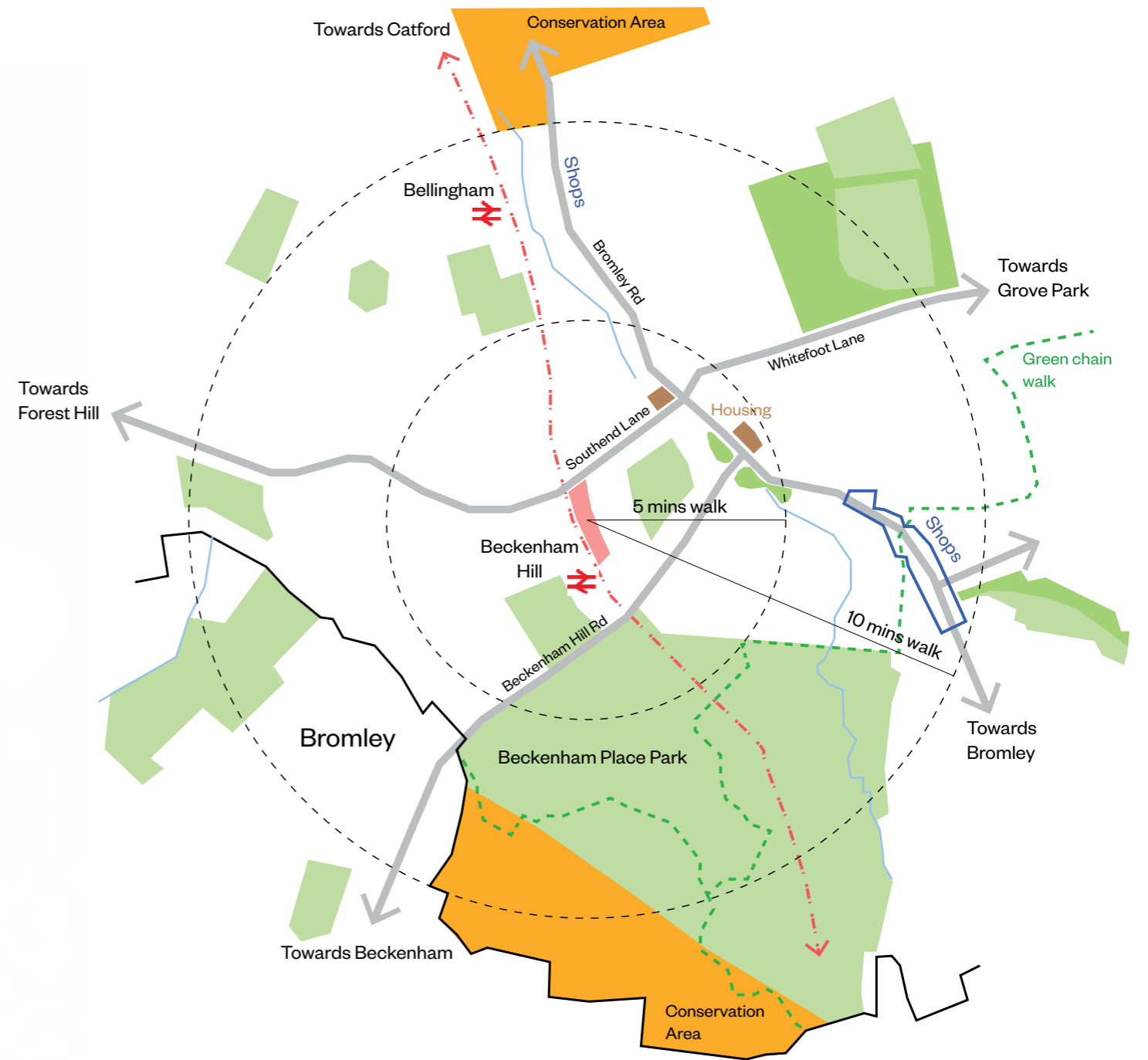












# Melfield Gardens, Lewisham

# Site location



-  Railway
-  Main road
-  Parking
-  Site access
-  Bus stop
-  Possible noise disturbance
-  Mature trees
-  Building heights

Site context



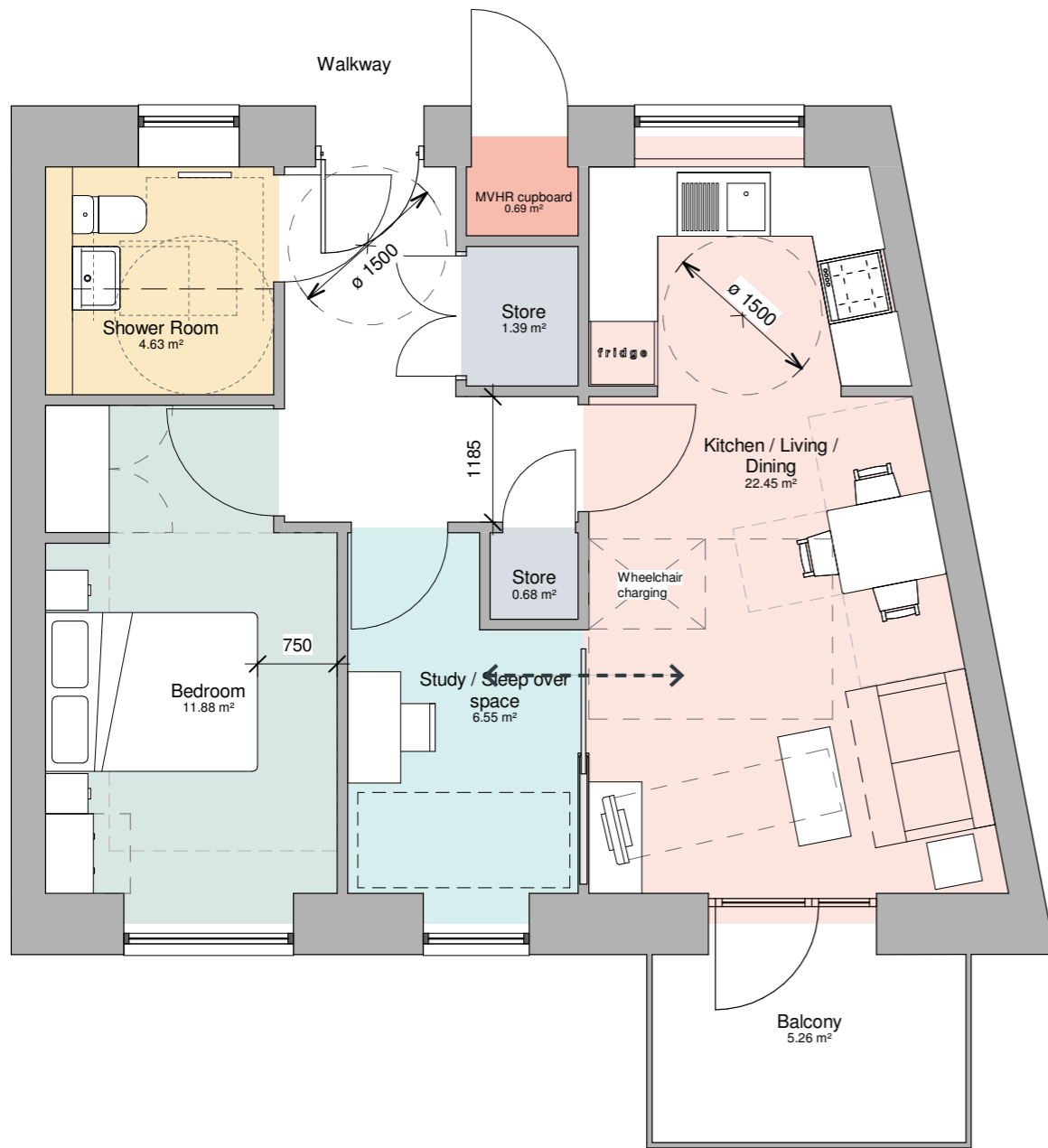
Our response to an innovative brief -  
an intentional community of different ages



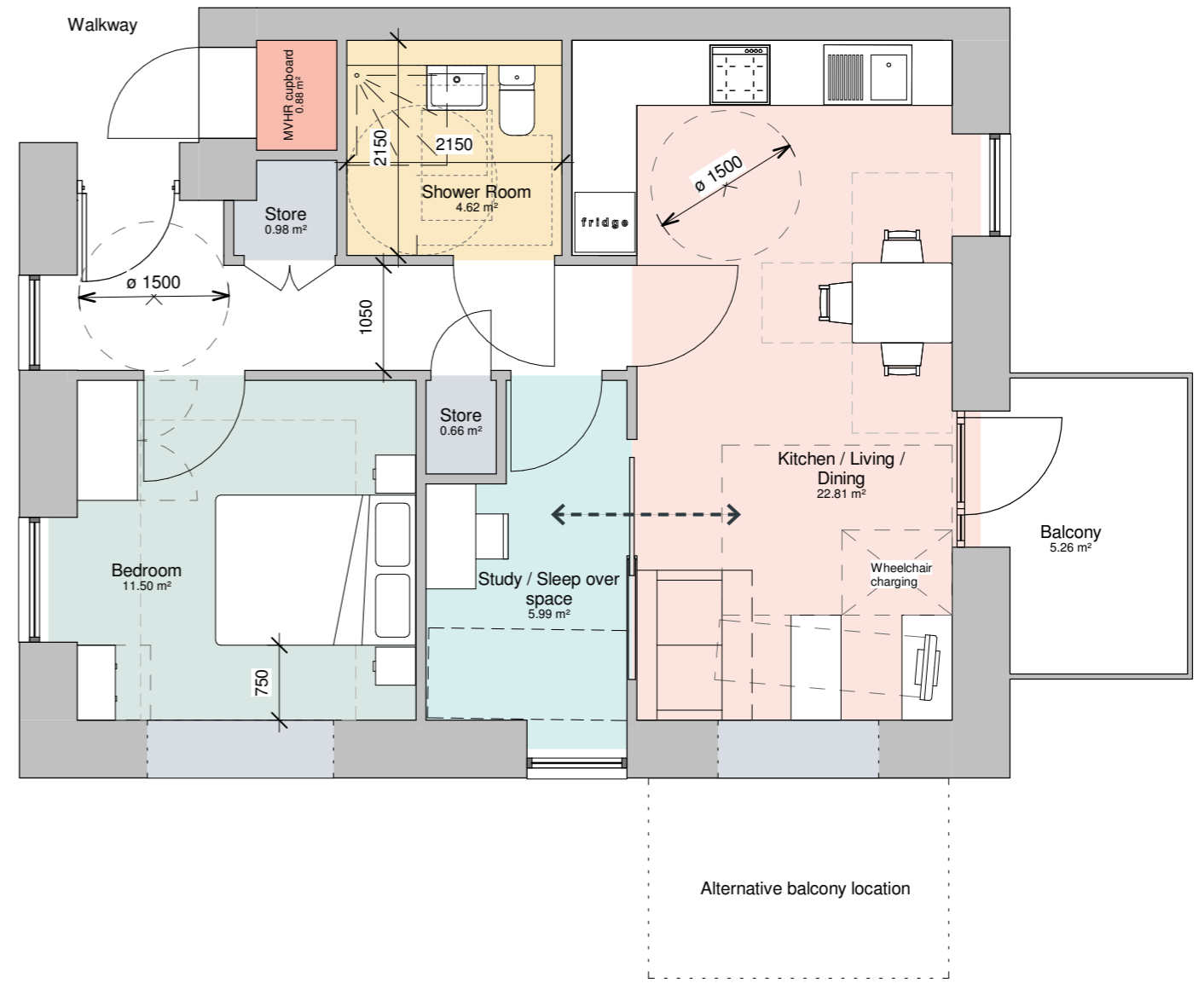
# Intergenerational living



# Flexible living



1Bed+ flexible dwelling for older residents  
59 sqm



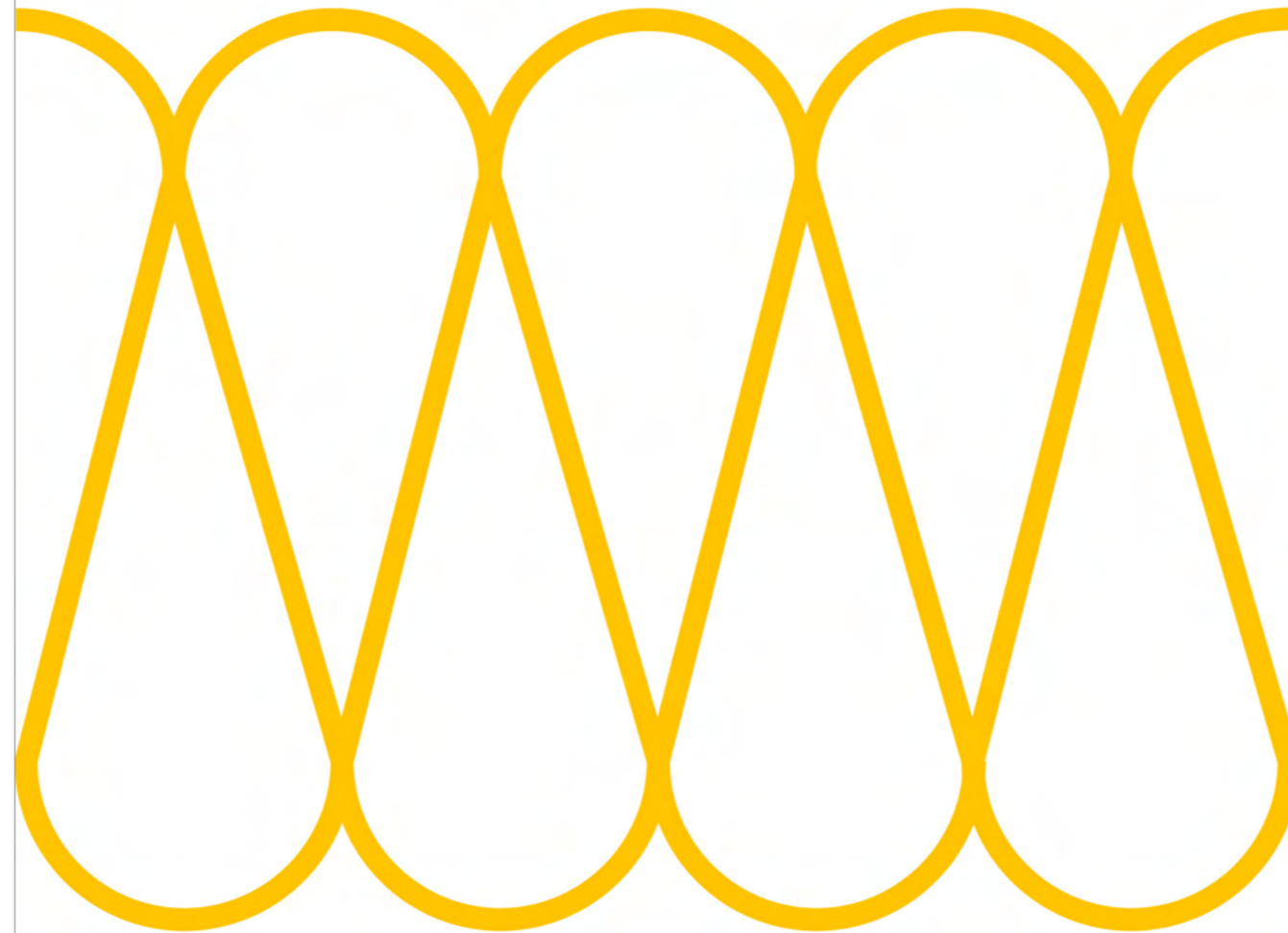
1Bed+ flexible dwelling for older residents  
59 sqm

# Zero carbon approach

## Easi Guide

### Passivhaus Design

Medium density housing projects



Etude

Levitt Bernstein People.Design

Supported by:



## Building on Hazelhurst Court successes

- Focal landscaped spaces
- Gallery access
- Dual aspect homes





# Building on Hazelhurst Court successes



# Consultation led approach



### Melfield Gardens

Things you like and dislike about the area...

Things you might like to see improved...

March 2019

Levitt Bernstein  
People Design  
Phoenix

### Melfield Gardens

Proposed Landscape Improvements

#### Parking

Two overnight parking surveys were held on 30th April and 1st May 2019 and covered a 200m radius from the site. The parking survey showed that 12 vehicles park on Melfield Gardens. There are 14 resident car parking permits which aligns with the collected parking survey data. This suggests that there is a parking demand of 14 spaces for Melfield Gardens and Miroff House.

**Proposal**  
The parking proposals will cater for the existing residents of Melfield Gardens and Miroff House.

10 basket flats are due to be removed from site and replaced with 34 1-bed dwellings. Informed by the parking survey, the parking proposals will re-provide the existing demand (14 parking spaces) and provide 9 additional spaces in accordance with the draft London Planning standards.

**Bicycle Storage**  
We are providing 34 cycle spaces which equates to 1 bike space per dwelling. Stores will be designed to offer greater flexibility in order to incorporate scooters for residents with limited mobility.

Sketch view of streetscape

July 2019

Phoenix  
Levitt Bernstein  
People Design  
BTW

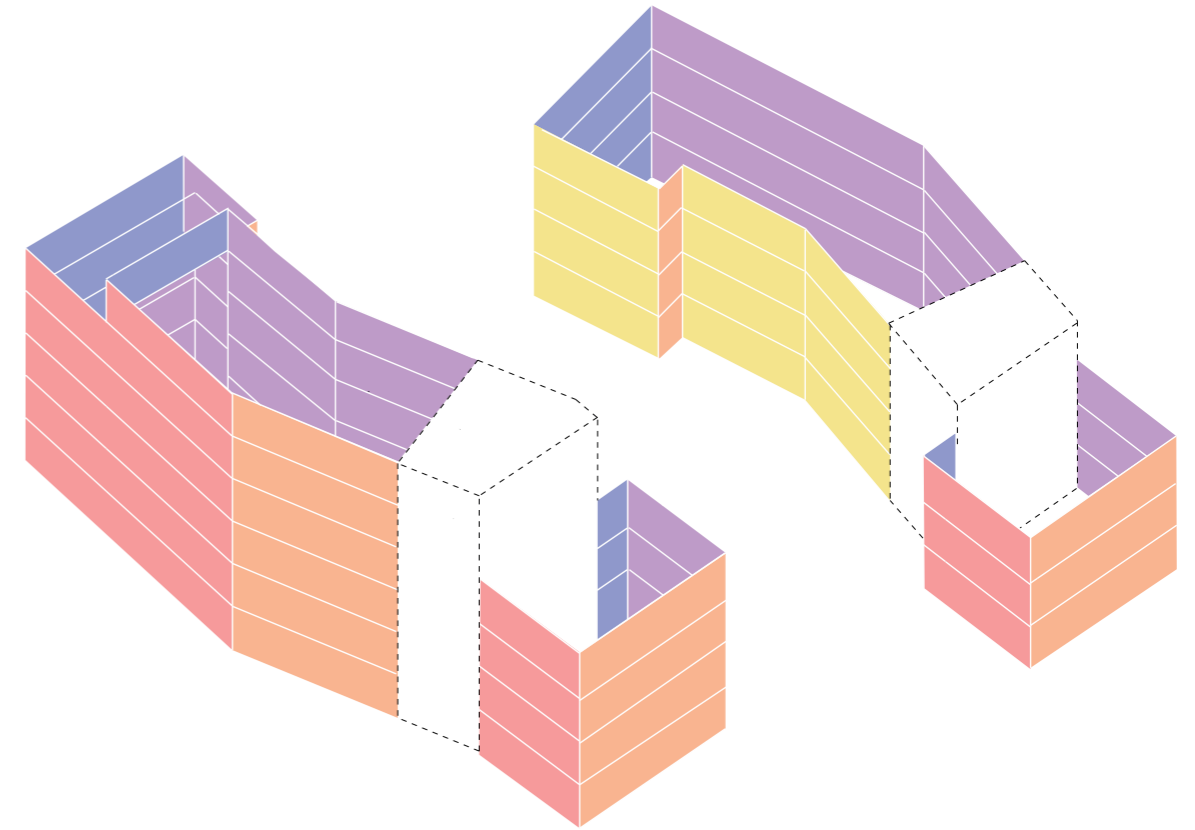
# Initial concept



# Site layout



## Early form development models



Solar Gain



- Solar gain v privacy ----- Larger openings
- Useful solar gain ----- Openings with shading above
- Winter gain / summer overheating ----- Openings with shutters
- Limited useful solar gain ----- Smaller windows
- Heat loss ----- Minimal Windows

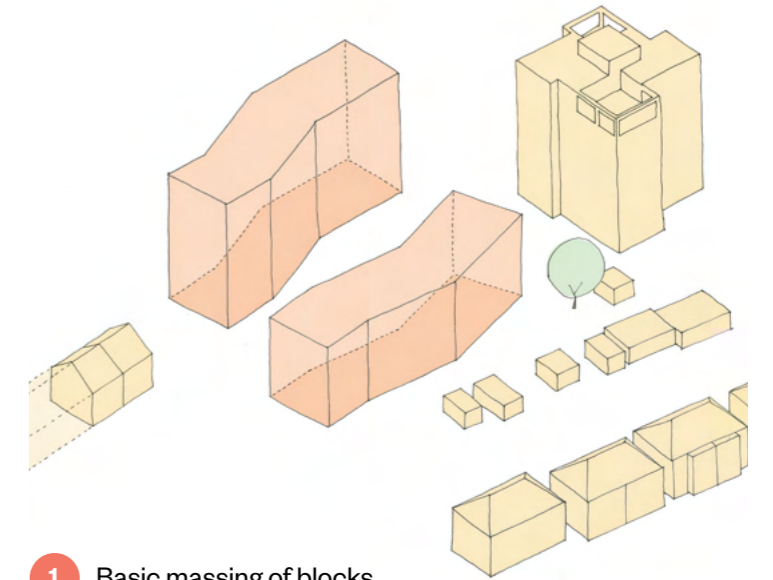
Heat Loss



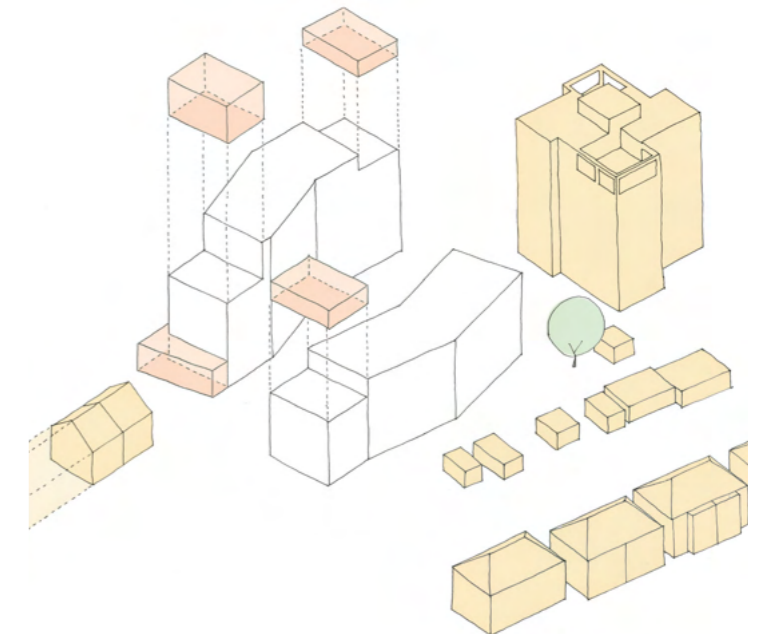
# Design Proposal



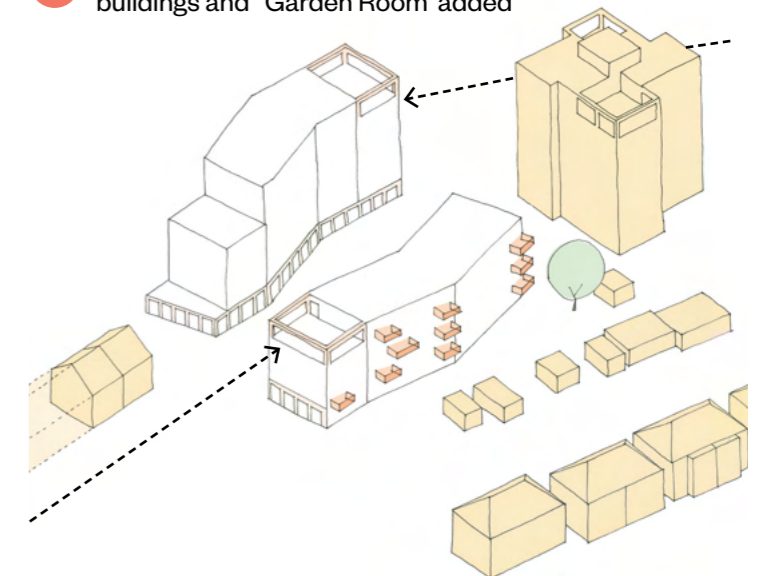
4 Building proposal within the landscape



1 Basic massing of blocks



2 Mass cut away at key corners to respond to adjacent buildings and 'Garden Room' added

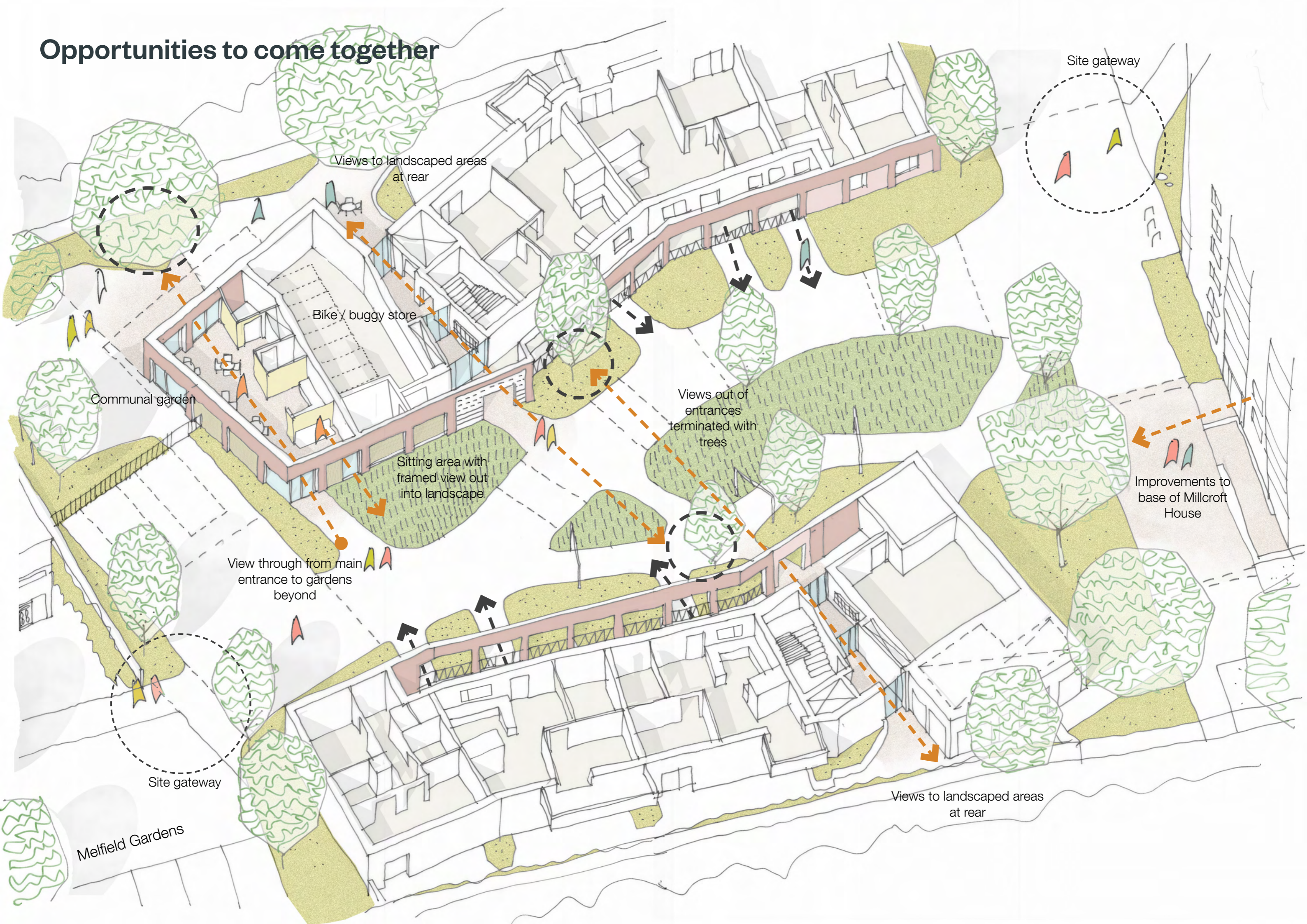


3 Corner framing to terminate key views, colonnade and balconies added

# Placemaking and landscape



# Opportunities to come together



Milcroft House

Plant Room

Bike / Buggy Store

Bin Store

Core

Flat Type 3: 1B2P CAT 2  
59sqm

Flat Type 4  
1B2P CAT 3  
59sqm

Flat Type 4  
1B2P CAT 3  
59sqm

Core

Bin Store

Bike / Buggy Store

Garden Room

Flat Type 4  
1B2P CAT 3  
59sqm

Flat Type 5  
1B2P CAT 3  
58sqm

Flat Type 3: 1B2P CAT 2  
58sqm



Ground Floor Plan  
1:200 @ A3



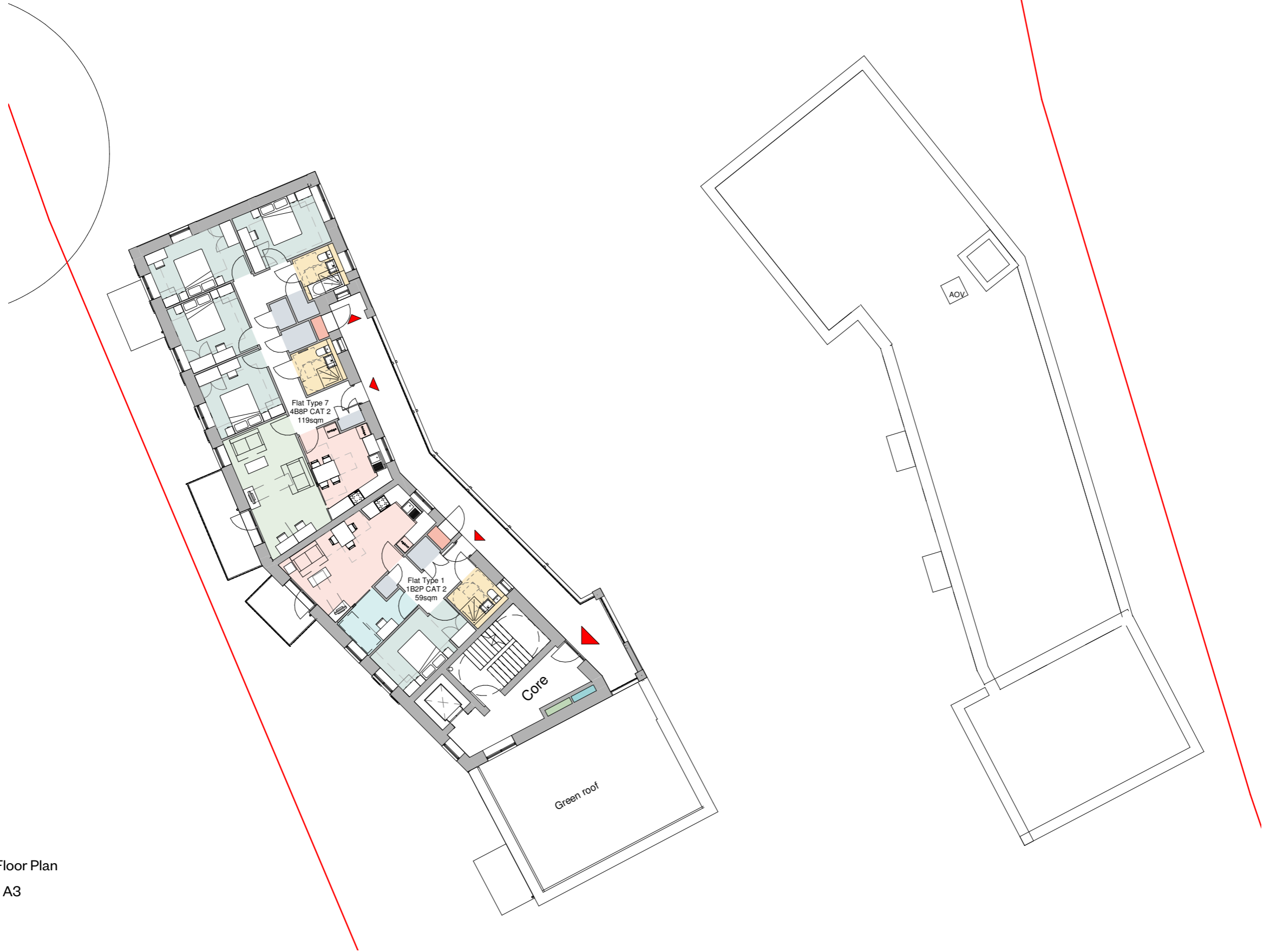


Milcroft House



N  
Second Floor Plan  
1:200 @ A3

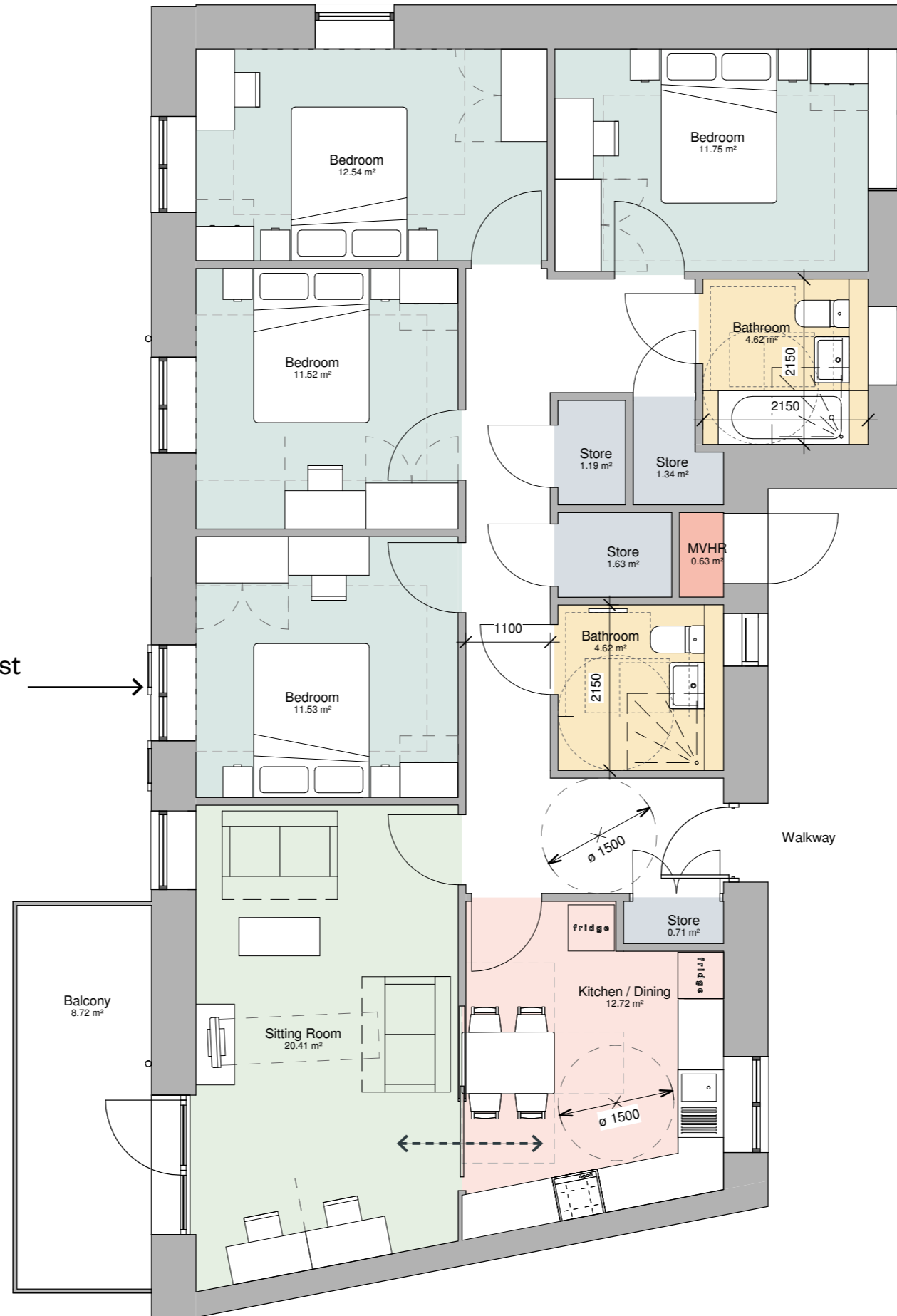
Milcroft House



N  
Fourth Floor Plan  
1:200 @ A3

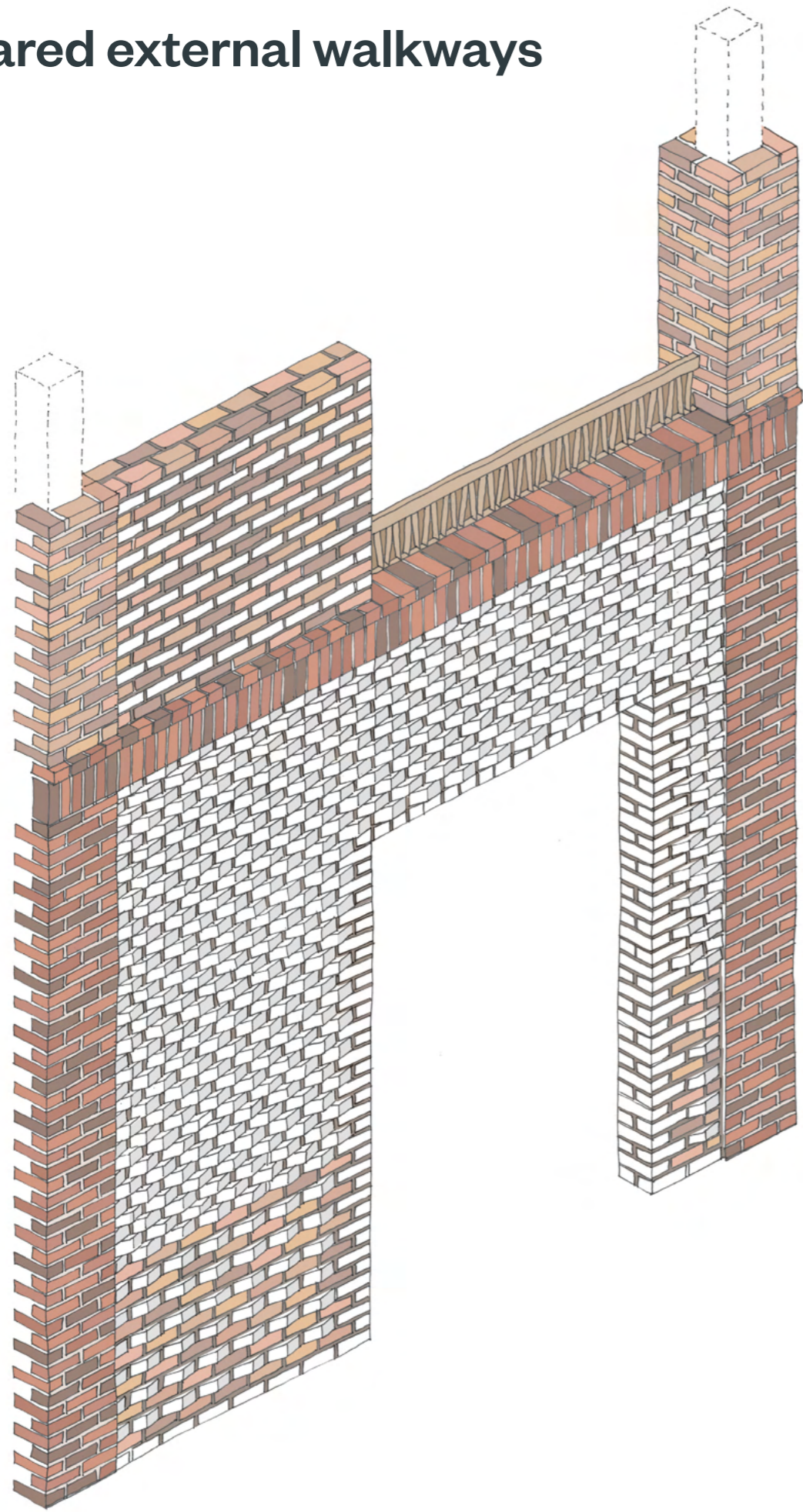
# Shared living for students

External shutters to west  
facing bedrooms



4B4P dwelling for students  
119 sqm

# Shared external walkways

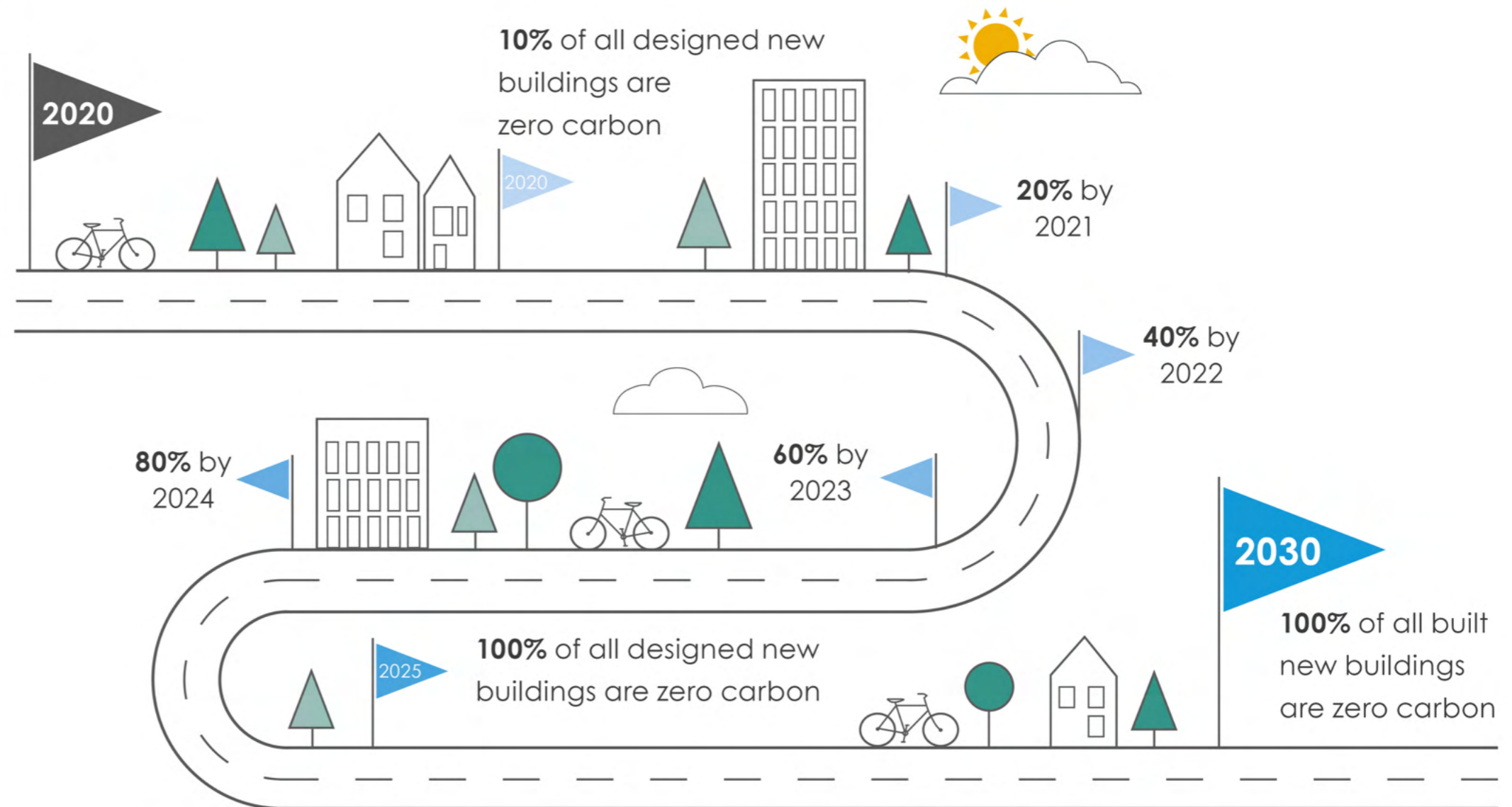


View along upper floor walkway

Main entrance and walkway detail featuring profiled glazed brick.

# Why Passivhaus?

- Addressing climate emergency
- Practical fabric first approach
- Low fuel bills
- Ease of use
- Quality of build



# Ultra low energy design - the new normal?



Agar Grove, Camden



Goldsmith Street, Norwich



Loudoun Road, Camden

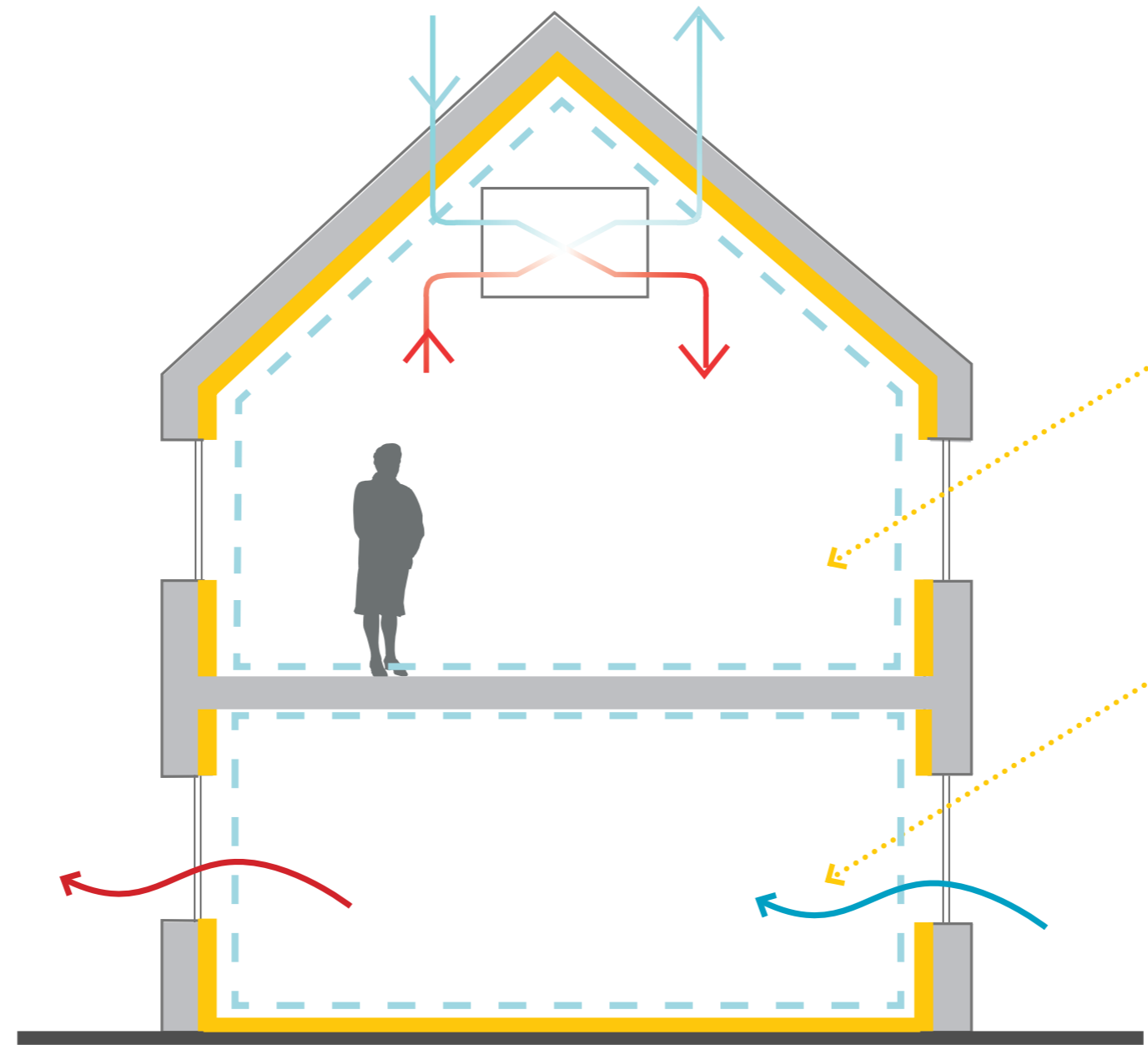
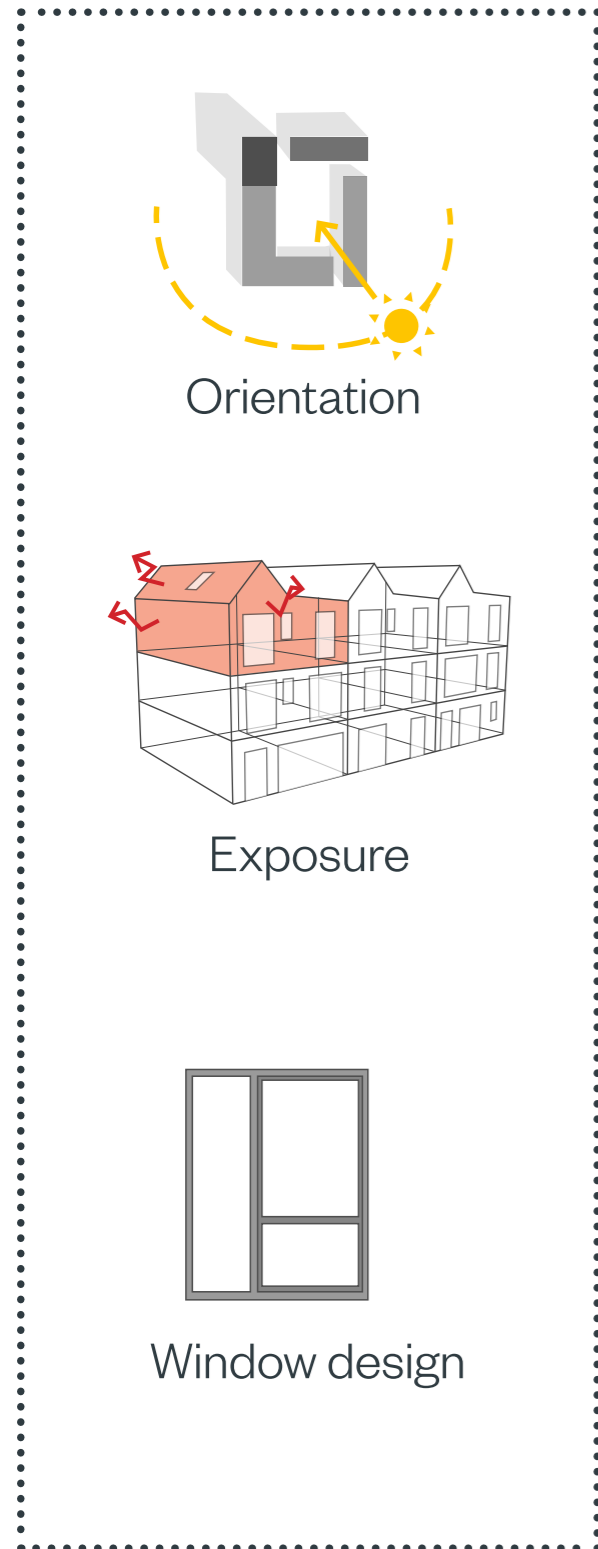


Cambridge Mosque, Cambridge

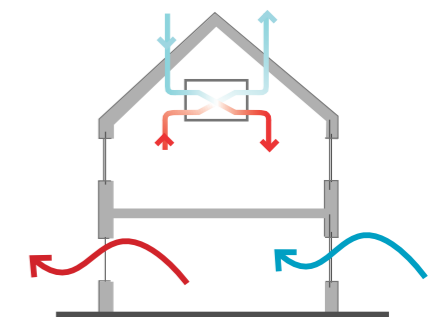
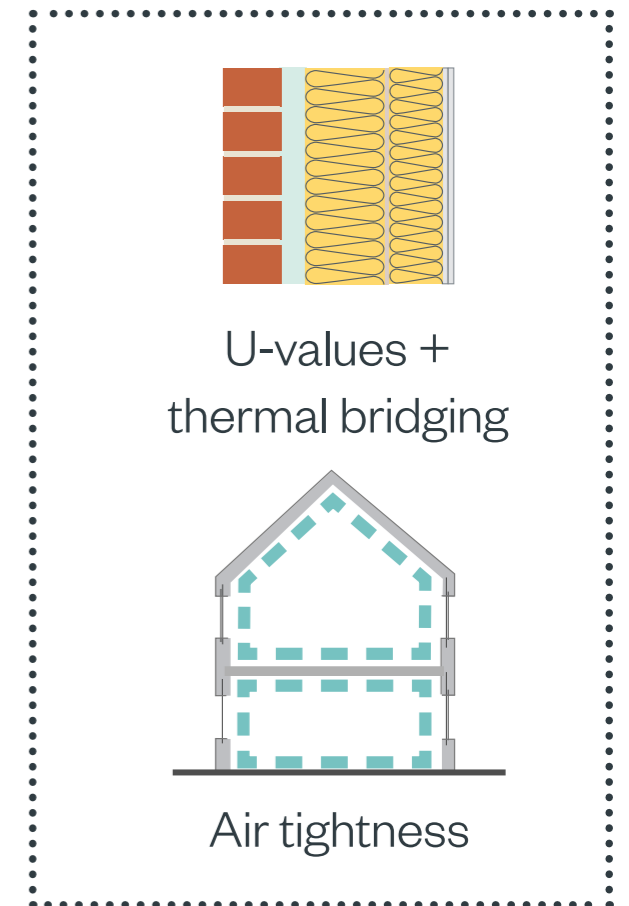


South Gardens, Elephant and Castle

# Passivhaus design principles



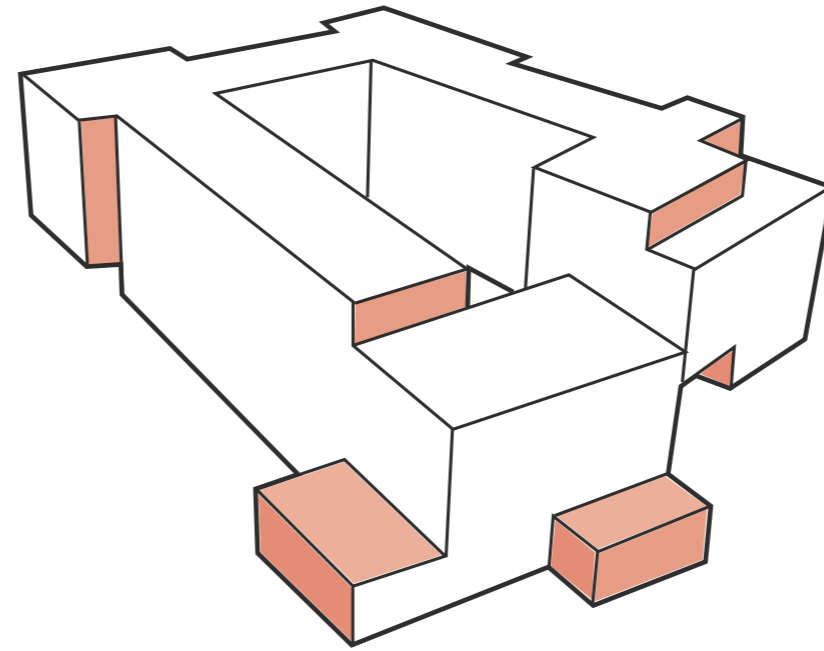
**Passivhaus standard**  
**15kWh/m<sup>2</sup>/yr heating**



# Compact Building Form



Habitat 67, Montreal

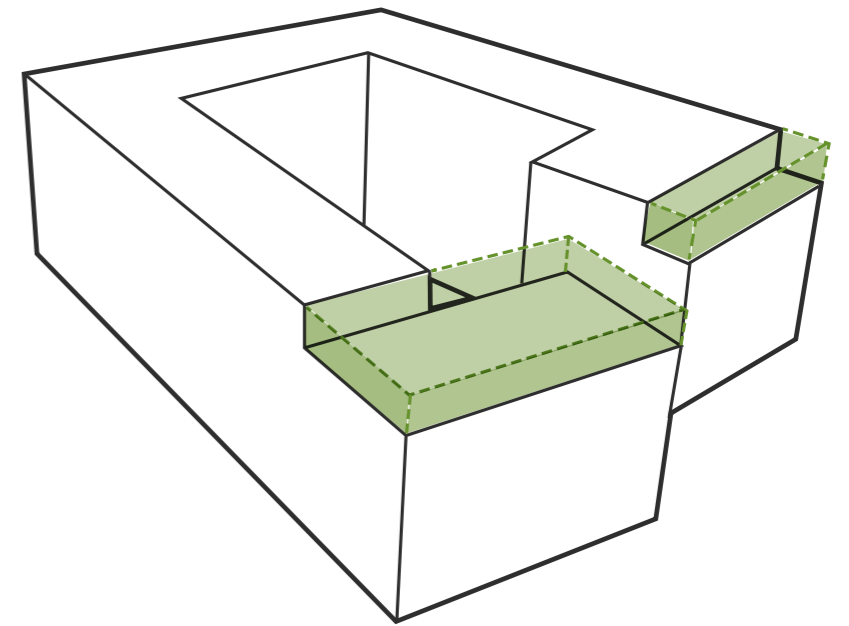


Larger exposed surface area.  
This building has a **high form factor**.



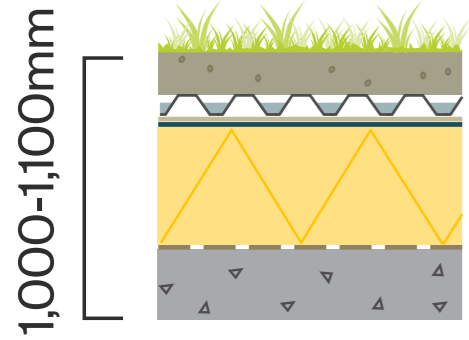
Agar Grove, Camden

Same building but with a simpler form.  
This building has a **lower form factor**.



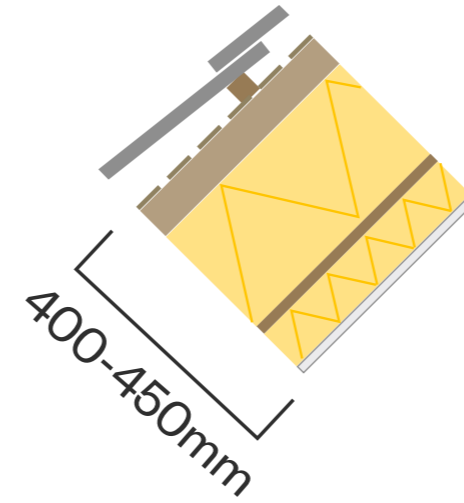


# Highly Efficient Fabric



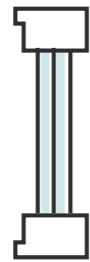
Flat roof

U-value: 0.10-0.12 W/m<sup>2</sup>.K



Pitched roof

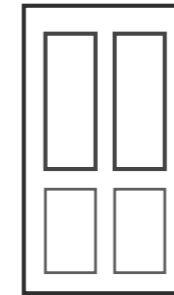
U-value: 0.10-0.12 W/m<sup>2</sup>.K



Windows

Triple glazed

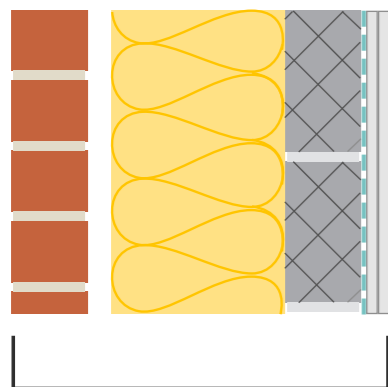
U-value: 0.8 W/m<sup>2</sup>.K



Externals doors

Insulated

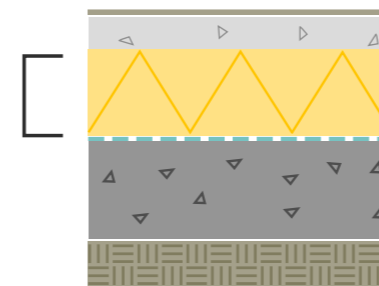
U-value: 1.0 W/m<sup>2</sup>.K



Walls

U-value: 0.12-0.15 W/m<sup>2</sup>.K

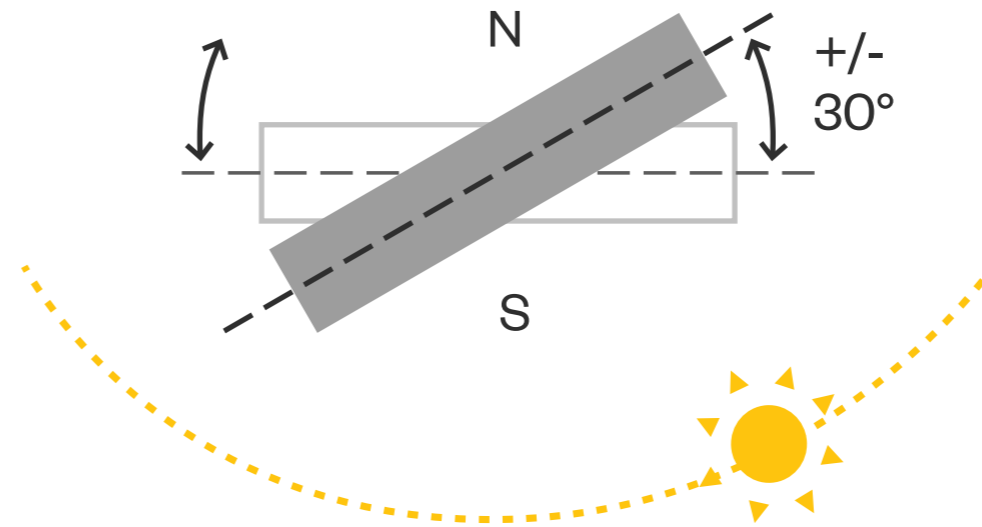
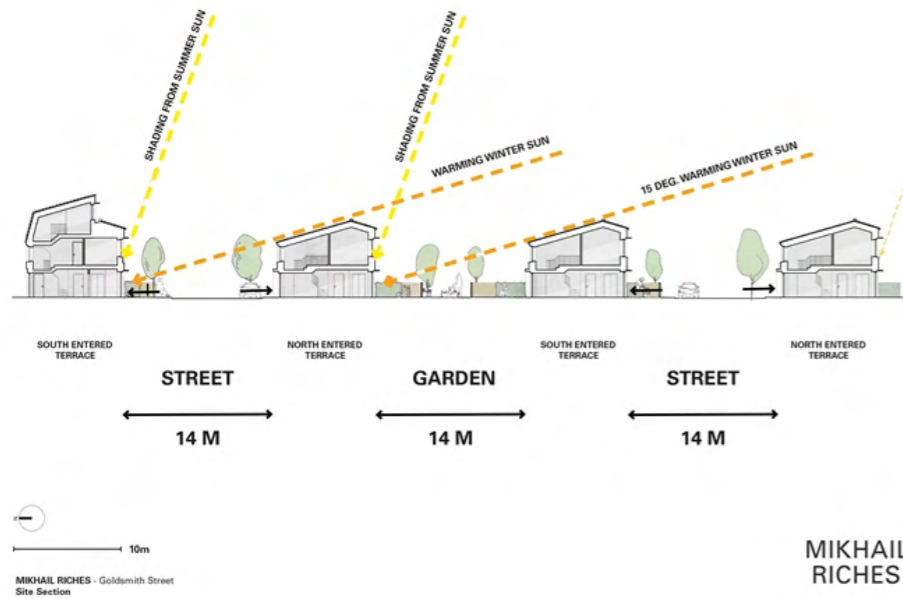
150-200mm  
(insulation)



Ground floor

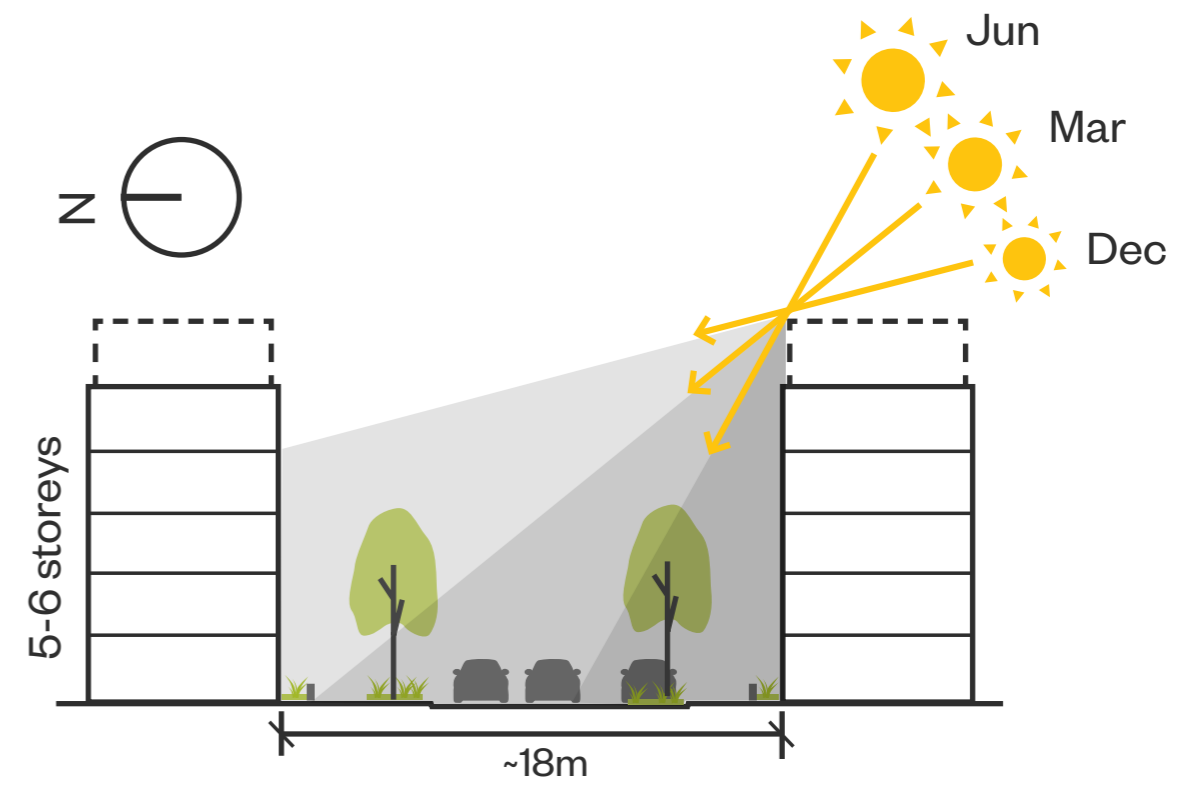
U-value: 0.08-0.10 W/m<sup>2</sup>.K

# Heat From the Sun in Winter

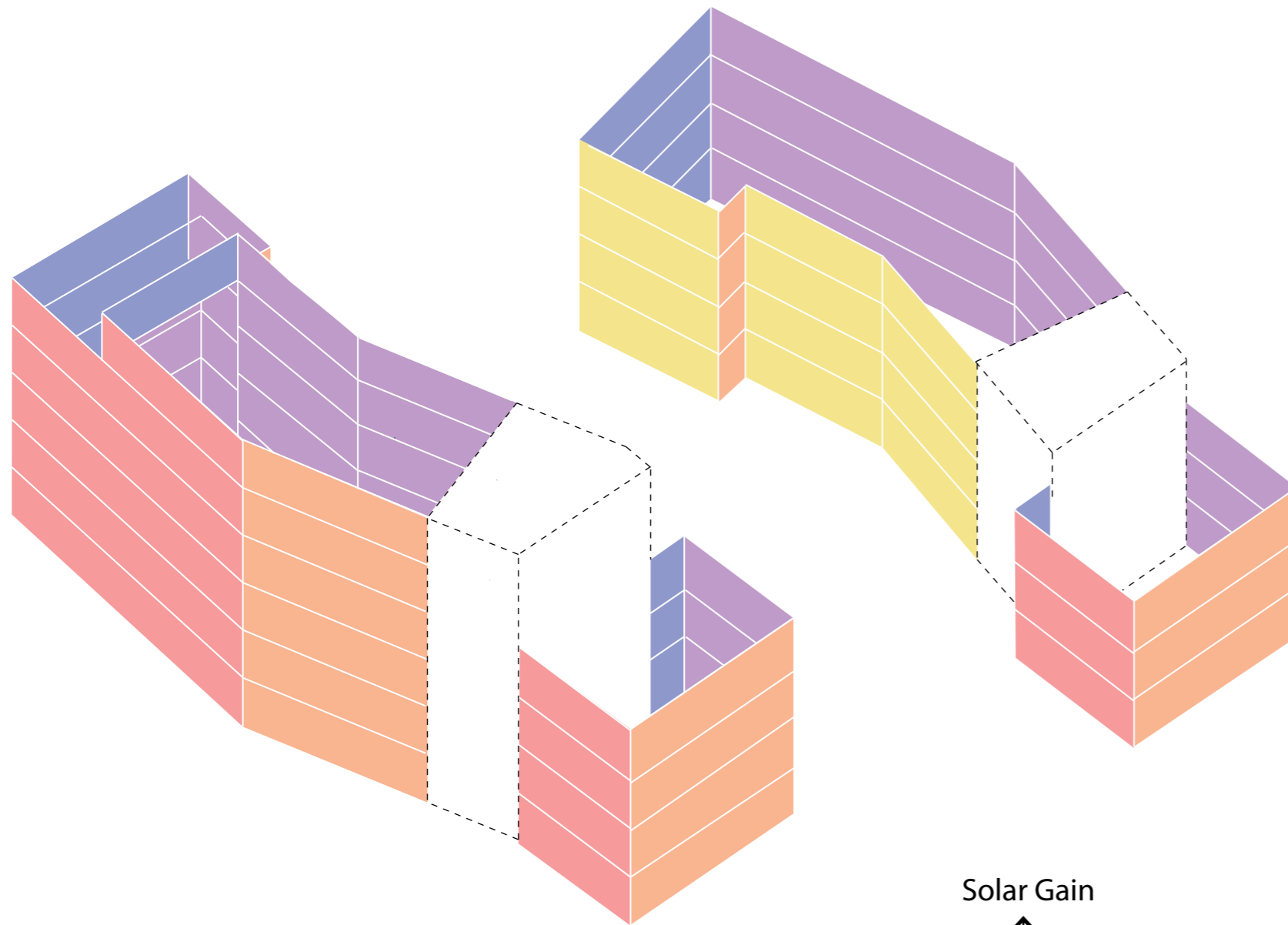


Prioritise **dual aspect, south-facing** dwellings

Avoid **overshadowing** of buildings



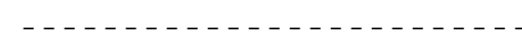
# Orientation at Melfield Gardens



Solar Gain



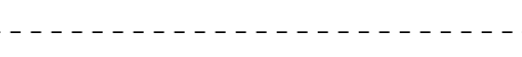
Solar gain v privacy



Larger openings



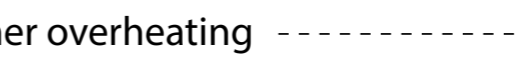
Useful solar gain



Openings with shading above



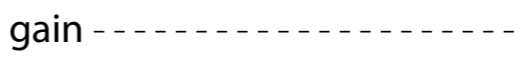
Winter gain / summer overheating



Openings with shutters



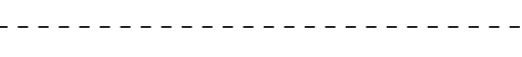
Limited useful solar gain



Smaller windows



Heat loss



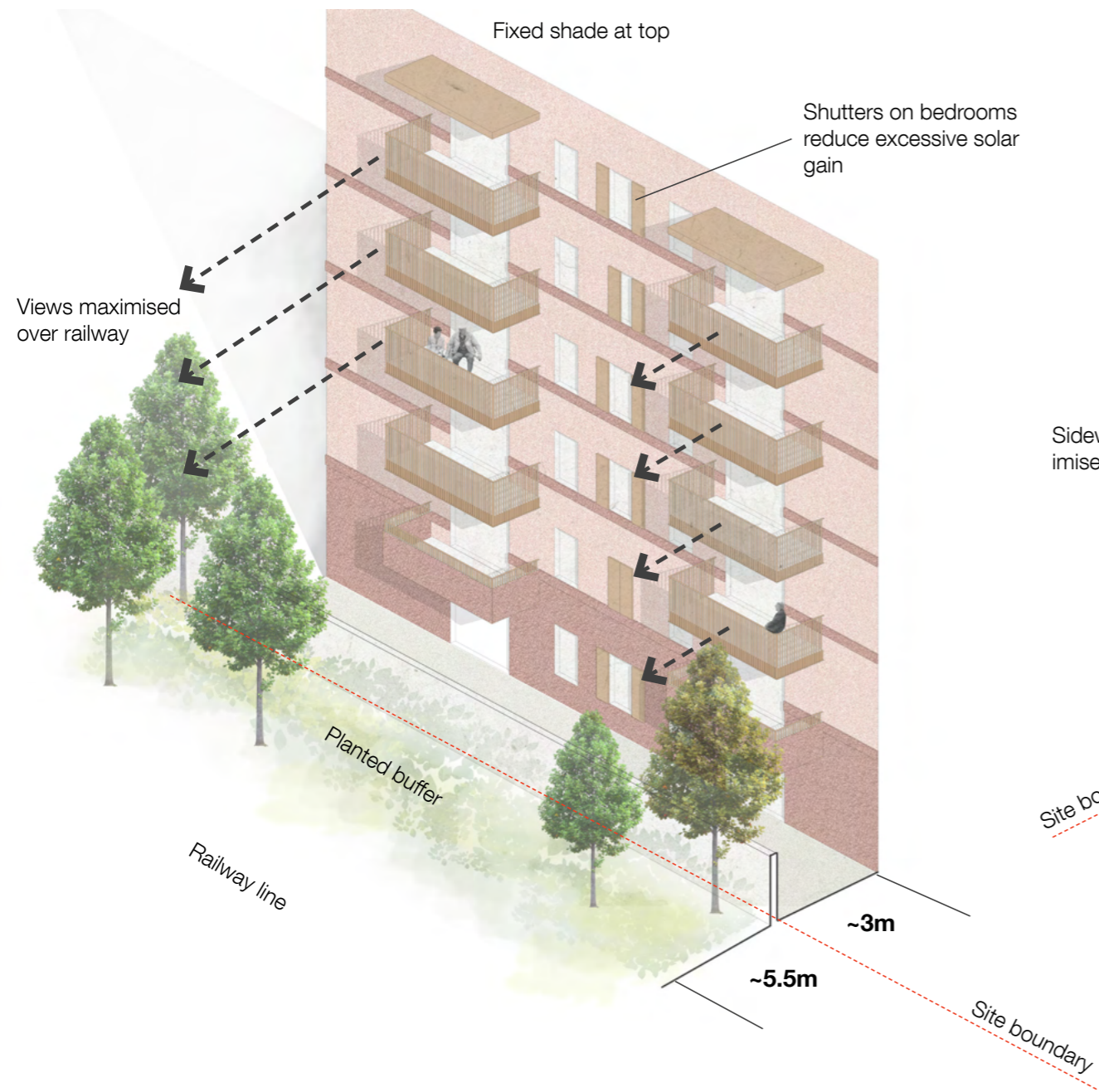
Minimal Windows

Heat Loss

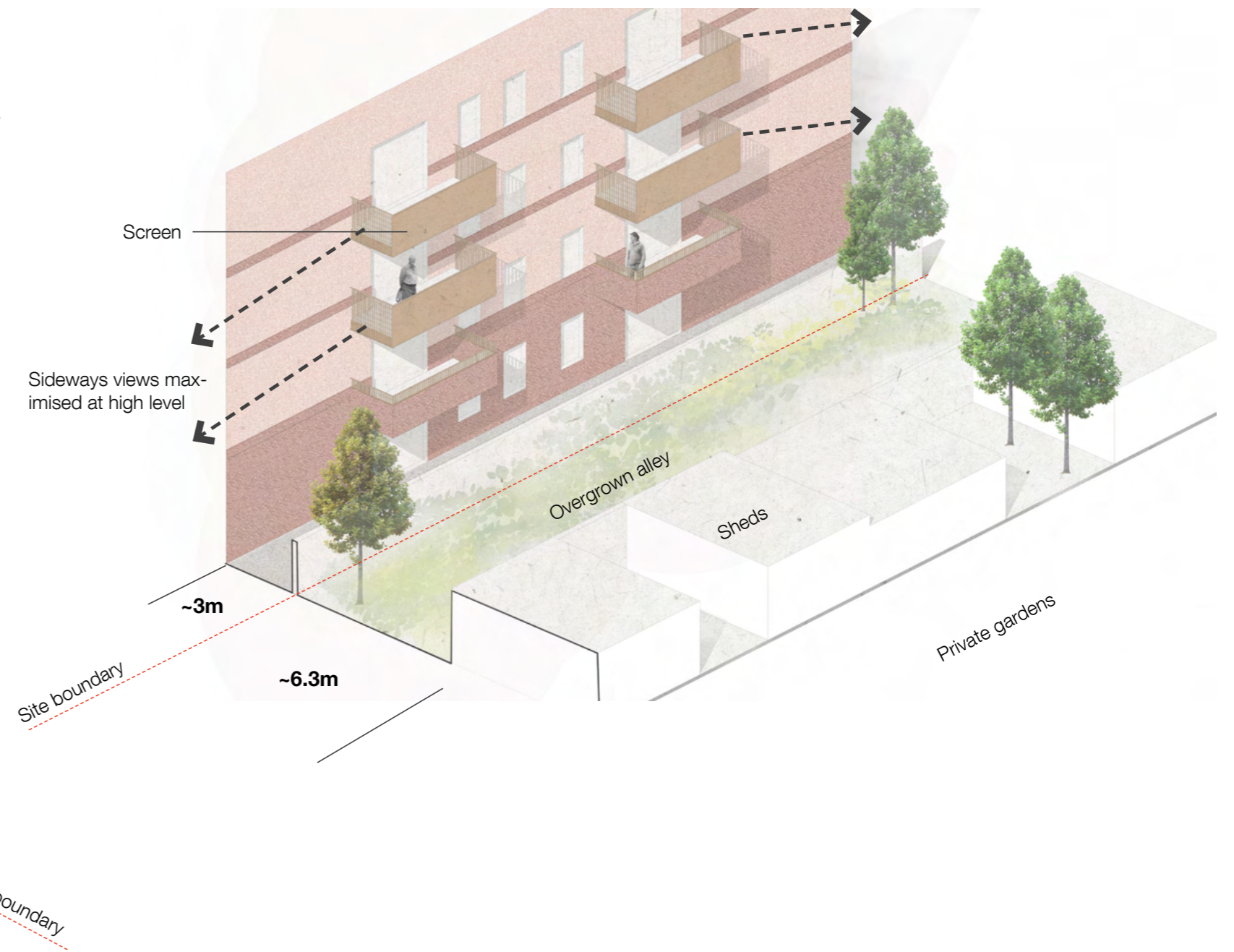


# Melfield Gardens balcony and shading strategies

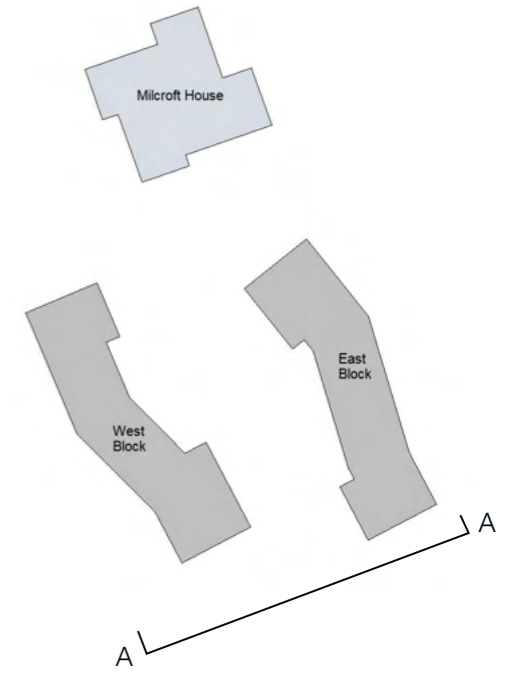
## West Block



## East Block



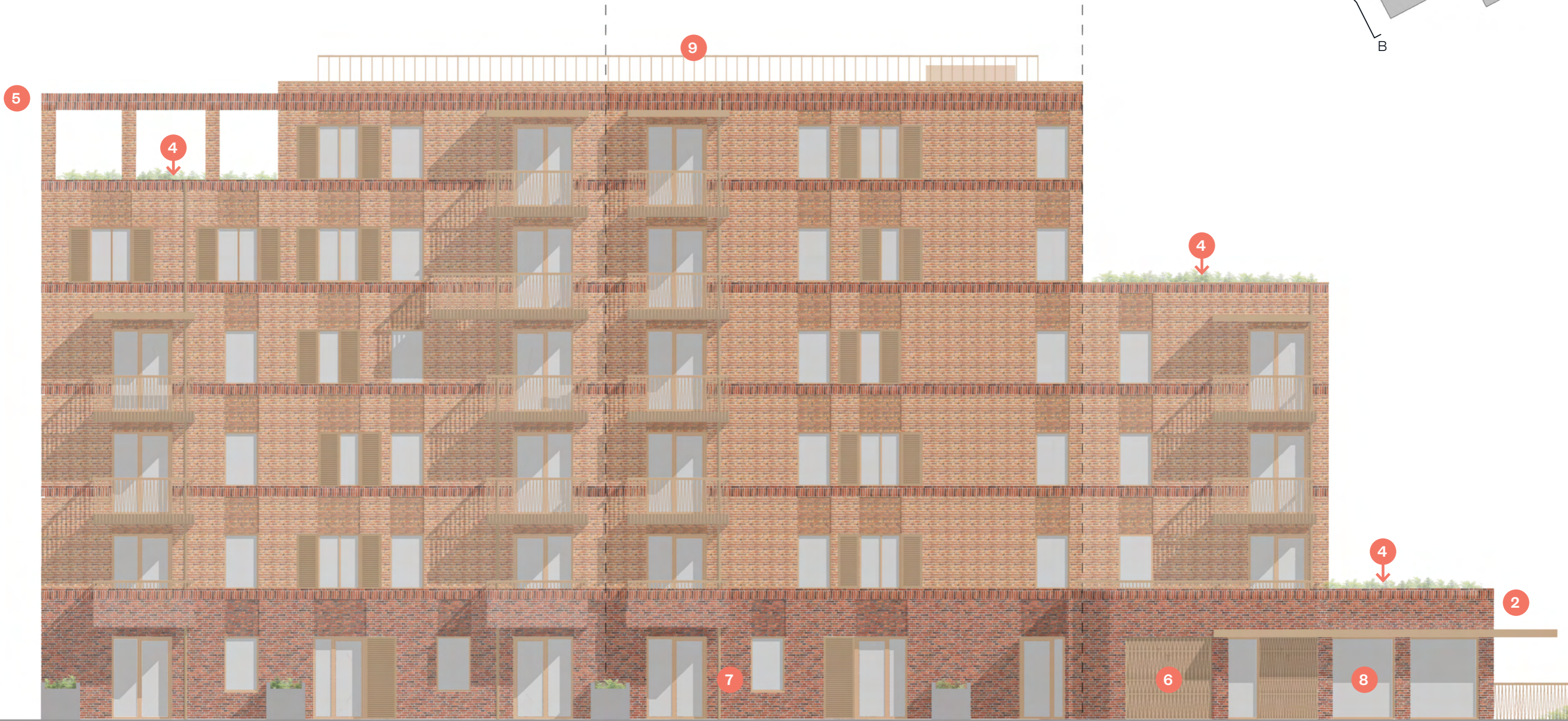
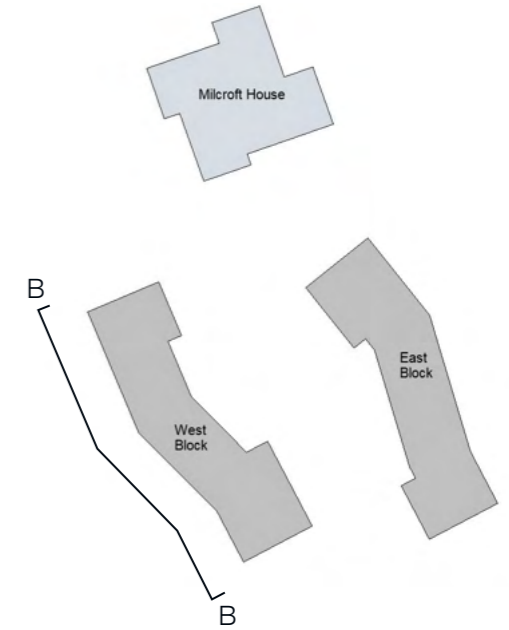
# South facade



South Elevation A-A

# West facade

- 1 Entrance to West Block core
- 2 Ground floor colonnade
- 3 Walkways overlooking central green space
- 4 Semi-intensive Green Roof
- 5 Brick framing to key corners
- 6 Bin & Bike Store
- 7 Private rear gardens
- 8 Green Room with communal outdoor space
- 9 Collapsible guarding for roof access & maintenance



Western Block - Elevation BB







