

## APPENDIX 5:

### Architectural Plans - Architectus



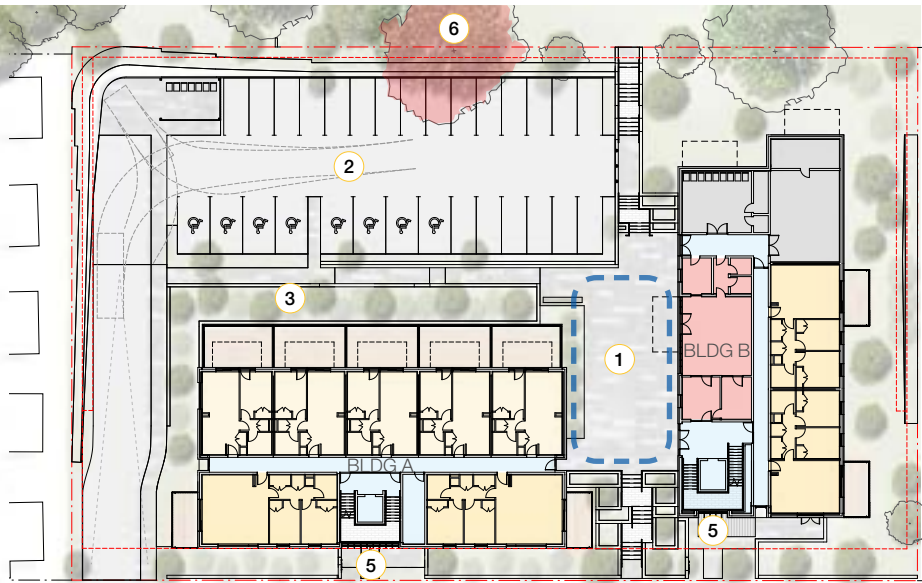
Resource Consent

# 118 Carroll Street, Ōtepoti / Dunedin

# Site Layout Proposed Plans & Diagrams

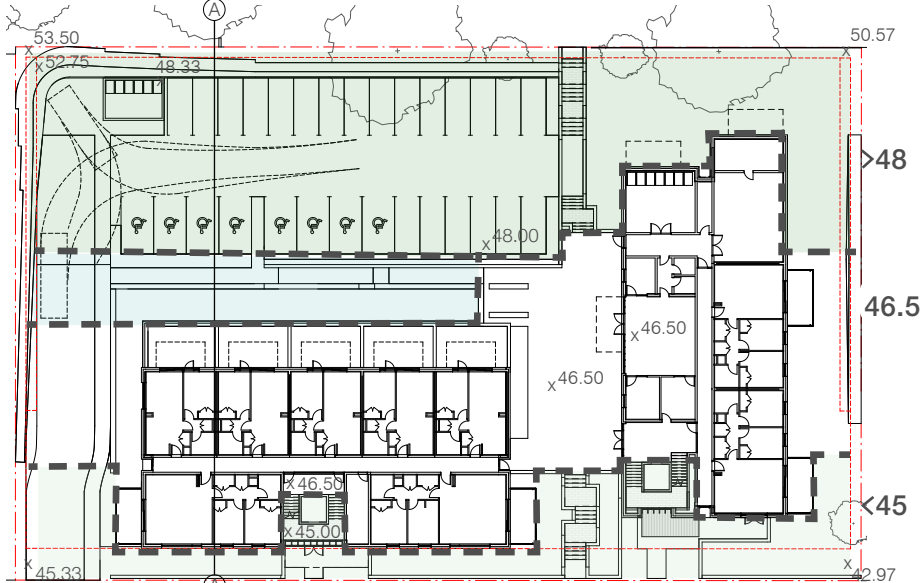


# Diagram - Proposed Site Layout

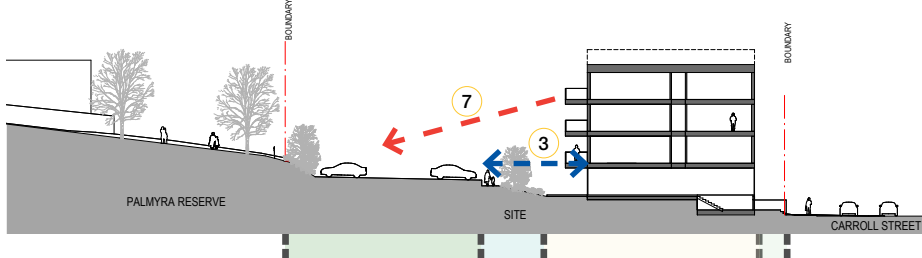


Plan

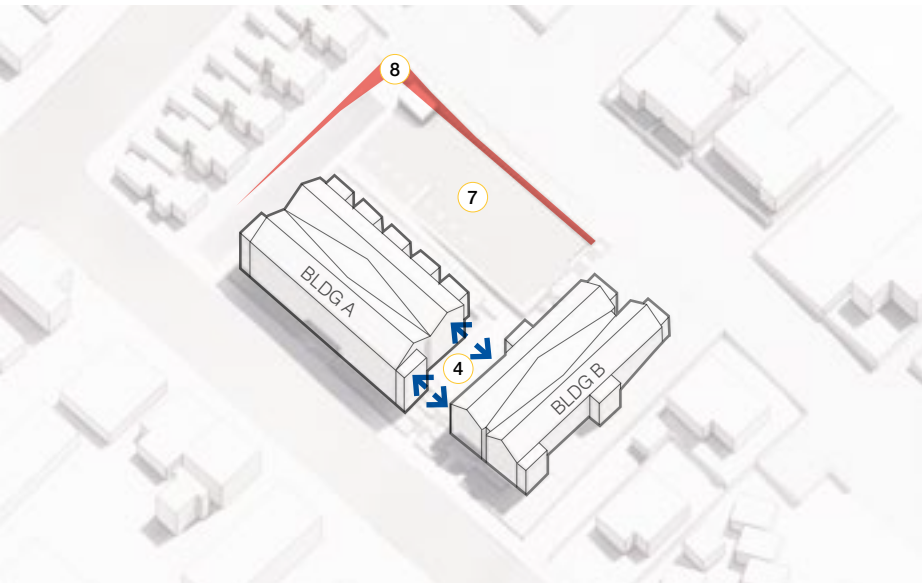
- 1 Bed x 19
- 2 Bed x 21
- Community Room
- Circulation
- Utility Rooms



Levels diagram



Section A



Perspective

## Design Approach

This approach is organised around one large rectangular courtyard which is inter-linked to form cross site connections between Carroll Street and Palmyra Reserve. The parking area is arranged along the north boundary with a landscaped buffer to the park to reduce the impact on nearby trees and to reduce the overall length of retaining walls. All parking has been placed on one level with an accessible ramp. Both apartment buildings have direct access to the central courtyard and axis path to the reserve and street.



## Key Features

Opportunities

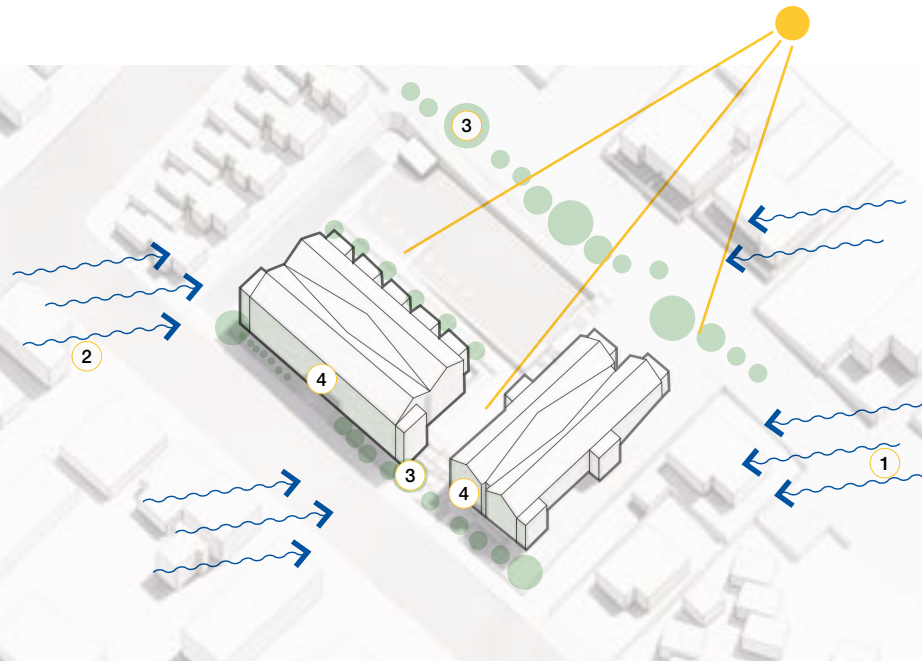
- 1 Generous common courtyard area 240m²:** This approach creates a good central space with connectivity between buildings and surrounding environments.
- 2 Nearly achieves required parking: 29:** The large parking area in the north west corner of the site is one car park short given the total yield.
- 3 Generous clearance between Bldg A and parking: 10.8m:** The carpark level on the upper portion of site has been lowered to reduce the visual impact.
- 4 Significant gap between buildings: 10.6m:** The significant gap between buildings A and B creates room for solar access for the street-facing apartments while creating a generous thoroughfare width through the site.
- 5 Level Access:** Street Level Access provided to circulation cores of both buildings

Constraints

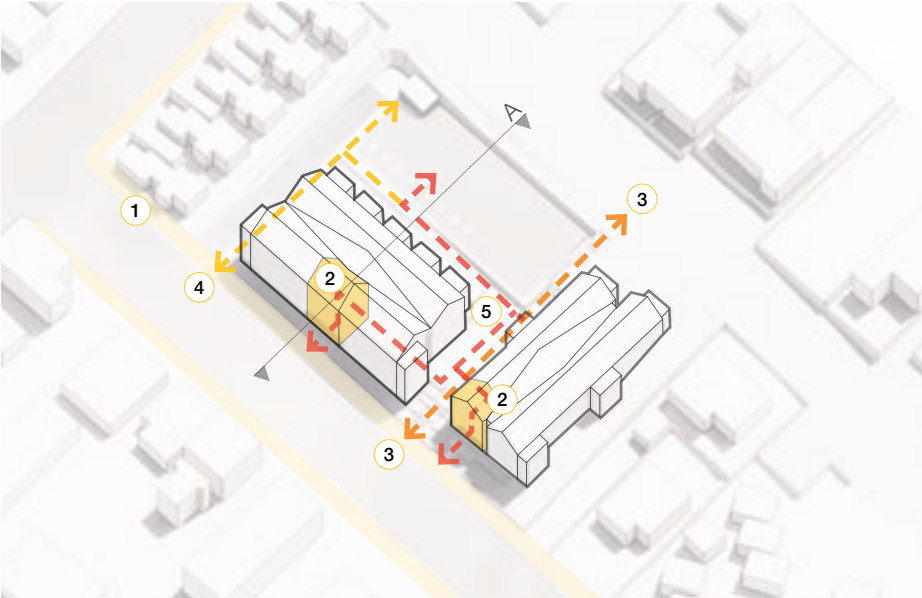
- 6 Tree drip line infringement:** The drip line of the large tree located on the reserve is infringed by the parking area. This is intended to be mitigated with permeable paving near the tree, and guidance provided from the arborist.
- 7 Visually dominant parking area: 700m²:** The size of the parking area creates visual dominance over the site. This will be mitigated using low site walls and landscaping.
- 8 Significant retaining height at NW corner: 4.6m:** The location of the parking area in the northwest corner creates a significantly tall retaining wall. This will be mitigated by placing the rubbish enclosure structure at its base and providing planting above and below the wall, as well as on the face of the wall.



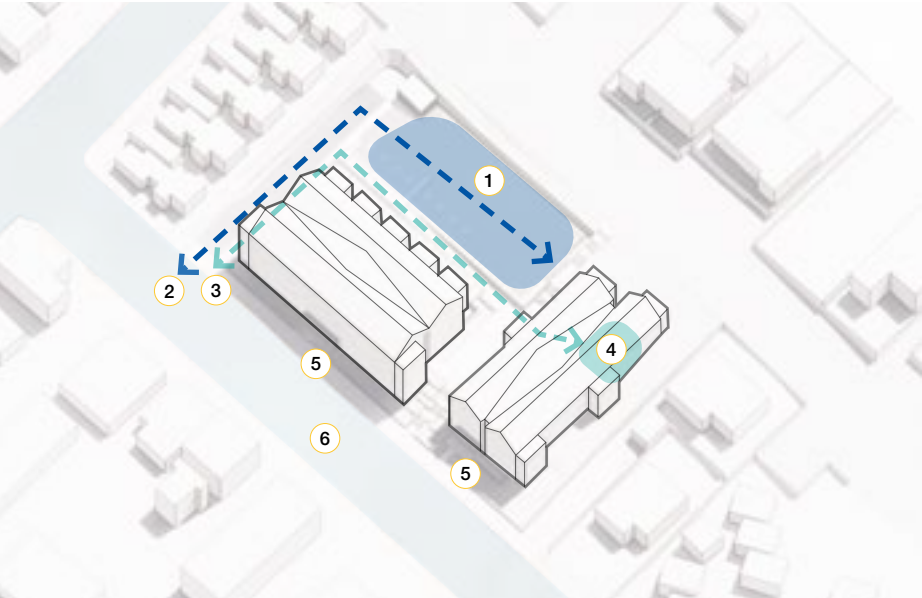
# Diagram - Primary Organisational Principles



Environmental Response



Pedrestrian Access & Vertical Circulation



Vehicle Circulation



Section A

## Key Moves

- 1 Northeast Wind (Prevailing)
- 2 Southwest Wind (Prevailing)
- 3 Vegetation Wind Protection
- 4 Building Wind Protection

## Key Moves

- 1 Street Footpath
- 2 Verticle Circulation
- 3 Through Site Links
- 4 Pedestrian Circulation
- 5 Accessible Circulation

## Key Moves

- 1 Resident Parking
- 2 Vehicle Access
- 3 Bicycle Access
- 4 Bicycle Parking (Resident)
- 5 Bicycle Parking (Guest)
- 6 Carroll Street

# Plan - Site & Context

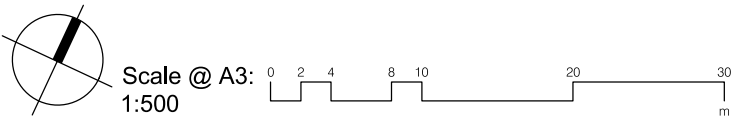


- Summary Table:**
- Total existing units: 16  
Total target yield: 41  
Total proposed yield: 40
- 1 bed: 20
  - 2 bed: 20
  - FUD: 9 ground level units (potential for 32 units to be FUD given number of accessible car parks).

- Net Floor Areas: (both buildings)**
- 1 bed - Type A: 51m<sup>2</sup> (x20)
  - 2 bed - Tybe B: 83m<sup>2</sup> (x8)
  - 2 bed - Type C: 74m<sup>2</sup> (x12)
  - Community space: 81m<sup>2</sup>
  - Circulation: 717m<sup>2</sup>
  - Utility: 252m<sup>2</sup>
  - Decks: 473m<sup>2</sup>
- Gross Floor Area Total: **4050m<sup>2</sup>**

Total Site Area: 4,049m<sup>2</sup>  
Building Area: 1,281m<sup>2</sup>  
(32% - complies as is less than 60% maximum)  
Building & Impermeable Area: 2,600 m<sup>2</sup>  
(64% - complies as is less than 80% maximum)

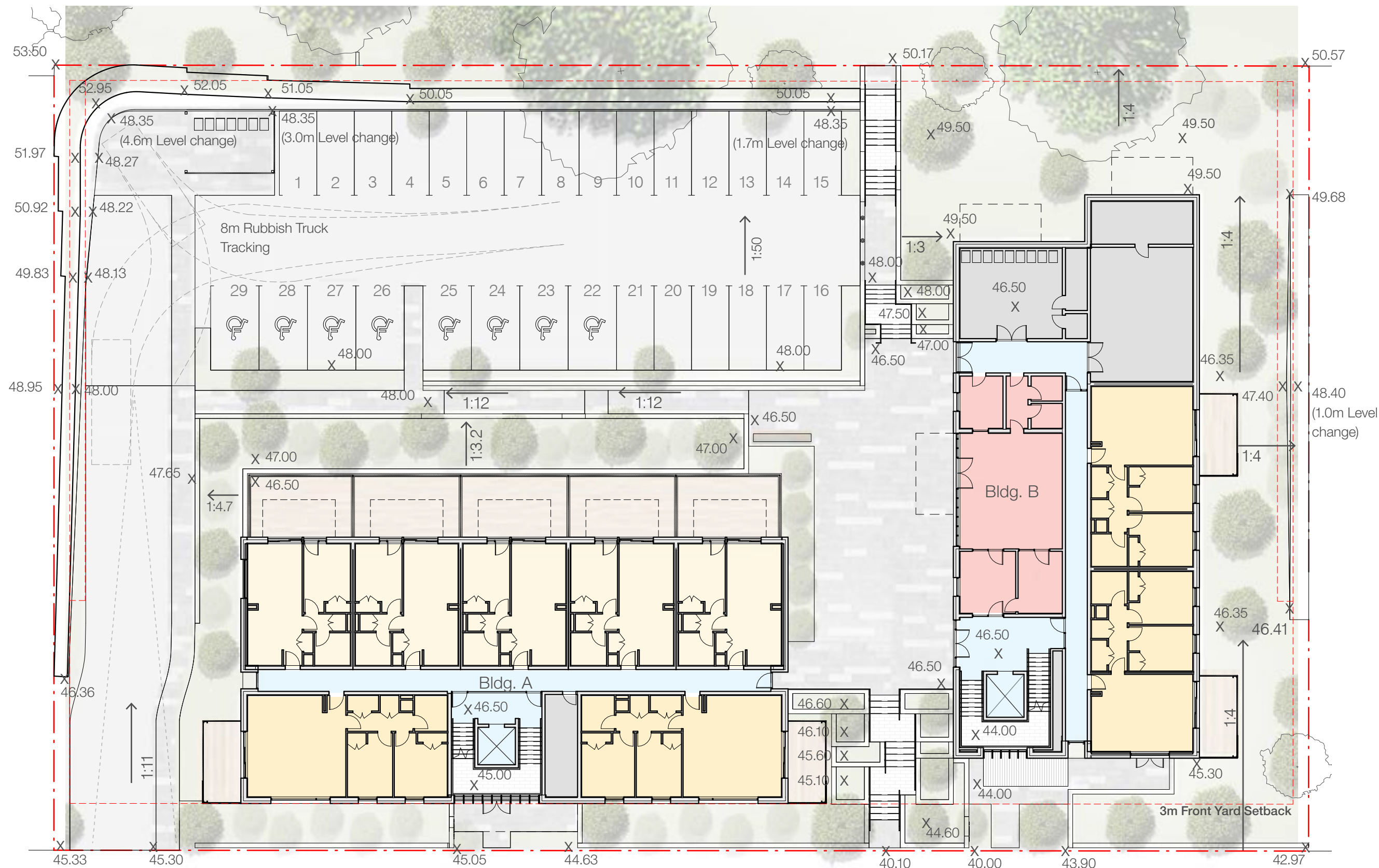
- Legend**
- ① Pedestrian Entry Point
  - ② Vehicle Entry Point and Carparking
  - ③ Communal Landscaped Area
  - ④ Communal Residents Area - at Ground Floor
  - ⑤ Waste Enclosure
  - ⑥ Vertical Circulation
  - ⑦ Bike / Scooter Storage
  - ⑧ Designated Onstreet Pick-up and Drop-off



- Legend**
- |            |                    |
|------------|--------------------|
| 1 Bed x 20 | 1 x Community Room |
| 2 Bed x 20 | Utility Rooms      |
| Total 40   | Circulation        |



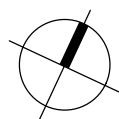
Plan - Site Levels



Legend

- |            |                                       |
|------------|---------------------------------------|
| 1 Bed x 20 | 1 x Community Room (apartments above) |
| 2 Bed x 20 | Utility Rooms (apartments above)      |
| Total 40   | 29 x Carparks                         |

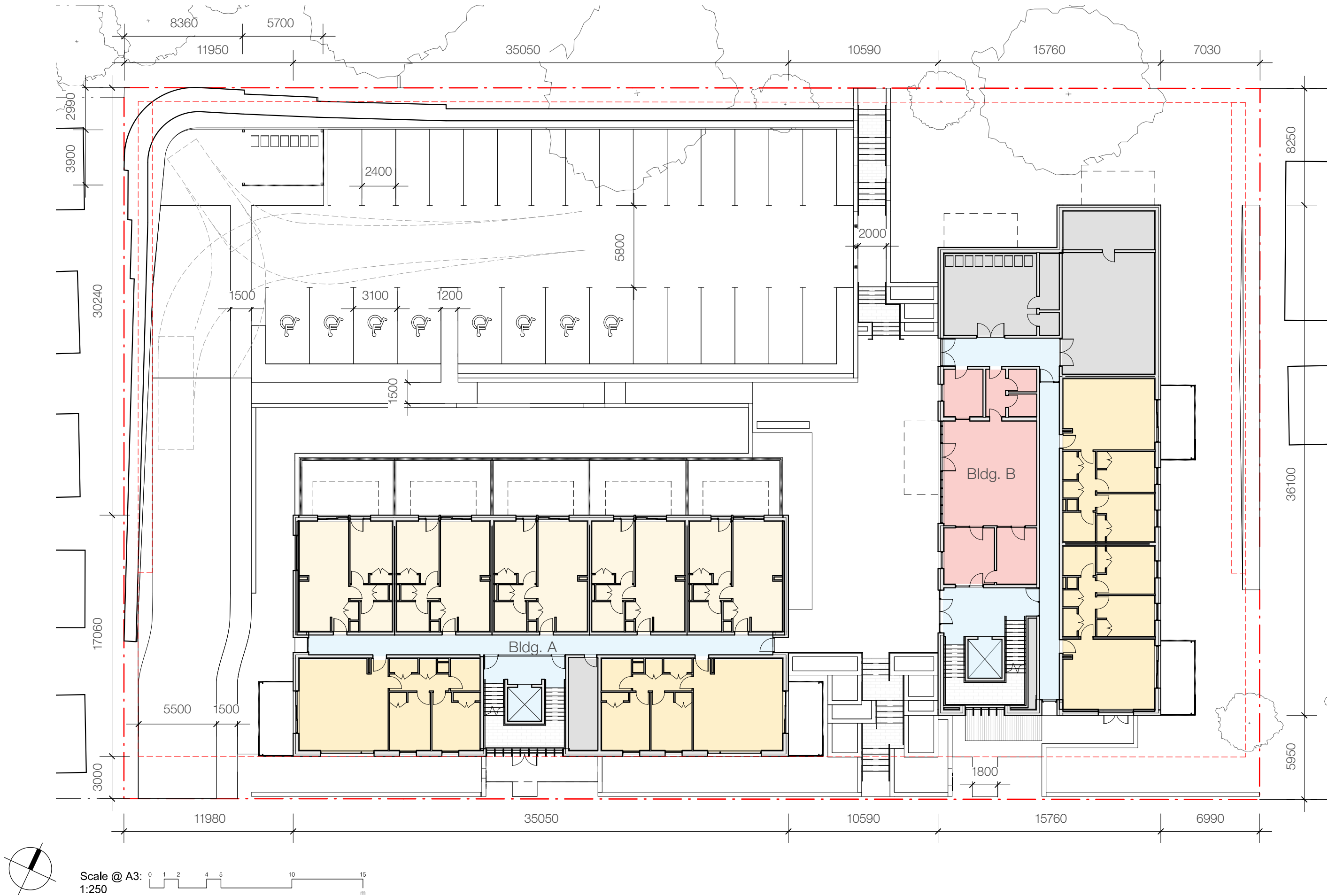
NOTE: Refer civil engineer's drawings for earthworks plan and further levels information.



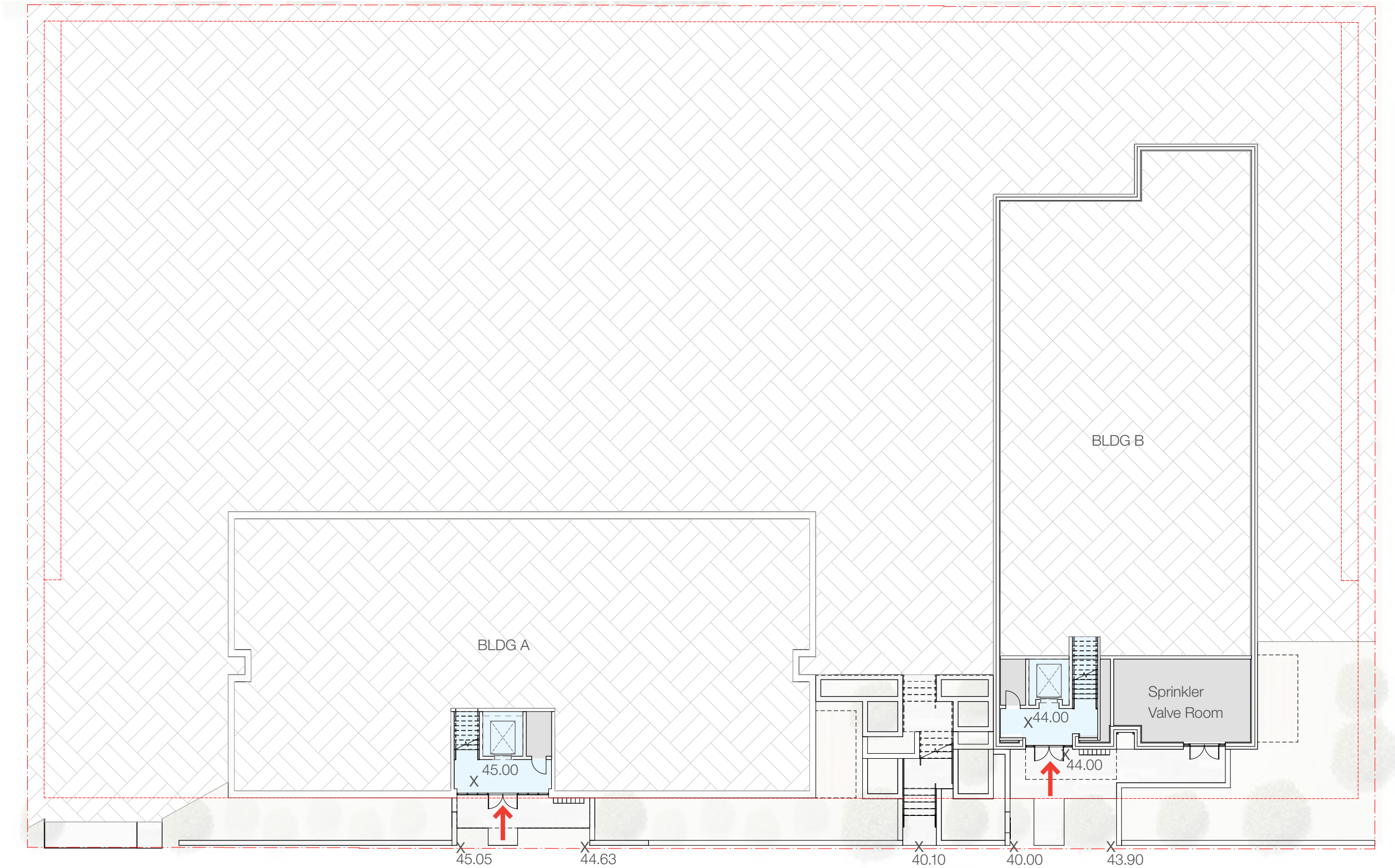
Scale @ A3: 1:250



Plan - Site Dimensioned



Plan - Entry Level



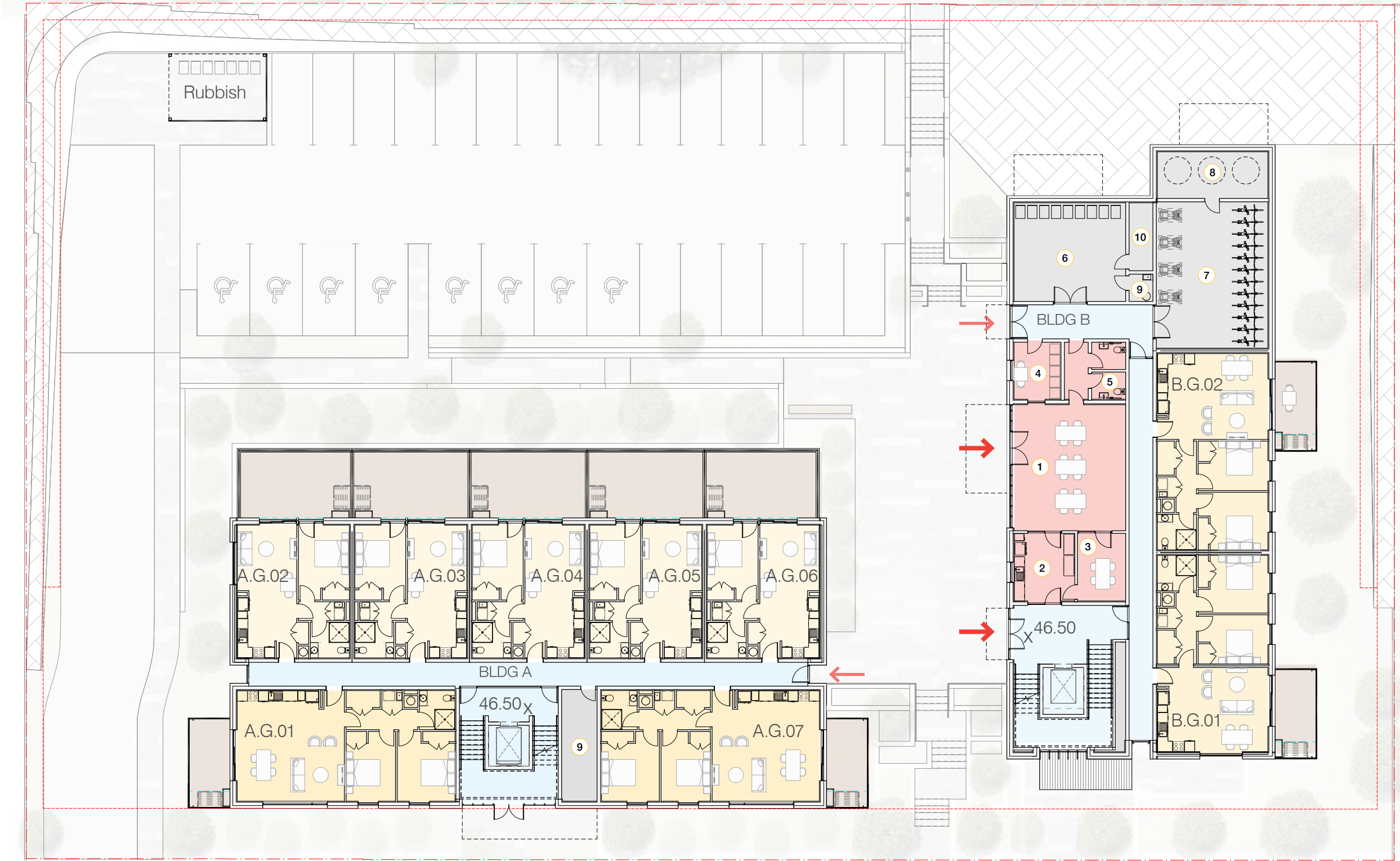
Legend

Utility Rooms	Primary Entry
Circulation	Secondary Entry

Scale @ A3: 1:250

0 1 2 4 5 10 15 m

Plan - Ground Level

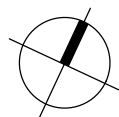


Legend

- |           |                     |
|-----------|---------------------|
| 1 Bed x 5 | 1 x Community Areas |
| 2 Bed x 4 | Utility Areas       |
| Total 9   | Circulation         |

- ➔ Primary Entry  
➔ Secondary Entry

- |                     |                        |
|---------------------|------------------------|
| 1 Community Room    | 6 Rubbish Room         |
| 2 Community Kitchen | 7 Bike/Scooter Storage |
| 3 Meeting Room      | 8 Rainwater Collection |
| 4 Community Laundry | 9 Cleaner's Closet     |
| 5 Community Toilets | 10 Garden Storage      |

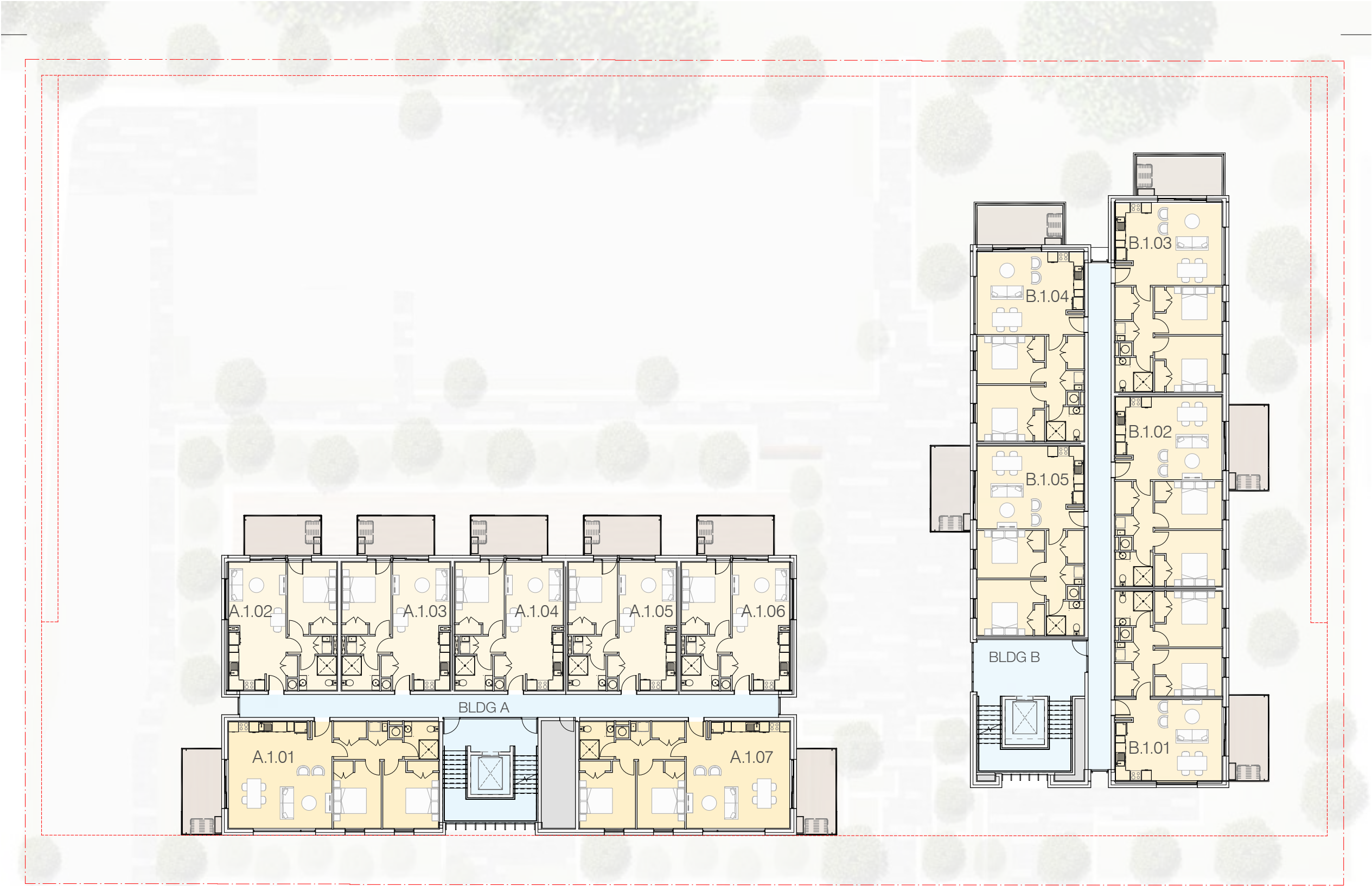


Scale @ A3:  
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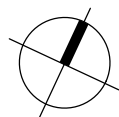


Plan - Level 1



Legend

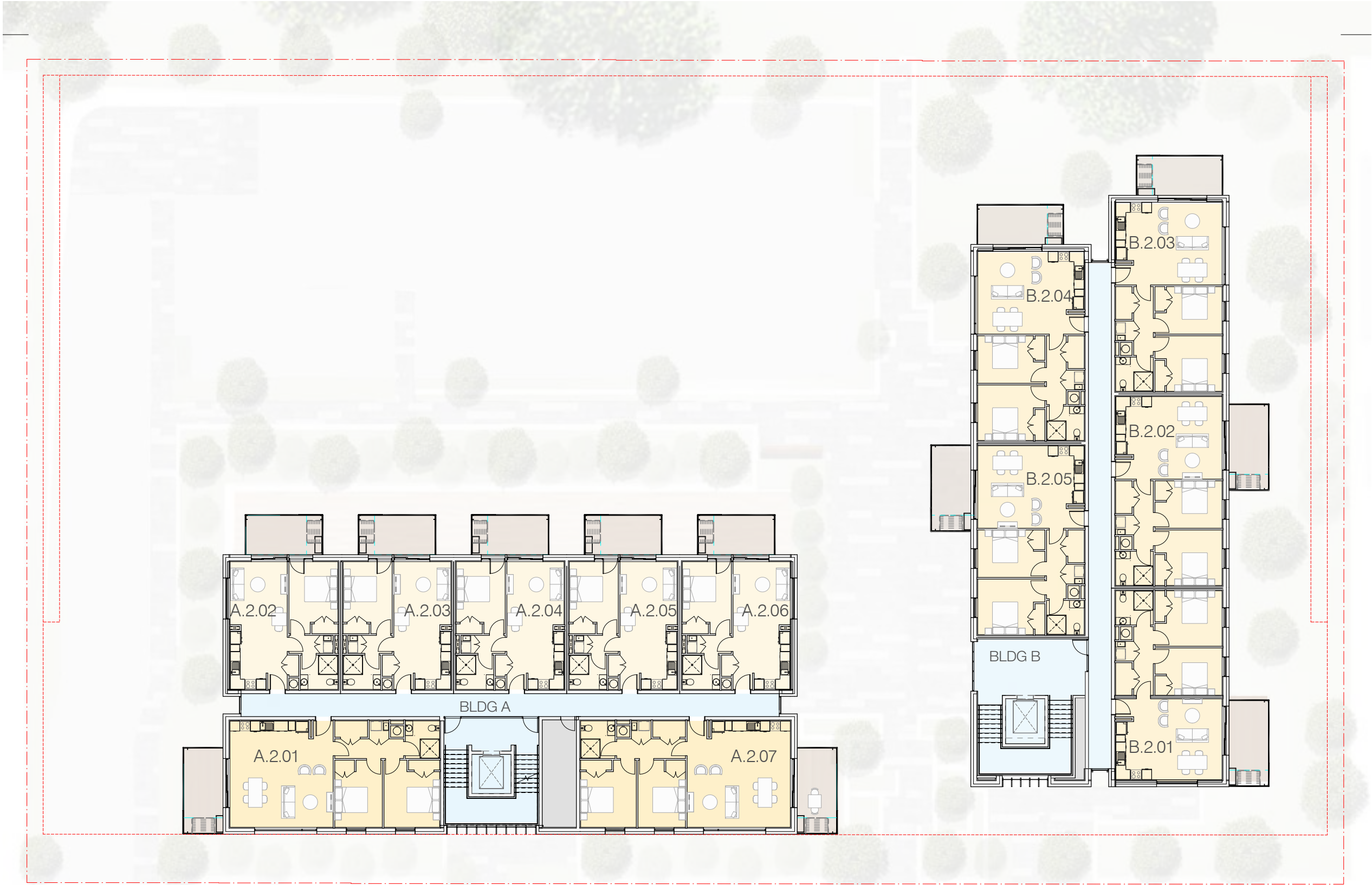
- |           |                                       |
|-----------|---------------------------------------|
| 1 Bed x 5 | 1 x Community Room (apartments above) |
| 2 Bed x 7 | Utility Rooms (apartments above)      |
| Total 12  | Circulation                           |



Scale @ A3:  
1:250

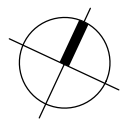


Plan - Level 2



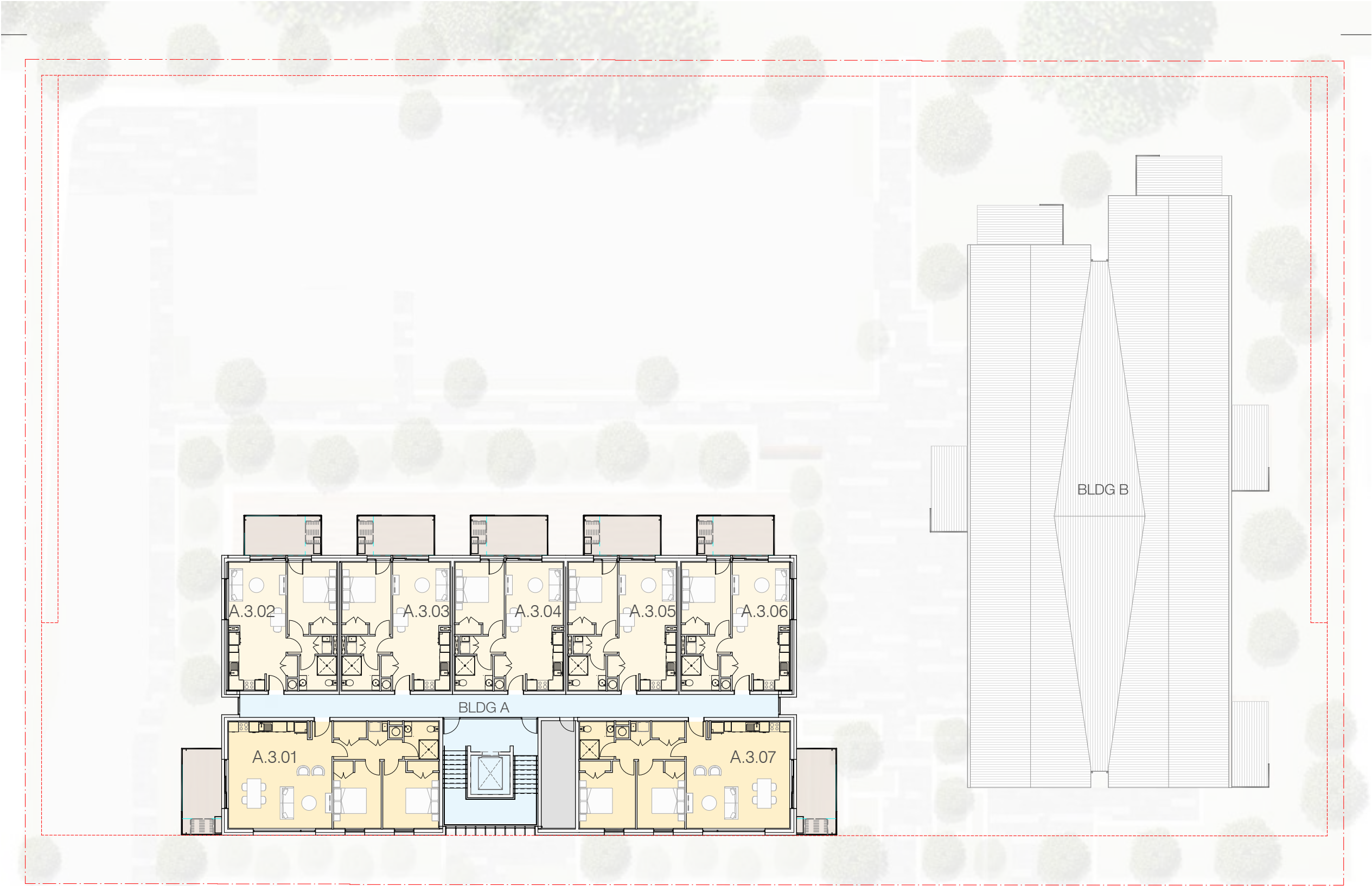
Legend

- 1 Bed x 5
- 2 Bed x 7
- Total 12
- 1 x Community Room (apartments above)
- Utility Rooms (apartments above)
- Circulation



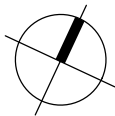
Scale @ A3: 1:250

Plan - Level 3



Legend

- |           |                                       |
|-----------|---------------------------------------|
| 1 Bed x 7 | 1 x Community Room (apartments above) |
| 2 Bed x 2 | Utility Rooms (apartments above)      |
| Total 9   | Circulation                           |

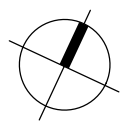
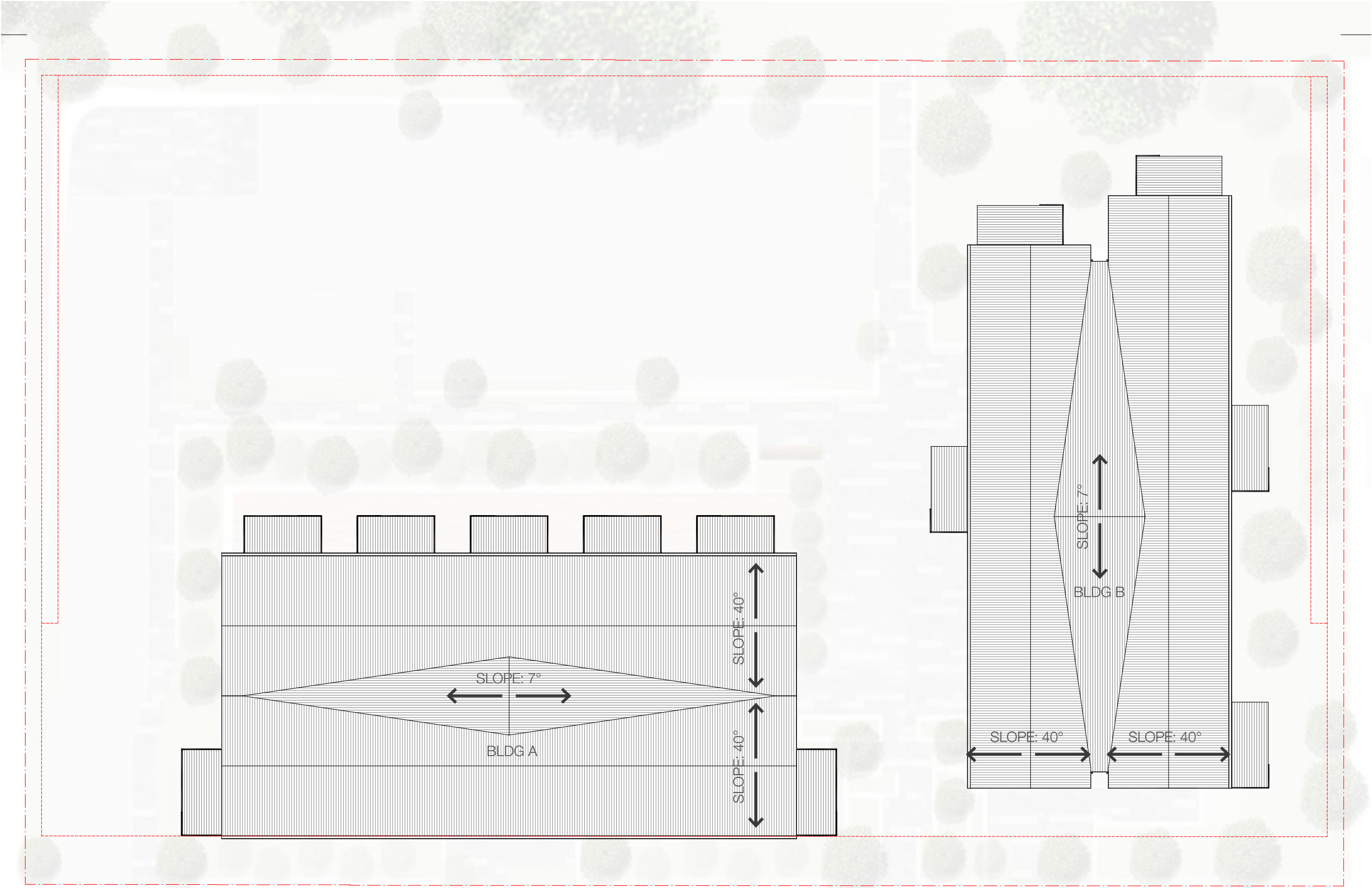


Scale @ A3:  
1:250





Plan - Roof

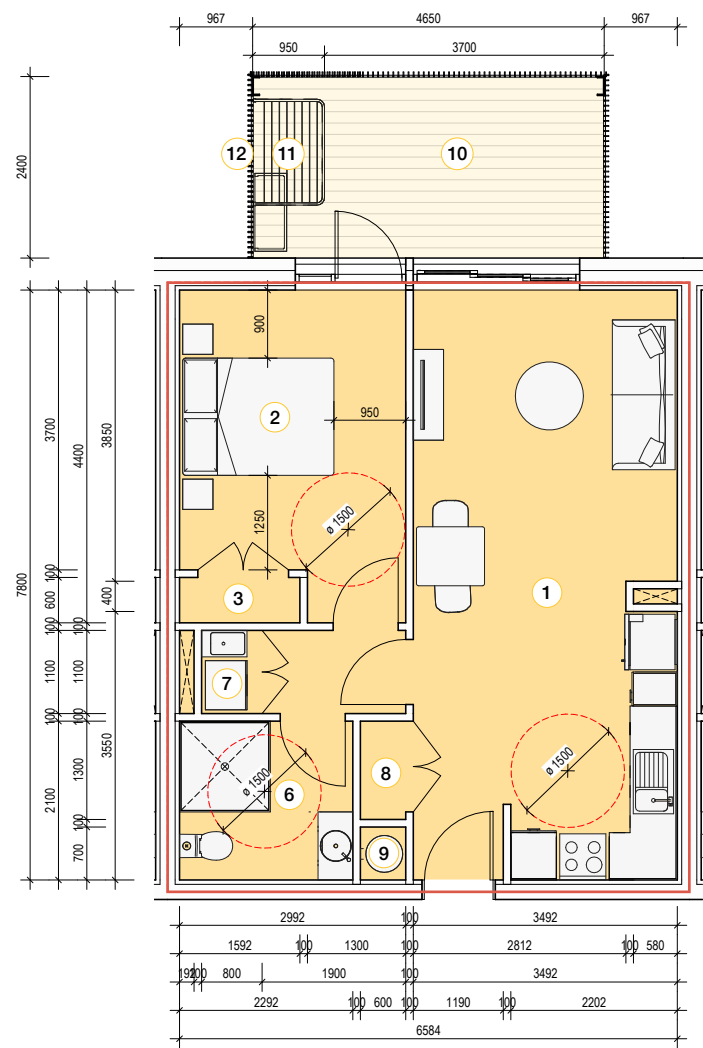
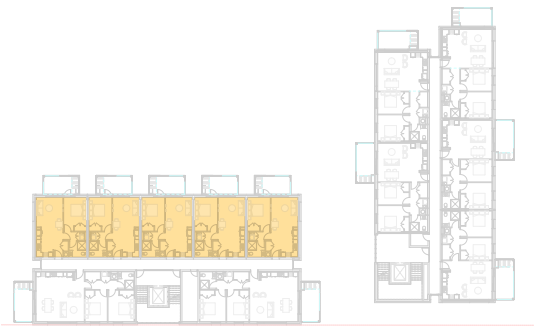


Scale @ A3: 1:250



# Plan - Typical Apartment

## Type A - FUD



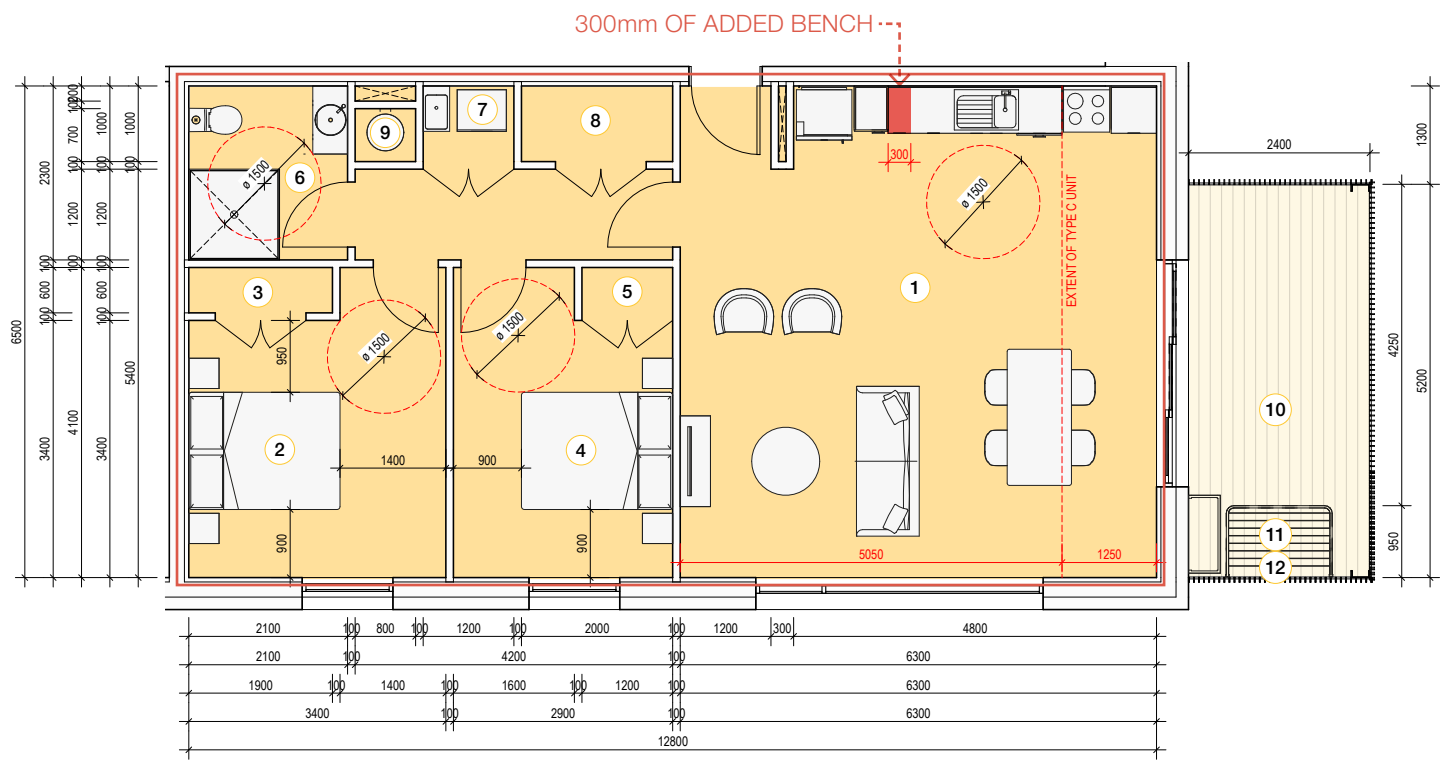
Legend 1-Bedroom Type A			Kāinga Ora Targets
1	KDL	27.2m <sup>2</sup>	27m <sup>2</sup>
2	Bedroom 1	12.21m <sup>2</sup>	12m <sup>2</sup>
3	Wardrobe 1	0.96m <sup>2</sup>	0.72m <sup>2</sup>
4	Bedroom 2	NA	NA
5	Wardrobe 2	NA	NA
6	Bathroom	4.81m <sup>2</sup>	NA
7	Laundry	0.77m <sup>2</sup>	0.7m <sup>2</sup>
8	Storage	0.78m <sup>2</sup>	0.72m <sup>2</sup>
9	HWC	0.42m <sup>2</sup>	0.56m <sup>2</sup>
10	Balcony	8.88m <sup>2</sup>	8m <sup>2</sup>
11	Folding Washing Line	1.32m <sup>2</sup>	2.35m <sup>2</sup>
12	Full Height Screen		NA
Unit GFA		55.6m <sup>2</sup>	50m <sup>2</sup>
(Measured to centreline of IT walls and 100mm in from external walls)			

PERFORMANCE REQUIREMENT	ACCEPTABLE SOLUTION
<b>B2.1.2</b> Privacy and Māori cultural practices are facilitated and maintained through the organisation of internal spaces.	A. Physical and visual separation is provided between: i. bedroom, toilet and laundry facilities and living, dining, kitchen and bedrooms ii. bedrooms and kitchen.
<b>Guidance</b> Certain household functions are kept separate from others, in order to preserve their tapu (sacred/prohibited) or noa (common/profane) nature. For example, all food-related facilities must be separate from bathrooms, toilets and laundries. For further guidance, see Table B2.1.2 and refer to Ki to Hae Kāinga: New Perspectives on Māori Housing Solutions.	
<b>TABLE B2.1.2: TAPU AND NOA PLANNING MATRIX</b>	
	Main entry    Laundry    Toilet    Bathroom    Living    Dining    Kitchen
Bedroom	✗    -    -    -    -    ✗    ✗
Kitchen	-    ✗    ✗    ✗    ✓    ✓    -
Dining	-    ✗    ✗    ✗    ✓    -    -
Living	✓    ✗    ✗    ✗    -    -    -
Bathroom	✗    -    ✗    -    -    -    -
Toilet	✗    ✗    -    -    -    -    -
Laundry	✗    -    -    -    -    -    -
- Neutral    ✗ Conflict    ✓ Desirable	

Scale @ A3: 1:100

# Plan - Typical Apartment

## Type B - FUD



Legend 2-Bedroom Type B			Kāinga Ora Targets
1	KDL	41.09m <sup>2</sup>	36m <sup>2</sup>
2	Bedroom 1	12.7m <sup>2</sup>	12m <sup>2</sup>
3	Wardrobe 1	1.14m <sup>2</sup>	0.72m <sup>2</sup>
4	Bedroom 2	11.14m <sup>2</sup>	10m <sup>2</sup>
5	Wardrobe 2	.72m <sup>2</sup>	0.72m <sup>2</sup>
6	Bathroom	4.83m <sup>2</sup>	NA
7	Laundry	1.2m <sup>2</sup>	0.7m <sup>2</sup>
8	Storage	2.0m <sup>2</sup>	0.72m <sup>2</sup>
9	HWC	0.56m <sup>2</sup>	0.56m <sup>2</sup>
10	Balcony	10.2m <sup>2</sup>	10m <sup>2</sup>
11	Folding Washing Line	1.32m <sup>2</sup>	2.35m <sup>2</sup>
12	Full Height Screen		NA
Unit GFA		88.25m <sup>2</sup>	70m <sup>2</sup>
(Measured to centreline of IT walls and 100mm in from external walls)			

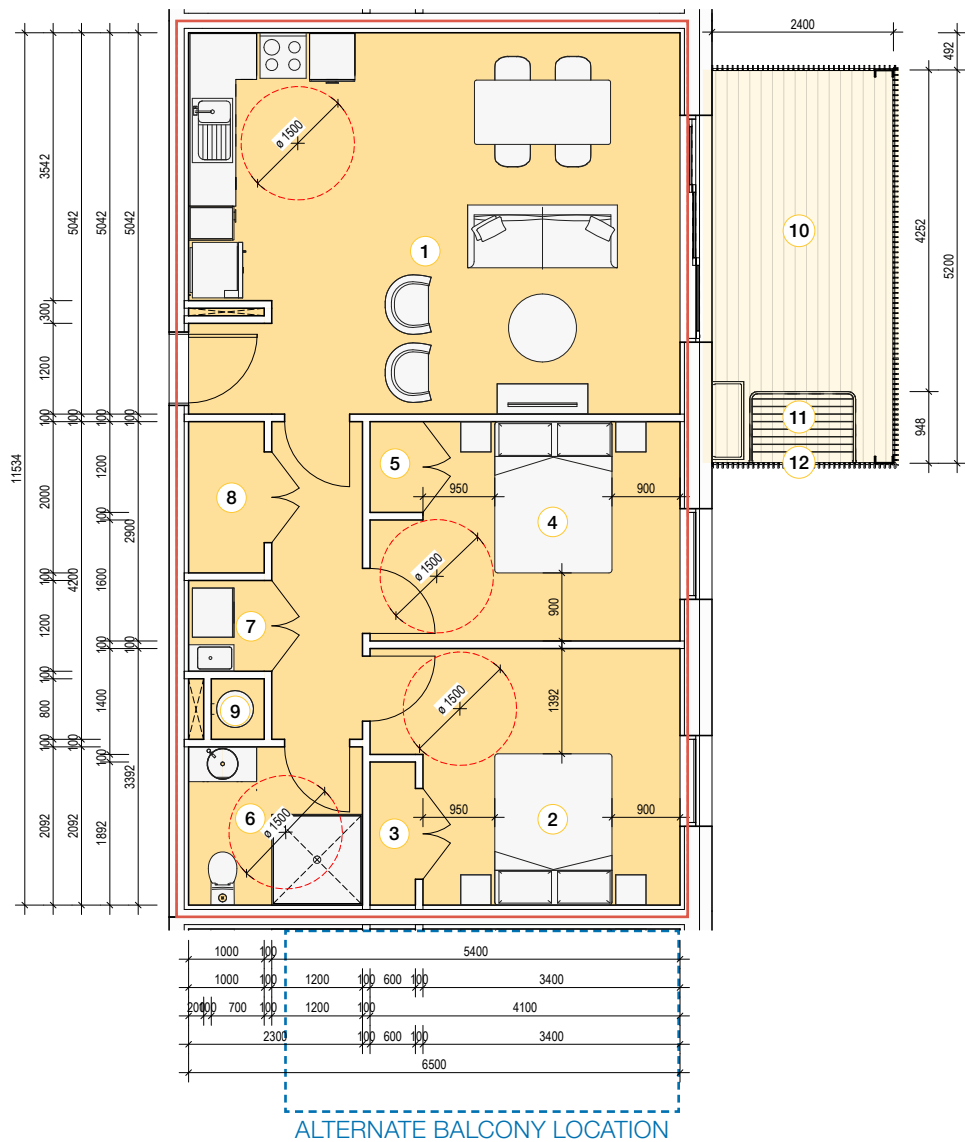
PERFORMANCE REQUIREMENT	ACCEPTABLE SOLUTION
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<b>TABLE B2.1.2: TAPU AND NOA PLANNING MATRIX</b>	
	Main entry    Laundry    Toilet    Bathroom    Living    Dining    Kitchen
Bedroom	✗    -    -    -    -    ✗    ✗
Kitchen	-    ✗    ✗    ✗    ✓    ✓    -
Dining	-    ✗    ✗    ✗    ✓    -    -
Living	✓    ✗    ✗    ✗    -    -    -
Bathroom	✗    -    ✗    -    -    -    -
Toilet	✗    ✗    -    -    -    -    -
Laundry	✗    -    -    -    -    -    -
- Neutral    ✗ Conflict    ✓ Desirable	

Scale @ A3: 0 500 1000 1500 2000 2500 5000 mm



# Plan - Typical Apartment

## Type C - FUD



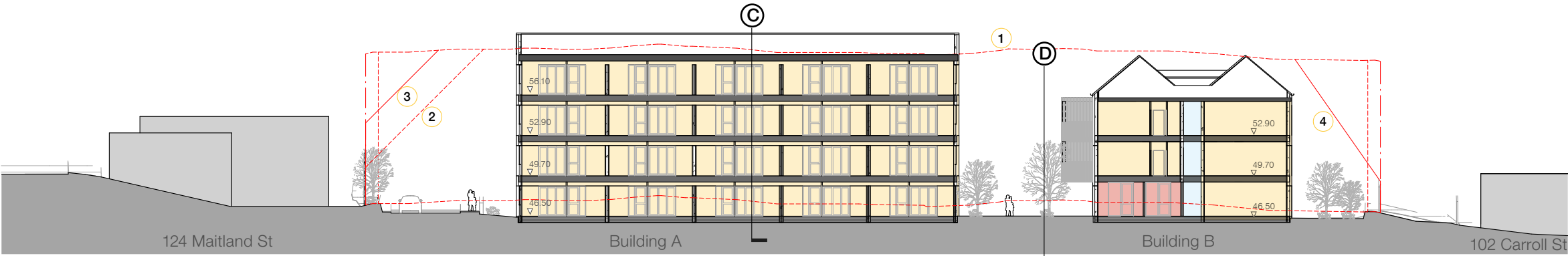
Legend 2-Bedroom Type C			Kāinga Ora Targets	
1	KDL	32.92m <sup>2</sup>	36m <sup>2</sup>	
2	Bedroom 1	12.7m <sup>2</sup>	12m <sup>2</sup>	
3	Wardrobe 1	1.14m <sup>2</sup>	0.72m <sup>2</sup>	
4	Bedroom 2	11.14m <sup>2</sup>	10m <sup>2</sup>	
5	Wardrobe 2	0.72m <sup>2</sup>	0.72m <sup>2</sup>	
6	Bathroom	4.83m <sup>2</sup>	NA	
7	Laundry	1.2m <sup>2</sup>	0.7m <sup>2</sup>	
8	Storage	2.0m <sup>2</sup>	0.72m <sup>2</sup>	
9	HWC	0.56m <sup>2</sup>	0.56m <sup>2</sup>	
10	Balcony	10.2m <sup>2</sup>	10m <sup>2</sup>	
11	Folding Washing Line	1.32m <sup>2</sup>	2.35m <sup>2</sup>	
12	Full Height Screen		NA	
Unit GFA		80.08m <sup>2</sup>	70m <sup>2</sup>	
(Measured to centreline of IT walls and 100mm in from external walls)				

PERFORMANCE REQUIREMENT	ACCEPTABLE SOLUTION
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<b>TABLE B2.1.2: TAPU AND NOA PLANNING MATRIX</b>	
	Main entry    Laundry    Toilet    Bathroom    Living    Dining    Kitchen
Bedroom	✗    -    -    -    -    ✗    ✗
Kitchen	-    ✗    ✗    ✗    ✓    ✓    -
Dining	-    ✗    ✗    ✗    ✓    -    -
Living	✓    ✗    ✗    ✗    -    -    -
Bathroom	✗    -    ✗    -    -    -    -
Toilet	✗    ✗    -    -    -    -    -
Laundry	✗    -    -    -    -    -    -
- Neutral    ✗ Conflict    ✓ Desirable	

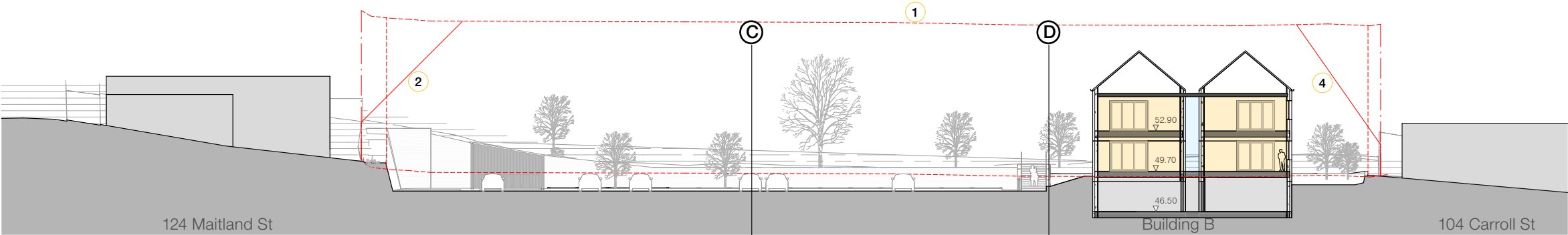
Scale @ A3: 0 500 1000 1500 2000 2500 5000 mm

# Sections & Elevations

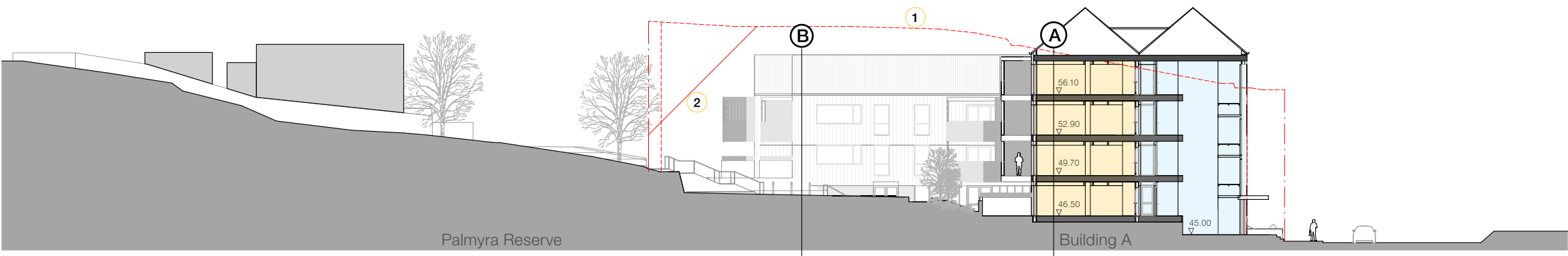
Sections - Site



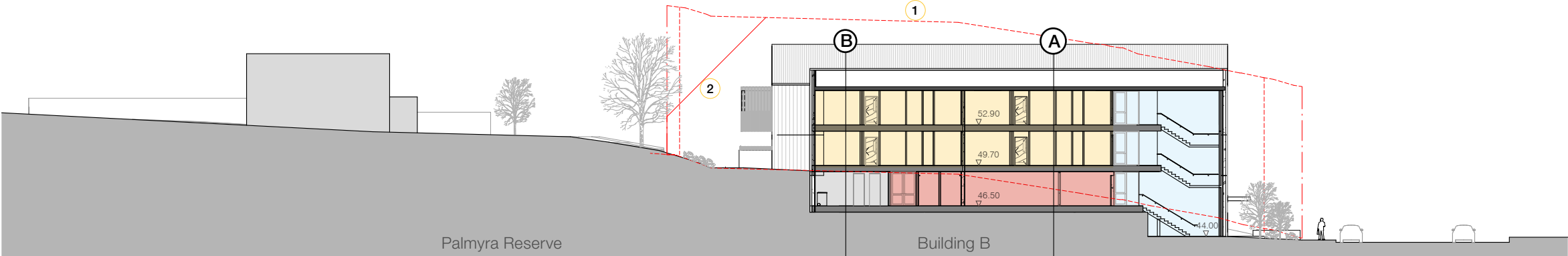
Section A



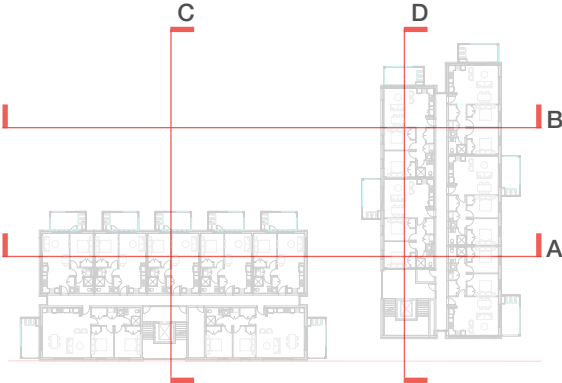
Section B



Section C

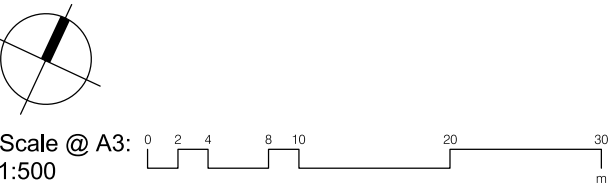


Section D



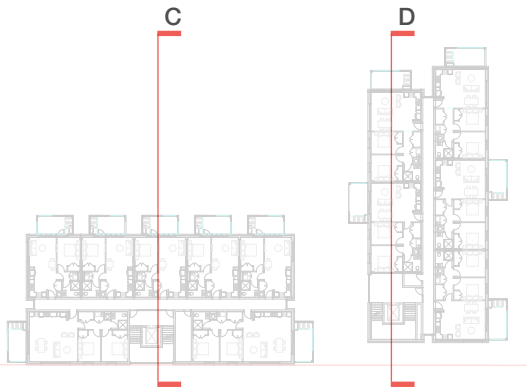
Legend

- 1 12m building height limit
- 2 Proposed recession plane - 2GP (under review) 3m & 45° for north, south, and west boundaries
- 3 With 2GP (under review) there is ability within 16m of the roadside boundary to raise recession angle pitching point up to 6.5m above site if rest of site is 2m set back
- 4 Proposed recession plane - 2GP (under review) 2.5m & 55° for east boundary

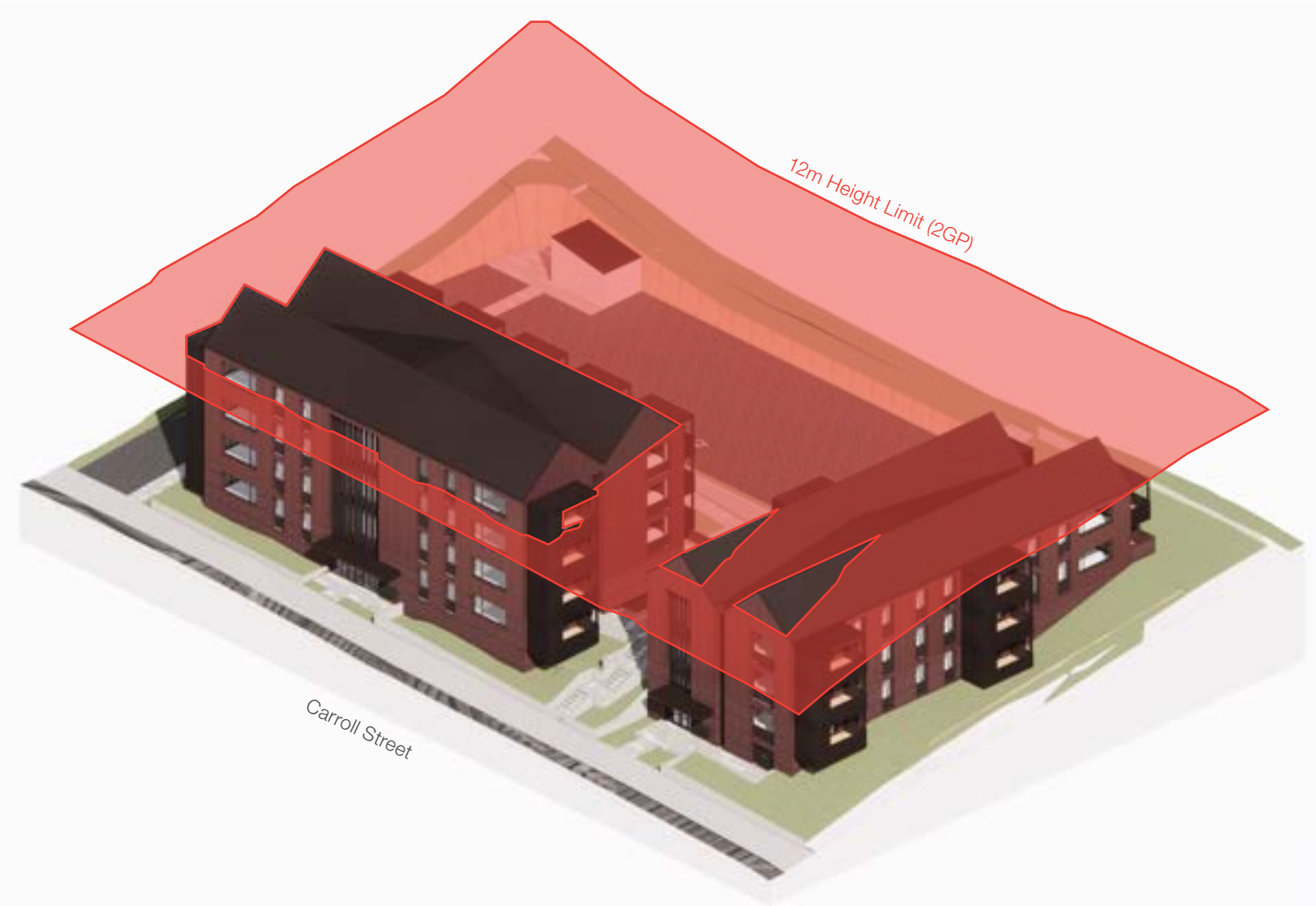
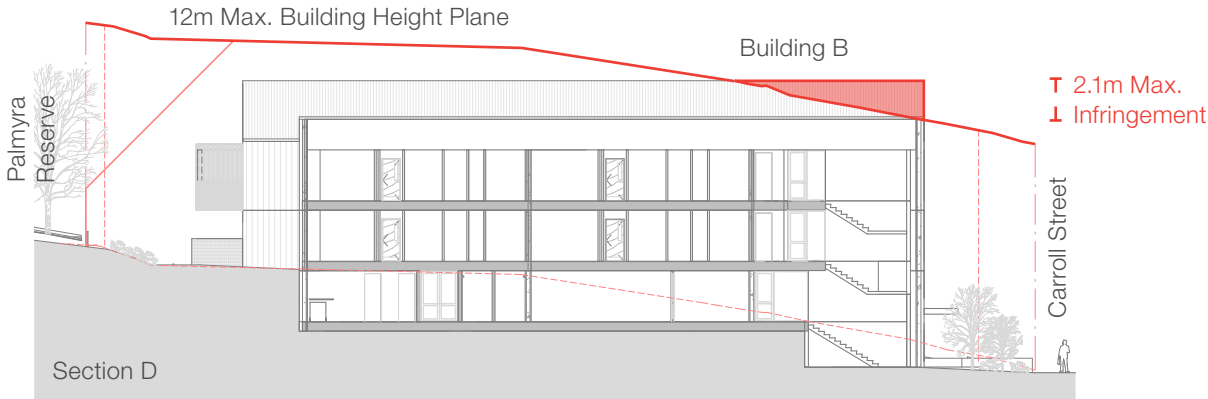
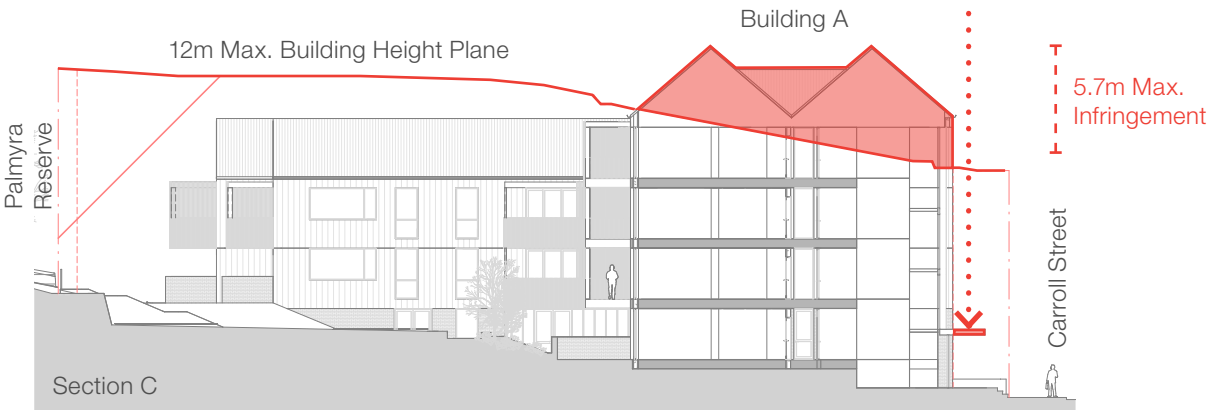




# Sections - Building Height Infringement



Note that the canopy over the entry of Building A infringes into the 3m front yard setback along Carroll Street for a depth of 1.7m. ....



Elevations - Site & Context



Scale @ A3:  
1:500



# Elevations - Building A



NORTH ELEVATION



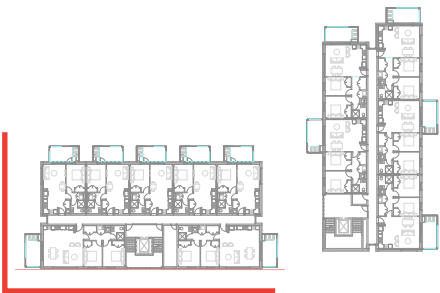
EAST ELEVATION

- Material Legend
- 1 Vertical profiled metal cladding
  - 2 Brick veneer cladding
  - 3 Solid balustrade - profiled metal
  - 4 Screening - vertical aluminium fins
  - 5 Profiled metal roofing
  - 6 Plastered concrete block wall
  - 7 Clear glazing
  - 8 Aluminium joinery spandrel panel

Scale @ A3: 1:200



# Elevations - Building A



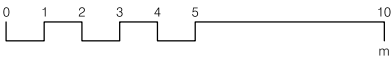
WEST ELEVATION



SOUTH ELEVATION

- Material Legend
- ① Vertical profiled metal cladding
  - ② Brick veneer cladding
  - ③ Solid balustrade - profiled metal
  - ④ Screening - vertical aluminium fins
  - ⑤ Profiled metal roofing
  - ⑥ Plastered concrete block wall
  - ⑦ Clear glazing
  - ⑧ Aluminium joinery spandrel panel

Scale @ A3: 1:200



# Elevations - Building B



EAST ELEVATION



NORTH ELEVATION

- Material Legend
- ① Vertical profiled metal cladding
  - ② Brick veneer cladding
  - ③ Solid balustrade - profiled metal
  - ④ Screening - vertical aluminium fins
  - ⑤ Profiled metal roofing
  - ⑥ Plastered concrete block wall
  - ⑦ Clear glazing
  - ⑧ Aluminium joinery spandrel panel

Scale @ A3:  
1:200

# Elevations - Building B



SOUTH ELEVATION



WEST ELEVATION

- Material Legend
- 1 Vertical profiled metal cladding
  - 2 Brick veneer cladding
  - 3 Solid balustrade - profiled metal
  - 4 Screening - vertical aluminium fins
  - 5 Profiled metal roofing
  - 6 Plastered concrete block wall
  - 7 Clear glazing
  - 8 Aluminium joinery spandrel panel

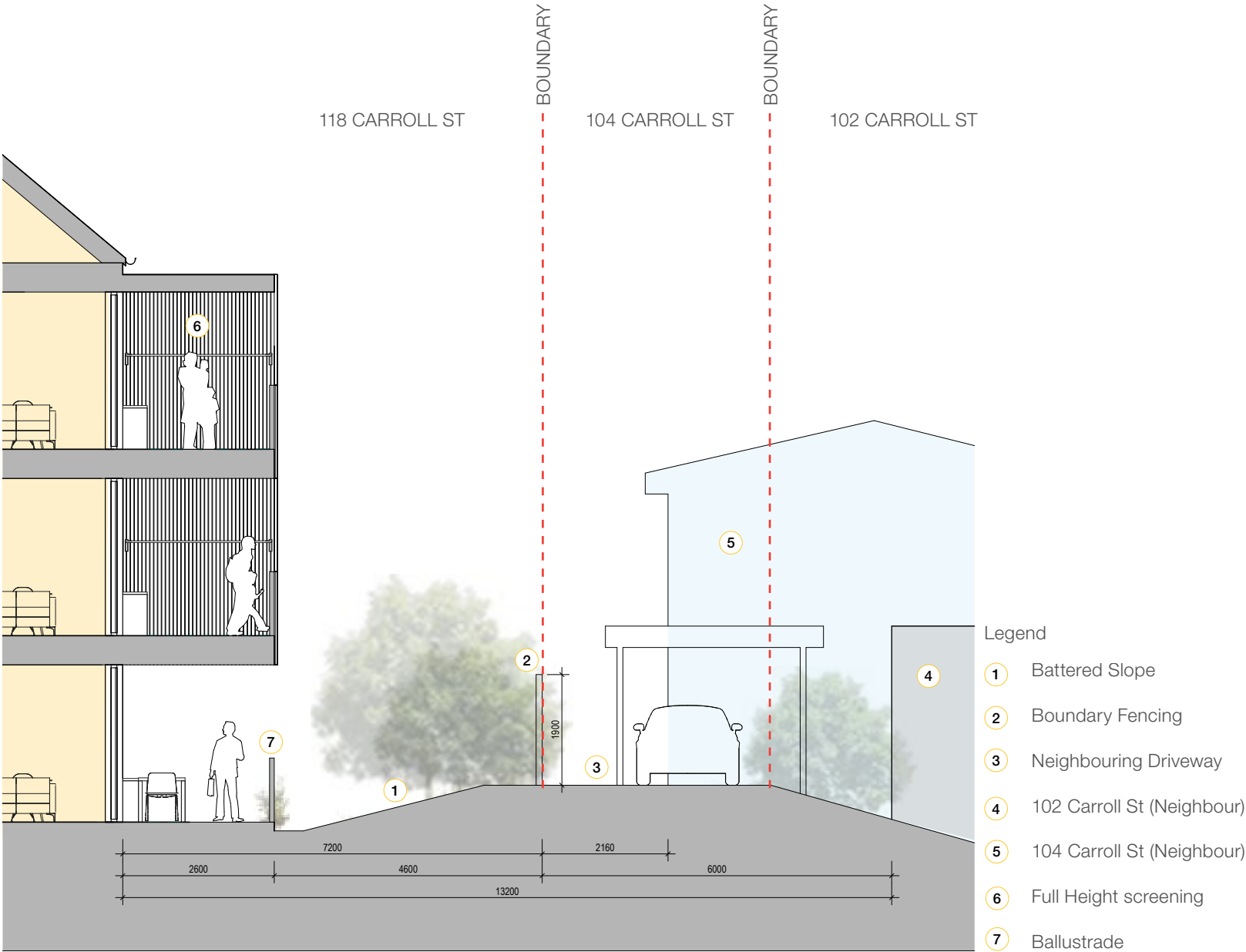
Scale @ A3: 1:200



Detail - Overlooking to Eastern Boundary



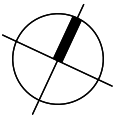
# Detail - Overlooking to Eastern Boundary



Section A

Overlooking to Eastern Boundary:

- 11m from balcony to nearest neighbouring outdoor living space.
- 10.6 m from balcony to nearest neighbouring wall with windows.
- Nearest outdoor living space sheltered from view by a shed and a carport and two boundary fences.
- On site landscaping and fencing will mitigate overlooking from lower two levels.
- Upper level balconies will have solid balustrades and vertical screening.



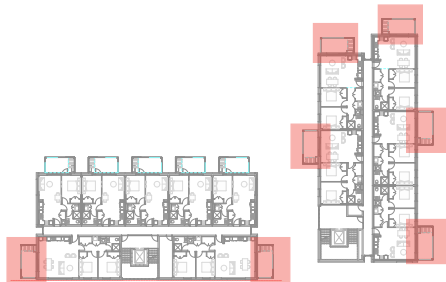
Legend

Neighbouring buildings

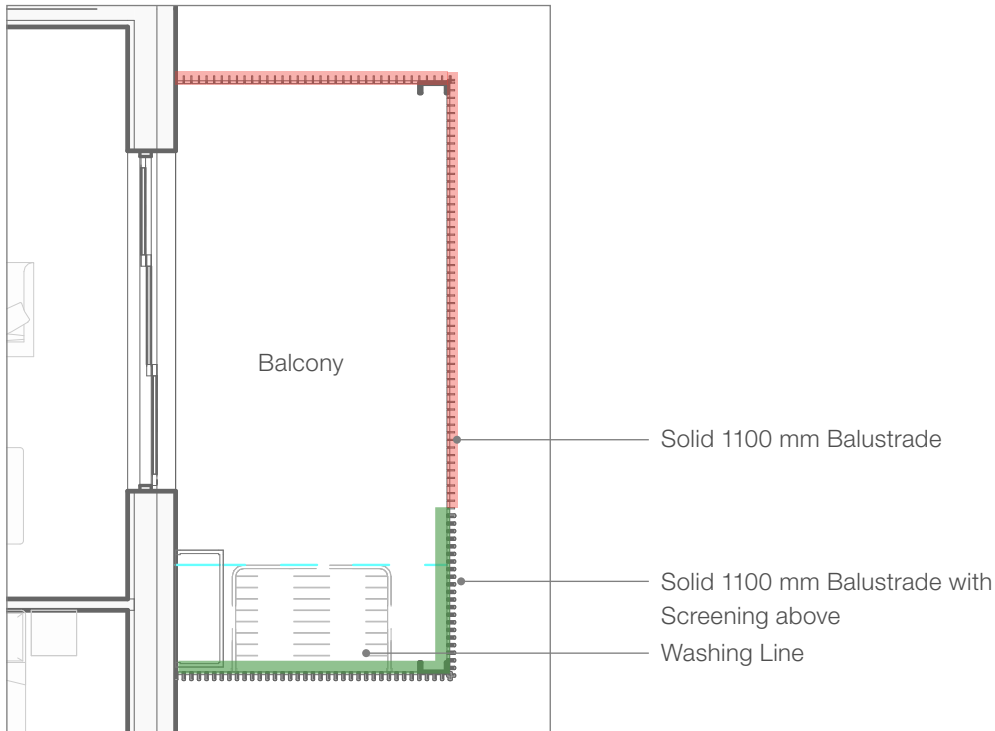
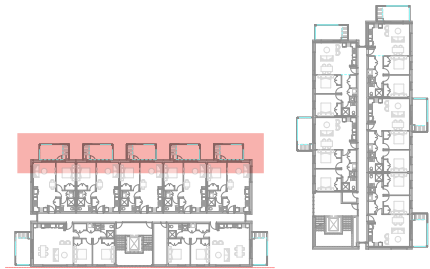
Neighbouring outdoor space

# Detail - Balcony Design

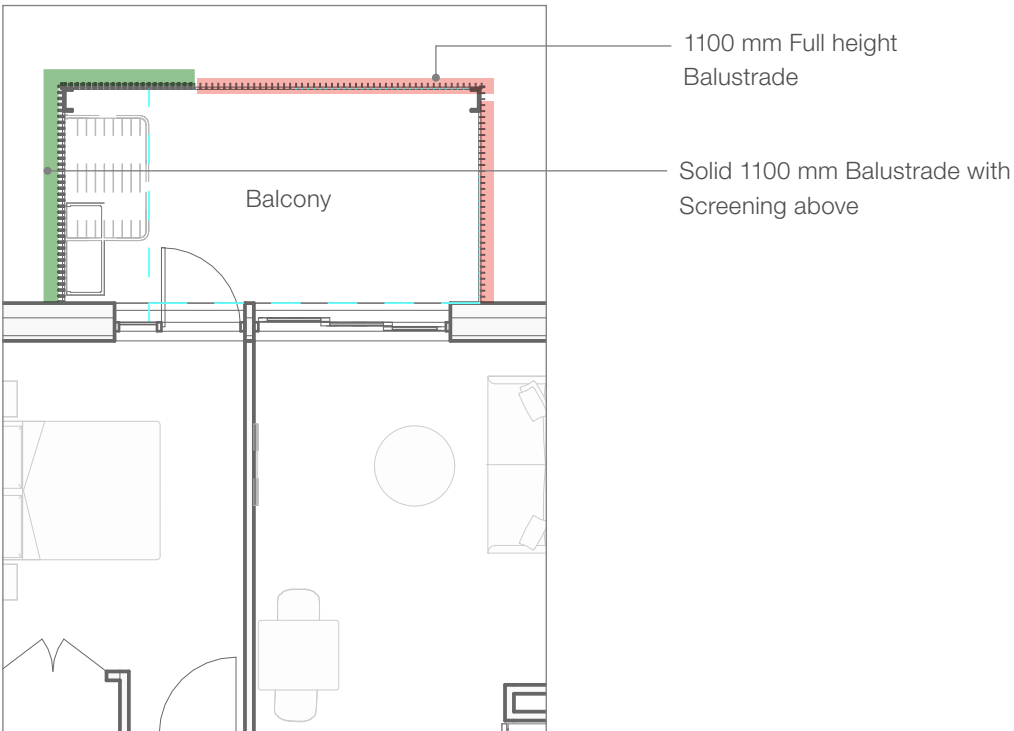
Screening Type 1



Screening Type 2



Balcony Type 1 Plan



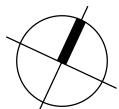
Balcony Type 2 Plan





Balcony Type 1 3D View



Balcony Type 2 3D View

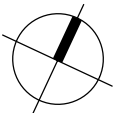
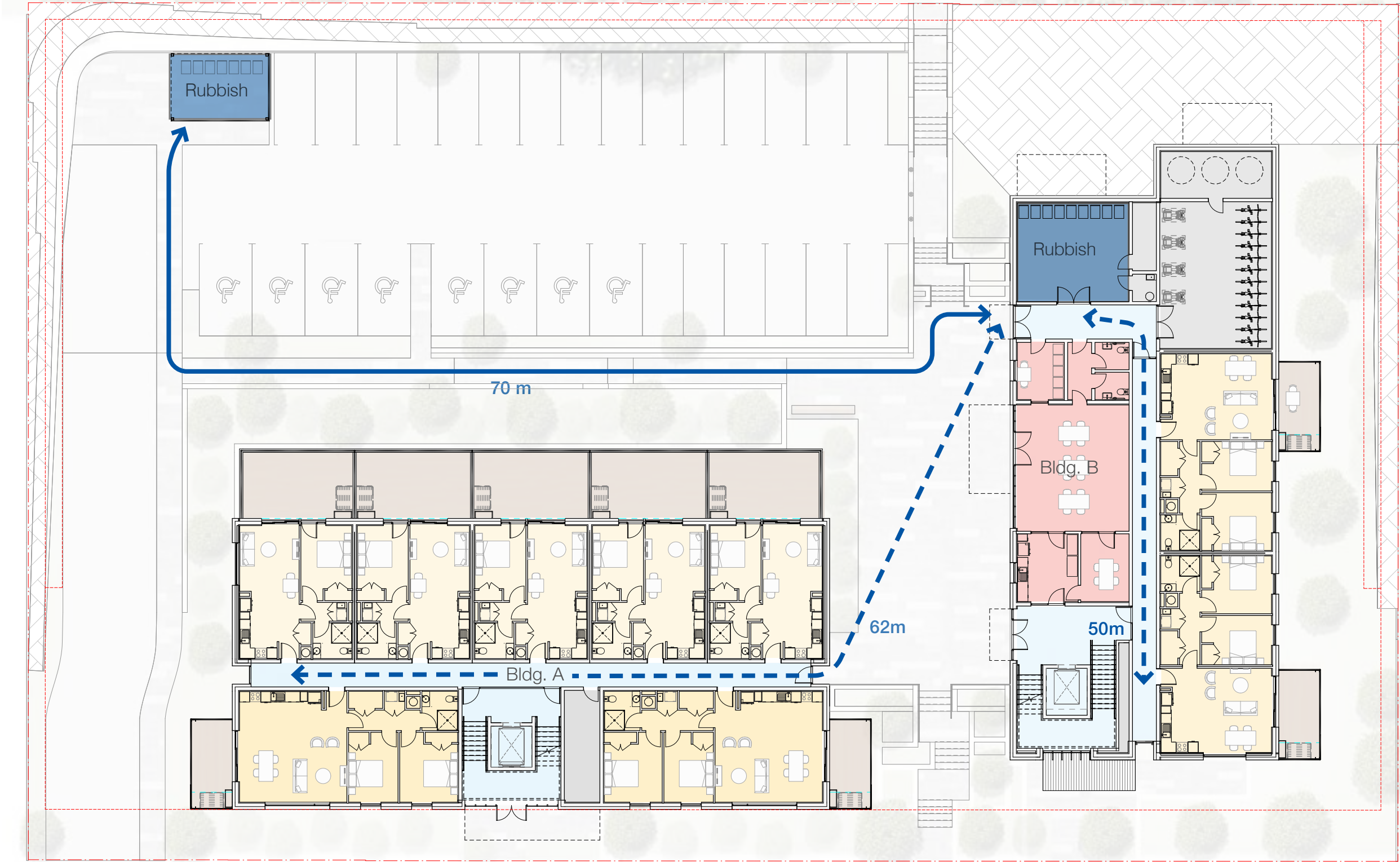


Legend

-  Full Height Balustrade
-  1100mm Solid Balustrade



Detail - Waste Management and Storage

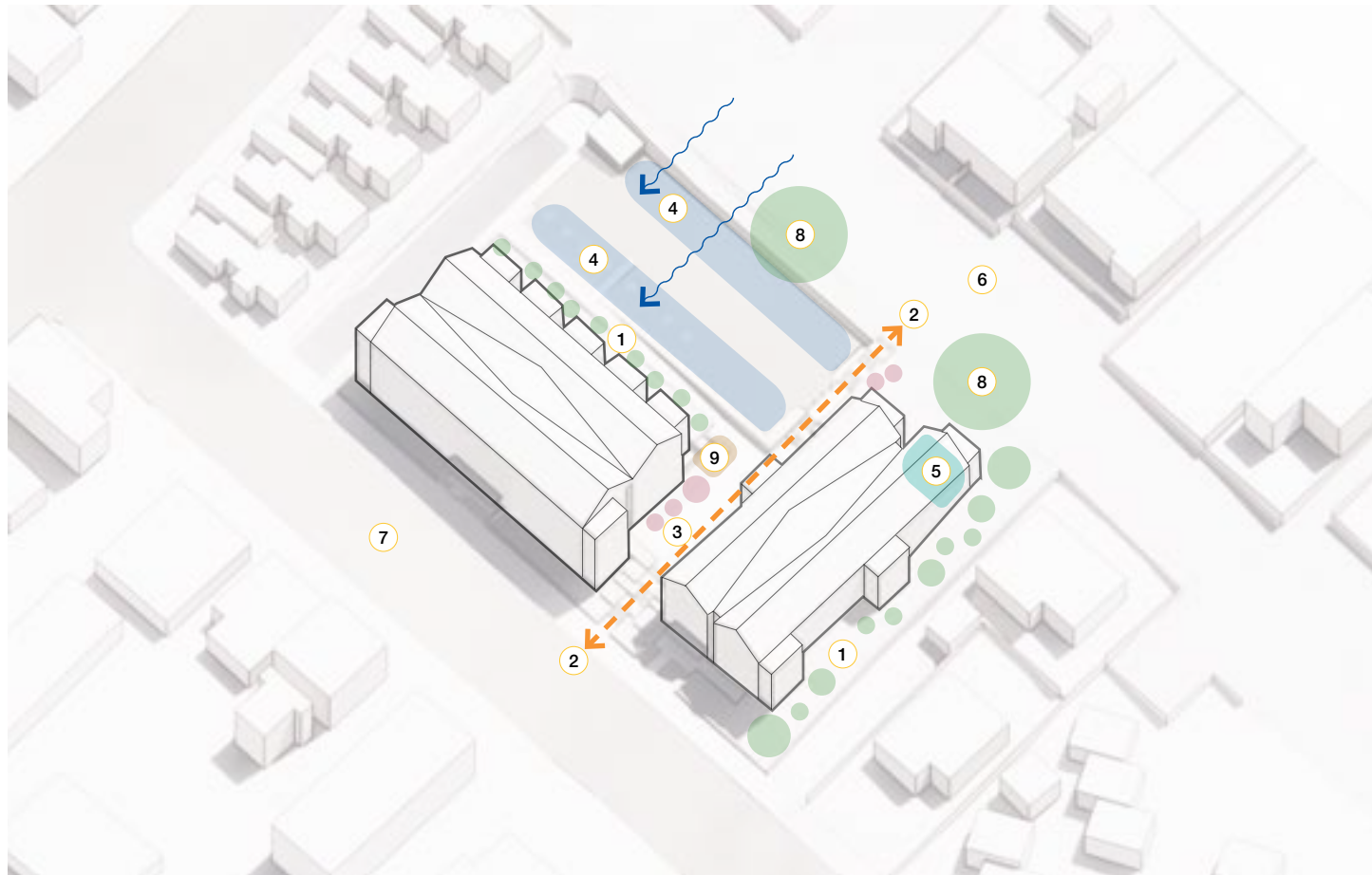


- ← Waste Disposal - Managed Route
- ← Waste Disposal - Residents Route

# Bicultural Design

# Bicultural Design

## Te Ao Māori Considerations



Sustainability and Environmental Health Strategy

### Legend

- 1 Native Planting
- 2 Enhanced Access to Reserve
- 3 Food Harvesting
- 4 Permeable Surfaces
- 5 Rainwater Recycling
- 6 Palmyra Reserve
- 7 Carroll Street
- 8 Preserving Existing Trees
- 9 Vegetable Gardens



## Te Taiao & Waiora | Sustainability & Well-being

### KEY CONSIDERATIONS:

The overall site plan and landscape strategy has been developed with considerations given to how the occupants will engage with and nurture the biodiversity of the site. The aim is to create opportunities for reinstating native planting, growing edible plants for harvesting, and encourage reconnections to the natural environment.

### Native Planting

The landscape design utilises mainly native planting species throughout the site. This will take steps towards restoring the former biodiversity of the area and provide planting that will be culturally significant and climate specific.

### Enhanced Access to Reserve

Creating a vibrant and welcoming outdoor space will encourage the residents to engage with the landscape and natural environment. We have prioritised a central through-site link to Palmyra Reserve that connects the living and community spaces back to the park to the north of this site.

### Sustainable Harvesting

There will be a selection of fruit bearing trees to provide opportunities for food harvesting. These trees, along with raised vegetable gardens, will be easily accessible to the community of residents. A garden storage room will allow the residents to manage and maintain the gardens themselves, and a community kitchen will be located across from the gardens to provide easy access for local harvesting and food preparation.

## Mauri Tū | Environmental Health

### KEY CONSIDERATIONS:

The development has been designed to enhance the existing environmental conditions on site. A long history of previous housing projects has left the site scarred with decades of uncontrolled fill material and void of native planting. Our proposal will aim to remediate much of the existing landscape and put into place new strategies to restore the natural health of the site.

### Wai | Water

To conserve the resources available, provisions have been made to allow for rainwater to be collected for use on site. Also, large permeable areas of landscape and paving form part of the stormwater mitigation strategy, whereby water is allowed to soak into the land rather than running off into stormwater drains.

### Ngāhere | Forest

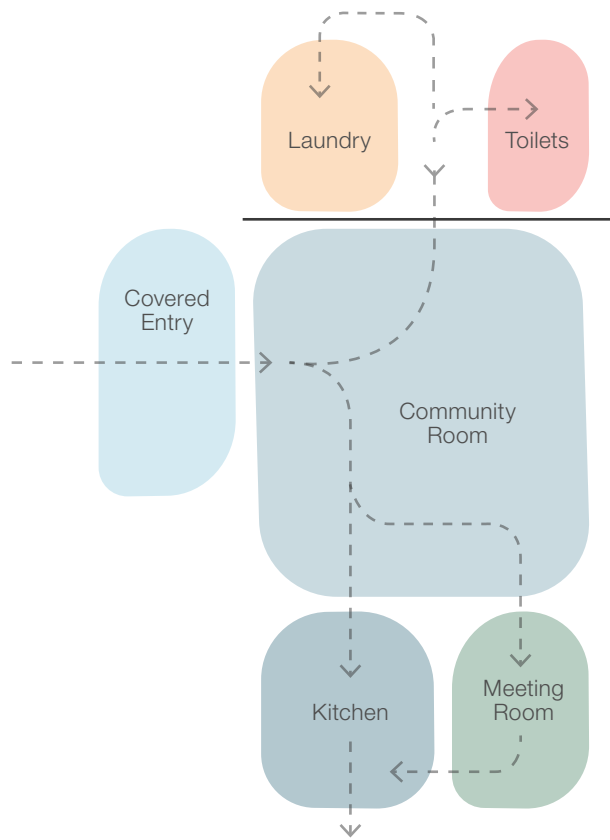
Reintroducing native planting where none has existed for nearly a century will improve soil health and encourage native bird species to return to the area. We will also protect existing trees along the boundary to Palmyra Reserve to the north.

### Whenua | Land

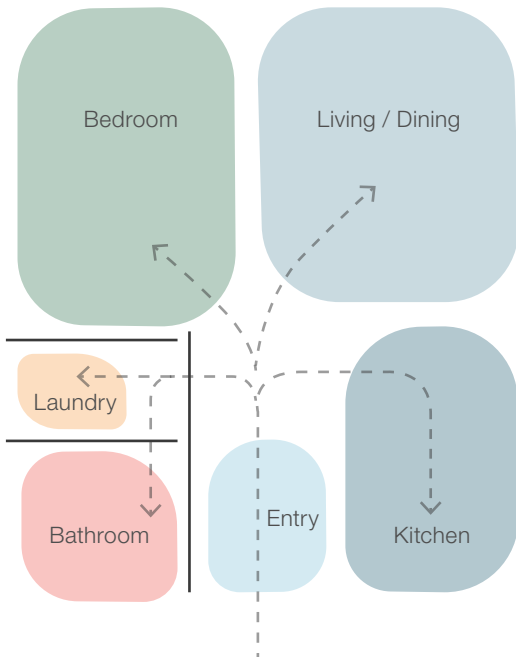
A significant amount of cutting and filling will be required to create levels suitable for building on the site. This will be mitigated by clearing the site of the existing fill material (glass and brick) and contaminated soils. We have also designed the buildings and pathways to follow the levels of the site to reduce the amount of cutting as much as possible.

# Bicultural Design

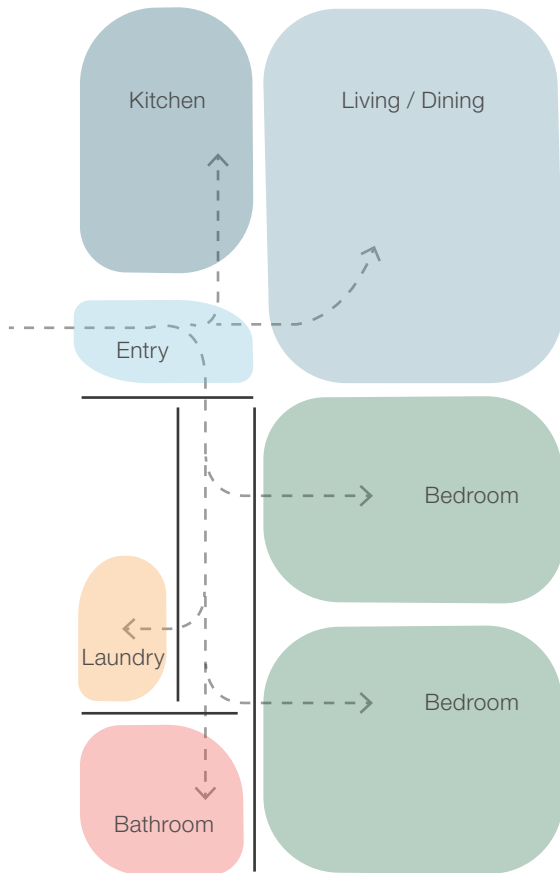
## Te Ao Māori Considerations



Māori Protocol & Adjacencies for Communal Spaces



Māori Protocol & Adjacencies for 1-Bed Units



Māori Protocol & Adjacencies for 2-Bed Units

## Tikanga Māori | Provision for Māori Protocol

### KEY CONSIDERATIONS:

Particular considerations have been given to creating organisational principles that recognise Māori values. The aim has been to provide both community and private spaces that adhere to tapu and noa spatial adjacencies and Māori protocol.

### Māori Protocol

It is important that the communal facilities provide for tikanga Māori - in particular Māori protocol and ceremony. Key spatial functions and adjacencies that were considered to achieve this are:

- Ātea / open welcoming courtyard where residents can gather and kōrero can take place.
- Mahau / covered arrival space outside the community room where gatherings for karanga and haka pōwhiri can take place.
- Hui / interior community space for large social gatherings with a smaller meeting room adjacent.

- Kihini / community kitchen and food preparation space conveniently located near the community room and vegetable gardens.
- Communal toilets and laundry are conveniently located but are not visibly close to the welcoming and food preparation areas.

### Tapu and Noa Spatial Adjacencies

The residential programmes have been carefully organised to consider particular adjacencies that respect privacy and Māori cultural practices within each unit. Physical and visual separations have been created to provide a barrier between the tapu (sacred/prohibited) and the noa (common/profane).

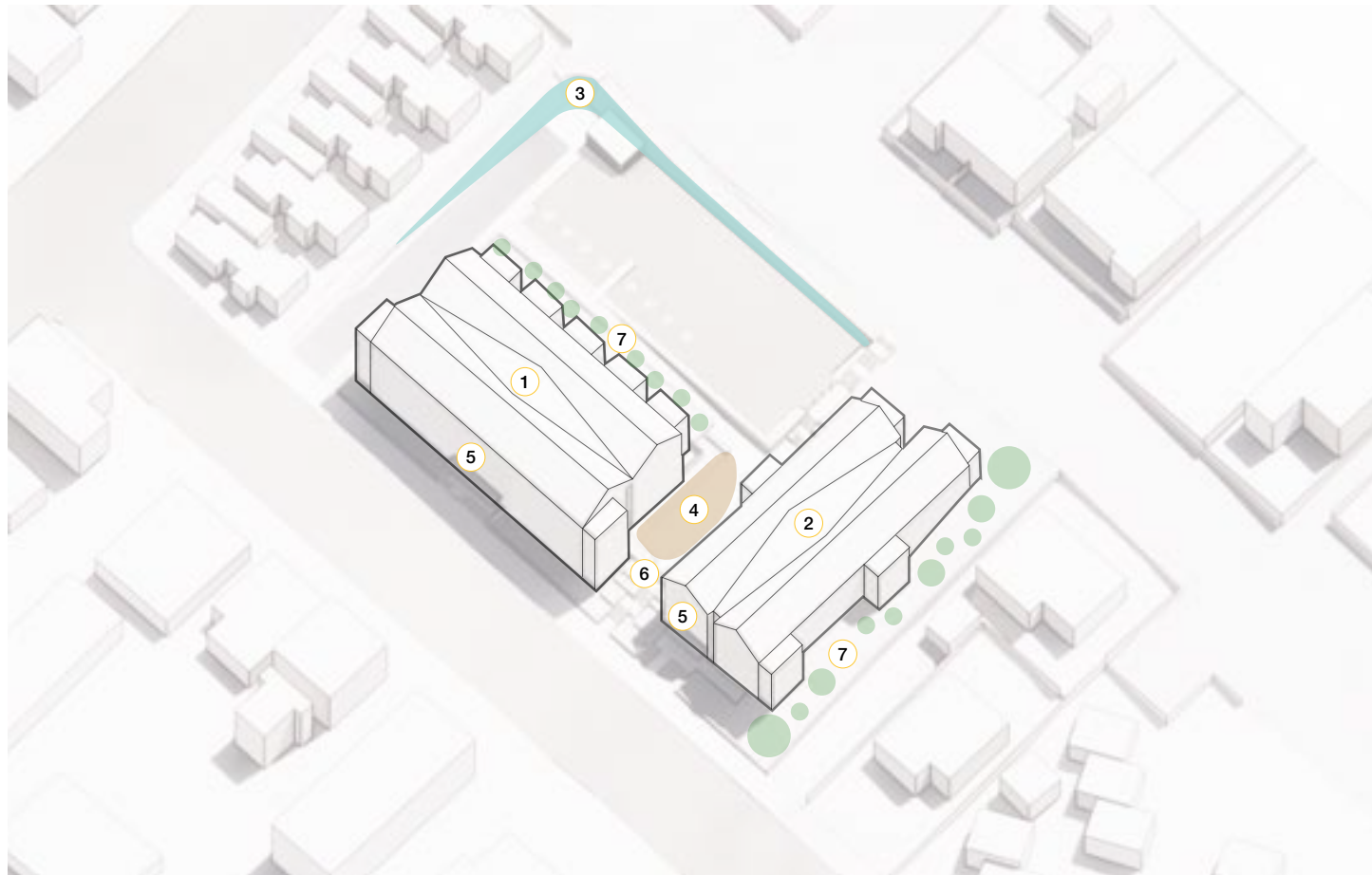
- The laundry facilities are separate from the bathrooms.
- Hallway doors have been provided to block views of laundries and bathrooms from the kitchen and dining areas.
- Main entries do not look into bedrooms, bathrooms, or laundries.

- Further considerations have been demonstrated on the Typical Apartment Plans.



# Bicultural Design

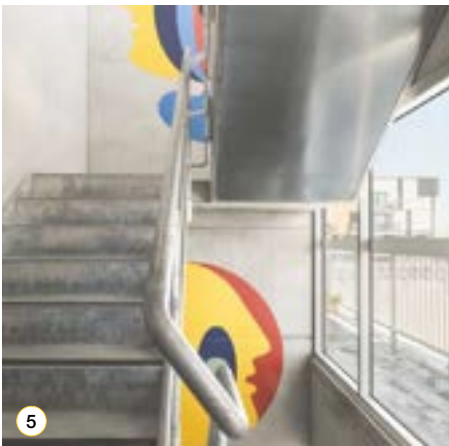
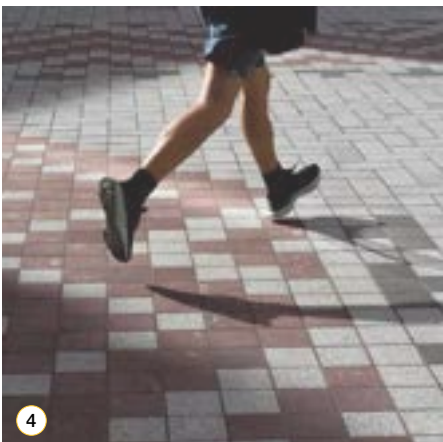
## Te Ao Māori Opportunities



Sustainability and Environmental Health Strategy

### Legend

- 1 Building A (unnamed)
- 2 Building B (unnamed)
- 3 Permacrib Retaining Walls
- 4 Courtyard Paving
- 5 Stairwell Artwork
- 6 Waharoa or Pou
- 7 Native Planting
- 8 Interior Graphics



## Whakapapa | Recognise Māori Names

### KEY CONSIDERATIONS:

There are opportunities to recognise and celebrate the significance of local mana whenua place names. This may develop as part of an ongoing mana whenua engagement process.

#### Building Names

There are two main apartment buildings on the site. One way of differentiating them to give them unique identities would be to give them names that honour historical and cultural narratives.

#### Signage and Wayfinding

Another way of celebrating te reo Māori in the design would be to express this in the signage and wayfinding graphics throughout the site.

## Mahi Toi | Express Iwi/hapū Narratives through Design

### KEY CONSIDERATIONS:

Opportunities for integrated design features have been nominated to provide space for collaboration with local mana whenua groups. This will create a canvas for artistic and cultural expression in various potential locations:

- Landscape Design (retaining walls and paving)
- Supergraphics/wayfinding
- Waharoa (welcoming node)
- Material Sourcing

#### Landscape

There are opportunities to introduce Māori cultural design into the permacrib retaining wall timbers, hardscape paving, and planting arrangements. This could be done through collaboration with local craftpersons.

#### Artwork

Ideal locations have been identified for showcasing local artwork. These are the publicly visible stairwells and the community areas.

#### Waharoa or Pou

The landscape architects have made provision for a waharoa (entrance to a pā) at the top of the main stairs that connect Carroll Street to the courtyard on ground level.

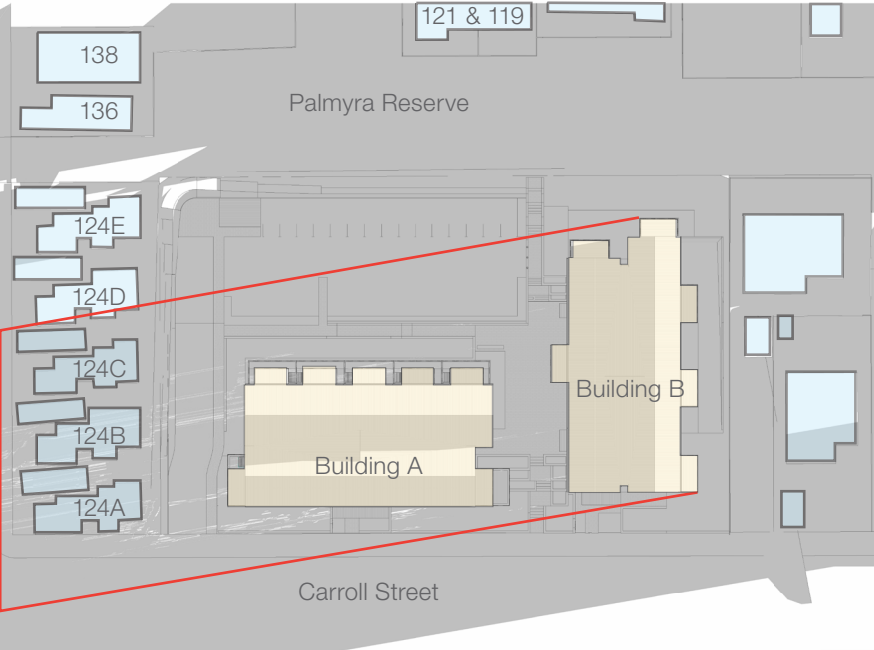
#### Materials

The desing team is looking to incorporate local materials and craftpersons for both architectural and landscape items. This could be sourcing local boulders for the terraced landscape or selecting plants from nurseries in the area. Building cladding materials can also reference local natural and cultural sites through sourcing and colour choices.

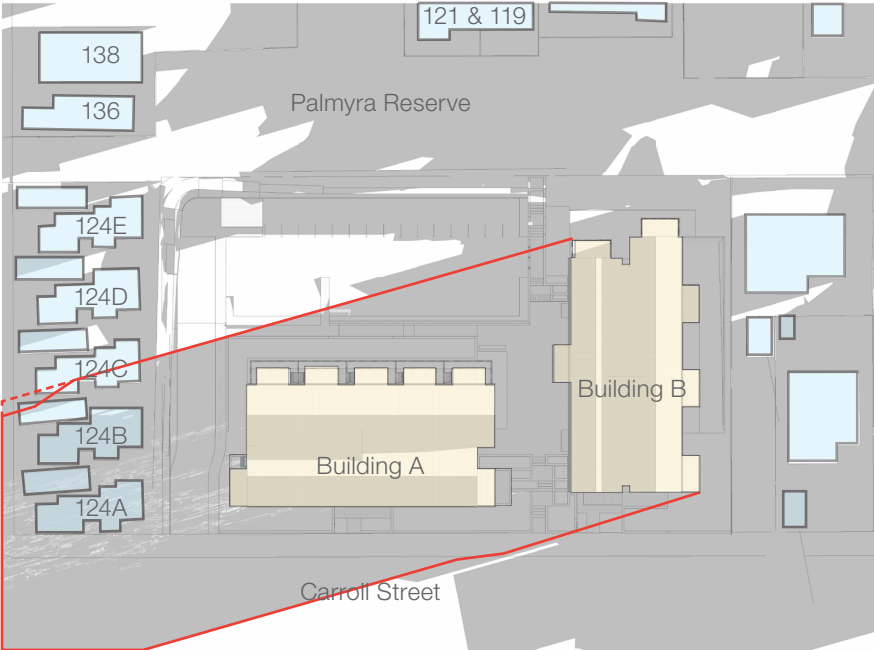
# Sun Study North & West Boundaries - Winter Solstice

## Proposed Revisions

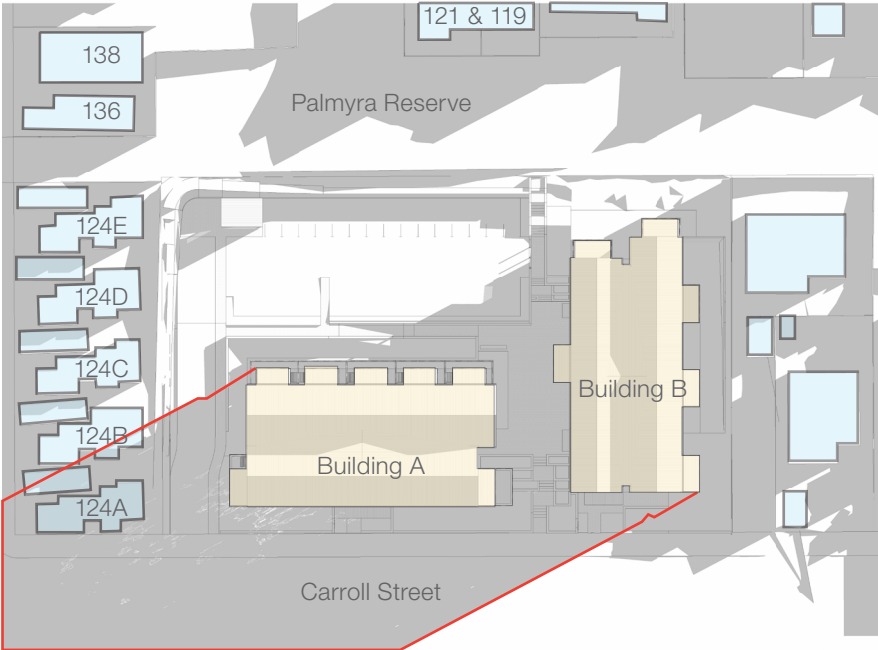
BUILDING A SET BACK FROM STREET BY A FURTHER 1 METER, FLOOR TO FLOOR HEIGHTS REDUCED BY 0.15m PER FLOOR, AND OVERALL FLOOR AREA REDUCED.



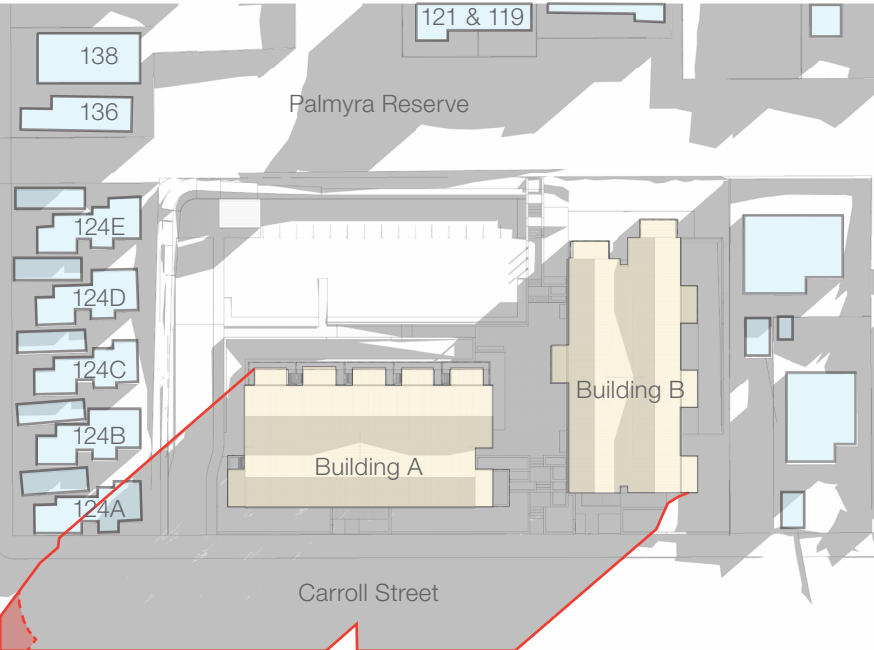
Winter Solstice - 8am



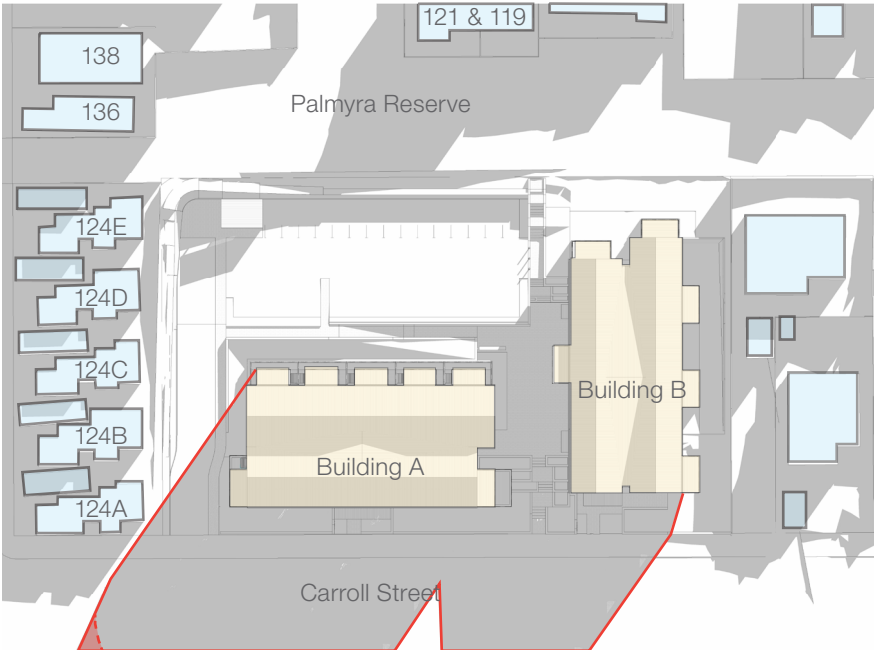
Winter Solstice - 9am



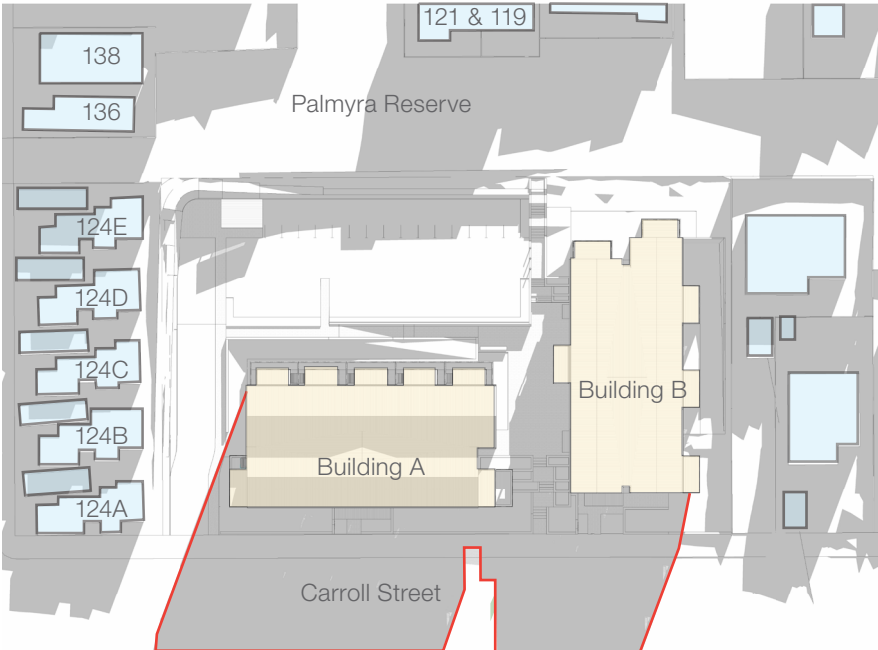
Winter Solstice - 10am



Winter Solstice - 11am



Winter Solstice - 12pm



Winter Solstice - 1pm



- Legend
- Extent of shading from a compliant project (12m building height)
  - Extent of shading from the proposed project
  - Extent of additional shading from proposed project

Extent of reduced area of shading compared to RC submission