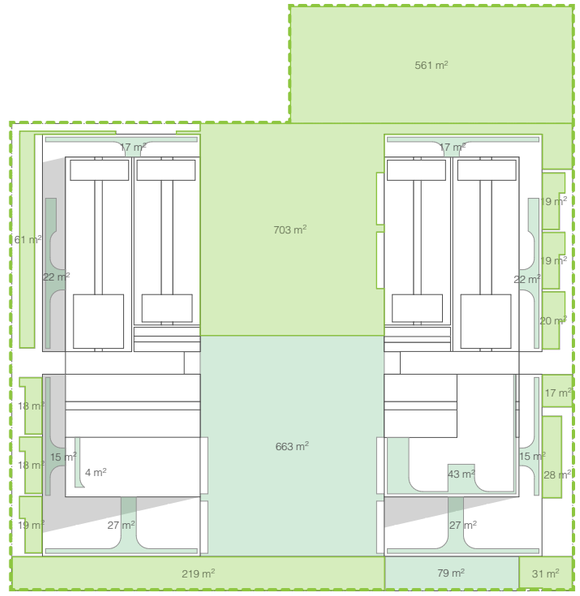


03

Principle 5: Landscape







ADG Requirement

Site Area*

5,015m²

Minimum Dimension

6m

Deep Soil Required

351m² (7% of Site Area)

Deep Soil Provided

1,211m² (24% of Site Area)

+ 860m²

* For the purpose of calculating deep soil, the site area includes Lot 10 in DP 7259

** For the purpose of calculating deep soil in the Green Spine, the Green Spine area excludes Lot 10 in DP 7259

Council Requirement

Green Spine Area**

1,463m²

Deep Soil Required

732m² (50% of Green Spine)

Deep Soil Provided

759m² (52% of Green Spine)

+ 27m²

DCP Requirement

Site Area*

5,015m²

Deep Soil Required

1,254m² (25% of Site Area)

Additional Required

752m² (15% of Site Area)

Deep Soil Provided

1,733m² (35% of Site Area)

+ 479m²

Additional Planting Provided

951 m² (19% of Site Area)

+ 199m²

03

Principle 5: Landscape

Note: Images are indicative.

03

Principle 6: Amenity

Public

The success of the development and that of the whole precinct relies very much on how well both the residents and neighbours take genuine ownership of the new buildings and surrounding amenity. As such, we have focused on increasing public amenity that benefits the streetscape. We seek to increase and encourage permeability and visibility through the site by offering a variety of both open and sheltered pathways. Programs that activate the street through different times of the day are prioritised, whilst a singular vehicular entrance increases the amount of activated street frontage.

Communal

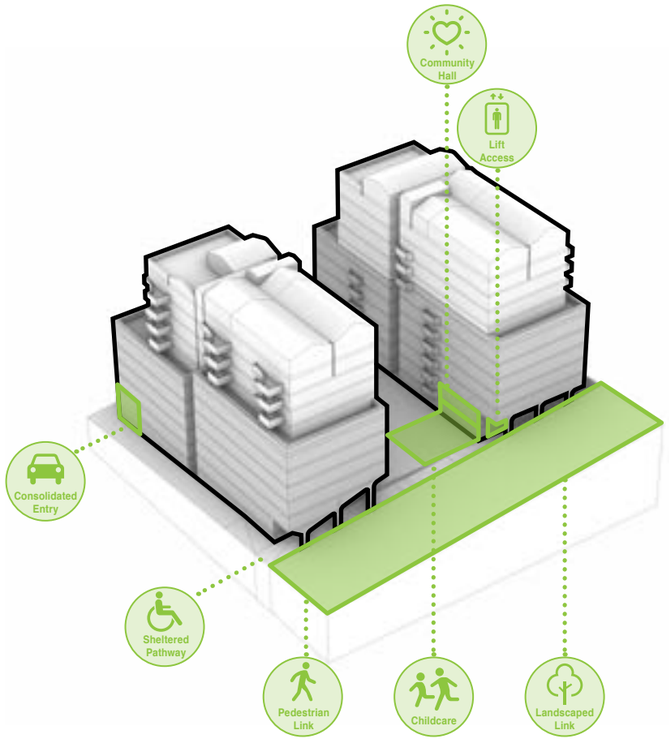
Opportunities for communal gathering are diverse and distributed throughout the building, both to the ground plane and building rooftops. Lobbies are generously sized to encourage informal interactions.

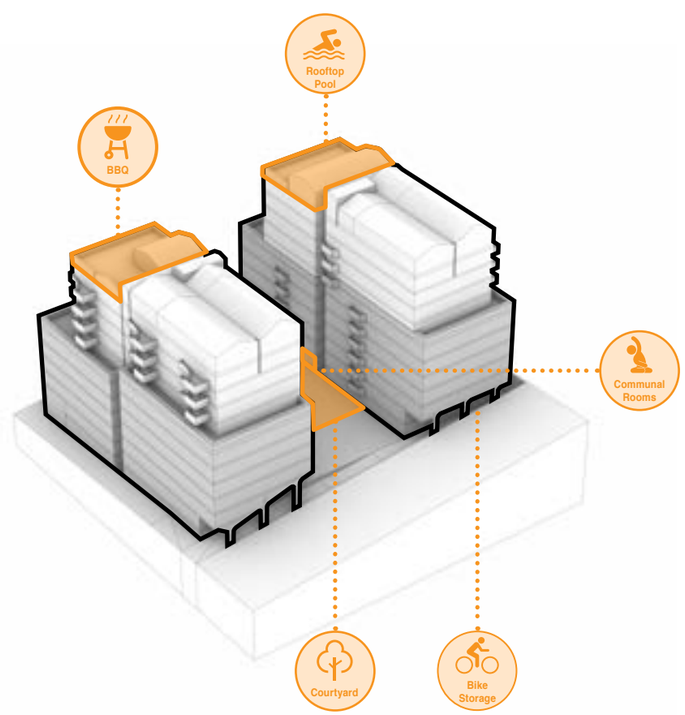
Ensuring that the best views can be enjoyed by all, the building rooftops are dedicated to communal spaces. A variety of different types of spaces offer choice and flexibility. A rooftop BBQ and communal pool offer the best views in the precinct. Private and tranquil communal rooms are connected to the courtyard and are complemented by reading and gathering pods within the central garden which is defined by beautifully planted gardens and meandering pathways.

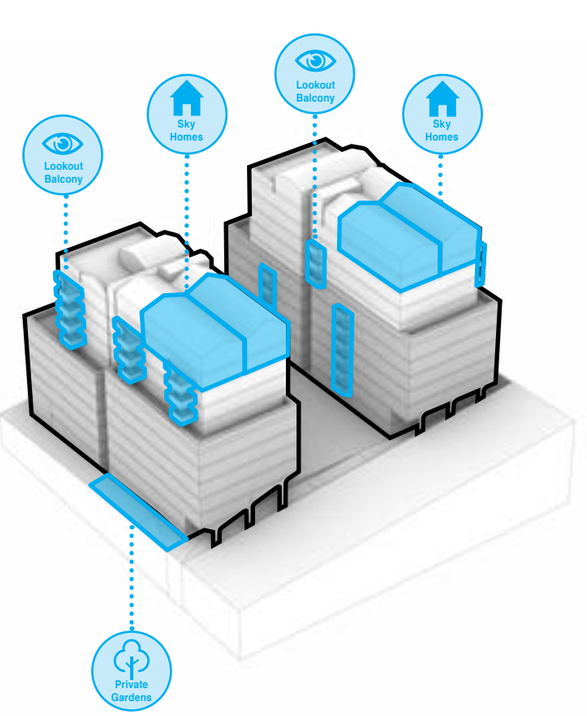
Private

A diversity of residential offerings ensures a diverse community providing homes that cater to singles, young couples and large families. The homes are characterised by thoughtful exterior and interior spaces that include:

- Dual entrances and private gardens
- Interiors that prioritise occupant wellness
- Facades that respond to interior spaces
- Generous balconies with views and vistas.
- Sky homes with sculptured ceilings and generous volumes







03

Principle 6: Amenity

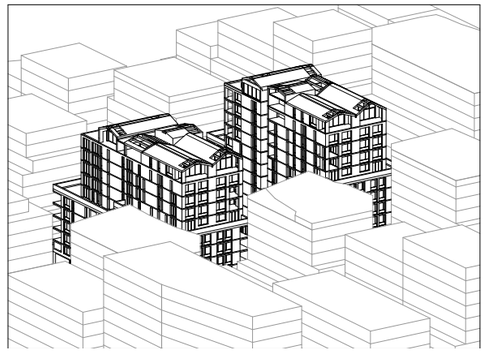
Solar Access

The requirements of the masterplan setout and fix the orientation of the primary building form. Apartment arrangements have been carefully considered to optimise solar access with the local park to the west of the site providing increased solar access to the Berry Road apartments during the afternoon.

Careful analysis and iterative design work has been undertaken on the project to achieve a good solar amenity outcome for the apartments within the development. Consideration was given to apartment planning, the location and sizing of openings and balconies as well as overshadowing from future neighbouring developments.

70% of apartments achieve 2hrs or more of direct solar access during mid winter. There are no apartments that do not receive any solar access.

Total Apartments	**x 130**
2 hr Direct Sun	**x 91**
No Sun	**x 0**
Total Compliance	**70 %**



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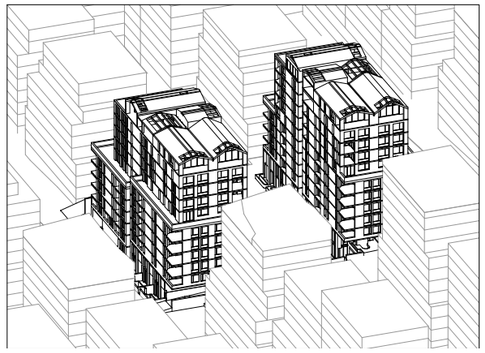

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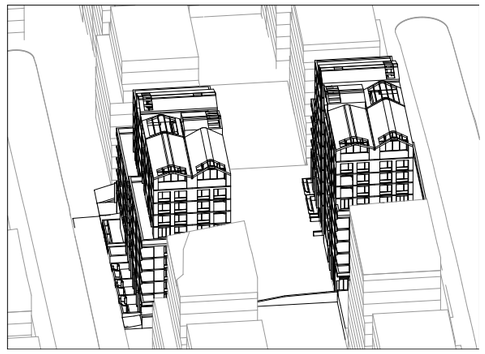

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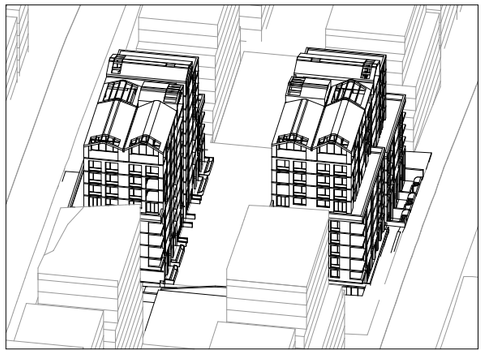

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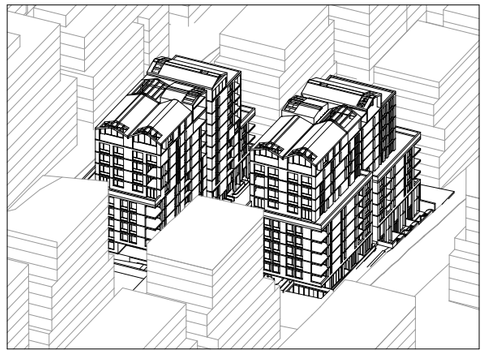

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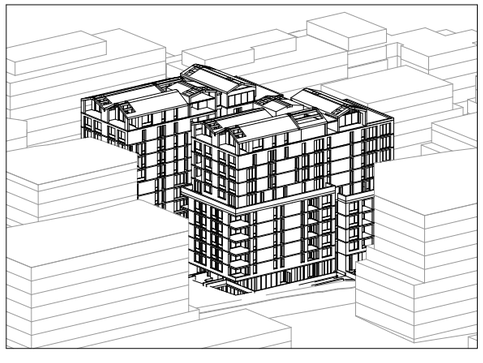
02:00 pm



03:00 pm

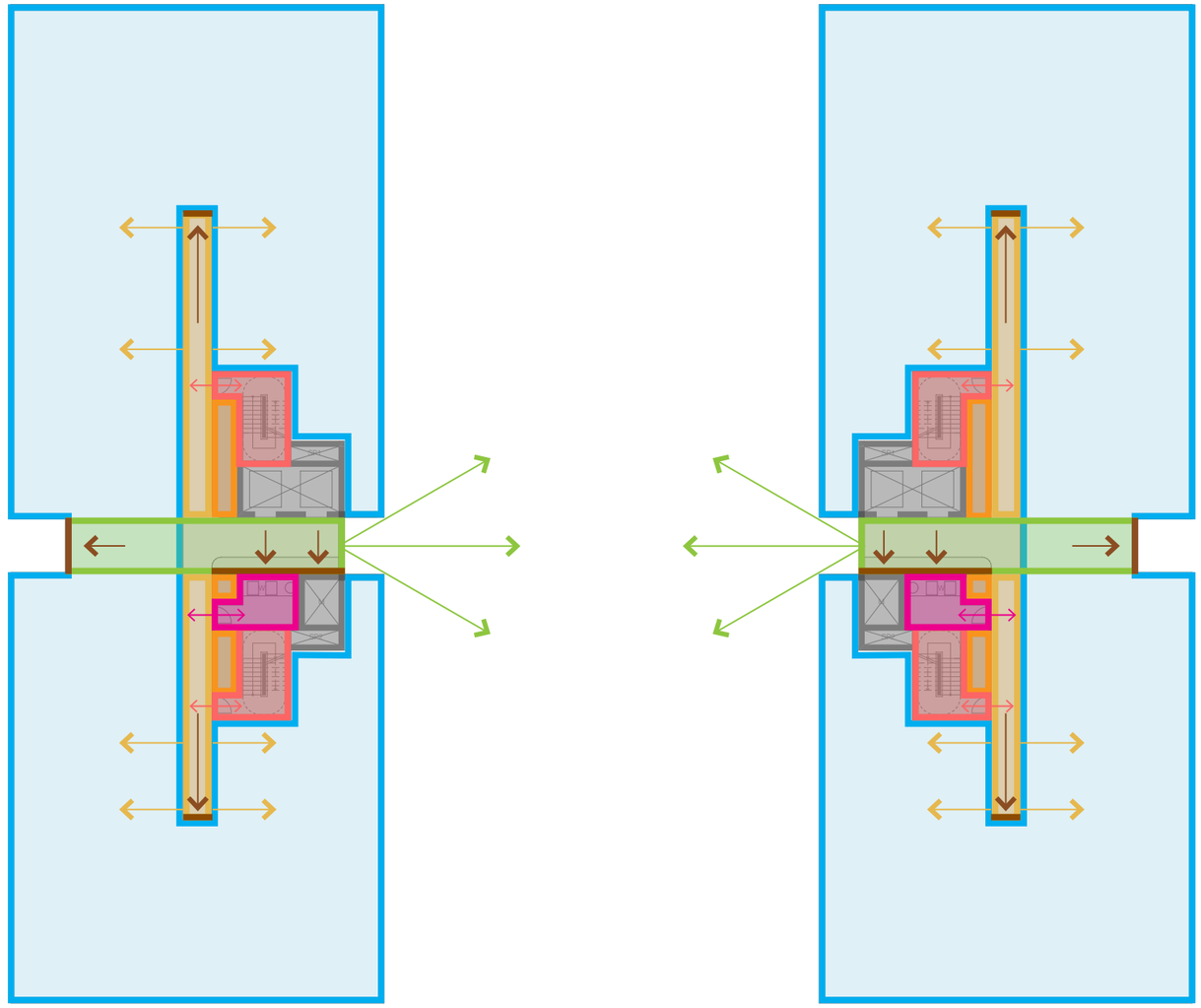
03

Principle 6: Amenity

Arrangement

Careful consideration has been given to the primary arrangement of the typical floor plans to ensure the efficient use of space as well as achieving a high quality amenity outcome. The following items are considered key to the enhancement of the residential experience and occupant wellness:

- Naturally ventilated lift lobbies with views to the gardens increases indoor and outdoor connectivity.
- Well designed interior spaces encourages residents to dwell for short conversations with neighbours and build a sense of community.
- Clear views and vistas to the ends of corridors and considered locations for signage and wayfinding
- Centrally located firestairs encourages stair usage for residents on lower level whilst also offering clear wayfinding in emergencies
- Optimised location of doorways away from dwelling areas increases privacy.
- Consolidated service zones and cupboards reduce clutter and keep the circulation areas visually neat
- Dedicated and concealed waste rooms help reduce smells and increase hygiene



Naturally Ventilated Lift Lobby

Apartment Gallery

View Corridor

Fire Stair

Service

Concealed Waste Room

03

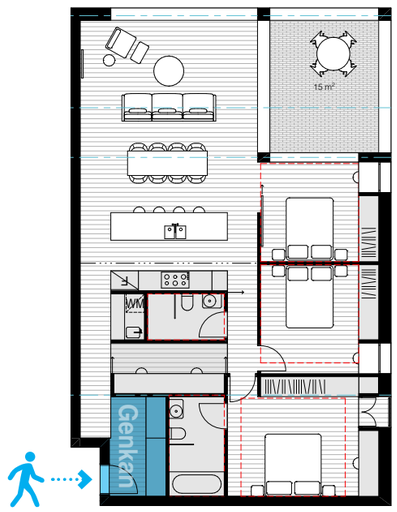
Principle 6: Amenity

Genkan

Dedicated arrival spaces within each home are considered important contributors to comfort and wellness. Genkans refer to traditional Japanese entryways where shoes are removed and stored. They are programmed arrival spaces and provide a threshold between the outside and the inside. They are programmed to provide storage for shoes, coats, umbrellas etc.

Dedicated arrival spaces promote cleanliness and prevent dirt from being tracked into the apartment, increasing hygiene and improve wellness. Careful planning of apartment layouts have located the genkan's in such a way that occupants will not need to track across the genkan unless they are leaving the apartment.

The arrival spaces will be articulated as a unique space with a different colour and material quality to the rest of the apartment.




Ferras and York
Six Degrees Architects


Toorak 2 House
Robson Rak

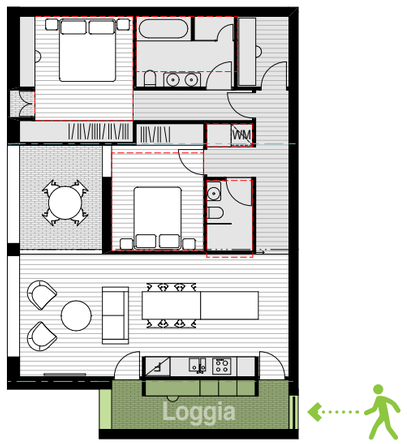

Loftus Lane
Silvester Fuller

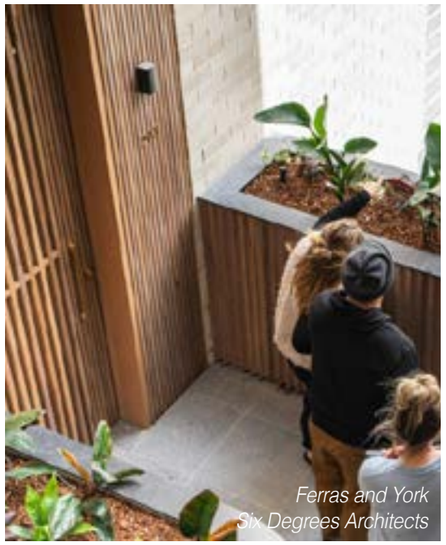
Loggia

Loggias, like the genkans, are programmed arrival thresholds. They are external spaces with operable glazing that allows cross-ventilation through the loggia and apartment.

They are programmed arrival spaces and provide a threshold between the outside and the inside. They are programmed to provide storage for shoes, coats, umbrellas etc.

Materially, the loggia is treated like an exterior balcony giving the space an outdoor feel whilst the operable glazing will still allow the loggia to be closed and shelter from weather.




Ferras and York
Six Degrees Architects


Brutopia
Stekke + Fraas


Ferras and York
Six Degrees Architects

03

Principle 6: Amenity

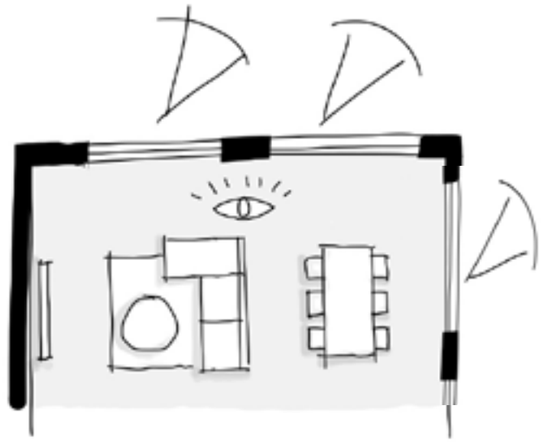
Openings

The building facades have been fine tuned and respond intimately to the interior requirements of the occupants. In particular, openings that define the sleeping spaces are treated in a very different way to those that support the more public living spaces. The opening locations and sizes have been carefully designed and optimised for view, sunlight and privacy.

In living areas, openings are larger and are optimised to take advantage of views, sunlight and provide access to balconies.

In bedrooms privacy is prioritised and drives the size, location and shaping of each opening. The built-in robes are located against the facade creating a thickened zones that enhances the sense of privacy within the bedroom. This arrangement of spaces allows occupants a place to dress without having to 'hide' in the corner or draw the curtains.

In larger master bedrooms window openings retain their intent and location however are treated as juliet balconies.



Living

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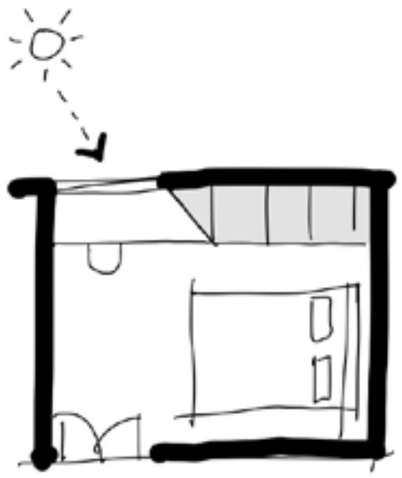
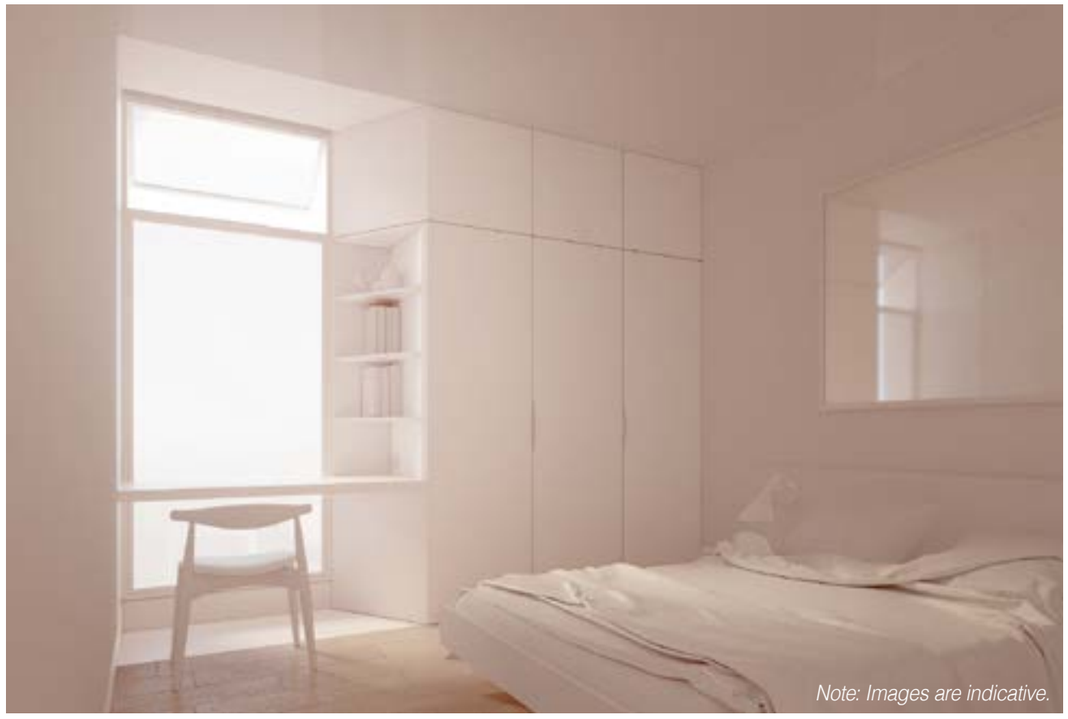


Sleeping



Note: Images are indicative.

03

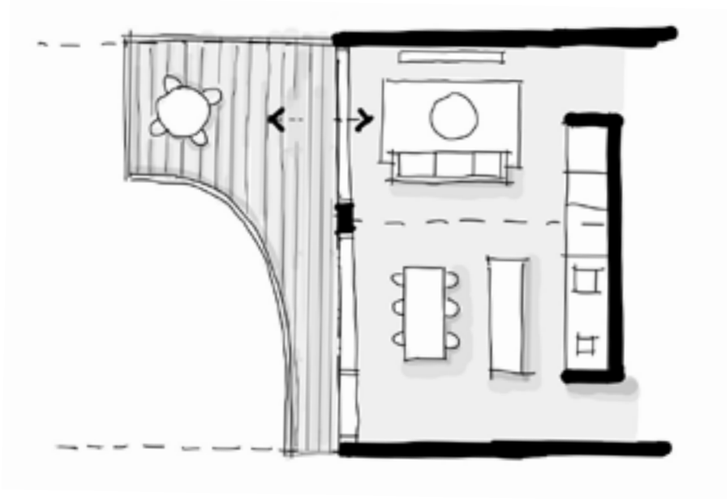
Principle 6: Amenity

Balconies

The upper levels of the project are characterised by projecting balconies. These balconies are lightweight in form and specifically shaped to provide maximum frontage and usability.

The balconies are generously proportioned and allow residents to take full advantage of incredible city and local vistas. They are carefully located on the building facade to minimise any potential overlooking between apartments whilst allowing substantial future tree growth on the terrace levels beneath.

The lightweight nature of the balconies ensures they are read as secondary to the primary building mass aligning with the objectives of the DCP. They provide a unique visual identity to the building that is highly articulated and playful.



Note: Images are indicative.

Note: Images are indicative.

03

Principle 7: Safety

First and foremost the site is considered as both a public and private place to allow for passive surveillance of the lobbies, pathways, public lift, pedestrian link and courtyards. A mix of programs across numerous levels ensures that the site and its surroundings will be used at most times of the day with staff and visitors providing safety for occupants.

Site visual permeability is prioritised with the residential lobbies providing increased visual access across the site from Holdsworth Avenue through to Berry Road. In addition, many apartments overlook the courtyard, pathways and pedestrian link providing additional passive surveillance.

The public lift and pathways have been positioned for clear way finding and to ensure there are no hidden alcoves. This public pathway is highly visible from both street frontages as well as from the public east west link.

Residential lobbies are clearly identifiable, they are open and well lit with hidden alcoves avoided wherever possible. The lobbies are generous in proportion to allow for pause and activation.

A single vehicular entry is located nearby the building concierge to ensure monitoring can easily occur. Resident and public parking areas are separated and secured.

A clear delineation between public and private areas is achieved through a combination of fencing, secure gates, planting, materiality change and signage. Planting and vegetation provides a visual buffer between the street and the childcare outdoor play areas.

Note: Images are indicative.

03

Principle 8: Housing Diversity and Social Interaction

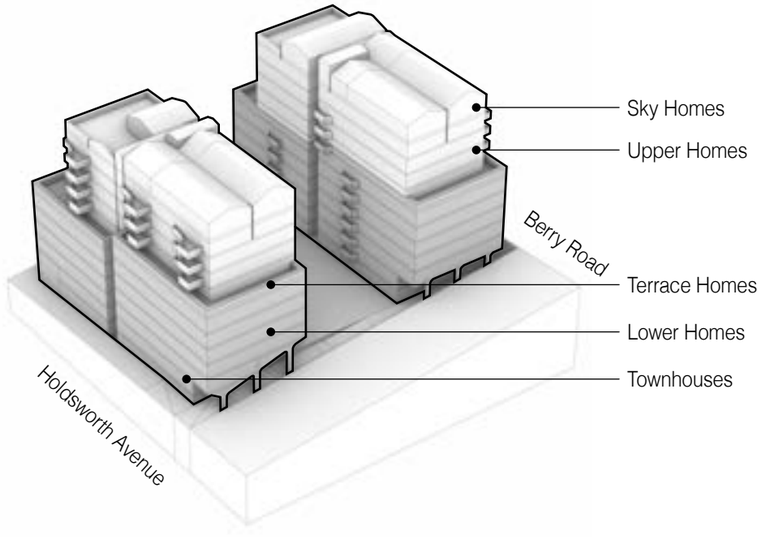
A diverse mix of homes have been proposed in the development, providing housing for families, couples, singles of all ages as well as affordable, livable and adaptable housing.

The homes offered are divided into five distinct typologies:

- Townhouses
- Lower Homes
- Terrace Homes
- Upper Homes
- Sky Homes

In addition to homes, the development also provides the following community facilities:

- Childcare Centre
- Community Hall



1B	60m²	20%	26	20%
2B	90m²	50%	59	45%
3B	110m²	20%	35	27%
4B	150m²	7%	6	5%
PH	180m²	3%	4	3%
Total			130	100%

Min. 20%

Min. 20%

Min. 20%

	91	70%
	79	61%

03

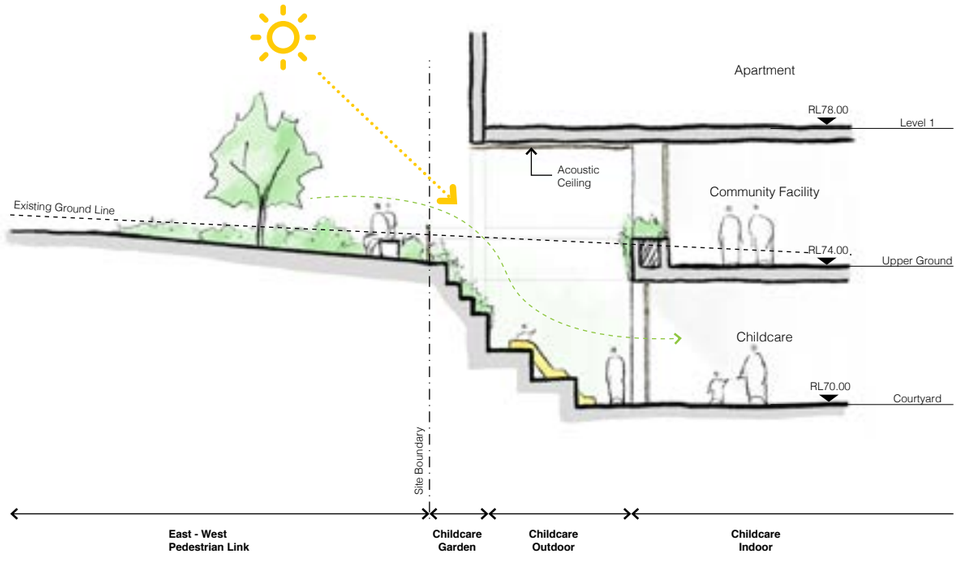
Principle 8: Housing Diversity and Social Interaction

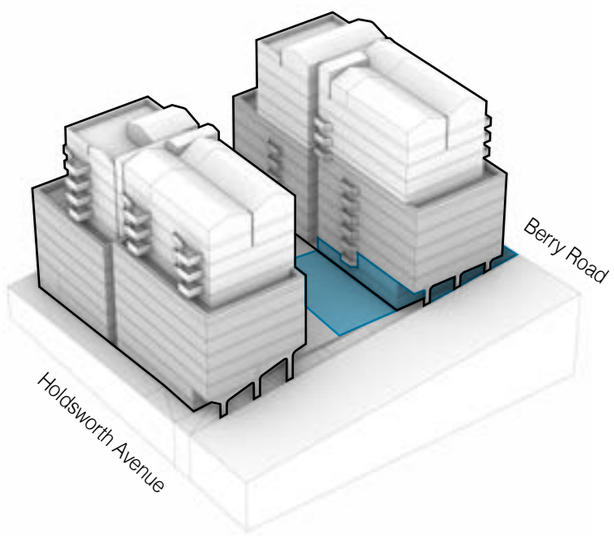
Community Facilities

Designated within the masterplan are a number of community facilities. The Berry Holdsworth development is required to provide a community gathering hall as well as a 450m^2 neighbourhood childcare centre.

The lower northern levels of the Berry Road building are dedicated to these uses and are both provided with a highly visible and clearly identifiable entry. The accessible through site link connects to these public amenities ensuring wayfinding clarity.

These facilities will help activate the streetscape and surrounding areas throughout the day and week and provide an important amenity for the residents and surrounding St Leonards South community.





03

Principle 8: Housing Diversity and Social Interaction

Communal Facilities

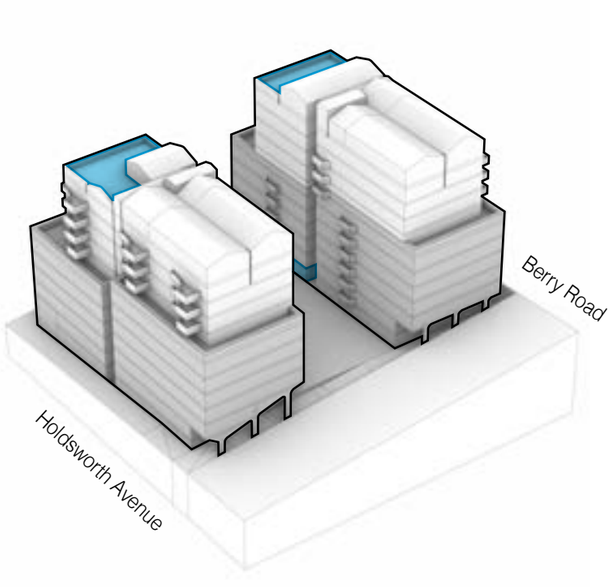
Important to the success of the development is the proposed diverse offering of communal facilities for use by the residents. These communal spaces are distributed throughout the development and located within each building. Residents from both buildings will have access to all of the communal facilities.

The ground level green spine space is supported by a series of communal garden rooms. These spaces help activate and service the courtyard. Proposed uses for these garden rooms include:

- Workshops
- Garden support
- Music rooms
- Games rooms

Activated rooftops are proposed on each building ensuring that the best views in the precinct can be enjoyed by all.

Each rooftop to have a distinct identity, with the Holdsworth rooftop being designed for gatherings and bbqs. The Berry rooftop is fitness focused with an outdoor rooftop pool.




Note: Images are indicative.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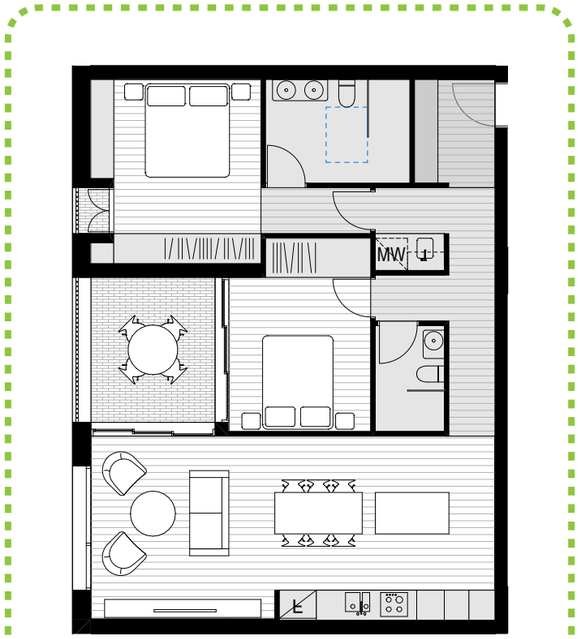
03

Principle 8: Housing Diversity and Social Interaction

Affordable Housing

Located on level 01 within the Berry Road building is the affordable apartment as required by the St Leonard South DCP. This apartment achieves good solar access and is naturally cross ventilated. The home is generous in size and includes a single car space.



Apartment B.01.05
Berry Building, Level 01
2 Bed 2 Bath 1 Car Space
Interior 91m²
Exterior 9m²

Note: Indicative Affordable Housing Unit TBC

03

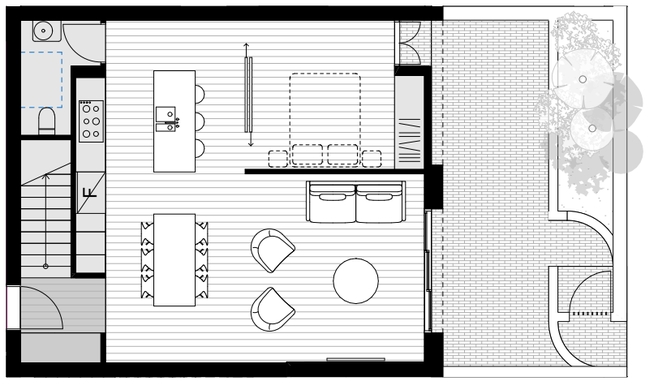
Principle 8: Housing Diversity and Social Interaction

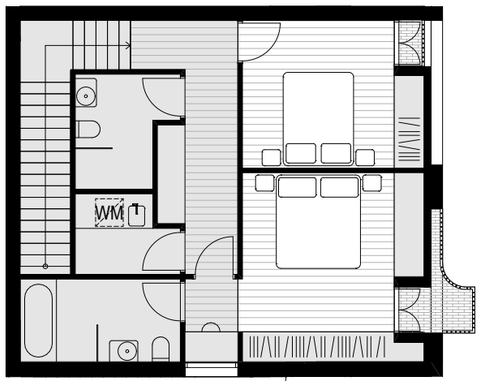
Townhouses

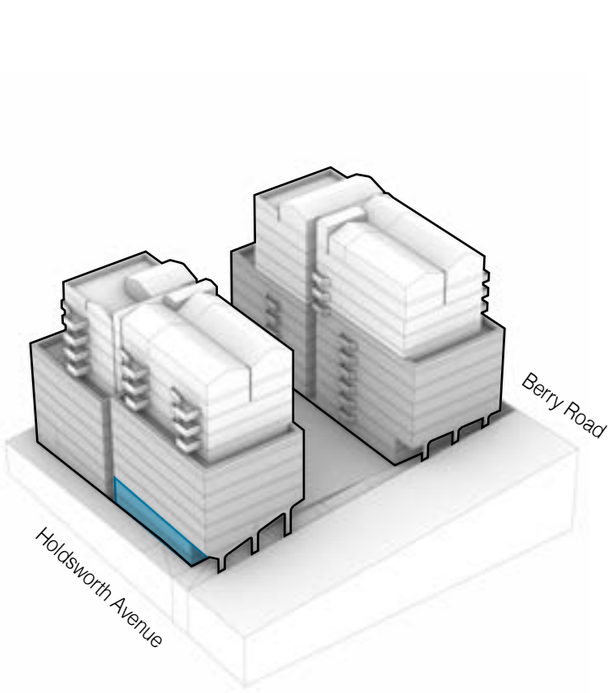
The ground levels of all building frontages are inhabited with Townhouses. This home typology is an important aspect of street activation, articulation and grain.

Each home is provided with a dual entry via street or communal courtyard and via communal lobbies. These homes integrate private outdoor gardens with easy and direct access to the street or communal courtyard.

Planted gardens and appropriate height walls offer a private and green aspect from the living and sleeping spaces. Generous floor to ceiling heights ensure adequate natural light to all terrace homes is achieved with void spaces provided where possible.








Note: Images are indicative.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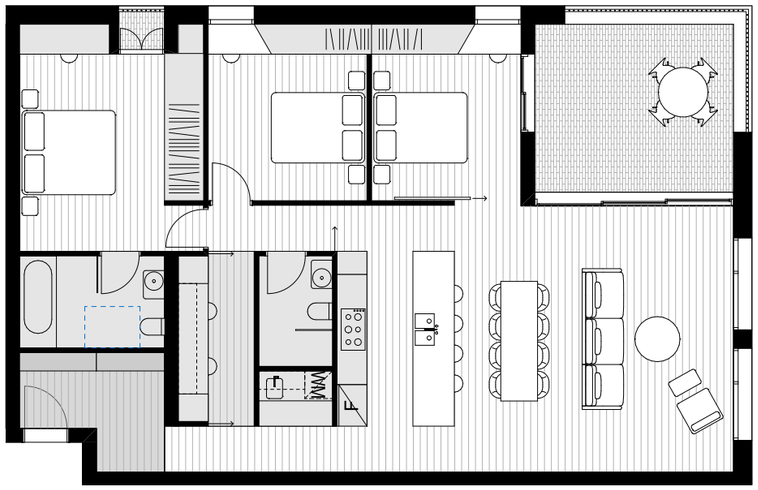
03

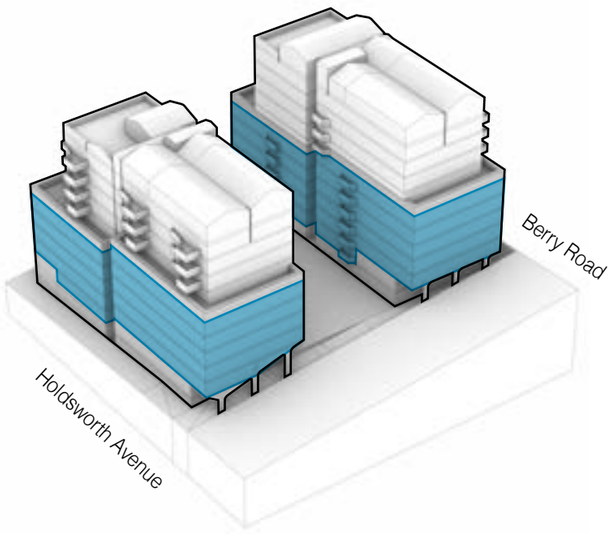
Principle 8: Housing Diversity and Social Interaction

Lower Homes

Occupying the lower podium levels, from upper ground to level 4 on the Holdsworth building and level 1 to level 5 on the Berry building, these homes are located within the highly articulated brickwork facade. They are characterised by a warm materiality and generous proportions.

The lower homes have been organised to maximise solar access and views whilst minimising any south facing apartments. Detailed screening is provided to direct views and provide privacy to the south whilst allowing good access to natural light and cross ventilation.





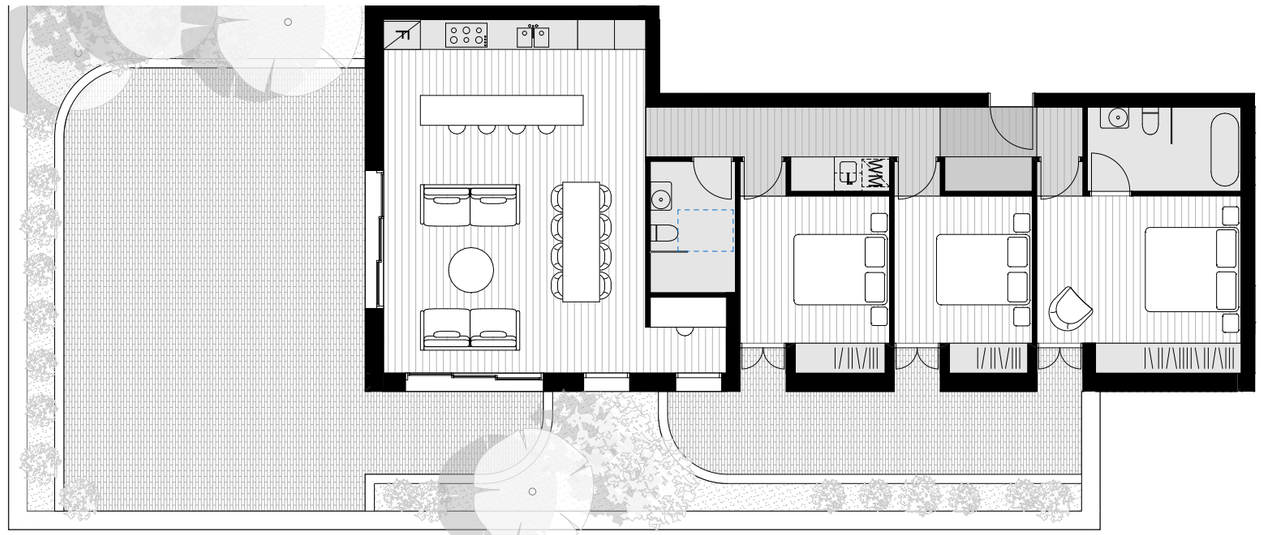
03

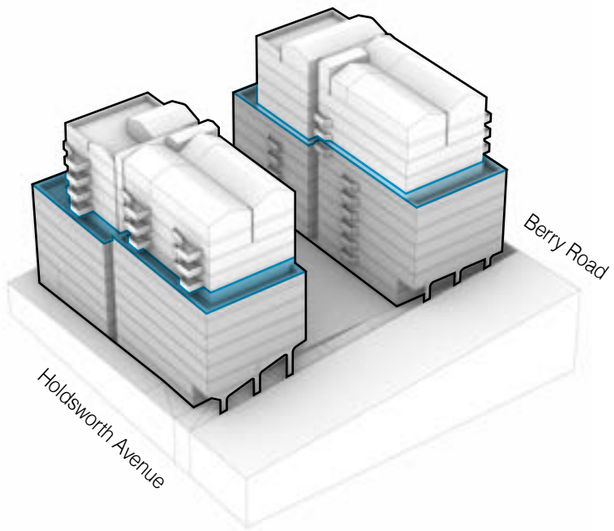
Principle 8: Housing Diversity and Social Interaction

Terrace Homes

The terrace homes occupy L4 to L5 on the Holdsworth building and L5 to L6 on the Berry building. This is the first inset level and the transition between the two upper and lower masses.

These homes are presented with the opportunity for generous elevated outdoor spaces extending around each apartment at these levels. The terraces are defined by integrated planters creating a softly landscaped transition in the mass and include wind protection awnings to ensure the spaces are usable throughout the year.





Note: Images are indicative.

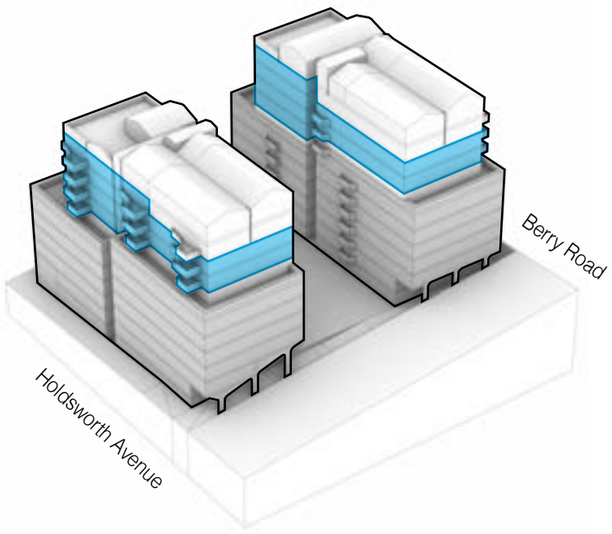
03

Principle 8: Housing Diversity and Social Interaction

Upper Homes

The upper homes occupy L5 to L8 on the Holdsworth building and L6 to L9 on the Berry building. These homes take full advantage of their elevated position with living areas oriented towards views of the city and surrounding vistas.

These homes have access to generous balconies which extend beyond the building mass East and West offering 180 degree views whilst animating and articulating the base building envelope.




Note: Images are indicative.


Note: Images are indicative.

03

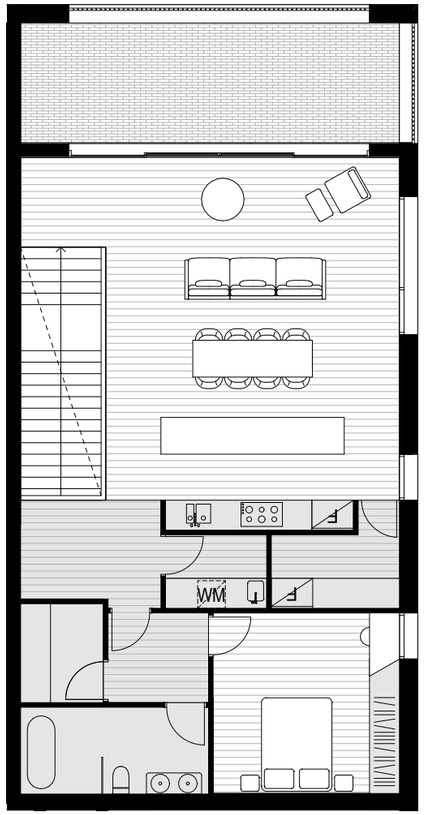
Principle 8: Housing Diversity and Social Interaction

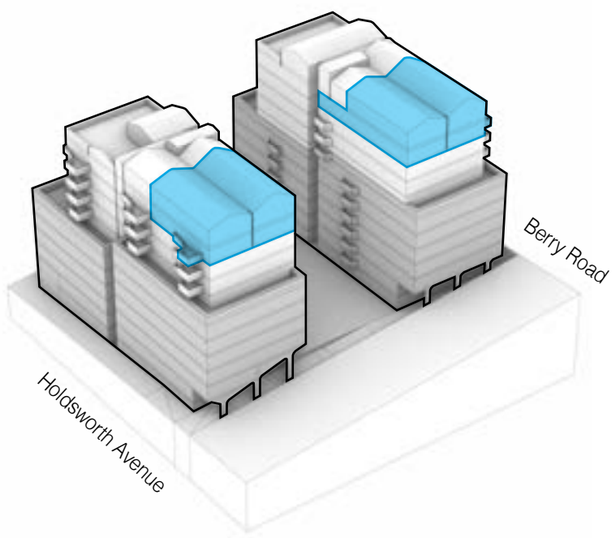
Sky Homes

A total of four sky homes are proposed in the development. These homes are two-storey and occupy the upper levels of each building fronting the North, East and West facades.

The homes feature generous proportions with soft pitched roof forms generating sculptural ceilings above the main living areas and defining the building rooftop identity to the Northern facades.

The living areas are orientated due North to maximise access to daylight and feature direct access to large open to sky balconies. Sleeping spaces, like all the other homes are located and wrapped in a thickened facade to maximise privacy, view and daylight.





03

Principle 9: Aesthetics

The architectural language of each building has been developed in direct response to the site, its context and history. Materials have been chosen for their natural, raw and honest qualities. The building has a relatively high percentage of solid materiality, sufficient to create privacy and reduce heat load internally whilst still allowing controlled daylight to flood each space. Three distinct material layers wrap each building as they rise vertically:

1.

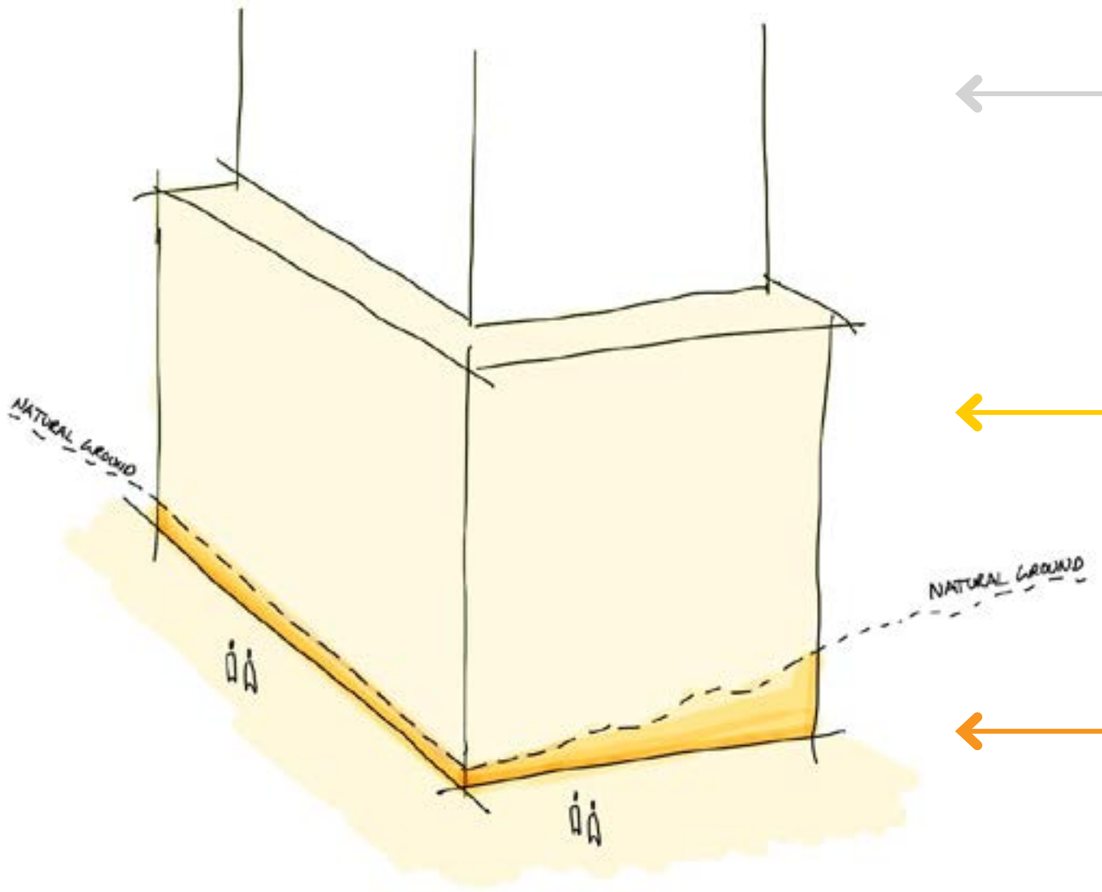
At the base of each building a trace of the original site contour - well before any development of the land - is created through the use of recycled sandstone from the site. This trace identifies the original typography like a tideline or watermark along each building recalling a time well before english settlement and an appreciation of the excavated areas of the site by defining their relationship to natural ground.

2.

Above the sandstone base sits brickwork. The brickwork is a refinement of the sandstone below. A smaller scale, slightly smoother, a little more ordered yet still with an earthy texture and warmth similar in tone to the sandstone base. Warmer toned metalwork complement this layer.

3.

Finally, resting above the brickwork lower mass is an inset lighter cladding. Deliberately the lightest of the external tones the facade reflects light into the ground plane spaces below whilst visually reducing the scale of the upper mass against the sky. Lighter coloured metalwork for windows and balconies minimise the contrast of these components against the mass of the base building.



Upper
Light Weight

Podium
Brick

Landscape
Sandstone

03

Principle 9: Aesthetics

Materials

Seamless Render
Natural

Silver Coloured Metal

Silver Coloured Metal
Brushed

Planting
Rooftop, Terrace

Face Brick

Copper Coloured Metal

Copper Coloured Metal
Brushed

Sandstone
Blockwork

Note: Images are indicative.

04 Schedules

04

Gross Floor Area

Level	GFA Community Berry	GFA Residential Berry	GFA Residential Holdsworth	GFA Residential Combined
Level 10	0	247	0	247
Level 09	0	616	237	853
Level 08	0	598	616	1,214
Level 07	0	598	598	1,196
Level 06	0	612	598	1,210
Level 05	0	711	612	1,322
Level 04	0	874	711	1,584
Level 03	0	874	874	1,747
Level 02	0	874	874	1,747
Level 01	0	855	874	1,728
Upper Ground	153	606	818	1,423
Courtyard Level	403	400	747	1,147
Lower Ground	28	0	323	323
Subtotal	**584**	**7,862**	**7,880**	**15,742**
Total Building		**8,446**	**7,880**	
Total GFA				**16,326**
Target GFA		8,470 sqm	7,940 sqm	16,410 sqm

04

Apartment Mix

Unit Mix Combined	1 BED	2 BED	3 BED	4 BED	Total	Solar Access	X-vent
Level							
Level 10	0	0	0	0	0	0	0
Level 09	1	2	0	2	5	5	0
Level 08	1	6	0	3	10	10	0
Level 07	0	8	0	2	10	10	4
Level 06	1	6	1	2	10	10	8
Level 05	2	4	4	1	11	11	8
Level 04	3	6	5	0	14	13	10
Level 03	4	8	4	0	16	10	12
Level 02	4	8	4	0	16	9	12
Level 01	4	8	4	0	16	8	12
Upper Ground	3	3	1	0	7	2	4
Courtyard Level	3	0	9	0	12	3	8
Lower Ground	0	0	3	0	3	0	1
Total	**26**	**59**	**35**	**10**	**130**	**91**	**79**
	20%	45%	27%	8%		70%	61%

04

Accessibility

Apartment Type		N	Adaptable	Visitable (assisted)	Livable (Silver Level)
1 BED	1B_01a	4	4	4	4
1 BED	1B_02a	17		17	17
1 BED	1B_03a	4		4	4
1 BED	1B_04a	1		1	1
2 BED	2B_01a	15	15	15	15
2 BED	2B_02a	4		4	4
2 BED	2B_02b	14		14	14
2 BED	2B_03a	2		2	2
2 BED	2B_04a	8		8	8
2 BED	2B_05a	8		-	8
2 BED	2B_06a	4		4	4
2 BED	2B_07a	4		4	4
3 BED	3B_01a	19	7	19	19
3 BED	3B_02a	2		-	2
3 BED	3B_02b	2		2	2
3 BED	TH_01a	6		-	6
3 BED	TH_01b	1		-	1
3 BED	TH_02a	1		1	1
3 BED	TH_02b	1		-	1
3 BED	TH_03a	2		-	2
3 BED	TH_03b	1		-	1
4 BED	4B_01a	2		2	2
4 BED	4B_02a	4		4	4
4 BED	PH_01a	2		-	2
4 BED	PH_01b	2		-	2
Total		130	26	105	130
DCP/ SEPP 65 requirement			20%	80%	20%
NCC (coming into effect Sept. 2022)					100%
Current			**20%**	**81%**	**100%**

05 ADG Response Table

Section	Design Criteria	Design Guidance	Proposed Development	Compliance
3A 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.	Each element in the Site Analysis Checklist should be addressed		The proposed development is considered appropriate for its context. Site analysis information addressing the checklist is included in the Architectural Design documentation.	**Yes**
3B Orientation				
Objective 3B-1 Building types and layouts respond to the streetscape and site while optimising solar access within the development.		Buildings along the street frontage define the street, by facing it and incorporating direct access from the street (see figure 3B.1) Where the street frontage is to the east or west, rear buildings should be orientated to the north. Where the street frontage is to the north or south, overshadowing to the south should be minimised and buildings behind the street frontage should be orientated to the east and west (see figure 3B.2)	The building types and layouts follow the required masterplan siting and orientation. Both buildings are aligned with street frontages with primary building address' located on these street frontages. These building access points are designed as through site links for the residents and provide additional visual permeability on the ground plane. In addition, 2 storey ground level townhouses are provided to both street frontages further addressing and activating the building edges.	**Yes**
Objective 3B-2 Overshadowing of neighbouring properties is minimised during mid winter.		Living areas, private open space and communal open space should receive solar access in accordance with sections 3D Communal and public open space and 4A Solar and daylight access. Solar access to living rooms, balconies and private open spaces of neighbours should be considered. Where an adjoining property does not currently receive the required hours of solar access, the proposed building ensures solar access to neighbouring properties is not reduced by more than 20%. If the proposal will significantly reduce the solar access of neighbours, building separation should be increased beyond minimums contained in section 3F Visual privacy. Overshadowing should be minimised to the south or down hill by increased upper level setbacks. It is optimal to orientate buildings at 90 degrees to the boundary with neighbouring properties to minimise overshadowing and privacy impacts, particularly where minimum setbacks are used and where buildings are higher than the adjoining development. A minimum of 4 hours of solar access should be retained to solar collectors on neighbouring buildings.	Overshadowing of the neighbouring properties is largely defined by the given masterplan massing. Where deviations from this massing are proposed, solar access studies demonstrate that there are no adverse overshadowing impacts to neighbouring properties. Solar access to the ground level central gardens space varies throughout the day and across the seasons. To ensure adequate solar access is provided to the residents additional communal space has been located on the rooftops. The positioning of this outdoor spaces is located to take advantage of the expansive views to the city, making this pleasant outlook available to all.	**Yes**

Section	Design Criteria	Design Guidance	Proposed Development	Compliance
3C Public Domain Interface				
Objective 3C-1				
Transition between private and public domain is achieved without compromising safety and security.		Terraces, balconies and courtyard apartments should have direct street entry, where appropriate. Changes in level between private terraces, front gardens and dwelling entries above the street level provide surveillance and improve visual privacy for ground level dwellings (see figure 3C.1) Upper level balconies and windows should overlook the public domain. Front fences and walls along street frontages should use visually permeable materials and treatments. The height of solid fences or walls should be limited to 1m. Length of solid walls should be limited along street frontages. Opportunities should be provided for casual interaction between residents and the public domain. Design solutions may include seating at building entries, near letter boxes and in private courtyards adjacent to streets. In developments with multiple buildings and/or entries, pedestrian entries and spaces associated with individual buildings/entries should be differentiated to improve legibility for residents, using a number of the following design solutions: • Architectural detailing • Changes in materials • Plant species • Colours Opportunities for people to be concealed should be minimised.	A number of measures are employed to provide clarity between public and private spaces and to ensure safety and security is maintained. • Primary building entries are located on public street frontages • A public through site link is provided to the norther of the site beneath a building overhang resulting in a sheltered and integrated transition across the site. • Community and childcare spaces front this public thoroughfare • Additional visual permeability and thru site link access is provided to residents via the primary building entries • Ground level 2 story townhouses to both the street frontages and central garden space provide additional entry points to these more public frontages as well as increased activation and passive surveillance. The 2 storey nature of these homes and their entry courtyard arrangements ensure privacy to these homes can be maintained. • Lobbies to each level overlook the central garden space. • The architectural materiality and detailing address the public domain. In addition the inclusion of childcare within the development requires careful attention to privacy. The design of the central outdoor play space is integrated with the overall design of the garden to provide a cohesive outlook for residents. Sculptural umbrella pod elements serve as shelter, shade as well as visual and acoustic privacy to the actives of this central space.	**Yes**
Objective 3C-2				
Amenity of the public domain is retained and enhanced.		Planting softens the edges of any raised terraces to the street, for example above sub-arrival level car parking. Mail boxes should be located in lobbies, perpendicular to the street alignment or integrated into front fences where individual street entries are provided. The visual prominence of underground car park vents should be minimised and located at a low level where possible. Substations, pump rooms, garbage storage areas and other service requirements should be located in arrival level car parks or out of view. Ramping for accessibility should be minimised by building entry location and setting ground floor levels in relation to footpath levels. Durable, graffiti resistant and easily cleanable materials should be used. Where development adjoins public parks, open space or bushland, the design positively addresses this interface and uses a number of the following design solutions: • Street access, pedestrian paths and building entries which are clearly defined • Paths, low fences and planting that clearly delineate between communal/private open space and the adjoining public open space • Minimal use of blank walls, fences and ground level parking On sloping sites protrusion of car parking above ground level should be minimised by using split levels to step underground car parking.	The amenity of the public domain is prioritised for the benefit of all residents. The planting proposed is extensive and integrated surrounding all building frontages and setback areas. The parking and servicing elements are largely subterranean and where required to be above ground are careful integrated and hidden within either the build form or landscaped spaces. The siting and design of building entries take advantage of the cross slope nature of the site. In addition to the accessible pathways, building entries incorporate sculptural stair elements that make use of voids to provide direct through site access from street edges to the central garden spaces. Mailboxes are also located within these dynamic spaces.	**Yes**

Section	Design Criteria	Design Guidance	Proposed Development	Compliance
3D Communal 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) Developments achieve a minimum of 50% direct sunlight to the principal usable part of the communal open space for a minimum of 2 hours between 9 am and 3 pm on 21 June (mid winter)	Communal open space should be consolidated into a well designed, easily identified and usable area. Communal open space should have a minimum dimension of 3m, and larger developments should consider greater dimensions. Communal open space should be co-located with deep soil areas. Direct, equitable access should be provided to communal open space areas from common circulation areas, entries and lobbies. Where communal open space cannot be provided at ground level, it should be provided on a podium or roof. Where developments are unable to achieve the design criteria, such as on small lots, sites within business zones, or in a dense urban area, they should: Provide communal spaces elsewhere such as a landscaped roof top terrace or a common room. Provide larger balconies or increased private open space for apartments. Demonstrate good proximity to public open space and facilities and/or provide contributions to public open space.	Extensive communal spaces is provided for within the development. Large central garden spaces provide communal space with integrated deep soil zones. Additional deep soil is provided to each perimeter edge to further support adjacent planting and importantly the street trees. This ground level communal space is shared and integrated with the required childcare centre. Additional communal spaces is provided to building rooftops giving greater access to city views and year round sun.	**Complies with Intent**
Objective 3D-2				
Communal open space is designed to allow for a range of activities, respond to site conditions and be attractive and inviting.		Facilities are provided within communal open spaces and common spaces for a range of age groups (see also 4F Common circulation and spaces), incorporating some of the following elements: • Seating for individuals or groups • Barbecue areas • Play equipment or play areas • Swimming pools, gyms, tennis courts or common rooms The location of facilities responds to microclimate and site conditions with access to sun in winter, shade in summer and shelter from strong winds and down drafts. Visual impacts of services should be minimised, including location of ventilation duct outlets from arrival level car parks,electrical substations and detention tanks.	The combination of ground level and rooftop communal outdoor spaces provides for a good mix of differing space. Each is programmed accordingly and supporting with adjacent indoor communal space. Quiet, reflective spaces as well as more active programmed space is provided for the benefit of all residents. Each communal space is accessible by all residents regardless of building address.	**Yes**
Objective 3D-3				
Communal open space is designed to maximise safety.		Communal open space and the public domain should be readily visible from habitable rooms and private open space areas while maintaining visual privacy. Design solutions may include: • Bay windows • Corner windows • Balconies Communal open space should be well lit. Where communal open space/facilities are provided for children and young people they are safe and contained.	The primary ground level central communal spaces is visible from the adjacent residences. In addition the common lift lobbies are located to these central spaces providing passive surveillance at all times of the day. Whilst the rooftop communal spaces are more privately located, access to these can be controlled. They are supported by indoor communal spaces.	**Yes**

Section	Design Criteria	Design Guidance	Proposed Development	Compliance
Objective 3D-4				
Public open space, where provided, is responsive to the existing pattern and uses of the neighbourhood.		The public open space should be well connected with public streets along at least one edge. The public open space should be connected with nearby parks and other landscape elements. Public open space should be linked through view lines, pedestrian desire paths, termination points and the wider street grid. Solar access should be provided year round along with protection from strong winds. Opportunities for a range of recreational activities should be provided for people of all ages. A positive address and active frontages should be provided adjacent to public open space. Boundaries should be clearly defined between public open space and private areas.	Public open spaces is provided within the development to allow for an accessible pathway and lift access linking Holdsworth Avenue with Berry Road. An important public through site link/park is also located to the north of the site. The central communal and childcare spaces are connected to this public zone. In addition the through site link is located adjacent this public park further extending its impact. The through site link is deliberately external to ensure activation and safety is increased to this public area.	**Yes**
3E 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: **Site Area** / **Minimum Dimensions** / **Deep soil zone (% of site area)** Less than 650m2 – - 650m2 - 1,500m2 – 3m Greater than 1,500m – 6m – 7% Greater than 1,500m2 with significant existing tree cover – 6m	On some sites it may be possible to provide larger deep soil zones, depending on the site area and context: • 10% of the site as deep soil on sites with an area of 650m2 - 1,500m2 • 15% of the site as deep soil on sites greater than 1,500m2 Deep soil zones should be located to retain existing significant trees and to allow for the development of healthy root systems, providing anchorage and stability for mature trees. Design solutions may include: • Arrival level and sub arrival level car park design that is consolidated beneath building footprints • Use of increased front and side setbacks • Adequate clearance around trees to ensure long term health • Co-location with other deep soil areas on adjacent sites to create larger contiguous areas of deep soil Achieving the design criteria may not be possible on some sites including where: • The location and building typology have limited or no space for deep soil at ground level (e.g. central business district, constrained sites, high density areas, or in centres) • There is 100% site coverage or non-residential uses at ground floor level Where a proposal does not achieve deep soil requirements, acceptable stormwater management should be achieved and alternative forms of planting provided such as on structure.	The site achieves a deep soil zone 24% of the site area with a minimum 6m dimension well in excess of the minimum ADG calculations. A minimum of 50% of the central garden space is provided as deep soil as required by the DCP. No existing trees will remain on site given the required masterplan RL's sit approximately 2m below the natural ground level. Parking arrival is consolidated beneath the building footprint. Some portion of the basement is required to pass beneath the central garden space to provide connectivity across the basement spaces, This is turn allows for a single point of entry, waste collection, loading and servicing. This is important to reduce impacts on ground level frontages and to achieve a high level of activated frontage. Where the basement passes beneath the central garden space, a 1m soil zone allows for a continuation of the extensive landscape and planting.	**Yes**

Section	Design Criteria	Design Guidance	Proposed Development	Compliance
3F 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.	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: Note: Separation distances between buildings on the same site should combine required building separations depending on the type of room (see figure 3F.2) Gallery access circulation should be treated as habitable space when measuring privacy separation distances between neighbouring properties.	Generally one step in the built form as the height increases due to building separations is desirable. Additional steps should be careful not to cause a 'ziggurat' appearance. For residential buildings next to commercial buildings, separation distances should be measured as follows: • For retail, office spaces and commercial balconies use habitable room distances • For services and plant areas use the non-habitable room distances New development should be located and oriented to maximise visual privacy between buildings on site and for neighbouring buildings. Design solutions include: • Site layout and building orientation to minimise privacy impacts (see also section 3B Orientation) • On sloping sites, apartments on different levels have appropriate visual separation distances (see figure 3F.4) Direct lines of sight should be avoided for windows and balconies across corners. No separation is required between blank walls.	In general the building massing aligns with the masterplan envelope forms and achieves or exceeds minimum building separation requirements of the ADG. To the northern boundary a compliant habitable to habitable separation is provided to the neighbouring property across the public through site link as required by the ADG. The central garden spaces achieves or exceeds a compliant habitable to habitable building separation as required by the ADG. The small protruding balconies result in a minor deviation from required separation distances to the upper levels however these balconies provide important activation to these building elevations. To the southern boundary the separation varies in order to achieve an integrated basement access ramp and efficient building structure. Lower building levels comply with or exceed the Habitable to Non-habitable separation requirements. Building openings are limited to these lower faces with some screened openings for cross ventilation provided to apartments only. Upper levels achieve compliant habitable to habitable building separation as required by the ADG. Whilst these setbacks differ from the masterplan envelope they achieve or in many cases exceed the separation requirements of the ADG and do not result in any adverse overshadowing or privacy impacts on neighbouring developments.	**Yes** **Complies with Intent**

Building Height	Habitable rooms and balconies	Non-habitable rooms
Up to 12m (4 storeys)	6m	3m
Up to 25m (5-8 storeys)	9m	4.5m
Over 25m (9+ storeys)	12m	6m

Section	Design Criteria	Design Guidance	Proposed Development	Compliance
3G Pedestrian Access and Entries				
Objective 3G-1				
Building entries and pedestrian access connects to and addresses the public domain.		Multiple entries (including communal building entries and individual ground floor entries) should be provided to activate the street edge. Entry locations relate to the street and subdivision pattern and the existing pedestrian network. Building entries should be clearly identifiable and communal entries should be clearly distinguishable from private entries. Where street frontage is limited and multiple buildings are located on the site, a primary street address should be provided with clear sight lines and pathways to secondary building entries.	• Multiple building entries and individual entries are provided to the ground plane ensuring excellent access and activation of the public domain. • Vehicular entries and servicing frontage is minimised and integrated within the building form or landscaping as appropriate.	**Yes**

Section	Design Criteria	Design Guidance	Proposed Development	Compliance
Objective 3G-2				
Access, entries and pathways are accessible and easy to identify.		Building access areas including lift lobbies, stairwells and hallways should be clearly visible from the public domain and communal spaces. The design of ground floors and underground car parks minimise level changes along pathways and entries. Steps and ramps should be integrated into the overall building and landscape design. For large developments 'wayfinding' maps should be provided to assist visitors and residents (see figure 4T.3). For large developments electronic access and audio/video intercom should be provided to manage access.	• Building entries and lobbies are clearly identifiable being co located with the vertical building articulation slot required by the DCP. • The cross site level changes are significant however have been treated as a design opportunity providing for interesting stair and void combinations allowing visual permeability through the buildings to the central garden space beyond. • All required steps and ramps are integrated within the building form and landscape • Electronic building access will be provided	**Yes**
Objective 3G-3				
Large sites provide pedestrian links for access to streets and connection to destinations.		Pedestrian links through sites facilitate direct connections to open space, main streets, centres and public transport. Pedestrian links should be direct, have clear sight lines, be overlooked by habitable rooms or private open spaces of dwellings, be well lit and contain active uses, where appropriate.	A public through site link is included and integrated within the building form to the north of the site. The integration of this link provides all weather shelter as well as a dynamic ceiling for good lighting and opportunities for public art integration. The direct link and shaped ceiling provides good visual access from street to street as well as a terrace platform for events at the community centre. Lift access is integrated within the building form to ensure equitable access with ease regardless of the difference in height to be negotiated. In addition, the primary residential building access points are treated as an additional through site link, activated with stairs and void, lighting and artwork to provide additional site permeability and visual access to the central garden space.	**Yes**
3H 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.		Car park access should be integrated with the building's overall façade. Design solutions may include: • The materials and colour palette to minimise visibility from the street • Security doors or gates at entries that minimise voids in the façade • Where doors are not provided, the visible interior reflects the façade design and the building services, pipes and ducts are concealed Car park entries should be located behind the building line. Vehicle entries should be located at the lowest point of the site minimising ramp lengths, excavation and impacts on the building form and layout. Car park entry and access should be located on secondary streets or lanes where available. Vehicle standing areas that increase driveway width and encroach into setbacks should be avoided. Access point locations should avoid headlight glare to habitable rooms. Adequate separation distances should be provided between vehicle entries and street intersections. The width and number of vehicle access points should be limited to the minimum. Visual impact of long driveways should be minimised through changing alignments and screen planting. The need for large vehicles to enter or turn around within the site should be avoided. Garbage collection, loading and servicing areas are screened. Clear sight lines should be provided at pedestrian and vehicle crossings. Traffic calming devices such as changes in paving material or textures should be used where appropriate. Pedestrian and vehicle access should be separated and distinguishable. Design solutions may include: • Changes in surface materials • Level changes • The use of landscaping for separation	The proposed vehicular access point is located on at the lowest point on the site on Holdsworth Avenue. Vehicles are efficiently directed to the parking areas with frontage impacts minimised. • Carpark entry is integrated with the building form and is located behind the building line. • Clear sight lines are provided for safety • A loading turntable is included to improve safety and to avoid the compromise of reversing vehicles impeding traffic flow. • A security door prohibits access through into the BOH spaces beyond • Loading and waster removal is separated from the primary parking areas. • Childcare and visitor parking is consolidated to a single basement level with direct lift access to the community and childcare spaces over. • The basement layout is efficient and places residential parking for each building beneath the respective building foot prints.	**Yes**

Section	Design Criteria	Design Guidance	Proposed Development	Compliance
3J Bicycle and Carparking				
Objective 3J-1				
Car parking is provided based on proximity to public transporting metropolitan Sydney and centres in regional areas.	For development in the following locations: On sites that are within 800 metres of a railway station or light rail stop in the Sydney Metropolitan Area; or On land zoned, and sites within 400 metres of landzoned, B3 Commercial Core, B4 Mixed Use or equivalent in a nominated regional centre The minimum car parking requirement for residents and visitors is set out in the Guide to Traffic Generating Developments, or the car parking requirement prescribed by the relevant council, whichever is less. The car parking needs for a development must be provided off street.	Where a car share scheme operates locally, provide car share parking spaces within the development. Car share spaces, when provided, should be on site. Where less car parking is provided in a development, council should not provide on street resident parking permits.	Carparking is provided as per the DCP requirements.	**Yes**
Objective 3J-2				
Parking and facilities are provided for other modes of transport.		Conveniently located and sufficient numbers of parking spaces should be provided for motorbikes and scooters. Secure undercover bicycle parking should be provided that is easily accessible from both the public domain and common areas. Conveniently located charging stations are provided for electric vehicles, where desirable.	Secure and readily accessible bike parking is provided for residents and visitors within the ground level of the Holdsworth Avenue Building. Dedicated spaces for motorbikes and scooters are proposed. Allowance for future charging to every car parking is provided.	**Yes**
Objective 3J-3				
Car park design and access is safe and secure.		Supporting facilities within car parks, including garbage, plant and switch rooms, storage areas and car wash bays can be accessed without crossing car parking spaces. Direct, clearly visible and well lit access should be provided into common circulation areas. A clearly defined and visible lobby or waiting area should be provided to lifts and stairs. For larger car parks, safe pedestrian access should be clearly defined and circulation areas have good lighting, colour, line marking and/or bollards.	Services areas including waste and loading are separated from primary vehicular access routes. Secure and separate pedestrian pathways to these loading areas are provided from both the Berry and Holdsworth building lifting cores. Residential storage areas are either consolidated in areas separate to parking or co-located with individual parking spaces as the case may be. Pedestrian circulation is to be clearly identified and is generally located at the upper kerb level.	**Yes**

Section	Design Criteria	Design Guidance	Proposed Development	Compliance
Objective 3J-4				
Visual and environmental impacts of underground car parking are minimised.		Excavation should be minimised through efficient car park layouts and ramp design. Car parking layout should be well organised, using a logical, efficient structural grid and double loaded aisles. Protrusion of car parks should not exceed 1m above ground level. Design solutions may include stepping car park levels or using split levels on sloping sites. Natural ventilation should be provided to arrival level and sub-arrival level car parking areas. Ventilation grills or screening devices for car parking openings should be integrated into the façade and landscape design.	Carparking layouts are efficient and well organised and are largely driven by the building footprints. Structural grids align between the car parking and residential levels with double loaded aisles provided as often as possible. Basement ventilation is integrated within the design of the overall building form and architecture as well as within the central landscape space. In general the basement is wholly contained beneath the building footprints and is subterranean.	**Yes**
Objective 3J-5				
Visual and environmental impacts of on-grade car parking are minimised.		On-grade car parking should be avoided. Where on-grade car parking is unavoidable, the following design solutions are used: • Parking is located on the side or rear of the lot away from the primary street frontage • Cars are screened from view of streets, buildings,communal and private open space areas • Safe and direct access to building entry points is provided • Parking is incorporated into the landscape design of the site, by extending planting and materials into the car park space • Stormwater run-off is managed appropriately from car parking surfaces • Bio-swales, rain gardens or on site detention tanks are provided, where appropriate • Light coloured paving materials or permeable paving systems are used and shade trees are planted between every 4-5 parking spaces to reduce increased surface temperatures from large areas of paving	There is no on-grade car parking.	**Yes**
Objective 3J-6				
Visual and environmental impacts of above ground enclosed car parking are minimised.		Exposed parking should not be located along primary street frontages. Screening, landscaping and other design elements including public art should be used to integrate the above ground car parking with the façade. Design solutions may include: • Car parking that is concealed behind the façade, with windows integrated into the overall façade design (approach should be limited to developments where a larger floor plate podium is suitable at lower levels) • Car parking that is ‘wrapped’ with other uses, such as retail, commercial or two storey Small Office/Home Office (SOHO) units along the street frontage (see figure 3J.9) Positive street address and active frontages should be provided at ground level.	There is no above ground car parking.	**Yes**

Section	Design Criteria	Design Guidance	Proposed Development	Compliance
4A 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. In all other areas, living rooms and private opens paces 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. A maximum of 15% of apartments in a building receive no direct sunlight between 9 am and 3 pm at mid winter.	The design maximises north aspect and the number of single aspect south facing apartments is minimised. Single aspect, single storey apartments should have a northerly or easterly aspect. Living areas are best located to the north and service areas to the south and west of apartments. To optimise the direct sunlight to habitable rooms and balconies a number of the following design features are used: • Dual Aspect Apartments • Shallow Apartment Layouts • Two storey and mezzanine level apartments • Bay windows • To maximise the benefit to residents of direct sunlight within living rooms and private open spaces, a minimum of 1m2 of direct sunlight, measured at 1m above floor level, is achieved for at least 15 minutes • Achieving the design criteria may not be possible on some sites. This includes: • Where greater residential amenity can be achieved along a busy road or rail line by orientating the living rooms away from the noise source • On south facing sloping sites • Where significant views are oriented away from the desired aspect for direct sunlight • Design drawings need to demonstrate how site constraints and orientation preclude meeting the design criteria and how the development meets the objective.	70% of apartments achieve the required solar access. [70%min] Not more than 15% of apartments receive no direct sunlight. [15% max.] Achieving good solar access has been a primary generator of the design. The proposed development has been arranged as much as possible to optimise the northern aspect within the constraints of the site boundaries. Some of the strategies employed include: • Living rooms oriented to north, east and west. • Living rooms located directly on facades with balconies adjacent • Dual aspect apartments. • Two storey apartments. • Balcony forms designed to achieve higher solar access outcomes. Refer to architectural drawing set for details of compliance.	**Yes**
Objective 4A-2 Daylight access is maximised where sunlight is limited.		Courtyards, skylights and high level windows (with sills of 1,500mm or greater) are used only as a secondary light source in habitable rooms. Where courtyards are used: • Use is restricted to kitchens, bathrooms and service areas • Building services are concealed with appropriate detailing and materials to visible walls • Courtyards are fully open to the sky • Access is provided to the light well from a communal area for cleaning and maintenance • Acoustic privacy, fire safety and minimum privacy separation distances (see section 3F Visual privacy) are achieved Opportunities for reflected light into apartments are optimised through: • Reflective exterior surfaces on buildings opposite south facing windows • Positioning windows to face other buildings or surfaces (on neighbouring sites or within the site) that will reflect light • Integrating light shelves into the design • Light coloured internal finishes	Generous full-height glazing is proposed to living rooms to maximise daylight access.	**Yes**

Section	Design Criteria	Design Guidance	Proposed Development	Compliance
Objective 4A-3				
Design incorporates shading and glare control, particularly for warmer months.		A number of the following design features are used: • balconies or sun shading that extend far enough to shade summer sun, but allow winter sun to penetrate living areas • shading devices such as eaves, awnings, balconies, pergolas, external louvres and planting • horizontal shading to north facing windows • vertical shading to east and particularly west facing windows • operable shading to allow adjustment and choice • high performance glass that minimises external glare off windows, with consideration given to reduced tint glass or glass with a reflectance level below 20% (reflective films are avoided)	In general building openings are sized and located according to the requirements of individual building facades. Openings are maximised to the north and more vertical in form to suit east and west orientations. In order to reduce the overall heat load of the building, particularly in the summer months, the facade is thickened and openings to bedrooms controlled in size to achieve a better balance between glazed and solid facade areas. Additional benefits are increase privacy and light control to the private sleeping spaces. The above methods avoid the need to substantial screening and operable facade elements that require high levels of ongoing maintenance.	**Yes**
4B Natural Ventilation				
Objective 4B-1				
All habitable rooms are naturally ventilated.		The building's orientation maximises capture and use of prevailing breezes for natural ventilation in habitable rooms. Depths of habitable rooms support natural ventilation. The area of unobstructed window openings should be equal to at least 5% of the floor area served. Light wells are not the primary air source for habitable rooms. Doors and openable windows maximise natural ventilation opportunities by using the following design solutions: • Adjustable windows with large effective openable areas • A variety of window types that provide safety and flexibility such as awnings and louvres • Windows which the occupants can reconfigure to funnel breezes into the apartment such as vertical louvres, casement windows and externally opening doors	Naturally ventilated apartments have been maximised by: • Maximising the number of corner apartments. • Dual aspect apartments • Double storey apartments. • Bathrooms to façade where possible. The area of unobstructed window openings exceeds 5% of the floor area served	**Yes**
Objective 4B-2				
The layout and design of single aspect apartments maximises natural ventilation.		The layout and design of single aspect apartments maximises natural ventilation. Apartment depths are limited to maximise ventilation and airflow (see also figure 4D.3) Natural ventilation to single aspect apartments is achieved with the following design solutions: • Primary windows are augmented with plenums and light wells (generally not suitable for cross ventilation) • Stack effect ventilation / solar chimneys or similar to naturally ventilate internal building areas or rooms such as bathrooms and laundries • Courtyards or building indentations have a width to depth ratio of 2:1 or 3:1 to ensure effective air circulation and avoid trapped smells	Frontages to the single aspect apartments are maximised to ensure all apartments have good access to natural light and ventilation. Some apartments have study joinery nooks that rely on borrowed light from adjacent bedrooms. The glazed door or opening will have an aggregate light transmission not less than 10% of the combined areas of both rooms. There are no bedrooms that rely on borrowed light or minimised frontages.	**Yes**

Section	Design Criteria	Design Guidance	Proposed Development	Compliance
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. 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. Overall depth of a cross-over or cross-through apartment does not exceed 18m, measured glass line to glass line.	The building should include dual aspect apartments, cross through apartments and corner apartments and limit apartment depths. In cross-through apartments external window and door opening sizes/areas on one side of an apartment (inlet side) are approximately equal to the external window and door opening sizes/areas on the other side of the apartment (outlet side) (see figure 4B.4) Apartments are designed to minimise the number of corners, doors and rooms that might obstruct airflow. Apartment depths, combined with appropriate ceiling heights, maximise cross ventilation and airflow.	61% of apartments are naturally cross ventilated [60% Min] Naturally cross-ventilated apartments have been maximised by: • Maximising the number of corner apartments. • Dual aspect through apartments • Double storey dual aspect apartments. Cross ventilation has been increased to the lower levels through the use of a building slot fully open and sized to achieve natural cross ventilation.	**Yes**

4C Ceiling Heights

Section	Design Criteria	Design Guidance	Proposed Development	Compliance
Objective 4C-1				
Ceiling height achieves sufficient natural ventilation and daylight access.	Measured from finished floor level to finished ceiling level, minimum ceiling heights are: **Minimum ceiling height for apartment and mixed use buildings** Habitable rooms: 2.7m Non-habitable: 2.4m For 2 storey apartments: 2.7m for main living area floor; 2.4m for second floor, where its area does not exceed 50% of the apartment area Attic spaces: 1.8m at edge of room with a 30 degree minimum ceiling slope If located in mixed used areas: 3.3m for ground and first floor to promote future flexibility of use These minimums do not preclude higher ceilings if desired.	Ceiling height can accommodate use of ceiling fans for cooling and heat distribution	A minimum floor to ceiling height of 2.7m is provided to all living and sleeping areas.	**Yes**

Section	Design Criteria	Design Guidance	Proposed Development	Compliance
Objective 4C-2				
Ceiling height increases the sense of space in apartments and provides for well proportioned rooms.		A number of the following design solutions can be used: • The hierarchy of rooms in an apartment is defined using changes in ceiling heights and alternatives such as raked or curved ceilings, or double height spaces • Well proportioned rooms are provided, for example, smaller rooms feel larger and more spacious with higher ceilings • Ceiling heights are maximised in habitable rooms by ensuring that bulkheads do not intrude. The stacking of service rooms from floor to floor and coordination of bulkhead location above non-habitable areas, such as robes or storage, can assist	All residential apartments have a minimum ceiling height of 2.7m in habitable rooms and apartment layouts have been designed to provide spacious, well-proportioned rooms. Ceiling heights in ground level terraces are increased to achieve a house like quality to these terraces. The living spaces areas to the rooftop homes take advantage of their unique location at the top of the building. Pitched roof and ceiling forms provide a house like quality as well as a sense of spaciousness to these upper most rooms.	**Yes**
Objective 4C-3				
Ceiling heights contribute to the flexibility of building use over the life of the building.		Ceiling heights of lower level apartments in centres should be greater than the minimum required by the design criteria allowing flexibility and conversion to non-residential uses (see figure 4C.1)	Ceiling heights to the ground level apartments are increased in size to allow for future flexibility as well as to accommodate for the community and childcare clearance requirements.	**Yes**

Section	Design Criteria	Design Guidance	Proposed Development	Compliance
4D 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: **Apartment Type** / **Minimum Internal Area** Studio — 35m2 1 Bed — 50m2 2 Bed — 70m2 3 Bed — 90m2 The minimum internal areas include only one bathroom. Additional bathrooms increase the minimum internal area by 5m2 each. A fourth bedroom and further additional bedrooms increase the minimum internal area by 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.	Kitchens should not be located as part of the main circulation space in larger apartments (such as hallway or entry space). A window should be visible from any point in a habitable room. Where minimum areas or room dimensions are not met apartments need to demonstrate that they are well designed and demonstrate the usability and functionality of the space with realistically scaled furniture layouts and circulation areas. These circumstances would be assessed on their merits.	All apartments comply with or exceed the minimum internal areas as specified. All planning is legible and clean and contributes to the sense of space within an apartment. Minimum room dimensions are met and kitchen spaces are not located within circulation spaces.	**Yes**

Section	Design Criteria	Design Guidance	Proposed Development	Compliance
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. In open plan layouts (where the living, dining and kitchen are combined) the maximum habitable rooms depth is 8m from a window.	Greater than minimum ceiling heights can allow for proportional increases in room depth up to the permitted maximum depths. All living areas and bedrooms should be located on the external face of the building. Where possible: • Bathrooms and laundries should have an external openable window • Main living spaces should be oriented toward the primary outlook and aspect and away from noise sources	Apartment depths are optimised to avoid deep apartments. All habitable rooms have access to generous windows, natural daylight and ventilation. All living areas are located on the external faces of the building. Wherever possible additional windows are provided to kitchens, studies and bathrooms.	**Yes**
Objective 4D-3				
Apartment layouts are designed to accommodate a variety of household activities and needs.	Master bedrooms have a minimum area of 10m2 another 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.	Access to bedrooms, bathrooms and laundries is separated from living areas minimising direct openings between living and service areas. All bedrooms allow a minimum length of 1.5m for robes. The main bedroom of an apartment or a studio apartment should be provided with a wardrobe of a minimum 1.8m long, 0.6m deep and 2.1m high. Apartment layouts allow flexibility over time, design solutions may include: • Dimensions that facilitate a variety of furniture arrangements and removal • Spaces for a range of activities and privacy levels between different spaces within the apartment • Dual master apartments • Dual key apartments • Note: dual key apartments which are separate but on the same title are regarded as two sole occupancy units for the purposes of the Building Code of Australia and for calculating the mix of apartments • Room sizes and proportions or open plans (rectangular spaces (2:3) are more easily furnished than square spaces (1:1)) • Efficient planning of circulation by stairs, corridors and through rooms to maximise the amount of usable floorspace in rooms.	Apartment layouts are designed to accommodate a range of different uses and are arranged in a clear and legible manner. Minimum room widths and dimensions are achieved with storage maximised in all apartment sizes.	**Yes**

Section	Design Criteria	Design Guidance	Proposed Development	Compliance
4E 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: **Dwelling Type / Minimum Area / Minimum Depth** Studio — 4m2 — - 1 Bed — 8m2 — 2m 2 Bed — 10m2 — 2m 3 Bed+ — 12m2 — 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.	Increased communal open space should be provided where the number or size of balconies are reduced. Storage areas on balconies is additional to the minimum balcony size. Balcony use may be limited in some proposals by: • Consistently high wind speeds at 10 storeys and above • Close proximity to road, rail or other noise sources • Exposure to significant levels of aircraft noise • Heritage and adaptive reuse of existing buildings • In these situations, juliet balconies, operable walls, enclosed wintergardens or bay windows may be appropriate, and other amenity benefits for occupants should also be provided in the apartments or in the development or both. Natural ventilation also needs to be demonstrated.	All apartments have a balcony or courtyard and in general comply with the minimum sizes and widths required. In some instances due to the shaped upper level balconies which are employed to achieve solar compliance and connection with the structural points of the buildings, the minimum depth is not achieved for the full width of the balcony. The balconies however are well proportioned and able to be furnished adequately in all cases. Juliette balconies are provided to key bedroom spaces in addition to primary living room outdoor spaces. Generous public domain and communal open space are available to residents.	**Yes**
Objective 4E-2				
Primary private open space and balconies are appropriately located to enhance liveability for residents.		Primary open space and balconies should be located adjacent to the living room, dining room or kitchen to extend the living space. Private open spaces and balconies predominantly face north, east or west. Primary open space and balconies should be orientated with the longer side facing outwards or be open to the sky to optimise daylight access into adjacent rooms.	In order to maximise solar access to the living rooms balconies are located adjacent to the bedroom as well as the living space. this also gives the bedrooms additional privacy. Balconies are orientated such that the longer edge faces outwards where possible. The upper level balcony additions are spaced to avoid overlooking between residences and appear as clear additions to the primary building form.	**Yes**

Section	Design Criteria	Design Guidance	Proposed Development	Compliance
Objective 4E-3				
Private open space balcony design is integrated into and contributes to the overall architectural form and detail of the building.		Solid, partially solid or transparent fences and balustrades are selected to respond to the location. They are designed to allow views and passive surveillance of the street while maintaining visual privacy and allowing for a range of uses on the balcony. Solid and partially solid balustrades are preferred. Full width full height glass balustrades alone are generally not desirable. Projecting balconies should be integrated into the building design and the design of soffits considered. Operable screens, shutters, hoods and pergolas are used to control sunlight and wind. Balustrades are set back from the building or balcony edge where overlooking or safety is an issue. Downpipes and balcony drainage are integrated with the overall façade and building design. Air-conditioning units should be located on roofs, in arrival levels, or fully integrated into the building design. Where clothes drying, storage or air conditioning units are located on balconies, they should be screened and integrated in the building design. Ceilings of apartments below terraces should be insulated to avoid heat loss. Water and gas outlets should be provided for primary balconies and private open space.	The balconies are integrated into the overall design of the development and form part of the detail of the building. Terraces integrate planter boxes which enhance privacy as well as softening the building edge. Solid balustrades are provided to the ground and upper terrace level balconies to increase privacy. Air conditioning is centralised and plant integrated within the building form. All drainage and downpipes are concealed and integrated within the overall facade.	**Yes**

Section	Design Criteria	Design Guidance	Proposed Development	Compliance
Objective 4E-4				
Private open space and balcony design maximises safety.		Changes in ground levels or landscaping are minimised. Design and detailing of balconies avoids opportunities for climbing and falls.	All balconies comprise of balustrades of sufficient height to ensure compliance and safety is maintained.	**Yes**
4F Common Circulation 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. For buildings of 10 storeys and over, the maximum number of apartments sharing a single lift is 40.	Greater than minimum requirements for corridor widths and/ or ceiling heights allow comfortable movement and access particularly in entry lobbies, outside lifts and at apartment entry doors. Daylight and natural ventilation should be provided to all common circulation spaces that are above ground. Windows should be provided in common circulation spaces and should be adjacent to the stair or lift core or at the ends of corridors. Longer corridors greater than 12m in length from the lift core should be articulated. Design solutions may include: • A series of foyer areas with windows and spaces for seating • Wider areas at apartment entry doors and varied ceiling heights • Design common circulation spaces to maximise opportunities for dual aspect apartments, including multiple core apartment buildings and cross over apartments. • Achieving the design criteria for the number of apartments off a circulation core may not be possible. Where a development is unable to achieve the design criteria, a high level of amenity for common lobbies, corridors and apartments should be demonstrated, including: • Sunlight and natural cross ventilation in apartments • Access to ample daylight and natural ventilation in common circulation spaces • Common areas for seating and gathering • Generous corridors with greater than minimum ceiling heights • Other innovative design solutions that provide high levels of amenity • Where design criteria 1 is not achieved, no more than 12 apartments should be provided off a circulation core on a single level. • Primary living room or bedroom windows should not open directly onto common circulation spaces, whether open or enclosed. Visual and acoustic privacy from common circulation spaces to any other rooms should be carefully controlled.	The maximum number of apartments off a circulation core is 8, split about a central core such that the number of immediately adjacent neighbouring apartments is minimised. Although the overall length of corridor is elongated in the masterplan envelope forms, the corridor is split about the lift lobby which is provided with natural light to all levels. In addition this lobby space is oversized to allow for programming to encourage pause and informal interaction in this important common area of the building. The ends of corridors are free of apartment entry doors to allow for art or other points of interest to these important focal points.	**Yes**

Section	Design Criteria	Design Guidance	Proposed Development	Compliance
Objective 4F-2				
Common circulation spaces promote safety and provide for social interaction between residents.		Direct and legible access should be provided between vertical circulation points and apartment entries by minimising corridor or gallery length to give short, straight, clear sight lines. Tight corners and spaces are avoided. Circulation spaces should be well lit at night. Legible signage should be provided for apartment numbers, common areas and general wayfinding. Incidental spaces, for example space for seating in a corridor, at a stair landing, or near a window are provided. In larger developments, community rooms for activities such as owners corporation meetings or resident use should be provided and are ideally co-located with communal open space. Where external galleries are provided, they are more open than closed above the balustrade along their length.	Common circulation corridors are generously proportioned with lift lobbies oversized and activated as noted above. Access does are varied and located away from lobbies, servicing cupboards and waste rooms.	**Yes**
4G 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: At least 50% of the required storage is to be located within the apartment.	Storage is accessible from either circulation or living areas. Storage provided on balconies (in addition to the minimum balcony size) is integrated into the balcony design, weather proof and screened from view from the street. Left over space such as under stairs is used for storage.	Storage has been provided to each unit in accordance with the ADG. A minimum of 50% of storage is provided within each apartment, with additional storage provided within the designated residential parking area or dedicated residential storage areas. Storage depth is tailored to specific uses, wider for wardrobes and general storage and more narrow for linen cupboards. In general storage is provided at apartment entries and adjacent laundry spaces.	**Yes**

Dwelling Type	Storage size volume
Studio	4m3
1 Bed	6m3
2 Bed	8m3
3 Bed+	10m3

Objective 4G-2				
Additional storage is conveniently located, accessible and nominated for individual apartments.		Storage not located in apartments is secure and clearly allocated to specific apartments. Storage is provided for larger and less frequently accessed items. Storage space in internal or arrival level car parks is provided at the rear or side of car spaces or in cages so that allocated car parking remains accessible. If communal storage rooms are provided they should be accessible from common circulation areas of the building. Storage not located in an apartment is integrated into the overall building design and is not visible from the public domain.	Additional storage for bulky items is located within the basement levels adjacent the waste holding and basement entry.	**Yes**

Section	Design Criteria	Design Guidance	Proposed Development	Compliance
4H Acoustic Privacy				
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(see also section 2F Building separation and section 3F Visual privacy). Window and door openings are generally orientated away from noise sources. Noisy areas within buildings including building entries and corridors should be located next to or above each other and quieter areas next to or above quieter areas. Storage, circulation areas and non-habitable rooms should be located to buffer noise from external sources. The number of party walls (walls shared with other apartments) are limited and are appropriately insulated. Noise sources such as garage doors, driveways, service areas, plant rooms, building services, mechanical equipment, active communal open spaces and circulation areas should be located at least 3m away from bedrooms.	Allowance has been made to party wall thicknesses to achieve the minimum RW+Ctr rating in accordance with the NCC. Living and sleeping zones are grouped across the plan to ensure maximised acoustic privacy. Bedrooms are recessed from the primary building façades with thicken facades providing a buffer between these private spaces and the streetscape beyond. The building envelope is rated to ensure acoustic separation from the childcare outdoor play is achieved and individually controllable by residents. A generous proportion of childcare outdoor play is located beneath the northern building overhang ensuring good acoustic mitigation to the active play space is achieved.	**Yes**
Objective 4H-2				
Noise impacts are mitigated within apartments through layout and acoustic treatments.		Internal apartment layout separates noisy spaces from quiet spaces, using a number of the following design solutions: • Rooms with similar noise requirements are grouped together • Doors separate different use zones Wardrobes in bedrooms are co-located to act as sound buffers Where physical separation cannot be achieved noise conflicts are resolved using the following design solutions: • Double or acoustic glazing • Acoustic seals • Use of materials with low noise penetration properties • Continuous walls to ground level courtyards where they do not conflict with streetscape or other amenity requirements	The apartments have been configured so that quiet spaces (e.g. bedrooms) are co-located.	**Yes**

Section	Design Criteria	Design Guidance	Proposed Development	Compliance
4J 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.		To minimise impacts the following design solutions may be used: • Physical separation between buildings and the noise or pollution source • Residential uses are located perpendicular to the noise source and where possible buffered by other uses • Non-residential buildings are sited to be parallel with the noise source to provide a continuous building that shields residential uses and communal open spaces • Non-residential uses are located at lower levels vertically separating the residential component from the noise or pollution source. Setbacks to the underside of residential floor levels should increase relative to traffic volumes and other noise sources • Buildings should respond to both solar access and noise. Where solar access is away from the noise source, non-habitable rooms can provide a buffer • Where solar access is in the same direction as the noise source, dual aspect apartments with shallow building depths are preferable (see figure 4J.4) • Landscape design reduces the perception of noise and acts as a filter for air pollution generated by traffic and industry • Achieving the design criteria in this Apartment Design Guide may not be possible in some situations due to noise and pollution. Where developments are unable to achieve the design criteria, alternatives may be considered in the following areas: • Solar and daylight access • Private open space and balconies • Natural cross ventilation	The environment is not considered noisy or hostile however apartment layouts and facade detailing ensures comfortable living environments for all residents.	**Yes**
Objective 4J-2				
Appropriate noise shielding or attenuation techniques for the building design, construction and choice of materials are used to mitigate noise transmission.		Design solutions to mitigate noise include: • Limiting the number and size of openings facing noise sources • Providing seals to prevent noise transfer through gap • Using double or acoustic glazing, acoustic louvres or enclosed balconies (wintergardens) • Using materials with mass and/or sound insulation or absorption properties e.g. solid balcony balustrades, external screens and soffits	Openings to sleeping spaces are of an appropriate scale and decreased in size when compared to living spaces. This provides a greater degree if visual and acoustic privacy to these more private spaces. The building envelope is rated to ensure acoustic separation from the childcare outdoor play is achieved and individually controllable by residents. A generous proportion of childcare outdoor play is located beneath the northern building overhang ensuring good acoustic mitigation to the active play space is achieved.	**Yes**

Section	Design Criteria	Design Guidance	Proposed Development	Compliance
4K 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.		A variety of apartment types is provided. The apartment mix is appropriate, taking into consideration: • The distance to public transport, employment and education centres • The current market demands and projected future demographic trends • The demand for social and affordable housing • Different cultural and socioeconomic groups Flexible apartment configurations are provided to support diverse household types and stages of life including single person households, families, multi-generational families and group households.	The development delivers the following unit mix: • 1 Bed: 20% • 2 Bed: 45% • 3 Bed+: 35% The development provides a mix of 1, 2, 3 and 4 bedroom apartments with differing configurations to provide equitable housing access. The mix aims to support the needs of community at different stages of life including single person households, families, multi-generational families and group households. In particular family groups are catered for through the provision of a greater number of multiple bedroom apartments and a minimised number of single bedroom apartments.	**Yes**
Objective 4K-2 The apartment mix is distributed to suitable locations within the building.		Different apartment types are located to achieve successful façade composition and to optimise solar access (see figure 4K.3) Larger apartment types are located on the ground or roof level where there is potential for more open space and on corners where more building frontage is available.	The typical plan is made up of a variety of differing apartment sizes to cater to a range of demographics. Larger two storey apartments have been located on ground with generous terraces suitable for families. The mid terrace level apartments are larger single level family apartments. Smaller apartments are distributed to the lower levels and fronting the central communal space.	**Yes**

Section	Design Criteria	Design Guidance	Proposed Development	Compliance
Objective 4L-1				
Street frontage activity is maximised where ground floor apartments are located.		Direct street access should be provided to ground floor apartments. Activity is achieved through front gardens, terraces and the façade of the building. Design solutions may include: • Both street, foyer and other common internal circulation entrances to ground floor apartments • Private open space is next to the street • Doors and windows face the street Retail or home office spaces should be located along street frontages. Ground floor apartment layouts support small office home office (SOHO) use to provide future opportunities for conversion into commercial or retail areas. In these cases provide higher floor to ceiling heights and ground floor amenities for easy conversion.	Direct street access is provided to all ground floor apartments. Terraces and front gardens provide greening and activation. Flexible layouts to these ground level homes provide for separable rooms that could be used as a home office, sleeping/guest quarters or additional living area.	**Yes**
Objective 4L-2				
Design of ground floor apartments delivers amenity and safety for residents.		Privacy and safety should be provided without obstructing casual surveillance. Design solutions may include: • Elevation of private gardens and terraces above the street level by 1-1.5m (see figure 4L.4) • Landscaping and private courtyards • Window sill heights that minimise sight lines into apartments • Integrating balustrades, safety bars or screens with the exterior design Solar access should be maximised through: • High ceilings and tall windows • Trees and shrubs that allow solar access in winter and shade in summer	Ground level apartments have courtyards. Landscaped planter boxes provide privacy as well as discreet security. Differing street levels are dealt with through landscape elements which also provide an increased level of privacy to these ground level homes. In general these homes are 2 storey with bedrooms located to the more private upper levels.	**Yes**

Section	Design Criteria	Design Guidance	Proposed Development	Compliance
4M Façades				
Objective 4M-1				
Building façades provide visual interest along the street while respecting the character of the local area.		Design solutions for front building façades may include: • A composition of varied building elements • A defined base, middle and top of buildings • Revealing and concealing certain elements • Changes in texture, material, detail and colour to modify the prominence of elements Building services should be integrated within the overall façade. Building façades should be well resolved with an appropriate scale and proportion to the streetscape and human scale. Design solutions may include: • Well composed horizontal and vertical elements • Variation in floor heights to enhance the human scale • Elements that are proportional and arranged in patterns • Public artwork or treatments to exterior blank walls • Grouping of floors or elements such as balconies and windows on taller buildings Building façades relate to key datum lines of adjacent buildings through upper level setbacks, parapets, cornices,awnings or colonnade heights. Shadow is created on the façade throughout the day with building articulation, balconies and deeper window reveals.	The building façade has been designed to respond to Connecting with Country, the surrounding context, streetscape, orientation and internal planning functions of the proposed development. A clear massing strategy based on solar access refines the façade's articulation creating an expressive and sense of 'movement' when viewed from the street. Provision for building services have been allocated within the building form so as they are not visible from the public domain nor externally on the building form. Rooftop services are captured within a cohesive rooftop form mimicking the surrounding single residential roof forms. Service areas are easily accessible from within the building and integrated external service cupboard locations.	**Yes**
Objective 4M-2				
Building functions are expressed by the façade.		Building entries should be clearly defined. Important corners are given visual prominence through a change in articulation, materials or colour, roof expression or changes in height. The apartment layout should be expressed externally through façade features such as party walls and floor slabs.	Programmatic functions are clearly expressed through the façade's articulation in scale, materiality and placement. A memory of the previously existing natural ground line is defined within the site landscape and building forms through a datum or 'tide' line in re-purposed sandstone recovers from the site.	**Yes**

Section	Design Criteria	Design Guidance	Proposed Development	Compliance
4N Roof Design				
Objective 4N-1				
Roof treatments are integrated into the building design and positively respond to the street.		Roof design relates to the street. Design solutions may include: • Special roof features and strong corners • Use of skillion or very low pitch hipped roofs • Breaking down the massing of the roof by using smaller elements to avoid bulk • Using materials or a pitched form complementary to adjacent buildings Roof treatments should be integrated with the building design. Design solutions may include: • Roof design proportionate to the overall building size, scale and form • Roof materials compliment the building • Service elements are integrated	The rooftop form is key to the identity of the development. The four rooftop homes are identified as individual pitched forms evoking the traditional form of a house and taking advantage of their unique rooftop position. These forms extend to encompass and integrated all required rooftop elements transitioning through to the communal spaces at the opposing ends. The rooftop form provides a cohesive and identifiable response in keeping with residential areas.	**Yes**
Objective 4N-2				
Opportunities to use roof space for residential accommodation and open space are maximised.		Habitable roof space should be provided with good levels of amenity. Design solutions may include: • Penthouse apartments • Dormer or clerestory windows • Openable skylights • Open space is provided on roof tops subject to acceptable visual and acoustic privacy, comfort levels, safety and security considerations.	Roof spaces are utilised for communal space and penthouse apartments. A clear division of these uses is achieved through a central serving zone that further increase acoustic privacy between these two primary uses. Roof tops are shaped resulting in dynamic and unique apartment spaces.	**Yes**
Roof design incorporates sustainability features.		Roof design maximises solar access to apartments during winter and provides shade during summer. Design solutions may include: • The roof lifts to the north • Eaves and overhangs shade walls and windows from summer sun • Skylights and ventilation systems should be integrated into the roof design	The roof structure allows for the integration of solar panels to the sloped and angled faces and improves the collection of water for reuse within the site.	**Yes**

Section	Design Criteria	Design Guidance	Proposed Development	Compliance
4O Landscape Design				
Objective 4O-1				
Landscape design is viable and sustainable.		Landscape design should be environmentally sustainable and can enhance environmental performance by incorporating: • Diverse and appropriate planting • Bio-filtration gardens • Appropriately planted shading trees • Areas for residents to plant vegetables and herbs • Composting • Green roofs or walls Ongoing maintenance plans should be prepared. Microclimate is enhanced by: • Appropriately scaled trees near the eastern and western elevations for shade • A balance of evergreen and deciduous trees to provide shading • in summer and sunlight access in winter • Shade structures such as pergolas for balconies and courtyards Tree and shrub selection considers size at maturity and the potential for roots to compete (see Table 4)	The Landscape design will respond to the microclimates of Lane Cove, enhancing the local biodiversity and natural character. A diverse range of local native plant species are proposed which will attract local birds and insects while also providing a mix of evergreen and deciduous trees to maximise solar access in the winter, and shade in the summer months. A range of shade elements will be integrated into the landscape to provide privacy and weather proofing. The planting proposed will not only enhance the local biodiversity but also promote WSUD principles, urban composting, productive and local bush tucker species and a range of vertical greening species.	**Yes**
Objective 4O-2				
Landscape design contributes to the streetscape and amenity.		Landscape design responds to the existing site conditions including: • Changes of levels • Views • Significant landscape features including trees and rock outcrops Significant landscape features should be protected by: • Tree protection zones (see figure 4O.5) • Appropriate signage and fencing during construction Plants selected should be endemic to the region and reflect the local ecology.	The landscape design will integrate level change in an interesting and respectful manner and in line with the natural character of Lane Cove. The landscape design will promote views and through careful tree selection and placement and also through the natural materials such as local sandstone. Existing Trees will be retained and protected where achievable.	**Yes**

Section	Design Criteria	Design Guidance	Proposed Development	Compliance
4P Planting on Structures				
Objective 4P-1 Appropriate soil profiles are provided.		Structures are reinforced for additional saturated soil weight. Soil volume is appropriate for plant growth, considerations include: • Modifying depths and widths according to the planting mix and irrigation frequency • Free draining and long soil life span • Tree anchorage Minimum soil standards for plant sizes should be provided in accordance with Table 5	Suitable soil volumes and depths will be provided to planting areas, allowing for appropriate and sustainable growth and allowing specimens to reach their mature size. Soil specifications will be proposed and signed off from a suitable soil scientist.	**Yes**
Objective 4P-2 Plant growth is optimised with appropriate selection and maintenance.		Plants are suited to site conditions, considerations include: • Drought and wind tolerance • Seasonal changes in solar access • Modified substrate depths for a diverse range of plants • Plant longevity A landscape maintenance plan is prepared. • Irrigation and drainage systems respond to: • Changing site conditions • Soil profile and the planting regime • Whether rainwater, stormwater or recycled grey water is sued	Planting will be chosen to reflect the local natural Lane Cove Environment and respond to the site's microclimates. Local native species will be integrated through the use of rainwater collection and a rainwater tank. Suitable soil depths and volumes will be proposed depending on the specimen size and water demands.	**Yes**
Objective 4P-3 Planting on structures contributes to the quality and amenity of communal and public open spaces.		Entries to all apartments are accessible in accordance with NCC and DDA requirements. Building design incorporates opportunities for planting on structures. Design solutions may include: • Green walls with specialised lighting for indoor green walls • Wall design that incorporates planting • Green roofs, particularly where roofs are visible from the public domain • Planter boxes Note: structures designed to accommodate green walls should be integrated into the building façade and consider the ability of the façade to change over time.	The design language of the landscape will flow into the buildings lobbies, connecting the users with the green spine. Planting on structures will be allowed for in appropriate locations such as rooftops and terraces. The planting will also be highlighted at nighttime with feature lighting that will create a sense of arrival.	**Yes**

Section	Design Criteria	Design Guidance	Proposed Development	Compliance
4Q Universal Design				
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.	Entries to all apartments are accessible in accordance with NCC and DDA requirements. A minimum of 20% of apartments are required to be Liveable. The proposal achieves 100% of dwellings that incorporate the features required for Silver Liveable Housing.	**Yes**
Objective 4Q-2				
A variety of apartments with adaptable designs are provided.		Adaptable housing should be provided in accordance with the relevant council policy. Design solutions for adaptable apartments include: • Convenient access to communal and public areas • High level of solar access • Minimal structural change and residential amenity loss when adapted • Larger car parking spaces for accessibility • Parking titled separately from apartments or shared car parking arrangements	A minimum of 20% of apartments are required to be adaptable. The proposal achieves 20% of the apartments as adaptable and are designed to comply with all requirements. 80% of dwellings are visitable. The development has universal access through both public and communal spaces.	**Yes**
Objective 4Q-3				
Apartment layouts are flexible and accommodate a range of lifestyle needs.		Apartment design incorporates flexible design solutions which may include: • Rooms with multiple functions • Dual master bedroom apartments with separate bathrooms • Larger apartments with various living space options Open plan 'loft' style apartments with only a fixed kitchen, laundry and bathroom	All apartments are generously sized providing suitable housing for individuals, couples and families. The variety of apartment types means a good range of apartment sizes are offered.	**Yes**

Section	Design Criteria	Design Guidance	Proposed Development	Compliance
4R Adaptive Reuse				
Objective 4R-1				
New additions to existing buildings are contemporary and complementary and enhance an area's identity and sense of place.		Design solutions may include: • New elements to align with the existing building • Additions that complement the existing character, siting, scale, proportion, pattern, form and detailing • Use of contemporary and complementary materials, finishes, textures and colours Additions to heritage items should be clearly identifiable from the original building. New additions allow for the interpretation and future evolution of the building.	N/A	**N/A**
Objective 4R-2				
Adapted buildings provide residential amenity while not precluding future adaptive reuse.		Design features should be incorporated sensitively into adapted buildings to make up for any physical limitations,to ensure residential amenity is achieved. Design solutions may include: • Generously sized voids in deeper buildings • Alternative apartment types when orientation is poor • Using additions to expand the existing building envelope Some proposals that adapt existing buildings may not be able to achieve all of the design criteria in this Apartment Design Guide. Where developments are unable to achieve the design criteria, alternatives could be considered in the following areas: • Where there are existing higher ceilings, depths of habitable rooms could increase subject to demonstrating access to natural ventilation, cross ventilation (when applicable) and solar and daylight access (see also sections 4A Solar and daylight access and 4B Natural Ventilation) • Alternatives to providing deep soil where less than the minimum requirement is currently available on the site • Building and visual separation – subject to demonstrating alternative design approaches to achieving privacy • Common circulation • Car parking • Alternative approaches to private open space and balconies	N/A	**N/A**
4S Mixed Use				
Objective 4S-1				
Mixed use developments are provided in appropriate locations and provide active street frontages that encourage pedestrian movement.		Mixed use development should be concentrated around public transport and centres. Mixed use developments positively contribute to the public domain. Design solutions may include: • Development addresses the street • Active frontages are provided • Diverse activities and uses • Avoiding blank walls at the ground level • Live/work apartments on the ground floor level, rather than commercial	Dedicated child-care and community space is provided within the building and fronting the public through site link.	**Yes**

Section	Design Criteria	Design Guidance	Proposed Development	Compliance
Objective 4S-2				
Residential levels of the building are integrated within the development, and safety and amenity is maximised for residents.		Residential circulation areas should be clearly defined. Design solutions may include: • Residential entries are separated from commercial entries and directly accessible from the street • Commercial service areas are separated from residential components • Residential car parking and communal facilities are separated or secured • Security at entries and safe pedestrian routes are provided • Concealment opportunities are avoided Landscaped communal open space should be provided at podium or roof levels.	Residential entrances are separate from the childcare and community components.	**Yes**
4T Awning and Signage				
Objective 4T-1				
Awnings are well located and complement and integrate with the building design.		Awnings should be located along streets with high pedestrian activity and active frontages. • Continuous awnings are maintained and provided in areas with an existing pattern • Height, depth, material and form complements the existing street character • Protection from the sun and rain is provided • Awnings are wrapped around the secondary frontages of corner sites • Awnings are retractable in areas without an established pattern Awnings should be located over building entries for building address and public domain amenity. Awnings relate to residential windows, balconies, street tree planting, power poles and street infrastructure. Gutters and down pipes should be integrated and concealed. Lighting under awnings should be provided for pedestrian safety.	Awnings are provided to ground level apartment entries. The primary residential building entries are setback within the building form which will provide shelter from sun and rain. The through site link is integrated beneath the building form provided a more shelter all weather access across the site.	**Yes**
Objective 4T-2				
Signage responds to the context and desired streetscape character.		Signage should be integrated into the building design and respond to the scale, proportion and detailing of the development. Legible and discrete way finding should be provided for larger developments. Signage is limited to being on and below awnings and a single façade sign on the primary street frontage.	Signage will be integrated and a continuation of the façade's architectural language. The future design of the signage and way finding components will be guided by Connection to Country findings.	**Yes**

Section	Design Criteria	Design Guidance	Proposed Development	Compliance
Objective 4U-1				
Development incorporates passive environmental design.		Adequate natural light is provided to habitable rooms (see 4A Solar and Daylight Access) Well located, screened outdoor areas should be provided for clothes drying.	A sufficient amount of natural light is provided to habitable rooms.	**Yes**
Objective 4U-2				
Development incorporates passive solar design to optimise heat storage in winter and reduce heat transfer in summer.		A number of the following design solutions are used: • The use of smart glass or other technologies on north and west elevations • Thermal mass in the floors and walls of north facing rooms is maximised • Polished concrete floors, tiles or timber rather than carpet • Insulated roofs, walls and floors and seals on window and door openings • Overhangs and shading devices such as awnings, blinds and screens Provision of consolidated heating and cooling infrastructure should be located in a centralised location (e.g. the arrival level)	The BASIX Certificate to be provided with the application identifies that the proposed development achieves the required levels of thermal comfort for a development of this scale.	**Yes**
Objective 4U-3				
Adequate natural ventilation minimises the need for mechanical ventilation.		A number of the following design solutions are used: • Rooms with similar usage are grouped together • Natural cross ventilation for apartments is optimised • Natural ventilation is provided to all habitable rooms and as many non-habitable rooms, common areas and circulation spaces as possible	Natural ventilation is provided to 100% of the apartments. Natural cross ventilation is maximised where possible.	**Yes**
4V Water Management and Conservation				
Objective 4V-1				
Potable water use is minimised.		Water efficient fittings, appliances and wastewater reuse should be incorporated. Apartments should be individually metered. Rainwater should be collected, stored and reused on site. Drought tolerant, low water use plants should be used within landscaped areas.	Efficient water use is proposed as follows: • Potable water use will be minimised where possible • Water capture and re-use • Water recycling • Landscape integration and species selection	**Yes**
Objective 4V-2				
Urban stormwater is treated on site before being discharged to receiving waters.		Water sensitive urban design systems are designed by a suitably qualified professional. A number of the following design solutions are used: • Runoff is collected from roofs and balconies in water tanks and plumbed into toilets, laundry and irrigation • Porous and open paving materials is maximised • On site stormwater and infiltration, including bio-retention systems such as rain gardens or street tree pits	Water management is considered an important element in the landscape and a strategy developed to: • manage water shortages; • reduce local temperatures; • improve stormwater quality; • reduce wastewater discharges; • promote greening of the urban landscape;	**Yes**

Section	Design Criteria	Design Guidance	Proposed Development	Compliance
Objective 4V-3				
Flood management systems are integrated into site design.		Detention tanks should be located under paved areas, driveways or in arrival level car parks. On large sites parks or open spaces are designed to provide temporary on site detention basins.	Any required flood mitigation systems will be integrated within the building form and landscape design.	**Yes**
4W Waste Management				
Objective 4W-1				
Waste storage facilities are designed to minimise impacts on the streetscape, building entry and amenity of residents.		Adequately sized storage areas for rubbish bins should be located discreetly away from the front of the development or in the arrival level car park. Waste and recycling storage areas should be well ventilated. Circulation design allows bins to be easily manoeuvred between storage and collection points. Temporary storage should be provided for large bulk items such as mattresses. A waste management plan should be prepared.	Waste storage facilities are wholly integrated within the building form. All waste collection occurs off street and beneath the building form. Waste collection areas are well ventilated being located adjacent the vehicular access ramp.	**Yes**
Objective 4W-2				
Domestic waste is minimised by providing safe and convenient source separation and recycling.		All dwellings should have a waste and recycling cupboard or temporary storage area of sufficient size to hold two days worth of waste and recycling. Communal waste and recycling rooms are in convenient and accessible locations related to each vertical core. For mixed use developments, residential waste and recycling storage areas and access should be separate and secure from other uses. Alternative waste disposal methods such as composting should be provided.	The reduction of domestic waste is encouraged. All dwellings are to be provided with adequate sized and integrated waste and recycling bins. A concealed waste room with bins and a chute is located on each level adjacent but concealed from the primary lift lobby.	**Yes**
4X Building Maintenance				
Objective 4X-1				
Building design detail provides protection from weathering.		A number of the following design solutions are used: • Roof overhangs to protect walls • Hoods over windows and doors to protect openings • Detailing horizontal edges with drip lines to avoid staining of surfaces • Methods to eliminate or reduce planter box leaching • Appropriate design and material selection for hostile locations	A combination of design solutions have been used to improve the building's protection from weathering. Natural raw and low maintenance materials are proposed that weather well and age gracefully.	**Yes**

Section	Design Criteria	Design Guidance	Proposed Development	Compliance
Objective 4X-2				
Systems and access enable ease of maintenance.		Window design enables cleaning from the inside of the building. Building maintenance systems should be incorporated and integrated into the design of the building form, roof and façade. Design solutions do not require external scaffolding for maintenance access. Manually operated systems such as blinds, sunshades and curtains are used in preference to mechanical systems. Centralised maintenance, services and storage should be provided for communal open space areas within the building.	Building maintenance systems are to be integrated into the overall built form. Window operability is considered to allow frequent cleaning from within each apartment. Automated systems are avoided.	**Yes**
Objective 4X-3				
Material selection reduces ongoing maintenance costs.		A number of the following design solutions are used: • Sensors to control artificial lighting in common circulation and spaces • Natural materials that weather well and improve with time such as face brickwork • Easily cleaned surfaces that are graffiti resistant • Robust and durable materials and finishes are used in locations which receive heavy wear and tear, such as common circulation areas and lift interiors	A robust selection of durable material have been selected and include masonry, concrete and glass which weather well and improve with time.	**Yes**
THE - END				

Thank You

Note: Images are indicative.