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20 February 2025

Design & Access Statement

Fallowfield Campus

GRAHAM

MANCHESTER 1824
The University of Manchester

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P03	11/02/25	S2	DRAFT	MT	NM
P04	20/02/25	S2	PLANNING	MT	NM
P05	20/02/25	S2	PLANNING	PA	NM

1.0 INTRODUCTION

1.1 Document Purpose

This Design and Access Statement has been prepared by Sheppard Robson on behalf of John Graham Construction Ltd (GRAHAM). Additional input has been provided by Landscape Projects and Buro Happold. It accompanies and supports a Reserved Matters Application (RMA) for a building scheme on Fallowfield Campus. This document supports the application for the construction of 23 Purpose-Build Student Accommodation (PBSA) buildings, 1 central amenity hub and 5 supplementary amenity hubs housing ancillary support spaces (including social and study spaces) waste storage, laundry, cycle storage and associated public realm. The RMA incorporates the requirements of all reserved matters and relevant conditions tied to the Outline Planning Permission (OPP) as granted in January 2024 and covers the entirety of the OPP site area.

This statement explains how the proposed development is a suitable response to the site, its setting and the outline parameters, and demonstrates that it can be adequately accessed by prospective users.

Section 42 of the 2004 Town and Country Planning Act substituted Section 62 of the 1990 Act so as to provide a statement covering design concepts, principle and access issues submitted with an application for planning permission. It states that one statement should cover both design and access, allowing applicants to demonstrate an integrated design approach that would deliver inclusive design and address a full range of access requirements throughout the design process.

A key purpose of the Design and Access Statement is to achieve good design, supporting the role in the delivery of sustainable development through the planning system. This is a fundamental objective of the Planning Policy and as such is reflected in the National Planning Policy Framework.

This document should be read in conjunction with the supporting documents and drawings submitted as part of the application.

1.2 Executive Summary

The Site

The proposed site is located approximately 3 miles south of the city centre in the south Manchester suburb of Fallowfield within a larger cluster of university accommodation. Directly next to the site is one of the key arterial routes from south Manchester through to the city centre.

The application area is currently occupied by ageing PBSA, a large proportion of which is currently sitting vacant and some of which is in the process of being demolished.

Description of Proposal

The proposal is a RMA for consideration of appearance, layout, scale and landscaping, pursuant to OPP 138126/OO/2023 for the redevelopment of the site to deliver up to 3,300 PBSA bedrooms alongside associated facilities and ancillary accommodation to be delivered in phases.

The proposal seeks to deliver 3300 student bedrooms, of which 2633 are standard beds (circa 80%) and 650 premium beds (circa 20%). The offer includes 21 accessible rooms: 17 independent disabled (M2) rooms (14 standard and 3 premium) and 4 complex/ additional needs (M3) rooms (3 standard and 1 premium), along with 17 accessible parking bays.

To support the student population, the proposal includes 55 ResLife beds arranged across 9 clusters and 6 2-bed 3 person ResLife apartments for the pastoral care team who live on site. In addition to this, there are 5 further rooms provided for use on a temporary basis for emergency use. This can be for additional support for students during a mental health crisis, or for if they are requiring for any reason to be moved from their room on campus for a short period of time.

The amenity provision consists of a large central hub and five smaller ‘neighbourhood’ hubs to serve each distinct neighbourhood.

The project has ambitious sustainability aspirations, with all rooms designed to Passivhaus standard and a net gain of biodiversity proposed.

Public Realm

The proposal enhances the existing character of the site to provide a series of green spaces across the site which are accessible to all and will provide a haven for biodiversity in the area. In addition to this, the proposal provides a variety of green spaces including a large green space adjacent to the central hub in the heart of the campus.

RMA

The application is a RMA and complies with all parameters and guidance set out within the Parameter Plans and Design Guide as approved under the OPP granted in January 2024. A Statement of Compliance prepared by Sheppard Robson has been submitted as part of this application, please refer to this document for more information.

1.3 Development Team

Viridis Living

Viridis Living is a consortium comprising of Equatix (infrastructure investor, developer and manager), GRAHAM (investor and main works contractor) and Derwent FM (facilities manager). The Viridis Living name, translated as “green” in Latin, encapsulates the consortium’s aspiration to build a greener, sustainable future at the Fallowfield Campus, rooted in the delivery of an unrivalled student experience that positively contributes to the academic and intellectual; social and emotional; and cultural, sporting and artistic interests of the future residents.

The Viridis Living team have applied best practice in student residences from designing over 19,000 student bedrooms and operating across 21 University sites to design the proposal described in this application.

Equatix

Equitix is the infrastructure investor, developer and manager of the Fallowfield Campus Residences Redevelopment Programme. It is a leading international investor, developer and fund manager in infrastructure. Established in 2007, Equitix has over 360 assets under management valued at >$14bn. It has developed considerable experience in sourcing the most competitive funding and, subsequently, closing out student accommodation PPP projects in the UK over the last 10 years including the award winning University of York Student Accommodation scheme (1480 student beds). N.B. both GRAHAM and Derwent FM were part of the consortium with Equitix on this project.

GRAHAM

GRAHAM is an investor and the main works contractor for the Fallowfield Campus Residences Redevelopment Programme. It is a privately-owned developer and contractor with an impressive 200-year history. Specialising in building, civil engineering, interior fit-out, facilities management and investment projects, GRAHAM operates from a network of regional offices throughout the UK and Ireland. With an annual turnover of £1.125bn and a healthy £1.8bn pipeline of opportunity, it is a trusted delivery partner to a range of prestigious clients across a broad spectrum of sectors including higher education. Demonstrating its experience, GRAHAM has developed an £800m+ portfolio of PBSA projects across various UK sites, delivering 8000+ student bedrooms in the process. Importantly, GRAHAM is an equity partner as well as the proposed main works contractor for the Fallowfield Campus – strengthening the Viridis consortium further.

Derwent FM

Derwent FM is the facilities manager for the Fallowfield Campus Residences Redevelopment Programme. It is part of the Places for People group - the UK’s leading Social Enterprise. Derwent FM is one of the largest providers of facilities management services in the student housing sector, managing over 20,000 units of student accommodation. This adds undoubted strength and depth, a wealth of experience and a dedicated, robust team in the delivery of the FM services to the Fallowfield Campus project. Together, Derwent and Equitix have successfully mobilised facilities management teams across five projects - totalling more than 5,000 PBSA bedrooms.

1.4 Stakeholders

There are a wide range of stakeholders who have been engaged in the pre-application consultation process, reflecting the prominence and scale of the site and its strategic value to the University of Manchester.

University of Manchester

The University of Manchester is part of the prestigious Russell Group of universities, with outstanding facilities and the widest range of courses. It is highly respected across the globe as a centre of teaching excellence and innovative research. With 25 Nobel Prize winners among its current and former staff and students, it has a history of world firsts and brilliant discoveries, from splitting the atom to giving the world graphene. The University of Manchester is committed to world-class research, an outstanding learning and student experience, and social responsibility in everything that it does.

In 2023, the University commenced a procurement exercise to identify a Student Housing Partner to design, build, finance and operate new-build student accommodation at the Fallowfield Campus. Since 1910, Fallowfield has been an important part of the University's estate: an iconic residential campus familiar to many generations of students. However, many of the residences are no longer fit for purpose, and fall short of what students now require. Therefore, the University wants to redevelop a substantial proportion of the campus, in order to create sector-leading, highly sustainable accommodation that meets students' needs and expectations.

1.5 Design Team

The design team, led by GRAHAM, is comprised of the consultants listed below:

- **Client** GRAHAM
- **Architect** Sheppard Robson
- **Planning Consultant** Deloitte
- **Civil and Structural Engineers** Kennedy Redford
- **Ecologist** Thompson Environmental Consultants
- **MEP Consultant** RPS
- **Landscape Architects** Landscape Projects
- **Fire Consultant** OFR
- **Sustainability Consultant** Envision and Buro Happold
- **Acoustic Consultant** Cundall
- **Transport Consultant** Buro Happold
- **Passivhaus** Mosart
- **Heritage** Steven Lavrant Heritage Architecture
- **Waste** Buro Happold

2.0 PROJECT BACKGROUND

2.1 Project's Origin

The current accommodation on site dates from the late 1950's to mid 1960's. The structures are of varying build quality, and the campus is now reaching the end of its functional life.

Early feasibility work was carried out considering a deep retrofit but was discounted as the buildings could not be feasibly adapted to provide the requirements of a modern student offer.

An outline application- reference number 138126/OO/2023- with access matters only, was granted permission in January 2024. All other matters (design, layout, scale and landscaping) were reserved for later approval in a RMA. The application established the parameters and design principles for the detailed applications to come forward within the OPP boundary.

More information on the OPP can be seen in section 3.2 Planning History.

Timeline

Outline Planning Application Granted Permission

Applicant: University of Manchester

January 2024

Preferred Bidder Selected

Viridis Living

July 2024

Reserved Matters Application

Applicant: GRAHAM

February 2025

2.2 Project Vision

The University of Manchester is advancing its Residences Programme with the redevelopment of its aging PBSA at Owens Park, Oak House, and Woolton Hall. This project aligns with the University's vision to deliver a varied and environmentally sustainable residential portfolio that enriches the student experience, promotes well-being, and supports academic success.

In collaboration with GRAHAM, the University seeks to create welcoming and inclusive spaces that foster a strong sense of place for both students and the surrounding community. By significantly improving accommodation quality and increasing capacity, the redevelopment will enable more undergraduate students to live within University-managed halls, benefiting from integrated support services that help them live, learn, and thrive.

Key Development Aspects:

The approved brief and development quantum from the previous Fallowfield Campus outline application includes:

- 3,300 student beds,
- Up to 55 ancillary supporting staff accommodation beds,
- Up to 4,500m^2 of ancillary spaces dedicated to pastoral care and student well-being. These spaces include local and central student hubs, including social and study areas, waste management facilities, laundry services, and cycle storage.

Strengthening Student Community & Neighbourhood Integration

Fallowfield Campus has long been a vibrant and sought-after student community, known for its strong identity and neighbourhood character. The regeneration will preserve and enhance this unique sense of place while supporting the University's commitment to fostering a diverse and inclusive student body.

A core aim of the redevelopment is to strengthen social cohesion by creating high-quality environments that encourage students to socialise, study, and engage in activities within the campus. By expanding dedicated social, recreational, and study spaces, the new accommodation will encourage students to remain on campus for leisure and community-building, reducing the need to disperse into residential neighbourhoods. This will help minimise the impact of student activity on the wider community while enhancing the campus experience.

To create a safe, supportive, and sustainable student environment, the design proposals will focus on:

Sector-leading sustainable best practice

The Passivhaus solution proposed for the PBSA blocks will establish the development as the first in the UK to deliver this amount of student residences as Passivhaus on a single site.

Maximising the benefits of a high-quality off-site solution through design

The design approach has matched architectural ambition with the opportunities of off-site construction. Using pre-cast concrete will provide a strong, durable, energy-efficient, fire-resistant and high quality structure. It will achieve superior acoustic performance exceeding Building Regulations criteria, require minimal maintenance and maximise retention of trees through a reduced construction footprint.

An architectural design built around student needs

The proposal has fully integrated interior and exterior design, designing from the inside out to ensure every detail delivers the highest quality living environment and enhances student experience – from bed design to windows, look and feel of clusters to the distinct character of each neighbourhood. To ensure robustness, longevity and reduced maintenance, the materials specified are of a high quality.

Enhancing landscape value of the site, promoting wellbeing, security and belonging.

With landscaping constituting over 70% of the site area, quality within the landscape proposals is driven by creating:

- A framework of green infrastructure, which maximises tree retention, conserves habitats and establishes distinct settings for each neighbourhood.
- A well-connected, safe and accessible site through carefully considered, well-lit routes, car-free spaces and enhanced passive supervision.
- Increased opportunities for positive interactions and connections to places through a range of outdoor amenity spaces.

Applying research-based design

Research-based design facilitates a good balance between different functions and activities. Every day students spend on average 13hrs in their room. The design addresses this experience, making bedrooms comfortable for study as well as resting through the quality of daylight, acoustics, air quality and temperature control.

Delivering best practice in student housing design

Best practice in student accommodation revolves around how architectural design can enhance all aspects of student living, supporting them in a transformative period of their lives. The design is rigorous and thoughtful, addressing the physical and ergonomic needs of students, as well as their emotional and social wellbeing.

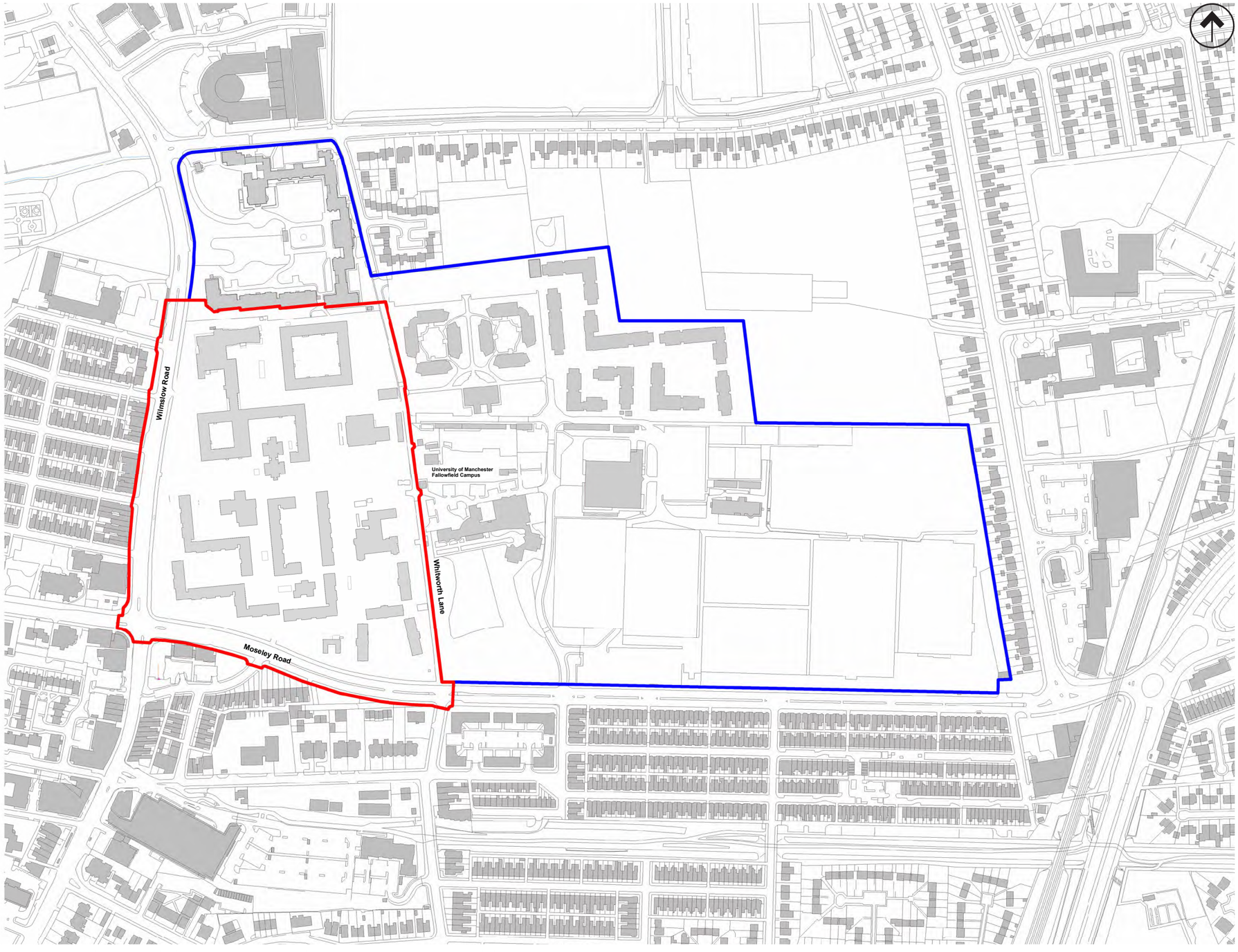
3.0 PLANNING

3.1 Planning Boundary

The adjacent drawing shows the extents of the applicant's ownership as well as the extent of the application boundary as submitted for this RMA which covers the entirety of the OPP site area.

3.2 Planning Policy Context

The Planning Statement, prepared by Deloitte and submitted as part of this application, covers the relevant planning policy framework which form the basis for the consideration of the proposed development in more detail, refer to this document for further information.



Key:

Red Line Boundary

Ownership Boundary

Note: The existing buildings are shown prior to the current demolition works commenced.

3.3 Planning History

2015 Hybrid Application

The site has previously had planning permission for redevelopment as student residential accommodation from 2015 which was part-implemented through the delivery of Unsworth Park and Uttley House, but the permission expired before any more of the wider masterplan was delivered.

A hybrid planning application for development of the Fallowfield Campus, which included the site within a wider area (110184/FO/2015/S1) was submitted in 2015 and accompanied by an Environmental Impact Assessment. The application included development to replace the student accommodation with new PBSA.

Detailed consent was sought for the majority of the proposals, with an element based upon a series of Parameter Plans (outline consent). The application proposed to remove 2,176 units and develop 3,209 new residential units for students. The application was granted permission in 2015.

The majority of the proposals from the application were not developed or constructed – including the area covered by the proposed development – however Unsworth Park and Uttley House (providing 1,185 beds) was delivered through the 2015 permission on land not previously in use as PBSA and therefore without any loss in bed spaces.

2023 Outline Application

An outline application (138126/OO/2023) for the redevelopment of Fallowfield Campus which sought permission for access matters only, was submitted in September 2023. All other matters (design, layout, scale and landscaping) were reserved for later approval in a RMA.

The application established the parameters and design principles through a series of Parameter Plans and a Design Guide for the detailed applications to come forward within the OPP boundary.

The application proposed to demolish 2350 units, and replace with up to 3300 units alongside 4500m² ancillary facilities to support the student population. The application was granted permission in January 2024.



2015 application



2023 application

3.4 Pre-application Meetings

A series of pre-application meetings with Manchester City Council (MCC) have taken place as part of the design process, they are summarised in the table below.

Meeting	Date
MCC Planning (Pre-Application 01)	14th August 2024
MCC Planning (Pre-Application 02)	9th September 2024
MCC Planning (Pre-Application 03)	7th November 2024
MCC Planning (Pre-Application 04)	4th December 2024
MCC Planning (Pre-Application 05)	17th December 2024
MCC Planning (Pre-Application 06)	13th January 2024

Further meetings have taken place between the design team and various MCC teams to ensure the proposal is appropriate and complies with local policy.

Meeting	Date
MCC Highways and TfGM (Meeting 01)	9th September 2024
MCC Waste Officer	15th January 2025
MCC Tree Officer	3rd October 2024
Greater Manchester Ecology Unit	4th February 2025
Greater Manchester Police (GMP)	21st November 2024

3.5 Public Consultation

A public consultation for the proposals was held from 5 December 2024 to 9 January 2025 across approximately 6 weeks. The consultation was supported by a dedicated public consultation website where people could view the proposals and consultation information. It also included a consultation email where people could send feedback for the duration of the consultation event. The consultation period included the following events:

- Webinar for students on 2 December 2024 between 2pm and 3pm.
- Webinar for general public on 5 December 2024 between 6pm and 7pm.
- First in-person drop-in consultation event on 11 December between 12pm and 4pm at Uttley House
- Second in-person drop-in consultation event on 12 December between 4pm and 7pm at Uttley House

In advance of the event, invitations were sent to 3,313 local addresses, informing them about the upcoming webinar and drop-in events . These were supplemented by widespread coverage on local media, including Student News and the Tab.

The student webinar was advertised by the University of Manchester Student Union. The webinar for the general public was supported by a webinar panel and a recording of the webinar was uploaded on the consultation website. Feedback from the consultation process centred around the following themes:

- Affordability
- Biodiversity
- Safety
- Pedestrian crossings
- Accessibility
- Landscaping
- Commercial spaces
- Parking
- Services and deliveries
- Height
- Allocation of units
- Impact on rental properties and services
- Healthcare and social value
- Project name

For further information, please refer to the Statement of Consultation prepared by Deloitte and submitted as part of this application.





4.0 SITE ANALYSIS AND CONTEXT APPRAISAL

The following section has in part been extracted from the Design and Access Statement prepared by Sheppard Robson for the Outline Application (138126/OO/2023) submitted in September 2023.

4.1 Location

The Fallowfield Campus is situated within a larger cluster of University accommodation and provision within the south Manchester suburb of Fallowfield. The site is approximately 3 miles south of the city centre.

4.2 Site and Immediate Surroundings

The site sits immediately adjacent to one of the busiest bus corridors in Europe linking the campus into the Oxford Road corridor and the University of Manchester and Manchester Metropolitan University sites. The site is bounded by Ashburne Hall and Sheavyn House student residences to the north, Moseley Road to the south, Wilmslow Road to the east and Whitworth Lane to the west.

The site forms part of the University of Manchester's student residential offer within Fallowfield. The site sits alongside Unsworth Park and Richmond Park student accommodation blocks to the east and Ashburne Hall and Sheavyn House to the north. It encompasses the Owens Park, Oak House and Woolton Hall student accommodation blocks as well as The Limes which operates as a catering facility for the university. The Limes building has been proposed for relocation to be adjacent to Richmond Park outside the red line boundary.




15 Mins
10 Mins
5 Mins
Key:
Primary Vehicle Route
Railway
Walking Distances
Fallowfield Ward Boundary
Site

4.3 Local Character and Context

The predominant local character is that of red brick terraces (1, 5, 9). These vary in height from 2 to 3 storeys and are articulated on the façade with a mix of bay windows, apexes, and dormer windows. They are largely set at the back of pavement, but some do have small front yard spaces setting them back from the street. Most have recessed porch areas, some of these have been enclosed.

A small estate- Redshaw Close (2)- of late 20th Century homes to the north-east of Whitworth Lane sits in close proximity to the site. These homes have open lawn spaces to the front of the dwellings with a mix of render and pale red brick and a variety of porch styles.

Circa 25 year-old student residential blocks (6) are located to the south of the site, with dark aluminium frames windows and a mix of red and buff brick. Some reference to the multi storey bay windows of the terraces is evident on these 4 storey blocks.

The streetscape to west of the site is of a consistent Acrington type red brick, with decorative pediments, terracotta date plaques and decorative terracotta finials. These two story buildings generate a much stronger street presence due to the decoration and height of their pediments (10).

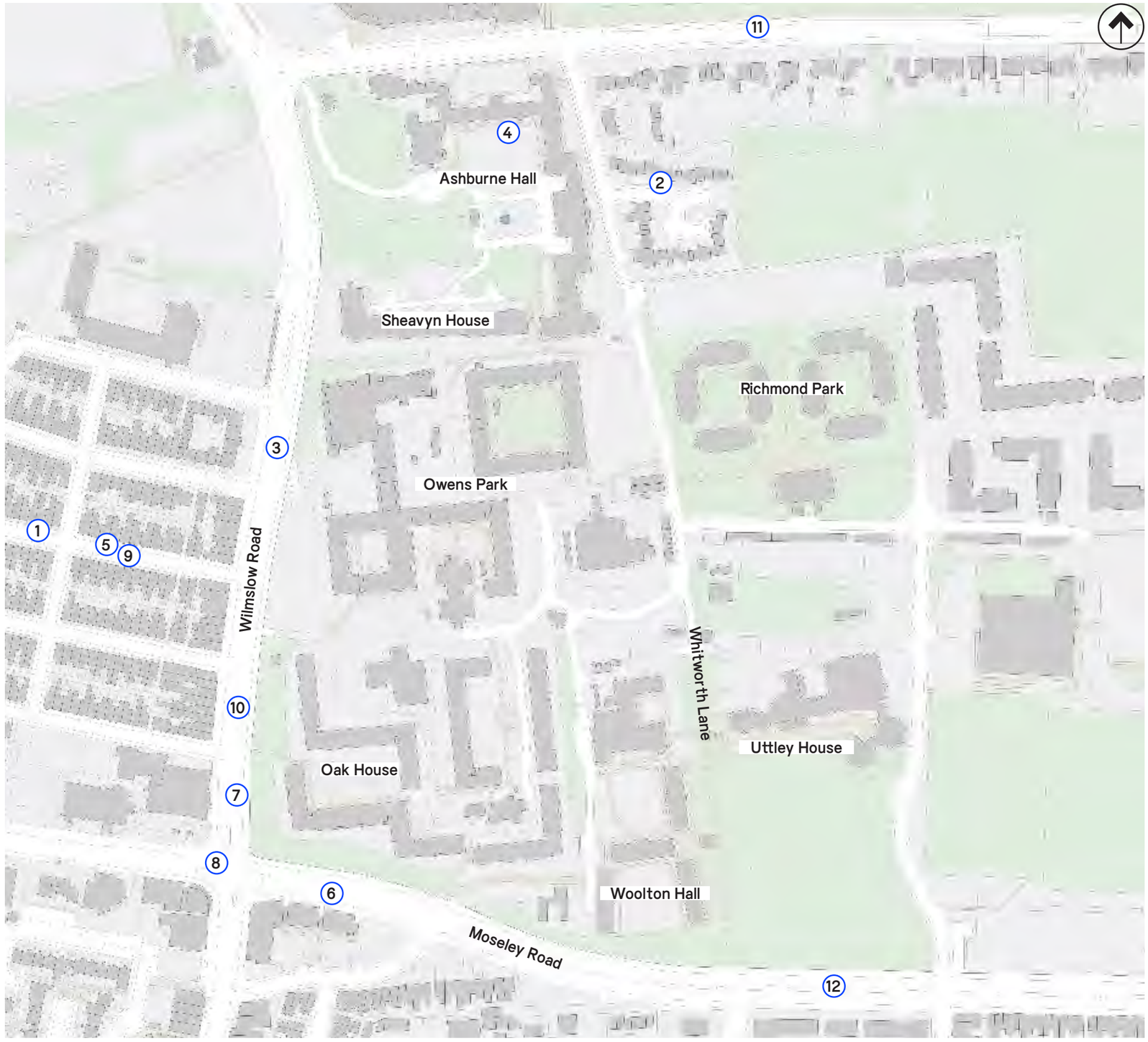
Mid-century blocks of apartments in a buff brick have some articulation with dark pop out bays (3).

To the north of the site, the scale and typology becomes suburban, with larger pre WWII detached and semi detached beaux arts style houses with idiosyncratic detailing, overhangs, bay windows, dormers and timber fascia boarding (11).

Local Landmarks

The 'Toast Rack' (4) is one of Manchester's most iconic structures, clearly visible on the south Manchester skyline due to its distinctive form. An icon from the 1960's, its distinctive form and height within the area denotes the start of the Fallowfield Campus when traveling south from Manchester city centre.

The grouping of the Church of Holy Innocents (7, 8) and associated buildings is another key landmark. Occupying the main corner plot on a main junction, the conversion of part of the grouping into a public house makes this landmark more active for greater time periods than in its original use as a school. Materially very different to the surrounding red brick, the site is constructed of a pitch faced buff sandstone, with finer detailing in a red sandstone.



Note: The existing buildings are shown prior to the current demolition works commenced.


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11

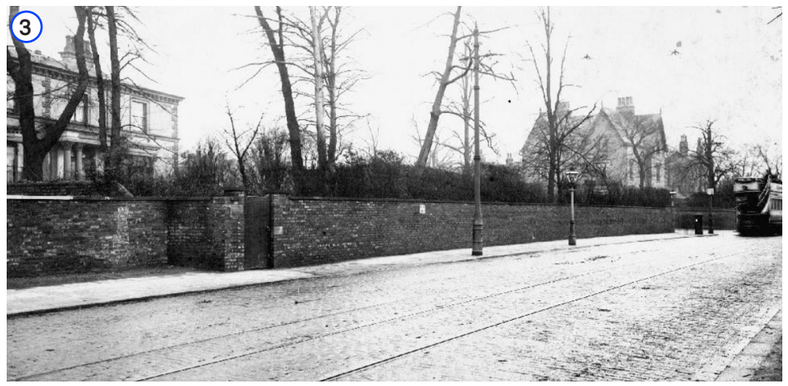

12

4.4 Site History

Prior to its current usage as student residences for the University of Manchester, the site was occupied by several large Victorian villas. The construction of these villas and the associated roads contributed to the definition of the sites current character areas, with many of the original road layouts continuing to the present day. The adjacent images show the site as it was prior to the redevelopment into PBSA in the second half of the 20th century.







Historic Images of the Site

Photograph 1 shows the whole site in 1949. The villas along Oak drive can be seen, as well as the semi-detached houses to the south.

Photograph 2 shows the Faithful Companions of Jesus Grammar School, which was situated within two converted villas in 1957.

Photograph number 3 shows Oak Drive in 1908, with a tram route in the foreground and villas behind the walls.



Historic Map 1848

The site consists of a patchwork of fields defined by boundaries.



Historic Map 1888

Wilmslow Road clearly defines the western edge of the site in 1888, with Whitworth Lane to the east. Moseley Road has not been constructed at this point. A horseshoe shaped crescent with large villas defines the northern half of the site with further villas to the south reached off a small drive. Interestingly, the site of Woolton Hall to the south east already appears defined, with the tree line and open central space to that plot clearly visible on the map.



Historic Map 1937

By 1937 Moseley Road has been constructed to connect Wilbraham Road in the west and the newly constructed A34 Kingsway in the east. Ashburne Hall to the north of the site has been constructed.



Historic Map 1945

No major changes to the site have occurred during the Second World War. The site as we see it today involved the phased clearance of the historic villas in phases between the later 1950's and mid 1970's.

4.5 Heritage Context

Heritage Assets – Assessment of Significance

The site does not contain any designated or non-designated heritage assets, nor does it form part of a conservation area. The site does have a number of designated heritage assets within close proximity to its boundary, which are highlighted on the map adjacent. Nine of the ten closest designated assets are listed at Grade II, whilst one is a Scheduled Ancient Monument.

Heritage Assets Relationship to the Site

The designated heritage assets around the site fall loosely into three groupings, Ashburne Hall to the north, Firs Lodge and Uttley House to the east and the Church of Holy Innocents, Fallowfield War Memorial and the former School to Church of the Holy Innocents to the south-west.

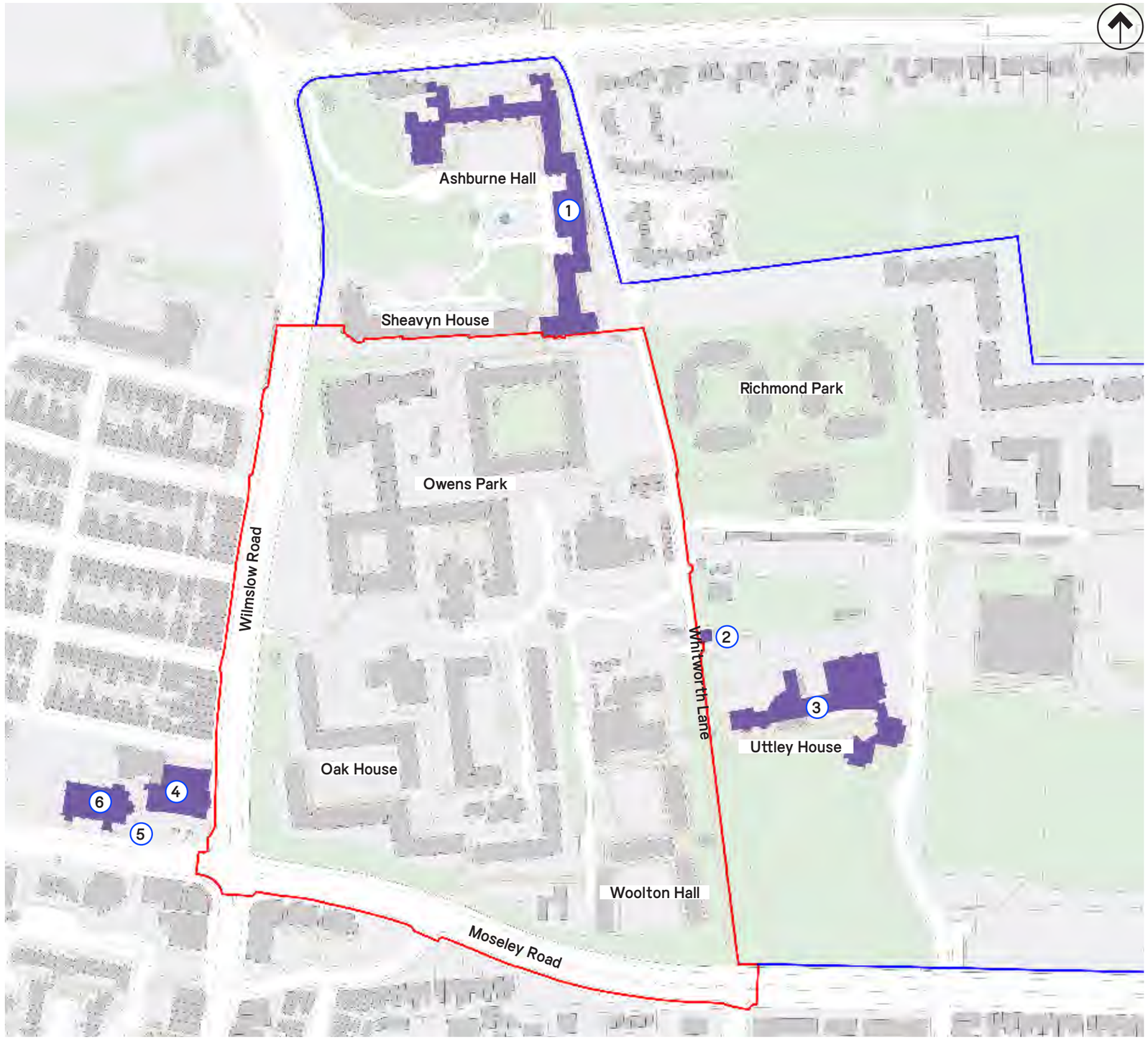
None of the groupings directly interact with the site, Ashburne Hall and Uttley House actively face away from the site boundary on their own axis within formal landscape settings. The church grouping forms one of the corners of the cross roads between Wilmslow Road, Moseley Road and Wilbraham Road. The site on this corner has one of the denser banks of trees, with little view through to the development area behind.

The proposal recognises these adjacencies through massing, material palette and details. The proposed blocks are stepping away from historic assets and use high quality brick and detailing to match and complement the existing palette of materials.

Please refer to the Heritage Statement prepared by Stephen Lavrant Heritage Architecture for more information.

Key:

- Listed Building
- 1 Ashburne Hall - II
- 2 Lodge of the Firs - II
- 3 Uttley House - II
- 4 Queen of Hearts Pub - II
- 5 Fallowfield War Memorial - II
- 6 Church of Holy Innocents & St. James - II



Note: The existing buildings are shown prior to the current demolition works commenced.


1


2
Fire
Assembly
point


3


4


5


6

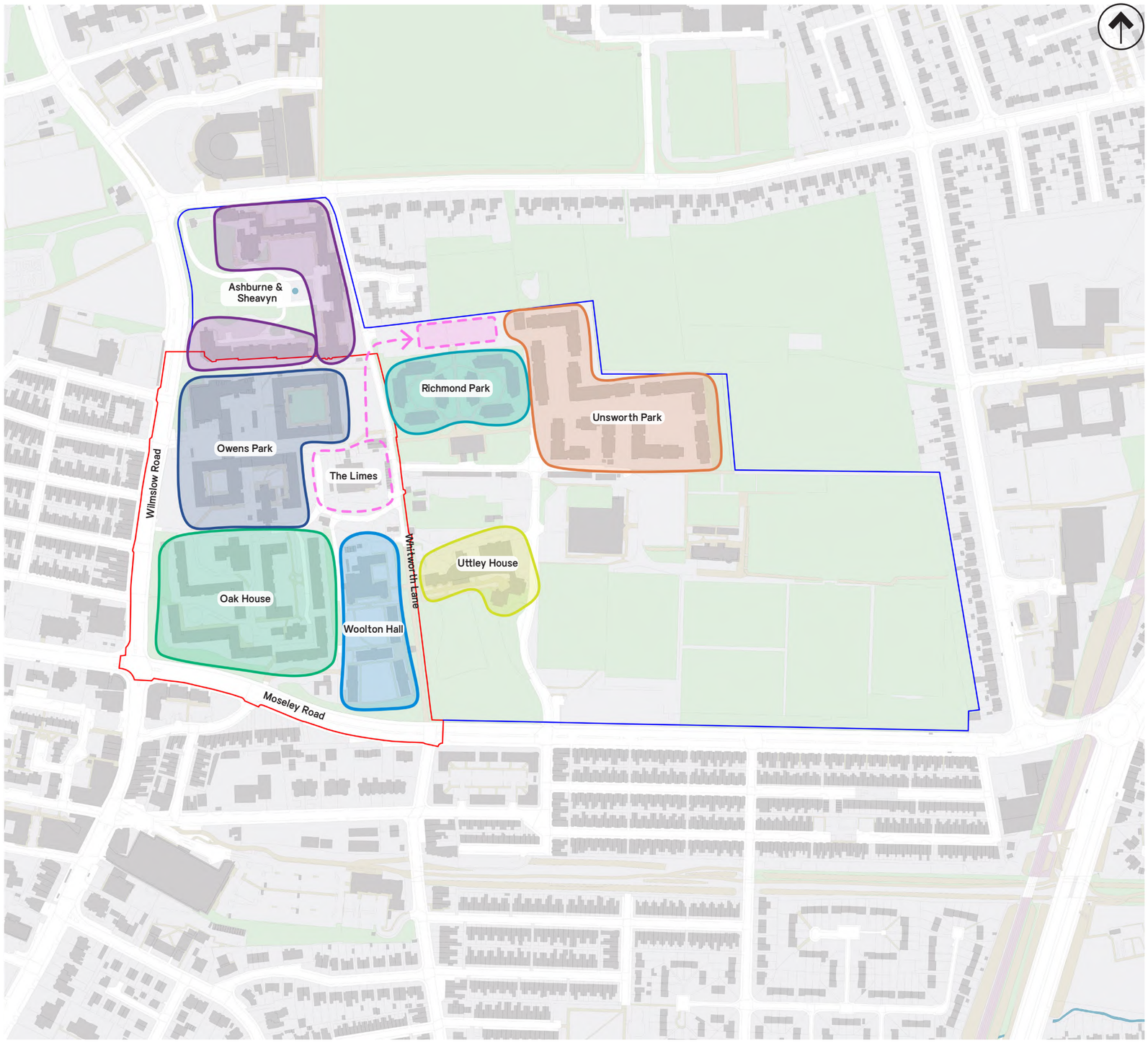
4.6 Existing Site Character Areas

Through its trees and greenery, as well as its vibrant student population and sports facilities, the campus as whole makes an important contribution to the life and character of Fallowfield as a local centre.

The development site at Fallowfield Campus is set within a range of residential and support facilities which combine to create a rich environment for student living. The development site is characterised by its woodland setting and different neighbourhoods varying in age, architectural style, student accommodation offer, rent and room provision.

The current neighbourhoods are clearly defined and encourage the formation of distinct communities that associate themselves with their specific accommodation - often creating nicknames. The site boundary encompasses Owens Park, Oak House, and Woolton Hall - areas with their own distinct character and community.

It also currently houses the Limes building which operates as a catering facility for the university. The Limes building has been proposed for relocation to be adjacent to Richmond Park outside the red line boundary, show adjacent.



Note: The existing buildings are shown prior to the current demolition works commenced.



Aerial View of Fallowfield Campus

4.7 Landscape Character

The green infrastructure of the Fallowfield Campus, including the mature existing woodland belts, hedgerows and grass areas, is a key feature of its character, providing coherence and continuity.

The site is enveloped in an almost continuous perimeter belt of mature trees, so that the interior of the site feels secluded. The tree density across the site is highly variable, with dense planting along north-south pathways, and almost none in southern courtyards.

Within the site, variations in landscape character are perceptible, such that the site can be seen as three character areas:

Owens Park

Situated on the extensive area of level ground at the north of the site, Owens Park is characterised by large, open, interconnected courtyards framed by long low roof lines which contrast dramatically with the Owens Park Tower building.

Oak House

Located in the south west of the site, this area is characterised by a complex arrangement of interconnected medium and small-scale courtyards, framed by long building façades which traverse sloping gradients.

Woolton Hall

The eastern side of the site is formed as a series of open lawn areas, which step down to the south. Buildings are no more than three storeys in height, so trees form a background skyline.



Key:

- Category A
- Category B
- Category C
- Category U

Note: The existing buildings are shown prior to the current demolition works commenced.

Existing Site Trees

A survey of tree species, size and condition to BS5738 was carried out on the site as part of the outline planning process. This shows that a wide range of tree species are present, including:

Forest and Woodland Trees:

- Lime (Tilia spp)
- Pine (Pinus spp)
- Beech (Fagus spp)
- Oak (Quercus spp)
- Hornbeam (Carpinus spp)
- Holly (Ilex spp)

Woodland Edge Trees:

- Maple (Acer spp)
- Hawthorn (Crateagus spp)
- Cherry (Prunus spp)
- Pear (Pyrus spp)
- Crab Apple (Malus spp)
- Willow (Salix spp)

Ornamental Trees:

- Weeping Pear (Pyrus spp)
- Dwarf Conifers (Chamaecyparis spp)

Key trees of note:

1. Copper Beech
2. Black Pine
3. Ornamental Crab Apple
4. Willow Leaved Pear









4.8 Existing Buildings

The current buildings on site were constructed in three phases, which can be read quite clearly through their architectural expression.

Owens Park

Owens Park has several low-rise blocks accommodating residences and social provisions, as well as the Owens Park Tower.

The areas as highlighted by the red hatch are currently being demolished as part of the phase 1 demolition works as part of the OPP.

The Limes

The Limes block was developed at the same time as Owens Park to house central food preparation and services. It remains a central resource point for the University, providing centralised catering and laundry services.

Oak House

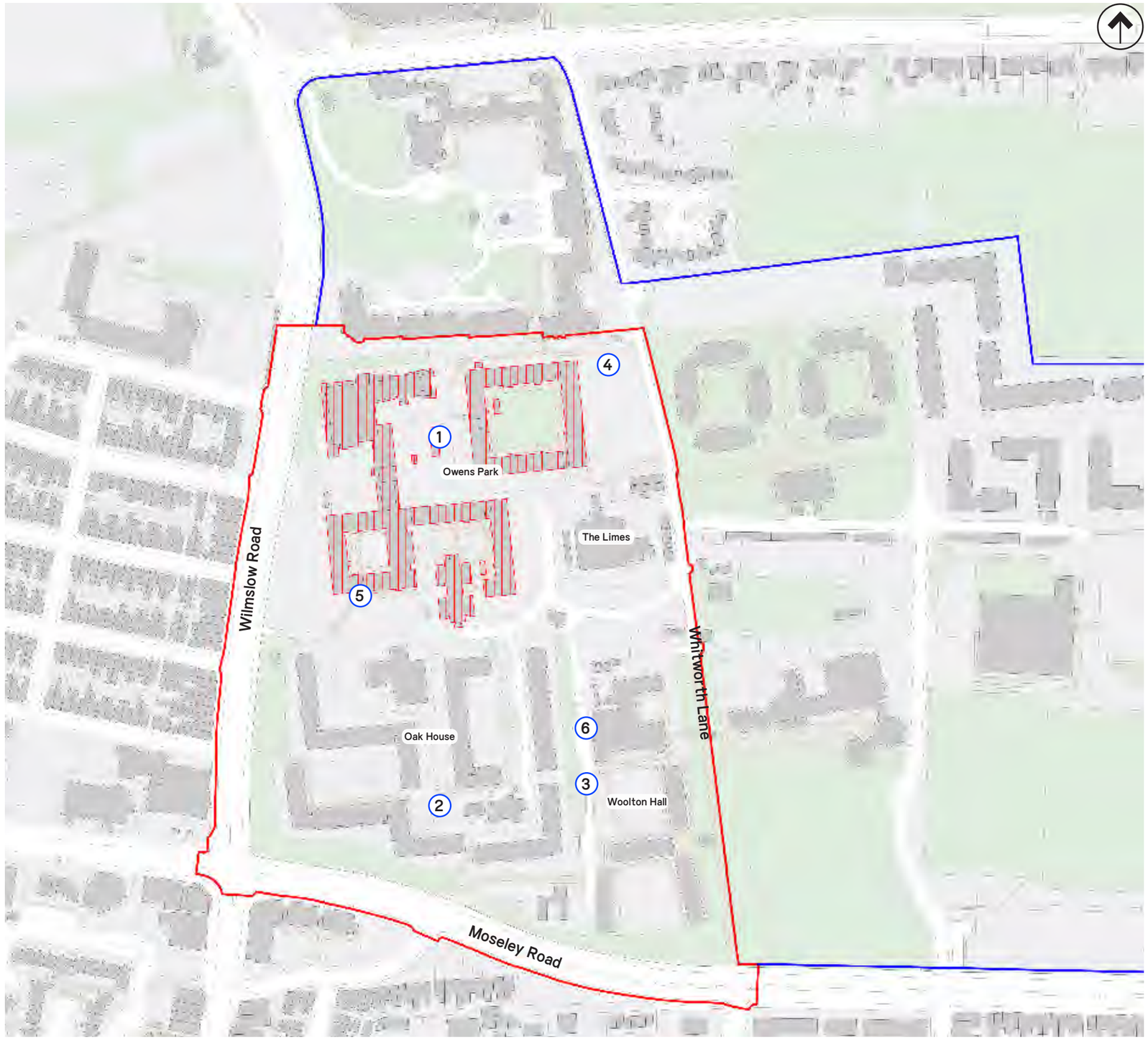
Built in the 1970's, Oak House is a circa 4 storey buff brick student accommodation complex. It is of low quality, with poor amenity space surrounding the building, with a proliferation of bins and lack of bike storage. It houses one of the main student bars on the Fallowfield Campus.

Woolton Hall

Built in 1959, Woolton Hall features pitched oxidized copper roofs and simple but thoughtful detailing. It has a dedicated dining hall area and is fully catered.

Summary

The different areas provide poor linkages and routes between the areas as well as within them. There is little definition between front and back, with waste storage scattered and highly visible around the site. Low quality entrances makes wayfinding difficult. The overall design quality is poor and tired.



Key:

Phase 1 demolition works

Note: The existing buildings are shown prior to the current demolition works commenced.


1


2


3


4


5


6

Site Items Of Interest

Some items of interest exist around the site, such as the historic gates which pre-date the site use as PBSA, as well as some more idiosyncratic items such as a memorial plaque to the Woolton Hall cat.

The most significant item of interest is the Mitzi Cunliffe mural which was situated at the base of Owens Tower. Since the phase 1 demolition works have started, the mural has been carefully removed and stored in the Ferranti Building.

Mitzi Cunliffe

The fibreglass relief artwork by Mitzi Cunliffe was completed from 1964-65.

Mitzi Cunliffe (1918-2006) was an American sculptor who through her work for a number of high profile commissions became a well-recognised and respected artist in the UK with her best known work being the BAFTA trophy. She spent some of the most productive years of her career based in Manchester. Some of her most significant work in the local area includes the large relief at the pumping station in Heaton Park, and the 'Cosmos' Owens Tower sculpture pictured opposite.

To comply with Planning Condition 6 of the OPP, the artwork will be reused in the development inside the central hub and as part of the landscaping strategy. See section 5.23 Mitzi Cunliffe Relief Location for more information.

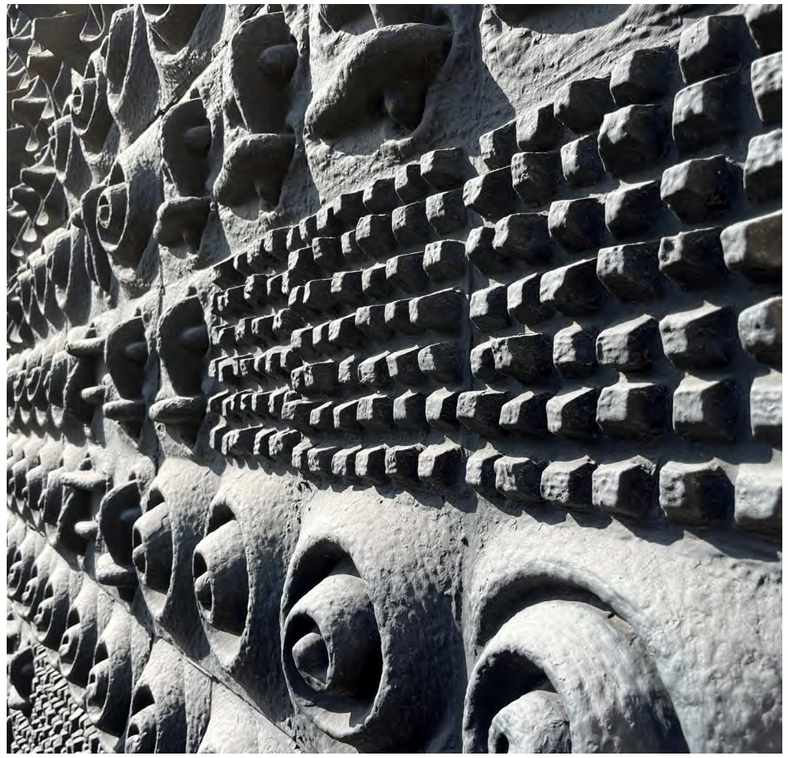


Historic gate



Commemorative plaque







4.9 Access and Movement around Site

Highways Access

The site is bounded by two major roads and the junction between them to the west and south. Bounding the north and east are smaller internal roadways which are predominantly University traffic and not used by the general public.

Wilmslow Road to the west is the main route connecting Fallowfield to the Oxford Road Corridor, Manchester Metropolitan University and University of Manchester teaching campuses. It is heavily used by bus traffic into and out of the city centre. Painted cycle paths on the roadway are present at this location, with segregated cycle paths further into the city centre. 'Bee Network' cycle hire stations have been installed along the route to facilitate cycle rental.

Moseley Road to the south is a major connecting road between Manchester suburbs Stretford, Chorlton and Levenshulme. This route has painted cycle paths on the roadway. Whilst still a bus route, it is a lot less heavily trafficked than the north-south route.

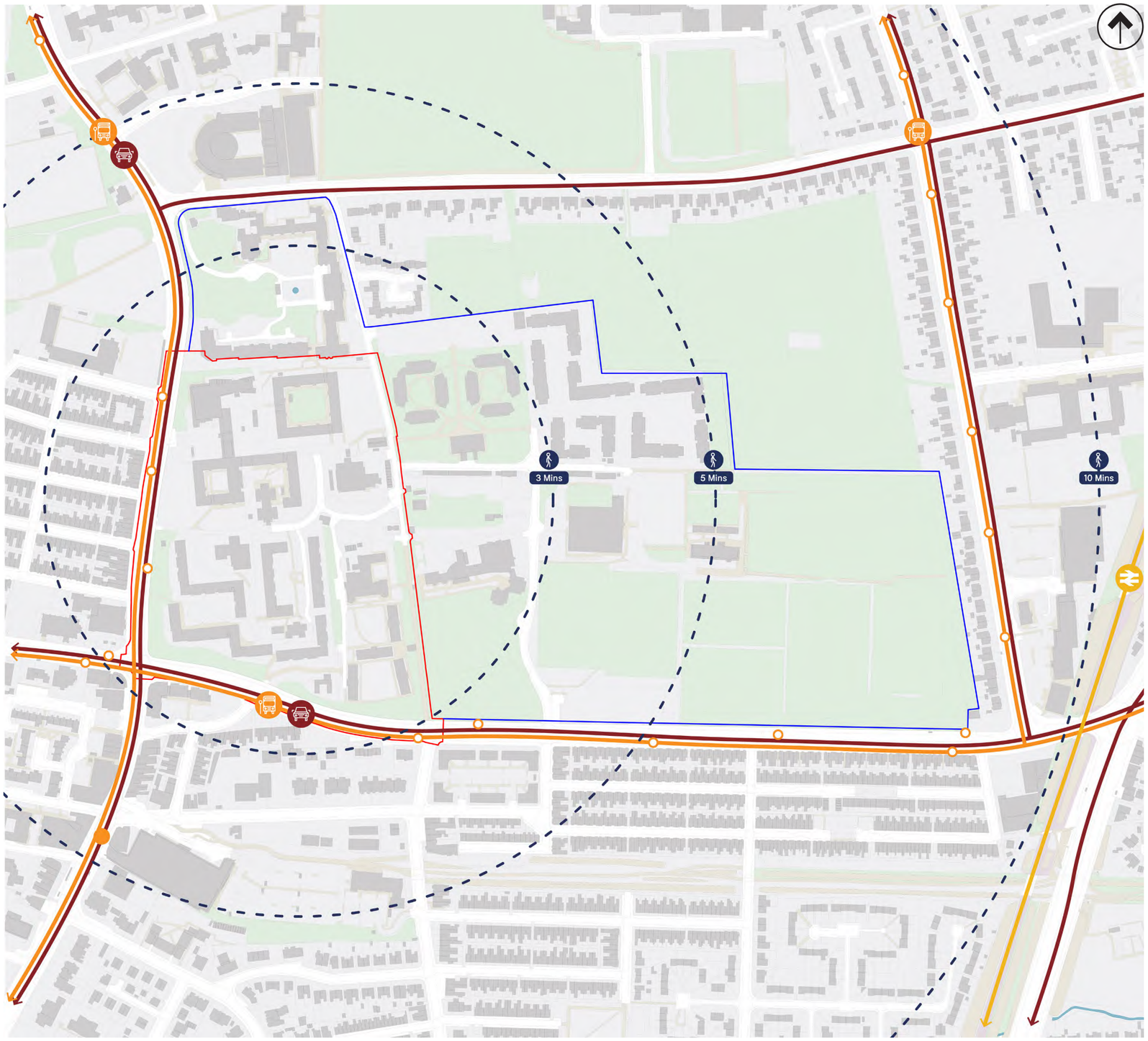
Public Transport Amenities

The main bus route drops off/collects people along the A6010 to the west of the site.

Pedestrian and Cycle Movement Patterns

Primary pedestrian routes link Platt Fields Park in the north to Fallowfield centre in the south.

The site is bisected by a pedestrian route linking the main road with the Richmond Park and Unsworth Park student accommodation blocks to the east of the site. This route is predominantly used only by students within the halls of residence.



Key:

- Primary Vehicle Routes
- Primary Bus Routes
- Bus Stops
- Walking Distances
- Railway
- Site

4.10 Site Appraisal

The site offers a number of opportunities to create a positive and successful development for both the University and the wider Fallowfield community.

Site Constraints

The site is subject to a number of physical constraints which have influenced the emerging design proposals:

- The site is physically constrained to the west and south by major roads. The north and east are constrained by minor or private roads within the University campus ownership.
- The site has significant mature tree coverage, particularly to the west and south boundaries, but also within the centre of the site.
- The site has a limited and fixed number of access points for both pedestrians and vehicles.
- The site is bisected by a main pedestrian route from the main road through to the wider campus.
- The site is currently closed off to the adjacent Ashburne Hall and Sheavyn House residences through a lack of visual connection and a limited pedestrian connection.
- The terrain of the site is currently steeply sloping in places, making access challenging.



Key:

- Primary Vehicle Routes
- Primary Pedestrian Routes
- Main Site Access Points
- Minor Site Access Points
- The Limes Building Relocation
- Lack of Visual Connection

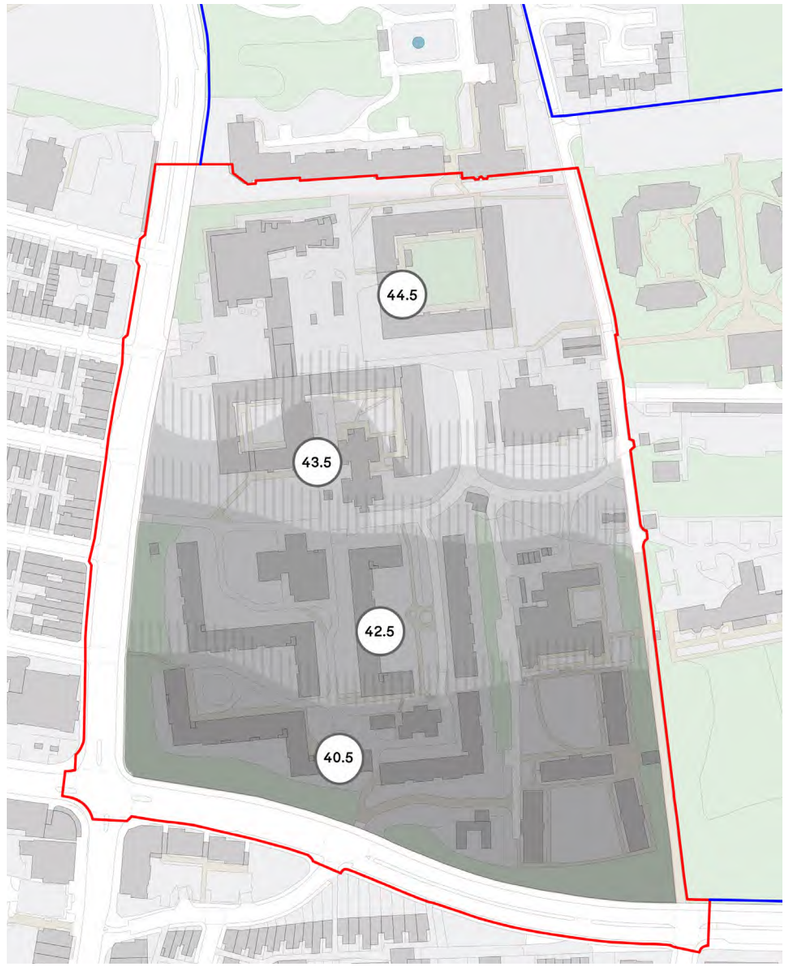
Terrain

Lanes in which pedestrians, cyclists and vehicles share the same route provide access through the site; in some places these routes are steeply sloping. The site slopes down from north to south circa 5 meters, which has resulted in the site currently having limited accessibility for ambulant disabled and wheelchair users.

The terrain has been shaped by cutting in some places, filling in others, to create a series of level terraces, separated by changes of level of approximately 1.0 - 1.2 metres. In places these level changes are steeper than 1:21.

Access and Circulation

The site has several access points which are fixed as part of the OPP. As these access points are well established, they provide good connections to neighbouring sites within the wider Fallowfield Campus. The east-west footpath connecting Wilmslow Road and its bus stops with the wider Fallowfield Campus bisects the site, and is the busiest pedestrian route.

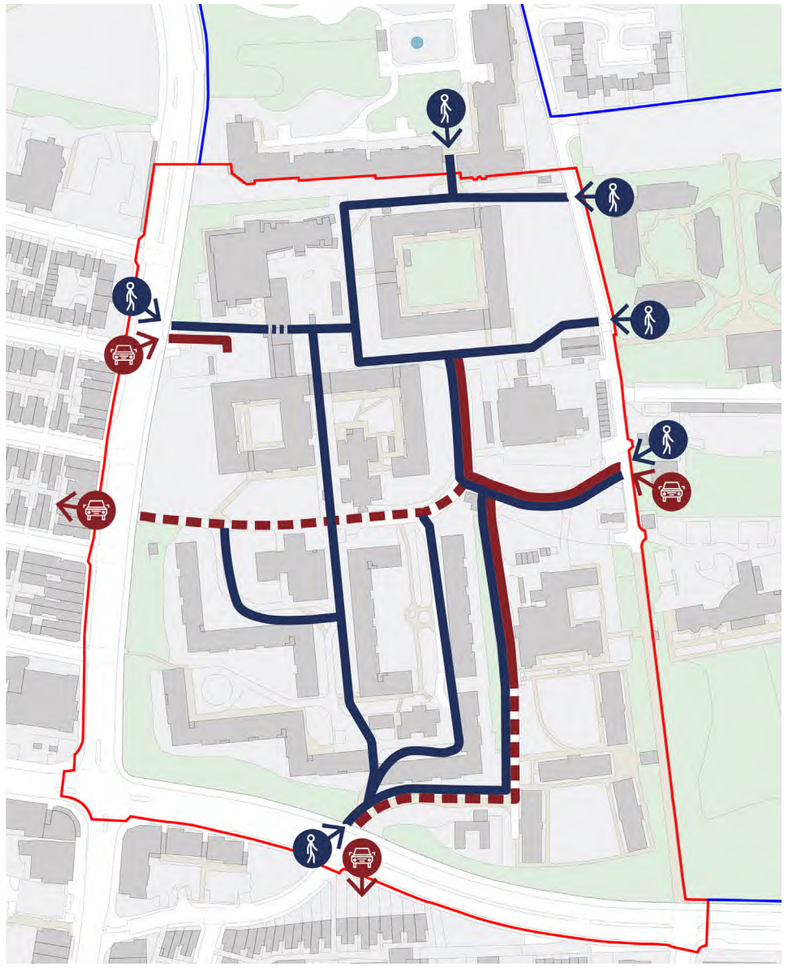


Terrain: levels and contours

Key:

Level Changes (m)

Site Levels



Access and circulation into Site

Key:

Vehicular Site Entry Points

Pedestrian Site Entry Points

Site Exit Points/ Moving In and Out Days Only

Pedestrian Routes

Vehicular Routes

Site Opportunities

Despite the challenges of the site, there are also a number of opportunities presented:

- Reinforce a connection between all residences on the Fallowfield campus, by providing a central amenity hub that can be used by all living in the proposal, Ashburne Hall, Sheavyn House, Richmond Park, Unsworth Park and Uttley House.
- Create a connection between the site and the residences to the north through softening the hard edges and boundaries and providing an open view down the north to south spine.
- Reinforce the east to west route through the site through the creation of a wide, open boulevard.
- Facilitate the improvement of public realm and green space for the local community.
- Improve the biodiversity offering and planting for local wildlife.
- Make a positive contribution to improve the quality of the buildings and site.



Key:

- Primary Pedestrian Route
- Connection Created
- Development Link to Central Hub
- Green Space
- Development Zone

5.0 DESIGN STATEMENT

5.1 Use

The proposed development consists of 23 PBSA blocks, 5 neighbourhood hubs and 1 central hub totalling 29 buildings. The buildings will be set within a green landscape, most of which will be preserved from the existing development and further enhanced to increase accessibility, biodiversity and improve the quality of the public realm.

PBSA

The proposed development will provide 3300 student beds, along side 55 ResLife beds to provide pastoral care for the students.

The rooms will be split across a standard offering (2650 beds- 80.3%) and premium (650 beds- 19.7%). The offer includes 21 accessible rooms: 17 independent disabled (M2) rooms (14 standard and 3 premium) and 4 complex/ additional needs (M3) rooms (3 standard and 1 premium), along with 17 accessible parking bays.

Ancillary Support Staff and Support Rooms

The ResLife offering will be arranged across 8 clusters and 6 2-bed 3 person ResLife apartments. These are integrated into the ground floor of the residential blocks. In addition to this, there are 5 support rooms provided for use on a temporary basis for emergency situations. This can be for additional support for students during situations such as a mental health crisis, for parents to stay to support their child or if they are requiring for any reason to be moved from their room on campus for a short period of time. The introduction of this facility is based on the team's day to day experience of running student halls and in-depth understanding of student needs, and is necessary for a student population of this scale.

Central Hub

To support and enhance the students lives on site, the development includes a central hub which will provide both functional and social spaces. Located adjacent to an area of green space, the central hub will house an events space, bookable study/ meeting rooms and a bar among other functions.

Local Hubs

To provide the residents with amenity space within their neighbourhoods, 5 neighbourhood hubs have been developed which encompass key functional requirements for every day life such as laundry, study and post as well as providing spaces for socialisation.

Public Realm/ Landscaping

The site as existing offers a rich and varied landscape. The proposal seeks to protect and enhance this, by minimising tree loss and delivering a comprehensive planting scheme. The space aims to be welcoming and accessible for all, with the works including the re-grading of paths. The site will be an attractive and safe place for the residents, providing seating areas and space for external amenity.



5.2 Amount

The tables on this page provide a brief summary of the accommodation that will be provided in the development.

The below tables shows the proportion of room types provided and the distribution of rooms across neighbourhoods. The M2 rooms provide accommodation for independent wheelchair users, and the M3 rooms provide a more comprehensive offering for those with additional or complex needs, potentially requiring support from an assistant.

The table adjacent shows the room distribution across site per block, and the GIA for each block.

The table on the following page shows the quantum being provided for each use class as referenced under Condition 5 of the OPP.

	Standard	Premium
Student Beds	2633	667
% Distribution	80.3%	19.7%

Zone	Clusters*	Standard Beds	Premium Beds	Accessible Beds				Support Rooms	Res Life Beds	ResLife Aparts.
				Standard M2	Standard M3	Premium M2	Premium M3			
Neighbourhood 1	78	612	84	10	3	0	1		15	2
Neighbourhood 2	64	329	270	4	0	3	0	3	7	0
Neighbourhood 3	59	388	132	0	0	0	0		7	2
Neighbourhood 4	103	913	47	0	0	0	0	2	17	0
Neighbourhood 5	59	391	134	0	0	0	0		9	2
	363	2633	667	14	3	3	1	5	55	6

*Including 8 ResLife clusters

	Block	No. of Floors	Clusters	Student Bedrooms (inc. Accessible)	Support Rooms	ResLife Bedrooms	ResLife Apartment	GIA (m²)
Neighbourhood 1	1	6	11	90		8	2	2994
	2	6	12	99		0	0	2994
	3	14	22	205		0	0	6402
	4 (Hub)	1	-	-		-	-	333
	5	14	22	206		-	-	6402
	6	6	11	96		7	0	3000
Neighbourhood 2	7	6	11	88	3	7	0	2928
	8 (Hub)	1	-	-		-	-	291
	9	14	26	252		0	0	7465
	10 (Central Hub)	2	-	-		-		3191
Neighbourhood 3	11	14	27	259		0	0	7555
	12	6	12	102		0	0	2976
	13	6	12	103		7	0	3048
	14	6	12	115		0	0	3138
	15 (Hub)	1	-	-		-		247
	16	6	12	102		0	0	2976
	17	6	11	98		0	2	2976
Neighbourhood 4	18	15	29	267	2	8	0	7917
	19	13	24	220		9	0	6697
	20 (Hub)	1	-	-		-	-	264
	21	13	26	255		0	0	7368
	22	6	12	103		0	0	2976
	23	6	12	115		0	0	3138
Neighbourhood 5	24	6	11	96		0	2	2994
	25	6	12	115		0	0	3138
	26 (Hub)	1	-	-		-	-	271
	27	6	12	108		9	0	3138
	28	6	12	103		0	0	2976
	29	6	12	103		0	0	2976
			363	3300	5	55	6	102,769
Cycle Stores	10 no. cycle stores							654
							GRAND TOTAL GIA:	103,423

Description of Use (as referenced under Condition 5 of the OPP)	Quantum
Provision of up to 3,300 Purpose Built Student Accommodation bedrooms (Sui Generis use class) with associated facilities including waste storage, laundry and cycle storage;	3,300 PBSA bedrooms; and associated facilities - including: 23 waste stores incorporated in each residential block, 5N laundrettes located in the neighbourhood hubs 1,2,3 and 5 and residential block 21, 10N fully enclosed secure cycle stores, and 5 support bedrooms (non-rentable) provided in residential blocks 7&18. Total GIA 97,178 m^2
A maximum of 4,500 m^2 of floorspace to be used for ancillary purposes associated with the student residential use of the site within Use Class F1a, Class E(a), E(b), E(c), E(d), E(g), Sui Generis (drinking establishment and hot food takeaway);	Total of 4,352 m^2 of ancillary uses; including central hub building and study spaces and associated facilities in 5N neighbourhood hubs
Ancillary supporting staff accommodation (up to 55 bedrooms) (Sui Generis use class);	55 ResLife bedrooms, 1452 m^2
A maximum of 1,200 m^2 of ancillary residential dwellings (Use Class C3)	441 m^2 of ancillary residential dwellings.
TOTAL GIA	103,423 m^2
TOTAL GEA	115, 984 m^2

5.3 Site Approach

The site approach has been defined by the strategy set out in the Design Guide as part of the OPP:

1. A main entrance to the site will serve the new development as well as the wider campus.
2. The project will have a clear network of pedestrian routes to other parts of the campus and a local network of links and walkways, promoting clear wayfinding and legibility.
3. The existing perimeter woodland and trees around the periphery of the site will be retained and preserved, providing valuable screening for neighbours.
4. The new development will include amenity space provision for the entire Fallowfield Campus, including a network of green spaces that connect the entire campus and are available to all students.

Key:

- Controlled Access
- Primary Student Pedestrian Circulation
- Secondary Student Pedestrian Circulation
- Social Amenities
- Green Space
- Development Zone
- Existing University Accommodation
- Perimeter Woodland
- Cycle Path
- Bus Stops



Extract from Fallowfield Design Guide

Green Character

One of the main design parameters for the development is the retention of trees and the green character, as demonstrated in the adjacent pictures.













5.4 Site Masterplan Development and Layout

Green Infrastructure, Developable Plots and Key Routes

The proposal preserves key tree belts and allows green corridors to continue beyond the site boundary, protecting the existing green infrastructure that has been established over the past 150 years.

The site has been divided into buildable areas which minimise tree removal, each providing ideal locations for similarly sized neighbourhoods. The east-west and north-south routes are enhanced by opening a link to Ashburne Hall and Sheavyn House courtyard.

Central Hub, Neighbourhoods and Local Hubs

The central hub is the heart of student life, and is positioned at a central nodal point within the wider campus. Sitting to the east of the site besides a large green space, it is easily accessible to students coming from all accommodations and is within an area of attractive foliage, allowing for excellent views from internal spaces. It's placement is also practical, as it is ideally located for deliveries from Gunnery Lane.

Local hubs are distributed across the site and located on access routes to serve individual neighbourhoods and act as a focal point with the neighbourhood for wayfinding. They provide study and social space separate from provision in the central hub.

Edges and Courtyards

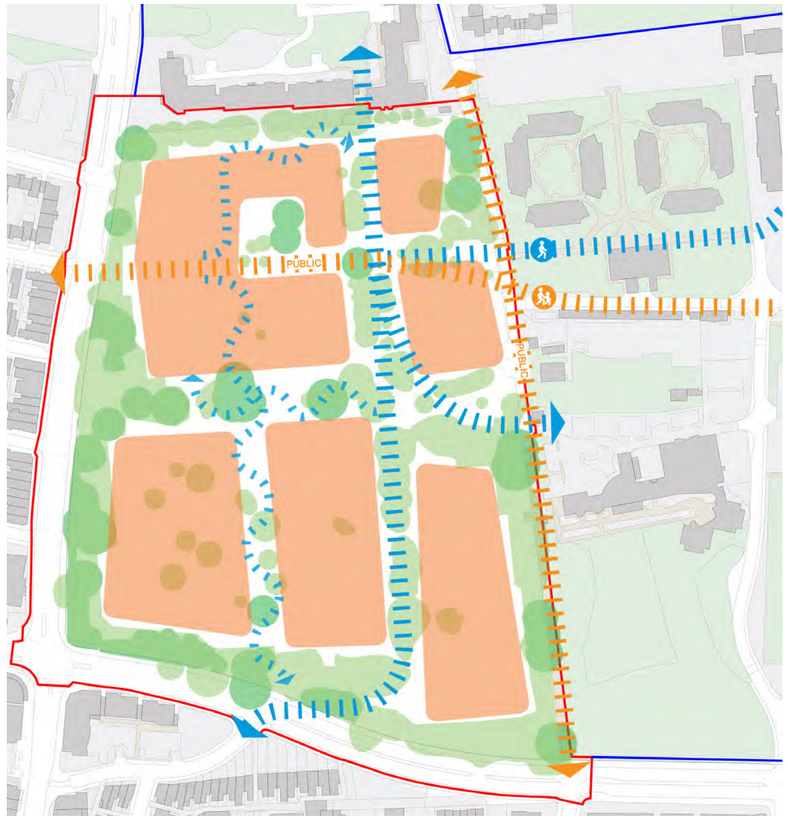
The edges of the site are formed by lower-rise blocks surrounding courtyards which separate semi-private external areas from the roads. The courtyards open towards internal routes and social hubs to create a sense of community.

Creating Height in the Centre

The central area of the site provides the opportunity for the highest density within the development. This location creates a focal point in the centre of the development as well as following the height parameters as set out in the OPP.

Hierarchy of Green Space

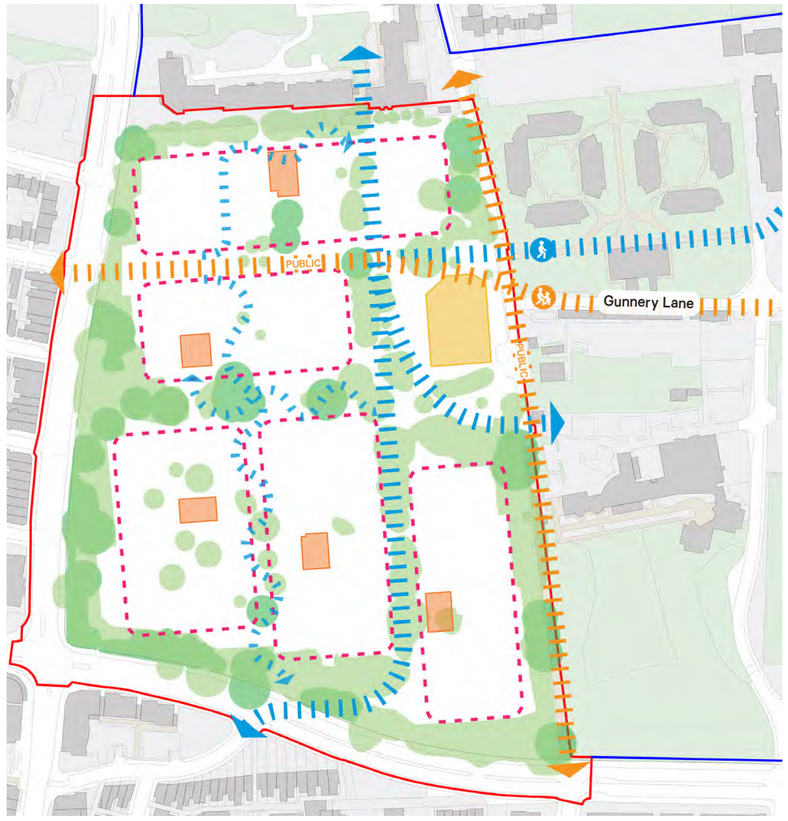
The scheme preserves key tree belts that have existed on site since the Victorian times. It also creates several areas of green space complemented by smaller courtyards within the block arrangements. Links are created between the different green spaces, and with the site boundary green belt through the planting scheme.



Green Infrastructure, Developable Plots and Key Routes

Key:

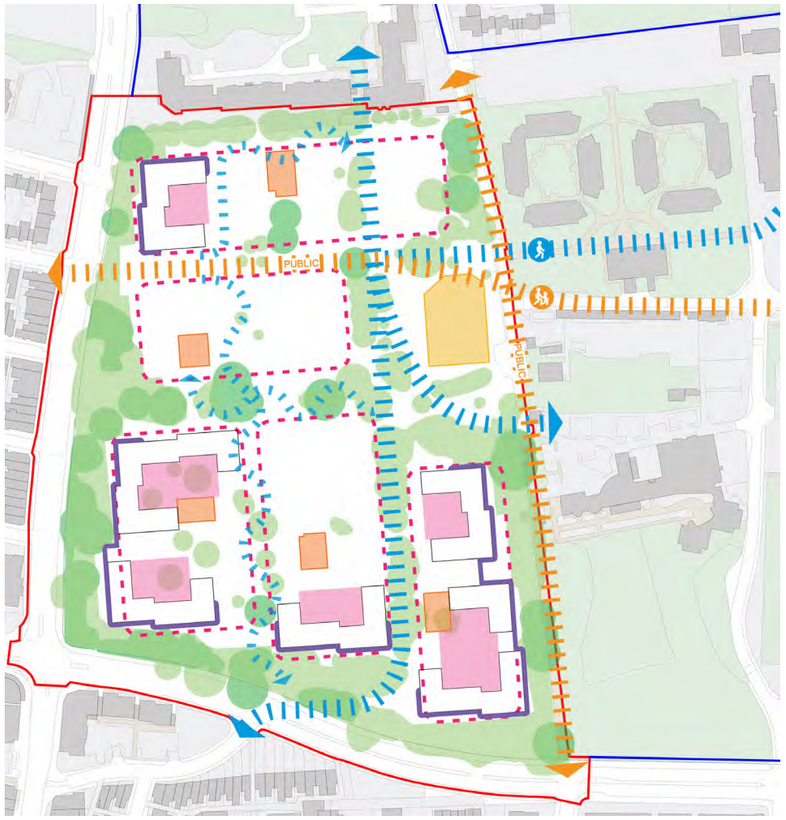
- Student Pedestrian Routes
- Public Pedestrian Routes
- Developable Plots
- Green Infrastructure



Central Hub, Neighbourhoods & Local Hubs

Key:

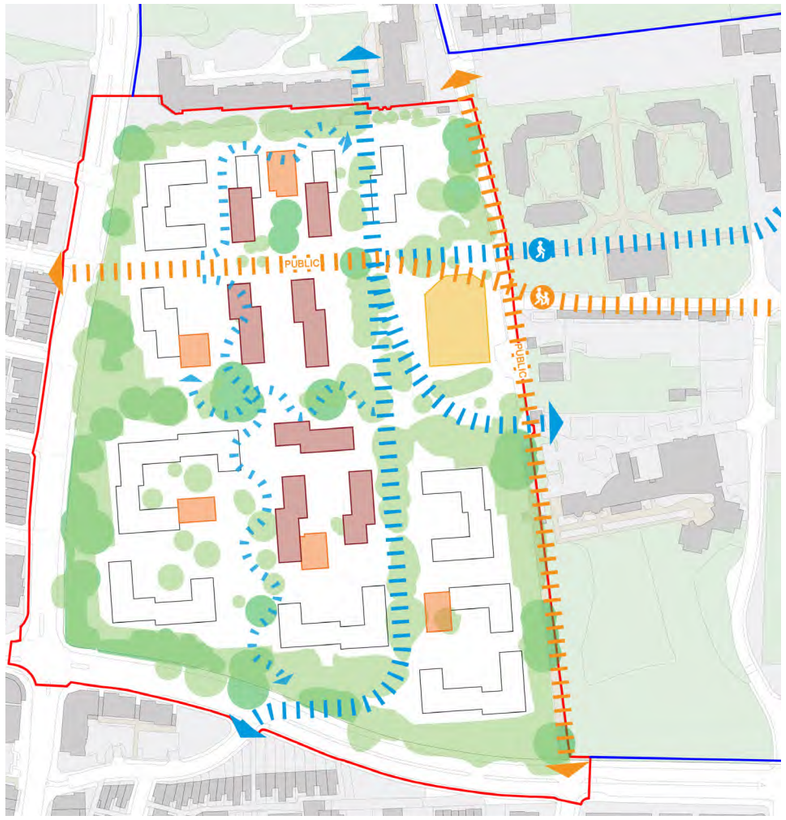
- Student Pedestrian Routes
- Public Pedestrian Routes
- Neighbourhood Boundaries
- Proposed Neighbourhood Hubs
- Proposed Central Hub



Edges and Courtyards

Key:

- Student Pedestrian Routes
- Public Pedestrian Routes
- Neighbourhood Boundaries
- Proposed Neighbourhood Hubs
- Proposed Central Hub
- Courtyards
- Site Edge Elevations



Creating Height in the Centre

Key:

- Student Pedestrian Routes
- Public Pedestrian Routes
- Proposed Neighbourhood Hubs
- Proposed Central Hub
- Proposed High Rise Residential Blocks



Hierarchy of Green Space

Key:

- Proposed Neighbourhood Hubs
- Proposed Central Hub
- Proposed Green Spaces
- Proposed Green Links

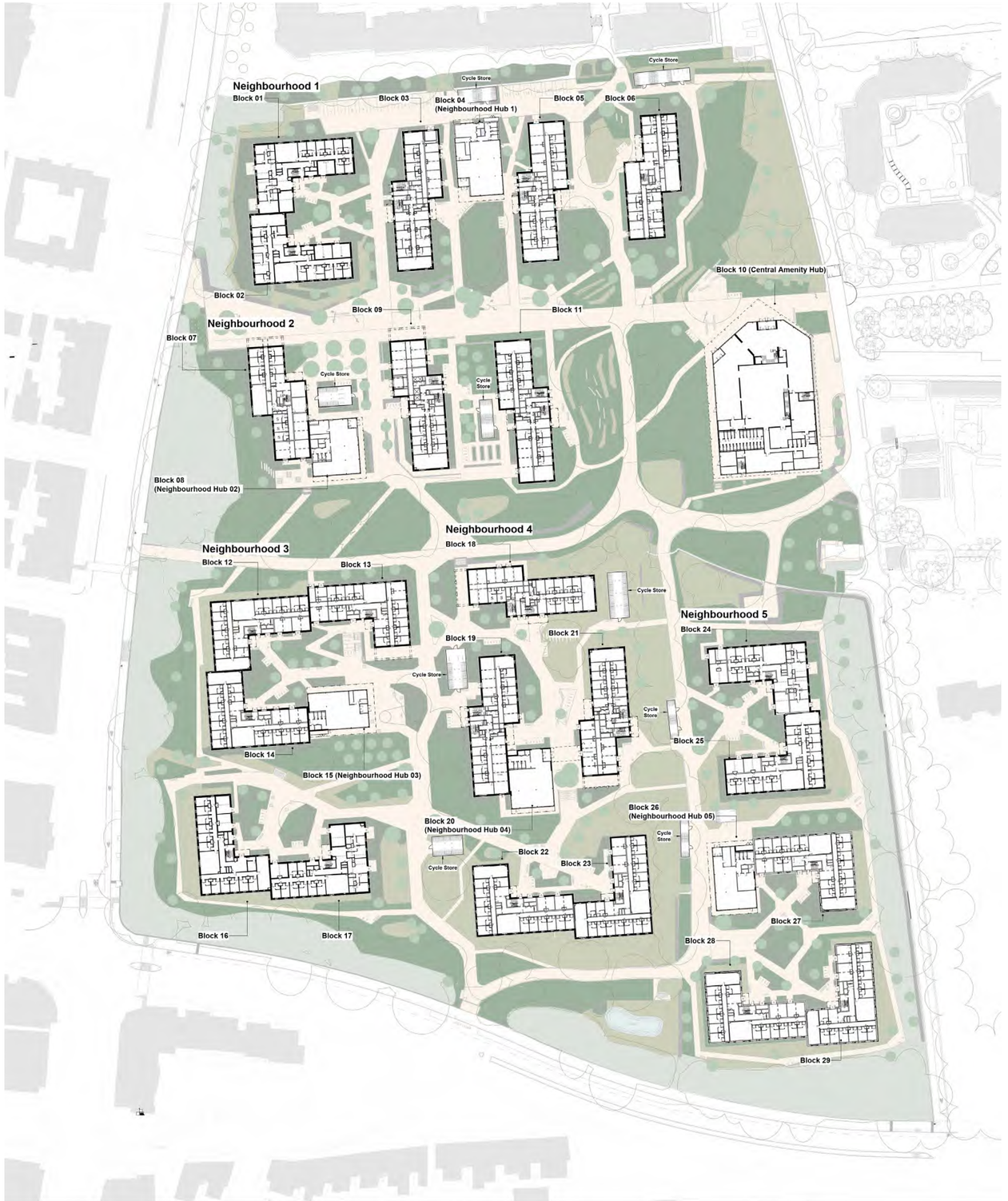
5.5 Site Masterplan- Ground Floor

The adjacent drawing shows the proposed site masterplan and landscaping strategy.

The key driver was to retain the existing trees, and therefore the green character on site, as well as to improve the existing facilities and create a positive sense of place.

The masterplan reflects the design guidance approved as part of the OPP. For the full compliance, please refer to the Statement of Compliance as submitted with this application.

The landscape principles and design development is covered in the Landscape Strategy document produced by Landscape Projects submitted with this application.



Key:

- Hard landscape
- Existing Trees
- Proposed Trees
- Planting
- Grass, mown and wildflower lawn


askme

5.6 Key Masterplan Strategies

Site Organisation

The site has been developed with two distinct residential block typologies, with the height centred in the middle to comply with the OPP. The central hub is proposed as 2-story standalone building and 5 single-storey neighbourhood hubs are expressed as lightweight pavilions.

Towards the periphery of the site, the architectural language shifts from taller residential towers to more intimate L shaped courtyard blocks. This allows for a clear hierarchy of external spaces, moving from wide greens bordering the main circulation routes to partially enclosed courtyards within the neighbourhoods.

Main Entrances

The design for the site entrance is welcoming, approachable, and possesses a visual weight that indicates its importance as the main point of access for residents.

The entrance into the site is bordered by retained trees, typical of Fallowfield's attractive parkland character, and leads students down the main promenade towards the central hub, the main green space concourse and ultimately into the wider Fallowfield Campus.

Public Realm

The proposal embraces the existing green infrastructure and uses it to create a rich and varied series of green spaces which are able to be used by everyone. The largest area of green space is located off both the north-south and east west routes through site so it easily accessed. The landscaping strategy will ensure that the public realm that is created will be accessible for all.



Key:

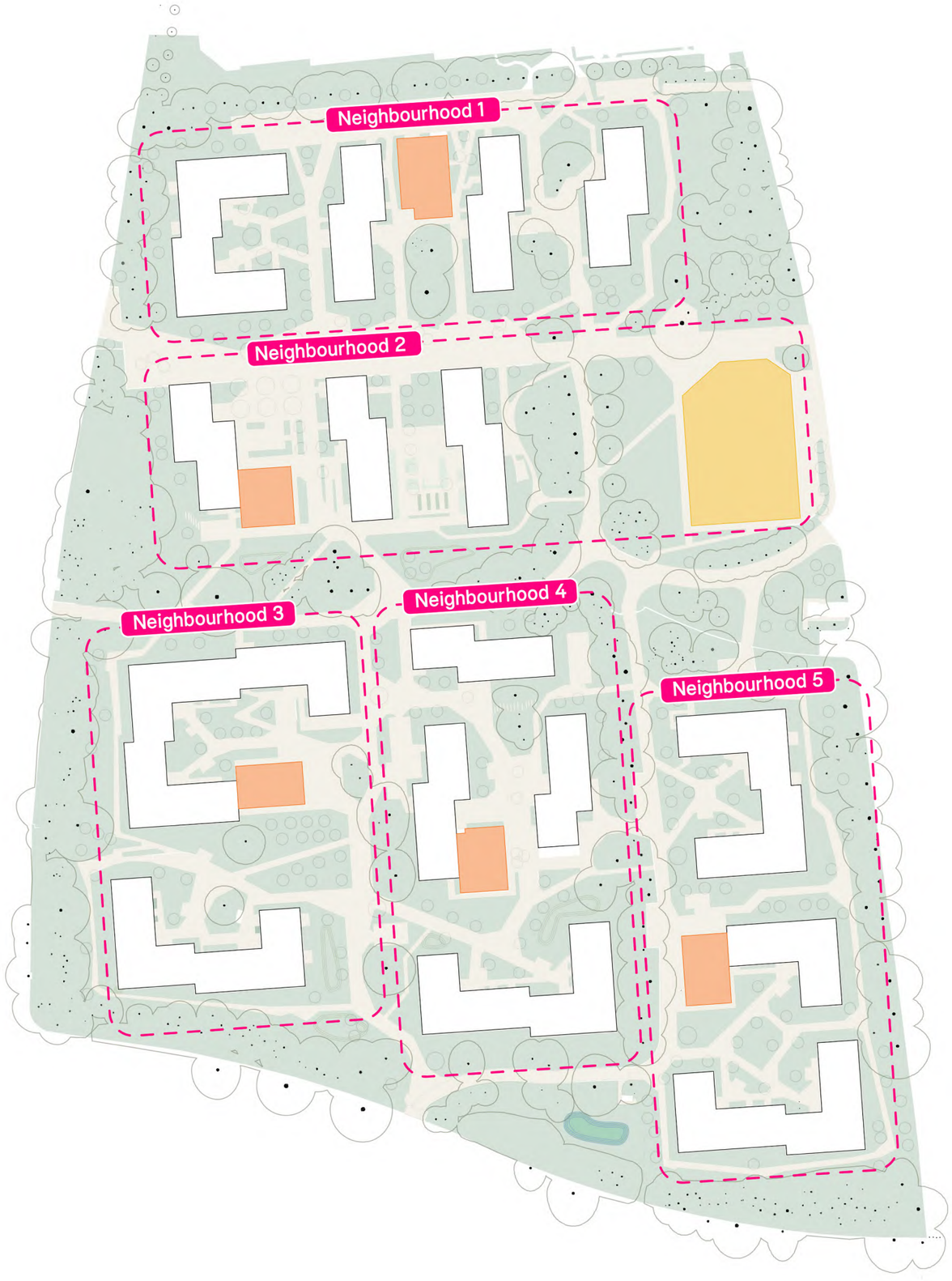
- Central Hub
- Neighbourhood Hubs
- Block Number
- Number of Storeys
- HRB — High Risk Buildings (HRB)*
- Height Parameter Zones
- Pedestrian Entrance
- Vehicular Entrance

*Note: HRBs are buildings that fall within the scope of the Building Safety Act as they are >6 storeys or over 18m and includes >2 residential units.

5.7 Neighbourhoods

The proposal embraces the opportunity to create different zones and character areas across the site in a similar way to the existing. The residences are split into 5 distinct neighbourhoods which will have their own architectural and landscape character.

The character of each neighbourhood will reflect its position within the site and wider campus and each has been given a theme from which to draw inspiration for the interior design.



Key:

- Central Hub
- Neighbourhood Hubs
- Neighbourhood Boundaries

5.8 Neighbourhood Strategy Overview

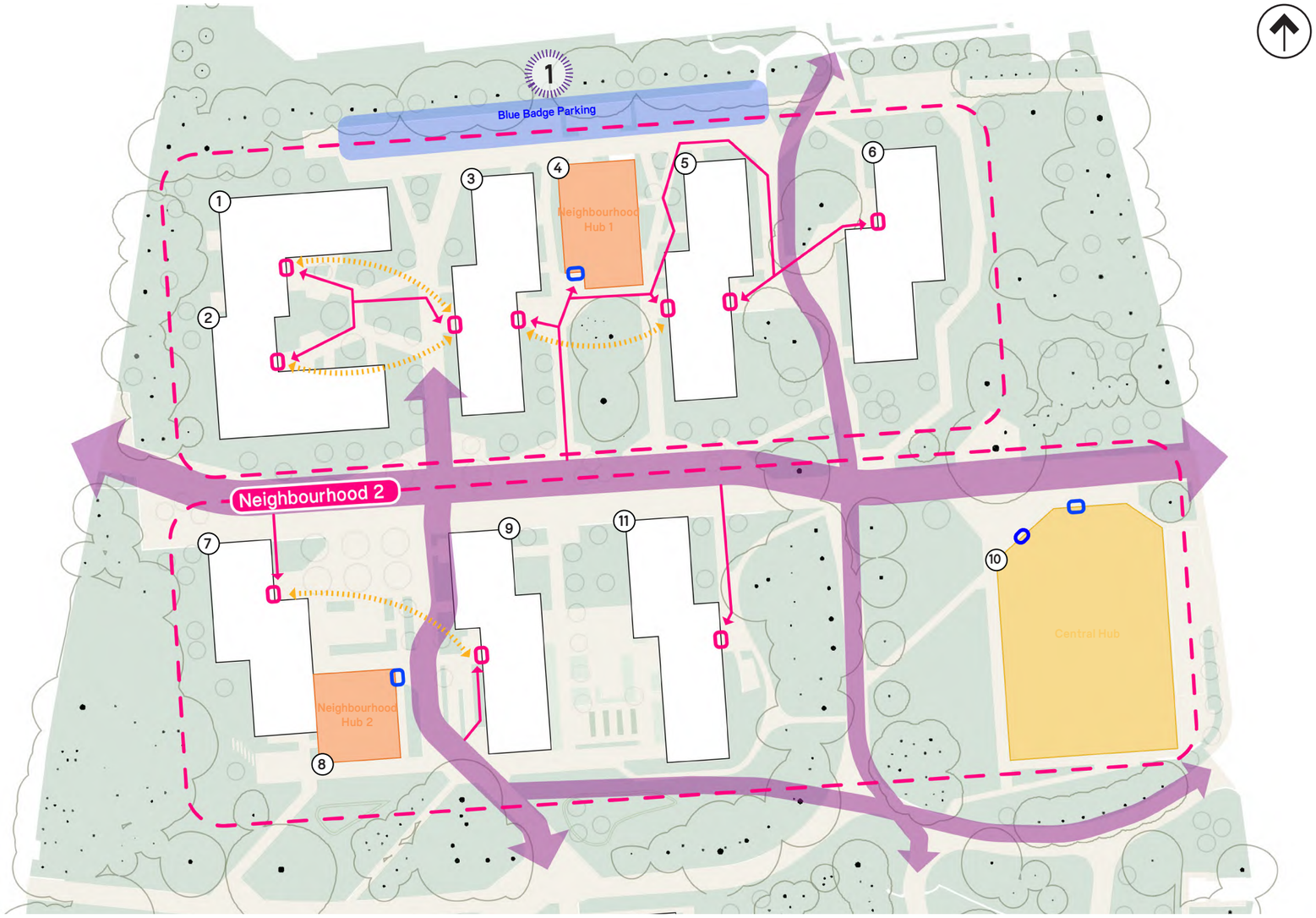
The neighbourhood strategy uses block layouts to create a safe and attractive environment, a clear and cohesive circulation pattern and a strong sense of place and identity in each neighbourhood.

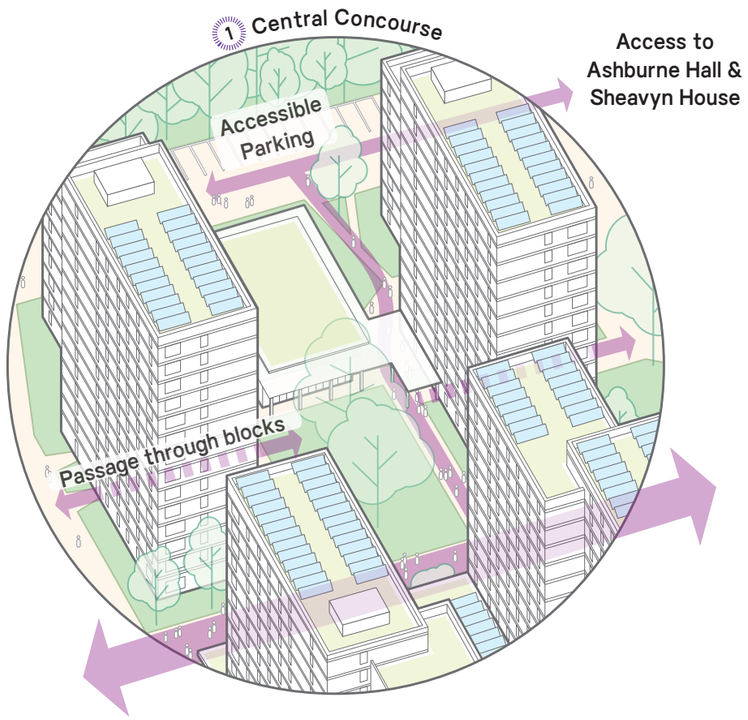
Most neighbourhoods comprise six blocks including a neighbourhood hub, except for neighbourhood 2 which contains three residential blocks, a neighbourhood hub and central hub.

Neighbourhoods 1 and 2 Overview

Neighbourhoods 1 and 2 focus on creating an inviting entrance to the site which is situated on the main east-west route thorough the campus. They also incorporate the central hub, creating a stage for busy circulation and different activities.

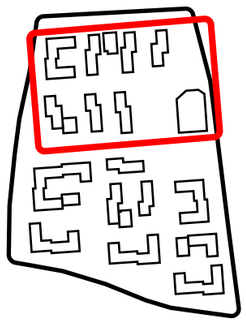
Neighbourhoods 1 and 2 also aim to increase connectivity to Sheavyn House and Ashburne Hall through creating a central concourse at the north end of the site. Locating a low rise local hub adjacent to the northern boundary allows a visual connection to be opened up and a new path provides connectivity.





KEY

- Pedestrian Circulation Between Blocks
- Primary Block Entrances
- Hub Entrances
- Primary Pedestrian Site Circulation
- Visual Connection Between Entrance

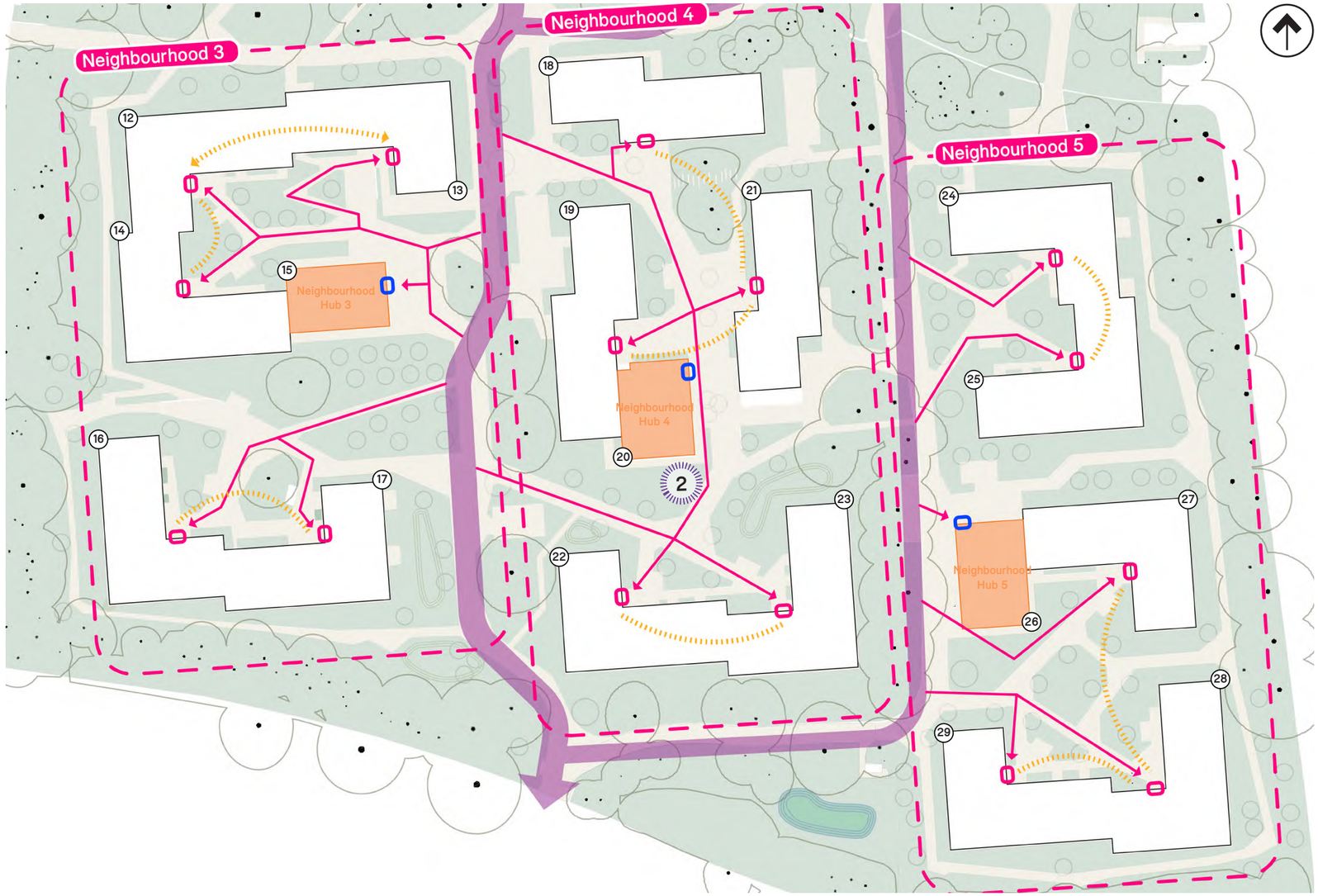


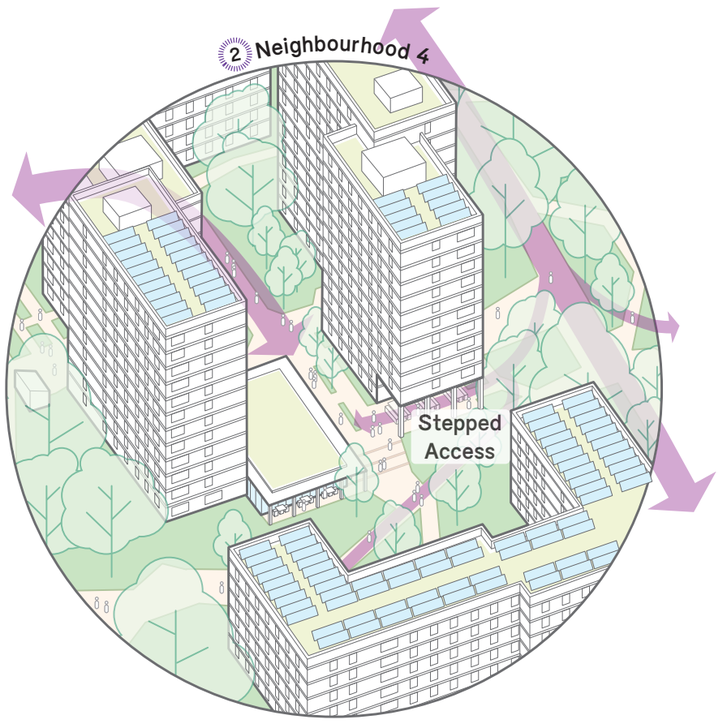
Neighbourhoods 3, 4 and 5 Overview

Neighbourhoods 3, 4 and 5 focus on defining the boundaries of the site and creating courtyards for the residents to form communities within.

Neighbourhoods 3 and 5, defining the far corners of the site, will consist of low-rise blocks and therefore be quieter and more relaxed.

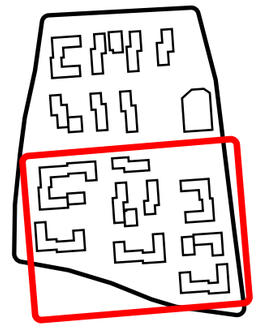
Neighbourhood 4 will combine city centre density with a mature parkland setting and gently stepped terrain.





KEY

- Pedestrian Circulation Between Block
- Primary Block Entrances
- Hub Entrances
- Primary Pedestrian Site Circulation
- Visual Connection Between Entrance



Neighbourhood 1

Neighbourhood 1 is located beside the main site entrance point, north of the site's main east-west circulation route. It is intersected by the access route to Sheavyn House and Ashburne Hall.

It consists of a range of block heights from 5 to 14 storeys. The high-rise blocks to the centre of the neighbourhood provide a permeable approach to Sheavyn House, which is largely restricted in the existing campus. Low rise blocks to the west address Fallowfield high street by providing a defined edge behind the retained perimeter woodland, and to the east it provides a sympathetic response to the listed Ashburne Hall.

Between these blocks sit welcoming green spaces; the blocks have been arranged around the existing tree groups to maintain the leafy character on site. These help in guiding residents towards neighbourhood hub 1 and facilitating outdoor seating areas along the entrance promenade. A south-facing entrance is provided to neighbourhood hub 1, creating a direct visual link to the main east-to-west promenade.

The southern faces of the residential blocks are staggered outwards as you proceed down the entrance promenade. This allows the main circulation route to open out as it nears the central hub, drawing residents deeper into the site.

The linear nature of this neighbourhood requires a central link between all 6 blocks to allow fluid circulation through the neighbourhood. Blocks 3 and 5 have unique ground floor cores that allow movement through the width of the building, ensuring blocks 1, 2 and 6 feel connected to neighbourhood hub 1.

Block 1 includes 2 ResLife apartments and 8-bedroom ResLife cluster, both located on the ground floor. The two apartments benefit from private gardens in the remote corner of the site.



KEY

- Primary Block Entrances
- Hub Entrances
- Primary Pedestrian Site Circulation
- Laundrette
- Plant
- Bin Stores

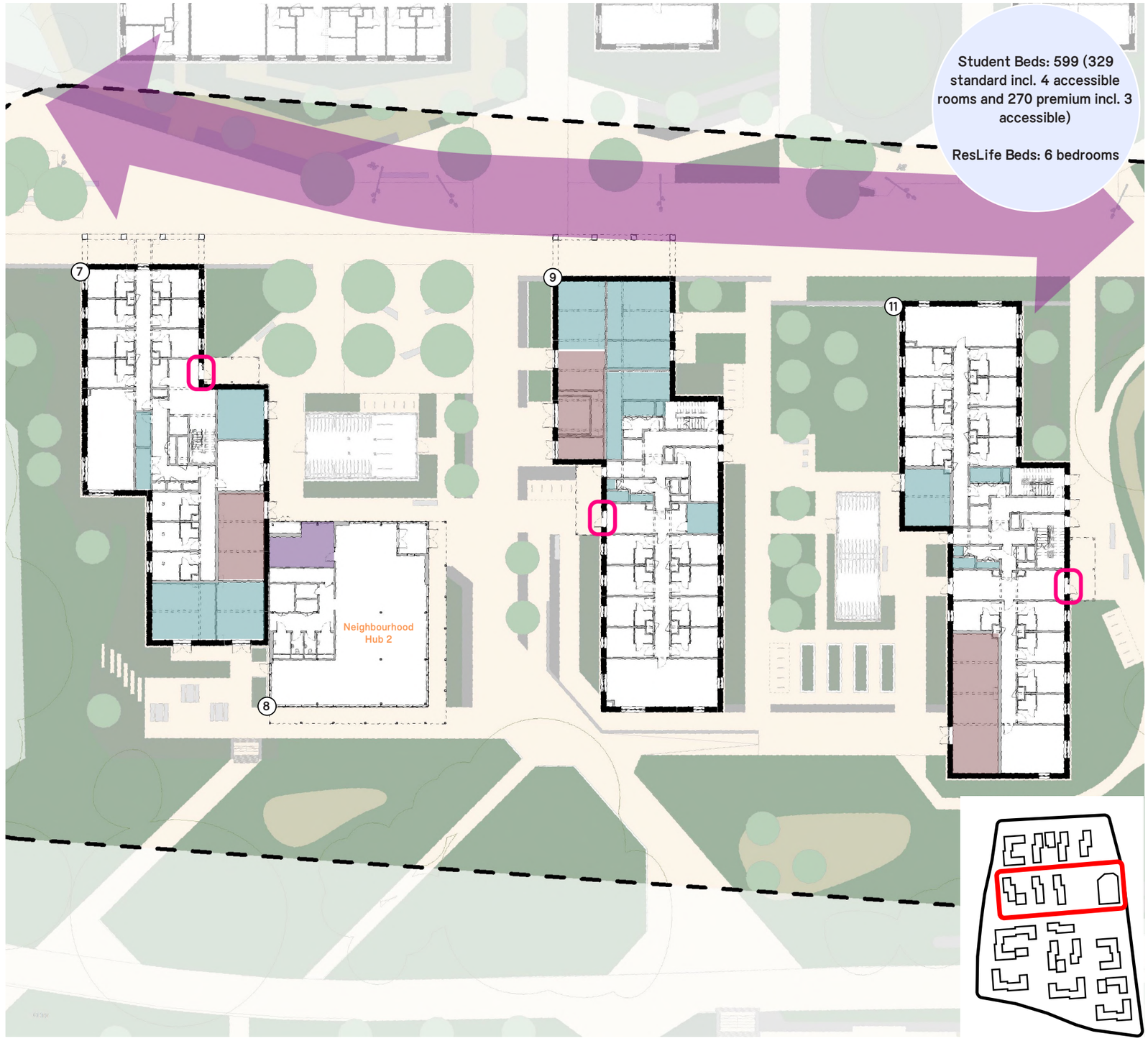
Neighbourhood 2

Neighbourhood 2 is characterised by the inclusion of the new central amenity hub, which will become the centre of student life for the whole campus.

The neighbourhood is made up of three residential blocks, spaced along the main east-to-west route to the west of the site, along with an associated neighbourhood hub. It is animated by staggering the blocks in height ranging from 5 to 14 storeys to allow each block to have its own presence. Blocks 9 and 11 are some of the tallest in the development, and act as a site landmark to help residents orientate themselves.

Blocks 7 and 9 flank circulation routes to the southern neighbourhoods. Their entrances open onto the shared circulation which also leads to neighbourhood hub 2. It is positioned it away from the main circulation routes and provided with a private garden which can be accessed only by the students living in this neighbourhood. This arrangement offers opportunity for quieter space for the residents to relax and study away from the bustle of the central facilities.

The only bedrooms located on the ground floor of this neighbourhood are 10 ResLife bedrooms in Block 7. The northern end of Block 7 has an overhang and colonnade that forms part of the entrance promenade.



KEY

- Primary Block Entrances
- Hub Entrances
- Primary Pedestrian Site Circulation
- Laundrette
- Plant
- Bin Stores

Neighbourhood 3

Neighbourhood 3 is of a lower density than neighbourhoods 1 and 2, and part of a distinctly different character area.

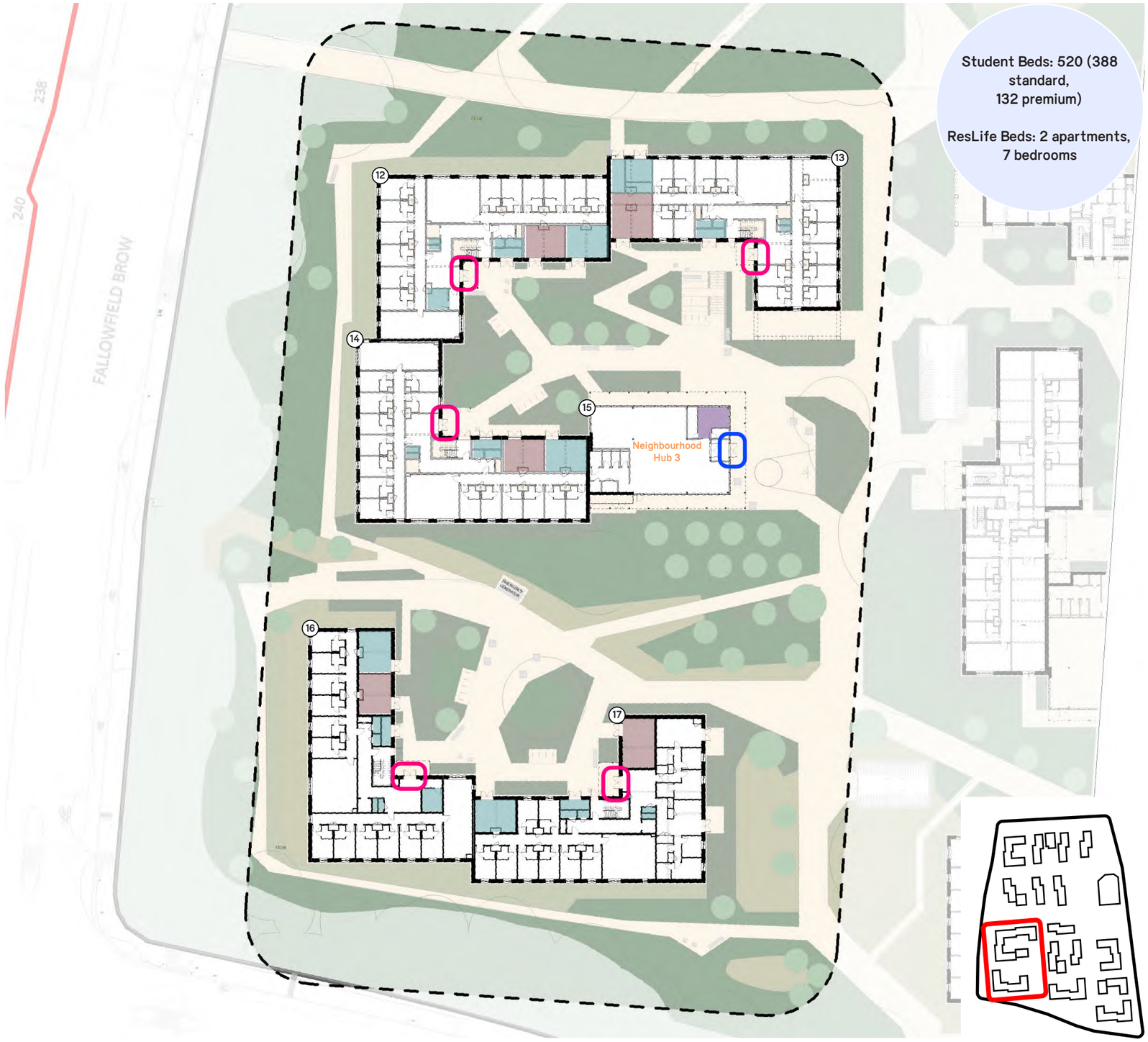
The blocks sit to the west of one of the primary pedestrian circulation routes through the site, an important access path towards the so called ‘Owens Gate’ and Sainsburys. As the paths peel off from the main route into the heart of the neighbourhood they decrease in width and adopt a more organic flow.

The neighbourhood is composed of two courtyards with a neighbourhood hub in the centre. The location of residential entrances and surrounding landscape encourages natural interaction between students living in different blocks and helps to foster a sense of community.

The residential blocks are six storeys in height, with a single storey neighbourhood hub. The hub entrance is visible from the main route and is easily accessible by all neighbourhood residents.

The neighbourhood has distinctive landscape features such as the views through the courtyards to the backdrop of mature trees to the east, north and west and the foliage colour of the mature Copper Beech trees.

ResLife provision in the neighbourhood includes two apartments in block 17 and a 7 bedroom cluster in block 13, both located on the ground floor.



KEY

- Primary Block Entrances
- Hub Entrances
- Primary Pedestrian Site Circulation
- Laundrette
- Plant
- Bin Stores

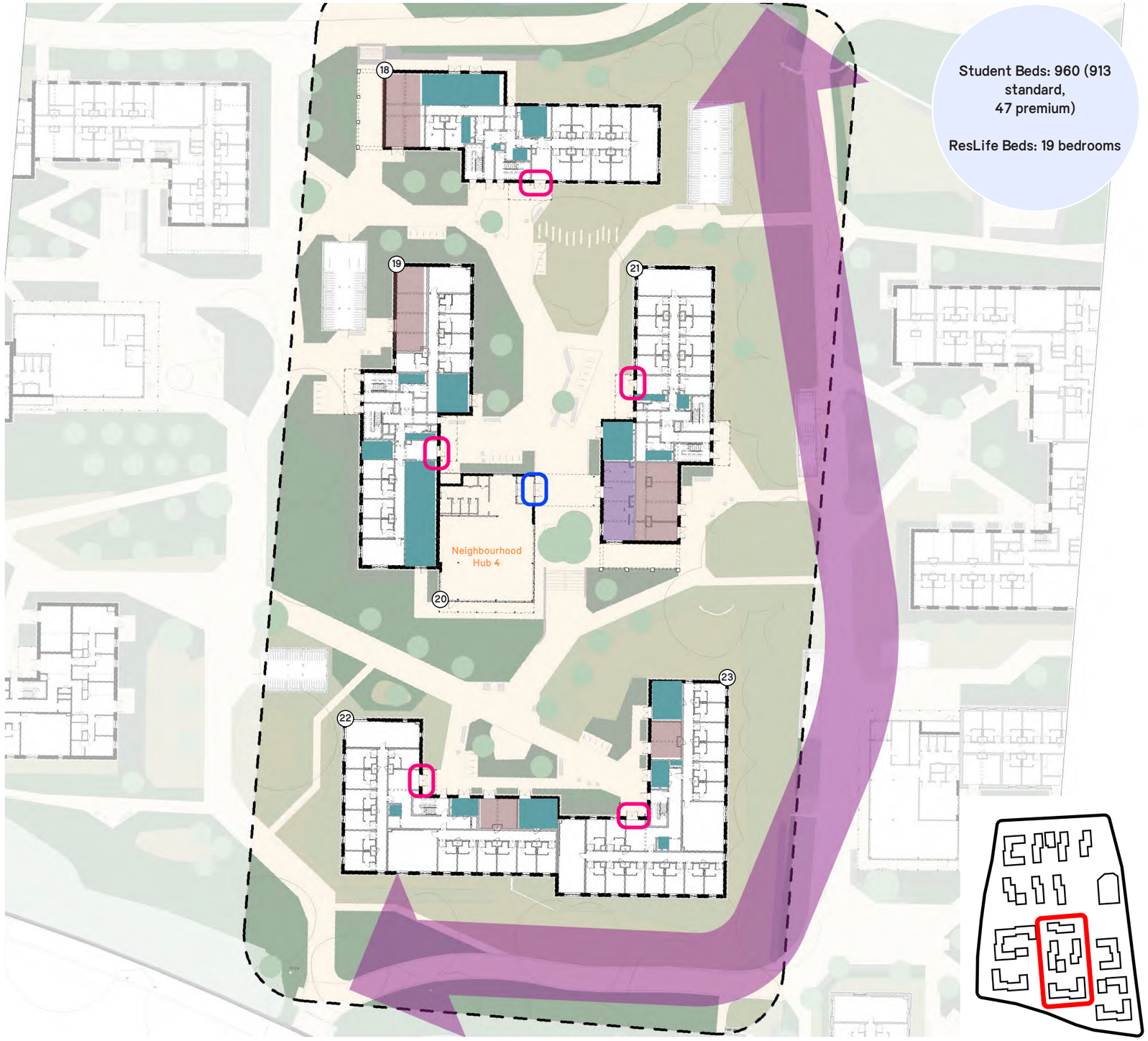
Neighbourhood 4

The neighbourhood in the centre of the development is characterised by high density and changing levels. It has the largest population and a proportionally sized neighbourhood hub which is located in the centre of the neighbourhood - easily accessible by all residents.

It includes the cluster of tall buildings in the centre of the site which are grouped around neighbourhood hub 4 which creates a social focal point at the heart of the neighbourhood. Blocks 19 and 21 both have recesses with colonnades, they act as local 'gateways' into the neighbourhood and work together with the slighter columns supporting the hub canopy. The colonnade in block 21 frames the pedestrian entrance into the neighbourhood from the adjacent circulation route and leads to the hub entrance and existing mature tree lines and corridors form the eastern and western neighbourhood boundaries.

The landscape proposals respond to the positioning of the neighbourhood hub and adjacent colonnade by creating a south-facing multi-level stepped terrace, as a sunny place for informal outdoor gatherings. This will contrast with the more enclosed landscape of the southern courtyard, which will include planting suited to shady damp conditions.

Blocks 18 and 19 house 19 ResLife bedrooms located on the ground floor.



Neighbourhood 5

Neighbourhood 5 has a similar character to neighbourhood 3- using lower density courtyard arrangements with existing mature perimeter woodland wrapping around the blocks. Courtyards act as a semi-private outdoor space, used predominantly by residents of the associated buildings.

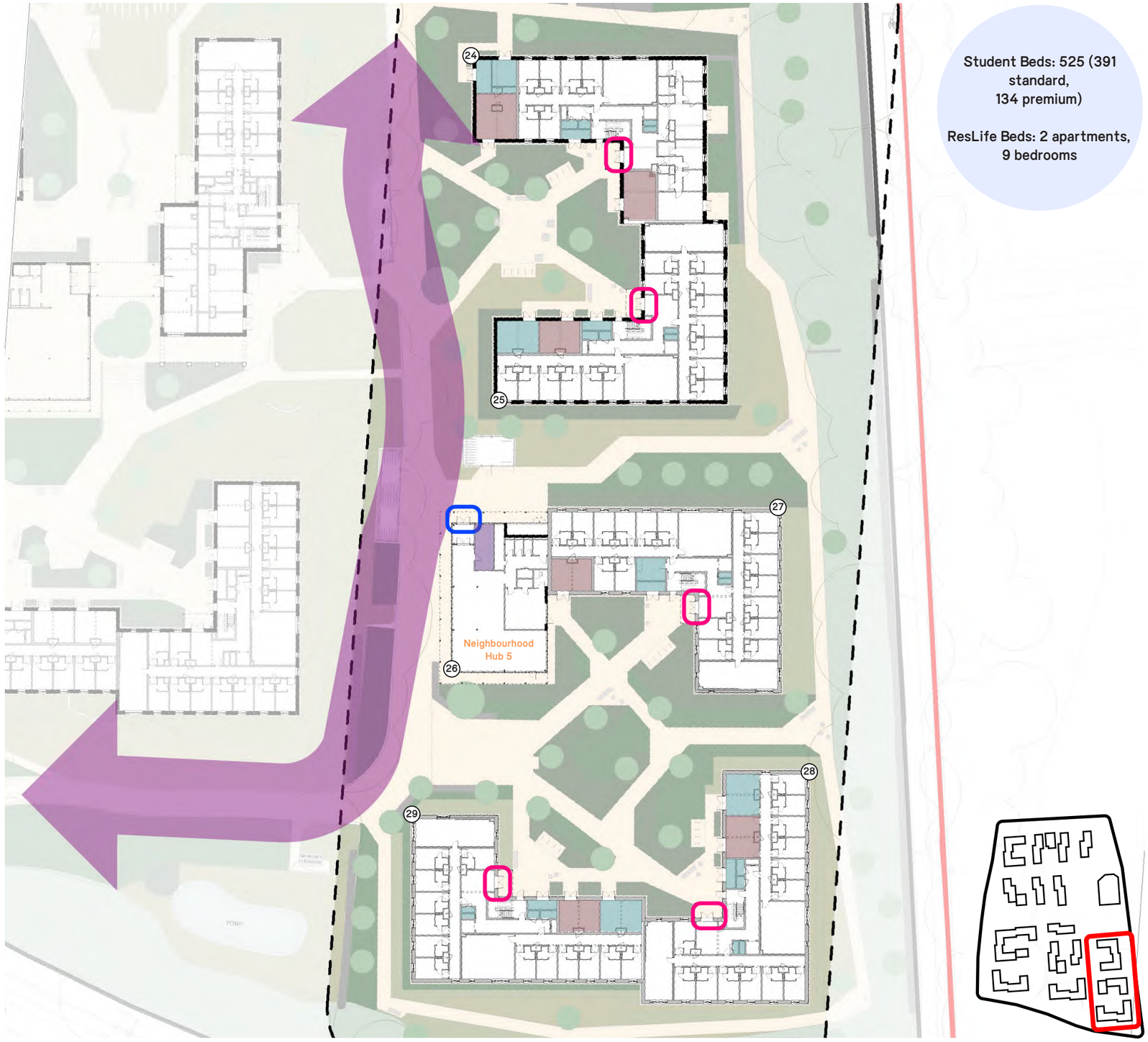
The orientation of the top courtyard is influenced by the locations of trees and the desire to soften the appearance of the blocks along Whitworth Lane. The two courtyards are connected via the main circulation route which will be predominantly used by students living in the neighbourhood.

This neighbourhood occupies the site of the Woolton Hall residences, with clusters of 6 storey buildings laid out around courtyards on level terraces which descend towards the south. A centrally located neighbourhood hub will form the social focal point for the neighbourhood. The existing mature tree belts form the east and west boundaries and the existing sense of openness within the neighbourhood will be retained by careful positioning of courtyard trees.

The landscape proposals will respond to the positioning of the neighbourhood hub by creating a sunny terrace on its southern side, partially sheltered by the hub's colonnaded roof, which will overlook the adjacent courtyard landscape. To the south of the local hub, the sloping ground will be planted as an orchard of fruiting trees which will benefit from the sunny, south-facing aspect.

The visual identity of the neighbourhood will be further enhanced by the retention of the existing gates and brick piers which form the northern entrance to Woolton Hall.

Block 24 accommodates 2 ResLife apartments with private gardens, while further ResLife bedrooms are arranged in Block 27, all at ground floor.



Student Beds: 525 (391 standard, 134 premium)

ResLife Beds: 2 apartments, 9 bedrooms

KEY

- Primary Block Entrances
- Hub Entrances
- Primary Pedestrian Site Circulation
- Laundrette
- Plant
- Bin Stores



5.9 Residential Block Types

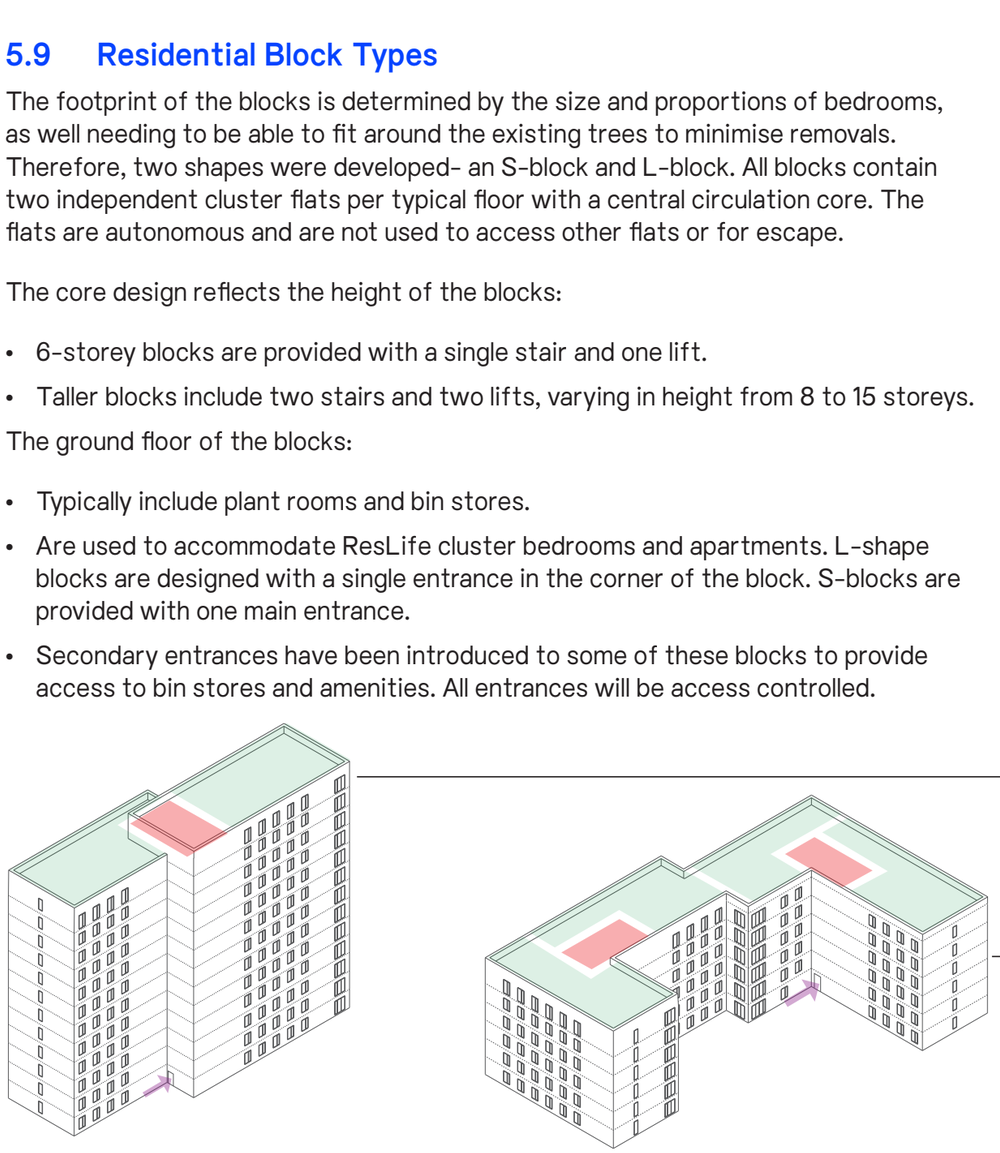
The footprint of the blocks is determined by the size and proportions of bedrooms, as well needing to be able to fit around the existing trees to minimise removals. Therefore, two shapes were developed- an S-block and L-block. All blocks contain two independent cluster flats per typical floor with a central circulation core. The flats are autonomous and are not used to access other flats or for escape.

The core design reflects the height of the blocks:

- 6-storey blocks are provided with a single stair and one lift.
- Taller blocks include two stairs and two lifts, varying in height from 8 to 15 storeys.

The ground floor of the blocks:

- Typically include plant rooms and bin stores.
- Are used to accommodate ResLife cluster bedrooms and apartments. L-shape blocks are designed with a single entrance in the corner of the block. S-blocks are provided with one main entrance.
- Secondary entrances have been introduced to some of these blocks to provide access to bin stores and amenities. All entrances will be access controlled.





Key:

- Type 1- Standard & Premium Low-Rise L Block
- Type 1a- Standard Low-Rise L Block
- Type 2- Standard Low Rise S Block
- Type 3a- Standard High Rise S Block
- Type 4a- Standard and Premium High-Rise S Block

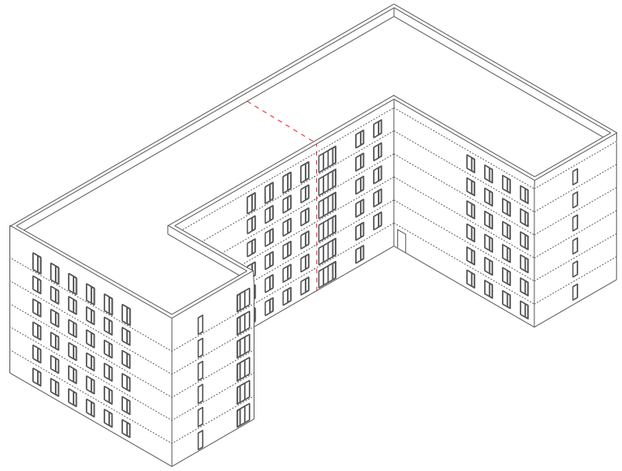
5.10 Residential Block Type Development and Refinement

L Blocks

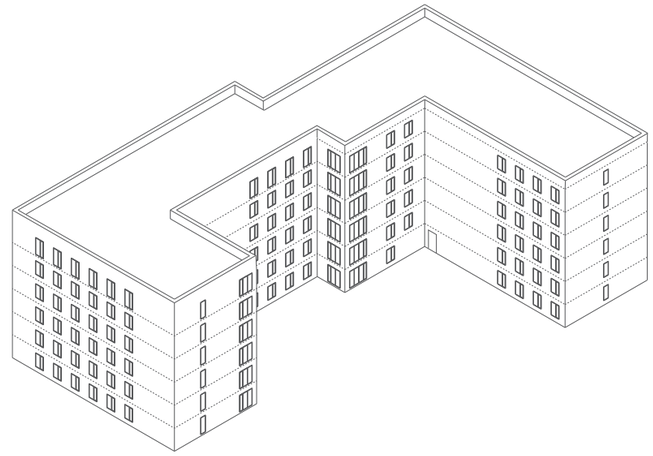
The L blocks were refined to provide a stagger when they are arranged in a courtyard arrangement. This ensures that the facade is provided some relief and does not form an overpowering sheer face, which responds to the outline planning design guidance.

S Blocks

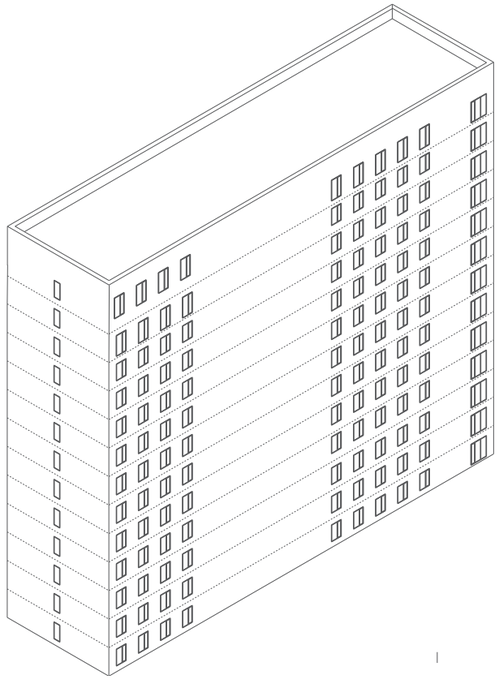
The massing of the liner blocks is broken down by making one wing a storey taller, and staggering the facade. This creates a more variable skyline and reduces overshadowing. As a result, the top floors of the staggered blocks include just one cluster flat.



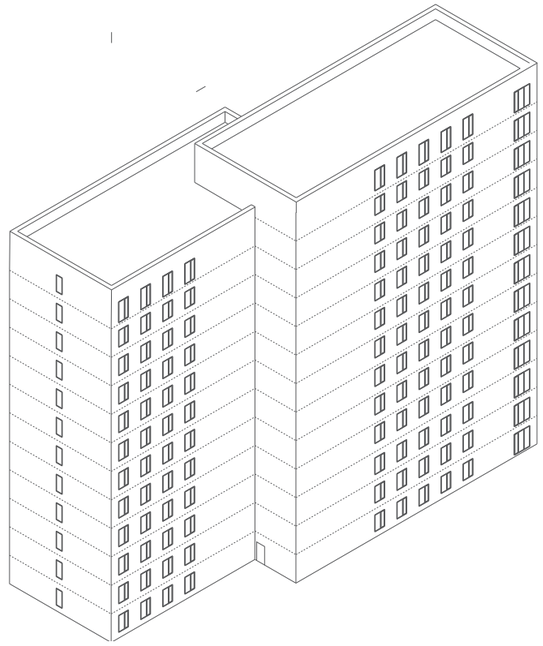
L Blocks- Basic form



L Blocks- Refined Form



S Blocks- Basic Form



S Blocks- Refined Form

5.11 Residential Block Layout Principles

The adjacent diagrams show the typical cluster flat layout principles for each residential block type. There are 5 types:

Type 1- Standard & Premium Low-Rise L Block

The standard and premium low-rise blocks are arranged as an L block. They consist of two cluster flats consisting of eight premium bedrooms in one flat, and ten standard bedrooms in the other flat. They are six storeys high and therefore have one stair core.

Type 1a- Standard Low-Rise L Block

The standard low-rise blocks are arranged as an L block. They consist of two standard cluster flats consisting of ten standard bedrooms per cluster flat. They are six storeys high and therefore have one stair core.

Type 2- Standard Low-Rise S Block

The premium low-rise blocks are arranged as an S block. They consist of two standard cluster flats consisting of ten bedrooms per cluster flat. They range between five and six storeys and therefore have one stair core.

The standard low-rise S block has the Kitchen, Living and Dining room (KLD) space located adjacent to the core.

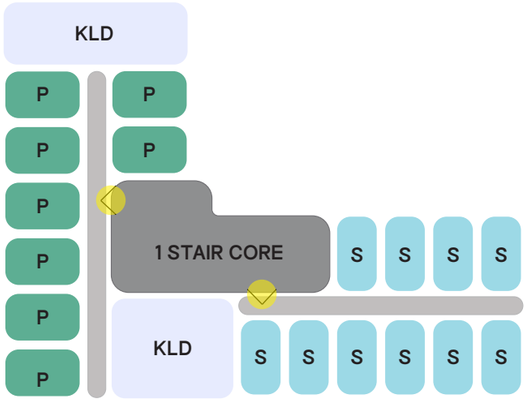
Type 3a- Standard High-Rise S Block

The standard high rise blocks are arranged as an S block. They consist of two cluster flats consisting of ten standard bedrooms per cluster flat. They range between eight to fifteen storeys and therefore qualify as HRBs, so have two stairs in the core.

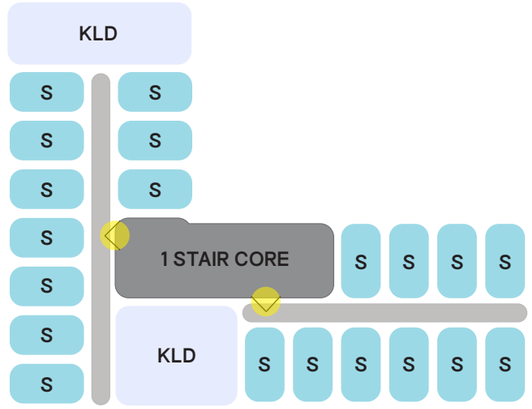
Type 4a- Standard & Premium High-Rise S Block

The standard and premium high-rise blocks are arranged as an S block. They consist of two cluster flats consisting of ten premium bedrooms in one flat, and ten standard bedrooms in the other flat. They range between thirteen to fourteen storeys and therefore qualify as HRBs, so have two stairs in the core.

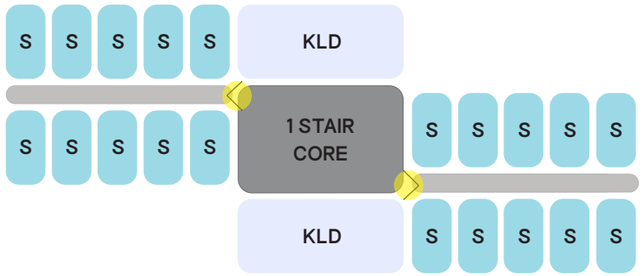
Type 1- Standard Premium Low-Rise L Block



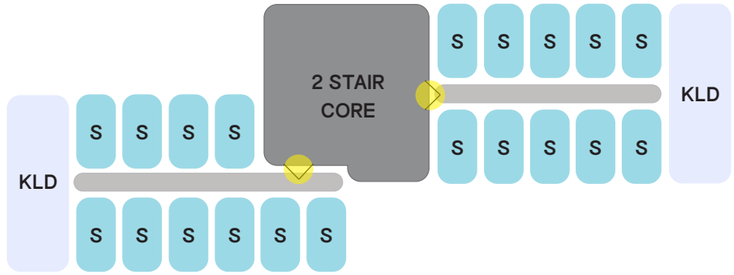
Type 1a- Standard Low-Rise L Block



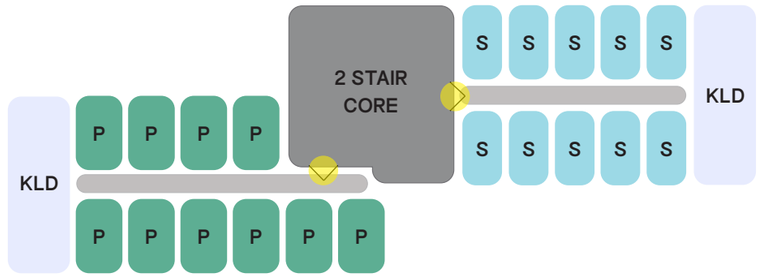
Type 2- Standard Low-Rise S Block



Type 3a- Standard High-Rise S Block



Type 4a- Standard Premium High-Rise S Block



Key:

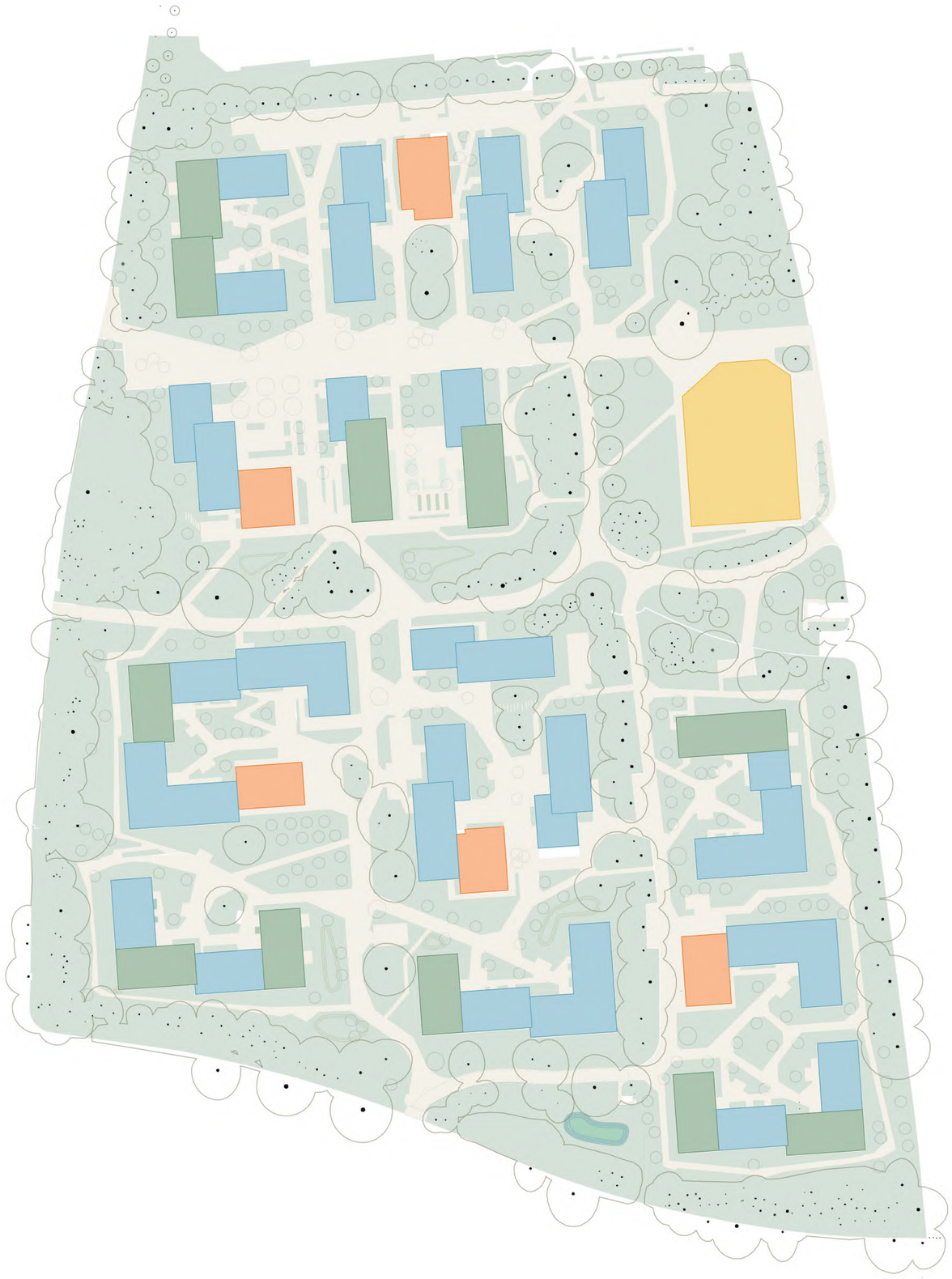
- Core
- Standard Bedroom
- Premium Bedroom
- Kitchen, Living and Dining room
- Flat Entrance

5.12 Room Type Distribution Across Residential Blocks

A balance of standard and premium student bedrooms is provided across the site. This ensures affordability, accessibility, and a diverse and inclusive living environment.

We have created 8-bedroom and 10-bedroom cluster types: the 8-bedroom cluster is created to provide an additional differentiator from a standard 10-bed cluster flat. This type is generally distributed around the site perimeter in quieter locations.

10-bedroom premium clusters are created to diversify the premium offer- this type of premium cluster will be located at the centre of campus life, where a larger cluster size will be suitable for more outgoing students enjoying extra social interactions.

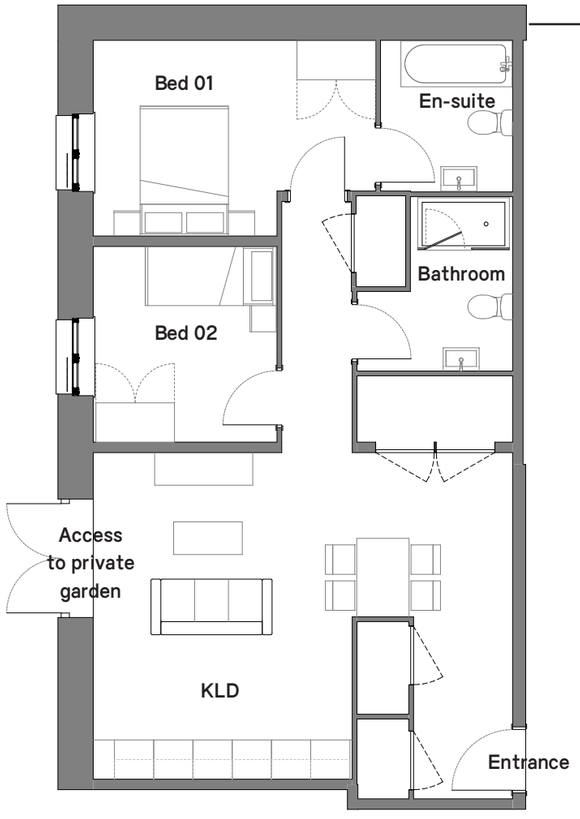


5.13 ResLife Flat Distribution

ResLife exists to provide pastoral care to students as an on-site service. The ResLife rooms/ apartments have been distributed across the site to ensure they are accessible for all students, with each neighbourhood having its own offering.

The below drawing shows a typical ResLife flat provided for a family. The ground floor ResLife flats (which are provided in pairs) will have access to private gardens, providing an attractive offer to prospective staff. Other ResLife rooms are provided in a cluster flat style arrangement.

Refer to the drawings submitted with this planning application for further information.





Key:

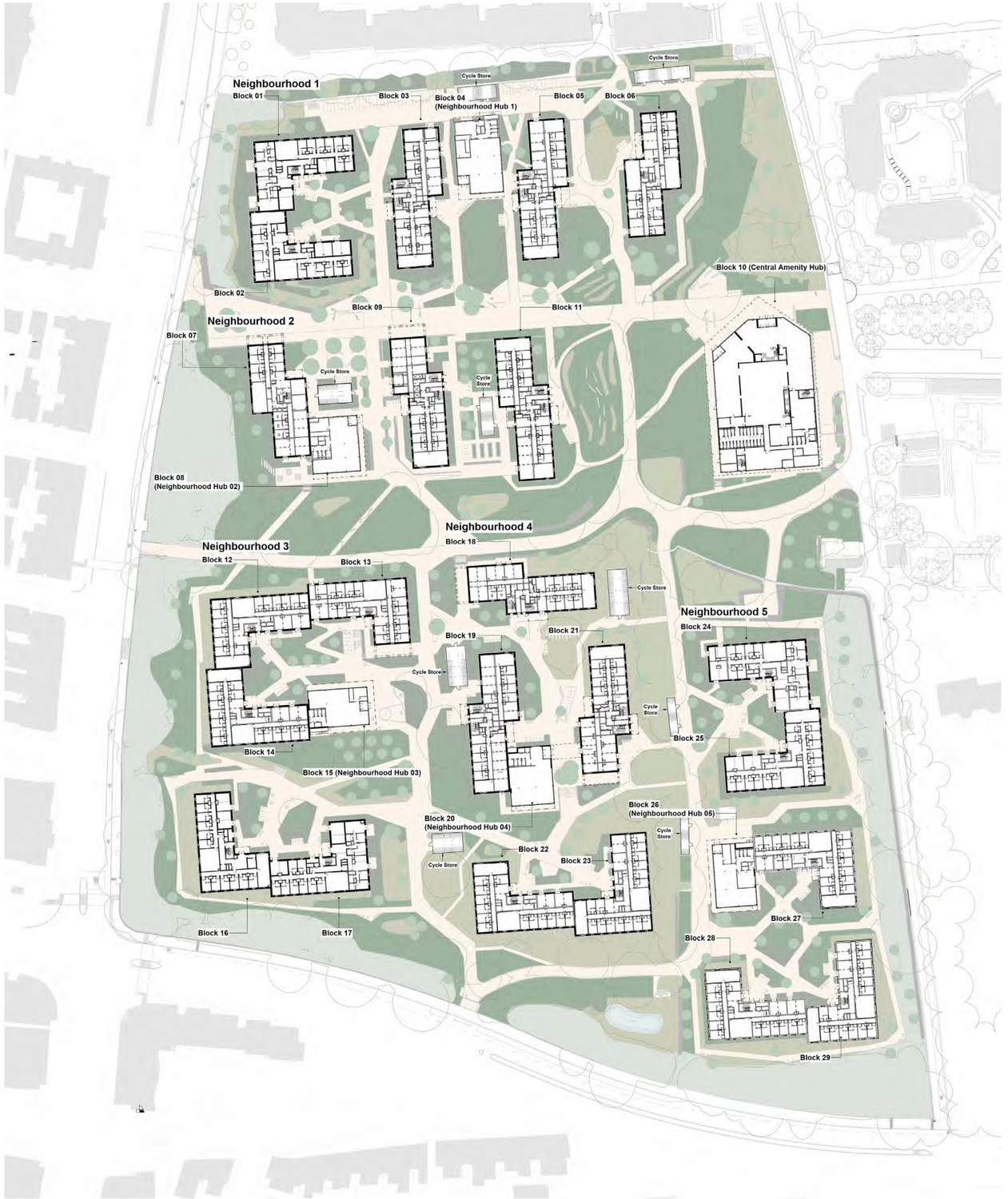
ResLife Coordinator Apt

ResLife Advisor Clusters

5.14 General Arrangements

Ground Floor Site Plan

The adjacent drawing shows the ground floor site masterplan.

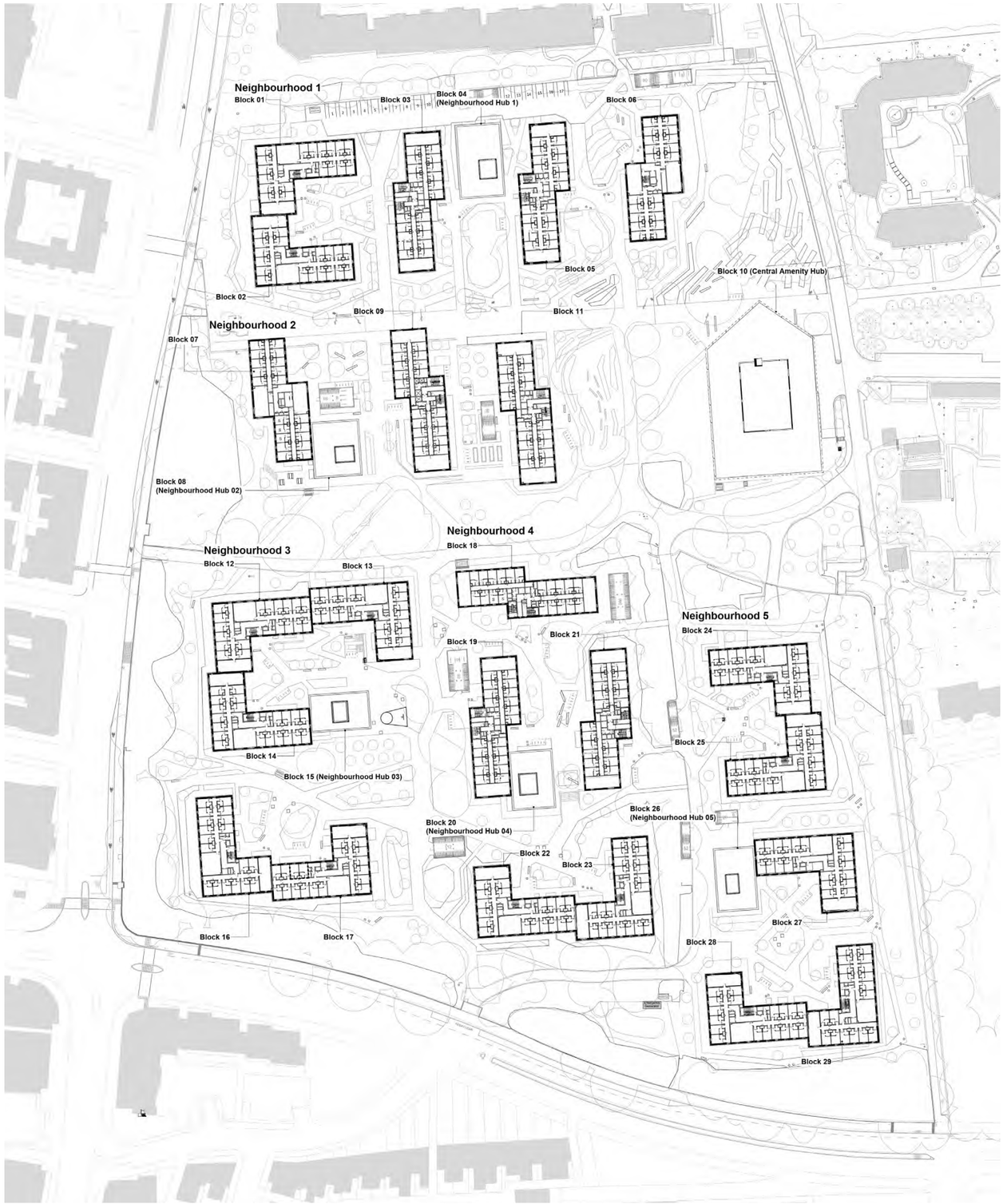


Key:

- Hard landscape
- Existing Trees
- Proposed Trees
- Planting
- Grass, mown and wildflower lawn

Typical Floor Site Plan

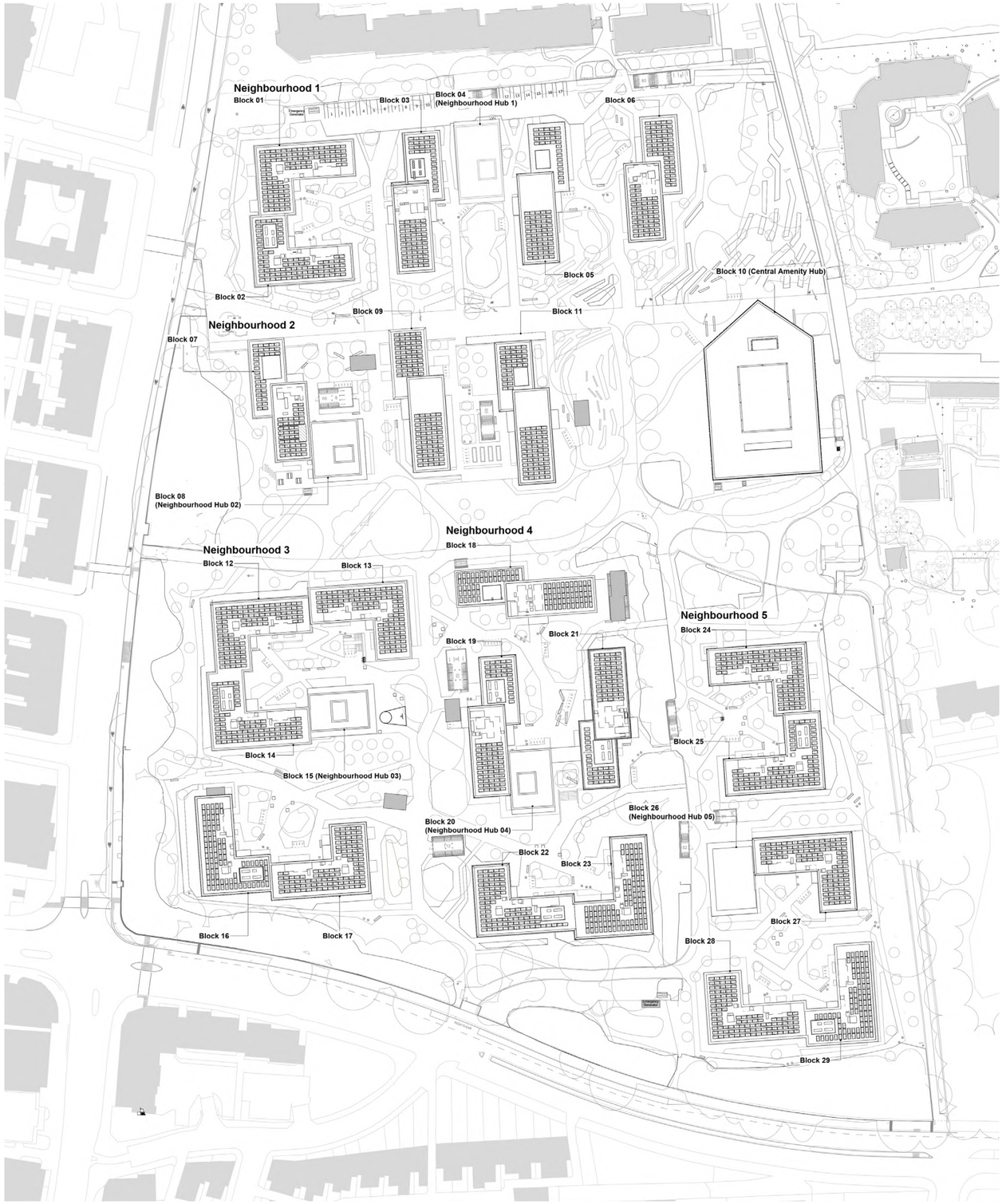
The adjacent drawing shows a typical floor plan across the site, which shows the flat clusters and the roofs of the low-rise hub buildings.



Roof Site Plan

The adjacent drawing shows the roof plan across the site, which shows the biosolar roofs of the residential blocks and green roofs of the hubs.

The parapets are 1200mm on the residential blocks, and plant is set away from the edges. Following the design code set up by the Design Guide approved as part of the OPP, plant units rising above parapet level are provided with plant screen.



Typical S Block Ground Floor Plan

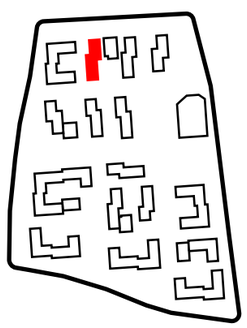
The adjacent drawing shows a typical S block ground floor plan. This DAS is highlighting one block of each typology in detail to show the principles of the layouts, for further information on the other block type drawings refer to the planning drawings submitted with this application.

The plan shows the arrangement of support spaces, such as bin stores and plant rooms as well as the ground floor cluster flats. The adjacent plan shows a flat with accessible rooms.

The entrances, with canopies to protect from the weather, are located along the key thoroughfares, and the adjacent block provides entrances on both sides of the block for connectivity to the landscape, the wider neighbourhood and to encourage use of the green spaces on either side of the blocks.

Bin stores are located a short distance from entrance doors to create a seamless journey from flat to store.



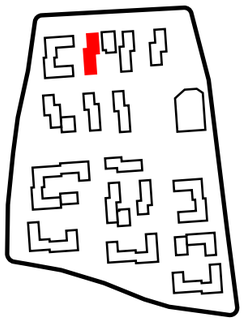


Typical S Block Typical Floor Plan

The adjacent drawing shows the typical cluster in a standard S block. Every block type consists of two clusters linked by a core. The arrangement of the cluster, core and kitchen, living and dining room varies across the types. See section 5.11 Residential Block Layout Principles for more details.

The adjacent block shows the layout of two cluster flats across one floor. The KLD spaces are located at the remote, gable ends of the flats, with the rooms accessed from a central corridor that leads to the KLD. The core is located centrally to ensure an efficient layout.

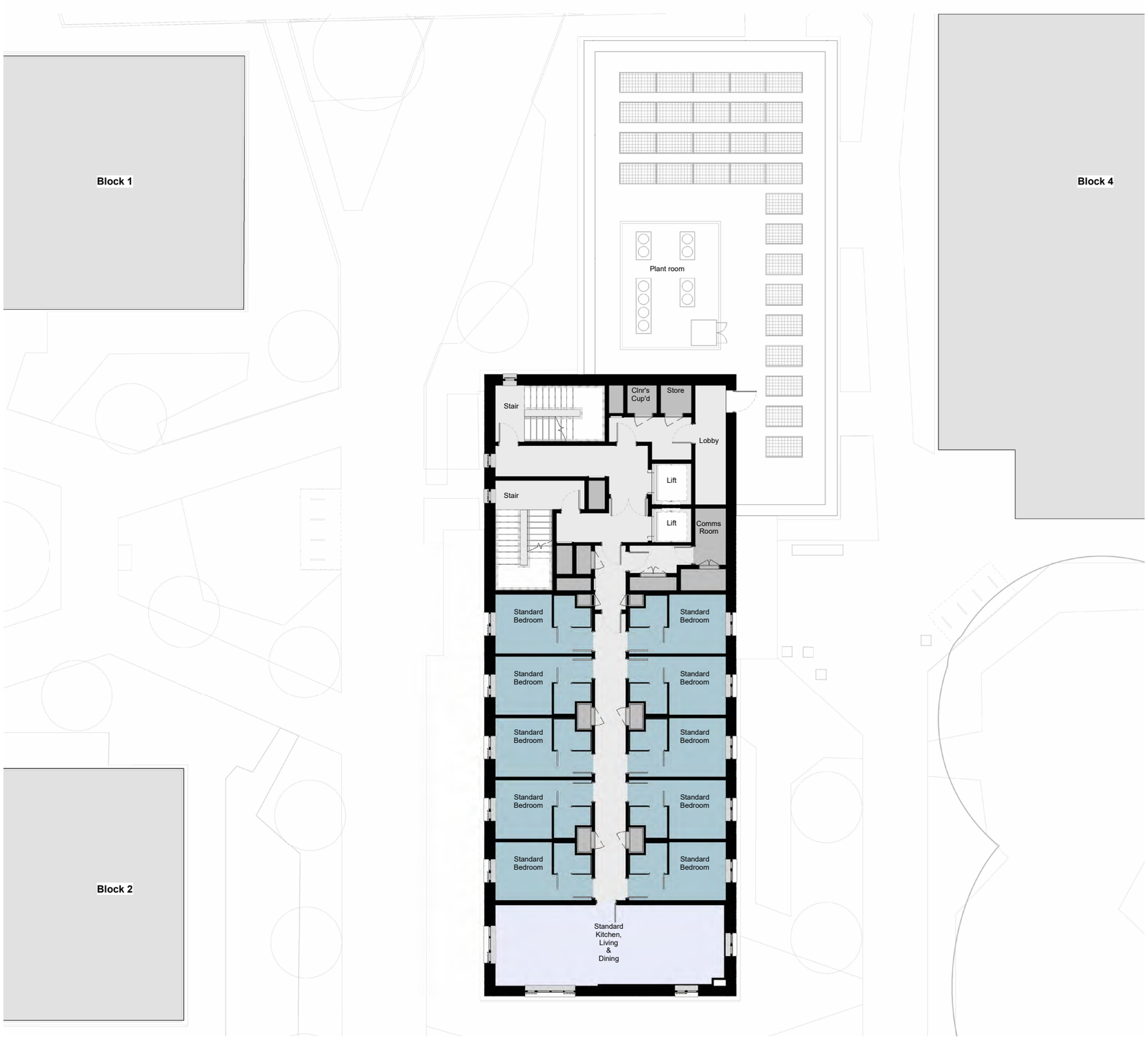


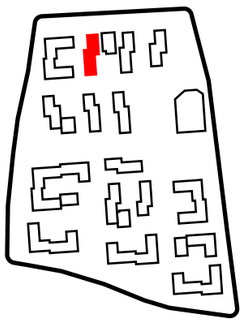


Typical S Block Top Floor Plan

The roof of a typical block consists of plant, which is concealed by a full-height parapet and screen where required.

The S blocks have a varied roof line, so that the upper floor only has one cluster. This cluster reflects the clusters below in layout, but omits the entrance to the second cluster flat, which is replaced by an entrance to the roof area to be used for maintenance.



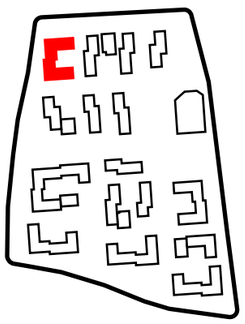


Typical L Block Ground Floor Plan

The adjacent drawing shows a typical ground floor layout for an L shape block. Although there are two blocks adjoining here, the blocks remain independent, and no access is provided between the two.

The ground floor hosts plant, refuse stores and cleaners cupboards as well as two cluster flats. Ground floor accommodation includes ResLife cluster flats and apartments as well as student cluster flats. The core is located on the inner corner of the L shape, which allows both flats to connect in efficiently. The adjacent diagram shows a 2 bed ResLife apartment, as well as a student cluster with accessible rooms.

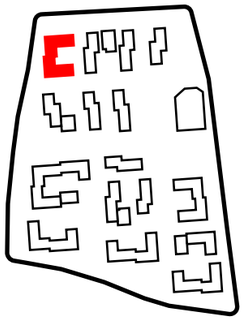




Typical L Block Typical Floor Plan

The adjacent drawing shows the typical cluster in an L block. Each block has two cluster flats. The KLDs are located both on the remote end of the corridor, and adjacent to the core providing some variety on the layout of the KLDs. The standard flats contain 10 bedrooms, and the premium 8 bedrooms.





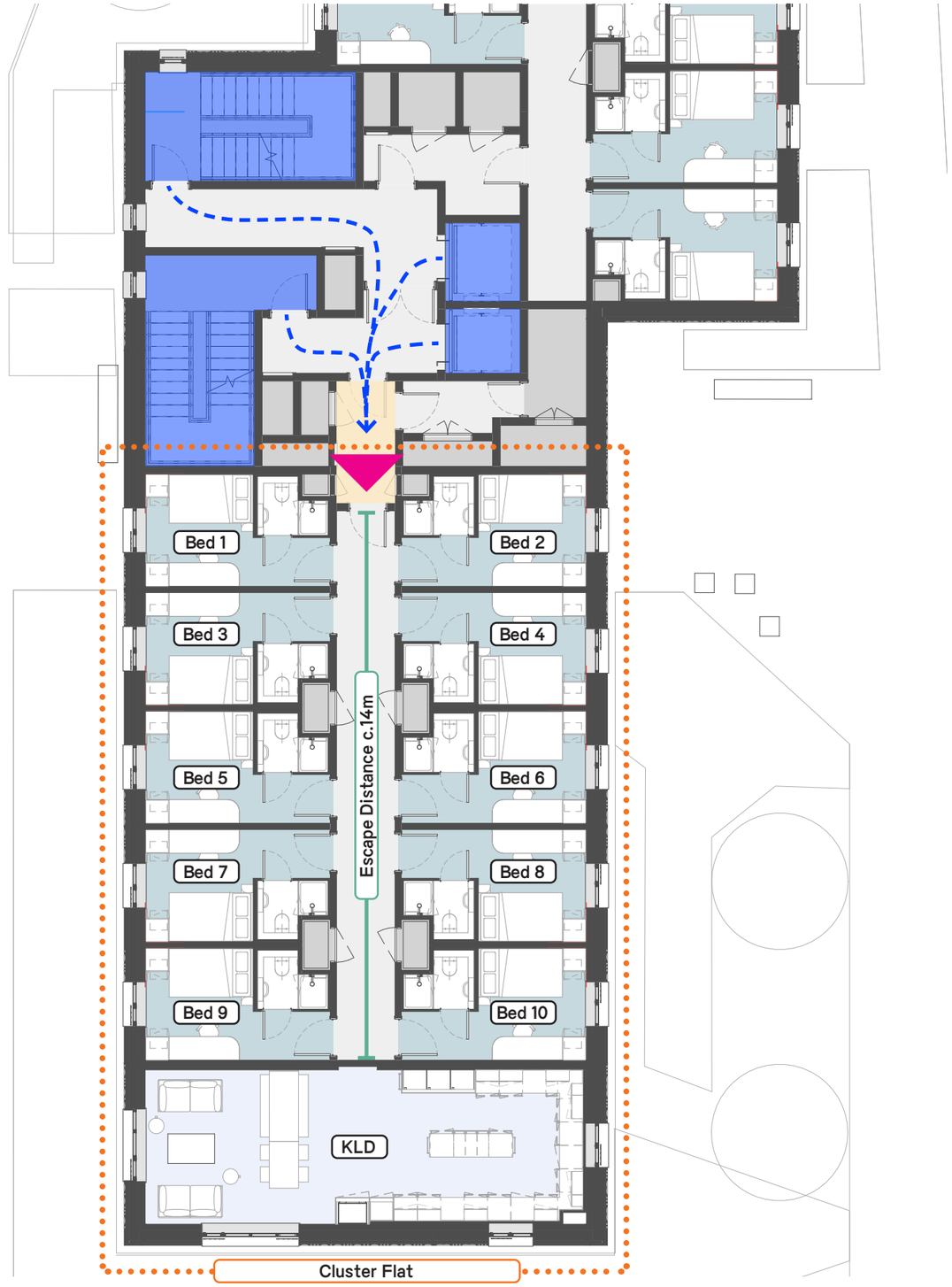
Typical Cluster Flat

The clusters are arranged efficiently in a linear shape. The KLDs are located either adjacent to the core or at the gable end of the flats to provide flexibility for the layouts. In the adjacent example it is located on the gable end.

The layout of the cluster flats are arranged for efficiency and to ensure that the escape distances don't exceed the maximum as set out in Building Regulations.

The entrances to the flat are located off the circulation space in the core, and a lobby is provided to the flat entrances. The arrangements of the rooms along a central corridor provides and efficient and sociable layout.

The shape and width of the blocks is determined by the proportions of the bedrooms, which is covered in section 5.15 Typical Flat Types.



Key:

- Circulation
- Routes to Flat
- Main Flat Entrance
- Escape Distance

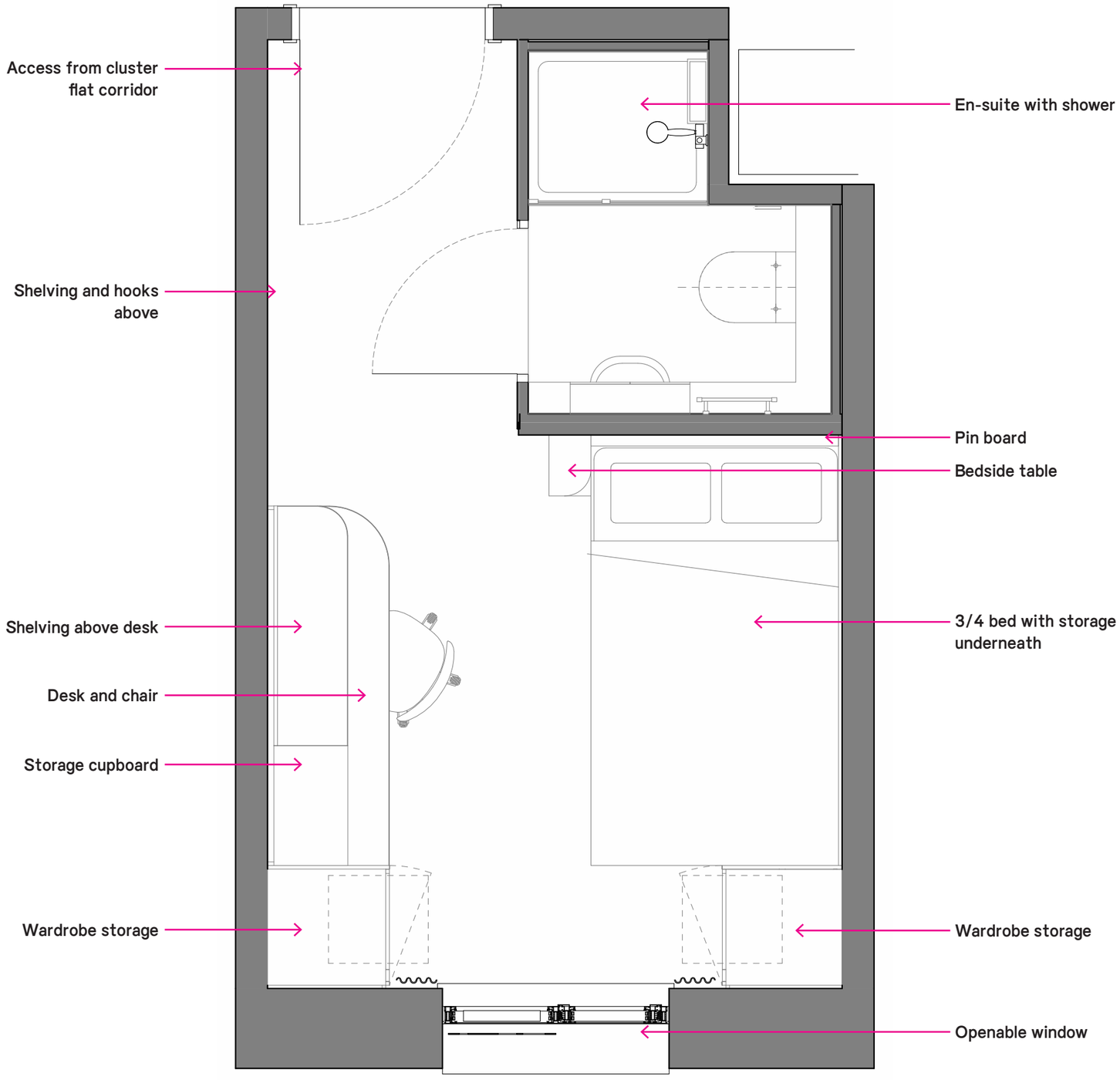
5.15 Typical flat types: Standard

Rooms

The standard rooms all include a 3/4 bed, desk, shelf space and an associated en-suite.



13.1sqm

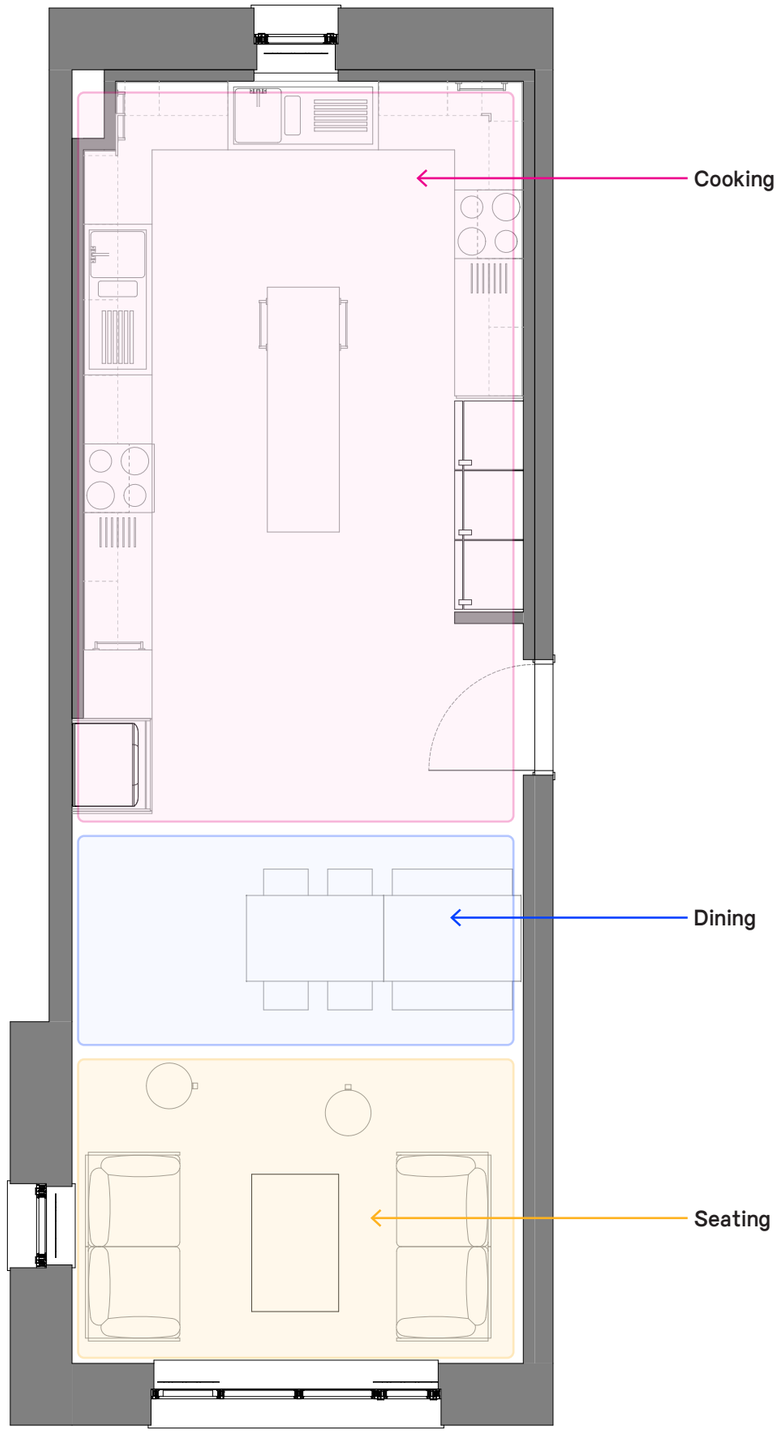


Standard Kitchens

The standard kitchens come in two arrangements- the gable end and the core adjacent. The drawings on this page are an example of the gable end kitchen. See planning drawings submitted with this application for more information on the other types.

All kitchen, living and dining spaces are designed to accommodate 8-10 people, so there is provision for a cooking area, dining area and seating area. Each of these functions has its own designated zone, whilst still remaining connected visually to the whole space.





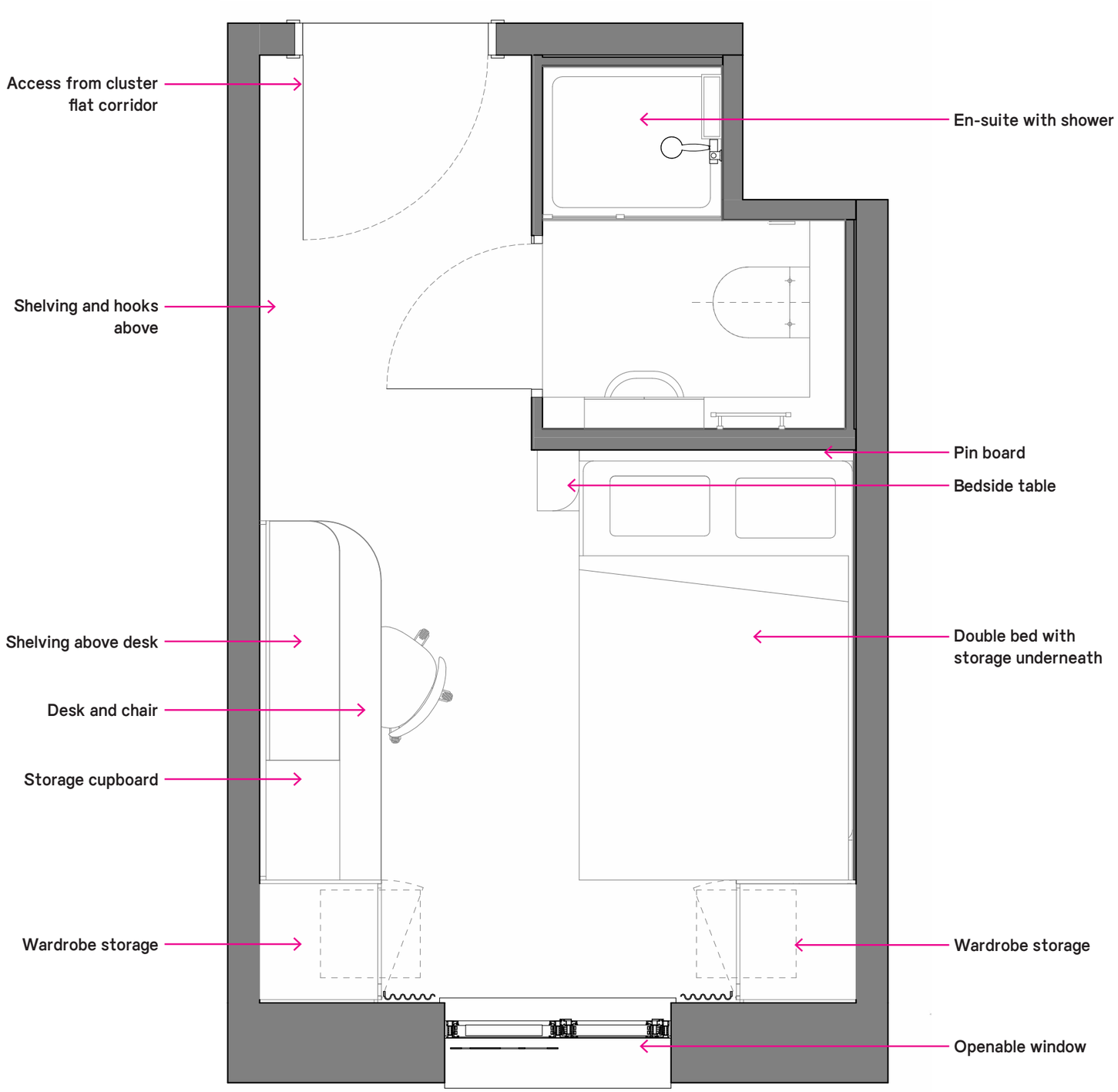
5.16 Typical flat types: Premium

Rooms

The premium rooms contain the same features as the standard rooms, but are larger in size, have additional storage and a larger bed.



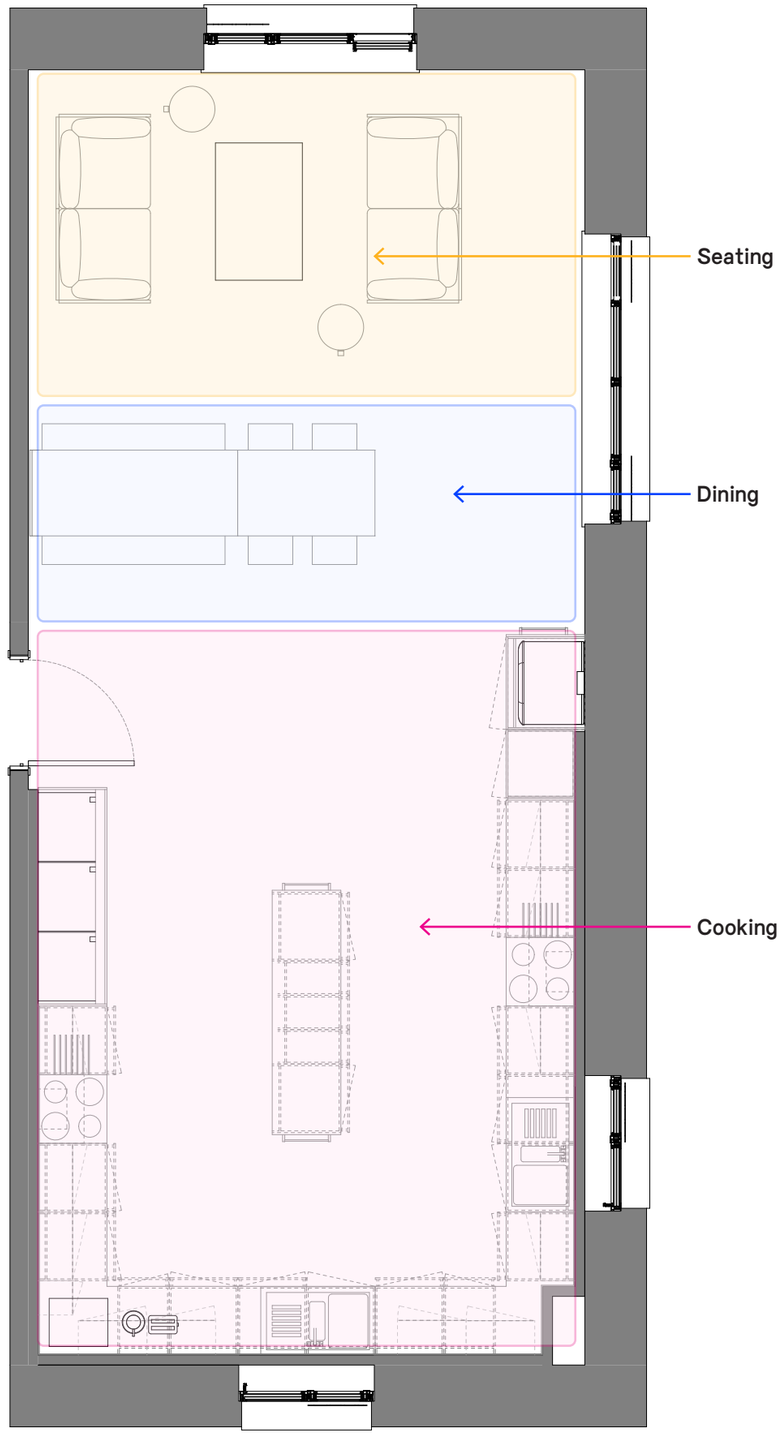
13.6sqm



Premium Kitchens

The premium gable kitchens are similar to the standard kitchens, but they have a higher person:area ratio.





5.17 Central Hub Design Principles

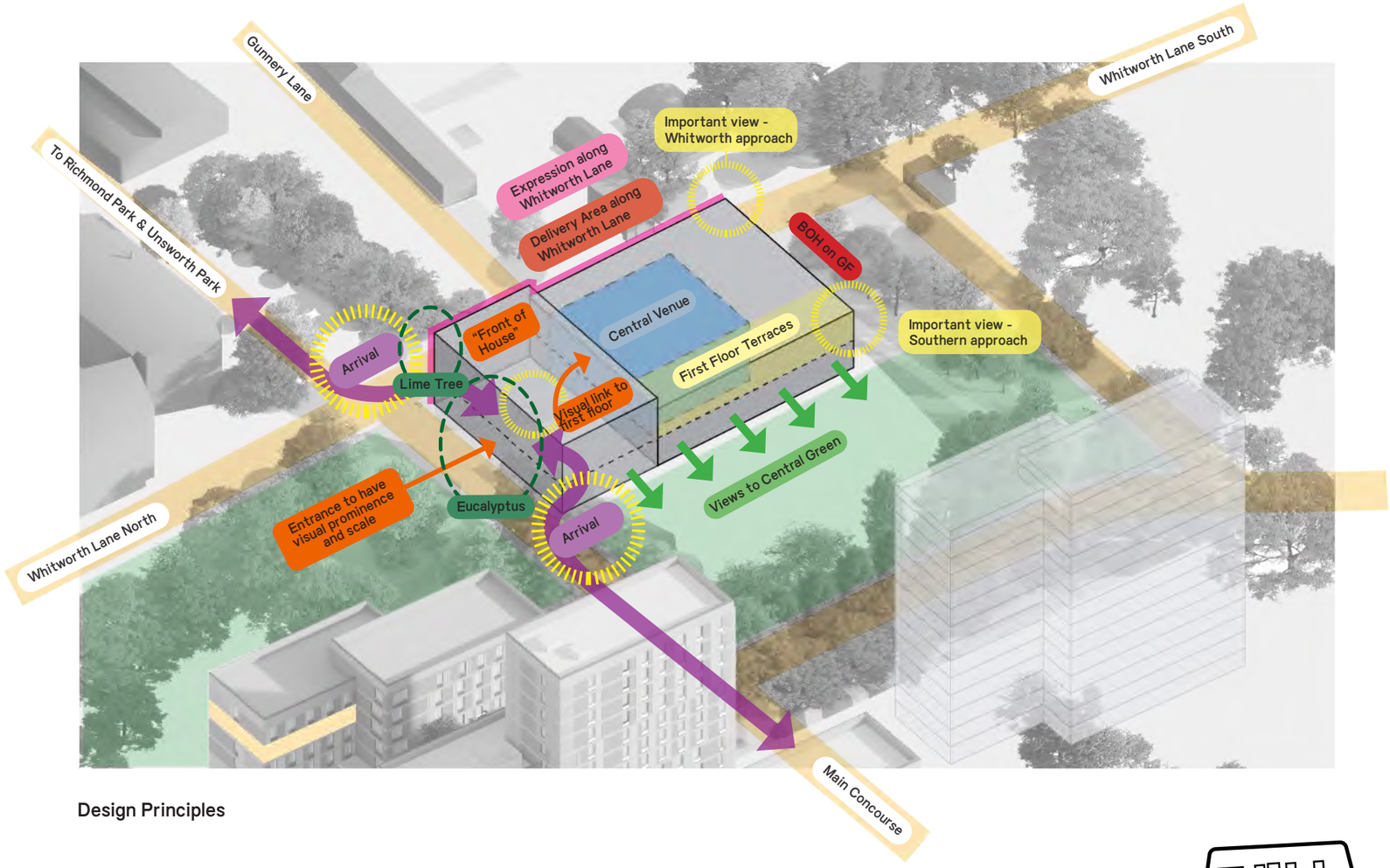
The central hub is located along the main route that bisects the site east to west. The key design principles are:

- The entrance should draw people in with a visual prominence along a busy circulation route.
- Situated in a suitable location for delivery, noting that the site is predominantly car-free.
- Provide support spaces for students wellbeing, as well as enhancing their social experience.
- Maintain a visual connection to the green space outside, and facilitate socialisation that can flow between the indoor and outdoor spaces.

Providing ample green space is one of the key drivers for the design. The hub's location to the east of the site along Whitworth Lane allows for a large open green space to span uninterrupted from the north of the site down past the hubs western elevation. This situates the hub within a vibrant and spacious landscape for student use, encouraging a connection with the surrounding environment.

Tree removals are minimised around the hub through strategic building orientation, and the hub's northern elevation is specifically scaled to avoid an attractive semi-mature lime tree, and a mature eucalyptus tree.

To create a sense of arrival for students visiting the hub from all over the Fallowfield campus, the northern end of the building has a visual prominence that signifies it as the entrance point and aids in wayfinding. Visitors and passers-by walking up Whitworth Lane will first glimpse the eastern facade and the south-east corner, which have been sensitively designed to act as a vista along the route.



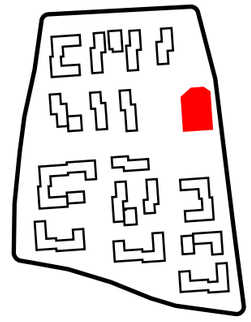
Design Principles

Key:

Arrival Points

Important Views

Key Trees

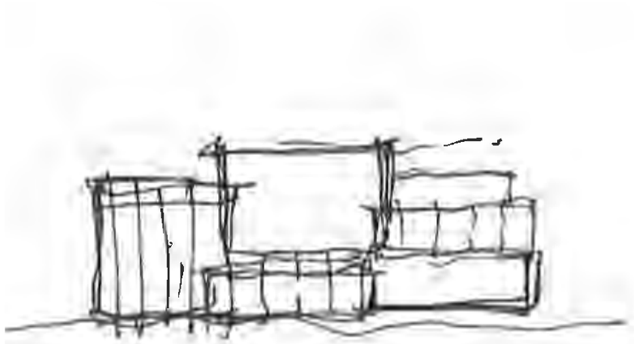


5.18 Central Hub Development

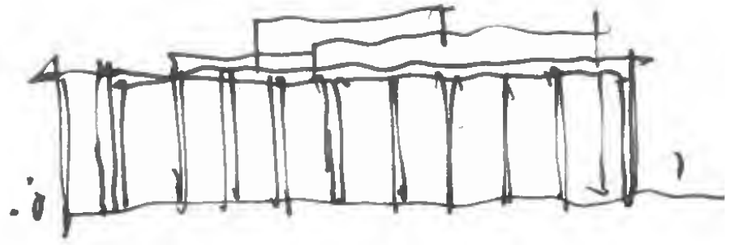
The visual appearance of the hub needs to be welcoming and domestic, yet eye-catching enough to signify its importance within the site.

The team experimented with various iterative forms, each working in different ways to draw students in to the hub. A consistent theme that emerged was the single/double storey colonnade, which not only created a covered entrance space and a reference to academic cloisters, but united the whole building with one consistent element spanning its facade.

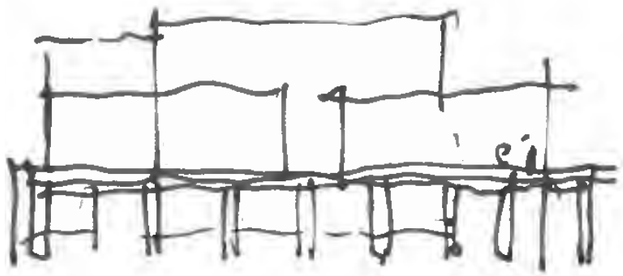
In each iteration, the main body of the building (housing the venue and other social functions) was designed to rise prominently above the colonnade, creating a deliberate visual contrast that signalled its functional significance.



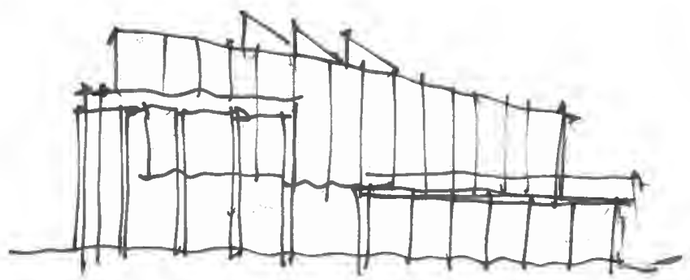
1. Expressed Volumes



2. Unifying Elements



3. More Human Scale



4. Different scales joint by a ‘single volume expression

Central Hub Ground Floor Plan

Upon entering the building, you are met with the choice to ascend to the first floor study space and bookable rooms, move left to the dining and servery, move right to the small bar, or continue forwards into the venue space. The layout is designed to make these spaces permeable, and encourage a flow of people between them throughout the day. This fluidity will allow students to feel a sense of ownership over the space, whilst guiding their activities into softly demarcated areas.

The central location of the venue draws in visitors, and its open double storey form ascends through the building with a visual connection to all other hub spaces, signifying its importance.

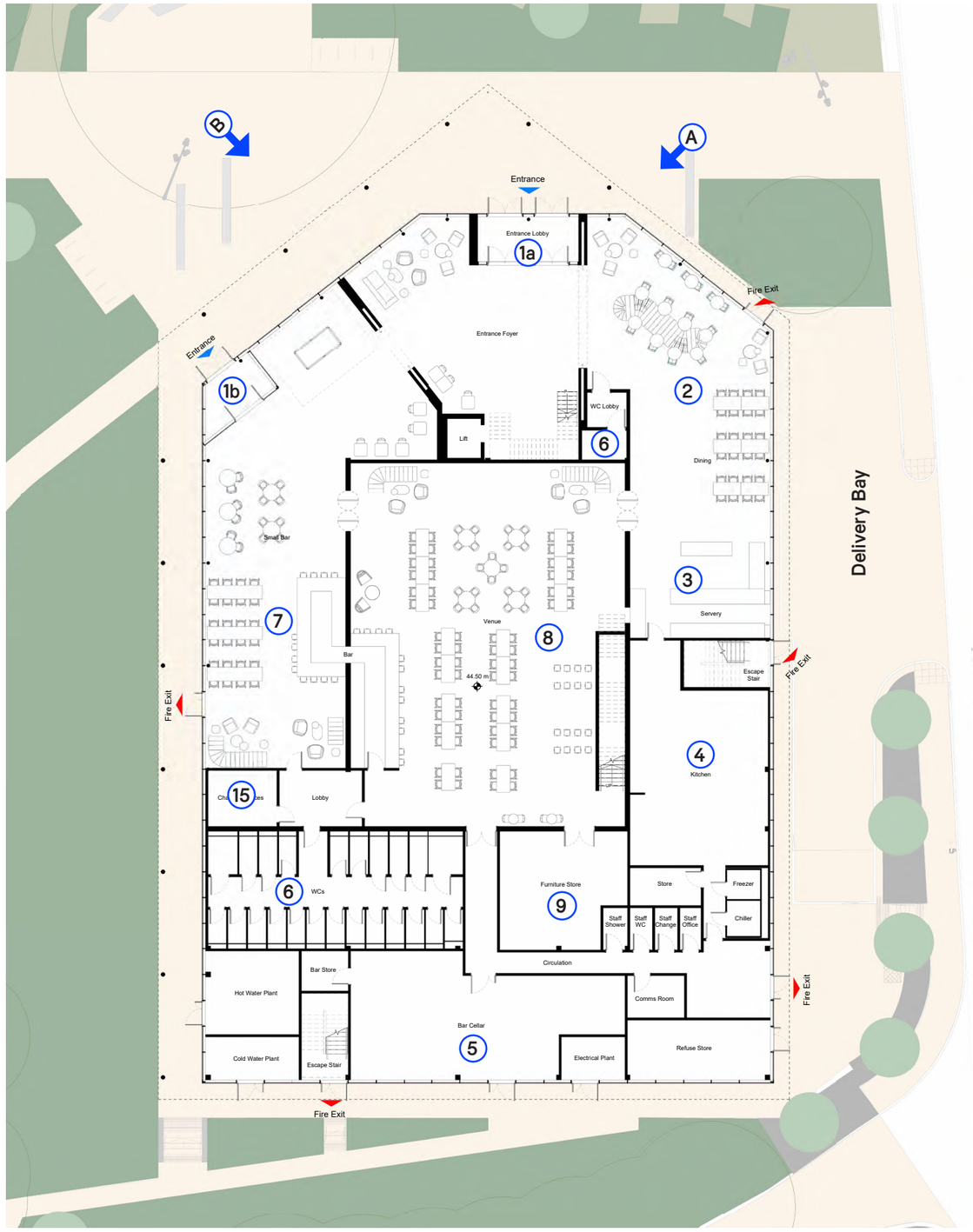
On the hub's western elevation is the small bar, where there are large expanses of curtain walling with doors to access the central green. This capitalises on views, and allows for an indoor-outdoor connection for hub events. At the first floor there is a covered student terrace, where visitors can appreciate an expansive view of the central green and the surrounding residential blocks.

The back of house functions are neatly clustered to the south of the floor plan, with easy access to the delivery and servicing area to the east. This limits cross-over between students and working staff. The toilets are positioned ideally for student use, with a large bank accessible directly from the venue and the small bar, and a smaller amount to the north of the plan. The large furniture store connected directly to the venue eases furniture relocation and storage.

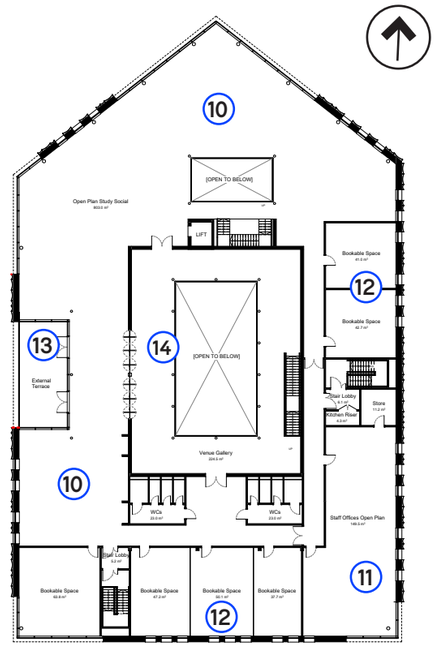
The hub provides changing places provision for those with multiple and complex needs.

Key:

1a	Main Entrance	8	Venue and Main Bar
1b	Evening Entrance	9	Furniture Store
2	Dining	10	Social and Study
3	Servery	11	Staff Office
4	Kitchen	12	Bookable Space
5	Bar Cellar	13	Terrace
6	WC	14	Venue/ Gallery
7	Small Bar	15	Changing Places



Ground Floor Plan



First Floor Plan


A
FALLOWFIELD WELCOME WEEK
MANCHESTER
The University of Manchester
CHORUS
VOLCORA

5.19 Central Hub Materiality

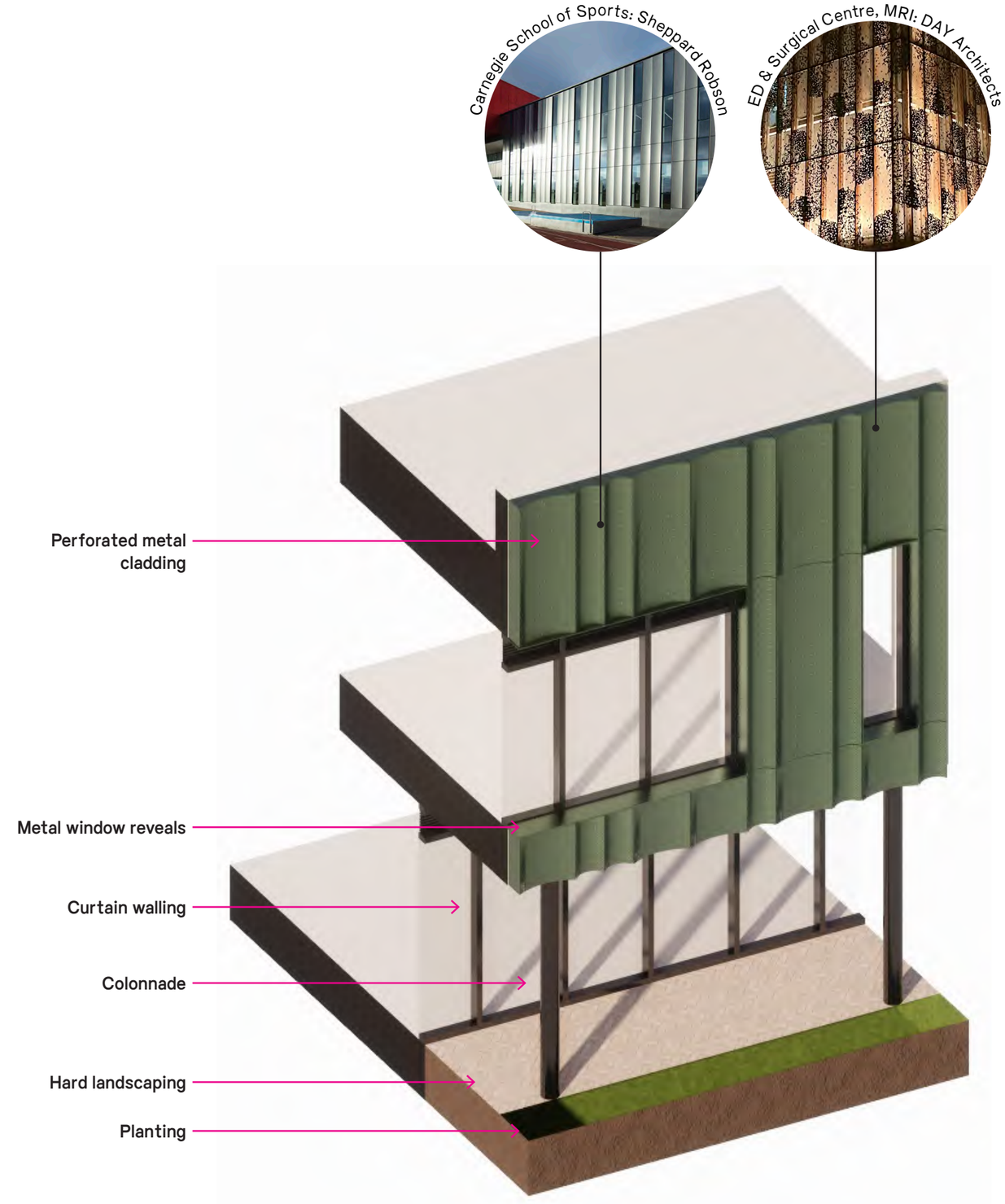
The materials of the central hub will differ from the other buildings on site to signal its unique function.

The building's facade will be defined by concave perforated metal cladding in a fern-green, which will give the building its own personality whilst nestling it within the surrounding greenery.

The changing rhythm of panel widths is inspired by the tree trunks of the surrounding site edge woodland, and will add visual interest and energy to a facade that is otherwise orderly and functional. The windows are carefully designed with a depth that lends to a 'carved-out' appearance, an important part of the design intent.

The perforated metal panels stand proud from the face of the external wall, and lighting will be placed in this space to illuminate the facade in the evenings. This will draw attention to the patterned perforations and allow the building to act as a glowing beacon in the evening, drawing in residents and serving as a warm and inviting site landmark.

The window reveals will be framed in a colour to match the facade, ensuring the visual theme is consistent and unified. The window frames, curtain walling mullions and ground floor columns will be finished in a dark grey, contrasting with and complimenting the lighter green.




B
FALLOWFIELD WELCOME WE

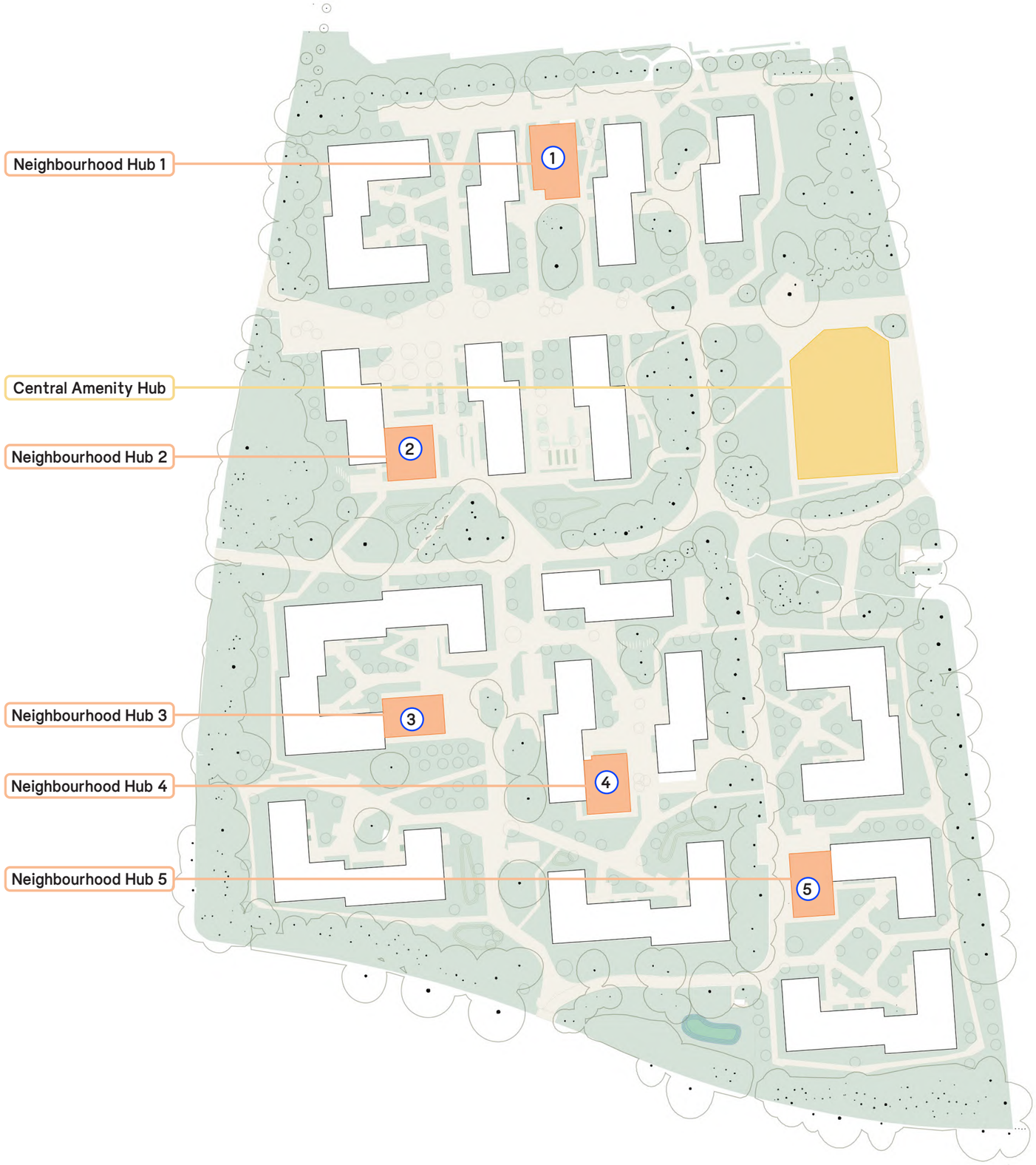

B
FALLOWFIELD WELCOME WEEK

5.20 General Arrangements: Neighbourhood Hubs

The permeable lightweight appearance of the neighbourhood hubs contrasts the solid textured character of the residential blocks. The principles of permeability, views in and out and active frontages are important to the design of each.

A steel frame structure with a curtain wall facade and inverted green roofs are the key materials proposed for these buildings. Whilst they feature different footprints and interior themes, these buildings have several common elements:

- Canopies covering entrances and areas of outdoor seating. These are important to prevent overheating in the summer, and to protect from the rain. The form of the canopies is defined by slender colonnades- a modern reference to traditional collegiate cloisters, creating intimate outdoor spaces to pause away from main circulation routes.
- Curtain walling increases visibility into the hubs allowing residents to assess how busy the spaces are before entering. It also allows for them to be lit up from the inside at night, acting as beacons within their respective neighbourhoods.
- Clerestory glazing will provide natural lighting in the deeper parts of the open plan.
- The internal arrangements will include a variety of seating with more private corners and blinds for privacy when required.



5.21 Typical Neighbourhood Hub

This document expands on the general design principles of the neighbourhood hubs. Although each neighbourhood hub is different, they all follow similar principles. To see each neighbourhood hub in detail, refer to the drawings submitted with this application.

As previously outlined, each neighbourhood embodies a theme, these are sports, heritage, nature, Manchester music scheme and visual art. This is being used to define the interior design of the neighbourhood hubs, and will help with the naming of spaces for wayfinding.

The adjacent illustration is an example of how sports could be integrated into the interior design of a neighbourhood hub.

The neighbourhood hubs generally include a social space, working areas, bookable spaces, post boxes and laundry services amongst other functions.



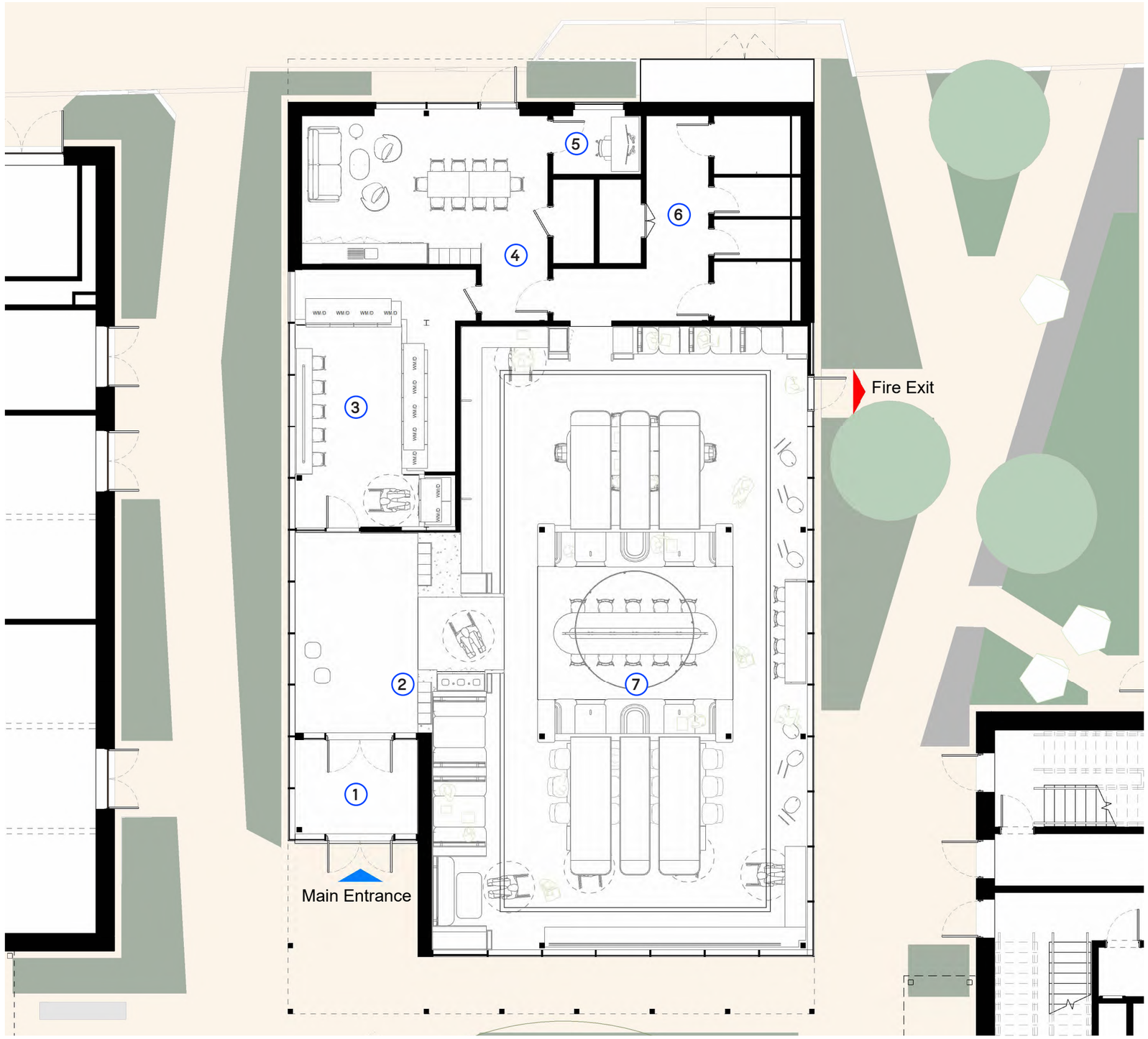
Neighbourhood Hub 1 Ground Floor Plan

The neighbourhood hubs encompass the functions that are necessary for the students day-to-day living. Although they all vary across the neighbourhoods, the general principles of providing post boxes by the entrance door, a laundry room and study spaces remains the same.

Some of the hubs, including the one on this page, have facilities for the management team such as offices and staff rooms.

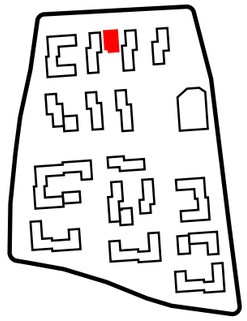
The study spaces have a flexible layout that can be adjusted to suit the student population's needs, and can be used to house social events if required

The materiality will be lightweight, focusing on permeability and simplicity. Aluminium rain-screen cladding and curtain walling will form the facade.



Key:

1. Entrance
2. Post
3. Laundry Room
4. Facilities Management Staff Room
5. Facilities Management Office
6. WCs
7. Study Space

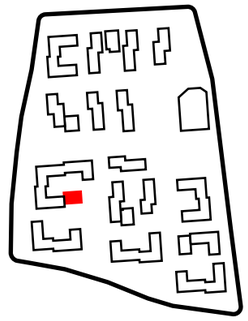


Neighbourhood Hub Materiality

The neighbourhood hubs are treated as pavilions with the neighbourhoods, so their materiality contrasts with the solidity of the residential blocks.

The neighbourhood hubs have been designed to have a similar language to the entrance canopies of lightweight metal to compliment and contrast the solidity of the brick.

The lightweight material allows for a transparency such that the activity within the hubs can be seen, and there is a connection between the inside and landscape outside.





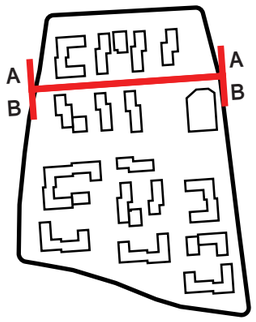
Neighbourhood Hub 1- During the day, the main function of the hub as a study space provides students a connection with the landscape outside.



Neighbourhood Hub 1- At night-time the lighting from within the hub shines out into the neighbourhood, showing the activity inside.

5.22 Sections

The following drawings show the site in section, the buildings' relationship to each other and the integration of the landscape strategy into the overall scheme. The sections on this page are taken along the main east-west promenade through the site from the entrance to the central hub.



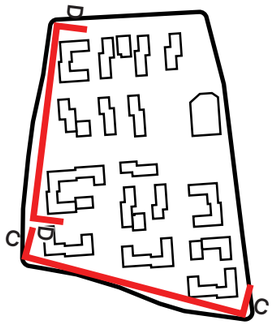


Section A- Along the main east-west promenade facing north



Section B- Along the main east-west promenade facing south

The drawings are taken on the inside of the tree-lined site boundary line and do not reflect how the site would look from the roads which would have the border of trees in front.

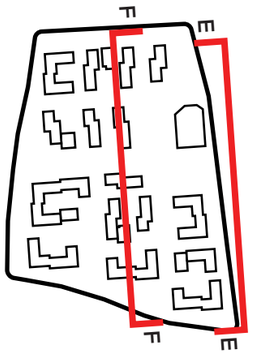




Section C- Mosley Road



Section D- Wilmslow Road





Section E- Whitworth Lane



Section F- Lengthways through the site facing east, from block 5 to block 28

5.23 Mitzi Cunliffe Relief Location

The relief artwork, Cosmos, by Mitzi Cunliffe was displayed on both the north and south façades of Owens Tower. As part of Planning Condition 6 for the OPP, the artwork is required to be reused in the proposal. During the demolition works on Owens Tower, the artwork has been carefully removed and stored in the Ferranti Building on the University of Manchester Campus. Once the proposal has suitably progressed on site, the art work will be transported back and carefully reinstated on site in its new locations.

Since the artwork was displayed in two locations on Owens Tower and is not a continuous piece, it is proposed that the artwork be displayed in two separate areas on site:

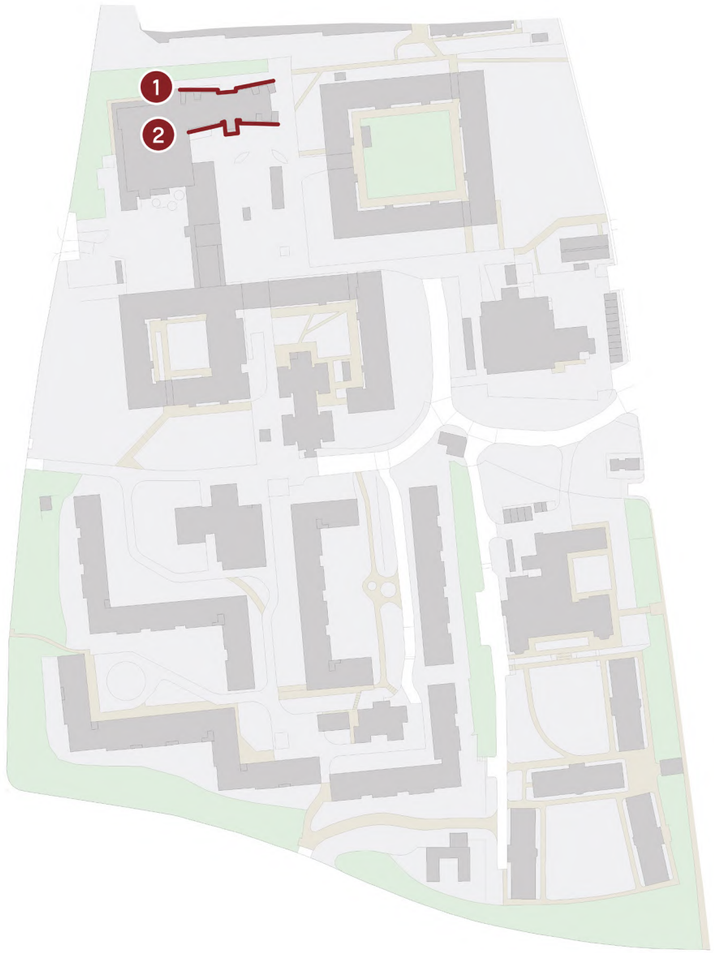
1. Between blocks 9 and 11 integrated into the landscape design.
2. In the central hub events space.

These locations allow the artwork to be at the social centre of the site, ensuring that it can be enjoyed by students.

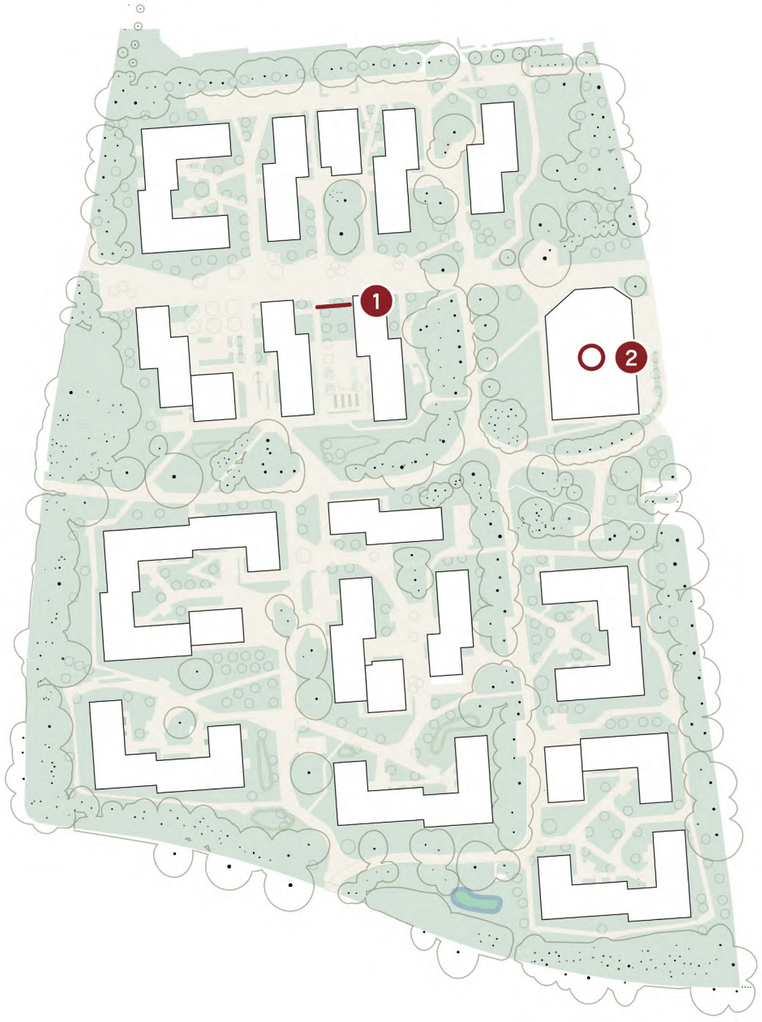
Additional information regarding the location of the relief will be provided in further discussions with the relevant stakeholders in the next stages of the project. The submission of a scheme for its re-use will be within at least 6 months of development commencing.



Cosmos by Mitzi Cunliffe



Previous location of Cosmos



Proposed location of Cosmos

5.24 Solar Study

A solar study has been carried out to assess the impact of the proposal on the landscape and assess the usability of the spaces. It was used as a tool to drive the landscape proposals.

The adjacent images are illustrative only and suggestive of how the sun moves across the site at the quarterly equinox.

The central green and central hub benefits from sunlight throughout the morning and afternoon in all seasons, and only becomes overshadowed in the evening ensuring it can be used year-round.

The landscaping across the site generally benefits from at least a few hours of sunlight each day, with very few areas without any direct sun.

Spring Equinox



Summer Equinox



Autumn Equinox



Winter Equinox



09:00

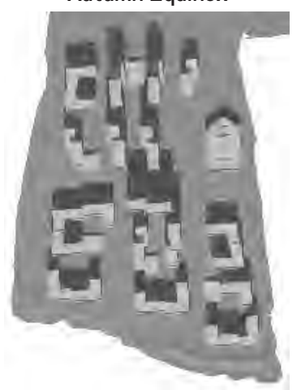
Spring Equinox



Summer Equinox



Autumn Equinox



Winter Equinox



12:00

Spring Equinox



Summer Equinox



Autumn Equinox



Winter Equinox



17:00

6.0 EXTERNAL APPEARANCE

6.1 Elevational Concept

The following section outlines the approach to the external building appearance, the evolution of the design and the key materials and finishes proposed for major building elements.

Design Drivers

The design of the buildings façades has considered the rich heritage context of Manchester and the vernacular material palette, as well as the context of innovative design within the city. Key design drivers for the facade include injecting personality through high quality details, textures and relief.



6.2 Residential Facade Strategy

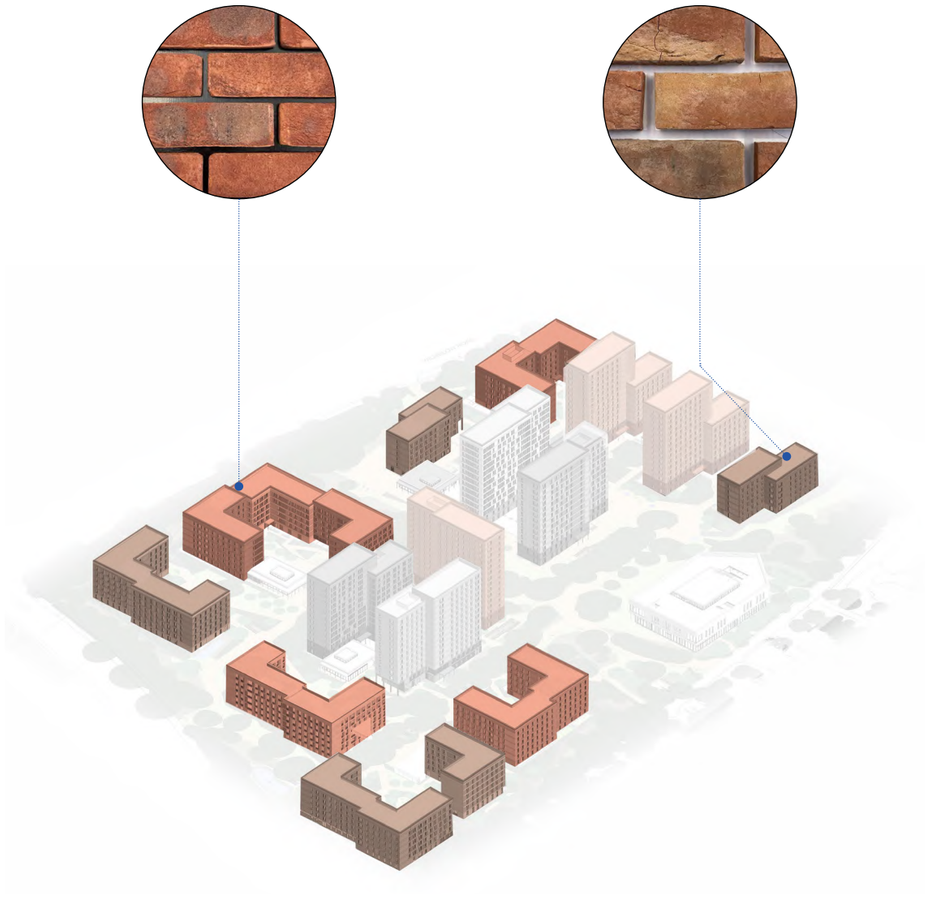
Edge of site vs. Centre of site

The site will feature a range of brick and masonry colours to create a characterful and attractive environment.

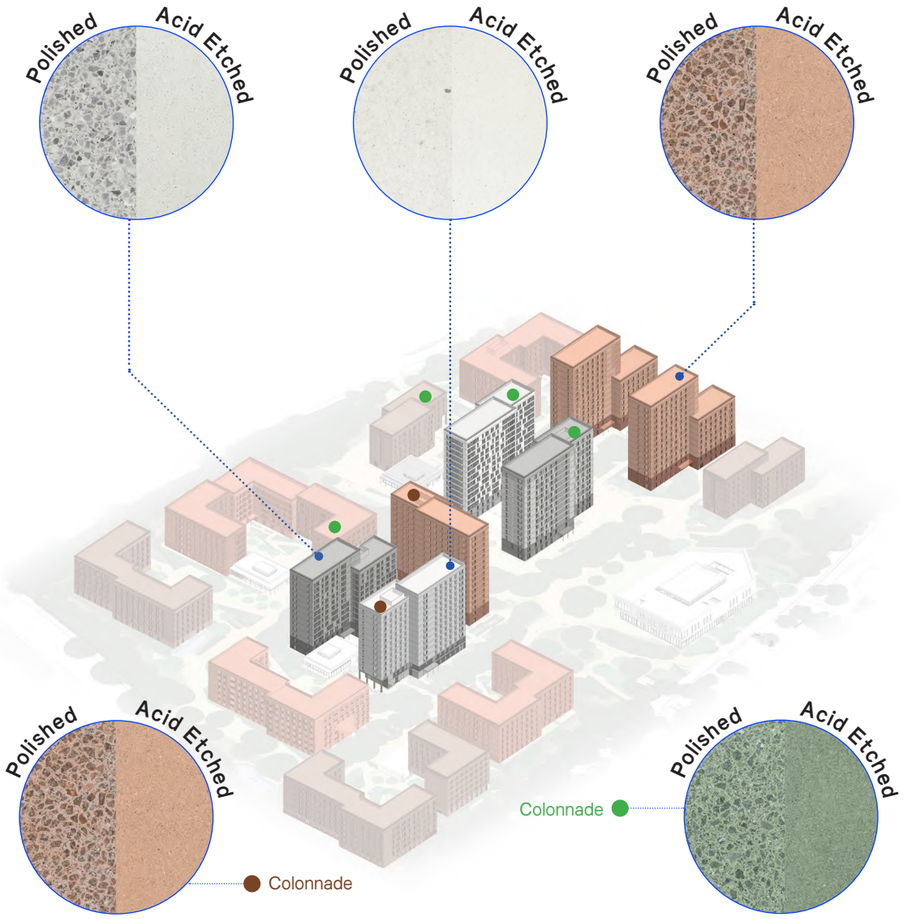
The blocks on the perimeter will create a notion of a ‘garden wall’ around the site featuring warm red-brown and darker tones of multi-brown bricks. These red and brown tones were selected to reference the red and brown brick buildings surrounding the site along Wilmslow Road, Moseley Road and Ashburne Hall palette.

Most taller tower blocks will be built using lighter and cooler pre-cast concrete. Surrounded by mature trees, spaces around the towers will benefit from a higher reflectance of light-coloured facade, and the differentiation will help with way-finding. The height of the blocks also lends itself to the patterning achievable with pre-cast when compared to brick. The chosen patterning will be able to provide depth to the top of the building, whereas the articulation proposed for brick would not be readable at such height. Three of the taller blocks, including the two that sit on the northern boundary, are proposed in warmer red tones of pre-cast concrete to add variety and vibrancy to the overall composition, and respond directly to the heritage character of Ashburne Hall.

The resulting arrangement provides characterful and attractive combinations of colours and textures which will feed into the overall quality of the development.



Edge Treatment



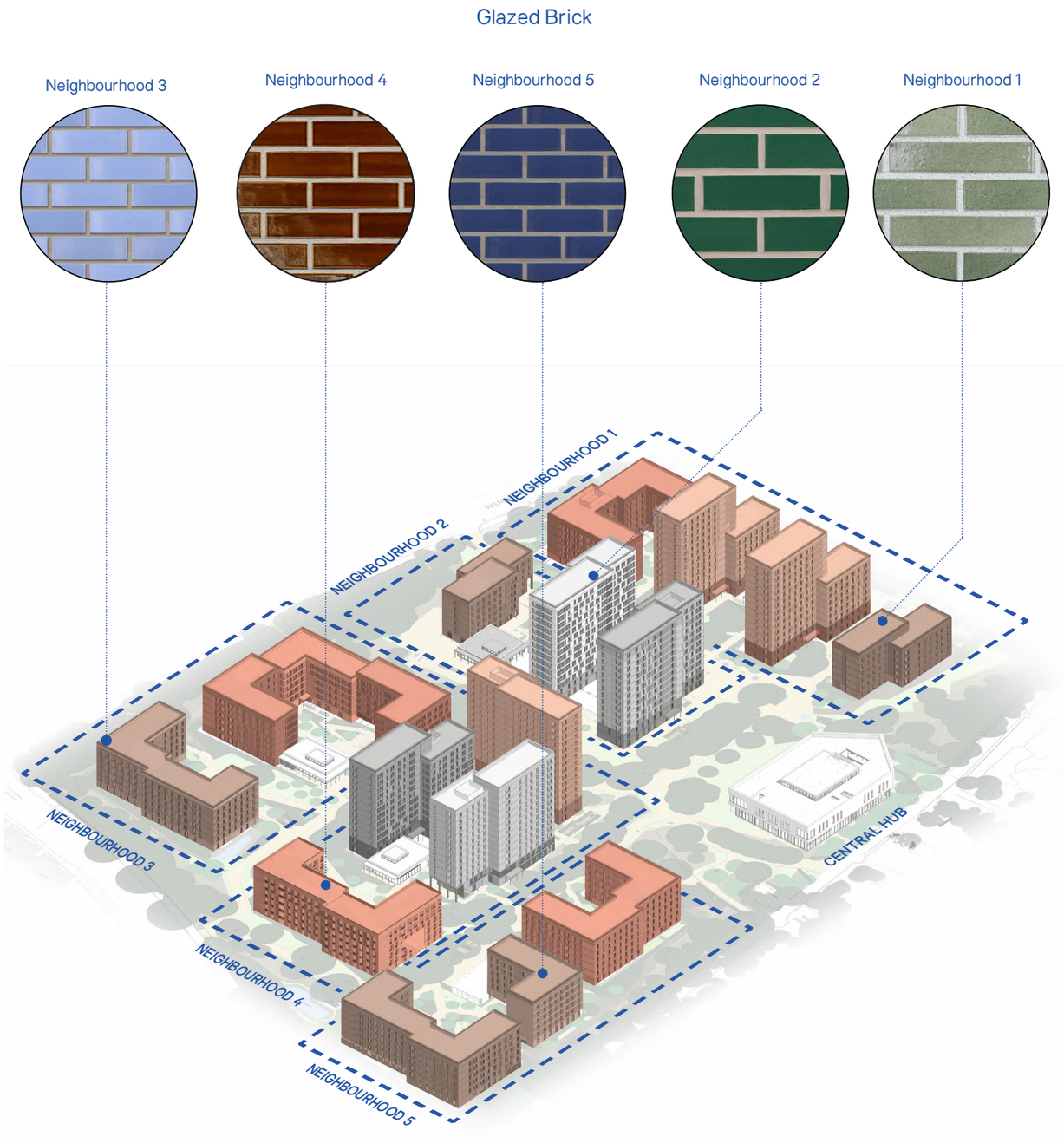
Central Treatment

Neighbourhood Differentiation

As an aid for wayfinding, a subtle differentiation between the material choice for neighbourhoods was explored as a design principle. In order to achieve this, a level of articulation was added to façades through the addition of glazed brick detailing.

These glazed bricks would then vary in colour between the neighbourhoods, helping individuals to locate themselves when travelling around site.

Glazed brick is a prominant material in Manchester and is represented on some of Manchester's most pominant and characterful buildings, creating an element of interest and texture on the facades.



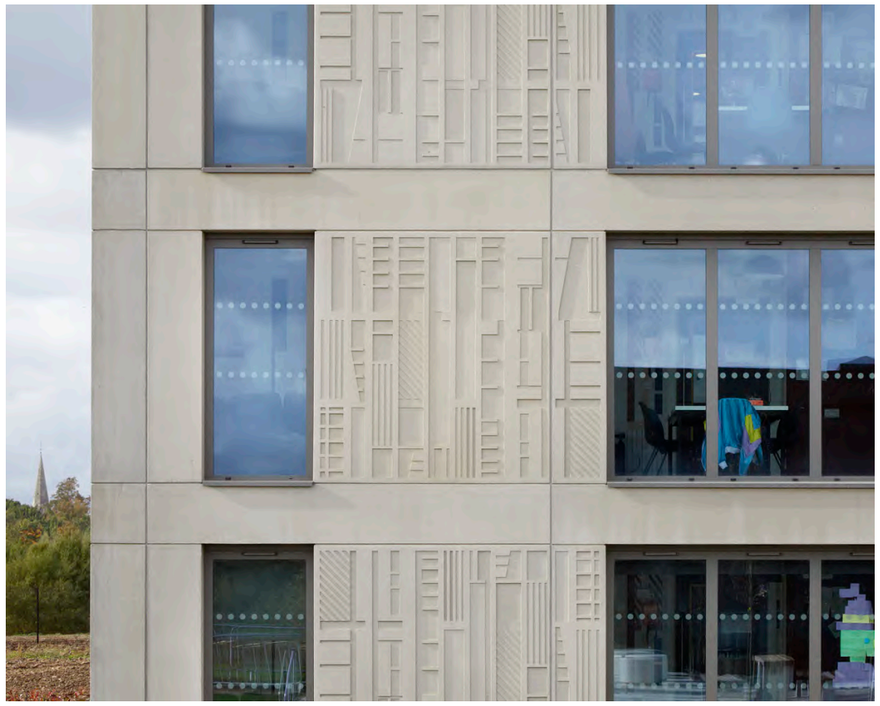
6.3 Residential Facade Design Precedents

The building facade and material chosen draws inspiration from other projects around Manchester, such as Kampus, St Gabriels, Victoria Park and Mauldron Hotel.

It is also drawn from other typology specific projects, such as the University of York residences.



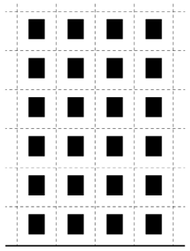






6.4 Residential Facade Development- Brick

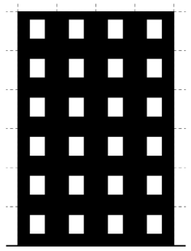
Taking the key precedents and material aspirations into account, the facade was developed in layers to provide a regular rhythm, create depth, interest and detail.





Functionality VS Composition

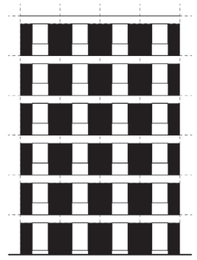
Key façade elements such as window proportions have been carefully considered to achieve required environmental performance while providing daylight factor and uniformity; all bedrooms surpass minimum daylight factor requirements. The typical floor to floor height allowed for the creation of windows of elongated proportions. Visually, a simple repetition of bedroom windows creates a sense of rhythm but requires additional elements to add interest and quality.





Versatility, Durability, and Texture

The main façade material for the perimeter of the site is brick, chosen for its versatility, durability, and texture. It is also a material widely used in the surrounding area and around the campus including Fallowfield high street, Grade II listed Ashburne Hall and other halls of residencies.

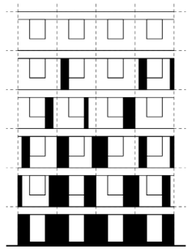




Adding Interest

Pre-cast brick façades specified for the project facilitate the use of high quality bricks and patterns to the best effect.

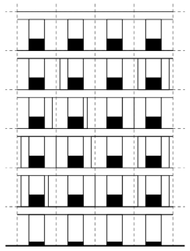
Horizontal joints from the pre-cast panels define the patterning on the facade by providing the opportunity to embrace them as part of the composition. In this way the joints, rather than becoming a distraction, define distinct zones on the facade to be used for patterning. They make the façade more dynamic, departing from the otherwise utilitarian ‘warehouse’ look.





Adding Depth

Brick patterns using projecting bricks are introduced between the horizontal bands to add texture and depth to the overall façade. The pattern is arranged to create a more fluid pattern, not aligned vertically and suitable for an organic parkland setting.





Adding Colour

Areas of glazed bricks accentuate windows, add character, colour, and a smooth shiny texture to the façade and its composition. Areas of polished stone will be used to highlight entrances to the residential blocks in the same colour as the glazed brick, neighbourhood ‘gateways’ and building overhangs. A different colour of glazed bricks will be used for the blocks in each neighbourhood to define its unique character and aid wayfinding.



High Quality Finish and Detailing

Details such as window grilles are important to add finesse and personality to the blocks. A unique grille design has been developed to compliment the brick pattern. The role of the landscape and external areas is vital in creating the overall positive ambience and quality of student experience as well as bringing life and a sense of grounding to the facade.

6.5 Residential Facade Development- Pre-cast

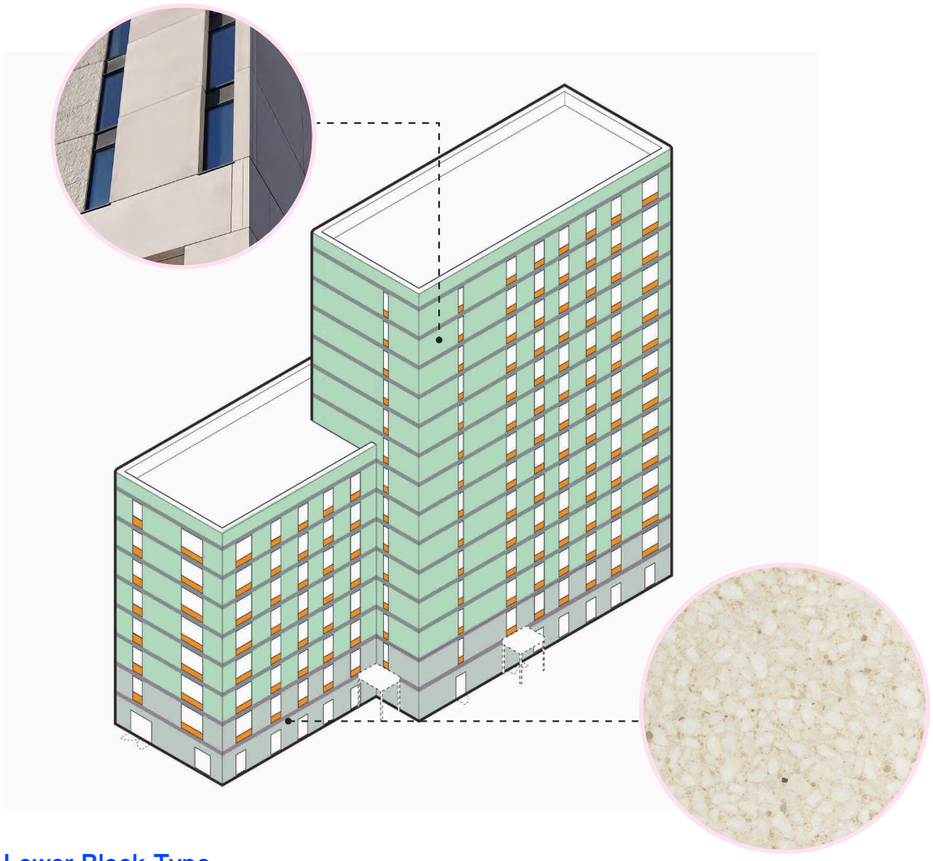
To provide some differentiation to the tallest blocks on site, a variation on the masonry palette will be used. The pre-cast structure of the blocks will be expressed as the finish on the facade.

This will allow a lightness in the centre of the site and ensure that the pattern on the facade can be read to the top of the buildings.

Key:

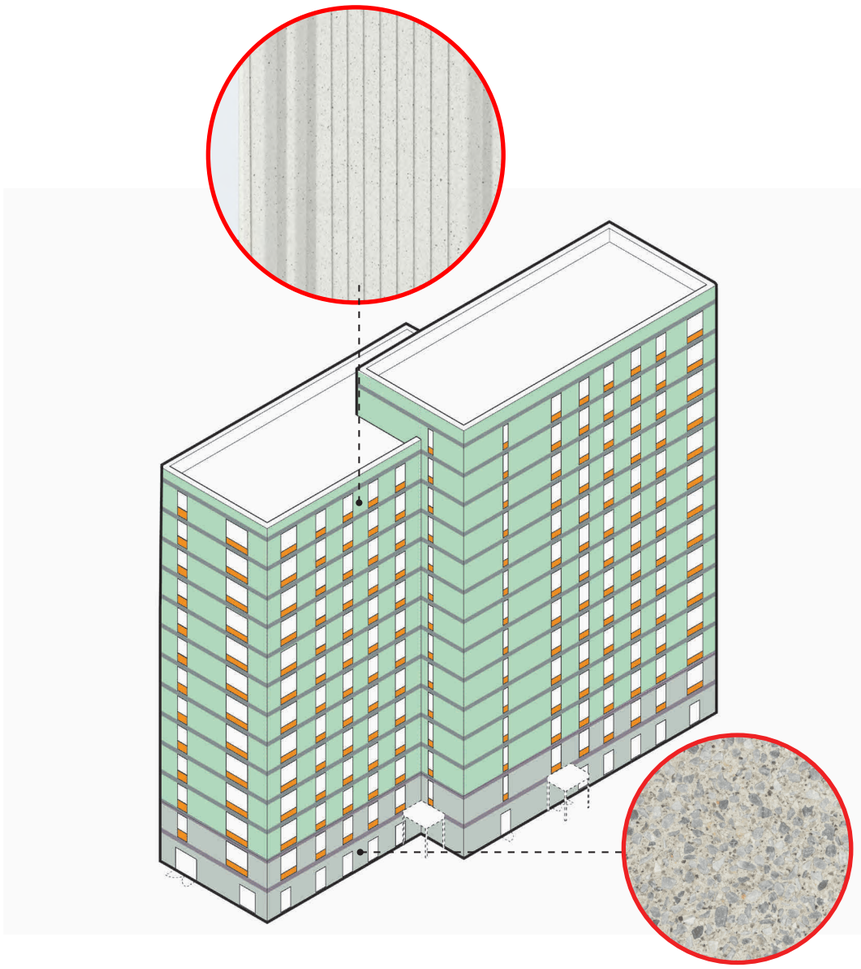
- Glazed Brick
- Textured Reconstituted Stone
- Reconstituted Stone

Note: The colours used are diagrammatic and do not accurately reflect the final material choice.



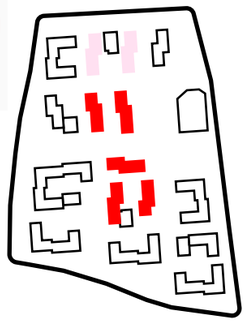
Lower Block Type

Reconstituted stone facade low-rise S blocks located along the north edge of the site.



Taller Block Type

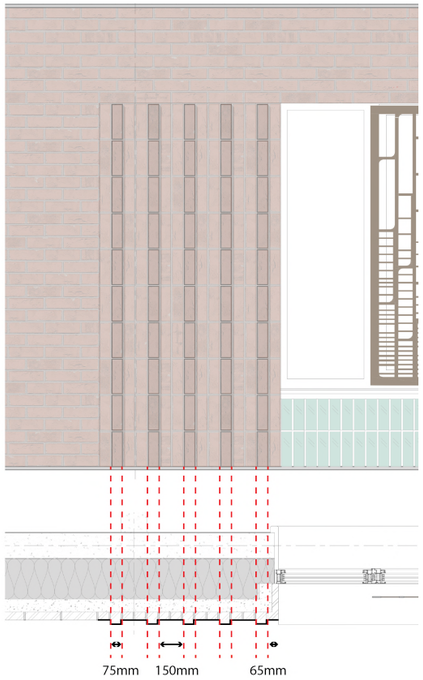
Reconstituted stone facade high-rise S blocks located in the centre of the site.



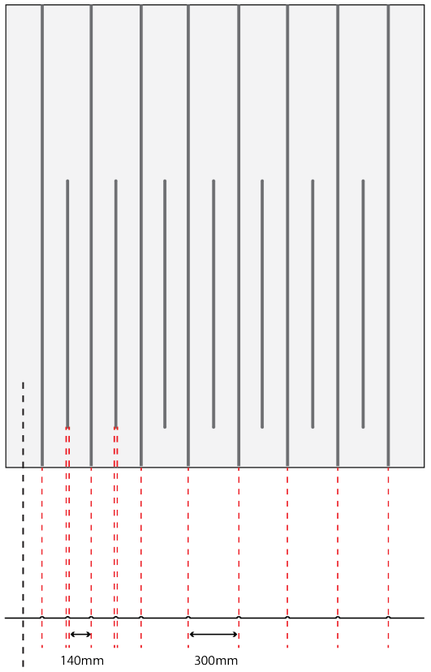
The reconstituted stone pattern takes compositional elements from both the brick facade pattern and the Owen's Tower ground floor facade pattern and combines them together, creating an interwoven architectural language of recesses and grooves that directly relates to the dimensioning of the bricks façades.

At the top and bottom each groove has a slight chamfer designed, to shed stagnant water and protect the concrete from weathering.

Brick Facade Pattern

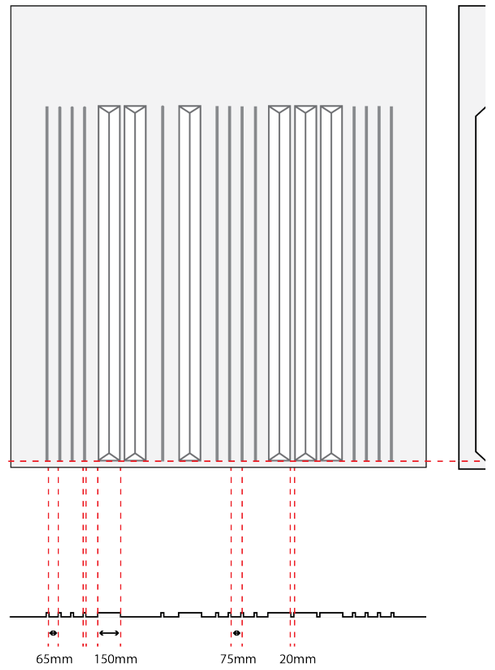


Owens Tower GF Facade Pattern





Reconstituted Stone Facade

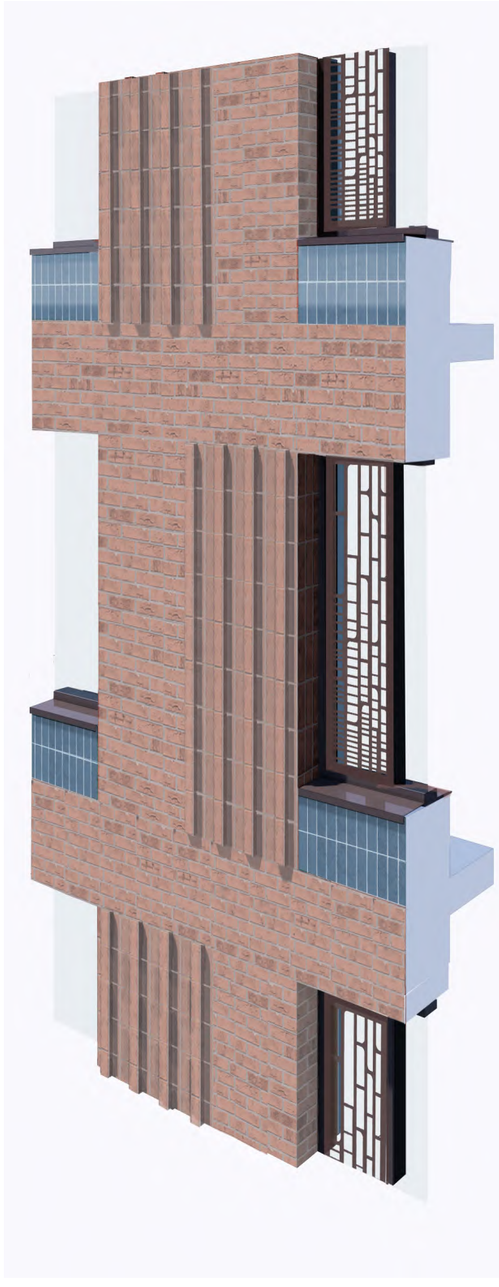


6.6 Facade Detailing

There are two principal brick relief pattern types used across the site. The first pattern is linear and solid to portray a more structured and civic character of the northern part of the development (neighbourhoods 1 and 2) and the entrance concourse. The second pattern is softer to reflect a more fluid and relaxed parkland setting of the southern neighbourhoods (neighbourhoods 3, 4 and 5). Each pattern will be complemented by different grille designs: one more linear, another is more organic, inspired by the xylem cells of trees.

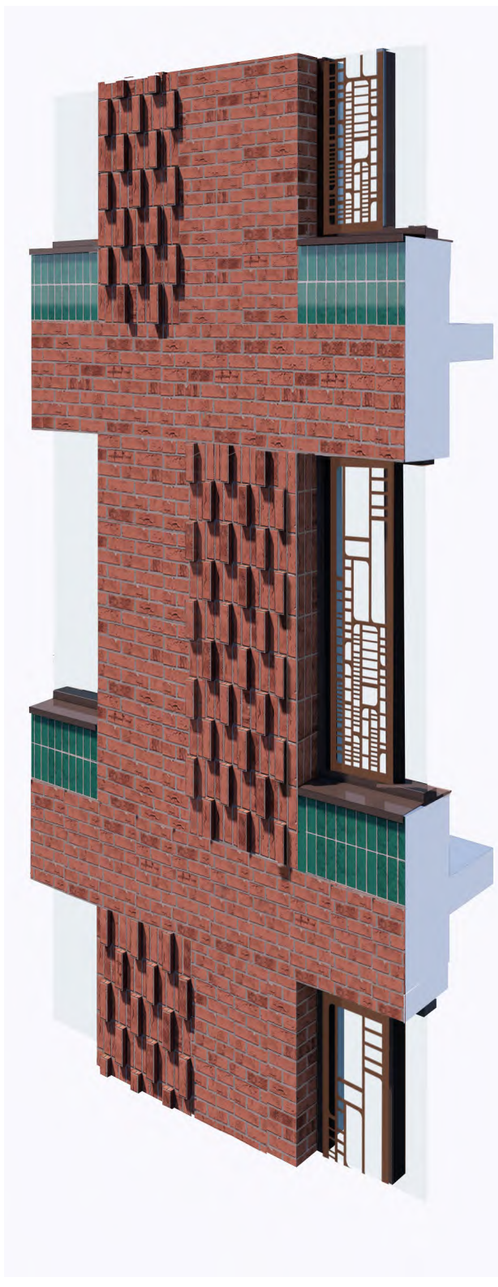
The pattern developed for reconstituted stone elevations depicts the elements of brick detailing whilst also referencing original 1960s architectural features. Reconstituted stone elevations follow the same principles as brick façades.

As outlined on the previous pages, each neighbourhood will have areas of glazed brick on the brick facade that denotes which neighbourhood they are in and creates a sense of difference between the character areas.



Neighbourhoods 1 and 2

Brick relief pattern 1



Neighbourhoods 3, 4 and 5

Brick relief pattern 2

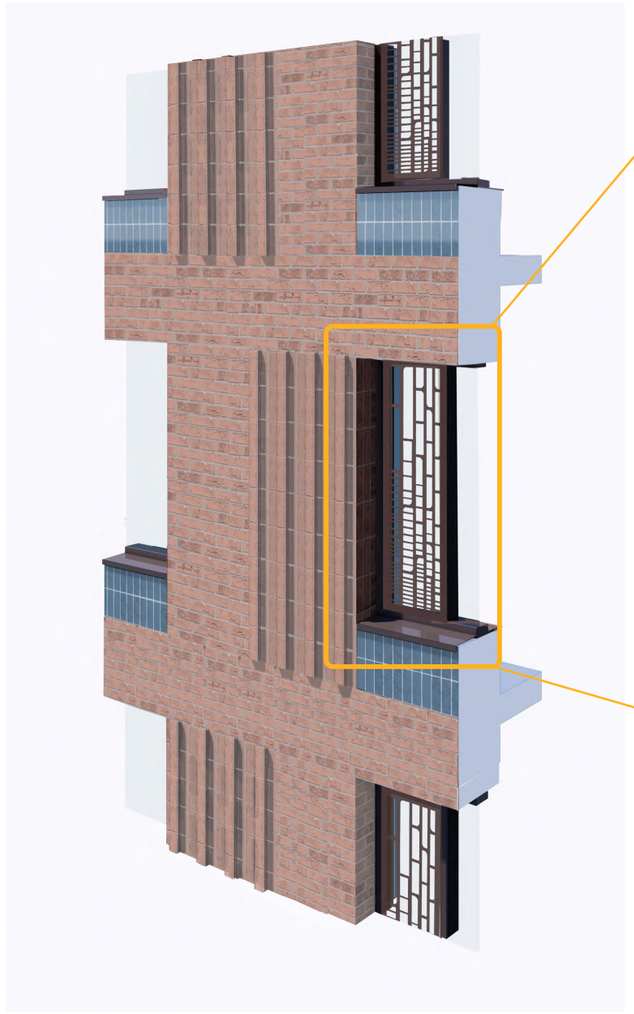


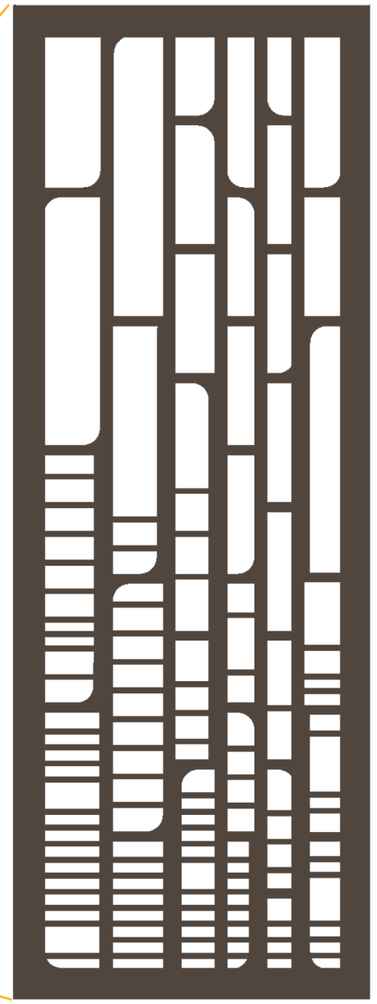
Neighbourhoods 1 and 2

Pre-cast relief pattern

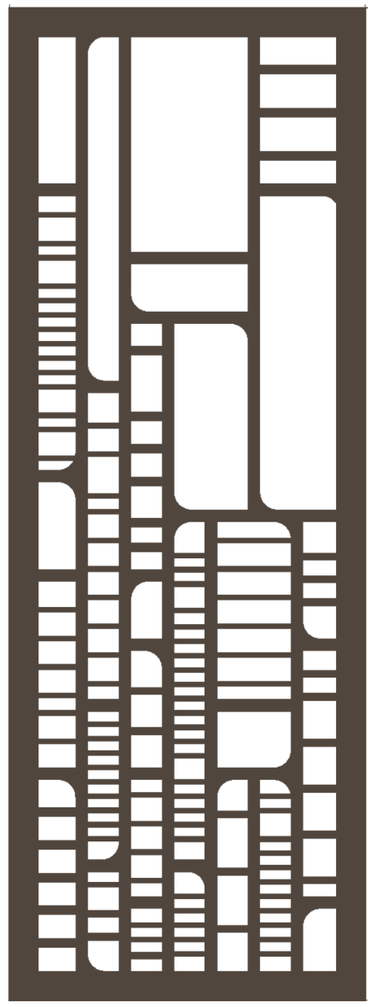
Window Grilles

Each facade pattern as described previously will be complemented by different grille designs: one more linear, another is more organic, inspired by the Mitzi Cunliffe relief artwork.





Grille Design A



Grille Design B



Mitzi Cunliffe - Cosmos

6.7 Residential Facade Design Details

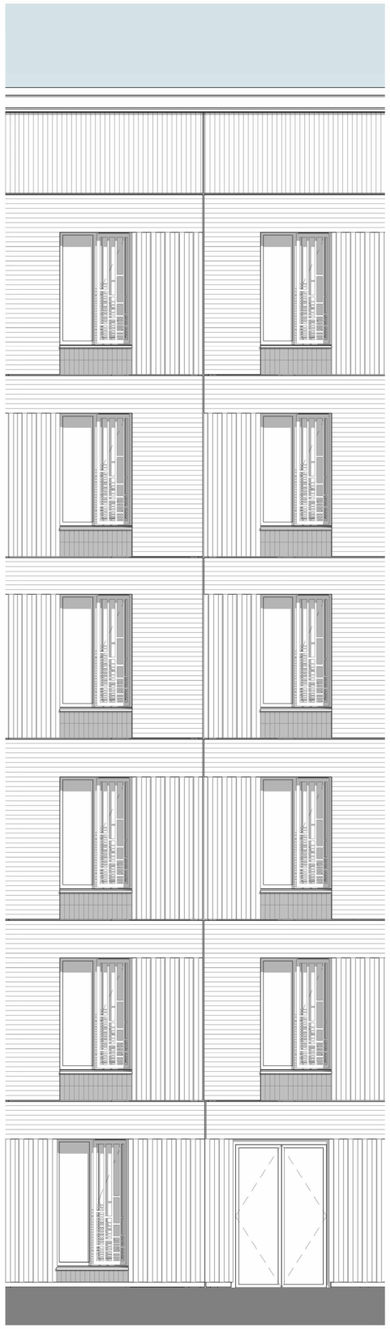
The following drawings demonstrate typical bay studies for the residential façades.

Bay Studies- Brick Pattern 1

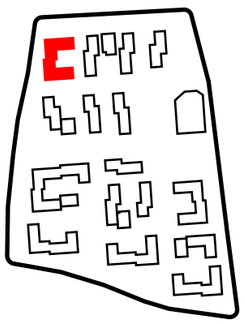
The adjacent diagram shows the brick pattern that appears in neighbourhoods 1 and 2. The pattern is linear, and reflects the rhythm of the colonnade and main public roads. To match this linear brick pattern, the more linear grille design A is used.

The ground floor windows are taller than the upper floors to allow more daylight deeper into the plan, and to help to define a base for the blocks. To reinforce this, the pattern on the ground floor is denser, adding to the solidity at ground floor.

The pattern is arranged either side of the pre-cast panel joint, which creates a nice composition and articulated pattern on the facade.



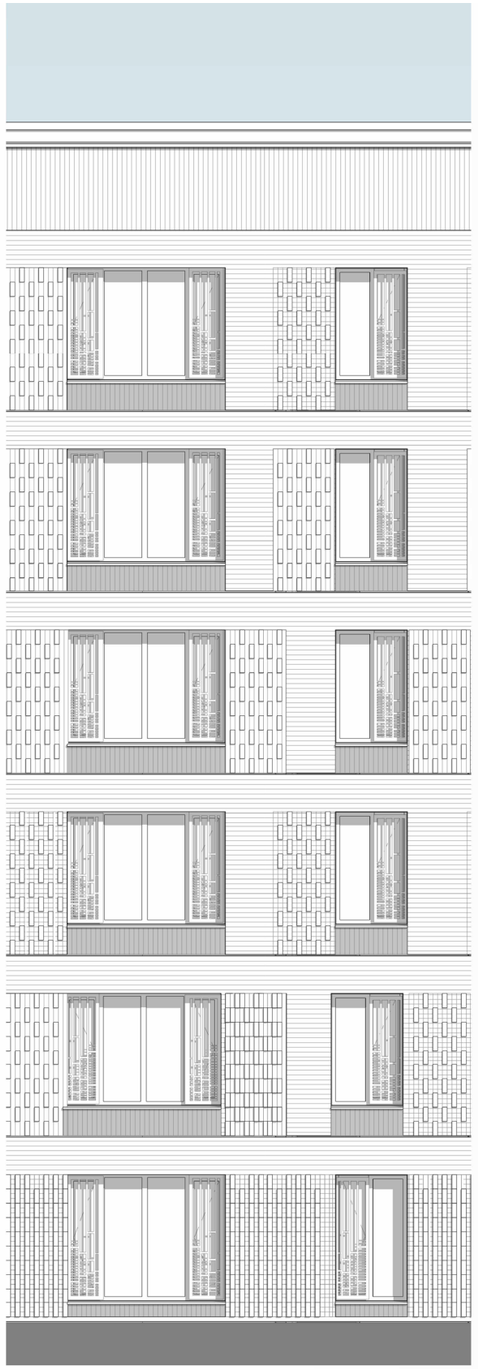




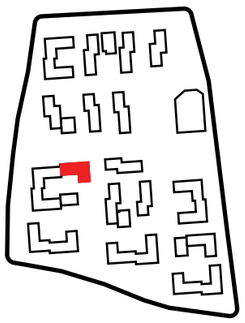
Bay Studies- Brick Pattern 2

The brick pattern used in neighbourhoods 3, 4 and 5 has a similar approach to the previous pattern, but it is more relaxed and therefore less linear. This is to reflect the greener, leafier character of the southern end of the site.

As the pattern is more varied, the complementary grille design B is used.







Bay Studies- Pre-cast Pattern

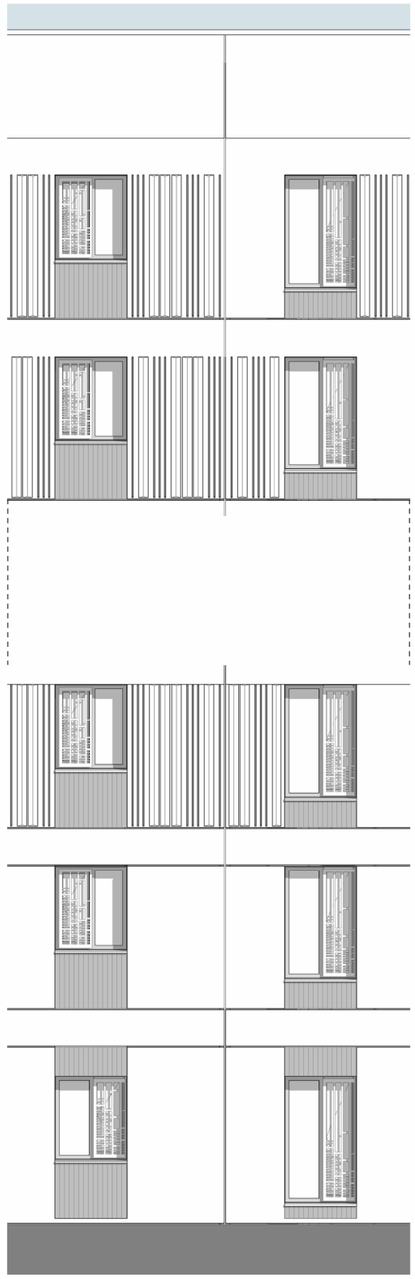
The diagram adjacent shows the pattern to be used on the concrete blocks. There will be two primary tones of concrete (as outlined in section 6.2 Residential Facade Strategy) which are off-white and a warm coral.

The pattern complements the brick pattern 1 primarily as it is more linear, which reflects the concrete building's location on site.

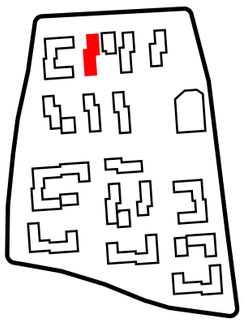
In a similar way to the brick pattern, the concrete pattern incorporates the joints of the pre-cast panels into the design.

Continuity between the two materiel finishes is achieved by the inclusion of the glazed brick detail on both.

The base of the buildings, spanning two storeys has a different finish to the concrete. The base is polished to provide a robust finish requiring little maintenance, provide definition and texture to the base.







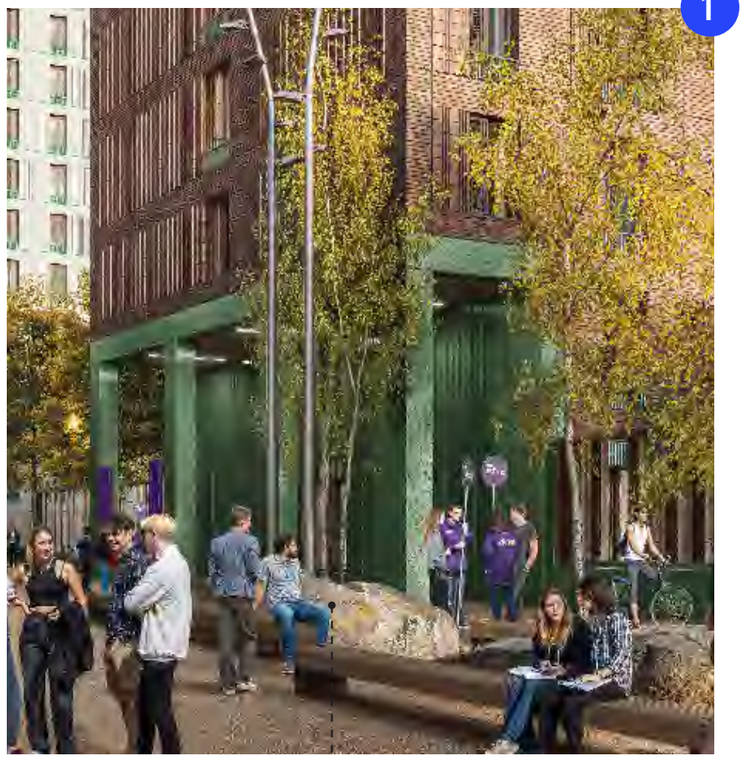
Colonnade Detailing

To highlight the feature of the colonnades, the columns and down-stand beam will be clad in polished reconstituted stone to match the colour of the neighbourhoods glazed brick on the upper facade.

This is as much practical as it is for detailing; stone is a robust material for high-traffic areas.

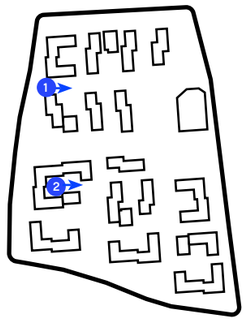
The CGIs on the following pages show the full image that the extracts adjacent are taken from.

Site Entrance Concept CGI

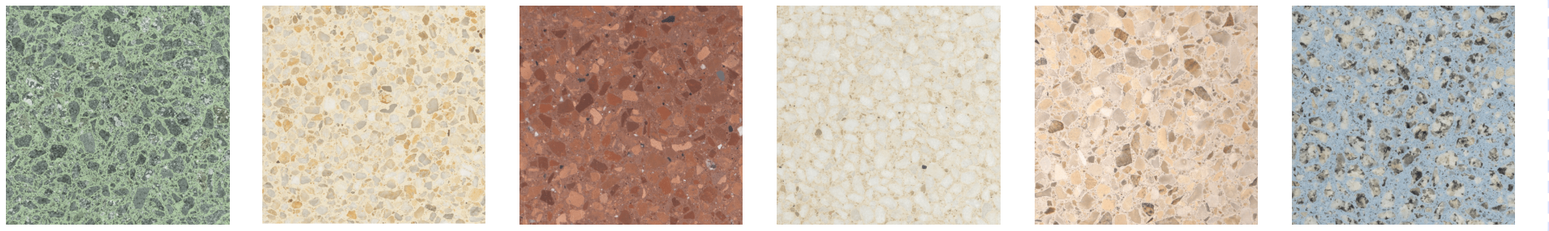


Courtyard Concept CGI





Polished Reconstituted Stone

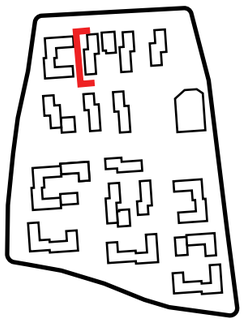


1


2

6.8 Elevations

The drawings on the following pages show the complete façades across the site. For more information on the facade, please see the drawings submitted with this planning application.

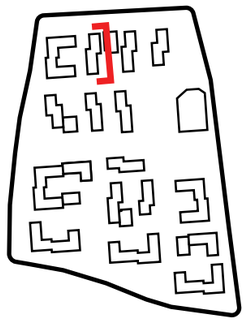


Key:

1. Brick
2. Brick Pattern
3. Coping
4. Glazing
5. Grille
6. Glazed Brick
7. Pre-cast Concrete- Warm Coral
8. Pre-cast Concrete Pattern
9. Polished Reconstituted Stone



Elevation A- Block 3 West Elevation



Key:

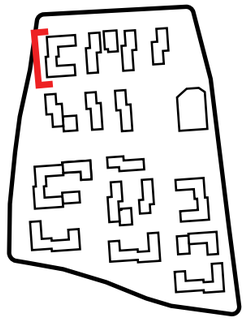
1. Brick
2. Brick Pattern
3. Coping
4. Glazing
5. Grille
6. Glazed Brick
7. Pre-cast Concrete- Warm Coral
8. Pre-cast Concrete Pattern
9. Polished Reconstituted Stone



Elevation B- Block 3 East Elevation



Elevation C- Blocks 1-2 East Elevation



Key:

1. Brick
2. Brick Pattern
3. Coping
4. Glazing
5. Grille
6. Glazed Brick
7. Pre-cast Concrete
8. Pre-cast Concrete Pattern
9. Polished Reconstituted Stone



Elevation D- Blocks 1-2 West Elevation



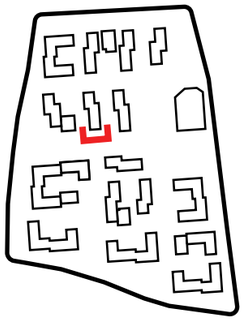
Elevation E- Blocks 1-3 North Elevation

Key:

1. Brick
2. Brick Pattern
3. Coping
4. Glazing
5. Grille
6. Glazed Brick
7. Pre-cast Concrete- Warm Coral
8. Pre-cast Concrete Pattern
9. Polished Reconstituted Stone



Elevation F- Blocks 1-3 South Elevation

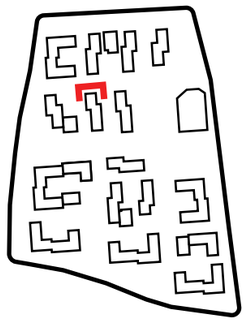




Elevation G- Block 9 South Elevation

Key:

1. Brick
2. Brick Pattern
3. Coping
4. Glazing
5. Grille
6. Glazed Brick
7. Pre-cast Concrete- Off White
8. Pre-cast Concrete Pattern
9. Polished Reconstituted Stone

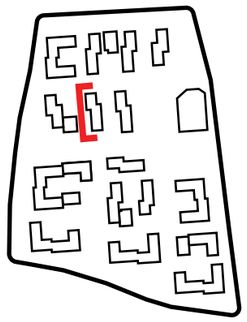




Elevation H- Block 9 North Elevation

Key:

1. Brick
2. Brick Pattern
3. Coping
4. Glazing
5. Grille
6. Glazed Brick
7. Pre-cast Concrete- Off White
8. Pre-cast Concrete Pattern
9. Polished Reconstituted Stone

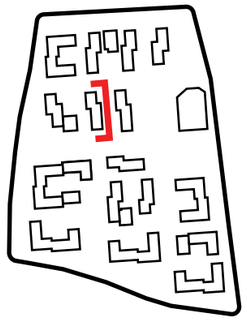


Key:

1. Brick
2. Brick Pattern
3. Coping
4. Glazing
5. Grille
6. Glazed Brick
7. Pre-cast Concrete- Off White
8. Pre-cast Concrete Pattern
9. Polished Reconstituted Stone



Elevation I- Block 9 West Elevation



Key:

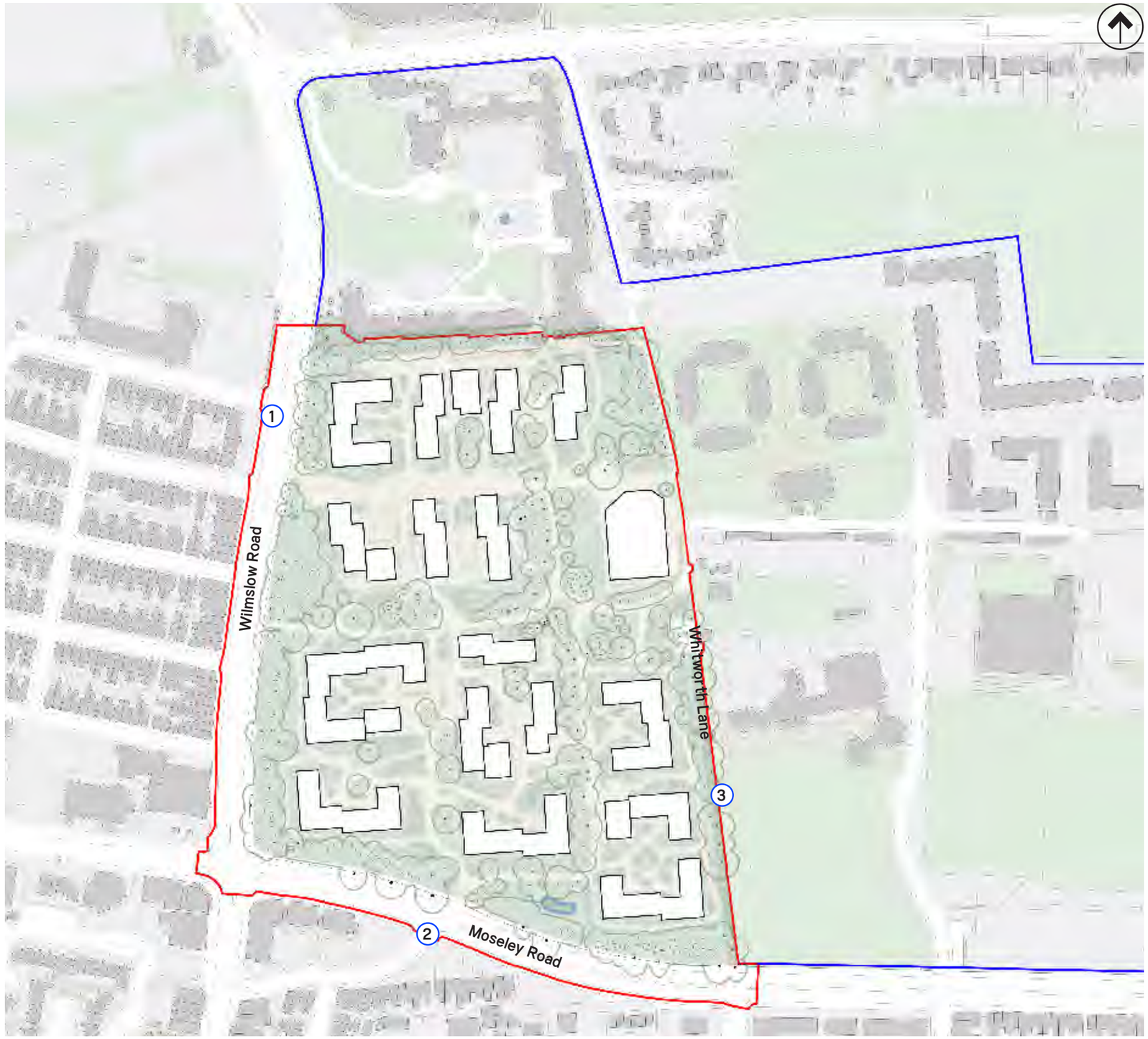
1. Brick
2. Brick Pattern
3. Coping
4. Glazing
5. Grille
6. Glazed Brick
7. Pre-cast Concrete- Off White
8. Pre-cast Concrete Pattern
9. Polished Reconstituted Stone



Elevation J- Blocks 9 East Elevation

6.9 External Site CGIs- Location

The following images show the site from outside the red line boundary. A key is provided to locate the image.



External Site CGIs

The existing tree lined boundary provides a border that softens the edge of the development, and the colour palette and tones help to blend the buildings into the landscape and surrounding context.

The use of brick on the perimeter buildings creates a contextual edge to the public streets and responds to the local vernacular.

The buildings along the Whitworth Lane edge provide some passive supervision along the lane, and the change of the position of the boundary fence softens the border and brings the landscape out.







7.0 SUSTAINABILITY STATEMENT

Overview

Echoing the University's environmental sustainability strategy, Viridis's focus is on embedding environmental sustainability within its systems and processes across the design, construction and operation of the Fallowfield Campus. Working in partnership, the vision is to create a world-leading, environmentally sustainable development that promotes and encompasses, in built form, the University of Manchester's "Our Sustainable Future" strategy.

The green agenda and sustainability have influenced the entirety of the Viridis solution, spanning design and landscaping plans, through to the construction methodology, life-cycle, energy performance, valuing nature, social value optimisation, and more.

7.1 Sustainable Features incorporated in the Design

Passivhaus

The residential elements of the proposal have been designed to meet passivhaus certification.

PV provision to the roof

All roof space will be maximised for bio-solar roofs to maximise the amount of renewable energy that can be produced on site.

Extensive landscaping and biodiversity net gain strategy

The Proposed Development will achieve a Biodiversity Net Gain (BNG) of at least 10% on-site. Further off-site gains will be developed by the design team in conjunction with the University Estates team and with input from the Botanic Gardens team and will co-ordinate with local biodiversity initiatives to create a longer term plan for the Fallowfield Campus and surrounding area. Key strategies include.

- Retaining and enhancing the perimeter woodland and significant tree belts within the site.
- Creating a variety of new habitats on site.
- Maximising biodiverse roof provision.
- Increasing awareness of biodiversity through signage and promotion.
- Developing links with the adjacent Botanic Gardens and local biodiversity initiatives.

Sustainable transport

The proposal provides electric car charging points for the accessible parking bays, and for facilities management vehicles.

In addition to this there will be more than 25% cycle provision for residents and further visitor cycle parking in the landscaping.

The site will also look to achieve a 'Very Walkable' WalkScore and will provide public transport information display systems.

7.2 Materials and Strategy

Construction Strategy

To support the University's "zero carbon future" aspiration, a low impact construction design, utilising an off-site form of modern construction, has been developed for each of the buildings. Viridis has refined its structural design to reduce the quantity of concrete required across the project.

Using off-site manufactured pre-cast concrete structure harnesses the benefits of modern methods of construction and will considerably reduce the construction footprint, targeting a 50% reduction in delivery vehicles to site, a 40% reduction in site operative hours and a 70% reduction in construction waste as a result of factory conditions.

Pre-cast concrete

The blocks that are constructed from pre-cast concrete omit the requirement for an additional cladding material, which creates a saving on embodied carbon.

Fabric First

A fabric first approach will drive quality, air tightness and waste and carbon reduction. To minimise emissions relating to repair, replacement and/or refurbishment, Viridis has developed a robust material specification to prevent the need for frequent replacement. Long life assets, inclusive of renewable materials, which will operate with minimal intervention, supported by smart energy and occupancy recording systems, will further optimise the buildings' performance over the 50-year concession period.

Waste

Construction waste will have a recycling rate of over 80%, and diversion from landfill will be 100%. In addition to this, more than 15% total value of materials will be from recycled or reused content and there will be more than 80% recovery against ICE protocol Demolition Recovery Index. This will centre circular economic principles as a key design strategy.

7.3 BREEAM

BREEAM excellent is being targeted for the development.

7.4 Building Ventilation Strategy

The environmental strategy provides high-quality air by utilising air source heat pumps and MVHR units. Window openings are provided for purge ventilation (quick odour or steam release) and additional comfort during the hottest summer periods.

The window design incorporates fully openable panes with laser-cut aluminium grills. Inward opening windows are preferred by students; they provide a substantial open area and sufficient air movement to act as an effective short-term purge ventilation and to provide a cooling effect whilst creating a sense of control and having a positive psychological effect on residents.

7.5 Energy Usage

The aim for the project is to be zero carbon in operation. This will be aided by the strategy of being a fabric-first design approach, and generating renewables on site.

Additionally, space heating demand will be minimised to meet the LETI climate emergency figure of 15 $kWh.m^2/yr$ through low u-values. Daylighting/ heating will be balanced, with g-values exceeding LETI design targets to allow for improved daylighting without overheating.

There will be no gas boilers installed.

8.0 ACCESS STRATEGY

8.1 Access and Inclusion

Attention has been paid to access issues with cognisance to the use of the building and with reference to Part M of the Building Regulations, the Equality Act, the University of Manchester's Equality, Diversity and Inclusion Policy and other relevant regulations and standards.

Throughout the design process, the principles of accessibility and inclusive design have been incorporated into the proposed design. The following chapter outlines how the proposed development will be accessible to all users, residents, visitors, staff and the wider community.

The key accessibility provisions that have been incorporated into the design are:

- Provision of a range of accessible accommodation to cover multiple needs as well as associated parking bays.
- Generous space centres.
- Features to assist people with visual, hearing and cognitive difficulties find their way easily and safely.
- Level access across the site, which will be graded appropriately to ensure safe travel around the site.
- Accessible connections to local public transport routes.
- Access to suitable sanitary provision and changing places facilities in the central hub.



8.2 Accessible Accommodation Strategy

100% of accommodation is being provided with a form of accessible and inclusive provision, these include:

- **M1 Rooms:** 100% of standard rooms are being designed so that the shower pods can be retrofitted with grab-rails in the showers and adjacent to the sink and WC. These facilities allow people with ambulant disabilities to have a choice of room they desire.
- **M2 Rooms:** 17 M2 rooms are being provided– these are standard wheelchair accessible rooms for independent users that are adaptable so that they can be fitted out to meet individual requirements. There will be a split of 50/50 left and right-hand approach units so people can utilise their preferred sides when using equipment.
- **M3 Rooms:** Four M3 rooms are being provided– these are for people with profound disabilities and generally require part or full-time care. Two of these rooms are installed with interlinking doors so carers can have quick and immediate access.
- **Visually Impaired & Neurodiverse:** 100% of all accommodation will have décor and furniture that considers the requirements of people with visual impairments and those with neurodiverse needs– this applies to décor throughout the scheme.
- **Hearing Impaired:** 100% of all accommodation will be able to be quickly retrofitted with equipment for people with hearing impairments.
- **Anxiety Requirements:** Provision of 10 'anxiety' rooms. These are for people with anxiety issues but still want to be fully assimilated with their peers. These rooms are installed with a panic/assistance alarm (activated as needed) and strategically located for quick response times.
- **Support Facilities:** There are also five 'support' rooms. These are provided for people who are having issues, notably mental, and require temporary separation from the main accommodation clusters/blocks

Floor	Block 2		Block 3		Block 5		Block 6		Block 9		Block 11	
	M2	M3	M2	M3	M2	M3	M2	M3	M2	M3	M2	M3
GF	1	1	1	1		1		1				
1			1		1							
2			1		1							
3			1		1							
4			1		1							
5												
6												
7												
8												
9											1	
10											1	
11									1		1	
12									1		1	
13									1			
Total	1	1	5	1	4	1			3		4	

Number and distribution of wheelchair accessible beds across the proposal

1	Standard
1	Premium

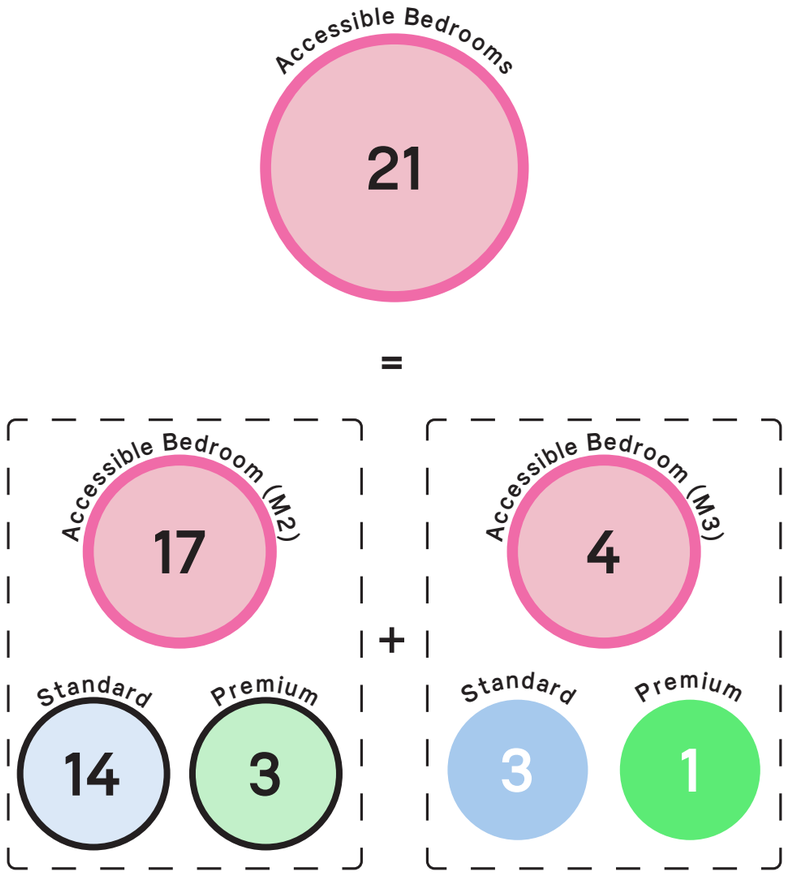
	M2 Standard	M2 Premium	M3 Standard	M3 Premium
GIFA	26.9 sqm	28.1 sqm	41.1 sqm	43.5 sqm

Gross Internal area per accessible room type

8.3 Wheelchair Accessible Beds

The proposal has been designed in line with all relevant standards and guidance to ensure the apartments are accessible for both residents and visitors.

21 accessible rooms are provided in neighbourhoods 1 and 2. The rooms are distributed across M2 and M3 types to ensure all needs are catered for.





8.4 Access to Site

The proposal recognises the strategic position of the site within the campus and Fallowfield. The design creates a welcoming entrance with a new concourse at the heart of the campus- architecture and landscape work together to create a strong sense of arrival and to project the University's brand.

The following pages provide a high-level summary of the access strategies. For more information on access to and around the site, refer to the Landscape Strategy prepared by Landscape Projects and the Transport Assessment Addendum prepared by Buro Happold submitted as part of this application.

Wayfinding, entrances and hierarchy of spaces

Certain parts of the current site layout are lacking legible and easy-to-find entrance arrangement and clarity between public, semi-private and private spaces. The proposal creates a hierarchy of spaces, clear definition between public and private areas and grouping of the entrances together.

The main point of arrival will continue to be from Wilmslow Road, where there is good availability to the wider transport network, with secondary access from Moseley Road, Whitworth Lane/Gunnery Lane and improved linkages to Ashburne Hall and Sheavyn House to the north.

All routes are designed as pedestrian-priority and cycle-friendly pathways. Occasional vehicular movement will be possible on the main paths, where they will travel at low speed due to the configuration and design of the routes- overall the site is designed primarily for foot, wheelchair and cycle traffic. The pathways and access roads, many of which use existing routes, are organised hierarchically as follows:

- Main (primary) pathways will form a primary circuit which connects the main site entrance from Wilmslow Road with the campus to the east, and a loop which extends round the south of the site. Main pathways will be at least 3.7m wide and will accommodate fire tender and other emergency vehicles.
- Secondary paths will provide linkages to courtyards and hubs and vary between 3 to 3.7m width, sufficient for cyclists to pass, and for waste tugs.
- Tertiary paths will provide informal routes through landscape areas as convenient links between spaces or for strolling, exercising etc and will vary in width.

Pedestrian

The proposals encourage active travel by providing routes for walking, cycling and wheelchairs. All existing site access points for pedestrians will be retained.

Pedestrian access to the site will primarily be from either Wilmslow Road or from Whitworth Lane. The proposed development connects into the existing pedestrian routes around the site, providing access from both the public highway and the university campus.

Building entrances are accessed from a series of primary and secondary routes in and around the site, creating legible and accessible space suitable for all building users. All building entrances will provide level access from the public realm.

Cycling

Cycle access to the site will predominantly be from the established cycle network on Kincardine Road, as well as the entrances from Wilmslow Road, Whitworth Lane and Moseley Road, where the primary pathways connect to destinations around the site.

See the Landscape Strategy prepared by Landscape Projects and the Transport Assessment Addendum prepared by Buro Happold for more information on the location of cycle storage.

Public Transport Amenities

The site is bounded by Wilmslow Road to the west with frequent and numerous bus services stopping directly adjacent to the site.

Mauldeth Road station is the closest train station and approximately 1 mile away. It is about a 25 minute walk from the main campus and 5 minutes by car.

Manchester Piccadilly railway station is approximately 15 minutes in a car from the site.

Car Access

The site is well-connected to the wider active travel transport network; the proposals therefore prioritise pedestrian and cyclist access, with vehicular access to the site limited to necessary functions like accessible parking, maintenance, deliveries and emergency access.

Day-to-day vehicular access will be via the existing access point from Whitworth Lane.

Blue badge drivers will be permitted to drive north to the blue badge parking bays situated at the northern edge of the site.

It would be feasible for a Taxi to enter the site to drop off and collect subject to an agreed policy by the Facilities Management.

Parking Provision

New accessible parking will be provided along the northern edge of the site away from the outdoor amenities and main pedestrian routes to eliminate its visual impact, but close to the accessible room provision.

No parking is provided outside of the accessible provision.

Deliveries

The central hub to the eastern boundary will be the most serviced part of the site and will have a dedicated service yard directly off Whitworth Lane to limit and prevent vehicles coming further into the site.

Refer to the Delivery and Servicing Management Strategy (DSMS) prepared by Buro Happold submitted with this application for more information on the delivery strategy.

Postal Delivery

Postal deliveries are split between Richmond (an existing facility for the campus) and the development site. Parcel deliveries will arrive to Richmond Pavilion as a single central provision.

Other postal deliveries will be arranged via post boxes provided in each neighbourhood hub, as shown on the adjacent diagram. Post boxes are located within the hubs' entrance areas for easy access and visibility.



Moving In/ Out Days

The moving in day strategy is an integral part of campus life. The strategy provides a direct vehicular route via the primary path network from two entrances: Wilmslow Road and Moseley Road, where cars will be directed on a one-way system to parking locations close to blocks.

The path width will allow safe parking for 100 cars while maintaining emergency vehicle access at all times.

On leaving drivers will be directed to two exit points: Whitworth Lane in the east and Wilmslow Road South.

For more information refer to the Transport Assessment Addendum prepared by Buro Happold submitted as part of this application.

Maintenance Access

Periodic maintenance access will be required for the substations and generator rooms across the site, requiring parking to be adjacent to the area being maintained.

This is a secondary route away from the main entrances into the building and primary flow of pedestrian traffic through the site.

The hard landscaping along this route is designed to allow vehicular access.

Refer to the Access and Maintenance Strategy appended to this report and Delivery and Servicing Management Strategy (DSMS) prepared by Buro Happold submitted with this application for more information on the maintenance strategy.

Emergency Services

Fire tender access will be via Wilmslow Road as it is a primary arterial route. The proposed internal hard landscaped surfaces of the site will be designed to accommodate fire tenders and allow access to the façades of all buildings in the event of an emergency.

Ambulance access will follow a similar principle of allowing access to all areas of hard standing in the event of an emergency.

Waste Collection

On collection days, refuse vehicles can access the site and follow the main primary loop around the site to collect bins directly from each block.

Refer to the Operational Waste Management Plan (OWMP) prepared by Buro Happold submitted with this application for more information on the waste collection strategy.

9.0 FUNCTIONAL REQUIREMENTS

9.1 Technical Input

The below table outlines the technical reports produced in support of this proposal. For more information on any of the technical topics in this section, please refer to the relevant report as signposted below.

Report	Author
Flood Risk Assessment and Drainage Strategy	Kennedy Redford
Ventilation and Overheating Strategy	RPS
Operational Waste Management Strategy	Buro Happold
Transport Assessment Addendum	Buro Happold
Delivery and Servicing Management Strategy	Buro Happold
Student Management Strategy	UoM
Fire Strategy	Oison Fire
Design Compliance Statement	Sheppard Robson
Acoustic Assessment	Cundall
Air Quality Assessment	Buro Happold
Heritage Statement	Stephen Levrant Heritage Architecture
Ecological Assessment	Thomson Ecology
BNG Strategy	Thomson Ecology
Landscape Strategy	Landscape Projects
Arboricultural Report	Landscape Projects
Crime Impact Statement	GMP
Environmental Standards Statement and Energy Strategy	Buro Happold

9.2 Waste and Recycling

The current site is characterised by refuse bins located externally along the façades of the existing residential blocks, resulting in diminished qualities of external spaces and the overall ambience of the campus.

The proposed development provides bin stores in discrete locations inside the footprint of the residential blocks with external access. All bin stores will have sufficient space for general waste and recycling bins with access controlled entrances, as well as hose and water for cleaning the bins and the floors. Refuse stores will be located close to the entrances of all buildings, making it easy for students to carry refuse from their own rooms and communal kitchens to the bins. Each refuse store is provided with an area of hard standing externally, allowing the bins to be wheeled outside from where they can be collected and towed to the collection point.

Refer to the Operational Waste Management Plan (OWMP) prepared by Buro Happold submitted with this application for more information on the waste collection strategy.

Block	Number Required				Total
	Residual (1,100L)	Paper and Cardboard (1,100L)	Mixed Dry Recycling (1,100L)	Food (240L)	
1	3	1	1	2	7
2	3	1	1	2	7
3	5	2	2	3	12
5	5	2	2	3	12
6	3	1	1	2	7
7	3	1	1	2	7
9	6	2	2	4	14
11	6	2	2	4	14
12	3	1	1	2	7
13	3	1	1	2	7
14	3	1	1	2	7
16	3	1	1	2	7
17	3	1	1	2	7
18	7	2	2	4	15
19	6	2	2	3	13
21	6	2	2	4	14
22	3	1	1	2	7
23	3	1	1	2	7
24	3	1	1	2	7
25	3	1	1	2	7
27	3	1	1	2	7
28	3	1	1	2	7
29	3	1	1	2	7
Total	89	30	30	57	206



9.3 Cycle Storage

Cycle stores will be situated in locations across the site and close to the main path, all of which are covered and secure, with push-button or fob controlled access.

Each cycle store will accommodate between 70 to 160 cycles, in two stacked tiers. Total on-site provision at the end of the construction phase will be 834 secure cycle spaces, with on-site capacity for additional spaces available should the uptake by students exceed expectations.

Visitor cycle parking of 276 spaces provided at a ratio of 1 per 12 students, plus an additional 20 spaces at Central Hub.

See Section 4.5 Cycle Parking of the Transport Assessment and the cycle storage drawing prepared by Landscape Projects which details the cycle storage and a breakdown of cycle provision per neighbourhood.



The lighting is provided to the main promenade, and the neighbourhood hub provides passive supervision and passive lighting at night time

9.4 Security

The proposal provides clear sight-lines, lighting, passive supervision, and CCTV along circulation routes with residential entrances arranged along them.

The boundary to the campus, comprising railings and walls, will continue to provide a secure perimeter, limiting access to a few well-overlooked locations. The campus will be open 24/7. A reception desk is located so that it overlooks the main arrival point from Wilmslow Road.

Kitchens and social areas have been positioned to provide passive supervision along circulation routes. From the main east-west route, entry into neighbourhoods will be via local 'gateways' signifying that visitors are entering into a semi-private area. These local 'gateways' will be defined by using landscape features such as planting, hedges and changes of materials. Pathways will be well-lit and overlooked by adjacent buildings.

The proposal seeks to modify the boundary railing along Whitworth Lane- whilst being retained it would be set back into the landscape to soften the edge along this major pedestrian and cycling route.

Access control system

An access control system will be provided to afford easy access by students and maintenance staff to authorised areas and prevent unauthorised access to defined areas, providing a safe and secure site.

All residential blocks have three-tier access control system, and local hubs will also be provided with access control. The central hub will be more open, but will retain restricted access to certain areas.

CCTV

CCTV coverage will be provided to specified areas of the site to deter criminal activity, provide a sense of security for students and provide prosecution quality recorded images if required. Fixed external cameras will be provided to the following locations:

- Entrances to the residential blocks to monitor egress and access from inside the block.
- External building mounted to monitor bike stores.

Refer to the Landscape Statement, Lighting Strategy and CCTV drawing prepared by Landscape Projects, Crime Impact Statement prepared by GMP and Student Management Strategy as submitted with this application for more information.

9.5 Cleaning and Maintenance

As outlined in the previous section, vehicular access to the site for maintenance purposes will be permitted. See section 8.4 Access to Site for more information and for the full Access and Maintenance document, please refer to the report appended to this document.

Façade Access for Cleaning

Good access is provided to the perimeter of all blocks which means for the most part, façades can be accessed from the ground.

The residential blocks comprise 2 typologies:

- The L blocks are all 6 storeys in height with the highest point above ground less than 20 meters. There are a variety of compact Mobile Elevating Working Platform (MEWPs) that can easily reach this height.
- The taller S blocks vary from 5 to a maximum 15 storeys and a height of around 45m and would likely require a Truck Mounted Platform for access.

The façades are predominantly brick clad and reconstituted stone pre-cast panels which should require infrequent cleaning.

Punched windows to the upper floors have fixed panes and inward opening vents. While the inward opening section can be cleaned internally, a decorative vent panel in front of the window acts as a barrier to falling meaning the fixed panes must be cleaned externally.

Cleaning generally can be supplemented by the use of a long reach water fed pole system at the lower levels around the perimeter and podium levels (above the cut backs) to reduce reliance on MEWP's and/or abseiling and increase efficiency and speed as well as being safer.

The single storey local hub's will be cleaned and inspected from the ground.

Main Roofs to Accommodation Blocks

The roofs of the L blocks will be accessed mainly via hatches positioned in convenient locations on the upper most floors.

For the S blocks, the lower level can be accessed directly from the core, with only the upper roof accessed via a hatch.

Hub Roofs

Neighbourhood hubs have a bio diverse roof build-up. As these blocks are only single storey buildings, they can generally be accessed via steps or scaffolding around the perimeter for inspection and light maintenance. Safe working height parapets are not provided therefore and instead, a fall restraint system will be required for direct access onto the roofs.

Plant replacement

There is no basement to the scheme and most heavy equipment located in the substations and LV switch room benefits from direct level access to a grade level private road beyond.

Access to roof plant rooms is mostly via access hatches. Direct access to the lower roofs of the S blocks is provided and where possible any heavy roof plant will be located here to benefit from access to lifts and internal stairs.

Access hatches will allow operatives to take small hand tools and small replacement parts to roof levels. Other equipment can be disassembled and transported through the Access Hatches to the lifts or lowered from the roof using cranes or MEWPS.

MEWP and crane parking locations are all within the development boundary therefore restrictions to publicly accessible roads don't apply. Good access to building perimeters is generally available however, surfaces vary from hard standing, to paved paths, to soft landscaping and planting. The surrounding heavy tree line must also be considered when determining the best way to access façades and roofs.

Spider MEWPs may be employed to manoeuvre in more restricted areas as they use adjustable outriggers to straddle different types of terrain and counter balance away from any tree crowns.

10.0 APPENDIX

10.1 Access and Maintenance Strategy

The following document outlines the access and maintenance strategies for the proposal.



February 2025

Stage 3 - Access & Maintenance Strategy
UoM Residences Fallowfield (PBSA)

VIRIDIS LIVING

GRAHAM

SHEPPARD ROBSON

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Project Title: UoM Residences Fallowfield (Graham)

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P01	03/01/2025	S3	Review & Comment	MM	RG

1.0 INTRODUCTION

The purpose of this document is to enable the Client along with its Facilities Management (FM) team to set out a cleaning and maintenance access strategy for the University of Manchester Fallowfield Student Residences development.

This document explains the principles and methods of maintaining those elements of the building, which potentially present an increased risk of injury to personnel through falls from height, in order to demonstrate to the FM team that the whole building can be safely maintained through its projected life. Please read this report in conjunction with the residual risk assessments prepared in accordance with the CDM regulations, and the Risk Register prepared by Rider Levett Bucknall.

For Plant and M&E equipment, please refer to the M&E engineer's report. For details on how hard and soft landscaping is to be maintained, please refer to the Landscape Architects maintenance report. For maintenance requirements and cleaning schedules, please refer to manufactures guidance. Wherever the use of Mobile Elevated Work Platforms (MEWPs) is suggested there is no objection to the use of other safe methods of access such as by fixed scaffold.

1.1 Design Development

The scheme is currently at RIBA Stage 3 and recommendations and strategies throughout this document reflect and are appropriate to the proposed products, systems and finishes of the building. Where changes are proposed during the next stage, they should be considered in the context of this document and should not preclude the safe operation of the chosen strategies or equipment without careful justification of viable alternatives.

2.0 ACCESS

2.1 Access & Inclusion Overview

Throughout the design process, every step has been taken to ensure that the principles of accessibility and inclusive design have been fully incorporated in the proposed design.

The following chapter outlines the how the proposed development will be accessible to all users, residents, visitors, staff and the wider community.

Access Aims

The proposed development is designed to be as inclusive as possible so that it can be comfortably and independently used by residents, people working in and visiting the development, and the wider community.

The Development has the potential to meet the guidance of Approved Document M, Volume 2, and the access and inclusive design policies of the Manchester City Council as a minimum, subject to further design development.

Designing Inclusively is defined by The Commission for Architecture and the Built Environment (CABE) as:

- Placing people at the heart of the design process
- Acknowledging diversity and difference
- Offering choice where a single design solution cannot accommodate all users
- Providing for flexibility in use
- Providing buildings and environments that are convenient and enjoyable to use for everyone

Where possible the design of the proposed development has also considered and incorporated the following:

- Design guidance stated in relevant British Standards and other current good practice guidance about meeting the requirements of disabled people
- Contemporary requirements and expectations

Summary of Access Provision

The proposals for the development at this stage demonstrate that a good level of inclusive design will be achieved by the finished scheme. The key access provisions for the proposed development include:

- Incorporation of the principles for inclusive design wherever possible
- Accessible routes to all connections with local pedestrian routes and public transport
- Safe spaces and routes for pedestrians and cyclists, segregated from vehicle traffic
- 17 no off-street car parking spaces for sole use of Blue Badge holders only.
- Accessible cycle parking space for student residents, staff and visitors
- Wheelchair-accessible sanitary facilities
- Step-free access to all parts of all the buildings and areas of public realm.
- 4 no M3 rooms and 22 M2 rooms in a variety of locations throughout Area 1.
- Lift access to all Accommodation blocks. 2 lifts provided in blocks over 18 meters
- Emergency Egress /Protected (Escape) Lifts as part of the fire strategy.

2.2 Accessing the Site

The below provides an overview of the site access. For more information on access to and around the site, refer to the Landscape Strategy prepared by Landscape Projects, the Transport Assessment Addendum prepared by Buro Happold and Fire Strategy submitted as part of the RMA.

Pedestrian

Pedestrian access to the site will be from either Wilmslow Road, Whitworth Lane or from Moseley Road. The proposed development connects into the existing pedestrian routes around the site, providing access from both the public highway and the University campus.

Building entrances are accessed from a series of primary and secondary routes in and around the site, creating legible and accessible space suitable for all building users. All building entrances will provide level access from the public realm to ensure accessibility for all.

Cycling

Cycle access to the site will predominantly be from the established cycle network on Wilmslow Road. Secure cycle parking will be provided within separate external buildings. Visitor cycle parking will also be provided within the public realm.

Cars/Taxi

The site is predominantly pedestrianised with vehicular access only for refuse collection, deliveries and maintenance. It would be feasible for a Taxi to enter the site to drop off and collect subject to an agreed policy by the Facilities Management.

Public Transport

The site is bounded by Wilmslow Road to West with frequent and numerous bus services stopping directly adjacent to the site

Mauldeth Road train station is the closest and approximately 1 mile away. It is an estimated 25 minute walk to the main campus and 5 minutes by car. Manchester Piccadilly railway station is approximately 15 minutes in a car/taxi from the site.

Risks/ Hazard

The risks of conflict between ingress and egress for both pedestrians and vehicles into the development are minimal. The site is mainly pedestrianised with vehicles confined to the main access routes. There is however a risk with cyclists and pedestrians crossing paths especially with the growing popularity of heavy e-bikes and electric scooters.

This risk should be managed by the operator with cyclists encouraged to dismount once they are within the curtliage of the main pedestrianised area.

In addition, the secure cycle parking facilities for residents are located just off the main vehicular circuit to reduce any cycle movements within courtyard to visitors only.



Public Transport Diagram

2.3 Services

Deliveries

The Central Hub to the eastern boundary will be the most serviced part of the site and will have a dedicated service yard directly off Whitworth Lane to limit and prevent vehicles coming further into the site.

Neighbourhood hubs will house post boxes for students in order to limit the need for direct access to accommodation blocks

While delivery vans and cars will not be permitted to access the site, cyles and, to an extent, motorbikes can access the site. This will need to be managed in order to limit the increased risk of clashes between vehicles and pedestrians

Maintenance Access

The Energy Provider will require periodic access for their vehicles to park directly adjacent to the substations and generator rooms across the site. This is a secondary route away from the main entrances into the building and primary flow of pedestrian traffic through the site.

The hard landscaping along this route is designed to allow vehicular access and the operator should coordinate with the neighbouring site to ensure this can be done in a safe and unobstructed manner.

Emergency Services

Fire tender access will be via Wilmslow Road as it is a primary arterial route with additional access off Moseley Road. The proposed internal hard landscaped surfaces of the site will be designed to accommodate fire tenders and allow access around the internal vehicular circuit to within 20m of the internal and external dry risers associated with each block.

Likewise with ambulance access which will follow a similar principle of allowing access to all areas of hard standing in the event of an emergency

Operator Responsibilities

The Operator is to ensure access into the building from these locations is cleared from any obstructions and ensure the Fire Strategy can be implemented as planned.



Delivery Access Diagram



Emergency Services Diagram

Building Entrance

Service Access

A Electricity North West HV Rooms Servicing Access

B Central Hub Deliveries

Emergency Services Access

Gated Site Access Point

3.0 CLEANING AND MAINTENANCE

3.1 Internal Maintenance

Strategy

The typical floor to soffit height of the ground floor is under 3 metres. There is a combination of exposed soffits, plasterboard bulkheads, and rafts. There will be various M&E equipment in the ceiling and soffits that requires periodic access for maintenance and repair.

The majority of inspection, maintenance and repairs can be done via standard steps (image 04). For replacement of heavier installations or longer repairs, it may be appropraite / neccessary to access the ceiling zone via a compact MEWP (Image 03) suitable for internal use. There are a number of products on the market that are narrow enough to navigate the corridors and door widths of the accommodation blocks (images 02). Point and distributed loads must also be considered if using a MEWP.

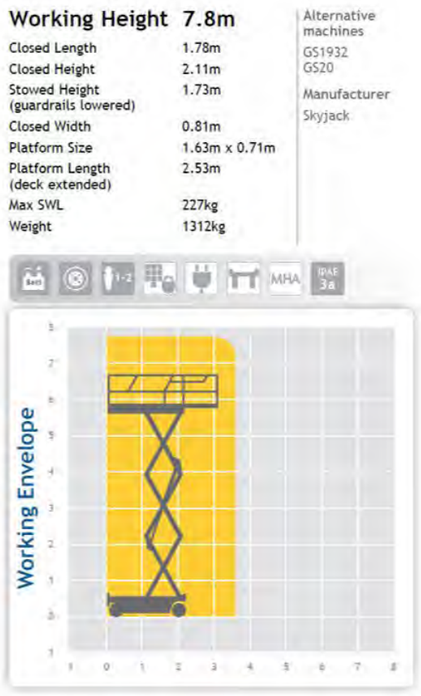


Image 02.

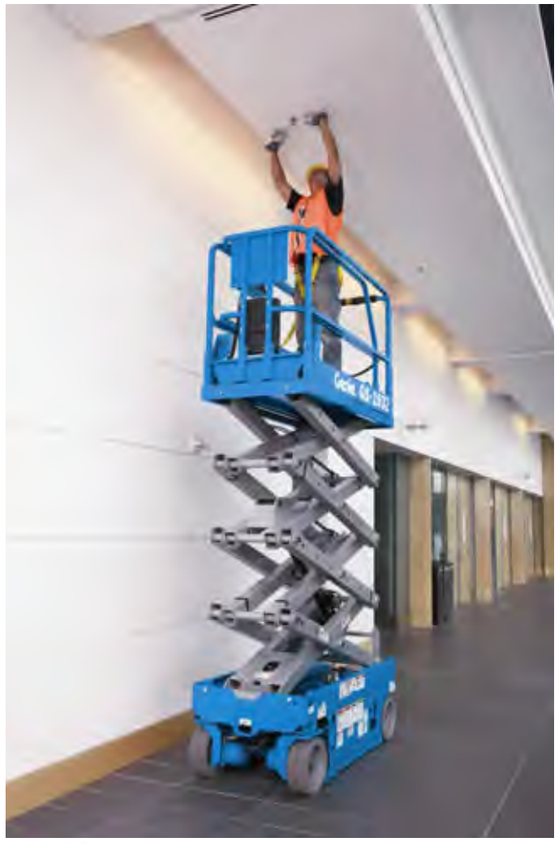


Image 03.

Typical Upper Floors

The typical soffit heights to the upper floors are around 2.5m and can be accessed safely by using a suitable step ladder. Furthermore ceiling mounted MVHR unit have been designed out in favour of wall mounted units.

Risks/ Hazard

- There is a high possibility that required work will be within heavily trafficked areas and active spaces and will increase the risk of conflict with residents and users.
- Works to Mechanical equipment could result in accidental falling debris.
- Residents privacy could be affected where access to rooms is required.
- Floor and wall finishes could be damaged during maintenance operations.

Landlord Responsibilities

Building Management should seek to coordinate works at quieter times of the day depending on their likely impact to movement through and active use of the building. They should also ensure that a safe working zone surrounding the work must is clearly marked and cordoned off.

Where access to rooms is required, this should be coordinated and agreed in advance so as not to inconvenience residents or expose them to any unnecessary risk if the work can be undertaken while they are not present.

To upper floors: the immediate working area must be protected accordingly. Suitably sized steps/ ladders must also be selected.



Image 04.

3.2 Façade Access for Cleaning

The development as a whole comprises a predominantly pedestrianised campus environment with planned routes through and around the site. The site is relatively flat with a gentle gradient running north to south with no significant falls or changes in level. Goods access is provided to the perimeter of all blocks which means for the most part, façades can be accessed from the ground.

Accommodation blocks comprise 2 typologies:

The “L” Blocks are all 6 storeys in height with the highest point above ground less than 20 meters. There are a variety of compact MEWPs (Mobile Elevating Working Platform) that can easily reach this height.

The taller ‘S’ blocks vary from 5 to a maximum 15 storeys and a height of around 45m and would likely require a Truck Mounted Platform for access. Alternatively, cleaning could be via abseil although, it is currently the Client’s preference to avoid this if possible.

The accommodation blocks are supplemented by single storey Local Hubs will be cleaned and inspected from the ground.

The façades are predominantly brick clad and reconstituted stone pre cast panels which should require infrequent cleaning.

Punched windows to the upper floors have fixed panes and inward opening vents. While the inward opening section can be cleaned internally, a decorative vent panel in front of the window acts as a barrier to falling meaning the fixed panes must be cleaned externally.

Cleaning generally can be supplemented by the use of a Long Reach Water Fed Pole system at the lower levels around the perimeter and podium levels (above the cut backs) to reduce reliance on MEWPs and/or abseiling and increase efficiency and speed as well a being safer. Where soft landscaping abuts the building, paving slabs will be accommodated within the planting beds to prevent damage.

A number of strategies are considered and suggested at this stage based on their appropriateness in relation to safety, associated risks, relevant maintenance regimes and Client preference with regard to Facilities Management.

At the next stage, these strategies will need to be developed further by Specialists and Sub Contractors prior to implementation.



Image of the main residential blocks

Abseil

There are a number of ways to access the upper levels of the façades via abseil and, while this is not the preferred solution, a number of methods has been considered should this method be preferred at the next stage.

+ Davit Arms are perhaps the industry standard. They are permanent installations fixed through to the roof structure with lightweight arms which can be rotated 180 degrees inboard of the parapet for safe mounting without damaging the coping.

- Due to fixing through to the structure, this often means fixing through the waterproofing layer which needs to be carefully coordinated and installed at risk of failure or issues with warranties to waterproofing.

+ A potential alternative would be Davit arm fixing points in the upstands (as per the image below) on the basis that, the Pre-cast sandwich panels are suitable to take the imposed loads. This would have the advantage of not being fixed through the waterproofing layer of the roof.

- Davit Arms also have their own rigorous testing and inspection regime which can be a management burden to some building operators

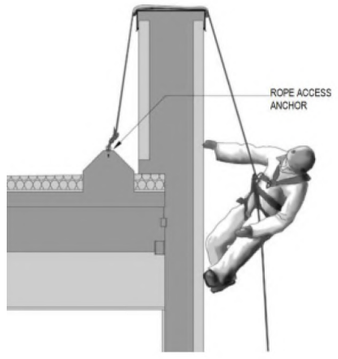
+ Counterweight 'A' Frames are an alternative to permanent installations with the benefit of no permanent fixing and places the maintenance of the equipment onto specialist contracts undertaking the work.



Davit Arm System



Counterweight A Frame



Abseil anchor

- The downside is that A Frames are space hungry and require hard standing which would potentially conflict with space designated from Brown roof and roof mounted PV panels.

- Abseiling eyes can be fixed directly to the roof/parapet in a number of way however, without the cantilever element, the rope rubbing against sills and coping can cause significant damage and restrict movement.

In all instances, Trained personnel can access the upper floors of the facade by abseil for cleaning windows. Glazing and Cills should be specified to include reinforcement to provide a maintenance load so that an abseiler can move freely across the facade without causing damage.

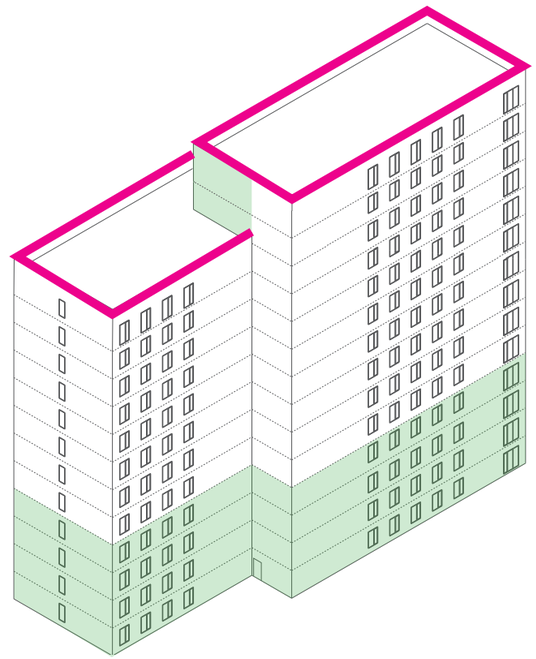
Risks/ Hazard

Operatives falling from heights during the cleaning process and objects falling down onto pedestrian space underneath are the main risks associated with the cleaning process.

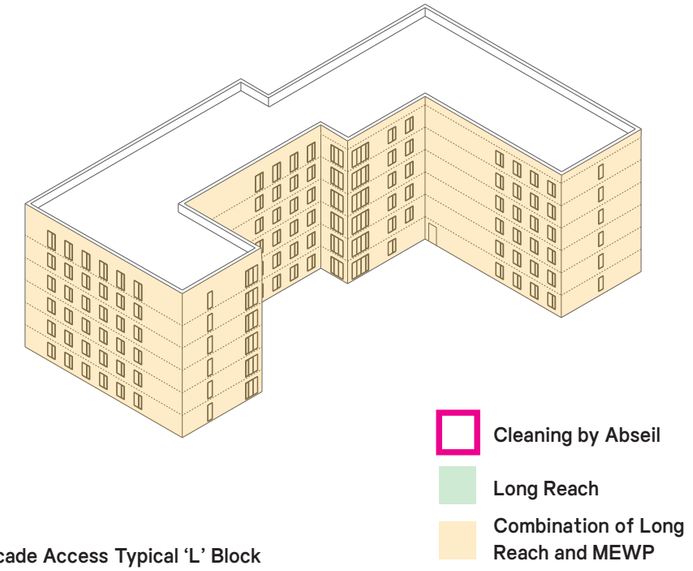
The Work at Height Regulations 2005 require employers and those in control of any work at height activity to ensure that the work is properly planned, supervised and carried out by competent people.

Landlord Responsibilities

The Landlord must ensure methods employed by the cleaning company are safe and agreed upon to mitigate the risks above. Creation of segregation zone above the pedestrian areas during the cleaning process should minimise the risk of injuries by falling objects.



Facade Access Typical 'S' Block



Facade Access Typical 'L' Block

Magnetic Window Cleaning

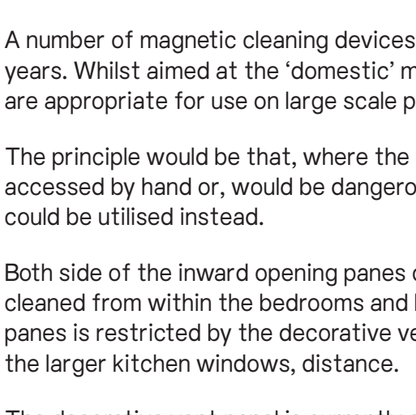
A number of magnetic cleaning devices have appeared in recent years. Whilst aimed at the ‘domestic’ market, it may be that they are appropriate for use on large scale projects too.

The principle would be that, where the outer pane can not be accessed by hand or, would be dangerous to do, a magnetic system could be utilised instead.

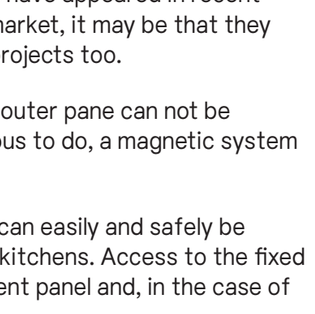
Both side of the inward opening panes can easily and safely be cleaned from within the bedrooms and kitchens. Access to the fixed panes is restricted by the decorative vent panel and, in the case of the larger kitchen windows, distance.

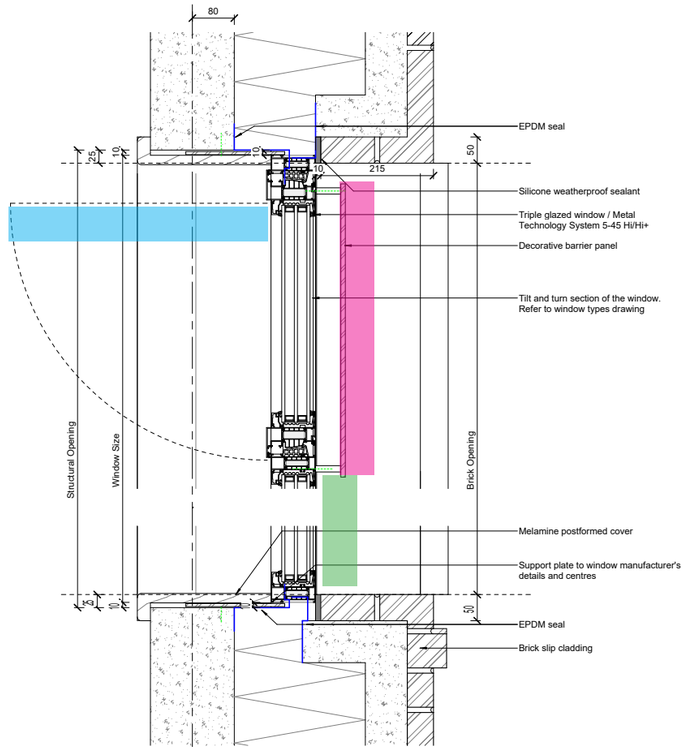
The decorative vent panel is currently offset from the frame by 50mm, this would need to be widened with compromising its function as a safety barrier to allow space for the apparatus to be slid through and mounted on the external side of the window. From this position, the internal mounted magnetised element can be moved around to clean the exterior of the windows.

This would be relatively simple process for all bedroom windows. Likewise for the larger multi pane kitchen windows, the fixed panes are always adjacent an accessible pane so, the principle of access will be the same



Examples of magnetic devices



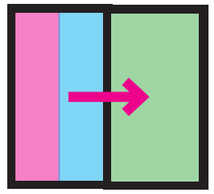


Typical window plan

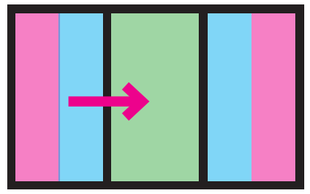
Fully accessible pane

Decorative vent pane

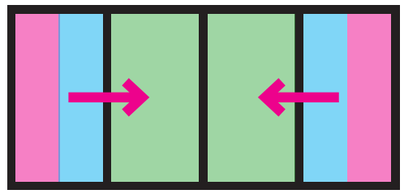
Pane accessible internally only



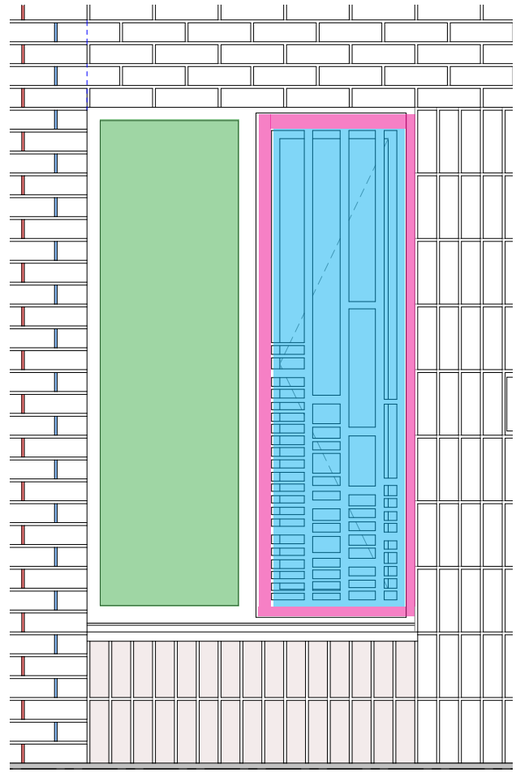
Typical 2 pane window (Bedrooms)



3 pane window (Kitchens)



4 pane windows (Kitchens)



Typical window elevation

Risks/ Hazard

Operatives must check and ensure the functional working order of the equipment. Given the magnetic nature, there is a risk of the external part falling from height and hitting someone below. This risk is mitigated by limited access to the building perimeters for privacy. This is not the case however above entrance, Plant rooms and Bin Stores etc. Protection above the more heavily trafficked entrances is provided by canopies and access to plant rooms can be coordinated around cleaning activities. The remaining risk of bin stores should be mitigated through method statements prior to operation.

Landlord Responsibilities

Access to rooms will be required to undertake cleaning. This will be infrequent and could take place out of term time however, will need to be managed pro-actively to avoid conflict and inconvenience.

3.3 Façade Access for Maintenance

Strategy

Replacement/ maintenance/ inspection works on the façade should be executed by trained authorised operatives at all times. All cladding elements including brickwork, glazing, frames and other panels from first floor upwards can be visually inspected and superficially repaired by Abseil.

Glass replacement should be completed internally with abseiler's required to remove the external gasket and help guide the panes through the frame.

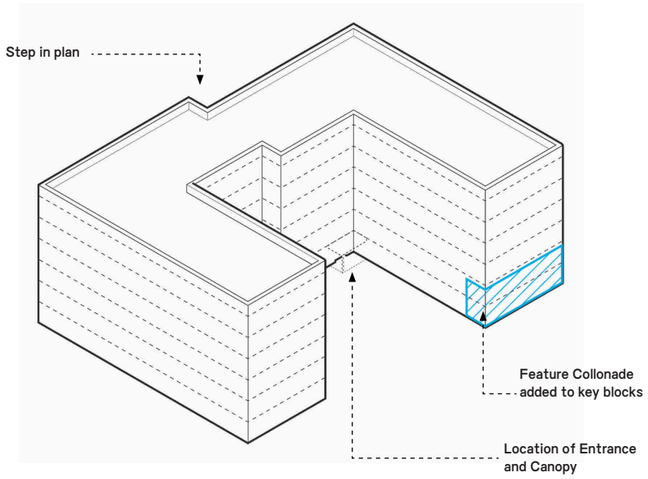
MEWP's

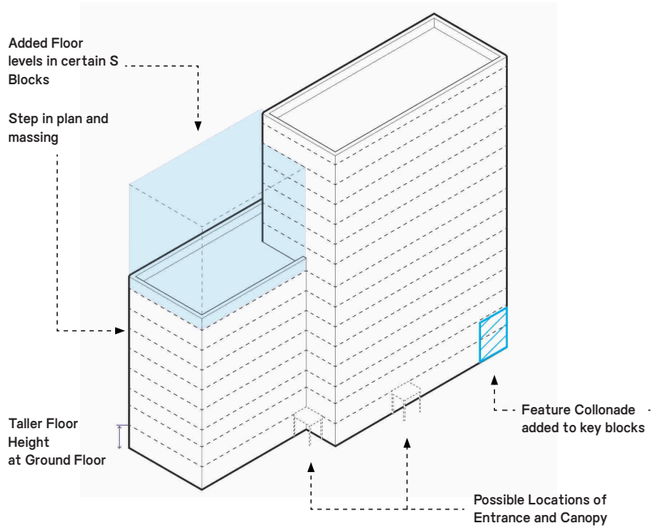
MEWP's are the preferred method for facade maintenance and there are a variety of types to cover a range of heights and scenario's.

The lower 'L' block facades can be accessed by compact MEWP's able to manoeuvre along narrower paths. Variations such as 'Spider MEWP's offer further versatility by being able to reach difficult areas on uneven ground by utilising a system of independent outriggers.

The upper storey's of the taller 'S' blocks may be beyond the reach of a compact MEWP and a larger Lorry mounted cradle will be required instead. They are less versatile due to their size

The exact requirements and appropriate equipment must be assessed by the Maintenance Specialist prior to any works on site.





Diagrams showing soffits

Soffits

A small area of soffit highlighted in Diagram 07 below, at first floor level where the UBS block extend beyond the podium will require access for maintenance and replacement. The soffit is clad in lightweight metal Rainscreen panels and sized appropriately for manual handling.

The soffit can be accessed using either a mobile MEWP or Platform Lift. Examples are shown below.

Risks/ Hazard

Operatives falling from heights during the maintenance process and objects falling down onto pedestrian space underneath are the main risks associated with the maintenance process.

The Work at Height Regulations 2005 require employers and those in control of any work at height activity to ensure that the work is properly planned, supervised and carried out by competent people.

Landlord Responsibilities

The Landlord will need to provide adequate warning and suitable location of the area where glass or other cladding panels are being replaced. Out of Hours working is desirable to reduce these risks.



Spider MEWP



Compact MEWP



Lorry mounted MEWP

cheme comprises different types of roof illustrated on the ent diagram and as noted below:

per roofs to ‘S’ blocks

wer roofs to ‘S’ blocks

ofs to ‘L’ blocks

cal Hub Roofs

ntral Hub roof

trance canopies and covered walkways

Main Roofs to Accommodation Blocks

oofs of the L blocks will be accessed mainly via hatches oned in a convenient locations at the upper most floors.

ne ‘S’ blocks, the lower level can be accessed directly from the with only the upper roof accessed via a hatch.

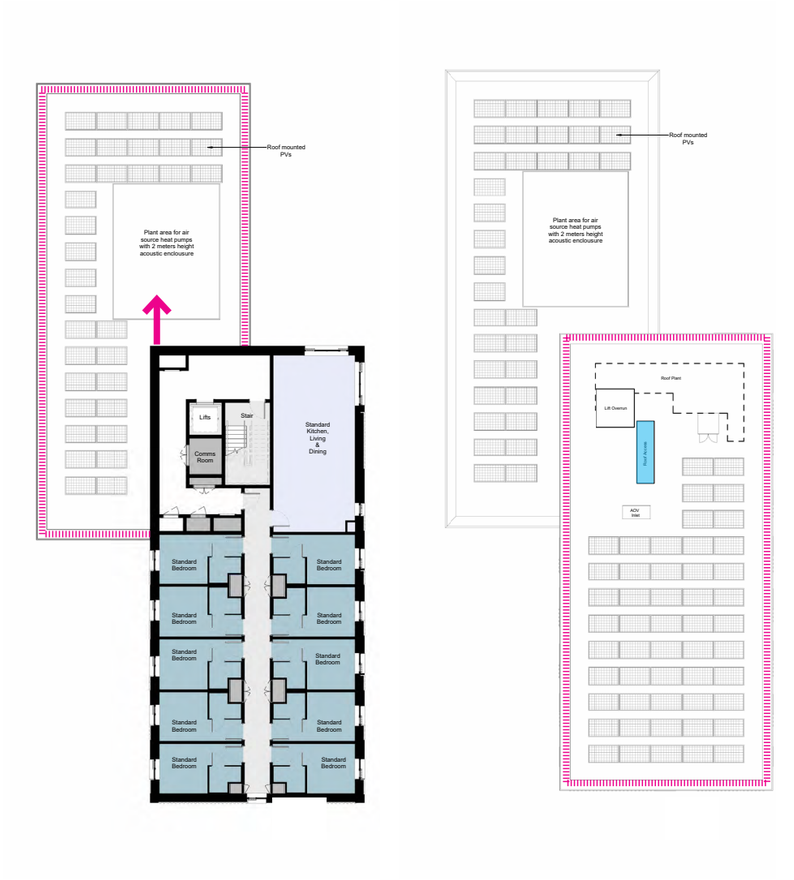
ofs are protected by a minimum 1100mm parapet to the eter. Access will be restricted only to authorised cleaning/ enance personnel therefore, no additional safety measures are ntly proposed while on the roof.

er plant equipment such as AHUs and air-conditioning enser units will be located to the lower section of roofs on the ocks so they can benefit from direct lift access. There is no lift ss to the ‘L’ Block roofs although, they are generally lower at reys and therefore any heavy or large plant equipment can be ceemed via external cranes/MEWPS.

er information on the disassembly and replacement of plant ment can be found in the M&E report.

ovoltaic Arrays will be located at roof level and will be mounted ames that can sit on the roof without fixing through to the roof ture and penetrating the membrane. They will have inspection maintenance regimes in line with specific manufacture guidance hould be adhered to ensure their efficiency and reduce the ntial for more onerous replacement measures.

es can generally be repaired on site and, if individual panels to be replaced, a methos statement should be produced to nstrate how this can be done safely via the access hatch’s.



S Block Roof Access Plan

L Block Roof Access Plan



Roof Access Hatch



Roof access via hatch

Direct roof access via lift lol

Roof protected by min 1100n high edge protection

Roof Construction

The roofs are an 'Inverted Roof' construction, requiring minimal maintenance due to their durability: A heavy duty hot-melt membrane is applied directly to concrete roof slab in a seamless application which is then covered by insulation.

A biodiverse roof with a substrate of 100-150mm will provide biodiversity and also act as ballast and protection to the sub layers. In addition, there is pebble ballast to the perimeter for robustness and concrete pavers to areas around plant for access

Penetrations to the membrane layer are potential weak spots that could require repair are thus typically kept to a minimum. They include outlets for drainage etc, and pitch pockets for any framing elements that require direct fixing to the slab such as plant screens.

Inspection of the outlets to ensure the drainage holes are free of debris or blockages should occur regularly, particularly following any significant storm event or, any notable traffic or remedial works that take place on or around the roof, and following leaf fall during the autumn months to ensure leaf litter is not causing obstruction.

Roof Build-up

Riser Overruns

Small areas requiring upstands above the main roof level will be formed as 'Warm' roofs with an exposed membrane to falls. These areas do not require access although it will be possible to stand on them. They are therefore positioned away from the parapets for this reason to limit the risk of falling from height.

Bio Diverse Roofs

All roofs require a minimum of two inspections a year to ensure that the outlets are maintained, regardless of the type of green roof.

The biodiverse roof will be designed with lower growing species to minimise maintenance and the shading of PV panels. Establishment maintenance may be required with watering in particularly dry spells for the first two years only. After that maintenance will involve weed species removal and the occasional cutting back of vegetation.

4.2 Central & Neighbourhood Hub Roofs

The Central Hub will have a bio diverse roof much like the accommodation blocks. Access requirements are still to be determined and an appropriate and safe strategy for doing so will be developed taking full consideration of the associated risk as the design develops.

Neighbourhood Hubs also have a Bio Diverse roof build-up. As these blocks are only single storey buildings, they can generally be accessed via Steps or scaffolding around the perimeter for inspection and light maintenance. Safe working height parapets are not provided therefore and instead, a fall restraint system will be required for direct access onto the roofs



Bio Solar Build-up

Landlord Responsibilities

The Landlord is to ensure that access to roofs and maintenance-only zones is limited to authorised personnel only.

The Landlord must ensure suitable regular maintenance of flashings, services penetrations and guarding/balustrades.

Regular checks of the rainwater outlets must also be carried out to ensure they are in working condition at all times.

It is important to make provision for ensuring the vegetation is watered and cared for in the period immediately following completion, and in hot and dry weather.

Risks/ Hazard

Despite adequate guarding, working from height pose risks of falling, especially from the areas where fall restraint is used as this requires added onus on operatives to utilise additional safety measures and equipment.

Where coordination is required with any special equipment to lift plant off the roofs, detailed method statements must be produced by specialist before commencing any activities to demonstrate how the work can be carried out safely with any associated risks mitigated or managed

4.3 Plant replacement

Reference to the Services Engineers maintenance strategy should be made in the first instance. This section is general guidance in support of the detailed strategies and method statements for specific plant equipment.

There is no basement to the scheme and most heavy equipment located in the substations and LV switch room, benefits from direct

level access to a grade level private road beyond. Detailed vehicle tracking should be completed at the next stage for any large modes of transport required when replacing large or heavy plant.

Access to roof plant rooms is mostly via Access Hatches. Direct access to the lower roofs of the S blocks is provided and where possible any heavy roof plant will be located here to benefit from access to lifts and internal stairs – Refer to previous section.

Access Hatches will allow operatives to take small hand tools and small replacement parts to roof levels. Other equipment can be disassembled and transported through the Access Hatches to the lifts or lowered from the roof using cranes or MEWPs.

MEWP and Crane parking locations are all within the development boundary therefore, restrictions to publicly accessible roads don't apply. Good access to building perimeters is generally available however, surfaces vary from Hard Standing, to paved paths, to soft landscaping and planting. The surrounding heavy tree line must also be considered when determining the best way to access façades and roofs.

Spider MEWPs may be employed to manoeuvre in more restricted areas as they use adjustable outriggers to straddle different types of terrain and counter balance away from any tree crowns.

In each case a detail method statement and risk assessment should be compiled before carrying out any operation as well as an assessment for any additional specialist equipment that may be required should as bespoke out riggers etc.



Building heights diagram

5.0 EXTERNAL CLEANING AND MAINTENANCE CYCLES

Warm slab inverted roofs

Please refer to manufactures guidance for maintenance requirements. The main roof is an inverted roof system with an applied structural waterproofing protected by insulation and either pre-cast concrete flags, washed pebbles or, 100-150mm Biodiverse soil. The system has been chosen partly due to the minimal maintenance requirements, However, the potential for damage caused by operatives accessing the roof remains.

Where services penetrate onto the roof, special attention is required and checked periodically.

Flashings should be periodically checked; around all penetrations, upstands and parapets.

Roof construction to any plant housing and roof/service pop-ups will discharge water onto the main roof. It is anticipated that due to no external plant being located on these pop-ups/plant housings the requirement for access to these areas will be minimal and located away from the edges so as not to require any separate access provision.

Rooflights to Local Hubs

The Rooflight glazing will require routine inspection and periodic cleaning, twice a year internally and four times a year externally. Please refer to manufactures guidance for maintenance requirements and cleaning schedules.

The type of rooflight featured on the project is a fixed lantern above the main local hub roofs. They are raised on a perimeter parapet/upstand and will be to sufficient barrier loading requirements.

The proposed fragility class is to be determined through detailed design and in accordance with ACR(M) standards and the relevant CWCT Technical performance.

Any automated opening mechanisms will require routine inspection and periodic cleaning.

Replacement of any glazed units to the rooflights would be from roof level and with the use of the appropriate mobile fall restraint system. This operation may also require the use of suitable mobile elevated work platform (MEWP) or scaffolding internally. Maintenance Contractor to confirm requirements and provide appropriate risk assessment and method statements.

For internal cleaning and maintenance see internal section.

Single-ply Membrane roofs

Area of single ply membrane or ‘warm’ roofs are kept to a minimum and should require minimal maintenance, unless operatives accessing the roof on dedicated access walkways damage it. Please refer to manufactures guidance for maintenance requirements and cleaning schedules

Where services penetrate onto the roof, special attention is required and checked periodically Flashings should be periodically checked; around all penetrations, upstands and parapets.

PV Panels

Maintenance will be required; refer to the Services Engineers maintenance strategy which should be presented on completion.

Access to external plant is via Access Hatch’s that will allow operatives to take small hand tools and small replacement parts to roof level. Larger replacement parts may need to be removed/ installed via a crane/MEWP from ground level.

Rainwater Outlets Gutters and Hoppers

These will require regular bi-annual checking and cleaning. In addition they may be subject to unplanned maintenance required within 24 hours’ notice in the event of a blockage occurring.

The rainwater outlets at principle roof levels can be safely serviced as they are within an area protected by a 1100mm high parapet to sufficient barrier loading requirements. Emergency escape from the roof is via Access Hatch or direct access to a stair core (lower roofs to S blocks only)

Outlets to the Local Hub roofs are to be accessed via Steps or MEWP and or scaffold from the building perimeter for inspection and accessed with temporary safety measures as required to maintain / repair outlets from the roof. Rooflight gutters are to be maintained from the roof with the aid of a fall restraint system. Maintenance and repair to be completed via MEWP and/or fixed scaffold with full method statement.

Lightning Protection

Annual continuity testing will be required; refer to the Services Engineers maintenance strategy which should be presented on completion.

Roof Top Plant

Maintenance will be required; refer to the Services Engineers maintenance strategy which should be presented on completion.

Access to external plant at the principle roof levels is via Access Hatches or direct door access from the stair core at the same level (lower roofs to S blocks only). This access route will allow operatives to take small hand tools and small replacement parts to roof level. Large replacement parts will need to be removed/ installed MEWP or a crane from ground floor. Assessment and Method statement of surface required to determine best/safest way.

Curtain wall - Windows & Louvres

All curtain wall and windows should be cleaned regularly as required. Please refer to manufactures guidance for maintenance requirements and cleaning schedules. This includes the aluminium window reveal and notional concealed gutter to window reveal front.

All windows and curtain wall to the façade is to be cleaned externally from ground level utilising a reach and wash with water supply from a mobile bowser. High level access may be required to remove debris from any concealed gutters.

Aluminium frames & aluminium panels should be dusted and wiped clean regularly. The mainframe should be checked for breaches in surface treatment at least once per year. If the surface has been damaged it should be repaired immediately using a compatible system in the same colour as the original specification.

Glazing beads should be cleaned using lukewarm water with a few drops of mild detergent.

Curtain wall & windows should be cleaned with a soft cloth or soft bristle brush and lukewarm water with a few drops of mild detergent - detergents must not contain solvent or abrasives. To dry the window, use a window scraper, or wipe with a slightly damp chamois leather or fine cloth.

At least once a year all moving parts should be cleaned and lubricated with acid-free oil. Friction stays should be adjusted (where necessary) and hardware inspected.

Any automated opening mechanisms will require routine inspection and periodic cleaning.

At least once a year all sealant to the frame should be checked and cleaned using lukewarm water with a few drops of mild detergent. Any repairs should be done with a compatible sealant in the same colour as the original specification.

In most cases glass panel replacement to the façade will be assisted by a suitable MEWP, from either of the adjacent roads or permanent maintenance strip that will lift the panels onto the required level to be manually positioned in place. This operation will require a secure demarcation around the vehicle and replacement works. This should take place out of hours when the building is not in use.

To replace glass to the entrance elevation and adjacent feature corner, a fixed scaffold with hoists will be required due to the architectural frame. This should take place out of hours when the building is not in use.

For internal cleaning and maintenance see section 4.0.

External Doors

Regular cleaning as required with a soft, damp cloth. Please refer to manufactures guidance for maintenance requirements and cleaning schedules.

Operation of the hinges and locks will benefit from occasional lubrication with a light machine or aerosol oil, taking care to remove excess liquid. Follow the manufacturer's instructions for the usage of oil and oil based products.

At least once a year all sealant to the frame should be checked and cleaned using lukewarm water with a few drops of mild detergent. Any repairs should be done with a compatible sealant in the same colour as the original specification.

Thresholds Drainage Channels

Regular cleaning as required. Jet washed to remove dirt build up and prevent blockages. Please refer to manufactures guidance for maintenance requirements and cleaning schedules.

Drainage channels and system relating to the civils area and silt collection will need regular maintenance, refer to Civil Engineers report/specification for details and requirements. Additional reference to the manufactures recommendations should be made.

Rainscreen Cladding/Composite cladding Panels

All rainscreen & composite cladding should be cleaned regularly as required manually via a reach and wash system or via MEWP and mobile bowser. Please refer to manufactures guidance for maintenance requirements and cleaning schedules. Replacement of the rainscreen cladding to the roof area would be achieved via a crane or MEWP from ground level.

Bin Stores

Bin stores both internal and external should be cleaned regularly in line with University procedures to prevent any dropped/excess waste being cleaned from the bin store enclosure ensure a clean space free of any waste/bad smells.

For cleaning and maintenance all moveable bins should be removed from enclosure to enable easy and full access to entire enclosure.

Fuel Store

External Fuel store for the backup generators should be cleaned regularly in line with University procedures to maintain a space free of any waste or unnecessary items.

External Landscaping

Refer to the landscape architects management and maintenance plan.

Bird / Bat Protection

Bird and or Bat protection (if required) from nesting and roosting will be provided via a Fire Gel solution. To be assessed for continued efficacy after a minimum of 3 years. To be accessed and maintained via MEWP or crane.

AOV's

Refer to MEP C&M documentation for access and maintenance. AOV to stair 1 to be accessed and maintained via MEWP and/or scaffold with tie restraint. This option has been selected in lieu of a permanent fall protection system to minimise maintenance requirements with the specified AOV requiring annual inspection versus bi-annual inspection of typical fall protection systems.

6.0 INTERNAL CLEANING AND MAINTENANCE CYCLES

Toilet IPS

Regular cleaning with a soft, damp cloth if required, with a standard household detergent added to the water. Stubborn marks may be gently removed with a diluted mild household bathroom cream cleaner. Graffiti can be removed with a solvent based cleaner, such as acetone or cellulose spirit. Refer to the manufacturer's instructions and guidelines on product use.

Extra care should be employed when cleaning gloss surfaces. Do not use scouring cleaners or pads as these will scratch the laminate. It is inadvisable to use polish on the laminate facings as streaking will occur.

No regular maintenance is required. Operation of the hinges and locks will benefit from occasional lubrication with a light machine or aerosol oil, taking care to remove excess liquid. Follow the manufacturer's instructions for the usage of oil and oil based products.

Periodic checks for security of fixings, bolts, hinges and channel brackets are recommended.

uPVC Hygienic Wall Covering

Regular cleaning with a soft, damp cloth if required, with a standard household detergent added to the water. Stubborn marks may be gently removed with a diluted mild household bathroom cream cleaner. Graffiti can be removed with a solvent based cleaner, such as acetone or cellulose spirit. Refer to the manufacturer's instructions and guidelines on product use.

Extra care should be employed when cleaning gloss surfaces. Do not use scouring cleaners or pads as these will scratch the laminate. It is inadvisable to use polish on the laminate facings as streaking will occur.

Wall Tiles

Regular cleaning with a soft, damp cloth if required, with a standard household detergent added to the water. Stubborn marks may be gently removed with a diluted mild household bathroom cream cleaner. Graffiti can be removed with a solvent based cleaner, such as acetone or cellulose spirit. Refer to the manufacturer's instructions and guidelines on product use.

Extra care should be employed when cleaning gloss surfaces. Do not use scouring cleaners or pads as these will scratch the finish.

Suspended Ceilings

The Suspended ceilings require routine inspection and periodic cleaning as required. Please refer to manufactures guidance for maintenance requirements and cleaning schedules.

Internal Glazed Screens

The glazing may suffer from a gradual build-up of dust. This should be cleaned quarterly, or as required. Please refer to manufactures guidance for maintenance requirements and cleaning schedules.

Atrium glazed screens to be repaired/replaced from internal/room where possible. Where glazed screens require cleaning surrounding voids, MEWP or fixed scaffolding to be utilised during out of hours. Panel replacement of screens surrounding the voids: where this cannot be undertaken from each floor level this is to be done via a fixed scaffold with hoists constructed from ground level. This should take place out of hours when the building is not in use. "Permit to Work" to consider user access restrictions to areas below the voids and for work to be undertaken during periods of low occupancy or closure to minimise the risk of injuries to building users from objects falling from height.

Steel / Aluminium Balustrades

In order to comply with the conditions of the guarantees, the steel / aluminium balustrades will require regular cleaning in accordance with the maintenance schedules provided by the manufacture, particularly with regards to the gradual build-up of dust and other fine particles. It is anticipated that the aluminium balustrades will require cleaning on a 6 month cycle with a visual inspection of the panels / cable infills being undertaken at the same time to identify major chips, scratches or general damage.

The inside faces of the balustrades to be cleaned from the adjacent floor level. The outside face of the balustrades to be cleaned from the adjacent floor level using a reach and wash system or MEWP/fixed scaffolding for intricate work.

Stainless steel handrail requires regular cleaning with a soft, damp cloth if required, with a standard household detergent added to the water.

To replace balustrades / infill section surrounding the voids: Where this cannot be undertaken from each floor level this is to be done via a fixed scaffold with hoists constructed from ground level. "Permit to Work" to consider user access restrictions to areas below the voids and for work to be undertaken during periods of low occupancy or closure to minimise the risk of injuries to building users from objects falling from height.

Rooflights

When required the internal glazing should be cleaned twice yearly, or as required by reach and wash system from the floor area adjacent to the void or from ground/first level via a MEWP. Please refer to manufactures guidance for maintenance requirements and schedules.

Any automated opening mechanisms will require routine inspection and periodic cleaning, these are typically located within the rooflight upstand.

In most cases inspection, maintenance and replacement of glazed panels will need to be completed with a suitable MEWP or a fixed scaffold with hoists constructed beneath the roof lights. This will be required in combination with the requirements to replace glazing externally as detailed in sections above.

Care should be taken with the operation of MEWP's in areas with glass balustrade to avoid glass breakage.

Folding Partitions / Moveable Walls

Regular cleaning to be with a soft, damp cloth if required, with a standard household detergent added to the water. Do not use scouring cleaners or pads as these will scratch the laminate. It is inadvisable to use polish on the laminate facings as streaking will occur. Please refer to manufactures guidance for maintenance requirements and schedules.

Operation of the hinges and locks will benefit from occasional lubrication with a light machine or aerosol oil, taking care to remove excess liquid. Follow the manufacturer's instructions for the usage of oil and oil based products.

Periodic checks of fixings, tracks, bolts are hinges are recommended.

Internal Doors

Regular cleaning to be with a soft, damp cloth if required, with a standard household detergent added to the water. Do not use scouring cleaners or pads as these will scratch the laminate. It is inadvisable to use polish on the laminate facings as streaking will occur. Please refer to manufactures guidance for maintenance requirements and schedules.

Operation of the hinges and locks will benefit from occasional lubrication with a light machine or aerosol oil, taking care to remove excess liquid. Follow the manufacturer's instructions for the usage of oil and oil based products.

Fire Alarm + Detection

It is important to maintain the Fire Alarm system and detectors, to ensure building or contents insurance policy is valid. Testing is required including full electrical check, testing automatic heat/ smoke detectors, etc. and replacement of battery back up in accordance with the Services Engineers maintenance schedule. The MEP smoke detection for the atrium rooflight is proposed as beam detection or aspiration, either may require MEWP or scaffold to testing, cleaning and maintenance, refer to Services Engineers maintenance schedule.

Carpet

Regular cleaning as required by vacuuming. Please refer to manufactures guidance for maintenance requirements and schedules. For stain removal use a specific carpet cleaner following the manufacturer's instructions for usage.

Rubber Flooring

Clean regularly as required by vacuuming, sweeping or damp mop the floor to remove dust and grit. Damp cleaning to be done with a specific rubber floor cleaner, using a well wrung out cloth or mop. However we would recommend checking with specific manufacturers cleaning guidelines.

Buffer pads to rubber flooring can be used without detergent, subject to specification adopted.

Vinyl Flooring

Clean regularly as required by vacuuming, sweeping or damp mop the floor to remove dust and grit. Damp cleaning to be done with a specific vinyl floor cleaner, using a well wrung out cloth or mop. However we would recommend checking with specific manufacturers cleaning guidelines.

Buffer pads to vinyl flooring can be used without detergent, subject to specification adopted.

Tiled Flooring

Clean regularly as required by vacuuming, sweeping or damp mop the floor to remove dust and grit. Damp cleaning to be done with a specific rubber floor cleaner, using a well wrung out cloth or mop. However we would recommend checking with specific manufacturers cleaning guidelines.

6.0 INTERNAL CLEANING AND MAINTENANCE CYCLES

Entrance Matting

Internal - Regular cleaning as required by vacuuming. For stain removal use a specific entrance matting cleaner following the manufacturer's instructions for usage. Mat to be removed and floor recess cleaned periodically to prevent dirt build up.

External - Regular cleaning as required by jet washing. For stain removal use a specific entrance matting cleaner following the manufacturer's instructions for usage. Mat to be removed and floor recess cleaned periodically to prevent dirt build up.

Vinyl Floor and Wall Signage

Clean regularly as required by vacuuming, sweeping or damp mop the floor to remove dust and grit, walls to be cleaned with damp cloth. Damp cleaning to be done with a specific vinyl cleaner, using a well wrung out cloth or mop. However we would recommend checking with specific manufacturers cleaning guidelines.

Any areas of floor vinyl signage in the event of any spillage/event increasing the risk of slippage should immediately be cordoned off from access and cleaned to restore the surface to it's dry and undamaged condition. Where unsure of performance following an event the area should remain cordoned off until suitable testing is completed to ensure the minimum dry slip resistance (36PTV) is reinstated.

Blinds and Curtains

Regular cleaning with a soft, damp cloth if required, with a standard household detergent added to the water. However we would recommend to check with specific manufacturers cleaning guidelines.

Operation of the mechanism will benefit from occasional lubrication with a light machine or aerosol oil, taking care to remove excess liquid. Follow the manufacturer's instructions for the usage of oil and oil based products.

Specific attention and testing should be completed on any safety blinds / curtains (such as laser/ blackout) in line with manufacturers requirements to ensure certifications and performance are maintained.

Ironmongery

Regular cleaning with a soft, damp cloth if required, with a standard household detergent added to the water. Do not use scouring cleaners or pads as these will scratch the ironmongery. Please refer to manufactures guidance for maintenance requirements and cleaning schedules.

Operation of the hinges and locks will benefit from occasional lubrication with a light machine or aerosol oil, taking care to remove excess liquid. Follow the manufacturer's instructions for the usage of oil and oil based products.

Internal Lighting

All luminaires should not require frequent changing due to LED specification (dependant on the type of luminaire adopted). Please refer to electrical information for maintenance regimes. All luminaires will be accessible from the floor directly below or adjacent to the fitting. Any high level lights within the atrium / void areas to be access via fixed scaffold or MEWP.

Ceiling Mounted and Above Ceiling Services Access

In general, occasional maintenance is required for changing or cleaning heat exchange unit filters, testing automatic heat / smoke detectors, etc. Access is through removable ceiling tiles or access hatches in plasterboard ceilings or within exposed service areas. Please refer to mechanical & electrical information for more details.

Internal Glazing

All glazing, whether curtain walling, windows or doors should be able to be cleaned via a safe, level and easily accessible area at all times. Preferably from the adjacent floor level.

The inspection should be the same as external glazing above, namely;

The Aluminium frame should be dusted and wiped clean regularly. The mainframe should be checked for breaches in surface treatment at least once per year. If the surface has been damaged it should be repaired immediately using a compatible paint system in the same colour as the original specification.

Glazing beads should be cleaned using lukewarm water with a few drops of mild detergent.

Windows should be cleaned with a soft cloth or soft bristle brush and lukewarm water with a few drops of mild detergent - detergents must not contain solvent or abrasive. To dry the window, use a window scraper, or wipe with a slightly damp chamois leather or fine cloth.

At least once a year all moving parts should be cleaned and lubricated with acid-free oil. Friction stays should be adjusted (where necessary) and hardware inspected.

Any automated opening mechanisms will require routine inspection and periodic cleaning. Please refer to mechanical & electrical information for more details.

At least once a year all sealant to the frame should be checked and cleaned using lukewarm water with a few drops of mild detergent. Any repairs should be done with a compatible sealant in the same colour

as the original specification.

In most cases glass replacement will be assisted by a suitable mobile elevated work platform (MEWP) that will lift the panels onto the required level to be manually positioned in place. (i.e. cherry picker or scissors lift as appropriate). See external glazing above for details.

Acoustic panels

Acoustic panels (TopAkoustic or similar) require regular cleaning with a soft, damp cloth if required, with a standard household detergent added to the water. Please refer to manufactures guidance for maintenance requirements and cleaning schedules.

Any high level or balustrade acoustic panels to be cleaned from the adjacent landing using a reach and wash pole system or fixed scaffold/MEWP.

Write on Walls Surfaces

Write on wall surfaces to collaboration areas require regular cleaning with a soft, damp cloth if required, with a standard household detergent added to the water. Panels to be cleaned from the adjacent floor level. Please refer to manufactures guidance for maintenance requirements and cleaning schedules.

Solid Work Surface

Solid work surface (Corian or similar) require regular cleaning with a soft, damp cloth if required, with a standard household detergent added to the water. Panels to be cleaned from the adjacent floor level. Please refer to manufactures guidance for maintenance requirements and cleaning schedules.

Internal Walls

Regular cleaning to be with a soft, damp cloth if required, with a standard household detergent added to the water. Do not use scouring cleaners or pads as these will scratch finish.

Please refer to manufactures guidance for maintenance requirements and schedules.

Internal Wall Fixtures (light switches etc)

Regular cleaning to be with a soft, dry cloth if required, with a standard household detergent added to the water. Do not use scouring cleaners or pads as these will scratch the finish. Please refer to manufactures guidance for maintenance requirements and schedules.

7.0 ROOF SAFETY / ACCESS

Roof access / egress generally

External areas of roof required to be accessed would include;

Plant areas

Rooflights

Gutters/overflows

Lightening protection

Roof mounted services including PV panels

External roof canopys.

It is anticipated that only trained operatives will have access to these areas with appropriate 'Permit to Work' cards.

Measures that have been put in place to aid safe access, egress and movement to/from and on the roofs include;

Dedicated roof access walkways in a non-slip finish.

Continuous edge protection

Openable roof lights should be closed during maintenance on the main roof to prevent persons falling through or dropping items through roof lights.

Dedicated level access routes for ease of maintenance and carrying equipment at minimum 750mm wide. These have been identified by non-slip finish. These routes must remain clear at all times as they form part of the escape route.

Fire escape signage has been included at roof level to direct personnel to the nearest exit point.

Dedicated fire escape access to the roofs is at suitable distance for escape in an emergency.

As part of the 'Permit to Work' system, refer to Fire Engineer's Report for the maximum number of people that are allowed on the roof at the same time. This will ensure that the occupants are a limited number of trained operatives and therefore egress via an access hatch and associated escape ladder is considered reasonable.

The primary means of raising the alarm to all personnel located on the roof is provided by a roof mounted sounder linked to the fire alarm (to be confirmed with M&E)

Access doors and hatches providing access to the roof areas should be locked while maintenance is taking place to prevent un-authorised persons entering this area. This is set out below in the locking strategy below.

The primary roofs will have a suitably high parapet preventing risks of falling.

These measures should be written into the relevant University of Salford cleaning and maintenance policies for this building.

Roof Access locking strategy

To provide roof access for maintenance and maintain fire escape routes the following locking strategy has been employed.

Access to the main roofs

Access is through the door at the top of stair cores (lower roofs to S blocks only). This door it is anticipated will include manual locking to prevent occupants access to the roof. During maintenance periods, this door is unlocked via a key then closed behind and locked from the outside via a thumbturn on the external face of door while maintenance is in progress to stop any non-authorised people entering this area.

Access is through Hatches at the top of stair cores: the hatches will be set suitably high in the roof soffit with either a retractable ladder or stair that can be locked in place to prevent unauthorised access. Maintenance personnel will require access keys to unlock the mechanism and also a pole to 'pull-down' the ladder/stair that should not be stored within proximity of the hatch.

Roof Perimeter safety

A roof perimeter parapet at minimum 1100mm high has been provided to areas of the main roof where regular access is required for cleaning or maintenance.

If access is required beyond these areas of regular maintenance, maintenance personnel and contractors will need to provide their own safety arrangements via MEWP or fixed scaffold.

It is recommended that University of Salford should set up a 'Permit to Work' procedure (policy may be in place already) in their operations and maintenance manual to ensure only trained operatives are able to gain access to these areas.

Regular inspection is recommended to the roof parapets and any maintenance carried out.

The design team has assumed that any frequent or unplanned maintenance is able to be carried out safely with minimal need for independent access equipment.

8.0 GENERAL MAINTENANCE PRINCIPLES

Permanent Access

From the maintenance schedules given in the foregoing section we believe that the following elements will require permanent, safe access:

Rooflights (internal & external)

Rainwater Outlets, Gutters and Hoppers

Lightening Protection

Roof Top Plant

Windows (internal & external)

Threshold Drainage Channels

Curtain Walling (internal & external)

Internal Lighting

Ceiling mounted services

Internal Glazed Screens

Balustrades

Access provision to these elements is detailed in sections above.

9.0 ADDITIONAL NOTES

These recommendations should be written into the relevant University of Manchester or Building Operators Risk Assessments and Maintenance policies for this building.

It is recommended that University of Manchester or Building Operator should set up a 'Permit to Work' procedure in their operations and maintenance manual to ensure only trained operatives are able to gain access to specific maintenance areas.

FM provider and all cleaning & maintenance contractors will need to provide a method statement including safe access proposals and any risk assessments they feel necessary to carry out work based on these recommendations.

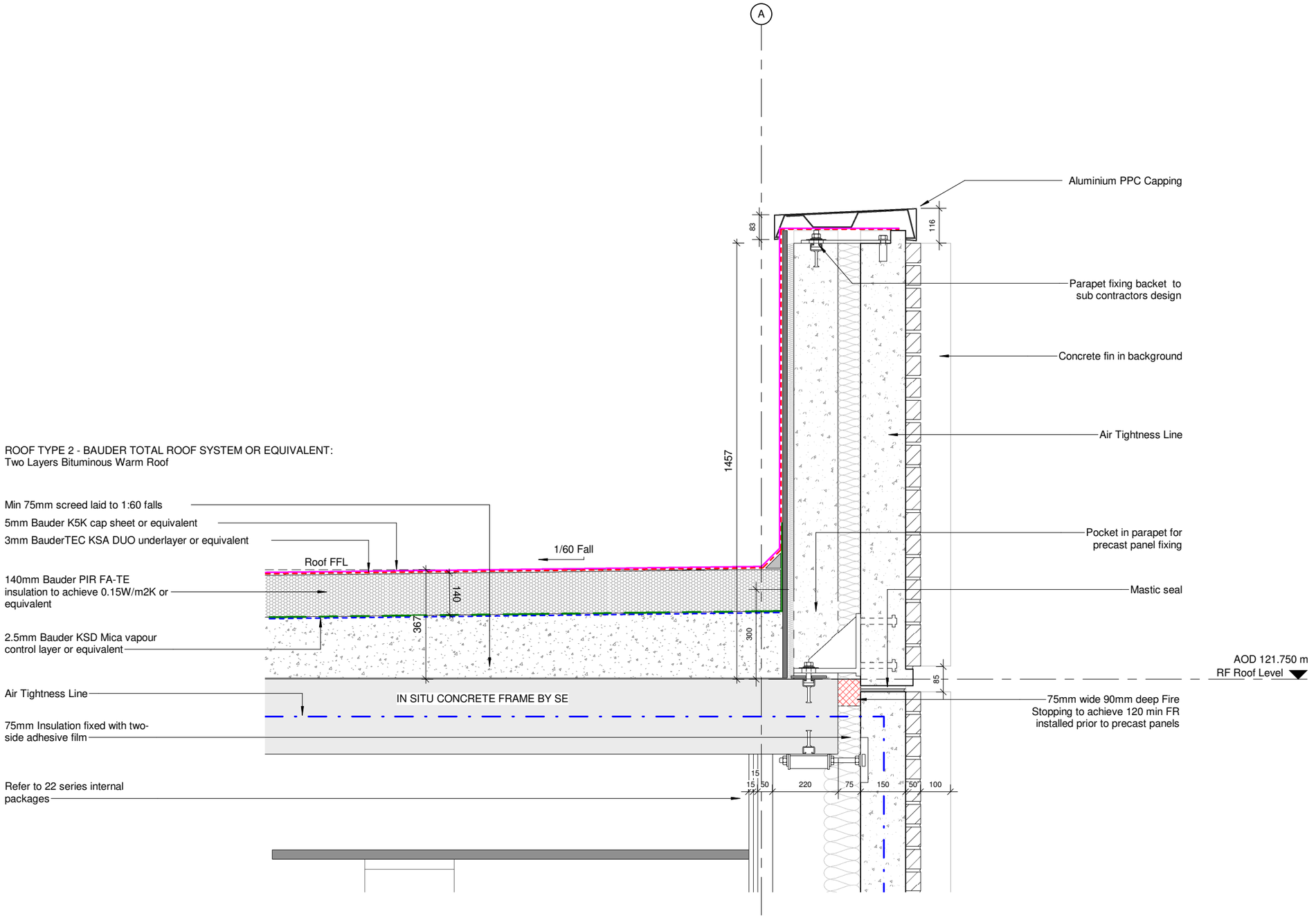
We believe that if all aspects of this document are incorporated in the design the maintenance of the high level elements of the works will present no greater hazard to the operatives than any other elements of the works.

In all the above cases it is assumed that any operatives will be able to use two hands and will not be working within a confined space and that operatives are suitably trained for the task being performed. It is not envisaged that any special arrangements will be required to allow the operative to access the equipment being maintained regularly.

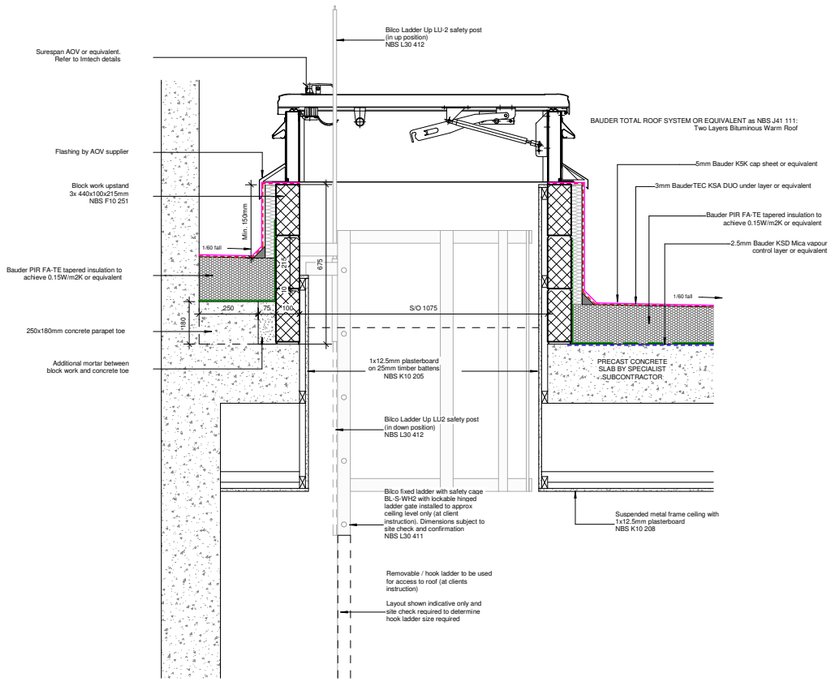
The strategies outlined in this report are representative of the current stage of development and should be updated accordingly as the design progresses, either by the Design Team or relevant Specialist.

The strategies outlined in this report should not preclude or replace the need for specialist input and detailed method statements before undertaking any activity.

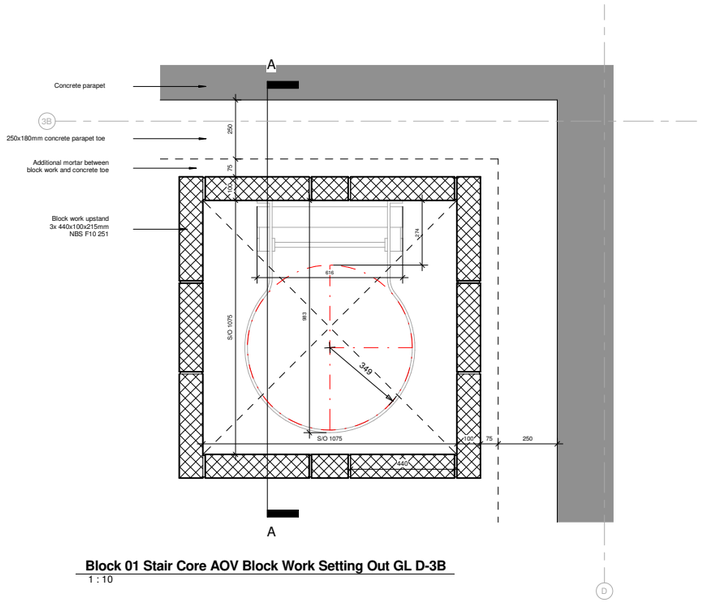
APPENDIX 01 - BUILDING SECTION PARAPET DETAIL



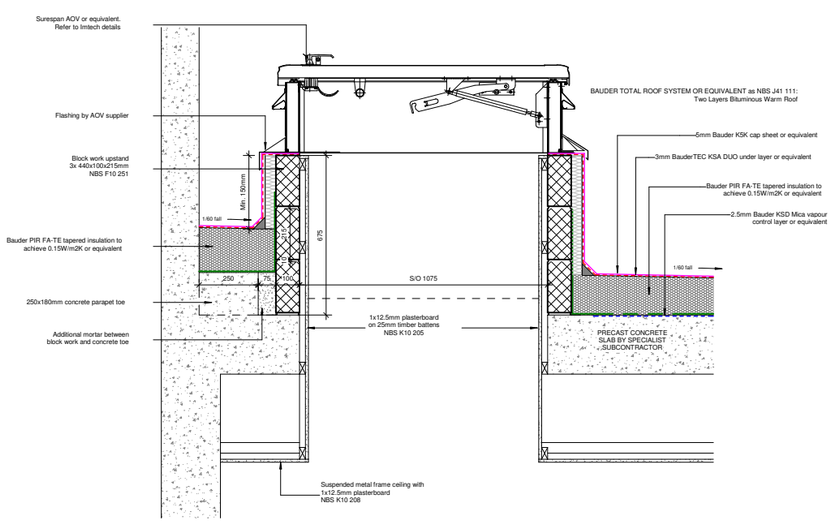
APPENDIX 02 - ROOF ACCESS HATCH DETAILS



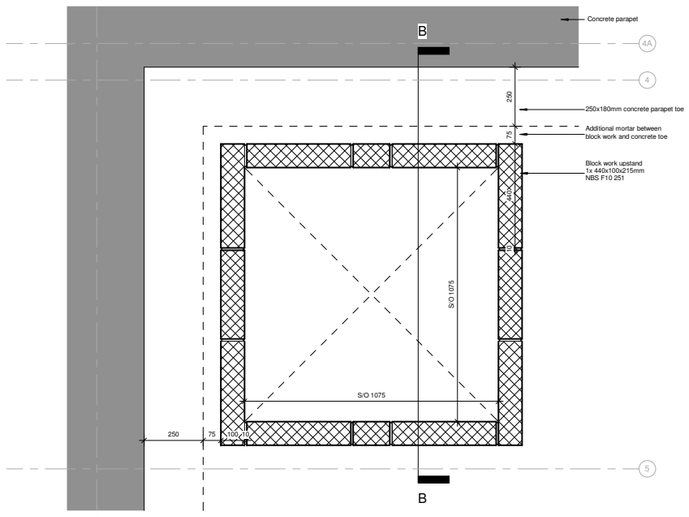
Section A - Block 01 Stair Core AOV Detail GL D-3B
1 : 10



Block 01 Stair Core AOV Block Work Setting Out GL D-3B
1 : 10



Section B - Block 01 Stair Core AOV Detail GL J-4
1 : 10



Block 01 Stair Core AOV Block Work Setting Out GL J-4
1 : 10

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