

EPPING ROAD NORTH RYDE

CONCEPT DESIGN REPORT

366-372 LANE COVE RD, 124A & 126 EPPING ROAD &
1 PAUL STREET, NORTH RYDE

DOCUMENT FOR

FRANPINA DEVELOPMENTS PTY LTD

10 FEBRUARY 2017



CLIENT

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1.0 INTRODUCTION

Our aim is to create a landmark residential precinct befitting of site and context.

The Concept Design establishes an excellent degree of amenity to all apartments, including abundant sunlight and cross-ventilation, and generous separation between buildings.

The existing residential context has been carefully considered in forming the Concept Design, and the proposed village of buildings responds sensitively to surroundings in terms of height, setbacks, public open space and pedestrian connectivity.





1.1 SITE LOCATION

- Subject Site
- 5 minute walking radius
- Macquarie Park Retail
- Macquarie University
- T Upper - Macquarie University Station
Lower - Macquarie Park Station



1.2 SITE CONTEXT

EXISTING MEDICAL CENTRE



1/ Lane Cove Road



2/ Lane Cove Road



3/ Epping Road

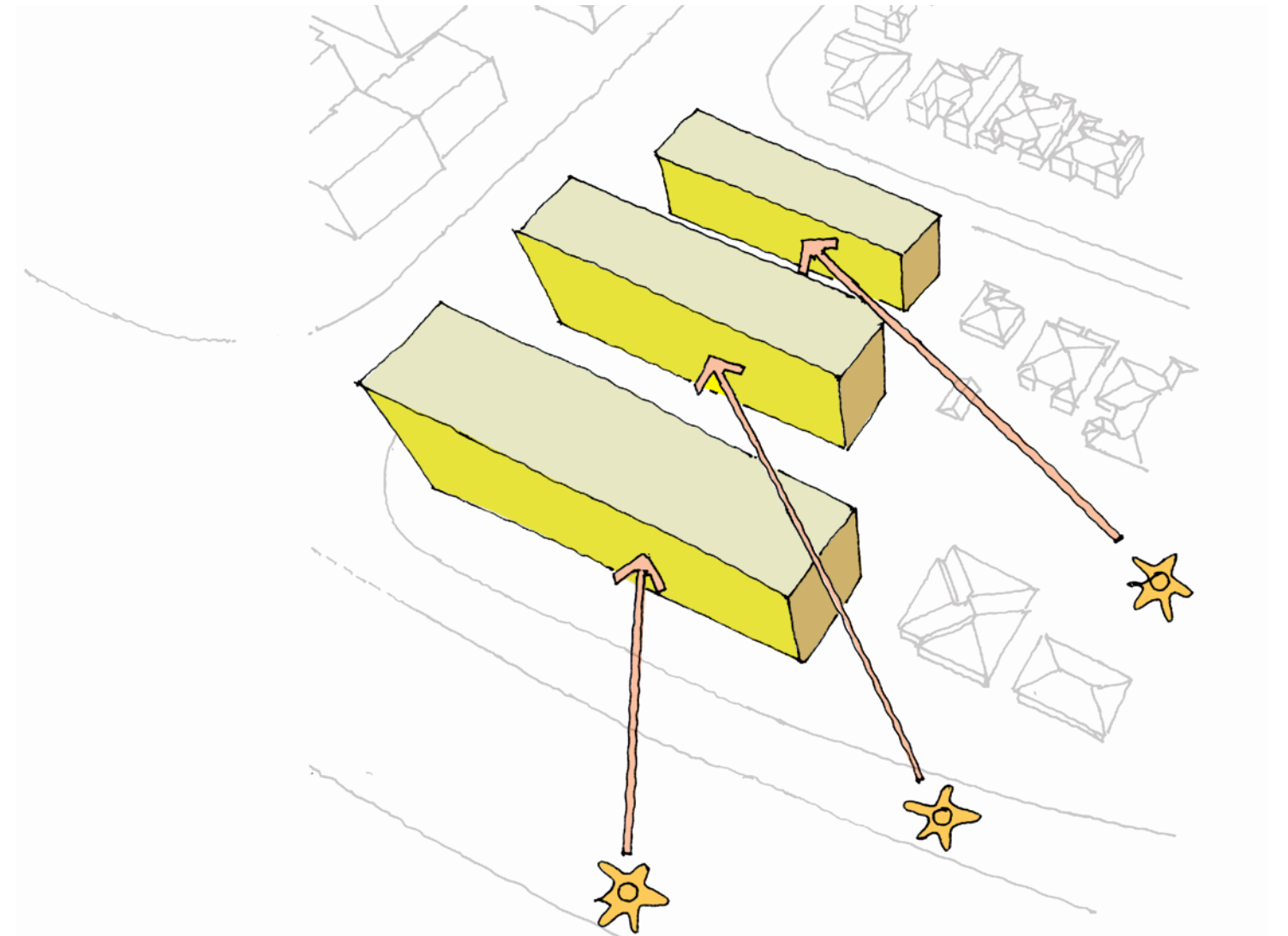


4/ Paul Street

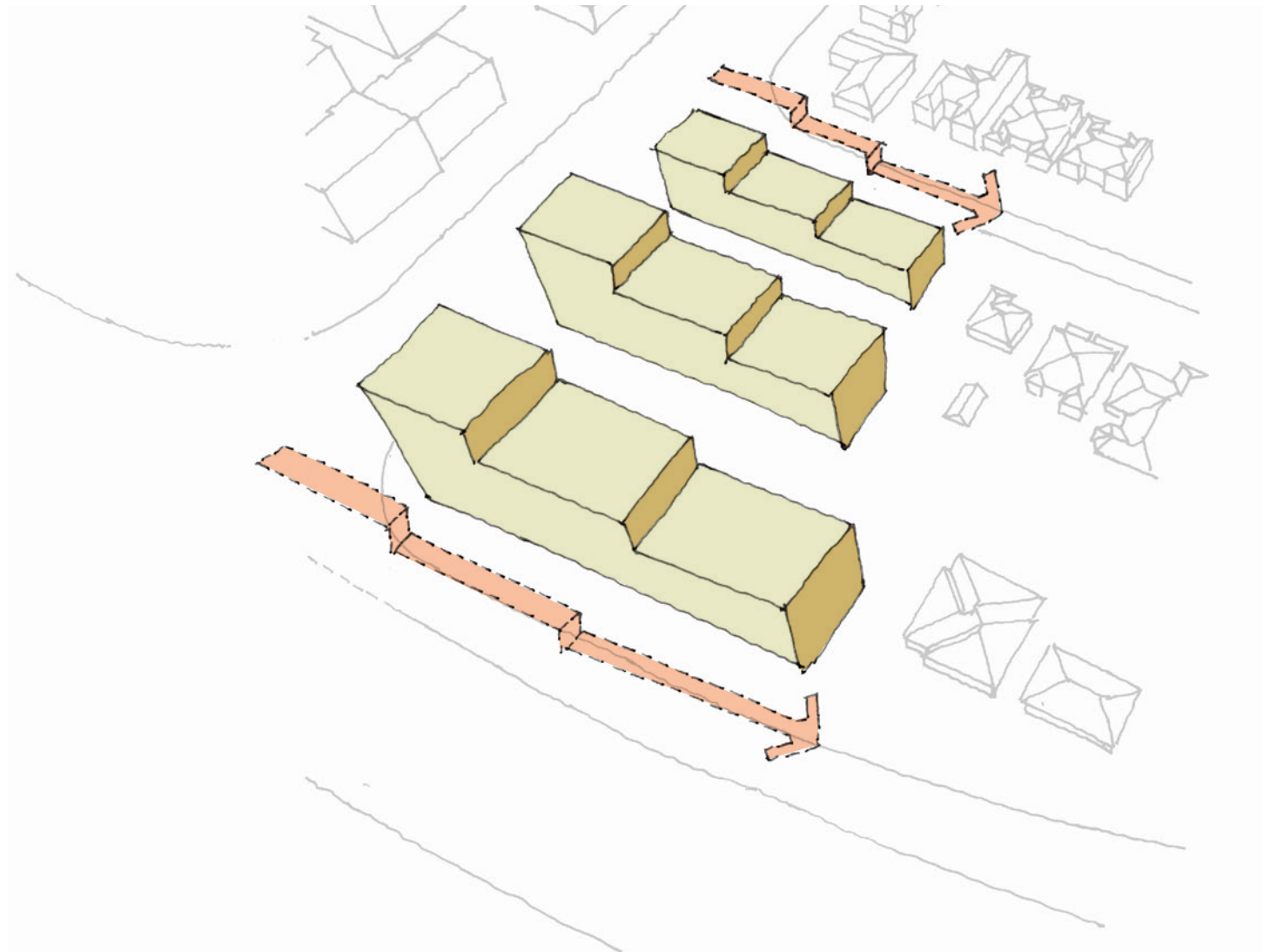
2.1

DESIGN PRINCIPLES

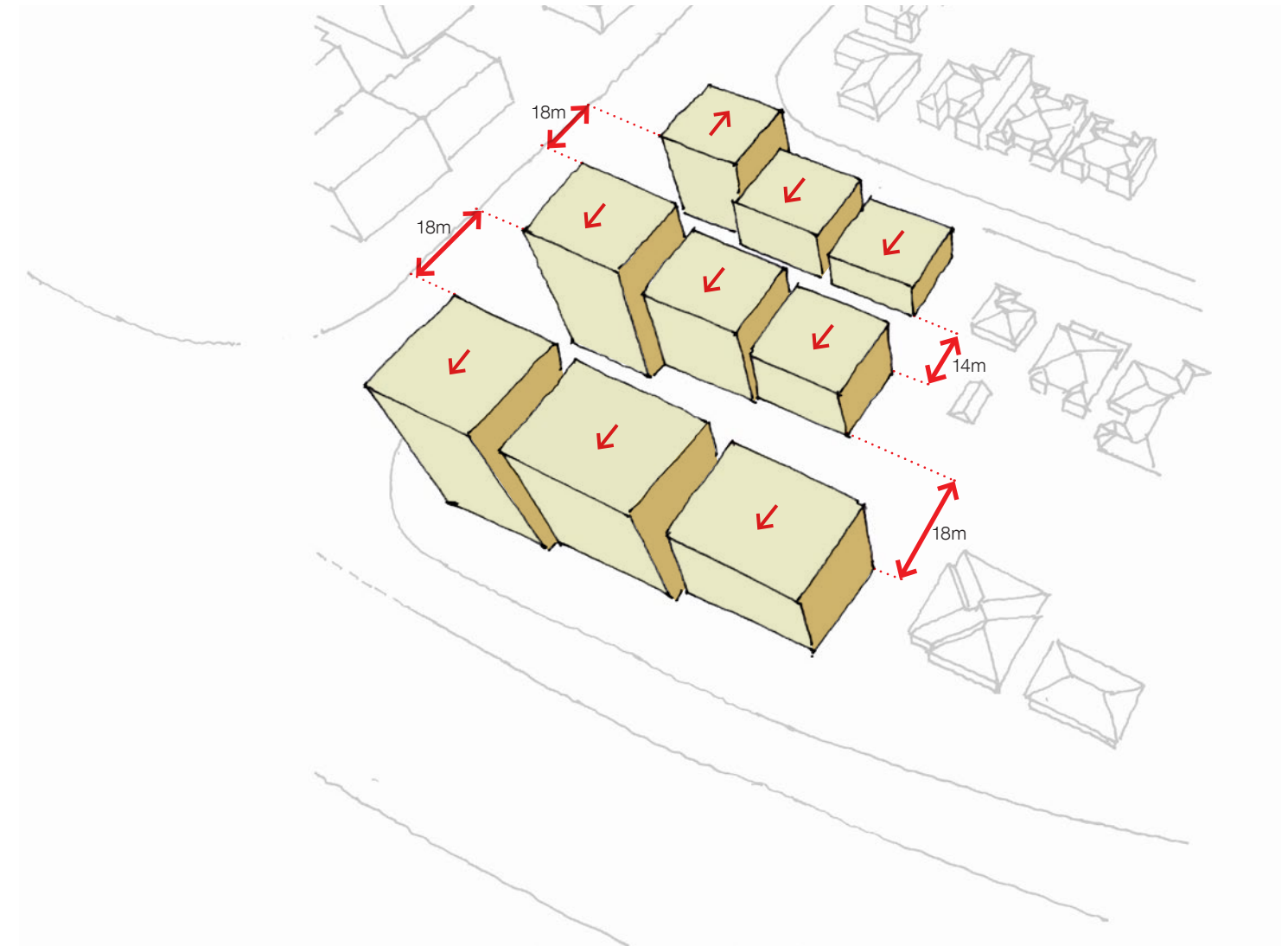
MASSING



1/ The arrangement of three linear forms maximises opportunities for northern sunlight to reach apartments, and improves provision of natural ventilation

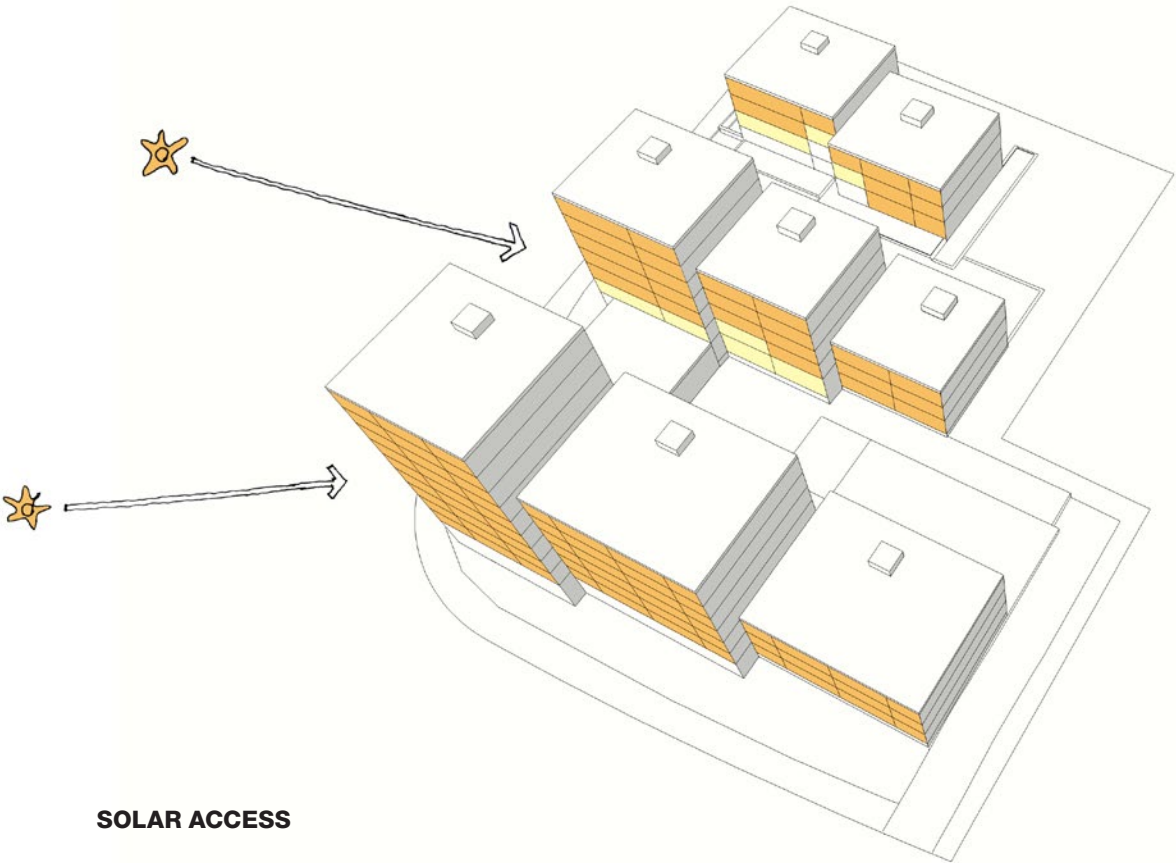


2/ Each linear building form steps down from the Epping Road Lane Cove Road intersection, transitioning to a scale compatible with the neighbouring context



3/ Building masses have been moved north & south to create a 'village' of forms, while accommodating separation requirements for visual privacy, solar access and landscaping

2.2 DESIGN PRINCIPLES SEPP 65 COMPLIANCE

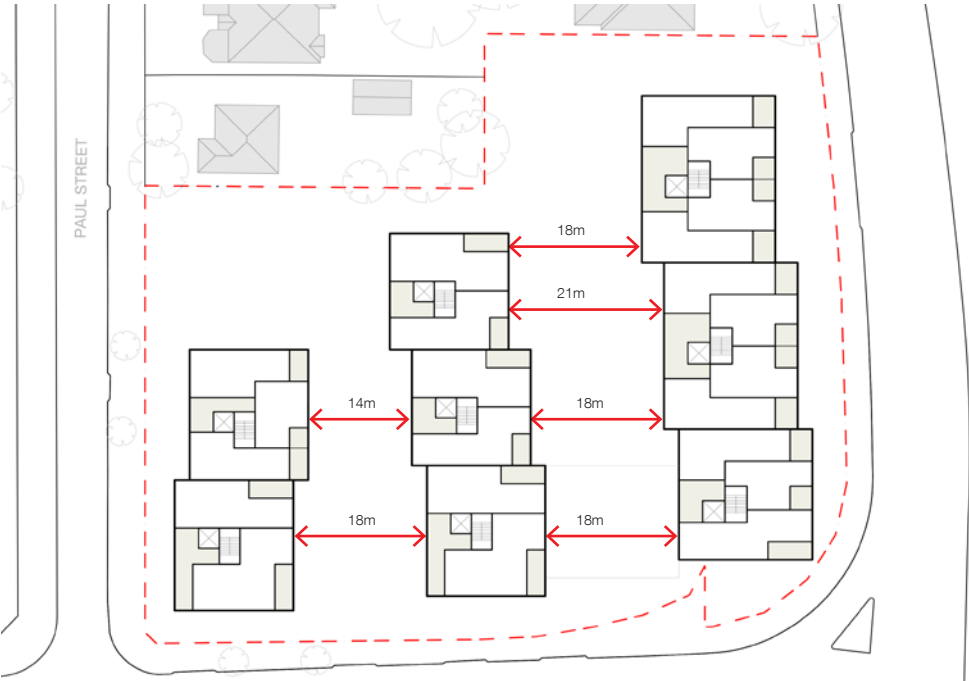


SOLAR ACCESS

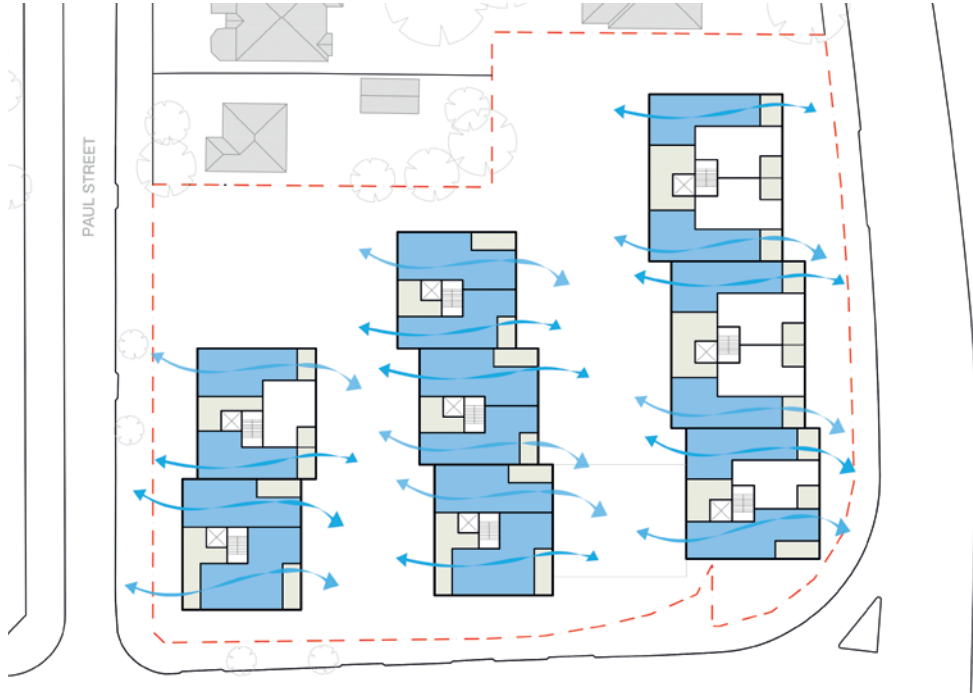
Proposed Concept Design

- More than 3 hours of solar access: 89% (96 / 108)
- More than 2 hours of solar access: 96% (104 / 108)

Solar access calculated at June 21, to a minimum of 1sqm of direct sunlight for living room windows, based on anticipated typical apartment plans.



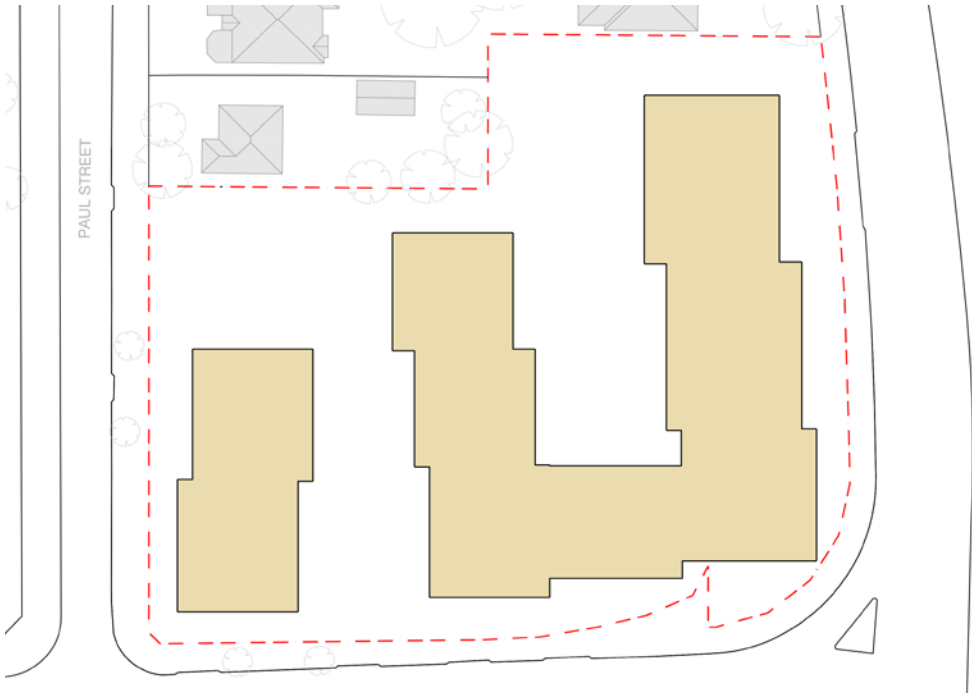
BUILDING SEPARATION



Proposed Concept Design

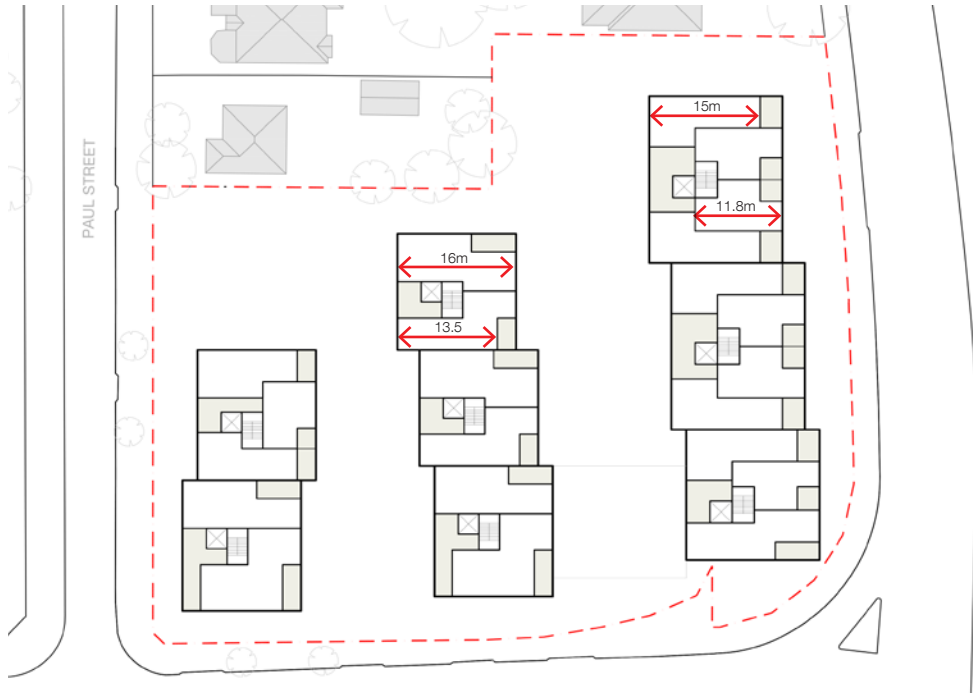
CROSS-VENTILATION

■ Apartments with cross ventilation: 72% (78 / 108)



SITE COVERAGE CALCULATIONS

■ Site Area: 6,654sqm
■ Site Coverage: 3,118sqm (46%)



APARTMENT DEPTHS



PERVIOUS AREA CALCULATIONS

■ Site Area: 6,654sqm
■ Pervious Area: 2,695sqm (40%)

2.3 PUBLIC OPEN SPACE & VEHICLE ACCESS

The concept design includes public open space fronting Paul Street with an area of approximately 415 square metres, for use by local residents.

The public space would serve as the entry point to a through-site pedestrian link, providing connectivity through the site from Paul Street towards Epping Road and the Macquarie Park precinct beyond.

The adjacent building envelopes have been modified to increase setbacks and landscaped area. The buffer zones of deep soil planting assist in providing visual privacy between the apartment buildings, public open space, and neighbouring residences.

Primary vehicle access is from the Epping Road entry ramp, and secondary access (typically non-residential) is from Paul Street. This proposal has been agreed to in principle by Roads & Maritime Services.

- 1 Bedroom Apartment
- 2 Bedroom Apartment
- 3 Bedroom Apartment
- Retail / Commercial / Medical Uses
- Landscape Space - On Podium
- Landscape Space - Deep Soil

 1:500

Lower Ground Floor Plan
Proposal

BATESSMART™





Aerial View of Public Open Space
Proposed Concept Design

3.1 PROPOSED CONCEPT DESIGN

SUMMARY OF DEVELOPMENT CALCULATIONS

Site Area	6,654 m²
Floor Space	
Residential GFA	8,746 m²
Non-resi GFA	1,210 m²
Total GFA	9,956 m²
FSR	1.50 : 1
Height	
Max. storeys	10
Tallest envelope	36.6 m
Dwellings	
Apartments	108
Solar access	
3+ hours	89%
2+ hours	96%
Cross-ventilation	72%
Building separation	14-21m
Carparking	
Total Spaces	189



Aerial View from West
Proposed Concept Design

3.2 BUILDING HEIGHTS PROPOSED CONCEPT DESIGN



Indicative Massing Plan
Proposed Concept Design

4.1 MASSING VIEW



Aerial View from North
Proposed Concept Design

4.2 MASSING VIEW



Aerial View from South
Proposed Concept Design

4.3 MASSING VIEW



Aerial View from East
Proposed Concept Design

5.1

VIEWS IN CONTEXT



View from Epping Road Underpass, looking East
Proposed Concept Design

5.2

VIEWS IN CONTEXT



View from Lane Cove Road, looking South
Proposed Concept Design

5.3 VIEWS IN CONTEXT



View from Epping Road / Lane Cove Road Intersection
Proposed Concept Design

5.4

VIEWS IN CONTEXT



View from Lane Cove Road / Allengrove Crescent
Proposed Concept Design

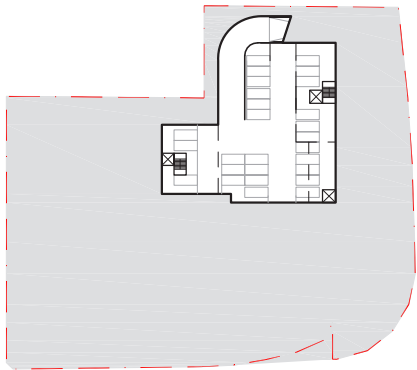
5.5

VIEWS IN CONTEXT



View from Paul Street
Proposed Concept Design

6.1 PROPOSED PLANS



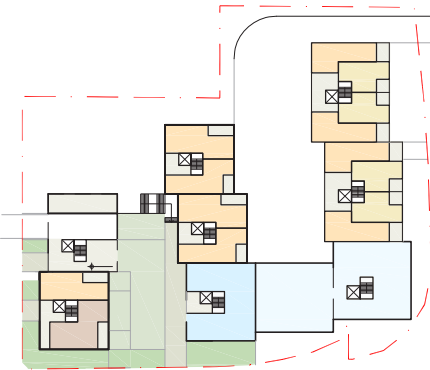
Basement 2



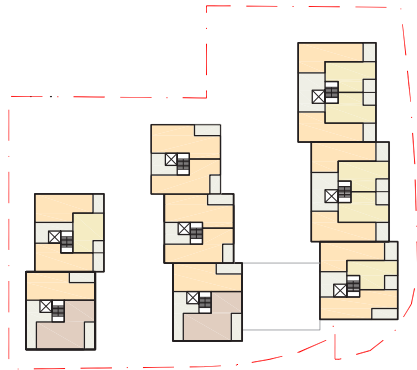
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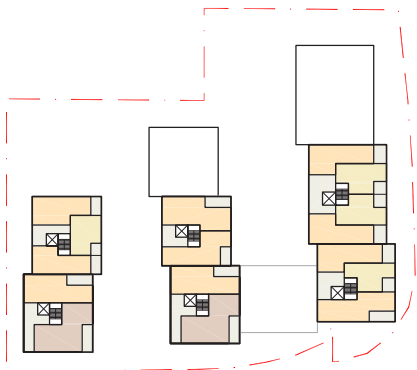
Lower Ground



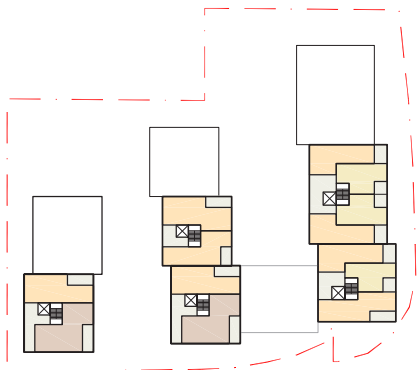
Upper Ground



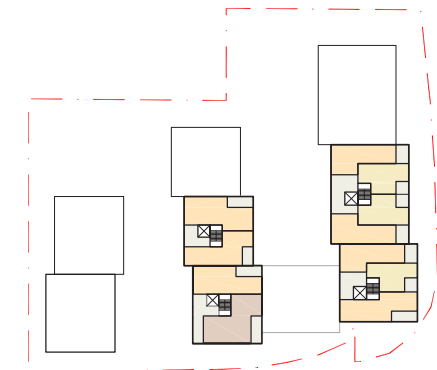
Level 1



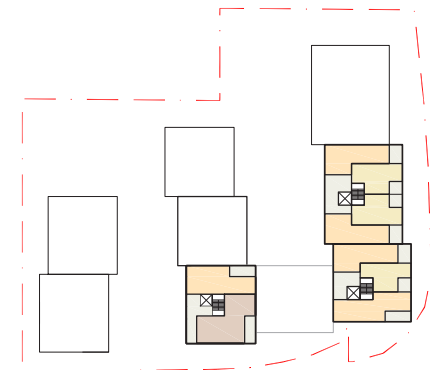
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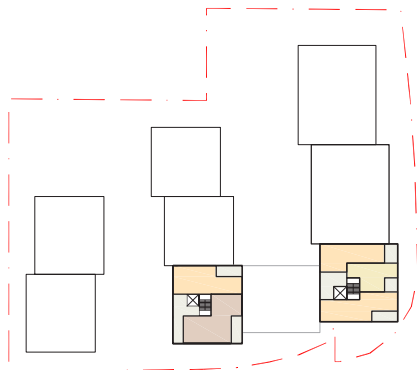
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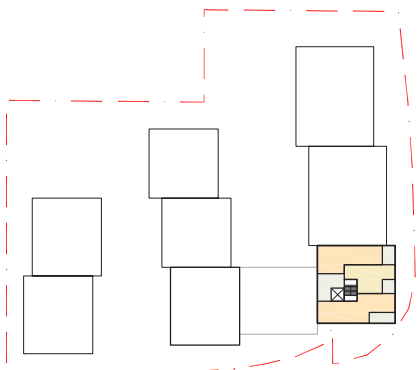
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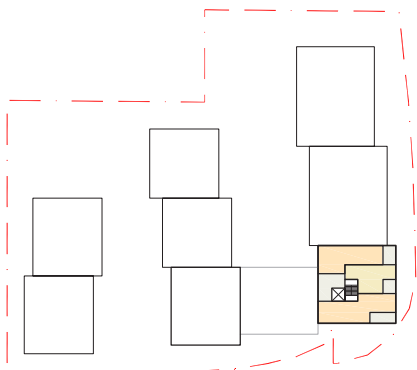
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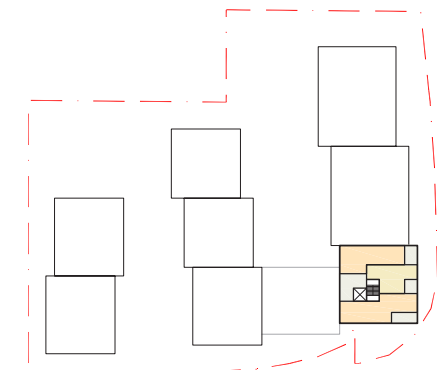
Level 6



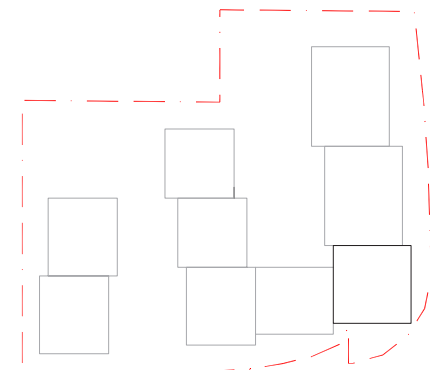
Level 7



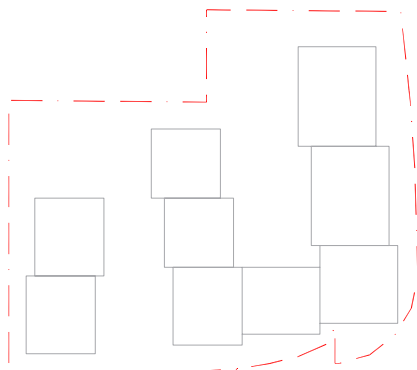
Level 8



Level 9



Level 10



Level 11

6.2

DEVELOPMENT

SUMMARY

PROPOSED CONCEPT

DESIGN

SUMMARY OF INDICATIVE PROPOSAL PROPOSED CONCEPT DESIGN		
Apartment Type	No.	Mix
1 Bedroom	38	35%
2 Bedroom	59	55%
3 Bedroom	11	10%
Total No. of Apartments	108	
No. of Car Spaces Provided	189	
Residential GFA	8,746 m²	1.31 :1
Non-Residential GFA	1210 m²	0.18 :1
Total GFA	9,956 m²	
Site Area	6,654 m²	
Floor Space Ratio		1.50 :1
Number of Storeys	10	
Use	No.	Height per storey
Commercial	1	5.6 m
Residential	9	3.1 m
Roof / lift overrun		1.8 m
Cross fall of site at tallest building		1.3 m
Maximum Height		36.6 m



7.0 ALTERNATIVE DENSITY OPTIONS

Two alternative density options have been included in this report for comparison with the preferred Concept Design. The FSR and maximum building heights of each alternative are in accordance with the Department of Planning and Environmental Gateway Determination conditions, namely a 7 storey maximum height with FSR of 1.35:1, and 5 storey maximum height with an FSR of 1.20:1.

The characteristics of the alternative density options are addressed in the following sections of the report, including:

- / Overall massing of the built form envelope
- / appearance when viewed from surrounding vantage points
- / solar access to apartments
- / Cross ventilation to apartments
- / Overshadowing impacts on adjacent properties.

In each of the alternative options, the plan arrangement and building separation have been maintained as per the preferred Concept Design. The reduction in maximum height to 7 and 5 storeys, in conjunction with reduced FSR, has necessitated the redistribution of building heights across the site. As a result, the two alternative options include increased heights for some of the lower building volumes, as follows:

/ In the 7-storey alternative, the building volume at the corner of Paul Street and Lane Cove Road has increased in height by one storey.

/ In the 5-storey alternative, the building volume at the northern corner, adjacent to the Epping Road vehicle entry, has increased in height by one storey.

The original massing strategy of a gradual height transition across the site has been maintained.



7-storey Alternative

Maximum height: 7 storeys
FSR: 1.35:1



5-storey Alternative

Maximum height: 5 storeys
FSR: 1.20:1

8.1

7-STOREY ALTERNATIVE

SUMMARY OF DEVELOPMENT
CALCULATIONS

Site Area	6,654 m²
Floor Space	
Residential GFA	7,770 m²
Non-resi GFA	1,210 m²
Total GFA	8,981 m²
FSR	1.35 : 1
Height	
Max. storeys	7
Tallest envelope	27.3 m
Dwellings	
Apartments	95
Solar access	
3+ hours	92%
2+ hours	96%
Cross-ventilation	75%
Building separation	14-21m
Carparking	
Total Spaces	175



Aerial View from West
7 Storey Alternative

8.2
BUILDING HEIGHTS
7-STOREY
ALTERNATIVE



Indicative Massing Plan
7 Storey Alternative

9.1 MASSING VIEW



Aerial View from North
7 Storey Alternative

9.2 MASSING VIEW



Aerial View from South
7 Storey Alternative

9.3 MASSING VIEW



Aerial View from East
7 Storey Alternative

10.1

VIEWS IN CONTEXT



View from Epping Road Underpass, looking East
7 Storey Alternative

10.2

VIEWS IN CONTEXT



View from Lane Cove Road, looking South
7 Storey Alternative

10.3

VIEWS IN CONTEXT



View from Epping Road / Lane Cove Road Intersection
7 Storey Alternative

10.4

VIEWS IN CONTEXT



View from Lane Cove Road / Allengrove Crescent
7 Storey Alternative

10.5

VIEWS IN CONTEXT



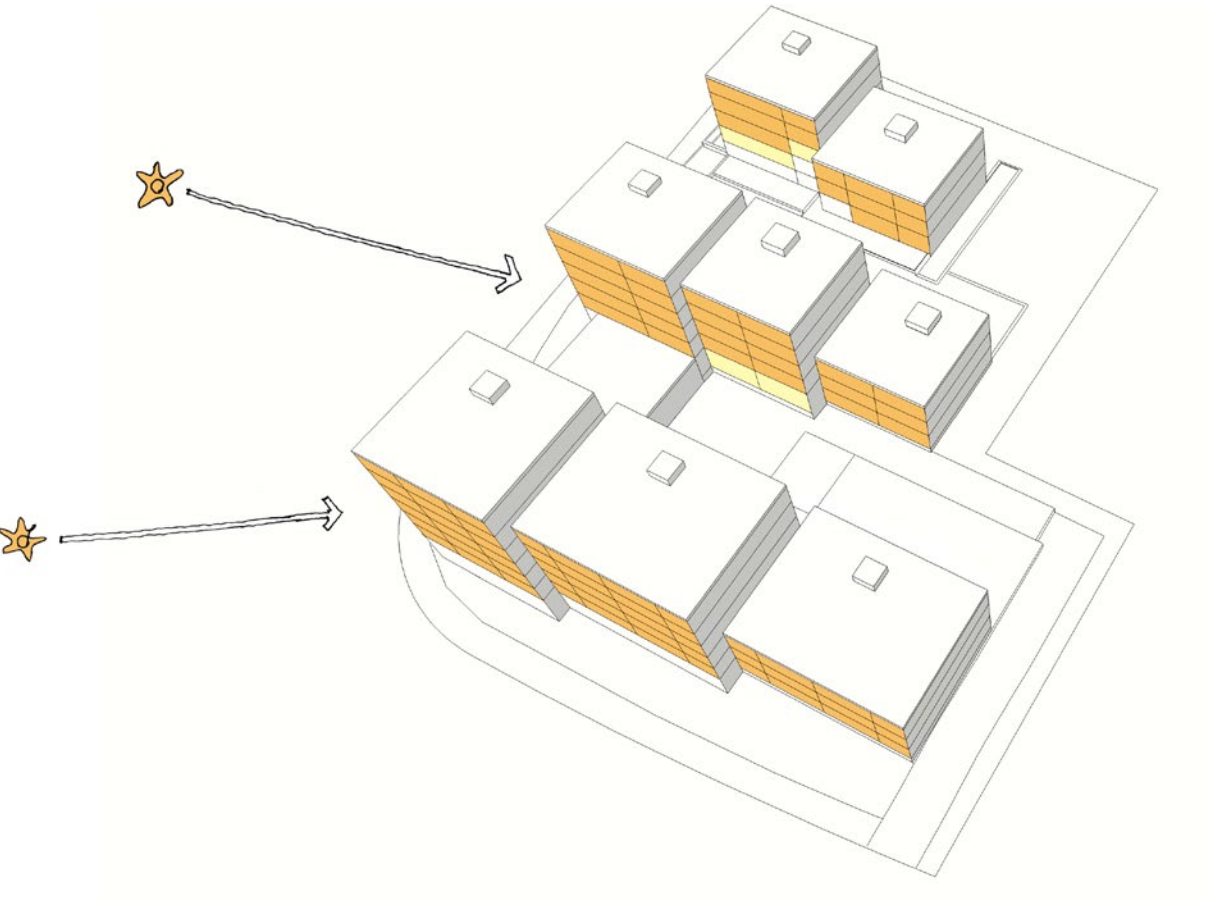
View from Paul Street
7 Storey Alternative

11.1

SOLAR ACCESS

7-STOREY

ALTERNATIVE



SOLAR ACCESS

7-Storey Alternative

- More than 3 hours of solar access: 92% (87 / 95)
- More than 2 hours of solar access: 96% (91 / 95)

Solar access calculated at June 21, to a minimum of 1sqm of direct sunlight for living room windows, based on anticipated typical apartment plans.

11.2

CROSS VENTILATION

7-STOREY

ALTERNATIVE



CROSS-VENTILATION

7-Storey Alternative

- Apartments with cross ventilation: 75% (72 / 95)

11.3

DEVELOPMENT

SUMMARY

7-STOREY

ALTERNATIVE

SUMMARY OF INDICATIVE PROPOSAL 7-STOREY ALTERNATIVE		
Apartment Type	No.	Mix
1 Bedroom	33	35%
2 Bedroom	52	55%
3 Bedroom	10	10%
Total No. of Apartments	95	
No. of Car Spaces Provided	175	
Residential GFA	7,770 m²	1.17 :1
Non-Residential GFA	1210 m²	0.18 :1
Total GFA	8,981 m²	
Site Area	6,654 m²	
Floor Space Ratio		1.35 :1
Number of Storeys	7	
Use	No.	Height per storey
Commercial	1	5.6 m
Residential	6	3.1 m
Roof / lift overrun		1.8 m
Cross fall of site at tallest building		1.3 m
Maximum Height		27.3 m

12.1

5-STOREY

ALTERNATIVE

SUMMARY OF DEVELOPMENT CALCULATIONS

Site Area 6,654 m²

Floor Space

Residential GFA 6,758 m²

Non-resi GFA 1,210 m²

Total GFA 7,969 m²

FSR 1.20 : 1

Height

Max. storeys 7

Tallest envelope 21.1 m

Dwellings

Apartments 83

Solar access

3+ hours 93%

2+ hours 98%

Cross-ventilation 72%

Building separation 14-21m

Carparking

Total Spaces 162



Aerial View from West
5 Storey Alternative

12.2
BUILDING HEIGHTS
5-STOREY
ALTERNATIVE



Indicative Massing Plan
5 Storey Alternative

13.1 MASSING VIEW



Aerial View from North
5 Storey Alternative

13.2

MASSING VIEW



Aerial View from South
5 Storey Alternative

13.3 MASSING VIEW



Aerial View from East
5 Storey Alternative

14.1

VIEWS IN CONTEXT



View from Epping Road Underpass, looking East
5 Storey Alternative

14.2

VIEWS IN CONTEXT



View from Lane Cove Road, looking South
5 Storey Alternative

14.3

VIEWS IN CONTEXT



View from Epping Road / Lane Cove Road Intersection
5 Storey Alternative

14.4

VIEWS IN CONTEXT



View from Lane Cove Road / Allengrove Crescent
5 Storey Alternative

14.5

VIEWS IN CONTEXT



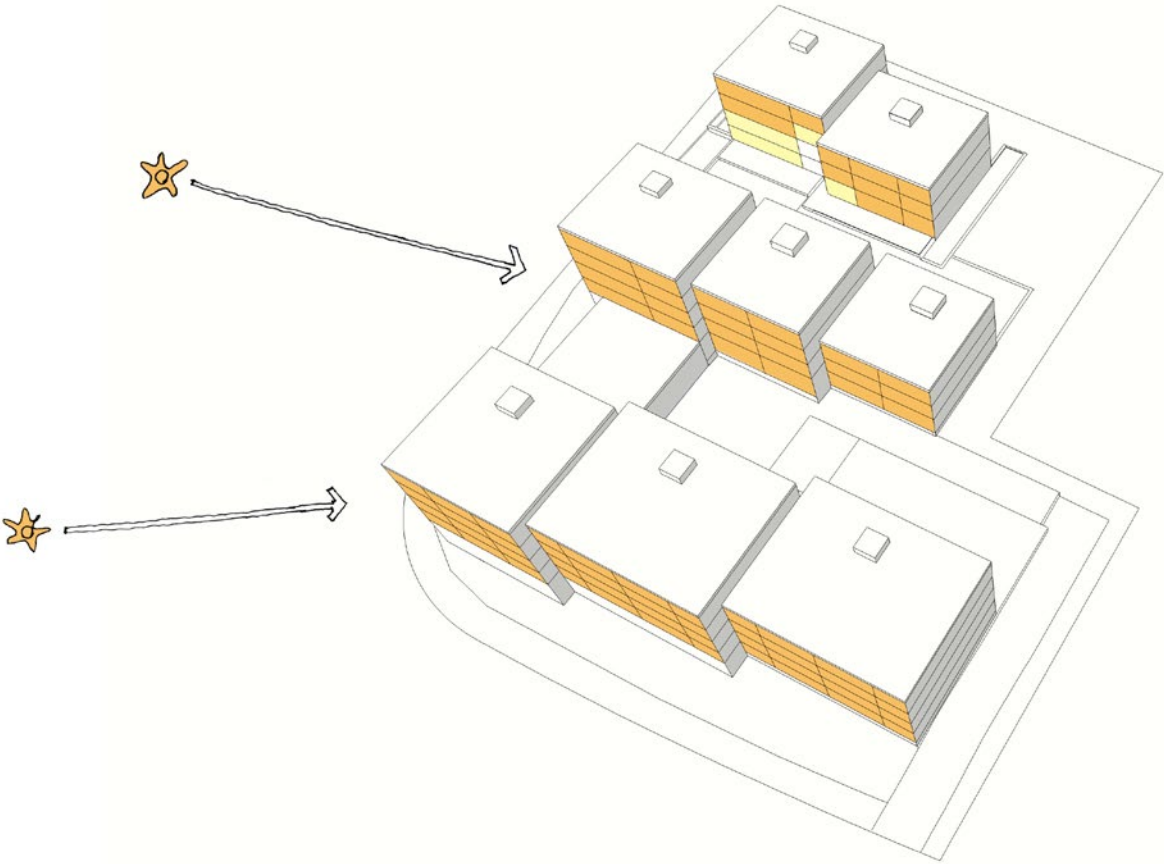
View from Paul Street
5 Storey Alternative

15.1

SOLAR ACCESS

5-STOREY

ALTERNATIVE



SOLAR ACCESS

5-Storey Alternative

- More than 3 hours of solar access: 93% (77 / 83)
- More than 2 hours of solar access: 98% (81 / 83)

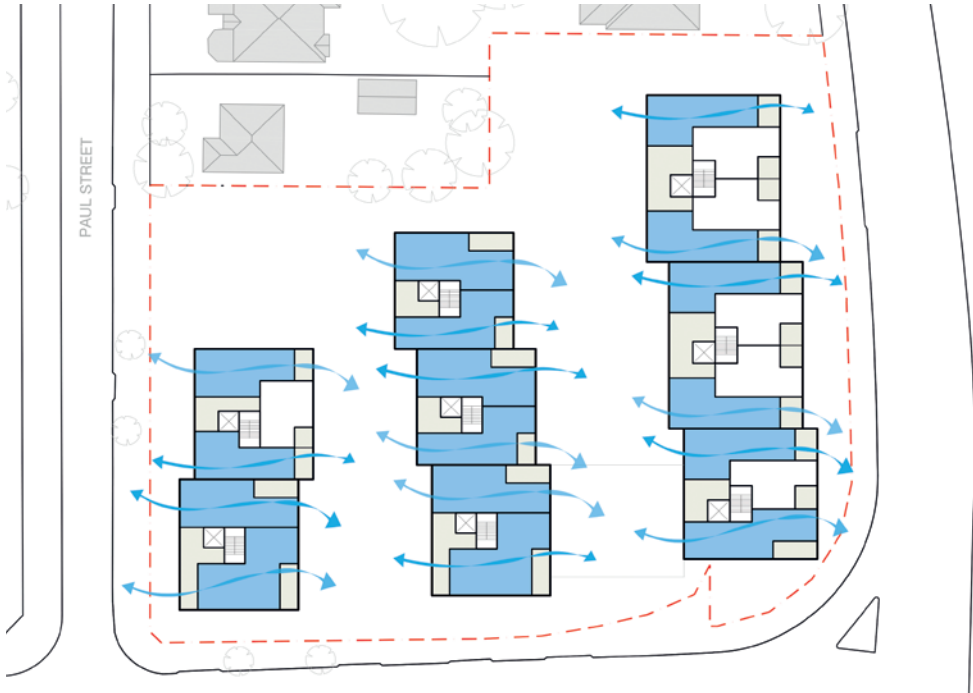
Solar access calculated at June 21, to a minimum of 1sqm of direct sunlight for living room windows, based on anticipated typical apartment plans.

15.2

CROSS VENTILATION

5-STOREY

ALTERNATIVE



CROSS-VENTILATION

5-Storey Alternative

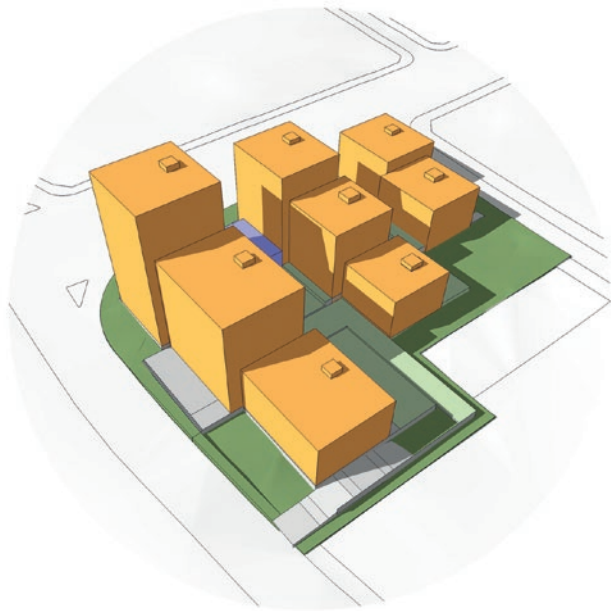
- Apartments with cross ventilation: 72% (60 / 83)

15.3
DEVELOPMENT
SUMMARY
5-STOREY
ALTERNATIVE

SUMMARY OF INDICATIVE PROPOSAL 5-STOREY ALTERNATIVE		
<i>Apartment Type</i>	<i>No.</i>	<i>Mix</i>
1 Bedroom	29	35%
2 Bedroom	46	55%
3 Bedroom	8	10%
Total No. of Apartments	83	
No. of Car Spaces Provided	162	
Residential GFA	6,758 m²	1.02 :1
Non-Residential GFA	1210 m²	0.18 :1
Total GFA	7,969 m²	
Site Area	6,654 m²	
Floor Space Ratio		1.20 :1
Number of Storeys	5	
<i>Use</i>	<i>No.</i>	<i>Height per storey</i>
Commercial	1	5.6 m
Residential	4	3.1 m
Roof / lift overrun		1.8 m
Cross fall of site at tallest building		1.3 m
Maximum Height		21.1 m



16.1 COMPARISON OF ALTERNATIVES



PROPOSED CONCEPT DESIGN

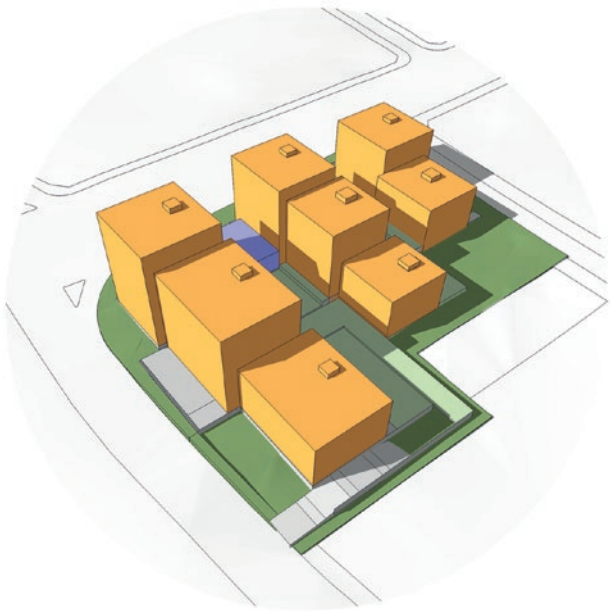
Floor Space	
Residential GFA	8,746 m²
Non-resi GFA	1,210 m²
Total GFA	9,956 m²
FSR	1.50 : 1

Height	
Max. storeys	10
Tallest envelope	36.6 m

Dwellings	
Apartments	108
Solar access	96%
Cross-ventilation	72%

Building separation 14-21m

Carparking	
Total Spaces	189



7-STOREY ALTERNATIVE

Floor Space	
Residential GFA	7,770 m²
Non-resi GFA	1,210 m²
Total GFA	8,981 m²
FSR	1.35 : 1

Height	
Max. storeys	7
Tallest envelope	27.3 m

Dwellings	
Apartments	95
Solar access	96%
Cross-ventilation	75%

Building separation 14-21m

Carparking	
Total Spaces	175



5-STOREY ALTERNATIVE

Floor Space	
Residential GFA	6,758 m²
Non-resi GFA	1,210 m²
Total GFA	7,969 m²
FSR	1.20 : 1

Height	
Max. storeys	5
Tallest envelope	21.1 m

Dwellings	
Apartments	83
Solar access	98%
Cross-ventilation	72%

Building separation 14-21m

Carparking	
Total Spaces	162

16.2 SHADOW ANALYSIS



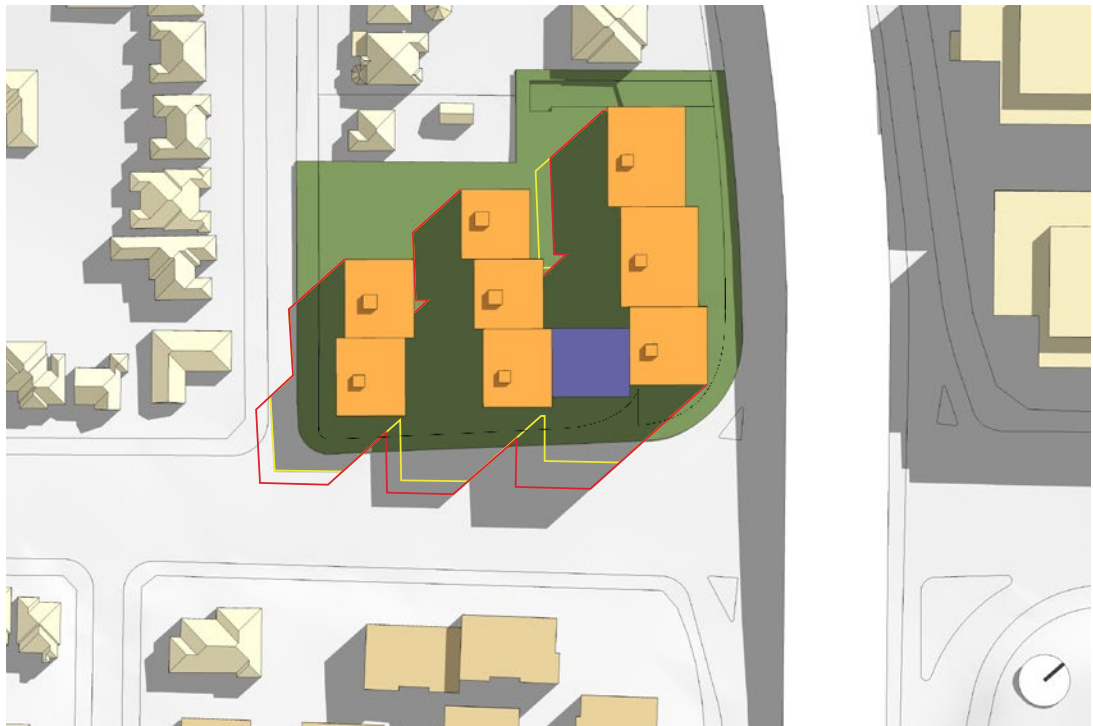
9:00 AM



10:00 AM



11:00 AM

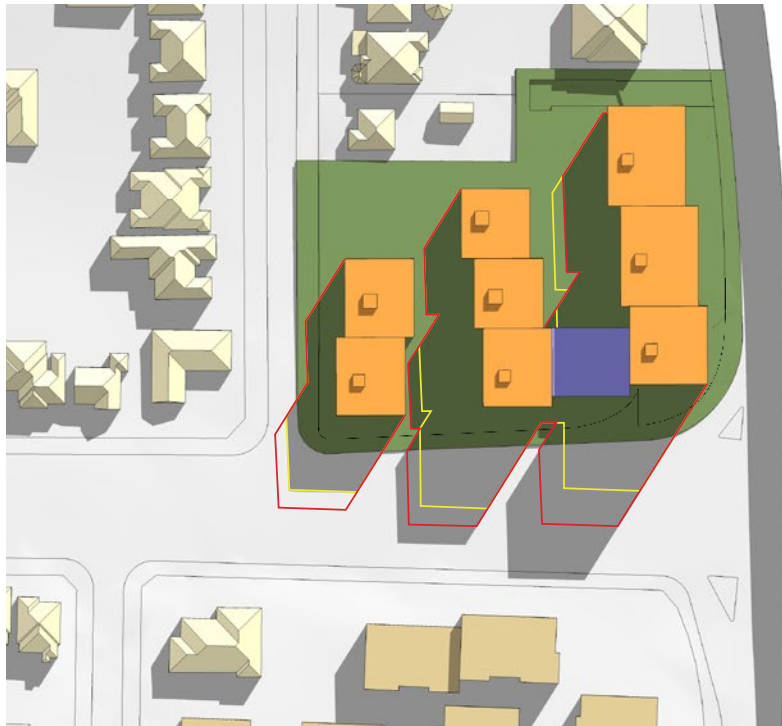


12:00 PM

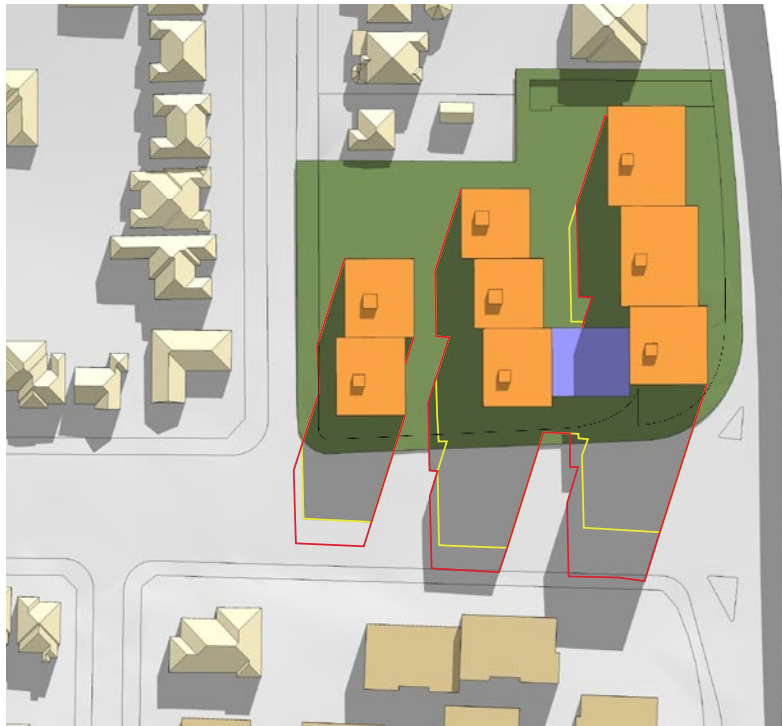
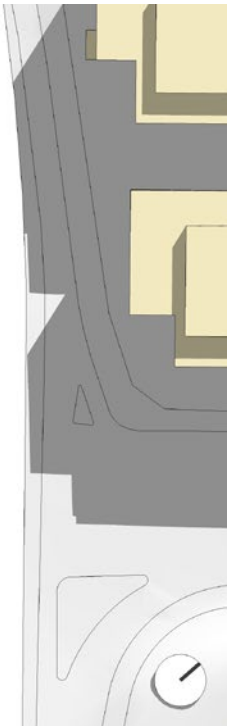
- Key
- Proposed Concept Design
 - 7-Storey Alternative
 - 5-Storey Alternative

Shadows at June 21st (midwinter)

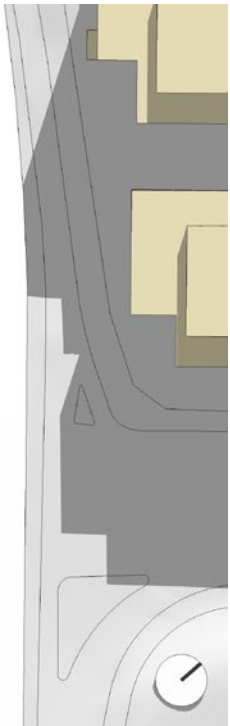
16.3 SHADOW ANALYSIS



1:00 PM



2:00 PM



- Key
- Proposed Concept Design
 - 7-Storey Alternative
 - 5-Storey Alternative

Shadows at June 21st (midwinter)



3:00 PM