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Bowden Brae Village, Normanhurst

Uniting

Design statement



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Bowden Brae Village, Normanhurst

Uniting

Design statement

The proposed design for the Bowden Brae Village reflects the Uniting (formerly UnitingCare Ageing) Service Model which will support people's lives as they grow older or become frailer. This collection of "homes" and community services is set within the Bowden Brae site in a way that allows residents to maintain and strengthen their ties to the surrounding community. The Bowden Brae Village is proposed as the central location of a wider hub-and-spoke network of services for the Northern Sydney region with particular focus on the Hornsby local government area. The design responds to the opportunities offered by the site in terms of the relationships to the existing Bowden Brae residential care facility, the significant trees on the site and potential district views, while minimizing the impact of the redevelopment on neighbours' amenity.

The proposed development comprises the detailed design of the approved concept under DA/544/2012. While the Stage 2 DA is submitted under SEPP Seniors Housing, SEPP 65 and the 2015 Apartment Design Guide apply. The design creates a unified site composition of built and landscaped spaces which meets the social and service model, while drawing on the specific site conditions in relation to the SEPP 65/ADG and Seniors Housing principles.



Figure 1: Birds Eye view of the proposed site and surrounds

Principle 1: Context and Neighborhood Character

The context for the proposed development is both socio-political and physical.

Socio-political context

- > The development of planning concepts which embody the value of diversity and the closely related concept of integration to encourage diversity in the built environment and social diversity within communities.¹
- > The widely acknowledged need for the design of the built environment to contribute to the creation of socially sustainable and inclusive communities, against the background of a far-reaching demographic shift.²
- > The need for the planning of housing and living spaces for older people to embrace demographic diversity and encourage continued interaction and participation of older people in the broader community.³
- > Enormous impact that the ageing of the Australian population will bring to bear on the future of housing.⁴
- > The call for adaptive and universal housing. Universal housing refers to a different way of thinking about adaptive and accessible housing, based on the principle that better housing design for older people is better housing design for everyone.⁵
- > The undeniable trend towards an ageing population with demands for proximity to quality services, affordability and companionship in old age.⁶
- > The fact that current housing largely ignores retirement-based social interaction, shared use of open space for recreation, sharing of resources including personal transport and mutual caring and support.⁷

¹ B. Garlick, D. Jones, G. Luscombe, *Take 6: Beyond Beige: improving architecture for older people and people with disabilities*, (Canberra, Royal Australian Institute of Architects), 2008, p.23.

² *ibid*, p.18.

³ *ibid*, p.23.

⁴ *ibid*, p.47.

⁵ *ibid*, p.35.

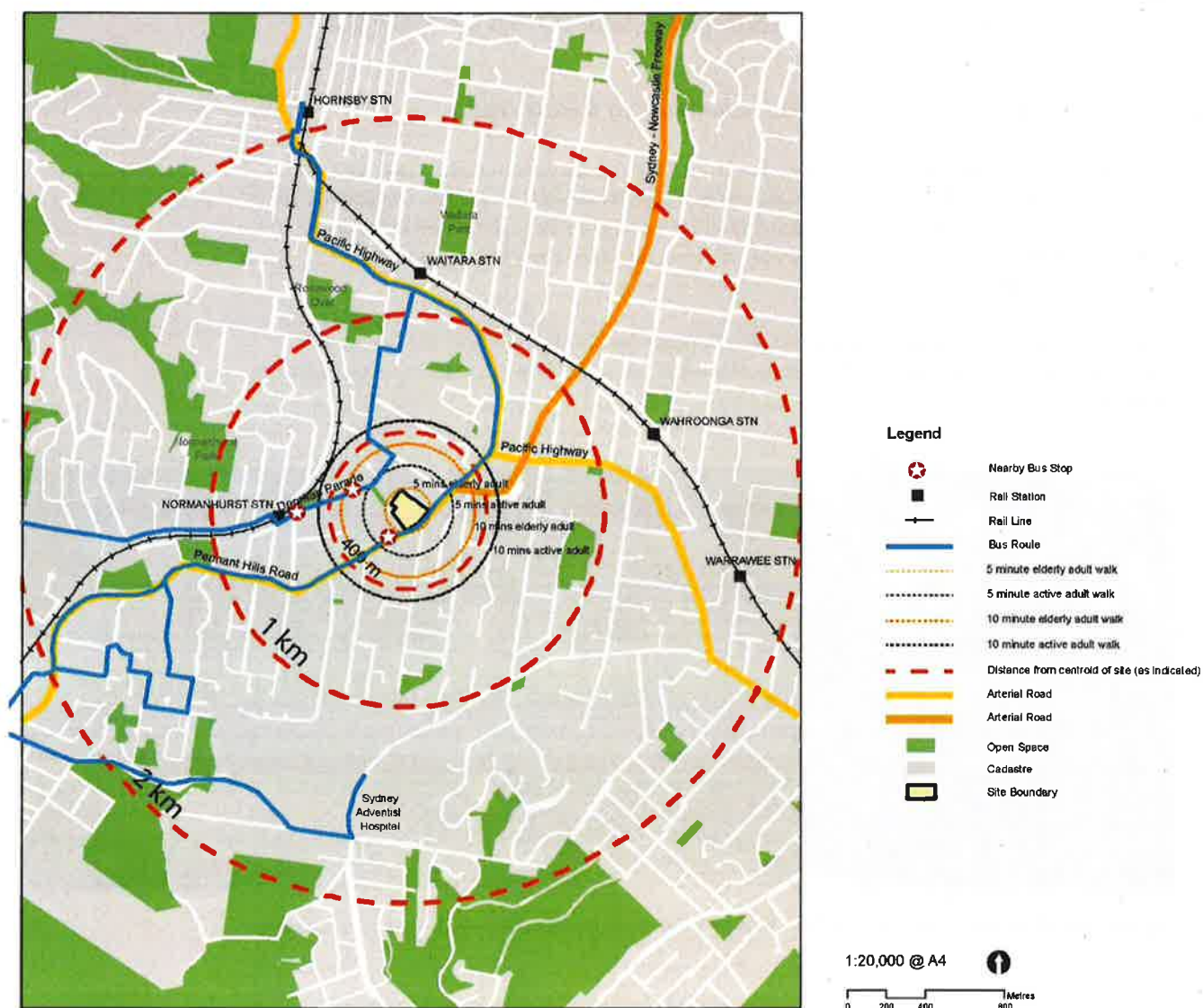
⁶ *ibid*, p.37.

⁷ *ibid*, p.49.

Physical context

The site of 21,580m² is bounded by three streets: Pennant Hills Road is located to the southeast, Frith Avenue to the northwest and northeast and Jasmine Road to the southwest.

The site is approximately 2.2km to the south of the Hornsby Railway Station, 1.4km to the west of Wahroonga Railway Station and 750m to the east of Normanhurst Railway Station.



It is located about 2.4km from Hornsby Westfield shopping centre.

Figure 2: Context plan

The site has an irregular rhomboid shape and slopes from Pennant Hills Road (which traces a ridge line) down to Frith Avenue (northwest part). There is also a cross fall from Frith Avenue (northeastern part) to Jasmine Road.

Neighborhood Character

The surrounding properties are predominantly residential with a mix of single and two storey dwellings along Frith Avenue and Pennant Hills Road. Adjacent to and to the west of the site on Jasmine Road is Normanhurst Boys High School containing large institutional style buildings up to at least three storeys.

The surrounding land is zoned R2 Low Density Residential.

The existing residential aged care facility (RAC), Bowden Brae Gardens is located along the Frith Avenue side of the site and will remain. Adjacent to this building and at the north eastern boundary of the site (bounded by Frith Avenue and Pennant Hills Road) is a garden containing many significant trees. This garden will remain intact.

The existing multi-storey (up to seven levels) building which occupies a large portion of the site will be demolished, as will four houses along Frith Avenue.



Figure 3a West facades of site buildings along Jasmine Road, looking southeast



Figure 3b Pennant Hills Road with site in background (left), looking east



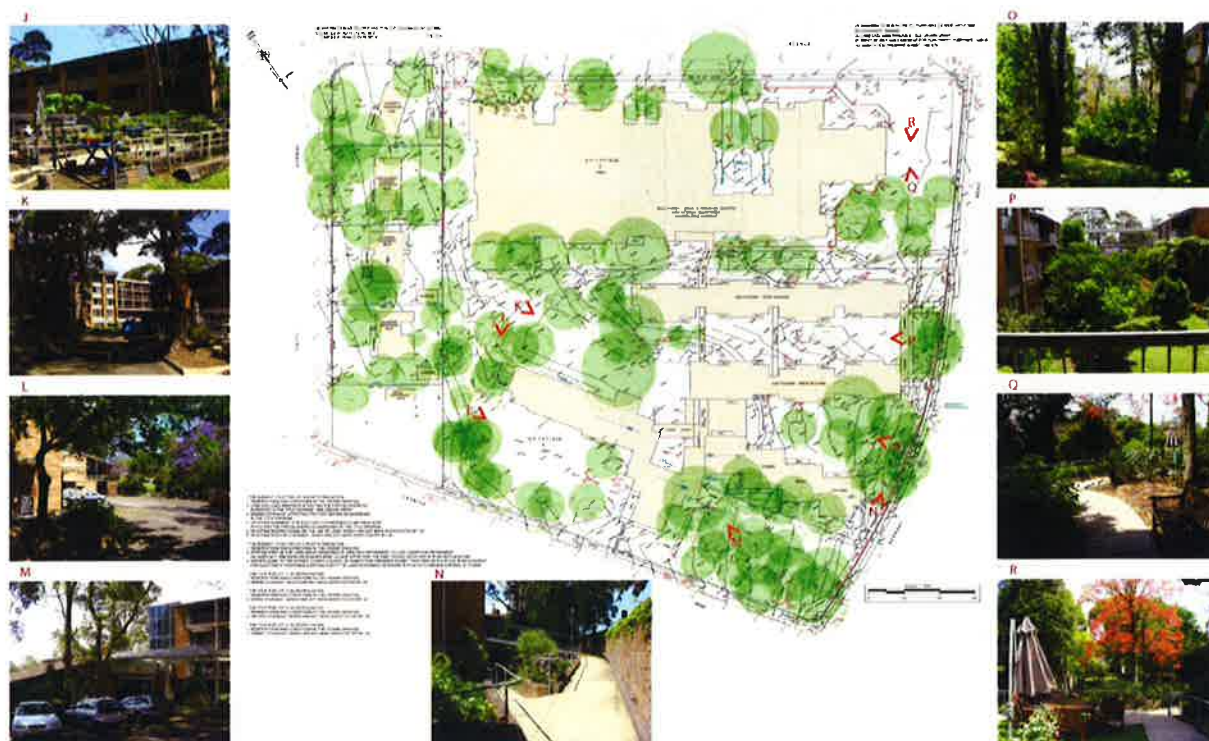


Figure 3c Views into and within site

Figure 3 (a,b and c): Existing site and surrounds

The design proposes four new buildings, generally consistent with the footprints and massing of the approved concept, known as Building A, Building B, Building C and Building D consisting of independent living units (ILUs), basement car parking and various community facilities (including a chapel, multipurpose spaces, library, café, wellness centre, gymnasium). Building A basement car parking is separated from the basement under Buildings B, C and D which are interconnected. An above-ground lift and walkway joins the RAC to Building D.

Building A facing Frith Avenue has three major components:

- > a three storey block facing Frith Avenue (northwest) with pedestrian entry and vehicular entry (to basement) from Frith Avenue
- > a seven storey southern wing
- > a basement for car parking and services

Building B facing Jasmine Road has three major components:

- > a five storey block of units with vehicular entry (to basement) from Frith Avenue with pedestrian entry (residents) entry from the drop off area
- > one storey basement for car parking and services
- > the main drop-off or porte-cochere for the site.

Building C facing Pennant Hills Road has three major components:

- > ground floor containing community facilities which define the edge of the village green
- > seven levels of residential units
- > basement for car parking and services.

Building D facing the village green has two major components:

- > ILU clubroom forms, the eastern edge of the central courtyard space
- > basement for car parking.

At the centre of the site, a large landscaped area called "The Green" links together the new and existing built forms. The community facilities trace the edges of this open space. A vehicular drop off from Frith Avenue provides ease of access to this main green space and community activities/services.

Principle 2: Built Form and Scale

Scale

The scale of the proposed new buildings has been determined in relation to the existing RAC development and the significant trees which are to be retained - and the existing multi-storey building which is to be demolished.

Maximum Height

Building A: 18.95 metres
 Building B: 18.8 metres
 Building C: 22.2 metres
 Building D: 19.1 metres

The maximum building height of all proposed buildings on the site is 22.2 metres. The proposed height is considered to be appropriate for the site because it is:

- > compatible with the existing RAC
- > compatible with the location of site adjacent to Pennant Hills Road and opposite Normanhurst Boys High School.

The proposed buildings step down the site reflecting the existing topography.



Figure 4: Pennant Hills Road Elevation



Figure 5: Jasmine Road Elevation

RL 213 300	L13
RL 210 600	L12
RL 207 500	L11
RL 204 400	L10
RL 201 300	L09
RL 198 200	L08
RL 195 100	L07
RL 192 000	L06
RL 188 900	L05
RL 185 300	L04
RL 182 200	L03
RL 179 100	L02
RL 176 150	L01



Figure 6: Frith Avenue Elevation

Built Form

The wings of Buildings A, C and D are designed to be one apartment deep in order to keep the built form as slender as possible as well as to give good access to natural light and air – and to ensure that each apartment has a front door to the access “path” or “street” on its floor.

Building B has a central corridor in order to allow a proportion of apartments or units to face a northerly direction. Nevertheless the building depth is limited to 17.8 metres deep.

Further, the blocks are positioned so that landscaped areas may surround each building while forming a central community open space.



Figure 7: aerial photograph of site

Principle 3: Density

The proposed FSR is 1.06:1 which is the allowable FSR (established by the approved Stage 1 concept DA).

The proposed layout and density has been chosen to maximize the amount of "usable" open space on the site and retain the majority of significant trees.

The proposed layout, height, bulk and scale of the proposed buildings presents well-articulated street facades and massing.

The proposed density for the site is considered to be appropriate given the size of the site and the existing "dense" built form which sets a precedent for the site. In addition, the buildings have been sited and articulated so as to reduce any adverse visual impacts.

Principle 4: Sustainability

The design of the new development incorporates the following attributes:

- > natural light and ventilation to almost all habitable and circulation areas
- > water storage and re-use for landscape irrigation
- > water detention
- > energy efficient appliances and fixtures
- > northern orientation of the majority of units
- > materials selection based on environmental performance.

Principle 5: Landscape

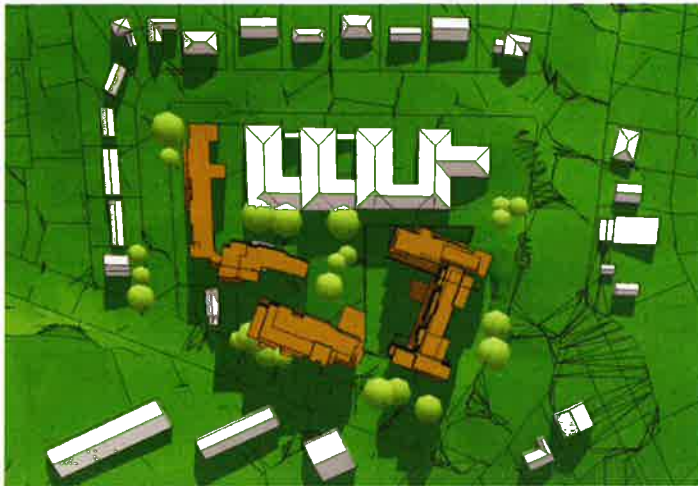
At the north eastern boundary of the site (bounded by Frith Avenue) is a garden containing many significant trees, in particular a mature redwood (c1920), Cypress Pine, Norfolk Island Pine and Illawarra Plane tree. This garden will remain intact.

The proposed landscape will fulfill the following aims:

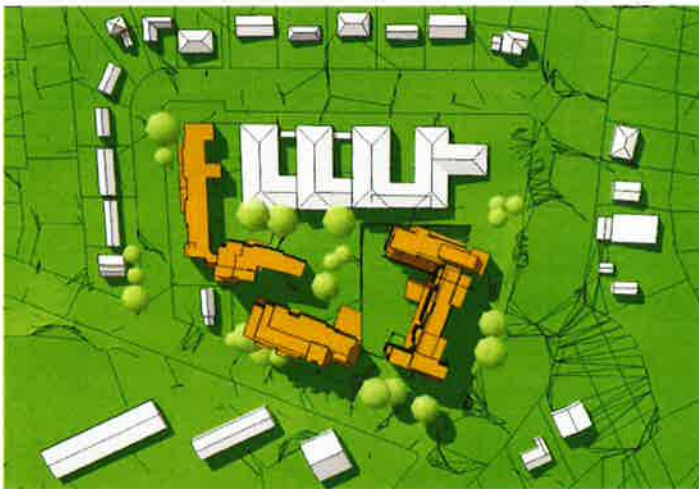
- create a central, open space "The Green" which provides the focal point and unifying element for the site. The village green includes a children's playground, level areas of lawn for games such as boules and croquet, spaces for small gatherings of people and for larger parties.
- create a restful and healing 'green' environment for residents and visitors
- provide a variety of gardens and roof terraces for active and passive use, including a children's playground, productive gardens and a 'bushland' walk.
- retain the majority of significant trees on the site
- respond to functional needs such as screening, shade and shelter.

Principle 6: Amenity

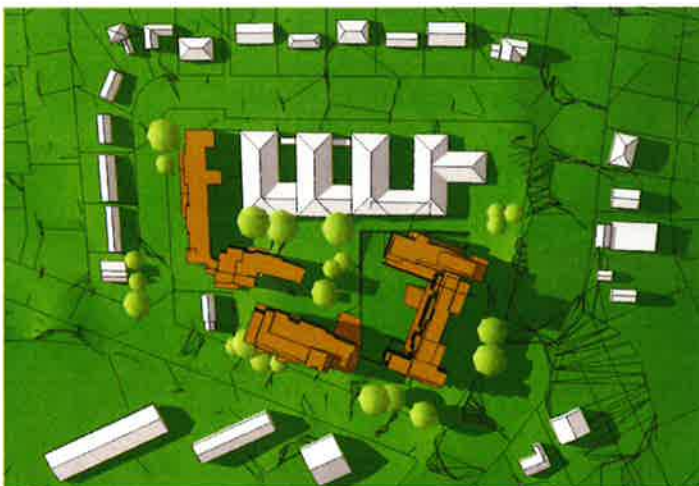
The disposition of volumes on the site has been carefully studied in order to have minimal adverse impact on the overshadowing of the neighbouring properties, consistent with the shadow analysis undertaken for the DA Stage 2



22 June 9am - DA Shadows



22 June 12pm - DA Shadows



22 June 3pm - DA Shadows

Figure 8: Shadow Impact Diagrams

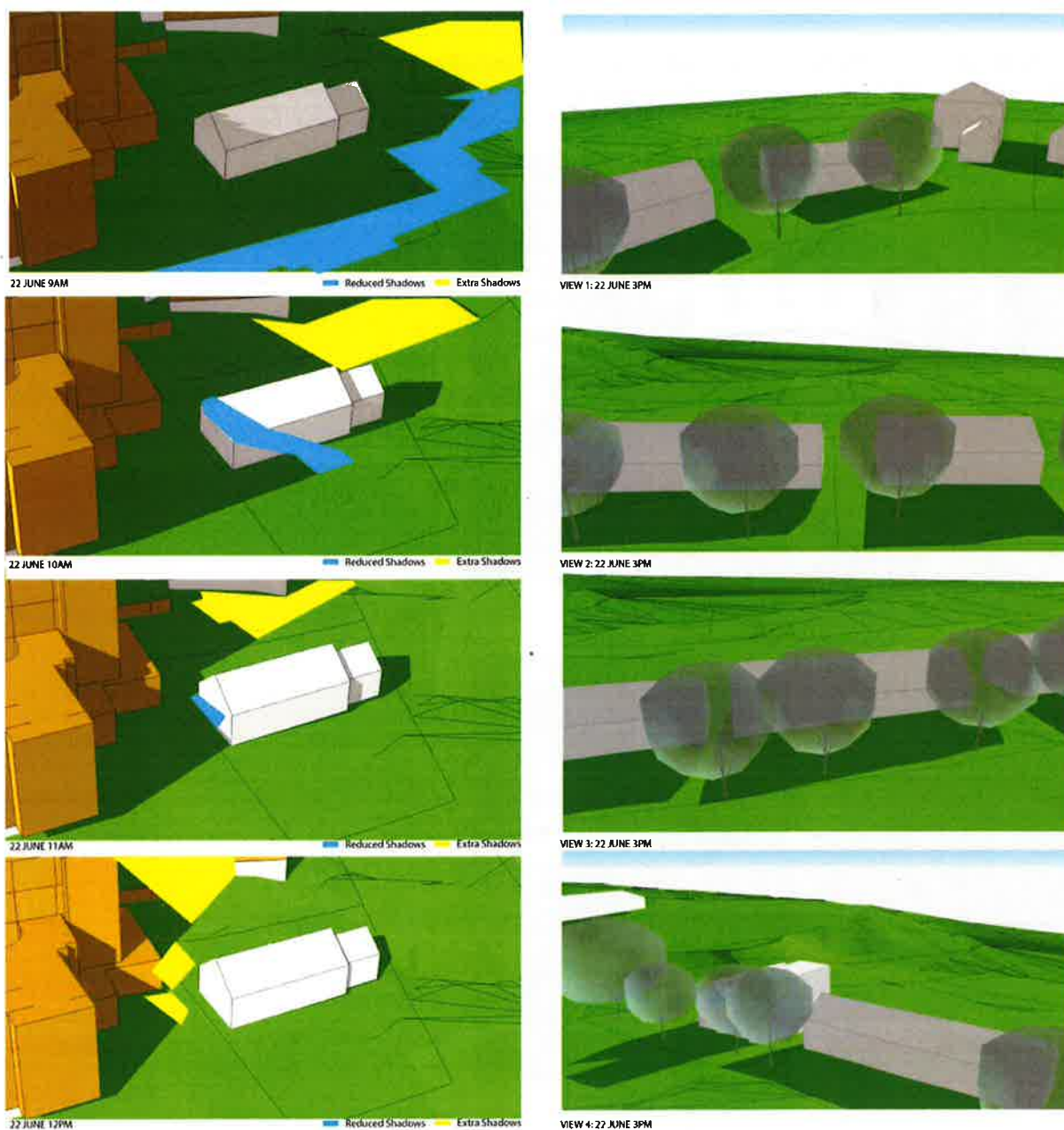


Figure 9: Shadow Impact Diagrams

In the new development, the apartments are primarily single loaded to maximize access to natural light and air; have generous private open space plus those qualities essential to the fundamental reason for this proposal:

- > all units are designed to provide adaptable entries, main bedroom and associated bathroom, living, kitchen and laundry areas.
- > the circulation space is punctuated by seats for incidental meetings and conversations, at each lift core.

Ground floor units will have individual gardens, suitable for people with small pets.

Building D is designed so that the access balconies provide an acoustic buffer to the high traffic noise of Pennant Hills Road. Further, the bulk of the building will help shield the rest of the site from the noise source.

Principle 7: Safety

The development is designed so that all edges are active and will provide passive surveillance of the interior and exterior spaces.

As described in Principle 6 above, the circulation areas are conceived as places of socialization to prevent the anonymity that can be associated with apartment living where one moves from the elevator lobby directly to a unit door, without the day-to-day interaction one finds on a street.

In Building B, where there is a double-loaded corridor, a small sitting area is provided close to the lifts. This area overlooks the public domain and has access to natural light and ventilation.

In addition, 'smart technology' will provide monitoring for residents.

The design addresses the four CPTED principles as follows:

Surveillance

The design of the building masses and the units within provide habitable rooms which overlook both the public domain (streets) and the communal open spaces. In addition, small seating areas are positioned close to each vertical circulation core – which are designed for incidental meetings and chats between residents – and overlook public and communal open spaces.

The landscape design acknowledges the need for clear sightlines below tree canopies.

Access Control

While the site is open to the wider public, electronic access control is provided to each building entry and the carparking basement entries.

After hours, the gate adjacent to the accessible entry from Pennant Hills Road will be closed to prevent entry into the bushland walk.

Territorial Reinforcement

The landscape design has clearly delineated "open" areas for gathering and more "contained" areas for small group interaction or solitary enjoyment. Nonetheless, there is always a window to a habitable space or to a circulation space overlooking the outdoor area.

The village green is defined by communal internal spaces to the south and east to the west of the main entry point. This arrangement reinforces the more public nature of this space.

Space Management

All spaces will be managed by the Uniting team, who will be physically located close to the main entry, at the edge of the village green. This arrangement provides for close supervision of the use and maintenance of the place.

Principle 8: Housing diversity and social interaction

In addition to the qualities described in Principles 6 and 7 above, the development is designed to facilitate interaction with the neighbouring community and to function as the hub of a hub and spoke service network for the Uniting (formerly UnitingCare Ageing) northern region.

The proposed community facilities that may be used by residents, visitors and neighbours are:

- > Building C: beauty salon, multi-purpose room, gymnasium, consulting rooms, associated amenities and administration.*
- > Building D: chapel and sacred space, ILU clubroom, library and multipurpose room*
- > Central open space with café in a pavilion on the edge of the village green.*

Principle 9: Aesthetics

The built form of the new buildings reflects both the edge conditions of the site and the development's social program and aspirations.

The village green is designed to provide the focus of the development with all community spaces and activities opening onto it. From this main outdoor room, fingers of "green" trace out and surround all the buildings, protecting the majority of the existing significant trees.

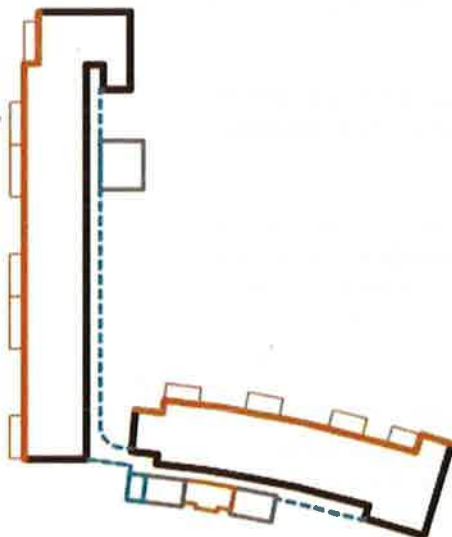
There are a number of apartment types (1 bedroom, 1.5 bedroom, 2 bedroom, 2.5 bedroom, 3 bedroom and 3.5 bedroom). For the majority of apartments, there is access to natural light and ventilation from at least two sides: the living area looks out to the surroundings; the entry door and bathroom faces the access path or balcony.

The access balconies are defined by glazed panels and allow light and air to enter the apartments through the operable glazing of the bathrooms, kitchens and studies.

The landscaped roof terraces of Buildings A and C provide other spaces for social interaction.

The building forms are highly articulated with steps in the facades both in plan and section to provide, with both projecting and recessed balconies and sun shading planes, a play of light and shade across the facade. The steps also respond to the topography.

The following diagrams illustrate the principles which have been applied to the design as shown on the Building A footprint.



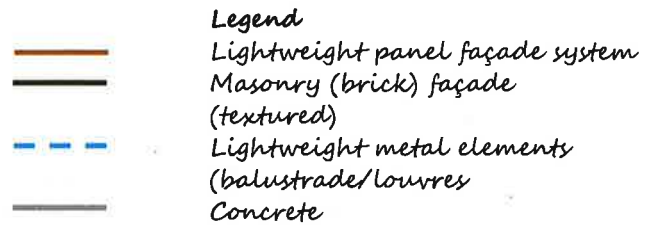


Figure 10: Design Principles Façade Building A

The project has been further designed to address issues of bulk and height through the use of tripartite massing involving a distinct and clearly articulated base, middle and top. The buildings are further articulated through the use of solid walls and balconies which reflects the ideas within the Hornsby DCP, thereby providing a strong visual interest and creating a sense of individuality for each building.

Building A

The Building A envelope is conceived as an articulated volume: a mid-tone base, three storey band of apartments with a recessed parapet around the top of the apartments which is further articulated with the projecting northern facing balconies.

While a simple palette of materials is proposed – glass, glazed and matt bricks, composite panels – the disposition of materials will differ in relation to the edge conditions and the formal or architectural relationships.

The materials and colours are selected to emphasise the banding. A deeper coloured brick base contains the entry lobby from Frith Avenue, garden terrace walls and the car park behind. The three apartment bands are simply expressed in a natural palette of glass and concrete framing with the light brick background behind.

Existing trees of 11-15 metres high in the road reserve will be enhanced by new tree plantings (which will mature to a similar height) on the Bowden Brae side of the street.

The urban composition of street trees, generous setbacks and well-articulated building volume allows the proposed building to sit comfortably across from the houses on the northern side of Frith Avenue. The main volume of the proposed building aligns with the datum set by the tree canopies which define the streetscape.

It is believed the proposed siting and the scale of the building A is compatible with the streetscape of Frith Avenue which is defined by the road, the four metre wide grass verges, generous setbacks and 15 metre high street trees.

The central seven storey (north-south) wing of the building is configured to provide a clear articulation between the three storey rectangular prism of Frith Avenue and the seven storey central arc-like wing.

Between the two wings is an intermediate zone, three storeys high only. It is

against this 'knuckle' that the house at Frith Avenue will be perceived.

Building B

The proposed massing of Building B, facing Jasmine Road differs slightly from the Stage 1 DA in order to provide a better proportioned building. Six residential stories sit above a variable height podium. The additional massing has been added to levels six, seven and eight to the northern façade of the building to optimize the northern exposure and views. There is no additional overshadowing caused by the amended envelope.

Building C and D

The 'central' wing of Buildings C and D is eight stories above the central courtyard. The building presents as five stories above the Pennant Hills Road footpath level. Given the scale and traffic pattern along this major road, this scale of building is appropriate.

Building C has been moved to the south to provide greater separation from Pennant Hills Road.

Further, the alignment of Building D has been amended so that views from Building C to the north are not blocked by the eastern wing of Building D.

The mezzanine level of Building C has been converted into a floor of units owing to Uniting's revised operations which no longer require large office space. Therefore the building height has increased by 200mm.

We believe that the following principles are maintained in the amended design:

- The significant trees are retained and a 'leafy' environment is created
- An appropriately scaled central landscaped space provides focus for the proposed community and communal activities ('the hub' of a 'hub and spoke' social model)
- The apartment residents and surrounding residents enjoy the level of amenity called for by the SEPP 65/ADG guidelines in terms of sunlight, natural ventilation and privacy
- Views to active spaces and to the district are maximized
- The landscaped spaces are linked clearly to/open to the surrounding streets
- Levels are set so that the buildings have entries from both the streets and the central space.

The project provides a variation on a perimeter block site model that has been modified and adapted to provide a series of blocks, retaining a significant number of trees, addressing the fall of land and the noise impact of Pennant Hills Road.

The key to the overall strategy is the approach to way finding, massing and scale:

The development, which can be accessed from each of the four street frontages, utilising the existing entry points in Jasmine Road and Frith

Avenue.

The southern wing of Building A 'bends' to address the house on the corner of Frith Avenue and Jasmine Road and to create an additional route through the site, and are well considered and successful.

Each of the three key building masses varies in height and shape and addresses different edge conditions. Through its stepped massing, the composition reflects the shifting topography of the site. This results in a variety of building types and shapes, multiple outlooks and orientations and a range of internal environments.

No building has a street frontage of more than about 60-70% of the overall street frontage.

Landscape

Also critical is the quality of the open space and the landscape providing through the following design elements:

- the overall approach to site planning,
- the creation of a variety of spaces,
- the retention of significant trees,
- the provision of multiple vistas and the degree of visual permeability into and through the site

Summary of Changes

The following diagram graphically illustrates the changes to the building envelope:

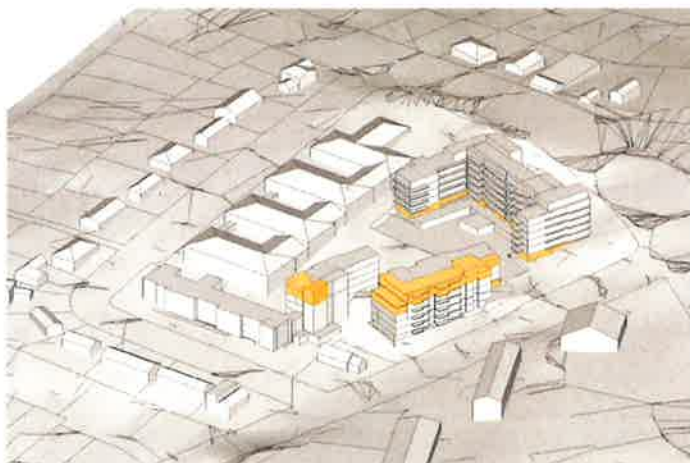


Figure 11: Massing axonometric

1. **Building A**
Building A along Frith Avenue has slightly reduced to the east and west. The wing of Building A has increased by one level to the northern end (with a resultant increase of one level for the core). The proposed parapet is 100mm higher than the approved envelope. The additional 100 mm is in the form of a glazed balustrade.

2. **Building B**
The top floor of the western façade of Building B (along Jasmine Avenue) has been infilled. The northern end of Building B has increased by one level.

These amendments have fulfilled Uniting's need for increased yield to meet operational imperatives and creating a more aesthetically pleasing building envelope.

3. **Buildings C and D**
The main east-west wing of Building C has been moved by 12 metres (varies) to the north to increase the distance away from Pennant Hills Road.

Further, the mezzanine floor has been converted into a floor of units, thereby increasing the building height by 400mm in the form of a glazed balustrade.

Further, the alignment of Building D in relation to Building C has been altered to allow better views from the Building C units and to provide a more clearly defined architectural junction between the two wings.

The proposed parapet of Building D will be 480mm higher than the approved envelope in the form of a solid parapet wall.

The changes above do not alter the fundamental relationships of the approved concept design, nor do they create any adverse impact on adjacent properties. The additional overshadowing and

visual impact caused by the changes listed above are negligible, noting that any additional overshadowing is marginal and contained within the site.

They are in line with those refinements which arise from meeting the economic and operational requirements of the client while developing the architectural language beyond concept stage.

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