4.0 Massing & Architecture

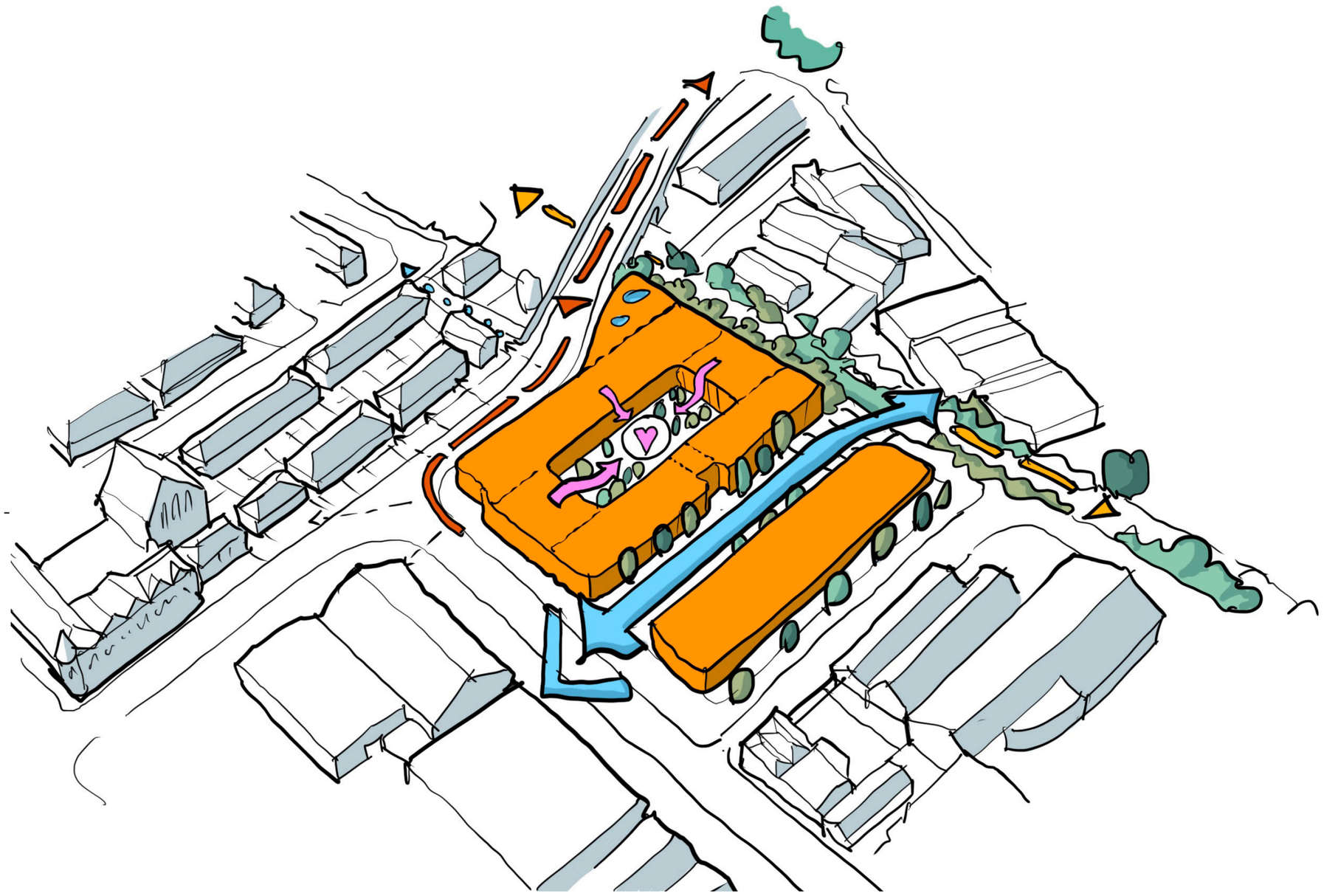
4.1 Concept Development - Urban Approach

Extending a Neighbourhood
A core ambition of the New Henry Street proposal is to help to redefine an important district in the city of Bristol.

The residential enclave of the Dings is one of the last pre war residential areas in the city centre with a rich history embedded in the industrial heritage of Bristol. Sites neighbouring the remaining residential area have eroded the original fabric of workers housing being replaced by low density industrial lots.

This proposal aims to reinvigorate this part of the city by adding legibility to the streets and inviting the community into the new development. A key concept has been to reinstate the former Henry Street which ran through the centre of the development site and animate the public realm with dynamic uses that serve the existing and future community.

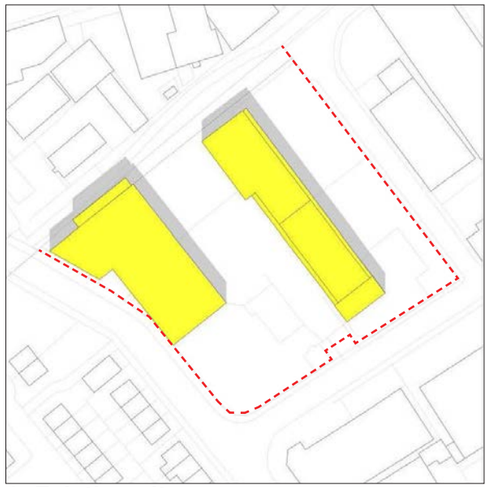
Aerial photograph - The Dings circa 1920



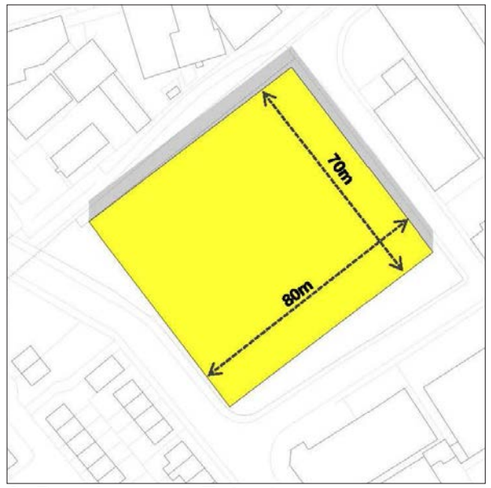
Ground floor concept sketch

4.0 Massing & Architecture

4.1 Concept Development - Urban Approach

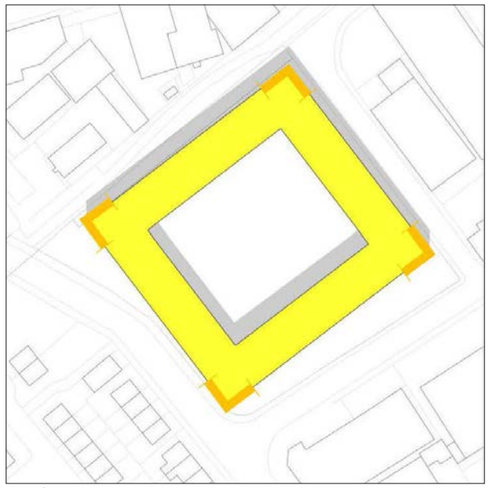


1. Existing site
Low rise light industrial sheds. Gated and fenced perimeter with no public access - poor contribution to streetscape and with narrow footways.



2. Development Extents
Rationalised orthogonal footprint within site redline - approximately 6,200msq.

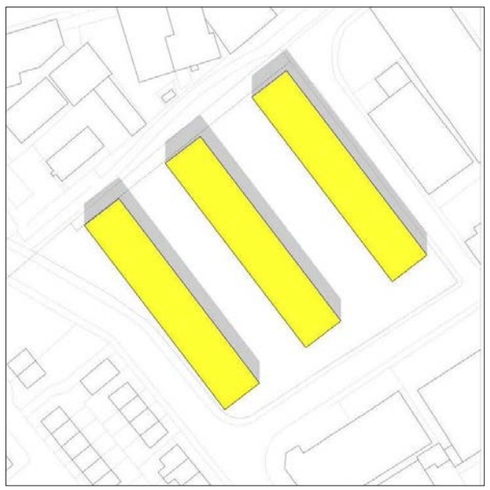
Opportunity to reinstate a robust and legible urban form.



3. Courtyard
Efficient residential perimeter block that addresses the corners well. No permeability with an imposing mass. Oversized courtyard makes poor use of site area offering a low residential yield. High % of north facing units.

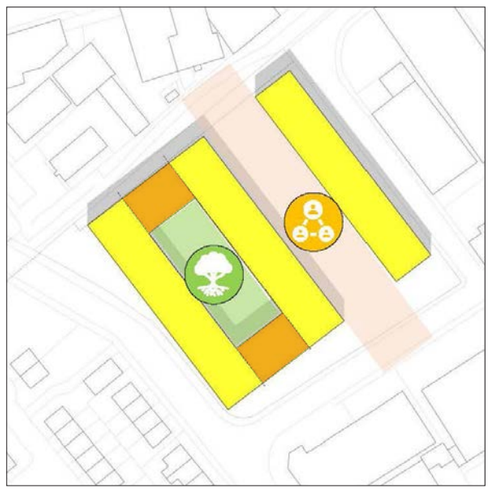
4. Parallel Bars - East/West
Efficient use of site area with allowance for public access and permeability.

High number of north facing units with compromised facing distance between blocks.



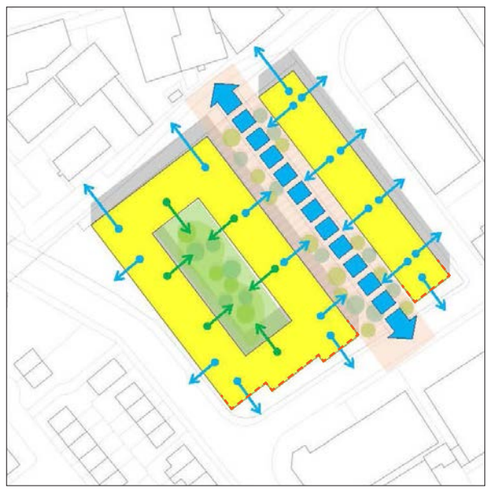
5. Parallel Bars - North South
Rotated finger blocks make efficient use of site area with allowance for public access and permeability. Optimum solar orientation for sun and daylighting. No north facing units.

Excellent solar aspect to public spaces.



6. Hybrid Courtyard & Finger Block
Introduce link blocks to create and enclosed courtyard block to further increase site efficiency.

Two clear external spaces are created, a fully public new ‘Street’ and private courtyard for residents.



7. Articulate Building Footprint
Articulate building footprint to address street edges and help encourage movement through the new public street. This will lead and connect to the existing Bristol to Bath cycle path.

8. Vertical Articulation
Articulate massing by stepping buildings extents in response to local conditions, scale and wider townscape views.

4.2 Massing

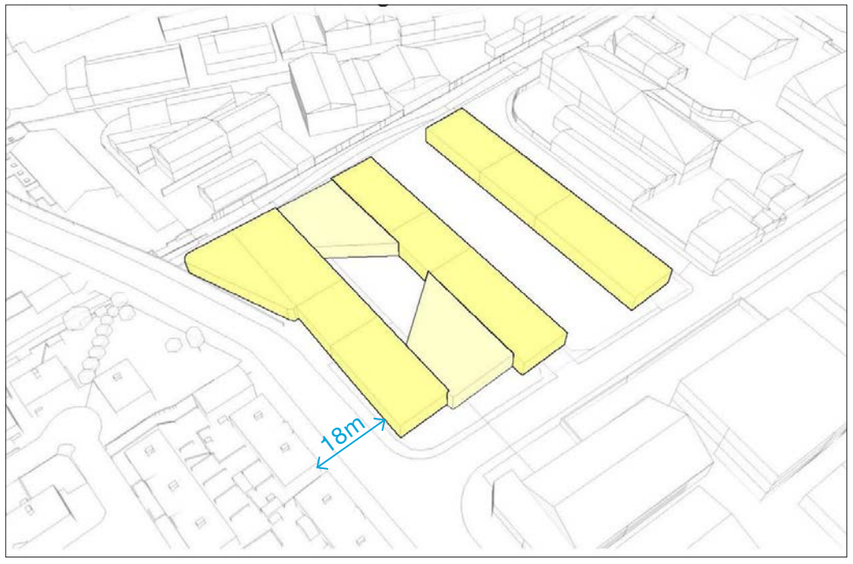
A Contextual Response
Sensitivity to the existing low lying residential community of the Dings to the west of the site is a priority of the Design Team. The massing response addresses this by locating the lowest elements of the development along the Kingsland Road edge.

There is a minimum 18m facing distance between the proposed development and the nearest residential neighbour to the west.

The local area has a number of heritage landmarks that sit on prominent corner sites such as the Shaftesbury Crusade and Kingsland House. These are being used as a local precedent to create a more pronounced massing on the junction of Kingsland Road and Sussex Street.

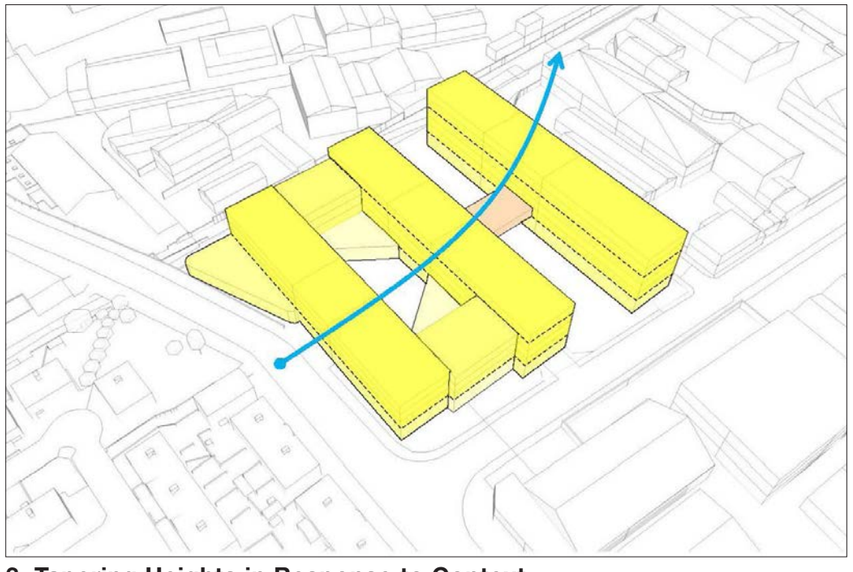
Local landmark - The Shaftesbury Crusade

Kingsland House

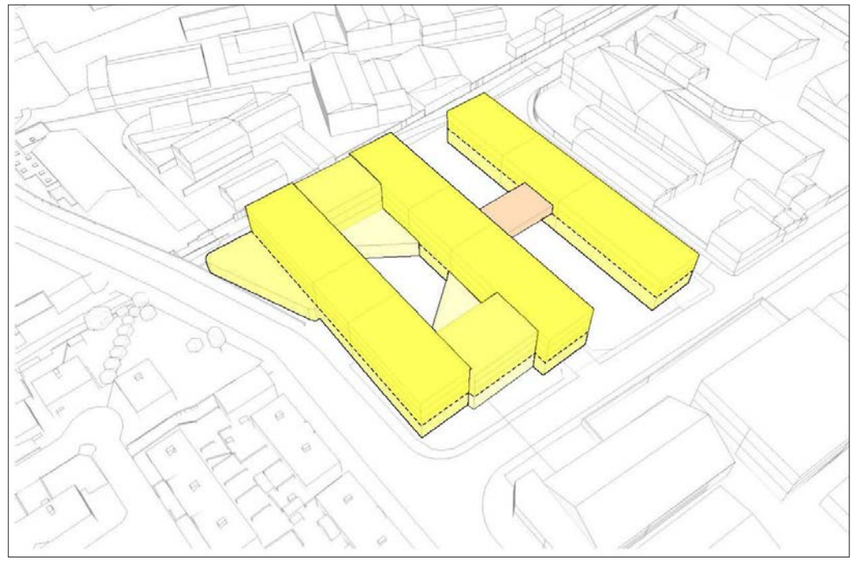


1. Establish Ground Floor Plinth - Defines Street Grain
A ground floor plinth (approximately 5m floor to floor) creates a generous, flexible ground floor volume capable of accommodating a range of uses.

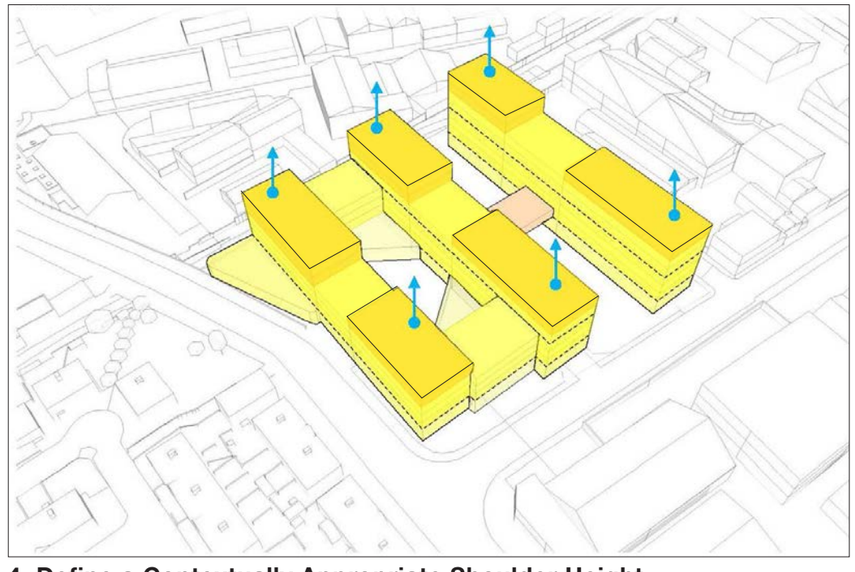
This establishes the key areas of public and private space and the block facing distances.



3. Tapering Heights in Response to Context
Building shoulder heights taper from west to east. The lowest block sits along Kingsland Road opposite the Dings rising up to the less sensitive, non-residential Alfred Street to the east.



2. Define a Contextually Appropriate Shoulder Height
Taking cues from the existing built form a shoulder height of G+3 floors is established. These highly efficient residential floors accommodate approximately 50% of all student rooms.



4. Define a Contextually Appropriate Shoulder Height
Pop-up corner elements to maximise views and help vary the overall mass and elevations. Tallest elements are located on the northern edge of the site to minimise overshadowing of neighbouring buildings.

4.0 Massing & Architecture

4.2 Massing

Alfred Street and Sussex Street

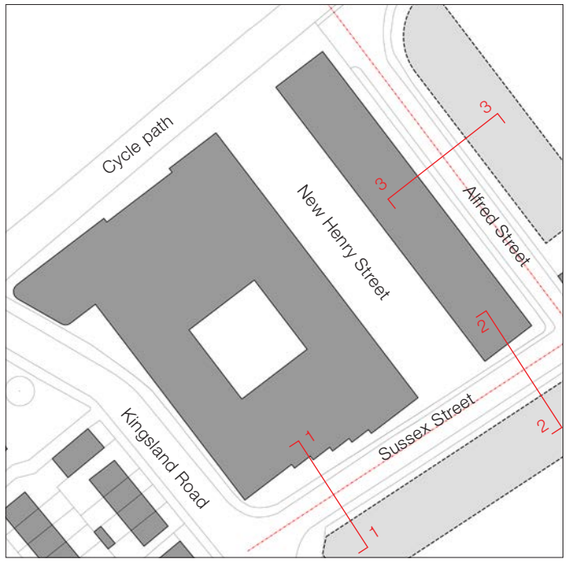
We have undertaken an exercise to demonstrate that the proposals do not prejudice development on adjacent plots. Notwithstanding the Neighbourhood Plan Allocations, we have taken these potential sites to be those across Sussex Street and Alfred Street, discounting the land to the north as too distant (across the cycle path) and across Kingsland Road to the west as these are individual residential properties that are unlikely to be redeveloped.

The proposal occupies an island site bounded by the cycle path, Alfred and Sussex Streets to the east and south, and Kingsland Road to the west. There are no party wall conditions where openings, etc. might prejudice development on adjoining plots. On this page, then, we have sought to demonstrate what street conditions could result should the neighbouring plots be developed in a similar way to this one.

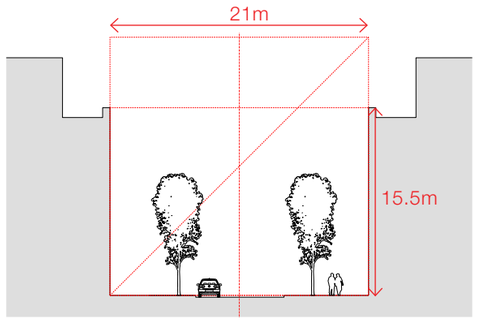
We do not know what proposals might come forward for the adjacent sites, so we have taken the centreline of the street as a mirror line about which the building line of the proposal has been reflected. This would seem to be fair and reasonable.

The development is set back from the back edge of the highway on all sides, and the approach we have taken assumes a similar setback on the other side of the street. The results demonstrate a variation of street types, as might be expected. Section 1 through the townhouses results in a street wider than it is tall, while the other two sections have a more urban width/height ratio of 1:1.5 or 1:1.65. These street proportions are not unusual in dense urban areas. Avon Street, on the other side of the Dings, is approximately 16.5m wide and 37m high resulting in a width/height ratio of 1:2.25.

It should also be noted that Section 2 on Sussex Street has been taken through the end of one of the blocks and the development does not present a consistent parapet at this height. Alfred Street will always be a secondary street, and as such the narrower proportion is appropriate.

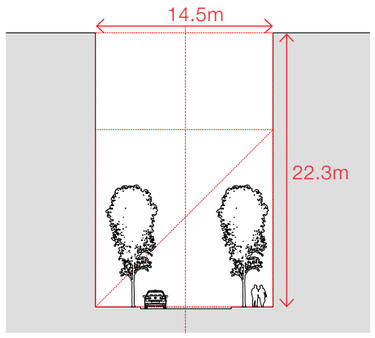


Proposed site plan

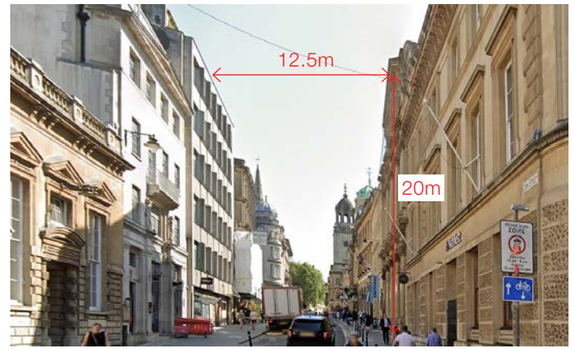


Sussex Street section 1
Ratio 1:0.73 (to parapet)

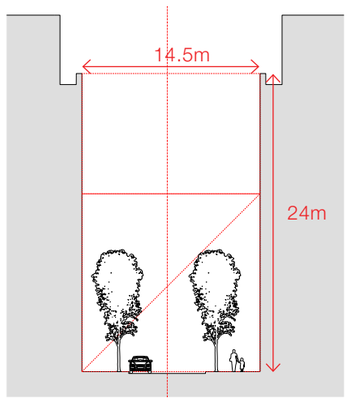
Comparison: Broadmead
Ratio 1:0.72 (approximate)



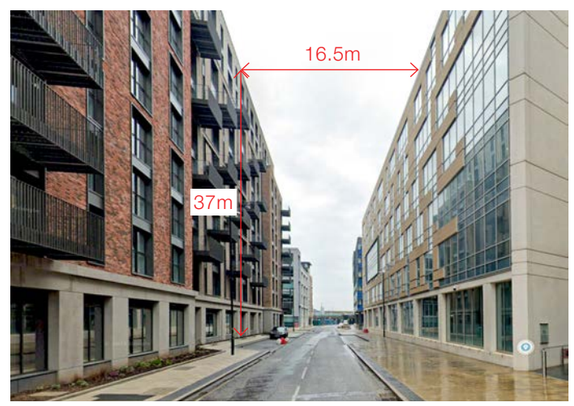
Sussex Street section 2
Ratio 1:1.5 (to parapet)



Comparison: Corn Street
Ratio 1:1.6 (approximate)



Alfred Street section 3
Ratio 1:1.65 (to parapet)



Comparison: Avon Street
Ratio 1:2.25 (approximate)

4.0 Massing & Architecture

4.2 Massing

Massing Refinement & Articulation
The developed massing response introduces additional stepping to the roof/parapet level of the blocks. These additional steps are emphasised in the facade response to help with the overall legibility of the buildings.

Key ideas include:

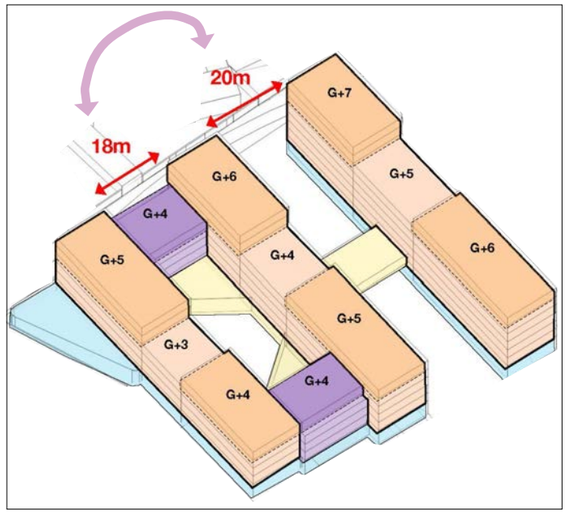
- Expressing internal party walls in the facade to emphasise vertical organisation
- Increase parapet heights around rooftop plant to act as visual screen and further articulate the massing
- Additional steps help to break down the perceived 'wall of development'. This is a direct response to comments received during the public consultation process

Following a review of the scheme in accordance with the changes in regulation the following changes were made:

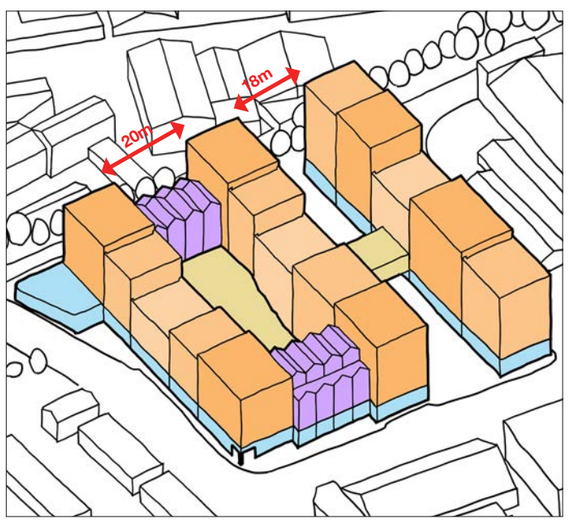
- Corner of Kingsland Road and Sussex Street reduced by one storey to G+3.
- Corners of building along Alfred Street reduced by one storey to G+5 and G+6.
- Height increased in centre of site with the block between the courtyard and New Henry Street increasing to G+7.

These current massing changes reduce the bullk of the buildings at the edges and corners of the site, while distributing more of the rooms into the centre of the site along New Henry Street. As a result the development will have reduced visual impact, while retaining its own value and character.

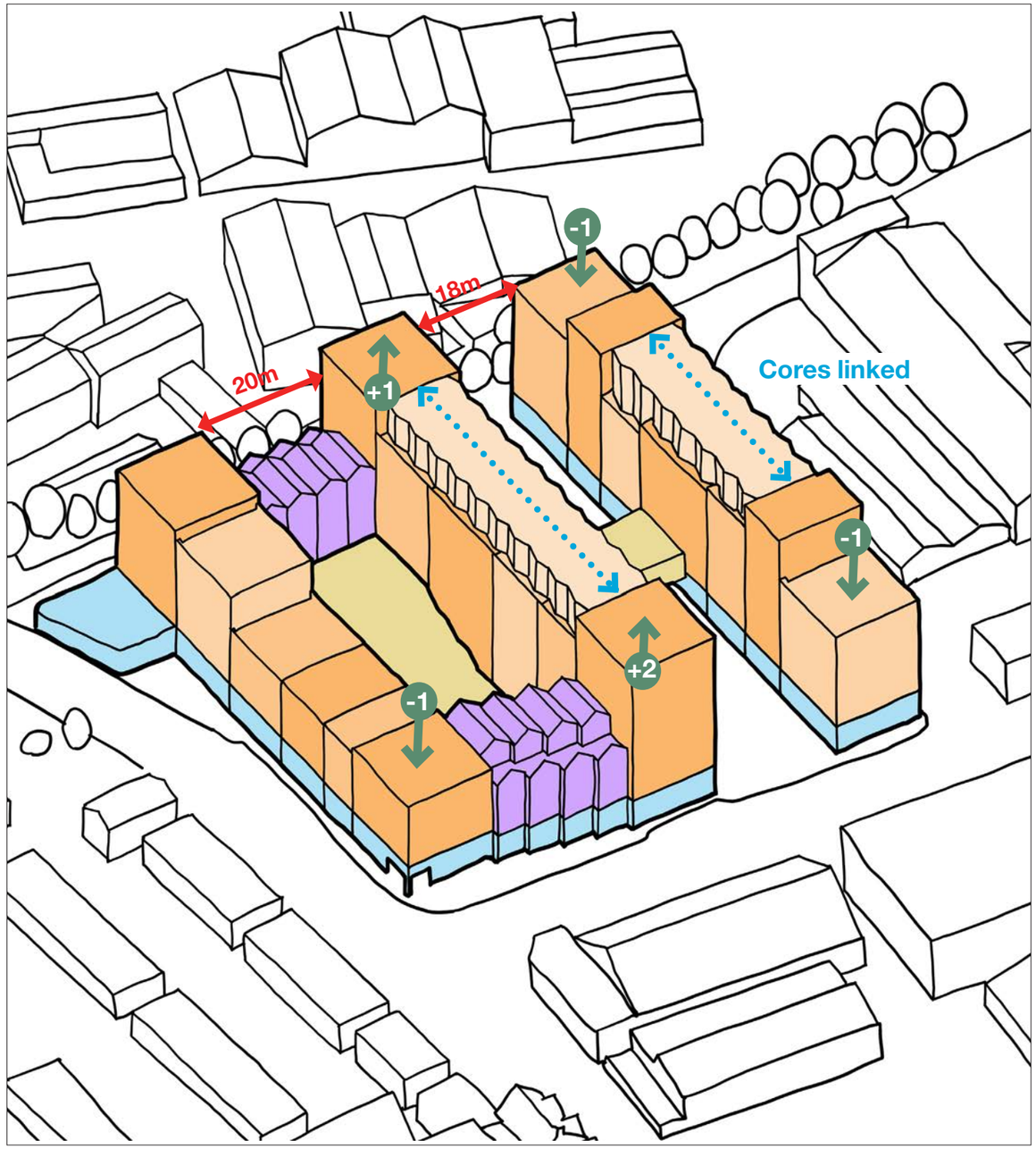
Design West Review 01 - Comment:
Suggest flipping the proportions of these areas (increase courtyard and decrease New Henry Street width)



Preliminary massing proposal - Iteration 1



Preliminary massing proposal - Iteration 2



Proposed massing overview - Illustrative

4.0 Massing & Architecture

4.2 Massing

Working Iteratively
Massing and colour options have been tested using physical and digital models. These have helped inform discussion and aid the design process.

Massing, colour and materiality studies are ongoing and will be further refined using models, material samples, mock ups and computer renders.

Work in progress iterations of massing model

Proposed massing model

4.3 Inhabitation - Public Amenity Enhancements

Space Between the Buildings
In addition to a new publicly accessible street, further enhancements will be made through Section 106 or 278 commitments. These will include:

Increase publicly accessible amenity with a new 1,400msq public street including significant planting, rain gardens and trees.

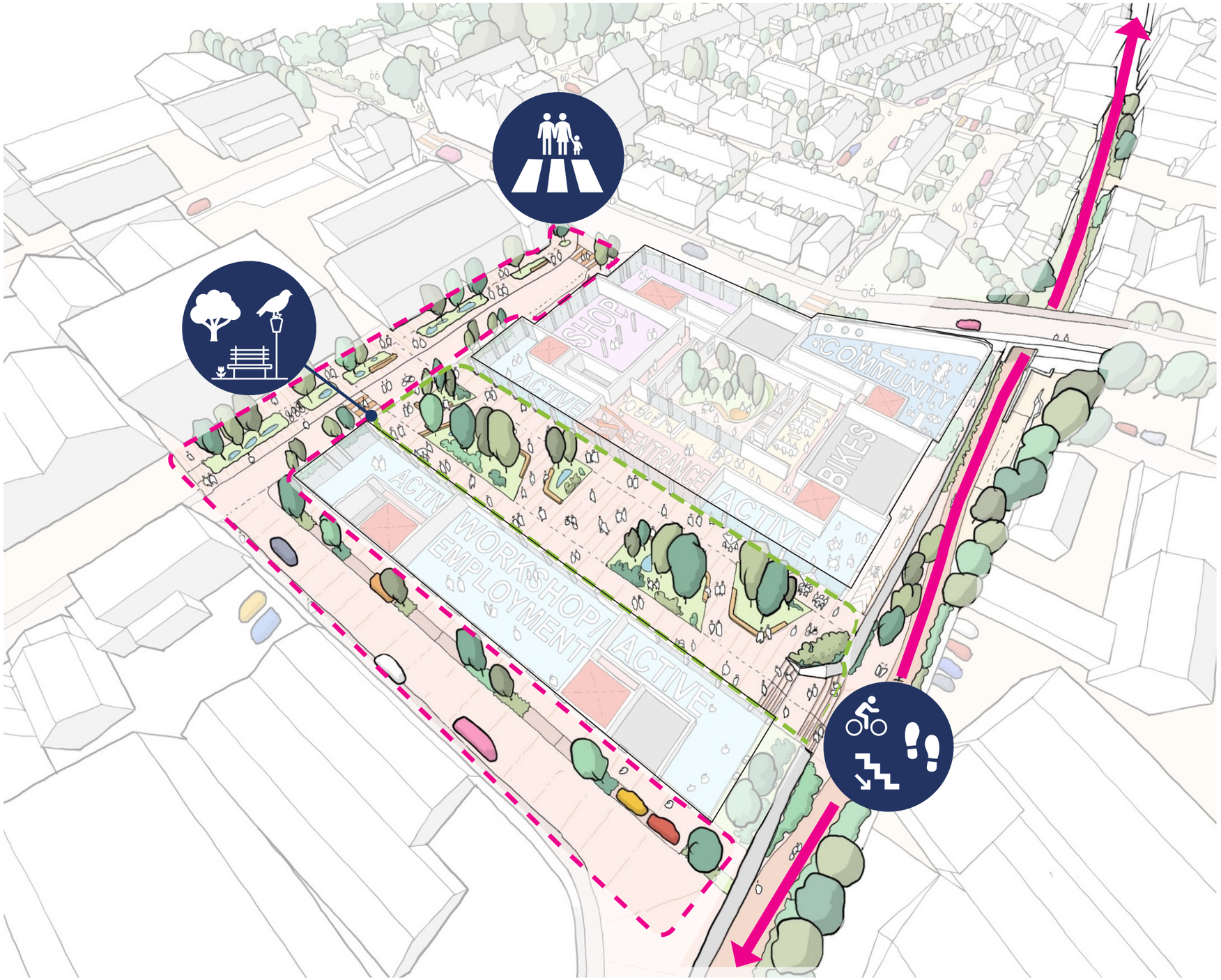
New Henry Street - sketch

Improve local streets
Increase width of existing streets to improve pedestrian experience with new crossing places.

A Direct link to the cycle path will encourage more use of this route into the heart of the city promoting active travel.

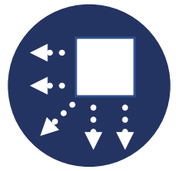
Cycle path to New Henry Street - sketch

Proposed Ground floor illustrative perspective cutaway



4.4 Inhabitation - Active Frontages and Uses

Front Doors & Edges
Highly active ground floor uses will help animate the street and encourage the local community to engage with the facilities and business provided.



Inviting corners and frontages will be a local marker to the community

Active corners: Kingsland Rd -sketch

Retail community food store with prominent corner location

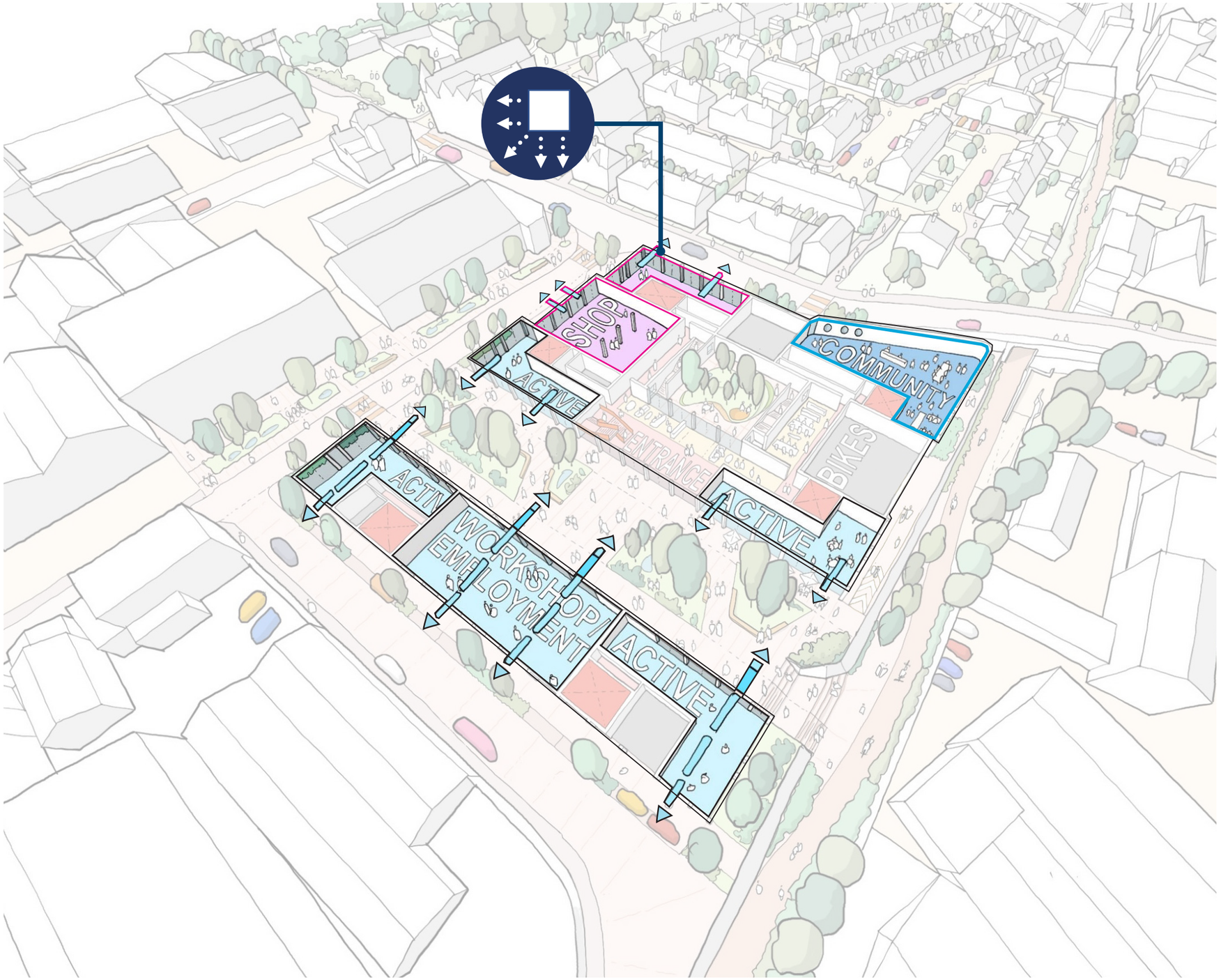
Flexible employment/maker space including workshops and active frontages to animate the streets

Flexible community space with dedicated outdoor space and separate access

A Dynamic Ground Floor
There is a strong desire to provide meaningful workshop and maker space for existing and new creative industries in the Dings/Old Market area and beyond.

A new local grocery store/small supermarket is proposed to serve the existing and new community. New flexible community space is also proposed to meet the varying needs of the diverse community groups in the locality.

Proposed Ground floor illustrative perspective cutaway



4.0 Massing & Architecture

4.5 Inhabitation - Flexible Work Space and Retail

A Dynamic Ground Floor
There is a strong desire to provide meaningful workshop and maker space for existing and new creative industries in the Dings/ Old Market area and beyond.

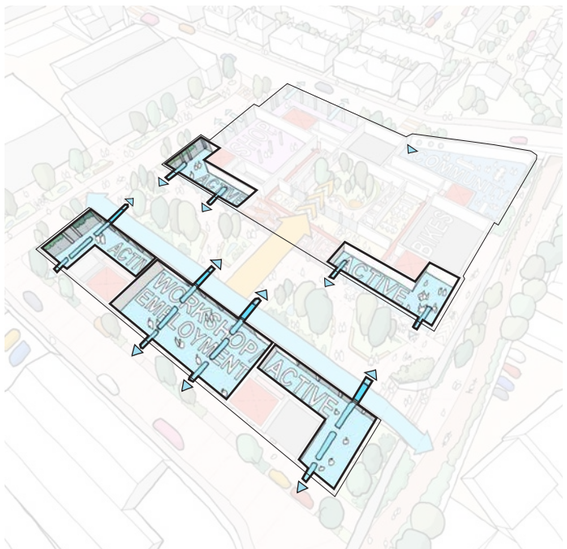
In addition to a new local grocery store/small supermarket +1,000msq of flexible workshop will be located at ground floor all fronting onto New Henry Street.

These units are well sized and present a range of fit-out options to attract a broad mix of future occupiers. Some of these are illustrated on this page.

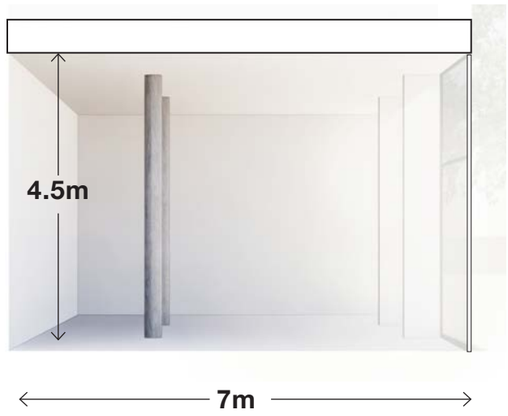
Key consideration include:

- Efficient column grid to aid flexibility of use
- Opportunities to accommodate a range of servicing requirements subject to the needs of occupants
- Potential to accommodate mezzanine floors to increase floor area
- Facade/glazing system capable of accommodation varying degrees of solid, void, access and servicing

Key plan



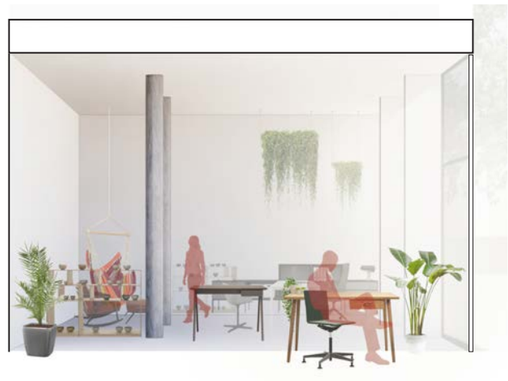
True flexible space:



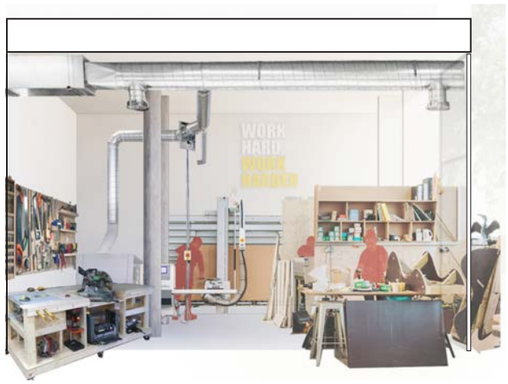
A number of potential fit outs:

A yoga studio

An office



A maker workshop



Mezzanine/retail

Cafe

4.0 Massing & Architecture

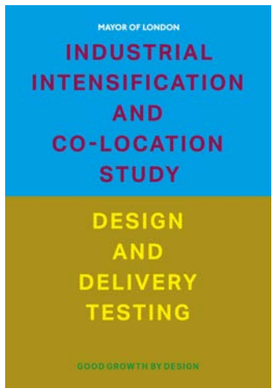
4.6 Inhabitation - Maker Spaces

Most of the ground floor of the development will be light industrial maker spaces. Their large windows and shopfronts will face onto New Henry Street, providing vibrancy and activity along this new public space.

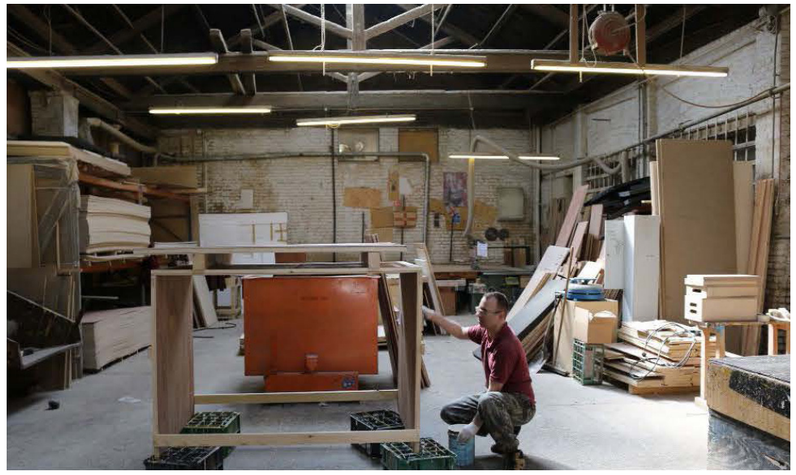
These units will ensure that the primary ground floor use is industrial - maintaining the site's existing use and providing employment floorspace. Unlike the existing industrial buildings, and many surrounding light industrial sheds, however, the units along New Henry Street will be designed with shopfront glazing, allowing the spaces and uses within to be seen and to contribute to the activity of the street. They will also have large footprints that can be subdivided as required, regular column grids and generous floor to ceiling heights allowing for a range of light industrial activities.

This approach is inspired by the similar examples shown on these pages.

Co-location:
Using the principles set out by Greater London Authority the proposals have been tested to ensure they can work in tandem with the student accommodation on the upper floors and deliver quality accommodation alongside fully functional maker space.



Light Industrial and Maker Spaces:
The proposals will deliver flexible workshop spaces that provide an appropriately scaled space for small businesses to become established.



A maker workshop

Precedent:

Caxton Works London
Maker spaces, workshops and retail located at ground floor with residential accommodation above. Focus on local small businesses.

Shop Fronts:
Active shop fronts associated with flexible workshop space will give makers the opportunity to have a street presence and provide a vibrant backdrop to the public realm.

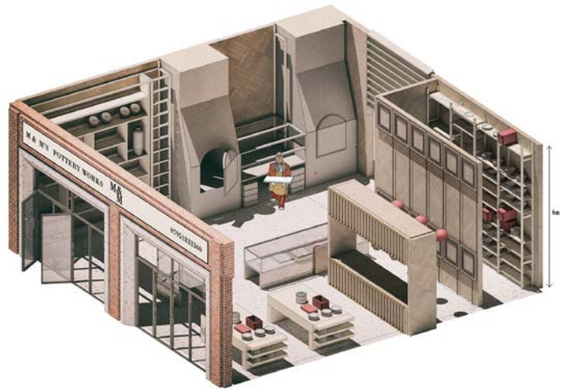
4.0 Massing & Architecture

4.6 Inhabitation - Maker Spaces

Dominus and the design team have been supported by the development consultant AND. Their Commercial Strategy report includes a commercial case for the maker spaces, and also detailed guidance on the design requirements for the spaces to be successful. This is based on their experience with similar schemes in London which now has many successful examples of light-industrial co-location.

This page shows some of the illustrations from their report, which demonstrate how different craft/light-industrial/retail/creative space typologies could work within New Henry Street. All examples make use of the glazed shopfronts to either provide an element of retail/showroom to the public, or simply provide an abundance of light and connection to the street and community of makers along the street.

Generic Concept: Workshops/studios around a common hub

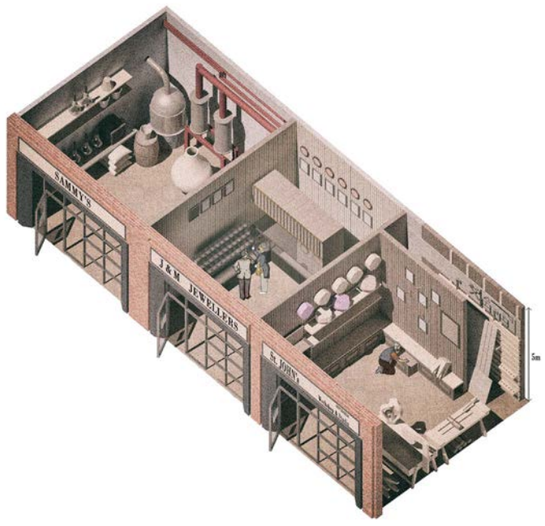


Small factory: Ceramics studio

Photography studio

Example: Building Bloqs, Enfield

Building Bloqs is a brand new 32,000 sqft workshop and maker space designed by 5th Studio architects. The facility has been built as part of the Meridian Water regeneration project in Enfield where the scheme's commercial component will focus on makers, light industrial and the creative and cultural industries.



Maker mews: a series of small studio units with shared facilities

Micro studio with shared facilities

4.0 Massing & Architecture

4.7 Inhabitation - Flexible Community Space

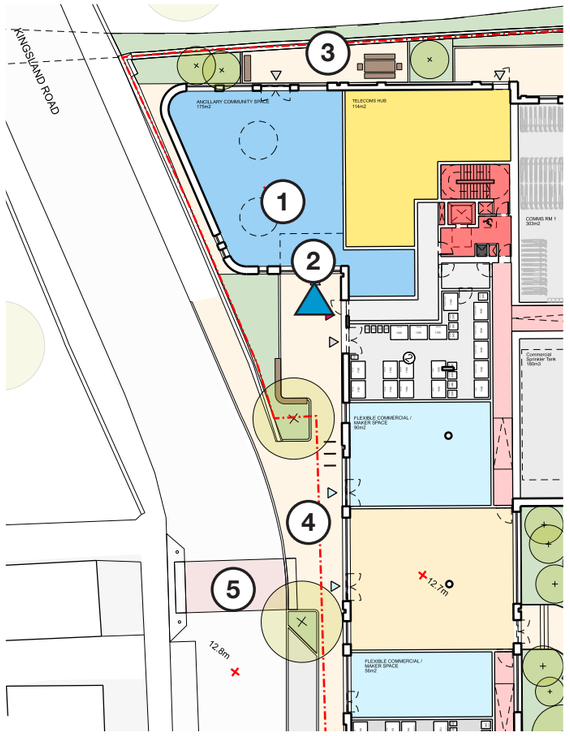
A dedicated flexible community space is proposed as part of the wider ground floor provision. There is a desire in the local community to have space which can be appropriated to serve a number of uses and activities that is inclusive to the broad cross section of the local population.

This space will be managed and maintained by the Applicant to ensure the facilities are kept in good order and available throughout the year.

Key consideration include:

- Prominent front door in well overlooked location - Kingsland Rd.
- Generous floor to ceiling heights - increased flexibility
- Right-sizing the community space - getting the balance between generosity of space and affordability
- Flexible, loose fit space capable of being reconfigured
- Inclusion of suitable back of house facilities
- Inclusion of tea point/preparation area
- Access to small private outdoor space

Illustrative plan:



Internal environment & potential community uses:

Generous, flexible volume - good natural lighting

Inviting front door

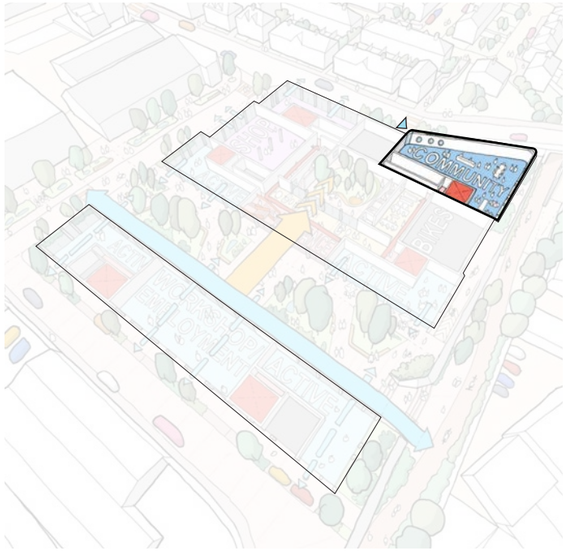
Adult education/literacy classes

Yoga, dance and exercise classes

Community events and celebrations

After school clubs

Key plan



Key

1. Flexible community space - approx. 175msq
2. Dedicated community entrance
3. Private terrace overlooking cycle path
4. Increased footway width and external cycle spaces integrated in landscaped public realm
5. Highways improvements to include traffic calming measures and improved pedestrian crossing links to the Dings (location tbc.)

4.0 Massing & Architecture

4.8 Inhabitation - Grocery Store

To meet community demand a small supermarket/ grocery store is proposed in a prominent corner location on the junction of Kingsland Road and Sussex Street.

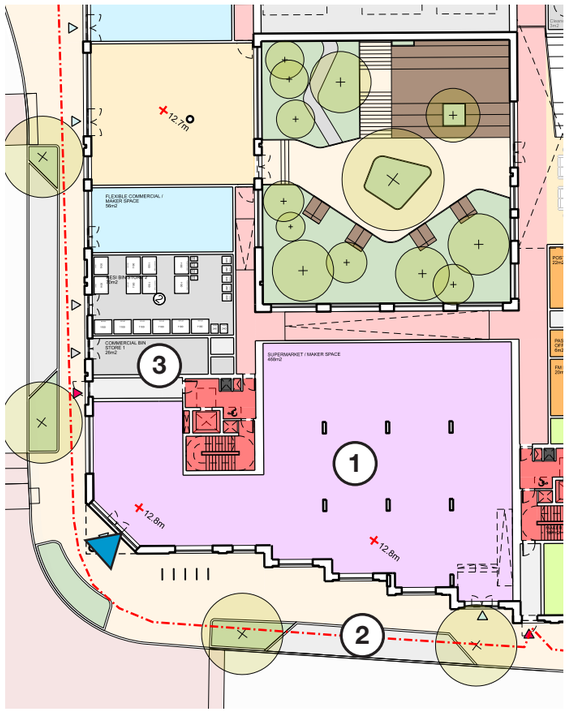
This will help to meet the needs of existing and future residents and will help to animate the surrounding streets and public realm.

Traffic calming and highways improvements are proposed to improve the public realm and encourage people to walk and cycle to the amenities.

Key consideration include:

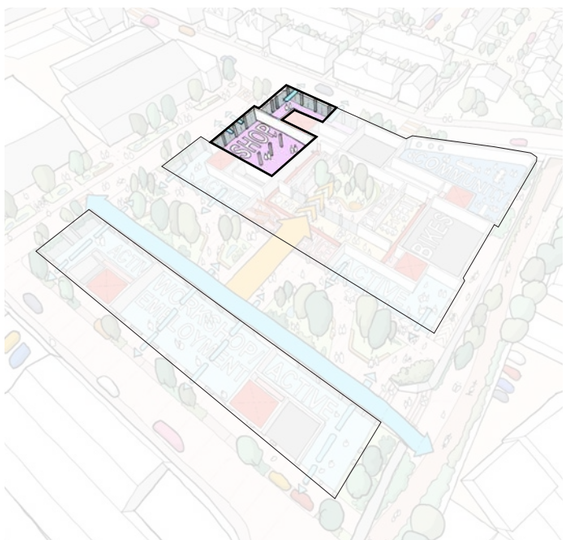
- Prominent front door at key junction
- Generous floor to ceiling heights - increased flexibility (approx. 4.5m) and allow for a range of servicing requirements
- Prominent shop front to activate the street
- Dedicated service bay and access
- Cycle parking in the public realm to encourage active travel

Illustrative plan:



Illustrative view:

Key plan



Key

1. Grocery store with prominent corner access with internal flexibility to allow reconfiguration
2. On street service/delivery bay adjacent to dedicated service access
3. Dedicated refuse store

Active retail ground floor

Enhanced public realm

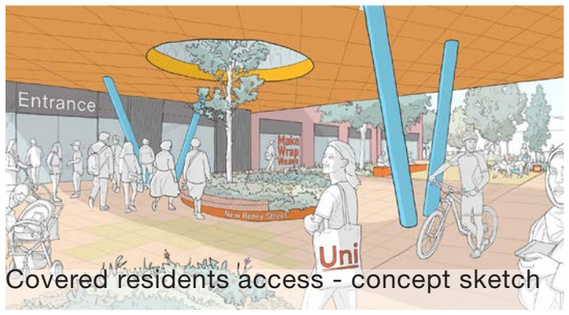
4.9 Inhabitation - Student Entrance

Access
All students will use a single, well located and overlooked entrance into the accommodation. This is a key requirement of the student management plan. A single point of access helps with student safeguarding as all residence can be observed leaving and entering and therefore any issues of well-being can be noted and assistance can be provided.

Shared communal facilities such as post boxes, post room, laundry, cycle store and social spaces will all be accessed from this point.

The arrival space is generous and provides views through to the landscaped courtyard. The entrance space is partially double height and leads up to the central student hub at first floor.

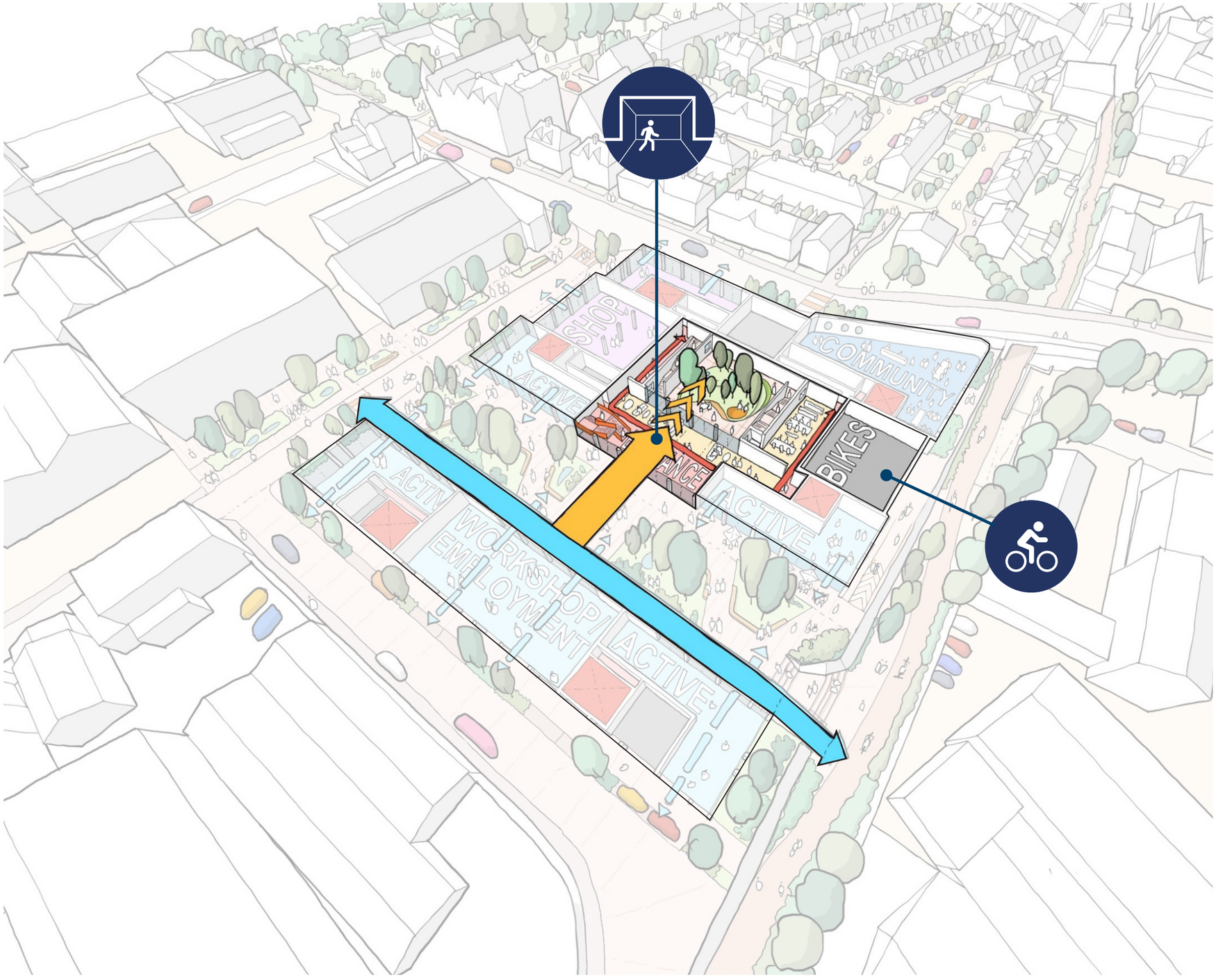
Single point of student access helps with student safeguarding and helps create community



Covered residents access - concept sketch

View through to courtyard - precedent

Proposed Ground floor illustrative perspective cutaway



4.0 Massing & Architecture

4.10 Inhabitation - Student Amenity

Student Social Spaces
The principle student social space is located at first floor and bridges between the western courtyard block and eastern finger block. This arrangement will help foster a strong student community with all residents using the same social study spaces and amenity zones with views over New Henry Street.

1.3msq of internal amenity space is provided per student. This is 30% more than typical student amenity provision, and compliment with the Urban Living SPD requirements.

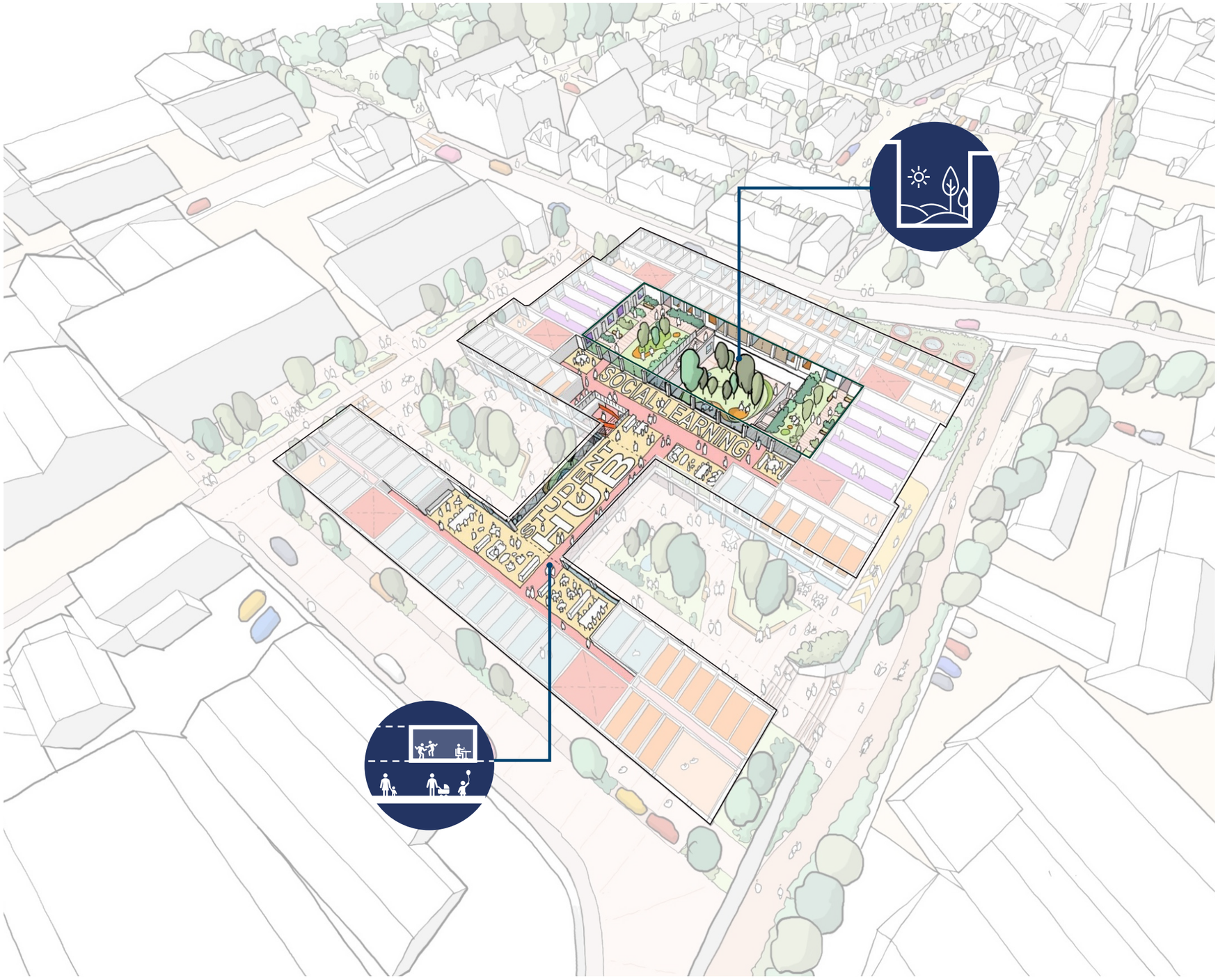
The bridge link social hub unifies the two residential blocks at first floor level encouraging interaction between students

Social hub - precedent

The student courtyard garden is a generous piece of private external amenity space for all the students to enjoy. This space can be access from ground and first floor

External social amenity space - precedent

Proposed First floor illustrative perspective cutaway



4.0 Massing & Architecture

4.11 Inhabitation - Internal Student Amenity

Bridge Link Social Hub
The central social space will provide a focal meeting and socialising space for the residents. A range of spaces will be provided Including:

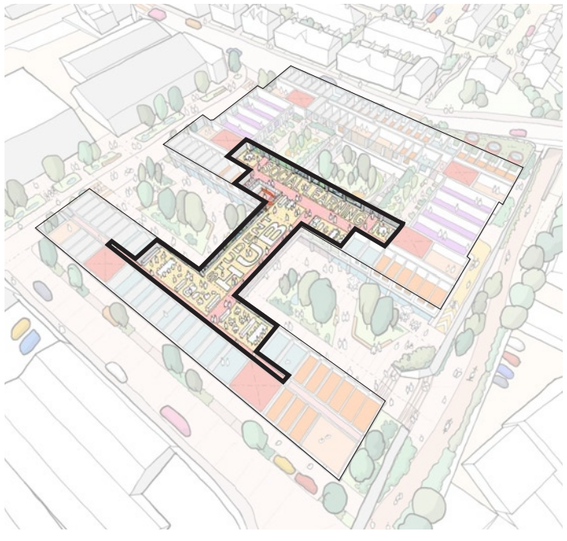
- Large co-working study spaces
- Smaller studio workspaces for private or collaborative study
- Social space for relaxing

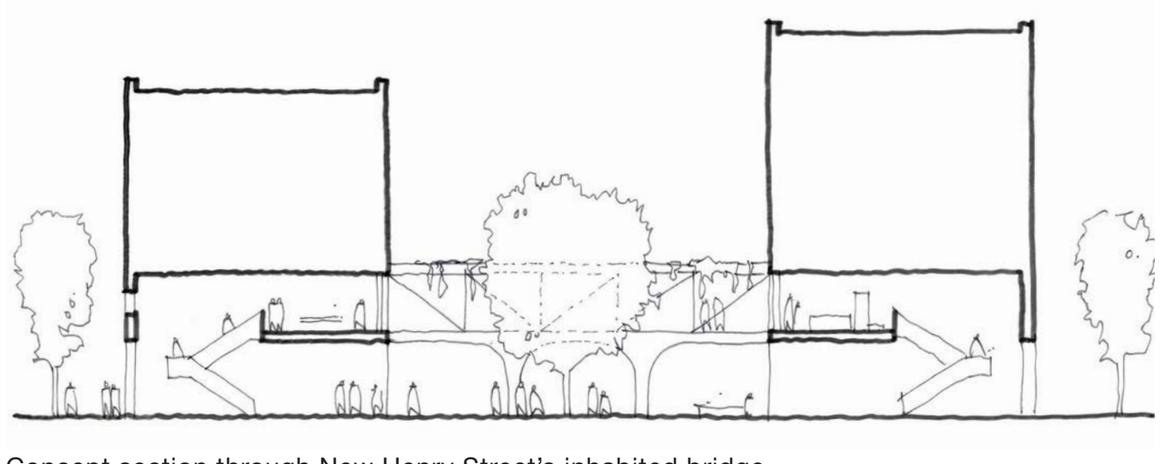
In addition to this will be amenities that contribute to student well-being e.g. cafe / cinema room / gym.

Multi purpose communal student hub space - AHMM, University of Amsterdam

Group work space - AHMM, UoA

Key plan





Concept section through New Henry Street's inhabited bridge

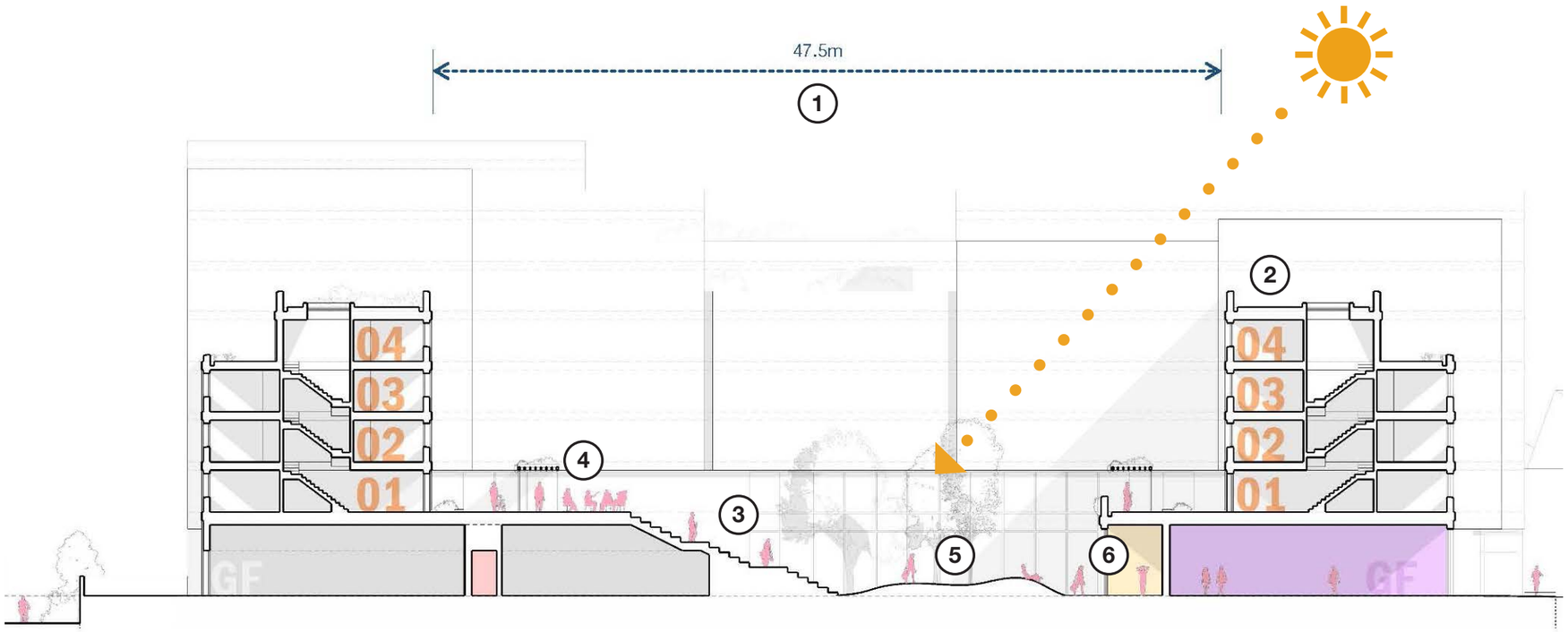
Private study area - AHMM, Google London

4.0 Massing & Architecture

4.12 Inhabitation - External Student Amenity

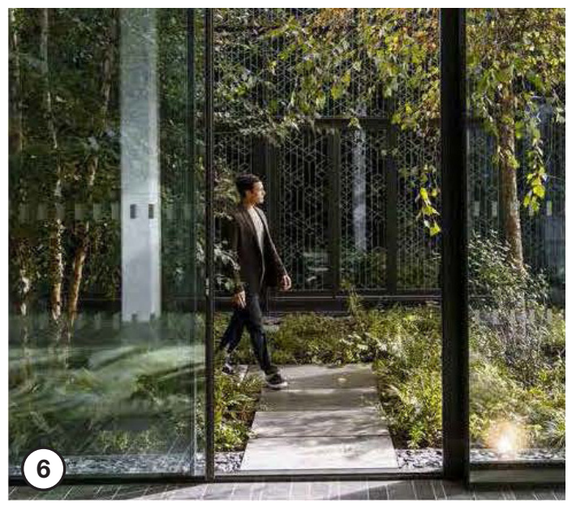
Student Courtyard Garden
This 940msq courtyard provides a high quality piece of green space for the development. For more detailed information on the courtyard garden please refer to the landscape section of this report.

1. Long length to courtyard for increased sunlight.
2. Lower storey heights for increased daylight.
3. Communal steps/seating for socialising and resting.
4. Platform zone for socialising and seating.
5. Landscaped Garden area with significant tree planting
6. Visual connection to the courtyard through internal glazing.



North South section through the internal courtyard

Key plan



4.13 Inhabitation - Student Accommodation

Student Accommodation
The accommodation offer exhibits a range of typical and more innovative room types. These are summarised below.

5-8 bed cluster rooms for the majority of accommodation. All with en-suite shower pods

Studios are located around common corridors and social spaces to help integrate single studio residents with the wider student community

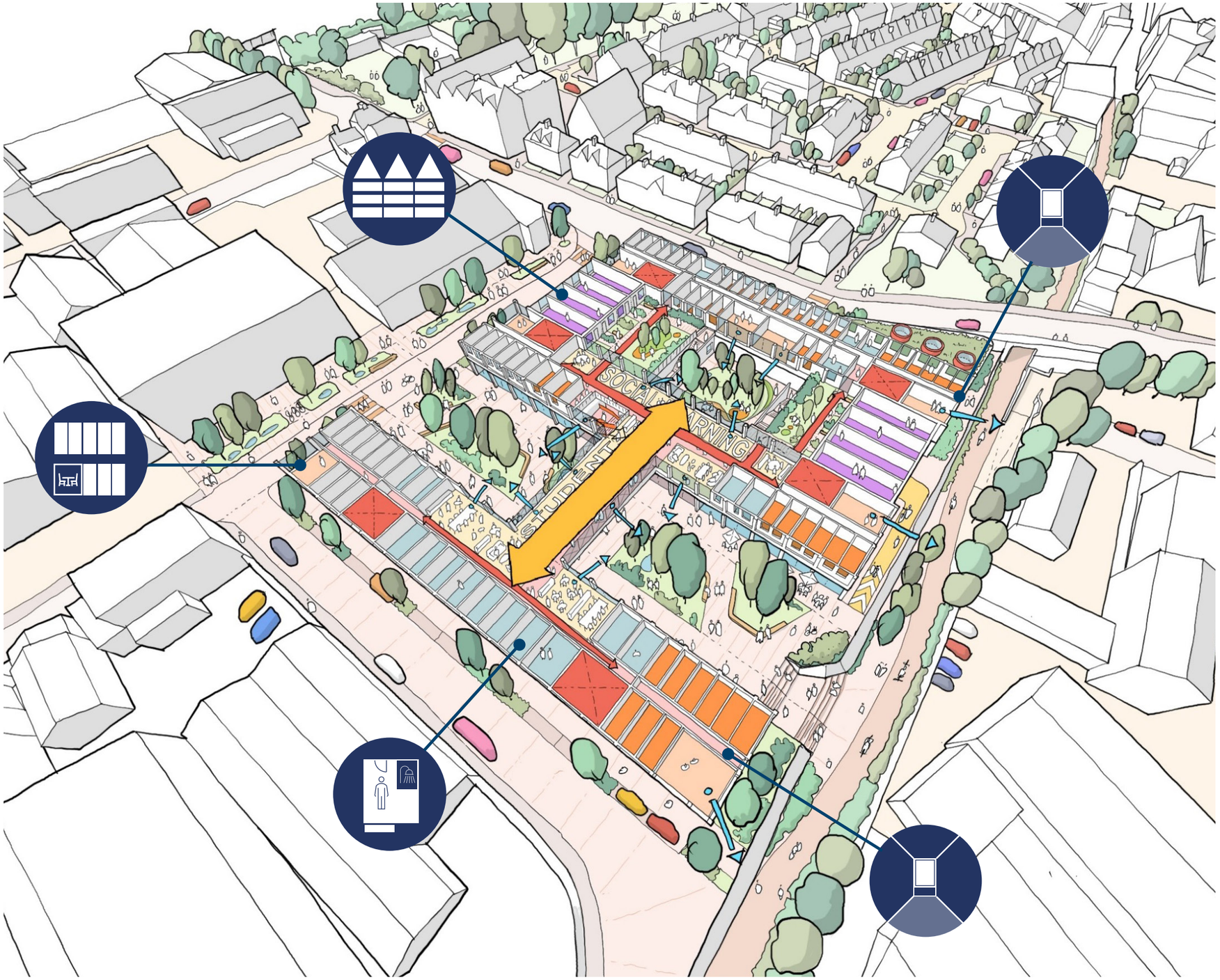
"Townhouse" clusters provide the economy accommodation. These 10 bedroom houses have direct access from the courtyard garden

Natural light to all cores and corridors meets urban living SPD best practice for common parts

Key:

- Student amenity
- *Studios*
- Cluster bedrooms
- Cluster shared kitchens
- Townhouses
- Core
- *Common circulation*

Proposed First floor illustrative perspective cutaway

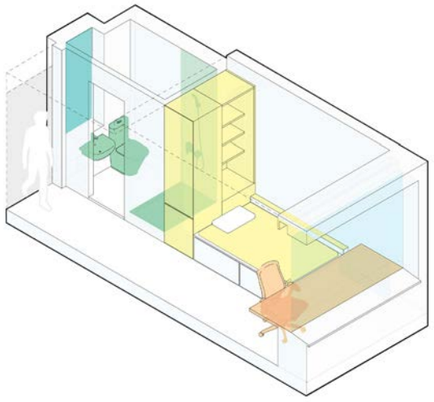


4.14 Inhabitation Typologies

Accommodation Mix
The mix of accommodation is diverse and ensure a broad range of room type and affordability is provided.

Key considerations include:
- Diversity of residential offer
- Well designed, ergonomic layouts
- Generous storage provision including under bed storage
- Large fixed window - great views
- Ventilation panel for natural/purge ventilation
- 1.2m wide bed
- Light at the end of common corridors
- Dual aspect shared living/kitchen spaces

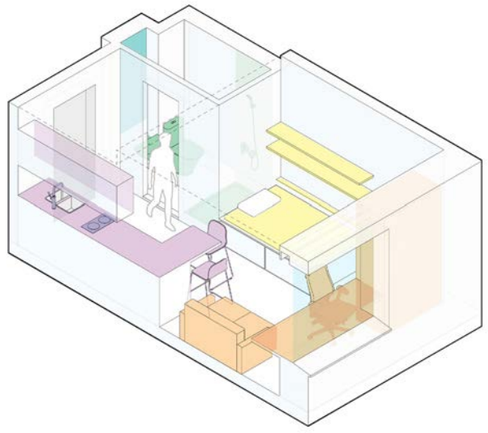
5-8 bed cluster rooms



01: Typical cluster bedroom 57%

- 5-8 bedroom clusters
- 13msq bedrooms
- En-suite shower pods
- Shared kitchen and living area

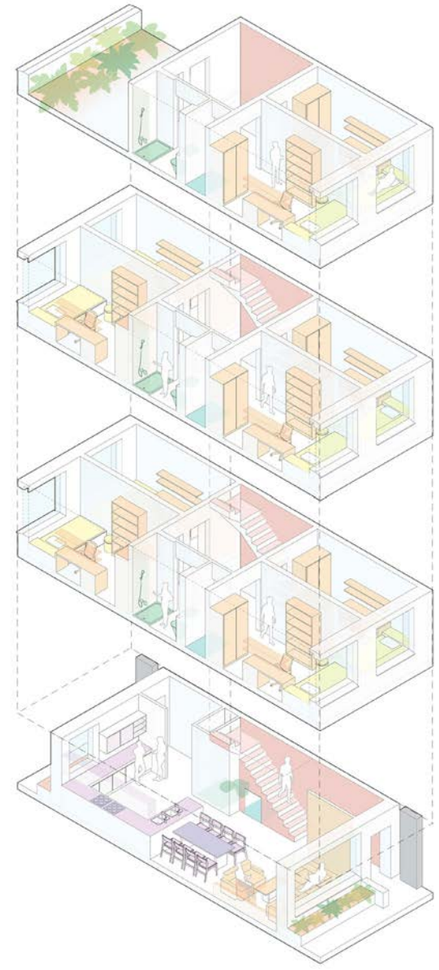
Studio provision



02: Studio 32%

- Studio - single occupancy
- A variety of studio sizes offering a range of provision and affordability
- 18 - 27msq bedrooms
- En-suite bathrooms
- Private kitchen and living area

“Town house” clusters



03: “Town House” cluster 11%

- 10 bedrooms arranged over 3 floors
- 8msq bedrooms
- Two student share one shower pod
- Shared duel aspect kitchen and living area with front door access from garden courtyard

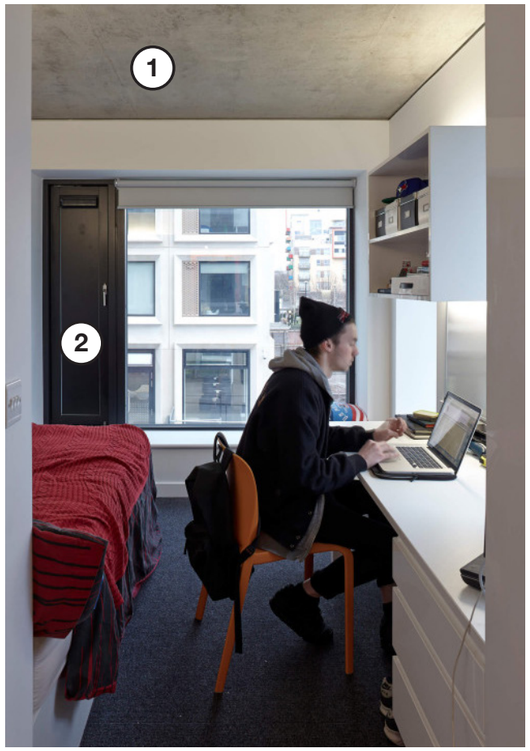
4.0 Massing & Architecture

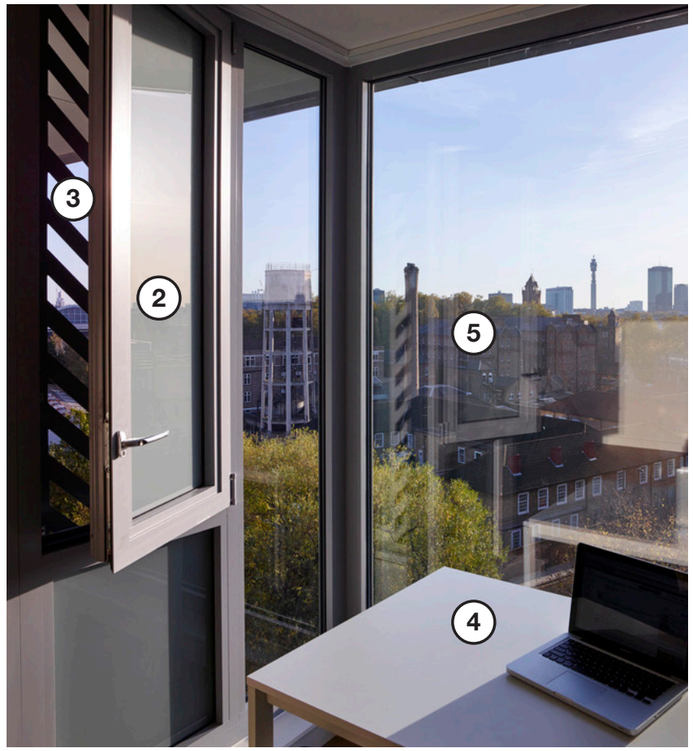
4.14 Inhabitation Typologies - Look and Feel

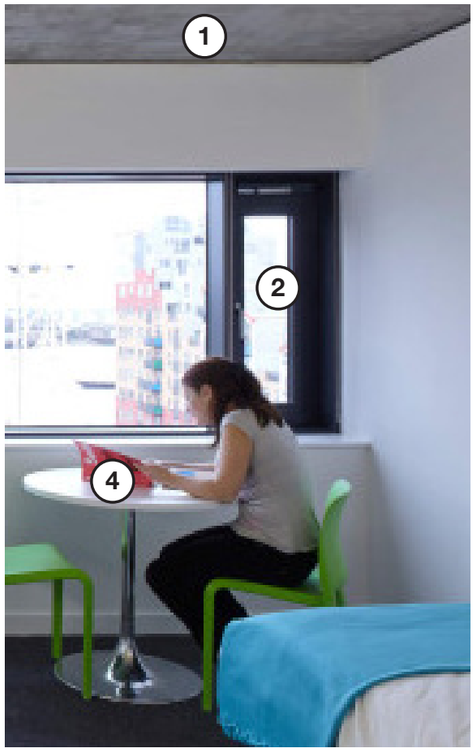
What's in the Rooms
Common themes run through all the accommodation types with a focus on student well-being and user comfort.

Key considerations include:

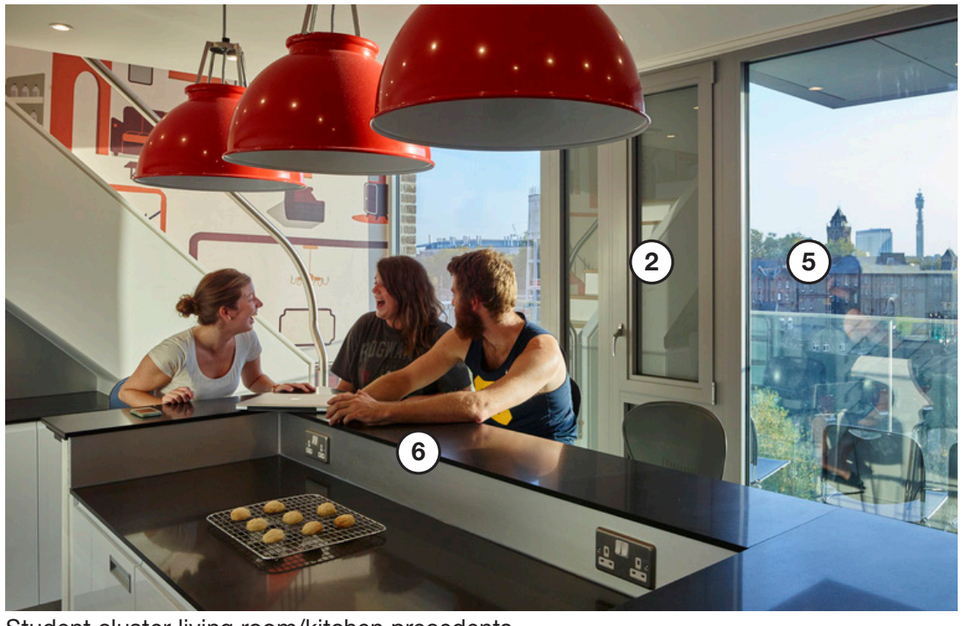
- Comfort cooling - opening ventilation panels
- Well sized common parts and communal spaces
- Large windows to optimised natural daylighting
- Desks facing out
- Exposed concrete soffits - reduced material requirement = less material waste
- Greater internal volumes - better student environment
- Innovative operational energy controls - key card power supply e.g. no key card, no lights/ heating







Student cluster bedrooms precedents



Student cluster living room/kitchen precedents

(1) **Exposed Concrete Ceiling Soffits**

(2) **User Operable Window**

(3) **Grill Over Windows**

(4) **Desks Designed along the Windows**

(5) **Rooms with Views & Daylight**

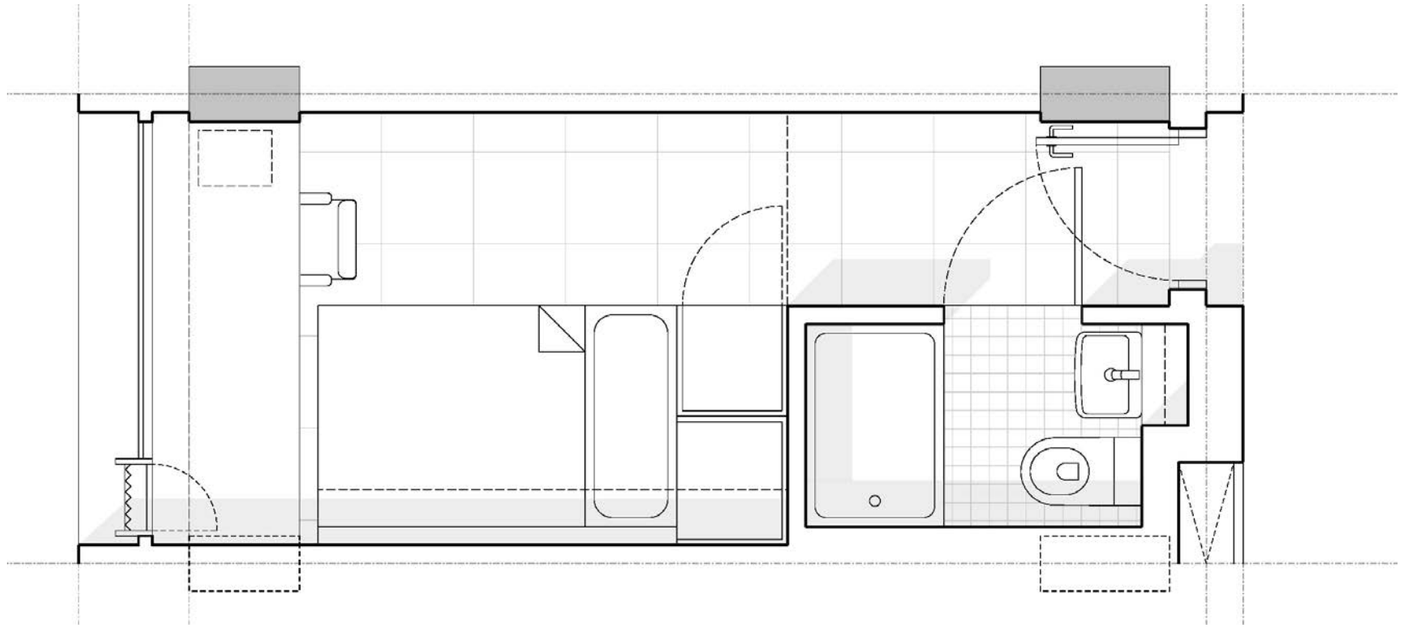
(6) **Open Common Living Areas**

4.0 Massing & Architecture

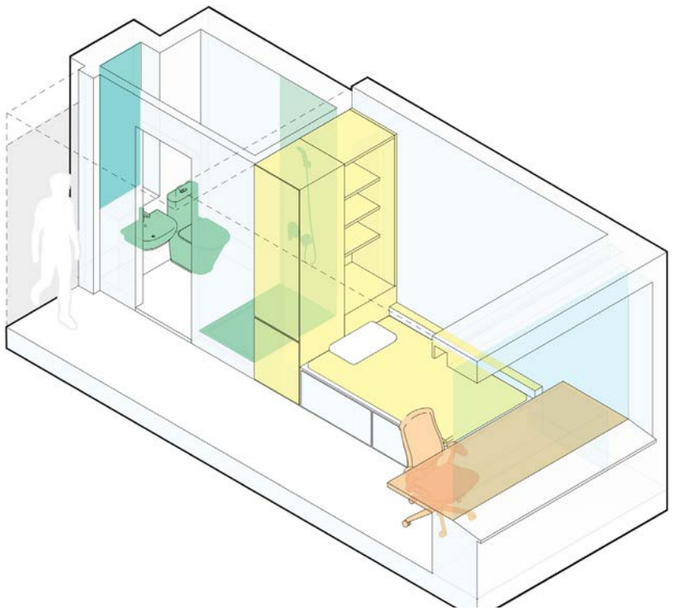
4.14 Inhabitation Typologies

5-8 bed cluster rooms

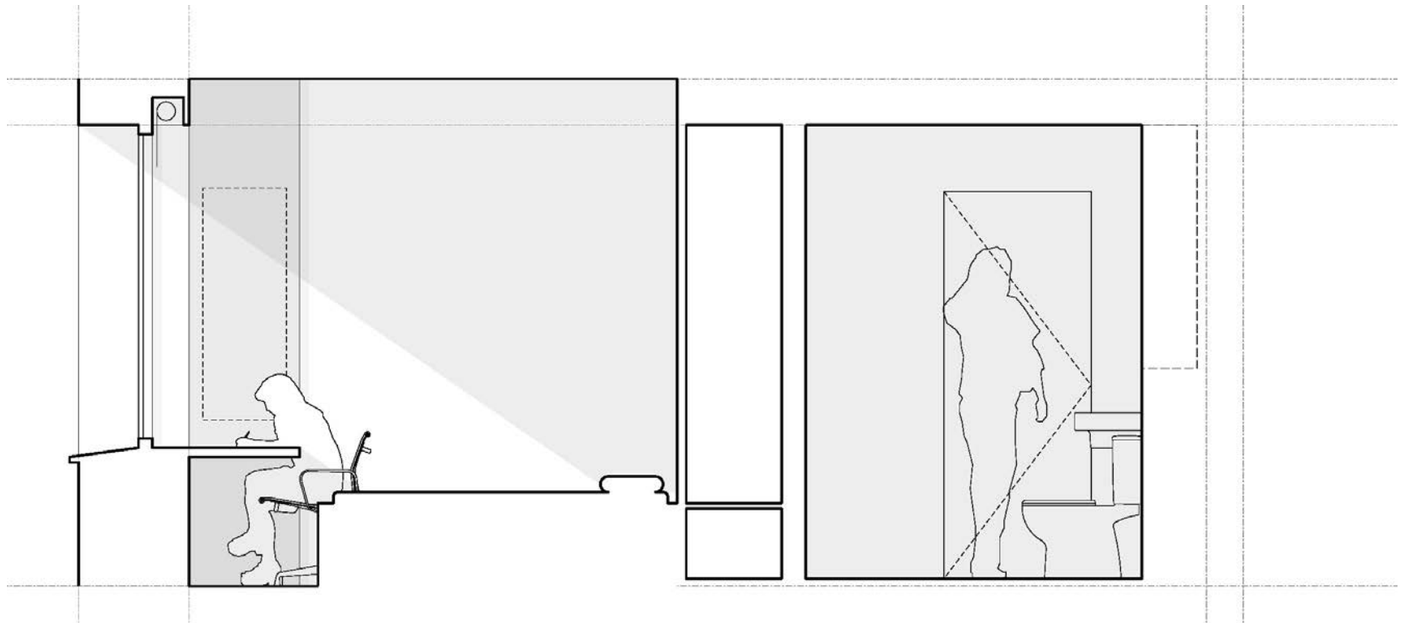
- 5-8 bedroom clusters
- 13msq bedrooms
- En-suite shower pod
- Shared kitchen and living area



Typical cluster bedroom plan



Typical cluster bedroom axonometric



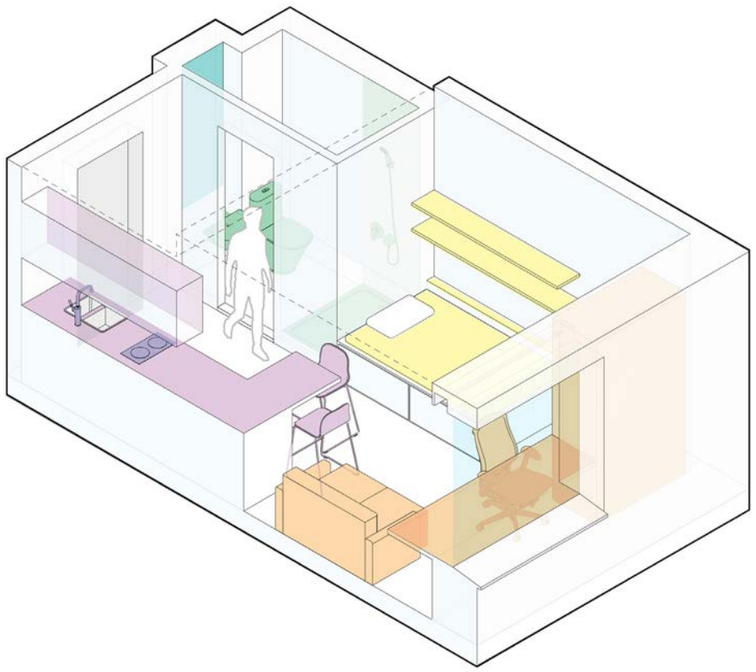
Typical cluster bedroom section

4.0 Massing & Architecture

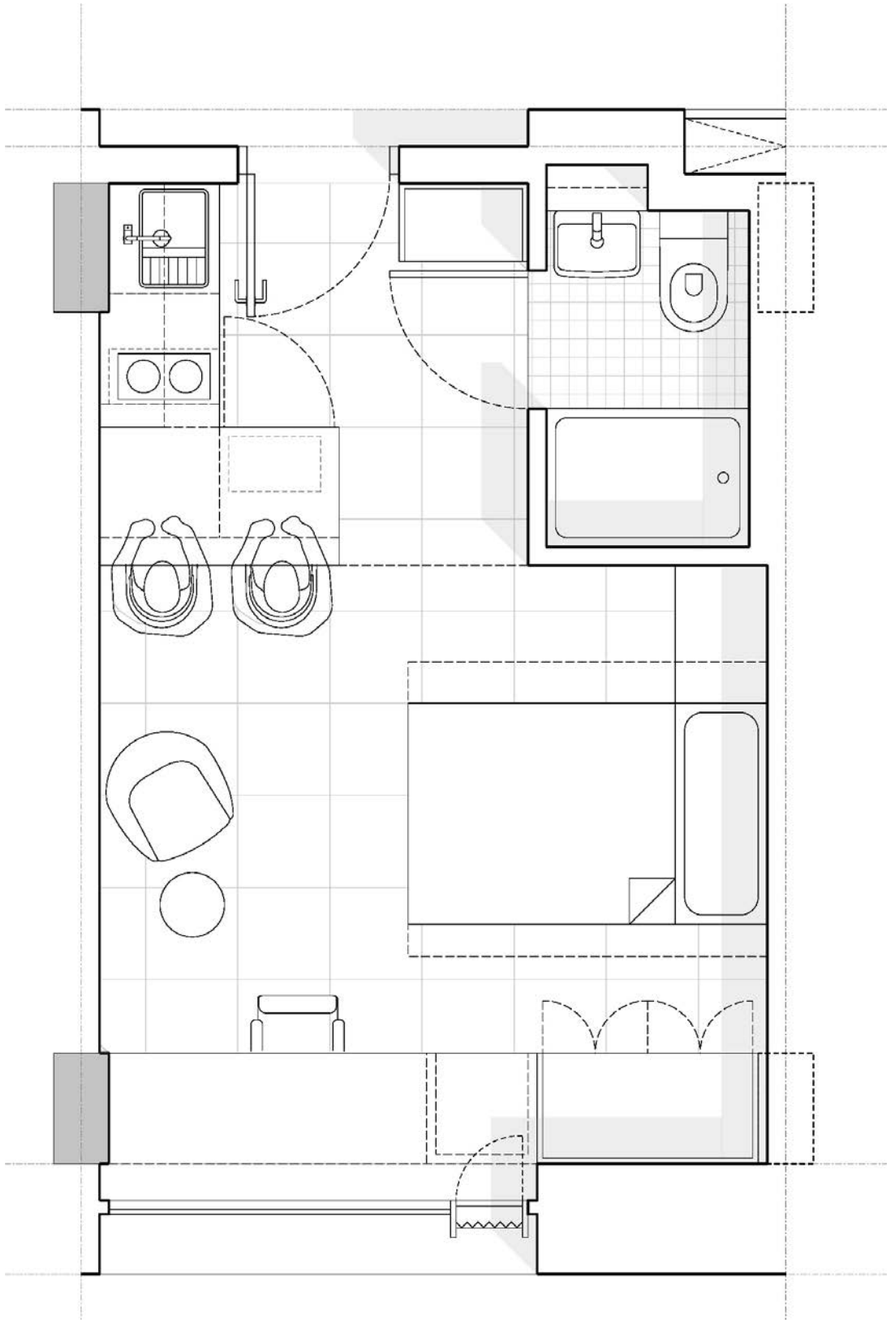
4.14 Inhabitation Typologies

Studios

- Studio - single occupancy
- 18-27msq studios
- En-suite bathrooms
- Kitchenette and living area
- Readily adaptable for DDA users



Typical studio bedroom axonometric



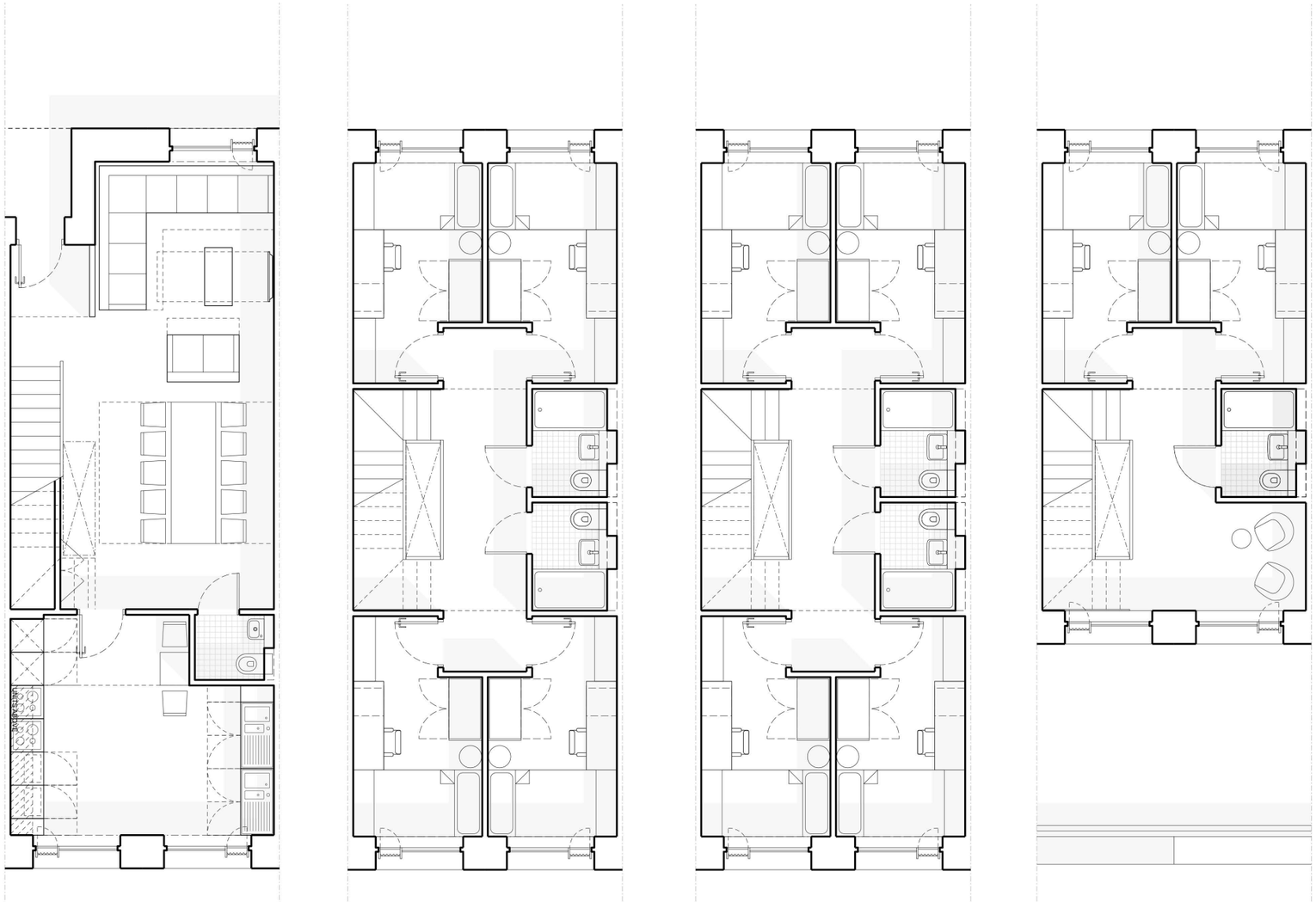
Typical studio plan

4.0 Massing & Architecture

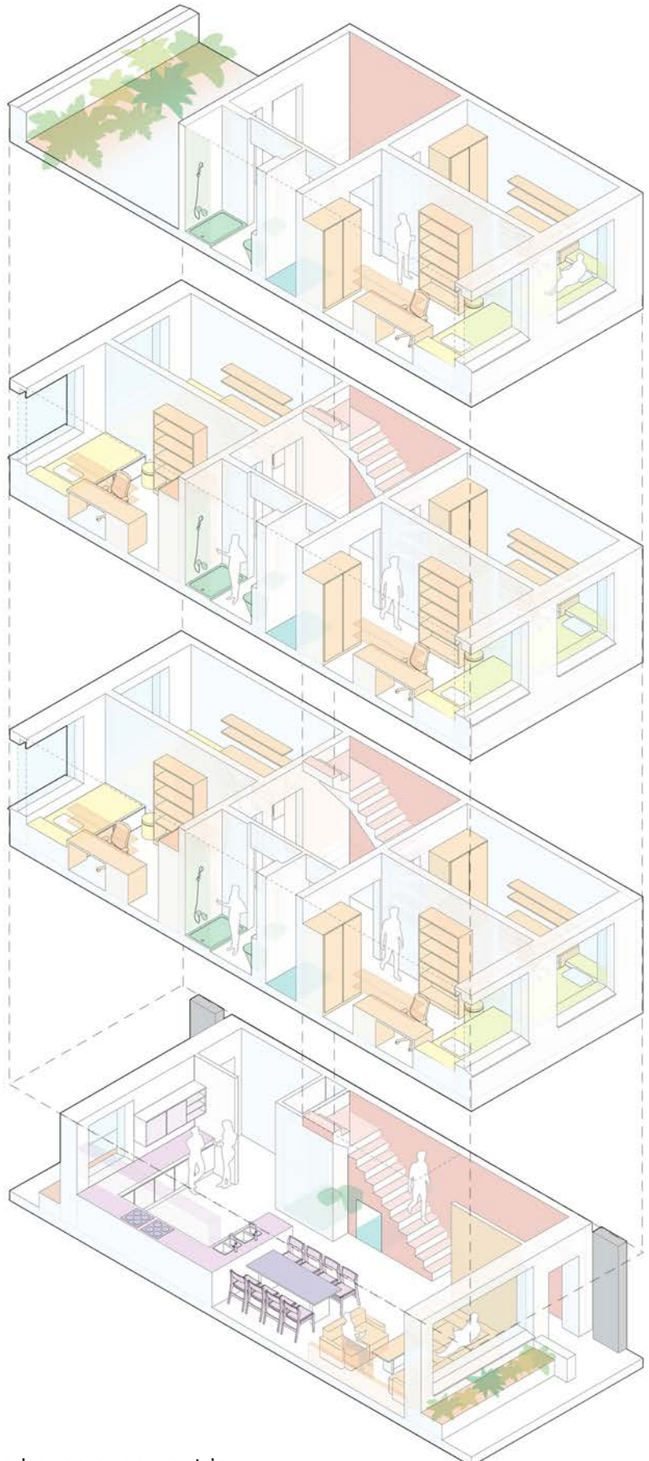
4.14 Inhabitation Typologies

“Town house” clusters

- 10 bedrooms arranged over 3 floors
- 8.3msq bedrooms
- Two student share one shower pod
- Shared duel aspect kitchen and living area with front door access from garden courtyard



Town house floor plans



Town house axonometric

4.0 Massing & Architecture

4.15 Sunlight & Overshadowing

This study has been done as a design tool to analyse the sunlighting and daylighting conditions in the main external spaces. These are the fully public New Henry Street and private student courtyard garden.

The dates selected for study focus on the student experience of the scheme throughout the typical academic year

September 15th:
Students arrive at their new home

1 **September 7am:**
At this early time there is minimal sunlight

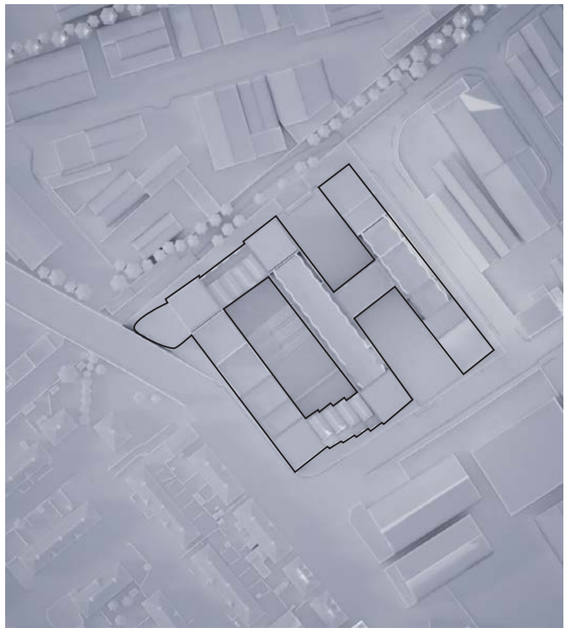
2 **September 9am:**
New Henry Street and the northern courtyard receive the morning sun

3 **September 11am:**
Both external spaces are well lit

4 **September 1pm:**
New Henry Street and the northern courtyard receive early afternoon sun

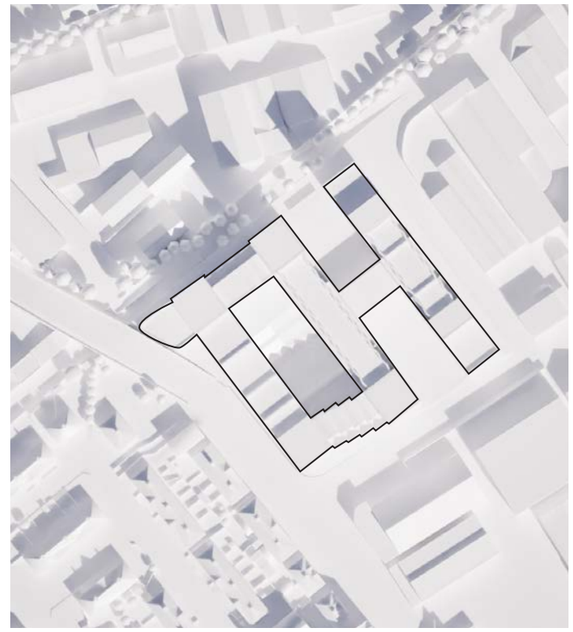
5 **September 3pm:**
Both spaces are overshadowed

6 **September 5pm:**
Sunset - high degree of overshadowing

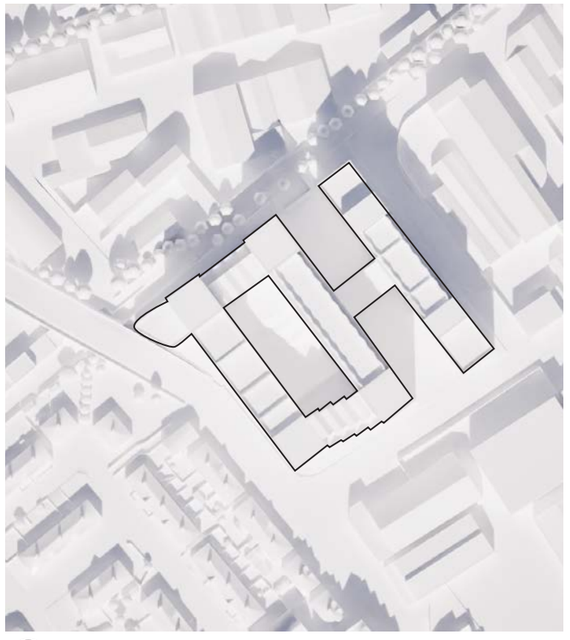


1 **7am**

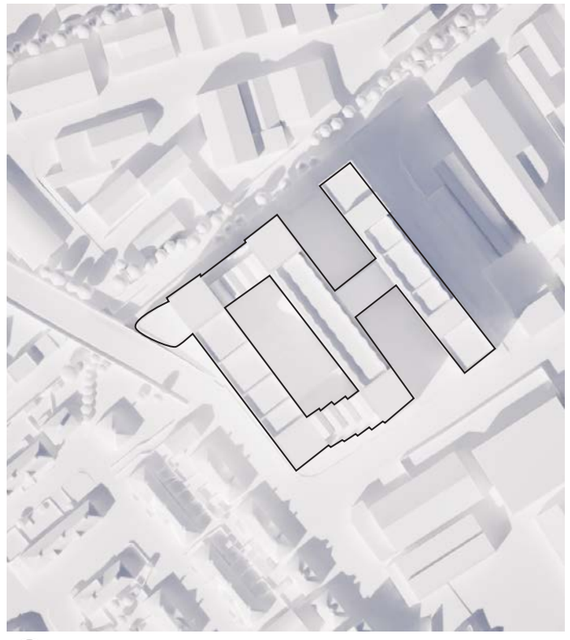
2 **9am**



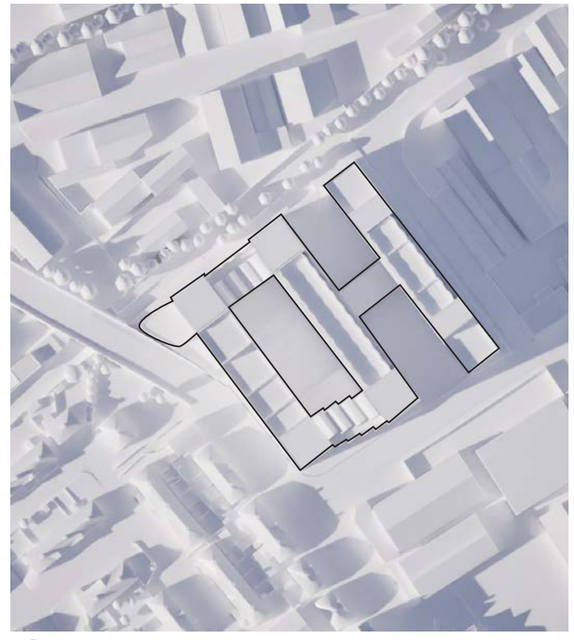
3 **11am**



4 **1pm**



5 **3pm**



6 **5pm**

4.0 Massing & Architecture

4.15 Sunlight & Overshadowing

May 15th:
Students enjoy their summer semester

1 **May 7am:**
Alfred Street and southern end of New Henry Street receive morning sunlight

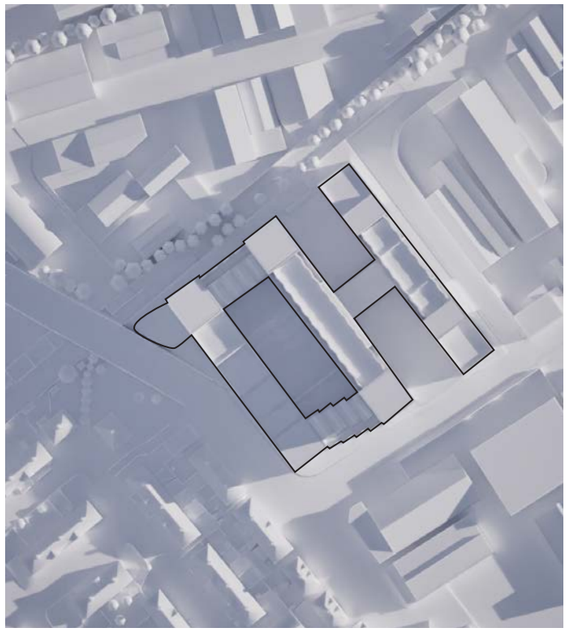
2 **May 9am:**
Courtyard and New Henry Street are partially sunlit

3 **May 11am:**
New Henry Street and Courtyard are very well sunlit with southern portion of courtyard in shadow

4 **May 1pm:**
New Henry Street and Courtyard are very well sunlit with southern portion of courtyard in shadow

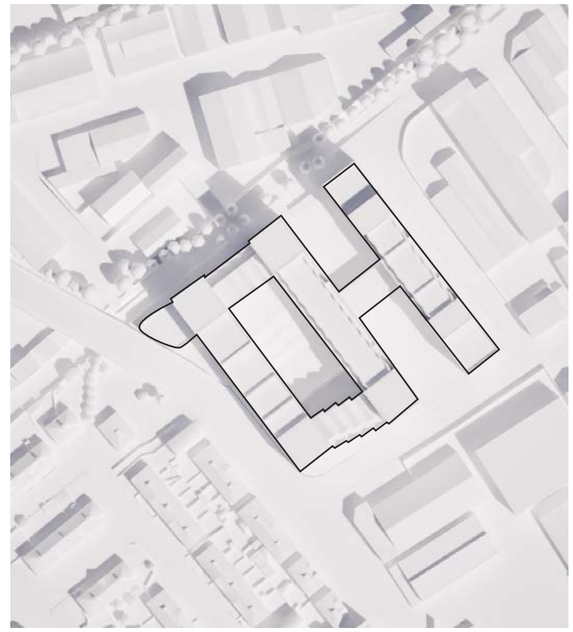
5 **May 3pm:**
New Henry Street is largely in shadow with eastern edge of courtyard receiving afternoon sun

6 **May 5pm:**
Main external spaces are in shadow

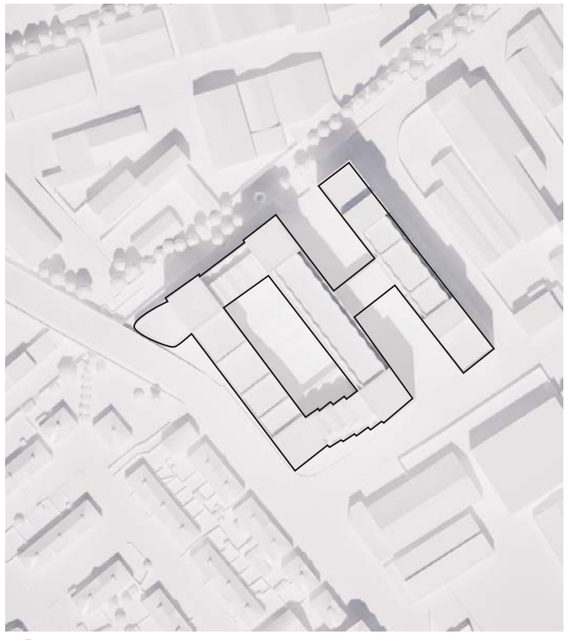


1 **7am**

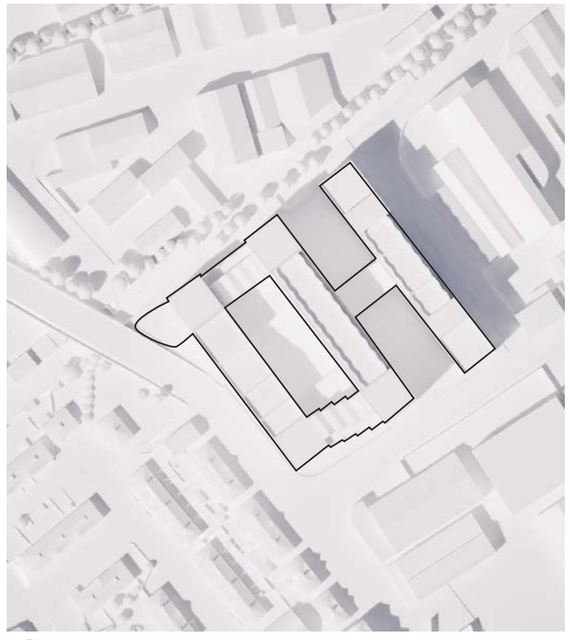
2 **9am**



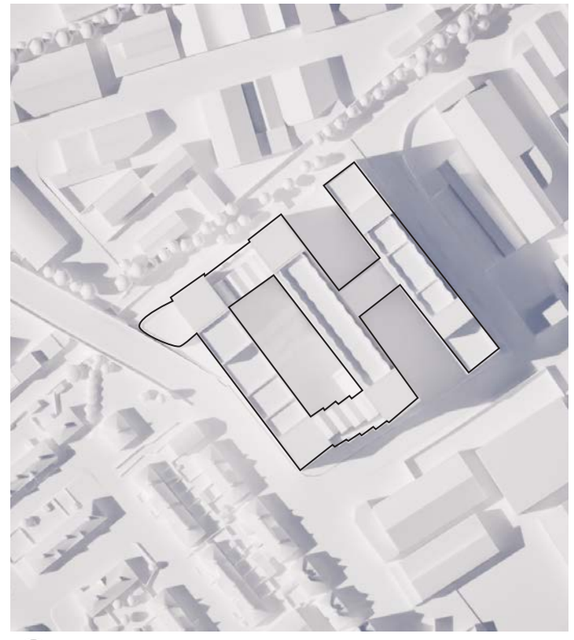
3 **11am**



4 **1pm**



5 **3pm**



6 **5pm**