Pathways Cremorne
Integrated Seniors Housing Development

Design Report

REV 01:
01 AUGUST 2023

CHOI ROPIHA FIGHERA P/L ACN 144 714 885 ATF CHOI ROPIHA FIGHERA UNIT TRUST T/A CHROFI ABN 22 365 257 187
NOMINATED ARCHITECTS JOHN CHOI 8706 TAI ROPIHA 6568 STEVEN FIGHERA 6609

PATHWAYS
RESIDENCES

CHROFI mdp architecture

Acknowledgement of Country

We respectfully acknowledge the Gammerai [Cammerai] People as the Traditional Custodians of this place.

We pay our respects to elders past, present and emerging.

This is, was and always will be Aboriginal land.

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1. Introduction

Pathways Cremorne is an integrated seniors housing development containing 58 independent living units (ILUs), a 41-bed residential aged care facility (RAC) and supporting ancillary uses such as hydrotherapy pool, medical consulting rooms and a café. Resident parking, deliveries and waste management are accomodated at basement level with driveway access from Parraween Street.

The development will provide:

• Retention and reconstruction of cottage 52,54 and 56 as well as the reconstruction of cottages 70, 72, 74, 76, 78 and 80, retaining the existing street-front cottages maintaining the existing character of Parraween Street.

• Through-site walking link and open spaces for community use.

• Landscaped communal and private open spaces for residents.

• Allied health services accessible to residents and the local community.

Design objectives:

• Create a world class community environment for senior members of the community that is fit for purpose (in response to the Royal Commission) and allows residents to age in place with respect and dignity

• Complement Parraween Street with active frontages and a low scale streetscape to enhance its potential as an alfresco strip

• Respect the existing character of the streets.

• Connect Parraween Street to district views

• Create a high quality soft open space for public use

• Create a mid block public through site link that connects residents north of Gerard Street with Cremorne Town Centre

• Respond to the local built form and landscape setting whilst minimising overshadowing impact

• Create new contemporary architecture that contributes to the high quality of Cremorne's built environment

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2. Site & Context

2.1 Strategic Context

The site lies within Cremorne, a desirable north-shore established neighbourhood just 15mins from Central Sydney and connected by high frequency public transport including the B-Line and numerous bus services. The site is adjacent to Cremorne Town Centre which is one of 3 local centres that exist along Military Road.

While development of these centres evolved in the early 20th century as primarily shop-top housing fronting Military Road, recent development is prioritising the laneways and streets behind Military Road where more comfortable pedestrian conditions exist as the intensity of traffic within the Military Road corridor becomes increasingly inhospitable to pedestrian activity.

This is particularly the case for Neutral Bay and inevitable for Cremorne as our urban lifestyles drive us to socialize in public spaces with good amenity.The local area is well provided for with its own commercial centre but also includes many primary and secondary schools local to the area, regional parklands along Middle Harbour and high quality established residential streets that surround the Cremorne Town Centre.

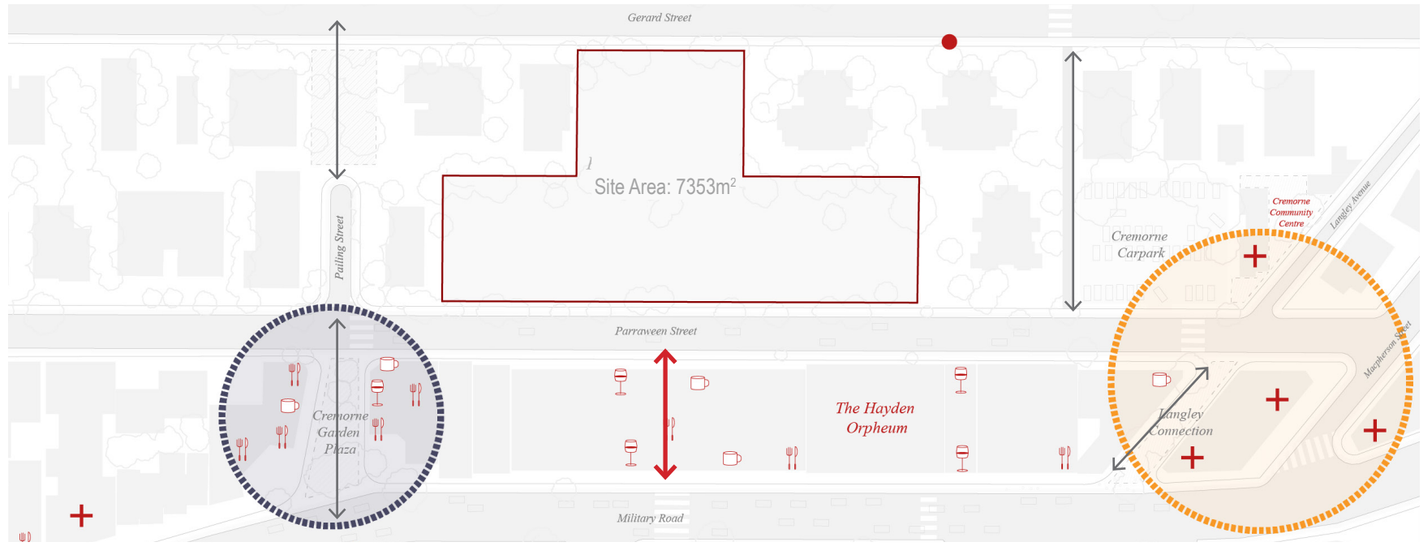
2.2 The Local Context

The location of the site lies on the northern edge of Cremorne Town Centre between Gerard Street and Parraween Street. The centre is well provisioned offering medical services, professional services, shops and a supermarket, the Orpheum Cinema, restaurants and cafes, and is serviced by high-frequency public transport.

An existing commercial arcade is located directly opposite the site and provides direct access from the site to the Military Road commercial strip. The arcade also aligns a pedestrian crossing on Military Road which is critical to accessing city-bound buses as well as the local supermarket, shops and restaurants that are located on the southern side of Military Road.

The centre is heavily impacted by the noise and pollution of traffic within the Military Road arterial corridor that divides the centre in two. The centre also suffers from a lack of public space although the Cremorne Garden Plaza has become a popular alfresco space for locals. There is a Council through-site link, community facility and Langley connection that bookend the development site to the east.

Ada Street opposite the site extends north from Gerard Street and provides a vista toward Middle Harbour as the topography falls away. Ada Street also aligns a series of public links at its northern end that connect Ada St to Brightmore Reserve and Primrose Park on the harbour. Housing in the area is characterized by established federation housing stock interspersed with new high density apartmentcomplexes where permitted under the planning controls.



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2.3 The Site

The site is 7353.63 m2 in area and feature two street frontages. The site lies adjacent to the northern edge of the town centre in Parraween Street, and extends northward through to Gerard Street.

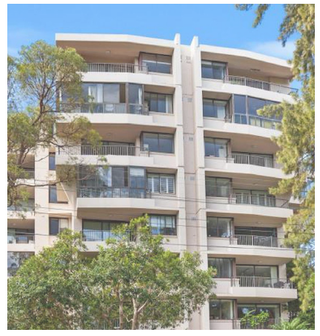
The site benefits from a falling topography that brings sun and district views into the site from the north-west. The site is intrinsically connected with the town centre and via commercial arcade opposite that provides direct access to the Military Road corridor as well as cafes and the iconic Orpheum Theatre directly adjacent in Parraween Street. Cremorne Garden Plaza is just a few steps to the west offering a choice of restaurants and cafes with outdoor dining.

The site features many existing small and medium scale residences with domestic gardens and 1 significant Sydney Blue gum within the north-east corner of the site that is worthy of retention. The site is also framed by many significant trees on adjacent properties that contribute to the leafy North-Shore character of the place.







2.3.1 Parraween Street

Parraween St has a quiet and sunny disposition and provides convenience parking for people shopping in the town centre. The combination of parking, street trees, the cinema, urban plazas and shop top housing on its southern frontage is creating the potential for an active high street.

The site contains a number of federation cottages along the Parraween Street frontage giving the street a low-scale domestic character. Over time however, they have been compromised by insensitive additions and parking added to their front gardens which detracts from their contribution to the street scape. These cottages are presently subject of an Interim Heritage.

2.3.2 Gerard Street

Gerard St is a busy classified road with constant regional traffic moving to and from Mosman and the Northern Beaches. The Gerard St frontage presently has an older 4-storey apartment building and a bungalow style house that now seems out of context with the busy road and mostly much taller buildings. The corridor features a number of apartment complexes between 8 and 15 storeys that were developed in the 1960s and 1970s. While Gerard has good street trees, it suffers from limited connections to the town centre and also presents as a barrier between the town centre and communities north of the road toward Middle Harbour.

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2.4 North Sydney Planning Controls

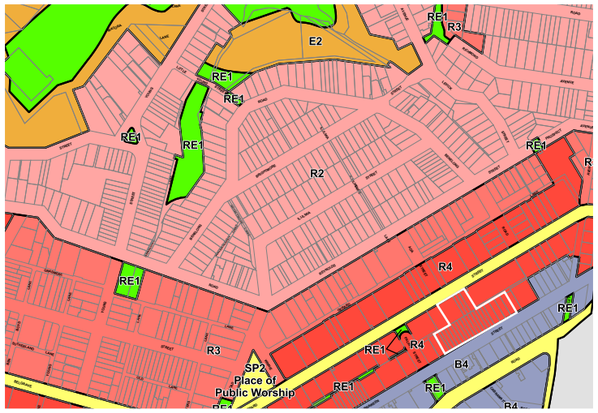
Subject Site Details:
50-88 Parraween St + 61-67 Gerard St, Cremorne 2090 NSW

Lot Number:
Lot 30/2/DP4785, Lot A/DP366345, Lot B/DP366345, Lot C/DP366345, Lot A/DP419832, Lot B/DP419832, Lot A/DP412718, Lot B/DP412718, Lot 1/DP1001062, Lot 2/DP1001062, Lot X/DP442664, Lot Y/DP442664, Lot A/DP438187, Lot B/DP438187, Lot 1/DP441402, Lot 2/DP441402, Lot 1/DP19887, Lot 2/DP19887, Lot 3/DP19887, Lot 4/DP19887, Lot SP95237, Lot A/DP442573, Lot B/DP442573, Lot 81/DP978497

Overview:

Zoning	(R4) High Density
Building Height	(M) 12 m | 4 Storey
FSR	N/A
Heritage	N/A*
Site Coverage	45% max (NS DCP 2013)

* Currently an IHO in place - Interim Heritage Order No. 4/2022 Issued 17 November 2022;
82, 84, 86 & 88 Parraween Street, Cremorne



Zoning: R4
NSLEP 2013

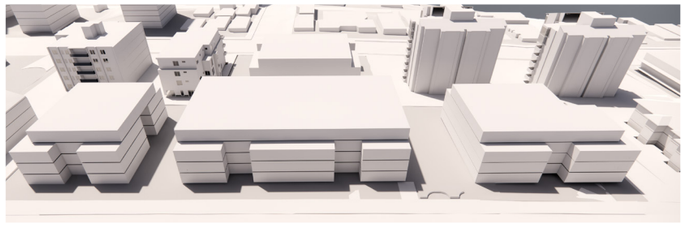
Floor Space Ratio: Not applicable to this site
NSLEP 2013

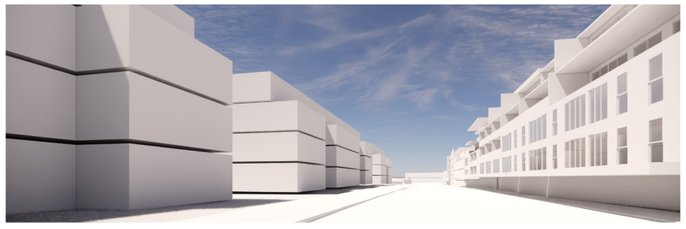
Heritage: Not applicable to this site *
NSLEP 2013

Building Height: 12m
NSLEP 2013

39 Parraween Street
Approx FSR 1.42:1

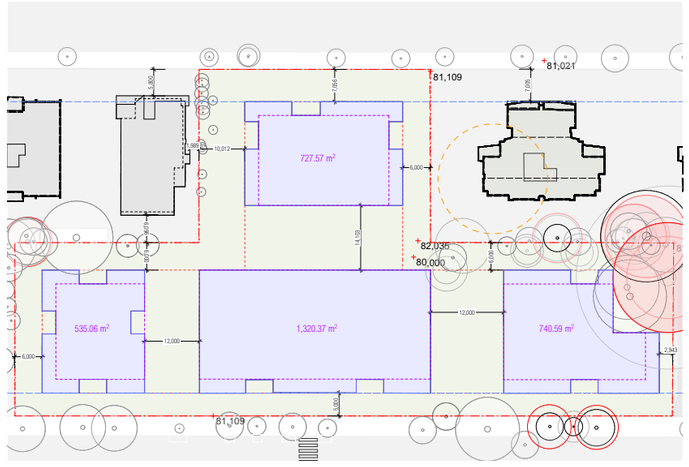
53 Gerard Street
Approx FSR 1.3:1





‘Business as Usual’ - Compliant Scheme 3D View:

1. Aerial
2. Parraween Street



‘Business as Usual’ - Compliant Scheme

3.1 Recent Developments

There are two recent developments nearby the site at 39 Parraween Street and 53 Gerard Street that provide a good representation of what can be achieved in the area. Each is contemporary in their expression and have been designed in accordance with primary controls as follows;

- R4 High Density Zoning
- 12m height limit corresponding to 4-storeys
- 45% site coverage

A yield approximately FSR 1.42:1, at 39 Parraween St and FSR 1.3:1 at 55 Gerard St being a smaller sitehas been achieved and the outcome is well articulated building forms, set-back from the street within garden settings that achieve a high level of density.

3.2 Compliant Development

Taking the learnings from the recently completed developments at 39 Parraween Street and 53 Gerard Street, we have imagined how a similarly structured development would translate onto this site to establish a ‘Business as Usual’ benchmark for what can be achieved on this site.

The scheme features four 4-storey buildings with ADG separation that allows for appropriate landscape treatments and compliant setbacks to boundaries. Three of the buildings are oriented to Parraween Street, and one oriented to Gerard Street.

Key Metrics
- 45% Site Coverage
- 4 storeys in height
- Compliant setbacks
- ADG separation between buildings and to existing buildings on adjacent sites

The outcome yeilds the equivalent of approx FSR 1.44:1

*Note, the eastern boundary side setback that meets Parraween Street is reduced given the driveway positioning on the adjacent property that provides adequate separation to the neighboring building. An averaging argument could also be made here as the proposed built-form steps around the existing blue gum tree.

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4. Vision

The vision for Pathways Cremorne is to create an integrated seniors housing development embedded with the established town centre of Cremorne. The development will provide options for local retirees to age within their community with varying levels of assistance in a manner that keeps them engaged with their community and consistent with the recommendations of the recent Royal Commission.

The central location within Cremorne will provide residents with direct access to shops, offices, restaurants, a supermarket, cinemas, health services and public transport allowing them to maintain their independence through their twilight years.

The positioning of the development within the Cremorne town centre will also facilitate intergenerational interaction between the community and elderly residents, which is proven to benefit the health and wellness of our ageing population, while also strengthening local social networks.

The overarching design ambition is to embed and integrate the development into the local community in a physical sense so that it feels integrated architecturally but also connected into the public realm to create opportunities for social interaction.

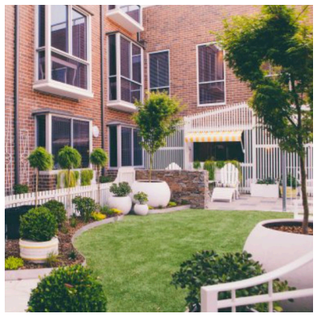
The design ambition falls within two key themes

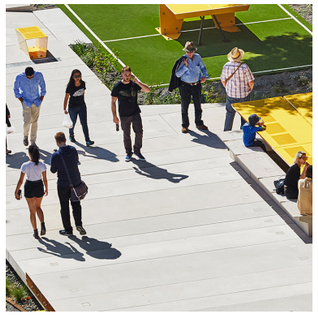
1. To create a new 'connected' retirement living community

   a. By maximising the benefits of being located within an established local centre
   b. By knitting the development into the neighbourhood to maximise opportunities for intergenerational social activity

2. Develop a context responsive urban design that sensitively brings density into an established area

   a. By respecting local character and scale
   b. By using the development to provide meaningful outcomes for the community
      - Through the retention of the low-scale character of Parraween Street
      - Through the provision of a through-site link that improves pedestrian connectivity while bringing the public into the retirement community
      - Creating a public space for all to enjoy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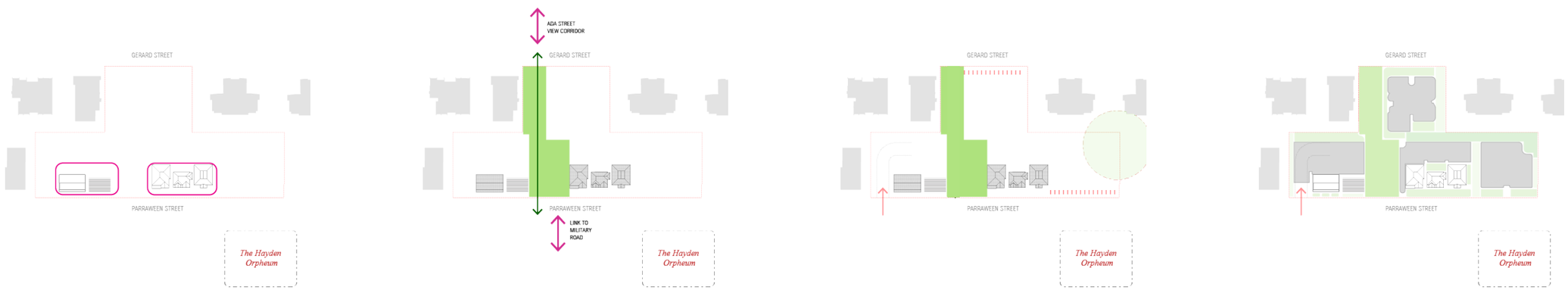
5.1 Key Moves



1. Retention and Renewal

Retention and reconstruction of cottage 52,54 and 56 as well as the reconstruction of cottages 70, 72, 74, 76, 78 and 80, retaining the existing street-front cottages maintaining the existing continuity and low scale fine grain character of Parraween St. Removal of parking and driveways enables these cottages to be reconstructed with new gardens and fences to vastly improve the streetscape

An alfresco pergola structure is added as a space to activate Parraween Street and is designed to match the profile of the adjacent retained and reconstructed cottages providing continuity of scale and form. Adaptive re-use of these cottages will breathe new life into these buildings and together with the new alfresco structure, will contribute to the life of the street.

2. The Public Park and Through Site Link

Create a new pocket park and through site link at the center of the site that aligns the commercial arcade to the south and Ada St to the north.

This connection provides a direct link between the town centre and the communities north of Gerard Street. It also enables a legible pedestrian route to be established to Brightmore Reserve and Primrose Park via public pathways from Ada Street. This through site link and pocket park improves the pedestrian environment of Gerard Street, connects communities, and provides a memorable place for gatherings and intergenerational interaction.

3. Vehicle Access

The new driveway provides two-way basement access for both cars and servicing vehicles and is positioned in Parraween St at the western end of the site to avoid conflict with the public open space, to sit outside the visual curtilage of the land-mark Orpheum Theatre and to avoid impact to existing significant trees including the sretained ignificant Sydney blue gum.

The driveway is located in Parraween Steet because a driveway from Gerard Street could not be supported by the RMS due its ‘Classified Road’ status.

4. The Built Form

The built form is organised across the remaining parts of the site with 4 new buildings infilling around the three retained and reconstructed and six reconstructed cottages.

The new buildings respond to the different scales of Parraween Street and Gerard Street. The built form transitions from single level cottages along the Parraween St frontage to 4 levels in the centre of the site, to 8 levelson Gerard Stwhich is consistent with its neighbouring buildings and the overall streetscape.

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5.2 Architecture

The proposal features 3 architectural typologies that bring diversity to the development.

1. The existing cottages and new pavilion retain the grain and scale of Parraween Street and surrounding suburb. This is considered in the materials;

- Federation Brick
- Terracotta Roof Tiles
- Sympathertic modern additions

2. The new infill buildings BLG 02, + 03 including the RAC BLG 01, frame the existing cottages in the foreground by formally setting back from the street and establishing a relationship through subtle facade and materiality. This is considered in the materials;

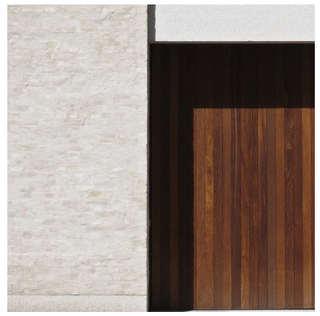
- Modern brick references
- Terracottaroofscape - powdercoated steel
- Deep Reveals and window details

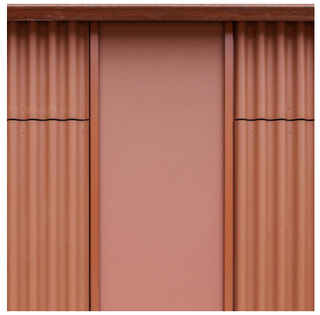
3. Building 04 is a contemporary apartment complex designed to continue the urban character of Gerard Street. The 8 storey hight is consitent with its two neighbours to the eas while the form, with balconies on the corners ahieves a vertical proportion and lightness to the building. This is considered in the materials;

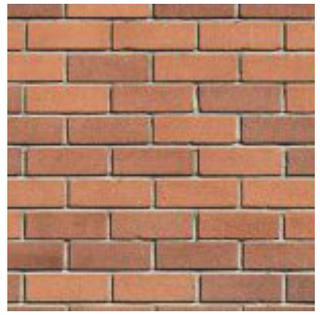
- Natural and neutral tones
- Textured Precast
- Glazing

Diagram: Defining building typologies

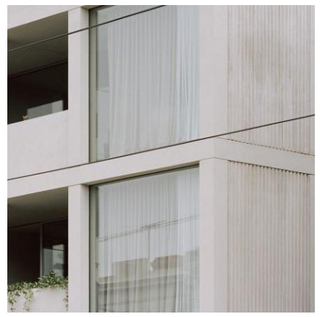

Precedent: light concrete


Precedent: Deep openings


Precedent: powder coat steel in terracotta tone


Precedent: ferderation brick


Precedent: cream brick/light brick


Precedent: precast concrete with vertical texture

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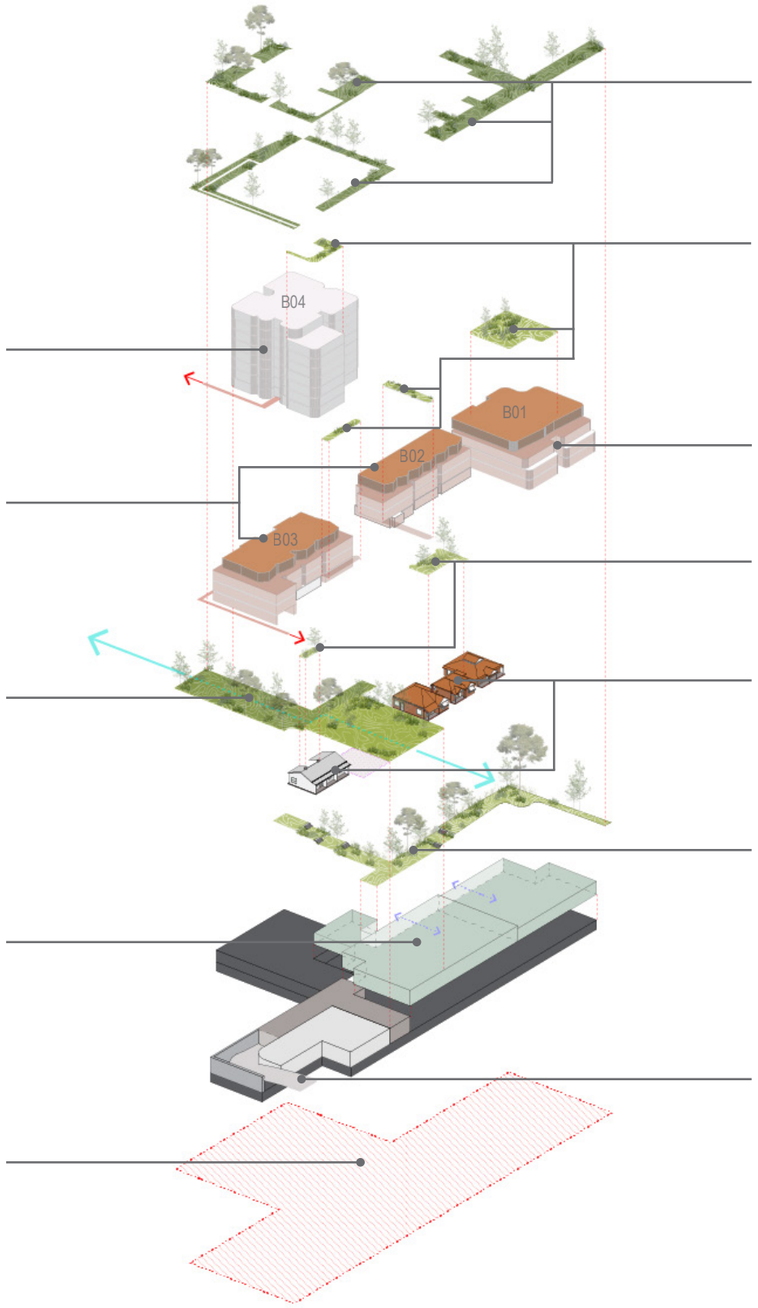
5.3 Project Snapshot



COMMUNAL + PRIVATE OPEN SPACE AT GROUND LEVEL
Communal and private open space adjacent to Buildings 01, 02, 03 + 04

ROOF TOP COMMUNAL OPEN SPACE
Communal Open space provided to Buildings 01 + 04, and additional landscaping for buildings 02 + 03

BUILDING 04
Mid Rise (7/8 Storey) Independent living units

BUILDING 01
Low Rise (3/4 Storey) Residential Aged Care building

BUILDING 02 + 03
Low Rise (3/4 Storey) Independent living units

COURTYARD
Private Open space provided to existing cottages

PUBLIC PARK AND THROUGH SITE LINK
Public open space connecting Ada and Gerard Street to Parraween St.

COTTAGE 52-56 (retained and recnstucted), 70-72 , 74-76 + 78-80 (reconstructed)
Existing Cottages (Single Storey) Independent Living Units and village reception

FERN TREE GULLY (SUNKEN GARDEN)
Provides outlook and breakout space for common areas.

LOWER GROUND LEVEL
Independent living and Residential Aged Care breakout and communal areas (lounge, dining, hair salon, Mens Shed, pool etc.)

BASEMENT ACCESS
Entry and exit via Parraween Street at western end of the site

SITE
7353.63 m^2

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5.4 The Basement + Lower Ground Floor

The Lower Ground Floor and Basement perform two vitally important functional roles for the development.
Firstly, they relieve the streetscapes of parking and loading activity allowing pedestrian activity and landscape treatments to take priority in both Parraween Street and Gerard Street. Both resident parking and all loading activities are entirely accommodated within these 2 levels with access provided from a single discreet driveway located at the western end of the site in Parraween Street.

Secondly, the Lower Ground Level accommodates all the ancillary facilities for the development including dining rooms, a hydrotherapy pool, allied health services, a mens shed, a hair dresser, a gymnasium plus laundry and kitchen services
. All residents have secure undercover access to these shared facilities via their individual building lifts that bring them directly to the Lower Ground Level. The Fern Tree gully which traverses the site in an east – west direction brings light and air to the facilities while also providing garden break-out spaces for the residents

5.5 The Public Space

The design and positioning of the public space was explored extensively in the design process. The centre of the site was selected due to its alignment with the commercial arcade to Military Road, and its alignment with Ada Street to the North which has district views and connects to public pathways to Middle Harbour.
This location balanced well with the Cremorne Garden Plaza to the west, and Langley Street Plaza to the east.

The Ada Street alignment draws stunning district views through the site and into Parraween Street visually connecting the town centre with existing communities to the north.

The through site link also relieves the harsh environment of Gerard Street opening up a physical and visual connection to the town centre

The public space is generous in size being; 1298m^{2}. This is similar in scale to the Mosman village green, and provides much needed space for, socializing picnics, kids play and finally a memorable place for gatherings

Preliminary Landscape Plan NTS - Public Park Zoom

Ada Street Vista

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5.6 Building 01: RAC

The design of the Residential Aged Care (Building 01) is focused around high-care and includes dementia care.

Design elements incorporated include simple navigation (a single loop corridor internally), provision of external and internal communal spaces on each level for easy resident access, with additional facilities to support groups to get together on the ground floor.

All areas are designed to maximise acoustic and thermal comfort (refer to architectural plans and consultant reports further details), and floorplates are kept small to replicate a home-like environment as much as possible. Sensory interaction is encouraged through the connection to the large Sydney Blue Gum at the north from communal balconies, as well as through the provision of gardens on balconies around the façade. Views to Parraween Street also provide residents with an engaging and active outlook.

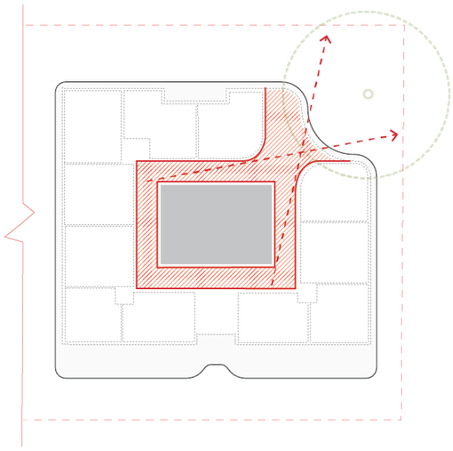

Diagram: Blue gum as a key feature in vistas from corridors and communal spaces

Visualisation of RAC

Interior view toward retained Sydney Blue Gum

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5.7 Building 02+03: ILU

Building 02 + 03 are slender 4 storey infill buildings located behind the existing cottages on Parraween Street.

The materiality of these buildings responds to the original federation brick and terracotta tiles of the existing Parraween St cottages and surrounding local typologies.

Each building is expressed as a 3-storey brick facade with a setback 4th level clad in lightweight material. This composition aids the transistion in scale of the built form from the cottages in the foreground on Parraween Street to the taller buildings on Gerard Street.

Deep recessed windows puncture the facade, and balconies are predominately located on the northern facades providing views out over the fern tree gully as well as district views beyond. The penthouse suites on level 04 have large wrap around terraces promoting visual connection between neighbours and views out to the public park.

Apartment Mix Building 02:
4 x 2 BED
1 x 2 BED +
2 x 3 BED
3 x 3 BED +
TOTAL - 10 APARTMENTS

Apartment Mix Building 03:
2 x 2 BED
11 x 3 BED
1 x 3 BED +
TOTAL - 14 APARTMENTS

Visualisation of Building 03

Visualisation of Building 02

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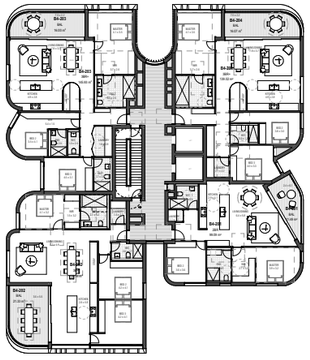
5.8 Building 04: ILU

Building 04 is sited on Gerard Street. Its architectural features and materials are carefully selected to ensure it blends well with the surrounding environment. The building's design takes into consideration the scale and character of nearby apartment complexes. It maintains a consistent height and massing that respects the built form of its two immediate neighbours to the east.

The façade is articulated, to give the building a vertical proportion and incorporates a combination of materials and textures (textured precast, smooth concrete, rendered surfaces, light coloured brick and glazing) that complement the surrounding architectural palette. The design of the building's façade considers the play of light and shadow throughout the day, creating visual interest and adding depth to the exterior. Terraces and generous recessed balconies are incorporated into the design to provide outdoor spaces for residents adding architectural variation to the building's façade.



Apartment Mix:
9 x 2 BED
7 x 3 BED
15 x 3 BED +
TOTAL - 31 APARTMENTS

Visualisation of Building 04

5.9 The Character Cottages

The adaptive reuse of the retained and reconstruction of cottage 52,54 and 56 as well as the reconstruction of cottages 70, 72, 74, 76, 78 and 80, will breathe new life into these buildings whilst the reformation of the gardens and front fences will restore the integrity and charm of the original streetscape.

Further, the village reception is to be located within the retained cottage at 70 Parraween St to activate both the street and eastern side of the new pocket park whilst a café will be located within Building 03 with alfresco seating beneath the pergola structure to activate the street and western side of the park.

A new colonnade mediates the relationship between the rreconstructed cottages (70, 72, 74, 76, 78 and 80) and building 02 and 03 behind.

Each Cottage contains its own supplementary private and/or shared courtyard space in addition to their existing front yards. In order to facilitate the basement construction the cottages will be dismantled and reassemble to their original form and detail.

Apartment Mix:
2 x 2 BED + (70-80 Parraween Street)
1 x 3 BED + (52-56 Parraween Street)
TOTAL - 3 COTTAGE APARTMENTS


70-80 Parraween Street - Preliminary Visualisation


52-56 Parraween Street - Preliminary Visualisation


Preliminary sketch of interface between the existing cottages and proposed colonnade

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5.10 Cafe + Pavilion

The café and pavilion anchors the development to the public space and provides the setting where residents and the general public can come together to socialise informally. The café activates the park edge inviting residents and the public to enjoy a coffee or meal either within the cafe/pavilion, or as a takeaway in the park itself.

The Pavilion's the light weight structure continues the profile and form of the adjacent cottages at 52-56 Parraween Street to hold the edge of the park and street while also offering a shaded place for people to sit.

Cafe:
110m^2

Visualisation of Building 03 + Cafe

5.11 The Landscape

5.11.1 The Existing Landscape

The existing landscape condition is characterised by a collection of domestic scaled backyards and front yards with their associated hard stand areas and plantings that consist largely of trees and shrubs.

5.11.2 Existing Trees

The most significant landscape feature is a Sydney Blue Gum tree that is located in the north-east corner of the site. This tree will be retained, and celebrated as part of the new development and in doing so, inform the design of the built form and landscape, other garden specimens of value located on site will be transplanted off site during the construction process for later re-use in the proposed landscape scheme. Species deemed appropriate for transplanting include Frangipanis, Palms, Camellias and a birds nest fern of impressive stature.

The Landscape team (Svalbe & co + Brendan Moar) will work closely with the project arborist to determine what specimens are appropriate for transplanting. The relocation of transplanted specimens will be focused along the Parraween Street frontage (associated with the heritage buildings to be retained) and in other private/ communal garden areas adjoining. Existing street trees along Gerard and Parraween Street also provide valuable amenity to both frontages of the site and shall be retained and protected.

5.11.3 Additional Canopy

Generous pockets of deep soil afforded by the new development provide for the planting of additional canopy trees. In landscape areas where deep soil does not prevail and additional canopy planting is desirable, soil volumes will be introduced to facilitate proposed plantings. New canopy trees will be selected to respond to the scale of the existing and proposed built form and draw on a range of endemic trees including the locally rare Scribbly Gum, as well as locally adopted species.

The removal of dis-used driveways along Parraween Street opens up the opportunity to restore a continuous canopy along this frontage.

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5.11.4 The Proposed Landscape

The proposed landscape draws upon the distinct patterning observed on the bark of the Scribbly Gum to inspire the form of the meandering paths and planted edges, as well as the design of furniture & other landscape details. The arrangement of built form for this development allows it to be surroundedby gardens and in doing so, provides for a variety of landscape settings.

The landscape design is based on promoting the following design principles:

- Creating a unique landscape identity for the development that provides a positive contribution to the adjoining streetscapes & surrounding neighbourhood, whilst also complementing the proposed architectural form
- Increasing tree canopy cover and increasing biodiversity
- Creating spaces that are safe for all ages
- Providing functional and aesthetically engaging areas of planting and landscape architectural elements that enhance the presentation of the building and provide amenity for its users
- Enhancing the resident experience through the provision of generous outdoor terraces, private communal areas and rooftop gardens.
- The specification of quality, robust, and where appropriate ‘natural’ materials

Preliminary Landscape Plan NTS

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PATHWAYS RESIDENCES

CHROFI mdp architecture

5.11.5 The Through Site Link + Public Park

The through site link provides a welcome matt to the site from Parraween Street through to and connecting to Gerard Street and beyond.

The introduction of the pocket park works as the foundation for the development. Complementing the urban plazas that adjoin Military Rd, the new park provides a much needed sunny public green space for the community and importantly, forms a space within the development where intergenerational interactions can occur.

With the addition of the through site link that connects Parraween to Gerard St, an axial vista northward through Ada Street is opened up to the community. A beautiful outlook for residents is generated. Paying homage to the scribbly gum, the meandering forested walk continues from the Public Plaza/Park to Gerard Street adjacent to Ada Street and provides moments to pause amidst the canopy.

Precedent

Precedent

Preliminary Landscape Plan NTS: Public Park + Through Site Link

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5. The Design

5.11.6 The Fern Tree Gully

The Fern Tree Gully, accessed from the common areas on the lower ground floor, is a captivating architectural feature that brings a unique and enchanting element to the residential property. The garden is nestled below the main level, creating a sense of containment and tranquility.

Once residents reach the lower ground floor, they are greeted by a stunning view of the sunken garden. The Fern Tree Gully features carefully planned pathways and seating areas, encouraging residents to explore and enjoy the space. The pathways comprise of stone, gravel and other natural materials, blending harmoniously with the garden's overall design.

The lower ground floor benefits from the garden which brings outlook, natural light and ventilation to these ancillary spaces. These benefits include:

Tranquil Retreat:

Provides a sense of privacy, offering residents a peaceful sanctuary away from the hustle and bustle of daily life.

Connection to Nature:

Establishes a strong connection to nature. Offers opportunities for residents to engage in gardening, appreciate wildlife, and experience the therapeutic benefits of being in a green environment.

Natural Light and Ventilation:

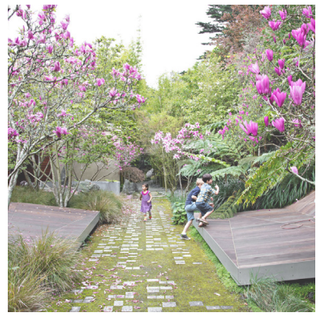
The ancillary spaces on the lower ground floor receive ample natural light through well-positioned openings. Additionally, the strategic placement of openings facilitates cross-ventilation, promoting fresh air circulation and maintaining a comfortable environment.

Multi-functional Space:

Residents can utilize the garden for leisurely walks, outdoor gatherings, or even as an extension of their living space, where they can entertain guests or enjoy alfresco dining.

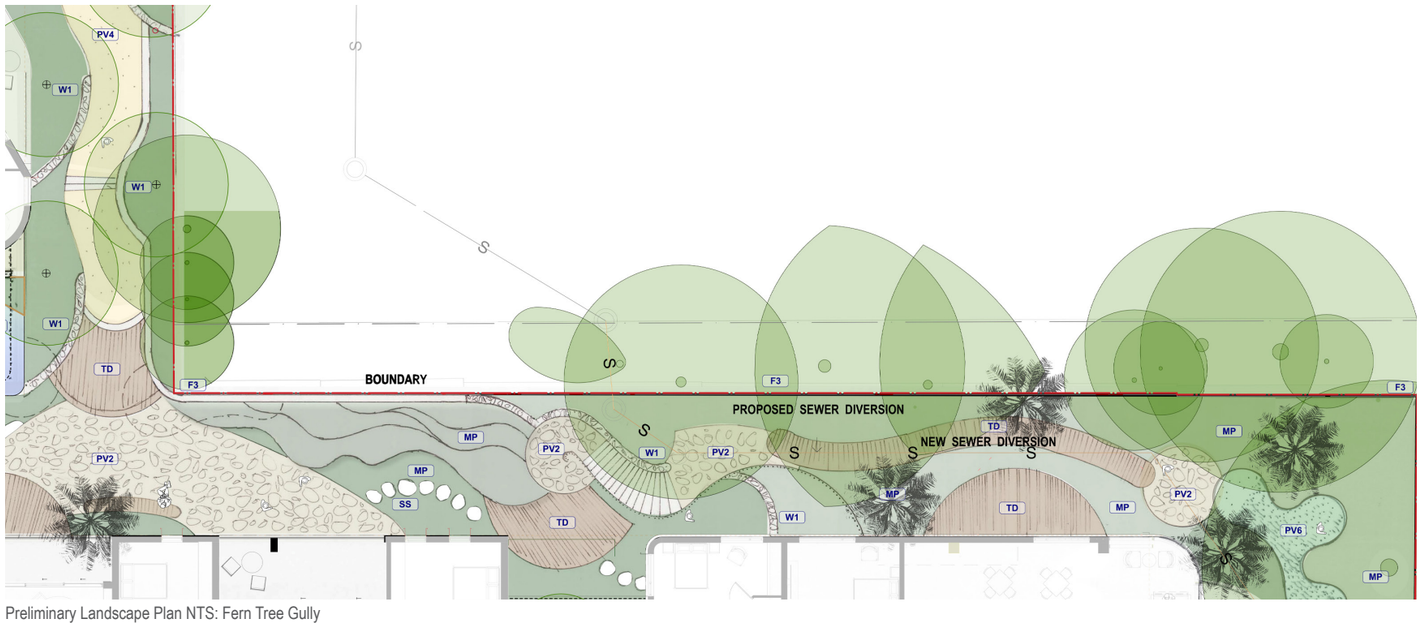
Precedent

Precedent



Precedent

Preliminary sketch



Preliminary Landscape Plan NTS: Fern Tree Gully

5.11.7 Private Courtyards

The addition of courtyards to the existing Parraween Street cottages creates a beautiful and functional outdoor space that seamlessly blends with the cottages' unique architecture.

The courtyards perform an important role in providing a tranquil private retreat that brings outlook, natural light and ventilation, a social gathering area, and a stronger connection to nature for the residents. They also provide a safe enclosed outdoor garden and in the case of 70-80 Parraween Street, the courtyard provides opportunities for occupants to interact casually and to see one another across the courtyard which is important for social connection and 'keeping a look out' for one another.

52-56 Parraween Street has a self contained private courtyard which privides natural light and ventilation into the cottage while also offering the residents an alternative to their small gardens on Parraween Street.

5.11.8 Roof Terraces

Roof Terraces are provideded on Building 01, 03 and 04 providing both the ILU and RAC residents with elevated communal open spaces. Each roof terrace is accessible via both lift and stair, and offers residents an alternative to the communal and public open spaces on ground and lowerground levels and/or the resident's own independent living spaces.

The Terraces offer elevated district views with glimpses of middle harbour available from building 04.

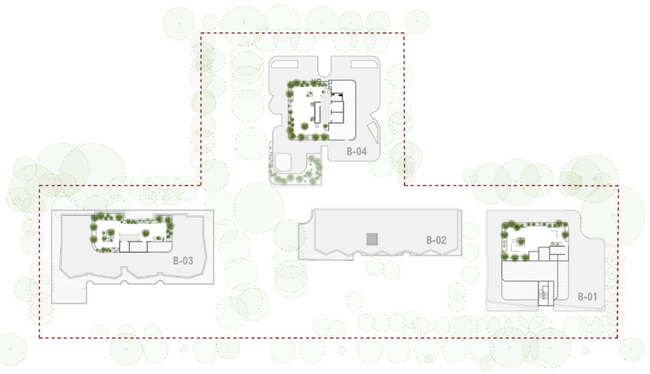
5.11.9 The Transition: Public to Communal to Private

Landscape will play a key role in the success of the development by:

- helping negotiate the delicate interface between the public, private communal and private domain of the development
- exploring activation opportunities
- adding to the developments sustainability objectives through the thoughtful choice of materials + plants
- where possible, creating a modular / flexible approach to the landscape
- creating cues & touch points to help visitors safely move through and around the site
- grounding the development in the inherent qualities of the site and Cremorne Town Centre.

Through a stratified approach, a combination of layered planting, level changes and physical barriers will be used to create transitions between the different public and private areas thus creating protection, security and privacy for the residences.

Preliminary visualisation - Shared Courtyard



Roof Plan

Precedent

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Through Site Link with visibilty through to Parraween Street.

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6. Site Compliance

6.1 Development Summary

Site Area:	7353.63 m^2
Residential Mix:	41 RAC Apartments 58 ILU Apartments 17 - 2 BED 1 - 2 BED + 21 - 3 BED 19 - 3 BED +
Retention and Reconstruction:	52,54 and 56 Parraween St
Reconstruction:	Cottages; 70, 72, 74, 76, 78 and 80 Parraween St
Car Spaces:	134 Spaces total 3 RAC Residents spaces 124 ILU Residents spaces 7 STAFF spaces
Bicycle Spaces:	56
Motorcycle Spaces:	9
Basement	Loading Dock and Storage
Ancillary Facilities	Cafe, Dining Rooms, Pool, Allied Health Services, Mens Shed, Hair Dresser, Gymnasium, Laundry and Kitchen Services

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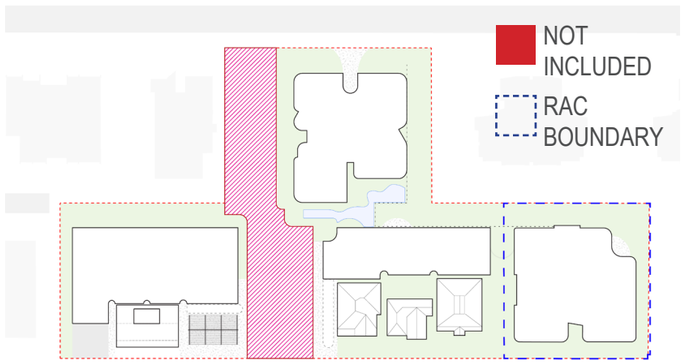
6.2 Compliance Summary

Site coverage

Control: 45% max - North Sydney DCP 2013
Requirement: 3,309m2 Maximum
Achieved: 3,307m2

COMPLIES



Landscaped Area

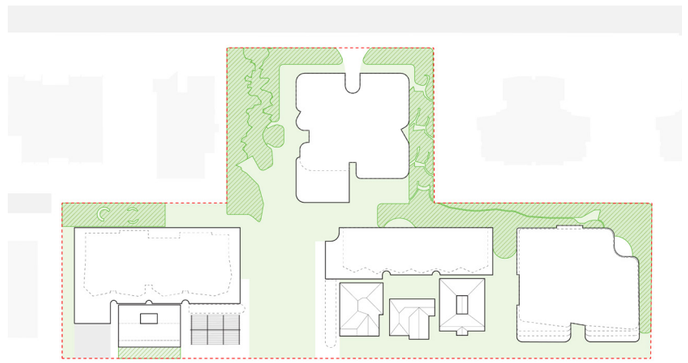
Control – State Environmental Planning Policy (Housing) 2021

15m2 / Bed for the Residential Aged Care component

30% of site area for Independent Living Units

Requirement: 2,442m2 (615m2 (RAC), 1827m2 (ILUs))
Achieved: 2,840m2 (677m2 (RAC), 2163m2 (ILUs)

COMPLIES



Deep Soil Area

Control: 15% minimum of site area - State Environmental Planning Policy (Housing) 2021

Requirement: 1,103m2
RAC: 190m2 (15% of site area (1,265m2))
ILU: 913m2 (15% of site area (6,090m2))

Achieved: 1,577m2 (474m2 (RAC), 1,103m2 (ILU))

COMPLIES

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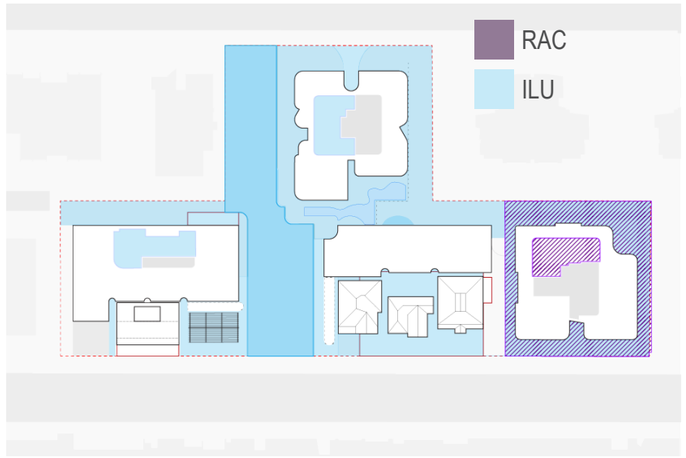
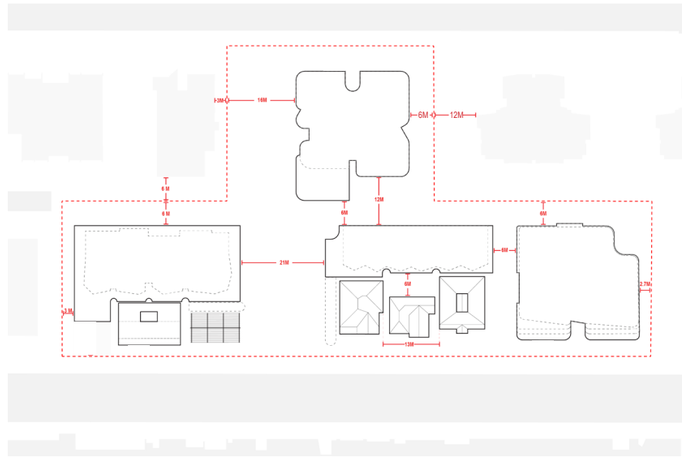
6. Site Compliance





Communal Open Space

Control for Residential Aged Care: 10m2/bed (RAC) - State Environmental Planning Policy (Housing) 2021
Requirement: 410m2 (41 beds x 10m2)
Achieved: 709m2 (546m2 internal, 163m2 external)

Control for ILUs: 25% of site area – ADG
Requirement: 1,522m2
Actual: 2163m2

COMPLIES

Canopy Cover / Tree Retention

New South Wales Greater Cities Comission TARGET: 40% Canopy Cover

Proposed new tree canopy at maturity is 37% as a proportion of the site, adding to the retained canopy, it is estimated to that the overall canopy cover will achieve well above 40%

COMPLIES

canopy achieved: refer to: landscape plan existing trees [to be retainined] + proposed canopy trees l002

Building Separation and Setbacks

Control - Apartment Design Guide 2015
Front setback consistant with prevailing
- Gerard St Prevailing - 6m
- Parraween St Prevailing - 4-5m

4 storey BLG 01, 02 + 03
Requirement of 12m between habitable
Requirement of 6m between non-habitable
8 storey BLG 04
Requirement of 18m between habitable
Requirement of 9m between non-habitable -

**6m separations are managed through a combination of blankwalls, screens and the placement of non-habitable rooms*
COMPLIES

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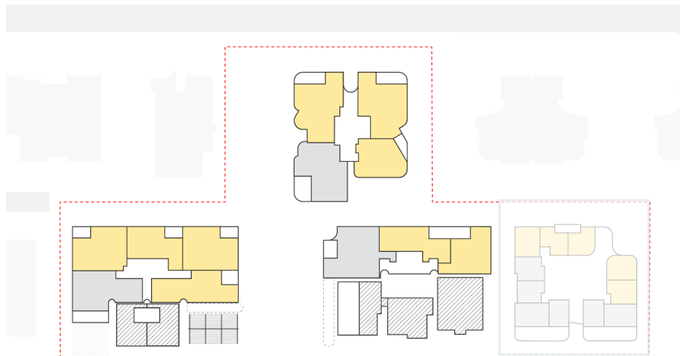
Storage

Control: ADG
*At least 50% of the required storage is to be located within the apartment

ILU:
Required Storage
1 bed: 6m^3
2 bed: 8m^3
3+ bed: 10m^3

storage achieved: refer to: 3236-da80.21-adg compliance-[da01]

COMPLIES



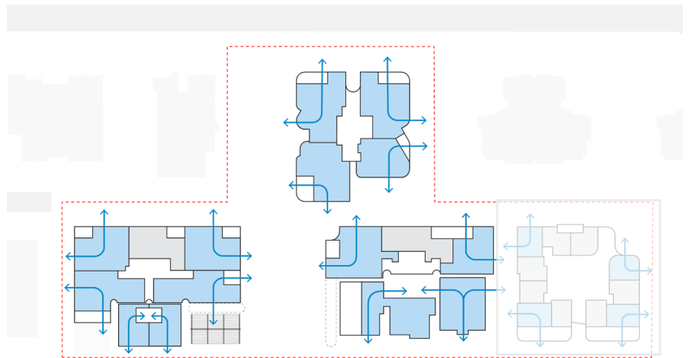
Solar Compliance

Control: SEPP Housing
Required Solar: At least 70% of apartments achieve 2 hours of direct sunlight between 9am and 3pm mid winter.

BLG 02 - 70%
BLG 03 - 85%
BLG 04 - 77%

solar achieved: refer to: 3236-da80.21-adg compliance-[da01]

COMPLIES



Cross Ventilation

Control: ADG
Required Cross Ventilation: At least 60% of apartments are naturally cross ventilated in the first nine storeys of the building

BLG 02 - 70%
BLG 03 - 85%
BLG 04 -100%

cross ventilation achieved: refer to: 3236-da80.21-adg compliance-[da01]

COMPLIES

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6.3 SEPP Housing 2021

6.3.1 Schedule 04

Siting standards

(1) Wheelchair access If the whole of the site has a gradient of less than 1:10, 100% of the dwellings must have wheelchair access by a continuous accessible path of travel (within the meaning of AS 1428.1) to an adjoining public road.

(2) If the whole of the site does not have a gradient of less than 1:10—

(a) the percentage of dwellings that must have wheelchair access must equal the proportion of the site that has a gradient of less than 1:10, or 50%, whichever is the greater, and

(b) the wheelchair access provided must be by a continuous accessible path of travel (within the meaning of AS 1428.1) to an adjoining public road or an internal road or a driveway that is accessible to all residents.

(3) Common areas Access must be provided in accordance with AS 1428.1 so that a person using a wheelchair can use common areas and common facilities associated with the development.

COMPLIES

Security

Pathway lighting—

(a) must be designed and located so as to avoid glare for pedestrians and adjacent dwellings, and

(b) must provide at least 20 lux at ground level.

CAPABLE OF COMPLIANCE

Letterboxes

(a) must be situated on a hard standing area and have wheelchair access and circulation by a continuous accessible path of travel (within the meaning of AS 1428.1), and

(b) must be lockable, and

(c) must be located together in a central location adjacent to the street entry or, in the case of independent living units, must be located together in one or more central locations adjacent to the street entry.

COMPLIES

Private Car Accomodation

If car parking (not being car parking for employees) is provided—

(a) car parking spaces must comply with the requirements for parking for persons with a disability set out in AS 2890.6, and

(b) 10% of the total number of car parking spaces (or at least one space if there are fewer than 10 spaces) must be designed to enable the width of the spaces to be increased to 3.8 metres, and

(c) any garage must have a power-operated door, or there must be a power point and an area for motor or control rods to enable a power-operated door to be installed at a later date.

COMPLIES

Accessible Entry

Every entry (whether a front entry or not) to a dwelling, not being an entry for employees, must comply with clauses 4.3.1 and 4.3.2 of AS 4299.

CAPABLE OF COMPLIANCE

Interior General

(1) Internal doorways must have a minimum clear opening that complies with AS 1428.1.

(2) Internal corridors must have a minimum unobstructed width of 1,000 millimetres.

(3) Circulation space at approaches to internal doorways must comply with AS 1428.1.

CAPABLE OF COMPLIANCE

Bedroom

At least one bedroom within each dwelling must have—

(a) an area sufficient to accommodate a wardrobe and a bed sized as follows—

(i) in the case of a dwelling in a hostel—a single-size bed,

(ii) in the case of an independent living unit—a queen-size bed, and

(b) a clear area for the bed of at least—

(i) 1,200 millimetres wide at the foot of the bed, and

(ii) 1,000 millimetres wide beside the bed between it and the wall, wardrobe or any other obstruction, and

(c) 2 double general power outlets on the wall where the head of the bed is likely to be, and

(d) at least one general power outlet on the wall opposite the wall where the head of the bed is likely to be, and

(e) a telephone outlet next to the bed on the side closest to the door and a general power outlet beside the telephone outlet, and

(f) wiring to allow a potential illumination level of at least 300 lux.

COMPLIES

Bathroom

(1) At least one bathroom within a dwelling must be on the ground (or main) floor and have the following facilities arranged within an area that provides for circulation space for sanitary facilities in accordance with AS 1428.1—

(a) a slip-resistant floor surface,

(b) a washbasin with plumbing that would allow, either immediately or in the future, clearances that comply with AS 1428.1,

(c) a shower that complies with AS 1428.1, except that the following must be accommodated either immediately or in the future—

(i) a grab rail,

(ii) portable shower head,

(iii) folding seat,

(d) a wall cabinet that is sufficiently illuminated to be able to read the labels of items stored in it,

(e) a double general power outlet beside the mirror.

(2) Subsection (1)(c) does not prevent the installation of a shower screen that can easily be removed to facilitate future accessibility.

COMPLIES

Toliet

A dwelling must have at least one toilet on the ground (or main) floor and be a visitable toilet that complies with the requirements for sanitary facilities of AS 4299.

COMPLIES

Surface Finishes

Balconies and external paved areas must have slip-resistant surfaces.

Note—

Advise regarding finishes may be obtained from AS 1428.1.

CAPABLE OF COMPLIANCE

Door Hardware

Door handles and hardware for all doors (including entry doors and other external doors) must be provided in accordance with AS 4299.

CAPABLE OF COMPLIANCE

Ancillary Items

Switches and power points must be provided in accordance with AS 4299.

CAPABLE OF COMPLYING

Living Room and Dining Room

(1) A living room in an independent living unit must have—

(a) a circulation space in accordance with clause 4.7.1 of AS 4299, and

(b) a telephone adjacent to a general power outlet.

(2) A living room and dining room must have wiring to allow a potential illumination level of at least 300 lux.

COMPLIES

Kitchen

A kitchen in an independent living unit must have—

(a) a circulation space in accordance with clause 4.5.2 of AS 4299, and

(b) a circulation space at door approaches that complies with AS 1428.1, and

(c) the following fittings in accordance with the relevant subclauses of clause 4.5 of AS 4299—

(i) benches that include at least one work surface at least 800 millimetres in length that comply with clause 4.5.5(a),

(ii) a tap set (see clause 4.5.6),

(iii) cooktops (see clause 4.5.7), except that an isolating switch must be included,

(iv) an oven (see clause 4.5.8), and

(d) "D" pull cupboard handles that are located towards the top of below-bench cupboards and towards the bottom of overhead cupboards, and

(e) general power outlets—

(i) at least one of which is a double general power outlet within 300 millimetres of the front of a work surface, and

(ii) one of which is provided for a refrigerator in such a position as to be easily accessible after the refrigerator is installed.

COMPLIES

Access to kitchen, main bathroom and toliet

In a multi-storey independent living unit, the kitchen, main bedroom, bathroom and toilet must be located on the entry level.

COMPLIES

Lifts in multi-storey buildings

In a multi-storey building containing separate independent living units on different storeys, lift access must be provided to dwellings above the ground level of the building by way of a lift complying with the Building Code of Australia, Volume 1, E3D7 and E3D8.

COMPLIES

Laundry

An independent living unit must have a laundry that has—

(a) a circulation space at door approaches that complies with AS 1428.1, and

(b) provision for the installation of an automatic washing machine and a clothes dryer, and

(c) a clear space in front of appliances of at least 1,300 millimetres, and

(d) a slip-resistant floor surface, and

(e) an accessible path of travel to any clothes line provided in relation to the dwelling.

COMPLIES

Storage for linen

An independent living unit must be provided with a linen storage in accordance with clause 4.11.5 of AS 4299.

CAPABLE OF COMPLIANCE

Garbage

A garbage storage area must be provided in an accessible location.

CAPABLE OF COMPLIANCE

6.3 SEPP Housing 2021

6.3.2 Part 5 Division 06 - Seniors Housing Code

1. Care For The Planet

Pathways and the Design Team are implementing sustainable design, climate suited technologies and initiatives, and sustainable construction practices and plans aimed to ensure the long-term value and lifetime of the development which intern will reduce the impact on the environment. The Pathways Cremorne design team has considered the following initiatives throughout design development and will continue to give consideration through to construction: -

- Materials
- EPD'S: Flooring and Plaster Board
- Recycled content in products where possible
- Retention and recycling of existing materials
- FSC Timber
- Low VOC paints, sealants, and adhesives

Passive Design and Energy efficiency

- Thermal mass utilisation
- Efficient H-VAC systems
- Solar PV and
- Efficient LED Lights
- Double Glazing

Ecologically sustainable design

- Shading systems
- Cross ventilation
- Predominately north orientated balconies and living rooms.
- Large areas of landscaping

Water Management

Construction

- Waste Management Plan
- Environmental management plan

2. Site Analysis - Environmental Response

The site has been carefully considered and analysed in its local context and environment throughout the design phases. The Built Form has been orientated to respond to its context and the environmental factors of the site – Refer to architectural plans and design report for further information.

The Client and Design team have engaged with numerous consultants to gather site specific advice (refer to other reports in this submission for further details). The following objectives have been satisfied in the design;

Climatic Protection

- Purposeful shading devices
- Inboard balconies
- Predominately north orientated apartments

Preservation of natural elements

- Retention relocation and additional canopy have been considered and applied to the landscape scheme (Refer To: Landscape Plan Existing Trees [To Be Retainined] + Proposed Canopy Trees L002)

To identify the historical character

- Heritage consultants have been engaged to assess the historical significance of the existing dwellings – although as of now no items are considered of heritage significance; *The Retention and reconstruction of three cottages 52,54 and 56 as well as the reconstruction of six cottages 70, 72, 74, 76, 78 and 80, retaining the existing street-front cottages maintaining the existing character of Parraween Street will be intergated in to the scheme .*

Acknowledge and respects Aboriginal cultural heritage.

- Pathways and the design team have engaged and will continue to work with Murawin, their findings and advice have been integrated into the architectural and landscape scheme (refer to Connecting with Country report in this submission for further details).

3. Site Analysis - Urban Response

We have aimed to develop a context responsive urban design that sensitively brings density into an established area using the development to provide meaningful outcomes for the community;

Respecting and Retaining the typology and scale of Parraween and Gerard street and wider context to be consistent in the proposed scheme;

Parraween Street – The northern side has a mix of low scale (4stroey) multi res and a collection of residential character cottages while on the southern side there are buildings with a height up to 5 storeys with the lower levels activated with commercial functions like cafes and retail.

Gerard Street - The street frontage presently has an older 4-storey apartment building and a bungalow style house that now seems out of context with the busy road and mostly much taller buildings within the corridor that features a number of apartment complexes between 8 and 15 storey's that were developed in the 1960s and 1970s.

The scheme also aims to create a new 'connected' retirement living community. Maximising the benefits of being located within an established local centre. Knitting the development into the neighbourhood in the hopes of increasing opportunities for intergenerational social activity via a public space for all to enjoy and Providing a thru-site link that improves pedestrian connectivity while bringing the public into the retirement community.

Giving each new building a street address and private access point allows for ease of access. Basement access is via Parraween street as Gerard street was not viable due to its RMS 'Classified Road' status . The developments apartments are orientated to look out over private gardens and beyond – avoiding overlooking neighbouring properties. Lush landscaping will benefit the neighbouring properties extending their visual outlook.

4. Care Wellbeing and Community

The design of Pathways Cremorne has accommodated varying levels of care, from independent living to high care needs like dementia management. The design guidance includes promoting health through methods varying methods of;

- cross ventilation
- sunlight
- social connection

6. Site Compliance

As represented and discussed in both the architectural plans and design report. The developments' objective is to support aging in place, translate care models into spatial plans, meet regulations, and provide culturally appropriate care. The connection to community plays a crucial role in creating health for seniors. The public and communal amenity offers generous connections to the surrounding context and community.

Designing buildings with a focus on physical and mental wellbeing has positive effects on occupants. The objective of Pathways Cremorne is to reduce stress and promote overall health. This has been achieved through generous spaces that offer comfort, flexibility, ease of movement, and ample daylight with views. Each building has been carefully designed to strike a balance between proportion, scale, enduring materiality to provide optimal living conditions for the residents and surrounding neighbours.

The RAC's inclusive design aims to consider and cater to the needs of all individuals, including those with mobility, sensory, communication impairments, learning disabilities, continence needs, and mental well-being considerations. promoting dignity, respect, and pride of place, ensure equitable design The empathetic scale of the project and the retention and reconstruction of existing cottages on the site de-institutionalize the building's character, and the large public offering of the park and through site link create spaces that inspire joy and delight.

5. Design for physical ageing and dementia

Design of the Residential Aged Care (building 1) in this project is focussed around high-care. Design elements incorporated include simple navigation (a single loop corridor internally), provision of external and internal communal spaces on each level to maximise resident access, with additional facilities for groups to get together on the ground floor.

North facing common areas are predominant for all residents to access the best natural light in communal spaces. All areas are designed to maximise acoustic and thermal comfort (refer to other reports in this submission for further details), and households are kept small to replicate a home-like environment as much as possible.

Sensory interaction is encouraged through th¬¬e connection to the tree at the north from each balcony, and with landscaped balconies around the façade, as well as views to Parraween Street providing engaging and active views for residents.

6. Design Principles

The project is an integrated seniors housing development containing approximately 58 independent living units (ILUs), a 41-bed residential aged care facility (RAC) with supporting ancillary uses such as hydrotherapy pool, medical consulting rooms and café. Resident parking, deliveries and waste management will be provided at basement level with access from Parraween Street.

The development will provide:

- Retention and reconstruction of three cottages 52,54 and 56 as well as the reconstruction of six cottages 70, 72, 74, 76, 78 and 80, retaining the existing street-front cottages maintaining the existing character of Parraween Street.
- Through-site walking link and open spaces for community use
- Landscaped communal and private open spaces for residents
- Allied health services accessible to residents and the local community

Design objectives:

- Create a world class community environment for senior members of the community, that is fit for purpose (in
- Response to the Royal Commission) and allows residents to age in place with respect and dignity
- Complement Parraween Street with active frontages and a low scale streetscape to enhance its potential as an alfresco strip
- Respect the existing character of the street/s
- Connect Parraween Street to district views
- Create a high quality soft open space for public use and Environmental connection
- Create a mid block public through site link that connects residents north of Gerard Street with the town centre
- Respond to the local built form and landscape setting whilst minimising overshadowing impact
- Create new contemporary architecture that contributes to the high quality of Cremorne
- Assist through design the Physical and mental wellbeing of both residents and neighbours
- Allow for adequate mobility and access for residents
- Supporting Residential communities
    - Shared Courtyards and Balconies looking on to communal gardens "keeping a look out" for one another and self-security – Visual connection

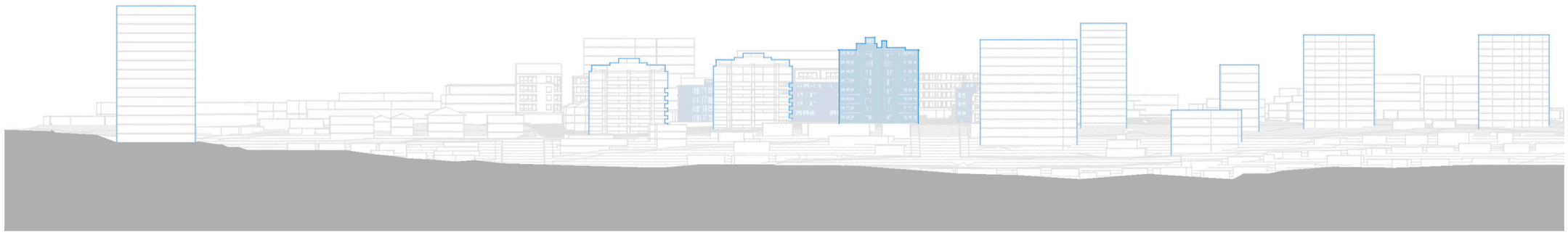
7. Impact Of Additional Height To Blg 04

7.1 Built Form

The additional height placed upon Building 4 in Gerard Street brings this building to 8 storeys in height being consistent with its 8 storey neighbours at 81a and 81b Gerard Street. In addition, there are considerably taller buildings in the nearby vicinity at 22 Gerard St, (13 storeys), 26-32 Gerard St (13 storeys), 40-48 Gerard St (14 storeys), and then further afield at 3 Ada St (13 storeys) and 6-12 Prospect Avenue (15 storeys).

Accodingly, it is considered that from a built form perspective, the 8-storey height of building 04 is appropriate given its 8 storey neighbours and nearby taller buildings that range upto 15 storeys.

in the context of the locality shown in the elevation below, building 04 sits comfortably within the range of heights of the taller buildings in the area.



Cremorne Building Context

7. Impact Of Additional Height To Blg 04

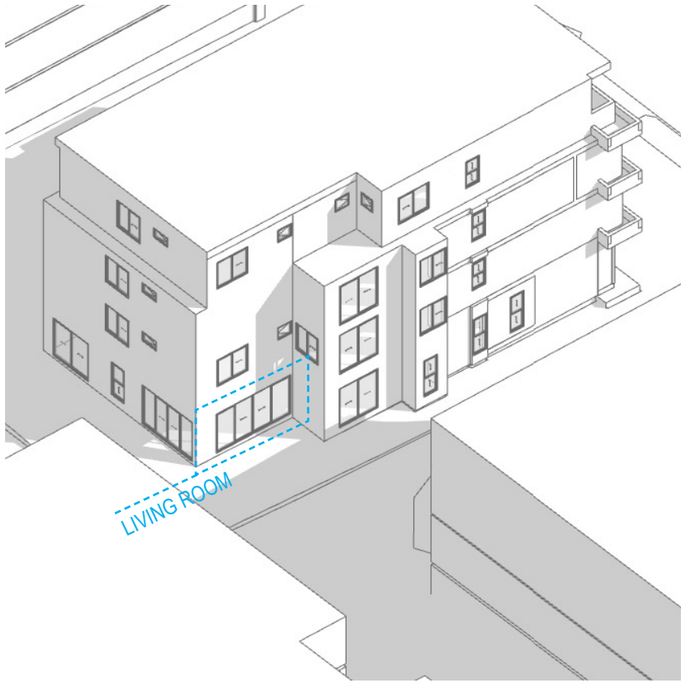
7.2 Winter Solstice Over Shadowing

The shadow cast by Building 04 at the winter solsticelargely only lands within the broader part of the site and for the most part, only impacts buildings within the development site itself.

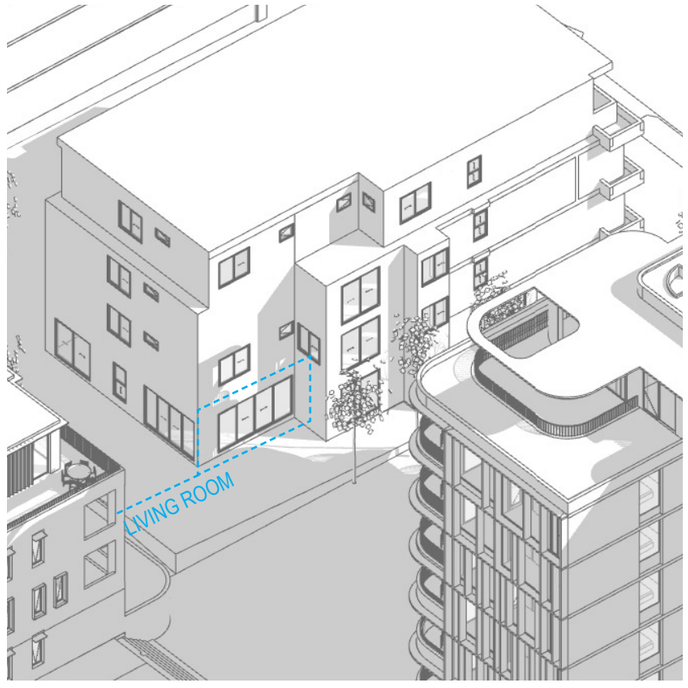
This is because of the upside down ‘T’ shape of the site with Building 4 positioned to the north on the narrow part of the site casting a shadow across the broader part of the site.

The recent development of 53 Gerard Street does however feature a ground floor apartment on the south-east corner of its the site facing into the development. Whilst the remainder of apartments within this building are oriented north toward Gerard Street and are unaffected by the shadows from the proposal, this single ground floor apartment is overshadowed by the tower in the morning until 10:45 am. It should be noted that a complying 4 level development set-back 6m from the boundary will similarly overshadow this apartment in the morning.

No other existing apartment living rooms are affected by Building 04.
An existing apartment building at 1 Paling Street (corner of Parraween and Paling) has lower level apartments facing toward the development which experience overshadowing friom building 03 until 11am but retain their minimum 2hrs for solar compliance.



COMPLIANT SCHEME @ 11am



PROPOSED” @ 11am

CHOI ROPIHA FIGHERA P/L ACN 144 714 885 ATF CHOI ROPIHA FIGHERA UNIT TRUST T/A CHROFI ABN 22 365 257 187
NOMINATED ARCHITECTS JOHN CHOI 8706 TAI ROPIHA 6568 STEVEN FIGHERA 6609

7.3 View Impact

We have tested the view impact for a range of properties that face the site between 59 and 73 Parraween Street as well as the east side apartments at 81b Gerard Street and compared these against a complying envelope (Business as Usual) to test the impact of the additional height.

59 – 73 Parraween Street

In general, apartments within these buildings each gain some limited benefit by virtue of the three cottages being retained and reconstructed (52,54 and 56 Parraween Street) and the reconstruction of six cottages (70, 72, 74, 76, 78 and 80 Parraween Street) as well as the building bulk being set further away into the site extending their short range outlook. The lower level apartments experience only a negligible impact or perhaps a slight benefit and some apartments experience an improvement in outlook where they align with the park and through-site link to Ada Street.

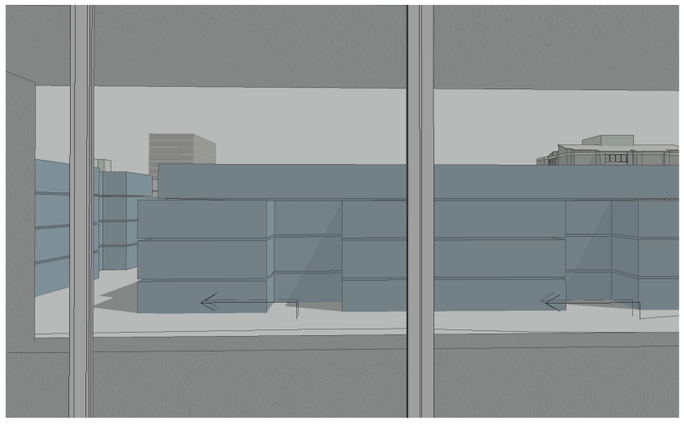
The higher level apartments generally experience a 'low-moderate' impact due to the 60m separation to Building 4 and again, where these apartments align the park and through-site link, the impact is low or an improvement is gained.

In summary, apartments aligned with the park and through site link may have an improved outlook, low level apartments will have a limited improvement while high level apartments may experience a low moderate impact from a reduction in the extent of the sky visible from their apartment

81b Gerard Street

The east side apartments at 81b Gerard St are designed with their living rooms and balconies predominatly oriented north, and kitchens and bedrooms oriented south and hence the additional height of Building 4 to the west of these apartments, has negligible impact. However the apartments do have a secondary east facing window that looks onto Building 4. In the case of these secondary windows, there is a moderate view impact for the apartments from level 4 and up. Below these levels, the impact is similar to a compliant envelope and therefore considered to be no different.

For a full description of the view impact, refer to Pathways Cremorne View Impact Assessment.



COMPLIANT SCHEME: 59-63 PARRAWEEN STREET LEVEL 02

PROPOSED: 59-63 PARRAWEEN STREET LEVEL 02

8. Community Benefit

Pathways Cremorne will provide the opportunity for local retirees to age within their established community.

The location of the development of the edge of the town centre will allow residents to maintain independent access to shops, medical services, restaurants, entertainment, supermarkets, cafes and public transport. The through-site link created through the development will provide a purposeful connection between the town centre and residents of Gerard Street and communities north of Gerard Street.

The retention and renewal of 9 x character residences will maintain the quality of the existing low-scale fine grained streetscape while the reinstatement of front gardens and fences will enhance the streetscape.

The low scale frontage of the development in Parraween Street means that winter sun is retained to the streets southern footpath and preserves the future opportunity for develop Parraween Street to develop as a sunny alfresco dining strip. The inclusion of the pocket park within the development addresses the lack of green space in or near the town centre.

The pocket park and through-site link will facilitate the intergenerational interaction between the community and elderly residents, which is proven to benefit the health and wellness of our aging population, while also strengthening local social networks.

10. Appendix

CHOI ROPIHA FIGHERA P/L ACN 144 714 885 ATF CHOI ROPIHA FIGHERA UNIT TRUST T/A CHROFI ABN 22 365 257 187
NOMINATED ARCHITECTS JOHN CHOI 8706 TAI ROPIHA 6568 STEVEN FIGHERA 6609

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Monday 10 July 2023

Verification of Qualifications

Tai Ropiha is registered as an Architect in New South Wales and enrolled in the Division of Chartered Architects in the register of Architects pursuant to the Architects Act 1921. Tai Ropiha's registration number with the New South Wales Registration Board is 6568.

Statement of Design

CHROFI has been responsible for each project phase leading up to the lodgment of this Development Application. The phases of work completed to dated include Concept Design and Design Development. The design has been progressed with partner Architect MDP as well as a team of specialist consultants to provide a design that addresses the relevant planning and design controls while responding to the design principles set out in SEPP No 65.

CHROFI verify that the intent of the design principles set out in Part 2 of State Environment Planning Policy No. 65 - Design Quality of Residential Flat Development are achieved for the proposed retirement living development as stated below.

Tai Ropiha
DIRECTOR

DEMONSTRATION OF HOW PROPOSED DESIGN RESPONDS TO THE SEPP 65 DESIGN QUALITY PRINCIPLES AND THE OBJECTIVES OF PARTS 3 AND 4 OF THE APARTMENT DESIGN GUIDE

DESIGN QUALITY PRINCIPLES

Principle 1: Context and neighbourhood character
"Good design responds and contributes to its context. Context is the key natural and built features of an area, their relationship and the character they create when combined. It also includes social, economic, health and environmental conditions. Responding to context involves identifying the desirable elements of an area's existing or future character. Well designed buildings respond to and enhance the qualities and identity of the area including the adjacent sites, streetscape and neighbourhood. Consideration of local context is important for all sites, including sites in established areas, those undergoing change or identified for change." Cremorne is a desirable North Shore residential address located just a short distance from Central Sydney. The centre comprises typical commercial strip development along Military Road that includes offices, shoptop housing, local shops, restaurants, a supermarket, cinemas, health services and high-frequency public transport. While the centre is surrounded by established residential neighbourhoods, there is however a lack of options for assisted retirement living. The Pathways Cremorne proposal meets this market gap by creating an integrated seniors housing development embedded within the town centre giving local retirees the option to age within their community in a manner that will see them remain engaged with their community. The central location will provide residents with independent access to all the shops and services as well public transport. The urban design of the proposal responds to the existing context and neighbourhood character through a number of key strategic moves; 1 The proposal recognizes the value of Parraween Street as a low scale streetscape that brings sun into the edge of the town centre. 2 The proposal retains and reconstructs three cottages on Parraween street (52, 54 and 56) and reconstructs six cottages (70, 72, 74, 76, 78 and 80 Parraween Street) to maintain the continuity of this existing streetscape even though the planning controls permit 4 storey development. 3 A through site link is incorporated to improve pedestrian connectivity providing a link to residents in Gerard Street and communities toward Middle Harbour. 4 A pocket park is incorporated in the development to address the lack of public open space in the town centre and to facilitate intergenerational interaction between the community and elderly residents 5 A taller 8-storey building is proposed on Gerard Street that sits within the taller band of apartments towers that range up to 15 storeys.

Principle 2: Built form and scale

"Good design achieves a scale, bulk and height appropriate to the existing or desired future character of the street and surrounding buildings.

Good design also achieves an appropriate built form for a site and the building's purpose in terms of building alignments, proportions, building type, articulation and the manipulation of building elements.

Appropriate built form defines the public domain, contributes to the character of streetscapes and parks, including their views and vistas, and provides internal amenity and outlook."

Site Massing: The built form and scale of the development responds sensitively to the existing context. While the planning controls permit a blanket 4-storey massing spread across the site, the proposal acknowledges the value of Parraween Street's low scale streetscape but also the opportunity for taller built form in Gerard Street where there are already residential towers ranging from 8 storeys to 15 storeys.

Key features of the built-form include;

- The proposal transitions from 1 and 2 storey fine grain residences in Parraween Street to a 7-8 level building in Gerard Street.
- Three cottages to be retained and reconstructed (52, 54 and 56) and six to be reconstructed (70, 72, 74, 76, 78 and 80) on Parraween Street to maintain the continuity of this streetscape.
- The proposed residential building in Gerard street rises to 8 storyes which sits confortably with existing towers in the 8 – 15 storey range.
- A through site link is incorporated making the area more walkable, and creating a public domain network that invites occupation, socialisation
- A public space is incorporated to provide a place for residents, neighbours and visitors to come together in a manner that strengthens the community.

Principle 3: Density

"Good design achieves a high level of amenity for residents and each apartment, resulting in a density appropriate to the site and its context.

Appropriate densities are consistent with the area's existing or projected population.

Appropriate densities can be sustained by existing or proposed infrastructure, public transport, access to jobs, community facilities and the environment."

The site is zoned R4 high density which is appropriate to this location given its close proximity to Sydney's CBD, access to high-frequency public transport and access to established community infrastructure including shops, services, parks and schools.

The design of the development achieves a good level of density through a variety of taller and lower scale buildings that are arranged to integrate into the existing context, but also organised to ensure that residents all achieve a high level of amenity.

A high level of amenity is achieved for the future residents through carefully conceived building separations as well as direct solar access and ventilation that exceeds requirements set out in the ADG. The proposed apartments are oriented to benefit from significant views and vistas whilst achieving visual and acoustic privacy.

The buildings, balconies and communal open space are designed to minimize undesirable impacts on the local neighbourhood such as overlooking and overshadowing.

This is achieved through secondary setbacks, articulation, and the strategic location and orientation of private and communal open space.

Principle 4: Sustainability

"Good design combines positive environmental, social and economic outcomes. Good sustainable design includes use of natural cross ventilation and sunlight for the amenity and liveability of residents and passive thermal design for ventilation, heating and cooling reducing reliance on technology and operation costs. Other elements include recycling and reuse of materials and waste, use of sustainable materials and deep soil zone or groundwater recharge and vegetation."

The Proposal incorporates the following sustainability measures:

- The proposed apartments exceed ADG requirements for access to direct sunlight and passive cross ventilation. This supports passive heating and cooling, reducing operational energy loads.
- The adaptive retention and reconstruction of existing cottages (52, 54 and 56 Parraween Street) reduces construction waste and embodied energy of the project.
- Minimise pedestrian exposure to surface parking lots
- Vegetated public realm with some planting on rooftops to mitigate urban heat island effect
- Spaces are designed to foster interaction, community identity and sense of connectedness
- The through-site link and pocket park are accessible by the community promoting socialisation and pedestrian activity
- Accessible spaces for all members of the community
- Deep soil provision exceeds the ADG minimum requirement.
- Increased tree canopy cover

Principle 5: Landscape

"Good design recognises that together landscape and buildings operate as an integrated and sustainable system, resulting in attractive developments with good amenity.

A positive image and contextual fit of well-designed developments is achieved by contributing to the landscape character of the streetscape and neighbourhood.

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

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

The landscape design for the project is contemporary and nuanced to respond both to the existing context as well as Country with references to the pre-European settlement endemic landscape of the place. The landscape design is comprised of the following key elements;

1 Planted gardens and picket fences are proposed to the Parraween street frontage as an interpretation of the early federation streetscape.

2 A fern tree gully running east-west through the centre of the site references the sandstone gullies common place to Cremorne Point and Sydney harbrour at large.

3 Raised gardens with stone walls and fencing are proposed to the Gerard Street frontage to match neighbouring properties.

4 The through-site link and pocket park are designed with key elements picking up on the organic geometric patterns found on the locally rare 'Scribbly Gum' bark as a reference to Country.

5 Planted communal roof gardens are proposed to minimize heat-island effect and provide additional break out space for residents

6 Existing street trees are retained (where healthy and/ practicable) and reinforced with new trees

7 14 existing trees, including a significant Sydney blue gum tree are to be retained and protected on site along with a number of other domestic tree species that will be salvaged and repatriated across the site.

8 Existing tree canopy will be reinforced with new tree planting that will increase canopy coverage across the site once established.

9 The deep soil provision exceeds the ADG minimum requirement.

Overall, the planting will soften the built form and help improve air quality, amenity, habitat and air temperature for the residents and visitors to the Site. Each landscaped area has been uniquely designed with consideration of context, neighbours, use and management to optimise useability, privacy, equitable access, amenity, management and environmental sustainability. The considerable deep soil will greatly benefit the biodiversity and ecology of the area, adding to the established green network while reducing the urban heat island effect, offering high thermal and visual amenity and supporting wellbeing for the Site's residents, neighbours and visitors.

Principle 6: Amenity

"Good design positively influences internal and external amenity for residents and neighbours. Achieving good amenity contributes to positive living environments and resident well being.

Good amenity combines appropriate room dimensions and shapes, access to sunlight, natural ventilation, outlook, visual and acoustic privacy, storage, indoor and outdoor space, efficient layouts and service areas and ease of access for all age groups and degrees of mobility."

The Proposal has been carefully designed to allow all users, residents and locals to benefit from the shared activation and amenity of the proposed pocket park whilst creating sufficient acoustic, visual and architectural separation between the residential and public uses to ensure residents are not negatively impacted. The provision of basement parking will improve pedestrian amenity in Parraween Street with the removal of multiple driveways across this frontage.

The developments built-form is also carefully considered to minimize overshadowing of neighbours as well as the southern footpath to Parraween Street being the edge of the town centre with future potential to become an alfresco strip.

The Site massing and the orientation of apartments and balconies also ensures residents have sufficient solar access and natural daylight, in accordance with ADG requirements. The orientation of apartments and private open space also minimises overlooking within the development and across neighbouring residences. The apartments within the 3 residential ILU buildings (Buildings 2,3,4) are oriented either northwest towards Middle Harbour or across the public space to Parraween Street. This arrangement provides desirable outlooks for residents and reduces overlooking concerns between buildings.

All apartments comply with the minimum ADG size requirements and requirements for the dimensions of bedrooms and living rooms. Storage is also provided in accordance with ADG requirements, conveniently located both within the apartments and adjacent to resident's parking in the basement.

In addition to private open space, the Proposal provides a variety of communal outdoor spaces. Each of which is designed to be used flexibly with integrated planting and shared amenities such as group seating, BBQs, and flexible recreational space. Extensive planting, including large street trees, softens the appearance of the built form and offers shade and visual amenity to local area.

Acoustic amenity of the area will be protected and improved, with space provided in the basement for parking, loading and collection of waste.

Principle 7: Safety

"Good design optimises safety and security within the development and the public domain.

It provides for quality public and private spaces that are clearly defined and fit for the intended purpose. Opportunities to maximise passive surveillance of public and communal areas promote safety. A positive relationship between public and private spaces is achieved through clearly defined secure access points and well lit and visible areas that are easily maintained and appropriate to the location and purpose."

The new pocket park is activated throughout the day by a café along the southern edge as well as the village reception located on the eastern edge.

The through-site link which will be used by the residential communities to Gerard Street and to the north of the site is generous in width to make it feel safe and inviting.

The linear arrangement of the park and through site link offer line-of-site through from street to street, enhancing passive surveillance. Residential apartments positioned above the public spaces provide further passive surveillance. All buildings benefit from dedicated entry foyers, which can be accessed directly from streets.

Principle 8: Housing diversity and social interaction

"Good design achieves a mix of apartment sizes, providing housing choice for different demographics, living needs and household budgets.

Well designed apartment developments respond to social context by providing housing and facilities to suit the existing and future social mix.

Good design involves practical and flexible features, including different types of communal spaces for a broad range of people and providing opportunities for social interaction among residents."

Pathways Cremorne meets a real market demand for assisted integrated retirement living in this area. Retirement living embedded within this established centre enables elderly retirees to age in place, in their community which is proven to provide health and wellness benefits. The provision of the through-site ink and pocket park is a purposeful inclusion to promote socialisation and stronger community networks. The new public open spaces provide opportunity for the residents to interact with their neighbours and the broader local community. The spaces are designed with flexibility in mind so that they may benefit all residents.

The proposal also offers a variety of apartment sizes, styles and layouts, providing for individuals and couples with flexibility to work from home, entertain larger family groups, or have guests or grandchildren stay the night. The proposal features three retained and reconstructed federation cottages 52,54 and 56 Parraween Street and six cottages 70, 72, 74, 76, 78 and 80 Parraween Street to be reconstructed with garden apartments, rooftop penthouses with large terraces, and conventional apartments with attached balconies.

Principle 9: Aesthetics

"Good design achieves a built form that has good proportions and a balanced composition of elements, reflecting the internal layout and structure. Good design uses a variety of materials, colours and textures.

The visual appearance of a well-designed apartment development responds to the existing or future local context, particularly desirable elements and repetitions of the streetscape."

The architectural resolution follows the urban design principles to create a diverse ensemble of buildings that respond to the unique local context.
Dwellings retained and reconstructed on Parraween Street as a starting point, the expression of the new buildings is designed to establish a link to these buildings through materiality, tone, texture and composition.

Buildings 1,2 and 3 feature 3-storey brick facades in a biscuit tone that is sympathetic to the three retained and reconstructed cottages (52, 54 and 56 Parrween Street) and six reconstructed cottages (70, 72, 74, 76, 78 and 80 Parraween Street). The penthouse levels are metal clad in earthy tones in reference to the terracotta roofs of the federation cottages.

Building 4 in Gerard Street is more contemporary in its expression with precast facades in neutral tones to blend with its white brick neighbours to the east.

Each building has its own personality resulting in a richer architectural outcome for the locality but the ensemble blends through the use of face finish natural materials in warm tones that fit with the area.

PARTS 3 AND 4 OF THE APARTMENT DESIGN GUIDE

ISSUE/OBJECTIVE	DESIGN CRITERIA (IF APPLICABLE)	DESIGN GUIDANCE/OUTCOME
Part 3 - SITING THE DEVELOPMENT		
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 surrounding context*		*"Each element in the Site Analysis Checklist should be addressed"* Complies Each element of the Site Analysis Checklist is addressed. Refer to Urban Design Report, the architectural drawing set (containing Site Analysis Plan and Location Plan), Survey Plan (showing site dimensions and detailed topography) and consultant reports for a detailed site analysis.
3B Orientation *Objective 3B-1* *Building types and layouts respond to the streetscape and site while optimising solar access within the development*		*"Solar access to living rooms, balconies and private open spaces of neighbours should be considered* *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)"* Complies The architecture of the proposal addresses two street frontages: Parraween Street and Gerard Street employing architectural strategies in all cases to manage street character, orientation, scale, amenity etc. See Urban Design report for detailed information. Most apartments in the proposal are orientated towards the north, north east and north west to optimise solar access, privacy and available outlook.

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"* The proposal increases building height and as such increases overshadowing of some neighbouring buildings on Gerard St and Parraween St. Limiting the impact of overshadowing on the living rooms, and private open spaces of neighbours has influenced design of the proposal. For the impacted neighbours, the proposal responds to the North Sydney DCP – C 3.9 C14. *"Where the surrounding allotments side boundary is 45 degrees from true north and therefore the allotment is not orientated north/south or east/west, glazing serving main living room shall retain a minimum of two hours of solar access between 9am and 3pm at winter solstice."* The resulting overshadowing does not reduce the solar access to glazing serving main living rooms to below two hours of solar access between 9am and 3pm on winter solstice.
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."* Public and private domain are clearly defined by differing entry points into the residential buildings. Ground level access to apartments is either through a private lift lobby or recessed and raised front doors. The public domain is overlooked by numerous apartments. Three / four storey apartments in buildings 02 and 03 aswell as seven / eight storey in building 04 feature recessed and raised front doors and street facing windows. Planting is employed to further screen these spaces from the street.
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- basement 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 basement 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."*

		Elevating the experience of the public domain has been a focus of the design. The proposal offers improved streetscapes, a through site link and a public park. Planting, deep soil areas and greenery to balconies and rooftops reduce urban heat and improve the public domain throughout the site. Service and plant rooms are kept to a minimum above ground and are predominantly located in the basement levels whilst the site substation is located on the North Eastern edge of the site so it can be screened by planting and accessed from Gerard St.
3D Communal and Public open space *Objective 3D-1* *An adequate area of communal open space is provided to enhance residential amenity and to provide opportunities for landscaping*	1. *Communal open space has a minimum area equal to 25% of the site (see figure 3D.3)* 2. *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"* Residents will have access to a range of communal open spaces to suit different user groups. Communal open spaces are located on ground floor (one space is co-located with a deep soil area), and on the top of roofs. The collection of diverse spaces provide outdoor BBQs, seating areas, and planting with various levels of density and shade. The spaces range in scale from intimate spaces to larger break out spaces for gatherings or exercise and recreation. Total Site Area: 7,354m2 RAC Site Area: 1,265m2 ILU Site Area: 6,090m2 Control for Residential Aged Care: 10m2/bed (RAC) - State Environmental Planning Policy (Housing) 2021 Requirement: 410m2 (41 beds x 10m2) Achieved: 709m2 (546m2 internal, 163m2 external) Control for ILUs: 25% of site area – ADG Requirement: 1,522m2 Achieved: 2163m2

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 basement car parks, electrical substations and detention tanks."* Complies The communal open spaces are located on ground floor and on roof tops providing different levels of sunlight, privacy and exposure. The spaces on roof tops and podiums provide outlook and views towards Middle Harbour and some towards Sydney CBD and the surrounding suburbs. All spaces allow for accessible access and offer spaces for a wide range of activities and groups.
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."* Complies Most communal open spaces allow for a balanced level of privacy and exposure to allow for passive surveillance.

<table>
<tr>
<td>Objective 3D-4

Public open space, where provided, is responsive to the existing pattern and uses of the neighbourhood</td>
<td></td>
<td>“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.”

Complies

The public open space is connected to the surrounding streets and offers much needed cross-block connections to link parts of the neighbourhood. The through site link offer good view lines through the site (north to Gerard and middle harbor via the ada street vista and south to Parraween street and connecting military road link) the park, through site link and fern tree gully have good passive surveillance.</td>
</tr>
<tr>
<td>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</td>
<td>1. Deep soil zones are to meet the following minimum requirements

<table>
<tr><th>Site area</th><th>Minimum dimensions</th><th>Deep soil zone (% of site area)</th></tr>
<tr><td>less than 650m²</td><td>-</td><td rowspan="4">7%</td></tr>
<tr><td>650m² - 1,500m²</td><td>3m</td></tr>
<tr><td>greater than 1,500m²</td><td>6m</td></tr>
<tr><td>greater than 1,500m² with significant existing tree cover</td><td>6m</td></tr>
</table></td>
<td>“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
• basement and sub basement car park design that is consolidated beneath building footprints
• use of increased front and side setbacks
• adequate clearance around trees to ensure long term health
• co-location with other deep soil areas and adjacent sites to create larger contigious 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”</td>
</tr>
</table>

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*	1. *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 distance between buildings on the same site should combine required building separations depending on the type of room (see figure 3F.2)* 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 the habitable room distances* • *for service and plant areas use the non-habitable room distances* *New development should be located and oriented to maximise visual privacy between buildings on site and for neighbouring buildings. Design solutions include:* • *site layout and building orientation to minimise privacy impacts (see also section 3B Orientation)* • *on sloping sites, apartments on different levels have appropriate visual separation distances (see figure 3F.4)* *Apartment buildings should have an increased separation distance of 3m (in addition to the requirements set out in design criteria 1) when adjacent to a different zone that permits lower density residential development to provide for a transition in scale and increased landscaping (figure 3F.5)* *Direct lines of sight should be avoided for windows and balconies across corners* *No separation is required between blank walls"* Complies* The proposal largely complies and provides setbacksto provide visual privacy. Buildings have been orientated to maximize visual privacy and outlook whilst offering appropriate transitions in scale and zones for buffer landscape. Internally, within the site, where building separation is not achieved, privacy is achieved through solid walls, screen walls and screening blades. Most apartments in these areas have their primary living room orientated toward the views.

Objective 3F-2 *Site and building design elements increase privacy without compromising access to light and air and balance outlook and views from habitable rooms and private open space*		*"Communal open space, common areas and access paths should be separated from private open space and windows to apartments, particularly habitable room windows. Design solutions may include:* • *setbacks* • *solid or partially solid balustrades to balconies at lower levels* • *fencing and/or trees and vegetation to separate spaces* • *screening devices* • *bay windows or pop out windows to provide privacy in one direction and outlook in another* • *raising apartments/private open space above the public domain or communal open space* • *planter boxes incorporated into walls and balustrades to increase visual separation* • *pergolas or shading devices to limit overlooking of lower apartments or private open space* • *on constrained sites where it can be demonstrated that building layout opportunities are limited, fixed louvres or screen panels to windows and/or balconies* *Bedrooms, living spaces and other habitable rooms should be separated from gallery access and other open circulation space by the apartment's service areas* *Balconies and private terraces should be located in front of living rooms to increase internal privacy* *Windows should be offset from the windows of adjacent buildings. Recessed balconies and/or vertical fins should be used between adjacent balconies."* Complies Buildings and apartments have been orientated to maximize visual privacy and outlook whilst offering appropriate transitions in scale and zones for buffer landscape. Where necessary, design solutions such as setbacks, solid walls and fixed screening devices have been employed to increase privacy.
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."* Complies

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 'way finding' 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."* Complies Residential building entries and lobbies are clearly identified from the street and internal public spaces. These lobbies allow for direct accessible entry.
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."* Complies The proposal has a network of accessible public links with clear sightlines and passive surveillance.
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 facade. Design solutions may include:* • *the materials and colour palette to minimize visibility from the street* • *security doors or gates at entries that minimize 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"* Complies All vehicle movement, in and out of the Site, has been consolidated to a single convenient location via Parraween Street directly into the basement thereby minimising impact to pedestrian safety.
3J Bicycle and car parking *Objective 3J-1* *Car parking is provided based on proximity to public transport in metropolitan Sydney and centres in regional areas*	1. *for development in the following locations:* • *on sites that are within 800 metres of a railway station or light rail stop in the Sydney Metropolitan area; or* • *on land zoned , and sites within 400 metres of land zoned, B3 Commercial Core, B4 Mixed use or equivalent in a nominated regional centre* *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."* Complies Parking: RAC RES: 3 RAC STAFF: 7 ---------- ILU RES: 124 A total of **134** car parking spaces have been provided for residents, visitors and staff following the guidelines of North Sydney DCP 2013 – Part C, Section 1 Table C4 Rates. Car share spaces have also been provided. Refer to the traffic report for more information.

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."* Complies Refer to the traffic report for more information regarding motorbike and scooter parking as well as provisions for bicycle parking.
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"* Complies The basement design prioritises legibility with commercial vehicles having direct access into an enclosed secure loading dock while cars are directed into a simple clockwise circulation system to access parking provided over two basement levels. This ensures that impacts between larger vehicles, pedestrians, cyclists, and cars is minimised. The loading dock is designed to contain noise, enable efficient loading and unloading to good lifts and waste containment areas, and sized to enable these vehicles to enter and exit safely in a forward direction.
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 basement and sub basement car parking areas* *Ventilation grills or screening devices for car parking openings should be integrated into the facade and landscape design* Complies

		The two-level basement does not extend under the retained and reconstructed cottages (52, 54 and 56 Parraween Street) or deep soil zones . Mechanical ventilation points are integrated into the architectural design.
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 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* Complies. No on-grade car parking is proposed.
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 facade. Design solutions may include:* • *car parking that is concealed behind the facade, with windows integrated into the overall facade 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* Complies. No on-grade car parking is proposed.
PART 4 - DESIGNING THE BUILDING		

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*	1. *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* 2. *In all other areas, living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of 3 hours direct sunlight between 9 am and 3 pm at mid-winter* 3. *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* *Complies* Blg 02 – 70% achieved Blg03 – 85% achieved Blg 04 – 77% achieved
Objective 4A-2 *Daylight access is maximized 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* *Complies** The retained cottages are south facing and therefore are limited in their capacity to receive direct sunlight. A courtyard has been introduced to enable each residence within these retained cottages to benefit from improved access to daylight and ventilation.
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)* Complies The windows in the development are generally designed to be recessed and shaded by the articulation of the façades. Living rooms mostly are oriented to the north and benefit from external balconies that provide shade and weather protection.
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*

		Stacking sliding doors maximise operability of living rooms onto balconies and are protected from the elements via balcony overhangs. Awning windows are provided in areas where limited overhangs are provided to ensure windows can be opened during inclement weather.
Objective 4B-2 *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."* *Complies* There are very few single aspect apartments. Where these occur, they have a broad frontage with relatively shallow depth to maximise natural ventilation.
Objective 4B-3 *The number of apartments with natural cross ventilation is maximised to create a comfortable indoor environment for residents*	1. *At least 60% of apartments are naturally cross ventilated in the first nine storeys of the building. Apartments at ten storeys or greater are deemed to be cross ventilated only if any enclosure of the balconies at these levels allows adequate natural ventilation and cannot be fully enclosed* 2. *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."* *Complies* Blg 02 – 70% achieved Blg03 – 85% achieved Blg 04 – 100% achieved

<table>
<tr>
<td>4C Ceiling heights
Objective 4C-1

Ceiling height achieves sufficient natural ventilation and daylight access</td>
<td>1. Measured from finished floor level to finished
<table><tr><th colspan="2">Minimum ceiling height
for apartment and mixed use buildings</th></tr><tr><td>Habitable rooms</td><td>2.7m</td></tr><tr><td>Non-habitable</td><td>2.4m</td></tr><tr><td>For 2 storey apartments</td><td>2.7m for main living area floor
2.4m for second floor, where its area does not exceed 50% of the apartment area</td></tr><tr><td>Attic spaces</td><td>1.8m at edge of room with a 30 degree minimum ceiling slope</td></tr><tr><td>If located in mixed used areas</td><td>3.3m for ground and first floor to promote future flexibility of use</td></tr></table>These minimums do not preclude higher ceilings if desired</td>
<td>“Ceiling height can accommodate use of ceiling fans for cooling and heat distribution.”

Complies

Typical floor to floor heights for the residential floors is 3.2m. Residential apartments will typically have min. 2.7m ceiling heights.</td>
</tr>
<tr>
<td>Objective 4C-2

Ceiling height increases the sense of space in apartments and provides for well proportioned rooms</td>
<td></td>
<td>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

Complies

Typical floor to floor heights for the residential floors is 3.2m. Residential apartments will typically have min. 2.7m ceiling heights.</td>
</tr>
<tr>
<td>Objective 4C-3

Ceiling heights contribute to the flexibility of building use over the life of the building</td>
<td></td>
<td>Ceiling heights of lower level apartments in centres should be greater than the minimum required by the design criteria allowing flexibility and conversion to non-residential uses (see figure 4C.1)

N/A</td>
</tr>
</table>

<table>
<tr>
<td>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</td>
<td>1. Apartments are required to have the following minimum internal areas:
<table><tr><th>Apartment type</th><th>Minimum internal area</th></tr><tr><td>Studio</td><td>35m²</td></tr><tr><td>1 bedroom</td><td>50m²</td></tr><tr><td>2 bedroom</td><td>70m²</td></tr><tr><td>3 bedroom</td><td>90m²</td></tr></table>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
2. 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</td>
<td>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

Complies*

Apartments are generous in their proportions and exceed the minimum numeric requirements:

Every habitable room has an external window of not less than 10% of floor area of room.</td>
</tr>
<tr>
<td>Objective 4D-2

Environmental performance of the apartment is maximised</td>
<td>1. Habitable room depths are limited to a maximum of 2.5 x the ceiling height
2. In open plan layouts (where the living, dining and kitchen are combined) the maximum habitable room depth is 8m from a window</td>
<td>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

Complies*

Apartments are generous in their proportions with a broad frontage facades and shallow apartment depths

Living spaces are within 8m of external windows</td>
</tr>
</table>

<table>
<tr>
<td>Objective 4D-3

Apartment layouts are designed to accommodate a variety of household activities and needs</td>
<td>

Master bedrooms have a minimum area of 10m2 and other bedrooms 9m2 (excluding wardrobe space)
Bedrooms have a minimum dimension of 3m (excluding wardrobe space)
Living rooms or combined living/dining rooms have a minimum width of:

3.6m for studio and 1 bedroom apartments
4m for 2 and 3 bedroom apartments

The width of cross-over or cross-through apartments are at least 4m internally to avoid deep narrow apartment layouts
</td>
<td>
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:

dimension 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 and circulation by stairs, corridors and through rooms to maximize the amount of usable floor space in rooms

Complies

Apartments are generous in their proportions and hence minimum dimensions for Master Bedrooms, secondary bedrooms and living spaces have been met.
</td>
</tr>
<tr>
<td>4E Private open spaces and balconies
Objective 4E-1

Apartments provide appropriately sized private open space and balconies to enhance residential amenity</td>
<td>

All apartments are required to have primary balconies as follows

<table>
<tr><th>Dwelling type</th><th>Minimum area</th><th>Minimum depth</th></tr>
<tr><td>Studio apartments</td><td>4m²</td><td>-</td></tr>
<tr><td>1 bedroom apartments</td><td>8m²</td><td>2m</td></tr>
<tr><td>2 bedroom apartments</td><td>10m²</td><td>2m</td></tr>
<tr><td>3+ bedroom apartments</td><td>12m²</td><td>2.4m</td></tr>
</table>
<ol start="2">
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

</td>
<td>
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

Complies*

Each apartment in the proposal has private open space, in the form of a balcony, and/or terrace.
Balcony minimum depth is 2000mm and in most cases, exceed the minimum width and areas requirements.
</td>
</tr>
</table>

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."* *Complies* All apartments are arranged with the main living spaces adjacent to the primary private open space. All balconies and terraces face north west, north east, east or south east. Wherever possible, balconies are situated with the wider edge facing outwards, to optimize daylight access to living areas. In some cases, living rooms are located against façade of the building to maximise amenity, with the balcony acting as an extension of the living space to one side.
Objective 4E-3 *Private open space and 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 facade and building design* *Air-conditioning units should be located on roofs, in basements, 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* *Complies* Balconies enhance the articulation of façade design and are integrated into the building. Air conditioning units are located on the roofs.

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."* *Complies* Balcony and terrace balustrades comply with the NCC controls to protect from falls.
4F Common circulation and spaces *Objective 4F-1* *Common circulation spaces achieve good amenity and properly service the number of apartments*	1. *The maximum number of apartments off a circulation core on a single level is eight* 2. *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 *Complies* Common circulation spaces are afforded high amenity through greater than minimum corridor widths and a window or door to the exterior or communal open space.
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* *Complies* Direct and legible access is provided between lift core and apartment entries in all cases.
4G Storage *Objective 4G-1* *Adequate, well designed storage is provided in each apartment*	1. *In addition to storage in kitchens, bathrooms and bedrooms, the following storage is provided:* | Dwelling type	Storage size volume | |---|---| | Studio apartments | 4m³ | | 1 bedroom apartments | 6m³ | | 2 bedroom apartments | 8m³ | | 3+ bedroom apartments | 10m³ | *At least 50% of the required storage is to be located within the apartment.*	*Storage is provided within the circulation spaces, living rooms, laundry rooms and in some instances in the bedrooms.* *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* *Complies* All apartments comply with the minimum. of 50% of storage located within the apartments Refer to DA80.21 for further detailed compliance summary

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 basement 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* *Complies* All apartments comply with the minimum. of 50% of storage located within the apartments Refer to DA80.21 for further detailed compliance summary The remainder of required storage is located in the residential basement, in the form of storage cages adjacent to carparking spaces.
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* *Complies** The proposal largely complies and provides building separation and setbacks to provide acoustic privacy. Internally, within the site, where building separation is not achieved, acoustic privacy is achieved through solid walls, screen walls and screening blades. Most apartments in these areas have their primary living room orientated toward the views. The car park ramp is enclosed to reduce noise impacts from vehicles entering and exiting the site.

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* *Complies* Bedrooms are grouped together and separated from main living spaces. Wherever possible, robes are located to buffer sound between bedrooms.
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 common property spaces* • *non-residential uses are located to 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* *Complies* Apartments that address Gerard St feature continuous glazed balustrades to reflect noise. Acoustic rated glazing and window systems will be applied to the facades that face Gerard Street. Refer Acoustic Report

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 gaps* • *using double or acoustic glazing, acoustic louvres or enclosed balconies (wintergardens)* • *using materials with mass and/or sound insulation or absorption properties e.g. solid balcony balustrades, external screens and soffits* *Complies* See acoustic report.
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* *Complies* The apartments are generous in size and flexible in their arrangement to support diverse household needs consistent with the local market demand.
Objective 4K-2 *The apartment mix is distributed to suitable locations within the building*		*Different apartment types are located to achieve successful facade 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* *Complies* Large apartments are located at roof level where they have access to more open space in the form of generous private balconies. Apartments are distributed throughout the buildings to achieve balanced façade compositions and provide optimal solar access to apartments.

4L Ground floor apartments *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 facade 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* *Complies* Ground floor apartments are provided in Buildings 02, 03 and 04. Each ground floor apartment has an adjoining garden. The ground floor FFL is slightly elevated above the street to provide privacy. The use of planting and fencing also aids the sense of privacy.
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* *Complies* Ground floor apartments are elevated from the public domain to a varying degree. The use of planting and fencing also aids the sense of privacy for residents.
4M Facades *Objective 4M-1* *Building facades provide visual interest along the street while respecting the character of the local area*		*Design solutions for front building facades 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 facade* *Building facades should be well resolved with an appropriate scale and proportion to the streetscape and human scale. Design solutions include:*

		• *well composed horizontal and vertical elements* • *variation in floor heights to enhance the human scale* • *elements that are proportional and arranged in patterns* • *public artwork or treatments to exterior blank walls* • *grouping of floors or elements such as balconies and windows on taller buildings* *Building facades relate to key datum lines of adjacent buildings through upper level setbacks, parapets, cornices, awnings or colonnade heights* *Shadow is created on the facade throughout the day with building articulation, balconies and deeper window reveals* *Complies* The scheme is contextual in its response to the three retained and reconstructed cottages 52,54 and 56 Parraween street and the six reconstructed cottages 70, 72, 74, 76, 78 and 80 on Parraween Street, then providing a taller contemporary tower in Gerard Street to match its heights. Blg 01 RAC and ILU Residential Buildings 02 and 03 are designed to mediate these scales and establish a material and scale relationship with the cottages in Parraween Street.
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 facade features such as party walls and floor slabs* *Complies* The building facades express the internal layouts with carefully composed positioning of balconies and living spaces. Building entries are clearly defined through deep vertical articulations and changes in the rhythm of the façade.

4N Roof design *Objective 4N-1*		*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* *Complies* Flat roofs are proposed and incorporate various architectural treatments such contrasting lightweight materials that express the top of the building as a feature.
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* *Complies* A collection of rooftop gardens offers flexible and functional green open space to the residential community and their guests. Each garden is situated to maximise access to natural light, views, and amenity without infringing on the privacy of near-by apartments. For the residents, these gardens will provide shared spaces to gather, play, celebrate, stay active and enjoy being outside amongst lush plantings. In addition, some apartments enjoy private open space located on the roof of the level below.
Objective 4N-3 *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* *Complies* The proposal incorporates useable rooftops for private or communal use with integrated planting.

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)* *Complies* See Landscape Documentation. The landscape scheme incorporates diverse planting solutions, including planter boxes, significant shading trees and areas of low planting.
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* *Complies* See Landscape Documentation. The landscape scheme responds to the Site context and local ecologies.
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 *Complies* See Landscape Documentation. The landscape design including planter dimensions and soil depths, are bespoke and suited to each location.
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* *Irrigation and drainage systems respond to:* • *changing site conditions* • *soil profile and the planting regime* • *whether rainwater, stormwater or recycled grey water is used* *Complies* See Landscape Documentation. The landscape is designed Planting palettes have been selected to specifically respond to the various conditions and microclimates of the Site. Planting has been selected with longevity and ease of maintenance in mind.
Objective 4P-3 *Planting on structures contributes to the quality and amenity of communal and public open spaces*		*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 facade and consider the ability of the facade to change over time* *Complies* Generous soil volumes above structures allow for a diverse range of plantings ranging from large canopy trees to layered, intermediate and understorey plantings. Rooftop gardens offer flexible and functional green open space to the public, residential community and their guests.

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* *Complies*
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* *Complies* The proposal is designed with all apartments adaptable.
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* *Complies* Many apartments include flexible rooms which can be used as studies or for other purposes, many others include study nooks within the bedrooms or living spaces. Open plan living spaces allow for maximum flexibility for the residents.
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, from 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

Objective 4R-2 *Adapted buildings provide residential amenity while not precluding future adaptive reuse*		*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* 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* *NA*
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.* *NA*

4T Awnings 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* *A number of the following design solutions are used:* • *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* Complies A colonnade provides covered access to the Village Reception.
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 facade sign on the primary street frontage* Complies Signage will be discretely integrated into facade zones and the awning design.
4U Energy efficiency *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* Complies The proposal complies with 4A Solar and Daylight Access. All primary living spaces have generous floor to ceiling windows or sliding doors onto balconies, ensuring that even for the apartments that do not receive direct sunlight in midwinter, maximum natural daylighting is achieved. All apartments have private open space suitable for drying clothes.

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 basement)* Complies The proposal incorporated passive solar design principles in its orientation of apartments, use of insulation, overhangs and awnings.
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 optimized* • *natural ventilation is provided to all habitable rooms and as many non-habitable rooms, common areas and circulation spaces as possible* Complies Primary living rooms are arranged to have large sliding doors to balconies and openings on 2 different sides wherever possible, optimizing natural ventilation. Rooms with similar uses are grouped together. Bedrooms and other habitable rooms have openable windows to optimize access to natural ventilation.
4V Water management *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* Complies A rainwater collection tank is proposed and WSUD principles are integrated into parts of the landscape design. Water efficient appliances are proposed throughout the proposal.

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 maximized* • *on site stormwater and infiltration, including bio-retention systems such as rain gardens or street tree pits* Complies An onsite detention tank is included in the proposal.
Objective 4V-3 *Flood management systems are integrated into site design*		*Detention tanks should be located under paved areas, driveways or in basement car parks* *On large sites parks or open spaces are designed to provide temporary on site detention basins* Complies An OSD tank has been included in the proposal.
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 basement 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* Complies Storage areas for rubbish bins near each core and a bulky waste storage area have been located in the basement. A waste management report has been prepared. Refer to SEE.

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* Complies See Above
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* Complies The façade design for each building incorporates hoods to protect walls and openable windows. Detailed design will include drip lines along horizontal edges to avoid staining. Construction methods will be employed to eliminate planter-box leaching.
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 facade* *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* Complies

		All communal space of rooftops can be accessed and maintained via centralised circulation. Primary living room windows can be cleaned from apartment balconies.
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* Complies The proposal incorporates a range of robust and durable masonry and metal materials.

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