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University of Newcastle (UoN)

Proposed Student Accommodation and Car parking Callaghan Campus

22 August 2011	Prepared for UoN

SEPP 65 Assessment

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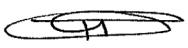
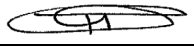
DOCUMENT CONTROL				
Rev No.	**Date**	**Revision Details**	**Prepared (initial)**	**Verified (signature**
01	01.08.11	Draft DA	RG	
02	15.08.11	Final Client Review Issue	RG	
03	22.08.11	Development Application Issue	RG	
04	31.08.11	Development Application Issue	RG	

Contents

Tables

1 Introduction

Architectus has been commissioned by University of Newcastle (UoN) to provide architectural services for the schematic design, design development, documentation and services during construction, of new student housing to accommodate 750 beds and associated facilities, on the Callaghan Campus.

The SEPP 65 Assessment is based on the architectural drawings listed at **Table 1**, and the associated documentation submitted as part of this Development Application.

Table 1 Drawing list

Drawing Number	Drawing Title	Prepared by	Issue	Date
DA0000	Cover Sheet & Drawing List –Accommodation and Car parking	Architectus	-	31.08.11
DA000-1	Cover Sheet & drawing List- Demolition & Early Works	Architectus	-	31.08.11
DA0001	Site Plan - Existing Survey (Car Park Site)	Architectus	D	31.08.11
DA0002	Site Plan – Existing Survey (Accommodation)	Architectus	B	31.08.11
DA0003	Site Plan - Site Analysis (Car Park Site)	Architectus	E	31.08.11
DA0005	Site Plan - Site Analysis (Accommodation)	Architectus	D	31.08.11
DA0010	Site Plan - Demolition (Car Park Site)	Architectus	G	31.08.11
DA0011	Site Plan - Demolition (Accommodation)	Architectus	E	31.08.11
DA0015	Key Plan	Architectus	E	31.08.11
DA0020	Site Plan - Ground Floor (Car Park Site)	Architectus	G	31.08.11
DA0022	Site Plan - Ground Floor	Architectus	J	31.08.11
DA0023	Site Plan - Proposed First Floor (Accommodation)	Architectus	D	31.08.11
DA0024	Site Plan - Proposed Typical Floor (Accommodation)	Architectus	D	31.08.11
DA0025	Site Plan - Proposed Roof Plan (Accommodation)"	Architectus	C	31.08.11
DA0030	Site Plan - Shadow Analysis (Car Park Site)"	Architectus	E	31.08.11
DA0031	Site Plan - Shadow Analysis (Accommodation)"	Architectus	C	31.08.11
DA0032	Site Plan - Shadow Analysis (Accommodation)"	Architectus	C	31.08.11
DA1000	Car Park Level 1&2 and Level 3&4"	Architectus	H	31.08.11
DA1001	Car Park Level 5&6 and Level 7&8"	Architectus	H	31.08.11
DA1002	Car Park Level 9&10 and Roof Plan"	Architectus	H	31.08.11
DA1020	Accommodation - Ground Floor Plans - A, B, C & D"	Architectus	D	31.08.11
DA1030	Accommodation - Typical Floor Plans - T1, T2, T3 & T4"	Architectus	D	31.08.11
DA1040	Accommodation - Roof Plans - A, B, C & D"	Architectus	D	31.08.11
DA1050	Floor Plan - Unit Types - Sheet 1"	Architectus	C	31.08.11
DA1051	Floor Plan - Unit Types - Sheet 2"	Architectus	C	31.08.11
DA2000	Car Park Elevations"	Architectus	F	31.08.11
DA2010	Overall College Elevations - Sheet 01"	Architectus	D	31.08.11
DA2011	Overall College Elevations - Sheet 02	Architectus	D	31.08.11
DA3000	Car Park Sections"	Architectus	E	31.08.11
DA3010	Sections - Accommodation	Architectus	H	31.08.11
DA4000	Detailed Elevation and Section – Car Park Site	Architectus	D	31.08.11
DA4010	Detailed Elevations - Accommodation Type A"	Architectus	C	31.08.11
DA4011	Detailed Elevations - Accommodation Type B1"	Architectus	C	31.08.11
DA4012	Detailed Elevations - Accommodation Type B2"	Architectus	C	31.08.11
DA4013	Detailed Elevations - Accommodation Type B3	Architectus	C	31.08.11
DA4015	Detailed Sections – Accommodation Type C	Architectus	C	31.08.11
DA5000	Perspective Views (Car Park Site)	Architectus	E	31.08.11
DA5010	Perspective Views (Accommodation)	Architectus	C	31.08.11

Drawing Number	Drawing Title	Prepared by	Issue	Date
DA6000	Area Plans and Schedule (Car Park Site)	Architectus	F	31.08.11
DA6001	Area Plans and Schedule - Building A (Accommodation)	Architectus	B	31.08.11
DA6002	Area Plans and Schedule - Building B (Accommodation)	Architectus	B	31.08.11
DA6003	Area Plans and Schedule - Building C (Accommodation)	Architectus	B	31.08.11
DA6004	Area Plans and Schedule - Building D (Accommodation)	Architectus	B	31.08.11
DA6005	Apartment Schedule	Architectus	B	31.08.11
Landscape Plans				
DA 01	Landscape Concept Plan	Sue Barnsley Design		
DA 02	Landscape Concept Plan - Buildings A & B	Sue Barnsley Design		
DA 03	Landscape Concept Plan - College A	Sue Barnsley Design		
DA 04	Landscape Concept Plan – Building C	Sue Barnsley Design		
DA 05	Landscape Concept Plan – College D	Sue Barnsley Design		
DA 06	Landscape Concept Plan - Carpark	Sue Barnsley Design		
DA 07	Section	Sue Barnsley Design		

1.1 Authorship

This SEPP 65 Assessment has been prepared by Rosemarie Gidaro (Associate Director) and is a registered architect in New South Wales. Registration Number 6831.

1.2 Description of proposed development

The proposal is for the provision of student housing situated within the University of Newcastle (UoN) Callaghan Campus and comprises the following:

- 750 beds of new student accommodation and associated services, amenities, administration and conveniences;
- a multi-deck car park for up to 400 vehicles;
- all associated utility infrastructure and services to support the above;
- the urban design/place management of all external facilities, hard and soft landscaping and associated amenities to ensure the needs and aspirations of the new and existing student communities are met;
- ancillary site infrastructure upgrade works; and
- common facilities including meeting rooms, E-learning and lounge areas.
- a space for the UoN's Security Operating Centre.

The new facilities will target a 5 Star Green Star rating in accordance with the Green Building Council of Australia (GBCA), measured against the Green Star – Multi Unit Residential v1 Tool.

2 SEPP 65 Assessment

This Section provides an assessment of the proposed development against the design principles of State Environmental Planning Policy No 65 – Design Quality of Residential Flat Buildings (SEPP 65).

2.1 SEPP 65 Design Quality of Residential Flat Development

This policy applies to the proposed development as it is defined under the SEPP as a 'residential flat building', in that it meets the criteria of being 'three or more storeys, and consisting of four or more self-contained dwellings'. The table provided below gives a summary of the proposal's consistency with the design quality principles of SEPP 65.

Table 2 SEPP 65 compliance

SEPP 65 Design Principle	Consistency	Comments
Principle 1: Context Good design responds & contributes to its context. Context can be defined as the key natural & built features of an area. Responding to context involves identifying the desirable elements of a location's current character or, in the case of precincts undergoing a transition, the desired future character as stated in planning and design policies. New buildings will thereby contribute to the quality & identity of the area.	Yes	This proposal promotes the bushland character of the campus and provides a considered balance between the busy spaces for gathering and community connectivity, transition spaces and quiet, contemplative spaces more closely related to a residential precinct. Major trees have been preserved whilst courtyard and special character areas have been developed and fully integrated with the planning concept. The existing and potential site patterns for circulation, landscape and environment are assimilated into the project and mesh with the whole of the campus. The design addresses the issues of permeability, social space, passive surveillance, quiet space, character and activity, in and around the buildings.
Principle 2: Scale Good design provides an appropriate scale in terms of the bulk & height that suits the scale of the street & surrounding buildings. Establishing an appropriate scale requires a considered response to the scale of existing development. In precincts undergoing a transition, proposed bulk & height needs to achieve the scale identified for the desired future character of the area.	Yes	The proposed bulk and scale responds to the desired future character of the residential precinct within the university campus. The perceived height and scale has been minimized by ensuring that the 4 buildings are 'read' in composition with the tall existing trees on site. The 'Y' shaped plan form of the 4 buildings further emphasise this integration by allowing established vegetation to remain and be 'embraced' by the buildings 'wings'
Principle 3: Built form Good design achieves an appropriate built form for a site & the building's purpose, in terms of building alignments, proportions, building type & the manipulation of building elements. Appropriate built form defines the public domain, contributes to the character of streetscapes & parks, including their views & vistas, & provides internal amenity & outlook.	Yes	The proposed new buildings are designed in a clear, uncluttered, contemporary manner as a series of 4 independent multi storey buildings (8 storeys) linked by activated ground floor planes and direct pedestrian pathways that increase the physical and visual connection from the inside to the landscape. Each building has been orientated to respond to the site context- the ring road, the sports oval and the riparian zone, to optimise aspect and minimise overlooking. Strategies that bring about a discernible difference include balconies, courtyards and purpose designed circulation zones around and through the development to encourage a high level of orientation and collegiate fraternity.

SEPP 65 Design Principle	Consistency	Comments
		Courtyard spaces are used to create spatial comfort, and opportunities for community, privacy and refuge as required.
Principle 4: Density Good design has a density appropriate for the site & its context, in terms of floor space yields (or number of units or residents). Appropriate densities are sustainable & consistent with the existing density in an area or, in precincts undergoing a transition, are consistent with the stated desired future density. Sustainable densities respond to the regional context, availability of infrastructure, public transport, community facilities & environmental quality.	Yes	A multi storey building approach has been taken to optimise the utilisation of the site and preserve its landscape character by reducing building footprints and maximising available open space. It is anticipated that the proposed density on the site will provide the desired activation suitable for the formation of a lively student hub. In addition, the increased density will, by default allow for the formation of defensible spaces between the built form and along the through site link, further securing the site, particularly at night.
Principle 5: Resource, energy & water efficiency Good design makes efficient use of natural resources, energy & water throughout its life cycle, including construction. Sustainability is integral to the design process. Aspects include demolition of existing structures, recycling of materials, selection of appropriate & sustainable materials, adaptability & reuse of buildings, layouts, & built form, passive solar design principals, efficient appliances & mechanical services, soil zones for vegetation and reuse of water.	Yes	This development offers an opportunity to provide a benchmark building that demonstrates industry best practice with minimum impact on the environment and a low ecological footprint per student housed. The following key principles and technologies are employed in the proposed development; • The floor plate layouts has allowed cross ventilation to be provided for the majority of the dwellings, • Creation of breezeways linking opposing facades thus allowing cross ventilation, • Cross ventilation to all living and dining rooms via openable windows and balcony doors, • Winter sun access to all living areas, • Primary Cross ventilation to bedrooms via operable windows and doors and secondary operable plenum duct vents which can operate when doors are closed for visual or acoustic privacy, • Plenum ducts used for vented cross ventilation even with bedroom doors and windows being closed for privacy, • Structure – flexible column free construction allows for future adaptation and uses for the buildings, • Majority of bathrooms located at external walls enabling natural ventilation and daylighting, • Bike Storage, • Sunshading and weather protection to openings specific to orientation, • Grey water storage and reuse for centralised laundry, • Retained and new trees provide shade to courtyards and buildings, • Highly insulated roofs, • Hot water provided by solar hot water systems that use renewable solar energy to offset greenhouse gas emissions, • Options for active heating and cooling using less CO2 intensive methods that are more cost effective for the person paying the utility bill; and • Options for efficient centralised production of hot and chilled water via cogeneration plant. This offsets electricity use in both commercial (daytime) and residential (evening/weekend) spaces.
Principle 6: Landscape Good design recognises that together landscape and building 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 by co-ordinating water and soil management, solar access, micro-climate, tree canopy and habitat values. It contributes to the positive image and contextual fit of development through respect for	Yes	This proposal promotes the bushland character of the campus and provides a considered balance between the busy, civic spaces for gathering and community connectivity, transition spaces and quiet, contemplative spaces more closely related to the residential precinct. Major trees and vegetation areas have been preserved whilst courtyard and special character areas have been

SEPP 65 Design Principle	Consistency	Comments
streetscape and neighbourhood character, or desired future character. Landscape design should optimise useability, privacy and social opportunity, equitable access and respect for neighbours' amenity, and provide practical establishment and long term management.		developed and fully integrated with the planning concept. Active and passive recreation areas will be incorporated into the landscape design including: • Outdoor shaded seating areas for small groups • A larger common green for group gatherings • BBQ area associated with indoor common areas • Grassed amphitheatre areas for performances Selected plants will be robust and reasonably drought tolerant. Groupings of plants shall have similar water requirements and a water efficient drip irrigation system with moisture sensors shall be installed.
Principle 7: Amenity Good design provides amenity through the physical, spatial and environmental quality of a development. Optimising amenity requires appropriate room dimensions and shapes, access to sunlight, natural ventilation, visual and acoustic privacy, storage, indoor and outdoor space, efficient layouts and service areas, outlook and ease of access for all age groups and degrees of mobility.	Yes	The proposed development provides high levels of amenity through careful site planning and internal layouts. Access to light, ventilation, winter sun, views and private open space inform all of the planning arrangements of the apartments. The internal layouts of the apartments optimise privacy to the bedroom and bathroom areas and provide flexibility to the living dining and kitchen areas. Larger apartments (5 and 6 bedrooms) have larger circulation spaces to allow comfortable occupation for a group of adults. All living/dining/kitchen spaces have cross ventilation and good sun access and control. All bedrooms have ventilation systems that can operate whilst bedroom doors are closed. Bathrooms have been located to achieve natural light and ventilation. Balconies are provided to the living/dining areas. Laundry facilities are provided on site and are located within social spaces to encourage student interaction. A high level of equity exists across the development in that all apartments have quality spaces.
Principle 8: Safety and security Good design optimises safety and security, both internal to the development and for the public domain. This is achieved by maximising overlooking of public and communal spaces while maintaining internal privacy, avoiding dark and non-visible areas, maximising activity on streets, providing clear, safe access points, providing quality public spaces that cater for desired recreational uses, providing lighting appropriate to the location and desired activities, and a clear definition between public and private spaces.	Yes	Careful consideration has been given to the elements within the project that influence safety and security of its residents, passersby and visitors. Clear identity of building entries, activation of the ground plane by common facilities and administration areas, external communal zones are well lit and appropriate site lighting is provided along pathways, roads and the main pedestrian accessway that connects the built forms in and around the student accommodation providing safe and secure access to and from buildings. Active and passive design elements have been incorporated which will contribute the safety of users as follow: • open wide spaces with strong visual connectiveness, • security screens on lower level opening windows and glazed doors, • avoidance of climbing access to upper level balconies • well lit areas around apartment entrance ways; and • CCTV coverage .
Principle 9: Social dimensions and housing affordability 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 provisions 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.	Yes	The development includes a range of apartment sizes and types including; • Studio Apartments • Studio Accessible Apartments • 2 Bed Apartments • 2 Bed Accessible Apartments • 5 Bed Accessible Apartments • 6 Bed Apartments 24 accessible apartments have been provided in Studio,2 bed and 5 bed bedroom configurations and are equitably

SEPP 65 Design Principle	Consistency	Comments
		distributed throughout the site.
Principle 10: Aesthetics Quality aesthetics require the appropriate composition of building elements, textures, materials and colours and reflect the use, internal design and structure of the development. Aesthetics should respond to the environment and context, particularly to the desirable elements of the existing streetscape, or, in precincts undergoing transition, contribute to the desire future character of the area.	Yes	A high quality of architectural character is proposed. Durable materials and enduring details with variation in scale and proportion appropriate to the site will provide a distinct architectural character and reflect the nature ofa bushland development. The palette of materials, colours and finishes is selected to be simple and refined, however durable and robust. The following materials have been used; • Off form concrete and timber boarding off form concrete panels, • Glazing and external louvre screens are clear anodised aluminium, • Internal "teflon" insect screens to operable windows, • Timber battened external screens to building entries, external grade, • Lightweight steel framed awnings at ground level, • Glazing systems to doors and windows are commercial grade with anodised framing, • Alternate coloured glazing to foyer entry spaces, • Horizontal aluminium framed sunhoods; and • Landscape elements are off form concrete, timber and reconstituted paving

3 NSW Residential Flat Design Code 2002

The NSW Residential Flat Design Code 2002 published by the Department of Planning NSW is part of the package of measures under SEPP 65 which the State Government is using to improve the design quality of residential flat development in NSW.

It is noted that the NSW RFDC 2002 provides design principles and 'rules of thumb' standards; so, a degree of judgement is needed to interpret the NSW RFDC 2002 them as they apply to a wide range of multi-unit development throughout NSW regardless of local area character.

Table 3 Residential Flat Design Code 2002 Compliance

Element	Compliance	Comment
1. Building Use	Yes	The proposed use of the site as multi unit campus residential accommodation related to the predominant educational use and is permissible in the zone.
2. Building Height	Yes	The proposed bulk and scale responds to the desired future character of the residential precinct within the university campus. The perceived height and scale has been minimized by ensuring that the 4 buildings are 'read' in composition with the tall existing trees on site.
3. Circulation	Yes	The existing cross campus share way for foot and bike traffic will be upgraded to provide good circulation and connectivity between the site and the remainder of the campus. The revitalisation of the existing pathways to the site allow for improved legibility and permeability.
4. Open Space, Landform and Views	Yes	This proposal promotes the bushland character of the campus and provides a considered balance between the busy, civic spaces for gathering and community connectivity, transition spaces and quiet, contemplative spaces more closely related to the residential precinct. Major trees and vegetation areas have been preserved whilst courtyard and special character areas have been developed and fully integrated with the planning concept.

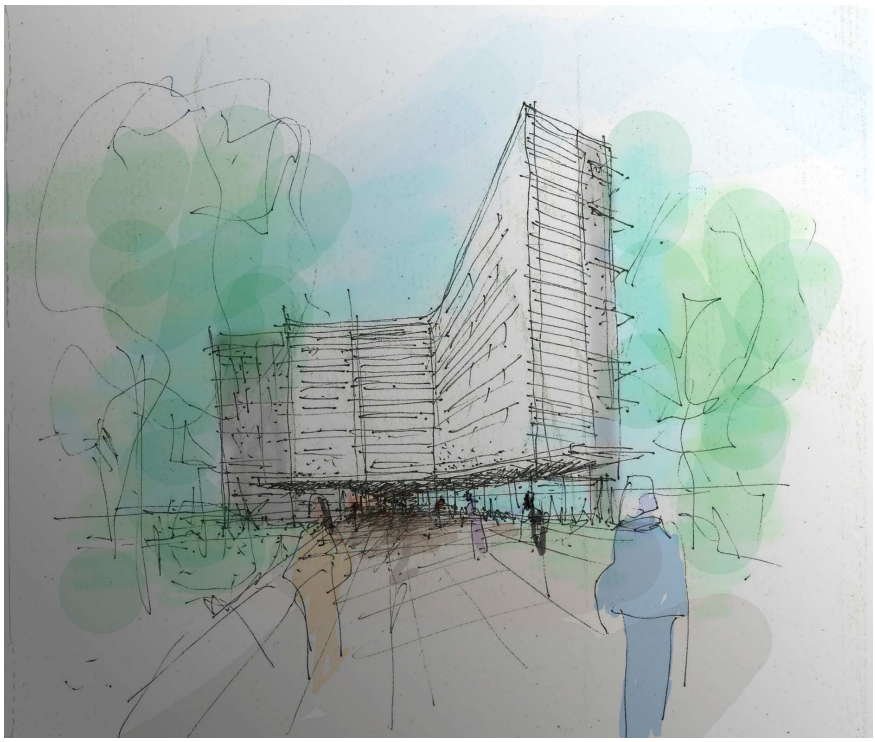
Element	Compliance	Comment
		Active and passive recreation areas will be incorporated into the landscape design including: • Outdoor shaded seating areas for small groups • A larger common green for group gatherings • BBQ area associated with indoor common areas • Grassed amphitheatre areas for performances Selected plants will be robust and reasonably drought tolerant. Groupings of plants shall have similar water requirements and a water efficient drip irrigation system with moisture sensors shall be installed.
5. Building Edges	Yes	The three-pronged building form, set amongst trees of similar height, creates a dynamic and less monolith visual experience than a traditional rectangular form would offer. The siting and orientation of the development provides a highly articulated mix of built form and courtyards. The building incorporates an articulated design response to avoid blank facing walls to all elevations.
6. Landscape Response	Yes	The proposal promotes the continuation of the landscape tradition of the campus. The landscape strategy is two fold. One to protect and restore the remnant spotted gum and iron bark vegetation community which unifies the site, the other to make clear but discrete interventions within the site which facilitate campus life.
7. Access & Parking	Yes	A new open deck car parking is proposed containing 417 car spaces, inclusive of accessible spaces. There is also provision of an additional 17 on grade parking spaces including accessible spaces located adjacent to buildings A, B, C and D.
8. Building Performance	Yes	The narrow building footprints facilitate efficient natural ventilation and sunlight access. The proposal also includes bedrooms and living spaces overlooking courtyards to maximise residential amenity and allow casual surveillance of the courtyard spaces.
Site Configuration		
9. Deep Soil Zone	Yes	All open space areas contained within the courtyards will contain deep soil planting. Refer to Landscape Plans.
10. Fences & Walls	N/A	Not applicable to this development proposal.
11. Landscape Design	Yes	The landscape design of the proposal has incorporated the objectives and provisions of the Draft Newcastle Development Control Plan. Refer to landscape plans.
12. Open Space	Yes	Common open space is provided as courtyards between the proposed buildings. The main outdoor gathering space is framed by Buildings A, B & C and is connected to the main entry. It consists of a large lawn as well as a number of paved barbeque areas with seating which front the space and also connected it to each building. This main outdoor space has a predominantly northern orientation and is located to maximise views out over the adjacent sports field.
13. Orientation	Yes	Generally living areas, bedrooms and outdoor spaces are orientated to optimise solar access. The rule of thumb standard to optimise northerly aspect for good solar access needs to be balanced with other urban design objectives of orientating the fronts of buildings with entries to the main pedestrian spine and courtyards for good casual surveillance. The proposed development effectively balances these urban design and residential objectives. The orientation of the buildings also allows for the continuation of the grid of pathways throughout the campus.
14. Planting on Structures	N/A	There will be no planting areas located on top of concrete slabs.
15. Stormwater Management	Yes	Addressed in Hydraulic Report prepared by GHD.
16. Safety	Yes	The new courtyards created by the buildings will provide casual surveillance of public areas. The layout of pathways and open space on the proposal site avoids the creation of entrapment spaces in common areas between buildings, with alternative means of access provided. Adequate levels of lighting is ensured for safety and security.

Element	Compliance	Comment
17. Visual Privacy	Yes	Setbacks and building separation provide a good degree of visual privacy which is consistent with the RFDC Rules of Thumb in regards to building separation.
18. Building Entry	Yes	Building entries are clearly defined as are pedestrian pathways throughout the site. Each residential block has separate entries from ground level.
19. Parking	Yes	A new open deck car parking is proposed containing 417 car spaces, inclusive of accessible spaces. There is also provision of an additional 17 on grade parking spaces including accessible spaces located adjacent to buildings A, B, C and D.
20. Pedestrian Access	Yes	High quality pedestrian access ways have been created throughout the site and link effectively with the existing pedestrian access ways throughout the campus. All pedestrian access ways provided allow for visual permeability.
21. Vehicular Access	Yes	Vehicular and pedestrian access throughout the site is clearly separated. Vehicular access does not dominate the site with the number of vehicular access points being limited to 2. Refer to Traffic Report.
Part 2 Building Design		
22. Dwelling Layout	Yes	Internal layout of the residential accommodation types is shown on each respective floor plan. Generally the sizes of each unit are generous. Each dwelling is laid out to ensure maximum consideration is given to the amenity of residents.
23. Dwelling Mix	Yes	The development includes a range of apartment sizes and types including; • Studio Apartments • Studio Accessible Apartments • 2 Bed Apartments • 2 Bed Accessible Apartments • 5 Bed Accessible Apartments • 6 Bed Apartments 24 accessible apartments have been provided in Studio,2 bed and 5 bed bedroom configurations and are equitably. There is a total of 750 beds. Refer to DA6005 for apartment schedule.
24. Balconies	Yes	Balconies are provided to each5 and 6 bed residential apartment, and communal balconies are provided on each level.
25. Ceiling Heights	Yes	A minimum of 2.7m floor to ceiling height is recommended in the NSW RFDC 2002. This minimum height can easily be accommodated within the 3.1 metre floor to floor height for each level within the development. The proposal will achieve at least the minimum recommended ceiling height.
26. Flexibility	Yes	The structure's flexible column free construction allows for future adaptation and uses for the buildings.
27. Ground Floor Dwellings	N/A	Not applicable as ground floor incorporates communal common areas, administration areas, service and ancillary areas and multipurpose rooms.
28. Internal Circulation	Yes	Each building and residential unit is directly accessible from the system of pathways provided and via stairs and lifts.
29. Storage	Yes	There is adequate space across the proposal site for storage.
30. Acoustic Privacy	Yes	Acoustic privacy between units is in accordance with BCA requirements. Refer to Noise Assessment.
31. Daylight Access	Yes	The proposal achieves good daylight access due to the orientation of the buildings.

Element	Compliance	Comment
		Refer to ESD report.
32. Natural Ventilation	Yes	Majority of units are designed to be naturally cross-ventilated, being dual aspect.
33. Awnings & Signage	Yes	Awnings and colonnades are incorporated within the design and are associated with site linking elements.
34. Facades	Yes	Refer to the elevation drawings and finishes board. The facades are finely articulated with a satisfactory ratio of solid to void areas and incorporate useful fenestration.
35. Roof Design	Yes	The proposal incorporates flat roofs.
36. Energy Efficiency	Yes	Energy efficiency, through the achievement of Section J targets has been assessed. Refer to Section J Report.
37. Maintenance	Yes	Maintenance has been addressed. Refer to schedule of materials.
38. Waste Management	Yes	Refer to Waste Management Report.
39. Water Conservation	Yes	Water conservation has been demonstrated. Refer to ESD report .

4 Urban Design Principles

A sense of place is created through the integration of four sensitively designed, and located, buildings set amongst the existing significant trees and bushland. Shared community uses including the communal kitchen and games room are connected to a central lawn and outdoor gathering space activated by barbeques and courtyards. Direct paths link the buildings, their communal uses and the main outdoor spaces together creating a dynamic united and active ground plane. Amenity is created through the landscaping, both existing and new, views over the playing fields, a northern aspect and a network of well used and visible paths along all the main desire lines. All the apartments look out into the tree canopy and down to the shared outdoor spaces below, thus providing passive surveillance to the public domain. The design optimises the sites assets including its trees, outlook over the playing fields and riparian zone, and the slope which adds to the dynamism of the spaces created.



Sketch view of main entry from Ring Road

4.1 Building A entry court yard

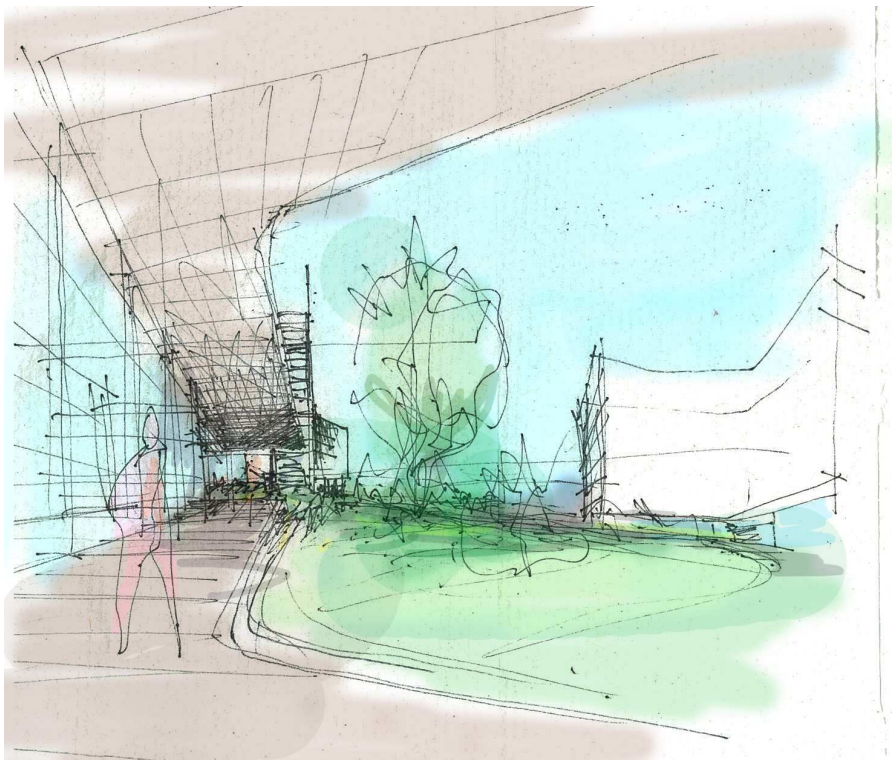
A fundamental principle behind the master plan for the site is to maintain the bushland experience for the residents. The site is a very attractive environment offering a unique residential experience. The buildings have been designed to enable their careful positioning among the existing significant trees in order to maximise tree retention as well as maximising amenity for the residents. All the apartments have views out to the trees and beyond. The communal spaces, both in the buildings and outdoors, are set amongst the trees to provide the most attractive setting for these gathering spaces.

The buildings function on two levels, firstly as a unified precinct with one main entry and direct paths from that entry to each building. This will offer legibility and easy way-finding for new arrivals and visitors. Secondly the buildings function on a day to day and more intimate level with direct connections between the buildings themselves and the communal spaces, as well as with the surrounding university including the main campus, existing accommodation and the car park.

A key feature of the unified precinct is the provision of one main entry point which is located in Building A. This is visible and accessible from the Ring Road and is the closest building to the main campus area which makes it the natural point of arrival. A large landscaped entry courtyard between the road and the entry door enhance its visual prominence. Once through

the main entry foyer, there is a clear and direct path to each of the other buildings.

The public realm is structured by the building volumes which create a series of diverse and interesting outdoor spaces between them. When moving through the site, the three-pronged building form, set amongst trees of a similar height, creates a dynamic and less monolith visual experience than a traditional rectangular form would offer. In addition all the buildings have open air ground floor through connections which allow glimpses of the bushland and natural light beyond as well as adding to the dynamic pedestrian experience. Overall, the built form is an articulated and interesting solution to accommodating a large number of apartments in a bushland setting which is based on a human scale and on maximising the amenity for its residents and visitors.



Internal courtyard view from Building A

4.2 Central courtyard

A complex hierarchy of social interaction opportunities has been built into the location and use of communal spaces. The larger communal uses have been deliberately located on the ground floors of different buildings in order to facilitate movement and social interaction between residents. In addition, each of the buildings has smaller ground floor shared spaces which would be used primarily by the building's residents. At the micro level, each floor has its own common areas.

The main outdoor gathering space is framed by Buildings A, B & C and is connected to the main entry. It consists of a large lawn as well as a number of paved barbeque areas with seating which front the space and also connected it to each building. This main outdoor space has a predominantly northern orientation and is located to maximise views out over the adjacent sports field. A community garden for the residents is also provided. The communal kitchen and the games room are located in the buildings closest to this central outdoor space to promote social opportunities within this attractive bushland setting and to maximise amenity and usability within those spaces.

5 Conclusion

The project has been designed to provide a development that is respectful of local planning and design controls and that responds to the best practise design principles of SEPP No.65.