



# Linearities

Coral Reefs in the Sea of Urbanity  
Presentation 5

# 1. Suburban Exodus

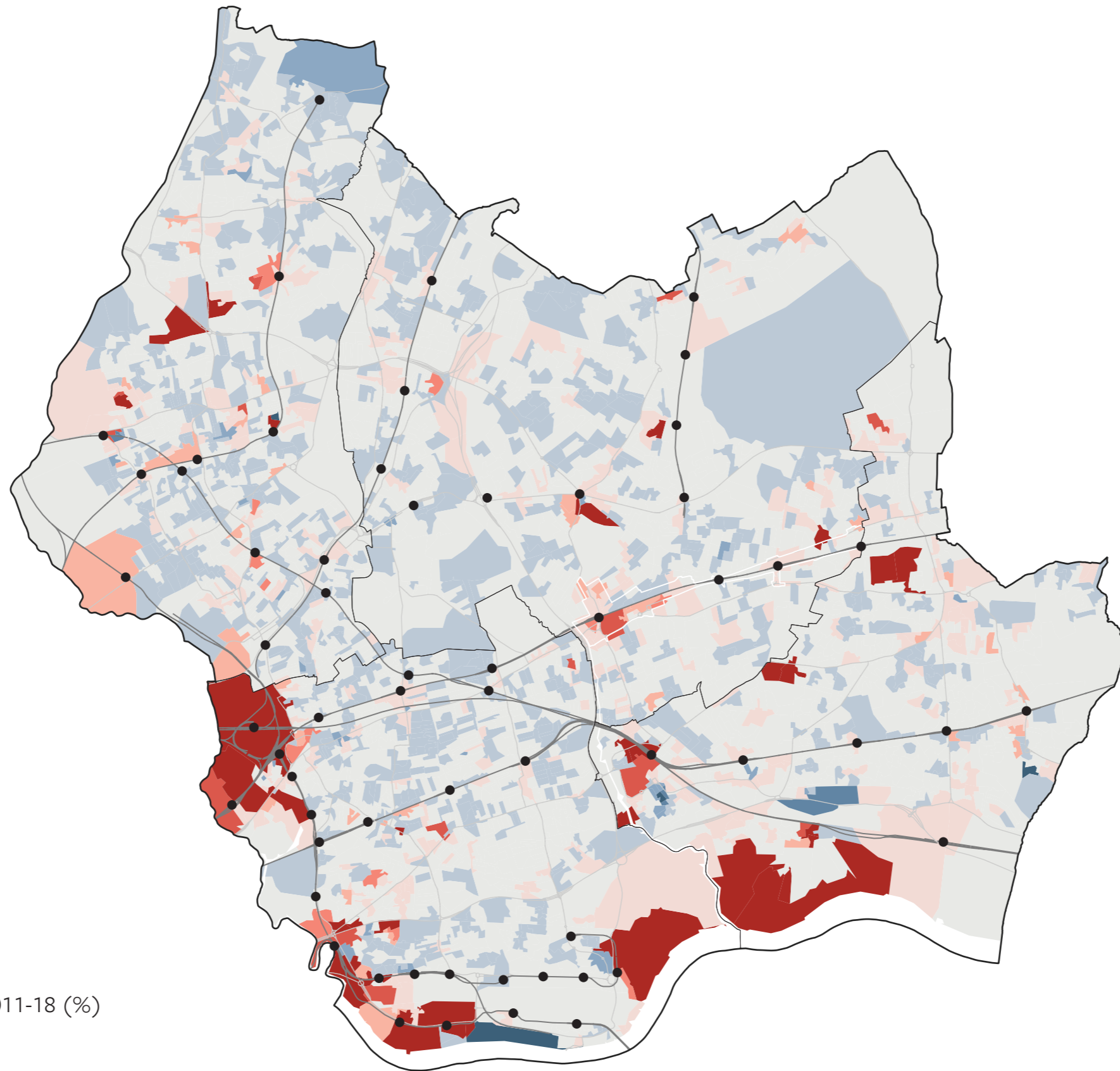
# Introduction

## Suburban Exodus



# Introduction

## Suburban Exodus



**Key**  
Proportion population change 2011-18 (%)



Data source: Nomis Census 2011

As people migrate towards infrastructural corridors, so the **topography** of suburbia is dramatically warping.

## 2. The Urban Coral Reef

Framework  
Perception  
Deduction  
Deployment

This is the story of **a man made coral reef.**

## 2. The Urban Coral Reef

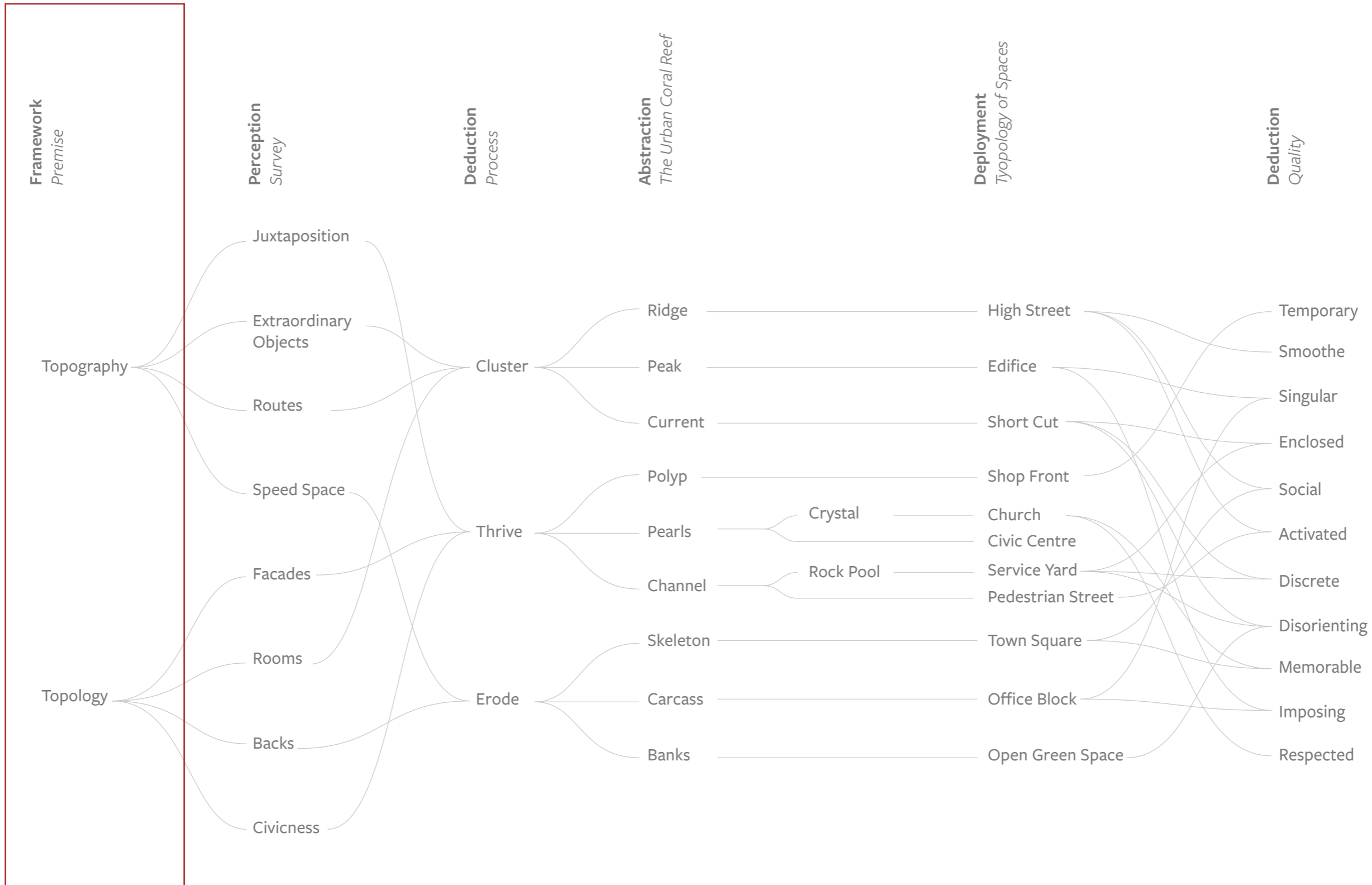
**Framework** : patterns of linearity

Perception

Deduction

Deployment





# Topography

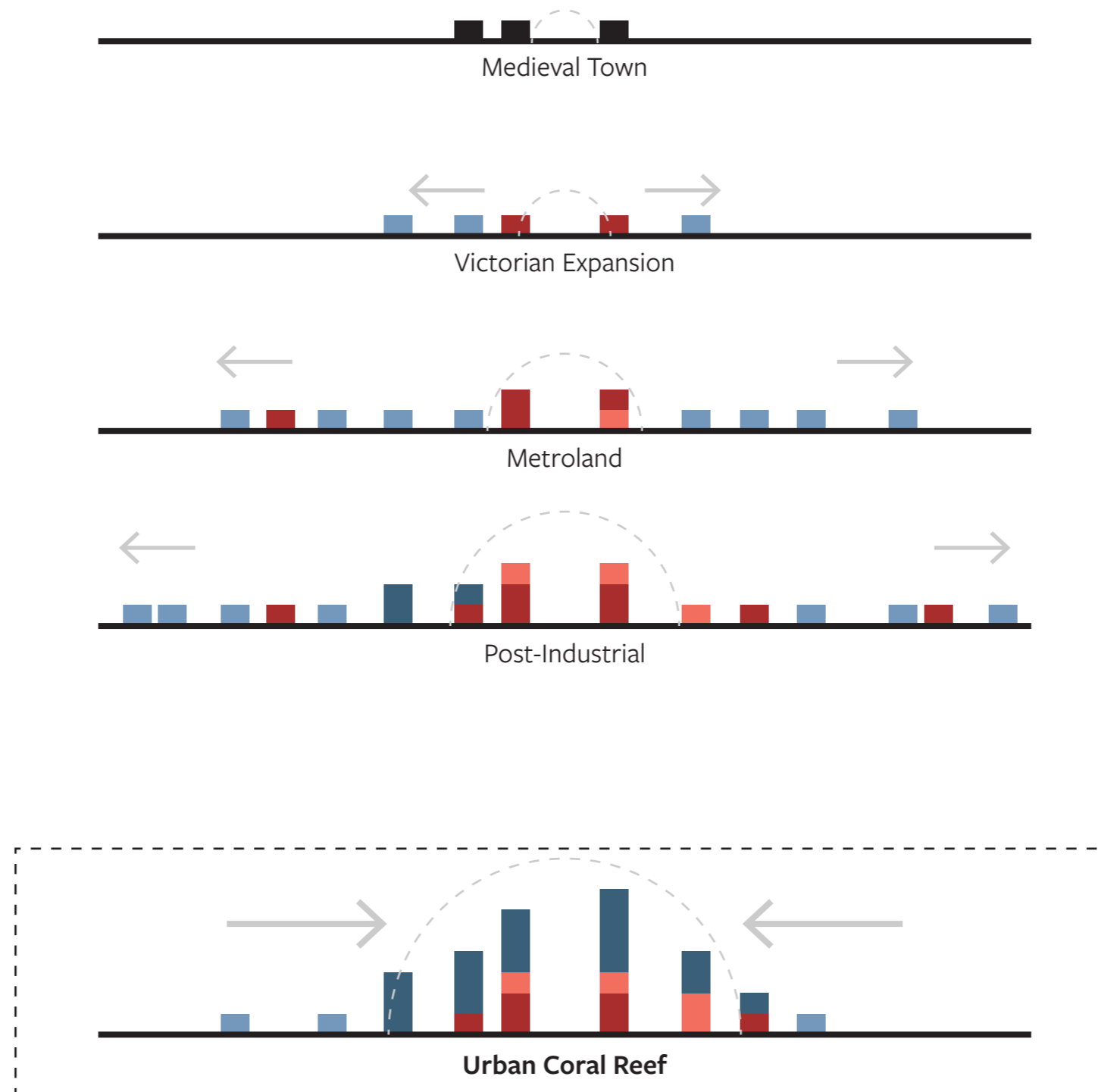
**Linearity** is an emerging urban form

# Topography



# Topography

## Suburban Exodus



- Key**
- House
  - Flatted Block
  - Commercial
  - Retail

# Topography

## Urban infrastructure: Crossrail

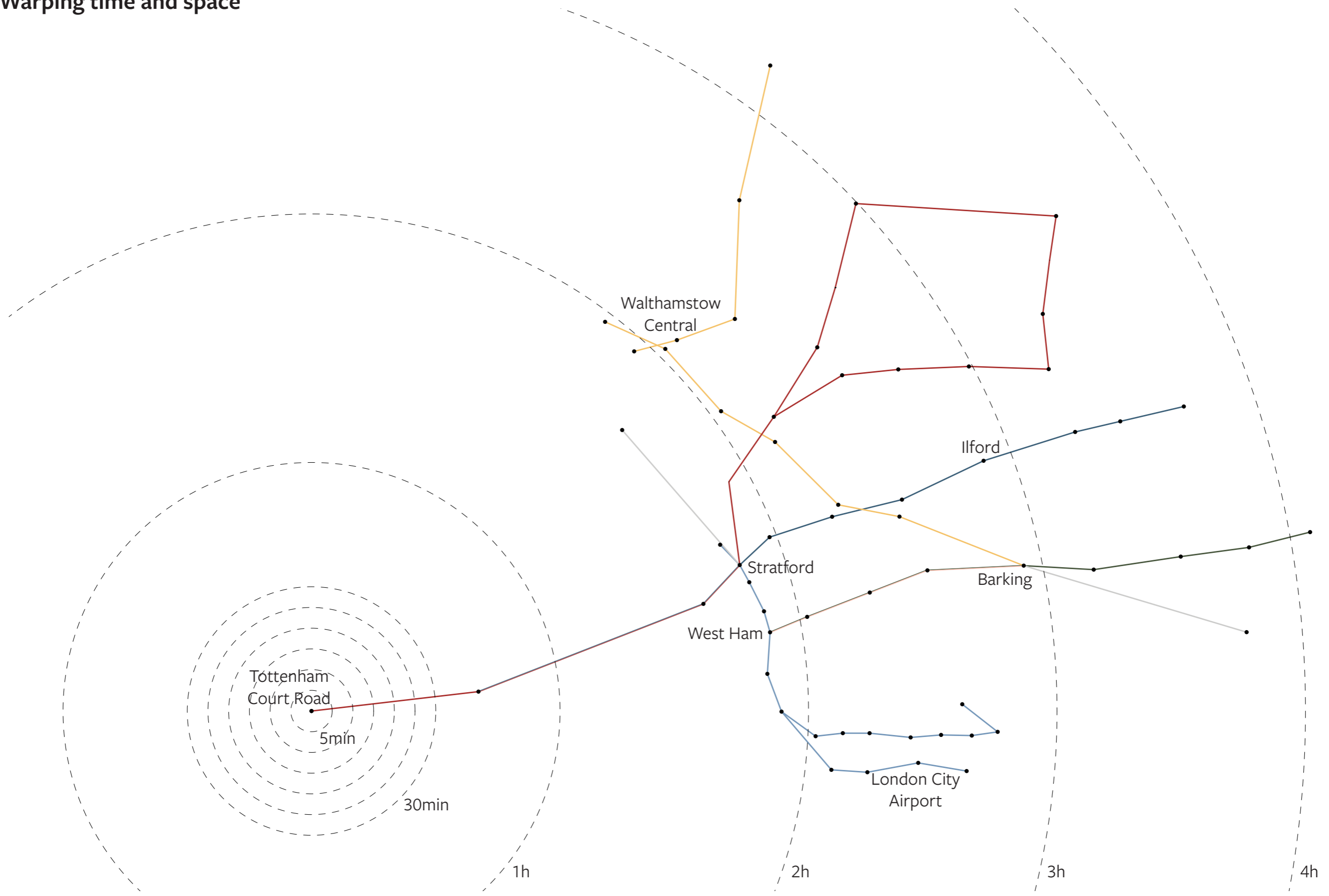


### Key

- Elizabeth Line (CR1)
- Stations

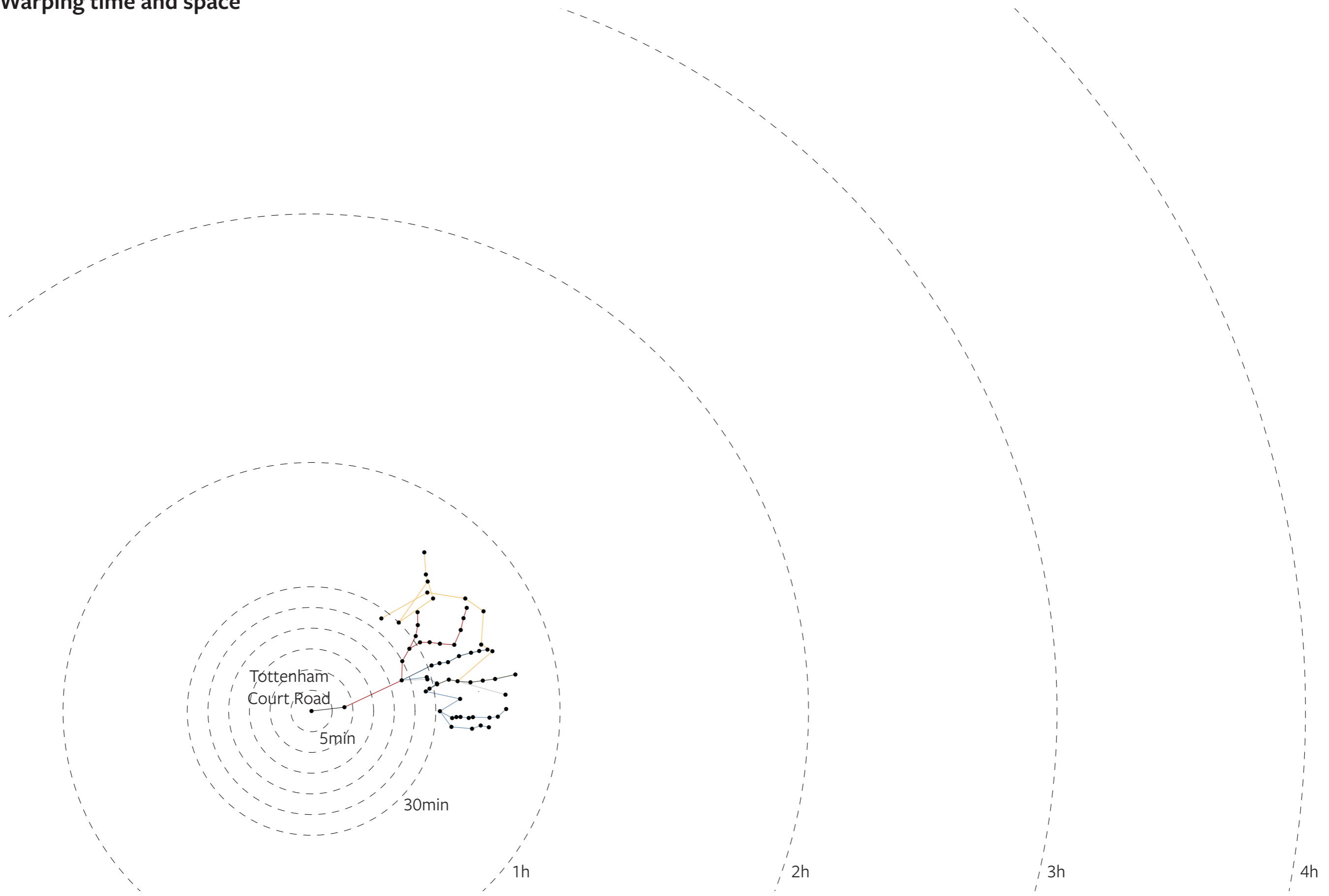
# Topography

Warping time and space



# Topography

Warping time and space



## Topography

### Warping time and space

Picon, Antoine. *La Ville Territoire Des Cyborgs*. Tranches De Villes. Besançon: Les Editions de L'Imprimeur, 1998 : 22-23.

‘The substitution of the notion of accessibility to that of distance forces crucial distinctions into a state of crisis, such as that of centre and periphery.’



How are these time warped spaces experienced at a human level?

The urban coral reef is not merely a **topographic** entity,  
it is also defined by its **topological** qualities.

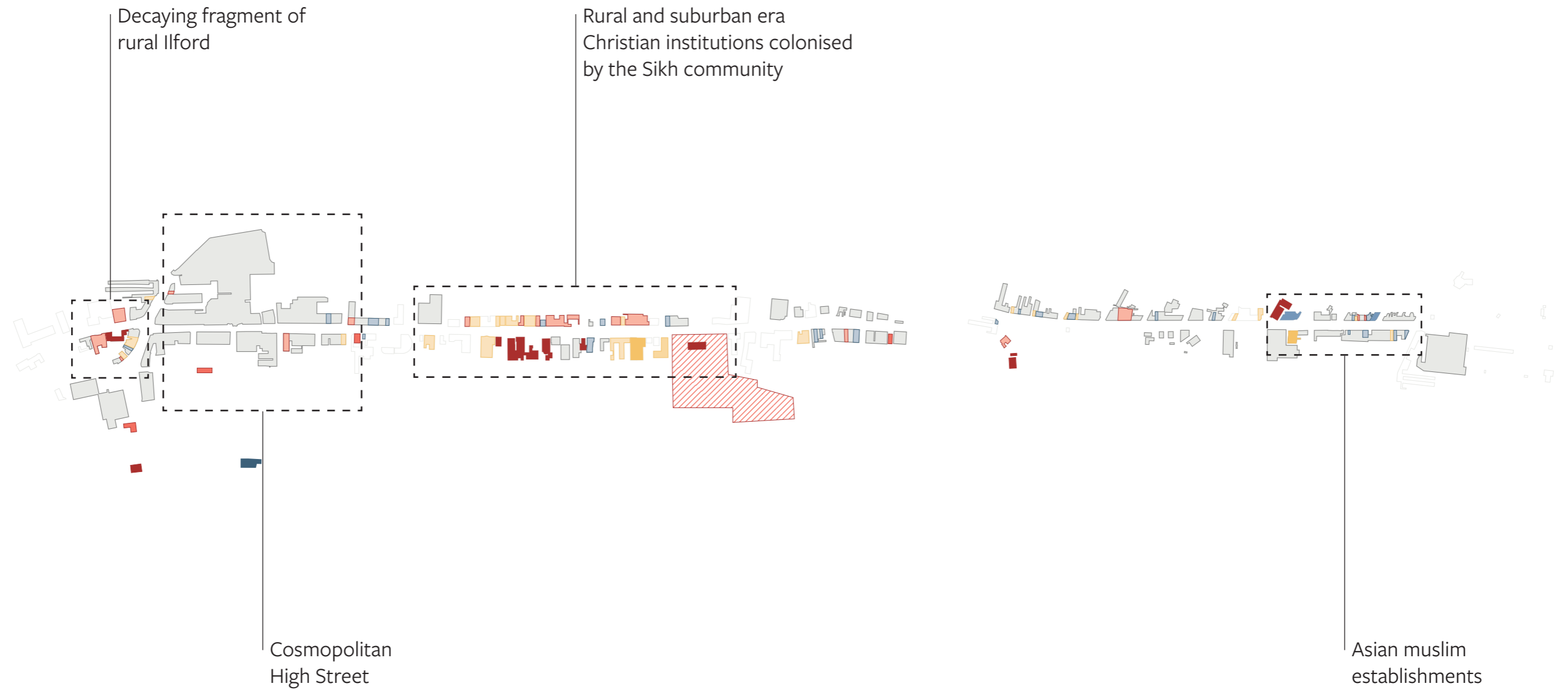
# Topology

Cultural diversity



# Topology

## Cultural diversity

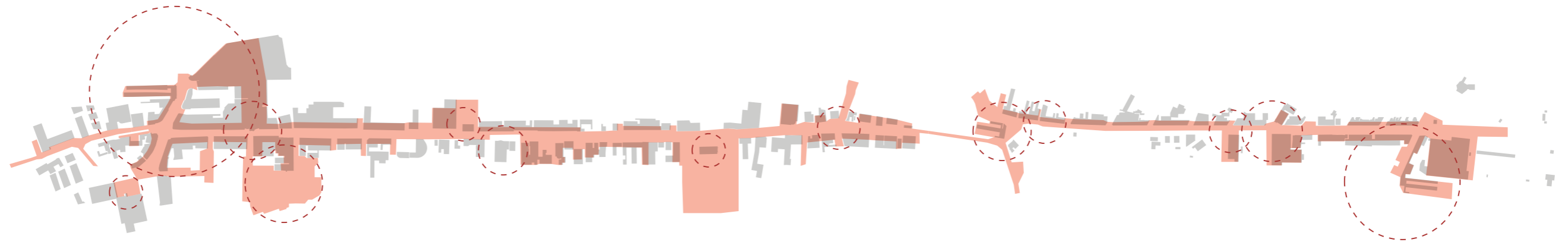


# Topology

## Field of intensity

‘The new institutions of the city will perhaps occur at moments of intensity linked to the wider network of the urban field, and marked not by demarcating lines but by thickened surfaces.’

Allen, Stan. 1997. “From Object to Field.” *Architectural Digest* 67 (127):24-31.



# Topology

## Field of intensity



density



desolation

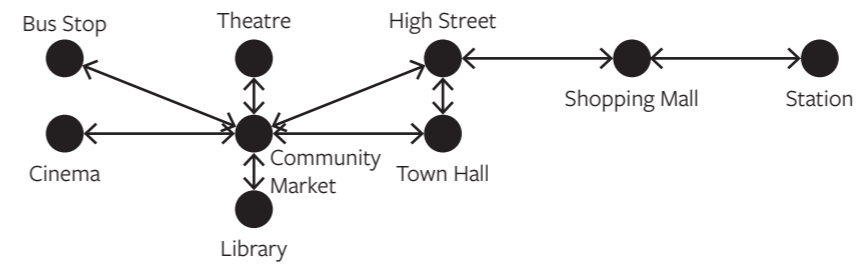
# Topology

## Relational space

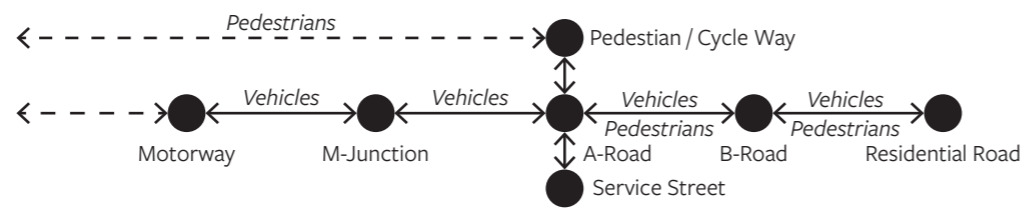
### High Street Consumerism



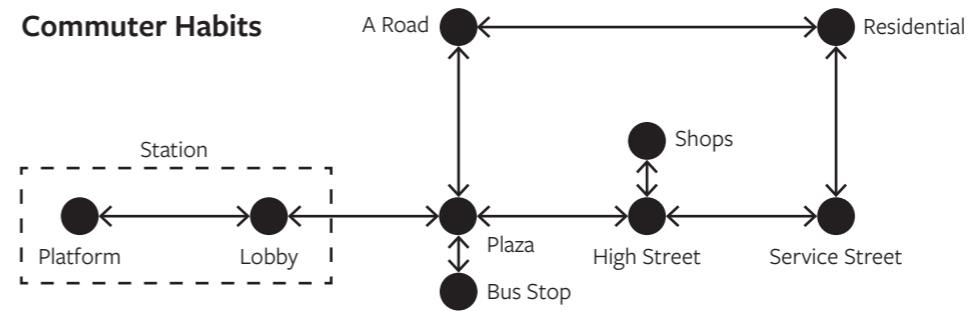
### Civic City



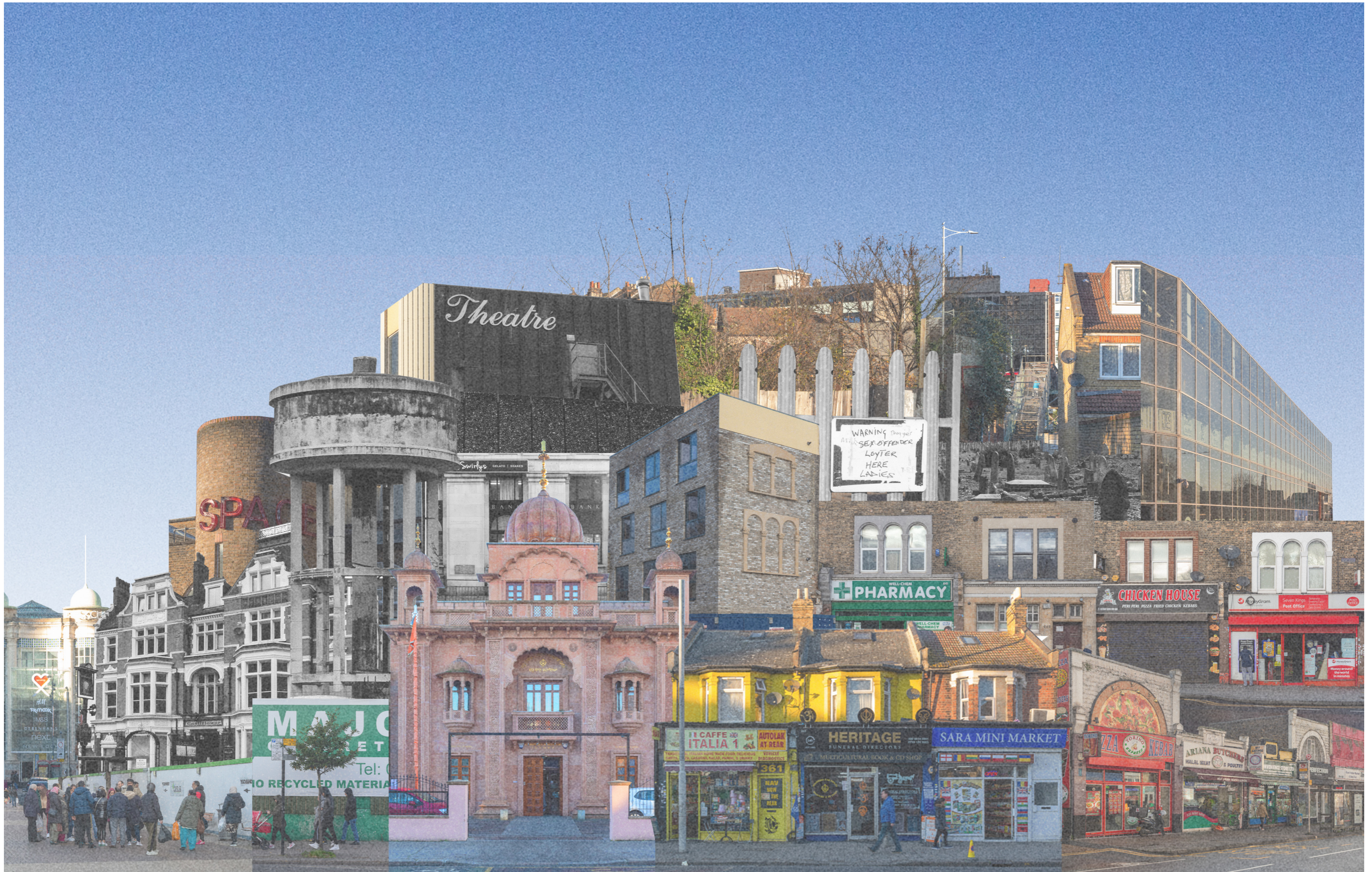
### Infrastructure Focus



### Commuter Habits



# Topology





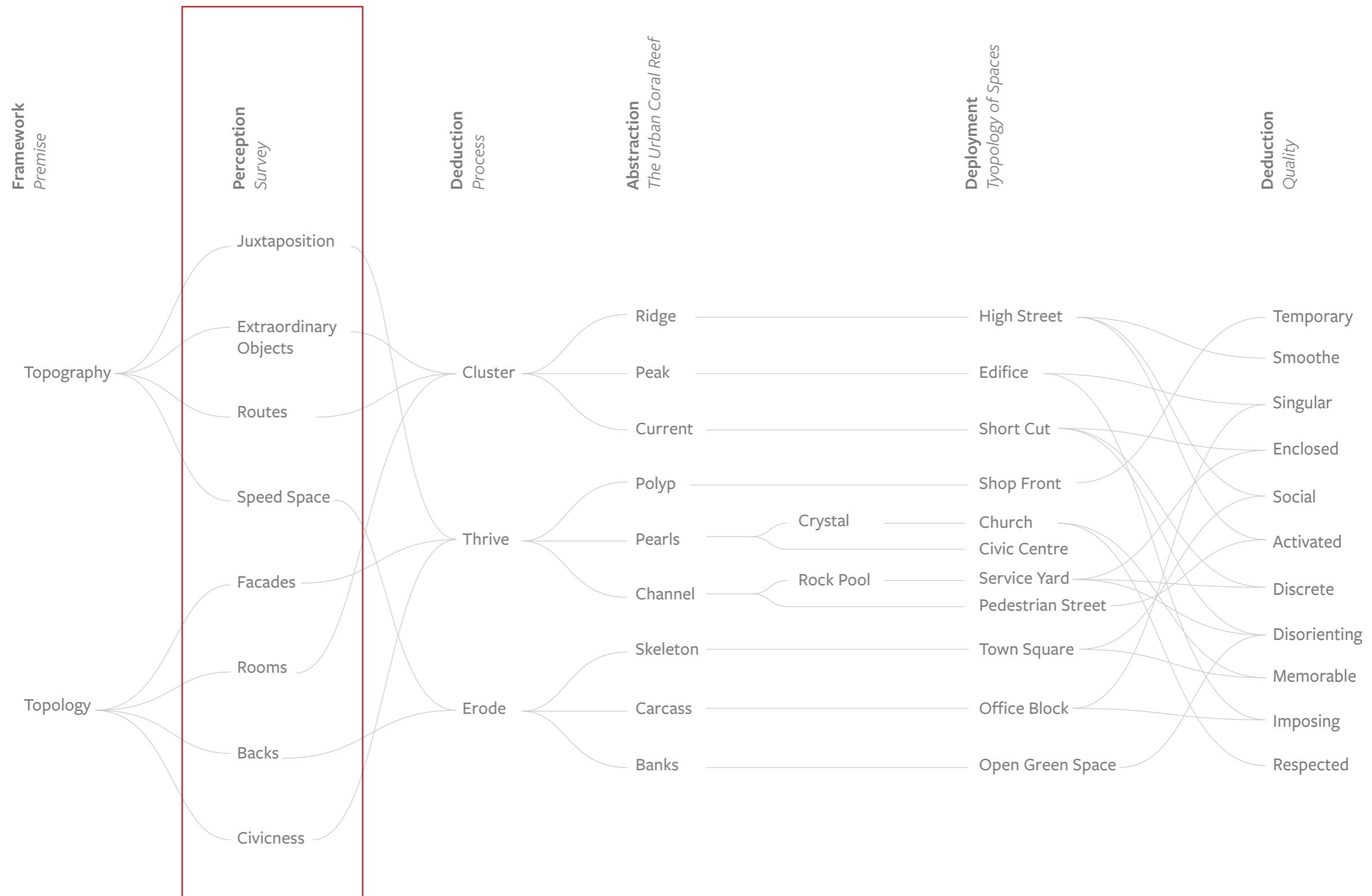
## 2. The Urban Coral Reef

Framework

**Perception** : a fragmented landscape

Deduction

Deployment



The apparent chaos of the reef conceals an underlying coherence in the perception of this space.

What are the underlying mechanisms supporting life in this place?

# Perception



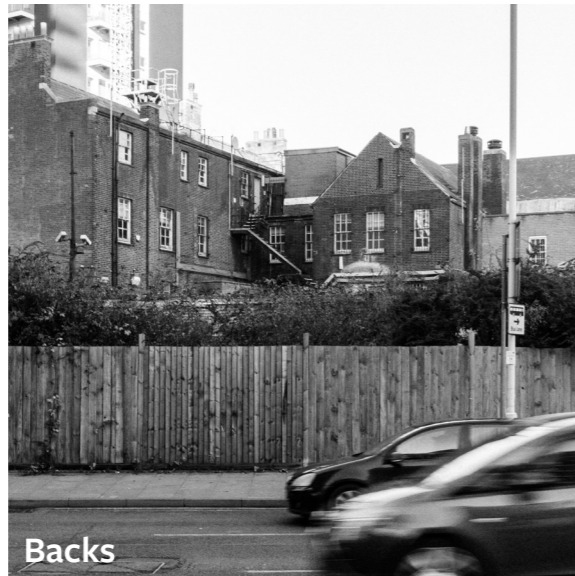
Facade



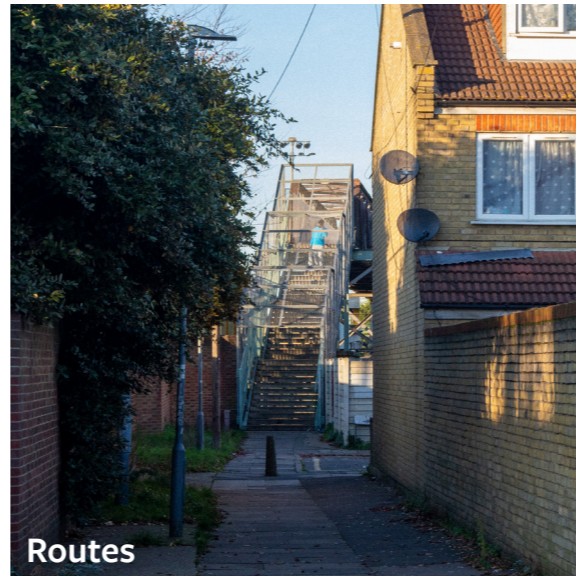
Juxtaposition



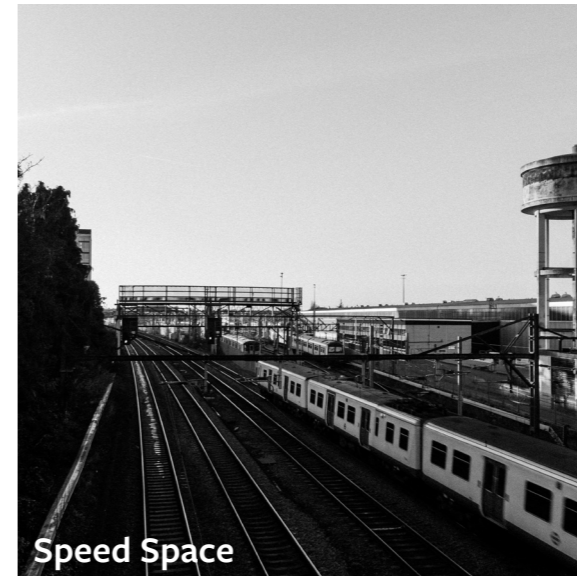
Rooms



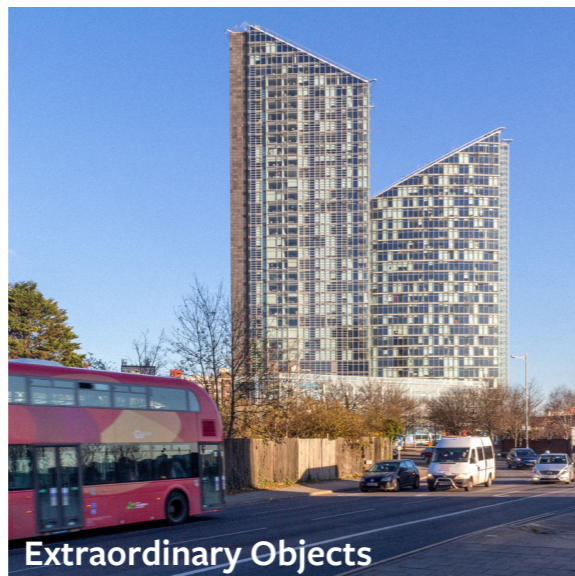
Backs



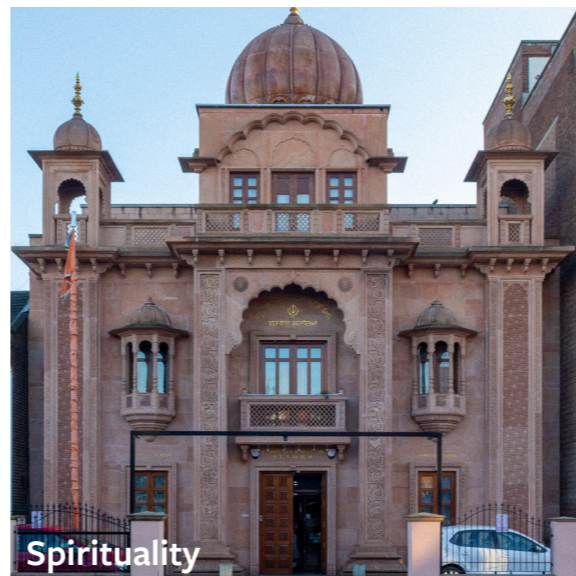
Routes



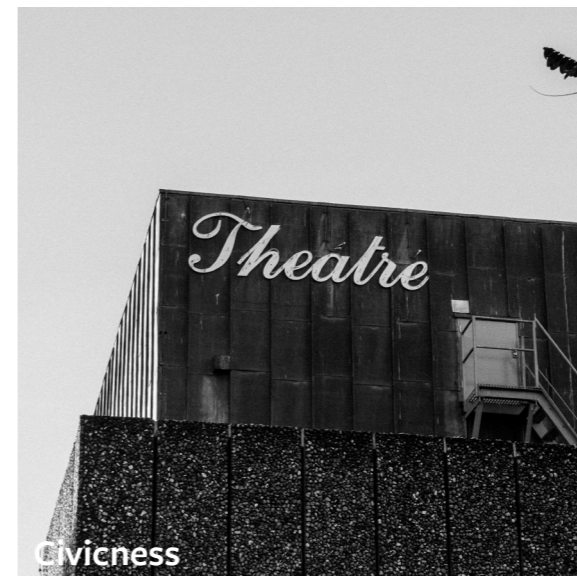
Speed Space



Extraordinary Objects



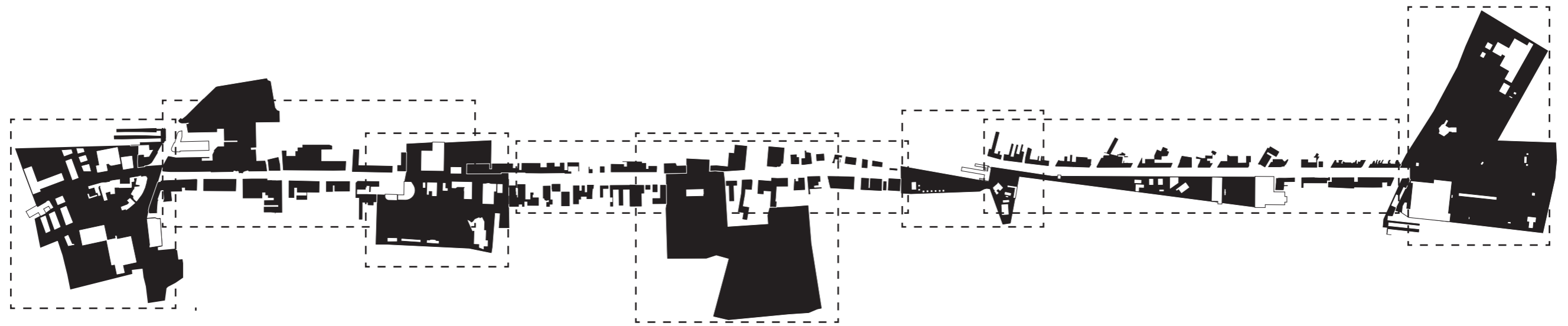
Spirituality



Civiness

# Perception

## Inversion of spaces



# Perception

## Cluster and erosion



traditional high street

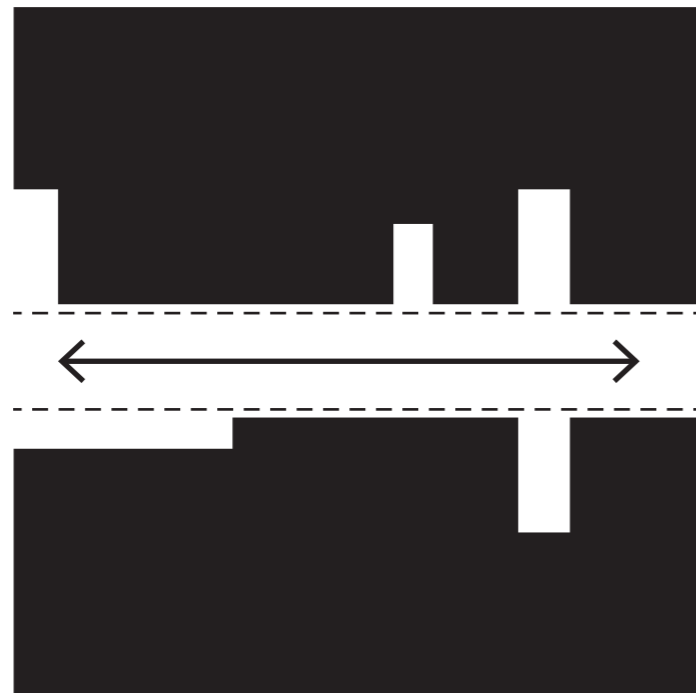


eroded fabric

# Perception

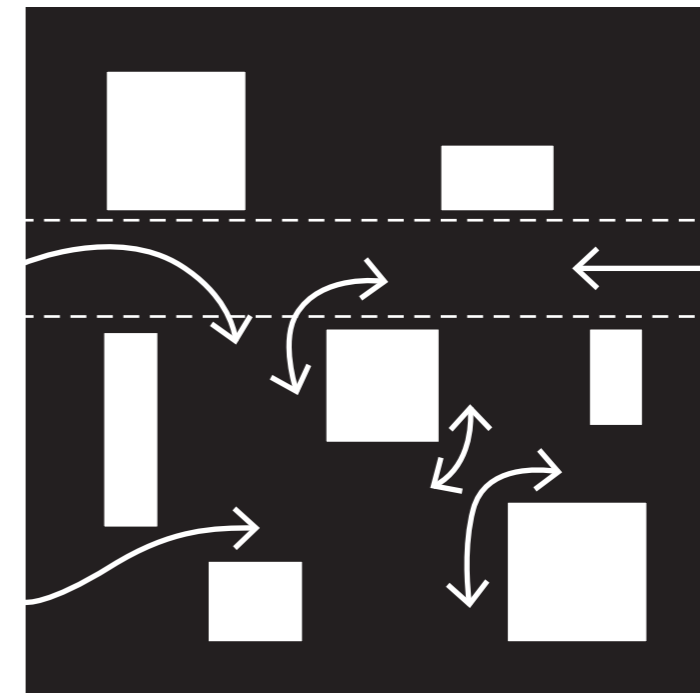
## Cluster and erosion

Cluster



Condensed linear space (high street)

Erosion



Surface of objects (residual infra-scape)

## 2. The Urban Coral Reef

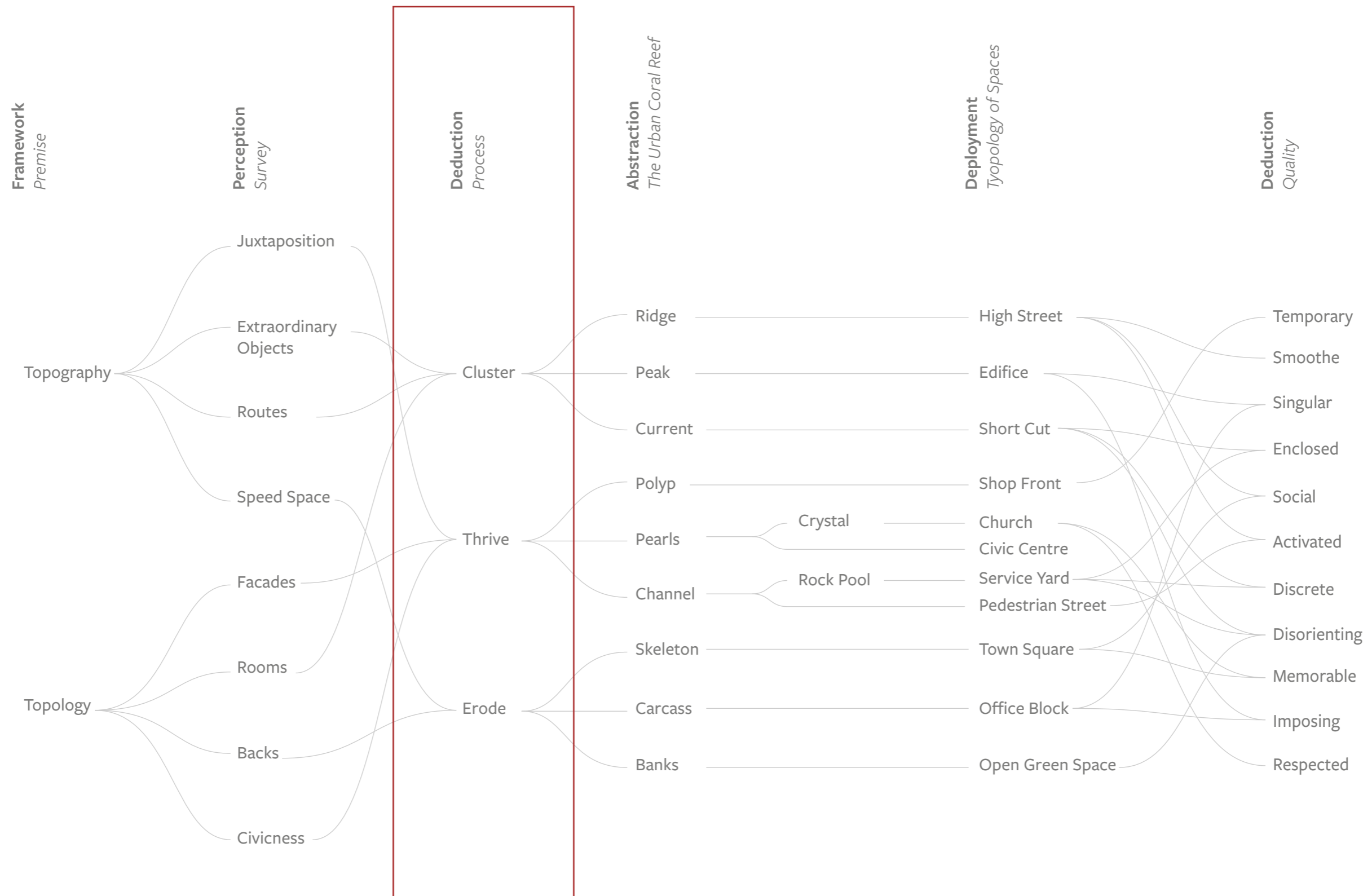
Framework

Perception

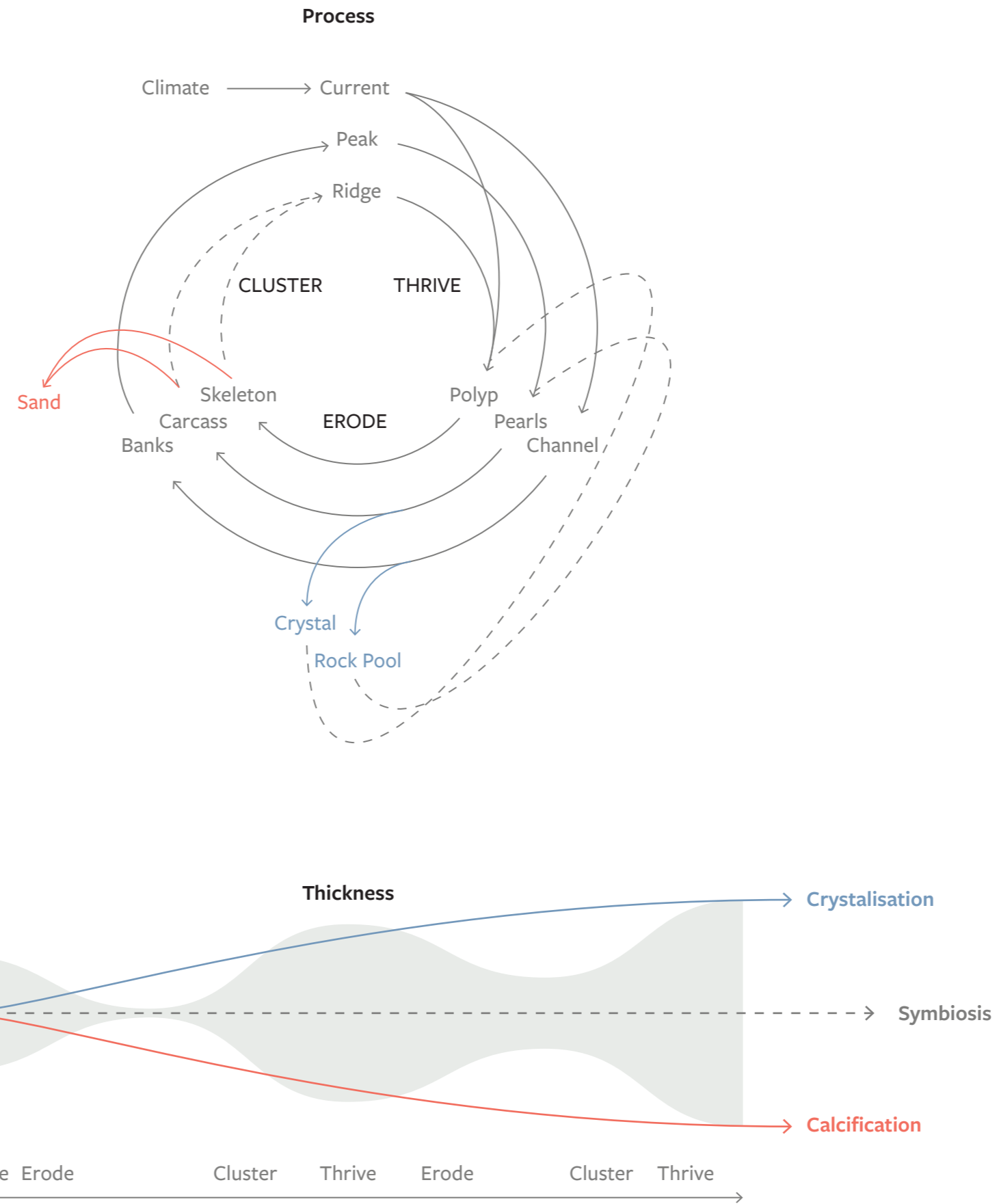
**Deduction** : process of renewal

Deployment





# Deduction



# Deduction

Cluster —————> Thrive —————> Erode - - - - ->



Current



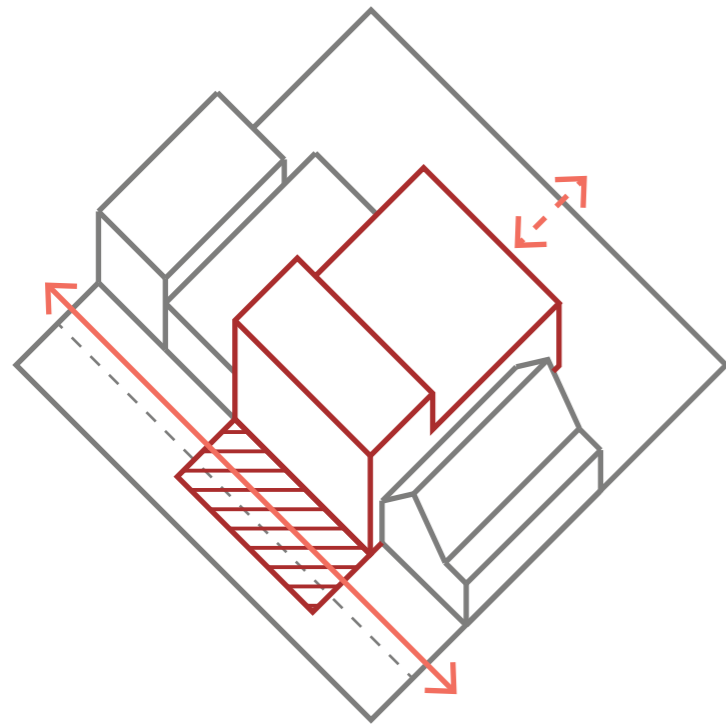
Channel



Sand Bank

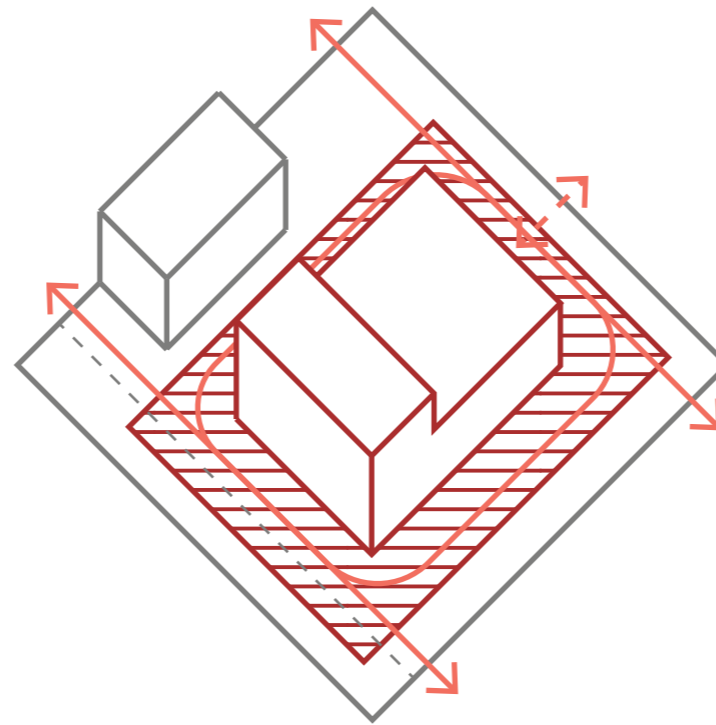
1. Bridge across the River Roding towards Ilford (c.1900) (Redbridge Archive)
2. High Road looking West towards Bank (c.1930) (Redbridge Archive)
3. Construction of North Circular junction at Ilford (c.1960) (Redbridge Archive)

# Deduction



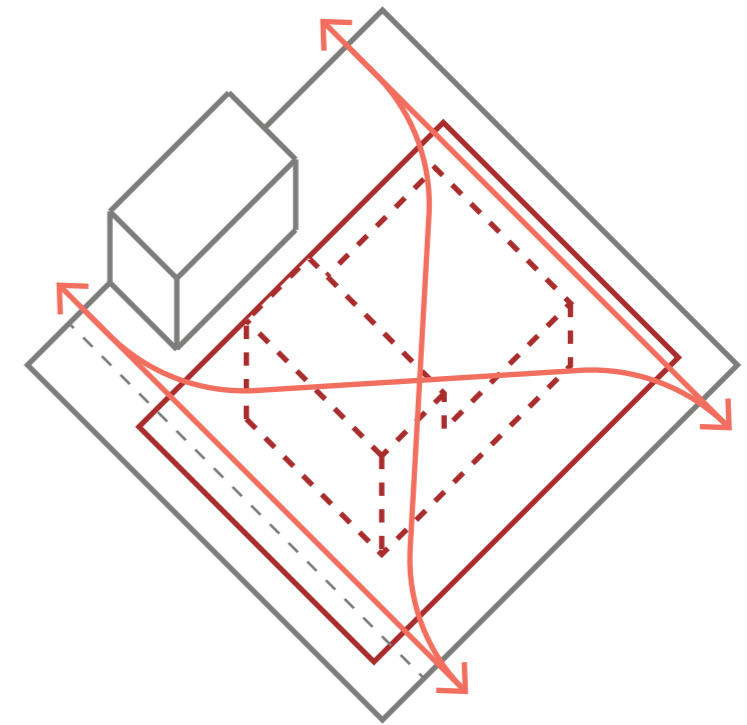
## Integrity

A front to the High Street and a back for servicing



## Isolation

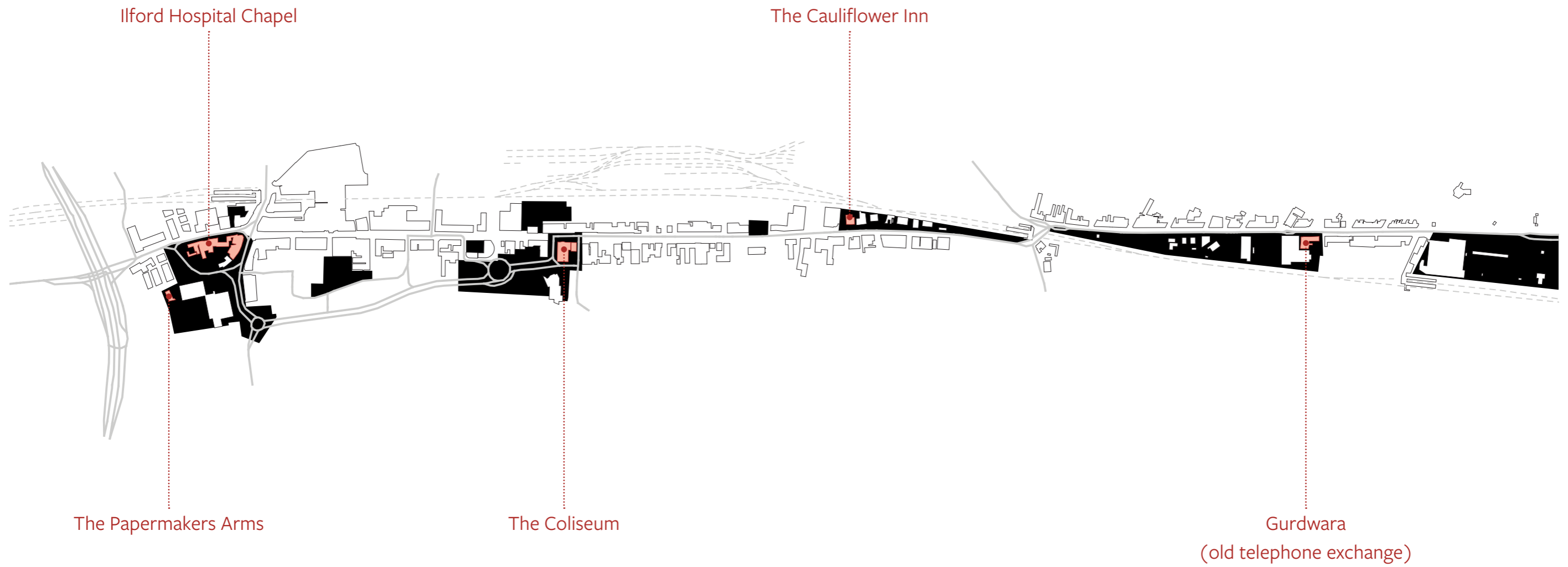
Infrastructural incisions collapses the traditional anthropomorphic rational of the block



## Abandonment

The block cannot sustain human activity and is eventually abandoned

# Deduction



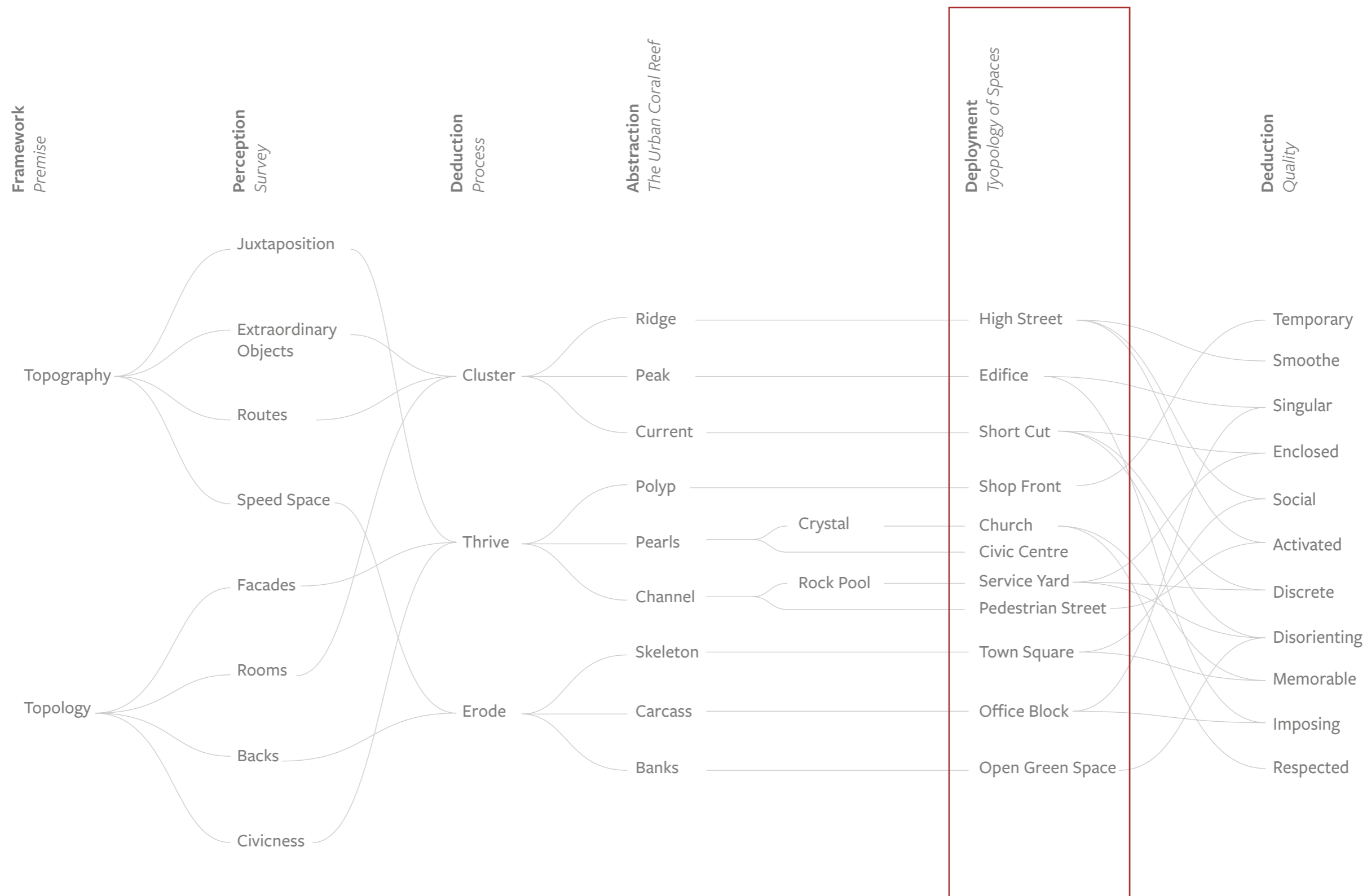
## 2. The Urban Coral Reef

Framework

Perception

Deduction

**Deployment** : typology of spaces



# Deployment

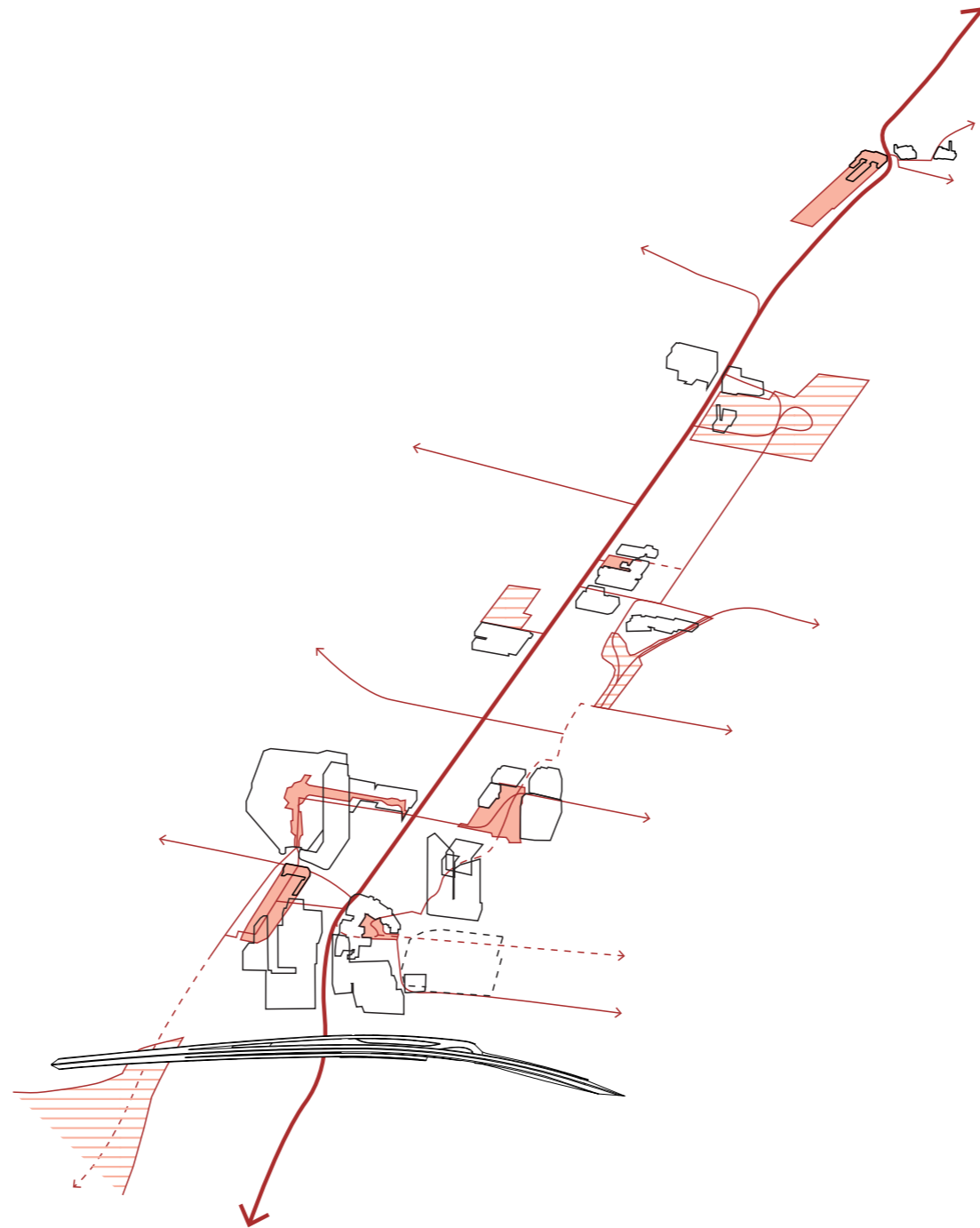
Remnants of past histories





# Deployment

Non linear network in a linear space



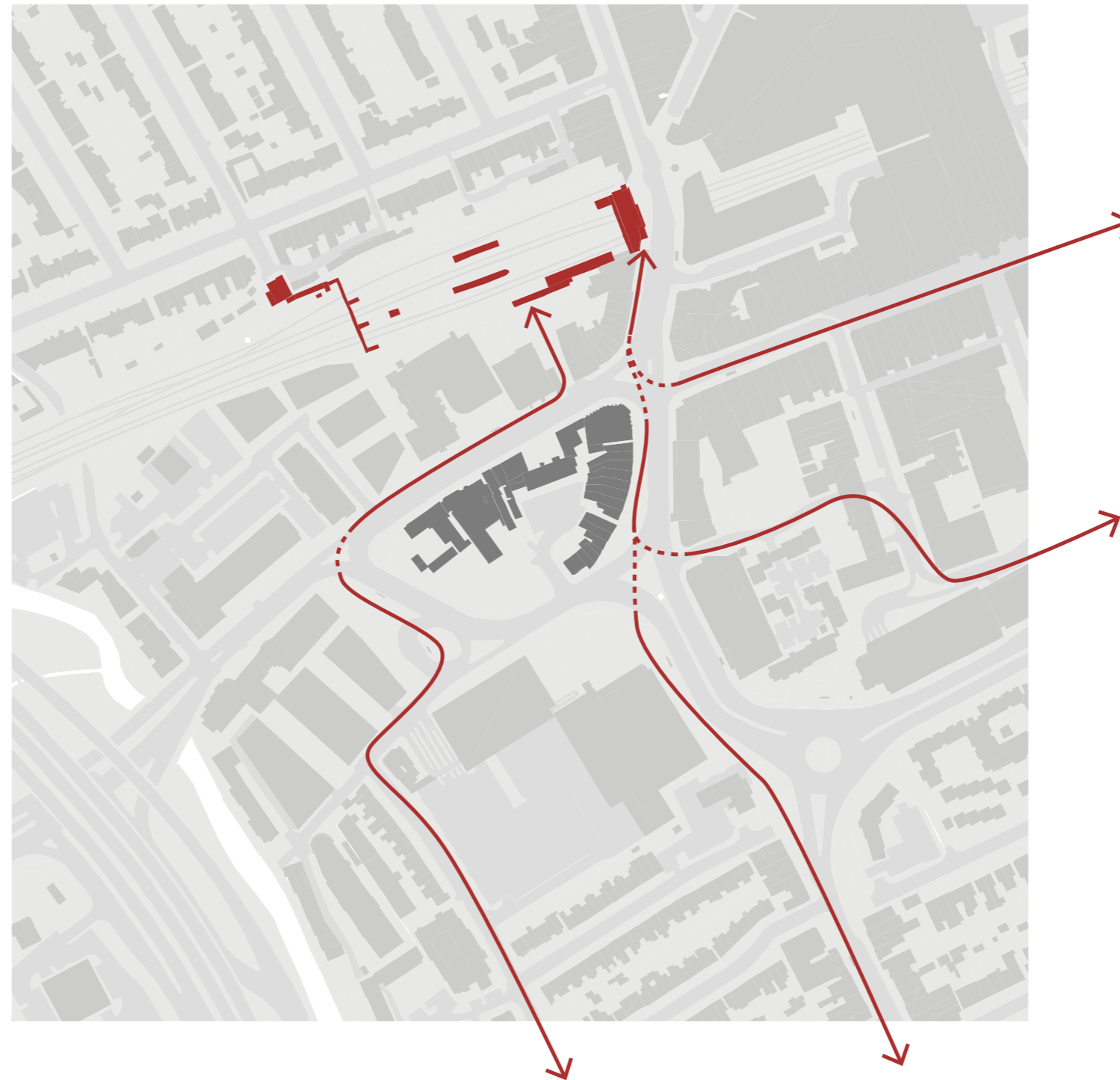
# Deployment

Non linear network in a linear space



# Deployment

Discontinuity of flows



Principle pedestrian routes to the station

# Deployment

## Discontinuity of flows



Pedestrian and cyclist accidents between 2005 and 2014 (source: Transport for London)

# Deployment

Discontinuity of flows



# Deployment

## Discontinuity of flows



### Key:

Probability of footfall



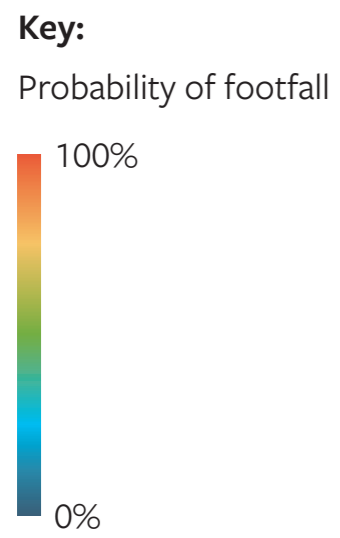
# Deployment

Mending the fragment



# Deployment

## Mending the fragment





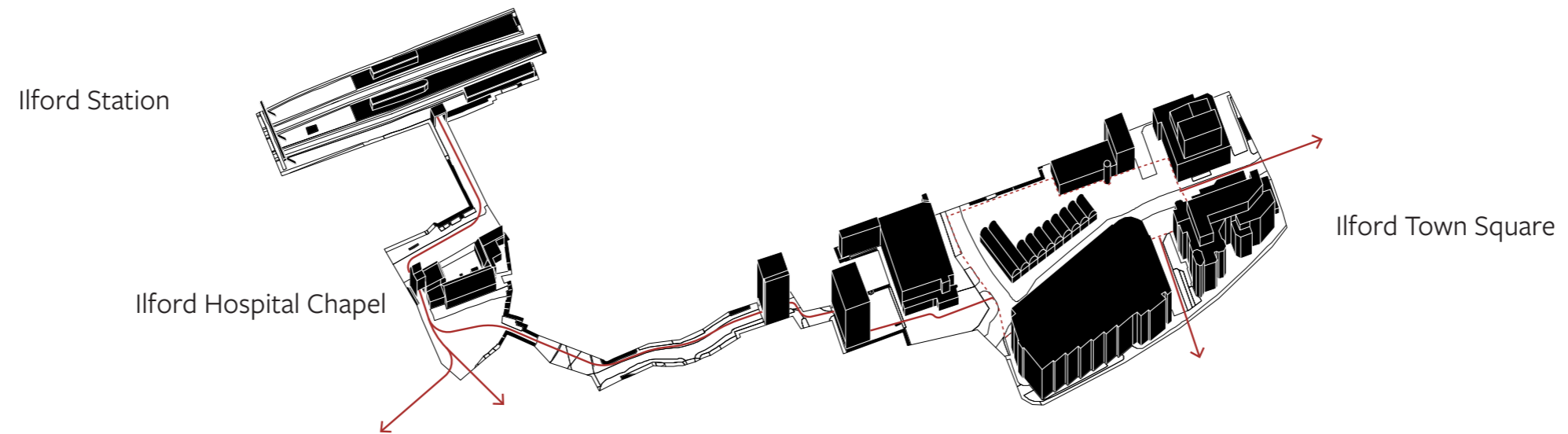
# Deployment

Projecting new routes



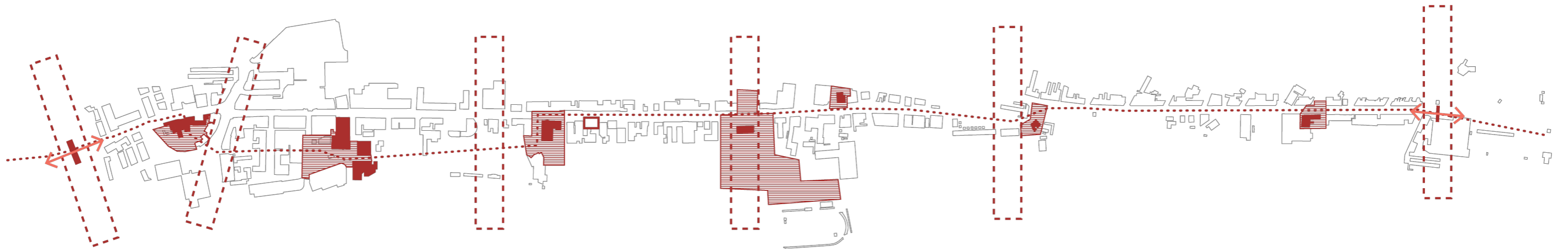
# Deployment

Projecting new routes

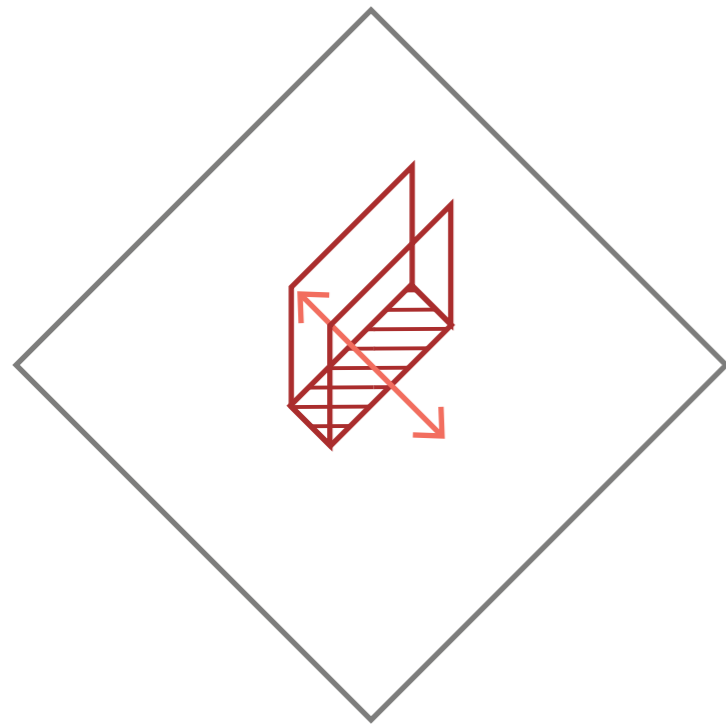


# Deployment

Projecting new routes

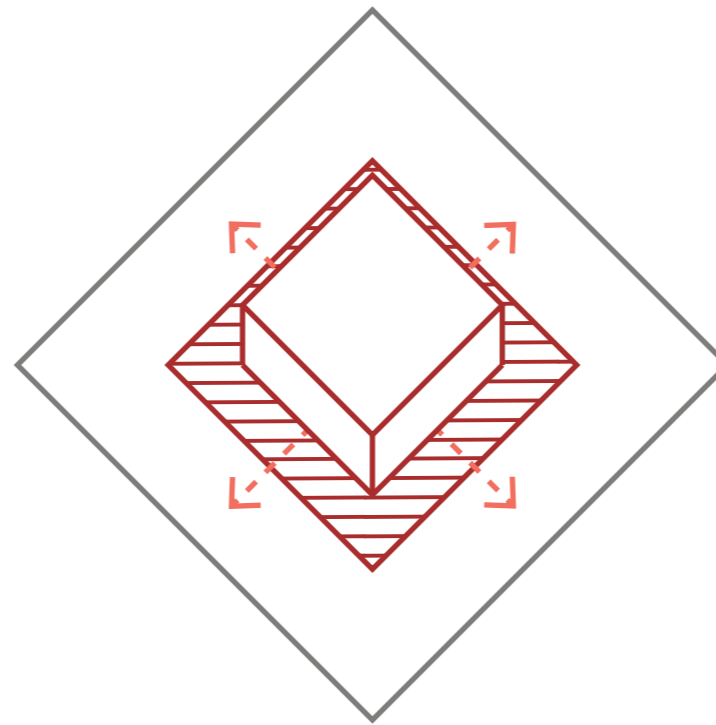


# Deployment



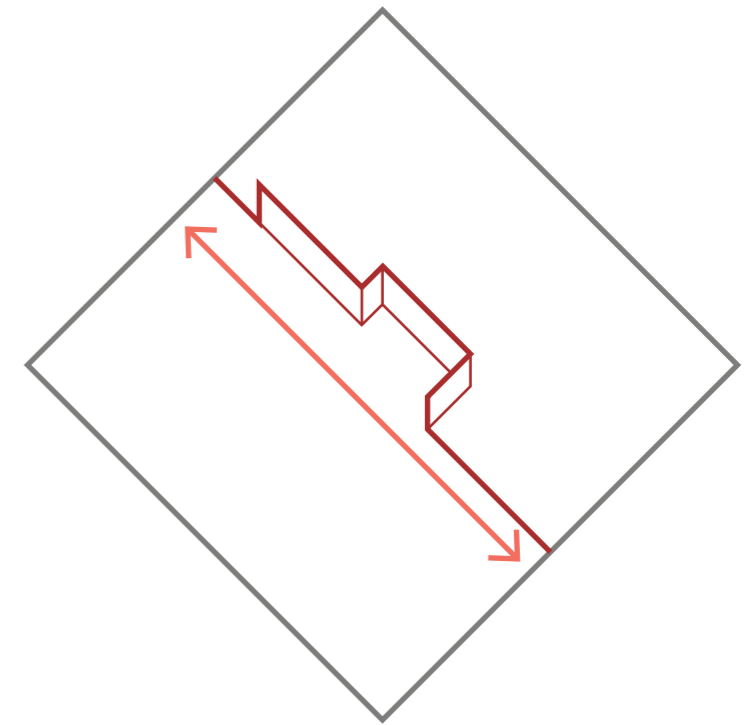
## Gate

Marking a boundary condition



## Surface

Taking ownership of the immediate context of the block



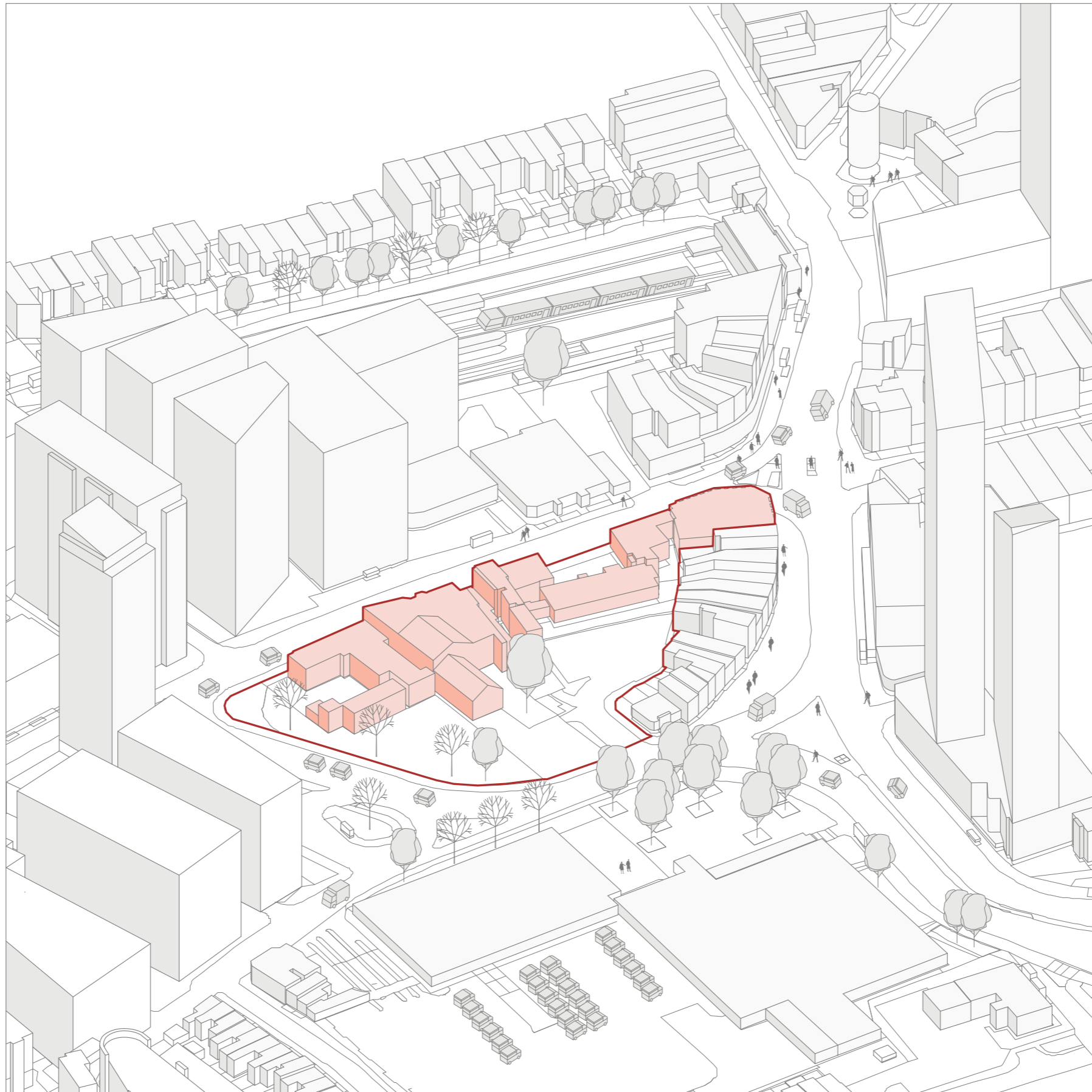
## Frontage

Improve the legibility of the facades along the high street

### **3. Chapel Square**

Integrating  
Placemaking  
Bookending  
Materialising

# Fragment



# Fragment



Bank (NatWest)  
50 Ilford Hill

Chaplain's House

Ilford Hospital Chapel

Almshouse

44 Ilford Hill

The Ilford Conservative Club  
42 Ilford Hill

Old Police Station (vacant)  
40 Ilford Hill



Ilford Hill

Old Police Station

Conservative Club

Ilford Hospital Chapel

Bank

Car Park

Cranbrook Road

Chapel Road

Roden Street





# Fragment



# Fragment



### 3. Chapel Square

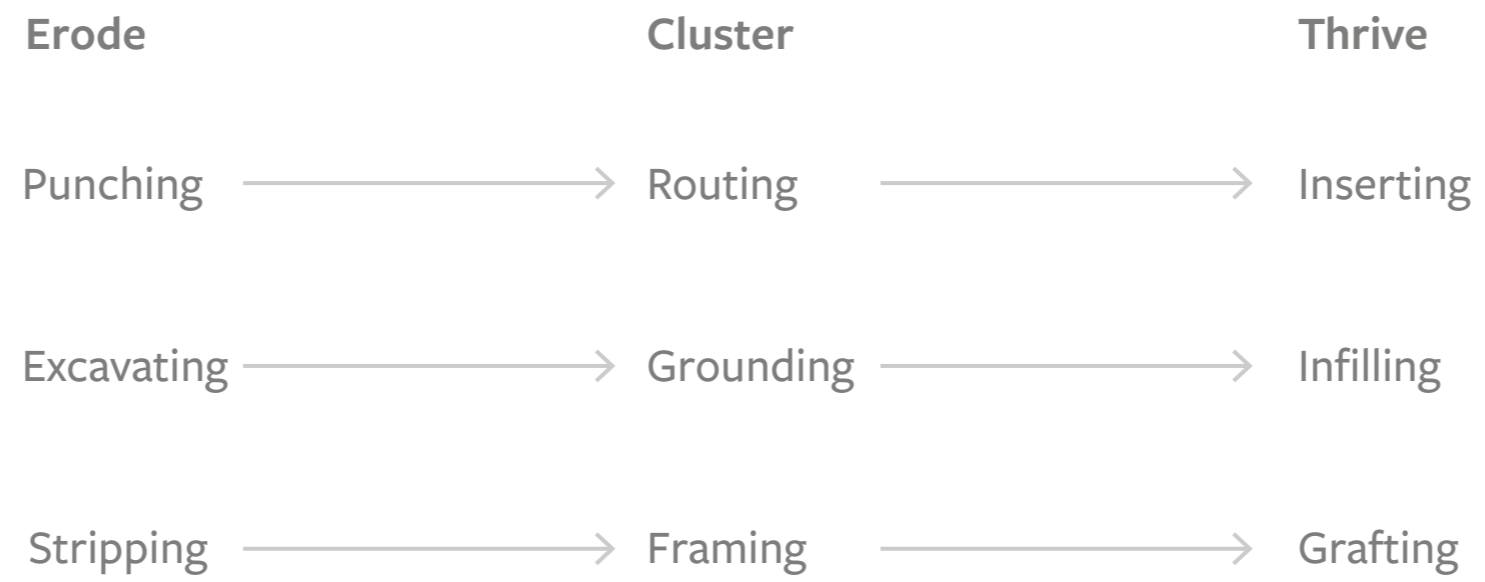
**Integrating:** mending the urban

Placemaking

Bookending

Materialising

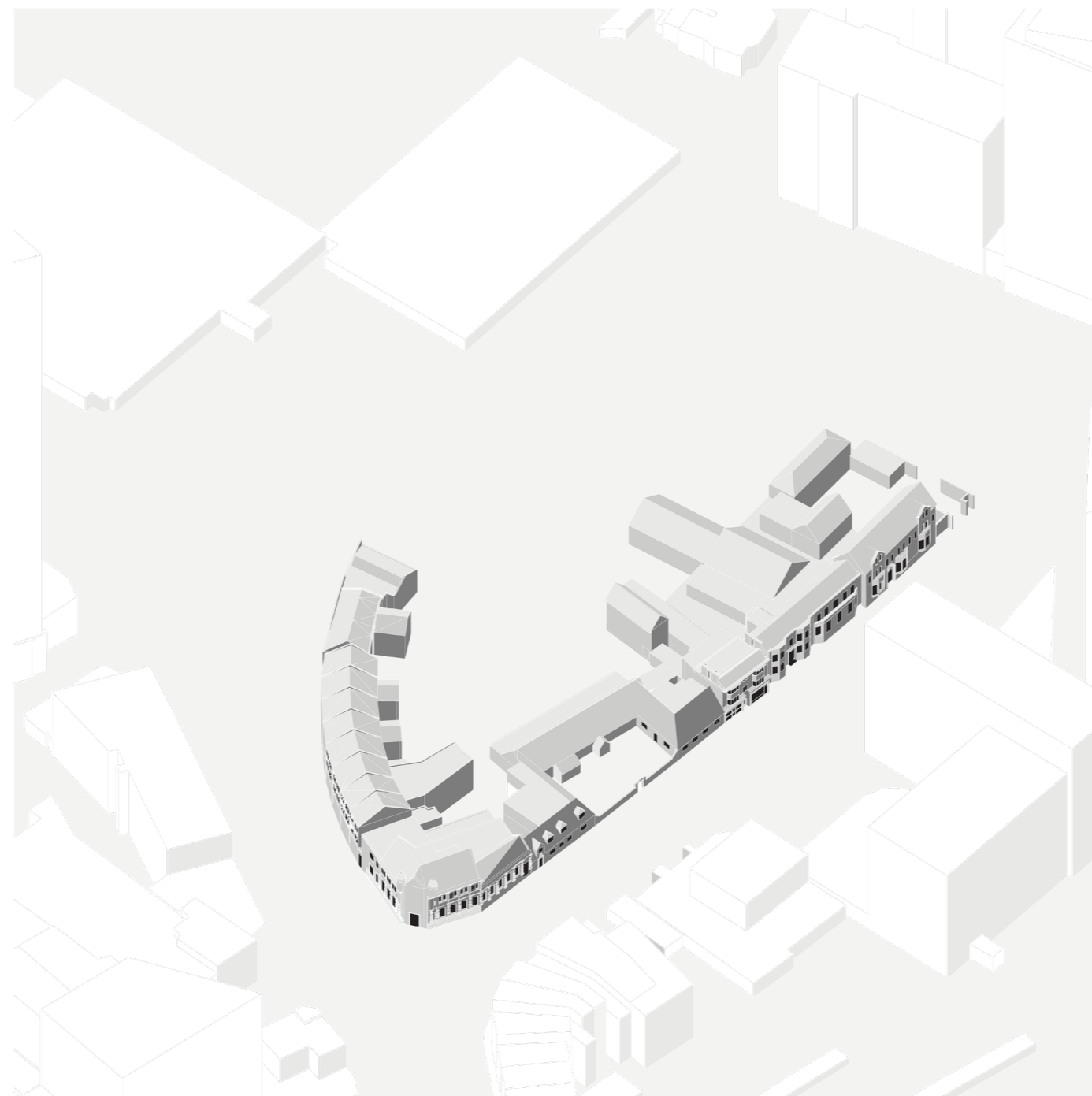
# Design Tools



# Design Development

## Current

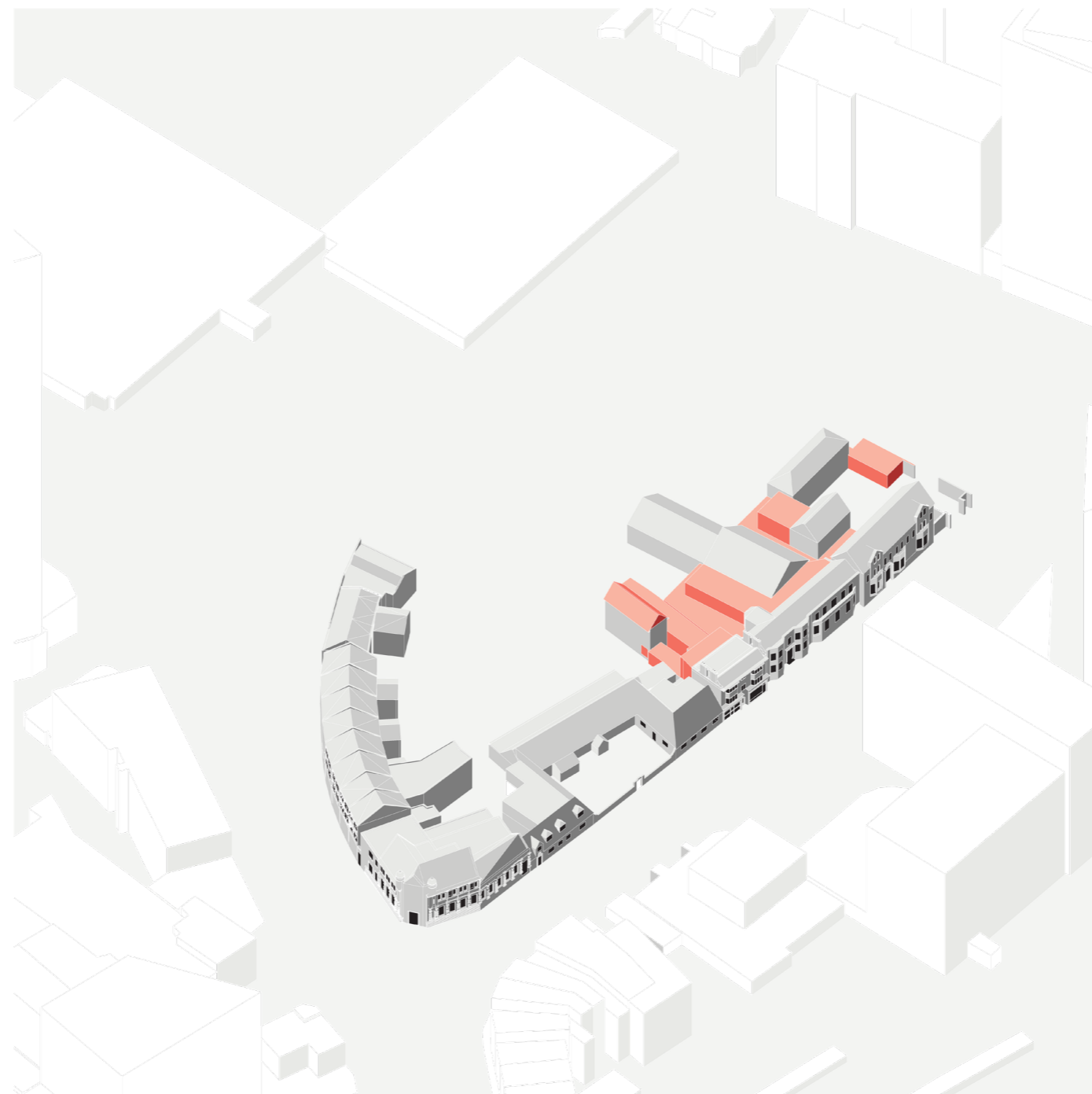
Existing site condition



# Design Development

## Demolition

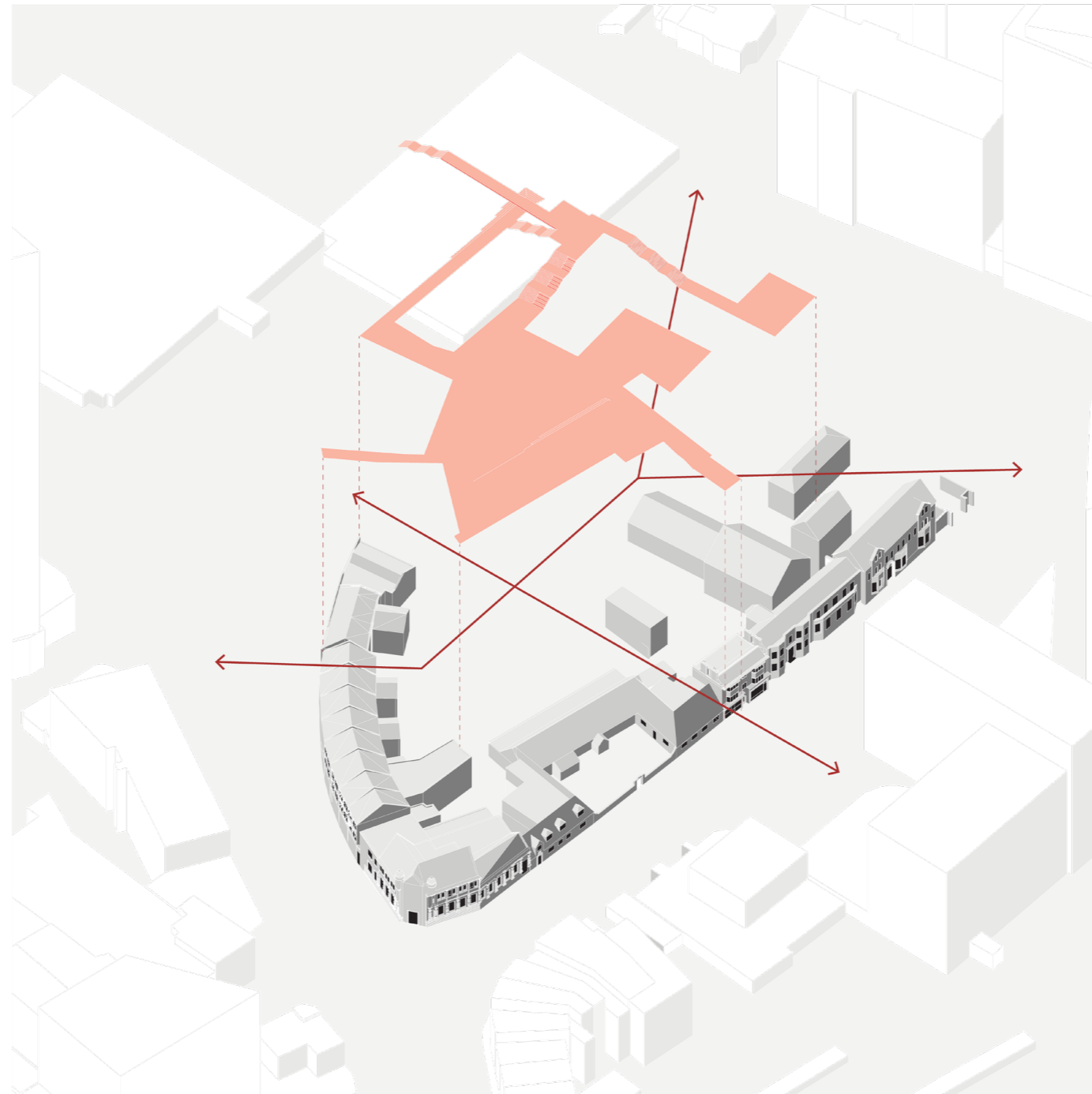
key portions of the block are removed



# Design Development

## Routing

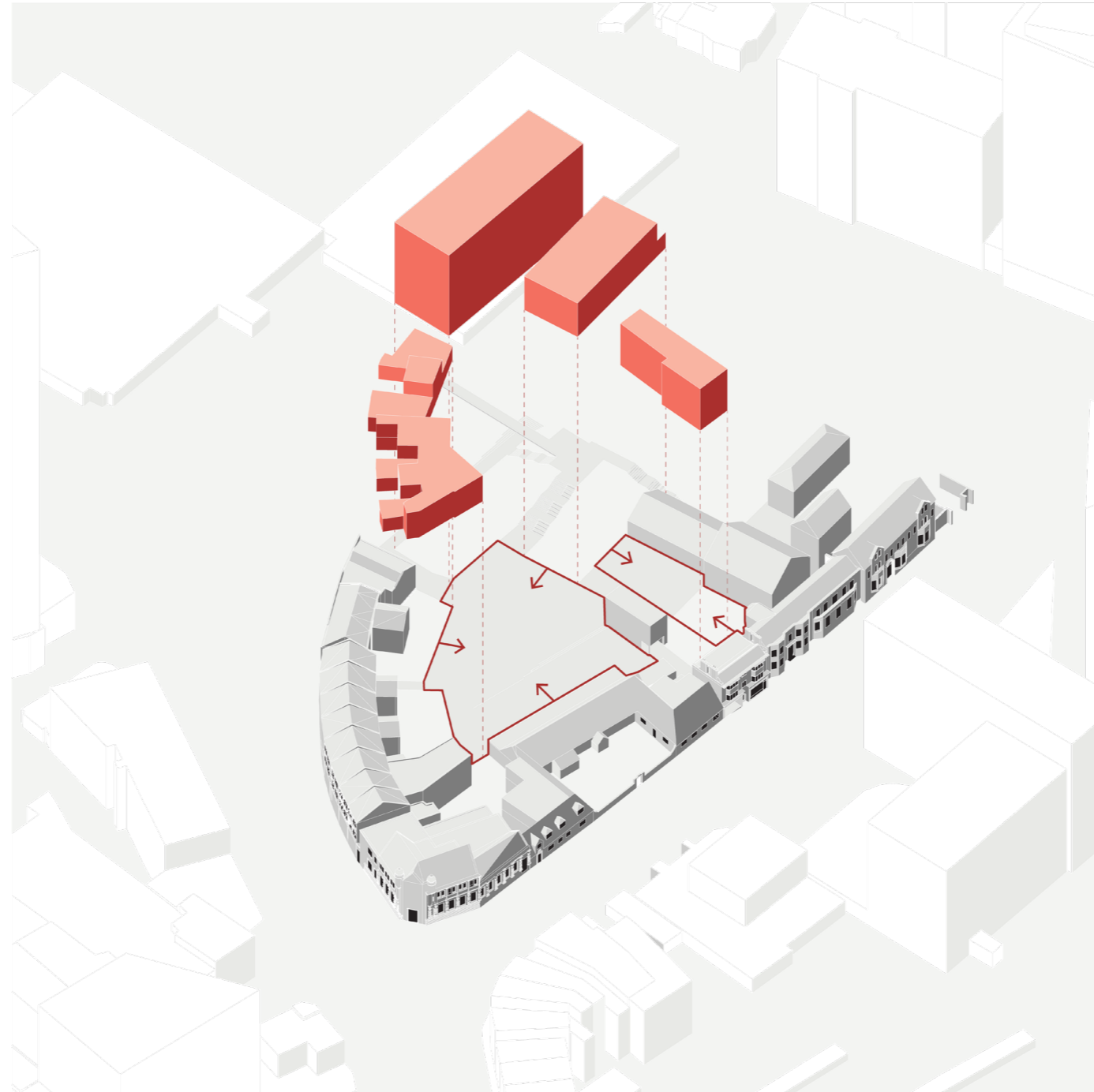
routes through the site are defined



# Design Development

## Infilling

new massing is inserted to frame the new square

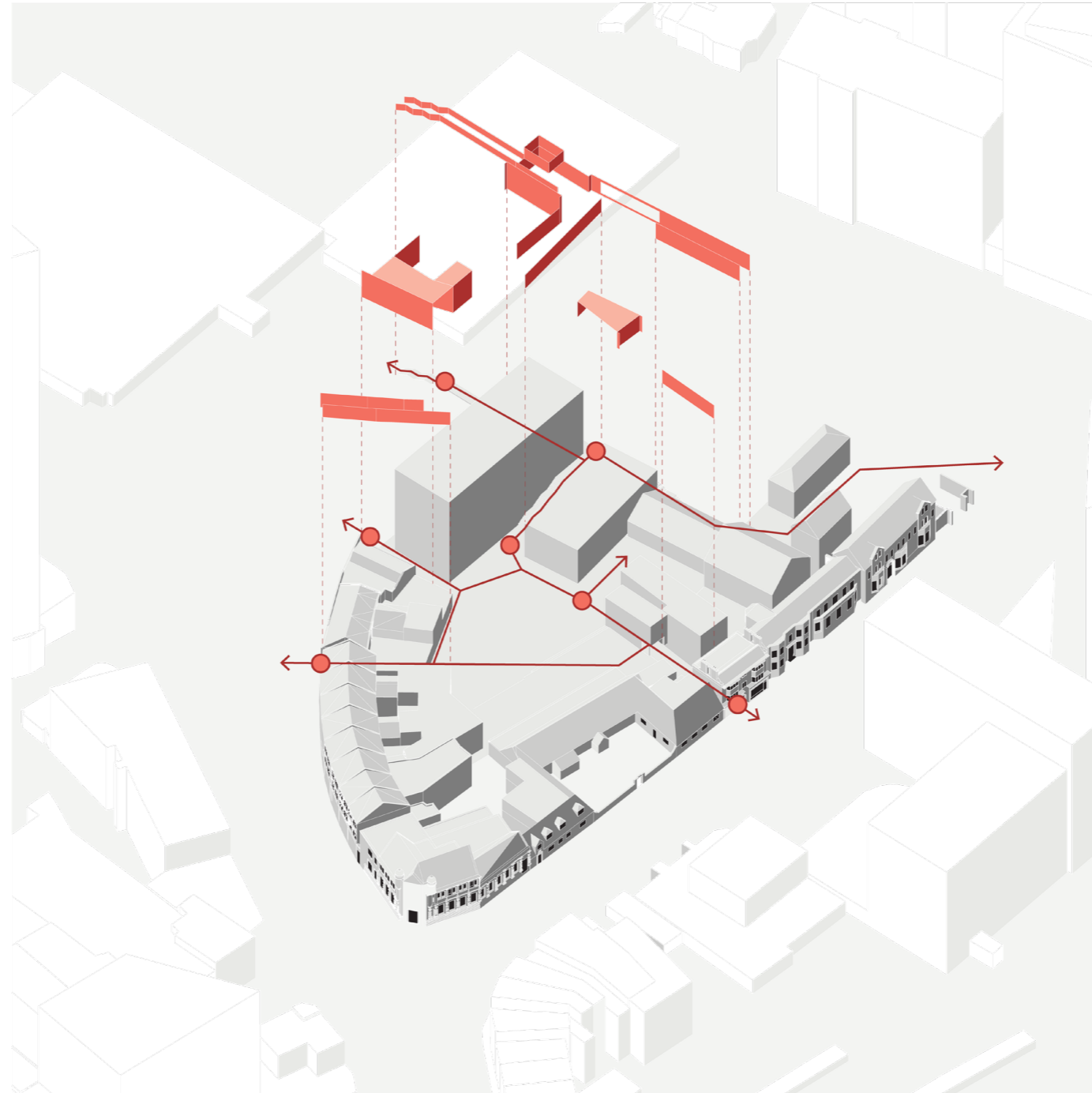




# Design Development

## Grafting

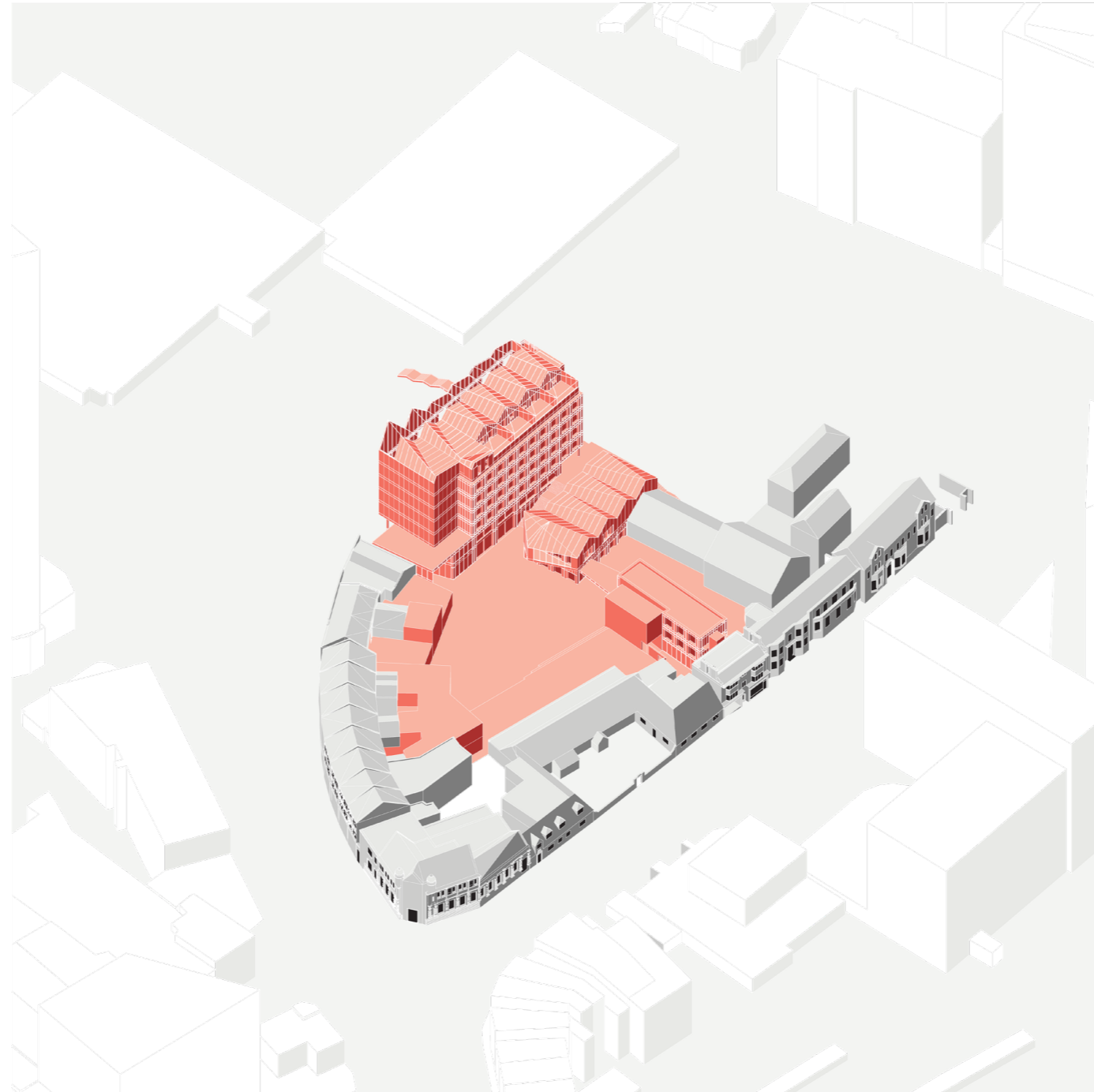
additional facades are stretched onto the backs of existing buildings to complete the composition



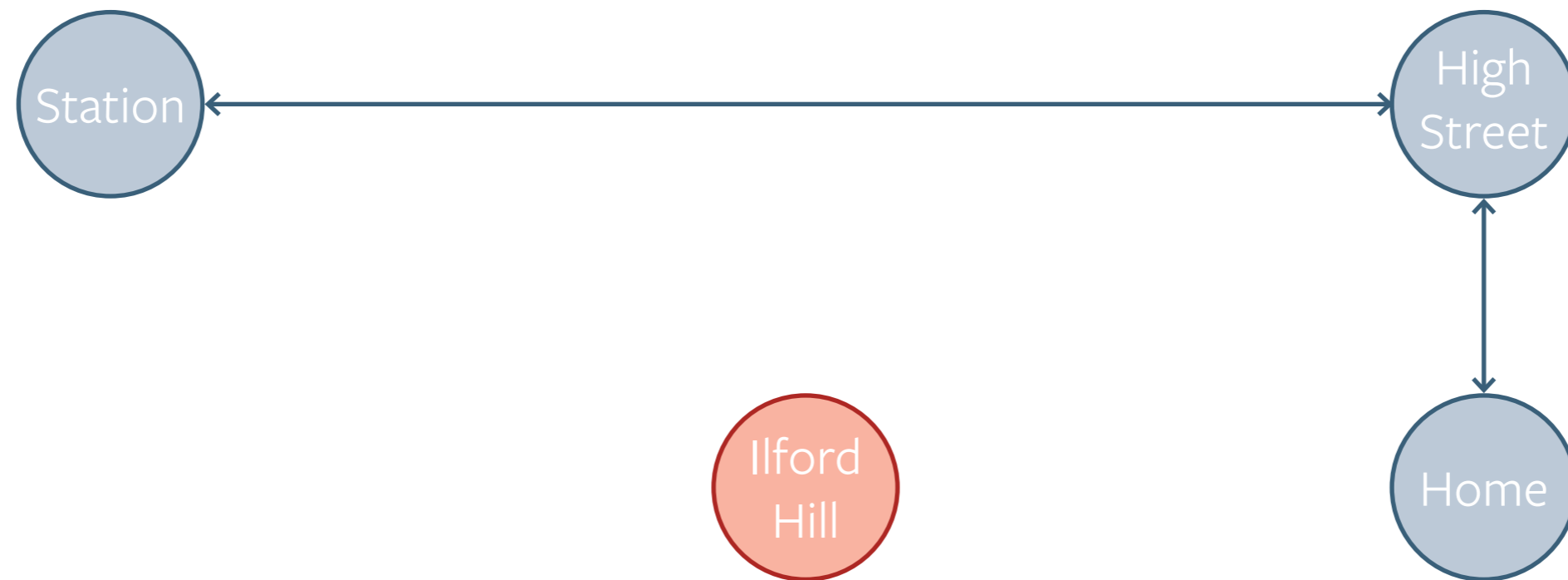
# Design Development

## Materialising

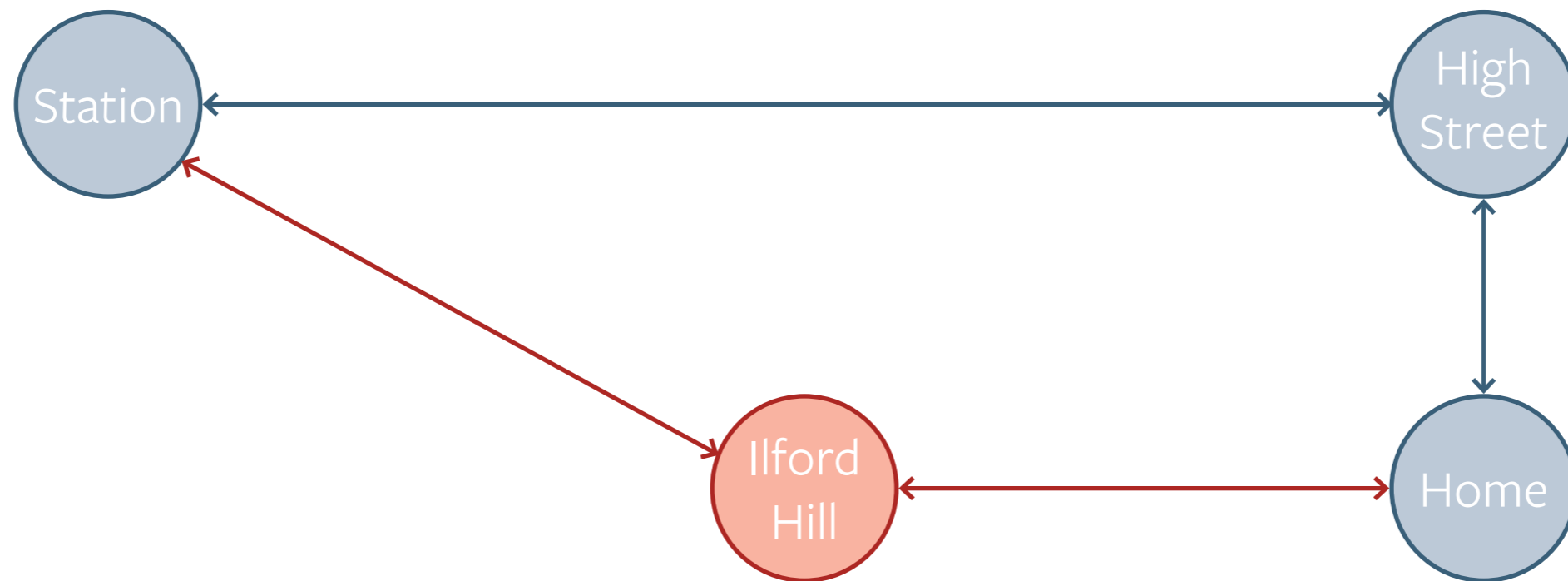
consolidation of the block through coherent material choices



# Topological Relationship

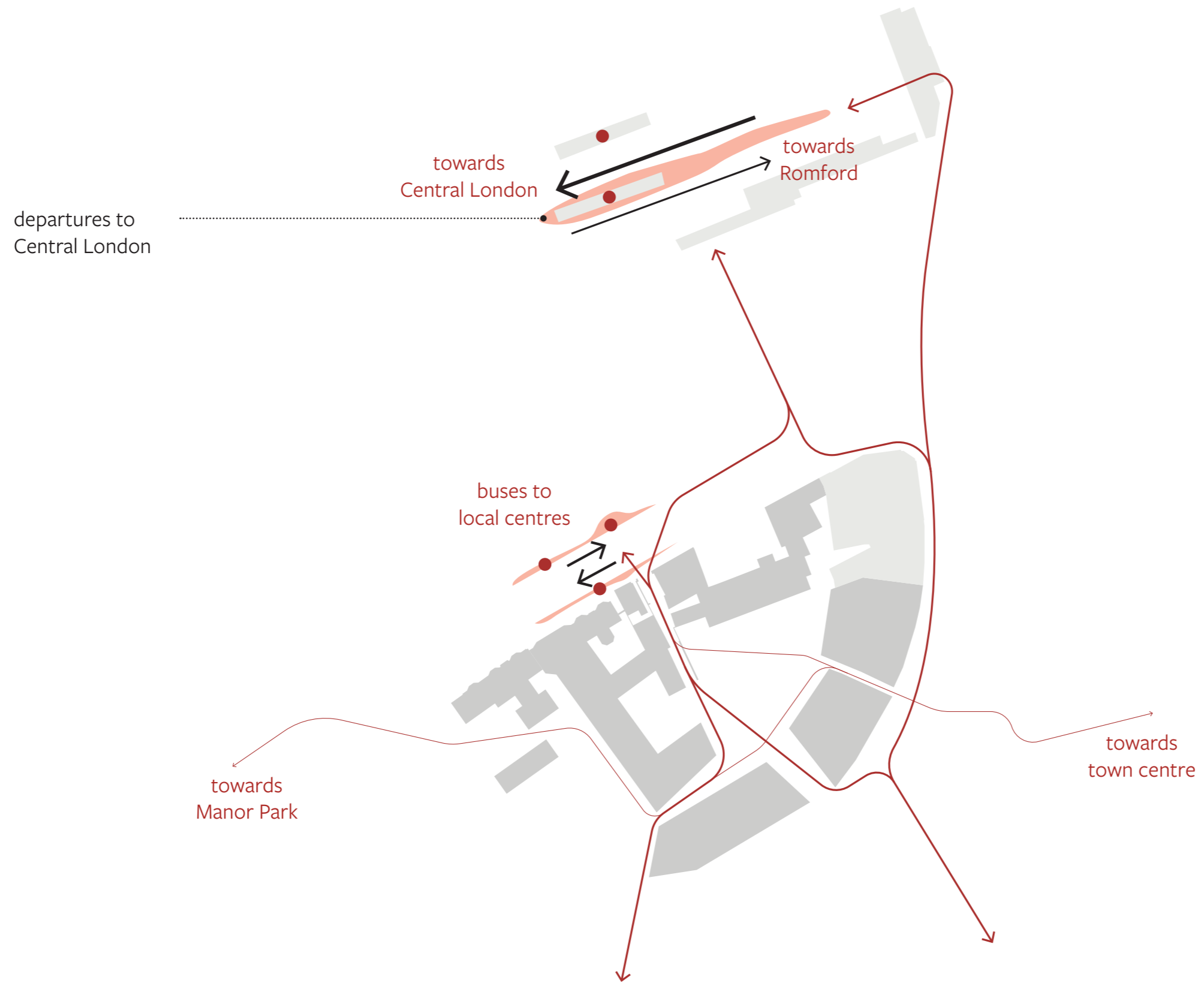


# Topological Relationship



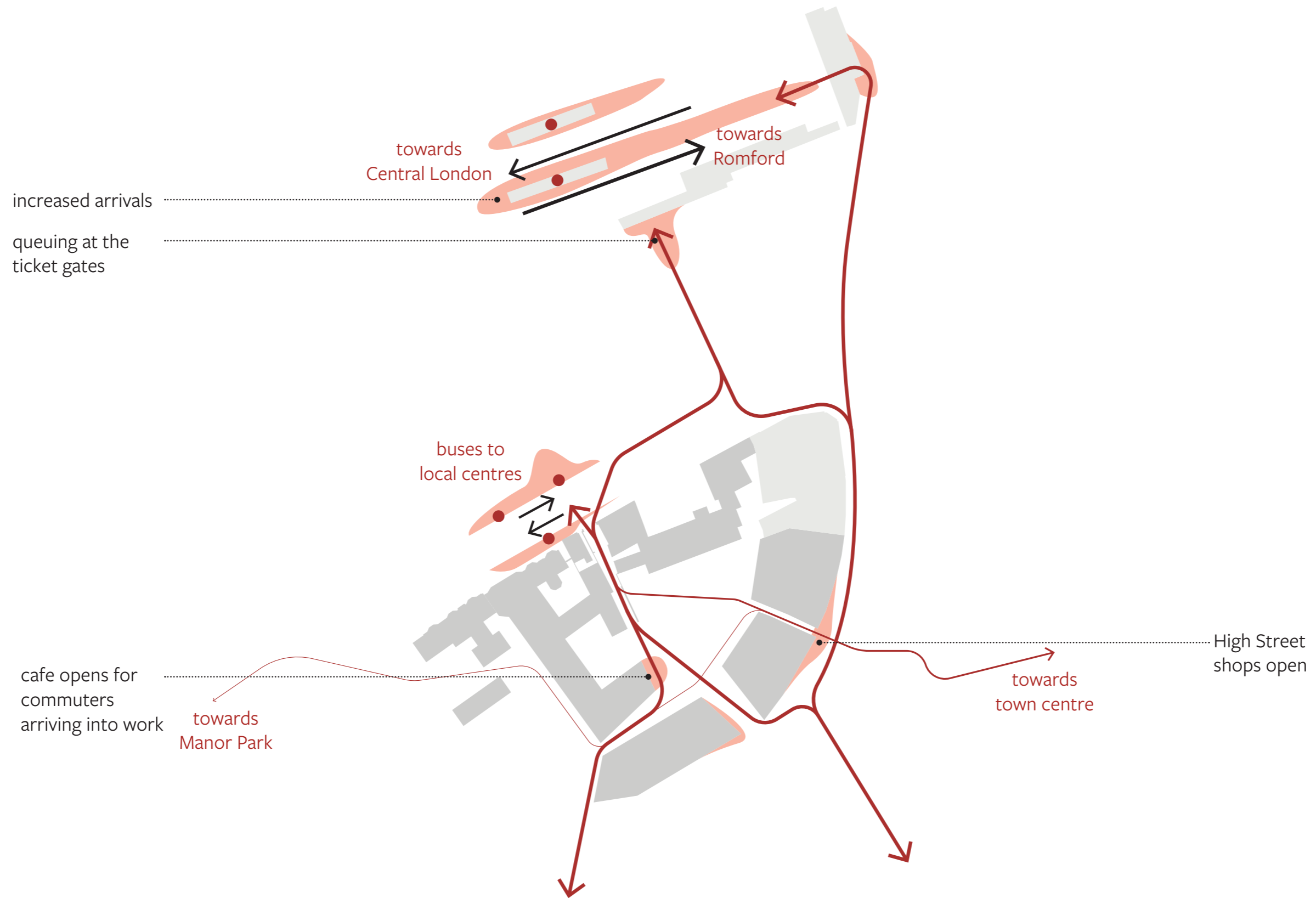
# Activation

06:00 - 08:00 Early commuters



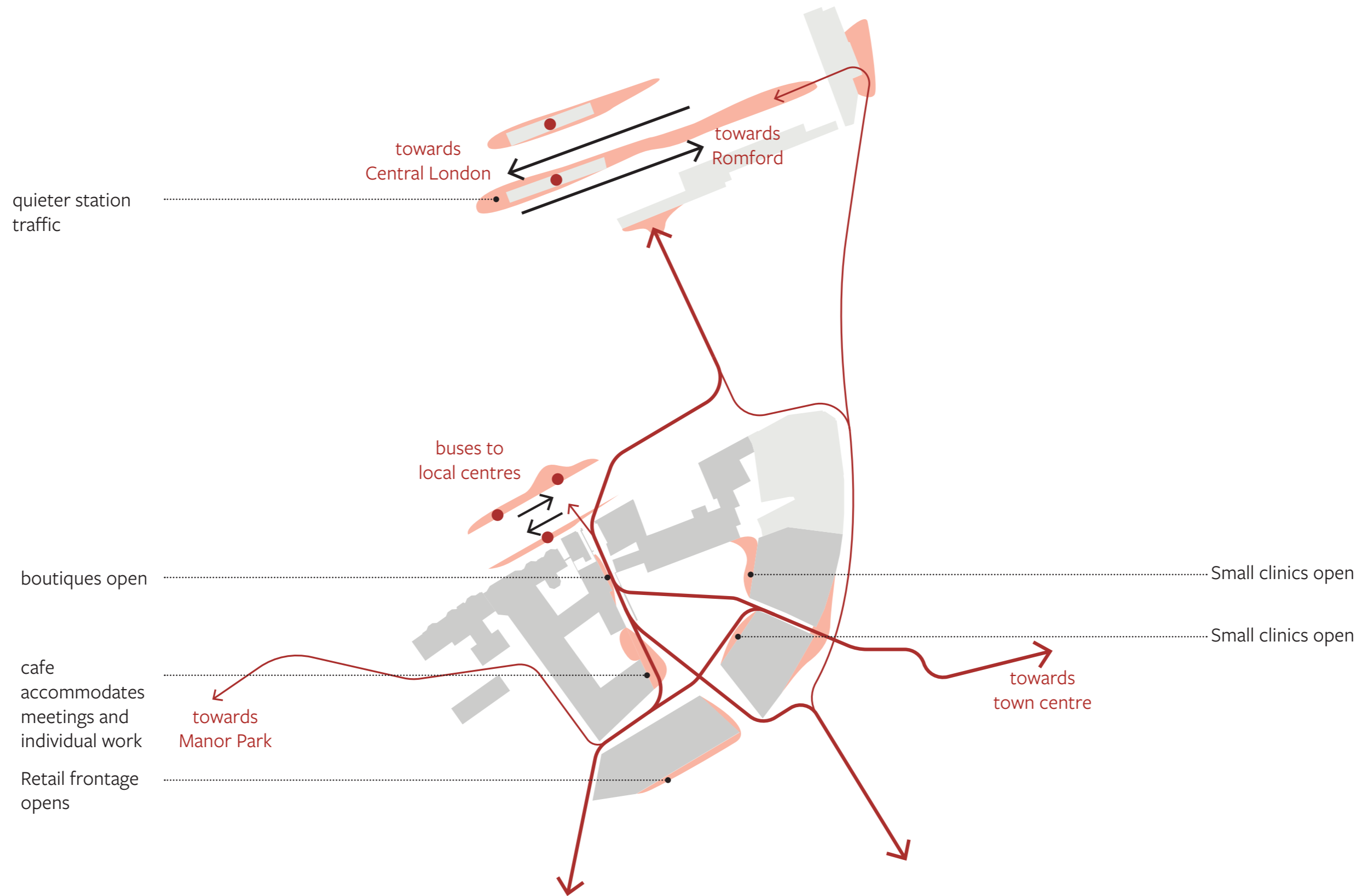
# Activation

08:00 - 09:00 Start of the day



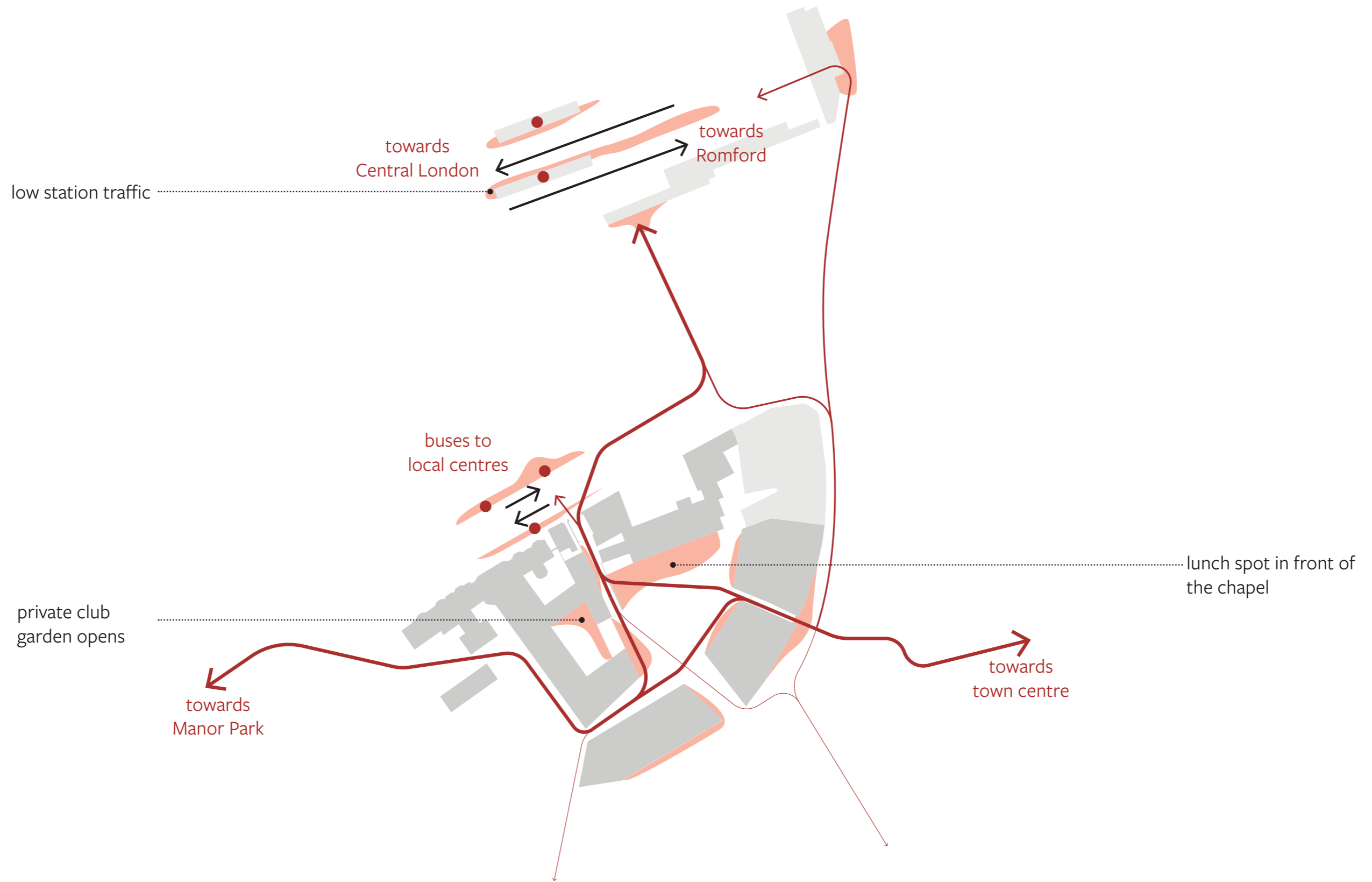
# Activation

09:00 - 12:00 Morning activities



# Activation

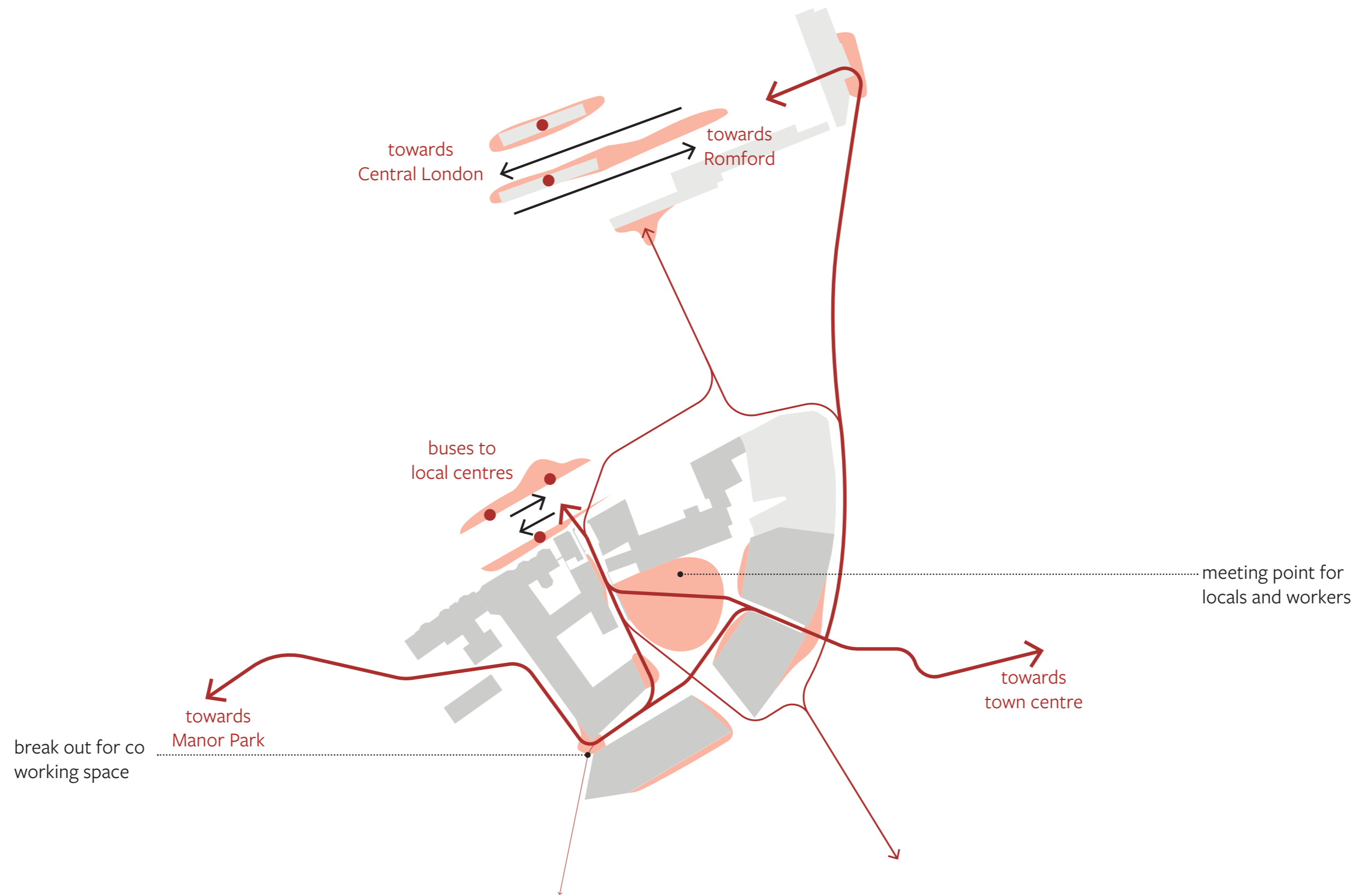
12:00 - 14:00 Lunch time





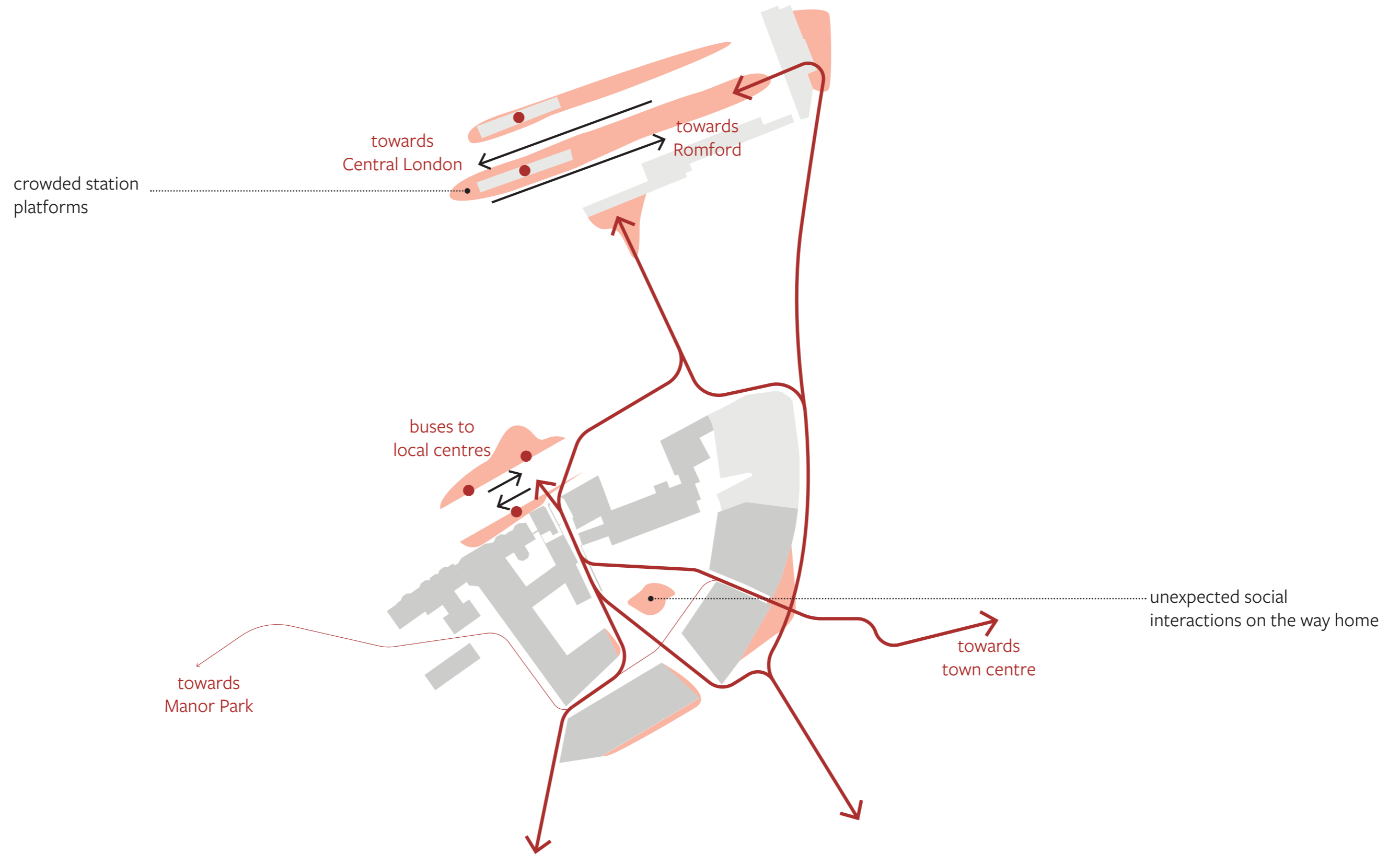
# Activation

14:00 - 17:00 Afternoon activities



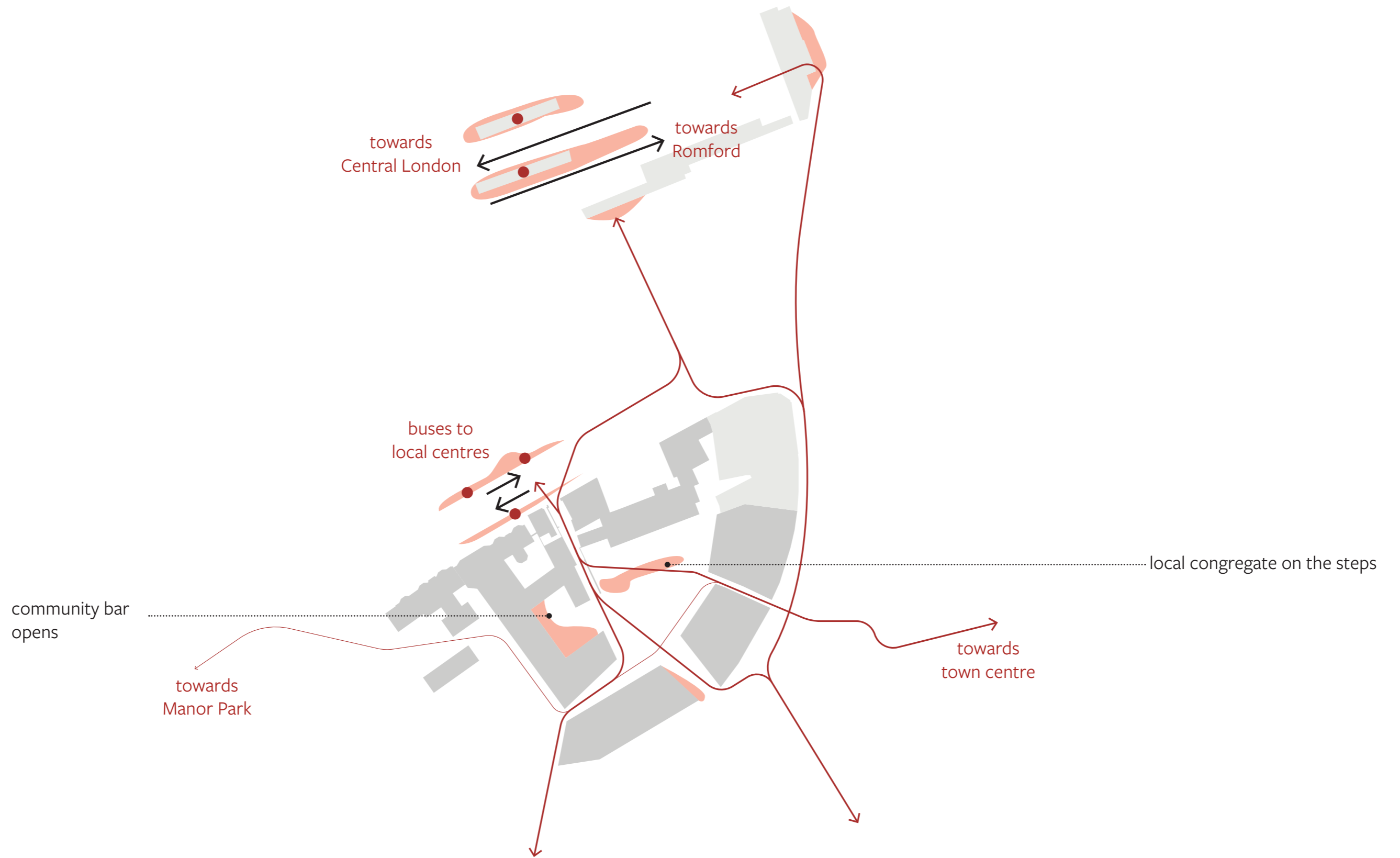
# Activation

17:00 - 19:00 Evening rush hour



# Activation

19:00 - 23:00 Evening activities



### 3. Chapel Square

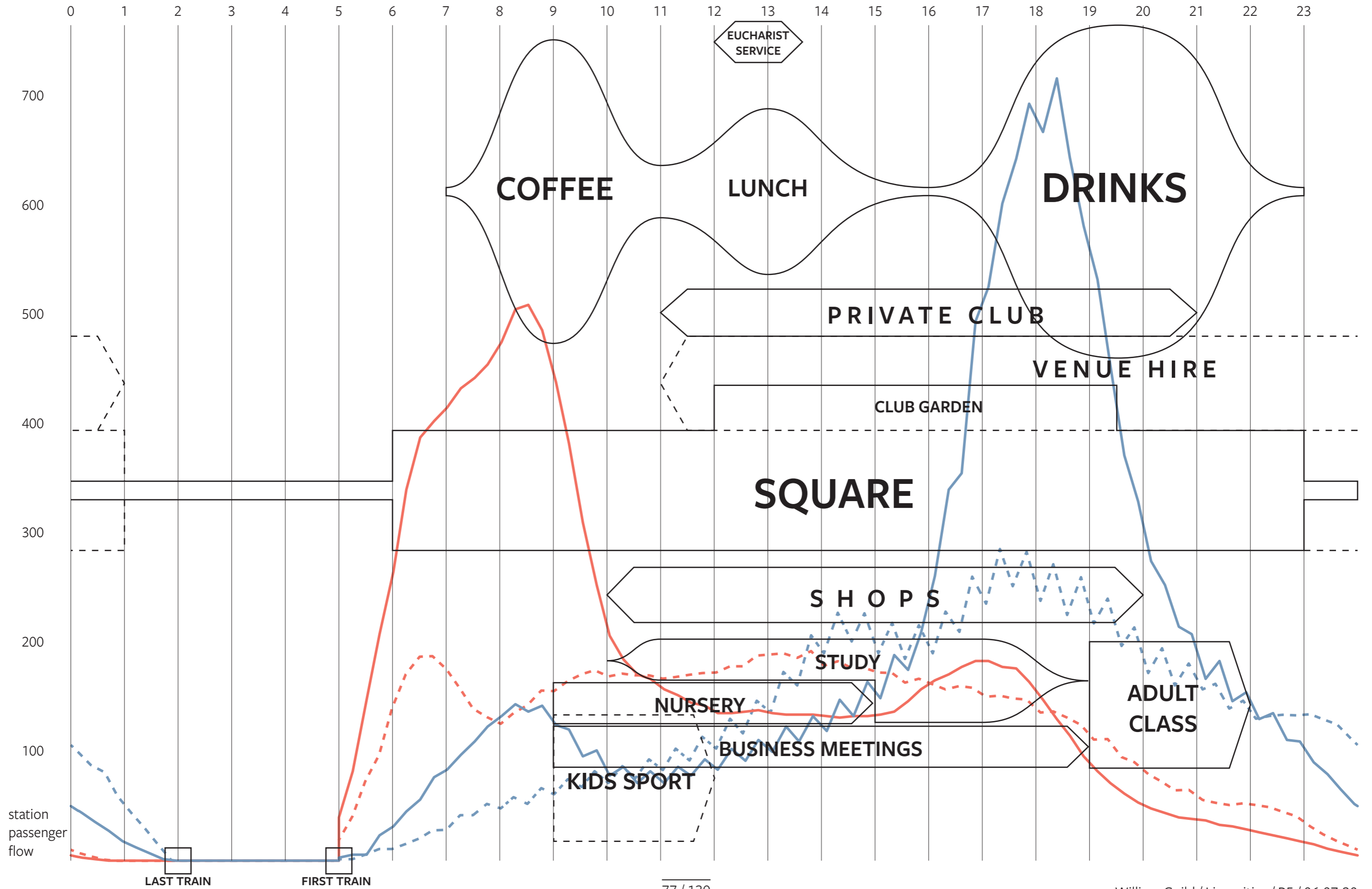
Integrating

**Placemaking:** injecting value

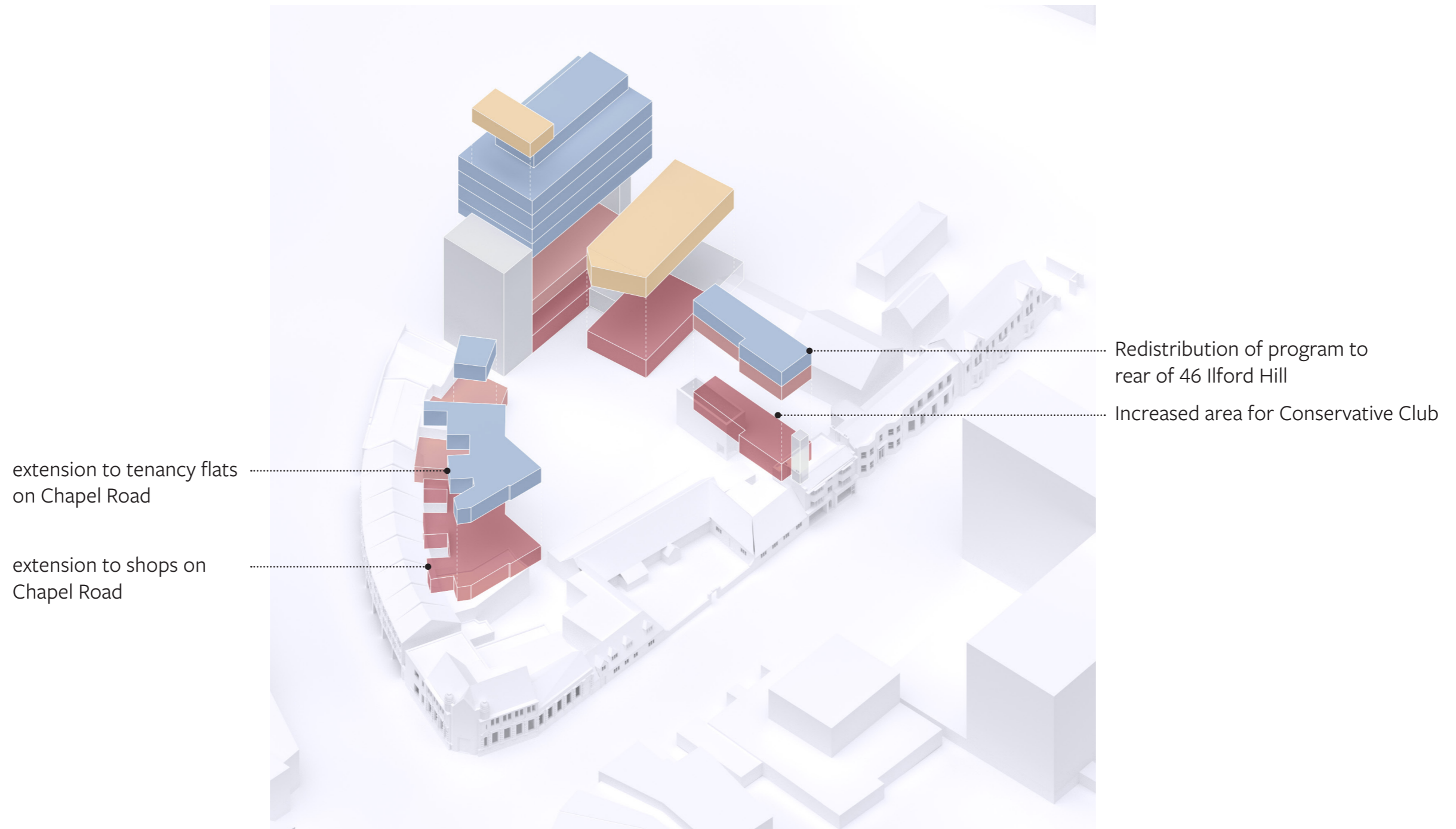
Bookending

Materialising

# Activation



# Activation

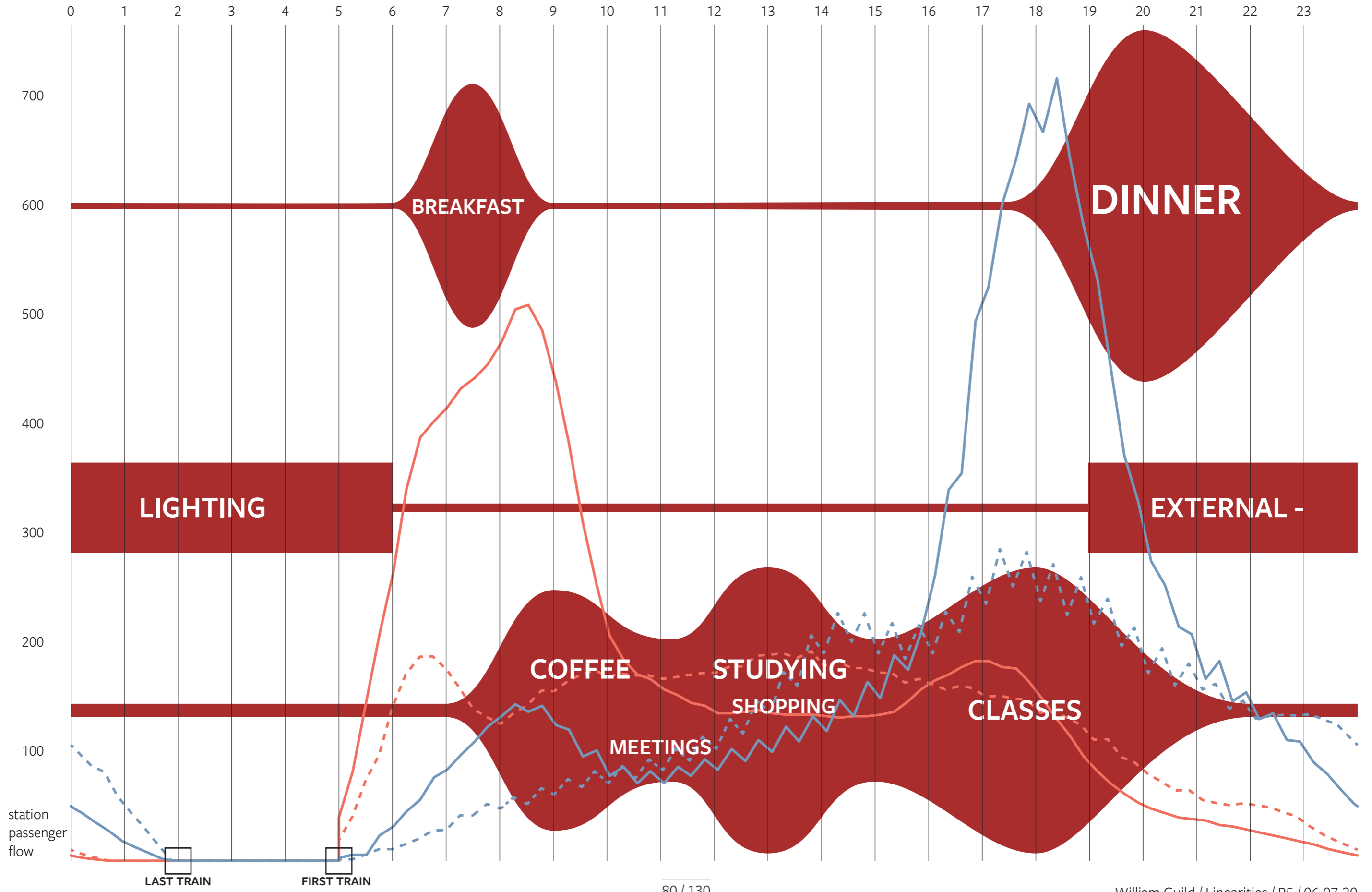


## Key

- Retail
- Office
- Housing
- Community
- Service

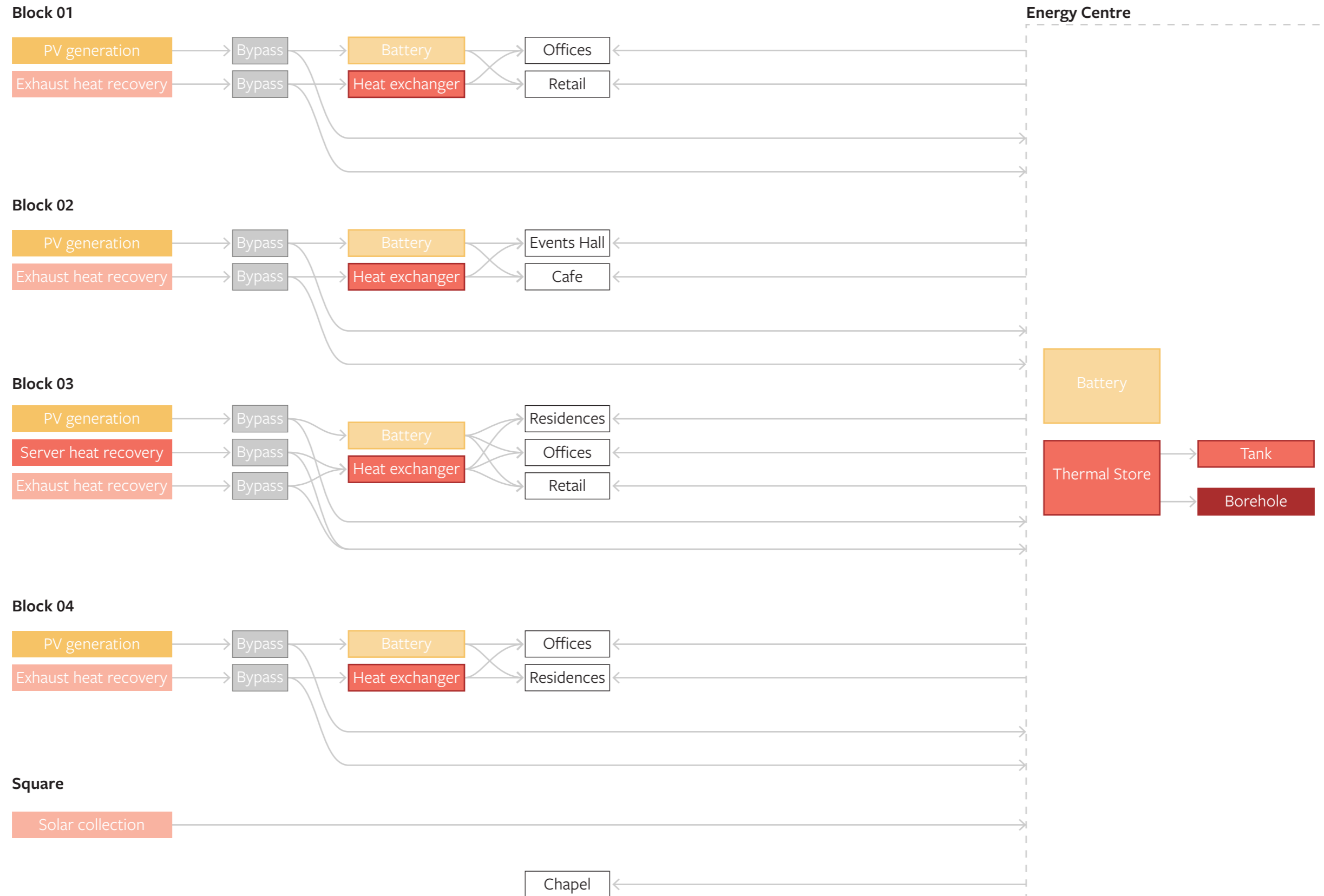


# Activation

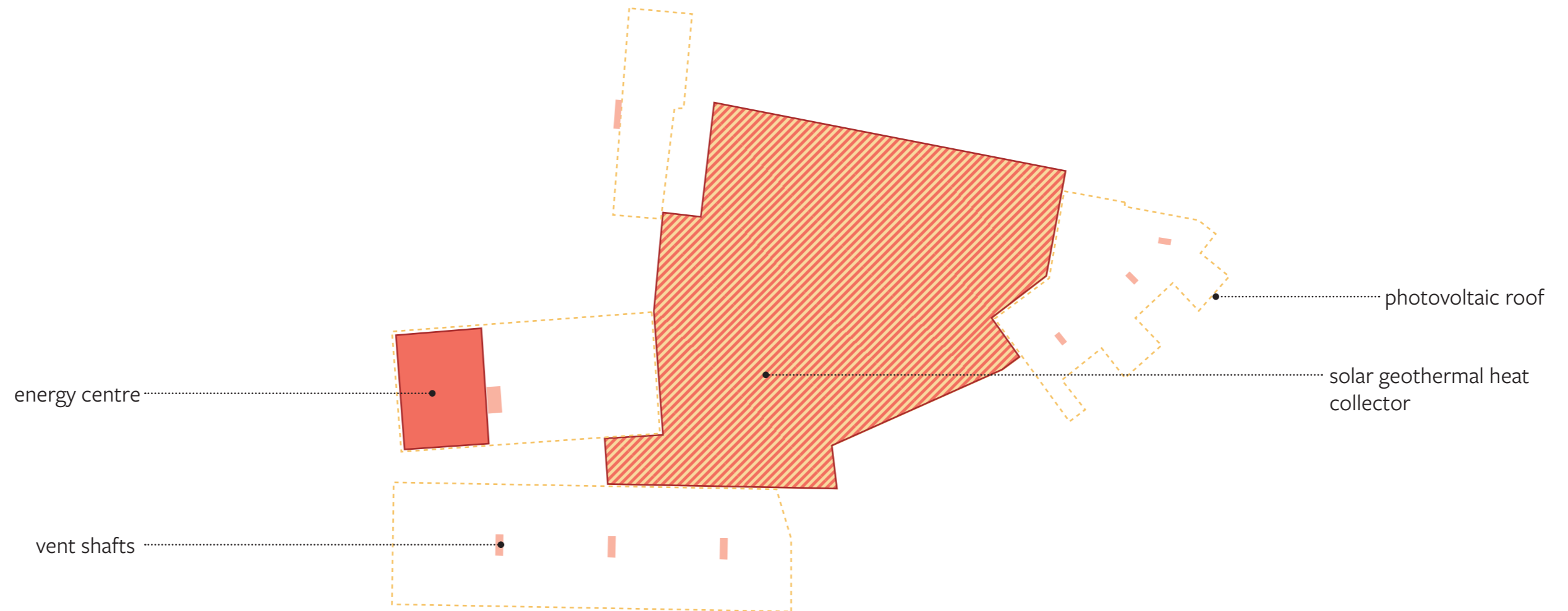




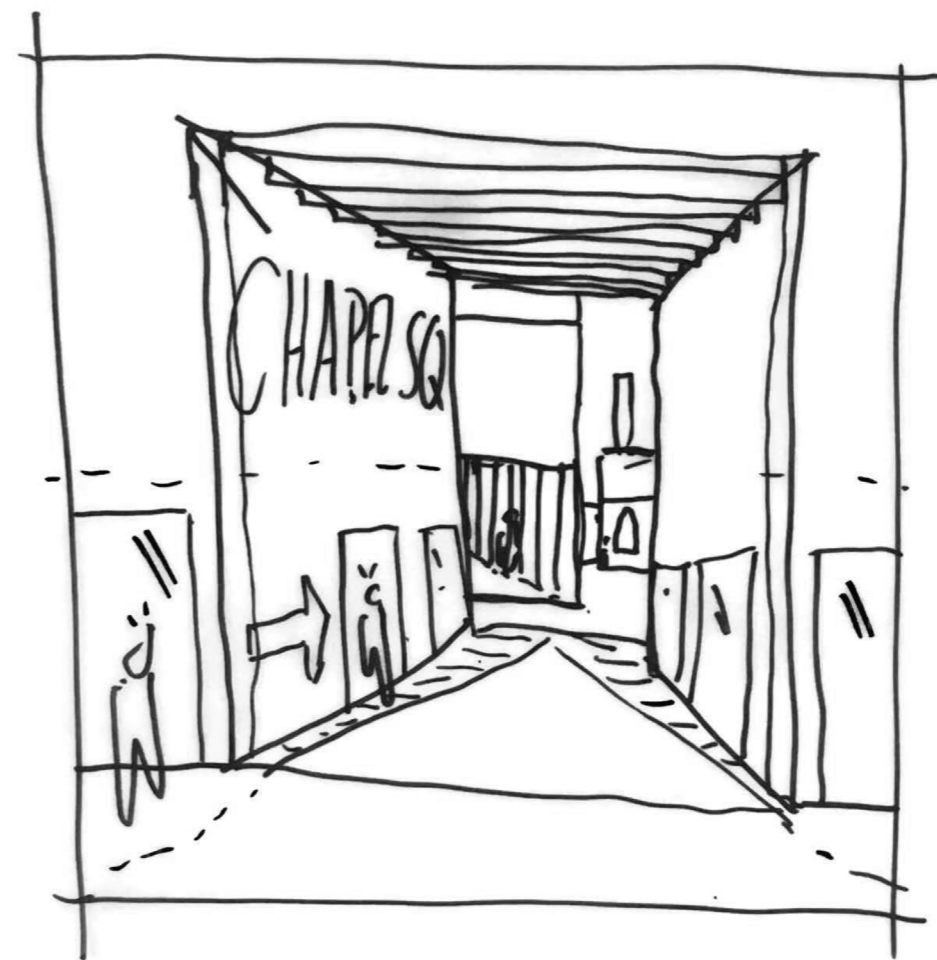
# Energy Strategy



# Energy Strategy

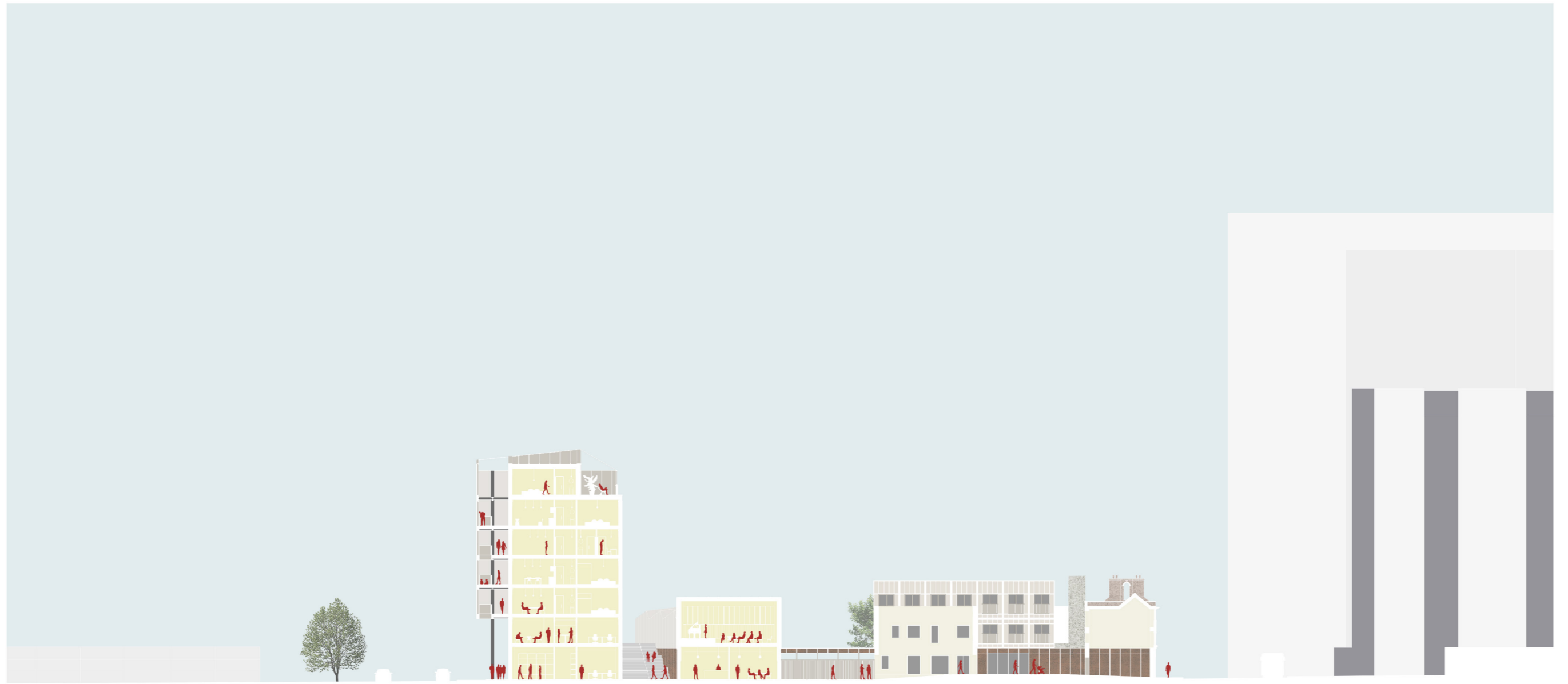






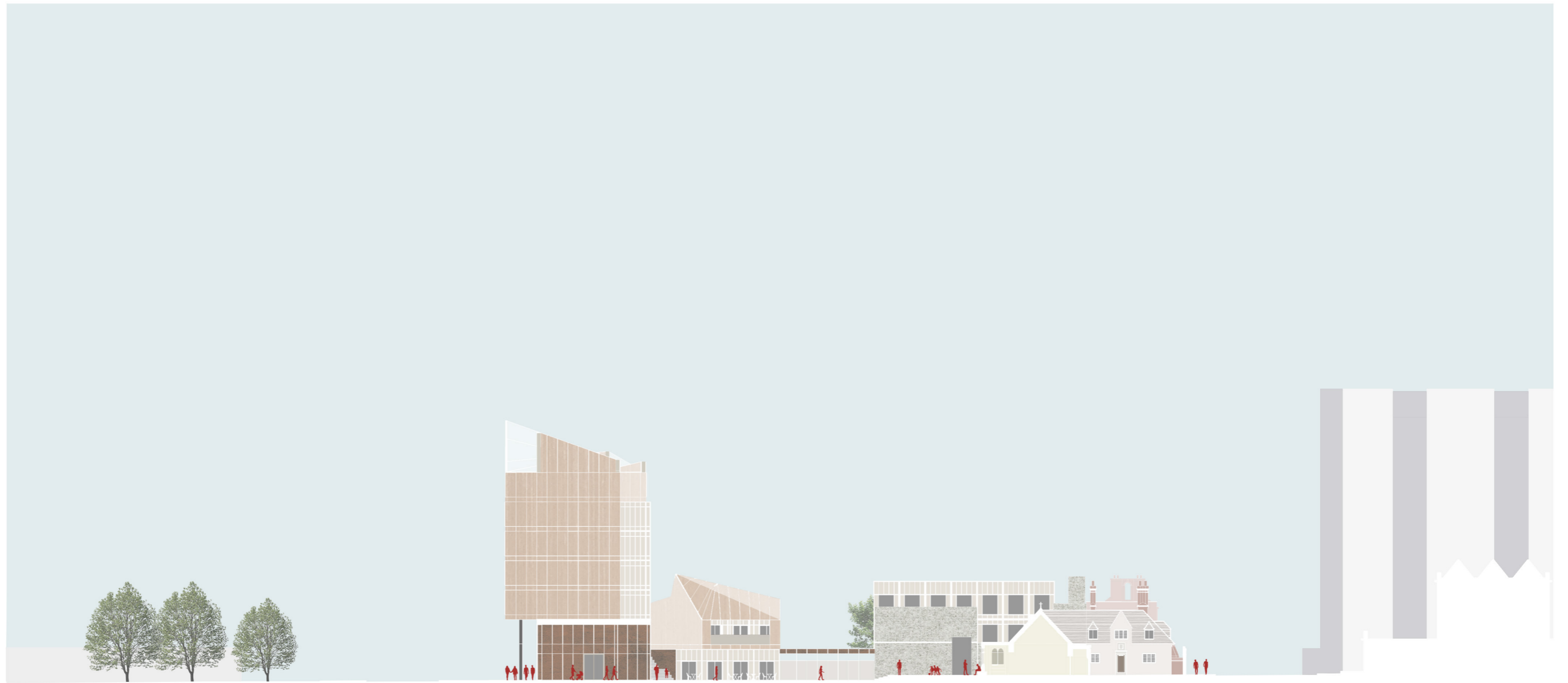
















### 3. Chapel Square

Integrating

Placemaking

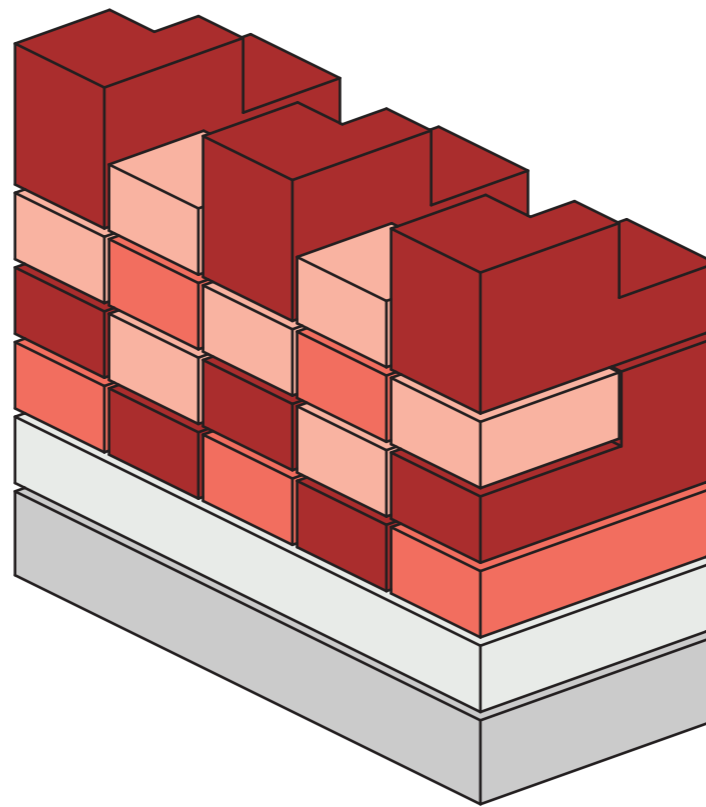
**Bookending:** new frontage

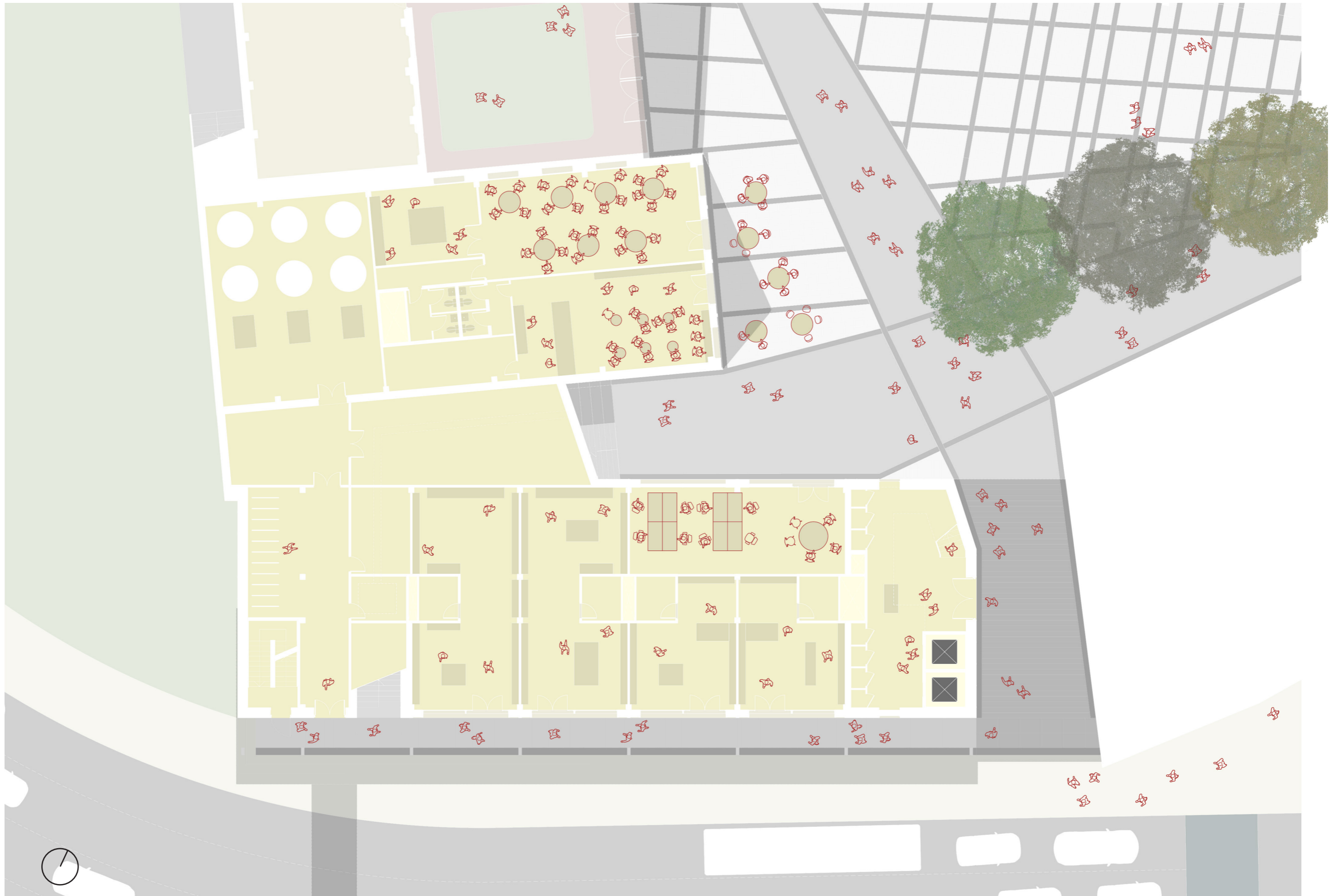
Materialising



# Program

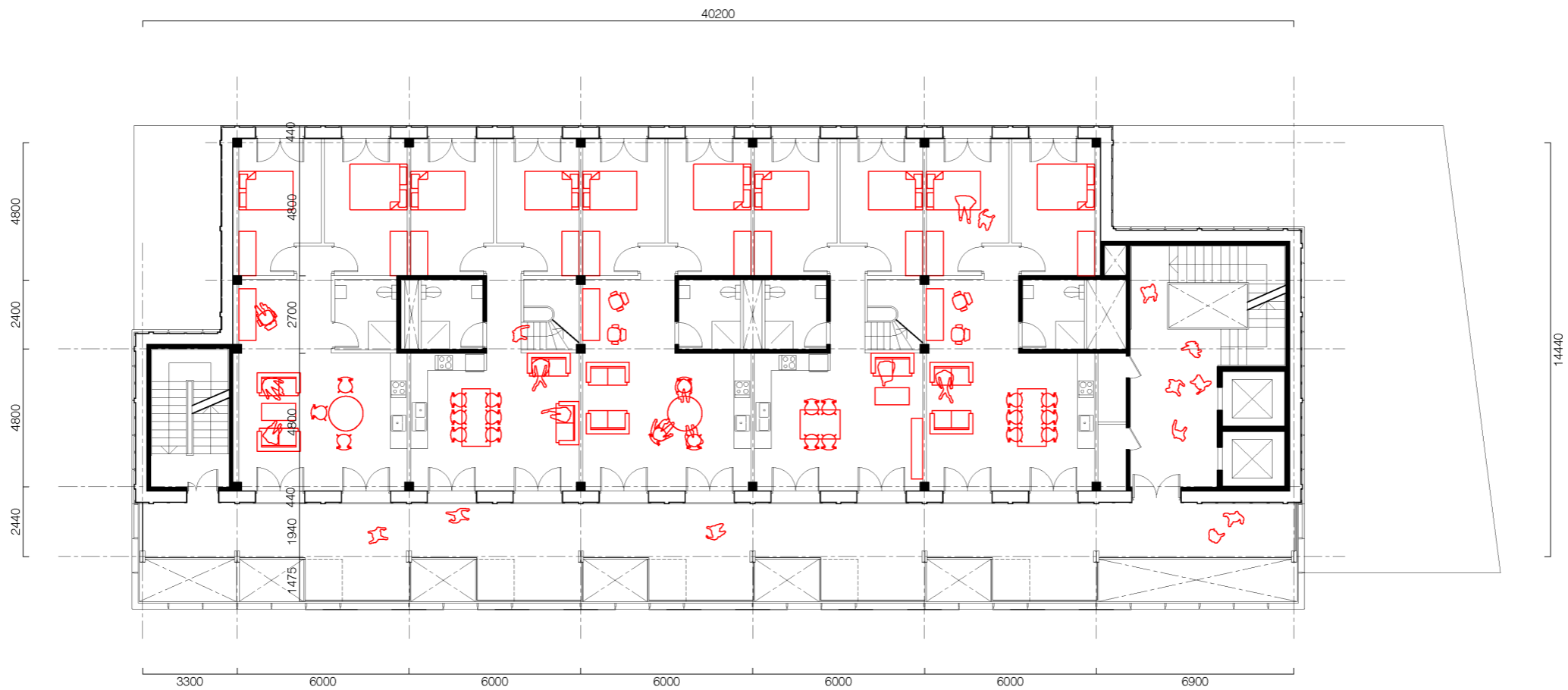
- Duplex flat
- 2 bed flat
- Studio
- Co working space
- Retail / co working space

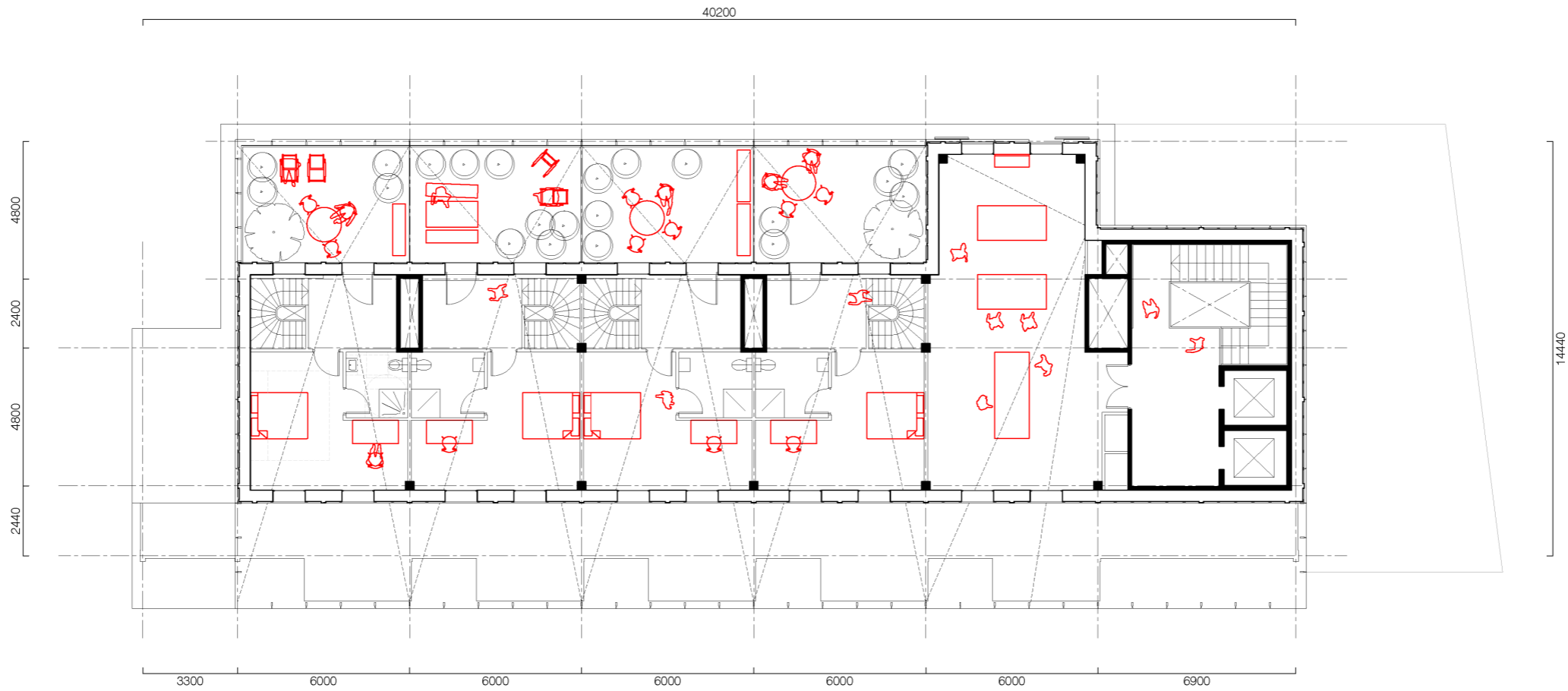




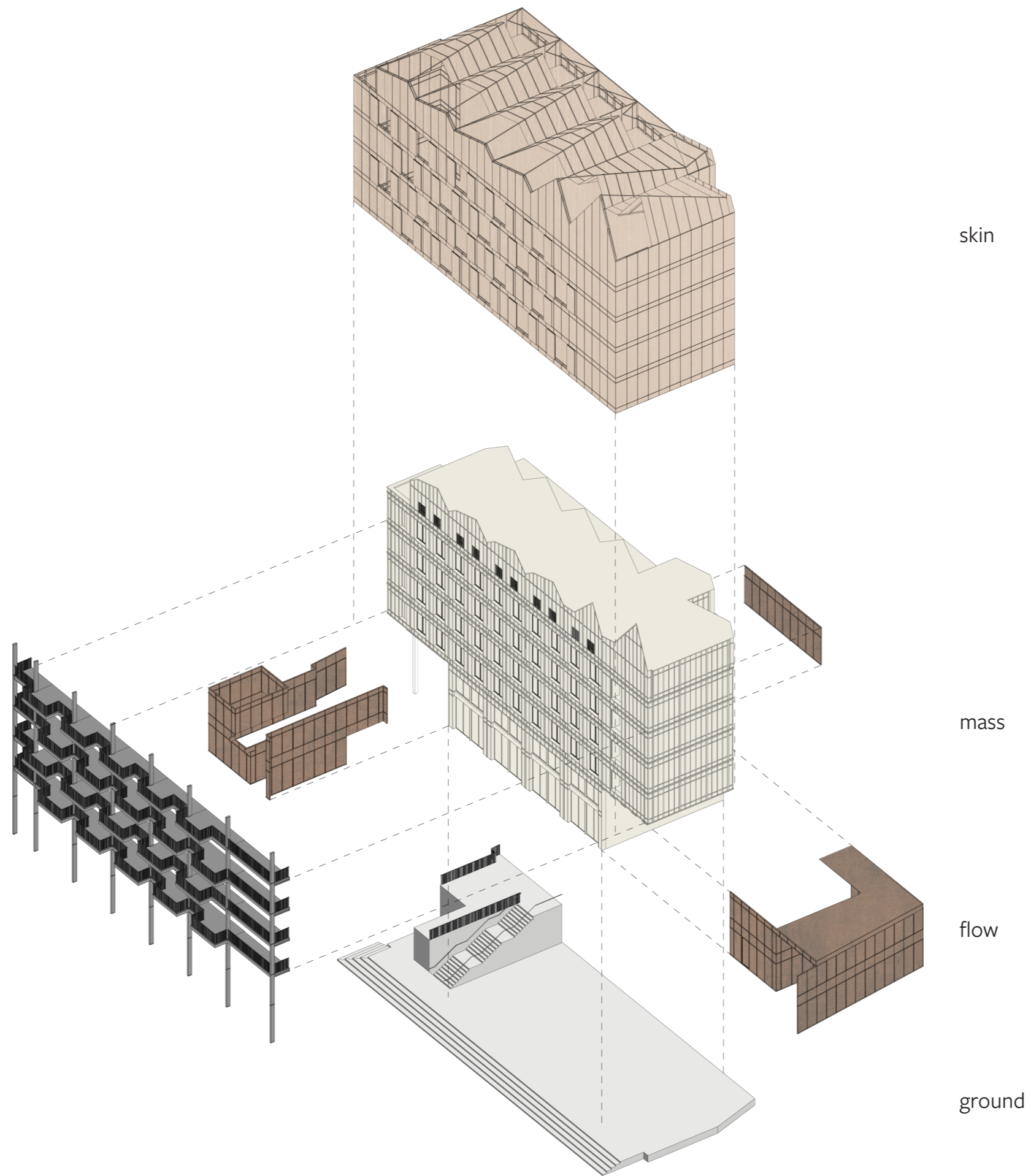








# Tectonics



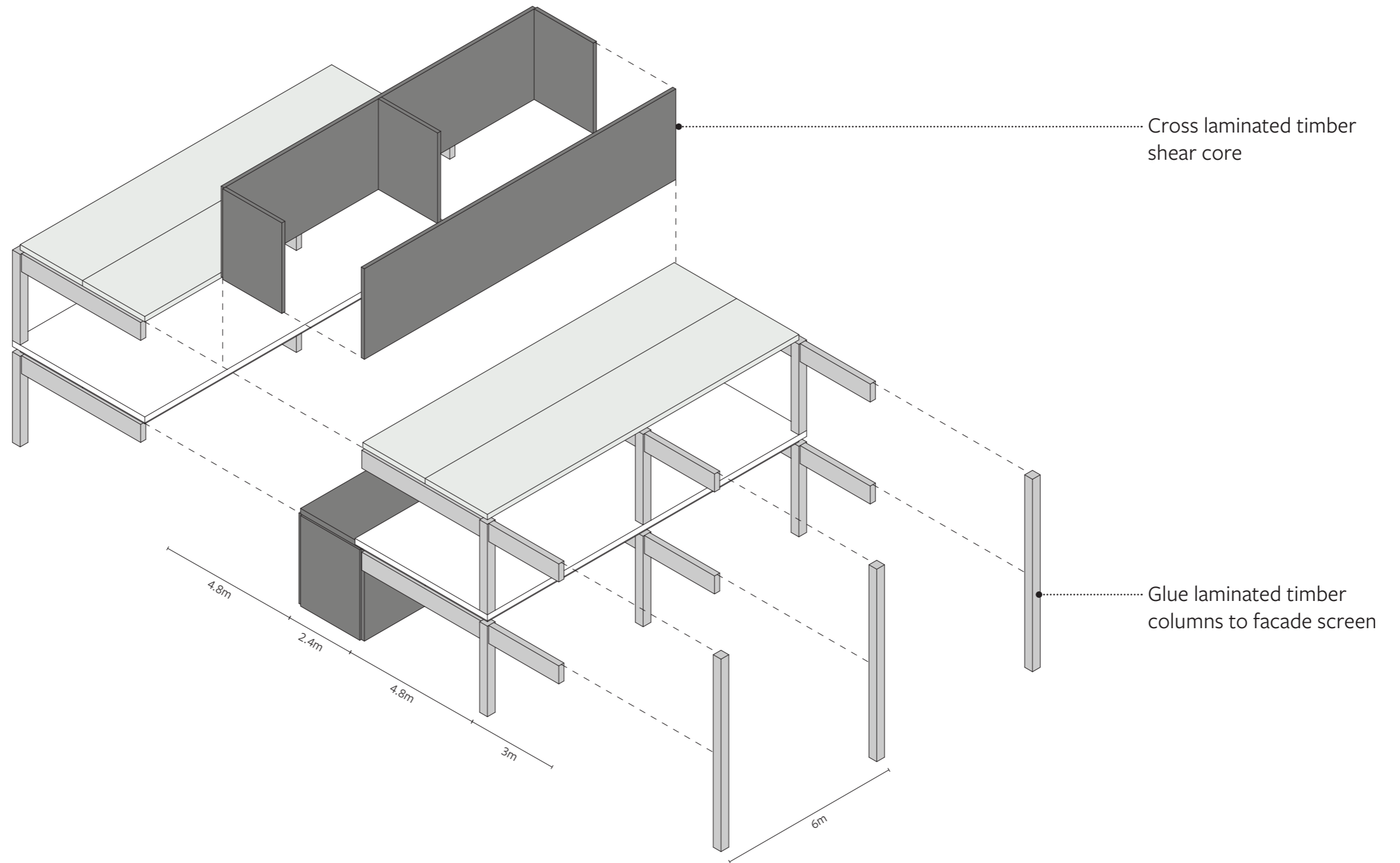
# Material Expression

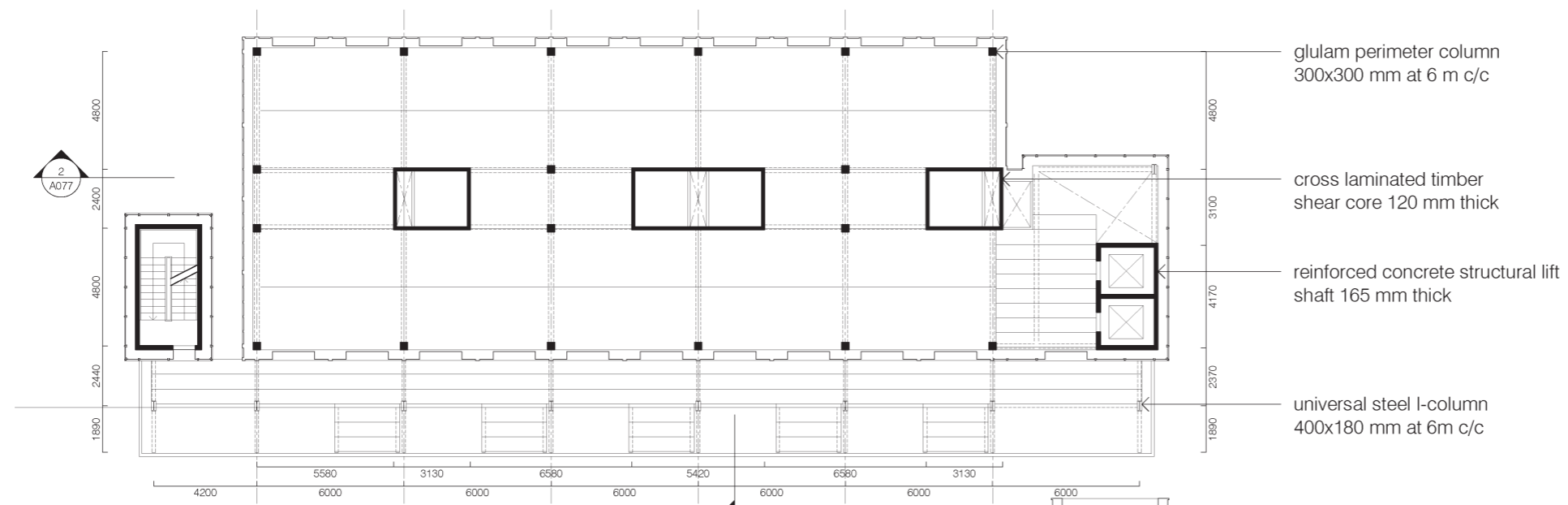
Logements Sociaux, Narbonne  
Passelac & Roques Architectes  
2016



# Structural Strategy

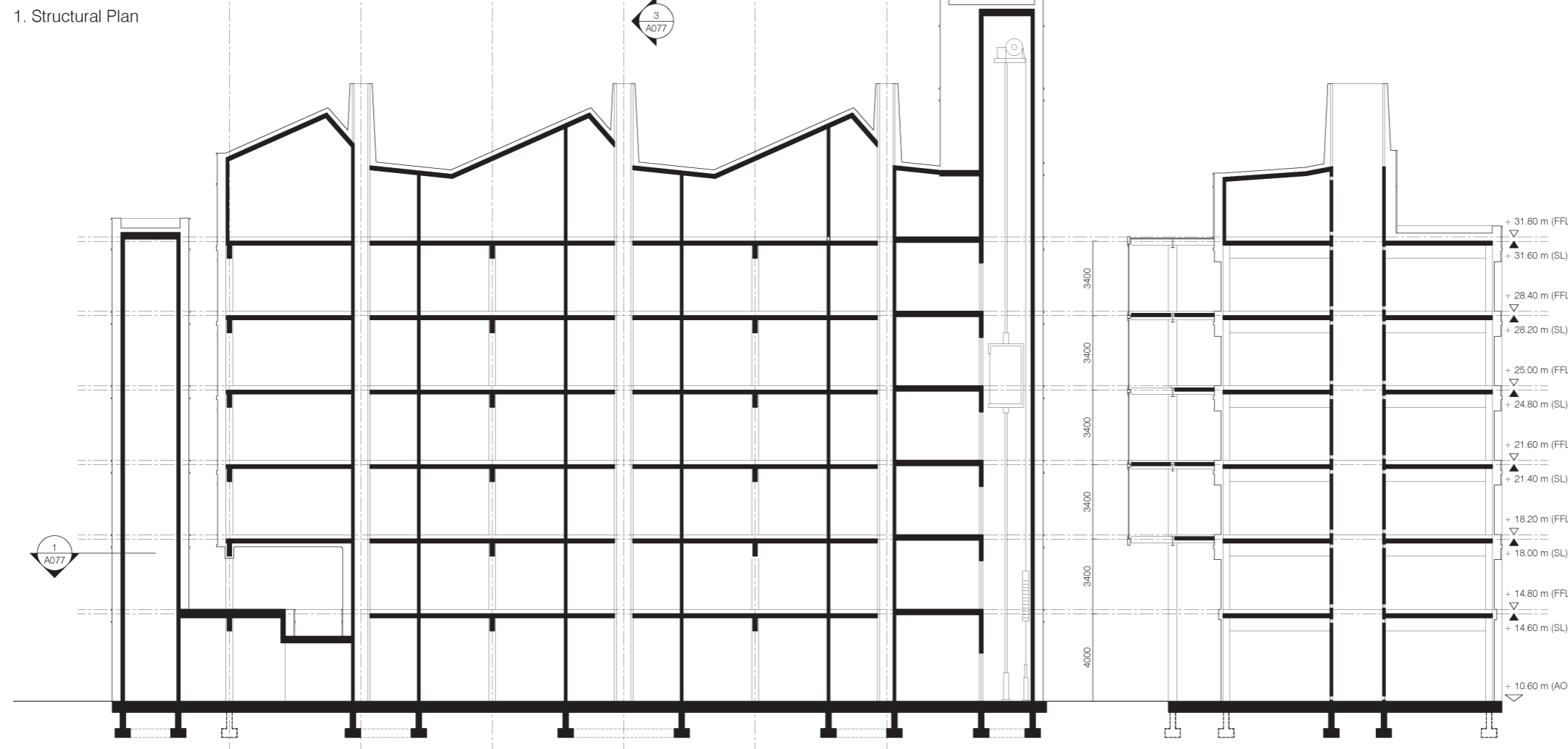
Hybridised system with shear core





Key  
 SL: Slab Level  
 FFL: Finish Floor Level

1. Structural Plan



2. Structural Long Section

3. Structural Cross Section

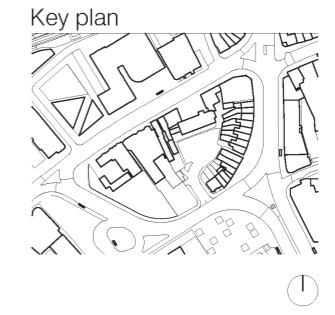


Project Date  
 Ilford Hill 05.20

Drawing title  
 Block 03: structural  
 plan and sections

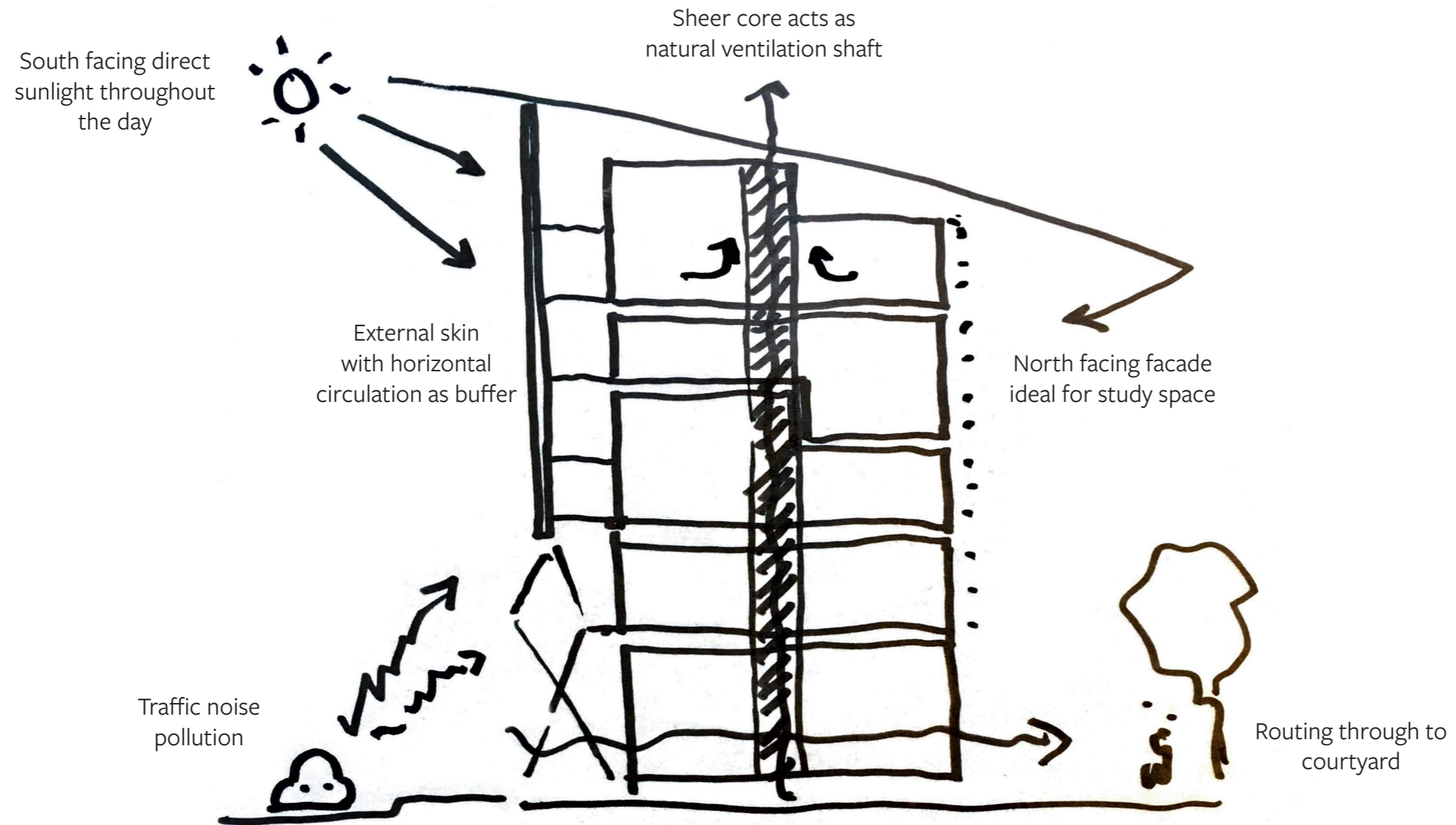
Drawing no.  
 A077

Scale at A1 Scale at A3  
 1:100 1:200

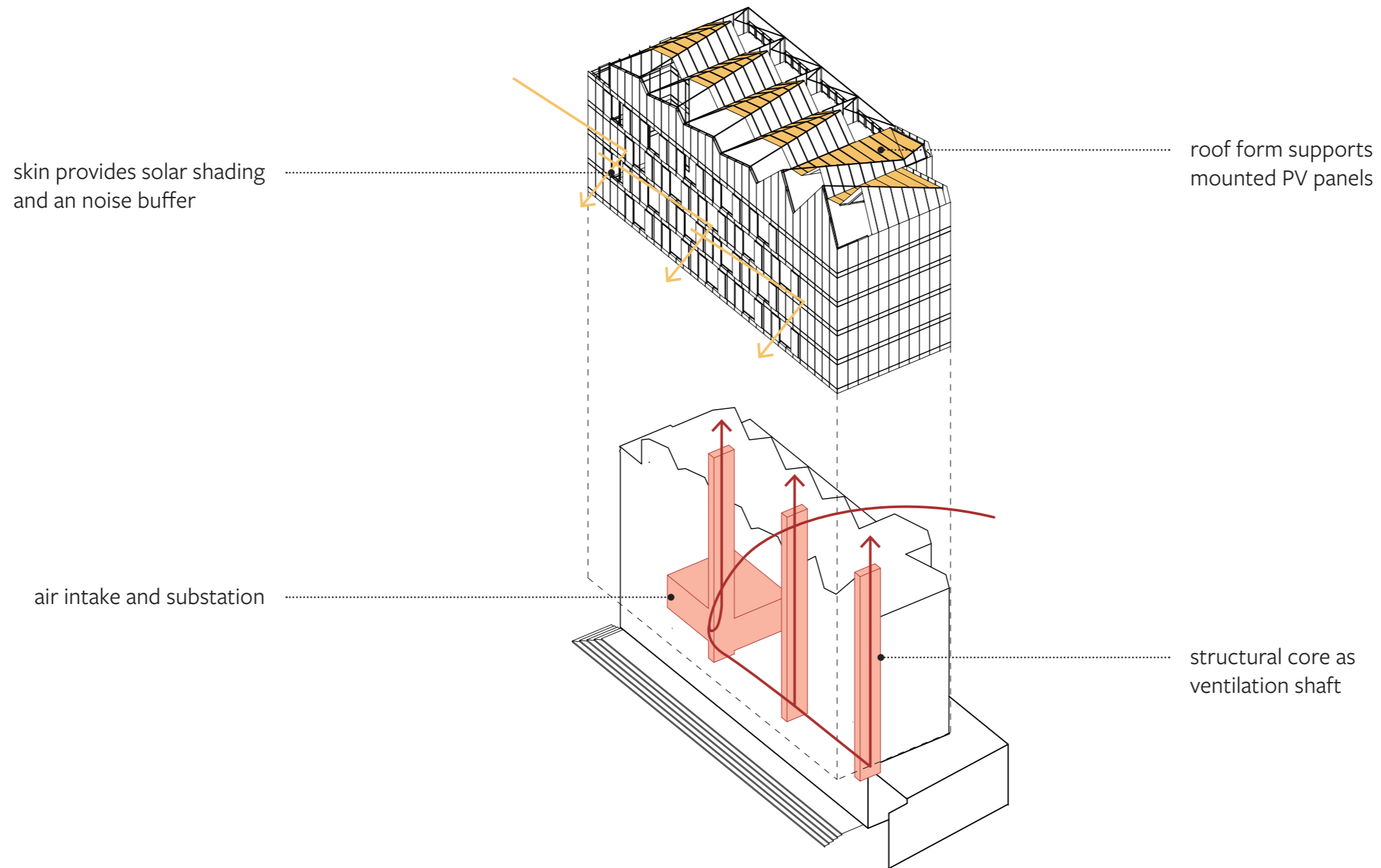


Notes  
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# Climate Strategy

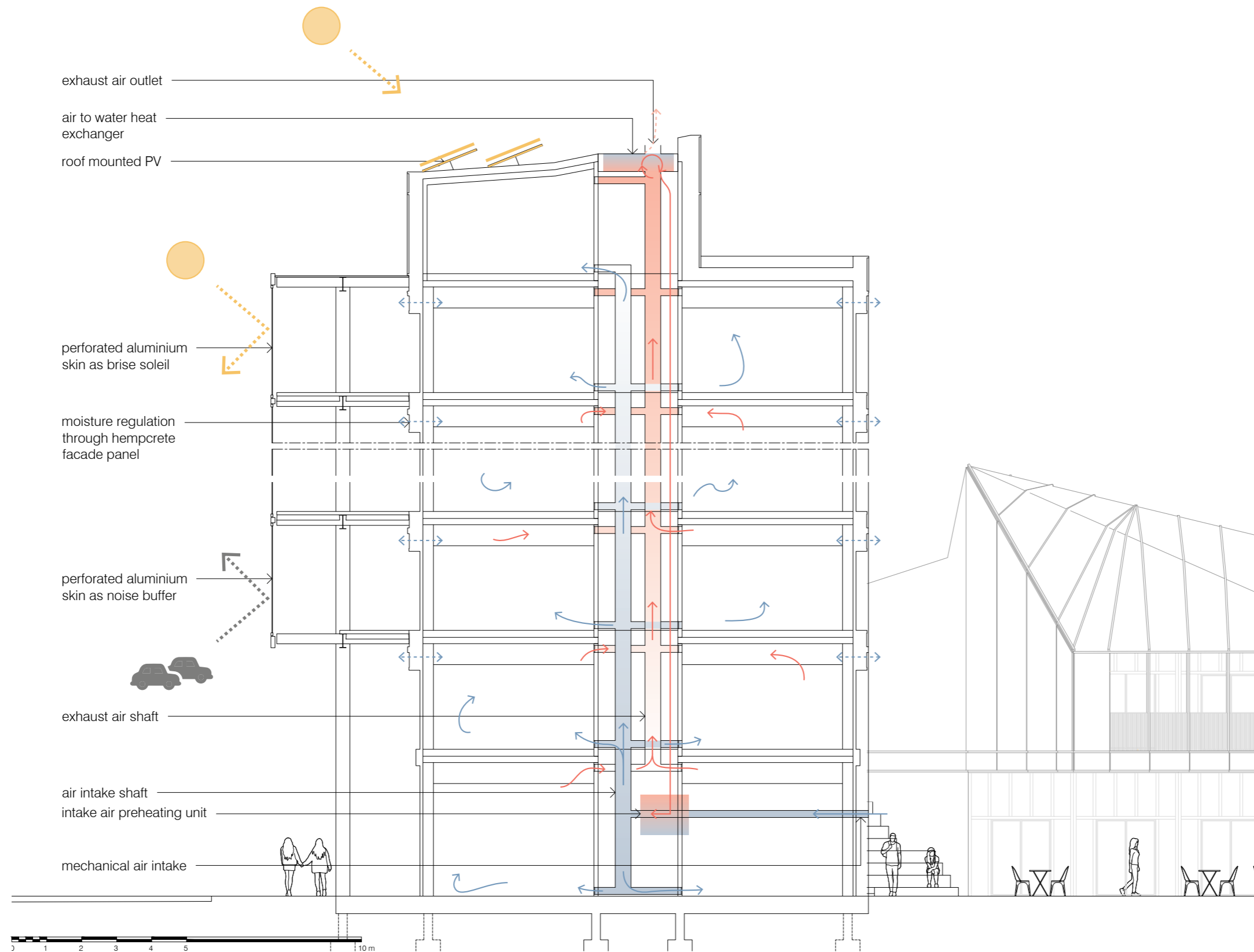


# Climate Strategy





# Climate Strategy



Project \_\_\_\_\_ Date \_\_\_\_\_  
 Ilford Hill 03.20  
 Drawing title \_\_\_\_\_  
 Block 03: climate section

Drawing no. \_\_\_\_\_  
 A095  
 Scale at A1 \_\_\_\_\_ Scale at A3 \_\_\_\_\_  
 1:50 1:100

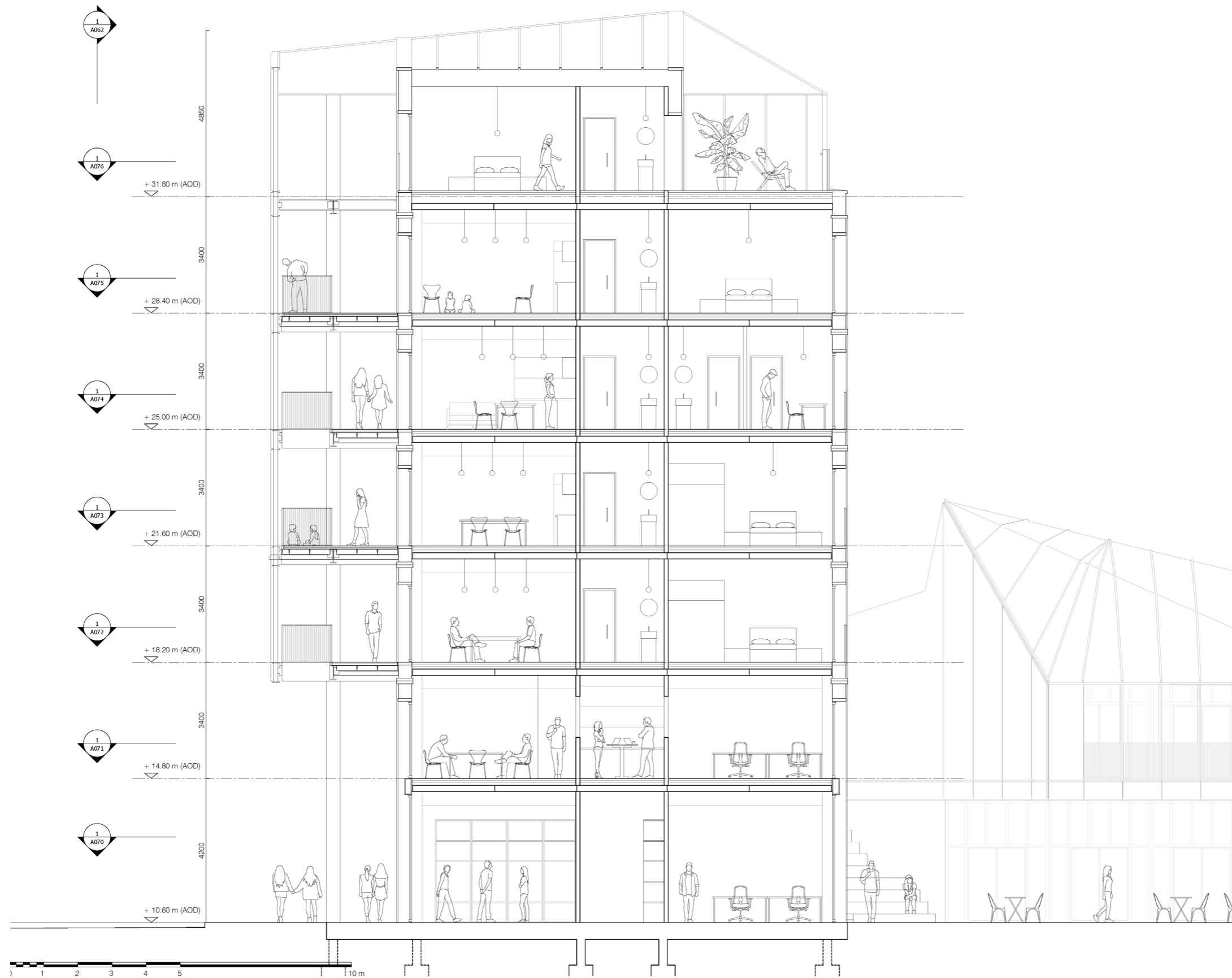


Notes  
 -

### 3. Chapel Square

Integrating  
Placemaking  
Bookending

**Materialising:** intimacy in the city



Project \_\_\_\_\_ Date \_\_\_\_\_

Ilford Hill 03.20

Drawing title \_\_\_\_\_

Block 03: section 01

Drawing no. \_\_\_\_\_

A094

Scale at A1 \_\_\_\_\_ Scale at A3 \_\_\_\_\_

1:50 1:100

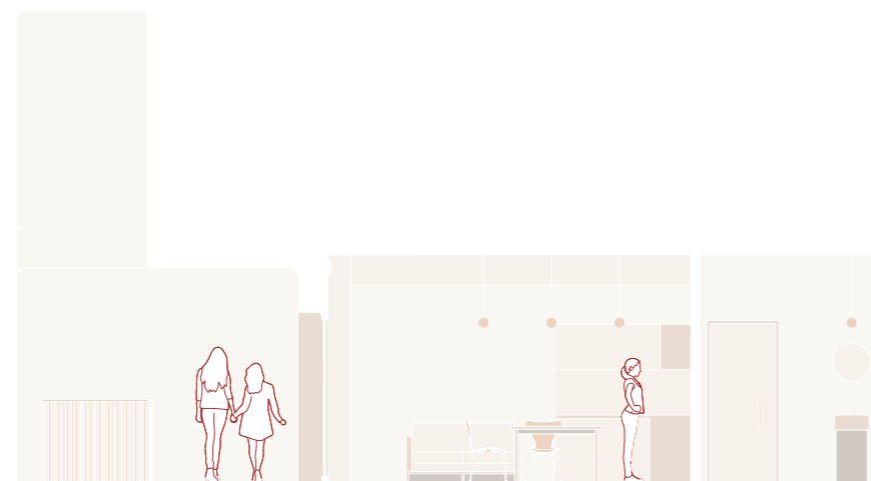
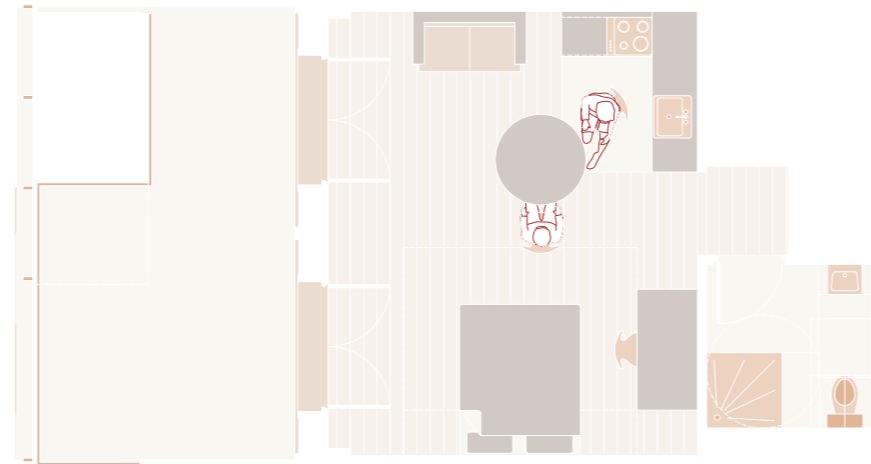
Key plan \_\_\_\_\_



Notes \_\_\_\_\_

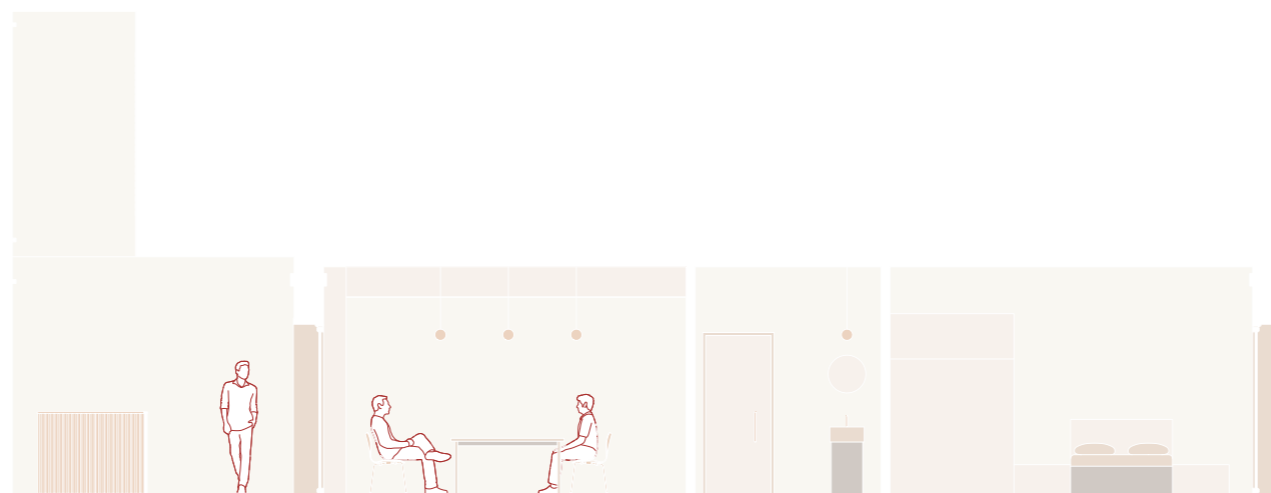
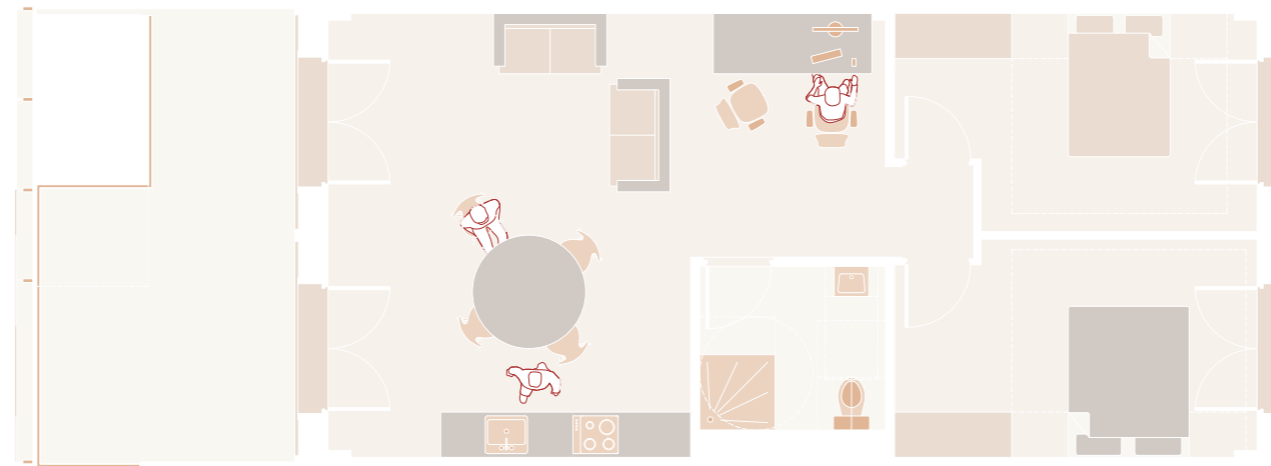
# Layout

## Studio flat type



# Layout

## Two bedroom flat type



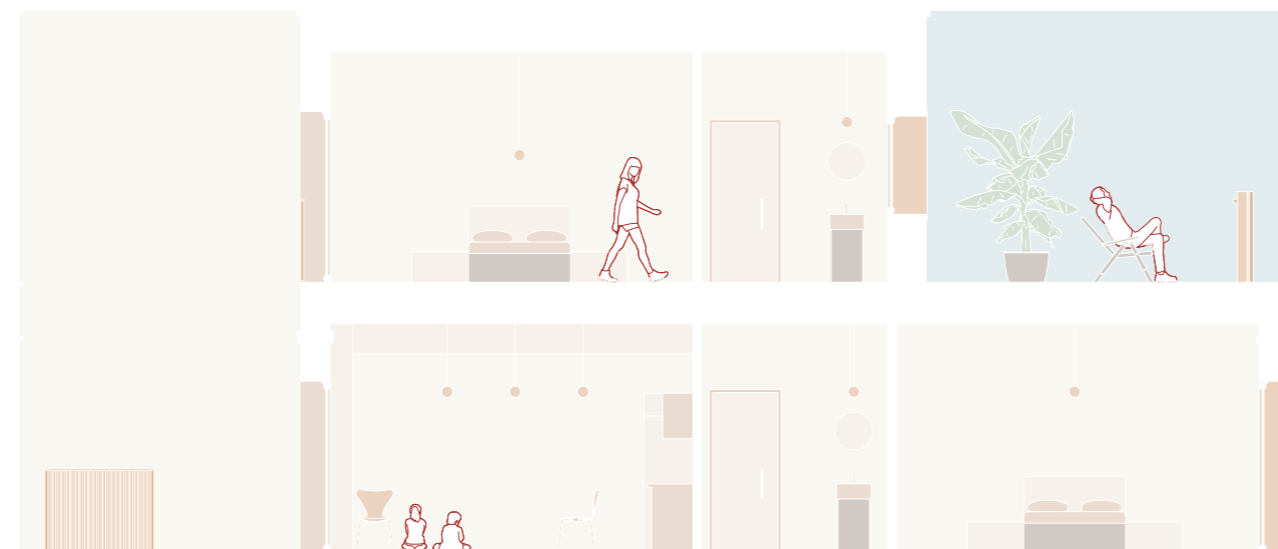
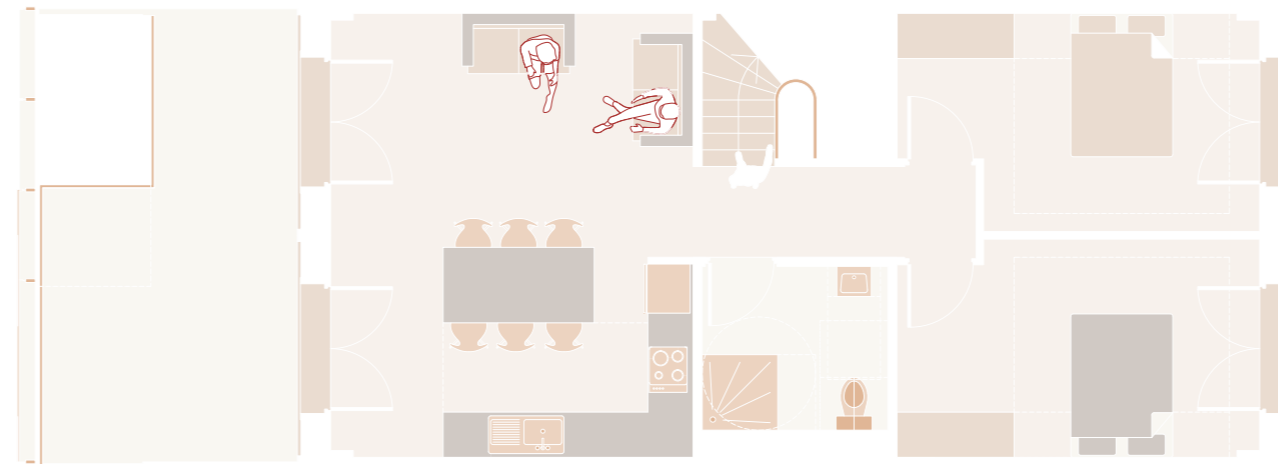
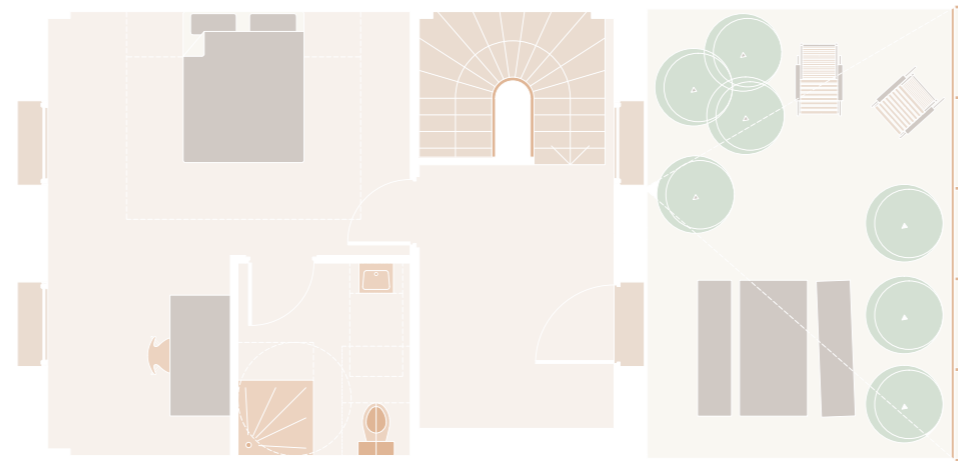
# Layout

## Duplex flat type



# Layout

## Penthouse flat type

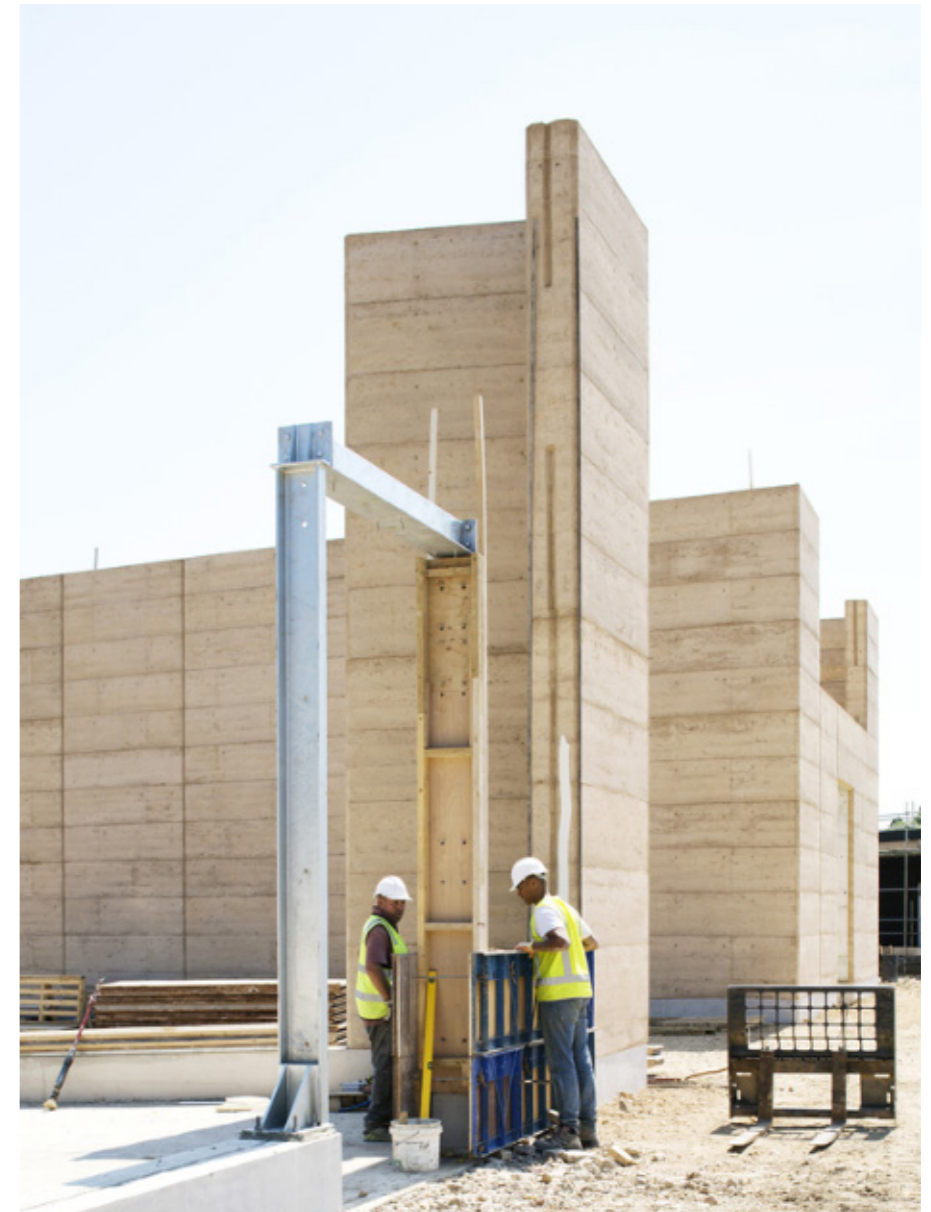




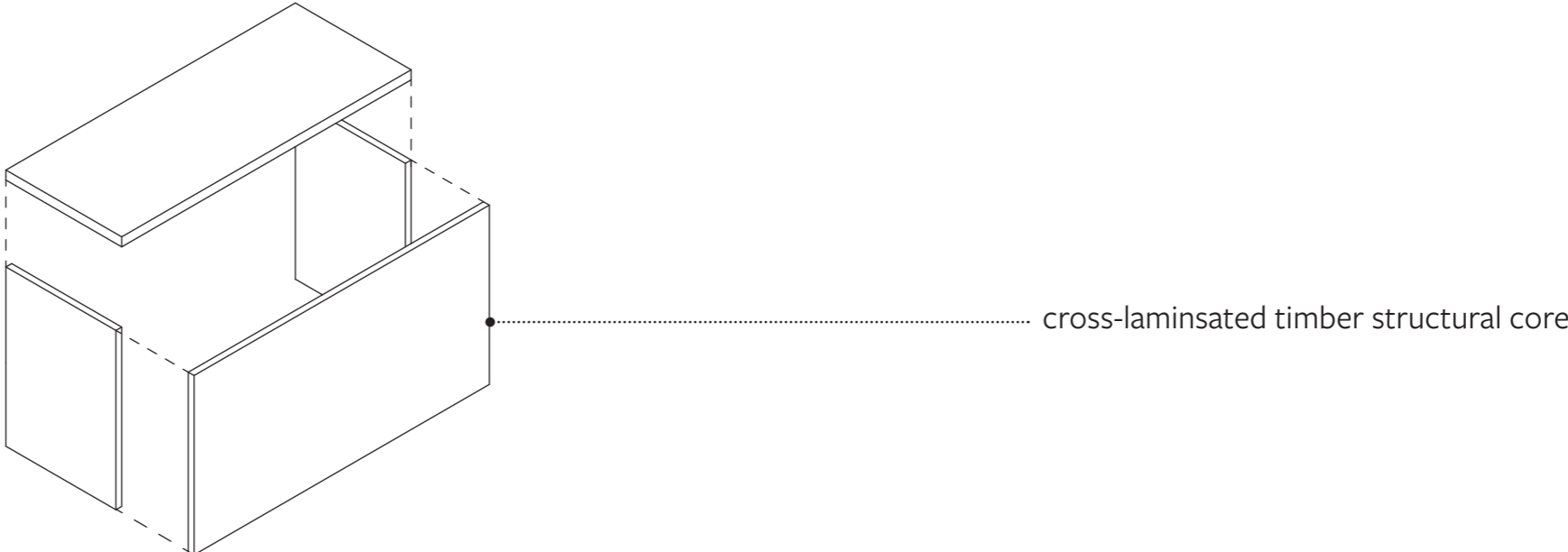


# Material Expression

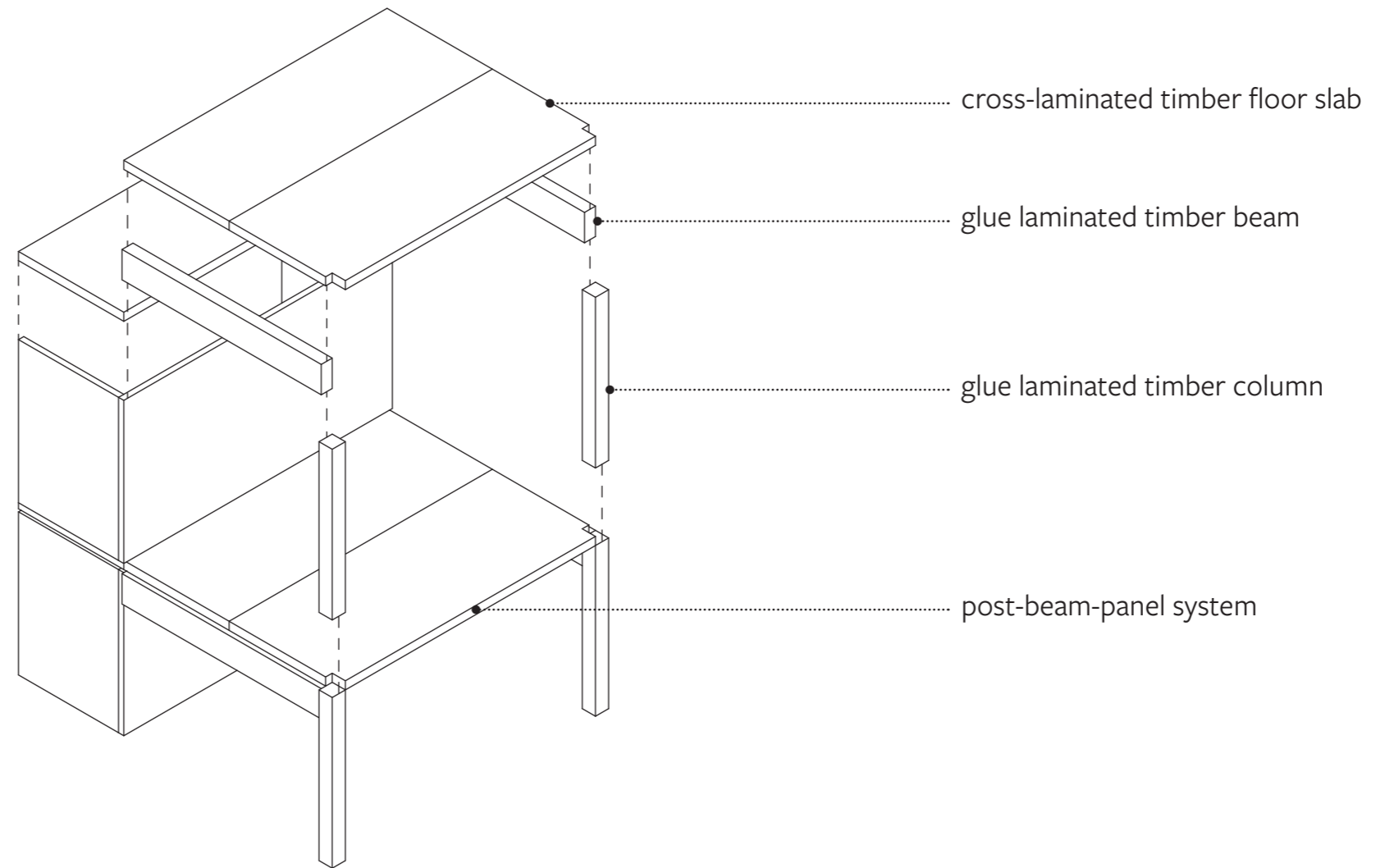
Bushey Cemetery  
Waugh Thistleton  
2019



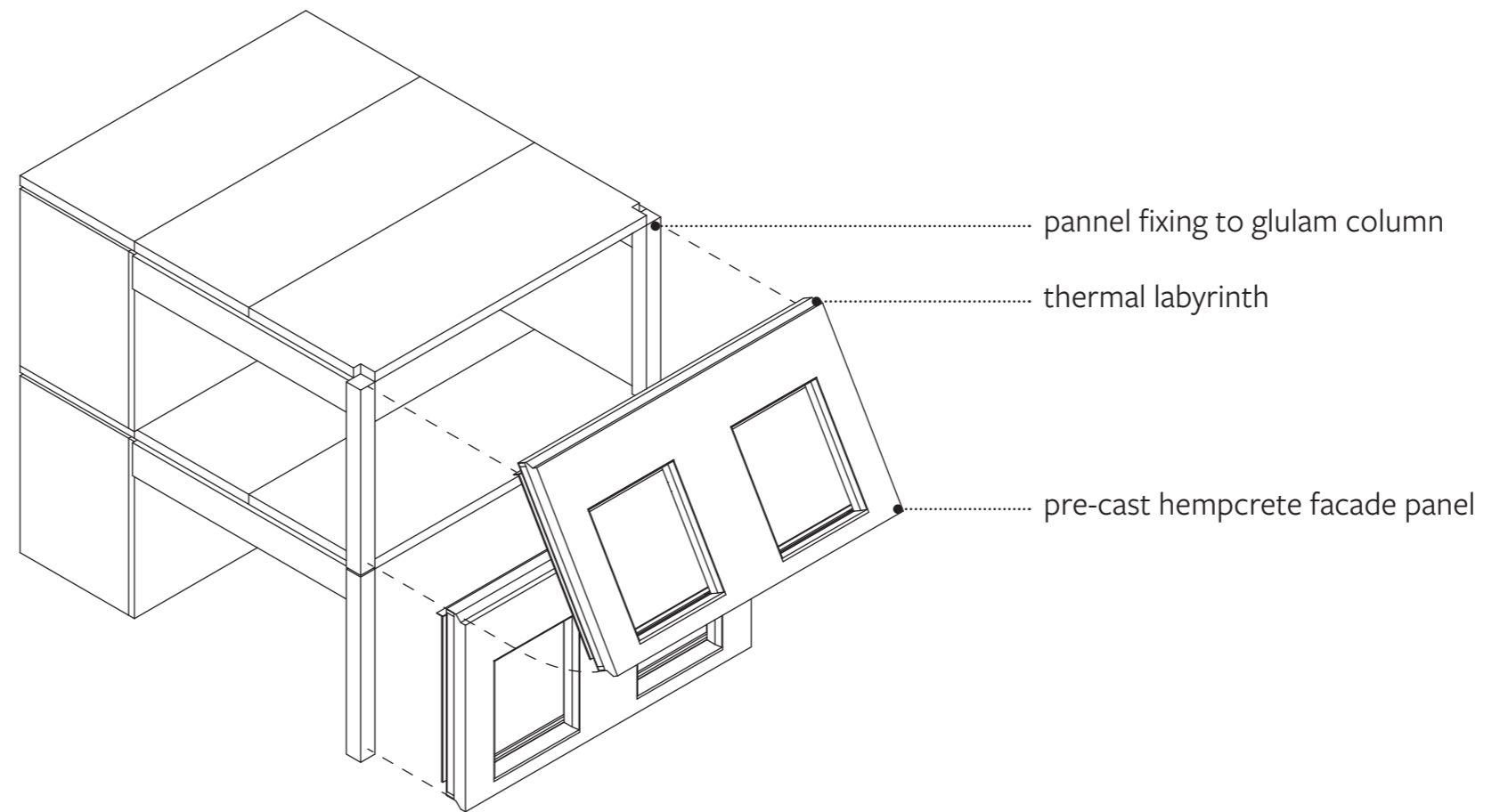
# Facade Assembly



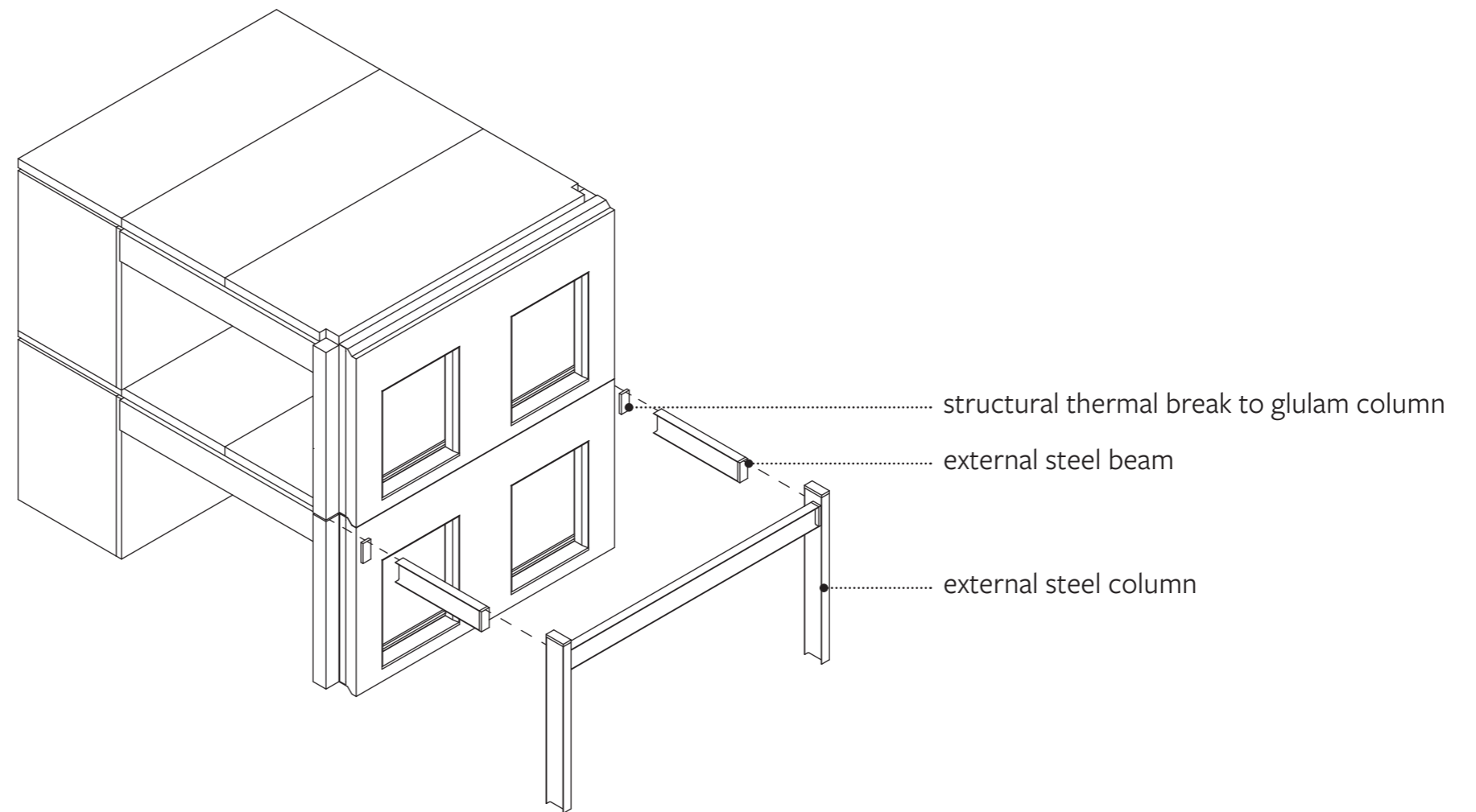
# Facade Assembly



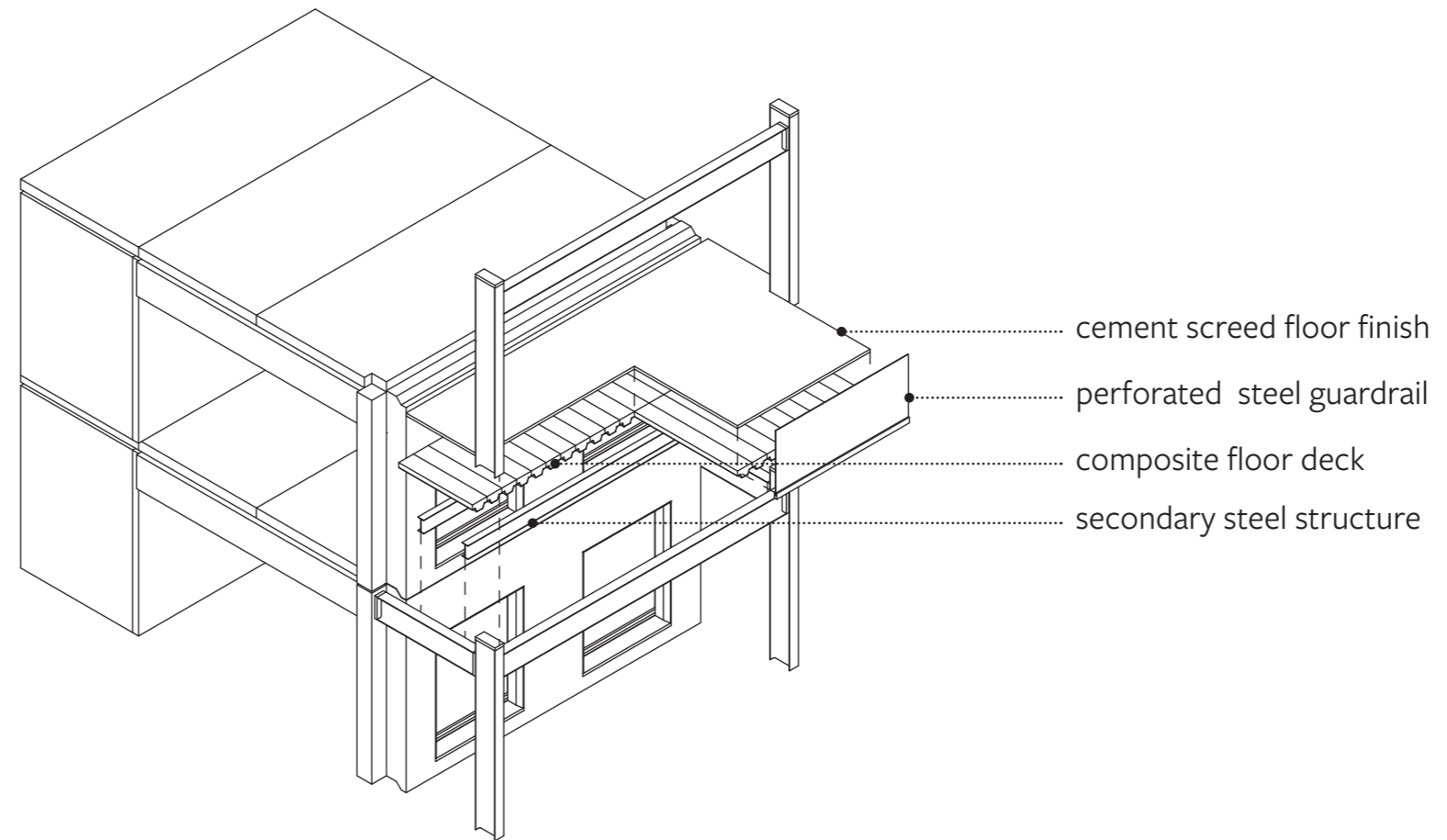
# Facade Assembly



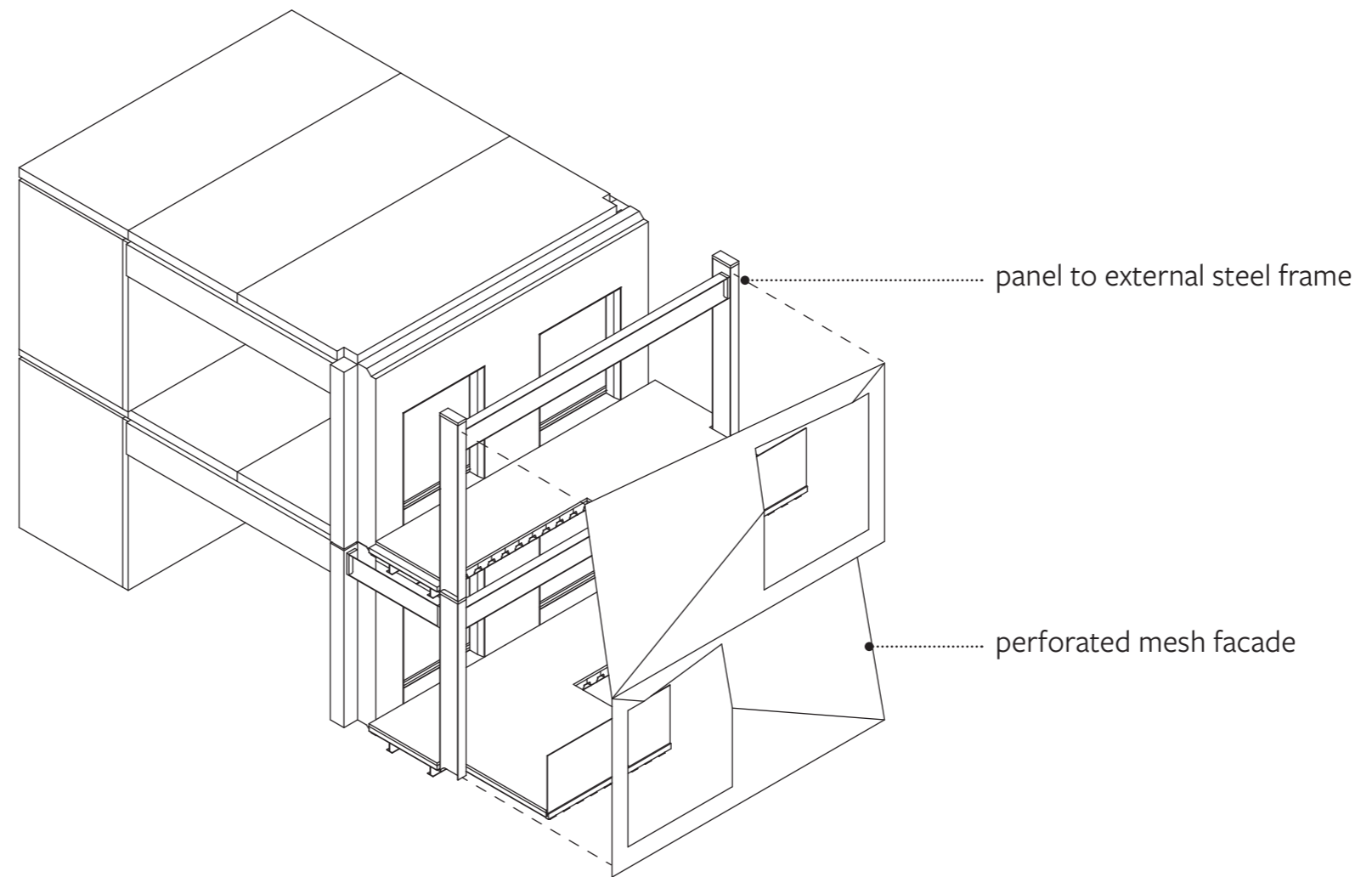
# Facade Assembly



# Facade Assembly



# Facade Assembly

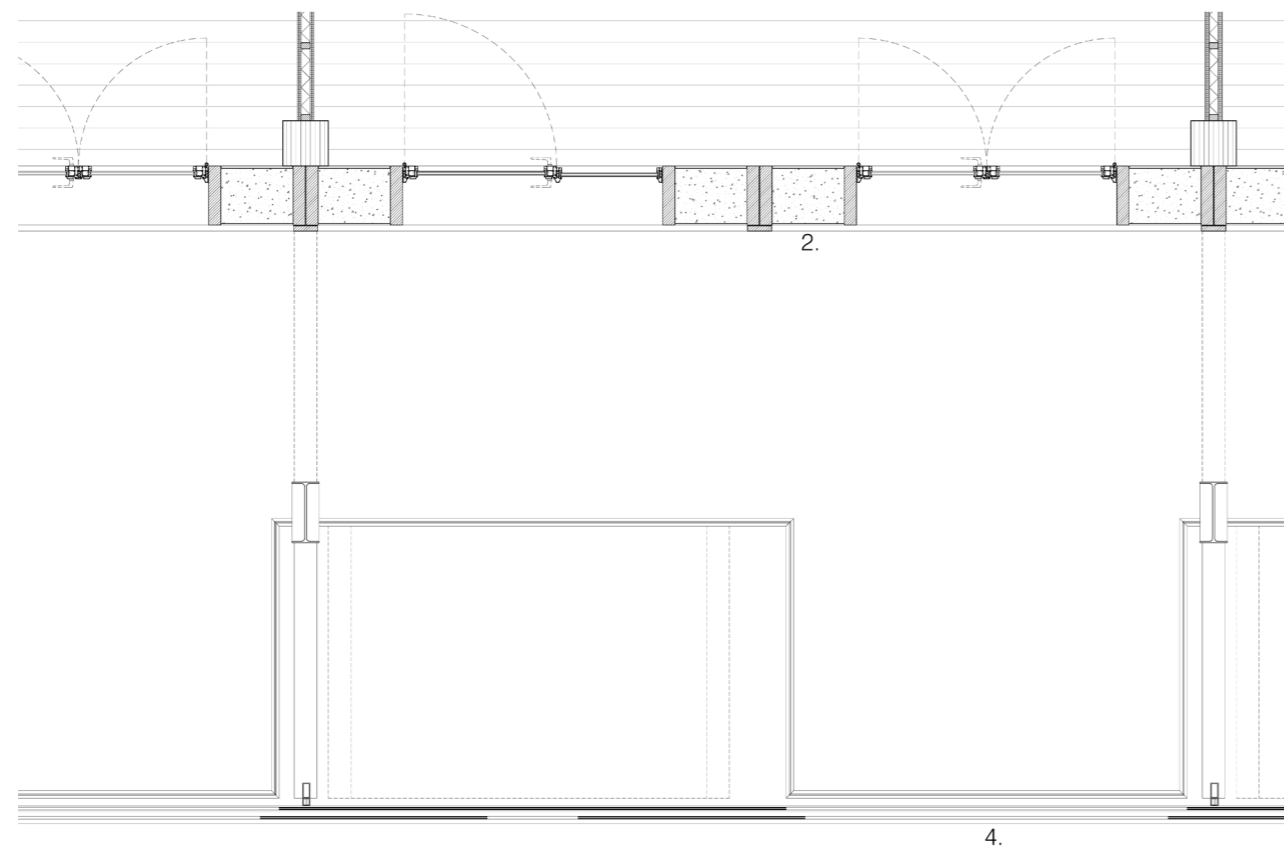


# Facade Design

2 St George Road, Fitzroy North, Melbourne  
Fieldwork  
2019





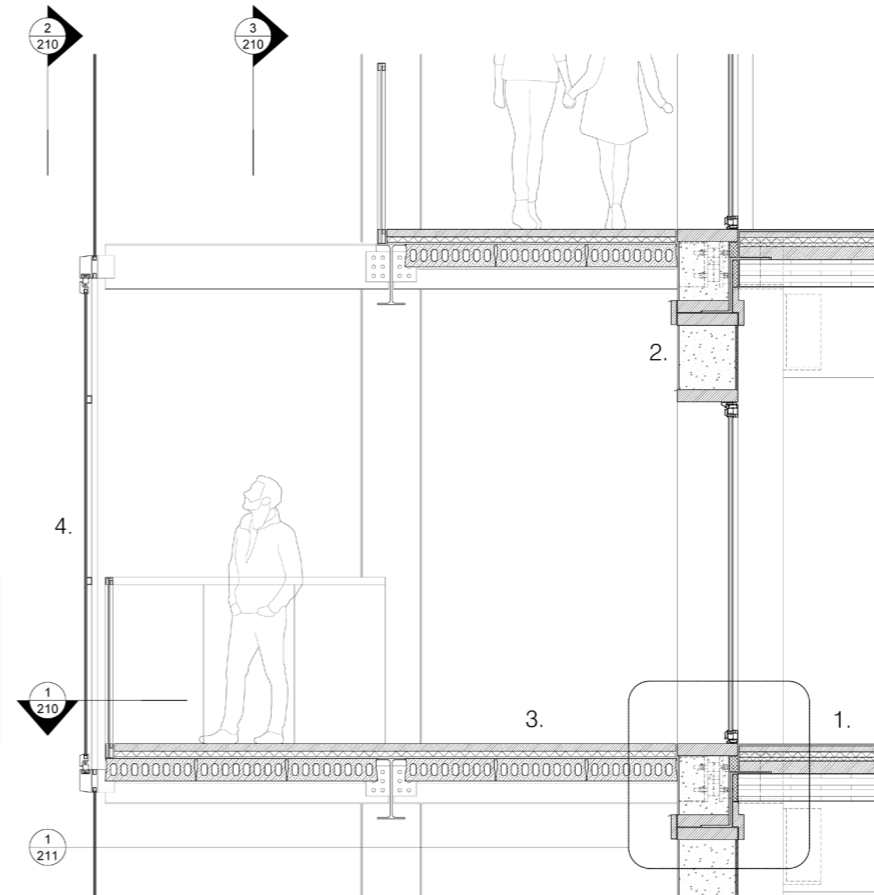
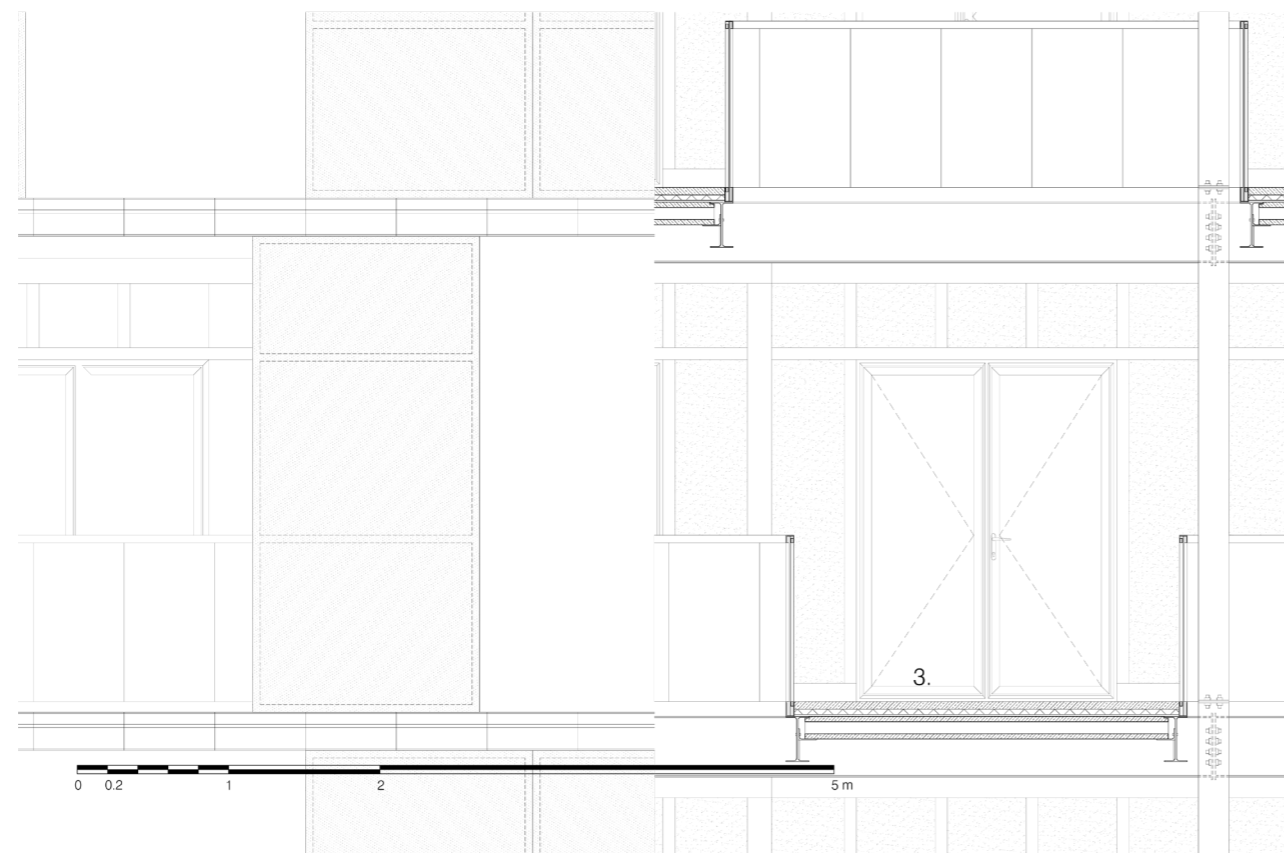


1. parquet finish (custom) 5mm, servicing void 10mm, cement screed 40mm, impact-sound insulation 35mm, expanded polystyrene board 25mm, concrete fireproofing slab 85mm, cross laminated timber floor slab 182mm.

2. treated softwood cassette filled with hempcrete insulation, lime render internal finish, bronze anodised aluminium glazed door to unit.

3. concrete floor finish 50mm, sound-impact insulation 35mm, plasterboard sheathing 12.5mm, hollowcore prefabricated concrete floor slab 150mm, sitting on universal i-beam 300x150mm.

4. perforated bronze anodised aluminium rolling shutters, mounted on steel track, bronze anodised aluminium guard rail bolted to concrete floor slab.



Project \_\_\_\_\_ Date \_\_\_\_\_  
 Ilford Hill 05.20  
 Drawing title \_\_\_\_\_  
 Block 03: facade detail drawings

Drawing no. \_\_\_\_\_  
 A210  
 Scale at A1 \_\_\_\_\_ Scale at A3 \_\_\_\_\_  
 1:20 1:40



Notes \_\_\_\_\_  
 -

# Facade Design

## facade panel

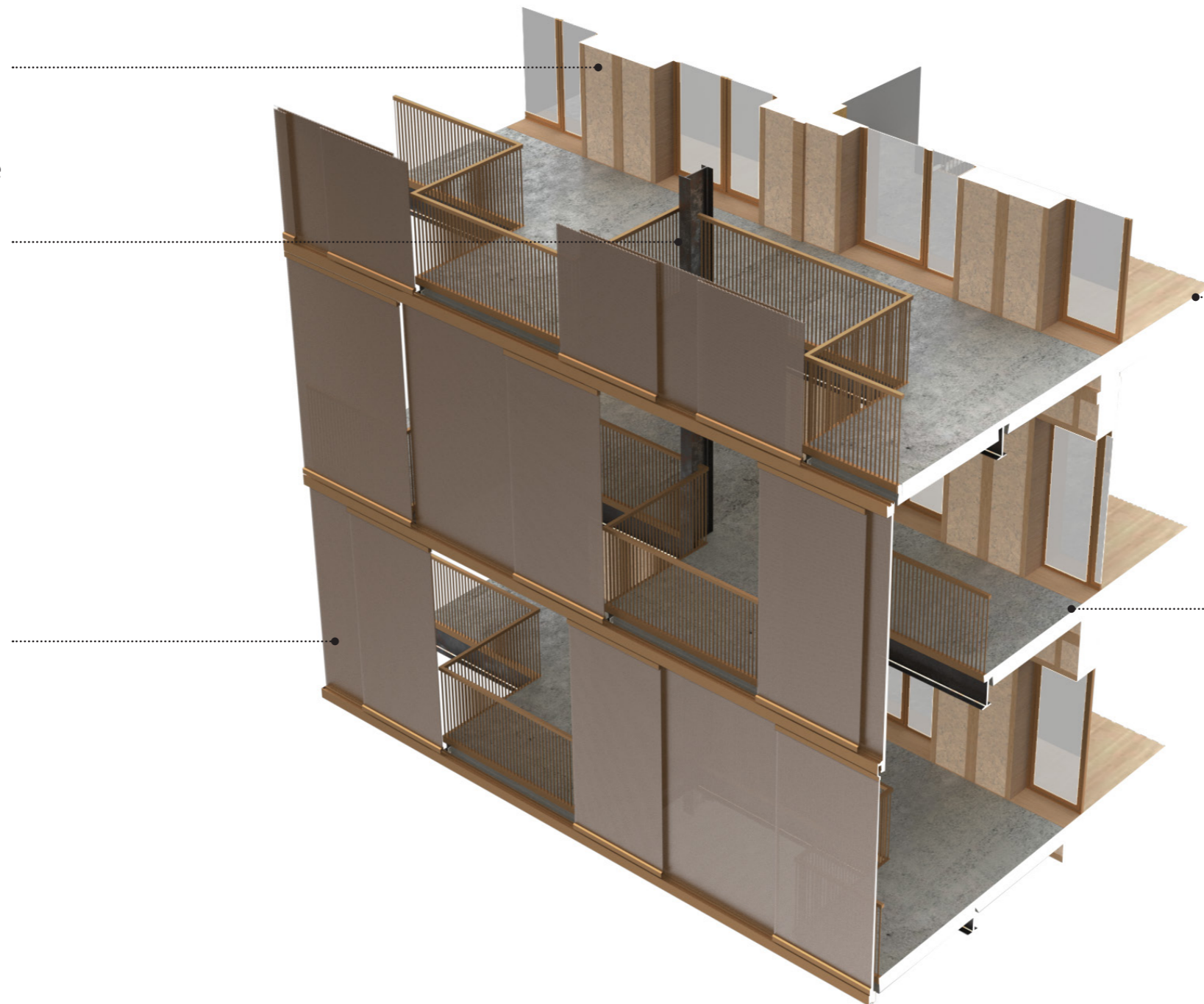
prefabricated cassette with softwood frame and hempcrete infill, internal lime render finish

## external structure

steel i-beam, welded plate

## external skin

perforated bronze anodised aluminium shutter on rails, bronze anodised guard rails



## floor

parquet (custom), cement screed, sound-impact insulation, expanded polystyrene, cross laminated timber floor slab

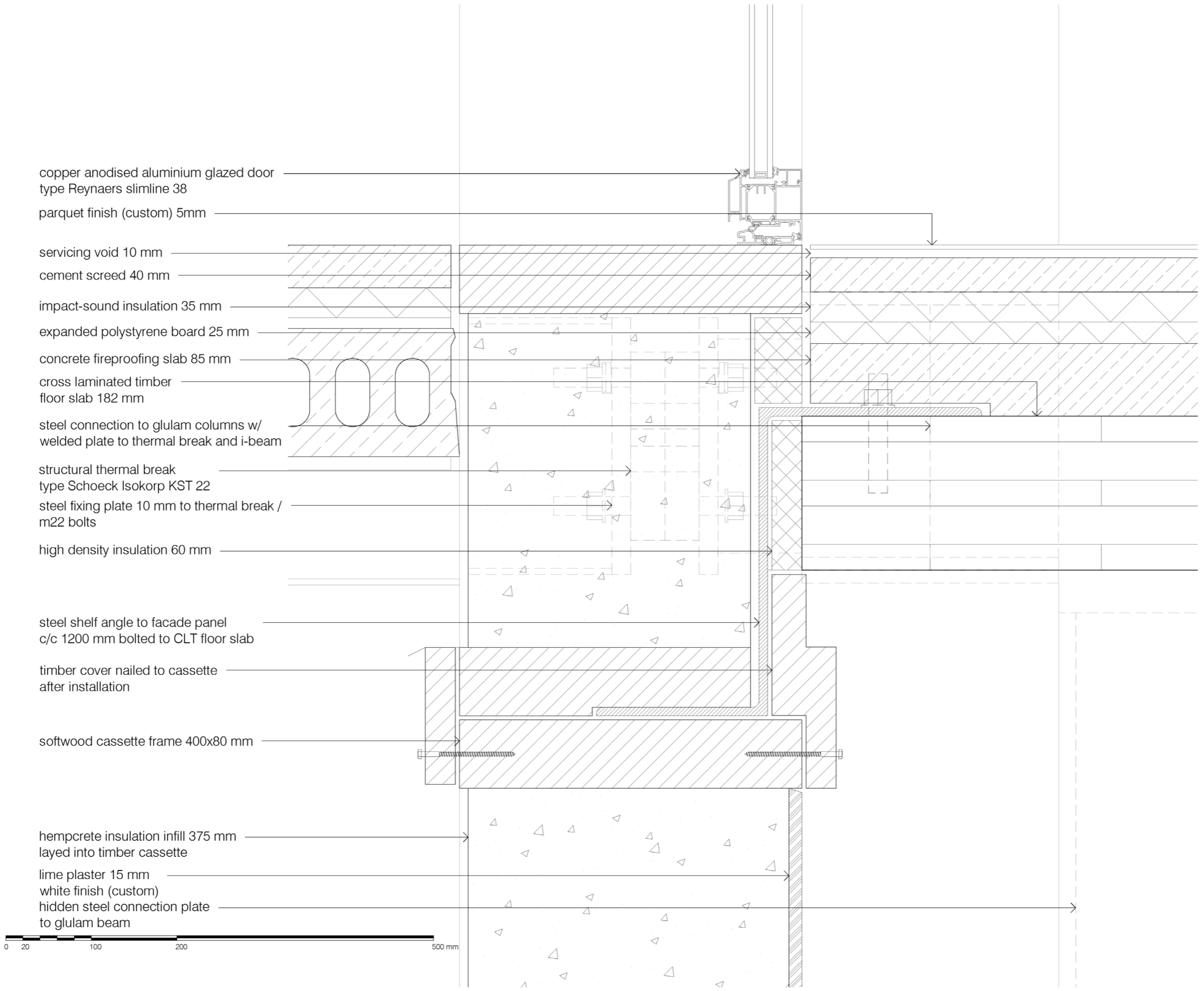
## access deck

cement screed, sound-impact insulation, precast concrete hollowcore slab

# Panel Design

Flat House, Cambridgeshire  
Practice Architecture  
2019





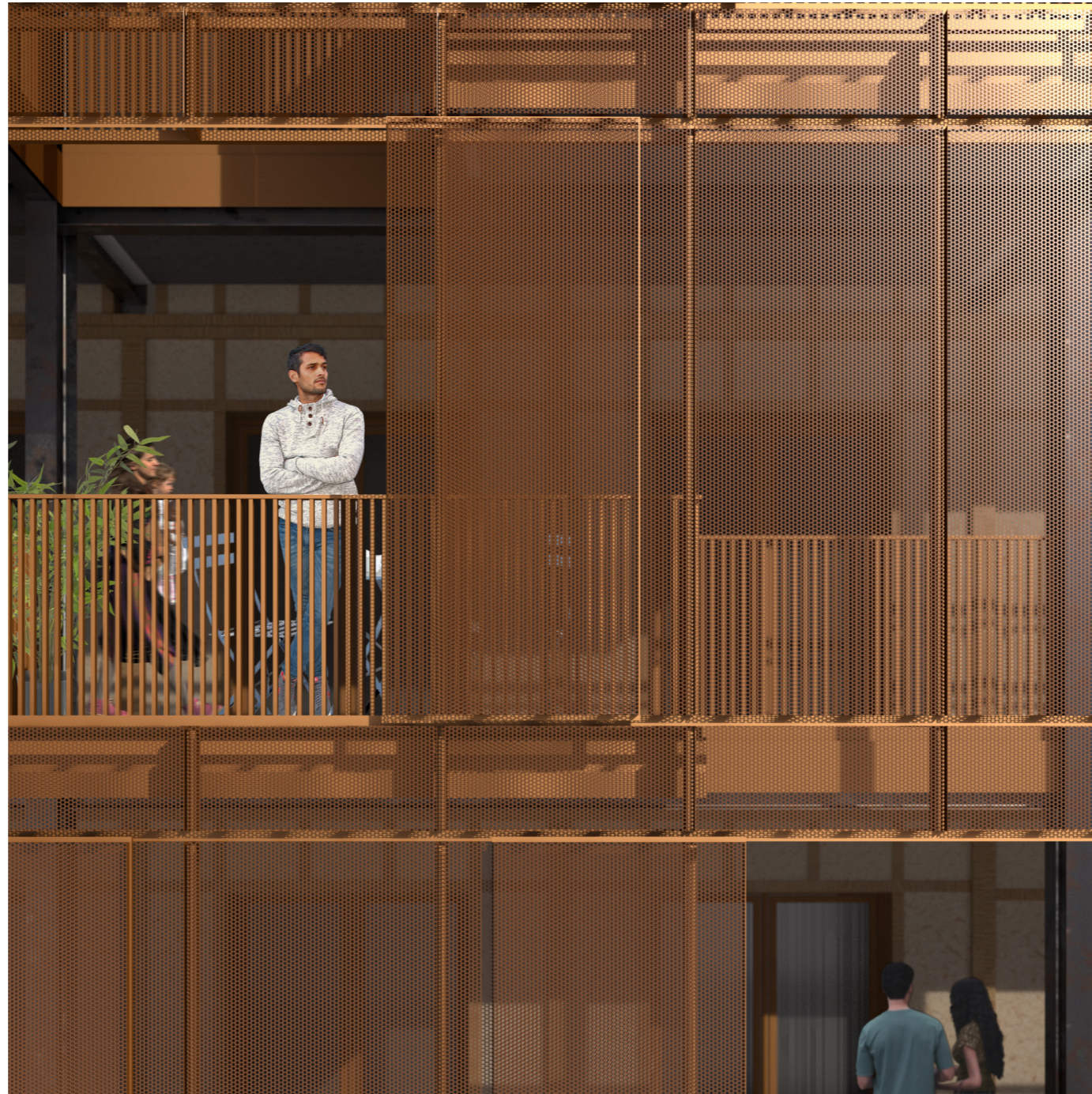
- copper anodised aluminium glazed door  
type Reynaers slimline 38
- parquet finish (custom) 5mm
- servicing void 10 mm
- cement screed 40 mm
- impact-sound insulation 35 mm
- expanded polystyrene board 25 mm
- concrete fireproofing slab 85 mm
- cross laminated timber  
floor slab 182 mm
- steel connection to glulam columns w/  
welded plate to thermal break and i-beam
- structural thermal break  
type Schoeck Isokorp KST 22
- steel fixing plate 10 mm to thermal break /  
m22 bolts
- high density insulation 60 mm
- steel shelf angle to facade panel  
c/c 1200 mm bolted to CLT floor slab
- timber cover nailed to cassette  
after installation
- softwood cassette frame 400x80 mm
- hempcrete insulation infill 375 mm  
laid into timber cassette
- lime plaster 15 mm  
white finish (custom)
- hidden steel connection plate  
to glulam beam

Project \_\_\_\_\_ Date \_\_\_\_\_  
 Ilford Hill 04.20  
 Drawing title \_\_\_\_\_  
 Block 03: construction  
 detail

Drawing no. \_\_\_\_\_  
 A211  
 Scale at A1 \_\_\_\_\_ Scale at A3 \_\_\_\_\_  
 1:2 1:4



Notes  
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## 4. Reflection

The project responds to the specifics of the site yet also engages with the generic condition of leftover infrastructure space present in many English town centres.

# Reflection

## Systematic occurrence



Archway



Bournemouth



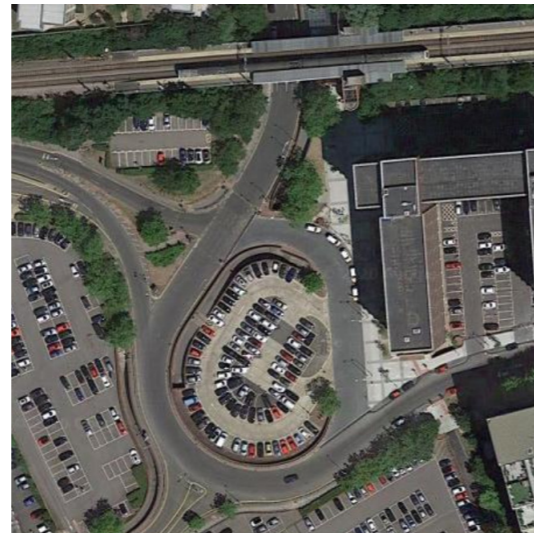
Kingston upon Thames



Stafford



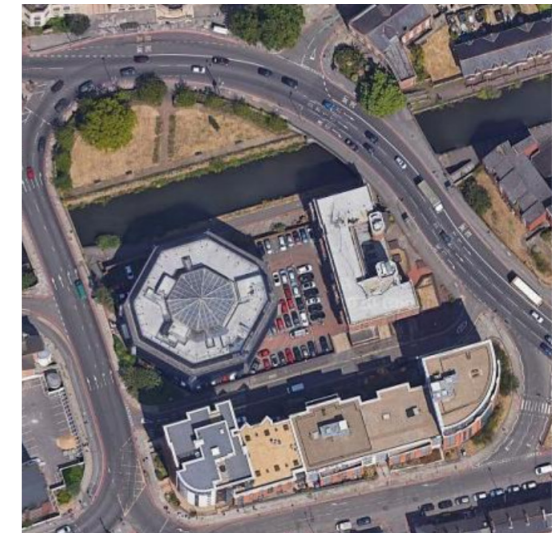
Swindon



Basildon



Winchester



Reading



The outcome of this thesis may thus provide the foundation of a methodology towards tackling the inherent fractures in the perceived urban network.

