MACQUARIE PARK VILLAGE

75W STAGE 1 PROJECT PLAN REPORT

STAMFORD
PROPERTY SERVICES PTY LIMITED

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OCULUS

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INTRODUCTION

75W Stage 1 Project Plan Report

This 75W Project Plan Report seeks to:

- amend the apartment mix and plan forms as represented in the Project Plan (approval dated 26 September 2012) in response to changed market conditions,
- reconcile the Project Plan approval to be consistent with the revised Concept Approval dated 03 June 2013, and
- respond to the conditions of the Concept Approval.

The structure of this report begins with the design intent for the 75W Project Plan. This is followed by a summary of the changes from the concept plan approval. Key changes are addressed and supported by:

- updated photomontages
- updated landscape concept design
- the revised SEPP 65 and Residential Flat Design Code assessment.

Diagrams that demonstrate compliance with the Residential Flat Design Code's 'rules of thumb' are in the Appendix.

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A. 75W STAGE 1 PROJECT PLAN

Design Statement

Figure A1.1: Illustrative 75W project plan

The design intent is to create a new and vibrant community. The forerunner of a new era of housing and workplace development to the area that offers an alternative lifestyle choice and mix of building typologies grounded in a new contemporary landscape.

This will be achieved by:

- Integrating the site and the new community into its context;
- Creating a new active street edge with good solar access and visibility;
- Achieving strong connectivity with local
- transport;
- Allowing pedestrian permeability through the site at accessible grades;
- Maintaining and improving upon the existing landscape character along Epping Road;
- Providing housing appropriate to the market
- and context;
- Providing well designed environmentally suitable housing;
- Supporting the housing with good urban design and high quality landscaped open spaces;
- Providing high quality communal facilities; and
- Enhancing the safety and security of the area.

Macquarie Village with its landmark building at the intersection of Epping and Herring Road will be a defining element of the Macquarie Park Corridor.

A1 75W STAGE 1 PROJECT PLAN

Development Summary

Figure A.1.2: View from the west

Proposed Development Summary for Stage 1

Site Location: 110-114 Herring Road, Macquarie Park

Total site area - Stage 1+ Stage 2: 22,434 m^2

Stage 1 - GFA: 26,160 m^2

Stage 1 - Apartment mix:

- 1 bedroom apartments - 165 apartments (49%)
- 2 bedroom apartments - 175 apartments (51%)
- Adaptable apartments - 34 apartments (10% of total number of apartments)
- Total number of apartments - 340 apartments.

Stage 1 - Apartment sizes:

- 1 bedroom apartments: 50 m^2 - 60 m^2
- 2 bedroom apartments: 60 m^2 - 90 m^2
- Adaptable apartments: 55 m^2 - 90 m^2

Stage 1 - Non-residential uses:

- 21 of the residential apartments at ground level are Small Office Home Office (SoHo's)

Stage 1 - Car parking:

- 267 residential car spaces provided in basement parking (34 car spaces are accessible)
- 7 on-street car spaces
- 20 motorbike/moped spaces in basement
- 68 visitor car spaces provided in basement

Figure A.1.3: View from Epping Road

Macquarie Park Village 75W Project Plan Summary of Changes

Figure A.1.4: View from the north

Figure A.1.5: Internal view

Figure A.1.6: View of the pool

Macquarie Park Village 75W Project Plan

The Macquarie Park Village 75W Stage 1 Project Plan is:

- Designed for its future context and will contribute to the quality and identity of the area.
- Consistent with SEPP65 and Residential Flat Code's 'rules of thumb'.
- Responsive to the privacy of adjoining residential dwellings in its building separation from existing neighbouring buildings. Additionally it has no overshadowing impacts to neighbouring Willandra Village or 116-118 Herring Road.
- Contributing to the Metropolitan strategy's housing targets for the City of Ryde LGA.
- Consistent with the Concept Approval, 3 June 2013.

Summary of Changes

The overall building height and bulk of the proposed development in the Macquarie Park Village 75W Stage 1 Concept Plan June 2013 is consistent with the Concept Plan Approval dated 3 June 2013.

Key changes between the Concept Approval dated 3 June 2013 and this Macquarie Park Village 75W Stage 1 Project Plan June 2013 are shown in the table below:

	Concept Plan Approval	75W Stage 1 Project Plan	Change
Type + Mix 1 bed 2 bed 3 bed Adaptable **Total**	 148 aparts. 150 aparts. 11 aparts. 33 aparts. **309 aparts.**	 165 aparts. 175 aparts. N/A 34 aparts. **340 aparts.**	 + 17 aparts. + 25 aparts. - 11 aparts. + 1 apart. **31 aparts.**
Size 1 bed 2 bed 3 bed	 50-68 m^2 78-100 m^2 107-138 m^2	 50-60 m^2 60-90 m^2 N/A	
Entries	6 entries	5 entries	- 1 entries
Lifts	8 lifts	10 lifts	+ 2 lifts

B. KEY ISSUES

Landscape Design Principles

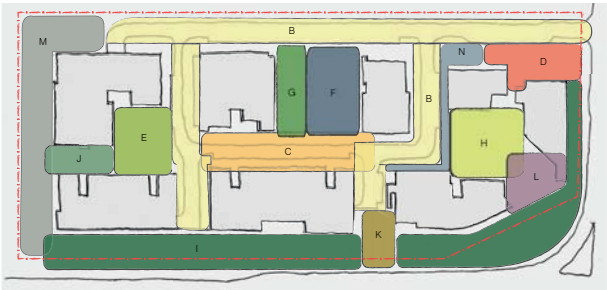


Figure B1.1: Key Spaces Diagram

B	INTERNAL ACCESS ROAD
C	SHARED ZONE
D	ENTRY PLAZA
E	GARDEN OF EARTHLY DELIGHT
F	POOL GARDEN
G	CENTRAL PARK
H	TERRACED SUN GARDEN
I	EPPING ROAD BUFFER GARDEN
J	QUIET GARDEN
K	ENTRY GARDEN
L	PLAY SPACE
M	GARDEN WALK AND BICYCLE PATH
N	STREET PLAZA

Overview

The overall landscape concept for Macquarie Park Village is based upon the following key design principles by:

- recognising and reflecting the importance of the site and it's key location on the corner of Herring and Epping Roads;
- enhance the identity of the site and provide a series of logically well connected landscape spaces;
- providing clearly legible and safe pedestrian connections throughout the development and with the surrounding streets;
- reinforcing the main internal open space spine as the primary structuring device for the development;
- incorporating simple design treatments and a selection of robust landscape materials that minimise maintenance;
- retaining the majority of existing trees particularly along the Epping Road frontage;
- providing a planting palette that provides a distinct landscape character that utilises a combination of native and exotic plant material; and
- incorporating water sensitive urban design initiatives in the streetscape, gardens and other locations where appropriate.

The landscape concept proposes various landscape zones and spaces that will reinforce the character of the site all of which are connected by a well defined pedestrian circulation pattern.

The mixed use development has the opportunity to enhance the urban qualities of the area and to create a place that will be active and vibrant by encouraging interaction and use of the of the external spaces at all times of the day.

Internal Street and Open Space Network

The road network will provide vehicular access to the site off Herring Road and contain a WSUD components. An east-west open space spine and shared street in the centre of the development acts as the key organising device for the entire site. All buildings, lobbies, gardens and pathways can be identified and accessed from this area.

Village Gardens

The public domain will comprise a number of interconnected spaces. The main communal gardens – The Terraced Sun Garden, Central Park, Pool Garden and Garden of Earthly Delights, are communal garden spaces for people to sit, relax and enjoy. Each area has a different character and function, expressed through the diversity of scale, forms and planting. The transitional spaces between these elements allow people to access the building lobbies and provide cross connections through the site. The shareway acts as a linear connector between the other communal spaces.

The majority of the landscape will be created over carpark structure with the exception being the proposed northern road, garden walk and bicycle path and and buffer planting along Epping and Herring Roads.

B1 OPEN SPACE & PUBLIC DOMAIN

Landscape Concept Plan

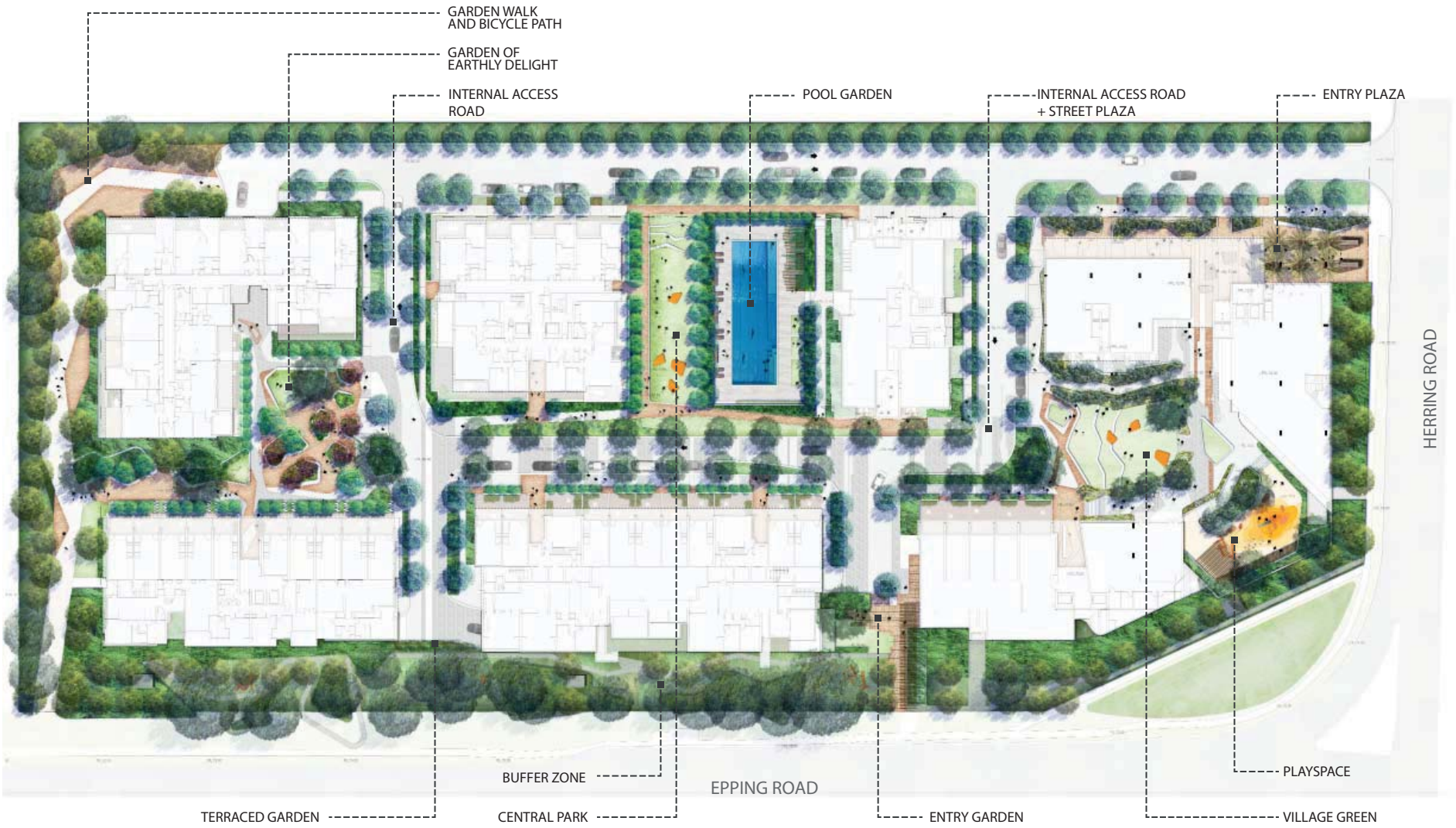


Figure B1.2: Landscape Masterplan

Private and Communal Domain

Internal Access Road

Figure B1.3: Detail Plan of Internal Road

The two internal access roads act as primary vehicular & pedestrian connections between the east-west road and the carpark and lobby entries for the buildings. These two streets directly interface with two main landscaped gardens as well as with the internal shared street.

Figure B1.4: Internal access road - section

Components:

- on street parking
- street tree planting
- lighting
- wayfinding
- signage
- bike racks

Figure B1.5: Internal access road - precedent images

B1 OPEN SPACE & PUBLIC DOMAIN

Private and Communal Domain - Key Spaces

Figure B1.6: Detailed Plan of Shared Zone

Central Park and Shared Zone

The shared zone provides an internal east-west connection for pedestrians and vehicles and also provides on grade car parking for residents and visitors. All of the main landscape spaces and buildings are directly visible and accessible from the shared zone, with much of the pedestrian path network linking directly to it. The space incorporates a shady avenue of large street tree planting and WSUD tree pits. The street treatment designates it as a pedestrian priority zone. The ground plane will be textured using different aggregates and finishes of concrete in a sophisticated pattern to provide a human scale and 'calm' traffic. The large avenue planting will help to reduce the scale of the buildings and create an intimate transitional space for pedestrian connection across site.

Components:

- special paving
- identity + entry
- on street parking
- bike racks
- lighting
- seating
- signage
- wayfinding

Figure B1.7: Shared Zone - section

Figure B1.8: Shared zone - precedent images

Private and Communal Domain - Key Spaces

Gardens of Earthly Delight

Figure B1.9: Detailed Plan of Gardens of Earthly Delights

This garden has been designed to incorporate a series of intimate function-specific spaces within the context of the larger shared garden as well as being an interesting space to be viewed from above. It has an informal pathway providing residents with at grade access to the various building lobbies.

Undulating topography and planting define small, domestic scale garden rooms that are enclosed and sheltered. These gardens contain elements including seats and tables as well as timber structures that provide visual and audible privacy to the apartments above. Several 'rooms' are proposed with specific functions including: the 'Dinner Garden'; 'The Lounge'; and 'The DayBed'. Each are intended as private social spaces to be activated throughout the day as well as the early evening.

Figure B1.10: Gardens of Earthly Delights - section

Components:

- shade
- seating + tables
- outdoor rooms
- lush planting
- flowers + foliage
- scents + colour

Figure B1.11: Gardens of Earthly Delights - precedent images

B1 OPEN SPACE & PUBLIC DOMAIN

Private and Communal Domain - Key Spaces

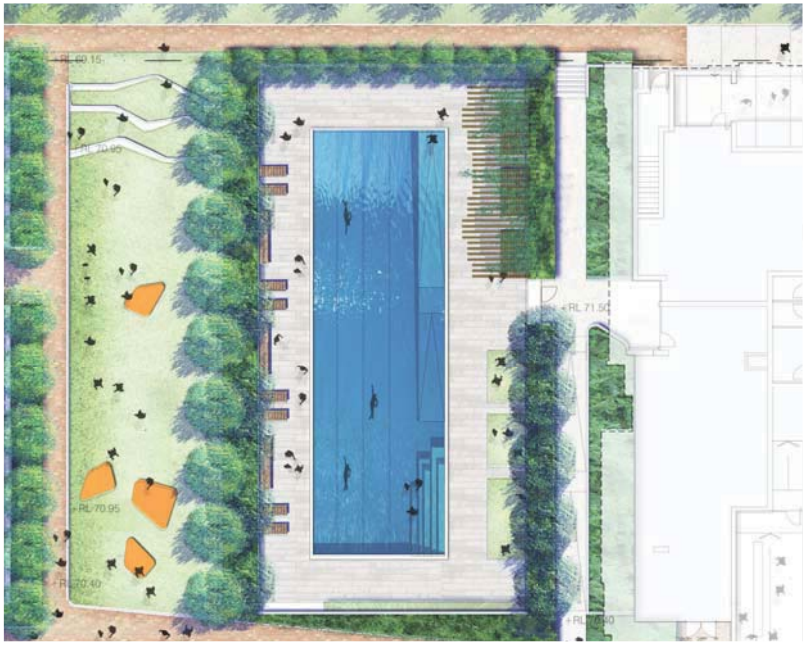


Figure B1.12: Detail Plan of Pool Garden

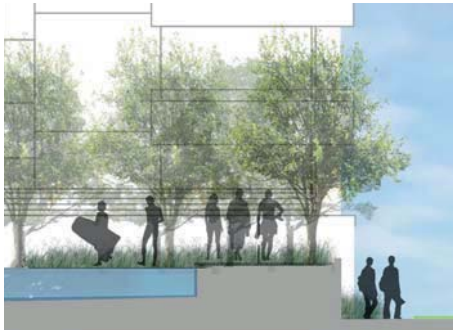


Figure B1.13: Pool Garden - section

Components:

- large open lawn area
- lawn terraces
- custom furniture
- 20 metre pool
- pergola shelter
- seating
- lush planting
- lighting

Central Park and Pool Garden

Central Park forms the main open space are within the development with a large open lawn area flanked on either side by rows of trees and mass planting. There are also sun derenched north facing lawn terracesand the park contains custom designed furniture elments. The pool garden provides opportunities for social interaction for all residents. It is as a place swim, soak up the sun or just relax and read a book.

The layered vegetation, with rich planting along the pool edge, provides a buffer to the buildings. There is a large canopy structure and custom designed seating providing visual privacy from the apartments above.

The lush character is continued with textured ground surfaces and strappy understory planting. The pool garden, and pool itself, will be fully accessible with an equal access ramp.

Figure B1.14: Pool Garden - precedent images

Private and Communal Domain - Key Spaces

Epping Road Buffer

The buffer planting incorporates much of the existing trees and vegetation already existing on the southern edge of the site. In addition to the existing vegetation dense, infill planting of *Syncarpia glomulifera* (Turpentine) and other native forest species such as *Angophora costata* (Sydney Red Gum) will help mitigate the visual bulk of the buildings from Epping Road.

Figure B1.15: Detail Plan of Buffer

Components:

- buffer planting between private gardens + Epping Road
- existing vegetation
- layered vegetation density + height
- dense screen planting
- colour + texture

Figure B1.16: Epping Road Buffer - section

Figure B1.17: Epping Road Buffer - precedent images

B1 OPEN SPACE & PUBLIC DOMAIN

Private and Communal Domain - Key Spaces

Figure B1.18: Detail Plan of Entry Garden

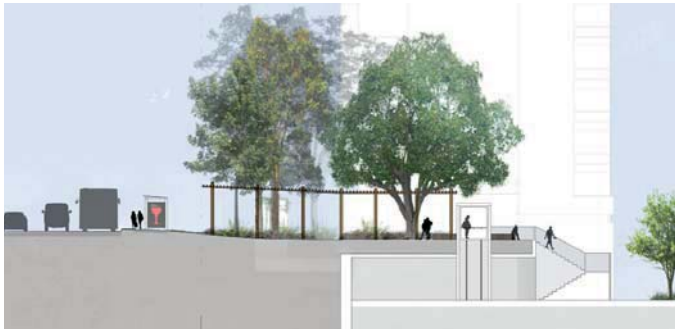


Figure B1.19: Entry Garden - section

Components:

- stair + lift connections to Epping Road + public transport
- buffer + transition zone between private gardens + Epping Road
- dense screen planting

Entry Garden

This area provides the main pedestrian entry to the development from Epping Road. It is ideally located adjacent the existing bus stop on Epping Road and the change in level between the existing road level and the new internal street and footpaths will be via both stair and a publically accessible lift.

The planting will be lush with an emphasis on combining species with differing form and texture, flower and scent and layering for density and height.

Figure B1.20: Entry Garden - precedent images

Stage 1 Development

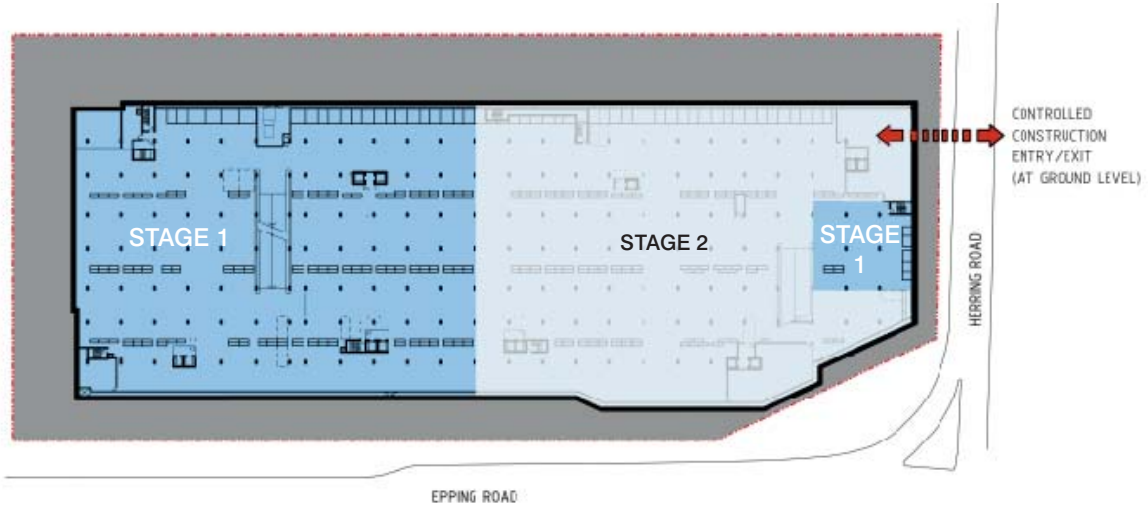


Figure B2.1: Stage 1 - Excavation and construction of the basement levels

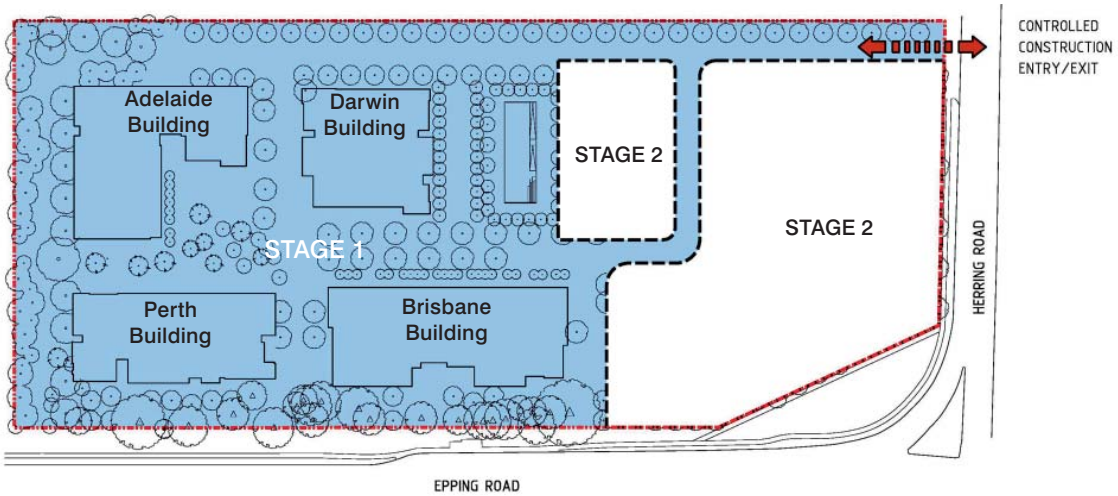


Figure B2.2: Stage 1 - Apartment buildings, streets and landscape

Stage 1

Development in Stage 1 includes:

- Basement structure
- Car park with requisite parking for Stage 1
- Adelaide Building,
- Darwin Building,
- Perth Building
- Brisbane Building,
- Landscaping and open space for Stage 1
- Access streets

Stage 2

Development in Stage 2 includes:

- Requisite parking for Stage 2 in existing basement
- Hobart Building,
- Melbourne Building,
- Sydney Building,
- Landscaping and open space for Stage 2

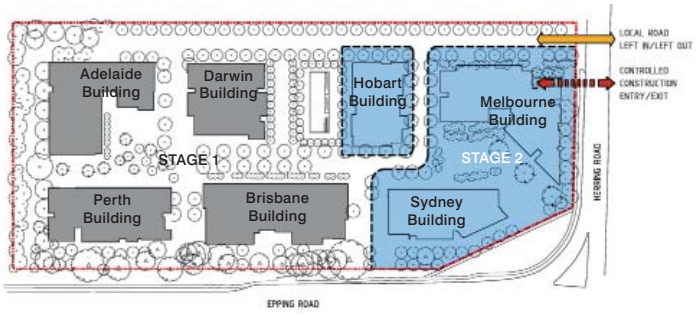


Figure B2.3: Stage 2 - Apartment buildings and landscape

B3 REVISED SEPP65 & RFDC ASSESSMENT

SEPP 65 Response

	Principle	Response
1	**Context**	
	Good design responds and contributes to its context. Context can be defined as the key natural and 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 and identity of the area.	Is consistent with the Concept Approval dated 3 June 2013. • The site is located in North Ryde and forms part of the Macquarie Park Corridor Redevelopment Area. It is within the Ryde City Council LGA. • Macquarie Park Corridor has been identified in the NSW Government Sydney Metropolitan Strategy as being a specialised centre that serves a range of commercial and research activities in the areas of information technology and telecommunication, pharmaceuticals, media and health care. • The Macquarie Park Corridor does not extend across the southern side of Epping Road; the width of Epping Road effectively separates the higher density developments to the north from the lower density areas to the south of Epping Road. • The area is easily accessible with direct access to a number of regional roads; Lane Cove Road, Epping Road and the M2 motorway. The railway station is located approximately 650 m north of the site and links the Macquarie Park Corridor with the Epping-Chatswood railway line. • The existing surrounding context is mixed. Along Herring Road, there are commercial developments, student housing and residential apartment buildings. To the south are mostly detached dwellings and Macquarie University is to the northwest of the site. • The relationship of the development to its future context is critical. Macquarie Park Corridor is an area undergoing transition. The vision for Macquarie Park Corridor is a premium location for globally competitive businesses. This site is one of the few opportunities within the Macquarie Park Corridor capable of providing residential density. • Within the development, an internal street network and public pathways and cycleways will improve the permeability of the area and connectivity of the site to the existing road network.
2	**Scale**	
	Good design provides an appropriate scale in terms of the bulk and height that suits the scale of the street and the surrounding buildings. Establishing an appropriate scale requires a considered response to the scale of existing development. In precincts undergoing a transition, proposed bulk and height needs to achieve the scale identified for the desired future character of the area.	Is consistent with the Concept Approval dated 3 June 2013.

SEPP 65 Response

	Principle	Response
3	**Built form**	
	Good design achieves an appropriate built form for a site and the building's purpose, in terms of building alignments, proportions, building type 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.	Is consistent with the Concept Approval dated 3 June 2013.
4	**Density**	
	Good design has a density appropriate for a site and its context, in terms of floor space yields (or number of units or residents). Appropriate densities are sustainable and 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 and environmental quality.	Is consistent with the Concept Approval dated 3 June 2013. • This proposal (Stage 1) with a mix of 1 bedroom (49%) and 2 bedrooms (51%) including 21 SOHO apartments (SOHO'S).

B3 REVISED SEPP65 & RFDC ASSESSMENT

SEPP 65 Response

	Principle	Response
5	**Resource, energy and water efficiency**	
	Good design makes efficient use of natural resources, energy and water throughout its full life cycle, including construction. Sustainability is integral to the design process. Aspects include demolition of existing structures, recycling of materials, selection of appropriate and sustainable materials, adaptability and reuse of buildings, layouts and built form, passive solar design principles, efficient appliances and mechanical services, soil zones for vegetation and reuse of water.	Is consistent with the Concept Approval dated 3 June 2013. • The development is designed to respond to the requirements of BASIX, the Residential Flat Design Code and Green Star Rating (4 Star). • Water Sensitive Urban Design (WSUD) rain gardens to filter the stormwater; • Taller buildings are located to the south to maximise solar access to apartments and communal open spaces to the north. • Apartment layouts are designed to optimise Residential Flat Design Code's cross-ventilation requirements. • Outcomes of this development include: - 55% of the development's landscape area is deep soil for stormwater infiltration and the retention of existing mature trees. - 82% of apartments are naturally ventilated. - 70% of apartments have the required solar access in winter. - Collection of roof rainwater for grey water usage. - Architectural details such as sun shading and louvres to improve amenity.
6	**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 positive image and contextual fit of development through respect for streetscape and neighbourhood 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.	Is consistent with the Concept Approval dated 3 June 2013. • The existing landscape character along Epping Road is retained by maintaining as many of the existing native trees as possible and enhanced by additional tree planting. • The development provides an internal street network which will be landscaped with street trees appropriate for the width of the street and suitable to the local environment. • A series of landscaped communal courtyards linked by an internal street provide residential amenity on site. Each of these landscaped spaces has a different character providing a variety of 'outdoor rooms'. These include: The Village Green, Pool Garden and Garden of Earthly Delights.

SEPP 65 Response

	Principle	Response
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.	Is consistent with the Concept Approval dated 3 June 2013. • The development provides the following mix of units and sizes: - 49% one bedroom apartments (50 m^2-60 m^2). - 51% two bedroom apartments (60 m^2-70 m^2). - 10% of the units are designed to AS 4299-1995 Adaptable Housing. - All units provide adequate storage within the units and basement. - 12,090 m2 of open space is provided (53% of the site area). - Communal courtyards, swimming pool and gym facilities provide passive and active recreational opportunities.
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 clear definition between public and private spaces.	Is consistent with the Concept Approval dated 3 June 2013. • Streets within the development are designed to be pedestrian friendly, well lit and have parking bays which will activate the street. • The thresholds between public, communal and private areas will be clearly defined to ensure a sense of ownership and legibility between the public and private domains. • All buildings have a street address and frontage providing clear entry points into residential buildings. • Apartment buildings overlook the landscaped communal courtyards providing passive surveillance of the open space areas and to improve safety, the development is designed to avoid blind corners and hidden spaces. • Most ground floor apartments have entries from the street which provide casual surveillance of the public domain. • Access to each building and apartments is coordinated with a security key system. • Secure parking for residents is located underground with clear and direct lift access to the apartments.

B3 REVISED SEPP65 & RFDC ASSESSMENT

SEPP 65 Response

	Principle	Response
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 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.	Is consistent with the Concept Approval dated 3 June 2013. • The proposed development provides housing choice in the Macquarie Park Corridor. • The proposed development will create opportunities for families in the surrounding neighbourhood to move within the area when the family needs change. • The provision of a nominal 49% of one bedroom apartments in the development responds to the demographic needs of single person households and couples comprising 80% of the apartment market. The one bedroom product is also a more affordable entry point into the residential market. • 10% of units are designed to be adaptable to the needs of people with disabilities and to facilitate inter-generational changes and changing lifestyles.
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 desirable elements of the existing streetscape or, in precincts undergoing transition, contribute to the desired future character of the area.	Is consistent with the Concept Approval dated 3 June 2013. • The intent of the aesthetics are: - to 'de-formalise' the usual rigid and repetitive facades in multi-unit residential development that is the result of identical apartment plans stacked one on top - to create a family of buildings but individualise each of the buildings through the use of a series of frames and valences - to use a variety of materials and textures to breakdown the mass of the buildings.

Response to Residential Flat Design Code Rules of Thumb

Recommendation	Detail of Recommendation	75W Stage 1 Project Plan
Building Depth		**COMPLIES**
	In general a depth of building 10-18m (glass to glass) wide is appropriate. Developments that propose wider than 18 m must demonstrate how satisfactory daylighting and natural ventilation are to be achieved.	
Building Separation		**COMPLIES (with qualifications)**
	Distance between buildings: • Up to four storey/12 m: - 12 m between habitable rooms/balconies - 9 m between habitable/balconies and non-habitable rooms - 6 m between non-habitable rooms • Five to eight storeys/up to 25 metres: - 18 m between habitable rooms/balconies - 13 m between habitable/balconies and non-habitable rooms - 9 m between non-habitable rooms • Nine storeys and above/ over 25 metres: - 24 m between habitable rooms/balconies - 18 m between habitable/balconies and non-habitable rooms - 12 m between non-habitable rooms	The majority of apartments comply with the building separation RFDC 'rules of thumb'. The 7% of apartments (Levels 5-10 in Perth and Brisbane Buildings) which do not quite comply, have been designed with sliding and fixed screens to meet the objectives of the RFDC. (See also 'Visual Privacy')
Deep Soil Zones		**COMPLIES**
	A minimum of 25 percent of the open space area of the site should be a deep soil zone.	Deep soil area: 6,860 m^2 or 55% of open space.

B3 REVISED SEPP65 & RFDC ASSESSMENT

Response to Residential Flat Design Code Rules of Thumb

Recommendation	Detail of Recommendation	75W Stage 1 Project Plan
Communal Open Space		**COMPLIES**
	Communal open space to be 25-30% of site area	Communal open space. Publically Accessible Open Space: 11,590 m^2 Private Communal Open Space: 495 m^2 Total Open Space: 12,090 m^2 or 53% of site area excluding internal roads. Refer to Figure Appendix 2.
Private Open Space on Ground Level		**DOES NOT COMPLY**
	Minimum recommended area of private open space for each apartment at ground level or on a structure such as podium or carpark is 25 m^2; minimum preferred dimension in one direction is 4 m.	Percentage of apartments achieving 25 m^2 private open space with min. dimension 4 m: Project Application Total: 42.5% Concept Plan Total: Subject to future DA. Refer to Figure Appendix 2.
Safety		**COMPLIES**
	Carry out a formal crime risk assessment for all residential development of more than 20 new dwellings	The development provides: • Legible definition of public and communal domain • Well lit streets • Well lit and prominent entries • Passive surveillance
Visual Privacy		**COMPLIES**
	To provide reasonable levels of visual privacy externally/internally during day and at night and to maximise outlook/ views from principal rooms and private open space without compromising visual privacy. Refer to Building Separation minimum standard.	In addition to building separation, fixed and operable privacy screens, external shading to windows, balconies and extended slab edges will help to avoid overlooking.

Response to Residential Flat Design Code Rules of Thumb

Recommendation	Detail of Recommendation	75W Stage 1 Project Plan
Apartment Layout - Single Aspect Apartment		**COMPLIES (with qualifications)**
	Single aspect apartments should be limited in depth to 8 m from a window. If not, building must demonstrate a satisfactory daylighting and natural ventilation. Limit single aspect apartments with a southerly aspect (SW-SE) to max.10% of total units.	The majority of single aspect apartments are extended to 9-10 m from a window. In these cases the non-habitable wet areas (such as bathrooms and laundries) are located in the 1-2 m extended zone. 6% of apartments are single sided with a southerly aspect. One third of these apartments will have district views that include a distant panoramic view of Chatswood and the City.
Apartment Layout – Kitchen		**COMPLIES (with qualifications)**
	The back of a kitchen should be no more than 8 m from a window. If not, building must demonstrate a satisfactory daylighting and natural ventilation.	Typically yes, most kitchens are no more than 8 m from a window; those that exceed 8 m are either a maximum of 9 m or 10 m from a window. All kitchens are mechanically ventilated with 37% of kitchens being naturally ventilated.
Apartment Layout – Cross-Over Apartments		**N/A**
	The width of cross-over or cross-through apartments over 15 m deep should be 4 m or greater to avoid deep narrow apartment layouts. If not, building must demonstrate a satisfactory daylighting and natural ventilation.	There are no cross-over or cross-through apartments.
Apartment Layout – Unit Sizes		**COMPLIES (with qualifications)**
	Minimum unit sizes 1 bed: 50 m^2 2 bed: 70 m^2 3 bed: 95 m^2	Typical 1 bedroom apartments 50 m^2 – 60 m^2 with one apartment less than 50 m^2 Typical 2 bedroom apartments 60 m^2 – 90 m^2 with 34 apartments less than 70 m^2

B3 REVISED SEPP65 & RFDC ASSESSMENT

Response to Residential Flat Design Code Rules of Thumb

Recommendation	Detail of Recommendation	75W Stage 1 Project Plan
Balconies		**COMPLIES**
	2 m min balcony width. If alternate depth is proposed, need to demonstrate furniture layout.	
Ceiling Heights		**COMPLIES**
	2.7 m min ceiling height in habitable areas 2.25-2.4 m ceiling height in non-habitable areas	
Ground Floor Apartments		**COMPLIES**
	Optimise the number of ground level units with separate entries. Provide ground floor apartments with access to private open space.	53% ground level apartments have separate entries.
Internal Circulation		**COMPLIES**
	In general, maximum 8 apartments off a double-loaded common area (except where amenity provided through crossover, dual aspect apartments).	
Storage		**COMPLIES**
	Minimum storage provision facilities: 1 bed: 6 m^3, 2 bed: 8 m^3; 3 bed: 10 m^3. (With minimum 50% storage area located within unit)	

Response to Residential Flat Design Code Rules of Thumb

Recommendation	Detail of Recommendation	75W Stage 1 Project Plan
Daylight Access		**COMPLIES**
	70% of units to receive 3 hours of direct sunlight in mid-winter to living rooms and private open spaces. In dense urban areas a minimum of 2 hours may be acceptable.	Project Application: 70% of apartments to receive 3 hours of sunlight in mid-winter to private open spaces and receive 2 hours of daylight into living areas.
Natural Ventilation		**COMPLIES**
	60% of units to be cross-ventilated 25% of kitchens within a development should have access to natural ventilation. Variation must demonstrate how natural ventilation can be satisfactorily achieved.	77% of apartments achieve cross ventilation. 37% of kitchens are naturally ventilated.

APPENDIX

Deep Soil Zone + Communal Open Space

AREAS KEY	PROJECT PLAN JUNE 2013 SCHEME APPROX AREA (m²)	CONCEPT PLAN APPROVAL MAY 2013 SCHEME APPROX AREA (m²)	% DIFFERENCE
INTERNAL ROADS	3257	1507	216% increase
PUBLIC OPEN SPACE	3342	2655	25% increase
PUBLICLY ACCESSIBLE COMMUNAL OPEN SPACE	8253	8135	1% increase
COMMUNITY FACILITY	234	234	nil
PRIVATE COMMUNAL OPEN SPACE	497	740	49% reduction
PRIVATE OPEN SPACE	1240	835	48% increase

Figure Appendix 1: Deep soil zones + Communal Open space

APPENDIX

Private Open Space at Ground Level

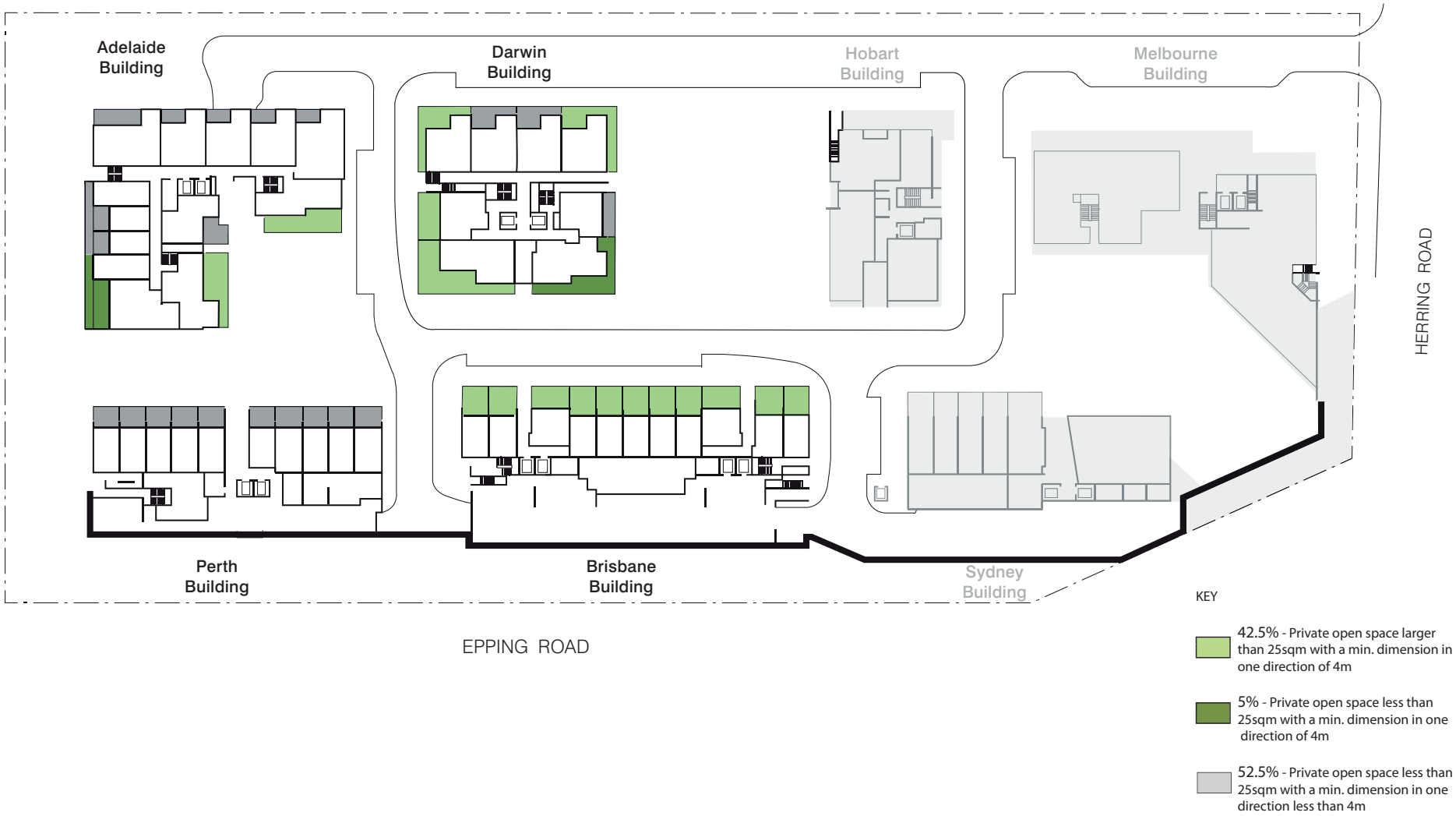
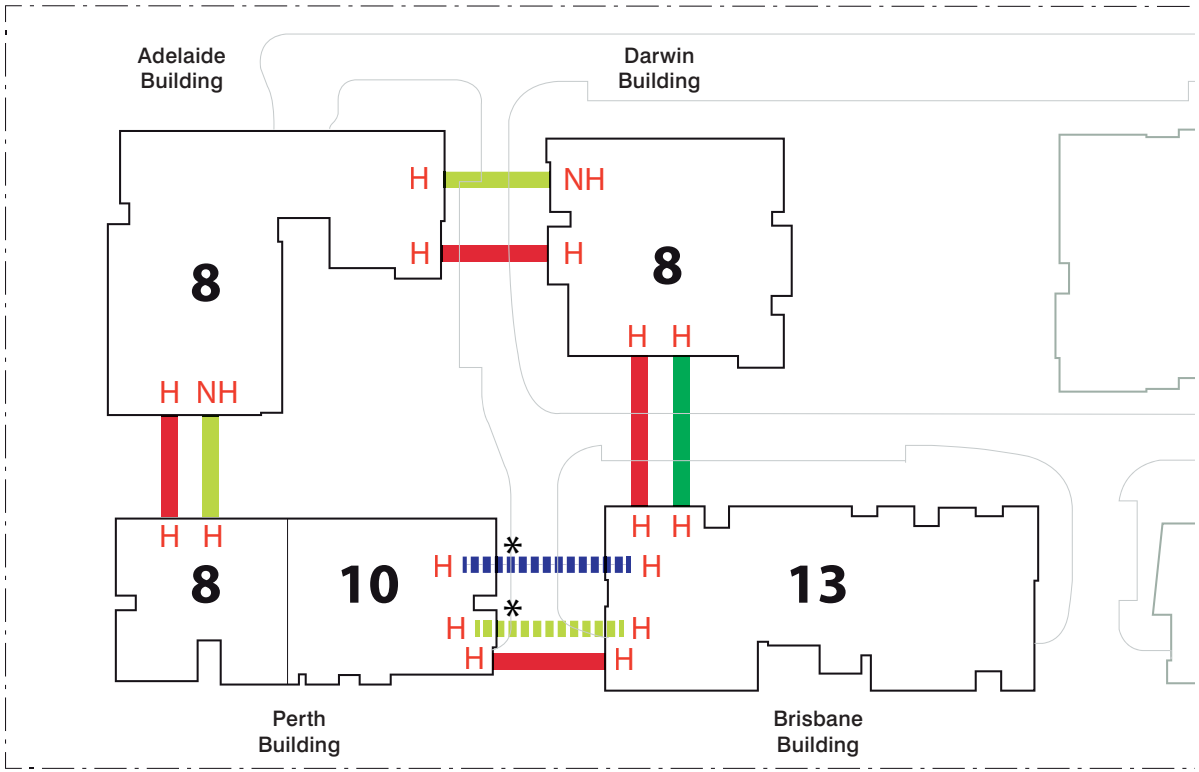


Figure Appendix 2: Private open space at ground level

APPENDIX

Building Separation



Objectives

- Ensure high quality residential amenity within the development.
- Optimise solar access to apartments and communal open space.
- Maintain a high level of visual and acoustic privacy to apartments and private open space.
- Create views to the sky from the public domain.
- Enhance the spatial legibility of the development

Controls

- Sunlight access, visual and acoustic privacy will be achieved through the use of privacy screens, orientation and location of openings and architectural solutions where building separations depart from the recommended separations between buildings in the Residential Flat Design Code.

KEY

RFDC recommendations:

8	build heights in storeys
H / NH	habitable / non-habitable area
H / H	habitable / habitable area
LEVELS 1- 4	min. 9 m bldg separation (NH - H)
	min. 12 m bldg separation (H - H)
LEVELS 5-8	min. 13 m bldg separation (NH - H)
	min. 18 m bldg separation (H - H)
LEVELS 9 storeys +	min. 18 m bldg separation (NH - H)
	min. 24 m bldg separation (H - H)

* The building separations are consistent with the PAC Concept approval. 7% of apartments do not meet with the RFDC 'rules of thumb' for Building Separation. These non-complying apartments on Levels 5-10 of the Perth and Brisbane Buildings have been designed with adequate screening to achieve the objectives for visual and acoustic privacy.

Figure Appendix 3: Building separation

APPENDIX

Natural Ventilation

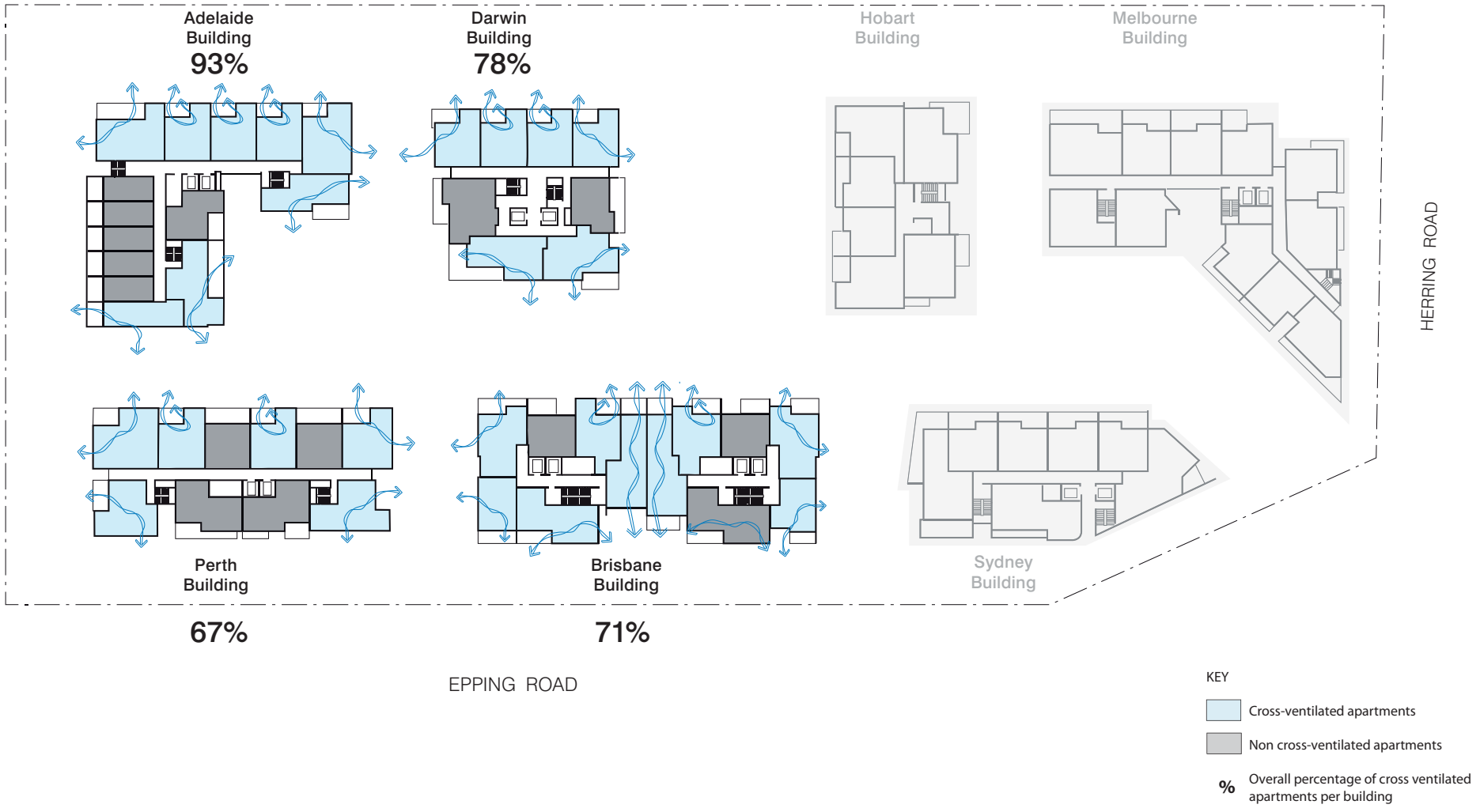
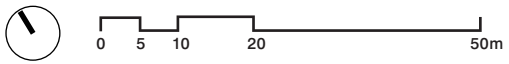


Figure Appendix 4: Typical floor plan showing natural ventilation



APPENDIX

Natural Ventilation - Vipac Statement

77% of the stage 1 apartments are cross ventilated. The cross ventilated apartments satisfy the following requirements:

- All habitable rooms with direct access to outdoor air; and
- Utilise the building layout to facilitate cross ventilation by providing a dual aspect; or
- Facilitating convective currents by designing units which draw cool air in at lower levels and allow warm air to escape at higher levels.

Cross ventilation describes where a dwelling has operable openings (doors and windows) to two or more distinctly different orientations; achieved due to dual aspect, corner location and stack effect. Under various wind directions the relative pressure differentials will ensure some air movement through internally connected spaces. In the proposed development, all such apartments are classified as cross ventilated.

APPENDIX

Apartment Aspect

Figure Appendix 5: Typical floor plan showing apartment aspect

Sunlight Access

Figure Appendix 6: Typical floor plan showing sunlight access plan