



DKO Architecture
Places designed for people

Liverpool
127-129 Flowerdale Road, Liverpool, NSW
SGCH

Liverpool, NSW
SGCH
February 2019

DKO

SEPP 65 REPORT

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Introduction

1.1 Development Overview

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.

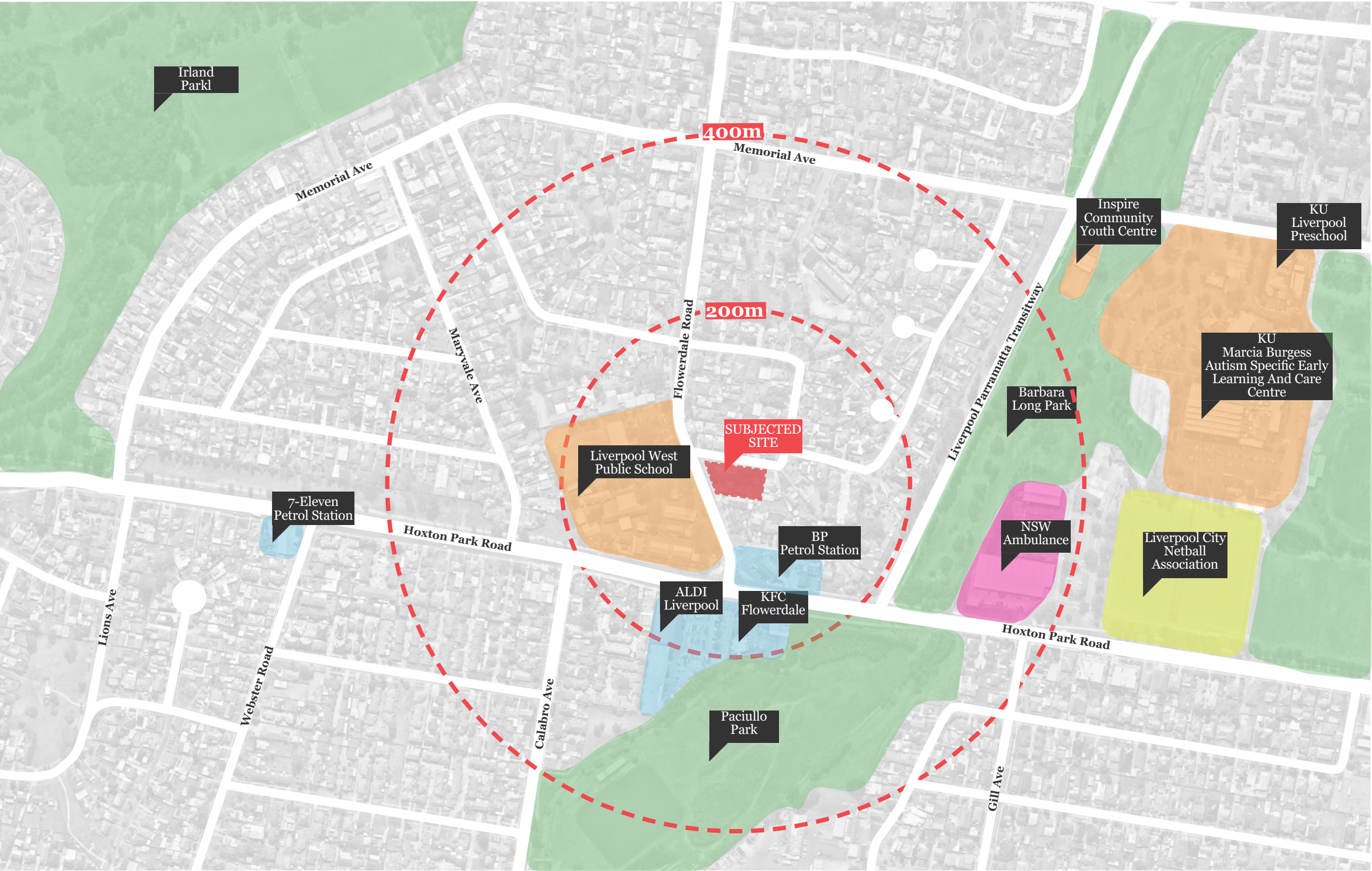
Our design concept provides a framework which responds intelligently and sensitively to its location and future urban context. As Liverpool evolves further to meet changing conditions, it is vital that its architecture and built fabric changes in order to preserve and improve on its identity while responding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

The subject site is within the growing suburb of Liverpool of Liverpool City 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 planning proposal. It is intended to supplement the SEPP 65 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.





- Key
- Public
 - Health
 - Commerical / Retail
 - Education / Culture
 - Public Open Space



Introduction
1.3 Site Photos



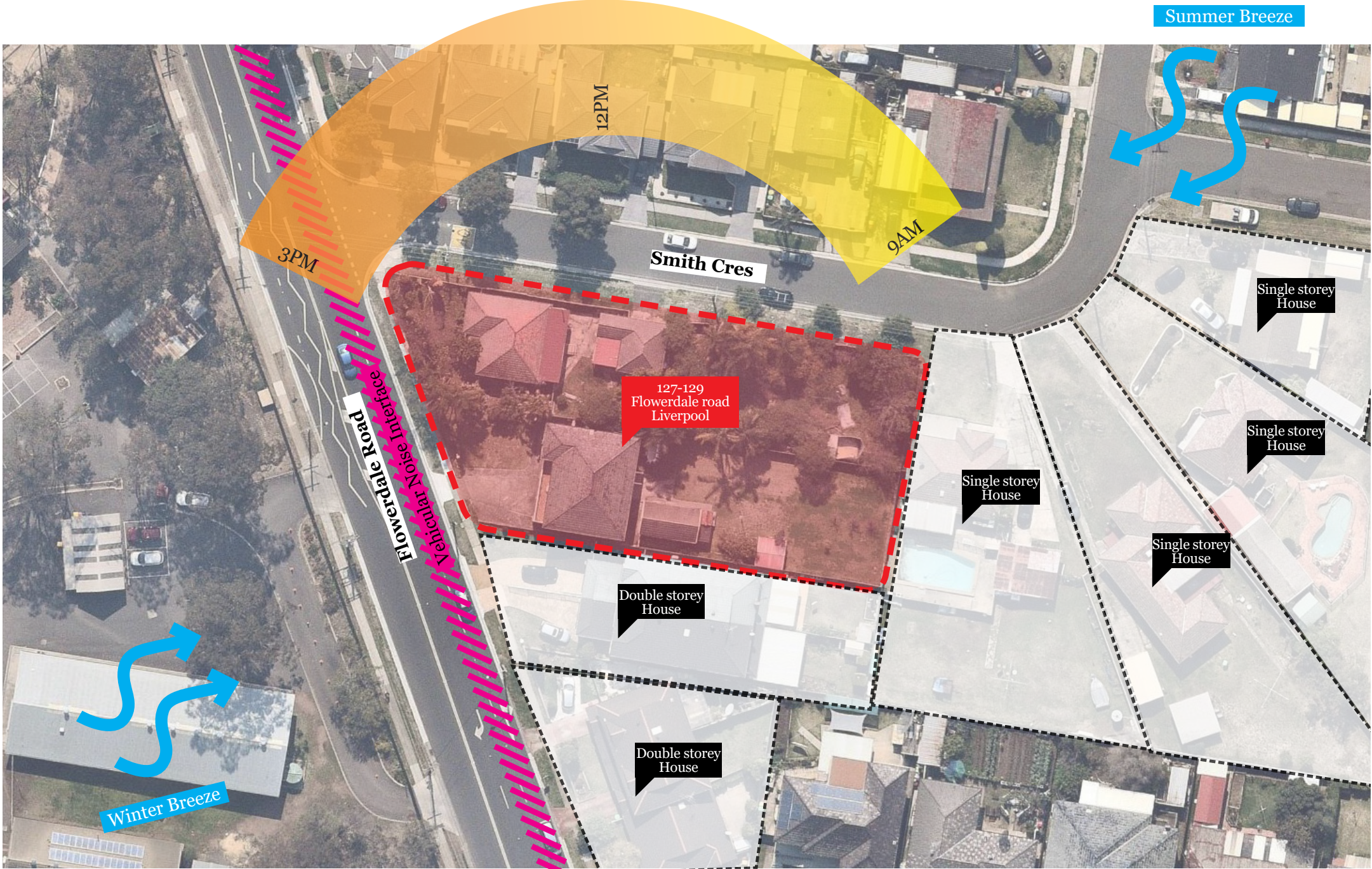
Apartment Design Guide (ADG)
Good design responds and contributes to its context. Context is the key natural and built features of an area, their relationship and the character they create when combined. It also includes social, economic, health and environmental conditions. Responding to context involves identifying the desirable elements of an area's existing or future character. Well designed buildings respond to and enhance the qualities and identity of the area including the adjacent sites, streetscape and neighbourhood. Consideration of local context is important for all sites, including sites in established areas, those undergoing change or identified for change.

Response

The proposal complies with R4 High Density Residential Zoning Controls under the Liverpool LEP 2008 and will therefore complement the desired future character of the area. The development will promote infrastructure efficiency and support local commercial, retail and recreational activity in 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 councils future plans for the area.

The proposed development complies with ADG setback requirements to all boundaries and exceeds minimum deep soil requirements. The proposal incorporates attractive landscape areas that surround the built form on ground level. This includes provisions for large tree planting in deep soil zones within side, front and rear setbacks; these planting zones will enhance the character of the streetscape along Flowerdale road and Smith Crescent. Generous private open spaces are provided to ground floor units, allowing for an activated and dynamic street character. The proposed development is compatible with the built form context of the site.



SEPP65 Design Quality Principles

2.02 Principle 02 - Built Form and Scale

Apartment Design Guide (ADG)

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 design proposal’s scale in terms of bulk and height has been carefully considered to respond to the areas transition into a future growth area. Instead of having a single linear building, the proposed scheme breaks up the massing on site by visually having several buildings by additional elements such as slots and change in material. Visually, the 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.



SEPP65 Design Quality Principles

2.03 Principle 03 - Density

Apartment Design Guide (ADG)

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 proposed development is located approximately 50m from bus stops on Flowerdale Road and 800m from Liverpool train station.

The proposal will contribute to a high quality streetscape for the area. The unit sizes are according to DCP / SEPP 65 standards and each unit is provided with a private open space.

The density is appropriate for the site given its accessibility to public transport, access to communal open space, the built form context, and the high amenity achieved for every unit in the development.



SEPP65 Design Quality Principles

2.04 Principle 04 - 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

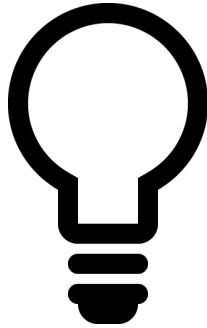
The building has been designed to achieves to BASIXs.

The proposed development will reduce the necessity for mechanical heating and cooling with 64% of units being cross ventilated.

The depth of the proposed balconies, ranging from 2 m to 2.5 m to the North contributes to passive solar performance by the balconies of the units above blocking high angle hot summer sun and allowing low angle winter sun to penetrate the unit. Screening and shading devices are also incorporated into the facades to provide additional control over solar access.

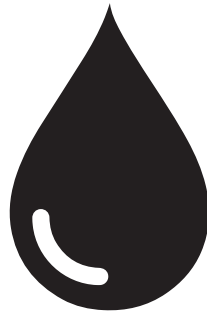
The accessibility of the site to public transport decreases the carbon footprint of the development by reducing the need for private motor vehicle usage. Providing a viable alternative is vital to changing patterns of travel behaviour.

Minimising the apartments that receive no solar access to only 15% reduces the heating energy load in winter.



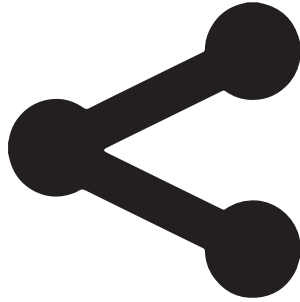
Low-energy Lighting

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.



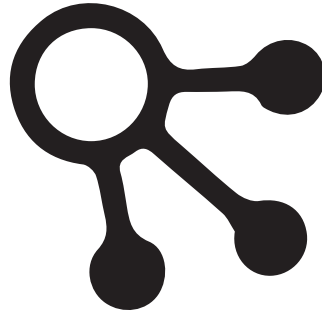
Rainwater Collection

All rainwater on site will be captured and stored in water tanks located on-site. These water tanks will be plumbed to garden taps and landscape irrigation to support public and private gardens throughout the development.



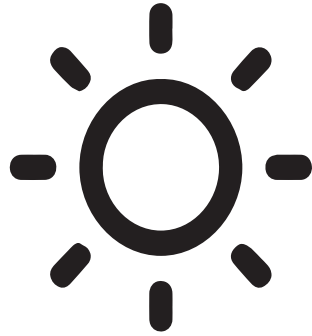
Smart Building Systems

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.



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.



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.

2.05 Principle 05 - Landscape - Ground Floor

Apartment Design Guide (ADG)

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.

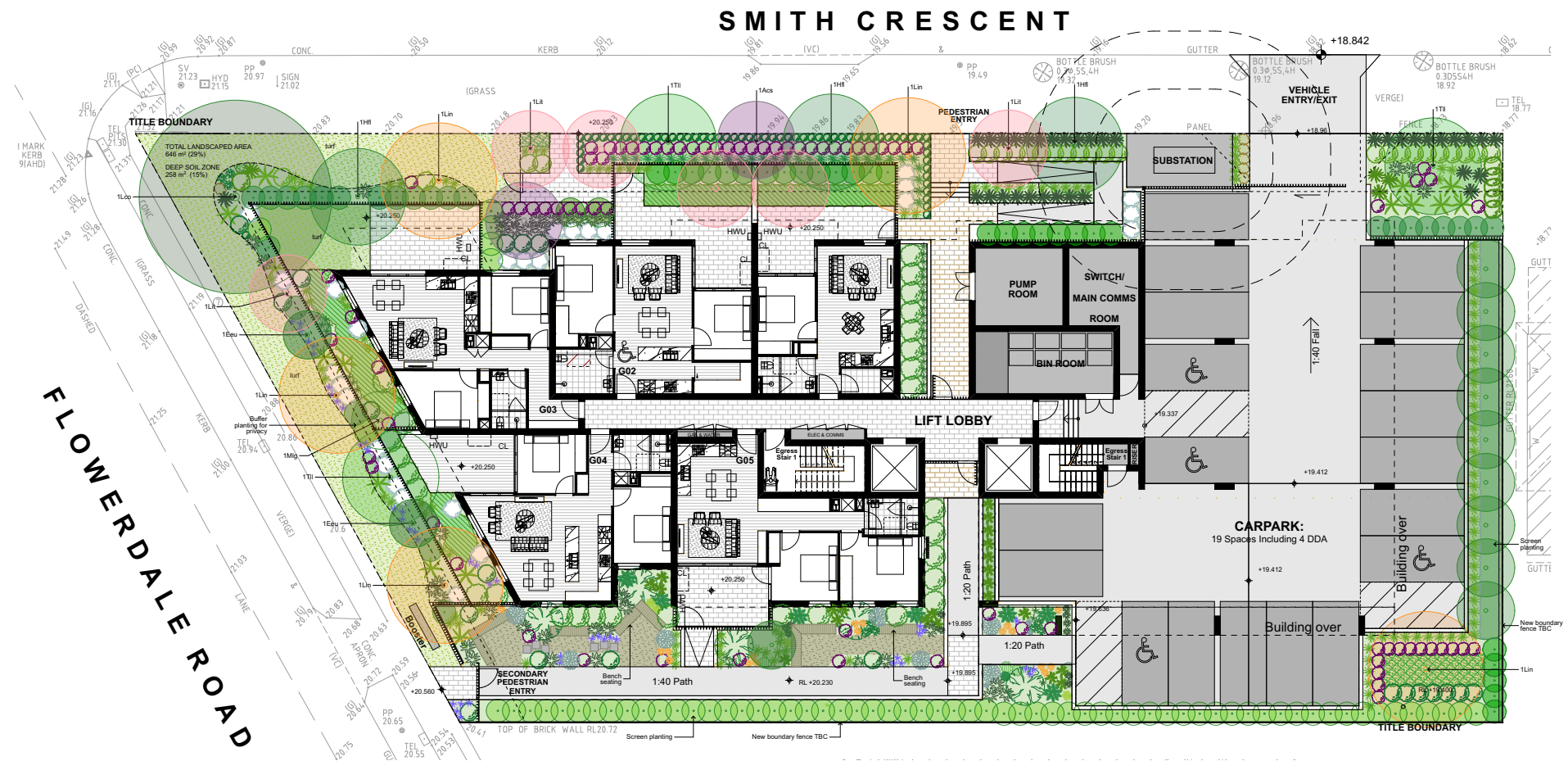
Landscape design builds on the existing site's natural and cultural features in responsible and creative ways. It enhances the development's natural environmental performance by coordinating water and soil management, solar access, microclimate, tree canopy and habitat values. It contributes to the positive 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.

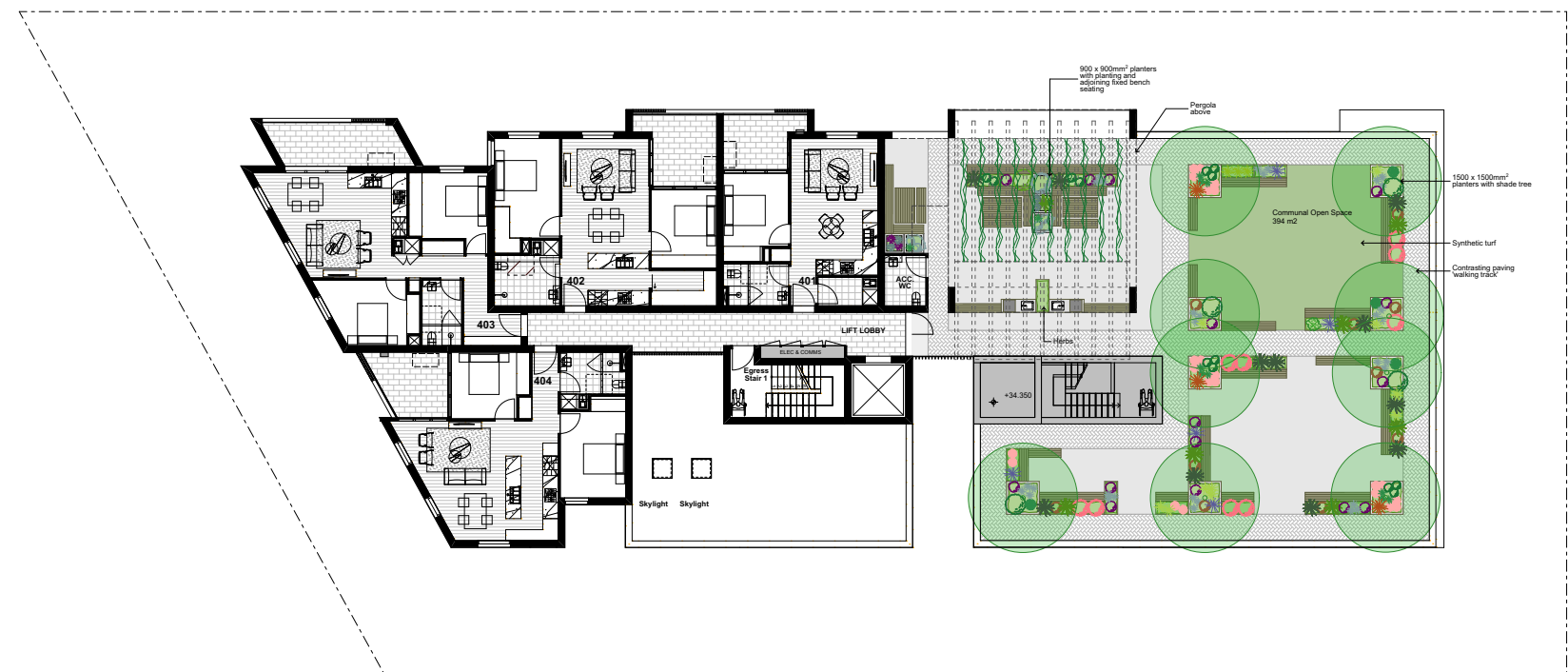
Response

Landscaping of private and communal open spaces wrap around the building at ground level. The landscaping of the site is predominantly to the same domestic scale as surrounding individual residential properties, however the proposed planting schedule has considered a much more generous number of trees and shrubs given that neighbouring properties have little or minimal tree coverage.

The building sits harmoniously within the streetscape, where additional planting is proposed to further enhance its contextual design response. The proposed landscaped areas will aid in reducing the scale of the building and integrate the development with the surrounding environment. On level 4 a landscaped communal open space is provided which is orientated North, providing exceptional opportunities for the residences of the building to gather.



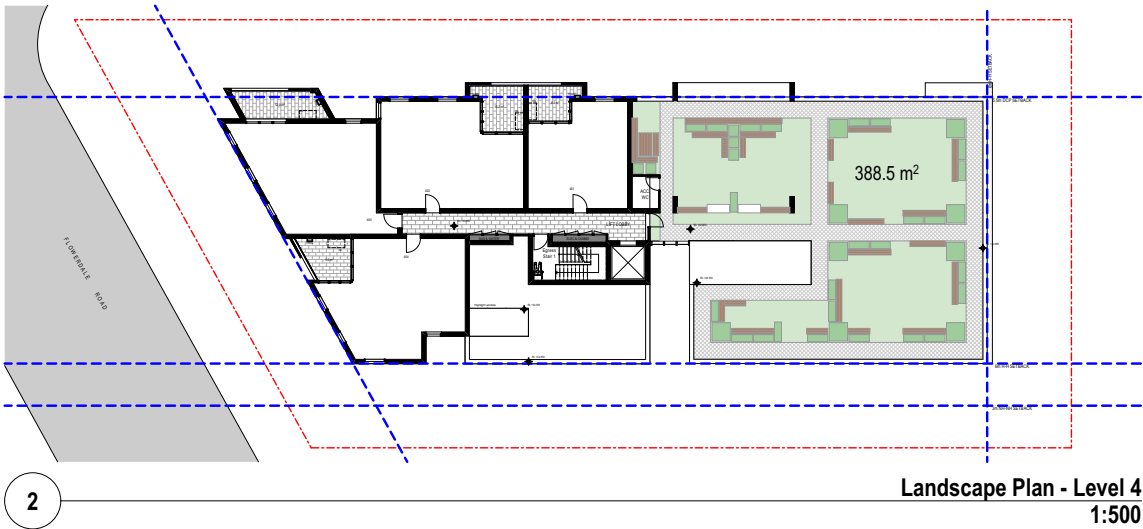
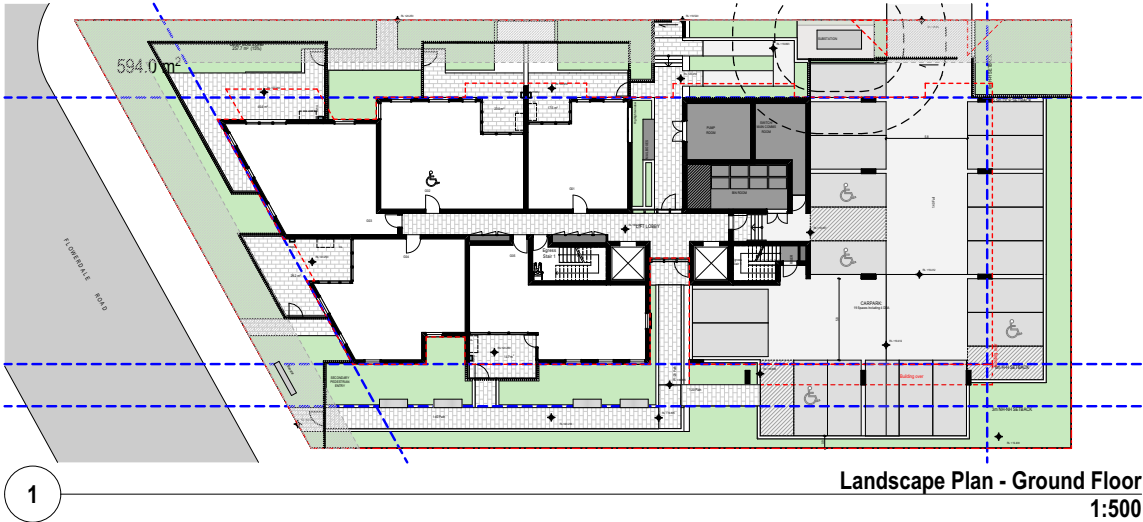
Landscape - Ground Floor



Landscape - Rooftop

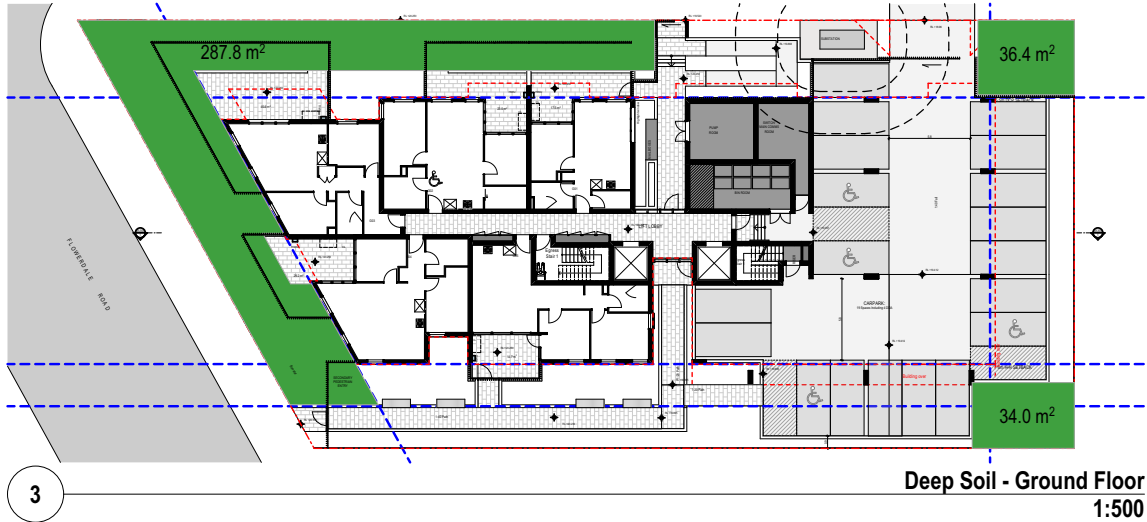
SEPP65 Design Quality Principles

2.05 Principle 05 - Landscape Calculations



Areas Included in the Landscape Calculations

Landscape Calculations	
Site Area	1907 sqm
Ground Floor	594 sqm
Level 4	389 sqm
Total	983 sqm
%	51.5%



Areas Included in the Deepsoil Calculations

Deepsoil Calculations	
Site Area	1907 sqm
Ground Floor	358 sqm
Total	358 sqm
%	18.7%

SEPP65 Design Quality Principles

2.06 Principle 06 - Amenity

Apartment Design Guide (ADG)

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

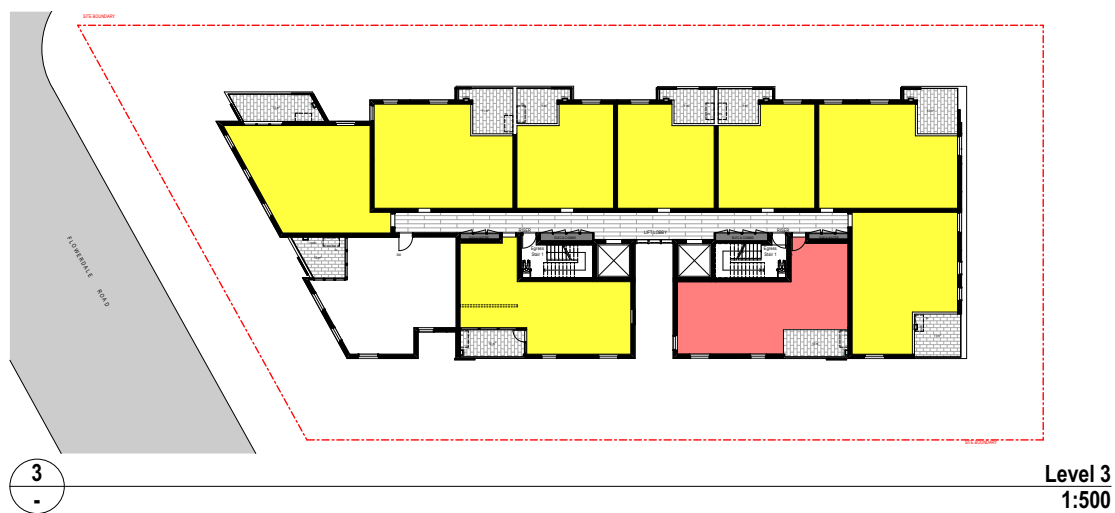
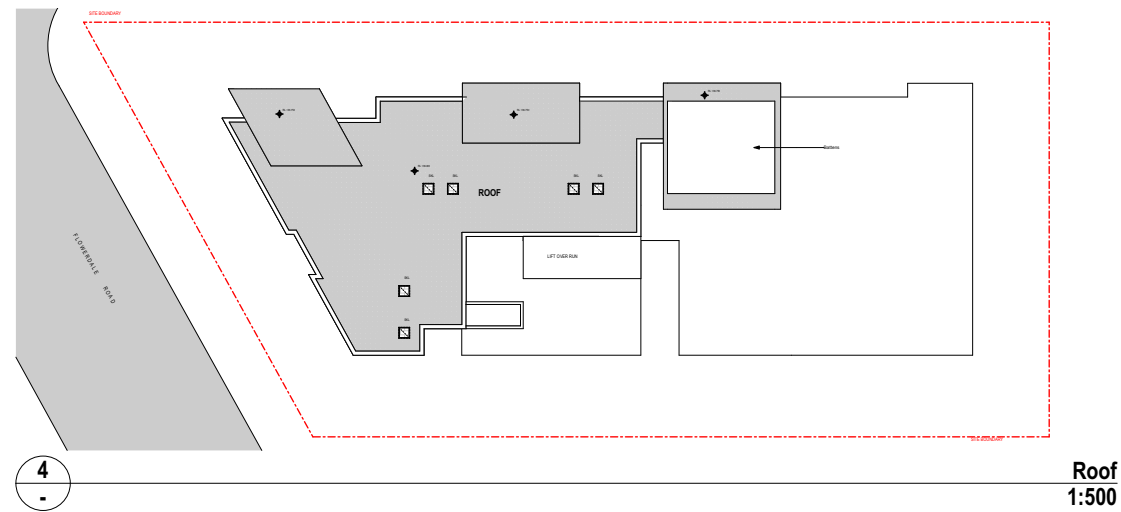
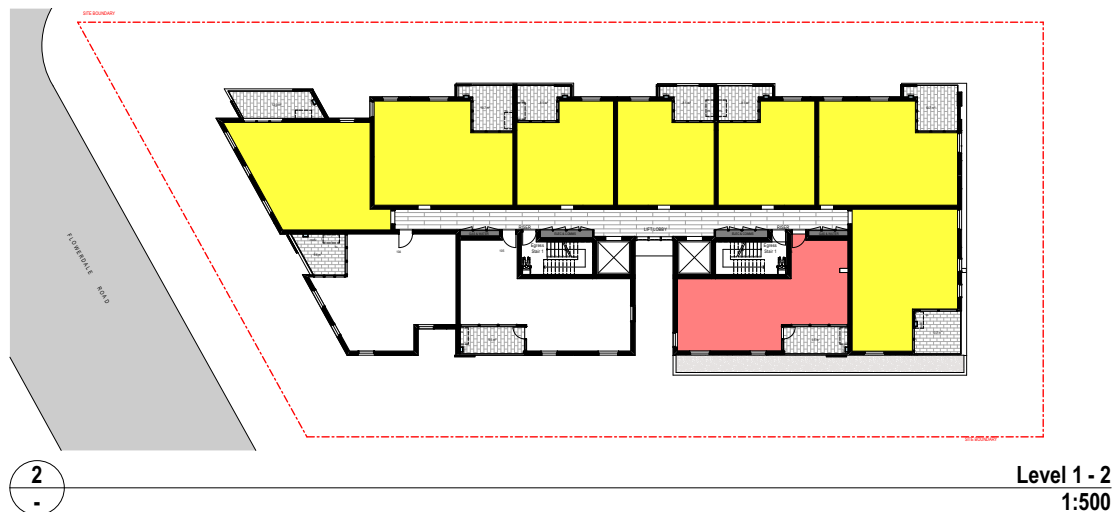
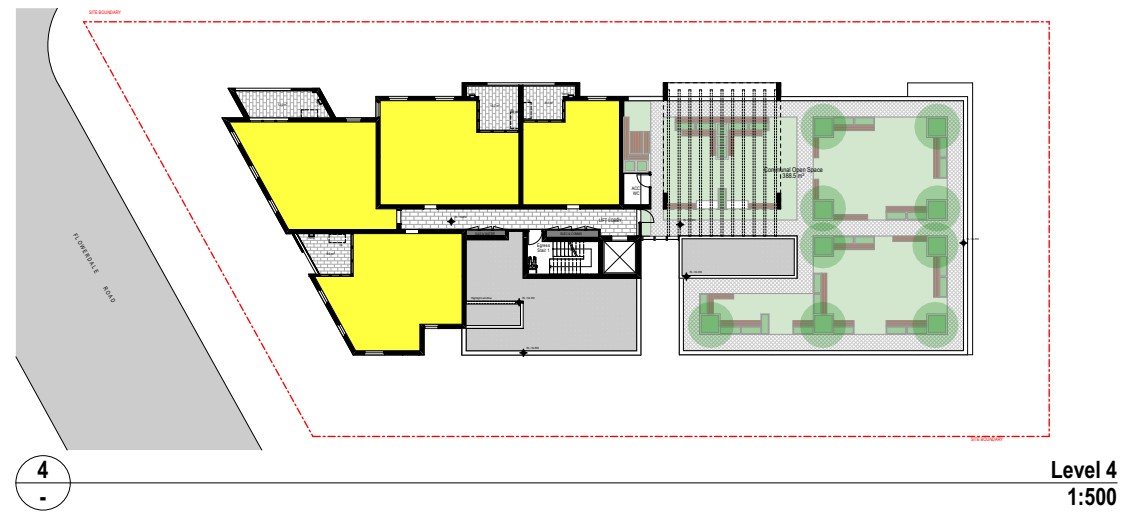
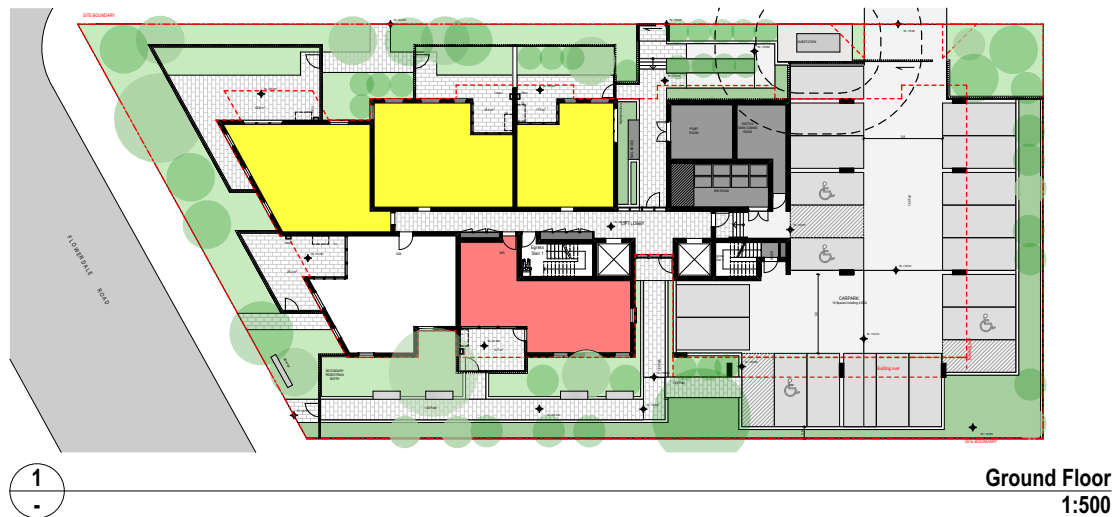
The proposed building is aligned on a East-West axis to provide the maximum amenity to a majority of the dwellings, with most units having northern aspect.

In the proposed development, unit depths are reduced and daylight access is shared more equitably across the site. This approach achieves 2+ hours of sunlight to 72% of the total units in midwinter and 64% of units with natural cross ventilation.

Passive solar is enhanced by the balconies of the units above blocking high angle hot summer sun and allowing low angle winter sun to penetrate the units. The proposed apartment layout allows adequate circulation and privacy for each room. The solar access for the development is sound with minimal single aspect apartments facing south.

The proposed development has a maximum of 10 units off two cores, which helps to ensure good amenity for residents.



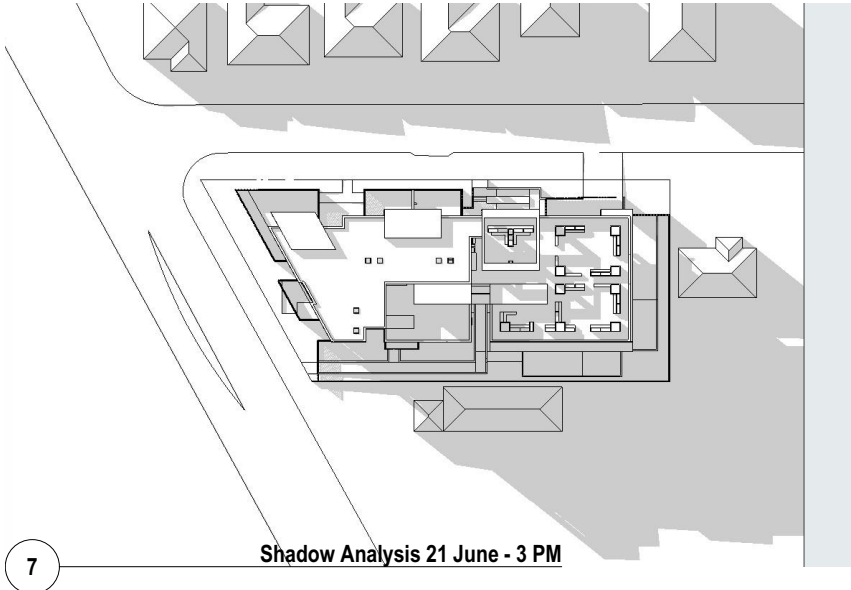
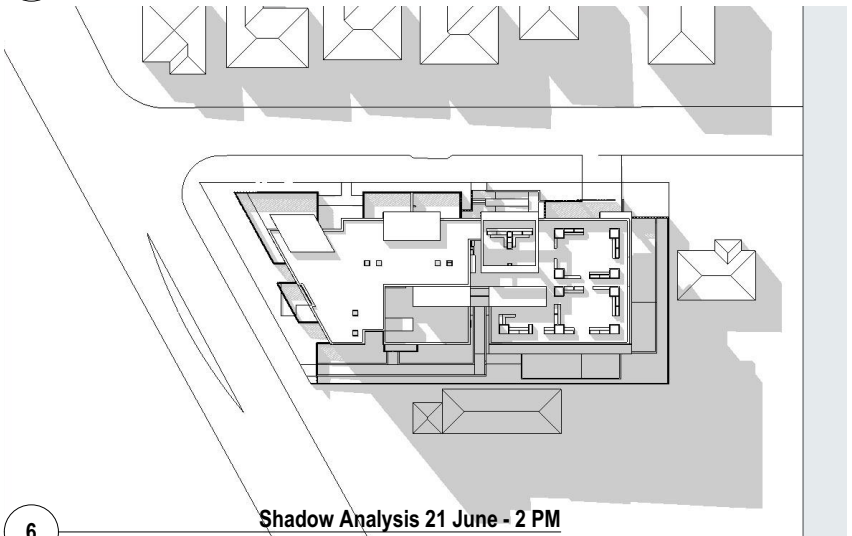
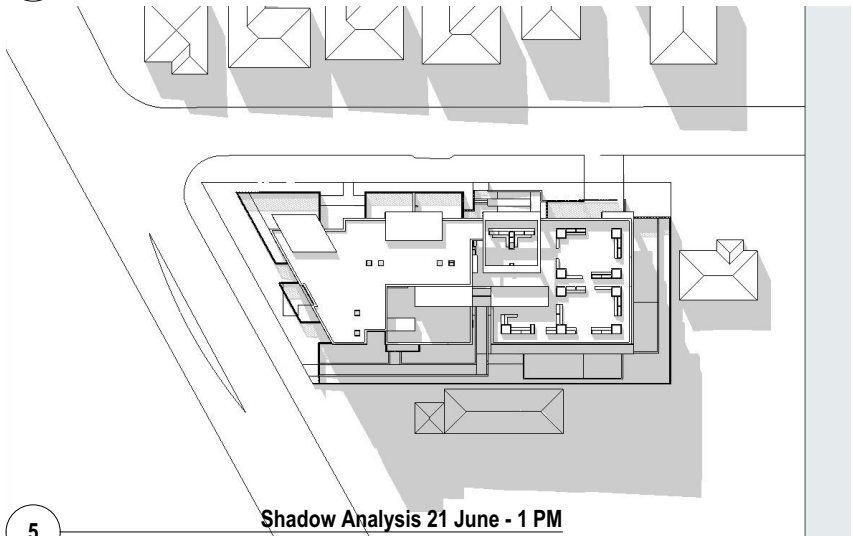
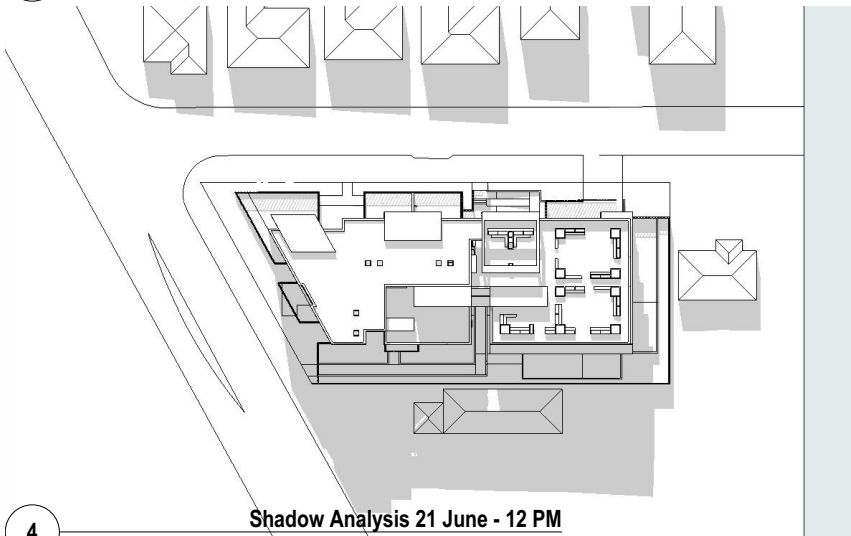
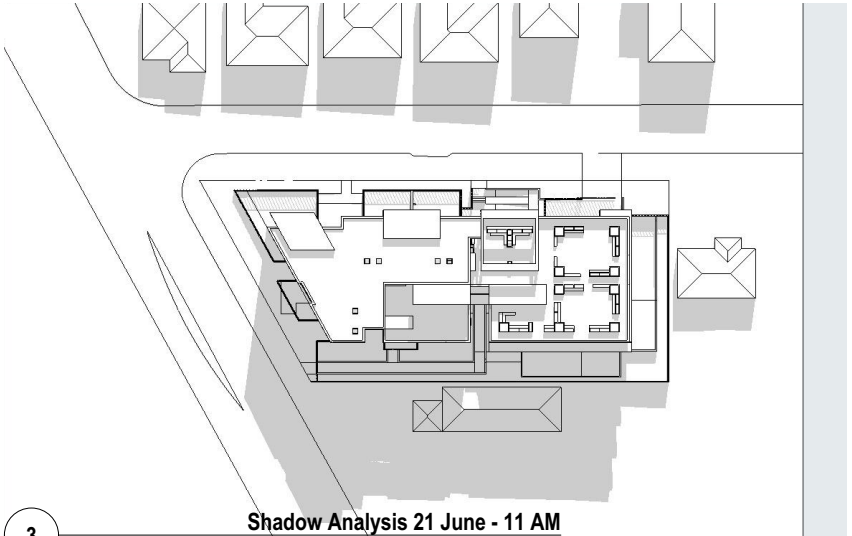
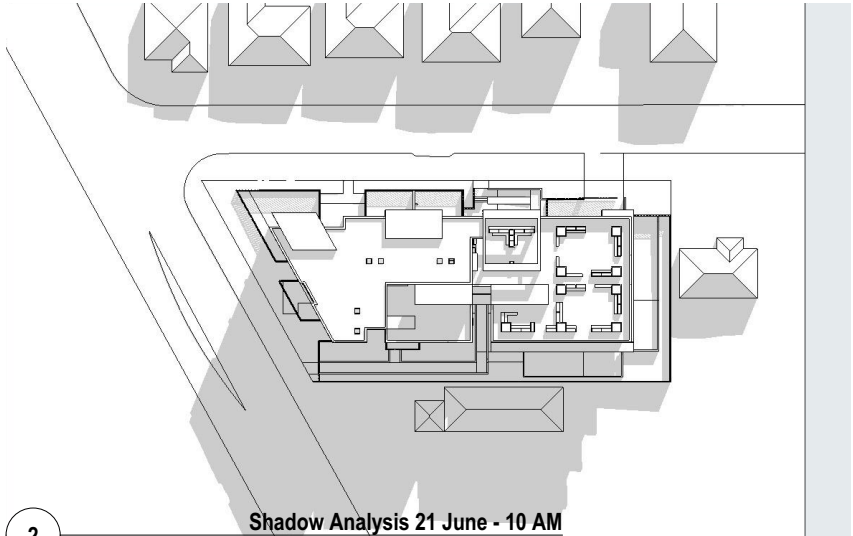
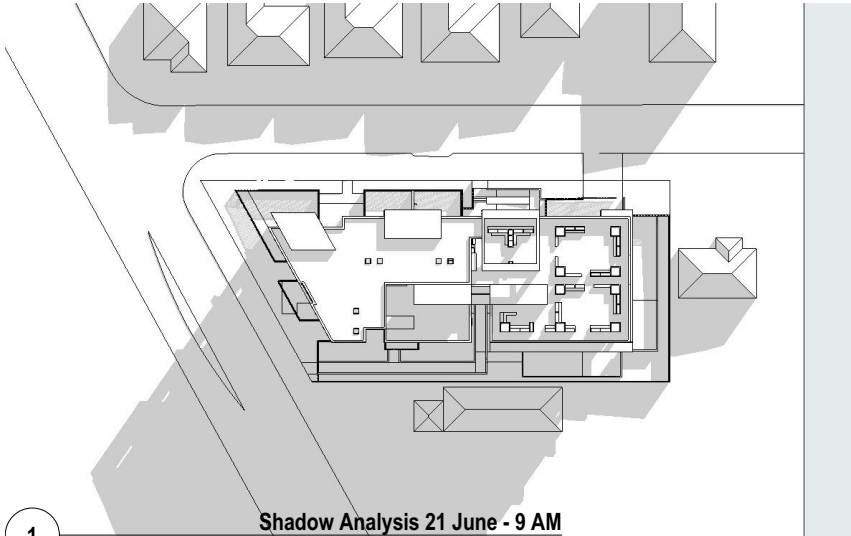


Solar Access Calculations		
	2+ Hours Solar Access	No Solar Access
Ground Floor	3	1
Level 1 - 2	7x2 = 14	2x2 = 4
Level 3	7	1
Level 4	4	0
Total	28	6
%	72%	15%

Total Unit Number 39

SEPP65 Design Quality Principles

2.06 Principle 06 - Amenity - Shadow Diagrams



SEPP65 Design Quality Principles

2.06 Principle 06 - Amenity - Eye of the Sun



1 EYE OF THE SUN 21 JUNE - 9 AM



2 EYE OF THE SUN 21 JUNE - 10 AM



3 EYE OF THE SUN 21 JUNE - 11 AM



4 EYE OF THE SUN 21 JUNE - 12 PM



5 EYE OF THE SUN 21 JUNE - 1 PM



6 EYE OF THE SUN 21 JUNE - 2 PM



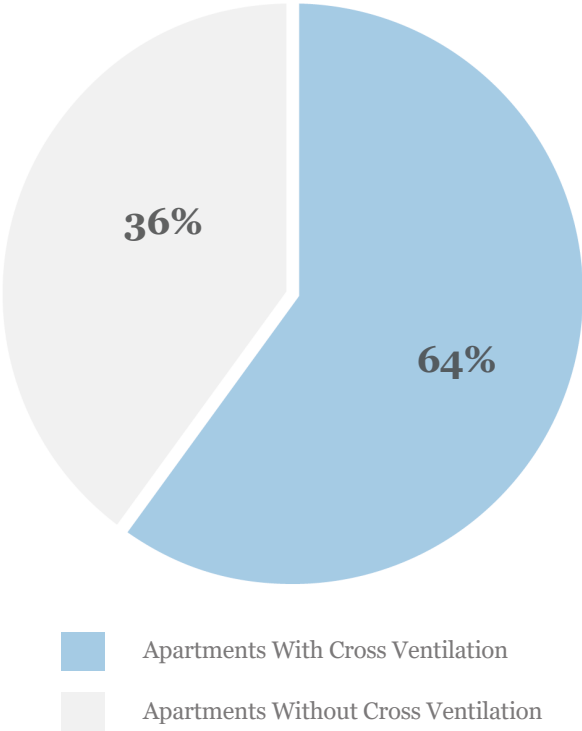
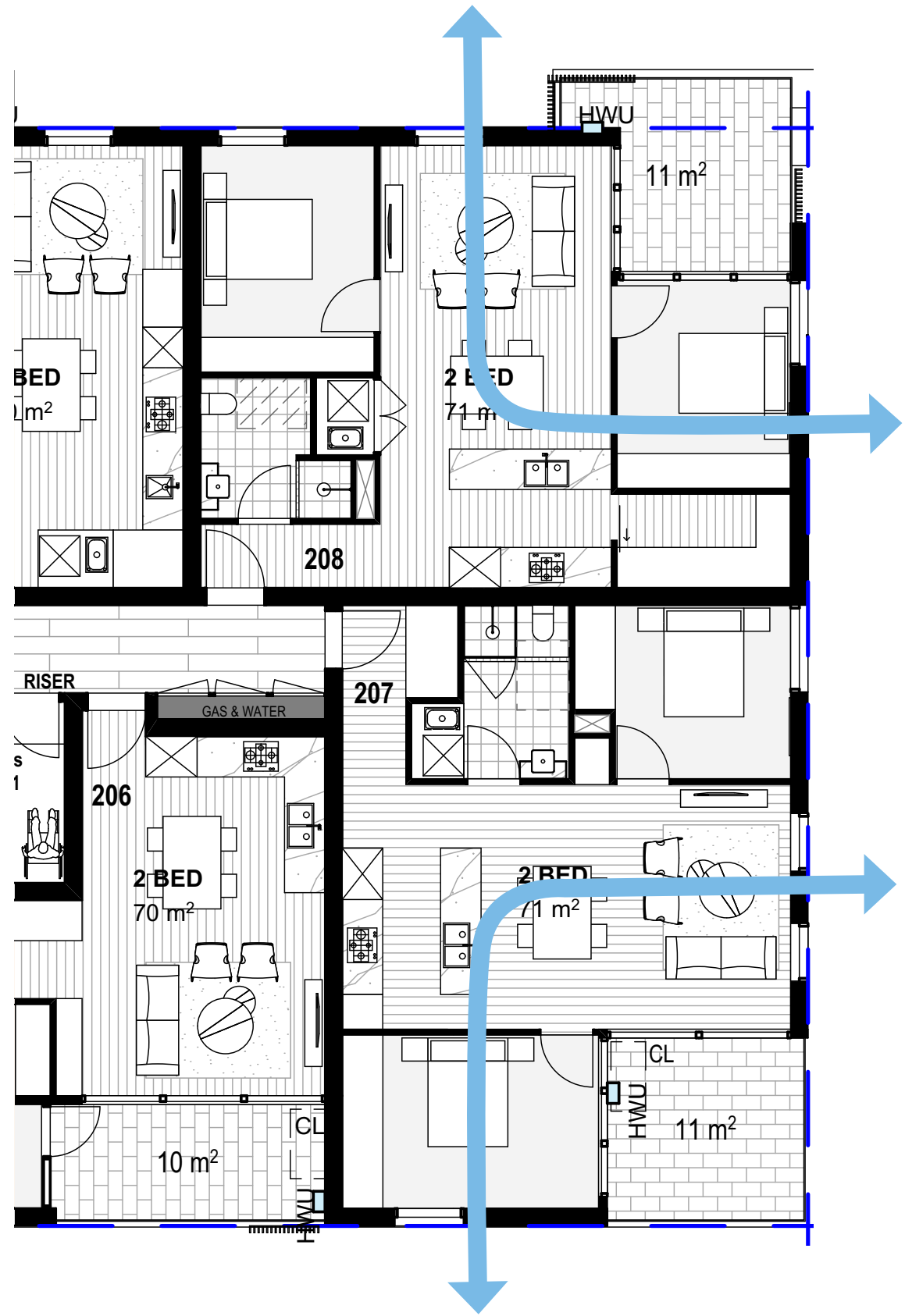
7 EYE OF THE SUN 21 JUNE - 3 PM

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 corner apartments within the development also allow the proposed design to achieve a high percentage of well-ventilated units.

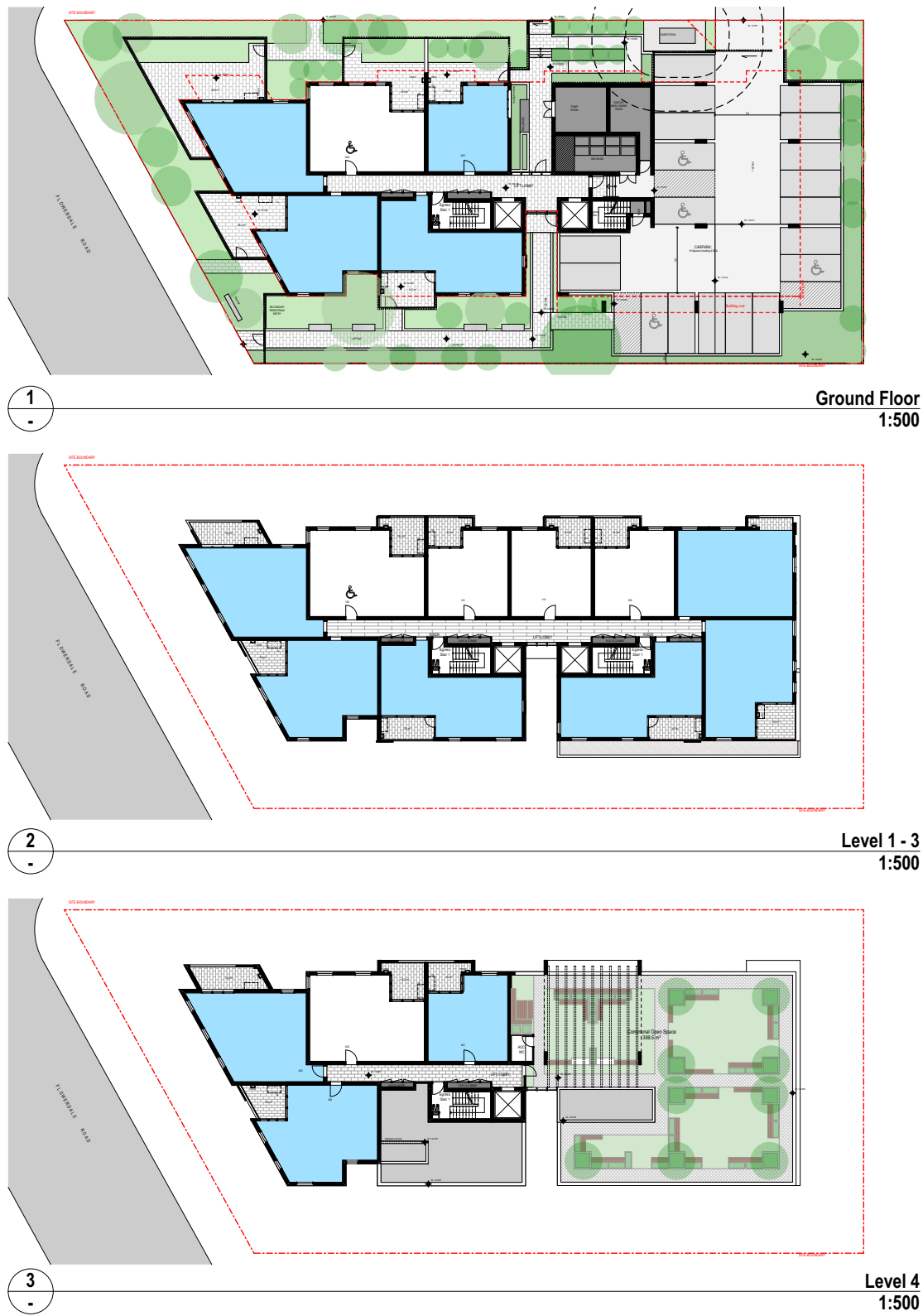
Outlined by the State Environmental Planning Policy No.65 - Apartment Design Guide, a minimum of 60% of total apartments (23 units) require cross-ventilation, to which we have proposed 64% (25 units).

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.



SEPP65 Design Quality Principles

2.06 Principle 06 - Amenity - Cross Ventilation

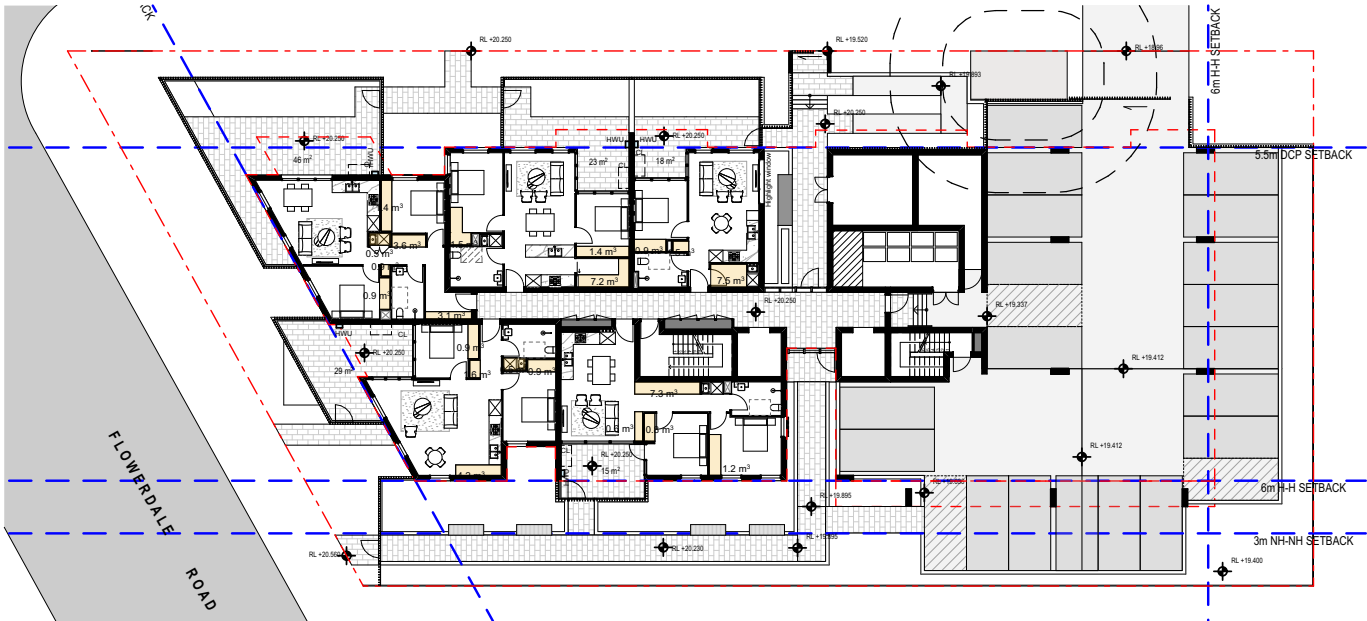


Cross Ventilation Calculations		
	Cross Ventilation	
Ground Floor	4	
Level 1 - 3	6x3 = 18	
Level 4	3	
Total	25	
%	64%	

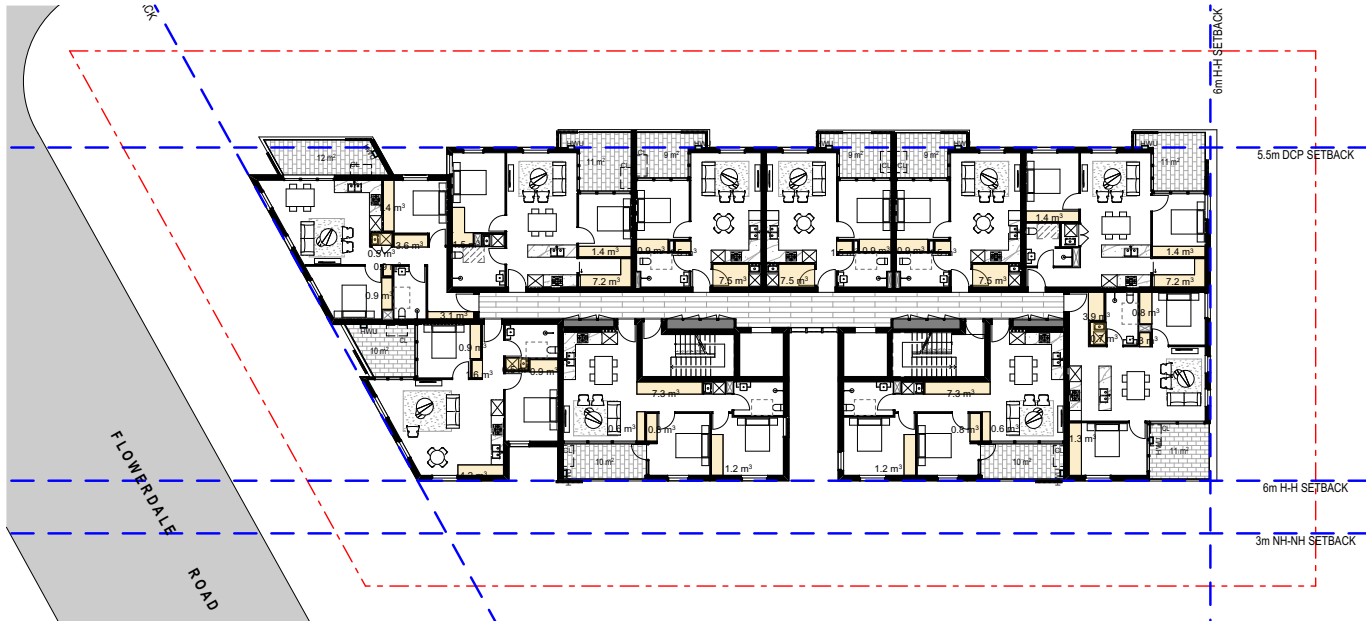
Total Unit Number 39

SEPP65 Design Quality Principles

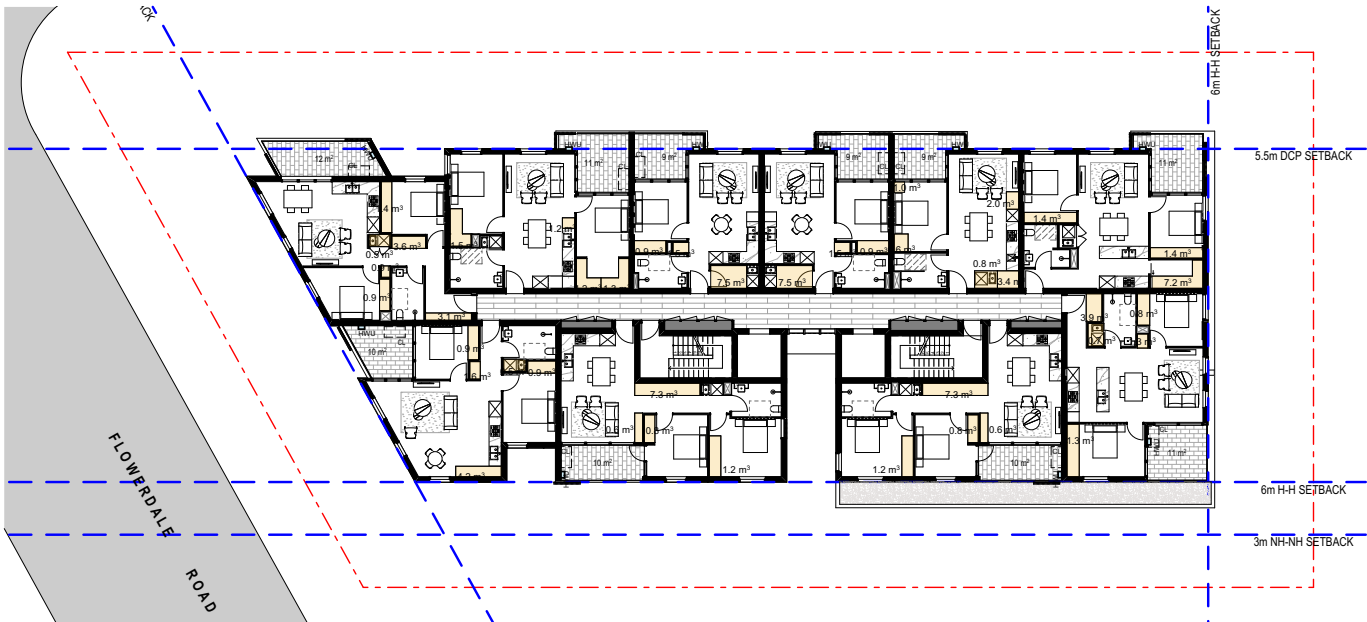
2.06 Principle 06 - Amenity - Storage



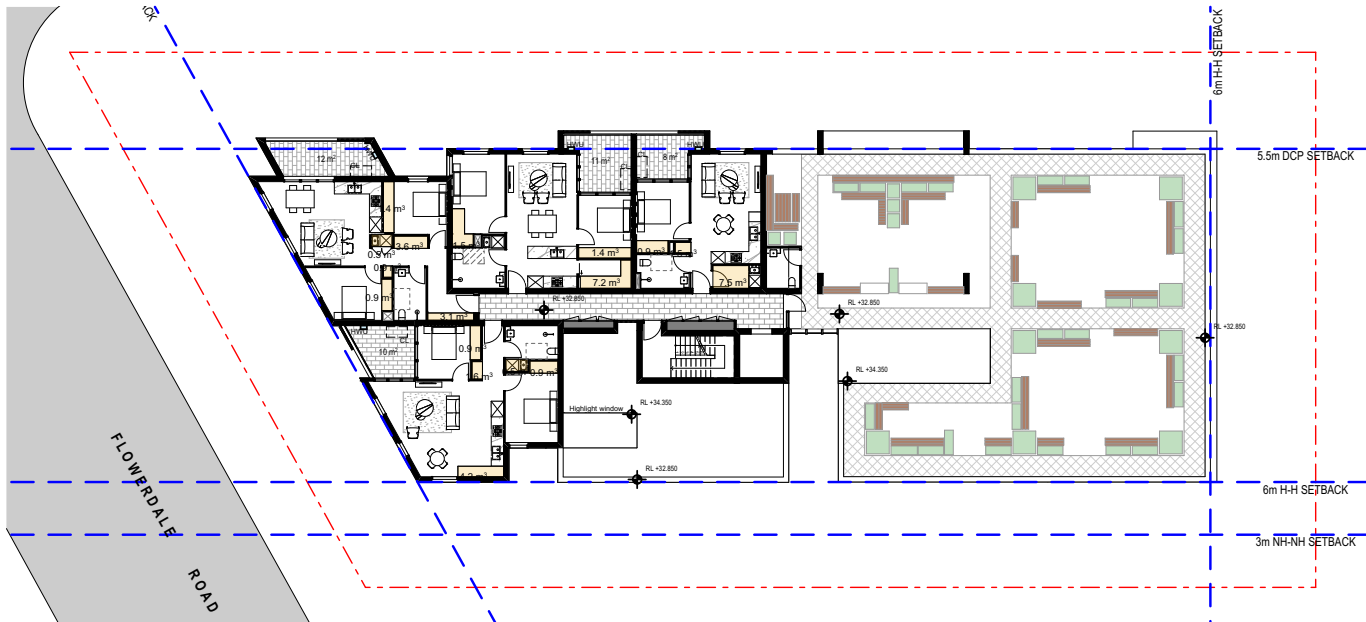
Storage Plan - Ground Floor
1:400



Storage Plan - Level 3
1:400



Storage Plan - Level 1 & level 2
1:400



Storage Plan - Level 4
1:400

Flowerdale Road Liverpool					
Apartment #	1B	2B	In Apartment	Storage Room	Total
G01	50		6.4		6.4
G02		70.8	9.5		9.5
G03		70.4	8.3		8.3
G04		70.1	8.5		8.5
G05		70.1	9		9
101	50		6.4		6.4
102 DDA		70.8	8.4		8.4
103		70.4	8.3		8.3
104		70.1	8.5		8.5
105		70.1	9		9
106		70.1	9		9
107		70.5	8.1		8.1
108		70.8	10		10
109 DDA	50		7.8		7.8
110	50		6.4		6.4

Flowerdale Road Liverpool					
Apartment #	1B	2B	In Apartment	Storage Room	Total
201	50		6.4		6.4
202 DDA		70.8	8.4		8.4
203		70.4	8.3		8.3
204		70.1	8.5		8.5
205		70.1	9		9
206		70.1	9		9
207		70.5	8.1		8.1
208		70.8	10		10
209 DDA	50		7.8		7.8
210	50		6.4		6.4
301	50		6.4		6.4
302		70.8	9.5		9.5
303		70.4	8.3		8.3
304		70.1	8.5		8.5
305		70.1	9		9

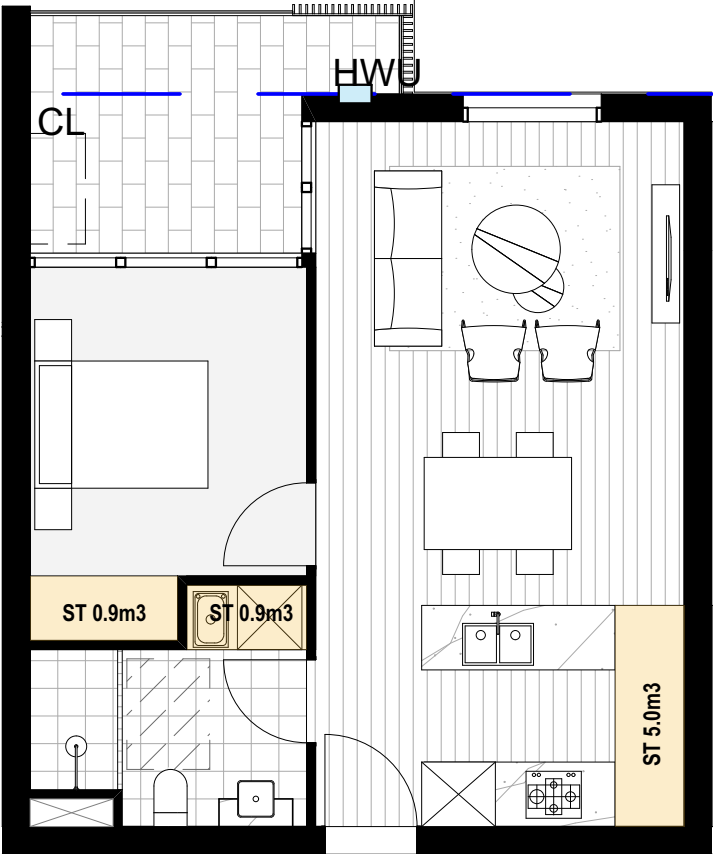
Flowerdale Road Liverpool					
Apartment #	1B	2B	In Apartment	Storage Room	Total
306		70.1	9		9
307		70.5	8.1		8.1
308		70.8	10		10
309	50		6.4		6.4
310	50		6.4		6.4
401	50		6.4		6.4
402		70.8	9.5		9.5
403		70.4	8.3		8.3
404		70.1	8.5		8.5

Storage is provided internally to each apartment. All units have been provided with required storage internally.



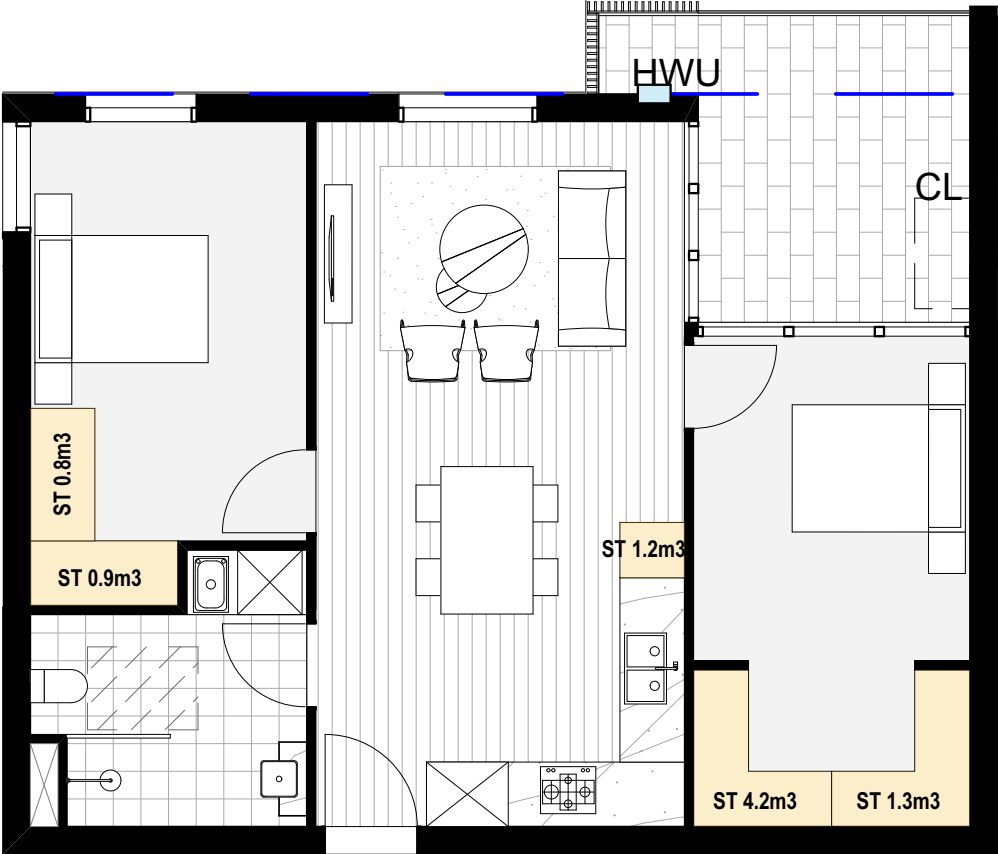
SEPP65 Design Quality Principles

2.06 Principle 06 - Amenity - Storage



Typical One Bedroom Apartment

6 m³ storage required
Compliant



Typical Two Bedroom Apartment

8 m³ storage required
Compliant

SEPP65 Design Quality Principles

2.07 Principle 07 - Safety

Apartment Design Guide (ADG)

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

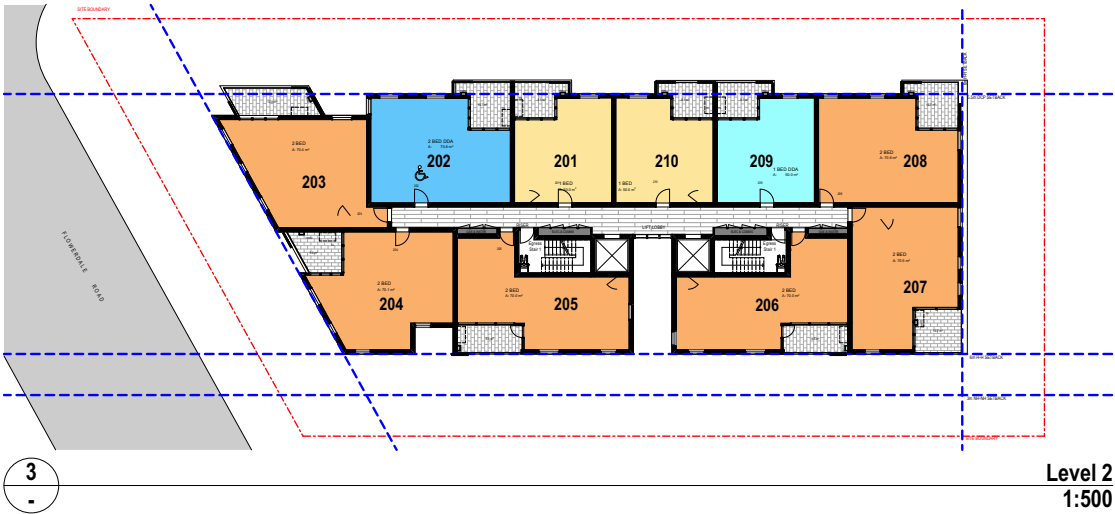
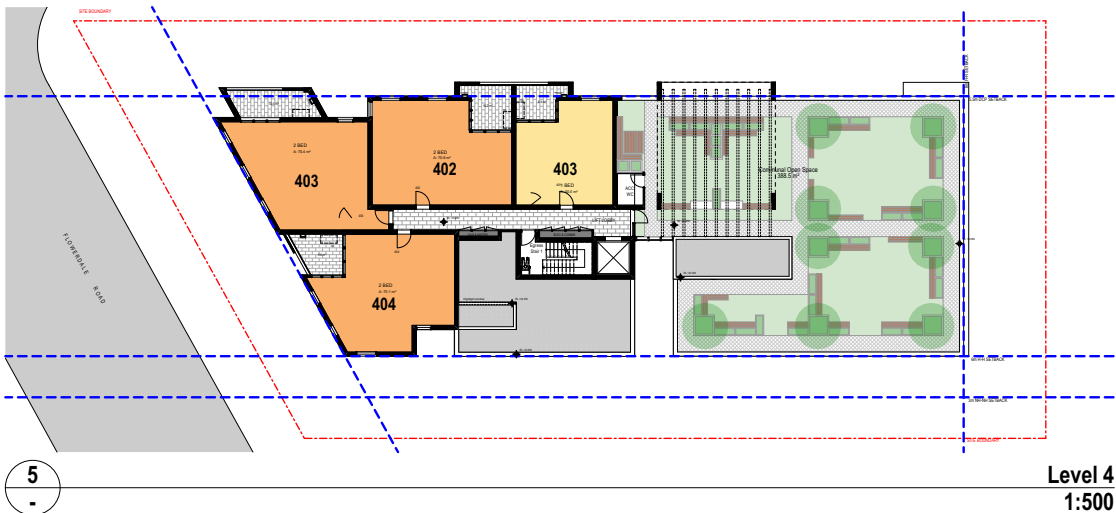
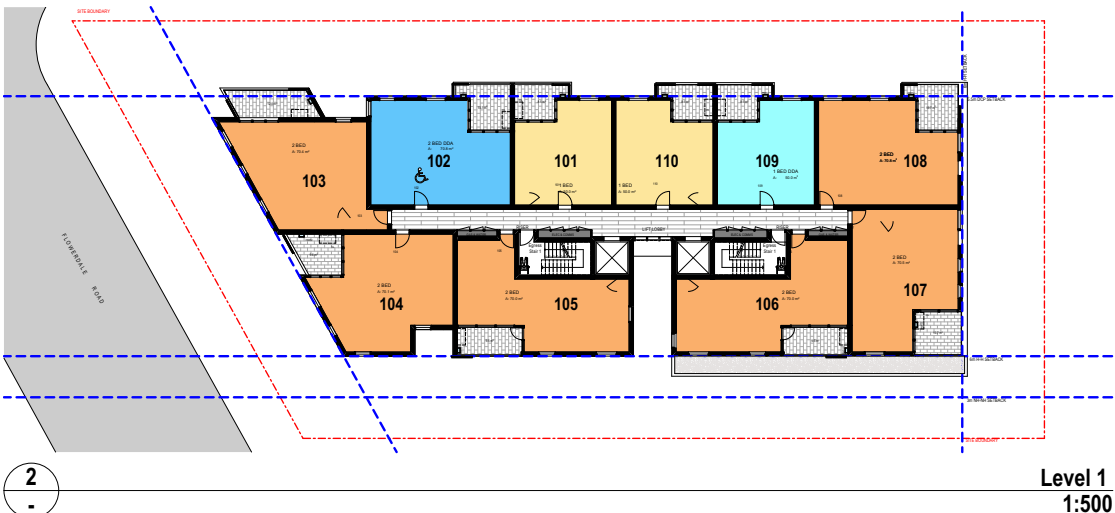
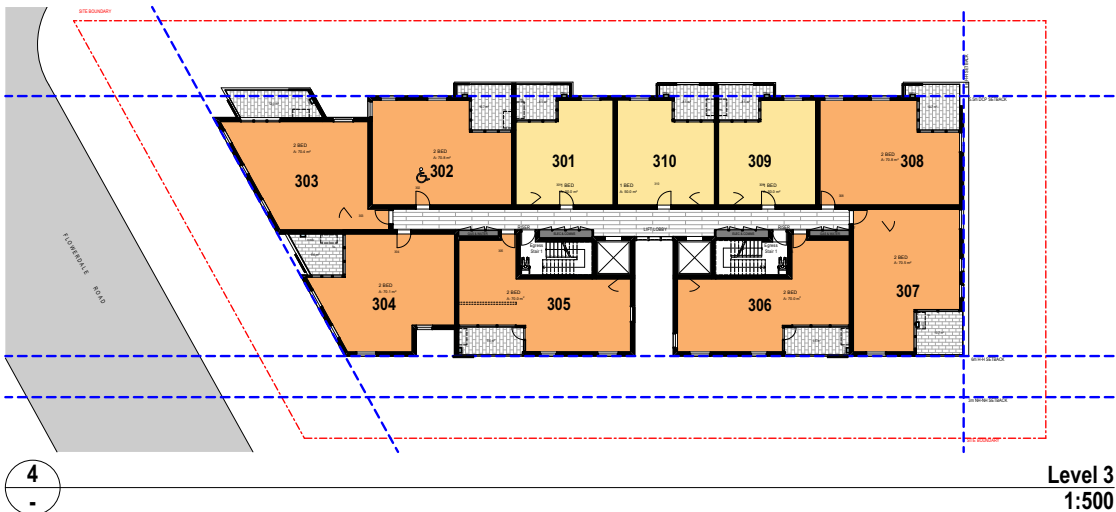
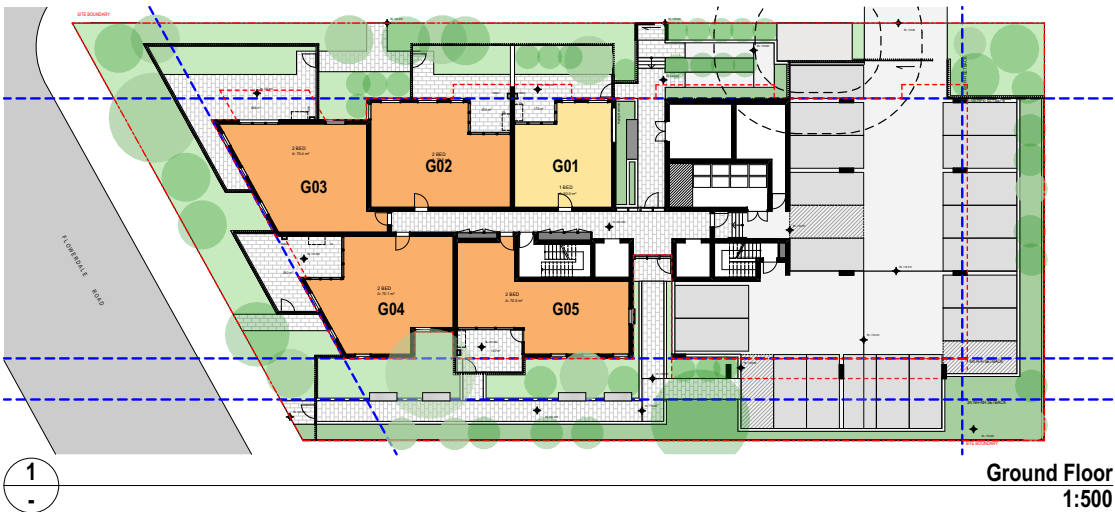
The design proposal provides clear and well defined lobby entries to each building with the main entry on Smith Crescent and a secondary private pedestrian entry off Flowerdale Road. These lobby entries will have clear and unobstructed views from the street and will be secure, lockable and well-lit for the safety of the residents.

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.


Casual Surveillance of Open Spaces: Casual surveillance entrances and exits on the site are possible from the units. Corner balconies and windows provide a wider degree of casual surveillance along the street.

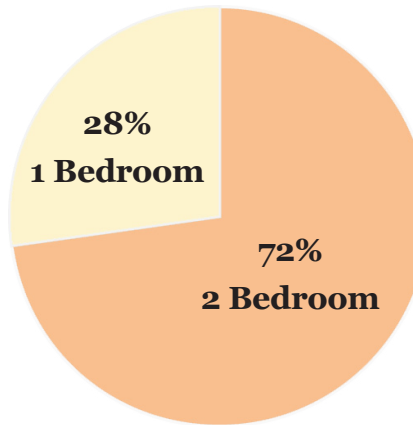


SEPP65 Design Quality Principles
2.08 Principle 08 - Housing Diversity - Apartment Mix

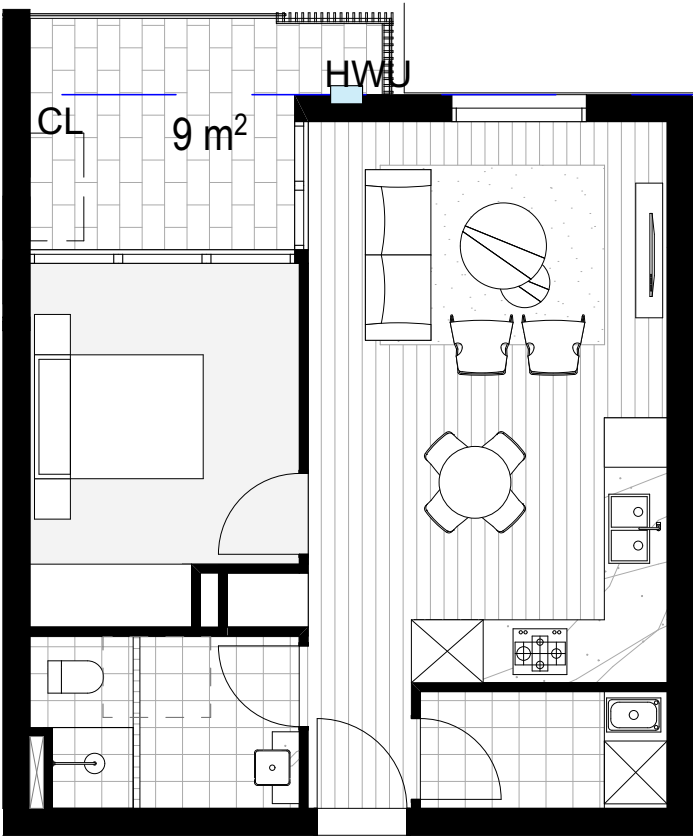


Flowerdale Road Liverpool					
Apartment Type			Apartment Type		
Apartment #	1B	2B	Apartment #	1B	2B
G01	50		206		70.1
G02		70.8	207		70.5
G03		70.4	208		70.8
G04		70.1	209 DDA	50	
G05		70.1	210	50	
101	50		301	50	
102 DDA		70.8	302		70.8
103		70.4	303		70.4
104		70.1	304		70.1
105		70.1	305		70.1
106		70.1	306		70.1
107		70.5	307		70.5
108		70.8	308		70.8
109 DDA	50		309	50	
110	50		310	50	
201	50		401	50	
202 DDA		70.8	402		70.8
203		70.4	403		70.4
204		70.1	404		70.1
205		70.1			

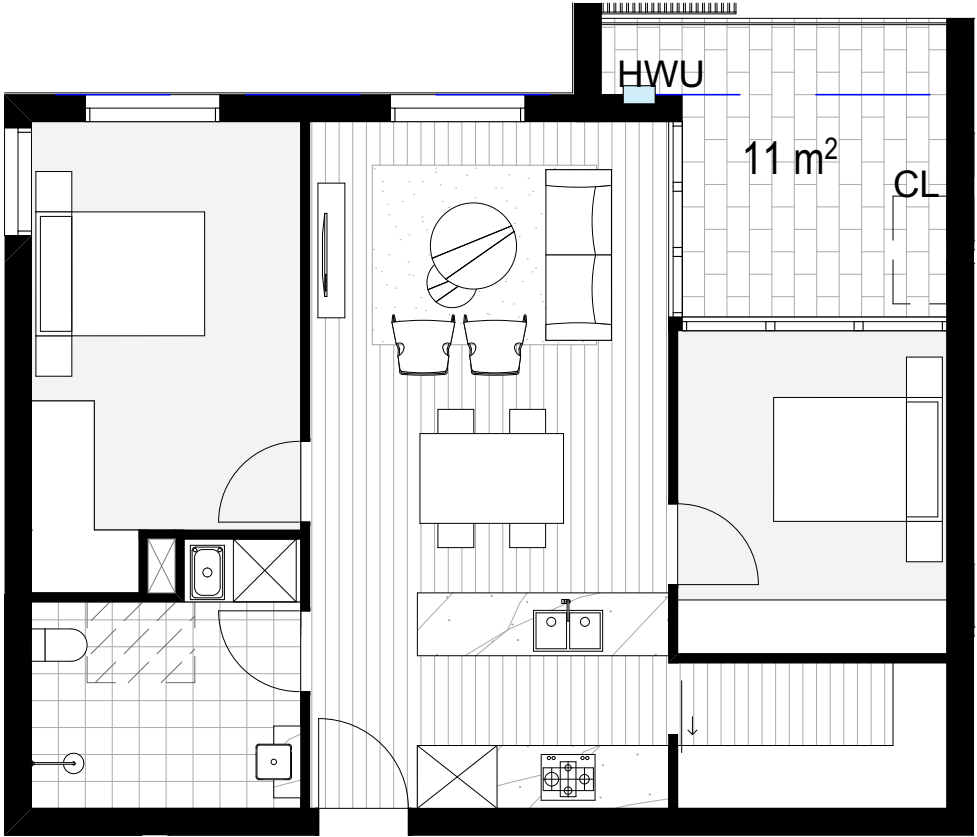
Apartment types		#
 1 Bedroom		9
 2 Bedroom		26
 1 Bedroom Adaptable		2
 2 Bedroom Adaptable		2
Total		39



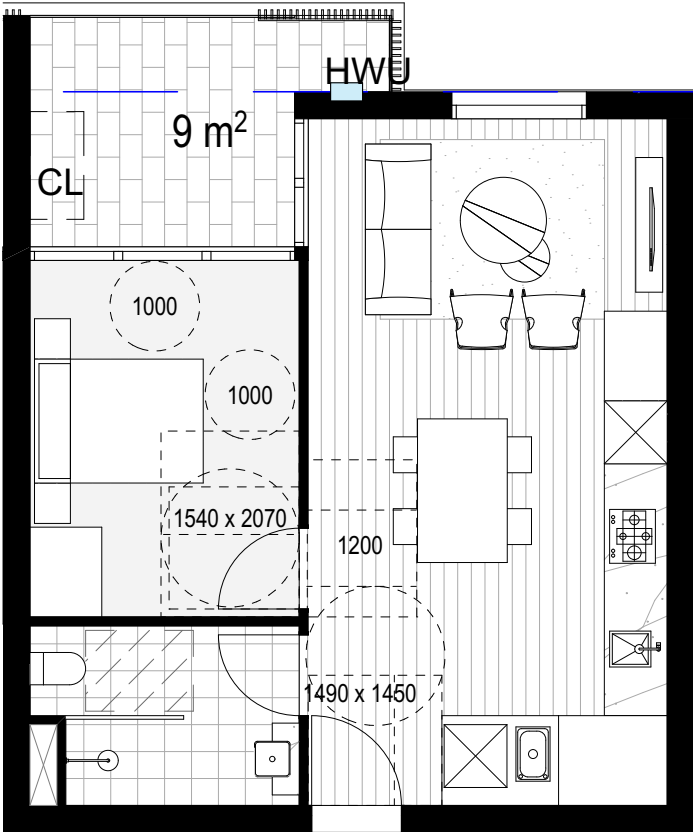
Unit Mix	
1 Bedroom Unit	11/39 = 28%
2 Bedroom Unit	28/39 = 72%
3 Bedroom Unit	0/39 = 0%



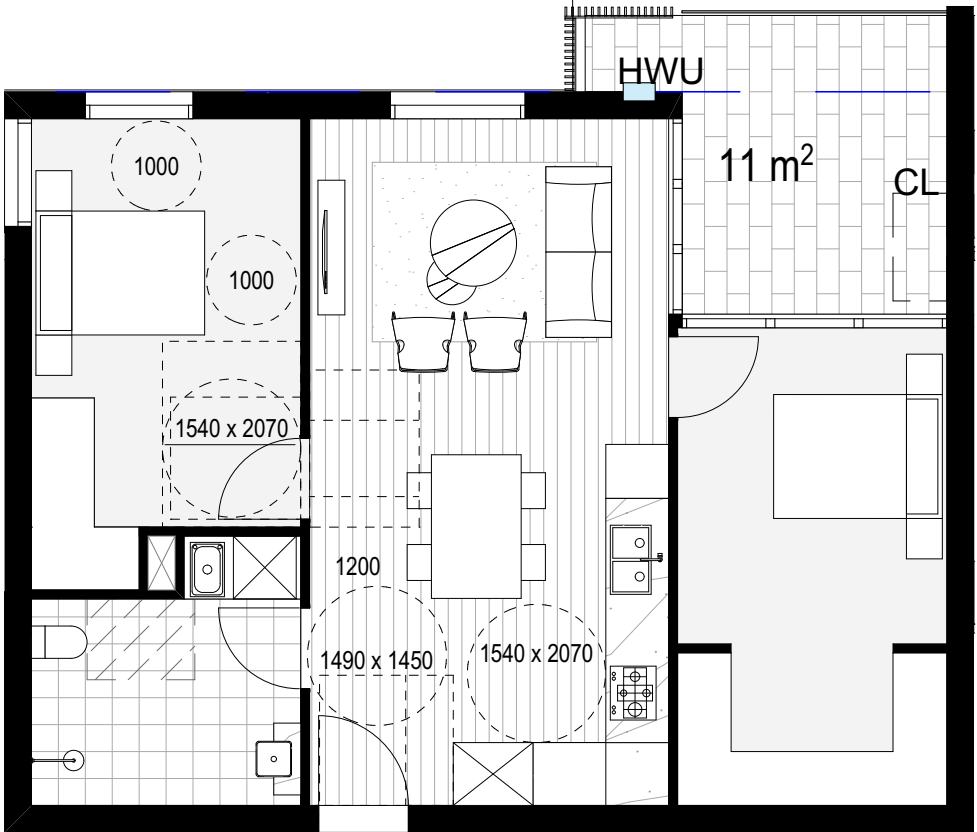
Typical 1 Bedroom Apartment
~50m²



Typical 2 Bedroom Apartment
~70m²



1 Bedroom Adaptable Apartment
~50m²



2 Bedroom Adaptable Apartment
~70m²

SEPP65 Design Quality Principles

2.09 Principle 09 - Aesthetics

Apartment Design Guide (ADG)
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 5 storey building surrounded by landscaped gardens and communal open space. The building’s main entrance is positioned on the North along Smith Crescent. Residents and visitors enter the building along a path at street level; the main entrance is accentuated by communal areas, ornamental trees and planting that line the walkway up to the entrance door of the ground floor lobby (refer to landscape architect’s drawing). Motor vehicle and service access is via Smith Crescent. This ramp entrance is at the right of the site.

The massing of the proposal has been broken into several volumes to ensure an interesting and appropriate overall proportion is achieved. This reduces the bulk and scale to the building. A combination of glazed balustrades and full height vertical screen create a visually dynamic and articulated façade.

Materials, Colours and Textures
The colour choices utilise light colour framing with dark colour underlay to create strong contrast and to sculpt the building, giving a sense of depth 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 step downs in building mass. The brick element contributes to the texture and materiality of the façade and is in-keeping with the surrounds and the general character of the surrounding buildings.



Articulated Parapets



Metal Cladding



Glass Balustrades



Slab Edge / Alternating Brick Colours



SEPP65 Design Quality Principles

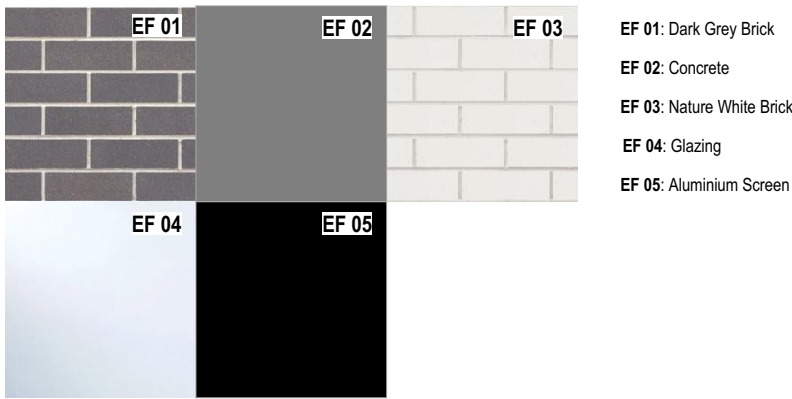
2.09 Principle 09 - Architectural Expression



SEPP65 Design Quality Principles

2.09 Principle 09 - Architectural Expression





SEPP65 Design Quality Principles

3.0 SEPP Compliance Table

Table 1. Summary of compliance with the key Apartment Design Guide 'Design Criteria'			Table 1. Summary of compliance with the key Apartment Design Guide 'Design Criteria'		
Control	ADG Design Criteria	Compliance	Control	ADG Design Criteria	Compliance
3D Communal Open space	Minimum of 25% of the site area should be devoted to communal open space.	Site area: 1,907m ² Required Communal open space: 477m ² (25%) Proposed Communal open space: 606m ² (31.7%) Communal open space is provided at both the ground Level and at Level 4. A high level of solar access is achieved to both communal open spaces achieving a high level of amenity. Compliance is achieved with regards to ADG Design Guidance	4D-3 Apartment Size + layout	Bedrooms have a minimum dimension of 3m (excluding wardrobe space).	Compliance achieved
	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)	As the main communal open space is located on the roof level of the building, it receives unobstructed solar access, easily exceeding the minimum requirements. Compliance achieved		Living rooms or combined living/dining rooms have a minimum width of: <ul style="list-style-type: none">3.6m for studio and 1 bedroom apartments4m for 2 and 3 bedroom apartments	Compliance achieved
3E Deep Soil Zones	Minimum of 7% of a site should be a deep soil zone with the following minimum dimensions: <ul style="list-style-type: none">greater than 1,500m² – 6m	Site area: 1,907m ² Required Deep soil: 133m ² (7%) Proposed deep soil zone: 358m ² (18.8%) Compliance achieved		The width of cross-over or cross-through apartments are at least 4m internally to avoid deep narrow apartment layouts.	Compliance achieved
	Up to four storeys/12 meters <ul style="list-style-type: none">6 meters to the boundary between habitable rooms/balconies3 meters to the boundary between non-habitable rooms Five to eight storeys / up to 25 meters <ul style="list-style-type: none">9 meters to the boundary between habitable rooms/balconies4.5 meters to the boundary between non-habitable rooms Nine storeys and above/ over 25 meters <ul style="list-style-type: none">12 meters between habitable rooms/balconies6 meters between non-habitable rooms	The building provides 6m setbacks to sides with neighboring properties from levels G-4 and 5.5m DCP setbacks to the streets it interacts with. Compliance is achieved with regards to ADG Design Guidance	4E Private open space and balconies	Apartments are to have the following balcony dimensions: <ul style="list-style-type: none">1br – 8sqm with min.2m depth2br – 10sqm with min. 2m depth3br – 12sqm with min. 2.4m depth Ground level apartments should contain a minimum of 15m ² of open space, with a minimum dimension in one direction of 3m.	Compliance achieved Ground Level apartments all have more than 15m2 private open space. The minimum balcony depth is the minimum depth set out in the ADG for 1 Bed and 2 Bed units. Compliance is achieved with regards to ADG Design Guidance
3F Visual Privacy Building separation			4F Common circulation and spaces	The maximum number of apartments off a circulation core on a single level is eight. For buildings of 10 storeys and over, the maximum number of apartments sharing a single lift is 40.	Each building has a maximum of 5 units off a single core per level. All lobbies are designed to have natural light and ventilation; with direct access to the communal gardens on ground level. Compliance achieved Compliance achieved
3J Bicycle and Car Parking	The maximum car parking rates are as follows: Residential 0.6 Spaces per 1 Bed 0.9 Spaces per 2Bed 1.4 Spaces per 3 Bed Retail: 1 per 25m2 Childcare: 1 space per 8 children Staff: 1 space per 2 Visitors: 1 per 10 dwellings	Car parking rates comply with City of Liverpool Council DCP 2018. Compliance achieved	4G Storage	<ul style="list-style-type: none">Studio apartments require 4m² of storage areaOne bedroom dwellings require 6m³ of storage areaTwo bedroom dwellings require 8m³ of storage area.Three bedroom dwellings require 10m³ of storage area.	Storage is wholly provided in each and every apartment. Compliance is achieved with regards to ADG Design Guidance
4A	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	Minimum number of apartments with 2hrs solar access required: 28 Proposed: 28 (72%)			
Table 1. Summary of compliance with the key Apartment Design Guide 'Design Criteria'					
Control	ADG Design Criteria	Compliance			
Solar + Daylight Access	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.	Compliance achieved			
	A maximum of 15% of apartments in a building receive no direct sunlight between 9 am and 3 pm at mid-winter.	Compliance is achieved with regards to ADG Design Guidance			
4B Natural Ventilation	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.	Number of Apartments: 39 Cross Ventilated Apartments: 25/39 apartments (64%) Compliance achieved			
	Overall depth of a cross-over or cross-through apartment does not exceed 18m, measured glass line to glass line.	No cross over or cross through apartments proposed Compliance achieved			
4C Ceiling heights	Minimum ceiling heights are as follows: <ul style="list-style-type: none">2.7m for habitable rooms2.4m for non-habitable roomsdouble storey apartments – 2.7m for main living area, 2.4m for second floor where its area does not exceed 50% of the apartment areaattic spaces – 1.8m at edge of room with a minimum 30degree slope in mixed use areas – 3.3m for ground and first floor	Proposed 2.7m habitable– Compliance achieved Proposed 2.4 m non habitable – Compliance achieved			
	Minimum Apartment sizes: <ul style="list-style-type: none">70m² for two bedrooms; and90m² for three bedrooms. Add an 5m² for additional bathrooms Add an 12m² for additional bedrooms	Compliance achieved			
4D-1 Apartment Size + layout	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			
4D-2 Apartment Size + layout	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			
	Master bedrooms have a minimum area of 10m2 and other bedrooms 9m2 (excluding wardrobe space).	Compliance achieved			

19th February 2019

Council of Submission:

Liverpool City Council
Ground floor, 33 Moore street
Liverpool, NSW 2170

Re:

127-129 Flowerdale Road, Liverpool, 2170

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 principals 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 Designs compliance with all ten of the principals in SEPP 65 Design Compliance Table accompanying this development application

Yours Faithfully



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



DKO