21 Pennsylvania Road, Riverwood

DEVELOPMENT APPLICATION SEPP 65 REPORT

DKO

I.I.I.T

2-10 2 -1-

17



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Principle 01 - Context & Neighbourhood Character

Principle 09 - Housing Diversity and Social Interaction

The development responds intelligently and sensitively to its location and future urban context. The role of DKO's architecture is to mediate between the existing condition and the future urban context.

Our design concept provides a framework which responds intelligently and sensitively to its location and future urban context. As Riverwood evolves further to meet changing conditions, it is vital that its architecture and built fabric changes in order to preserve and improve on its identity while responding to the needs of a new generation.

The subject site is within the growing suburb of Riverwood, Canterbury-Bankstown Council. An area that will undergo a significant transformation in terms of urban density. The precinct encompasses both existing and planned public transport connections that will help provide a diverse and sustainable community.

This urban design report has been prepared in support of the submitted DA submission. It is intended to supplement the Sepp65 Report and assist council in determining the submitted development application.

The report evaluates the site in relation to the proposed architecture, the urban interface, the public realm, building mass and scale, pedestrian and vehicle connectivity, and amenity to the residents and public.



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Gooddesignresponds 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.

Response

The proposal complies with R4 High Density Residential Zoning Controls under the Canterbury-BankstownLEP2012 and will therefore complement the desired future character of the area.

The proposed buildings are highly articulated and have been visually broken down into volumes. The massing will sensitively respond to existing conditions and is aligned with Council's future plans for the area.

The proposed development complies with ADG setback requirements to all boundaries. The proposal incorporates attractive landscape areas that surround the built form on ground level. Generous private open spaces are provided to ground floor units and terraces, allowing for an activated and dynamic street character. The proposed development is compatible with the built form context of the site.



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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.



Response

The development responds intelligently and sensitively to its location and future urban context. The role of DKO's architecture is to mediate between the existing conditions and the future urban context.

The bulk and height of the design proposal has been carefully considered to respond to Riverwood's transition into a future growth area. These buildings are designed as distinctive families of building elements that respond sensitively to the architectural character and expression of the existing and proposed surrounding buildings within its vicinity. The visual bulk of the buildings are softened further as a result of material selection, massing techniques and landscaping that is located at the base of each building.



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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.

Response

The proposal delivers a total of 51 dwellings. These apartments range in sizes to promote a diverse mix of unit types that respond to the controls of Canterbury-Bankstown Council. The proposal takes in consideration factors of overshadowing, amenity and privacy impacts between existing and future buildings, open space patterns, existing vegetation, demand for new public domain elements, variety of lot sizes and shapes and changing streetscape and scale. The residential density of the proposal is sustainable, suitable, and supports this developing nature. The proposal fits in the context and possesses the ability to be supported by existing and future infrastructure.



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2.5 - PRINCIPLE 05 SUSTAINABILITY

Apartment Design Guide

Good design combines positive environmental, social and economic outcomes. Good sustainable design includes use of natural cross ventilation and sunlight for the amenity and liveability of residents and passive thermal design for ventilation, heating and cooling reducing reliance on technology and operation costs.

Other elements include recycling and reuse of materials and waste, use of sustainable materials, and deep soil zones for groundwater recharge and vegetation.



Response

The proposed development will reduce the necessity for mechanical heating and cooling with 61% of units designed to be cross ventilated. In addition to this, 73% of the units will receive 2 hours solar access during winter.

Low-energy Lighting

Low-energy lighting will be used throughout the building. Energy Efficient water heaters will also be integrated into the development. Additionally, the proposal will use water saving fixtures and fittings as well as energy efficient lighting, air-conditioning, lifts, and appliances to minimise water and energy loads.

Smart Building Systems

Integrated building systems such as heating, cooling and hot water will be designed to respond to the environmental conditions of the site. The consolidation of these building-wide systems will minimise environmental impact, installation costs, and significantly reduce ongoing running costs for residents.

Passive Solar Design

Apartments subjected to excessive solar gain and heat loss will be recessed behind balconies to minimise summer solar heat gain and shield apartments from harsh summer sun. Winter daylight will penetrate deep into the interior of by ways of balconies.

Rainwater Collection

Water retention tanks and Rainwater tanks are provided to retain and reuse the rainwater collected on site for irrigation of the communal gardens and other water uses in the building. A BASIX certificate has been submitted as part of this application and demonstrates that the development meets the government's criteria for energy efficiency.

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BASIX Targets

Through the strategies outlined above, the proposal will achieve at least the minimum NSW Benchmark Consumption for energy and water. Landscaping that includes low-maintenance and local indigenous plants will minimise water use and create a robust native landscape.

Good design recognises that together landscape and buildings operate as an integrated and sustainable system, resulting in greater aesthetic quality and amenity for both occupants and the adjoining public domain. Landscape design builds on the existing site's natural and cultural features in responsible and creative ways. It enhances the development's natural environmental performance by coordinating water and soil management, solar access, microclimate, tree canopy and habitat values. It contributes to the Troposed positive image and contextual fit of development through respect for streets cape and neighbourhood Building A Entrance character, or desired future character. Landscape design should optimise usability, privacy and social opportunity, equitable access and respect for neighbours' amenity, and provide for practical establishment and long term management. Ľ

Response

Trees to the perimeters of the outdoor space provide vertical interest, privacy, wind protection and shade whilst contributing a green connection to the street.

Precast concrete seating is located throughout the central courtyard areas providing areas for social connection as well as allowing for a more passive use of the space for quiet reflection.

For larger social gatherings, BBQ and seating facilities are located in a communal open area surrounded by gardens.

The gardens have been positioned to provide green vistas from the building as well as soften the built form of the apartment complex.

Use of a primarily native palette of plants which have been selected for their low water use and low maintenance properties provide robust and hardy planting.



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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.

Response

Due consideration has been given to solar access, cross ventilation, indoor and outdoor spaces, visual and acoustic privacy, efficient layouts, outlook and storage areas. Parking for residential, recycling and waste storage areas are provided on Ground floor.

Generally the proposed development is aligned on a north-south axis to provide the maximum amenity to a majority of the dwellings, with most units having northern, eastern or western aspect. The proposal maximises the daylight to each unit. The proportion of all units that achieve minimum 2 hours of sunlight into living room windows between 9am and 3pm during mid winter complies with constraints outlined in the ADG at 73%. In terms of natural cross ventilation, the development reaches a compliance at 61%. Balconies are designed to provide usable outdoor space while maintaining privacy between units as sufficient private open spaces ensure good solar penetration and ventilation to each unit.

The design proposal complies with SEPP 65 criteria and thus provides a high level of amenity to all apartments.





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Solar Access

The proposed development is designed to provide the maximum amenity to a majority of the dwellings, with most units possessing northerneastern aspects.

The design maximises the amount of natural daylight received by each unit. The proportion of all units that achieve a minimum 2 hours of sunlight into living room windows between 9 am and 3 pm during mid winter is 73%

2 Hours Solar Access (SEPP ADG)



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2.7 - PRINCIPLE 07 AMENITY - SOLAR ACCESS CALCULATIONS







Solar Access Calculations



Ground

Total ADG Req. **Proposed**

Total No Solar ADG Req. **Proposed**

Units receiving 2+ hrs solar

Units receiving no solar

2+hrs solar 4/10 10/17 16/17 7/7

2hrs Solar >70% 37/51 (73%)

<10% 3/51 (6%)

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2.7 - PRINCIPLE 07 AMENITY - SOLAR ACCESS EYE OF THE SUN











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2.7 - PRINCIPLE 07 AMENITY - VENTILATION

Apartment Design Guide (ADG)

Natural ventilation is the movement of sufficient volumes of fresh air through an apartment to create a comfortable indoor environment. Sustainable design practice incorporates natural ventilation by responding to the local climate and reduces the need for mechanical ventilation and air conditioning. To achieve adequate natural ventilation, apartment design must address the orientation of the building, the configuration of apartments and the external building envelope..

Response

The development consists generally of open plan units with relatively shallow apartment depths which facilitates good ventilation to all habitable rooms. A high number of cross through and corner apartments within the development also allow the proposed design to achieve a high percentage of well-ventilated units.

Outlined by the State Environmental Planning Policy No.65 - Apartment Design Guide, a minimum of 60% of total apartments within the 51 units require cross-ventilation.

The building's orientation take full advantage of prevailing breezes to maximize the movement of fresh air to create a comfortable indoor environment. Large openable windows and doors are to be effectively incorporated to reduce the need for mechanical ventilation and air conditioning.

Cross Ventilated Apartments (SEPP ADG)



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| Ground Floor | 1:250 | Level 1 | 1:250 |
|--------------|-------|---------|-------|
| | | | |



1:250

Cross Ventilation



Level Ground L1 L2 L3

Total ADG Req. **Proposed**

CrossVentilated units

Cross Ventilated Units With Skylight

CV 4/10 9/17 13/17 6/7

>60% **32/51 (62.7%)**

5 Units rely on sky light for Cross Ventilation





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Response

A minimum $6m^3$ of storage is required for 1 Bedroom Units. $8m^3$ for 2 Bedroom Units and $10m^3$ for 3 Bedroom Units.

A minimum of 50% of the storage required is provided in each unit through storage cupboards with the remainder 50% provided in storage cages located within the basement, easily accessible from the lift cores.



1 Bed Unit Type 1E

| ADG Required Storage : | 6m ³ |
|------------------------|------------------------|
| Unit Storage : | 6m ³ |



| Unit Type | Unit Type Quantity | Unit Number | Located Level | ADG Required (m3) | Proposed Internal Storage (m3) | Proposed External Storage (m3) | Total Storage (m3) | Building A Storage No. | Building B Storage No. |
|----------------------|-----------------------|----------------|------------------|-------------------------|---|---|--------------------------|------------------------------|------------------------------|
| 1C | 3 | 30,38,46 | 1,2,3 | 6 | 3 | 3 | 6 | | 3 |
| 1D | 3 | 29,37,45 | 1,2,3 | 6 | 5 | 3 | 8 | | 3 |
| 1E | 2 | 16,25 | 1,2 | 6 | 6 | | 6 | | |
| 1G | 2 | 15,24 | 1,2 | 6 | 3 | 3 | 6 | 2 | |
| 1N | 1 | 26 | G | 6 | 3 | 3 | 6 | | 1 |
| 1L | 1 | 28 | G | 6 | 4 | 2 | 6 | | 1 |
| 1J | 2 | 2,3 | G | 6 | 4 | 2 | 6 | 2 | |
| 1M | 1 | 27 | G | 6 | 3 | 3 | 6 | | 1 |
| 1P | 2 | 33,41 | 1,2 | 6 | 4 | 2 | 6 | | 2 |
| 10 | 2 | 34,42 | 1,2 | 6 | 3 | 3 | 6 | | 2 |
| 2A | 1 | 1 | G | 8 | 5 | 3 | 8 | 1 | |
| 2B | 1 | 5 | G | 8 | 13 | | 13 | | |
| 2U | 2 | 35,43 | 1,2 | 8 | 5 | 3 | 8 | | 2 |
| 2D | 2 | 12, 21 | 1,2 | 8 | 11 | | 11 | | |
| 2E | 2 | 36,44 | 1,2 | 8 | 9.25 | 0 | 9.25 | | |
| 2F | 3 | 31,39,47 | 1,2,3 | 8 | 5 | 3 | 8 | | 3 |
| 21 | 3 | 6,13,22 | G,1,2 | 8 | 8 | | 8 | | |
| 2J | 2 | 14,23 | 1,2 | 8 | 8 | | 8 | | |
| 2101 | 2 | 10,19 | 1,2 | õ | 9 | | 9 | | |
| 20 | 4 | 0,9,17,10 | 1.2 | 0 | 5 | 2 | 9 | | 2 |
| 20 | 3 | <i>4</i> 11 20 | G 1 2 | 8 | 11 | 5 | 0 11 | | 3 |
| 200 | 1 | 50 | 3 | 8 | 8 | | 8 | | |
| 2X | 1 | 51 | 3 | 8 | 10 | 0 | 10 | | |
| 25 | 1 | 7 | G | 8 | 5 | 7 | 12 | 1 | |
| 2V | 1 | 49 | 3 | 8 | 4 | 4 | 8 | | |
| Total Units | 51 | | | | | | | | |
| Total External Cages | 27 | | | | | | | 6 | 21 |

2 Bed Unit Type 20

| ADG Required Storage : | 8m ³ |
|------------------------|------------------------|
| Unit Storage : | 9m ³ |

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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.

Response

The design proposal provides clear and well defined lobby entries to each building and direct entries to central countyard off Pennsylvania Road. These lobby entries will have clear and unobstructed views from the street and will be secure, lockable and well-lit for the safety of the residents.

Along with the increased density in the area, a variety of landscaped areas are provided to increase the passive surveillance and safety to the development. Integrated activities in the landscape and large lobbies provide a vibrant area for fostering safety and interaction. Furthermore, all external spaces will have multiple clear sight lines without obstacles, low shrub planting will reduce the number of places to hide and all paths will be well-lit at night time and designed to meet relevant Australian Lighting Standards.

All areas including entries and communal open spaces are highly visible providing great passive surveillance. Corner balconies and windows provide a wider degree of casual surveillance along the street and open spaces across the site.



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Good design responds to the social context and needs of the local community in terms of lifestyles, affordability, and access to social facilities. New developments should optimise the provision of housing to suit the social mix and needs in the neighbourhood or, in the case of precincts undergoing transition, provide for the desired future community.

New developments should address housing affordability by optimising the provision of economic housing choices and providing a mix of housing types to cater for different budgets and housing needs.

Response

The proposed development has been designed with a high level of social contribution in mind, not only to its residents, but to the local community.

From Union and Hunter St. ground entrance, safe and activated pocket areas are provided for visitors and residents to meet and interact. Below, basement levels will have a residential garage that also serves as a space for residential and bicycle storage.

The communal coutyard on ground is a common asset shared amongst the development's community. These shared facilities and spaces will foster social interactions between residents and promote a real sense of community.

The proposal includes a variety of different housing typologies that will be offered in different sizes and layouts. The mix in housing typologies will cater for a range of households and help diversify the residents of the development.



| Site Area: | 2994 | | | | | | | | |
|--|-------|-----|---------|---------------------------------------|-----|-------|--------|--------|-------|
| Max GFA (FSR 0.9 + 0.5(ARH SEPP BONUS) | 4191 | | | | | | | | |
| Proposed: | 3,822 | | | | | | | | |
| FSR: | 1.277 | | | | | | | | |
| | | Bui | lding A | | | Build | ling B | | A + B |
| | 1B | 2B | 3B | Sub | 1B | 2B | 3B | Sub | |
| | | | | | | | | | |
| 2 | | | | | | | | | |
| Ground | 2 | F | 0 | 7 | 2 | 0 | 0 | 2 | 10 |
| Level 1 | 2 | 7 | 0 | , | 3 | 0 | 0 | | 10 |
| Level 1 | 2 | 7 | 0 | 9 | 4 | 4 | 0 | ° | 17 |
| Level 2 Level 3/Roof | 2 | , | 0 | , , , , , , , , , , , , , , , , , , , | 2 | 5 | 0 | 8 7 | 7 |
| | | | | | | | | | |
| Subtotal | 6 | 19 | 0 | 25 | 13 | 13 | 0 | 26 | 51 |
| Achieved Mix | 24% | 76% | 0% | 100% | 50% | 50% | 0% | 100% | |
| | | | | _ | | | | | |
| | 1B | 2B | 3B | | | | | | |
| Total Mix (Building A + B) | 19 | 32 | 0 | 51 | | | | | |
| Achieved Mix | 37% | 63% | 0% | 100% | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

| Car | 0.4space per 1B | No. 1B | 19 | 8 |
|-------|----------------------------------|----------|----------|----|
| | 0.5 space per 2B | No. 2B | 32 | 16 |
| | 1 Spaces per 3B dwelling | No. 3B | 0 | 0 |
| | Visitor | | | |
| | Adaptable | 10% | 6 | |
| Subto | tal | | | 24 |
| | | | | |
| Bike | 1 Space per 5 dwellings | No. Unit | 51 | 11 |
| | | | Proposed | 11 |
| | Visitor 1 Space per 10 dwellings | No. Unit | 51 | 5 |

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2.9 - PRINCIPLE 09 HOUSING DIVERSITY - APARTMENT MIX



| Ground Floor | 1:250 | Level 1 | 1:250 |
|--------------|-------|---------|-------|
| | | | |



Legend



Apartment Mix

1 BED : 2 BED: 1 Bedroom Unit 2 Bedroom Unit

19/51 (37%) 32/51 (62%)

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| Internal : | 50m ³ |
|------------|-------------------------|
| External : | 8 m ³ |



Typical 2 Bed

Internal: 70m³ External: 10m³

Universal design is an international design philosophy that enables people to continue living in the same home by ensuring that apartments are able to change with the needs of the occupants. Universally designed apartments are safer and easier to enter, move around and live in. They benefit all members of community, from young families to older people, their visitors, as well as those with permanent or temporary disabilities.

Response

The proposed development has been designed to provide adaptable units. As indicated, 6 units have been allocated as accessible units out of a total of 51 units in the development. The proposal also complies with DCP criteria in regards to livable housing standards.

The units are designed and constructed so that they may be readily re-configured to allow residence of people with a disability, in accordance with the requirements of AS4299-1995 for a Class A building.

Due consideration has been undertaken to ensure that adequate circulation spaces are made available to living areas, kitchens, bathrooms, bedrooms and door approaches post adaptation. Provision has also been made to allow for easy adaptation to bathrooms in adaptable units at minimal cost.



Pre-Adaptable





3,100

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_____<u>//</u>_____3,650

Post-Adaptable

Good design achieves a built form that has good proportions and a balanced composition of elements, reflecting the internal layout and structure. Good design uses a variety of materials, colours and textures. The visual appearance of well designed apartment development responds to the existing or future local context, particularly desirable elements and repetitions of the streetscape.

Response

The development proposes a collection of 2 buildings surrounded by landscaped gardens and communal open space in between. The proposal establishes a clearly identifiable, engaging and welcoming main entrance for residents located off Union Street, Hunter Street and a secondary entrance located off Pennsylvania Road.

Materials, Colours and Textures

The colour choices utilise dark colour blocks sit next to light colour one to create townhouse type of look, giving a sense of melody to the facade presentation. The façade is composed primarily of brick, which varies in tone throughout the buildings. This reinforces the articulation of the façade achieved through varied setbacks and both vertical & horizontal accentuation of elements. The brick element contributes to the texture and materiality of the façade and responds to the general character of the surrounding buildings.





External Finishes

EF-01 Dark Grey Brick
EF-03 Brown Brick
EF-04 White Brick
EF-07 Clear Glazing

EF-08 Black Powdercoat Finish Metal Screen / Balustrade / Awning







External Finishes

EF-01 Dark Grey Brick
EF-03 Brown Brick
EF-04 White Brick
EF-07 Clear Glazing
EF-08 Black Powdercoat

EF-08 Black Powdercoat Finish Metal Screen / Balustrade / Awning



| Table I. | | |
|--|---|---|
| Control | ADG Design Criteria | Compliance |
| 3D Communal | Minimum of 25% of the site area should be devoted to communal open space. | Site area: 2,994 m ² Required Communal open space: 748.5 m ² (25%) Proposed Communal open space: 774 m ² (25.8%) Compliance achieved |
| pen space | Developments achieve a minimum of 50% direct sunlight to the principal usable part of the communal open space for a minimum of 2 hours between 9 am and 3 pm on 21 June (mid-winter). | The majority of the communal space receives the required solar access between 9am and 3pm on June 21 st Compliance achieved |
| E eep Soil ones | Minimum of 7% of a site should be a deep soil zone with the following minimum dimensions: - greater than 1,500m ² - 6m | Site area: 2,994 m ² Required Deep soil: 210 m ² (7 %) Proposed deep soil zone: 677 m ² (22.6 %) Compliance achieved |
| s ual ivacy iiding paration | Up to four storeys/12 meters 6 meters to the boundary between habitable rooms/balconies 3 meters to the boundary between non-habitable rooms Five to eight storeys /up to 25 meters 9 meters to the boundary between habitable rooms/balconies 4.5 meters to the boundary between non-habitable rooms Nine storeys and above/ over 25 meters 12 meters between habitable rooms/balconies 6 meters between non-habitable rooms | The two buildings are separated by a minimum of 6 meters between habitable rooms' secondary window Where less than 12m ADG Habitable to Habitable building separation is required, privacy screens are also provided to ensure no direct overlooking occurs. Compliance is achieved with regards to ADG Design Guidance |
| l icycle and ar Parking | The maximum car parking rates are as follows: Residential O.4 Spaces per 1 Bed O.5 Spaces per 2Bed 1 Spaces per 3 Bed | The proposal complies with the provisions of the ARH SEPP in relation to parking, Parking rates do not exceed the maximum and minimum rates specified. Compliance achieved |
| A olar + aylight ccess | Living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of 2 hours direct sunlight between 9 am and 3 pm at mid-winter in the Sydney Metropolitan Area and in the Newcastle and Wollongong local government areas. In all other areas, living rooms and private 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. | Minimum number of apartments with 2hrs solar access required: 70% Proposed: 37 (73%) Compliance achieved |
| Table 1 | between 9 am and 3 pm at mid-winter. | Design Criteria' |
| | Summary of compnance with the key Apartment Design Guide | |
| ontrol | ADG Design Criteria | Compliance Compliance achieved |
| B atural | 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. | Cross Ventilated Apartments: 32/51 apartments (62.7%) Compliance achieved |
| entilation | Overall depth of a cross-over or cross-through apartment does not exceed 18m, measured glass line to glass line. | n/a |
| C eiling eights | Minimum ceiling heights are as follows: 2.7m for habitable rooms 2.4m for non-habitable rooms double storey apartments - 2.7m for main living area, 2.4m for second floor where its area does not exceed 50% of the apartment area | Proposed 2.7m habitable– Compliance achieved Proposed 2.4 m non habitable– Compliance achieved |
| | attic spaces – 1.8m at edge of room with a minimum 30degree slope in mixed use areas – 3.3m for ground and first floor | |
| D-1 partment ize + layout | attic spaces - 1.8m at edge of room with a minimum 30degree slope in mixed use areas - 3.3m for ground and first floor Minimum Apartment sizes: 50m² for one bedrooms; 70m² for two bedrooms; and 90m² for three bedrooms. Add an 5m² for additional bathrooms Add an 12m² for additional bedrooms | Compliance achieved |
| D-1 partment ze + layout | attic spaces - 1.8m at edge of room with a minimum 30degree slope in mixed use areas - 3.3m for ground and first floor Minimum Apartment sizes: 50m² for one bedrooms; 70m² for two bedrooms; and 90m² for three bedrooms. Add an 5m² for additional bathrooms Add an 12m² for additional bedrooms Every habitable room must have a window in an external wall with a total minimum glass area of no less than 10% of the floor area of the room. Day light and air may not be borrow from another room | Compliance achieved Compliance achieved |
| D-1 partment ize + layout D-2 partment ize + layout | attic spaces - 1.5m at edge of room with a minimum 30degree slope in mixed use areas - 3.3m for ground and first floor Minimum Apartment sizes: 50m² for one bedrooms; 70m² for two bedrooms; and 90m² for three bedrooms. Add an 5m² for additional bethrooms Add an 12m² for additional bethrooms Every habitable room must have a window in an external wall with a total minimum glass area of no less than 10% of the floor area of the room. Day light and air may not be borrow from another room Habitable room depths are limited to a maximum of 2.5 x the ceiling height. Open plan layouts (where living, dining and Kitchen are combined habitable room depth form the window is 8m | Compliance achieved Compliance achieved Compliance achieved |
| D-1 partment ze + layout D-2 partment ze + layout | attic spaces - 1.5m at edge of room with a minimum 30degree slope in mixed use areas - 3.3m for ground and first floor Minimum Apartment sizes: 50m² for one bedrooms; 70m² for two bedrooms; and 90m² for three bedrooms. Add an 5m² for additional bethrooms Add an 12m² for additional bethrooms Every habitable room must have a window in an external wall with a total minimum glass area of no less than 10% of the floor area of the room. Day light and air may not be borrow from another room Habitable room depths are limited to a maximum of 2.5 x the ceiling height. Open plan layouts (where living, dining and Kitchen are combined habitable room depth form the window is 8m Master bedrooms have a minimum area of 10m2 and other bedrooms 9m2 (excluding wardrobe space). | Compliance achieved Compliance achieved Compliance achieved Compliance achieved |
| D-1 partment ze + layout D-2 partment ze + layout | attic spaces – 1.8m at edge of room with a minimum 30degree slope in mixed use areas – 3.3m for ground and first floor Minimum Apartment sizes: 50m² for one bedrooms; 70m² for two bedrooms; and 90m² for three bedrooms. Add an 5m² for additional bathrooms Add an 12m² for additional bedrooms Every habitable room must have a window in an external wall with a total minimum glass area of no less than 10% of the floor area of the room. Day light and air may not be borrow from another room Habitable room depths are limited to a maximum of 2.5 x the ceiling height. Open plan layouts (where living, dining and Kitchen are combined habitable room depth form the window is 8m 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). | Compliance achieved Compliance achieved Compliance achieved Compliance achieved Compliance achieved Compliance achieved |
| D-1 partment ze + layout D-2 partment ze + layout | attic spaces - 1.8m at edge of room with a minimum 30degree slope in mixed use areas - 3.3m for ground and first floor Minimum Apartment sizes: 50m² for one bedrooms; 70m² for two bedrooms; and 90m² for three bedrooms. Add an 5m² for additional bathrooms Add an 12m² for additional bedrooms Every habitable room must have a window in an external wall with a total minimum glass area of no less than 10% of the floor area of the room. Day light and air may not be borrow from another room Habitable room depths are limited to a maximum of 2.5 x the ceiling height. Open plan layouts (where living, dining and Kitchen are combined habitable room depth form the window is 8m Master bedrooms have a minimum area of 10m2 and other bedrooms 9m2 (excluding wardrobe space). Living rooms or combined living/dining rooms have a minimum width of: 3.6m for studio and 1 bedroom apartments | Compliance achieved Compliance achieved |

| ıble 1. | Summary of compliance with the key Apartment Design Guide | Design Criteria' |
|-----------------------|---|---|
| ontrol | ADG Design Criteria | Compliance |
| | The width of cross-over or cross-through apartments are at least 4m internally to avoid deep narrow apartment layouts. | n/a |
| ivate open ace and | Apartments are to have the following balcony dimensions: ibr - 8sqm with min.2m depth 2br - 10sqm with min. 2m depth 3br - 12sqm with min. 2.4m depth | Compliance achieved |
| lconies | Ground level apartments should contain a minimum of $15\mathrm{m}^2$ of open space, with a minimum dimension in one direction of 3m. | Compliance achieved Ground level apartments contain a min |
| mmon culation | The maximum number of apartments off a circulation core on a single level is eight. no more than 12 apartments should be provided off a circulation core on a single level | Building A has 9 apartments per floor, |
| d spaces | For buildings of 10 storeys and over, the maximum number of apartments sharing a single lift is 40. | n/a |
| orage | Studio apartments require 4m² of storage area One bedroom dwellings require 6m³ of storage area Two bedroom dwellings require 8m³ of storage area. Three bedroom dwellings require 10m³ of storage area. | Where storage is not wholly provided storage cages. In the instance where st the apartment itself. The total combine Compliance achieved |

inimum of 15m² of private open space with minimum dimension of 3m

; but 2 sources of daylight are provided to improved amenities of corridors.

d within the unit itself, the remainder is provided in the ground floor and carpark via storage cages are required, at least 50% of the apartment's storage is provided within ned storage areas provided for each dwelling meets the minimum areas required.

12516

05th May 2021

Council of Submission:

City of Canterbury Bankstown Council

Upper Ground Floor, Bankstown Civic Tower 66 - 72 Rickard Road, Bankstown NSW 2200

Re:

17-21 Pennsylvania Road, Riverwood, 2210

SEPP 65 Design Statement

To Whom It May Concern,

Pursuant to Clause 50(1A) of the Environmental Planning and Assessment Regulation 2000, effective from July 26, 2003;

I hereby declare that I am a qualified designer, which means, a person registered as an architect in accordance with the Architects Act 1921, as defined by Clause 3 of the Environmental Planning and Assessment Regulation 2000.

I directed the design of the residential development stated above and I affirm that the design achieves the design quality principles as set out in Part 1 of the 'State Environmental Planning Policy No.65- Design Quality of Residential Apartment Development';

I have provided further detail on the design's compliance with all ten of the principles in the SEPP 65 Design Compliance Table accompanying this Development Application.

Yours Faithfully

lan Lim Senior Design Architect Registration No: 8473 (NSW)

SGCH

PROJECT NUMBER

