

SHEPPARD ROBSON

June 2023
Design & Access Statement

Upper Brook Street Masterplan (McLaren / Kadans)



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1.0 INTRODUCTION

1.1 Document Purpose

This report has been prepared by Sheppard Robson on behalf of McLaren Property Ltd. and Kadans Science Partner, to support a full planning application for a Sci-Tech and purpose-built student accommodation scheme (PBSA) scheme (hereafter referred to as the 'Proposed Development') on the Upper Brook Street Masterplan - McLaren/Kadans (hereafter referred to as the 'Site').

This scheme would bring forward development on a Previously Developed site which is earmarked for commercial and PBSA uses in the Oxford Road Corridor Strategic Regeneration Framework Guidance (SRFG) 2019. This application has been accompanied by a suite of technical documents, reports and plans.

This document is intended to supplement the information required by Manchester City Council Local Authority by summarising the functional requirements of the brief, together with the architect's interpretation of the site context and the response to it.

It accompanies and supports the planning application for the Upper Brook Street Masterplan - McLaren/Kadans. The statement explains how the proposed development is a suitable response to the site and its setting, and demonstrates that it can be adequately accessed by prospective users.

Additional input has been provided by:

- Avison Young
- Re-form Landscape Architecture
- David Bonnett Associates.

Section 42 of 2004 Town and Country Planning Act substituted the 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 exclusive 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 site is located within the Ardwick ward to the south east of Manchester city centre. It sits at a key location at the western edge of Ardwick and forms an important transitional space between the Brunswick Estate (to the east) and the University (to the west). The site offers significant opportunities to create new connections, facilities and spaces for use by and to the benefit of both communities.

The Site extends to 1.084 hectares (ha) and is partially in use as a temporary paid car park. The paid car park is located on a section of the Site which was formerly in use as a Citroën car dealership and is accessed from both Upper Brook Street (UBS) to the west and Kincardine Road to the east. The remainder of the Site comprises the former Elizabeth Yarwood Court residential complex, which is accessed from Kincardine Road to the east of the Site. The Site is identified for redevelopment within the Oxford Road Corridor SRFG with mixed commercial uses in-line with the SRFG being a priority for the UBS site.

The Masterplan

The Proposed Development forms one element of the wider Upper Brook Street Illustrative Masterplan which can be seen within section 05 of this report. The Masterplan proposals are being brought forward by Kadans Science Partner, McLaren Property, Property Alliance Group and Moda Living. The Masterplan intends to transform the currently vacant sites, re-establishing their important role in the area by re-introducing permeability, public realm, and active community-facing uses at ground floor. The emerging Masterplan includes almost 3 acres of new public realm and green spaces, a new public square, as well as a series of high-quality new buildings of varying heights to provide for approximately 700,000ft² of Sci-Tech accommodation, 1,800 purpose-built student accommodation beds, and 25,000ft² of active ground floor uses.

This planning application seeks consent for the Upper Brook Street Masterplan - McLaren/Kadans within the wider Upper Brook Street Masterplan.

Description of Proposal

Full planning permission for the demolition of existing buildings and erection of a single 6 to 9 storey block for Sci-Tech use (Use Class E (g)(ii) and 267m² of a café/bar (Use Class E (b), and a single 9 to 23 storey block to be used for Purpose Built Student Accommodation (Use Sui Generis), comprising 737 bedrooms in total and 293m² of community use (Use Class F2 (b) and 80m² of commercial floorspace (Use Class E) on the Upper Brook Street Masterplan - McLaren/Kadans.

Public Realm

The proposed development provides a significant amount of new public realm, including a new east-west route connecting Ardwick with the University. The route will provide an attractive and safe environment for walking and cycling, whilst providing opportunities for seating and external amenity space to support ground floor uses within both buildings.

Sci-Tech Building

The proposed building provides approximately 215,000ft² of combined laboratory and ancillary office space along with a ground floor publicly accessible café, meeting room suites throughout the building, and a secure cycle store and cycle changing. The building massing is split into a low level 6 storey block (inc. plant) to Kincardine Road, extending up to 9 storeys (inc. plant) at Upper Brook Street, with an atrium to the centre of the floorplates that houses informal breakout spaces and forum seating at ground floor.

Purpose Built Student Accommodation (PBSA)

The proposed building provides 737 student bedrooms (288 studios and 449 cluster bedrooms arranged in a variety of cluster sizes), student amenities, management suite, commercial/ community spaces and supporting ancillary areas. The proposed PBSA scheme is arranged in two parallel building blocks with central cores, which are linked on the ground floor to form spaces for indoor and outdoor student amenities. The block facing Upper Brook Street has 23 storeys and the block facing Kincardine Road has 9 storeys.

1.3 Development Team

McLaren Property

Established in 2010, McLaren have forged a reputation as a dynamic, innovative and ambitious developer. With a portfolio spanning several sectors including student, residential, senior living, logistics and commercial developments, the business has a passion for building developments of the highest quality, incorporating contemporary design, superb build quality and exceptional finishes.

McLaren have a growing portfolio of investment and development properties in key University towns and cities across the UK. Their student accommodation strategy focuses on these prime centres, supported by world renowned universities. Examples of McLarens recent successes in the student sector include Moulsecoomb Way in Brighton, The Cam Foundry in Cambridge and the proposed St. Gabriel’s Lodge in Manchester which has recently been granted planning consent.

Kadans Science Partner

Kadans Science Partner is the European leader investing in the development of innovative ecosystems and specialist state of the art real estate with a dedicated focus on the knowledge intensive sector. Kadans has invested across various sectors including agri-tech in Wageningen and cell & gene therapy in Stevenage.

Kadans is currently present on 26 campuses in 7 countries, where it operates over 7.5 million sqft of space for over 450 tenants including start-ups, scale-ups, corporates, government bodies and educational institutes.

1.4 Design Team

The design team is comprised of the following consultants:

Architect & Design Team Lead	Sheppard Robson
Project Manager	Buro4 PSK
Landscape Architect	Re-form Landscape Architecture
Structural Engineer	Civic Engineers HDR
Services Engineer	Cundall Wallace Whittle
Cost Consultant	Abacus Gardiner & Theobald
Planning Consultant	Avison Young
Transport Engineer	Civic Engineers
Sustainability Consultant	Cundall Wallace Whittle
Accessibility Consultant	David Bonnett Associates
Fire Consultant	Cundall
Acoustic Consultant	Cundall
Heritage Consultant	Donald Insall Associates
Principle Designer	RLB Bureau Veritas

2.0 PROJECT BACKGROUND

2.1 Project Context

In September 2019, Deloitte LLP published a Strategic Regeneration Framework Guidance (SRFG) on behalf of Manchester City Council. The document identified a number of sites within Ardwick and the wider Oxford Road Corridor area suitable for redevelopment, and established a series of development principles to guide future development of these sites. Further detail regarding the SRFG and its recommendations can be found in Section 5.0 of this report.

Sheppard Robson were initially approached by McLaren Property in 2020 to review options for the masterplan of the Upper Brook Street site as identified within the SRFG.

Subsequently, in 2022 Sheppard Robson were appointed by McLaren Property and Kadans Science Partners to draw up proposals for the former Citroën garages and former Elizabeth Yarwood Court to the south of the Upper Brook Street site.

These proposals form part of a wider masterplan for the entire Upper Brook Street site. This masterplan has been drawn up collaboratively by the McLaren / Kadans design team alongside a team led by Property Alliance Group / Moda who are developing the remaining plots to the north of the SRFG site. Further detail regarding the wider masterplan can be found in Section 5.0 of this document.

2.2 Project Vision

The project's aspiration is to create a world-class and sustainable development with best in class facilities supporting well-being, inclusivity and diversity of all.

The development is a vital part of the wider Upper Brook Street Masterplan and is envisaged as a strategic link between the neighbouring residential areas of Ardwick to the east and Manchester University to the west. The development will breath new life into a previously forgotten corridor of land, making a positive contribution to the local community of Ardwick, while also contributing to and enhancing the local economy and attracting and retaining the best talent to the city.

The Upper Brook Street Masterplan – McLaren/Kadans of the wider Upper Brook Street Masterplan, to which this planning application refers, is comprised of two separate buildings, Sci-Tech and PBSA, on adjacent plots with surrounding public realm and publicly accessible community uses to the ground floor.

The adjacent images shows an early artist's impression of the Upper Brook Street Masterplan – McLaren/Kadans, as seen from Ardwick. This image is illustrative only and captures the overall design concept and the aspirational quality of the project vision.



2.3 Strategic Context

Site Location

The site sits within The Oxford Road Corridor and has been identified within the Strategic Regeneration Framework Guidance (SRFG) as an area suitable for redevelopment. The SRFG highlights a number of potential opportunities for the site, including employment-generating uses and purpose built student accommodation to support new economic growth and the broader objectives of the Oxford Road Corridor. Further detail on the SRFG and the strategic context of the site can be found in section 5.0 of this report

Sci-Tech

The UK has a well-established backbone of innovation with 4 of the world's top 10 universities contributing to fast growing tech sector. Central to the Government's growth strategy is to make the UK a Science and Technology Superpower and translate the outputs into material benefits to UK. Alongside spheres such as AI, telecoms and semi-conductor manufacturing Life Science plays a key roll.

Sci-Tech is focussed on the research of life and living things such as microbiology, food science, genomics and the manufacturing of pharmaceuticals. Advances in the sector have improved the length and quality of life through progression in diagnostics, treatments and digital health.

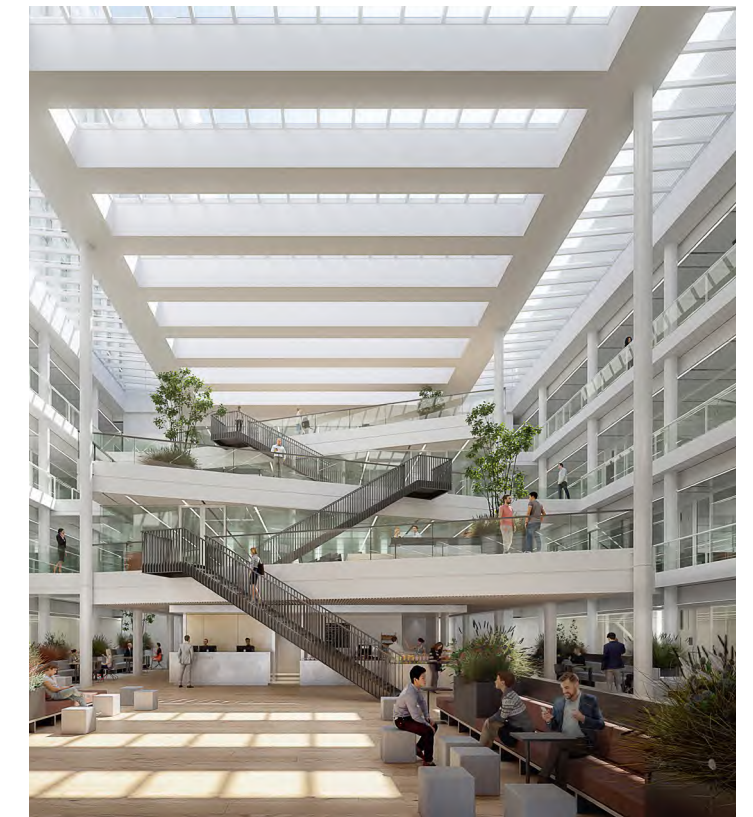
Whilst the landscape of science is ever changing, below are a few examples of life science sectors:

- Genomics is the study of genes and DNA and the impact on growth and development of the body.
- Pharmaceutical companies develop and produce medicines to reduce, prevent and cure diseases and treat conditions.
- Agri-tech aims to improve efficiency in farming through information monitoring and analysis of weather, soil and climate.
- Medical device companies develop and manufacture medical tools and instruments such as sensory aids and patient monitors.

Life science forms part of the scientific landscape including sustainable energy, carbon capture and high-tech semiconductor production. In recent years, awareness of the life science sector has grown through the response to the COVID-19 pandemic through vaccine development and respiratory research.

The Oxford Road Corridor is home to one of the largest academic campuses in Europe, attracting scientists, students and researchers from around the world. The SRFG identifies the Upper Brook Street site as an opportunity for further expansion of educational and research facilities within the science, technology and engineering sectors, in a manner that supports collaboration between academics and industry partners, and facilitates further commercialisation of this world-leading research.

The adjacent images show examples of Sci-Tech spaces currently within the Kadans portfolio.





Purpose Built Student Accommodation

Purpose-built student accommodation (PBSA) is a form of residential accommodation that is specifically designed and built for students who are studying at university or other higher education institutions.

PBSA typically includes a mix of studios and cluster flats with shared kitchen and living areas. They also often include a range of communal amenity spaces which the students are free to use such as study areas, lounges, gyms, laundry facilities and recreation rooms. Additionally, PBSA usually includes all utility bills and will often include services such as concierge, security, maintenance, and cleaning, making it a convenient and hassle-free option for students.

The purpose of PBSA is to provide students with a safe, comfortable, and supportive living environment while they are studying. By living in dedicated student accommodation, students can focus on their academic pursuits and socialise with other students in a community of peers.

In contrast to unmanaged HMOs which are often occupied by students, the proposed accommodation would be managed by experienced professional operators who will be responsible for ensuring the students behave in line with the rules of the buildings and are not disruptive to other residents or the local area. Additionally, PBSA has the benefit of being able to free up local family housing by providing purpose built bed spaces for students in a convenient location.

It is acknowledged that there isn't enough purpose-built and high-quality student accommodation in Manchester to meet the existing and growing needs of the Universities and higher education sector. This has resulted in students either having to live in existing family housing stock within local communities, or having to live elsewhere. The City Council has identified The Oxford Road Corridor, within which the masterplan sits, as the primary location in Manchester for new PBSA to meet the strategic needs of the City as well as helping to deliver significant local benefits to the local Ardwick community.

The adjacent images show examples of PBSA spaces currently within the McLaren portfolio.

Local Community

The redevelopment of the Upper Brook Street site also creates significant opportunities for the local community. Active ground-floor frontages with publicly-accessible uses are identified within the SRFG as being key to the success of the development. The creation of new physical and functional connections, as well as new public realm, will also help to promote vibrancy, activity and an enhanced sense of place for both existing and future communities.

The SRFG aims to put Ardwick and the needs of the local community at the very centre of any redevelopment of the Upper Brook Street site. This has been reflected in both the approach and the processes adopted in the development and preparation of the emerging design proposals.



3.0 PLANNING

This chapter describes the relevant adopted local planning policies as well as national planning policy and other material considerations relevant to the determination of this application.

It identifies a series of Development Plan Documents and other material considerations to be taken into account in the determination of this application. Please refer to the Planning Statement, prepared by Avison Young and submitted as part of this application, which assesses the principle of development against the local and national planning policy framework in greater detail.

3.1 Statutory Development Plan

Section 38 (6) of the Planning and Compulsory Purchase Act 2004 states that decisions should be made in accordance with the Development Plan unless material considerations indicate otherwise.

For the purposes of this application, the Development Plan comprises:

- The Manchester City Council Core Strategy Development Plan Document (2012); and
- The saved policies of the Unitary Development Plan (1995).

According to Manchester City Council's Interactive Planning Policy Map, the site is not allocated for a specific use, however it is identified as being located in Central Manchester (policies EC8 and H5), and the Regional Centre (Policy EC3). While outside of but adjacent to the site, Upper Brook Street is identified as a Major Road/ Rail Environmental Improvement Route (UDP Policy E3.3). The opposite side of Upper Brook Street is identified as being located within the City Centre (policies CC1-CC10).

Key policies within the Development Plan are considered below. Other planning policy documents relevant to the proposal which could be deemed "material considerations" will also be taken into account in this Planning Statement, including any relevant Supplementary Planning Documents (SPDs) and guidance (SPGs).

Core Strategy Development Plan

The Core Strategy was adopted on 11th July 2012 and it is the key document to guide development in the City over the plan period (2012-2027).

The key policies of the Core Strategy, relevant for this application are outlined below:

Policy SP1 (Spatial Principles)

This policy sets out the key spatial principles which will guide the strategic development of Manchester to 2027. It states that Central Manchester will be one of the neighbourhoods which will see the majority of new residential development. New development should maximise the potential of the City's transport infrastructure. Development in all parts of the city should make positive contributions to neighbourhoods of choice, minimise emissions, ensure efficient use of natural resources and reuse previously developed land wherever possible. Additionally, development should improve access to jobs, services, education and open space by being located to reduce the need to travel.

Policy EC1 (Employment and Economic Growth in Manchester)

This policy states a minimum of 200ha of employment land will be delivered between 2010 and 2027 for offices (B1a), research and development (B1b), light industrial (B1c), general industry (B2) and distribution and warehousing (B8).

The policy suggests that 25ha of land should be developed for research and development and industry, with the regional centre being identified as a key location for major employment growth. MCC's priorities for ensuring economic growth include:

- Improving access to jobs for all via public transport, walking and cycling;
- Demonstrating that employment-generating development has fully considered opportunities to provide jobs for local people, through construction or use;
- Improving the portfolio of employment premises, by providing a range of employment sites and premises for small, medium and large businesses;
- Creating business destinations by enhancing the primary business use with ancillary commercial facilities; and,
- Ensuring the continued social, economic and environmental regeneration of the City.

Development proposals should have regard to climate change resilience and ensuring the design makes the best possible use of the site.

Policy EC3 (The Regional Centre)

This policy states, within the Regional Centre development for employment generating uses including offices and other commercial development will be encouraged. Office developments will be appropriate providing that:

- They are in locations which are well connected by sustainable transport to both the City Centre and residential areas, and
- The scale and type of office development does not undermine delivery of employment space within the City Centre.

Proposals for other town centre uses will be assessed in accordance with policies C1 and C9, unless included in an allocation or the uses are ancillary to the main employment use.

Housing will also be an appropriate use within the Regional Centre, although this should complement the development of mixed use employment areas. Subject to site and location details, the Regional Centre will generally be a location where higher density residential development is appropriate.

Policy EC8 (Central Manchester)

This policy states Central Manchester is expected to provide approximately 14ha of employment land. The Corridor (Manchester) is identified as one of the locations where the majority of this employment provision should be provided within. It states, the Corridor is suitable for office, research and development, light industrial, general industrial, education and health. The Council will promote

development which has regard to:

- Ensuring employment within Central Manchester complements those uses within the City Centre;
- Design opportunities offered by the key transport infrastructure such as the arterial roads Princess Parkway, Oxford Road, Stockport Road and Hyde Road;
- Improving public transport, walking and cycling connectivity between residential neighbourhoods and employment locations; and,
- Creating a positive sense of place at the interface of the health and education institutions along Oxford Road and the residential areas, using design and public realm.

Policy H5 (Central Manchester)

Central Manchester, over the lifetime of the Core Strategy, will accommodate around 14% of new residential development. Priority will be given to high value, high quality development.

Policy H12 (Purpose Built Student Accommodation)

The provision of new purpose built student accommodation will be supported where the development satisfied the criteria below:

- Sites should be in close proximity to the University campuses or to a high frequency public transport route;
- High density developments should be sited in locations where this is compatible with existing developments and initiatives, and where retail facilities are within walking distance. Proposals should not lead to an increase in on-street parking in the surrounding area;
- Proposals that can demonstrate a positive regeneration impact in their own right will be given preference over other schemes;
- Proposals should be designed to be safe and secure for their users, and avoid causing an increase in crime in the surrounding area;
- Consideration should be given to the design and layout of the student accommodation and siting of individual uses within the overall development in relation to adjacent neighbouring uses. The aim is to ensure that there is no unacceptable effect on residential amenity in the surrounding area;
- Where appropriate proposals should contribute to the re-use of Listed Buildings and other buildings with a particular heritage value;
- Consideration should be given to provision and management of waste disposal facilities;
- Developers will be required to demonstrate that there is a need for additional student accommodation or that they have entered into a formal agreement with a University, or another provider of higher education, for the supply of all or some of the bed-spaces; and,
- Applicants/developers must demonstrate to the Council that their proposals for purpose built student accommodation are deliverable.

Policy T1 (Sustainable Transport)

To deliver a sustainable, high quality, integrated transport system to encourage a modal shift away from car travel to public transport, cycling and walking, the Council will support proposals that, improve choice by developing alternatives to the car, improve access to transport services and facilities, improve pedestrian routes, improve the cycle network, reduce the negative impacts of road traffic, and account for the needs of road users according to the hierarchy which prioritises pedestrians, disabled people and cyclists.

Policy T2 (Accessible Areas of Opportunity and Need)

The Council will actively manage patterns of development to ensure that new development is located to ensure good access to the City's main economic drivers, and is easily accessible by walking, cycling and public transport; connecting residents to jobs, centres, health, leisure, open space and recreational opportunities. Development should provide car parking facilities in accordance with the Council's car parking standards. Major applications should be supported by proportionate Traffic Impact Assessments and Travel Plans.

Policy EN3 (Heritage)

The Council will encourage development that complements and takes advantage of the distinct historic and heritage features of its districts and neighbourhoods. New developments must be designed so as to support the Council in preserving or, where possible, enhancing the historic environment, the character, setting and accessibility of areas and buildings of acknowledged importance, including conservation areas. Proposals which enable the re-use of heritage assets will be encouraged where they are considered consistent with the significance of the heritage asset.

Policy EN4 (Reducing CO2 Emissions by Enabling Zero and Low Carbon Development)

All development must follow the energy hierarchy, being designed to reduce the need for energy through sustainable design features. New development and refurbishment schemes should use building materials with low embodied carbon.

Policy EN9 (Green Infrastructure)

New development will be expected to maintain existing green infrastructure in terms of its quantity, quality and multiple function.

Policy PA1 (Developer Contributions)

Where needs arise as a result of development, the Council will seek to secure planning obligations. The nature and scale of planning obligations sought will be related to the form of development and its potential impact upon the surrounding area.

Policy DM1 (Development Management)

All development should have regard to the following specific issues:

- Appropriate siting, layout, scale, form, massing, materials and detail;
- Impact on the surrounding areas in terms of the design, scale and appearance;
- Effects on amenity, including privacy, light, noise, vibration, air quality, odours, litter, vermin, birds, road safety and traffic generation;
- Accessibility;
- Safety and crime prevention;
- Adequacy of internal accommodation and external amenity space;
- Refuse storage and collection;
- Vehicular access and car parking;
- Effects relating to biodiversity, landscape, archaeological or built heritage;
- Green Infrastructure including open space, both public and private; and,
- Subject to scheme viability, developers will be required to demonstrate that new development incorporates sustainable construction techniques, new residential developments should meet Code Level 6 of the Code for Sustainable Homes Standards.

Saved UDP Policies

Policy 19.1 (Listed Buildings)

Seeks to preserve and enhance the settings of listed buildings by appropriate control over the design of new development in their vicinity, control over the use of adjacent land, and where appropriate, by the preservation of trees and landscape features.

Policy E3.3 (Environmental Improvement and Protection)

State the Council will upgrade the appearance of the City's major radial and orbital roads and rail routes. This will include improvements to the appearance of adjacent premises; encouraging new development of the highest quality; and ensuring that landscape schemes are designed to minimise litter problems.

3.2 Other Material Considerations

There are a series of other planning policy guidance documents at the national level that are relevant to the determination of this application comprising:

- National Planning Policy Framework ('NPPF') (July 2021);
- National Planning Practice Guidance (March 2014);
- Manchester City Council Green and Blue Infrastructure Strategy (2015), Action Plan (2015) and Implementation Refresh (2021);
- Corridor Manchester Strategic Vision to 2025;
- Oxford Road Corridor Strategic Spatial Framework (2018);
- Oxford Road Corridor Strategic Regeneration Framework Guidance (2019);
- Manchester City Council Report for Resolution- Executive: Purpose Built Student Accommodation in Manchester (May 2023).

National Planning Policy Framework (NPPF) (2021)

The revised NPPF was published in July 2021. The NPPF sets out the Government's planning policies and guidance and how this can be applied. The NPPF is a material consideration in the determination of planning applications.

Achieving Sustainable Development

Central to the NPPF is the presumption in favour of sustainable development and the need for the planning system to support economic growth. Paragraph 11 of the Framework sets out the presumption in favour of sustainable development and the application of the policy for decision making states:

"Plans and decisions should apply a presumption in favour of sustainable development.

For decision-taking this means:

- c) approving development proposals that accord with an up-to-date development plan without delay; or*
- d) where there are no relevant development plan policies, of the policies which are most important for determining the application are out-of-date, granting permission unless:*
 - *the application of policies in this Framework that protect areas or assets of particular importance provides a clear reason for refusing the development proposed; or*
 - *any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole."*

Paragraph 8 of the Framework emphasises that the purpose of the planning system is to contribute to the achievement of sustainable development. Paragraph 8 defines “sustainable development” and highlights the three overarching objectives, which are interdependent and need to be pursued in mutually supportive ways:

“a) an economic objective – to help build a strong, responsive and competitive economy, by ensuring that sufficient land of the right types is available in the right places and at the right time to support growth, innovation and improved productivity; and by identifying and coordinating the provision of infrastructure;

b) a social objective – to support strong, vibrant and healthy communities, by ensuring that a sufficient number and range of homes can be provided to meet the needs of present and future generations; and by fostering a well-designed and safe built environment, with accessible services and open spaces that reflect current and future needs and support communities’ health, social and cultural well-being; and

c) an environmental objective – to contribute to protecting and enhancing our natural, built and historic environment; including making effective use of land, helping to improve biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy.”

Delivering sufficient supply of homes

Chapter 5 of the NPPF relates to delivering a sufficient supply of homes. Within this chapter, paragraph 62 states housing for different groups, including students, should be assessed and reflected in local policy.

Building a strong and competitive economy

Chapter 6 of the NPPF relates to building a strong, competitive economy. This chapter states planning policies and decisions should help create the conditions in which businesses can invest, expand and adapt. Significant weight should be placed on the need to support economic growth and productivity, taking into account both local business needs and wider opportunities for development.

Making effective use of land

Chapter 11 of the NPPF is entitled Making effective use of land. Paragraph 120 of this Chapter states planning decisions should give substantial weight to the value of using suitable brownfield land within settlements for identified needs, and promote and support the development of under-utilised land and buildings, especially if this would help meet identified needs where land supply is constrained and available sites could be used more effectively.

Conserving and enhancing the historic environment

Chapter 16 of the NPPF regards conserving and enhancing the historic environment. Paragraph 194 states that in determining applications local planning authorities should require an applicant to describe the significance of any heritage assets affected, the level of detail should be proportionate to the asset’s importance.

Paragraph 197 states:

“in determining applications, local planning authorities should take account of:

- the desirability of sustaining and enhancing the significance of heritage assets and putting them to viable uses consistent with their conservation;*
- the positive contribution that conservation of heritage assets can make to sustainable communities including their economic vitality; and*
- the desirability of new development making a positive contribution to local character and distinctiveness.”*

Paragraph 206 specifies:

“local planning authorities should look for opportunities for new development within Conservation Areas and World Heritage Sites, and within the setting of heritage assets, to enhance or better reveal their significance. Proposals that preserve those elements of the setting that make a positive contribution to the asset (or which better reveal its significance) should be treated favourably.”

National Planning Practice Guidance (NPPG) (2014)

National Planning Practice Guidance (‘NPPG’) was introduced in March 2014. The NPPG replaced a considerable amount of former guidance comprising Planning Policy Guidance Notes and Planning Policy Statements.

The NPPG provides guidance relating to the ‘Historic Environment’. With regard to decision-making, the NPPG refers to ‘significance’ stating that, in terms of heritage-related planning policy, it is defined in the Glossary of the National Planning Policy Framework as the value of a heritage asset to this and future generations because of its heritage interest. Significance derives not only from a heritage asset’s physical presence, but also from its setting.

With regard to providing an assessment of the impact of proposals on the significance of affected heritage assets, the NPPG emphasises that the level of detail should be proportionate to the asset’s importance and no more than is sufficient to understand the potential impact of the proposal on its significance.

The NPPG emphasises the importance of good design and making effective use of land. It recognises design as an integral part of sustainable development. Good design ‘responds in a practical and creative way to the function and identity of a place’. With regards to supportive more effective uses of land,

the NPPG provides guidance on what tools and evidence should be used in the determination of applications.

Manchester Green and Blue Infrastructure Strategy and Action Plan (2015) and Implementation Plan Refresh (2021)

The Manchester Green and Blue Infrastructure Strategy and Action Plan aims to build on investment to date and create a high quality, well maintained green and blue spaces which are integral part of neighbourhoods. The objectives of the Strategy include using appropriate infrastructure to create successful neighbourhoods and support the city's growth.

The strategy sets out that urban green spaces, including private gardens, pocket parks, street trees, verges, green roofs and green walls are all considered to be green infrastructure. These types of infrastructure plan an important role as part of Manchester's overall resource.

The Oxford Road Corridor is included within the City Centre character area of the Strategy and Action Plan. The Strategy recognises the city centre has a relatively low level of green and blue infrastructure provision, which makes enhancing appropriate provision particularly important.

The Implementation Plan Refresh identifies improving access and connectivity for people and wildlife as key consideration along the Oxford Road Corridor.

Corridor Manchester Strategic Vision to 2025

Corridor Manchester is a strategically important economic contributor and a key growth area within the city. The Corridor Manchester Strategic Spatial Framework is a long term spatial plan for the Corridor which recognises that there is an inadequate pipeline of space for businesses and institutions within the Corridor to properly grow and realise its potential. This is evidently a constraint to the realisation of the Corridor Manchester vision.

The Framework seeks to strengthen the Corridor as a place to live, visit and work for students and knowledge workers from across the world. The strategy recognises that for the area to continue to be successful there needs to be a focus on the development of a cohesive, inclusive area. The development programme plans to deliver over 4 million sq ft of high quality commercial, leisure, retail, and residential space.

Corridor Manchester already contains one of the largest higher-education campuses in the UK with nearly 70,000 students studying at the University of Manchester (UoM), Manchester Metropolitan University (MMU) and the Northern College of Music. These educational institutions are world renowned and Manchester is recognised as a destination of choice for students across the globe. Both the UoM and MMU have put in place growth plans. This includes the UoM's £1 billion capital investment programme to deliver the 'world class estate' needed to support its 2020 vision to be one of the leading universities in the world by 2020. MMU has a ten year Estates Strategy with strategic investment proposals of c£300m.

This concentration of students is a key part of the success of the Corridor. It underpins and supports the research activities of the educational institutions, whilst the large population living, working

and spending time in the Corridor give the area its vibrancy and contribute significantly to its large economic output. However, Manchester is operating in a highly competitive higher education market. The City must continue to look to enhance the student experience if it is to maintain its position on the world stage and realise its growth aspirations for the Corridor. As at present, the future success of Manchester as a student destination will, in part, underpin the realisation of the Council's aspirations for Corridor Manchester. This requires continued investment in the infrastructure which supports the student population and ensures the student experience remains world renowned. This requires investment in educational facilities but also extends to transport infrastructure, retail and leisure facilities and, critically, high quality and accessible residential accommodation. Consideration must be given to the whole student experience.

Oxford Road Corridor Strategic Spatial Framework (2018)

The site is located within the boundary of the Oxford Road Corridor Strategic Spatial Framework (SSF), which was adopted by Manchester City Council in March 2018. The Framework intends to support the strategic themes and objectives for the Corridor and guide decision making on planning applications.

The Framework recognises the need to accommodate further student accommodation; however, states that this should continue to be controlled in line with the City Council's Core Strategy Policy H12 and led by institutional partners with the wider city regeneration objectives in mind. It should be in line with evidenced demand and be in locations that are within a reasonable walking distance to the heart of the universities. This will include an upgrade of existing stock that is reaching the end of its life as well as additional provision. New student accommodation must incorporate a range of price points and be of a quality in terms of product management and pastoral care that will safeguard the student experience, particularly for first year and overseas students.

Oxford Road Corridor Strategic Regeneration Framework Guidance (2019)

A summary of this document, particularly with relation to the Upper Brook Street Illustrative Masterplan is included within Section 5.0 of this document and within Chapter 3 of the Planning Statement, prepared by Avison Young and submitted as part of this application.

Manchester City Council Report for Resolution- Executive: Purpose Built Student Accommodation Manchester (May 2023).

A summary of this document is included within Chapter 3 of the Planning Statement, prepared by Avison Young and submitted as part of this application.

3.3 Pre-application Process

A comprehensive approach to pre-application engagement has been undertaken as part of the design process. This has included consultation with Manchester City Council Planning Officers, local councillors, statutory bodies and the local community.

Pre-application Meetings

A number of pre-application meetings were held with MCC Planning Officers in 2022 and 2023. These meetings allowed the design team to present emerging proposals and gain valuable feedback to help ensure the final design is appropriate to its context and reflects the aspirations and expectations of both the community and the City.

Details of these meetings and items discussed are outlined below:

Pre-application Meeting 01 - November 2022

- Site / SRFG response
- Initial massing studies
- Precedent examples for design quality
- Public realm / landscape principles

Pre-application Meeting 02 - December 2022

- Community opportunities
- Developed massing studies – *in response to MCC advice to focus mass on UBS*
- Facade / materiality concepts
- Public realm strategy

Pre-application Meeting 03 - February 2023

- Integration with wider UBS masterplan
- Developed massing studies – *in response to emerging masterplan proposals*
- Initial facade design options
- Developed public realm / landscape proposals

Pre-application Meeting 04 - April 2023

- Integration with wider UBS masterplan
- Developed elevational proposals
- Detailed facade design & materiality
- Detailed public realm / landscape proposals

Highways & Transport for Greater Manchester

The design team have consulted with officers from Manchester City Council Highways and Transport for Greater Manchester to outline the access and transport strategies for the proposed development. One principal outcome of this consultation was a direction from MCC / TfGM to ensure no vehicular access to the site from Upper Brook Street and provide all access from Kincardine to the north.

Full details of the Highways and Transport consultation can be found in the Transport Assessment report, prepared by Civic Engineers and submitted as part of this application.

Historic England

The design team have consulted with Historic England to outlined the proposed development and discuss any potential implications on existing heritage assets, particularly the Grade II* listed former Chapel on Upper Brook Street. No concerns or adverse comments were raised during this consultation, and more detail can be found within the Heritage and Townscape Assessment, prepared by Donald Insall Associates and submitted as part of this application.

Public Consultation

Two in person public consultation event were held in March 2023 and May 2023 for the wider Upper Brook Street Masterplan. The events were held within the local community and was open to the public to gain feedback from local residents and community groups regarding the proposals.

The events were well attended by approximately 70 people at each consultation and there was a high level of engagement between the community and members of the project team. They were both supported online by a dedicated consultation website where people could leave feedback and a leaflet drop to local properties to inform residents and business owners about the proposed application and the different ways to give feedback.

Further detail around the process and outcomes of the public consultation can be found within the Statement of Community Involvement and the Planning Statement, prepared by Avison Young and submitted as part of this application.

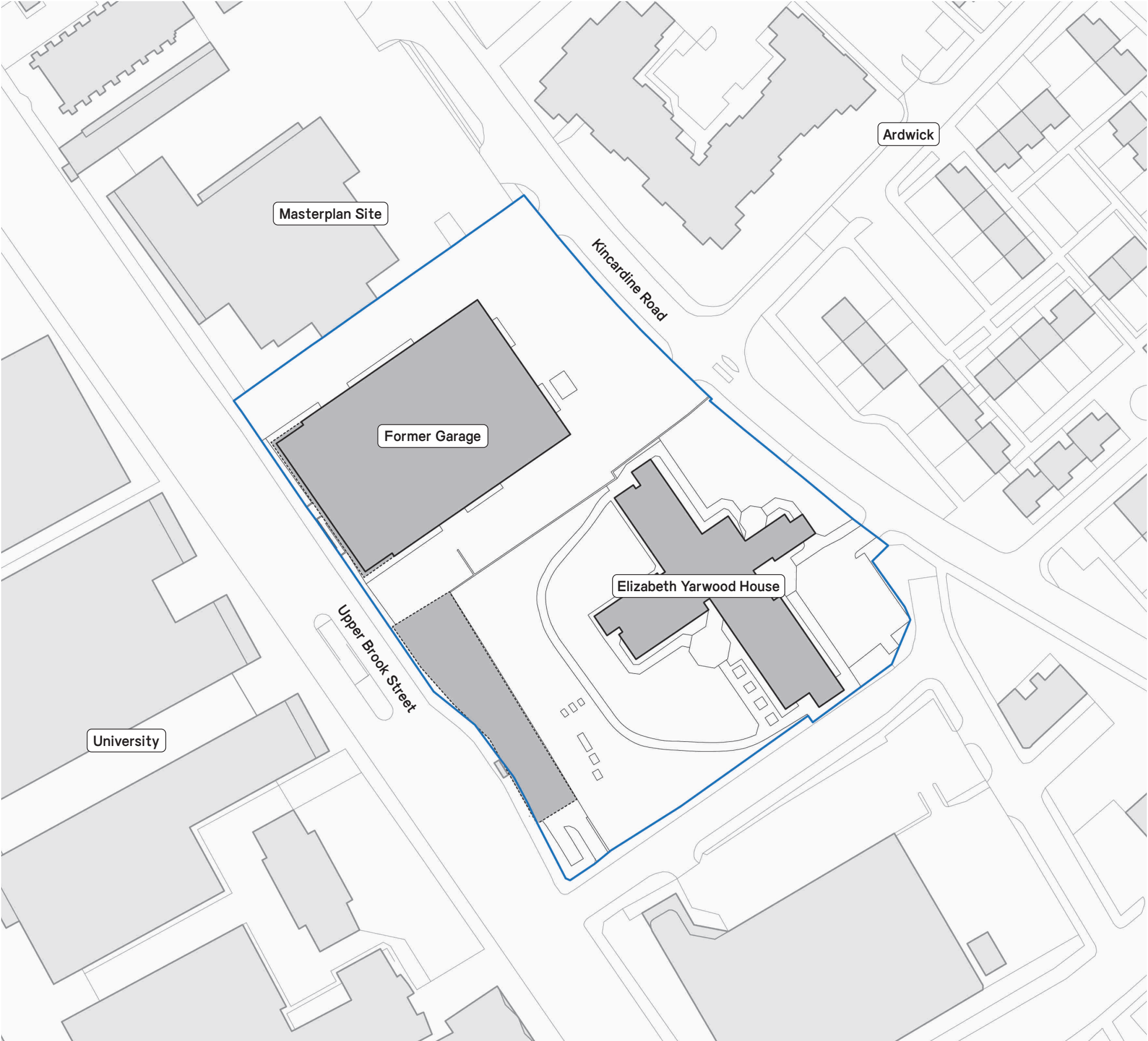
3.4 Planning Boundary

Ownership Boundary

The adjacent diagram show the extent of the applicant’s ownership.

Legend

— Ownership Boundary





Application Boundary

The adjacent diagram show the extent of the application boundary as submitted for this planning application. The diagram also highlights the areas of land outside of the applicant's ownership which are proposed for upgrade as part of the development.

Legend

- Application Boundary
- Land outside of Applicant's Ownership

4.0 THE SITE

4.1 Site Location

City Context

The Upper Brook Street site is located directly to the south east of the city centre. It sits just outside of the Mancunian Way and forms part of the western edge of Ardwick where it meets the University

The site is approximately 30 minutes walk from the City Centre (Piccadilly Gardens) and has good public transport links with Piccadilly Station and Oxford Road Station both circa 15 minutes walk. The site is also served by numerous bus services on both Upper Brook Street and Oxford Road to the west





Local Context

The application site is bounded by Upper Brook Street to the west, Kincardine Road to the east and Cottenham Street to the south. It sits directly between two distinct neighbourhoods, with the University to the west and Ardwick to the east

The application site is part of a wider emerging masterplan, with proposed development plots to the north. Further detail regarding the masterplan and the adjacent development plots can be found in Section 5.0 of this document.

4.2 Existing Site

Existing Uses

The site is currently split into two distinct halves with two very different uses. The northern half of the site is occupied by an old car showroom and garage. These buildings have been vacant for a number of years and are visually detrimental to the overall appearance of the surrounding area. The hard standing around the garage is currently being used for surface car parking, accessed from Kincardine Road.

The southern part of the site is occupied by the former Elizabeth Yarwood Court, a two storey red brick building set within landscaped gardens. Previously used as sheltered housing, the building ceased to be operational in June 2021 with the services being transferred to the recently opened Brunswick Village Extra Care.





Access and Movement

The site is directly adjacent on Upper Brook Street, a primary arterial and bus route into the city centre from the south east, connecting both Ardwick and the University to the Mancunian Way ring road.

To the east of the site, Kincardine Road is an important part of the vehicular network of Ardwick, connecting the various residential streets and providing vital access to the limited number of east-west routes through the area. The southern end of Kincardine Road is currently one way, restricting access onto Brunswick Street while the northern end connects onto Grosvenor Street which is currently one way in the direction towards Upper Brook street.

Pedestrian and cycle access around the site is currently good, with Kincardine Road and Gartside Gardens offering quieter and safer alternatives to Upper Brook Street. However, pedestrian and cycle connections across the site and the wider masterplan area are currently very limited and do not provide strong east-west links between Ardwick and the University.

Legend

- Pedestrian & Cycle Access
- Mancunian Way
- Primary Vehicle Access
- Secondary Vehicle Access
- - One way Vehicle Access
- Bus Stop

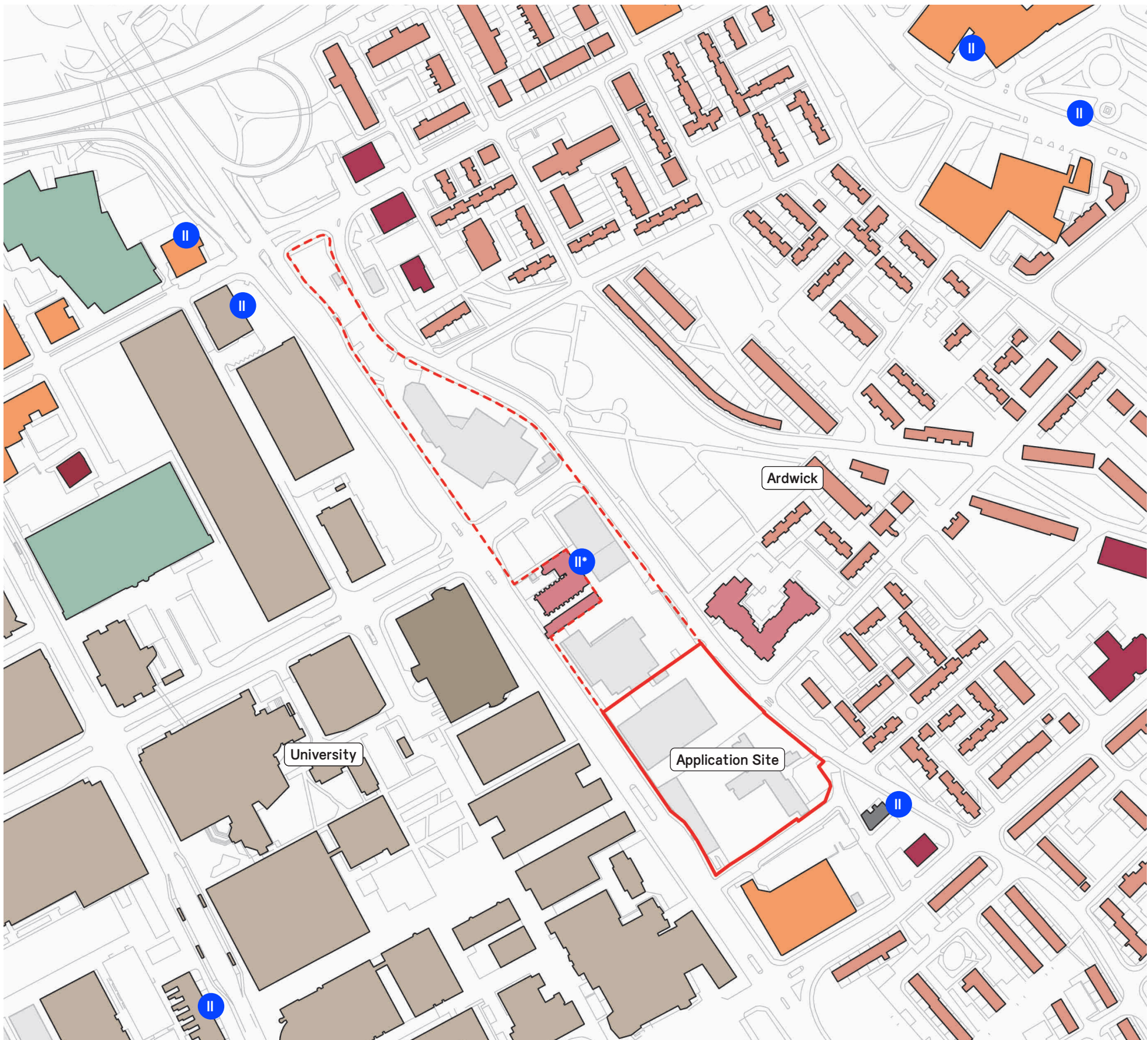
Surrounding Building Use

There are a range of different uses surrounding the proposed site. To the west is primarily residential, while the buildings to the east are predominantly for academic use.

There are currently two listed buildings adjacent to the site. The former Unitarian Chapel on Upper Brook Street is Grade II* listed and is currently used as student accommodation having been restored in 2018. The chapel sits within the context of, but is not included within, the overall masterplan for the Upper Brook Street site. To the south of the site is the Grade II listed former Mawson Hotel public house which is currently vacant.

Legend

- Community
- Residential
- Student Residential
- Commercial
- Academic
- Car Park (multi-storey)
- Sports / Leisure
- Vacant
- Grade II* Listed
- Grade II Listed





Building Height

There are a range of different building heights around the proposed site. The residential buildings to the west are primarily low density buildings of circa 2 - 3 storeys, with some taller residential units and tower-blocks.

In contrast, the academic buildings to the east are of much larger in both scale and height, with a more urban nature to their grain and massing.

4.3 Site Character

The site sits at the boundary of two distinct areas, each with very different characteristics.

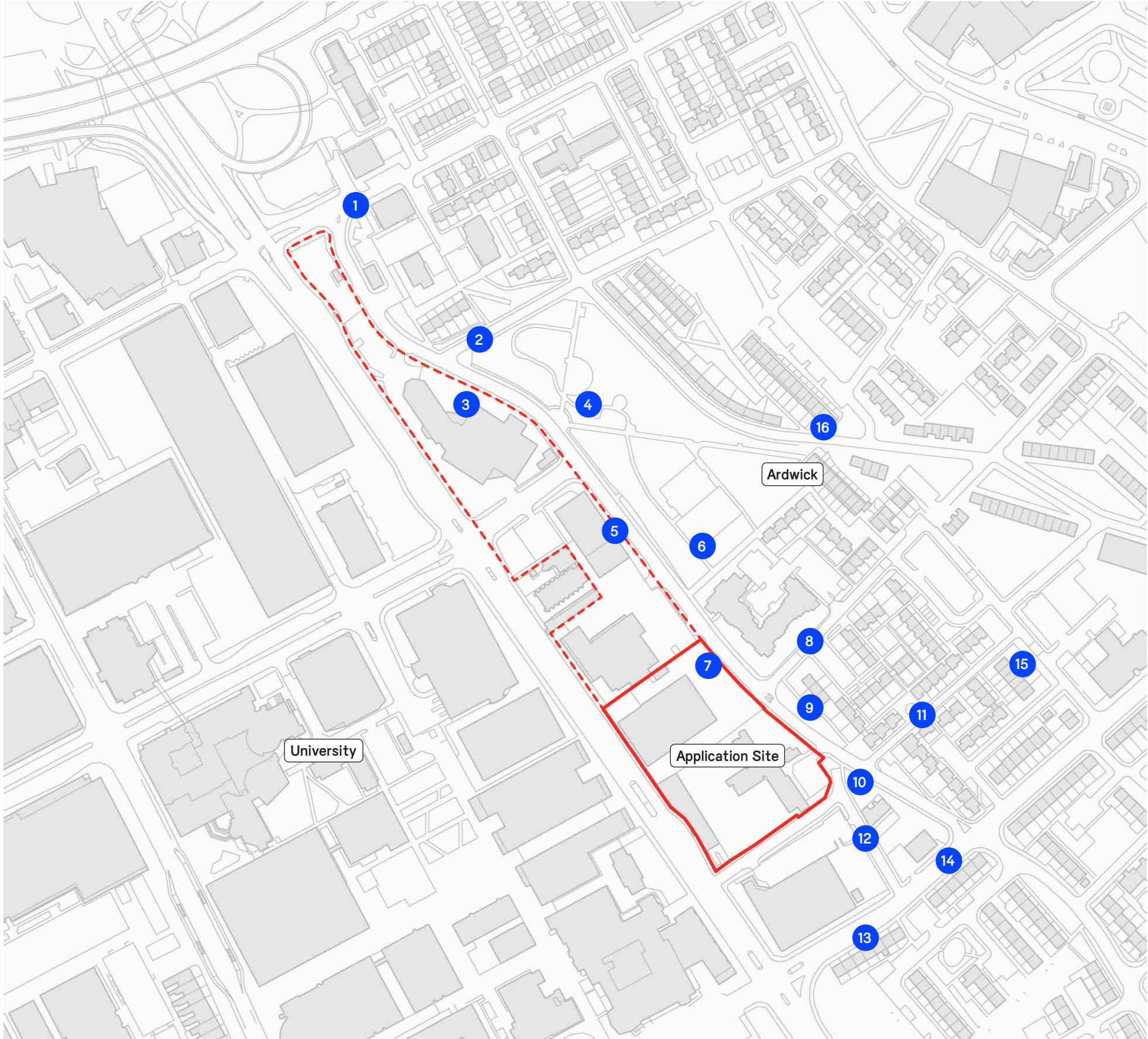
Kincardine Road and Ardwick

The character of Ardwick, to the east of the site, is very different in both appearance and scale. The predominantly residential area is characterised by low-density, low-rise buildings interspersed with areas of open and green space.

The whole area has recently been redeveloped as part of a major PFI project with significant investment into both residential housing stock and public realm.

The architectural character is relatively consistent across the area, with red brick the predominant choice of material.

Along the eastern side of Kincardine Road, the disused garages and vacant plots which make up the wider masterplan site are of similar scale to the surrounding residences but create a hard and unwelcoming edge to the whole area.



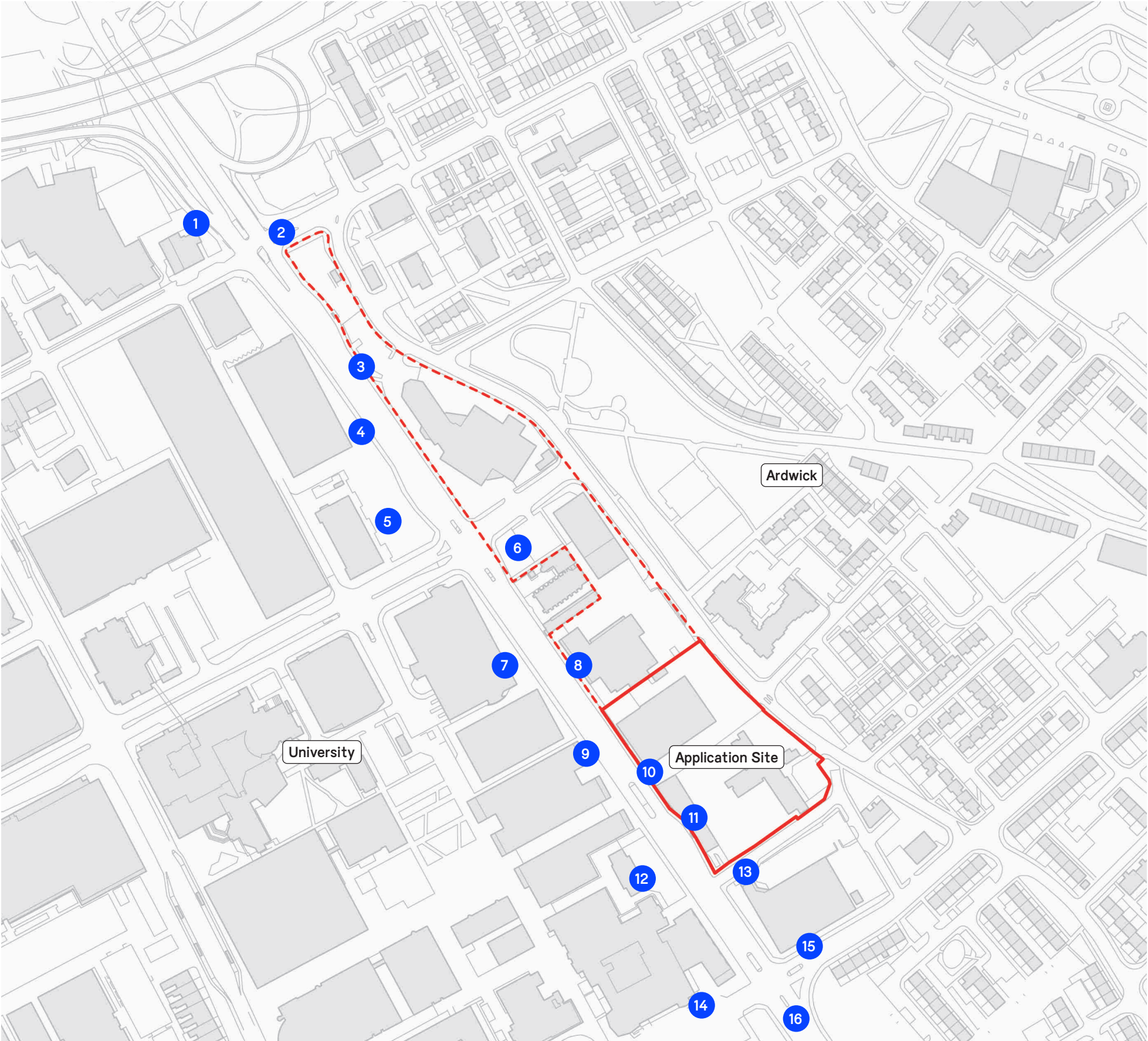


Upper Brook Street and The University

The area directly to the west of the site is dominated by Upper Brook Street, a primary vehicular route into the city centre from the south east. Upper Brook Street also acts as the eastern boundary of the University and its character along this eastern side of the road is heavily influenced by the grand architecture and scale of the institution.

The architecture exhibits a range of styles and materiality, often responding to the nature of the academic uses of individual buildings.

Along the western side of Upper Brook Street, the disused garages and vacant plots which make up the wider masterplan site are of smaller scale but create a barrier, both visually and physically, to the community of Ardwick beyond.





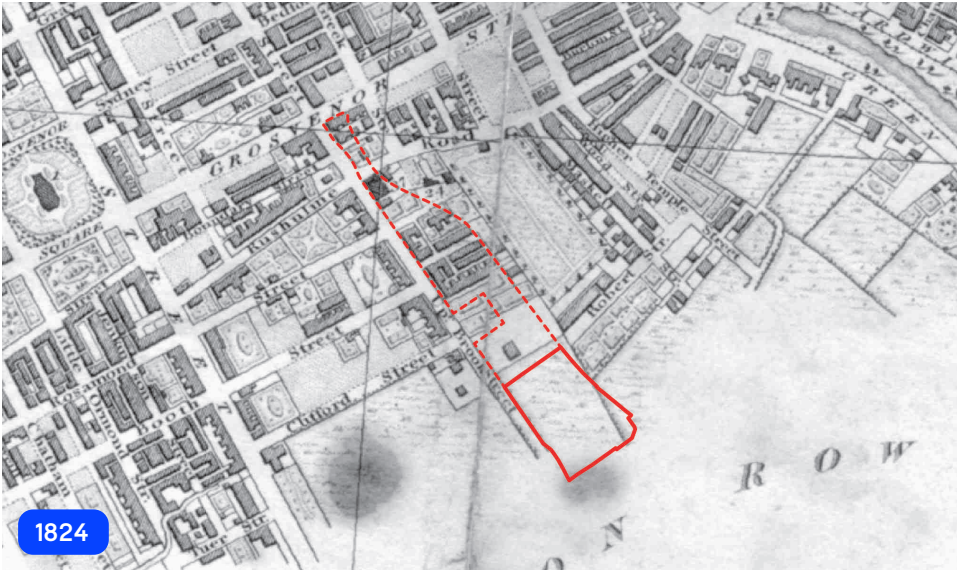
4.4 Site History

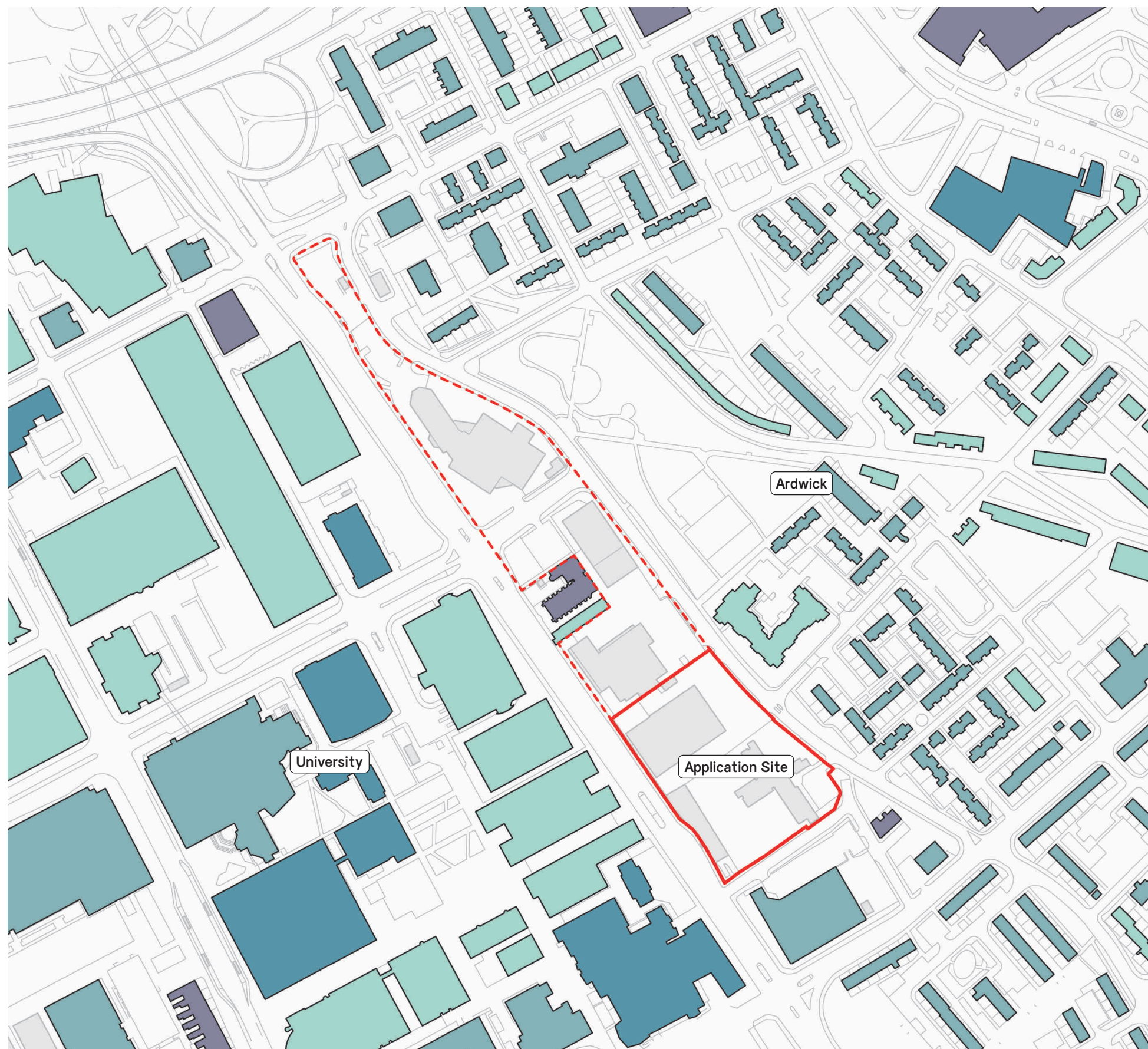
The adjacent images show how the Upper Brook Street site has developed over time. At the start of the 19th Century, the site formed the southern boundary of the city centre.

As Manchester grew during the later half of the 19th Century the site was quickly developed, accommodating streets of terraced housing with a tight urban grain.

Historically there were two roads running east-west across the site - Robert Street at the top of the site and Thorburn Street through the centre of the site. Neither of these streets still exist, however the proposed redevelopment offers opportunities for these connections to be re-established.

Rusholme Road Cemetery was located to the north of the site, from 1821 until 1933 when it was closed and replaced with Gartside Gardens.





Building Age

Whilst the site has historically been developed since the mid to late 19th Century, both the site and the surrounding area have been subject to significant redevelopment and regeneration over the years. As such, the majority of the buildings surrounding the site, both at the University and within Ardwick, are relatively modern and predominantly date from the 1970s and later.

Legend

- Pre 1950
- 1950 - 1970
- 1970 - 1990
- Post 1990

4.5 Site Appraisal

The site offers a number of significant opportunities to create a design proposal which fulfils both the SRFG and the development vision, whilst responding to the surrounding context and offering much more to the local communities.

The northern half of the site is occupied by a former car showroom surrounded by hard standing. The southern part of the site is occupied by the former Elizabeth Yarwood Court, a residential building set within landscaped grounds with a number of semi-mature trees. The site is relatively flat at circa 39m AOD, with a small area of mounding creating a high-point towards the south of the site.

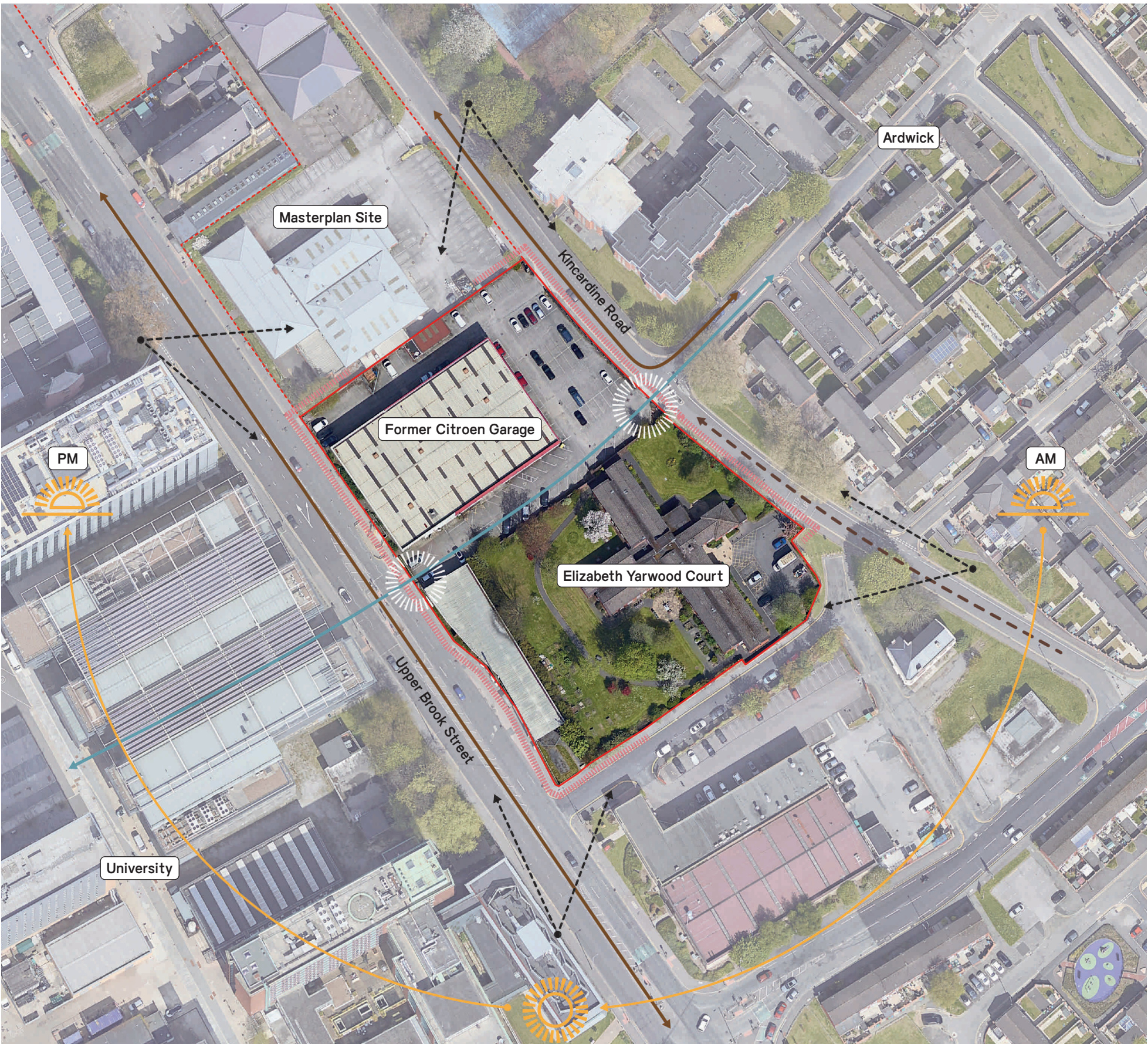
Connections

The site has strong frontages onto both Upper Brook Street and Kincardine Road, with prominent views across the site from various approaches. Although the site does not currently offer a formal link between the two roads, there is an opportunity to create a strong connection by opening up a new pedestrian route running east west through the site. This route is identified within the SRFG as a key public amenity.

Constraints

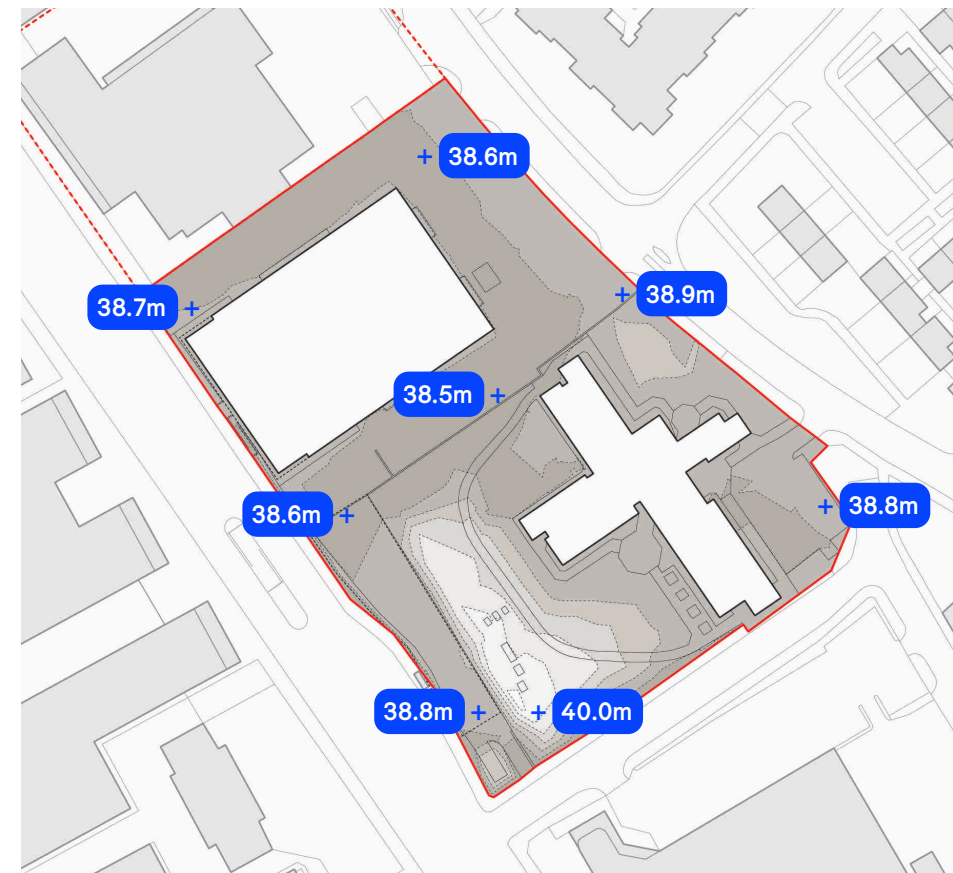
The SRFG also identifies the need for a 3m offset from the back of pavement along Upper Brook Street, pulling the building line back to create a more generous footpath. A 6m offset has been allowed to the east, along the boundary with the adjacent masterplan, in order to ensure adequate space is provided between developments. There is currently an existing sewer underneath the north of the site with an associated easement.

- Legend
- Pedestrian Access
 - ||||| Street Frontage
 - - - Visibility
 - Vehicle Access
 - - - One way Vehicle Access





- Legend**
- Pedestrian Access
 - Pedestrian Access (Informal)
 - Vehicle Access
 - One way Vehicle Access
 - Bus Stop



- Legend**
- High Point
 - Low Point
 - Spot Height (AOD)



- Legend**
- Hard-standing (Tarmac)
 - Paving
 - Grass
 - Vegetation / Planting
 - Trees



- Legend**
- 15m Pedestrian Route (SRFG)
 - 3m Building Offset (SRFG)
 - 6m Offset from adjacent plot
 - Existing Sewer
 - Telecommunications Masts

5.0 MASTERPLAN

5.1 Strategic Regeneration Framework

The Oxford Road Corridor

The Oxford Road Corridor covers an area of 243-hectares running south from St Peter's Square, where it overlaps with the core of Manchester's Central Business District, to Whitworth Park along Oxford Road. The area is home to an exceptional group of knowledge intensive organisations, businesses and individuals within one of Europe's fastest growing cities.

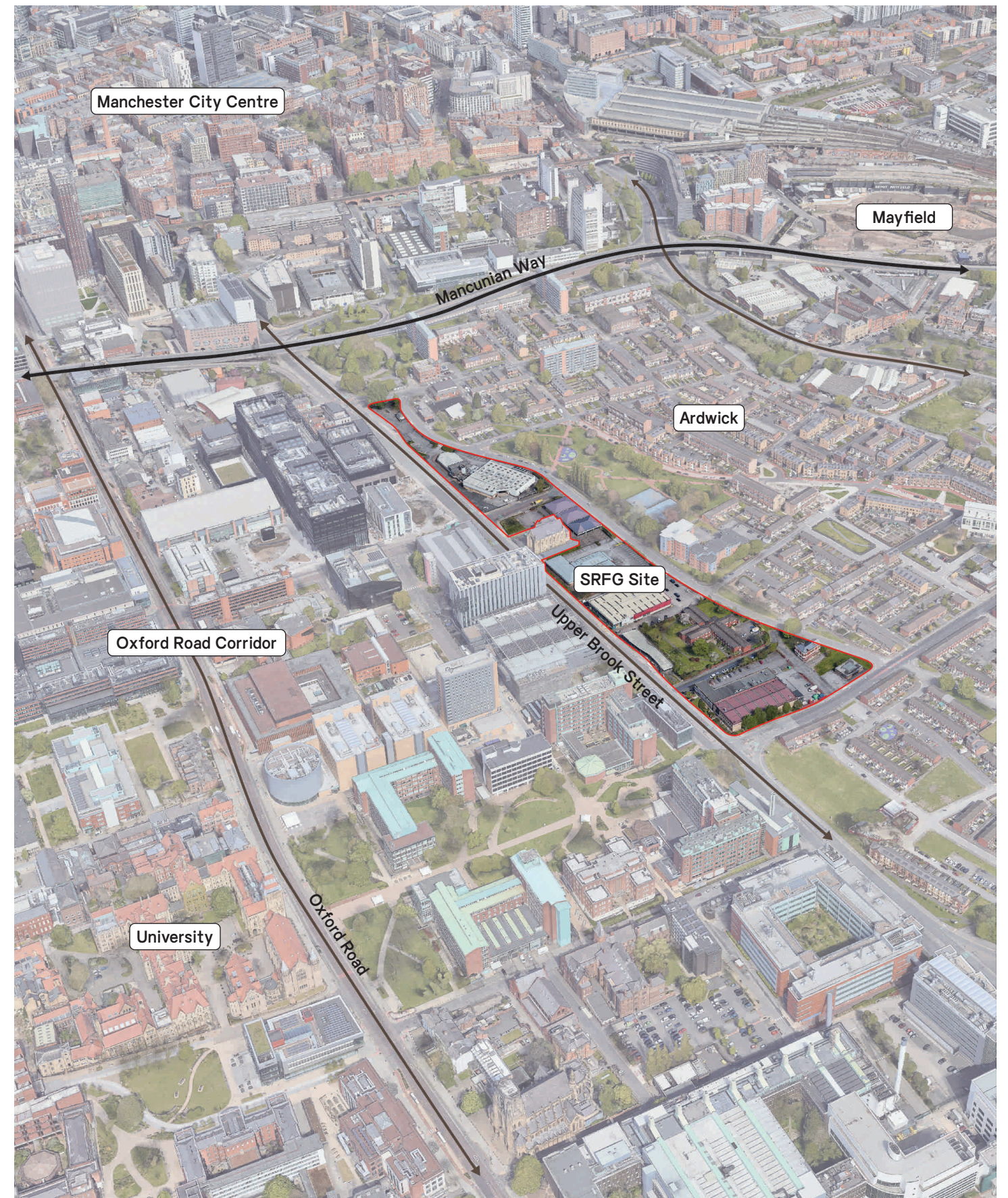
In 2007, the Corridor Partnership was established in order to help facilitate new public and private sector investment to generate further economic growth in the knowledge economy. The current vision and plan for the area is set out in the Oxford Road Corridor's Strategic Vision to 2025, which is for the area to be:

"Manchester's cosmopolitan hub and world-class innovation district, where talented people from the city and across the world learn, create, work, socialise, live and do business; contributing to the economic and social dynamism of one of Europe's leading cities."

A number of landmark developments within The Oxford Road Corridor have already been delivered, including the First Street and Circle Square Masterplans.

In September 2019, Deloitte LLP published a Strategic Regeneration Framework Guidance (SRFG) on behalf of Manchester City Council. The document identified a number further sites within The Oxford Road Corridor area suitable for redevelopment including the land along Upper Brook Street, adjacent to Ardwick.

The SRFG seeks to encourage development and facilitate growth within The Oxford Road Corridor, whilst fostering improved connectivity, opportunity and benefits for surrounding communities; including employment opportunities, culture, leisure, transport, healthcare and sports' facilities.





Upper Brook Street

The Upper Brook Street (UBS) site lies on the western edge of the Brunswick estate, within the Ardwick Ward. It is bounded by Kincardine Road, Upper Brook Street, Grosvenor Street, and Cottenham Street. The site sits adjacent to, but does not include, the listed former Unitarian Chapel and Gartside Gardens.

Historically this site has contained rows of terraced housing, however, in more recent years has been the home to a series of car showrooms for Williams and Citroen, as well as the former Elizabeth Yarwood House. These more recent uses fronted Upper Brook Street and created a physical and visual barrier between the Brunswick Community, the Universities, and other local communities.

The site is identified within the SRFG as being a ‘Future Development Opportunity’ with scope for increased density with commercial and residential uses. The SRFG seeks to establish a series of development principles to help guide how this future development will come forward. These include:

- A transformational opportunity for development
- An opportunity to create new and enhanced connections between existing communities
- Improving permeability for pedestrians and cyclists
- Identifying opportunities for community uses and active ground floor uses
- Creating new public open space and landscaping
- Desire to accommodate new commercial buildings to support economic growth in the City
- An opportunity for new residential or student accommodation uses
- High quality design of new buildings and public realm
- A potential location for taller buildings at specifically defined “landmark opportunities”

5.2 Development Principles

Illustrative SRFG Masterplan

As part of the SRFG, an illustrative Masterplan was prepared to highlight the development principles and demonstrate how they could be delivered.

However, it should be noted that the SRFG acknowledges that this Masterplan would need to be subject to further development and change over time as individual opportunities and proposals for the site are brought forward.

Development Plots

The illustrative Masterplan split the UBS site into a number of individual development plots based upon physical and ownership boundaries. These plots are identified within the SRFG as being suitable for commercial use, or a combination of commercial and residential uses.

Connectivity and Permeability

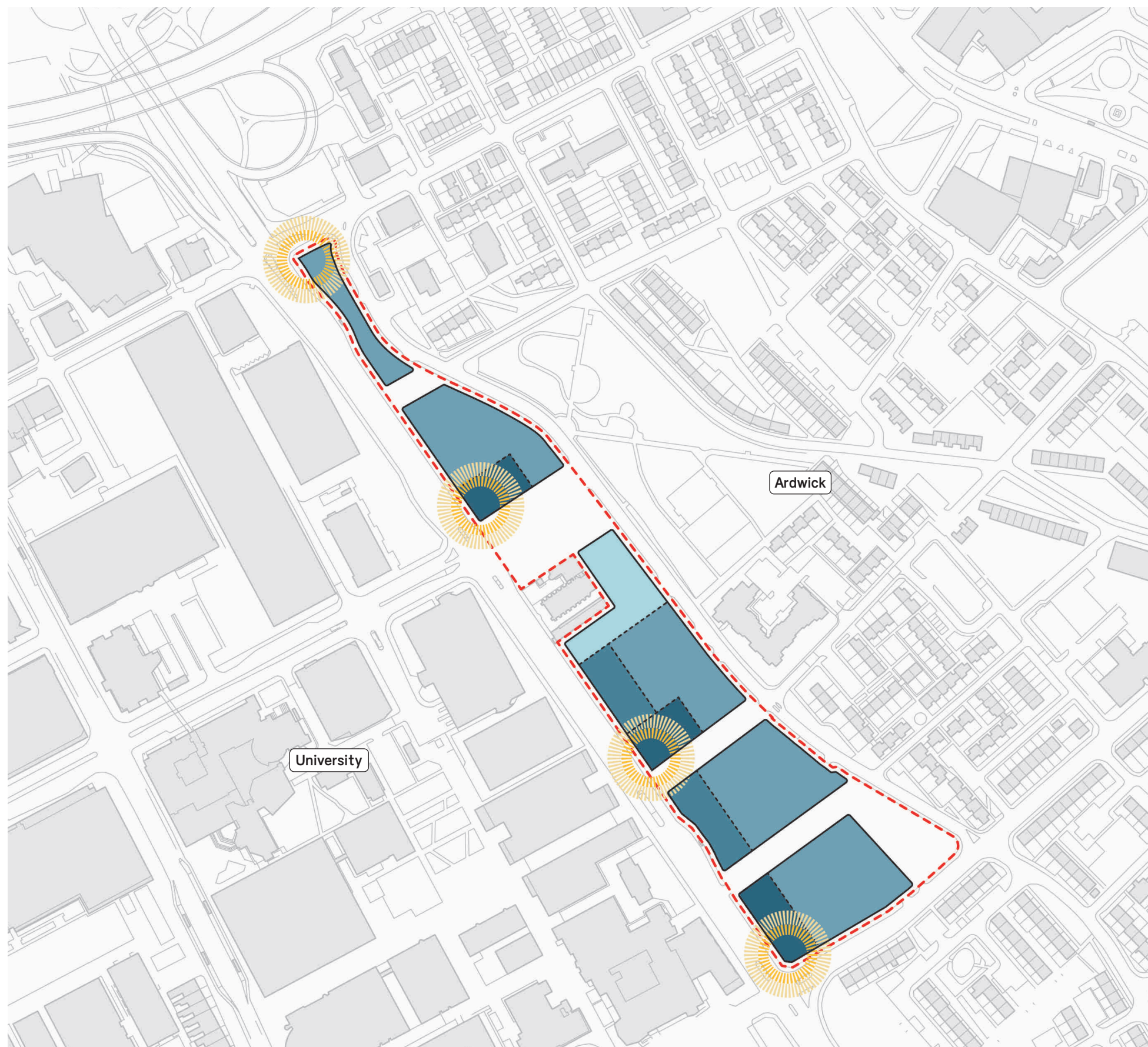
Both Ardwick and the University of Manchester have extensive networks of routes and links, allowing good pedestrian permeability. However, the current site creates a barrier between these two communities and negatively impacts on their integration.

The SRFG seeks to break down these barriers and create a series of new east to west pedestrian routes through the site, integrating the proposed buildings into the surrounding neighbourhoods and wider communities.

Legend

-  Development Plot
-  Public Space
-  SRFG Plot Reference
-  Route





Public Realm and Landscape

The overall character of UBS site is currently poor, with a lack of a defined urban grid and a prevalence of underutilised sites that do not contribute positively towards the local townscape. The local area benefits from a number of green spaces. The site itself is located directly next to Gartside Gardens, but currently offers no relationship to the park, nor does it enable good connectivity between green spaces.

The SRFG promotes the creation of new and enhanced public realm and green space as part of a wider place-making strategy to ensure that employees, visitors and local residents have access to a wide range of external spaces and recreational opportunities. The SRFG also seeks to provide a network of new, high-quality public realm and green spaces which contribute to the local green network and promote between links between existing green spaces within the Brunswick Community and the University.

Massing

The UBS site acts as an interface between two communities with distinctly different scales and density of building massing. The large and relatively tall University buildings to the west of the site are in stark contrast to the domestic scale of the low-rise residential buildings within Ardwick to the east.

The SRFG seeks to address these differences and deliver an appropriate scale of massing which responds to both communities and successfully integrates into its surrounding. It states that scale and height should step down towards the eastern edge of the UBS site to respond to the scale of the neighbouring Ardwick area. It also identifies locations and opportunities for additional height to be used to create landmark buildings within the streetscape.

Legend

- 4 Storeys (Commercial) / 6 Storeys (Residential)
- 6 Storeys (Commercial) / 9 Storeys (Residential)
- 8 Storeys (Commercial) / 12 Storeys (Residential)
- 10 Storeys (Commercial) / 15 Storeys (Residential)
- Opportunity for Landmark / Tall Building

5.3 Proposed Masterplan

This application forms part of a wider Masterplan currently being developed for the UBS site.

These wider proposals are being brought forward collaboratively by several landowners, developers, and operators who have jointly developed a comprehensive response to the SRFG principles to create a community-focused Masterplan that respects the site’s key location within both the Ardwick community and the Oxford Road Corridor.

The Masterplan seeks to transform the currently vacant sites along Upper Brook Street; re-establishing their importance in the area by re-introducing permeability, public realm, and active community-facing uses at ground floor.

The emerging Masterplan includes almost 3 acres of new public realm and green spaces, a new public square, as well as a series of high-quality new buildings of varying heights to provide accommodation for Sci-Tech operators and Purpose Built Student Accommodation (PBSA).

An illustrative artist’s impression of the proposed ground floor of the Masterplan can be seen on the adjacent page.

5.4 Masterplan Team

The Masterplan has been collaboratively designed and coordinated by the following development teams:

Development Team - Upper Brook Street Masterplan - McLaren/Kadans

Developer	McLaren Property
	Kadans Science Partner
Architect	Sheppard Robson
Landscape Architect	Re-form Landscape Architecture
Planning Consultant	Avison Young

Development Team - Upper Brook Street Masterplan - PAG/Moda

Developer	Property Alliance Group (PAG)
	Moda Living
Architect	Hawkins/Brown
	Simpson Haugh
Landscape Architect	Re-form Landscape Architecture
Planning Consultant	Avison Young



Artist's impression of the proposed ground floor and public realm across the wider Masterplan

5.5 Masterplan Principles

Building Typology

The Masterplan proposes a number of buildings to be constructed as part of the redevelopment. These buildings will provide a range of purpose-built student accommodation (PBSA) alongside laboratory and office space for Sci-Tech.

Publicly accessible facilities will be located on the ground floor of each building, creating an active public realm and providing a range of community-facing uses.

The Upper Brook Street Masterplan – McLaren/Kadans, to which this application relates, includes the two proposed buildings to the south of the wider Upper Brook Street Masterplan (Buildings 1 & 2). These buildings will be delivered by Kadans and McLaren Property. The remaining five buildings to the north of the site will form the Upper Brook Street Masterplan – PAG/Moda and will be delivered by Property Alliance Group and Moda Living under a separate planning application.

Community Facilities

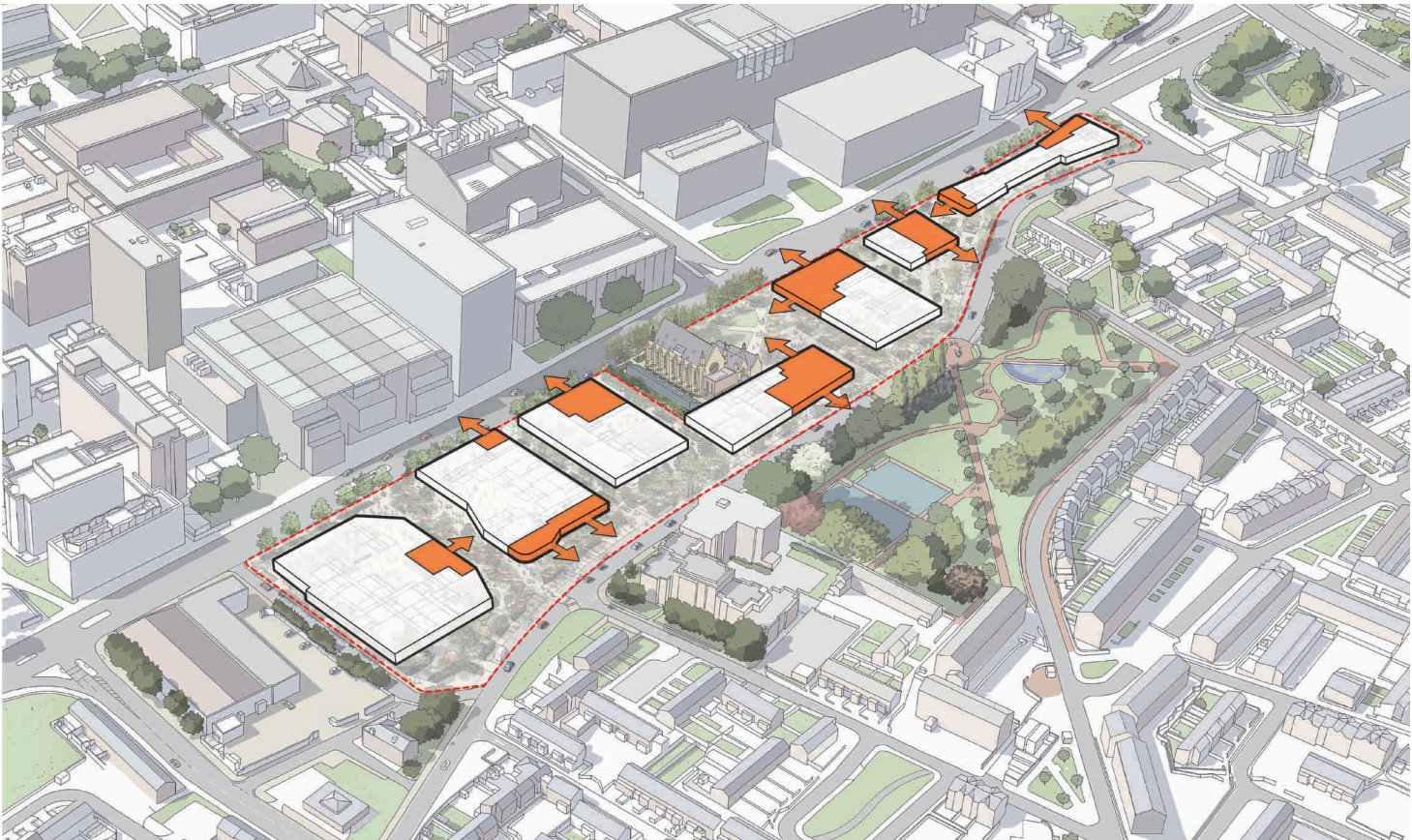
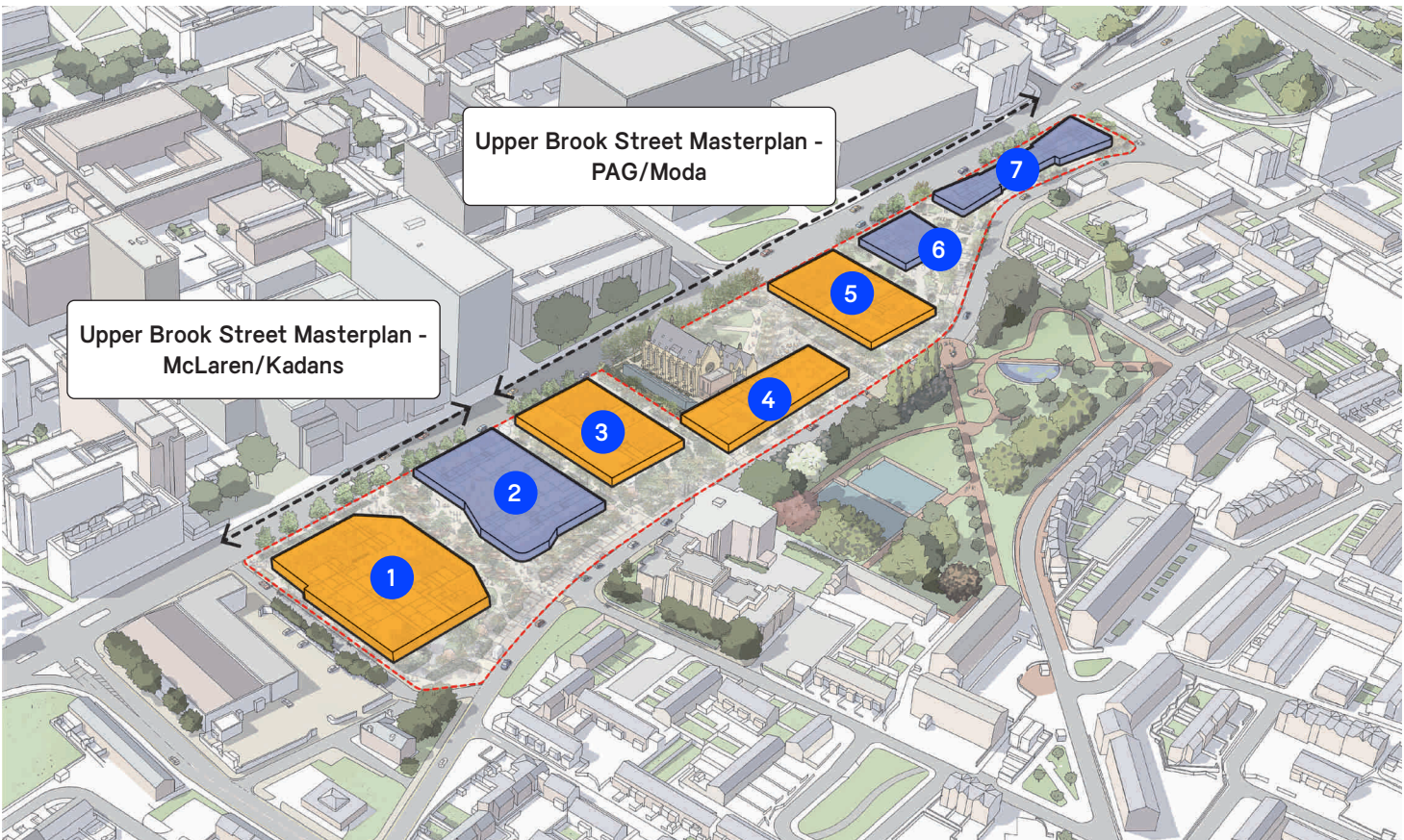
The emerging Masterplan proposals have the potential to provide significant benefits for the local area and the wider City Region, including job creation, social value, and a desire to provide facilities and spaces that will genuinely benefit the local community.

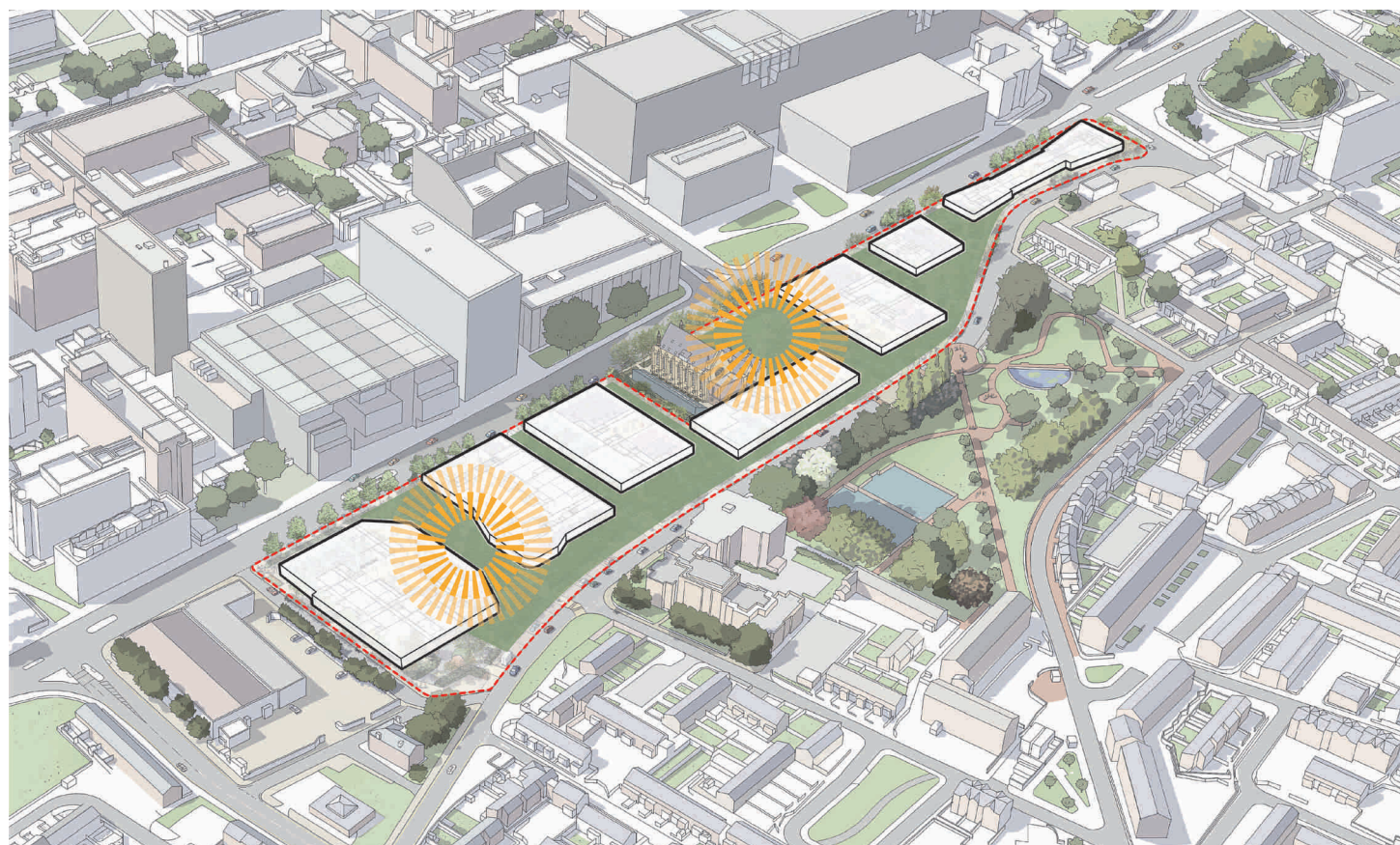
There are significant opportunities for new and accessible community-facing facilities, shops, and cafés at ground floor.

The proposed allocation and use of these spaces has been developed in consultation with the local community to ensure the Masterplan makes a positive contribution to local residents and the wider Ardwick area.

The proposed community facilities across the masterplan include:

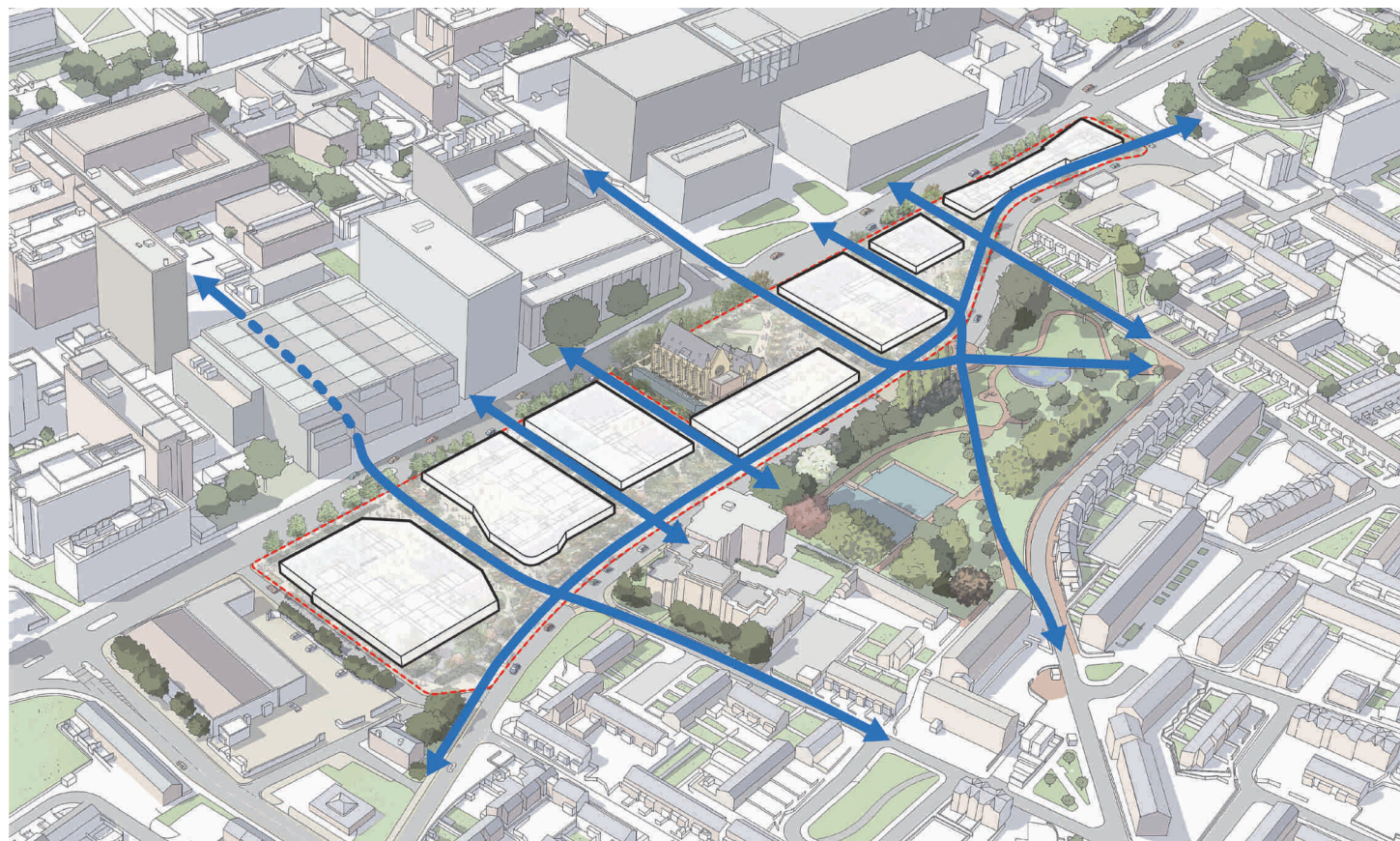
- Cafe
- Retail
- Medical Facility
- Community Centre
- Significant public realm





Legend

- Landscape & External Space
- Key Public Realm



Legend

- Pedestrian & Cycle Connections

Landscape and Public Realm

The Masterplan will deliver almost 3 acres of new public open space with a strong focus on creating natural green environments between the proposed buildings. The outdoor spaces are fully accessible to all and are intended for use by the local community, residents and visitors. The current proposals include a new public square, adjacent to the listed former chapel, and new linear park opposite Whitekirk Close.

As part of the proposals, Kincardine Road will be improved to provide a more attractive route for walking and cycling and will be lined with new planting and trees.

Access and Connectivity

The emerging Masterplan proposals seek to create a series of new pedestrian and cycle routes running east west across the site, from Kincardine Road to Upper Brook Street.

These new routes will connect into existing footpaths and established cycle routes to help integrate the proposed buildings into the wider neighbourhood and improve connectivity and movement for the whole community.

5.6 Masterplan Proposals

Buildings 1 - 2 (Upper Brook Street Masterplan - McLaren/Kadans)

The current application, to which this document relates, includes the two buildings to the south of the site which form the Upper Brook Street Masterplan - McLaren/Kadans of the wider Masterplan and will be delivered by Kadans and McLaren Property.

The building proposed at the southern end of the Masterplan contains laboratory and ancillary office space for science and tech, along with a publicly accessible café to the ground floor. Adjacent to this, the second building contains high-quality, purpose-built student accommodation with approximately 737 beds and supporting amenity spaces for the students and facilities for use by the wider community.

Externally, a new area of high-quality public realm creates a linear park between the two buildings, providing a pedestrian route across the site to Upper Brook Street. The proposed buildings are set-back from Kincardine Road to create a new pocket-park facing the Brunswick Community. Alongside the public realm and landscape improvements, publicly accessible uses are proposed at the ground floor of both buildings. The buildings are 6-8 storeys on Kincardine Road, with the student accommodation stepping up to 23 storeys on Upper Brook Street.



Artist's impression of Buildings 1 & 2 from Ardwick (Kincardine Road / Whitekirk Close)



Artist's impression of Buildings 3, 4 & 5 and the new public square from Upper Brook Street



Artist's impression of Buildings 6 & 7 from Ardwick (Kincardine Raod / Hanworth Close)

Buildings 3 - 5 (Upper Brook Street Masterplan - PAG/Moda)

The three Sci-Tech buildings at the heart of the Masterplan will centre around a new public square that seeks to extend the adjacent park into the site and improve the setting of the former Unitarian Chapel to Upper Brook Street.

At ground floor level there is the opportunity for a range of publicly accessible uses to be displaced across the three buildings. These spaces will provide frontage onto the new square, towards Gartside Gardens, and onto Upper Brook Street. At upper floor levels, the scheme will provide space for office and laboratory uses. The Sci-Tech spaces will include a wide range of space types, allowing for smaller units to accommodate start-up businesses.

The buildings are proposed to be 12, 10, and 8 storeys in height. External terraces are provided to all buildings, providing shared amenity for tenants to encourage collaboration and well-being.

Buildings 3 - 5 are not included within this planning application, and are shown for illustrative purposes only.

Buildings 6 - 7 (Upper Brook Street Masterplan - PAG/Moda)

At the northern end of the Masterplan, three buildings containing high-quality, purpose-built student accommodation are proposed. The buildings accommodate 1100 beds, with supporting amenity spaces for the students.

Externally, generous planted areas are proposed and help to improve links from Ardwick across the site to Upper Brook Street and beyond, along with the creation of a communal space at the end of Hanworth Close. Alongside the public realm and landscape improvements, publicly accessible uses are proposed at the ground floor of the buildings.

The buildings step in height to terminate in an elegant taller form at the north of Upper Brook Street, with the student accommodation buildings standing at 13, 15 and 42 storeys.

Buildings 6 - 7 are not included within this planning application, and are shown for illustrative purposes only.

Landscape & Public Realm

The public realm will offer a variety of places to enjoy being outside and with others. It will be set amongst an abundance of trees, planting and green spaces that encourage walking, cycling and dwelling.

Streets and spaces will include natural features that encourage play, exploration and physical activity. These will be integrated into the landscape and form an important part of its character.

The landscape will work as a whole system that is climate resilient and will benefit nature. It will capture surface water by slowing and absorbing it and will provide shade and shelter.

Kincardine Road

There is an opportunity to create a diverse, green route along the length of Kincardine Road improving the streetscape character and linking better with the surrounding Ardwick neighbourhood. The route aims to include new street trees, naturalistic planting, informal play elements and a variety of seating spaces for all users.

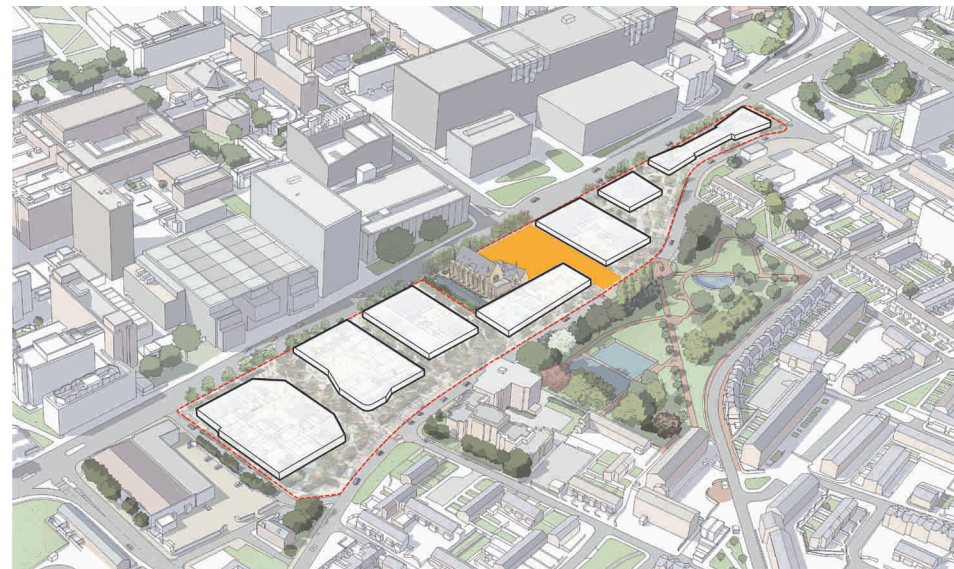
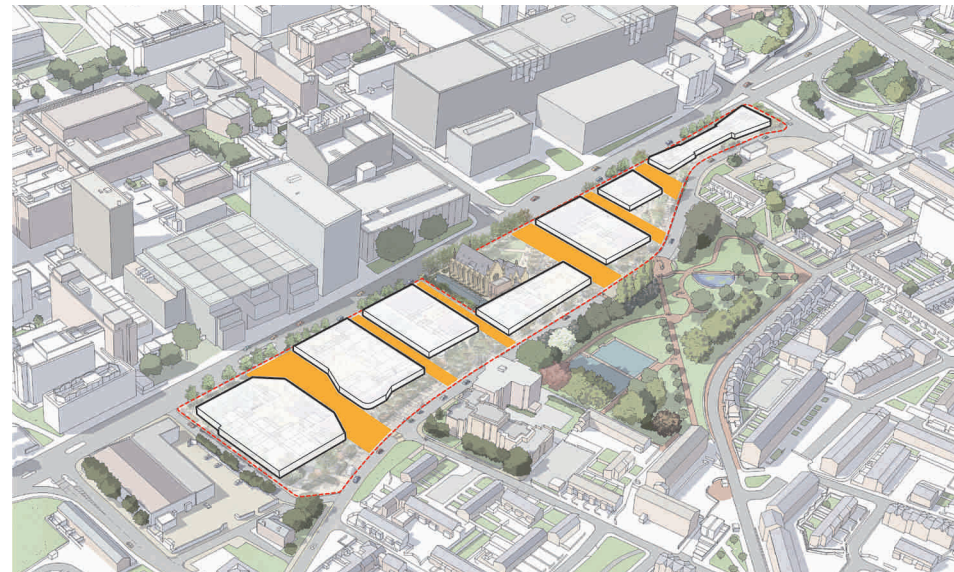
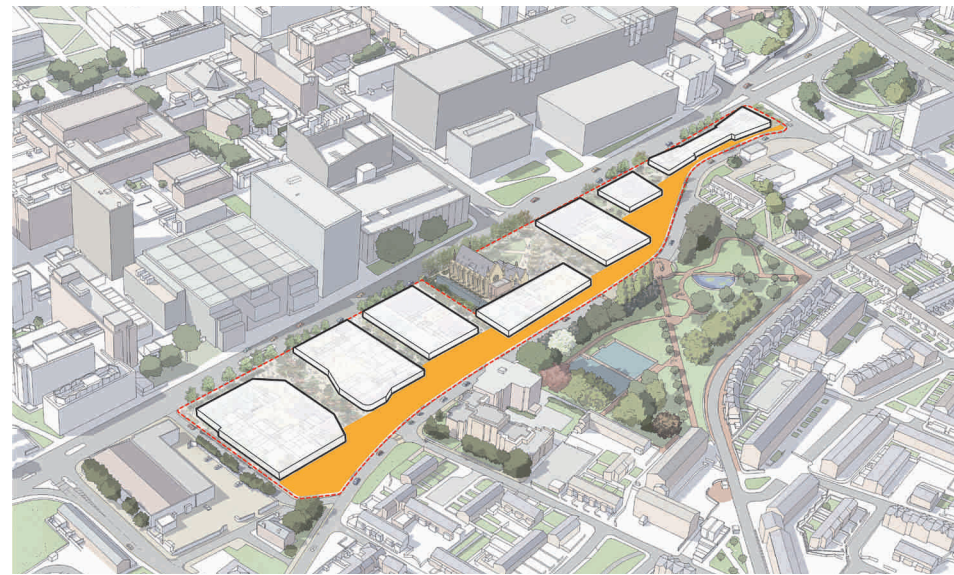
The Walks

The Walks will provide an attractive and safe environment for walking and cycling, whilst creating new links across Ardwick. These spaces will be a continuation of Kincardine Road and have a distinctive leafy character, featuring a series of places that will encourage use and interaction. The Walks will also support ground floor uses with areas for spill out directly relating to the community.

The Square

As part of the wider masterplan proposals, options are currently being explored by the PAG / Moda development team around the potential closure of Inchley Road. This would create the opportunity for a significant new space at the heart of the development. Active frontages and community uses around the edges of the Square will allow spill out into the space, creating a vibrant and active place. Open lawns, planting, flexible areas of hard standing and street trees will be included and will create a much improved setting for the listed Chapel.

The potential closure of Inchley Road forms part of the adjacent development proposals for the Masterplan and as such does not form any part of the planning application to which this document relates.





Artist's impression of the proposed massing across the wider Masterplan





6.0 PROPOSED DEVELOPMENT

6.1 Use

The proposed development consists of two separate buildings set within a new, high quality public realm. The proposed development seeks to create an active ground floor, with publicly accessible spaces to encourage integration with the surrounding community.

Building 1 - Sci-Tech

The proposed building provides approximately 215,000ft² of combined laboratory and office space alongside support / ancillary accommodation. A central atrium rises up through the floor plates, housing informal breakout spaces and meeting rooms at each level, with forum seating at ground floor. The building also includes a publicly accessible café at ground floor, accessed from the public realm. Further detail on the design and development of the proposed Building 1 can be found in Section 7.0 of this document.

Building 2 - Purpose Built Student Accommodation (PBSA)

The proposed building provides 737 student bedrooms (288 studios and 449 cluster bedrooms arranged in a variety of cluster sizes), student amenities, management suite and supporting ancillary areas. The proposed PBSA scheme is arranged in two parallel building blocks, linked on the ground floor to form spaces for indoor and outdoor student amenities. The building also includes a commercial retail unit and community centre to the ground floor, both accessed from the public realm. Further detail on the design and development of the Building 2 can be found in Section 8.0 of this document.

Public Realm

The proposed development also provides a significant amount of new public realm, designed as an extension to the existing public realm within Ardwick. The new public spaces aim to be welcoming and accessible to all, including a new east-west route connecting Ardwick with the University and the communities beyond. The route will provide an attractive and safe environment for walking and cycling, whilst providing opportunities for seating and external amenity space to support ground floor uses within both buildings. It has provisionally been referred to as Thorburn Walk in recognition of Thorburn Street which previously bisected the site. Further detail on the design and development of the proposed public realm and landscape can be found in Section 9.0 of this document.

6.2 Amount

The proposed development is comprised of the following:

Building	Gross Internal Area (GIA)
Building 1 (Sci-Tech)	20,038m ² (215,687 ft ²)
Building 2 (PBSA)	25,388m ² (273,274 ft ²)
Total	45,426m ² (488,961 ft ²)

Further detail regarding the quantum of development, including commercial / community use can be found in the detailed schedules of accommodation in Section 7.0 and Section 8.0 of this report.

Legend

- Office
- Cluster Bedroom
- Studio
- Reception / Amenity
- Management Suite
- Community
- Cycle Storage
- Plant / Back of House





6.3 Scale

SRFG Principles

The adjacent images capture the principles of height and massing as suggested within the SRFG, including potential opportunities for the location of landmark / tall buildings. These can be summarised as:

Plot B:

- 8 storeys (Commercial) to Upper Brook Street
- 6 storeys (Commercial) to Kincardine Road

Plot C:

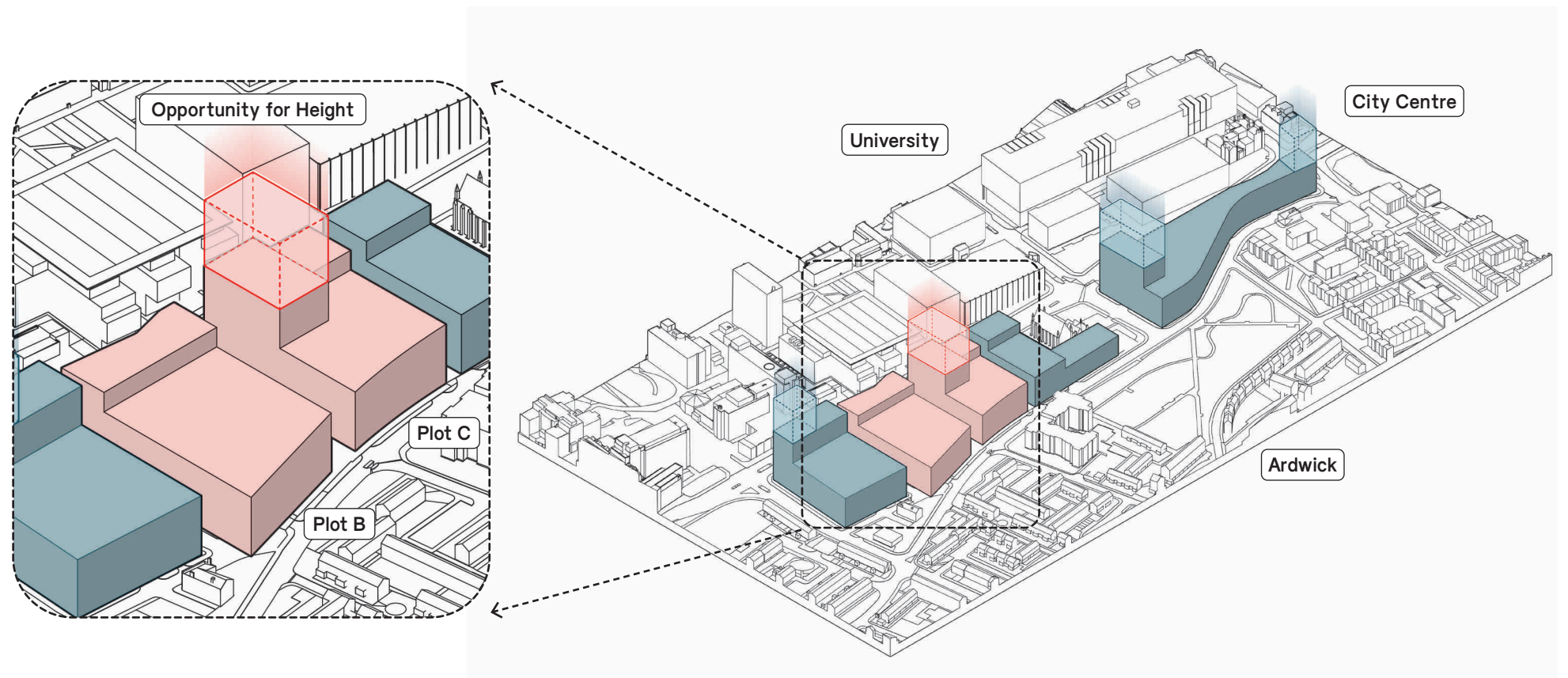
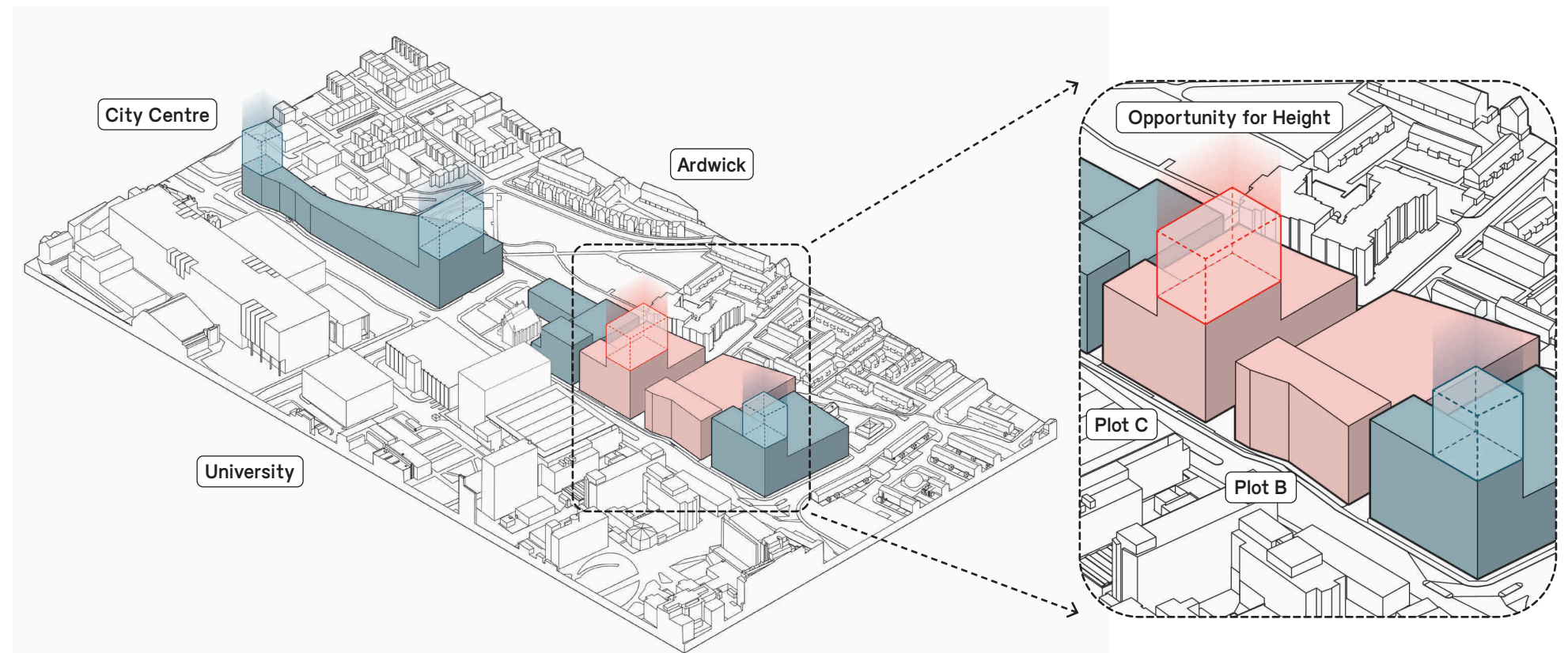
- Opportunity for tall / landmark building to Upper Brook Street
- 12-15 storeys (Residential) to Upper Brook Street
- 9 storeys (Residential) to Kincardine Road

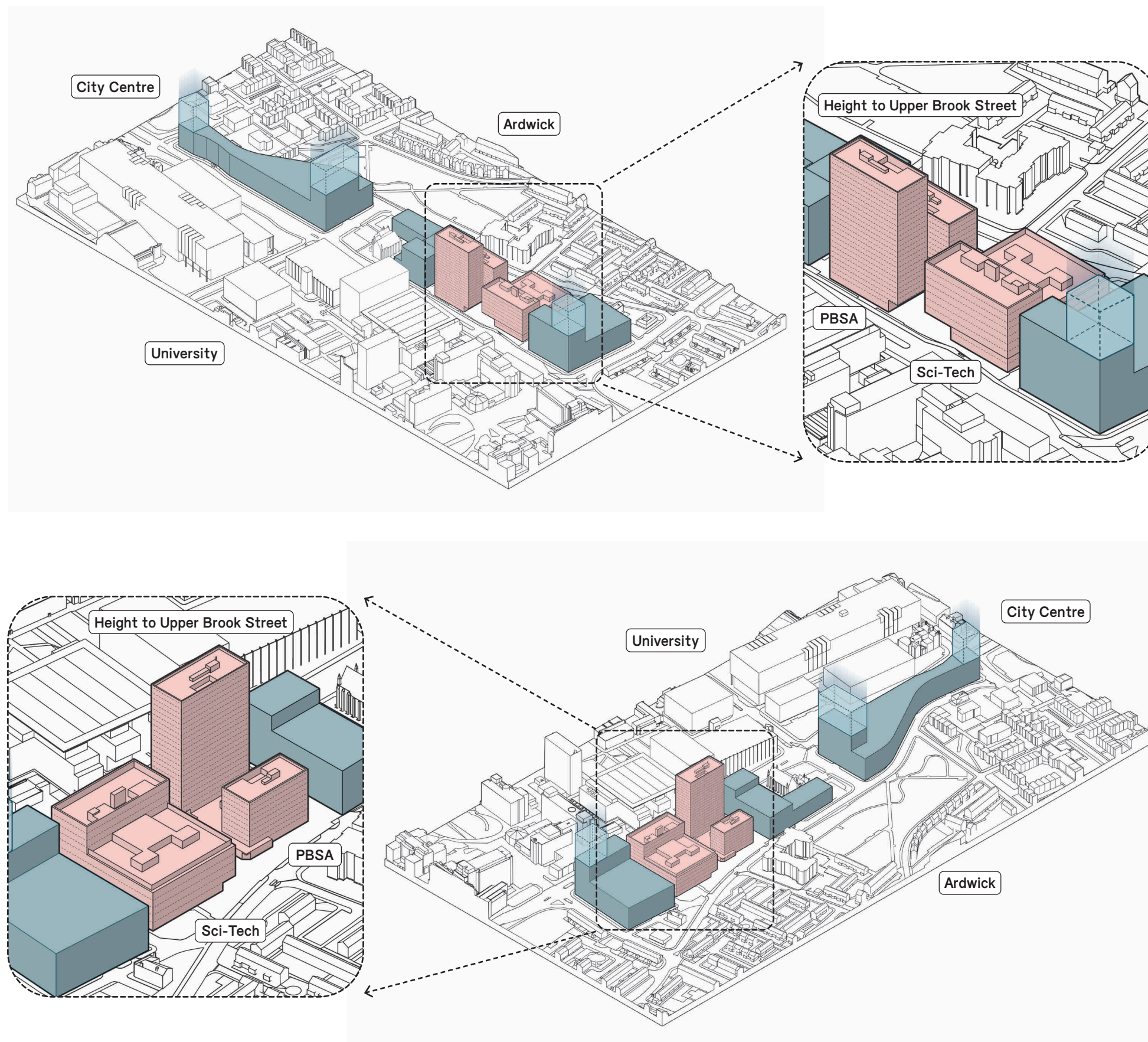
The above heights are based upon circa 4.5m for a commercial storey and circa 3.0m residential storey. These parameters reflect the SRFG principles and, whilst only illustrative, capture Manchester City Council's aspirations for scale and massing across the Upper Brook Street site.

Design Development

During the design process, the design team used a range of tools – both digital and physical – to explore the scale of development and test a range of different massing options.

This exploratory stage helped to ensure that the proposed development is appropriate in terms of scale, form and massing. It allowed the design team to develop proposals which respond to both the existing and the proposed context, while making a positive contribution to the streetscape of the surrounding area.





Proposed Massing

The proposed development seeks to address the significant variation in scale across the site.

For both buildings, the proposed height and mass have been focused towards Upper Brook Street at the west of the site, where the adjacent University buildings are of a comparative scale. This has allowed the proposed building mass along Kincardine Road at the east of the site to be reduced, with both building heights responding to the scale of the adjacent residential neighbourhood in line with the principles of the SRFG.

Furthermore, the concentration of mass to Upper Brook Street has allowed the overall footprint of both buildings to be set back significantly from the eastern boundary of the site. This additional space provides opportunities for new public realm along Kincardine Road and creates an improved transition between the scale of the proposed buildings and the residential properties to the east.

The massing of the Sci-Tech building is articulated with a simple step in the building height, with a low level 6 storey block to Kincardine Road, stepping up to 9 commercial storeys at Upper Brook Street. This proposed massing follows the SRFG principles for Plot B, as outlines on the previous page.

The massing of the proposed PBSA is split into two simple blocks sat over a plinth of accommodation. The block facing Kincardine Road has 9 residential storeys. The block facing Upper Brook Street has 23 residential storeys, focusing the mass and height of the building to the location identified within the SRFG as an opportunity for a tall / landmark building.

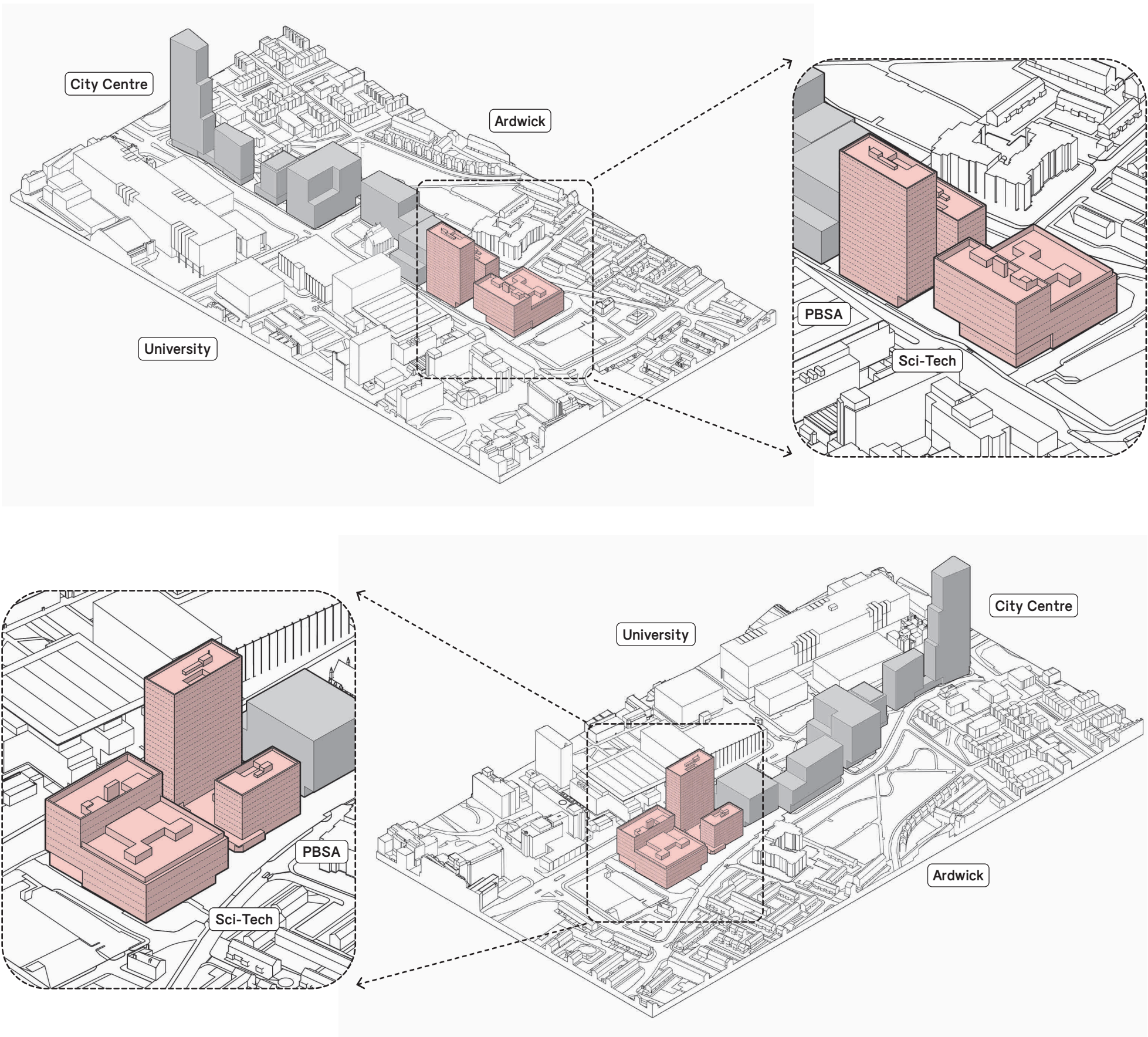
The adjacent images show the proposed massing in context with both the existing surrounding buildings and the massing principles established within the SRFG.

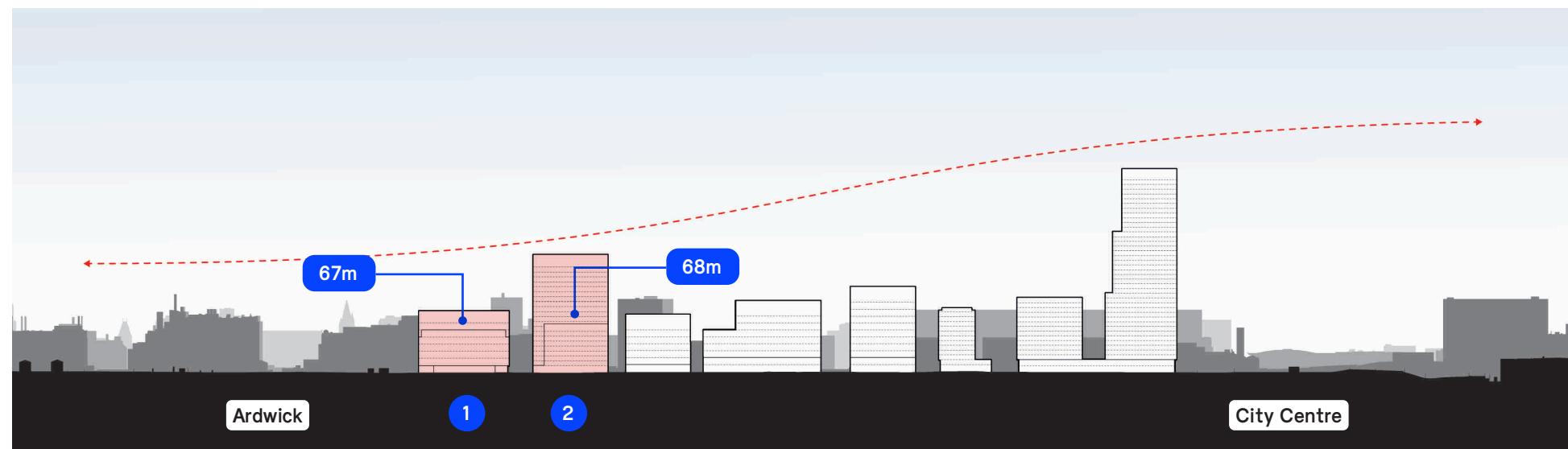
Masterplan

The proposed massing forms part of a wider proposal for the whole Upper Brook Street Masterplan. The proposed massing seeks to respond to both the surrounding context and the emerging proposals of the wider masterplan.

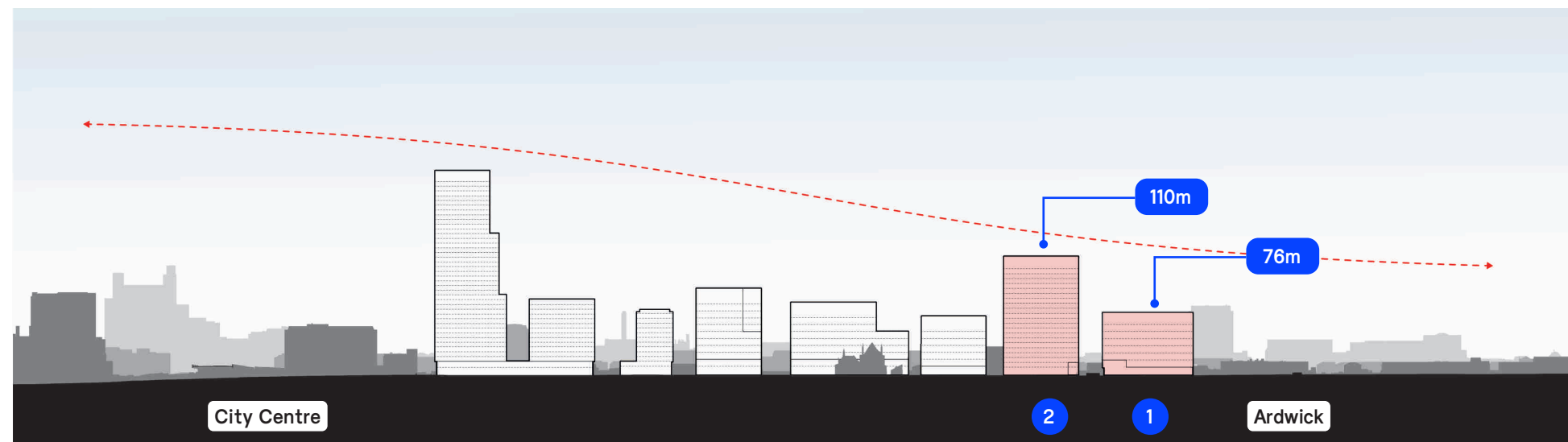
The massing of the proposed Masterplan responds to the residential context of Ardwick by reducing both building height and massing to the south and east of the Masterplan site. Similarly, the height and mass are increased to the north and west of the Masterplan, in response to the relative scale of the buildings within the University and the City Centre.

The adjacent images show the proposed massing in context with the emerging masterplan. Please note, the proposed massing for the wider masterplan is illustrative only and may be subject to further design development prior to the submission of a future planning application.

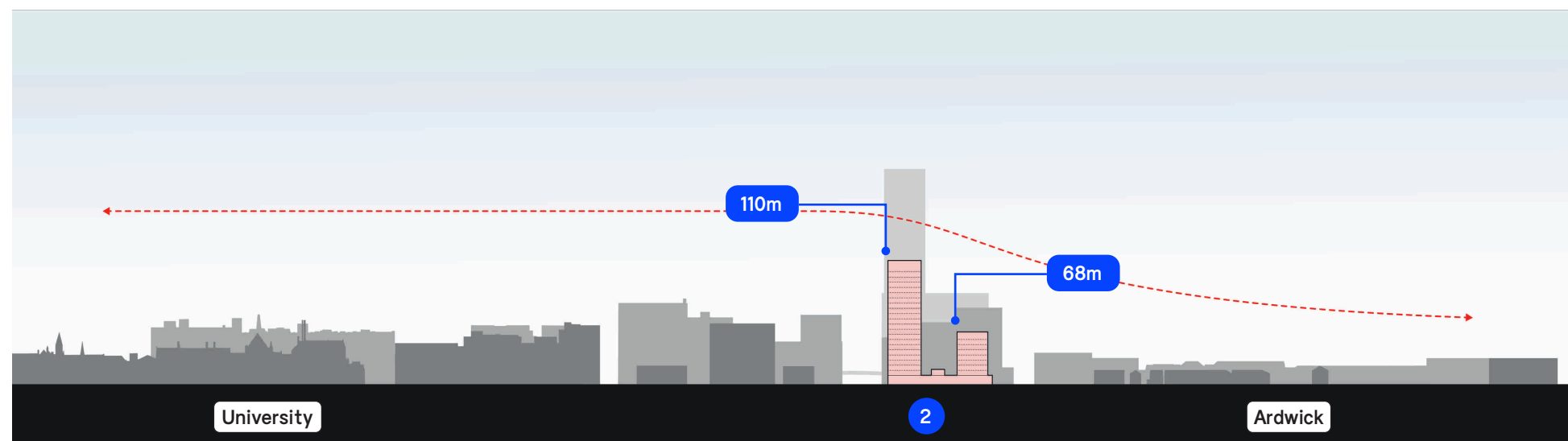




Kincardine Road Streetscape



Upper Brook Street Streetscape



Thorburn Walk Streetscape

Streetscape

The proposed development will mark the start of a significant upgrade in the streetscape of both Upper Brook Street and Kincardine Road. The streetscape of the current site is both physically and visually detrimental to the surrounding areas and their communities. The proposed development will be the first step in redefining and repairing this by creating a permeable and pedestrian focused streetscape, designed around the public realm. Spaces between buildings have been designed to maximise opportunities for publicly accessible facilities while forging new connections through the previously impenetrable site.

The adjacent images show the proposed massing in context with both the surrounding buildings and the emerging masterplan. Please note, the proposed massing for the wider masterplan is illustrative only and may be subject to further design development prior to the submission of a future planning application.

Legend

- 1 Sci-Tech
- 2 PBSA
- XX Proposed Building Height (AOD)





7.0 BUILDING 01 - SCI-TECH

7.1 Form and Massing

The proposal responds to both the constraints and opportunities to maximise the sites potential and make a positive contribution to the public realm and surrounding community.

Constraints

The SRFG requires a 15m distance between the Sci-Tech building and the neighbouring PBSA scheme. Additionally a 6.3m offset from the centre of Cottenham street is also required to satisfy Fire Strategy minimum distances to neighbouring uses. These constraints define the east and west footprints of the building.

A 3m offset is required from the site ownership boundary (as stated in the SRFG), and space for a service yard, accessed via Cottenham Street, is required for waste collection and site deliveries. These constraints define the north and south footprint of the building.

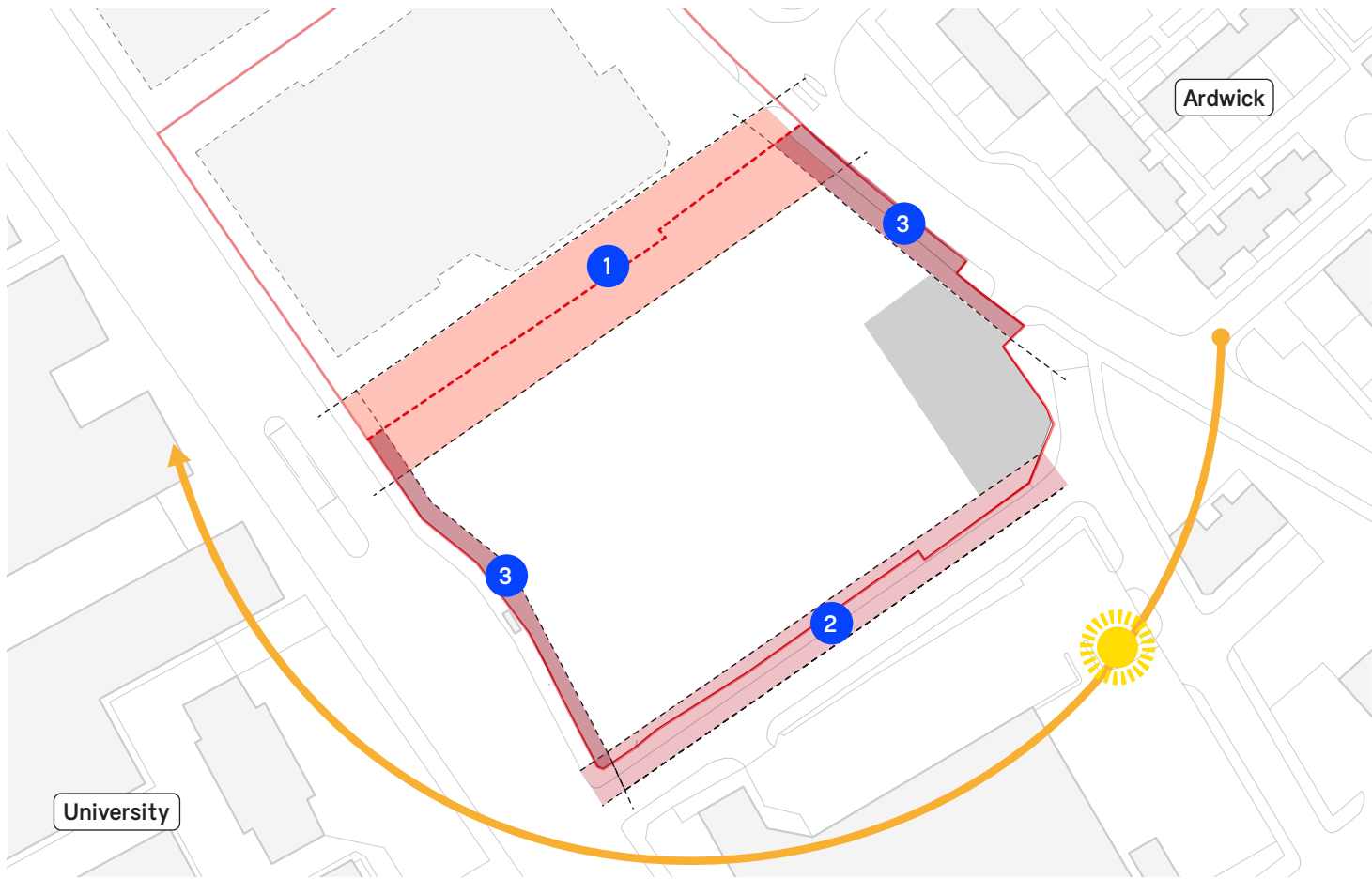
Opportunities

The new route created via Thorburn Walk provides the opportunity for active frontage and public accessible amenities.

The offset from Kincardine Road allows for hard and soft landscaping to create a pedestrian and cycle friendly connection into the site from Ardwick. An upgraded pedestrian crossing also improves connections to the University campus.

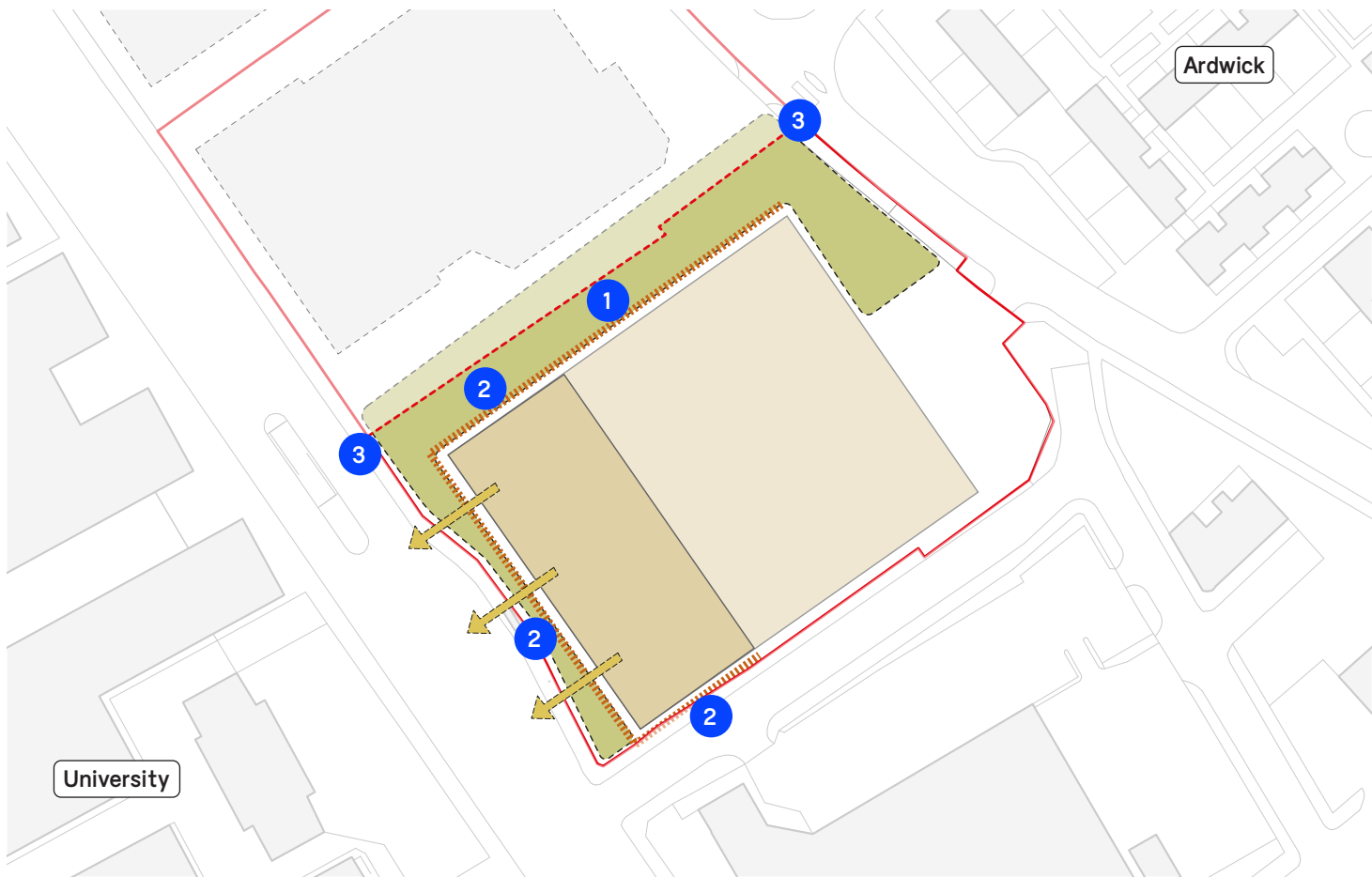
The 15m buffer zone between the two plots, presents an opportunity for a new public realm. This new route creates a green link between Upper Brook Street and Kincardine Road.

The site location on Upper Brook Street offers a focal point opportunity, which could be enhanced by active frontages at ground floor, welcoming pedestrians and drawing them through the site.



Constraints

- 1 15m Offset from the PBSA Building
- 2 6.3m offset from the centre Cottenham Street to limit the potential for fire spread
- 3 3m buffer from the site boundary
- 15m Offset from Adjacent Building
- 3m Building Offset from boundary line
- 6.3m Offset from centre of adjacent road
- Space required for a service yard
- Site ownership boundary



Opportunities

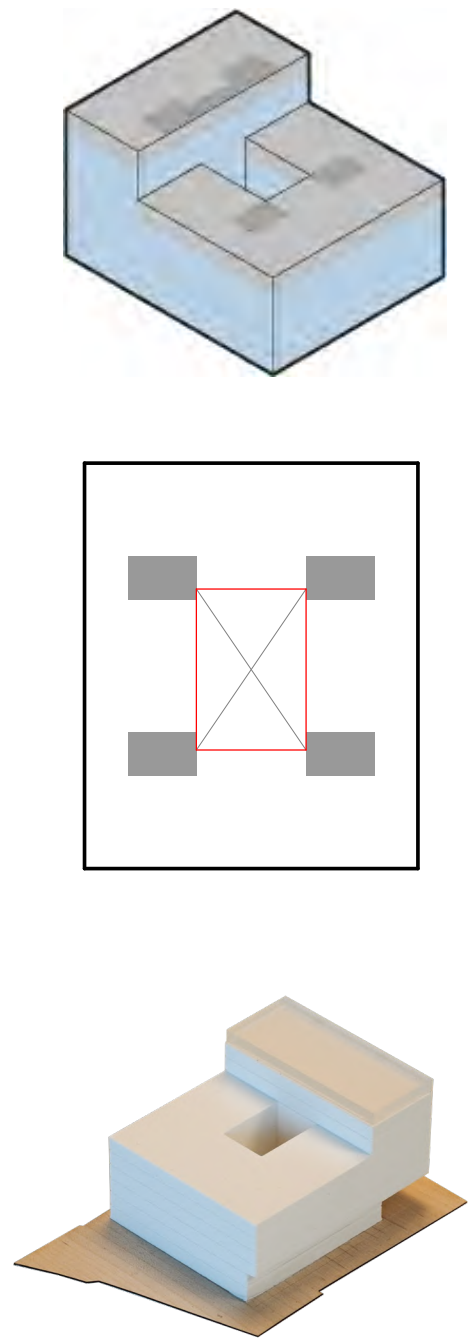
- 1 Green corridor and transition between Kincardine Road and Upper Brook Street
- 2 Active frontages inviting pedestrians in through the site
- 3 Friendly pedestrian and cycle connections to the site
- Opportunity for focal point / Massing Height (high)
- Massing Height (low)
- Public Space
- Views
- Active Frontage

Design Verification

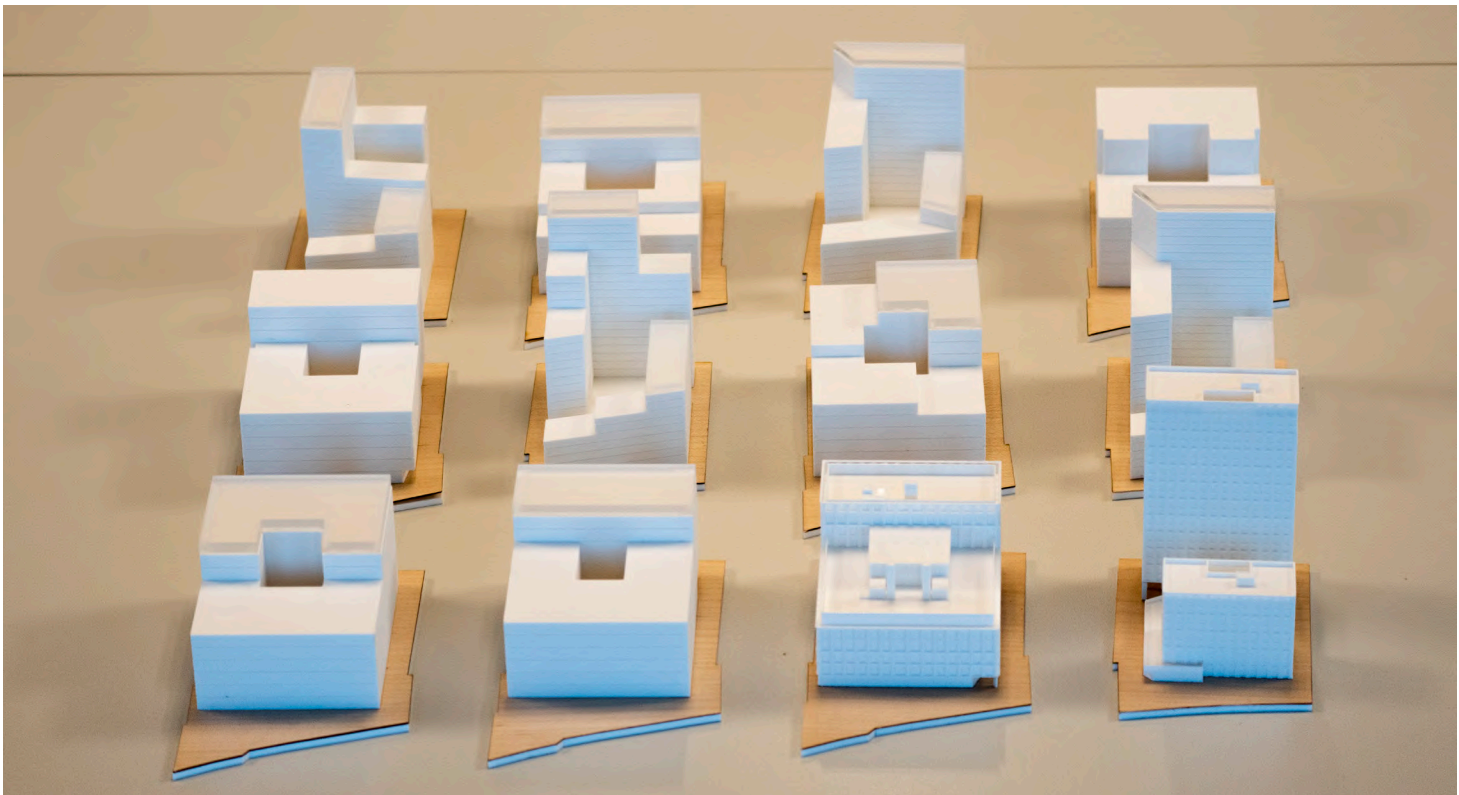
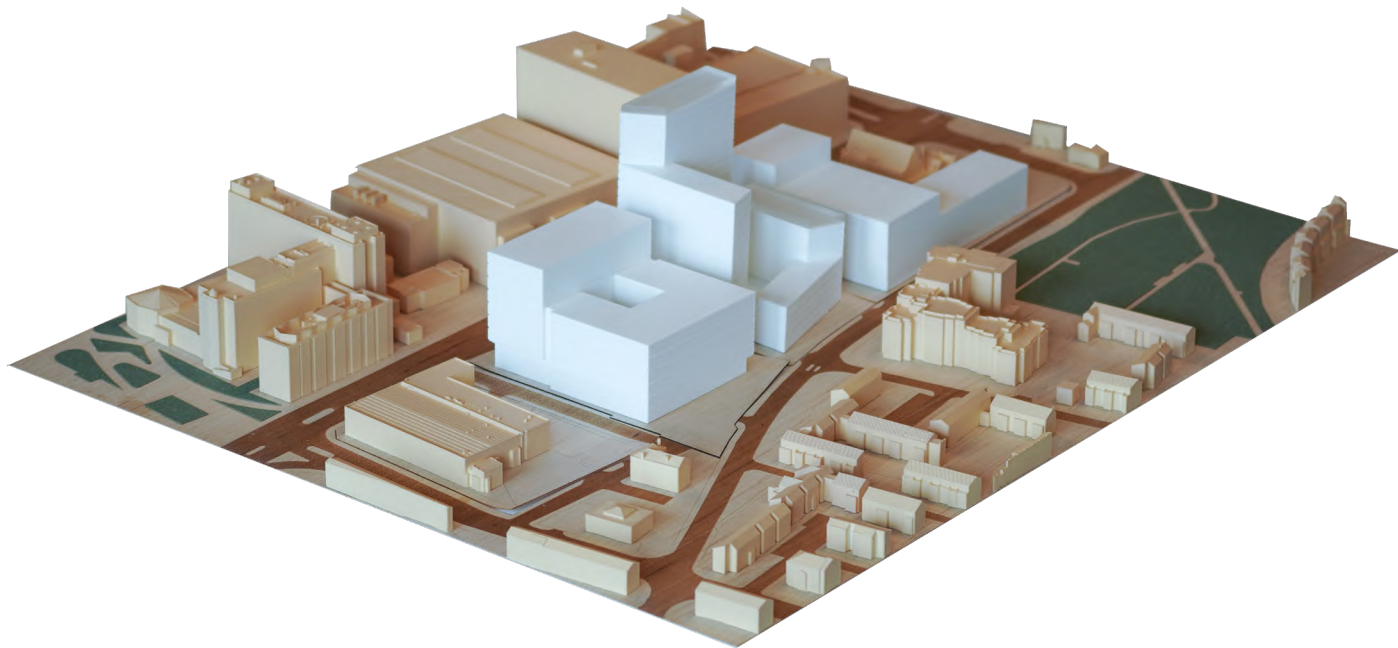
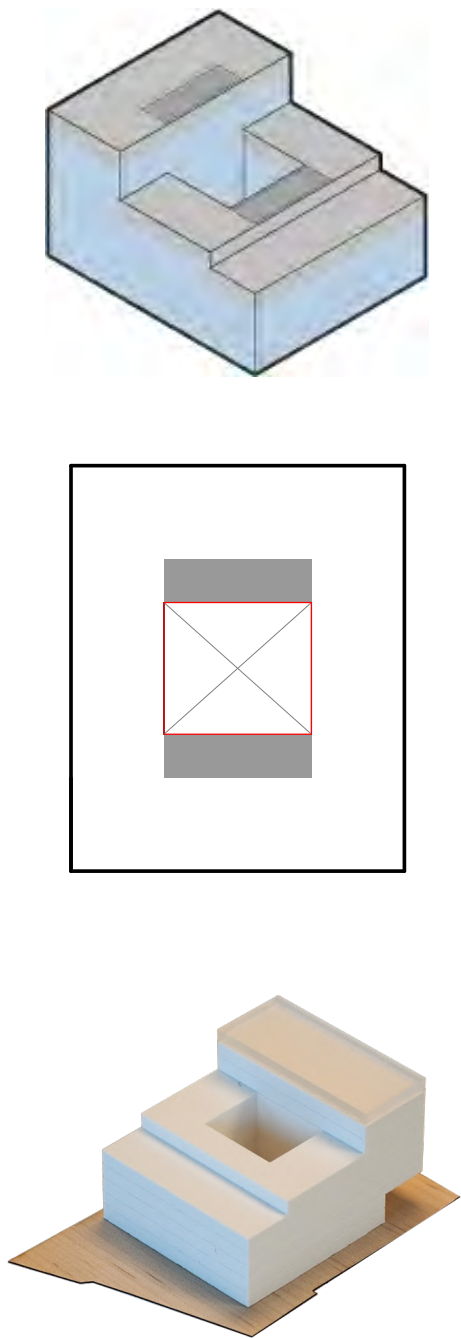
Although the proposed massing suggested in the SRFG worked well as a building model for the Sci-Tech typology, a verification process took place to ascertain if there were other building forms available that could work better as a multi tenanted lab/office building, and potentially assimilate better within the surrounding context.

The conclusions from the verification process was that the initial proposal offered the best lab functionality and tenancy splits due to the atomised cores, and the simple single stepped massing worked well for townscape views and services distribution.

Distributed Cores/ Stepped Massing

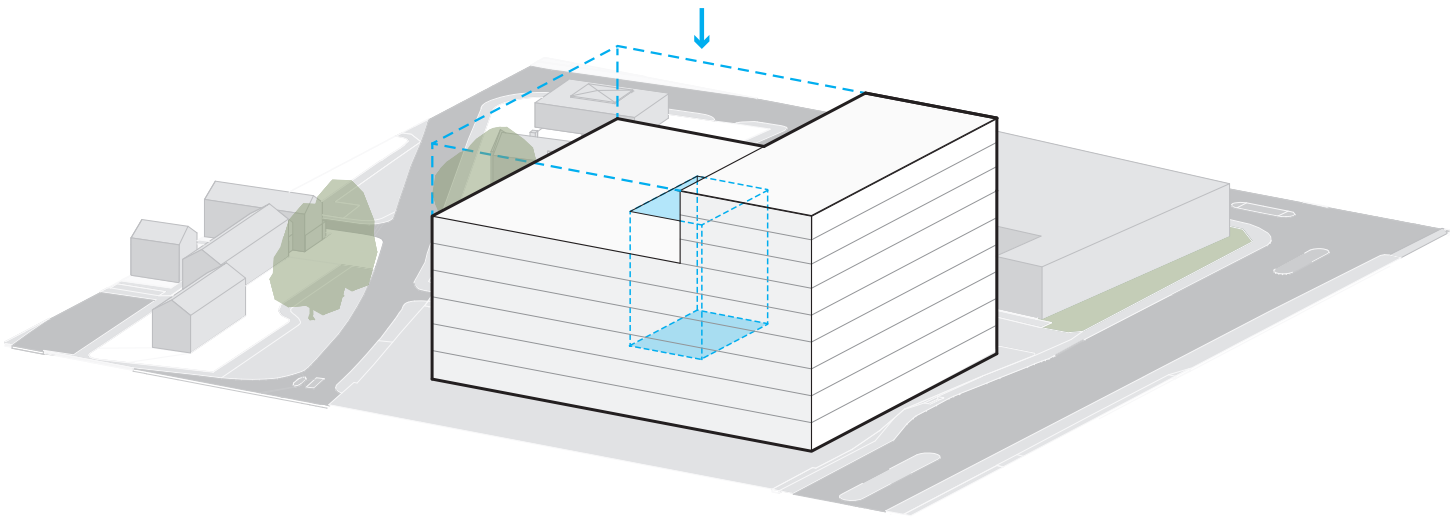
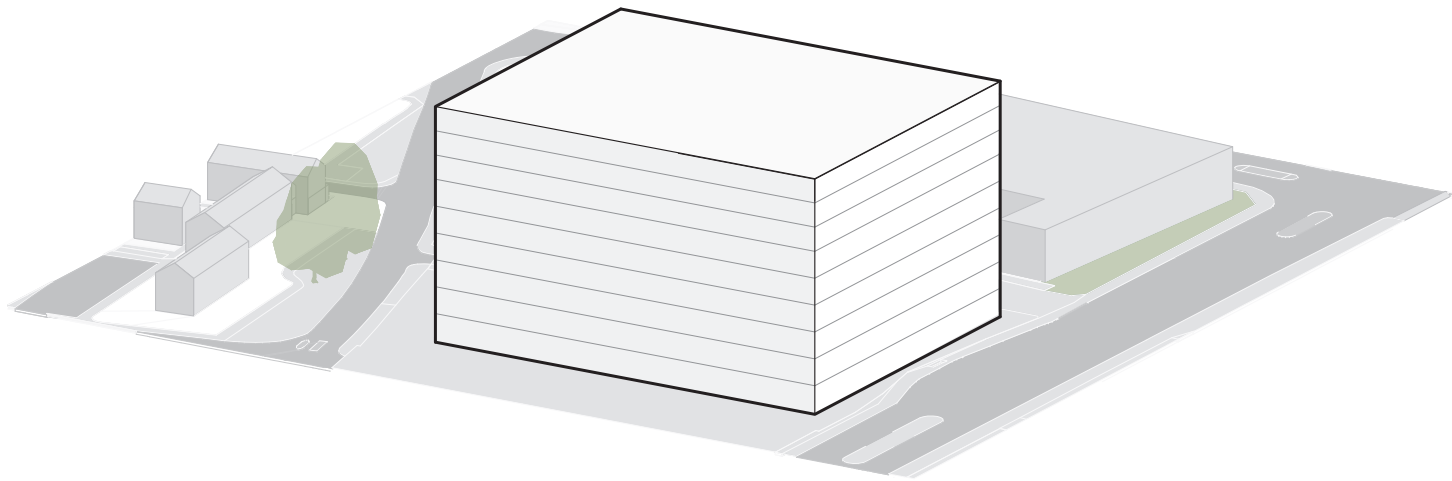


Consolidated Cores/ Stepped Massing



Massing Concept

Following the design verification exercise, below is the final proposed massing concept for the scheme.

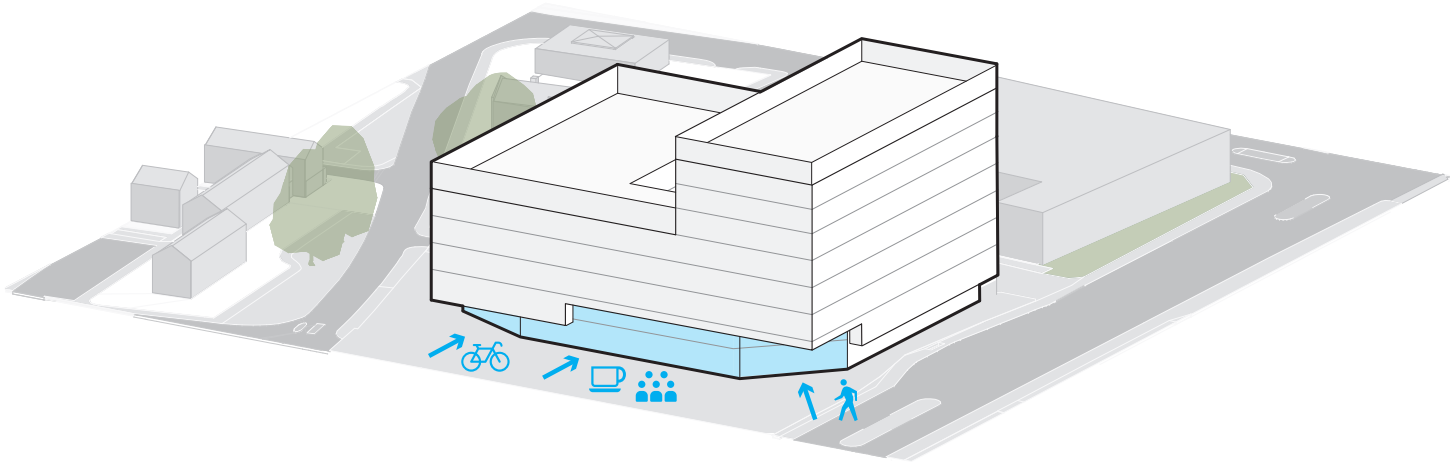
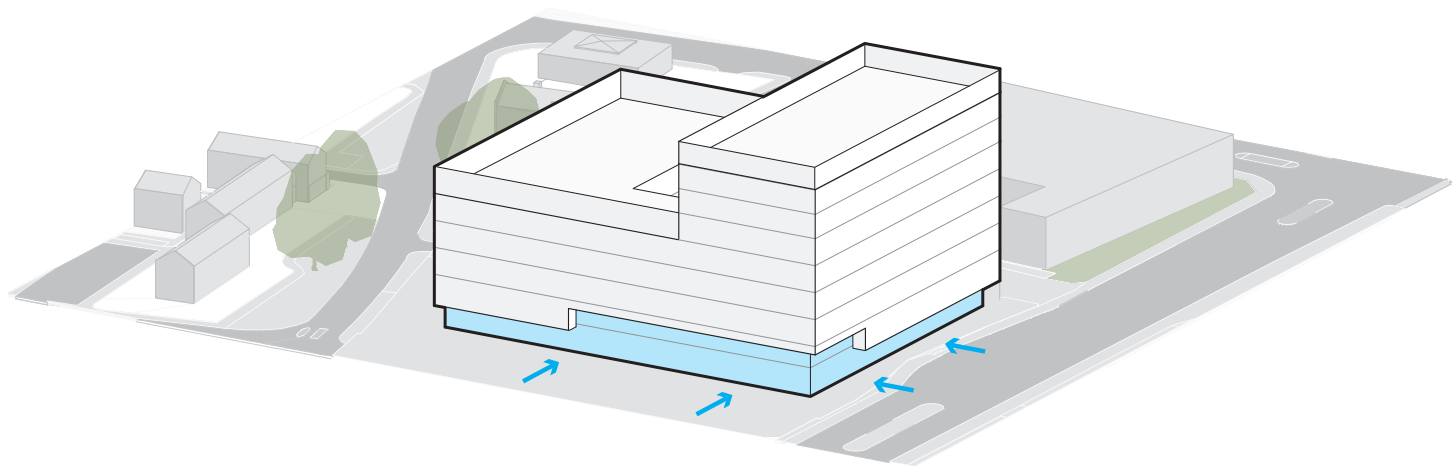


Step 1

The building footprint follows the site constraints established by the SRFG requirements and the fire strategy, allowing enough space at ground floor for a service yard. The building footprint was extruded 9 storeys to align with the recommended height for the plot within the SRFG development framework.

Step 2

The building mass is dropped down to the north of the site to react to the lower level Ardwick residential massing whilst retaining the height at Upper Brook Street. Again this massing strategy aligns with recommendations in the SRFG development framework. A central atrium is established to bring daylight into the floor plates and provide vertical circulation and visual connections.

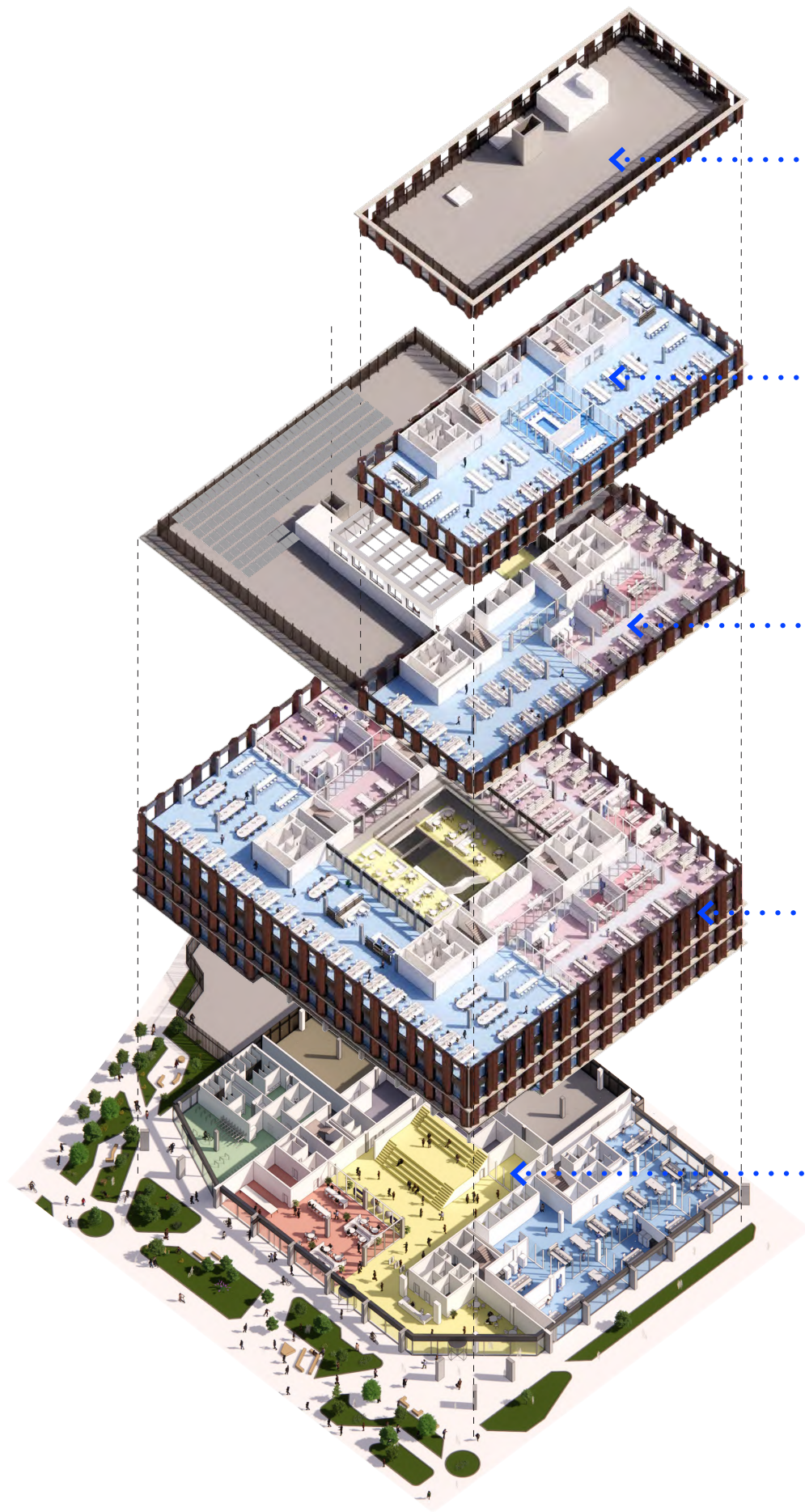


Step 3

At the lower levels, set backs have been created to provide active frontage to Upper Brook Street and Thorburn Walk. The set back is single height at Kincardine Road and double height on the corner of Upper Brook Street and Thorburn walk, to react to the stepping of the overall building massing and to highlight the main entrances to the building.

Step 4

The low level set backs are then cranked at the corners to provide views and attract pedestrians into the central public realm, as well as further highlighting the entrances to the building.



Levels 8 (Roof)

- Plant

Levels 6-7

- Office
- Atrium overrun

Level 5

- Lab/Office
- Breakout space
- Plant
- PVs

Level 1-4

- Lab/Office
- Breakout space

Ground Floor

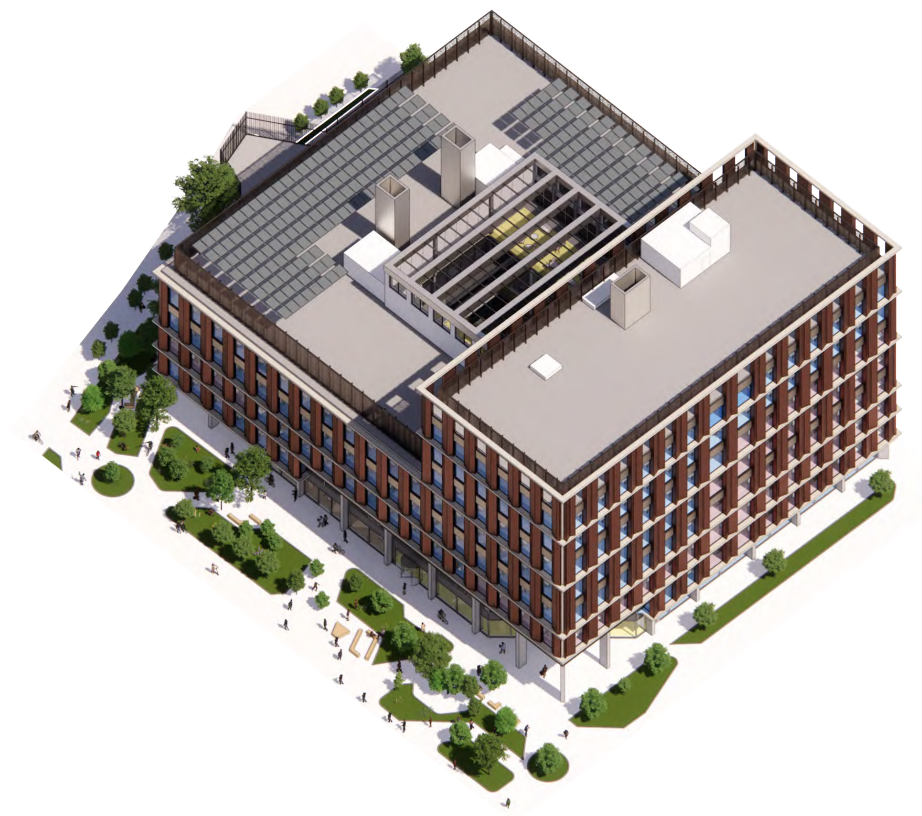
- Reception
- Potential incubator lab space
- Forum stairs
- Cafe
- Cycle store
- BOH/Plant
- Service yard

7.2 General Arrangement

The building consists of a ground floor plus seven occupied upper floors. The lower portion of the building is arranged around a central atrium, bringing natural daylight into the building as well as providing space for informal meeting space, connecting feature stairs, and communal breakout spaces. Each of the lower floor plates consists of a speculative mix of laboratory and office spaces.

The upper portion of the building is reduced toward Upper Brook Street, and offers a lower floor to ceiling height which favours office use, meeting rooms or light lab functions.

Both the lower and upper roofs are occupied with plant equipment and are screened by feature plant screens.



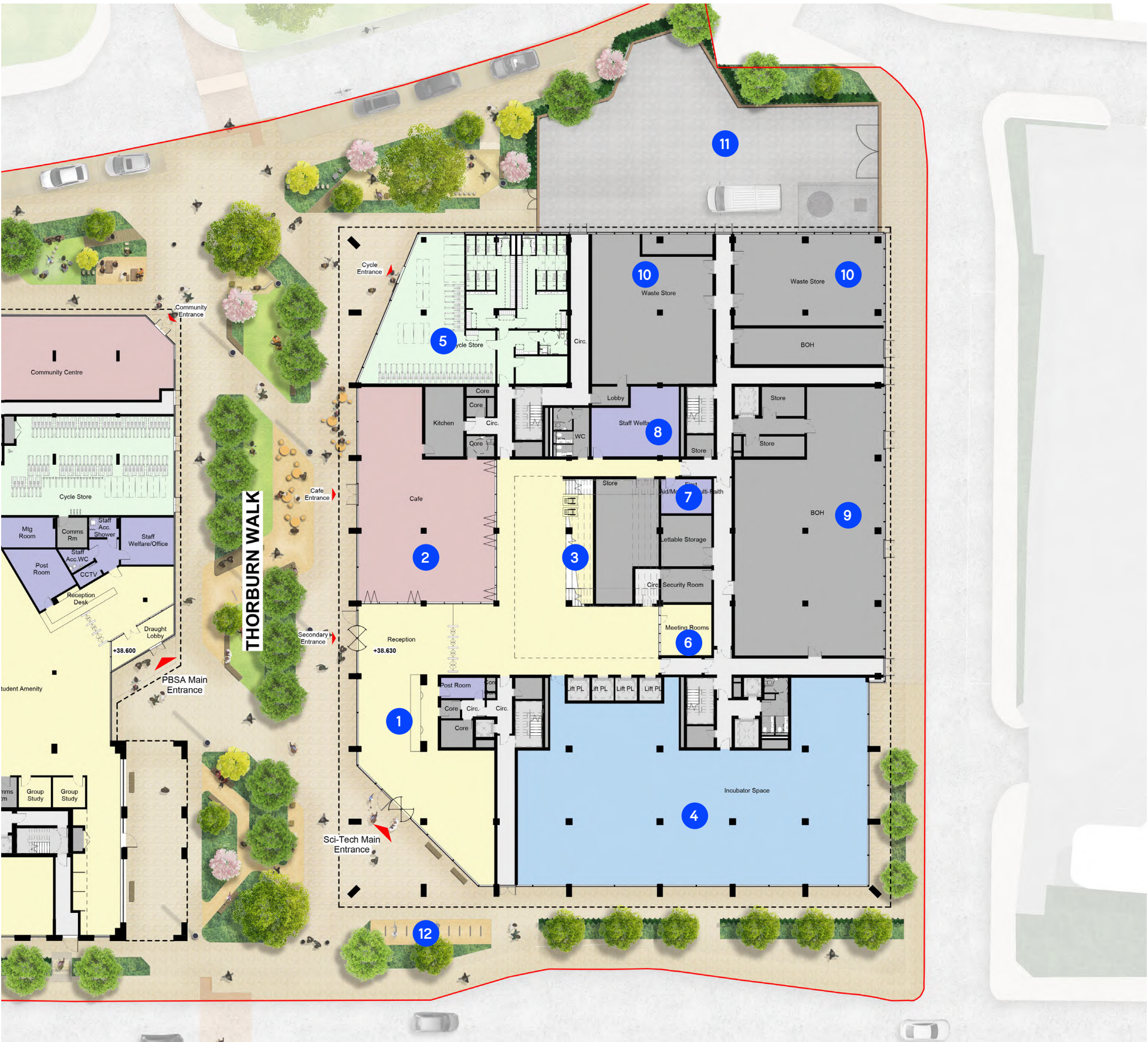
Ground Floor General Arrangement

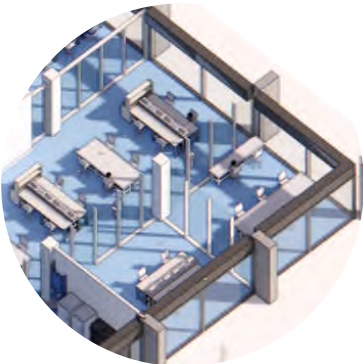
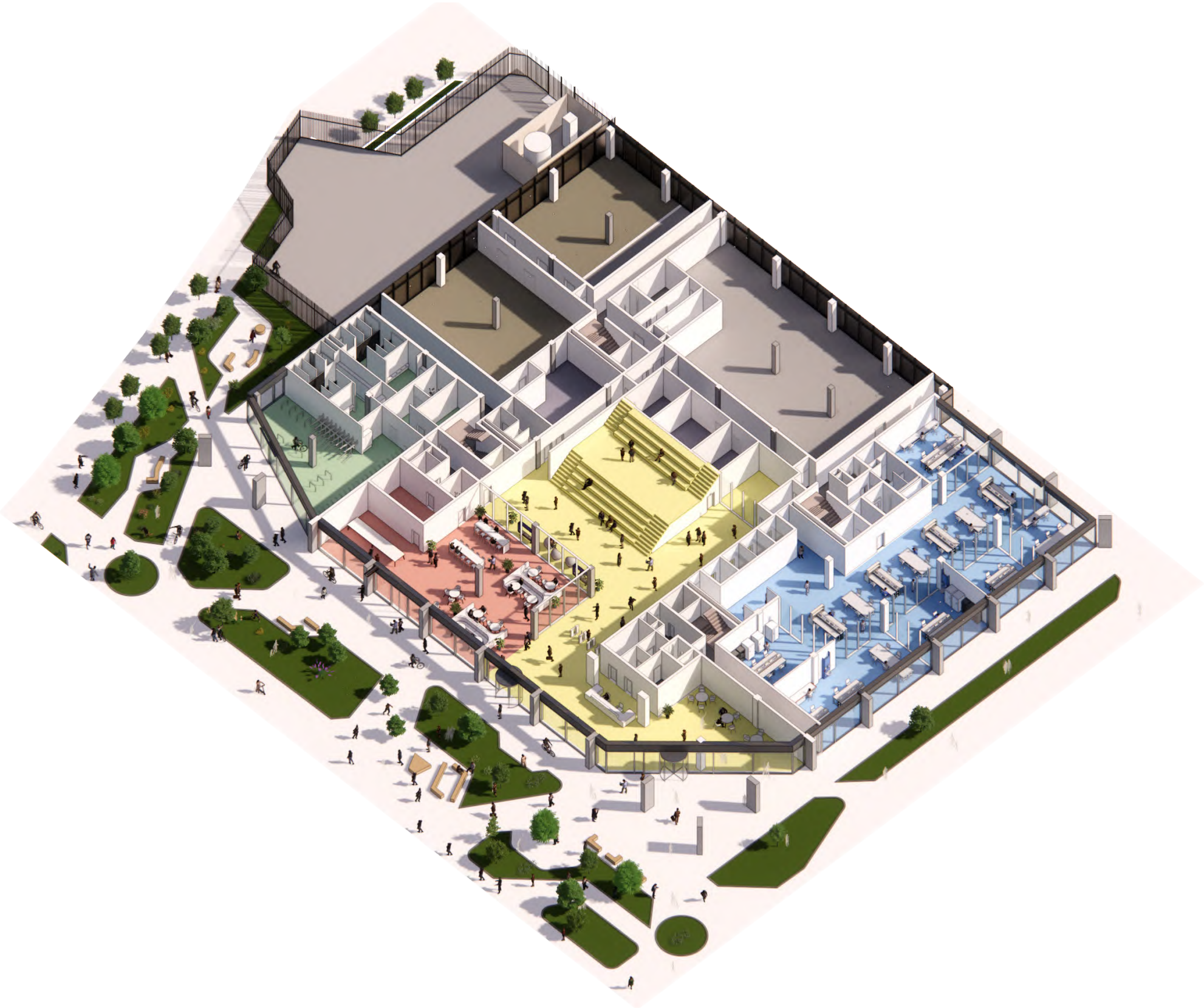
The Ground Floor design intent was to create a permeable space providing a visual and dynamic experience as you enter the building. The reception is directly connected to a publicly accessible café, entered via Thorburn Walk and bookable for private events for the tenants.

The atrium is at the heart of the project and the forum stairs at the base of the atrium begins the vertical circulation through the building, leading users to the first breakout space and feature stairs at the first floor. This space faces the café and has a visual connection with Thorburn Walk. Apart from the functional requirement of bringing natural daylight into the centre of the building, the base of the atrium is a central vibrant space for visual and social connections. Directly linked to the atrium, a potential incubator space would provide active frontage, and give a glimpse of the building use to Upper Brook Street.

Lastly, the cycle store and changing facilities are located at the corner of Kincardine Road and Thorburn Walk, offering the staff a dedicated and secure cycle entrance into the building. Visitor cycle parking is located closer to the main entrance with links to reception.

- 1 Reception
- 2 Publicly accessible cafe
- 3 Forum stairs
- 4 Incubator lab space
- 5 Secure cycle store + showers
- 6 Meeting room
- 7 Prayer room/ Mothering room/ Quiet room
- 8 Staff welfare
- 9 BOH/ Plant
- 10 Waste Store
- 11 Service yard
- 12 Visitor cycle parking





Incubator Laboratory Space



Cafe



Secure Cycle Store



Forum Stairs

Typical Floor General Arrangement

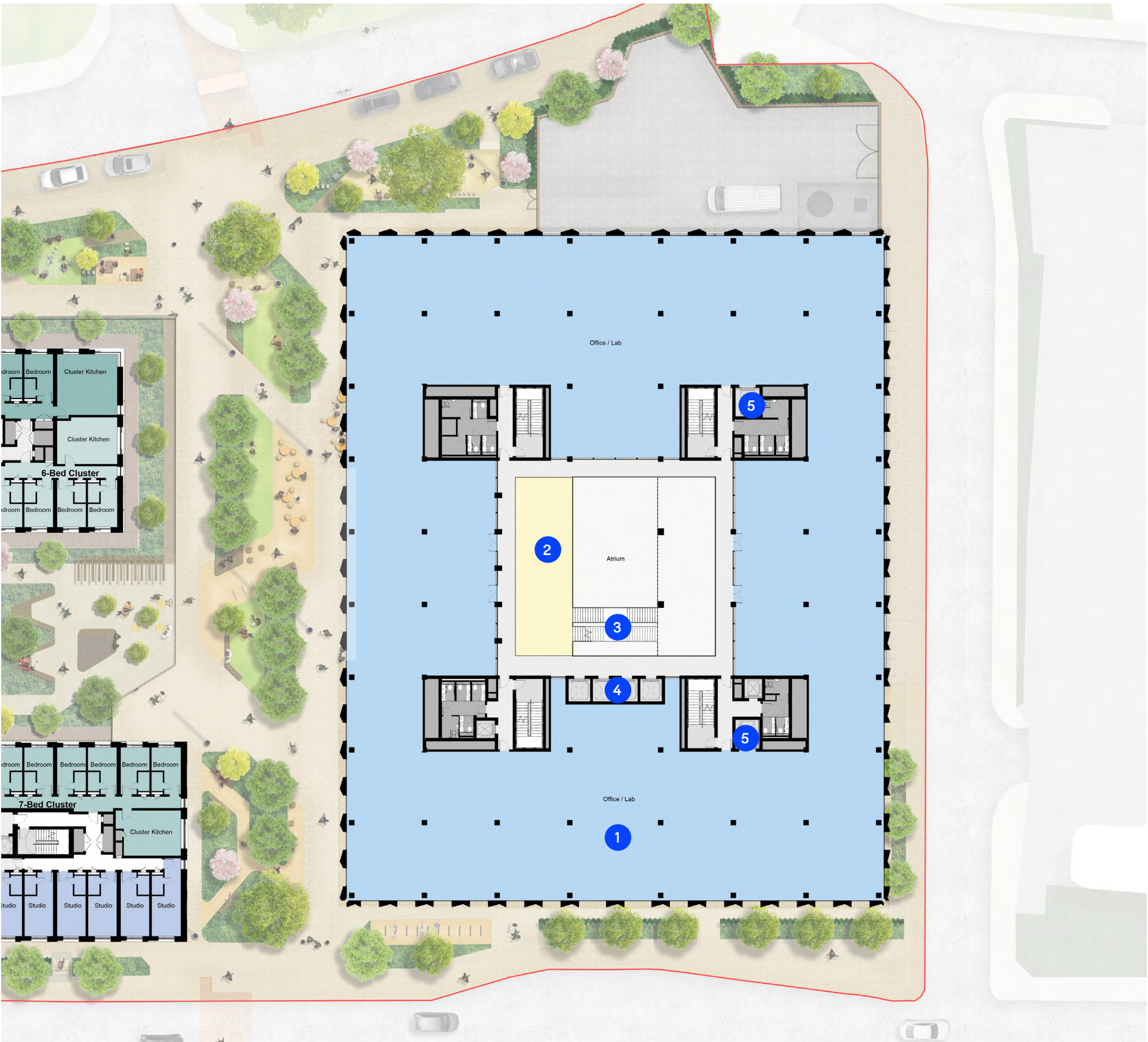
The typical level accommodates laboratory and office spaces, primarily on a 7.2x7.2m structural grid. The floorplate is organised around a central atrium that provides natural daylight, and connects the different floors physically and visually. Each of the lower floors has a large double height break out spaces that alternates at every level.

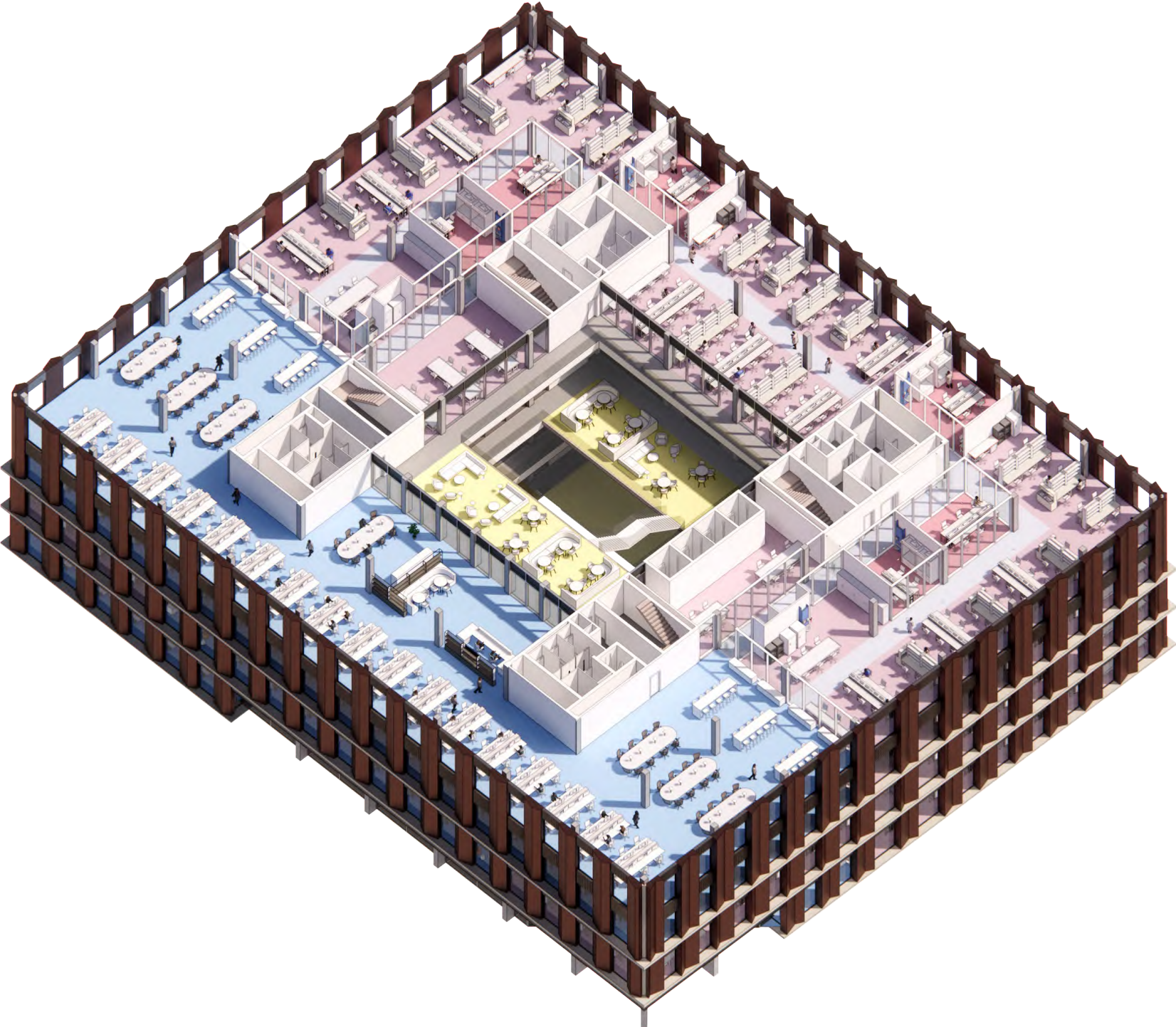
Each of the lower typical floorplates have the ability to split into a maximum of four tenants and has an indicative 60%/40% lab/office split.

Four cores are serving the floor plate, each of them incorporating different services, sanitary facilities and lift functions to satisfy the lab/office use requirements. An additional passenger lift core provides 4 dual-access passenger lifts, opening out onto the atrium at the lower floors.

The circulation around this atrium leads to the tenant(s) entrances as well as the breakout spaces and communal meeting rooms.

- 1 Lab/Office
- 2 Double height breakout space
- 3 Feature link stairs
- 4 Passenger lifts
- 5 Goods lifts

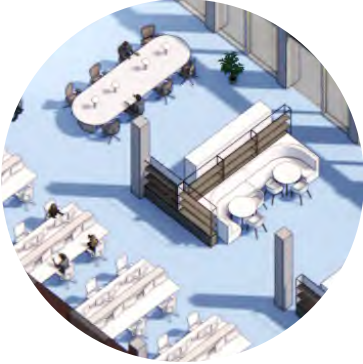




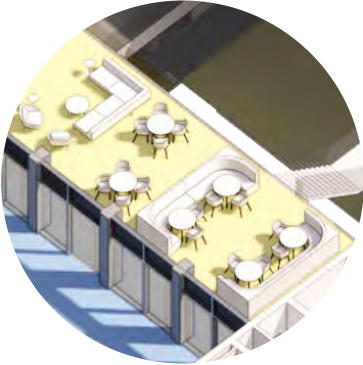
Primary Laboratory



Secondary Laboratory



Office

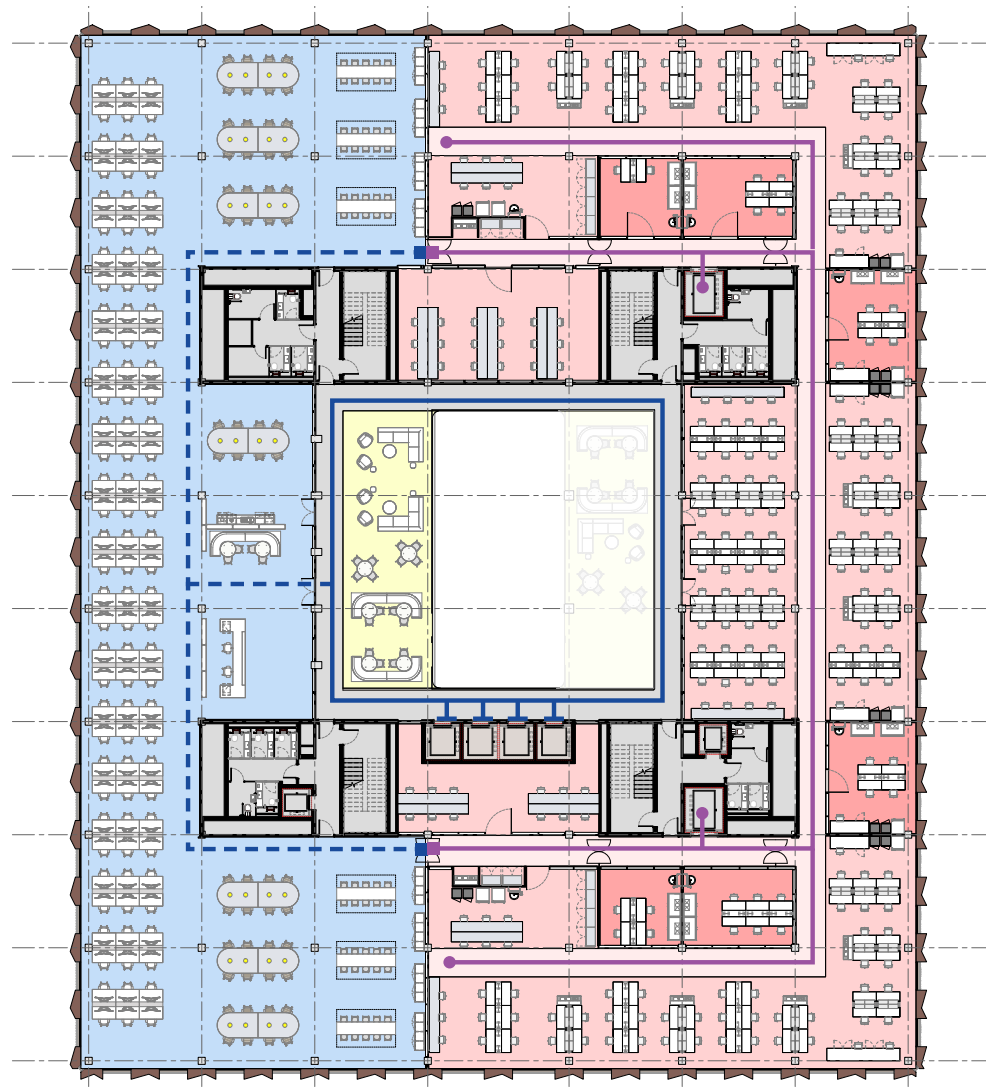


Breakout space

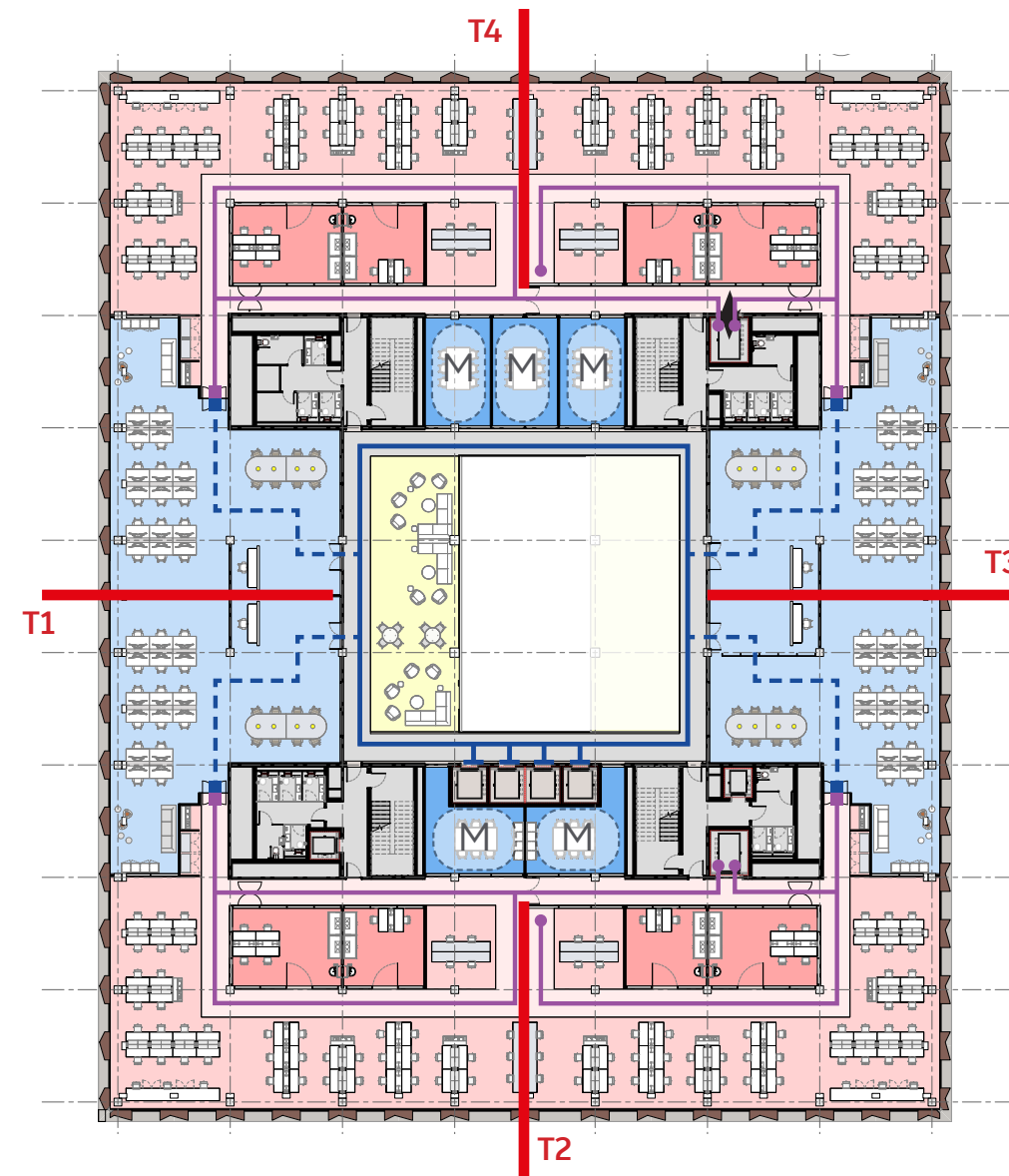
Tenancy Splits

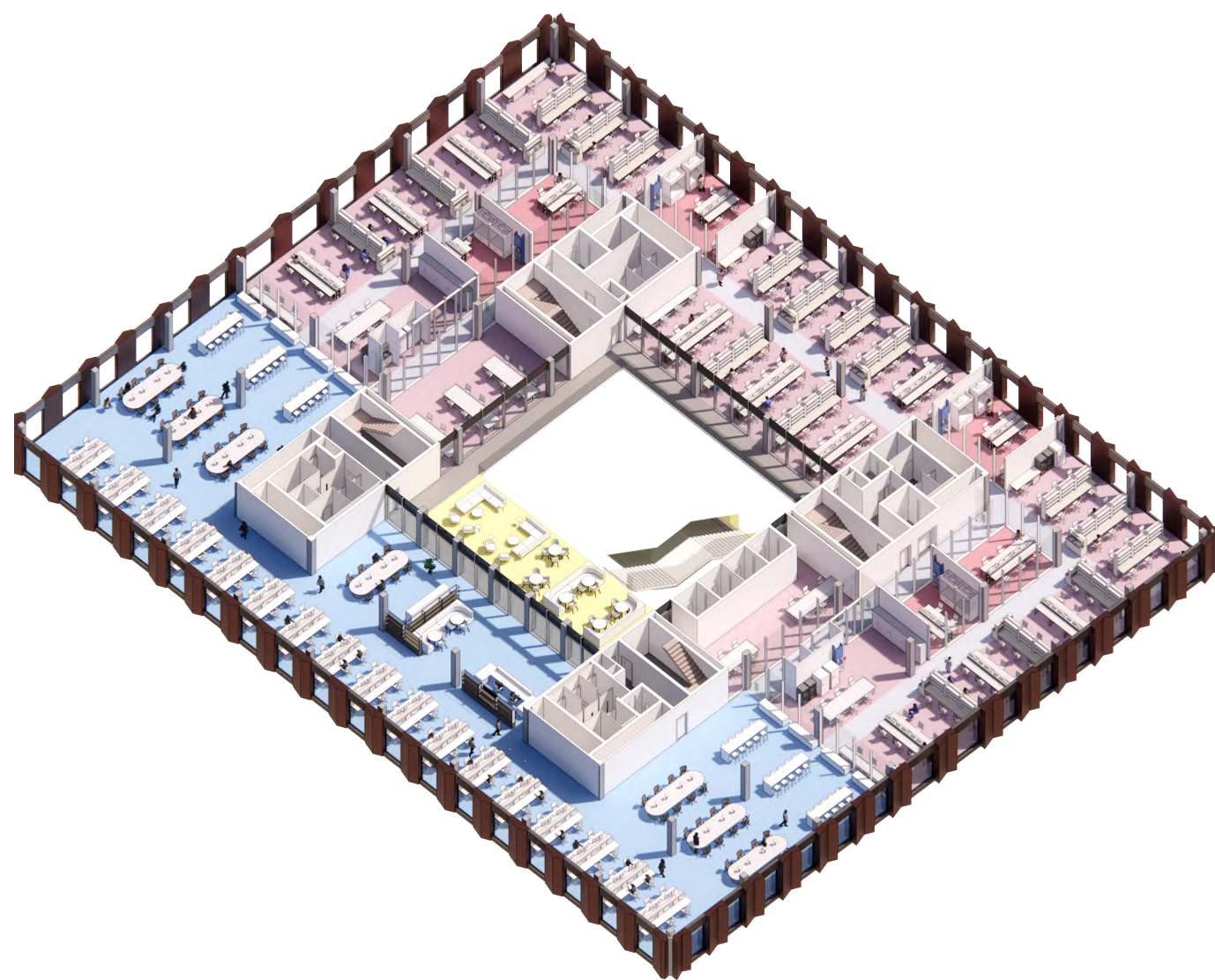
Each of the typical floors have the ability to be subdivided into up to 4 smaller tenancies. This is possible due to the atomised core design linked by the central atrium and perimeter circulation. Below shows 2 potential test fits for the extreme scenarios of 1 single tenant or 4 individual tenancies. The 4 tenancy option will require communal corridors to allow all tenancies access to the goods lift for servicing the lab spaces.

Typical Lower floor - One Tenant



Typical Lower floor - Four Tenants

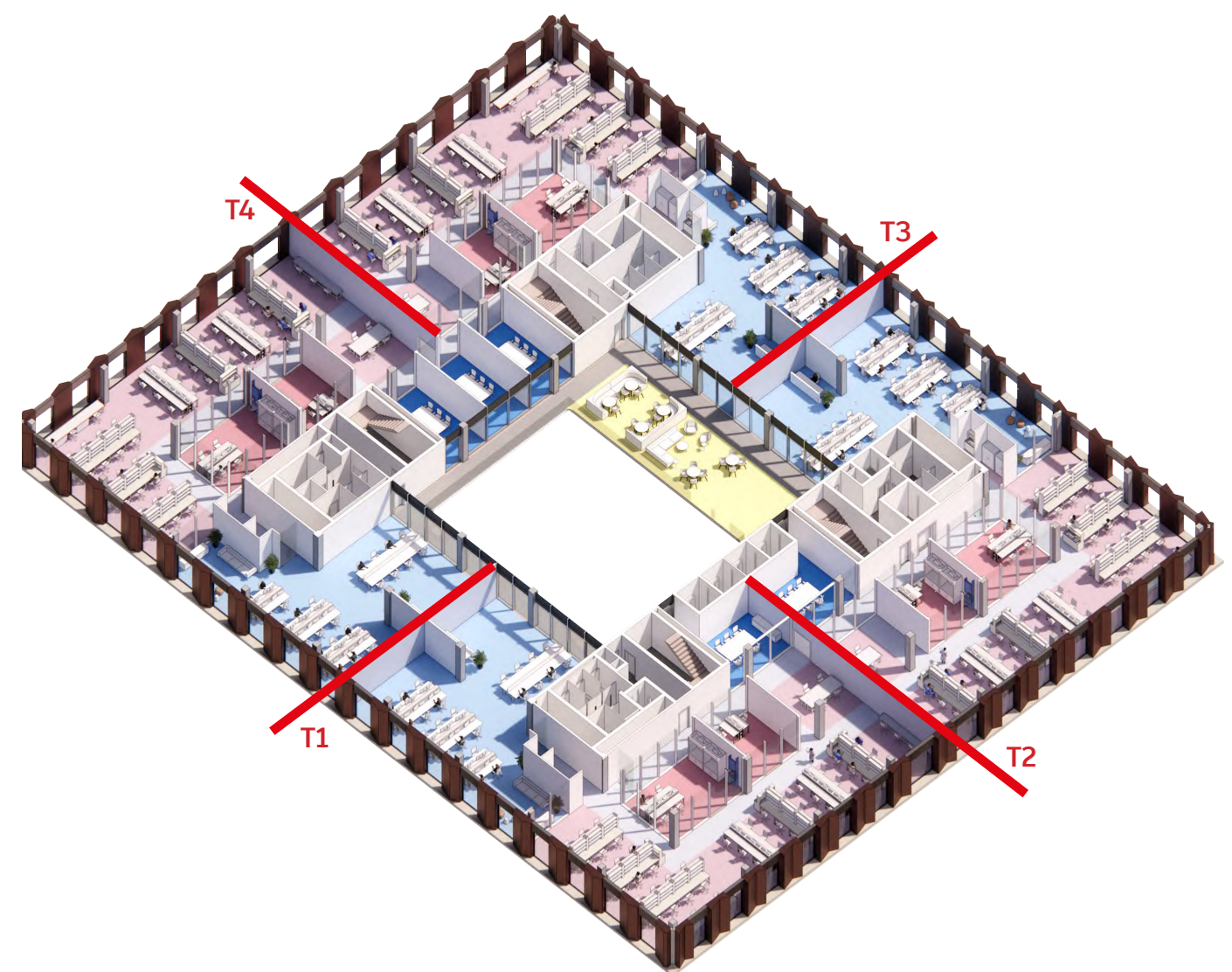




1 Tenant

KEY

- Lab
- Office
- Secondary Lab
- Breakout Spaces



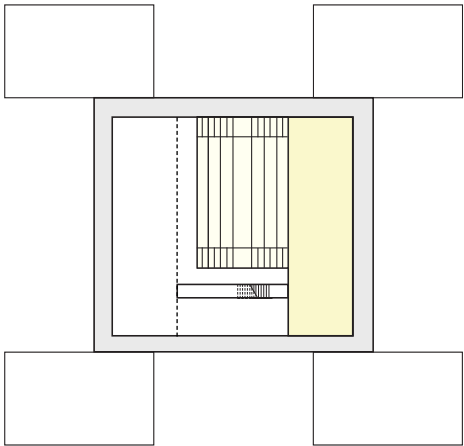
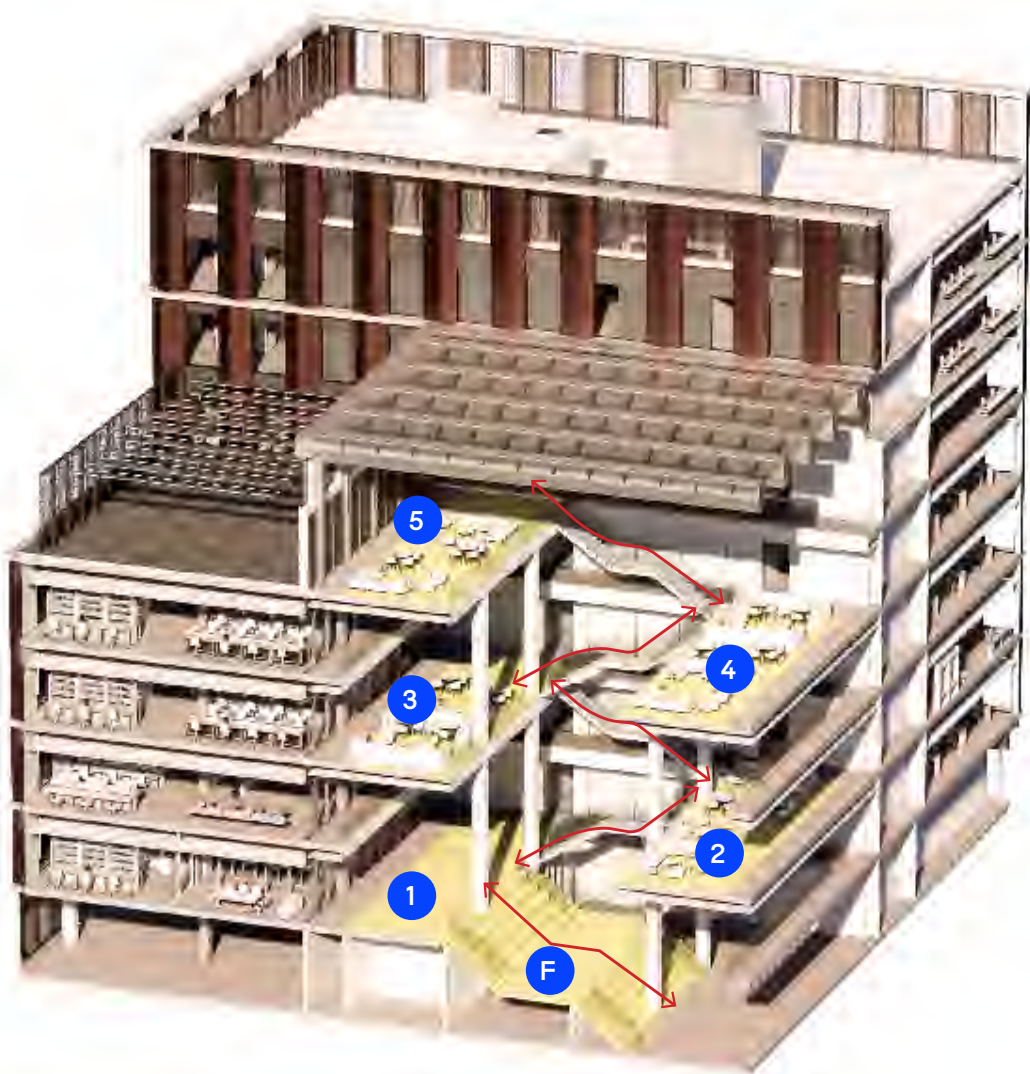
4 Tenants

Atrium General Arrangement

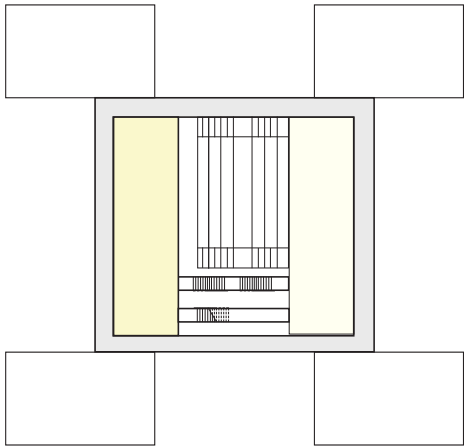
As well as providing additional daylighting into the deeper areas of the floor plates, the central atrium is also used to provide vertical circulation and visual links through the building, creating a communal heart to the scheme encouraging connections and collaboration.

Upon arrival at the base of the atrium, users are greeted with the forum stairs. These stairs can be used simply for circulation from the ground floor to the upper floors spaces, or as informal breakout for the Incubator Space, or a large events space spilling out from the cafe.

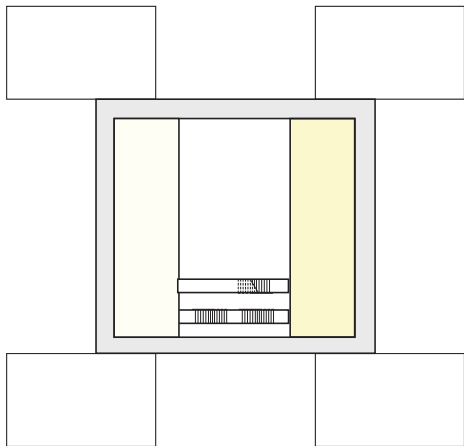
Further up the building, large breakout zones are present on each of the typical floors (levels 01-05) and alternate as they ascend the atrium. These breakout zones provide a communal space at each level, to allow connection between floors, and informal meeting spaces for the lab/office tenancies. Each breakout space is linked by feature stairs that snake up the building. These stairs are highly visible and positioned in front of the passenger lift bank to advertise stair use and help improve user well-being.



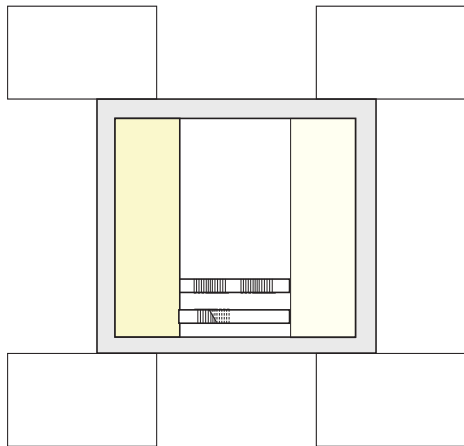
Level 1



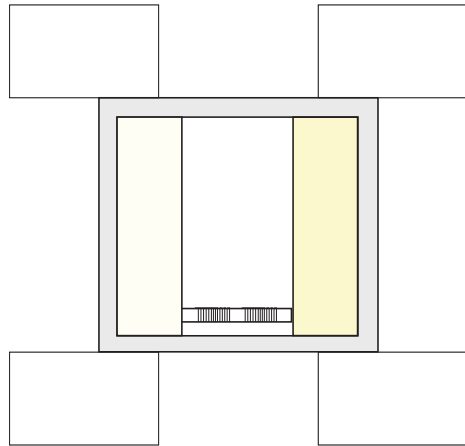
Level 2



Level 3



Level 4



Level 5

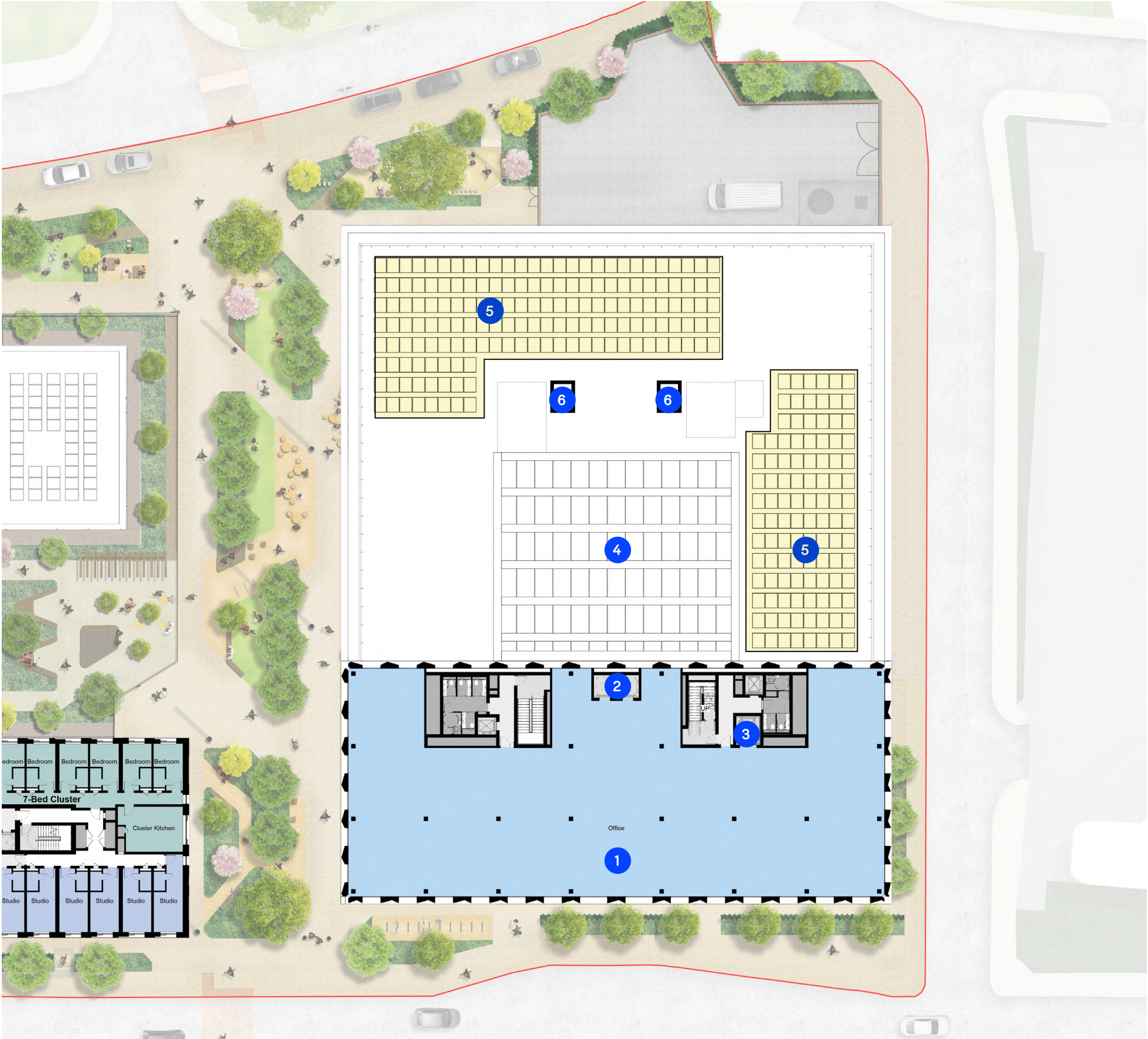


Upper Floor General Arrangement

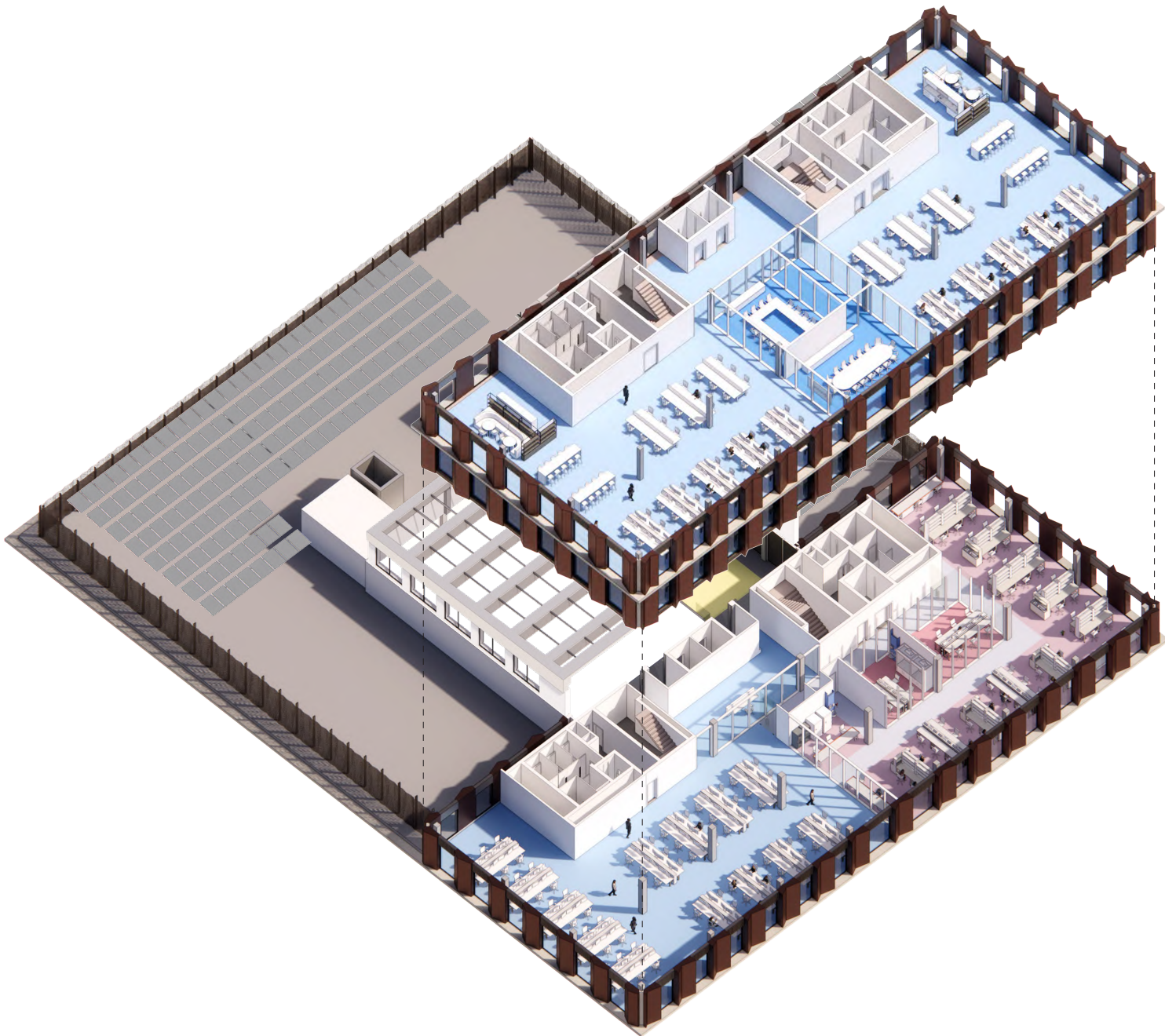
The building mass falls away at level 05 and continues up for another 4 levels to Upper Brook Street, providing an additional 3 levels of accommodation. Level 05, although not a typical floor, has the capacity to accommodate both office and lab tenants and is also the last level with a breakout space. The two highest floors have a reduced floor to ceiling height which favours office, meeting rooms or light lab use.

The lower roof at level 05 hosts the atrium overrun and a large portion of the building's plant equipment, including water tanks and lab extract flues. A lightweight steel structure covers an area of the plant equipment and supports the building's PV provision.

- 1 Lab Office
- 2 Passenger lifts
- 3 Goods lift
- 4 Atrium overrun
- 5 PV panels
- 6 Extract flues



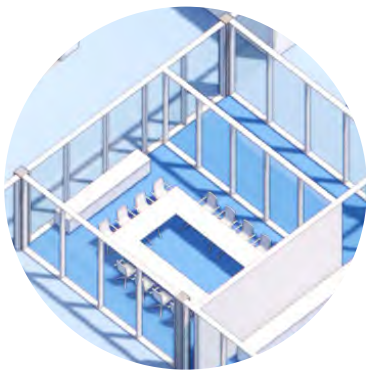
Upper Floor Key Uses



Lab/Office



Office



Meeting Rooms

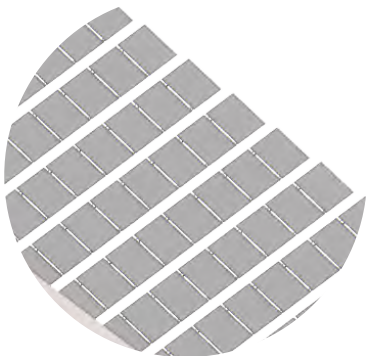


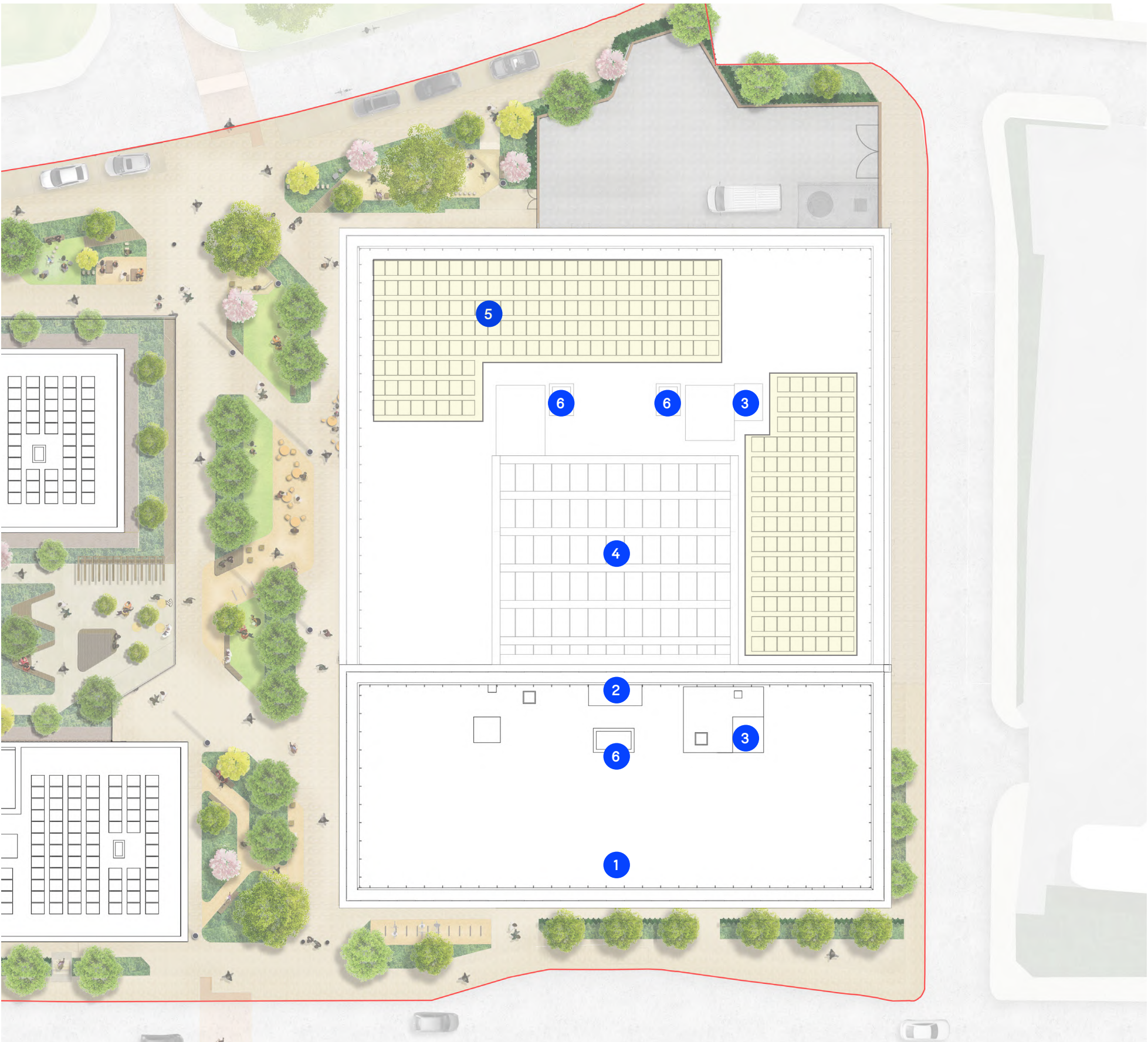
Photo Voltaic Panels

Roof Plan

Level 08 is the final floor of the building, and hosts the remaining roof plant equipment, which includes air source heat pumps, air handling units, and lab extract flues. Lab flues are located at the centre of the roof to reduce the visual impact on the townscape views from Upper Brook Street.

The roof plant is accessible via stairs and a good lift for plant replacement, and will not be accessible for general users of the building.

- 1 Lab Office
- 2 Passenger lifts
- 3 Goods lift
- 4 Atrium overrun
- 5 PV panels
- 6 Extract flues



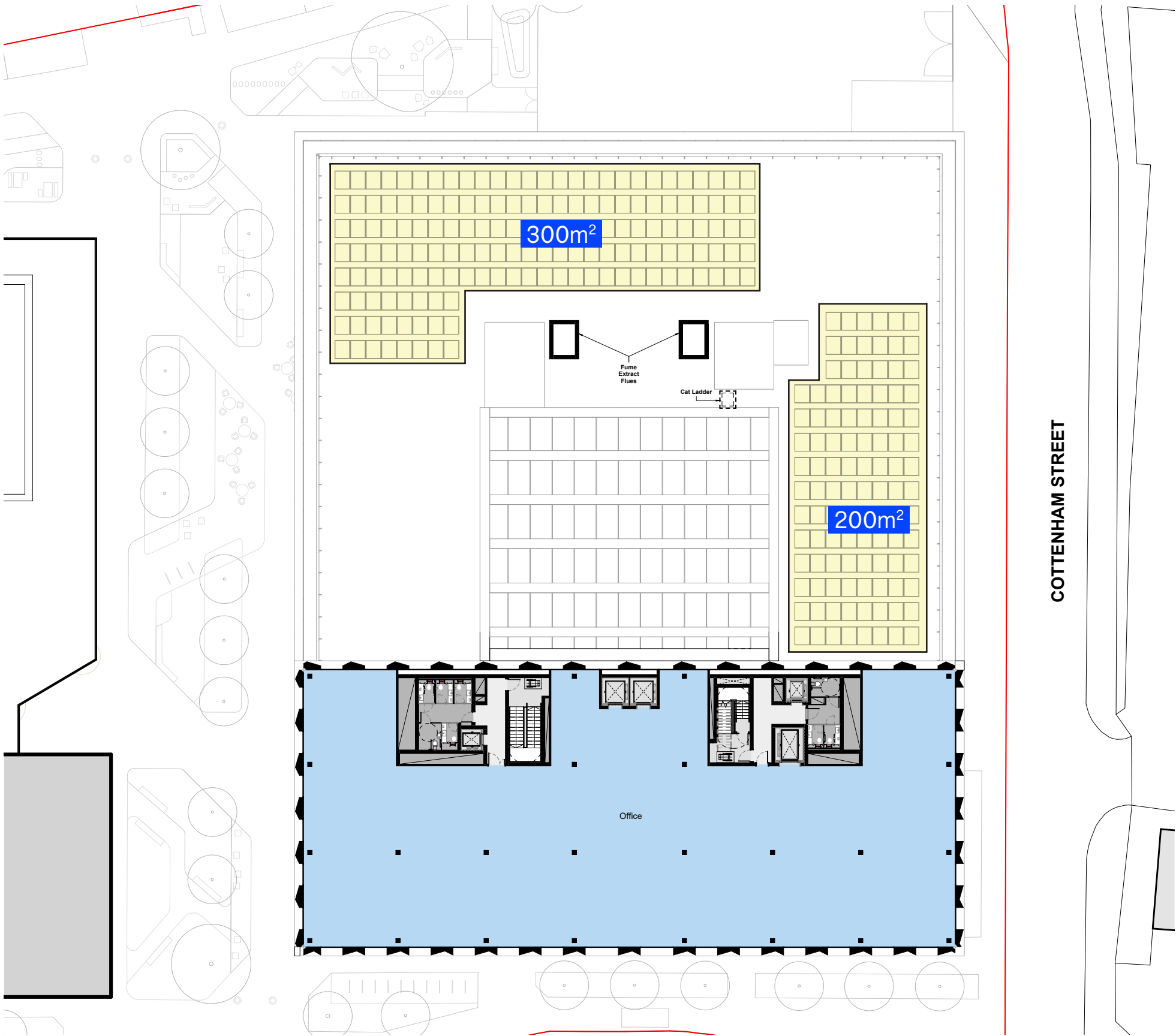
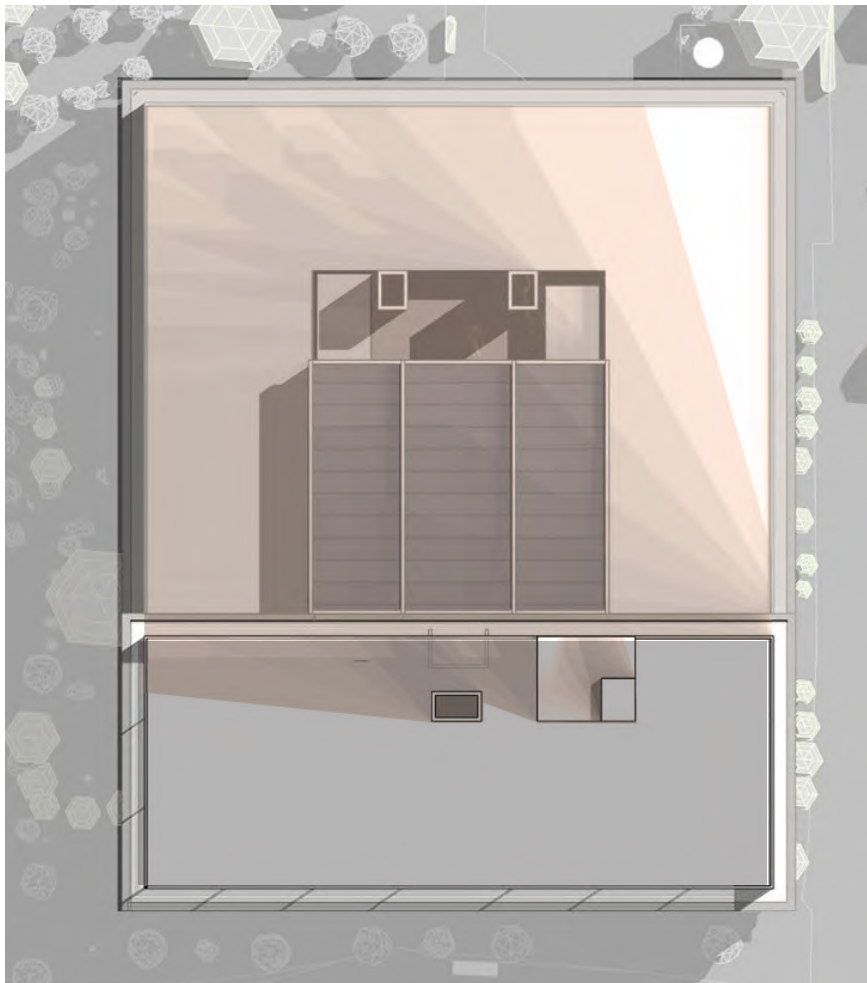
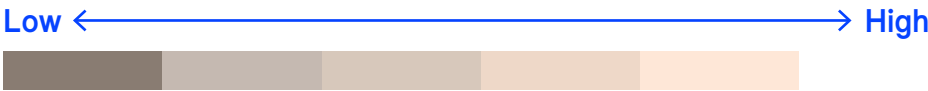
PV Provision

Following the feedback from the initial Part L model, a desired area of 500m² of active PVs are required to achieve the minimum performance required for BREEAM Excellent.

The PVs have been located above the Level 05 roof plant for ease of access and due to the high concentration of ASHPs on the smaller Level 08 roof.

Due to overshadowing caused by the upper block, a study has been undertaken to ascertain the prime location for the PVs to maximise performance. All PVs have been located in areas with medium to high concentration of sunlight.

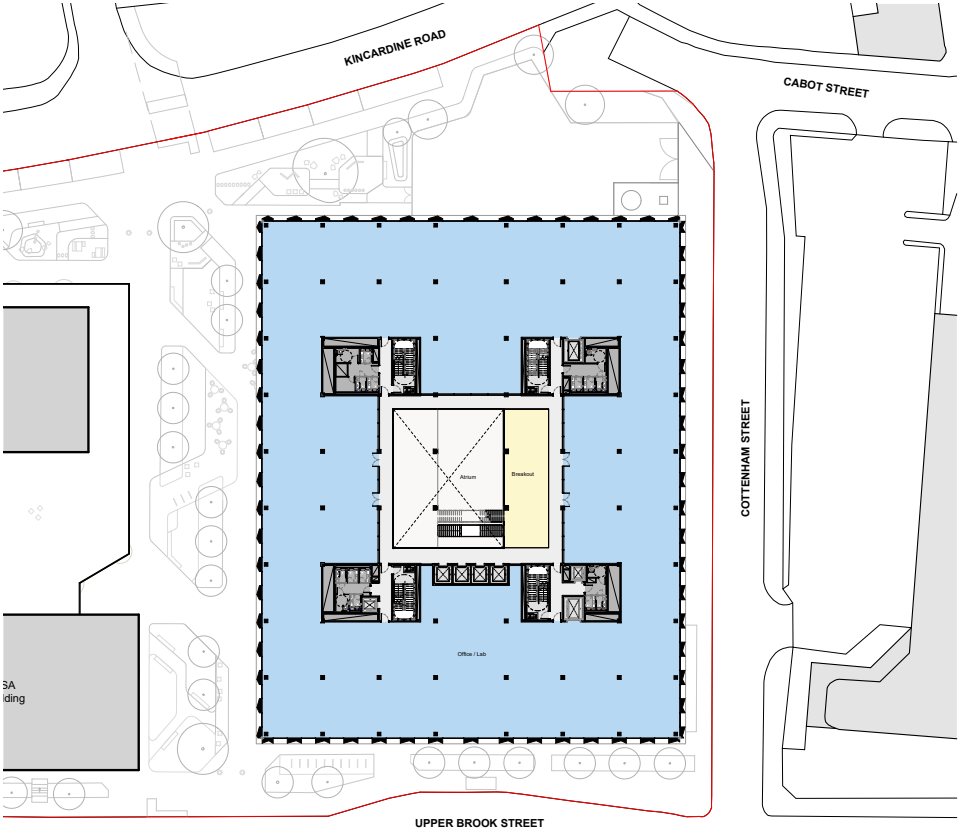
Solar Study



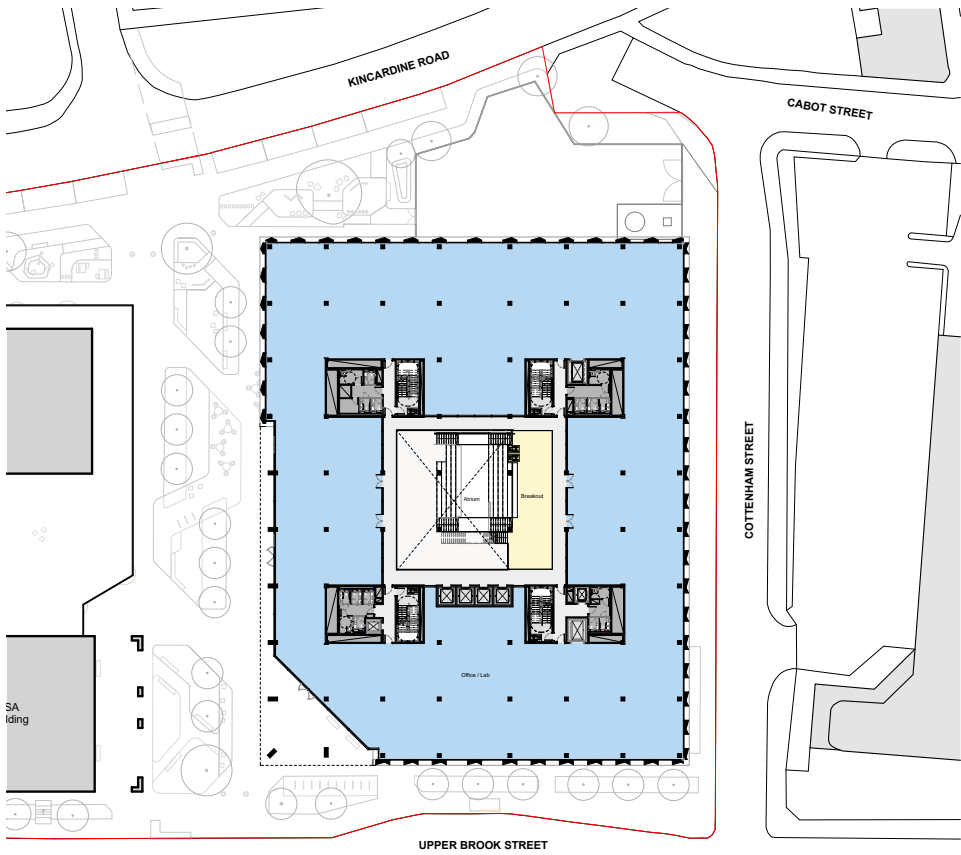
Plans



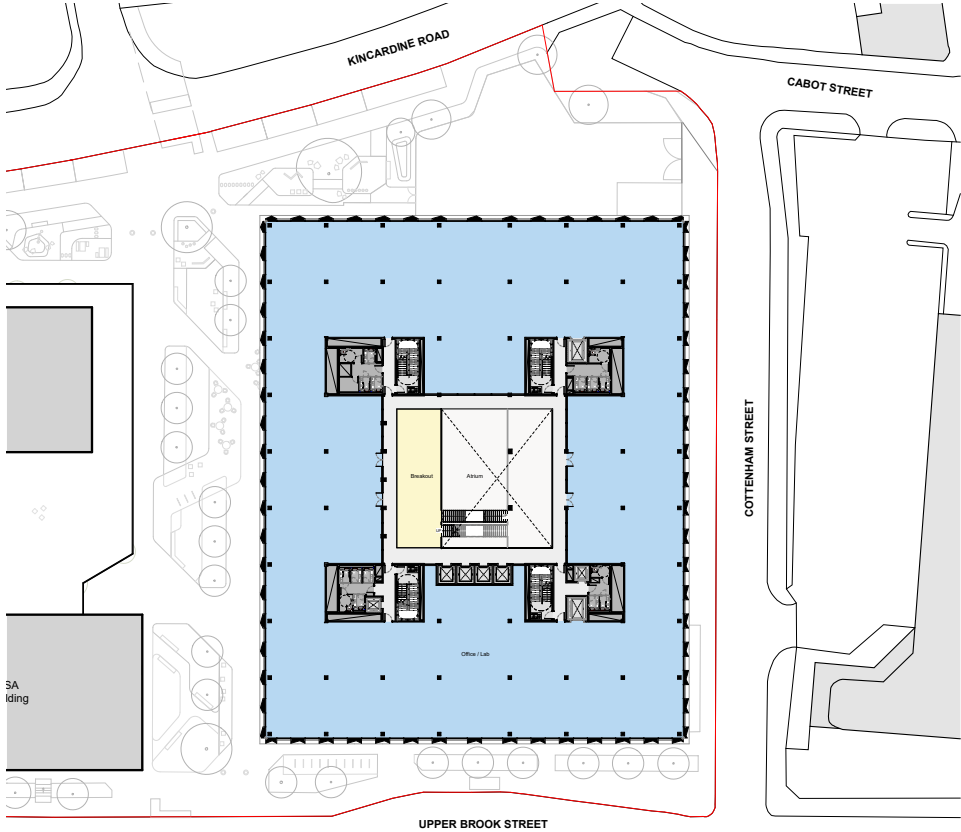
Ground Floor



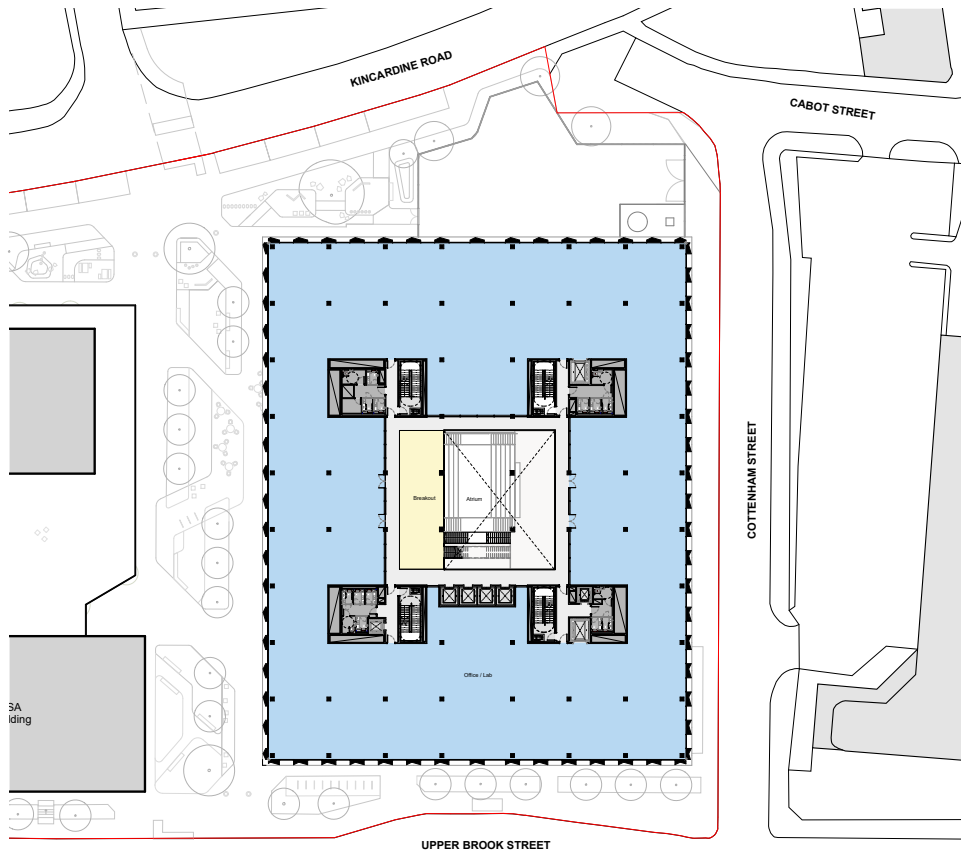
Level 03



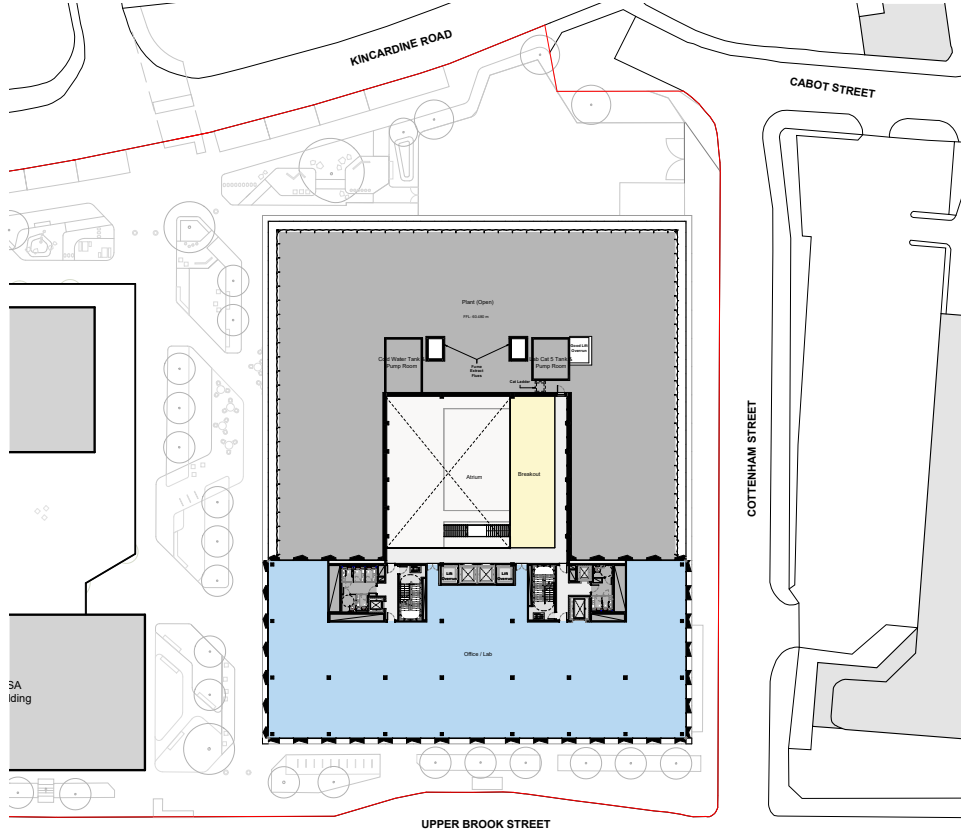
Level 01



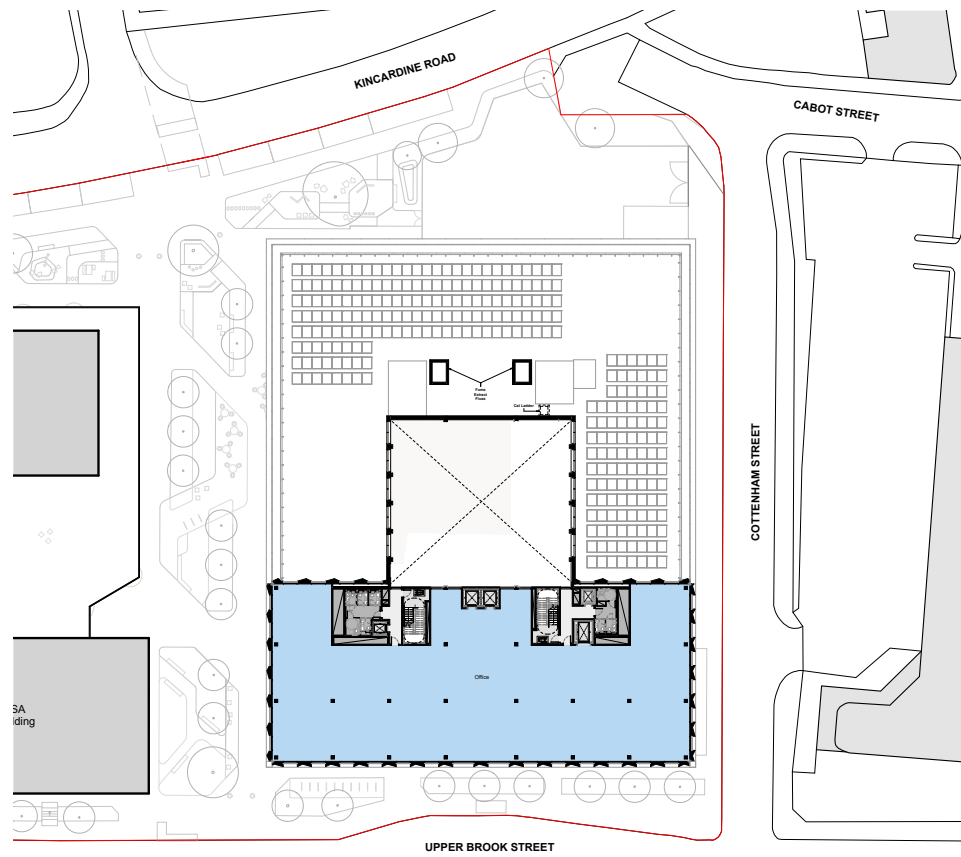
Level 04



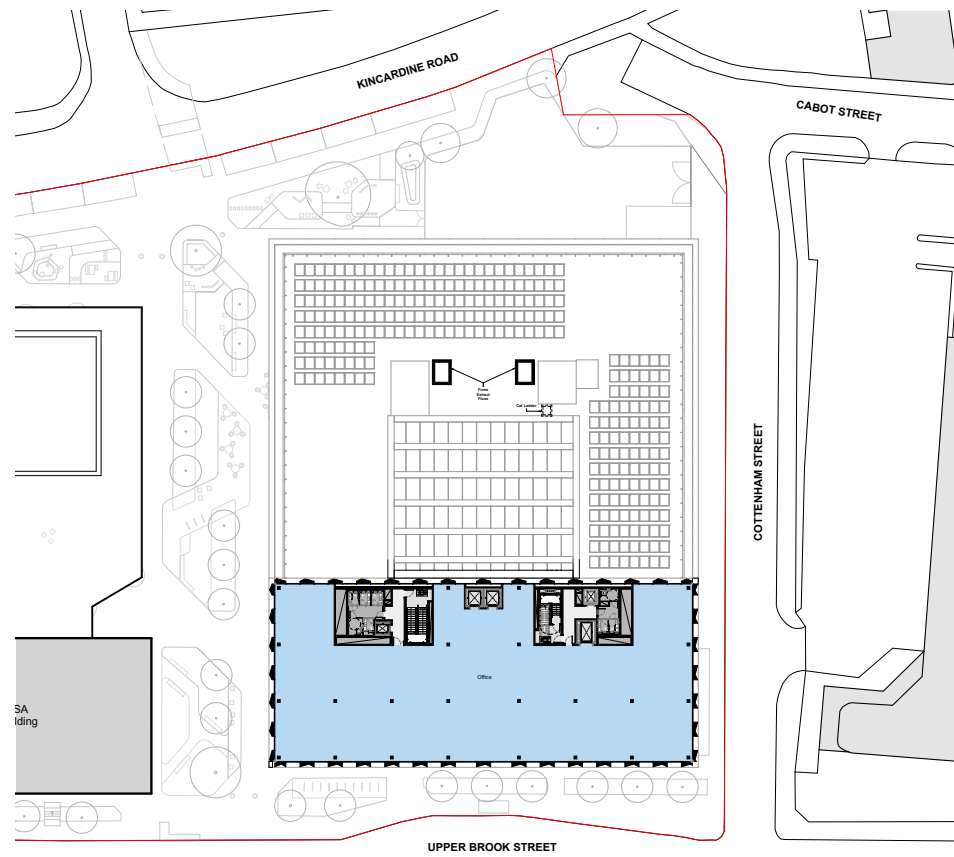
Level 02



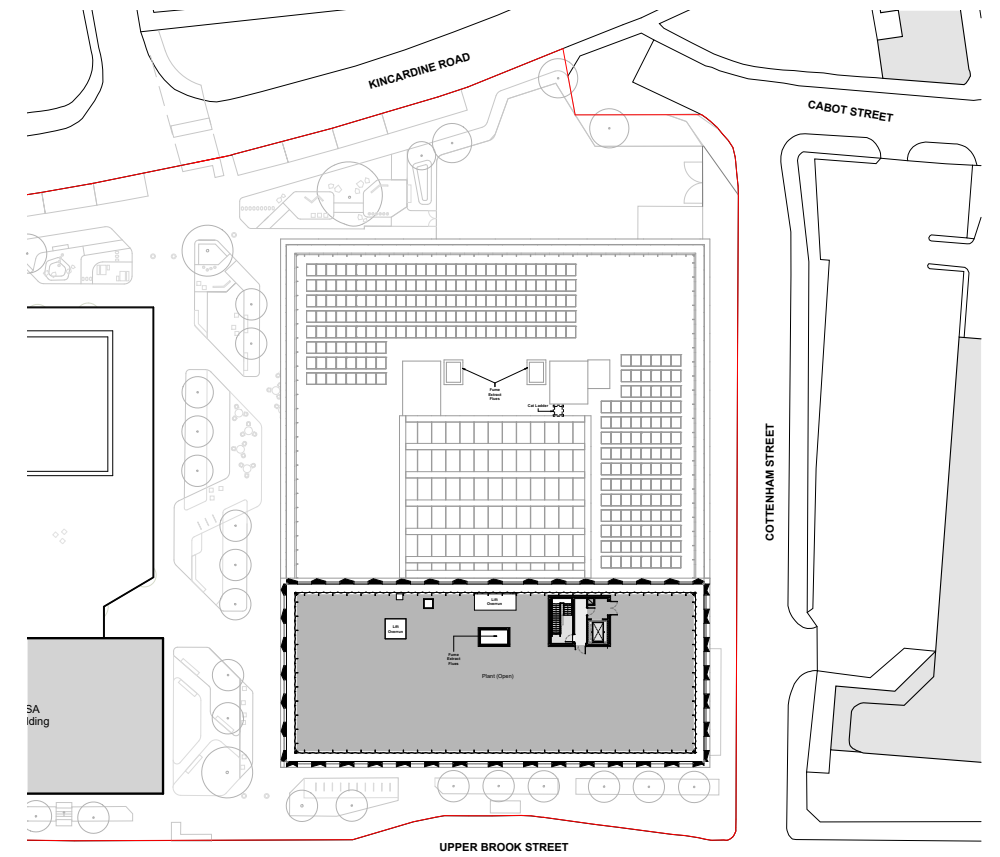
Level 05



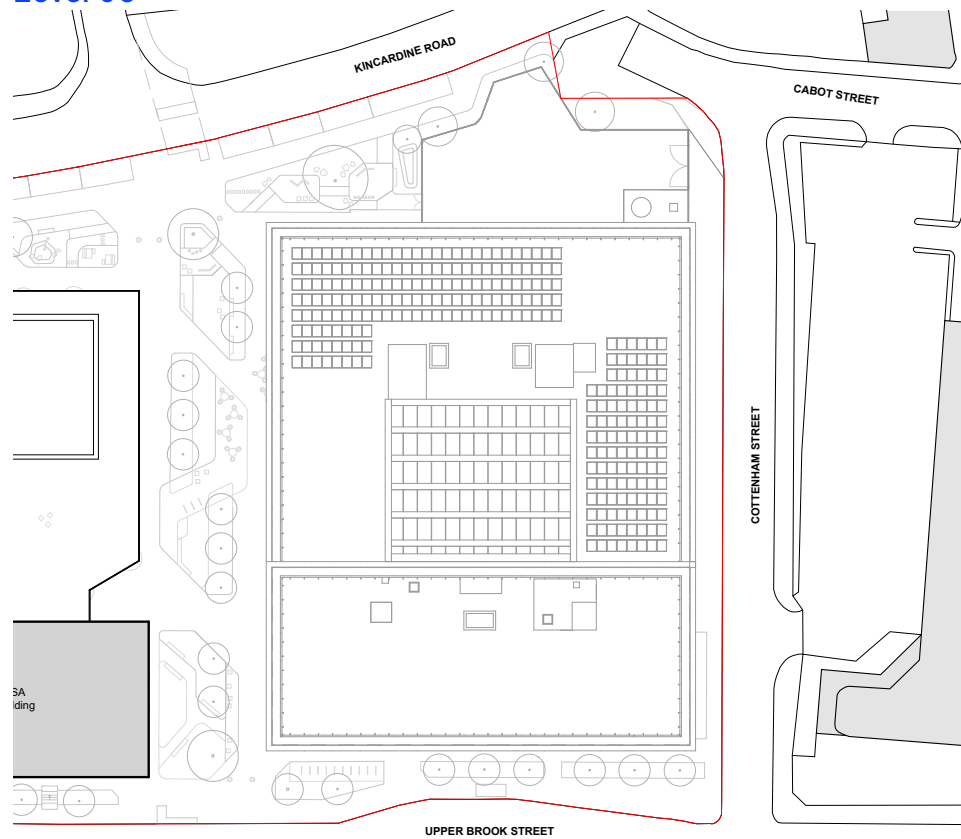
Level 06



Level 07



Level 08



Roof

Legend

- Lab/ Office
- Breakout/ Reception
- Cafe
- Cycle Store
- Staff welfare
- Core
- BOH/ Plant

7.3 External Appearance

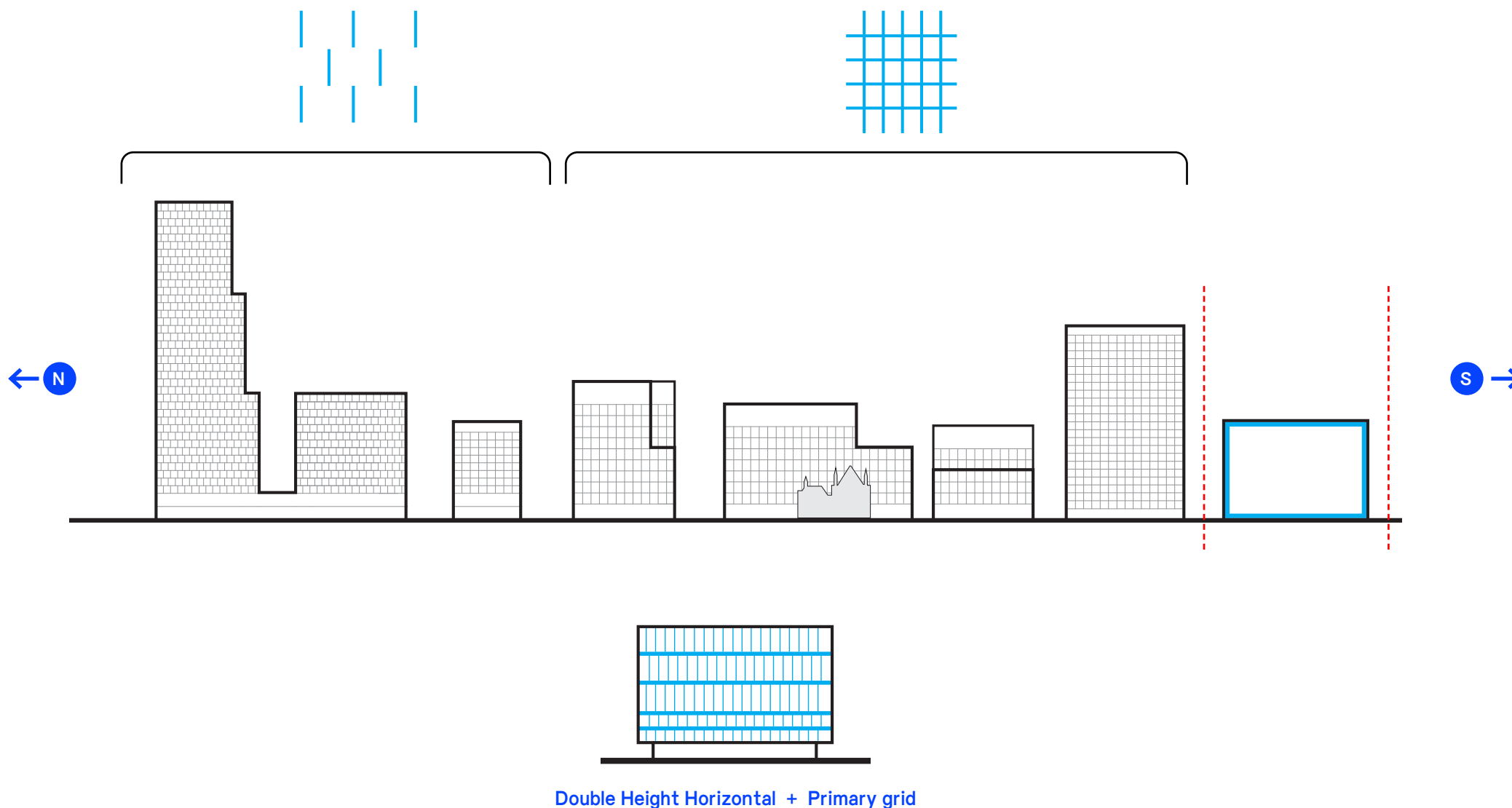
Cladding Composition

As the Sci-Tech block is the southernmost bookend of the emerging Upper Brook Street Masterplan, the design of the cladding composition needed to complement the rest of the proposed buildings, but also provide a robust statement at the start of the scheme.

Based on the emerging illustrative architectural designs for the wider Masterplan, it is understood that primarily all the central buildings are likely to have a gridded facade. The opposing northern bookend of the scheme (block F) has a staggered cladding design to finish the composition.

To complement the current proposed Masterplan composition and still create a strong architectural feature at the start of the scheme, the cladding design chosen has a primary grid to relate back to the central gridded aesthetic, with the addition of strong double height horizontals to break the rhythm of the facade with shuffled panels to relate to the corresponding northern bookend counterpart.

Once the principles of the architectural composition were established, a series of sketch studies were explored to begin designing the external appearance of the building.



Early sketches

Cladding Composition - Design Evolution

Below is a sketchbook of some of the facade compositional options that were explored.



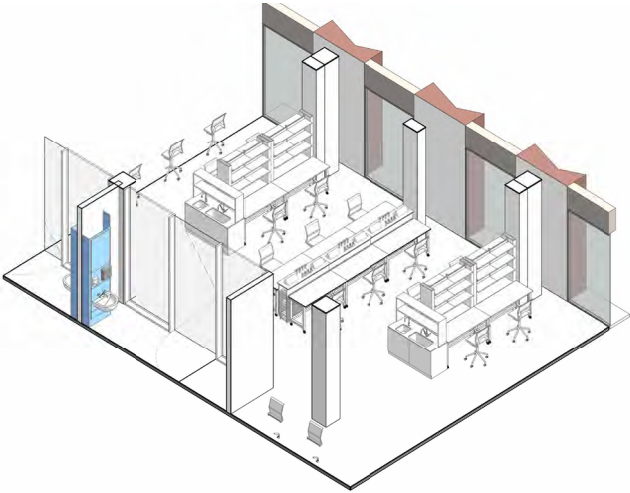
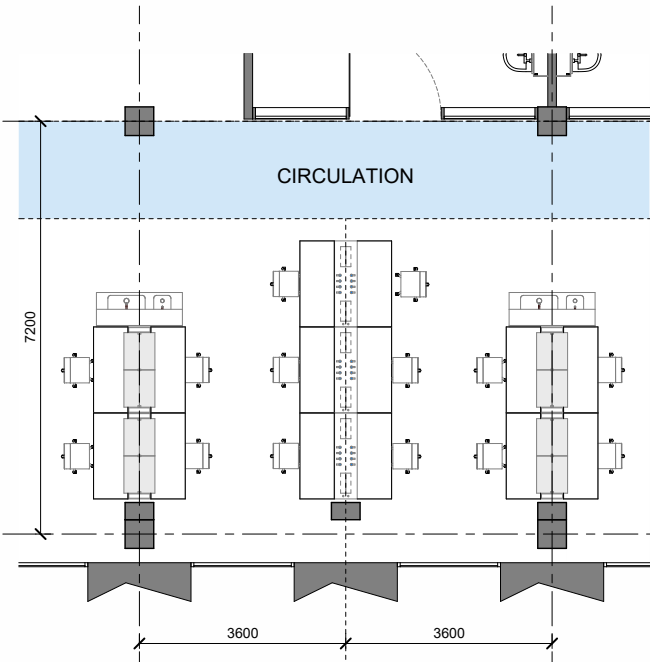
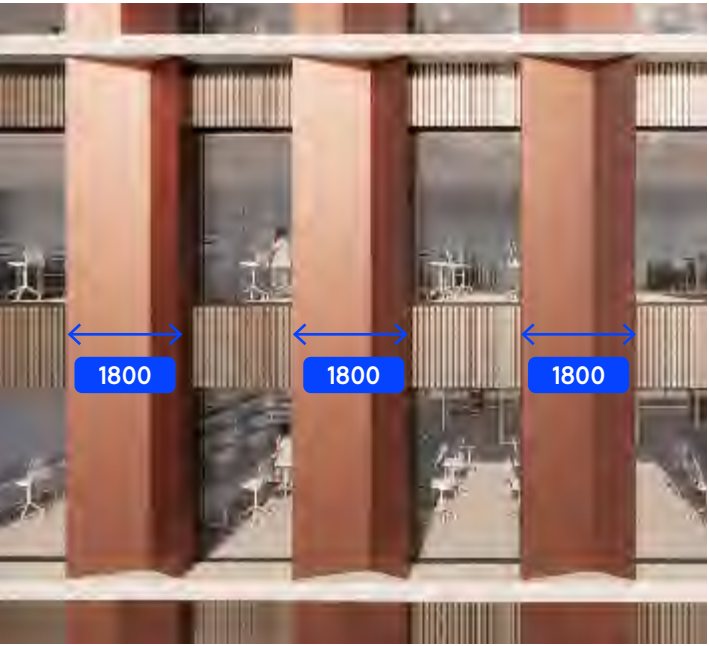
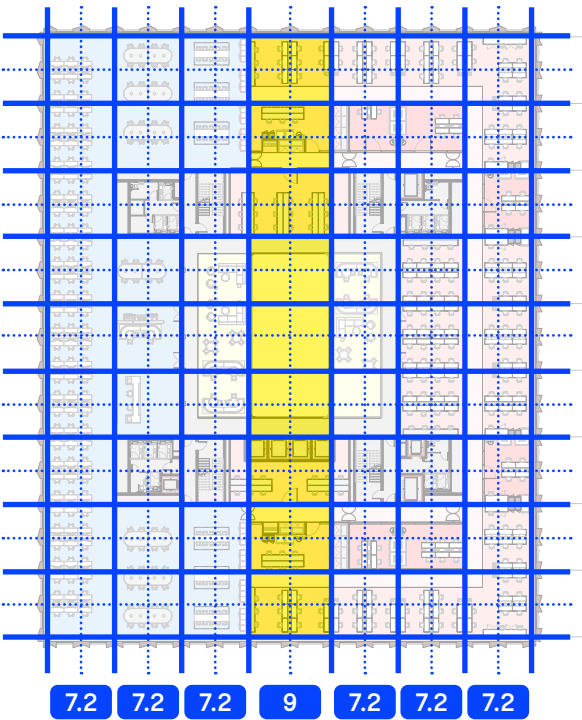
Facade Panel design

As well as the general aesthetic of the external appearance of the building, it was integral that the design of the facade worked efficiently with the regimented lab layout of the interior.

The cladding panel setting out is based upon a 3.6m lab planning grid, to best integrate the rhythm of the façade with the internal layouts.

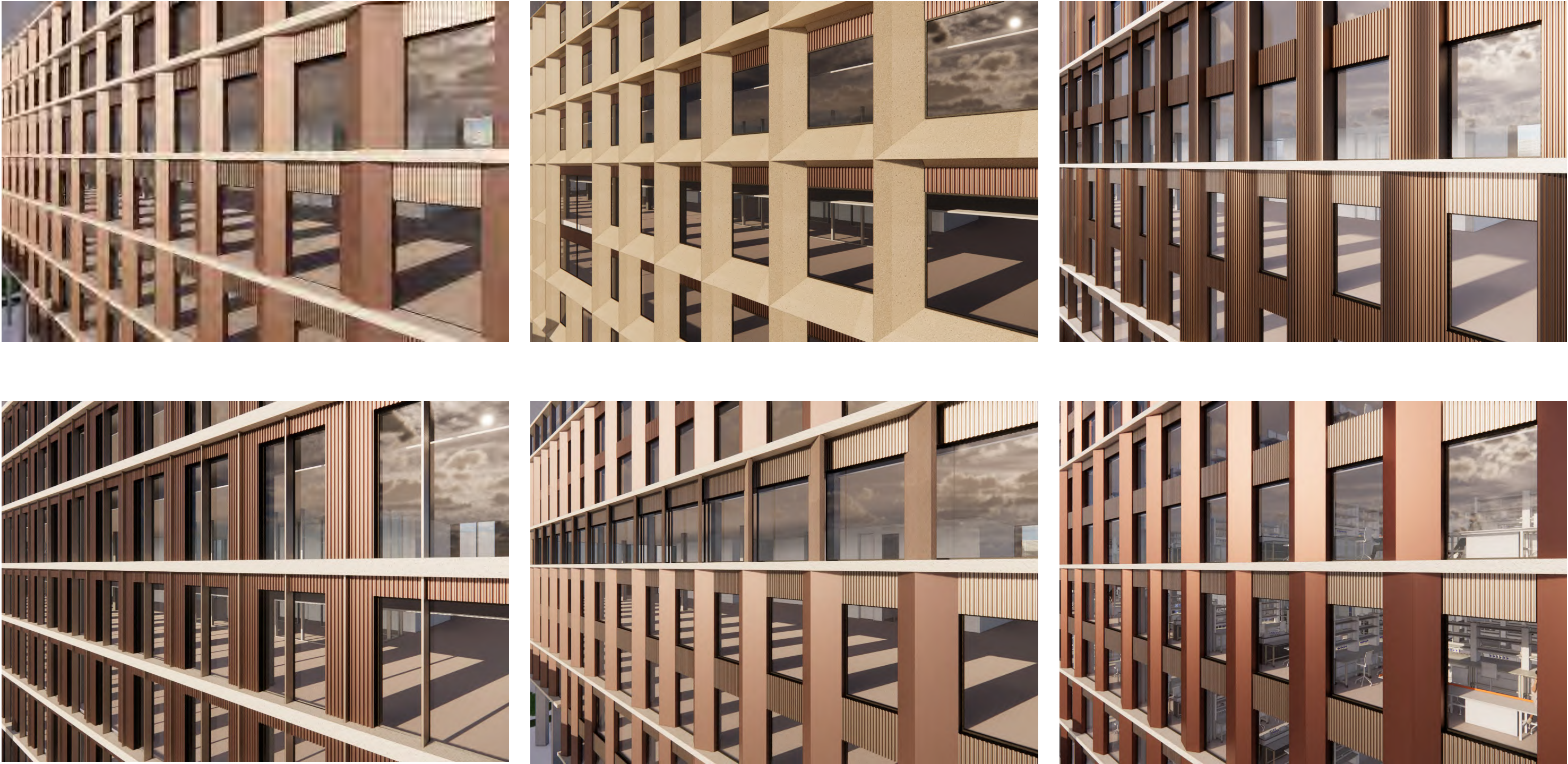
The solid vertical spandrels are centred on the 3.6m planning grid and have a width of 1.8m. This width of 1.8m was chosen, as this would align with most lab benching, and additionally provides sufficient solid to glass ratio required for the Part L calculations.

To allow for the most efficient perimeter condition for the lab layout a 9m structural bay is created in the middle bay. This creates two special 4.5m bays in the centre of the north and south elevations lining up with the central atrium.



Cladding Panel - Design Evolution

Below is a sketchbook of some of the facade panel designs that were explored.



Facade Materiality

The following section explores the proposed materiality of the Sci-Tech building, looking to the local built context as precedent to inform the external appearance of the scheme.

The local context consists of a mix of science/technology metal clad buildings to the west of the site within the university quarter, and red/brown earth tone brick buildings to Ardwick and Brunswick.

The design for the cladding wishes to combine and unite these two opposing aesthetics by utilising the texture of metal science/technology buildings, and the rich red brown colour tones of the brick façades.

Additionally, many of the significant local buildings have lighter horizontal banding to the façades, creating a contrast between the horizontal and vertical elements. This was also considered in the material selection of the façade design to emphasise the rhythm and hierarchy of the composition.

For the lighter tone materials, the design team at the local civic buildings which tended towards warm stone textures and tones.



Metal cladding



Sustainable Materials Innovation Hub



Manchester School of Art



Manchester Engineering Building A

Red/Brown Earth Tones



Tanzaro House



Plymouth Grove Hotel - Grade II Listed



Bridgelea Primary School

Horizontal striping



The Mawson Hotel - Grade II Listed



Victoria Baths - Grade II* Listed



Former Nicholls Hospital - Grade II* Listed

Stone Tones



Former Unitarian Chapel - Grade II* Listed



Apollo Theatre - Grade II listed



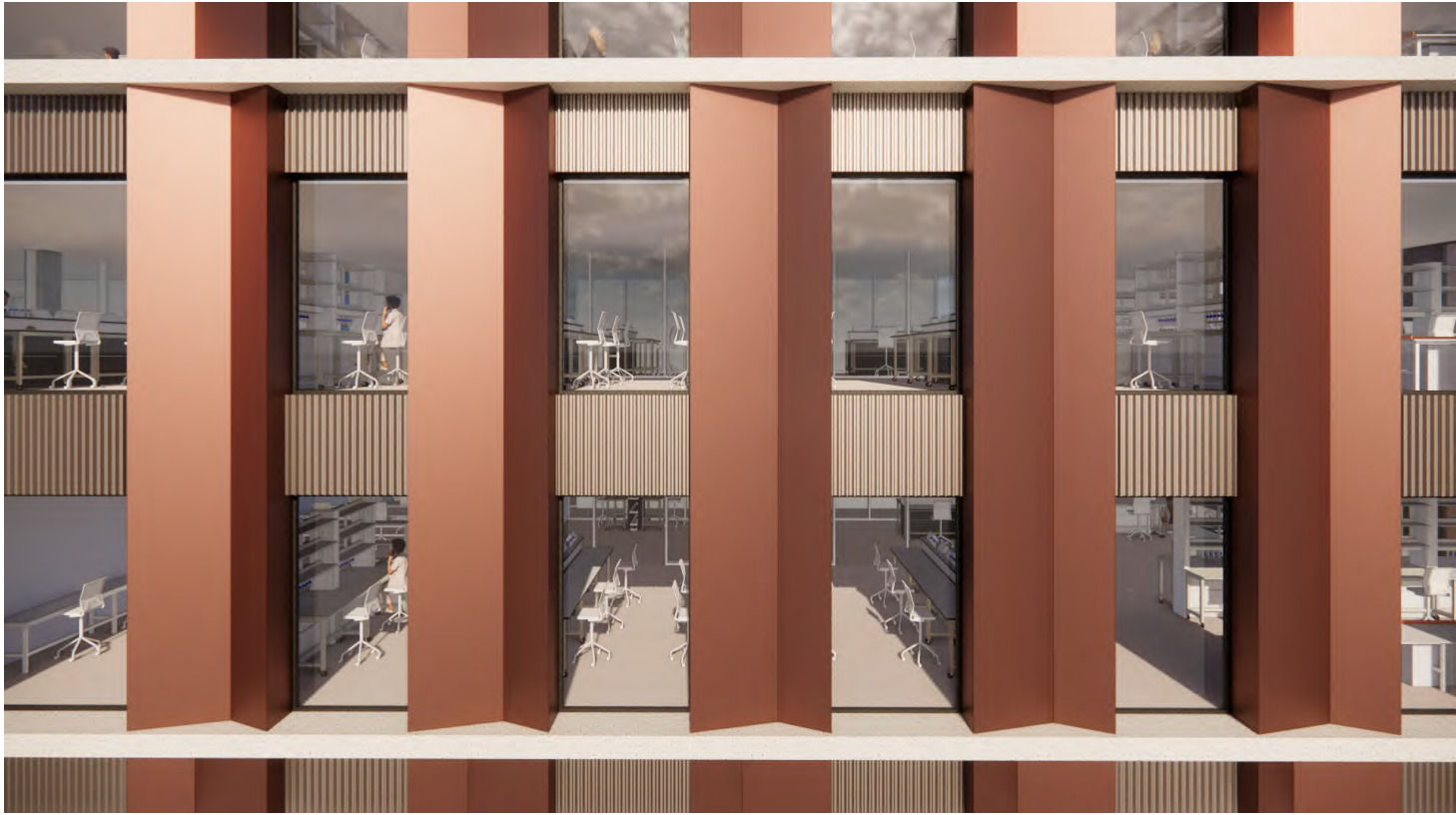
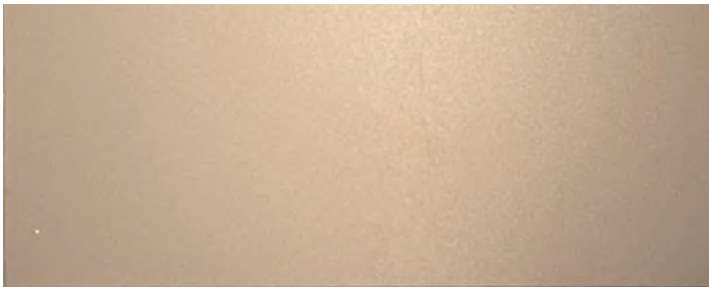
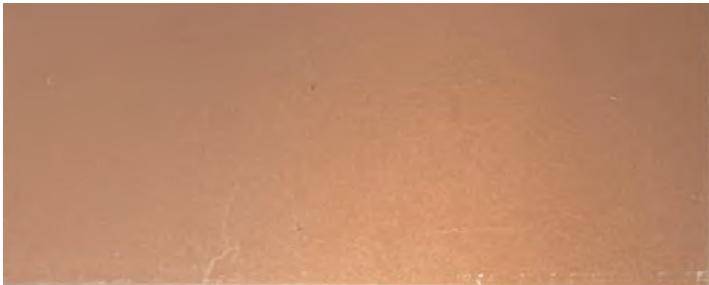
Oddfellows Hall - Grade II Listed

Facade Colour Studies

Due to the many red/brown tones identified within the materiality context analysis of Ardwick and Brunswick, anodised aluminium was chosen as the material of choice for the main panel as the nature of the anodising allowed for a multitude of tones within one material. As the panel design has many angles and flips every other floor, the range of colours available would hopefully be multiplied even further.

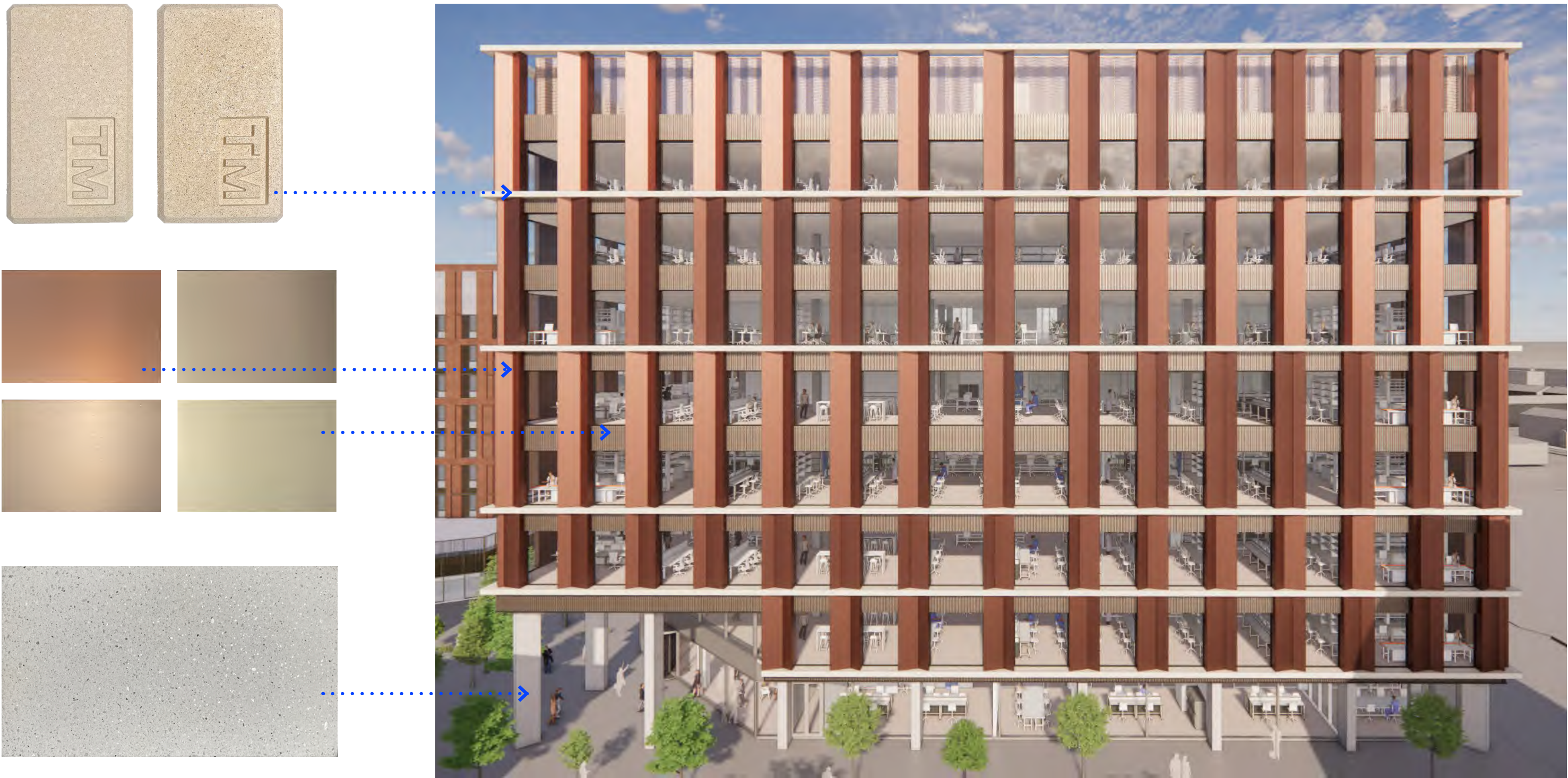
Various tests were undertaken, to choose the right base tone that could offer the range of colours desired. The base tone that offered the right variety was an ochre brown tone, that went a light brown in direct sunlight, and then a rich orange/red tone in the oblique angle. The tones offered felt representative of the material characteristic of Ardwick and Brunswick and would assimilate well with surrounding local context.

For the secondary horizontal textured spandrel, a more neutral version of the same tone was chosen to compliment the master colour tone, however not compete with the vertical panels.



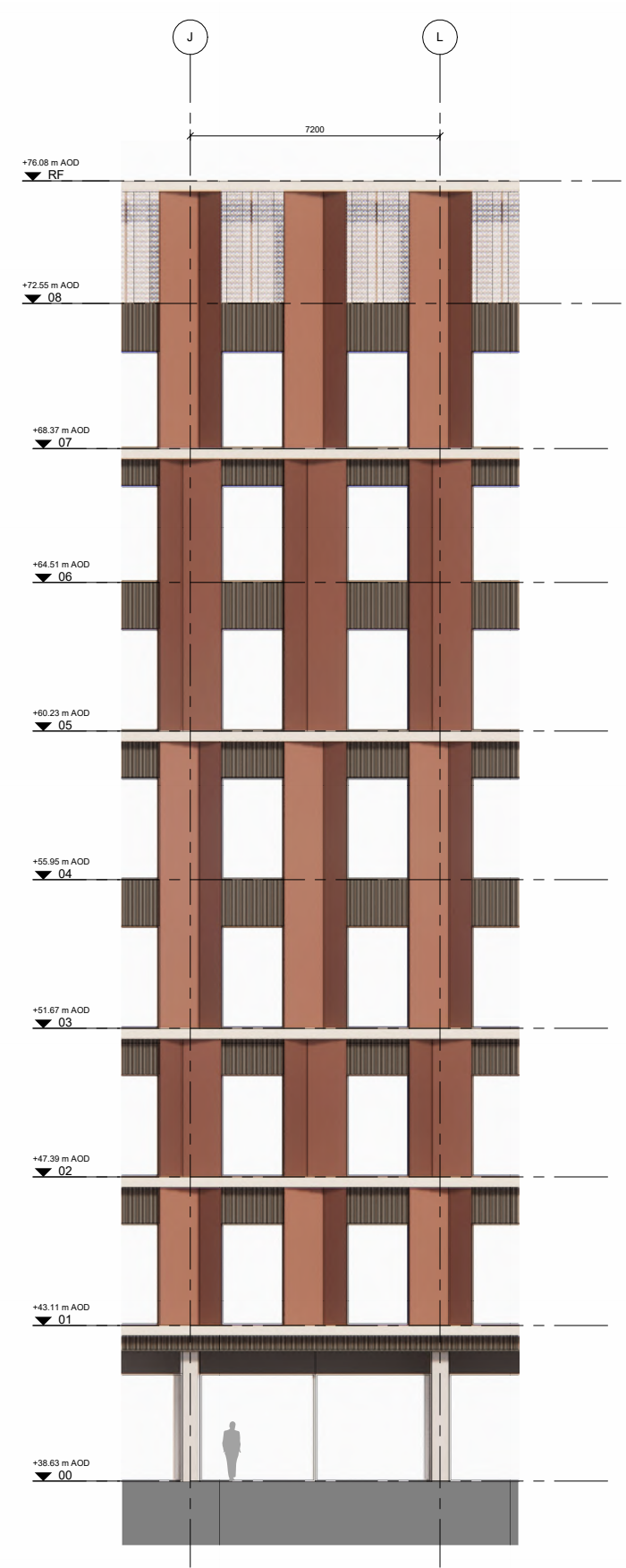
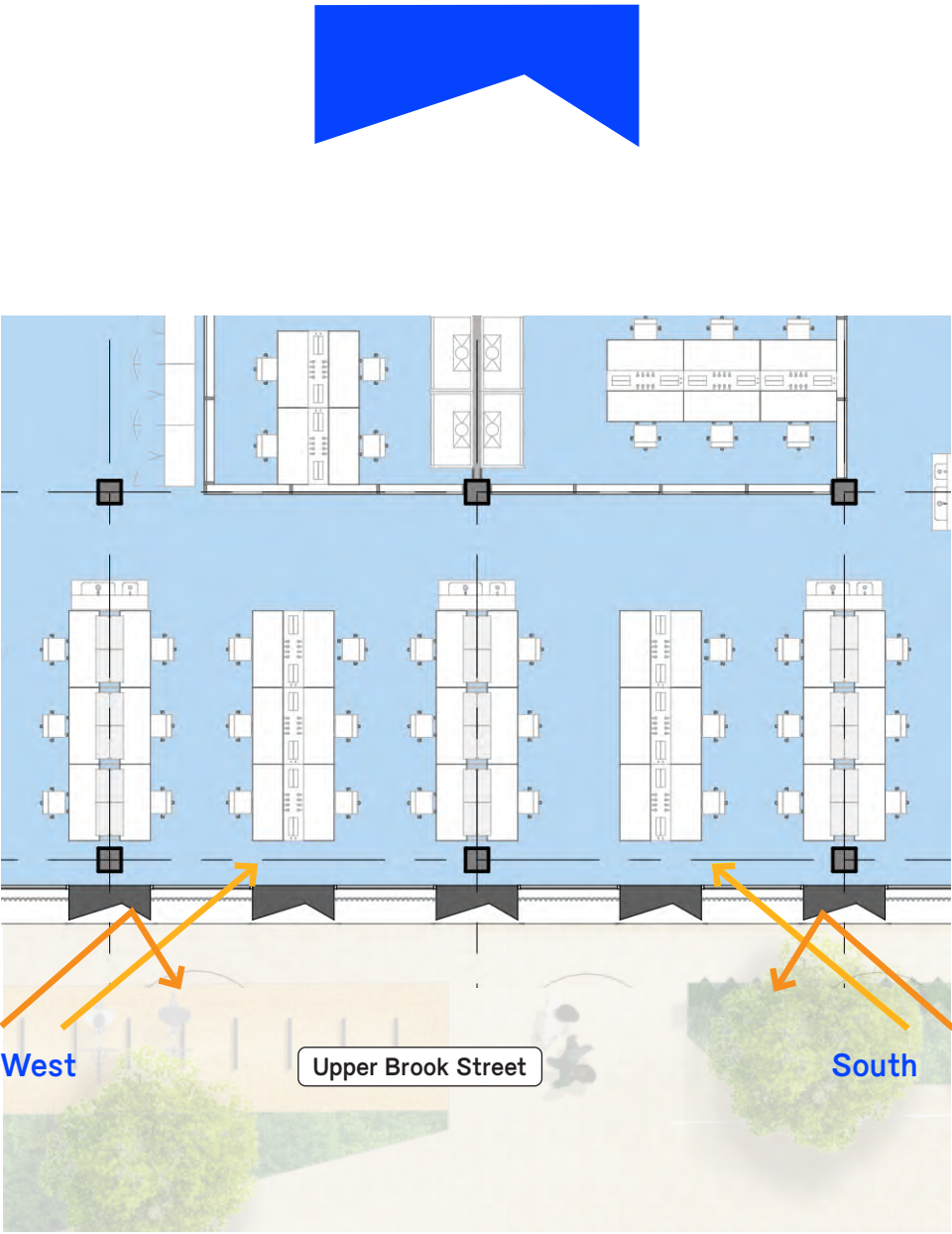
Facade Materiality Elevation

Following the site analysis, and material studies the chosen material selections were applied to the cladding composition to create a primarily metal clad facade ,with red brick earthy tones, along with more classical stone horizontal plinths. Textured concrete was also applied to the lower floors to ground the building, to create a robust and tactile frontage to Thorburn Walk and Upper Brook Street.



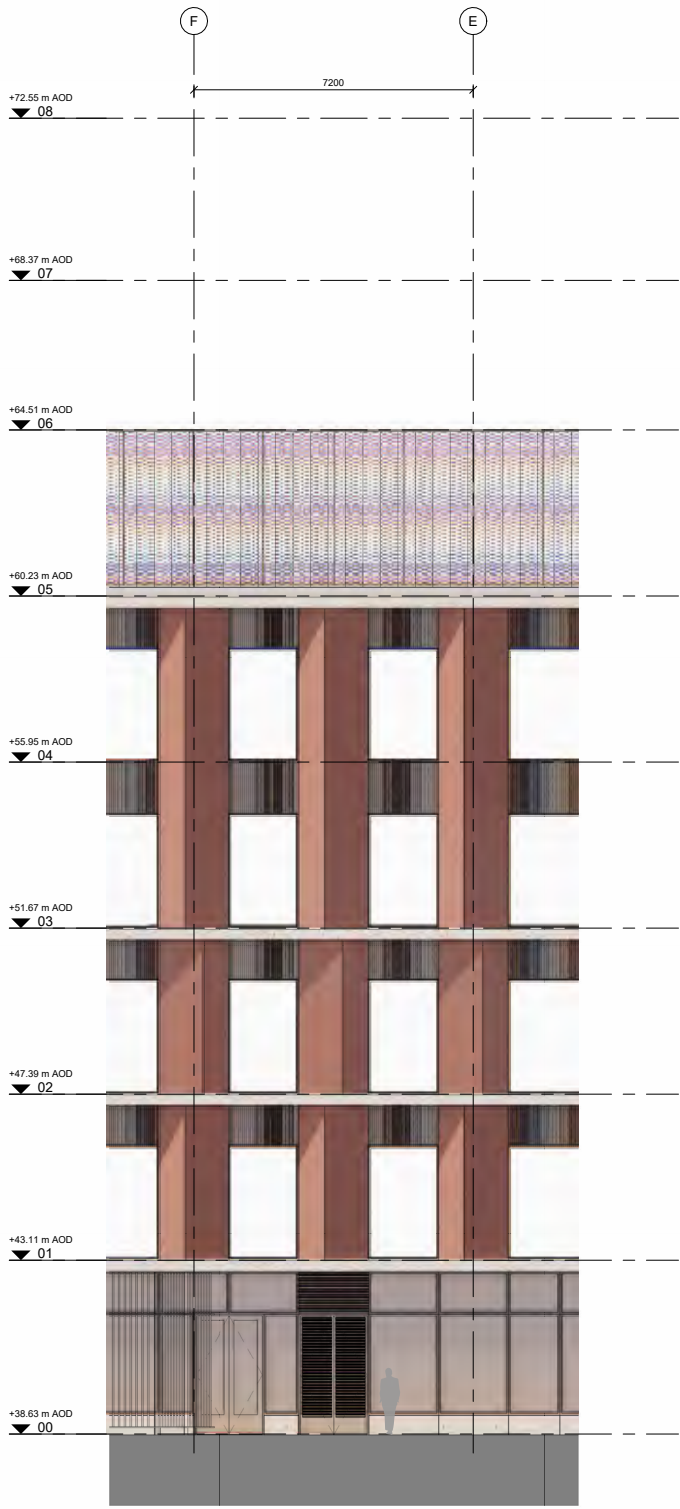
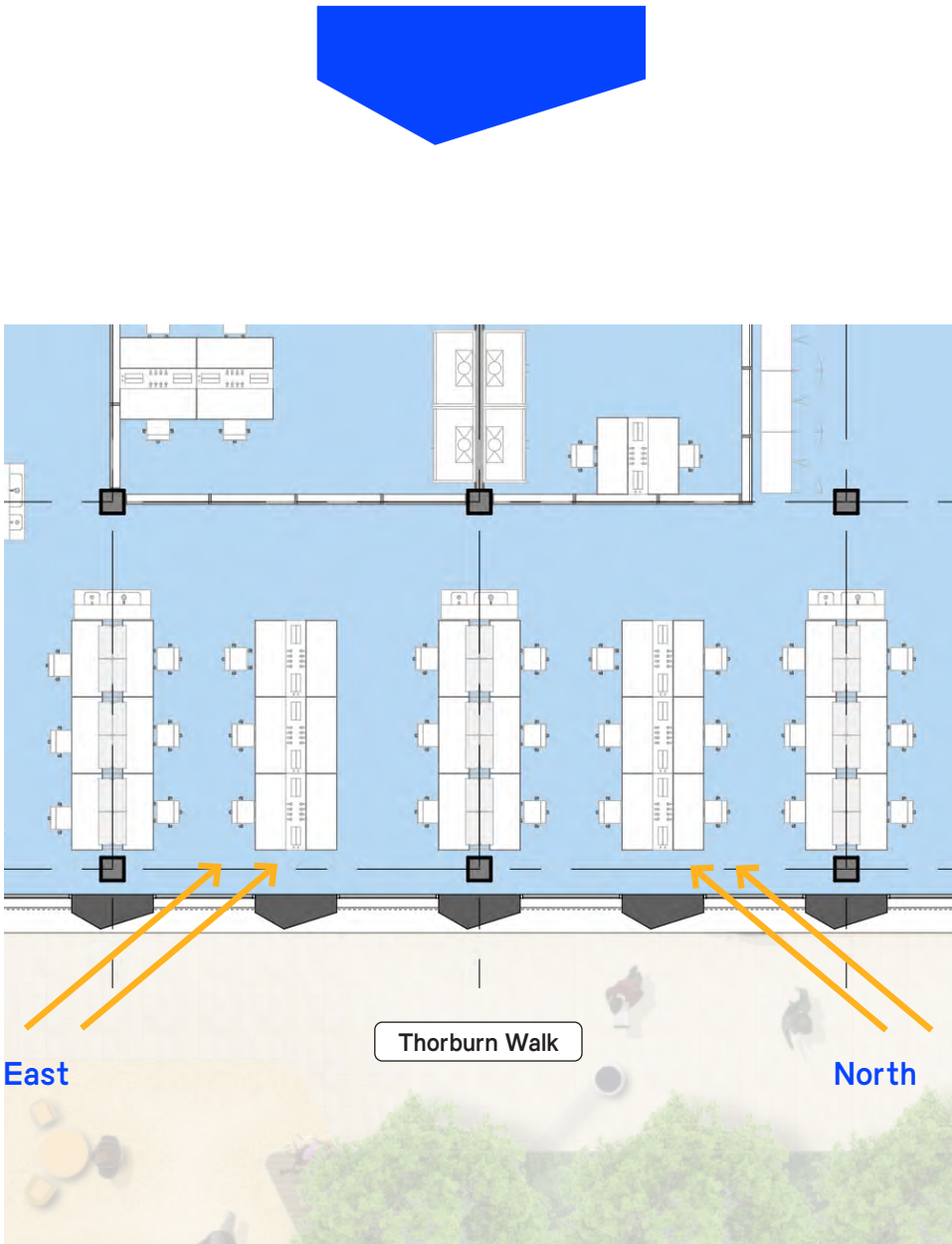
Bay Study - South Facade

Due to the opposing requirements of the north façades compared to the south façades, there are two different panel profiles. The two south façades facing Upper Brook Street and Cottenham Street require additional vertical shading due to the increased solar gains. The panel has a W shaped profile to provide horizontal shading, however still allowing direct views out to the south over the University.



Bay Study - North Facade

As the two north façades receive very little solar gain, there is little requirement for horizontal shading. As there is very limited daylight to these façades, due to their orientation and the overshadowing from the PBSA scheme, the panel profile has been adapted to allow maximum amount of diffused light into the space whilst still reducing heat loss. Both north facade have a V profile, to maximise daylight and improve views along Thorburn Walk.



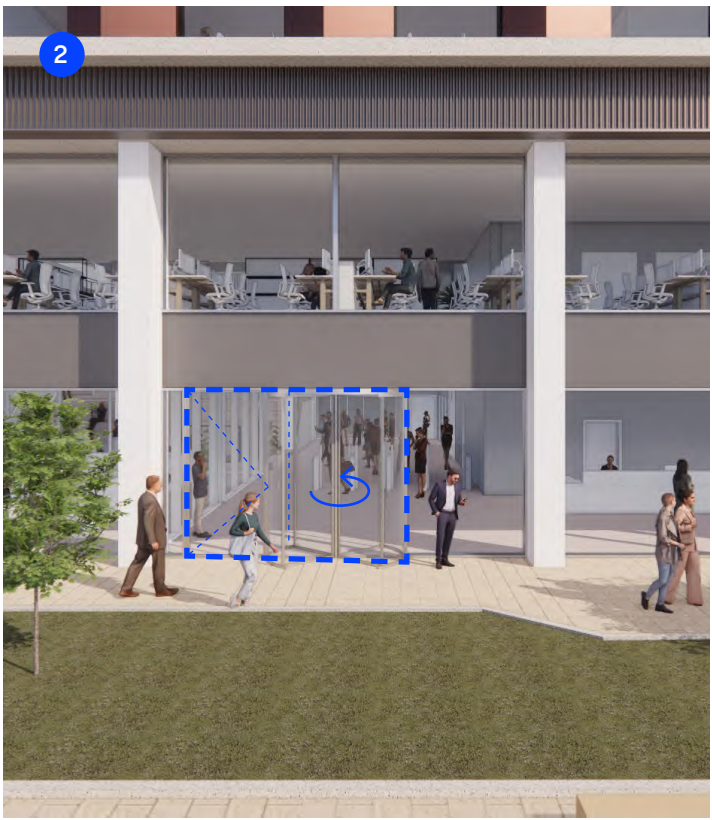
Building Entrances

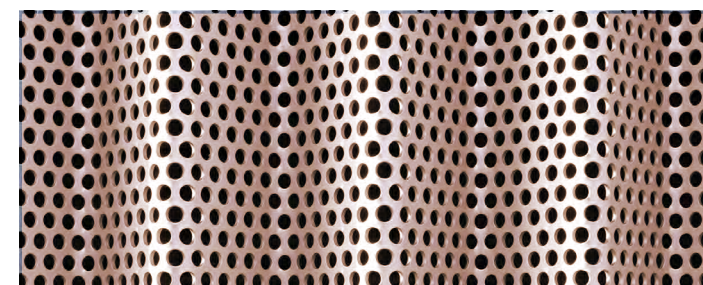
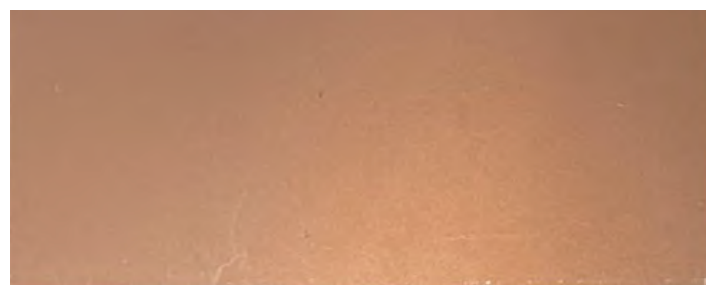
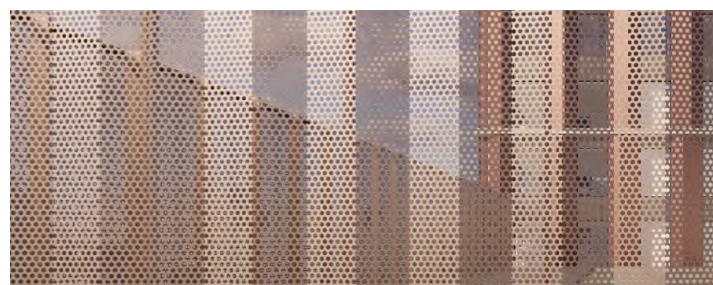
There are four pedestrian entrances into the building, two access straight into the reception via Thorburn Walk, one entrance directly into the public accessible cafe (also via Thorburn Walk), and one entrance into the secure cycle store via Kincardine Road.

All pedestrian entrances are recessed, with the 2 corner entrances pulled back further to improve circulation and views into Thorburn walk from the main roads.

The landscape levels have been designed to ensure that all entrances into the building have level access for maximised accessibility and inclusivity, and additionally all revolving doors have pass doors directly adjacent.

- 1 Main entrance - Upper Brook Street
- 2 Secondary entrance - Thorburn Walk
- 3 Cafe entrance - Thorburn Walk
- 4 Cycle Store Entrance - Kincardine Road



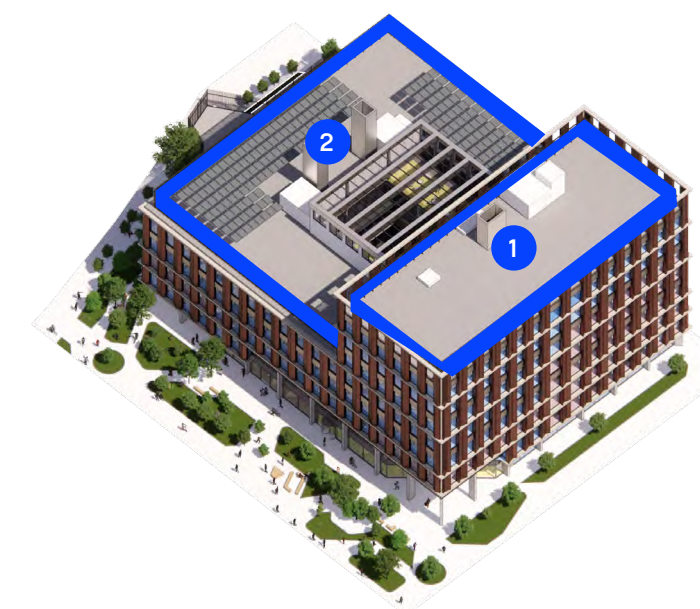


Plant Screens

Roof plant is located on Level 05 and Level 08. Due to the townscape views and planning sensitivities surrounding roof plant enclosures, both roof plants have been enclosed with a perforated folded metal screen to match the colour and reflections of the main cladding panel material.

Additionally the main cladding system extends beyond the plant screen at Level 08 on the upper block to enclose the upper roof plant screen further. This additional intervention is required on this level only for townscape and massing reasons, as well as to aid the access and maintenance strategy.

- 1 Upper plant screen - Level 08
- 2 Lower plant screen - Level 05



7.4 Site Elevations

South West Elevation - Upper Brook Street





North West Elevation - Thorburn Walk





7.5 Areas

Area Schedule

The overall Gross External Area of the proposed development is 21,077m², with the overall Gross Internal Area being 20,038m².

The combined Net Internal area for the scheme is 15,169m², 13,723m² of this figure being dedicated lab/ office space, the rest being meeting rooms, reception, cafe and amenity.

The occupancy of the building is based upon a lab/office split of 60%/40%.

The area figures have been developed during the design process to meet the client’s needs and to accommodate the design brief.

Level	IPMS 1 (Gross External Area equivalent)		IPMS 2 (Gross Internal Area equivalent)		IPMS 3.2 (Net Internal Area equivalent)		Combined Net Area		Office/ Lab (Net)		Retail (Net)		Reception/ Amenity (Net)		Occupancy	
	m²	ft²	m²	ft²	m²	ft²	m²	ft²	m²	ft²			m²	ft²	Lab	Office
8 (Roof)	52	557	41	440	0	0	0	0	0	0	0	0	0	0	0	0
7	1,318	14,190	1,183	12,735	989	10,642	989	10,642	989	10,642	0	0	0	0	0	124
6	1,280	13,774	1,178	12,679	983	10,586	983	10,586	983	10,586	0	0	0	0	0	123
5	1,558	16,771	1,424	15,331	971	10,453	1,081	11,640	971	10,453	0	0	110	1,186	39	49
4	3,360	36,167	3,265	35,143	2,585	27,820	2,685	28,903	2,585	27,820	0	0	101	1,083	104	130
3	3,446	37,087	3,265	35,143	2,585	27,820	2,685	28,903	2,585	27,820	0	0	101	1,083	104	130
2	3,446	37,087	3,265	35,143	2,585	27,820	2,685	28,903	2,585	27,820	0	0	101	1,083	104	130
1	3,361	36,182	3,212	34,573	2,442	26,287	2,597	27,955	2,442	26,287	0	0	155	1,668	98	123
0	3,257	35,057	3,205	34,500	917	9,867	1,463	15,749	583	6,280	265	2,858	546	5,608	24	30
Totals	21,077	226,873	20,038	215,687	14,056	151,296	15,169	165,466	13,723	147,709	265	2,858	1,114	11,987	473	839

Occupancy Total: 1,312

Areas Measurement
These areas have been prepared for the sole use of Sheppard Robson Architects LLP's (SR's) client, are approximate and can only be verified by a detailed dimensional survey of the completed building.

Any decisions to be made on the basis of these predictions, whether as to project viability, pre-letting, lease agreements or otherwise, should include due allowance for the increases and decreases inherent in the design development and building processes. Existing buildings may present anomalies in relation to surveyed/drawn plans that may also effect the stated areas. All areas are calculated in square metres unless otherwise noted.

Where figures are also provided in square feet a conversion factor of 10.764 has been used and the result rounded to the nearest whole number.

Unless otherwise agreed with SRs client in writing, figures relate to the likely areas of the building at the current stage of the design and are calculated using:-
• IPMS (International Property Measurement Standards): All Buildings
Coalition on the 15 January 2023



8.0 BUILDING 02 - PBSA

8.1 Form and Massing

The proposal responds to both the constraints and opportunities to maximise the sites potential and make a positive contribution to the public realm and surrounding community.

Constrains

A 15m offset has been allowed between buildings, as per the SRFG to allow for a new public route. This will also improve views from student rooms reduce and overlooking.

Likewise, a 6m offset has been allowed from the northern site boundary (Upper Brook Street Masterplan - PAG/Moda) to provide 12m offset in total.

The existing sewer location and perimeter 4m no-build zone requires an additional offset from Kincardine Road.

Access for servicing of the proposal is from Kincardine Road in response to feedback from MCC. This constrains the Ground Floor layout and plant location to this area.

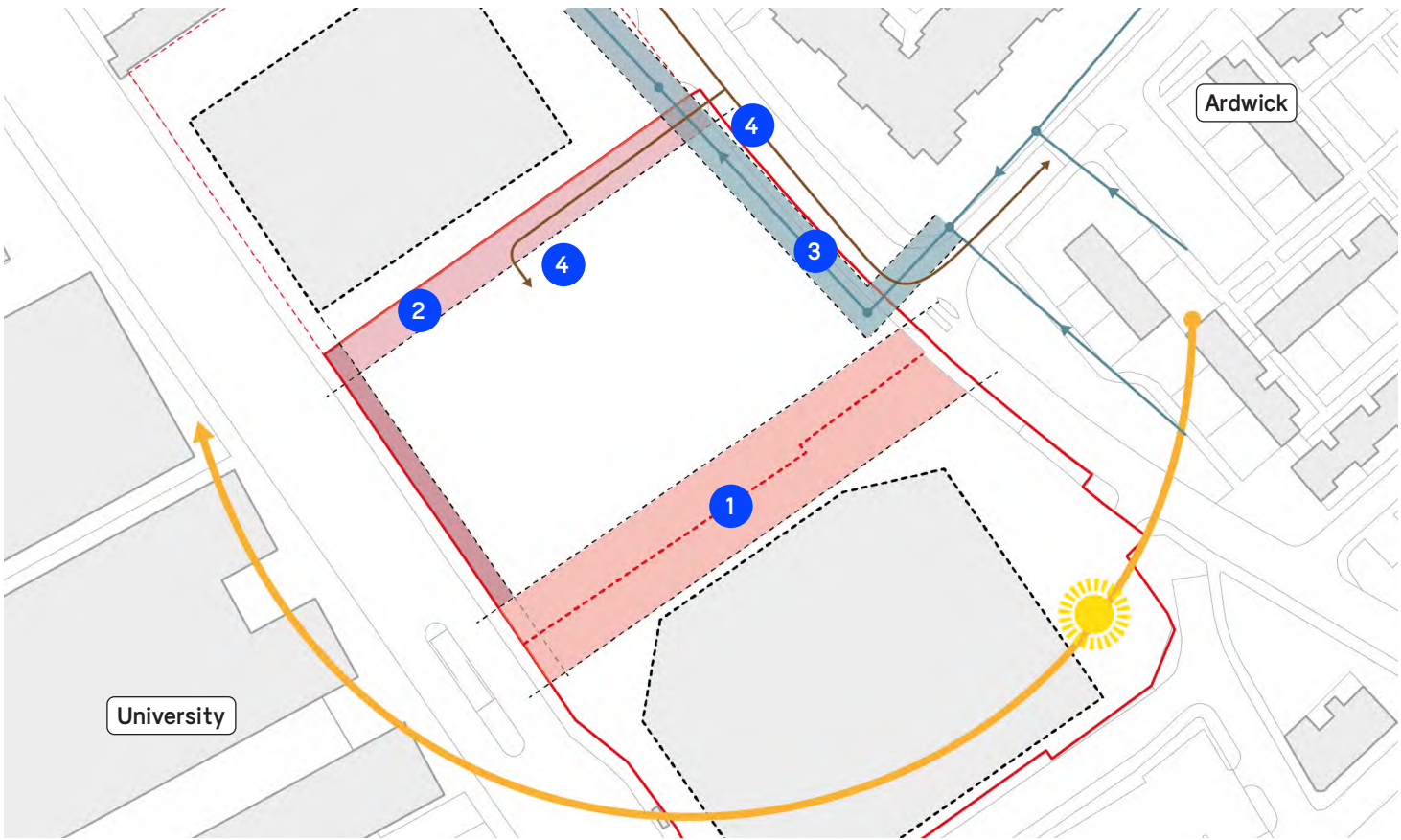
Opportunities

The sites adjacency to Adrwick offers the opportunity to create a community space to benefit local residents.

The offset from Kincardine Road allows for landscaping to create a pedestrian and cycle friendly connection into the site from the community.

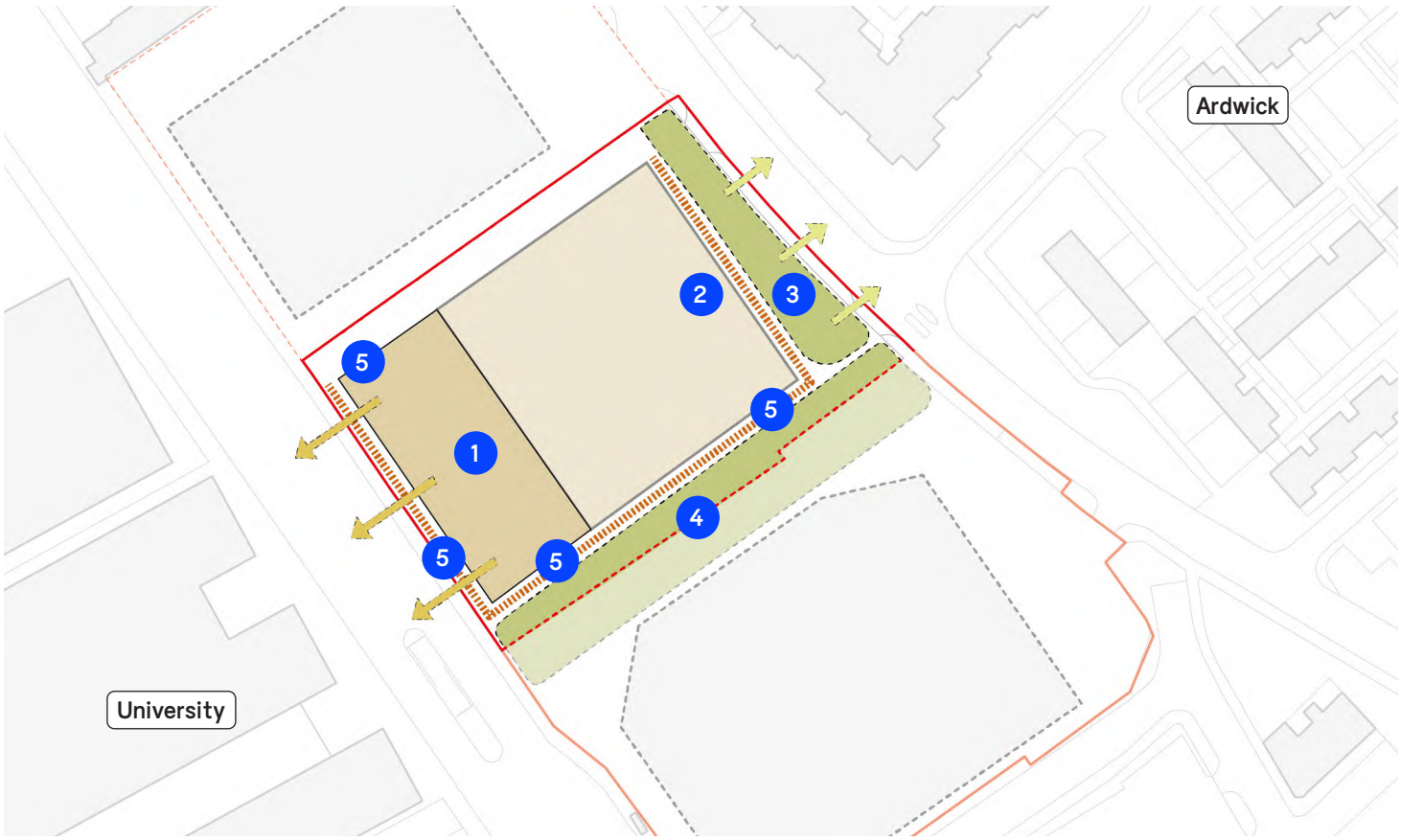
The 15m buffer zone presents an opportunity for a new public realm between the two buildings. This new route creates a link between Upper Brook Street and Kincardine Road.

The location of the site on Upper Brook Street gives a focal point opportunity with active frontages inviting pedestrians in through the site.



Constraints

- 1 15m Offset (SRFG)
- 2 6m Offset from Adjacent Plot
- 3 Existing Sewer & Easement
- 4 Servicing
- 15m Offset (SRFG)
- 3m Building Offset from Upper Brook Street
- 6m Offset from Adjacent Plot
- Existing Sewer
- Servicing



Opportunities

- 1 Opportunities for a Focal Point
- 2 Community Uses
- 3 Improvements to Kincardine Road
- 4 New Public Route
- 5 Opportunities to Activate Façades
- Opportunity for Landmark / Building Height
- Massing Height (lower)
- Public Space
- Views
- Active Frontage

Design Evolution - Layouts

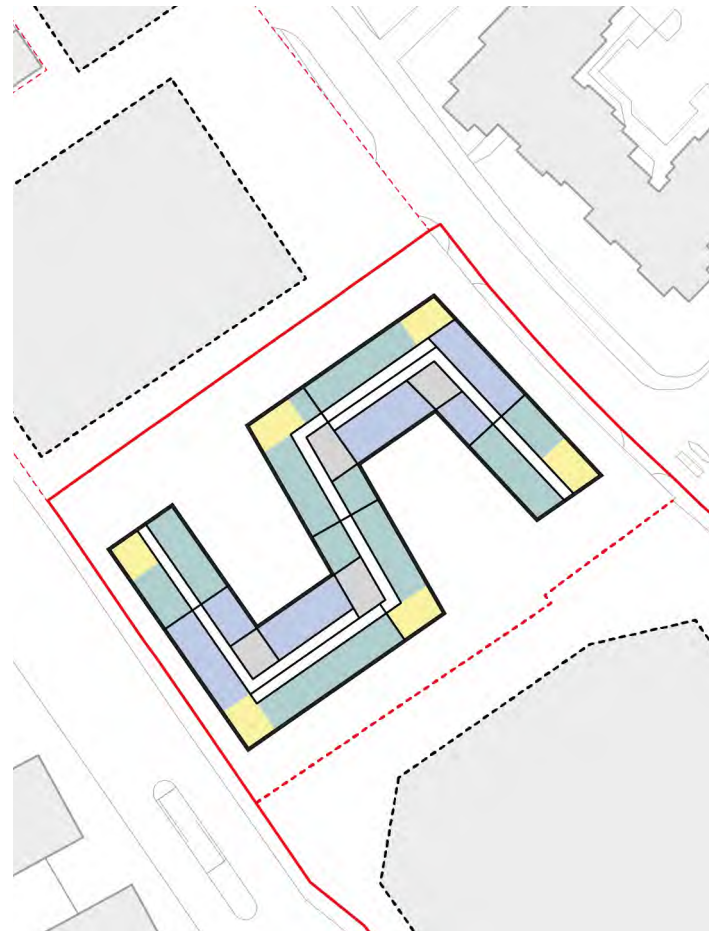
The key design considerations undertaken to respond to client's brief are outlined below:

- Investigating optimum blocks and forms in relation to adjacent sites
- Exploring variety of student room types and developing the accommodation mix
- Developing the escape strategy in line with the latest fire regulation
- Positioning of core in relation to student clusters and studios to improve space efficiencies
- Optimising building arrangements to maximise benefits from the public realm and maximising daylighting opportunities
- Reviewing suitable delivery and servicing strategies
- Developing access strategy and connectivity between the buildings
- Optimising use of external spaces
- Exploring sustainable approaches to design and engineering integrated into the project

During the evolution of the concept, the team tested a number of layouts, in parallel to massing, townscape and form requirements.

The aim was to investigate the suitability of the arrangements for optimising criteria including site density, aspect and views from student rooms, overlooking, arrangement of stair and lift core, daylight provision, micro climate and use of external spaces.

From a large number of alternatives, the team distinguished the most appropriate concepts that address the site and its constraints. The arrangements shown below illustrate these alternative options. Option 3 was selected to progress further as performed most beneficially to the location and client's brief.



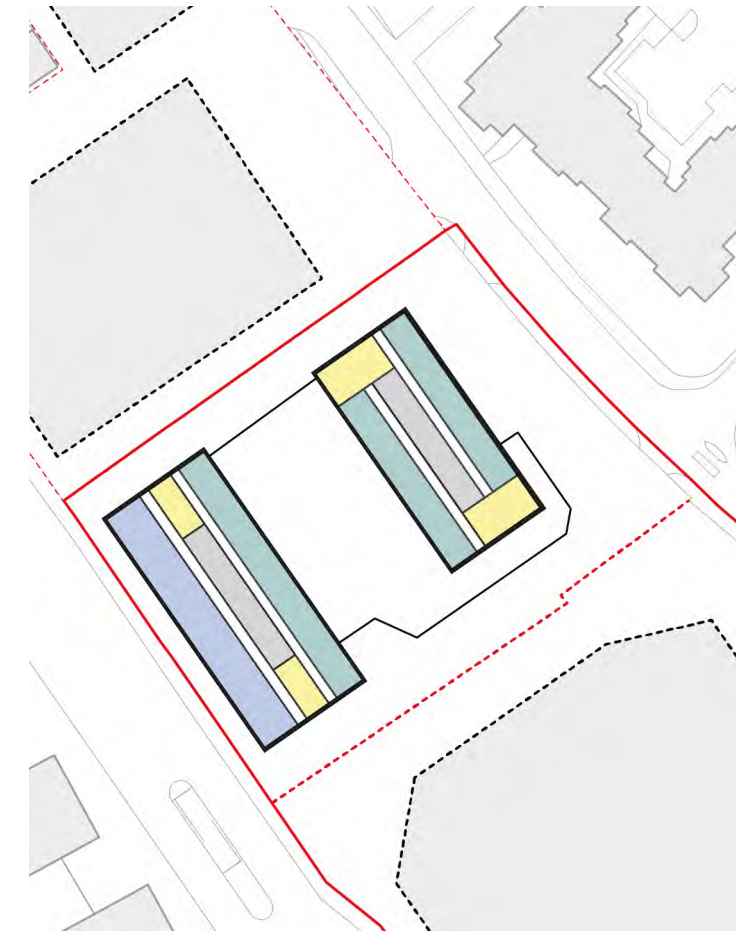
Option 1

Eastern and Western Courtyards



Option 2

Enclosed Courtyard



Option 3

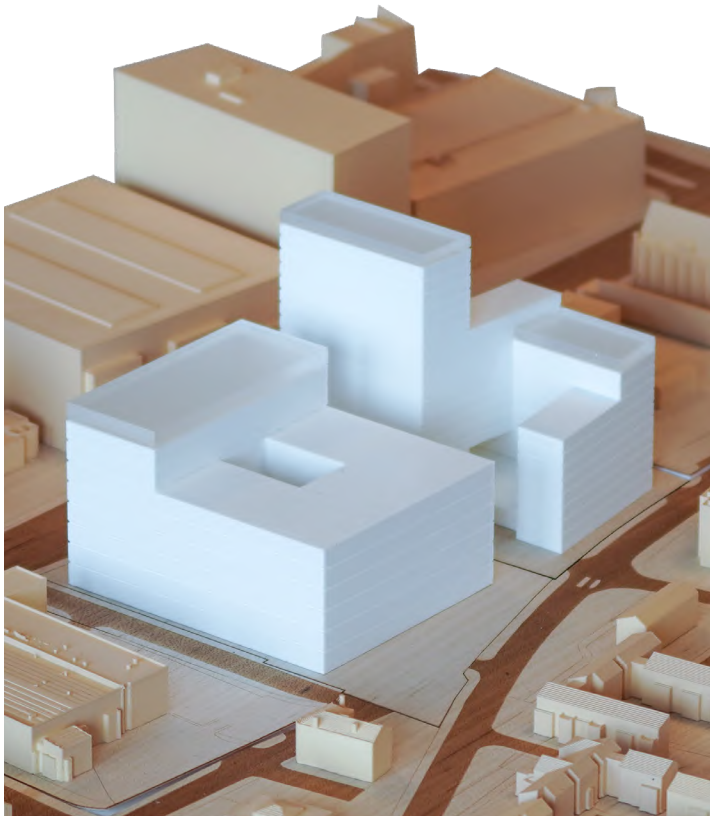
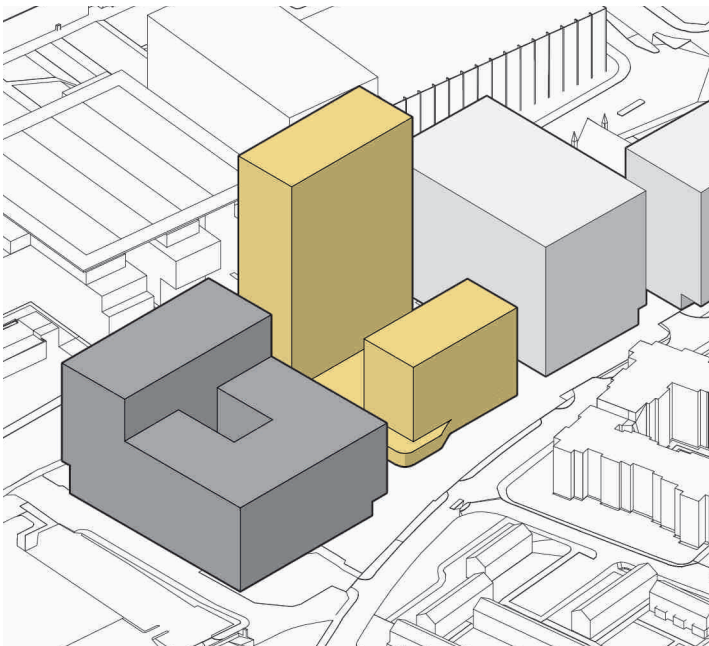
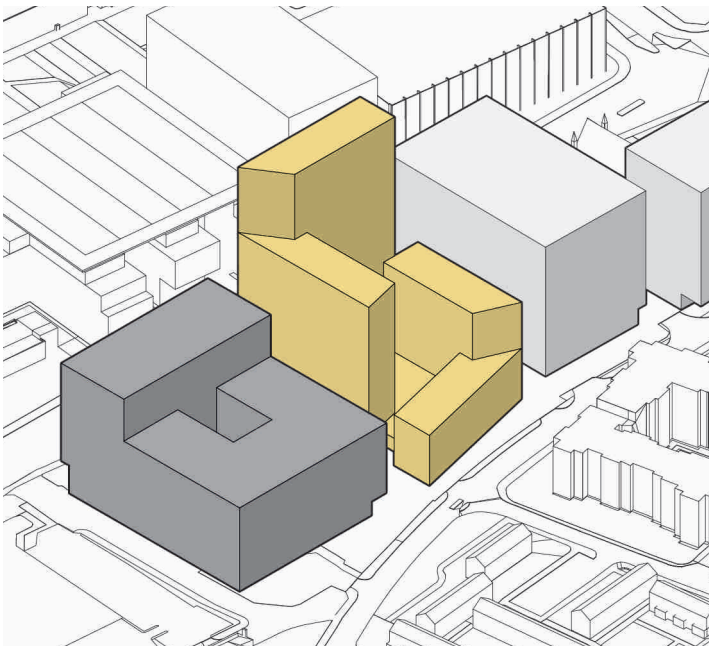
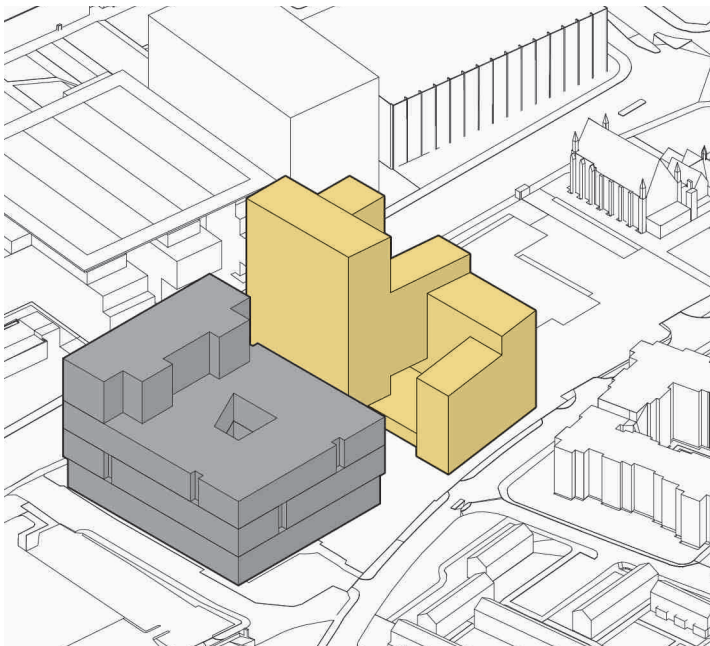
Open Courtyard

Design Evolution - Massing

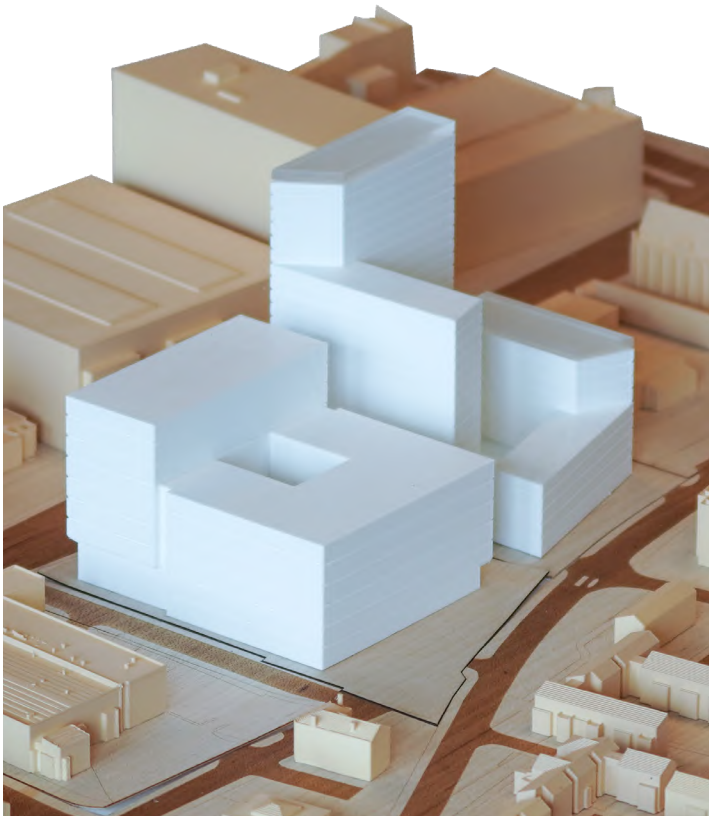
Throughout the briefing and design process the team has employed a number of physical townscape and digital models to refine and develop the building form.

Examples of these are displayed in the adjacent images.

They have proved to be useful tools to explain the scheme to the Applicant and Manchester City Council, and used as working tools to investigate massing options in the context of the site.



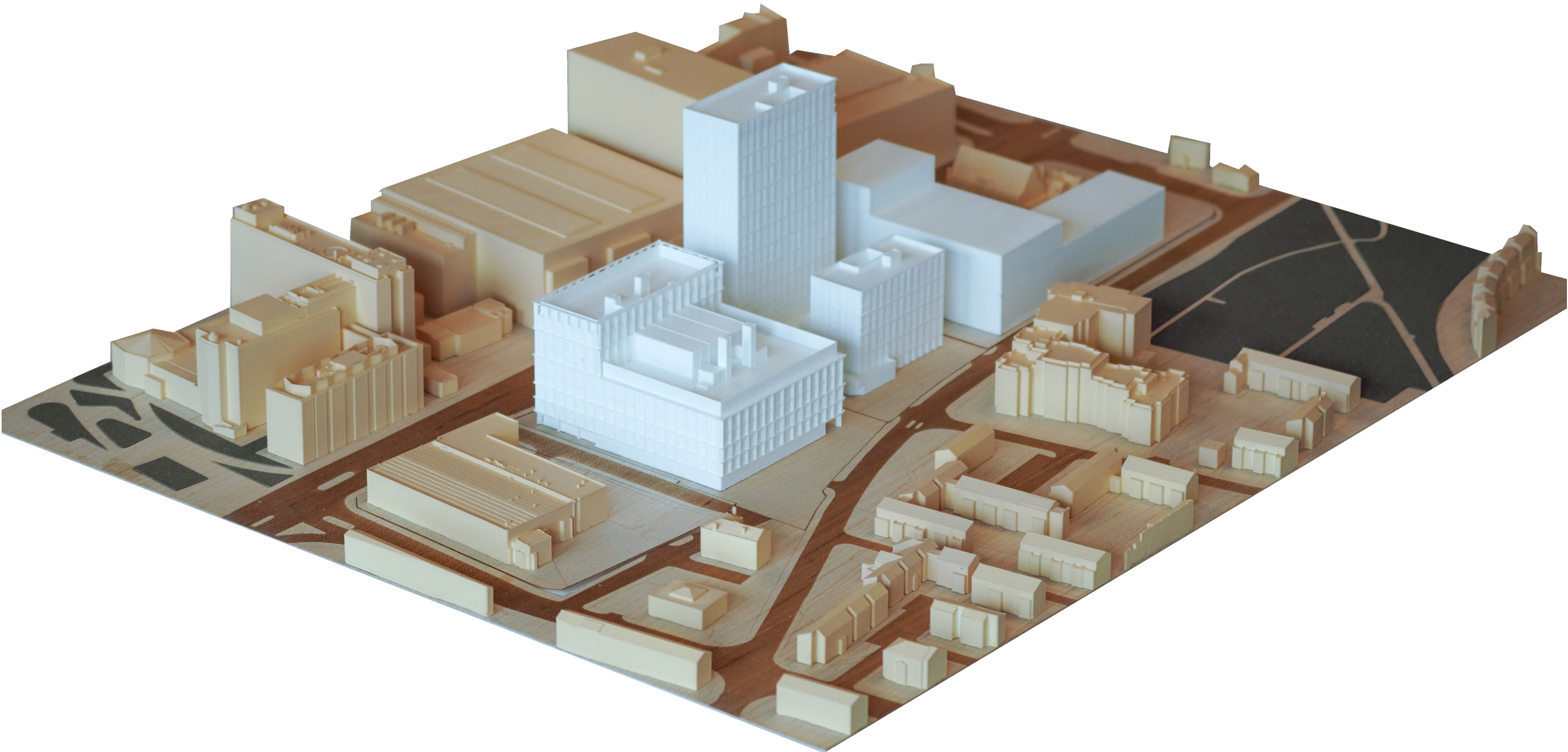
Option 1
Eastern and Western Courtyards



Option 2
Enclosed Courtyard



Option 3
Open Courtyard



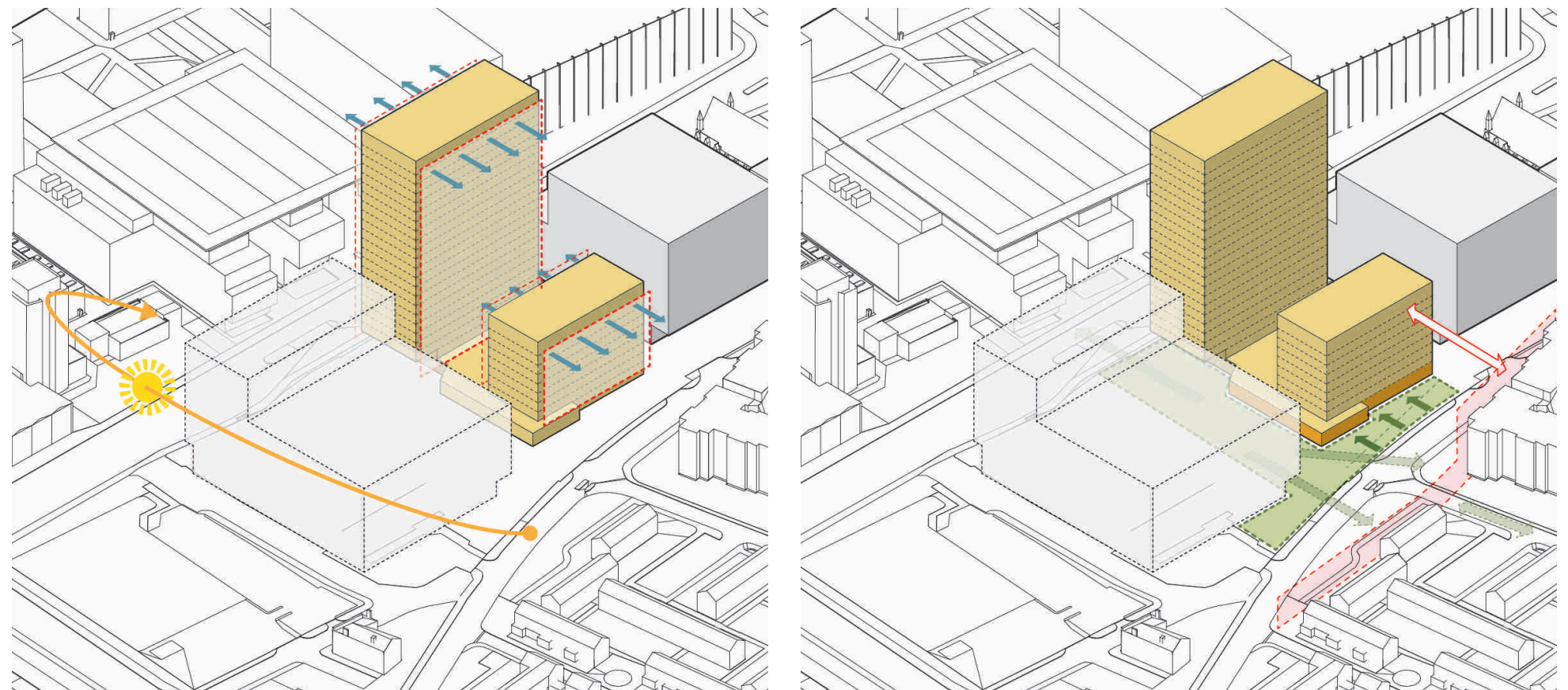
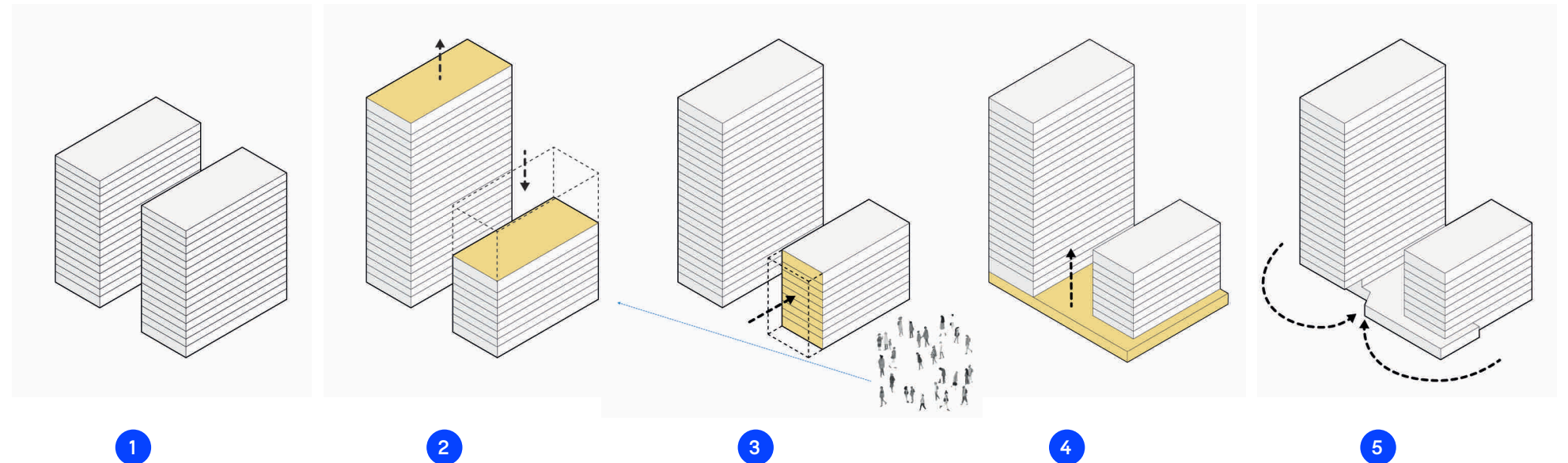
Proposed Massing

The proposed massing of Option 3 – Open Courtyard follows a number of logical steps to arrive at its proposed massing

1. Firstly, two equal blocks were extruded
2. In response to the immediate context and the massing principles in the SRFG, the community facing block was lower and the university facing block extruded.
3. The community facing block was then pushed back to create a clear pedestrian opening and emphasise the new pedestrian route created through the site.
4. A ground floor plinth was then created to house the student amenity and community spaces.
5. Lastly, a distinct entrance was carved into the ground floor to create a sense of arrival

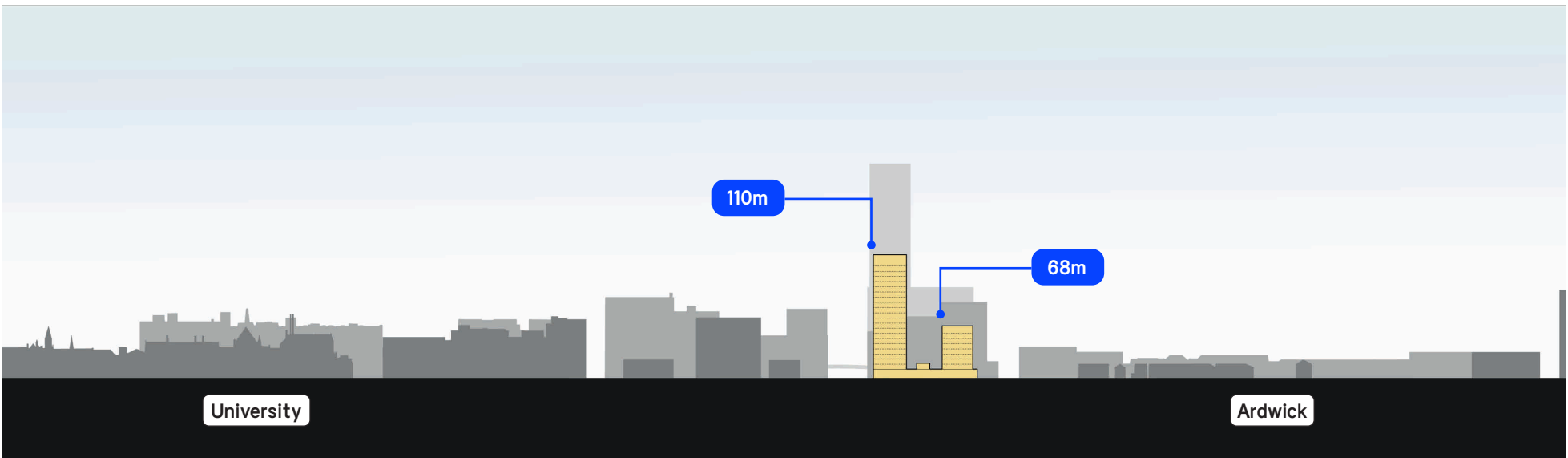
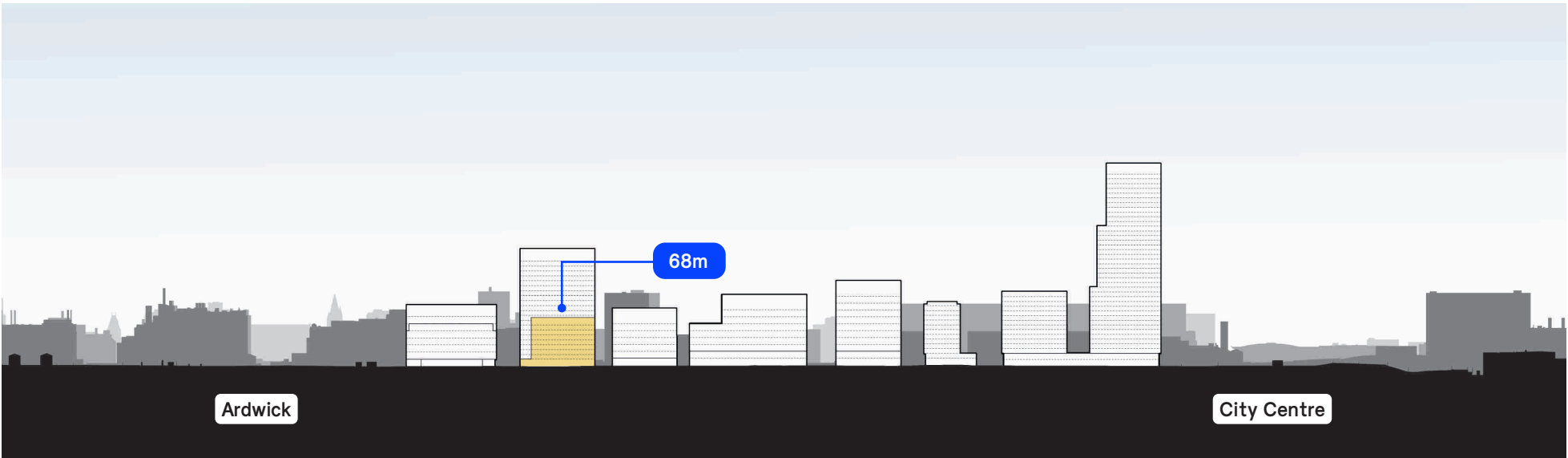
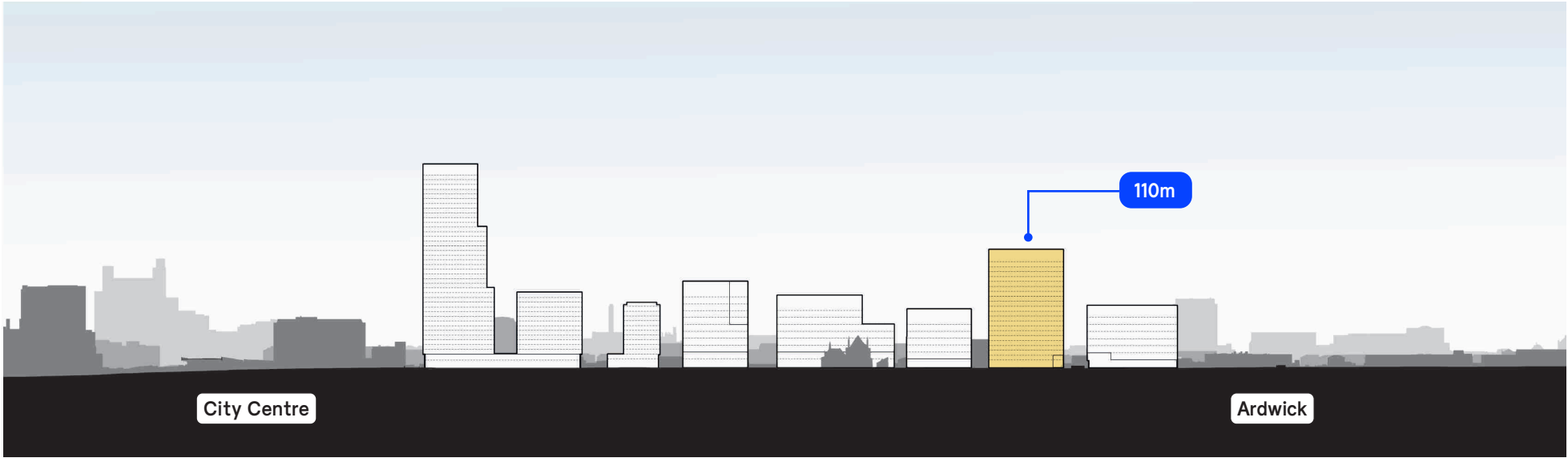
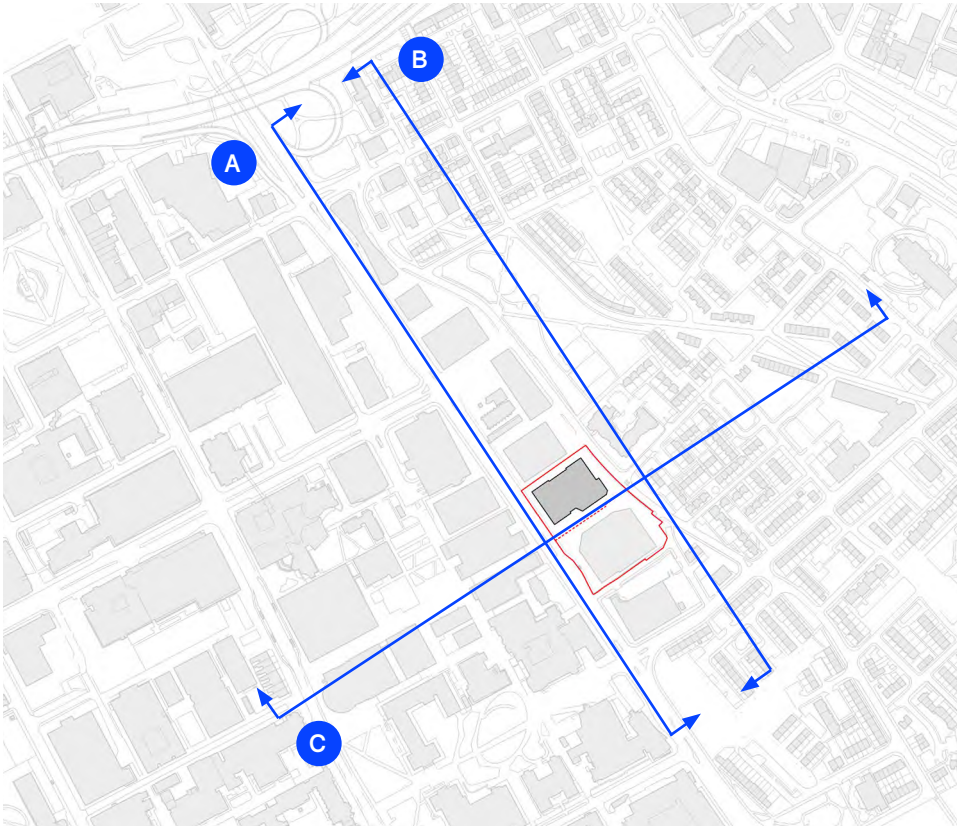
The two block design maximises the available views by orientating the bedrooms toward the East and West directions. This minimised the amount of windows with restricted views looking out onto the adjacent Sci-Tech buildings and provides opportunities for shading to prevent overheating.

The two block massing allows the Kincardine block to be offset from the road helping to create a maximised buffer zone between the proposal and the community. This offset also opens up the opportunity for landscaping to create a welcoming arrival to the community spaces and permeability through the site helping to connect Ardwick with Upper Brook Street.



Height Analysis

The building height has been determined by taking into account the different natures of Kincardine Road and Upper Brook Street. The heights of the two blocks responds to this by placing the taller mass at the Upper Brook Street boundary, allowing for a reduced and set back mass to community facing Kincardine Road.



8.2 General Arrangement

Ground Floor Plan

The ground floor accommodates the welcome entrances and amenities of the student accommodation and community spaces. The overall ground floor arrangement is dictated by the large area of support facilities including plant, bin stores and cycling parking requiring access from Kincardine Road. The layout was arranged to take into account how people flow through the building and access the stair and lift cores.

The PBSA entrance is positioned centrally within the Thorburn Walk elevation clearly identifiable for legibility of the building. By locating the amenities to face the streets and Thorburn Walk, the front of the building has a direct relationship with its surrounding. The glazed frontage emphasises this relationship and helps to activate the ground floor, making a positive contribution to the public realm.

A Community Centre is located on Kincardine Road facing the community and a commercial unit is proposed on Upper Brook Street corner, creating a focal point due to its high visibility.

Access into the building is managed by 24/7 reception. A building management suite with associated staff welfare facilities is located opposite the main entrance. Post room and security/ CCTV room are positioned to the rear of the reception desk.

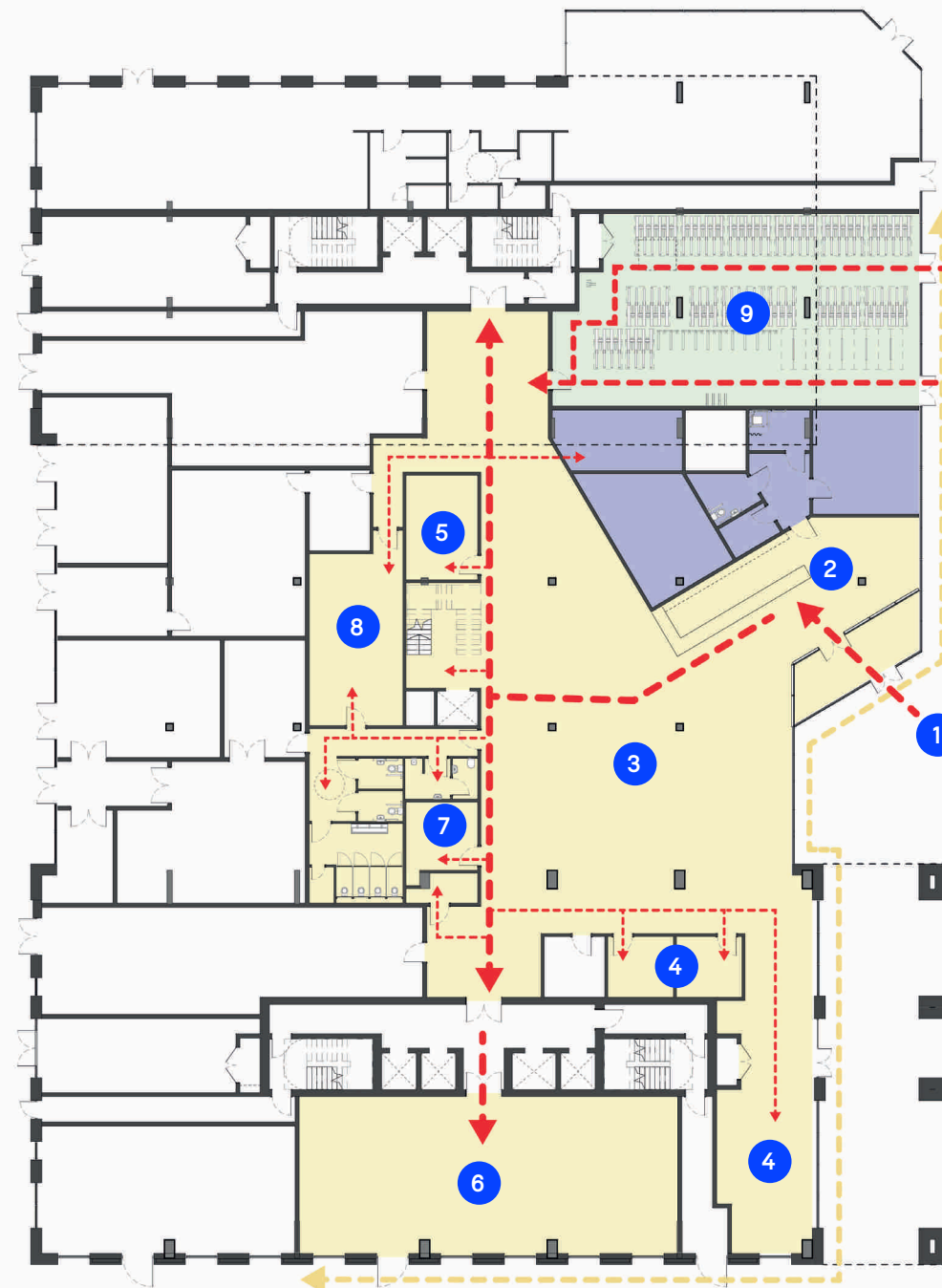
Legend

- Student Amenity
- Management Suite
- Community Centre
- Cycle Storage
- Cores / Plant / Back of House



Legend

- 1 Main Entrance
- 2 Reception / Lounge
- 3 Social Space
- 4 Study
- 5 Private Dining
- 6 Gym
- 7 Games
- 8 Laundry
- 9 Cycle Store
- Student Amenity
- Management Suite
- Cycle Storage



Ground Floor Student Amenities

Student Amenities

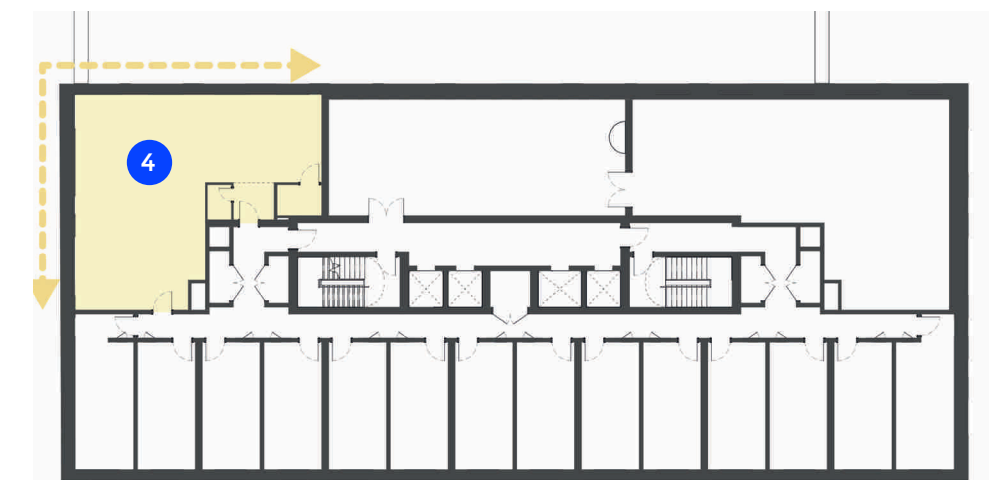
Student amenities are provided on the ground floor, first floor, and top floor of the Upper Brook Street building block.

A range of different amenity spaces is needed in student accommodation. Students highly rate quality communal and social spaces as important to their well-being.

The ground floor amenity space is divided into different zones with different uses. These zones give the opportunity to students to work in quiet areas individually or in groups, relax, socialise or play with other residents. In addition, students have access to gym, games room, private dining rooms, cinema and laundry facilities.

The ground floor amenity space spreads to first floor with access to roof terrace and views to Thorburn Walk.

The top floor amenity zone benefits from great views to the city and could be used for small events or as a study space.



22nd Floor Student Amenities

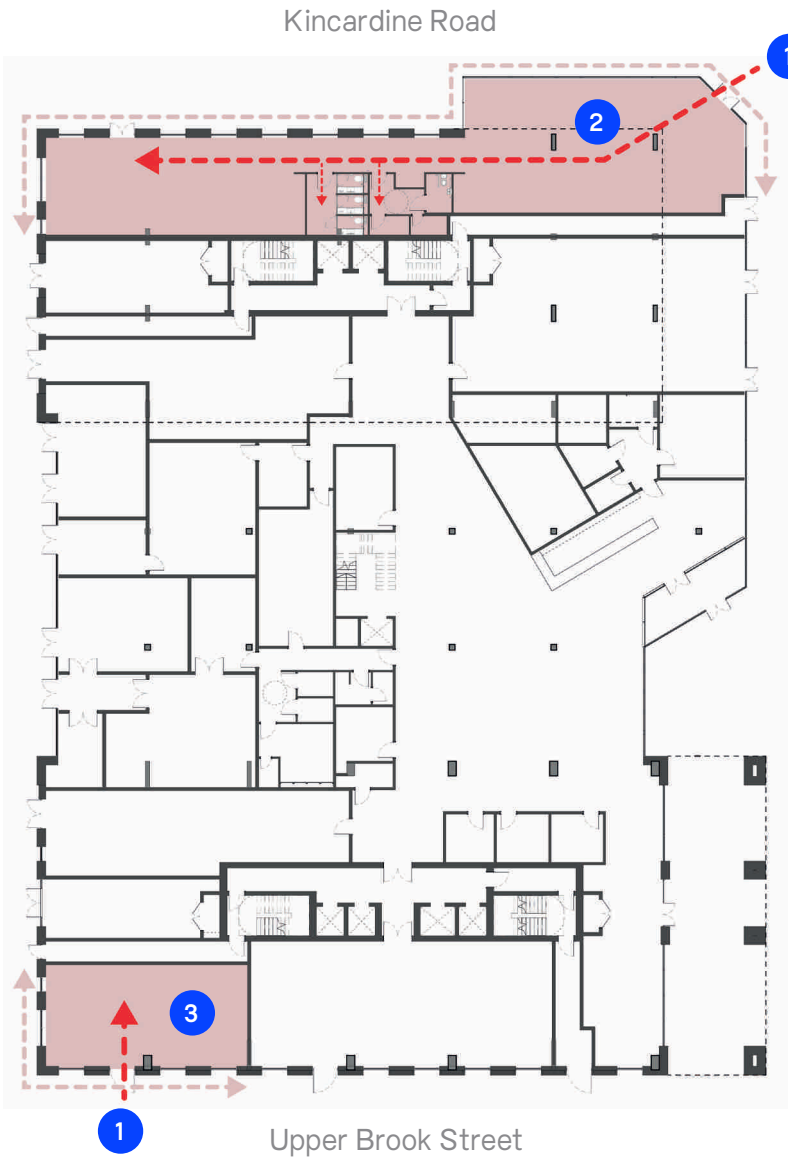
Community Spaces

The Upper Brook Street Masterplan is identified as a key site to create new and enhanced connections between existing communities and opportunities for community uses and accessible ground floor uses.

A number of potential uses were proposed by the local residents for the wider Upper Brook Street Masterplan including grocery, community centre, facilities for young people, children’s play areas, café, medical centre (GP, pharmacy, dentist), library and community led shops.

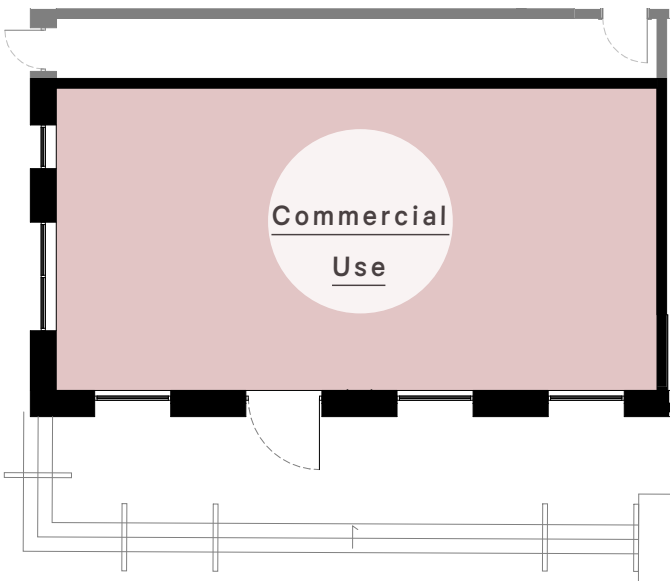
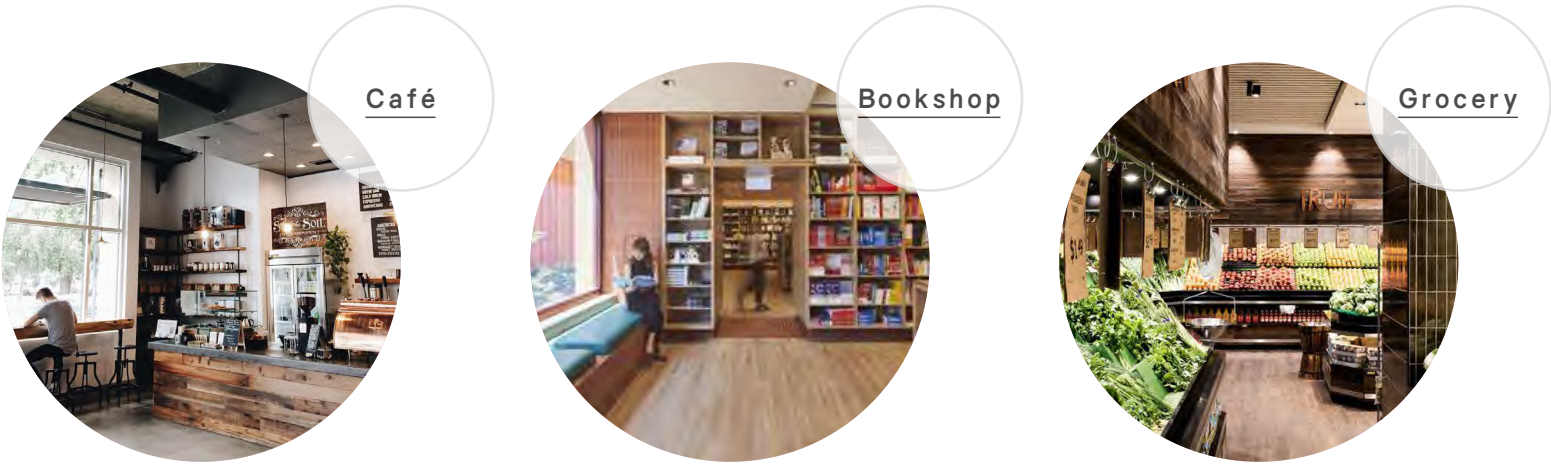
The above spaces are evenly distributed throughout the Upper Brook Street Masterplan. The current proposal for the PBSA building includes the following spaces:

- Community Centre with flexible spaces to host activities for all ages
- Commercial space for local businesses such as café, bookshop, grocery etc.

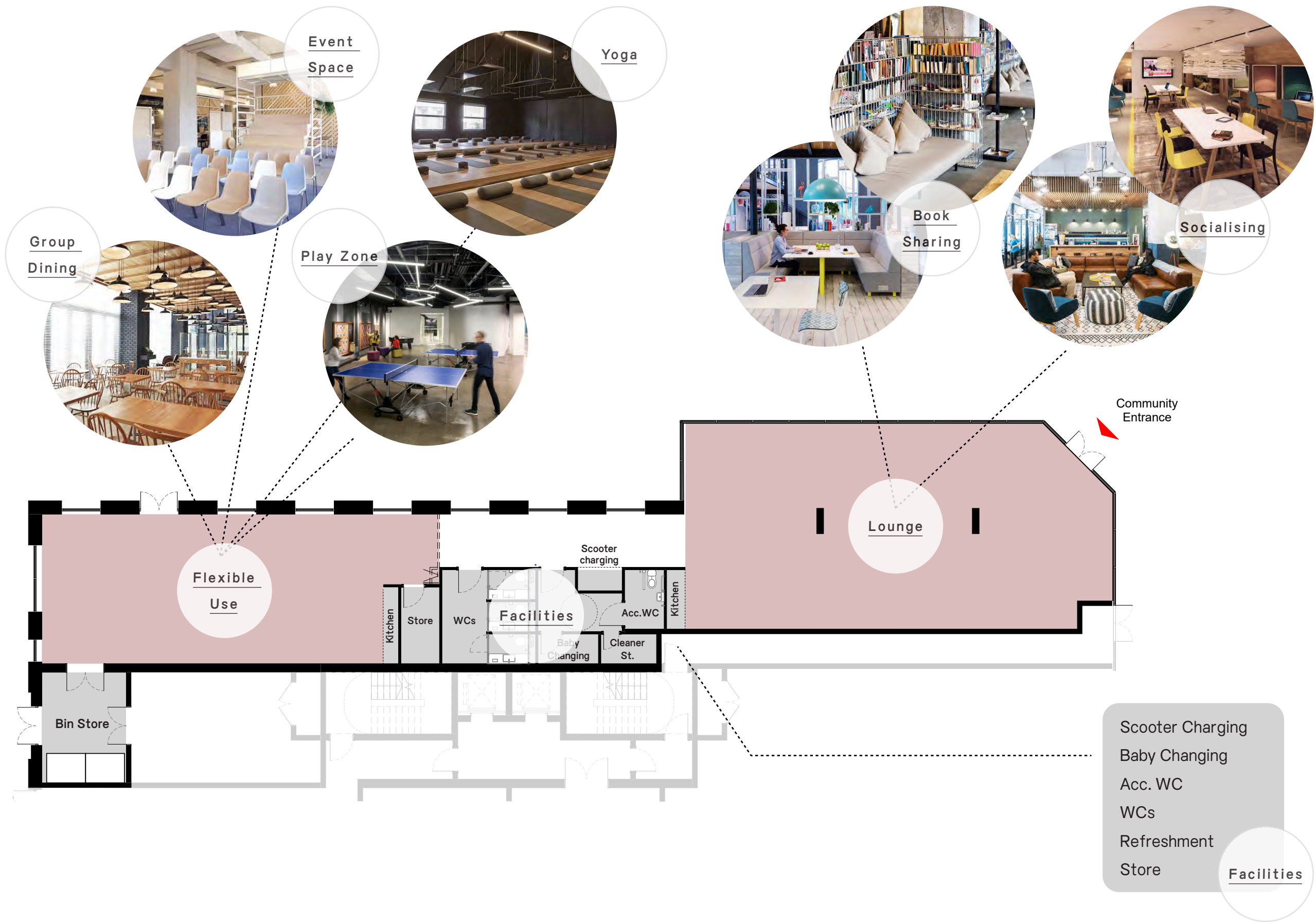


Legend

- 1 Entrance
- 2 Flexible Community Space
- 3 Cafe / Local Business
- Community Space



Community Space - Indicative Key Uses

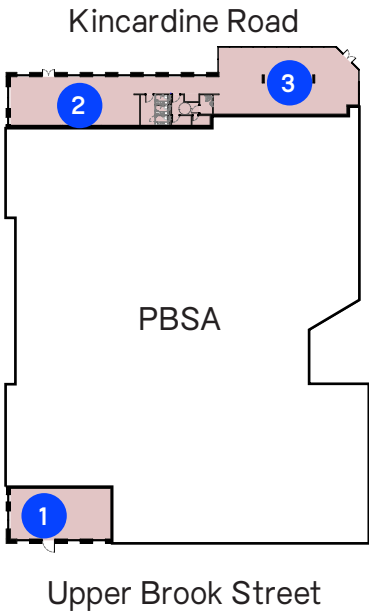


Community Space - Indicative Key Uses

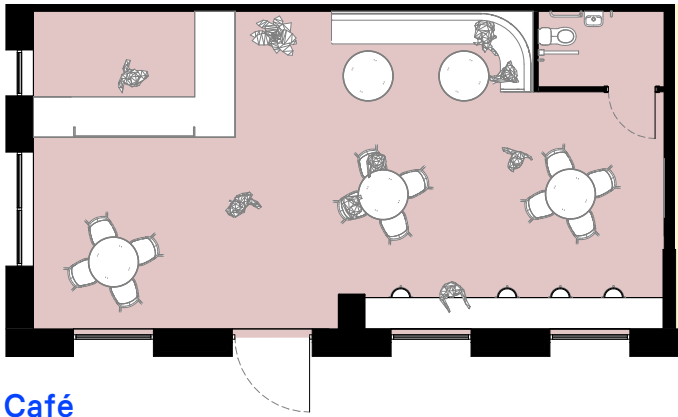
Indicative views have been developed to demonstrate possible uses of the community spaces. Uses are to be developed further with the local community awaiting further public consultation.

It is proposed that the flexible space is a mulit-use, bookable space for use by the community. This may be used in a variety of ways, for example, for yoga or dance classes, group dining or games youth events, or other bookable functions.

The east side of the community space is proposed to be a more permanent fit-out. It is proposed this will include an exhibition/gallery space for local artists or business owners, a book share area, and a community lounge with kitchenette. Likewise, these uses are to be further explored and developed alongside the local community needs.

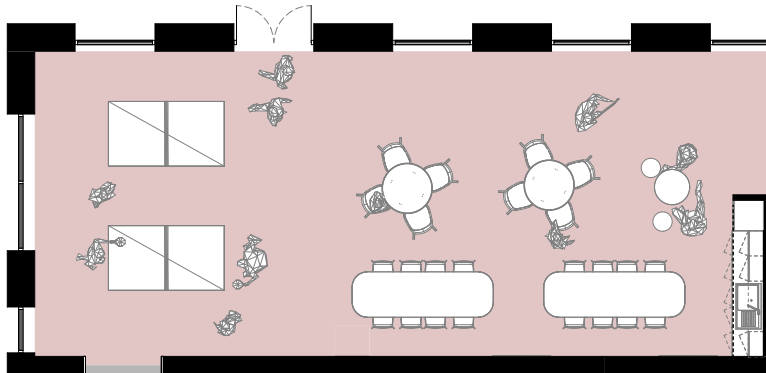


1 Retail / Commercial Use



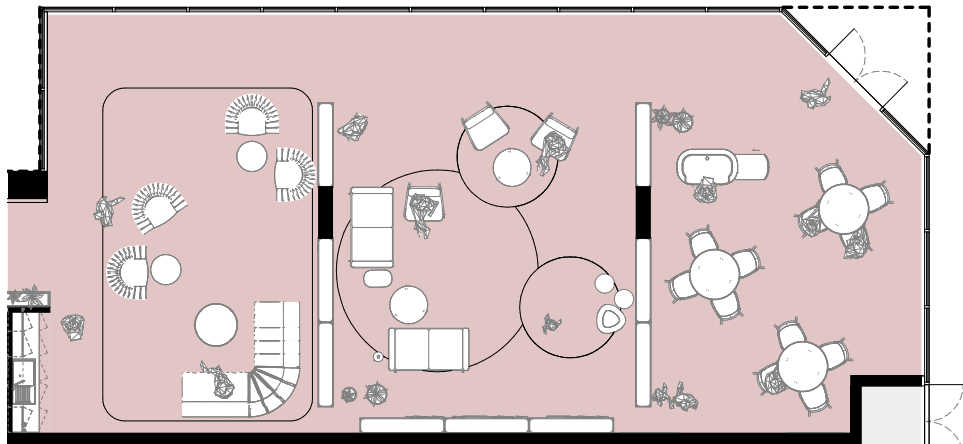
Café

2 Flexible Use

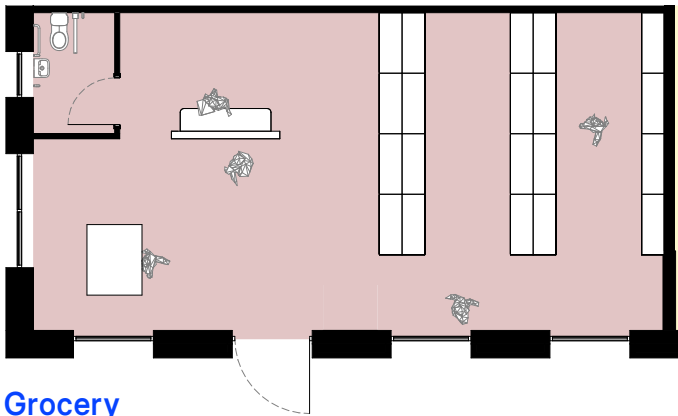


Games / Group Dining

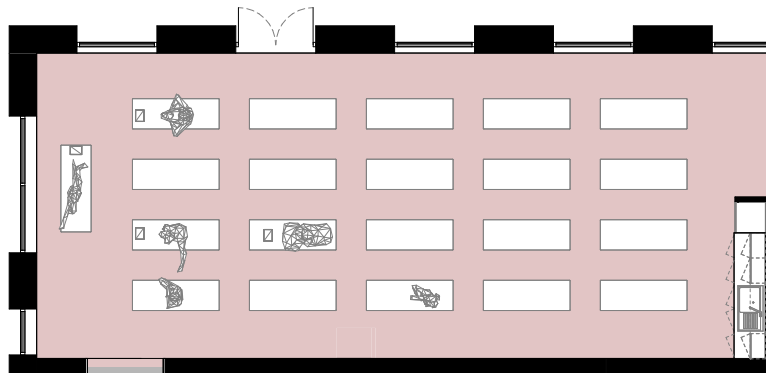
3 Function Space



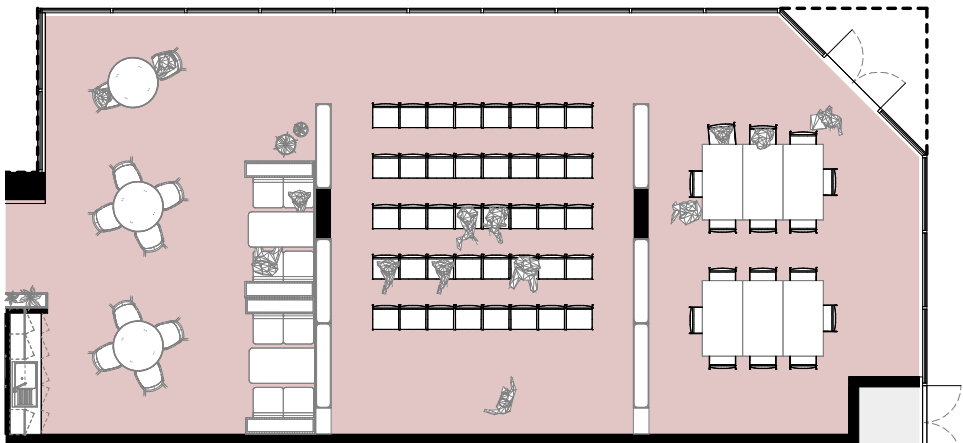
Lounge / Book Sharing



Grocery

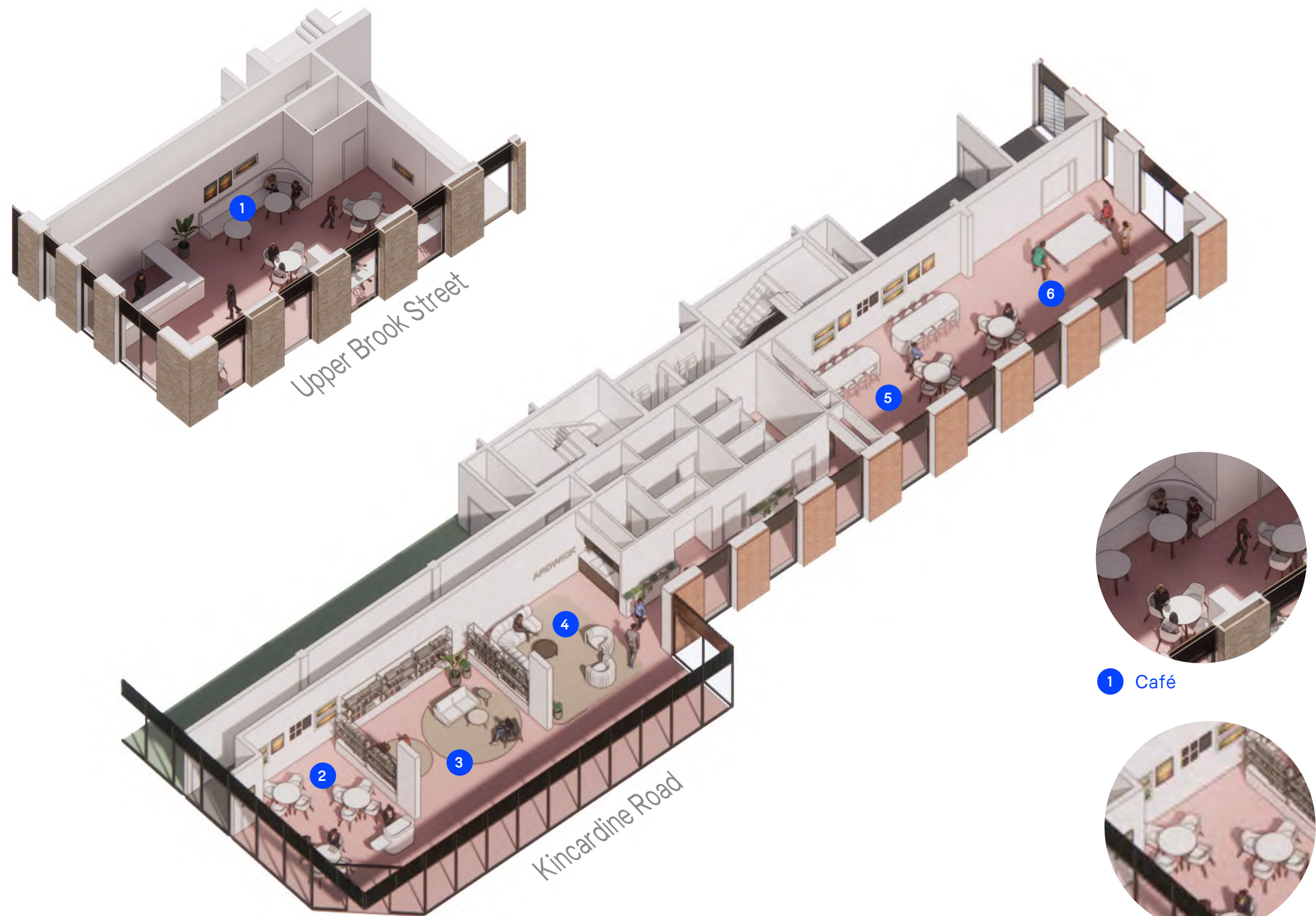


Multi-Purpose Exercise Space



Function Space

Community Space - Indicative Key Uses



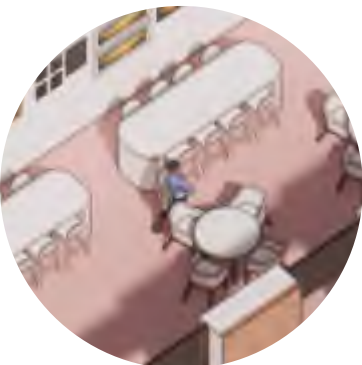
3 Library



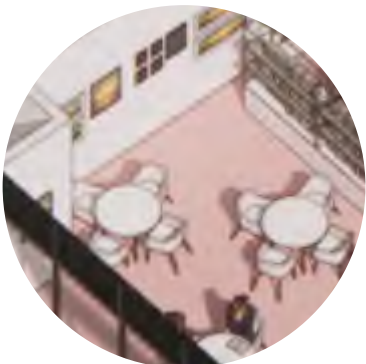
4 Lounge



1 Café



5 Group Dining



2 Event Space / Gallery



6 Play Zone



External View - Community Space / Thorburn Walk



External View - Community Space with Indicative Key Uses



External View - Flexible Space with Indicative Key Uses

First Floor Plan

The first floor accommodates a central pavilion providing additional amenity spaces for the student accommodation, this is accessed via the stair core on ground floor. A landscaped roof terrace is provided for the student accommodation.

The roof terrace is accessible via the pavilion and via the stair and lift cores from both PBSA blocks. To accommodate this access from the cores, one cluster room has been removed from both the Kincardine block and the Upper Brook Street block creating respectively a 5-bed cluster with one enlarged bedroom and a 4-bed cluster with one enlarged bedroom.

Nine standard studios and two accessible studios are positioned on the first floor of the Upper Brook Street block facing the University. Clusters are provided in Kincardine block and on the north-east side of Upper Brook Street block.

Legend

- Cluster Bedroom
- Studio
- Accessible Studio
- Cores / Plant / Back of House



Typical Floor Plan

The typical floors are arranged to maximize external views, natural light and ventilation. Central stair and lift cores within the blocks provide access to rooms and connect the cores. All rooms are orientated at perimeter with views out to minimise overlooking from neighbouring buildings.

Each PBSA block has two evacuation stairs, one dual purposes Fire Fighting/Evacuation lift and one Evacuation lift. The Upper Brook Street block has 2 additional passengers lifts, one of which is larger to accommodate the replacement of plant/mechanical equipment. Smoke shafts are located at the two ends of each corridor. On typical floors, services risers, comms rooms and cleaners rooms are located adjacent to the cores.

Studios are located in the Upper Brook Street block on the western side facing the University. Clusters are positioned in Kincardine block and on the eastern side of Upper Brook Street block. Kitchens in clusters are strategically located on the short elevations.

There is a variety of cluster sizes proposed in the Kincardine block ranging from 6-bed to 8-bed clusters. The Upper Brook Street block has two 7-bed clusters.

Two accessible studios are provided in the Upper Brook Street block on first floor, eighth floor, seventeenth floor, and eighteenth floor. One accessible cluster bedroom is provided in the Kincardine block on second floor providing a total of 1.2% accessible rooms across the scheme at post completion evenly distributed through the buildings height.

In addition, 33no. rooms are designed to be easily convertible to accessible rooms providing a total of 5.7% accessible rooms across the scheme; 28no. enlarged studios and 5no. enlarged cluster rooms and kitchens.

Legend

- Cluster Bedroom
- Studio
- Enlarged Studio
- Cores / Plant / Back of House



Roof Plan

The internal and external roof plant areas have been amalgamated into the top floor of accommodation for each block. This allows all internal and external plant to be kept off of the roof and maximised area for photovoltaic panels.

The extrusions at roof levels are limited to one stair per block for roof access, the lift overruns and generator flue.



8.3 Typical Layouts

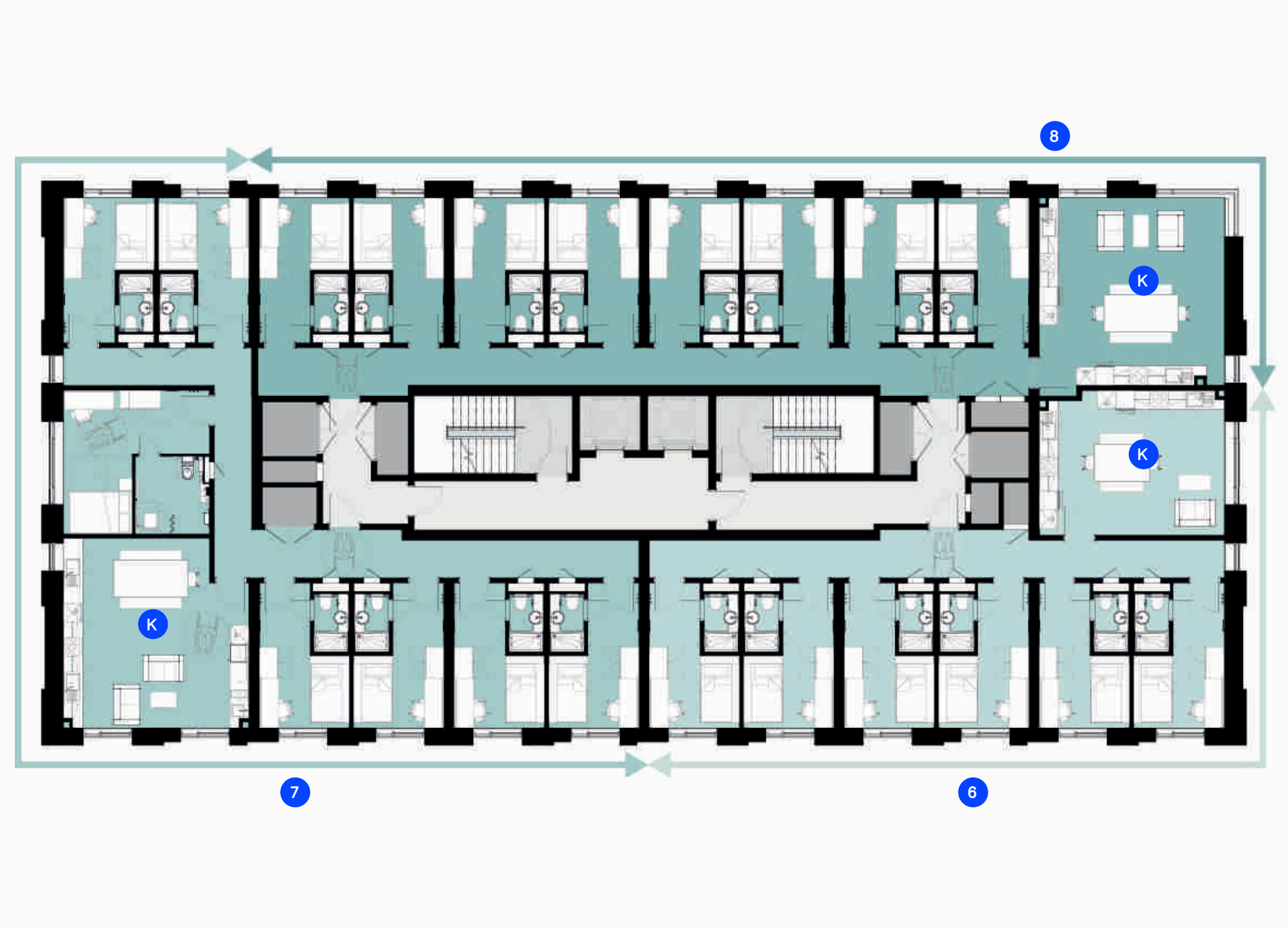
Typical Floor Layout

The typical floors follow the principle of a central core with rooms arranged around its perimeter.

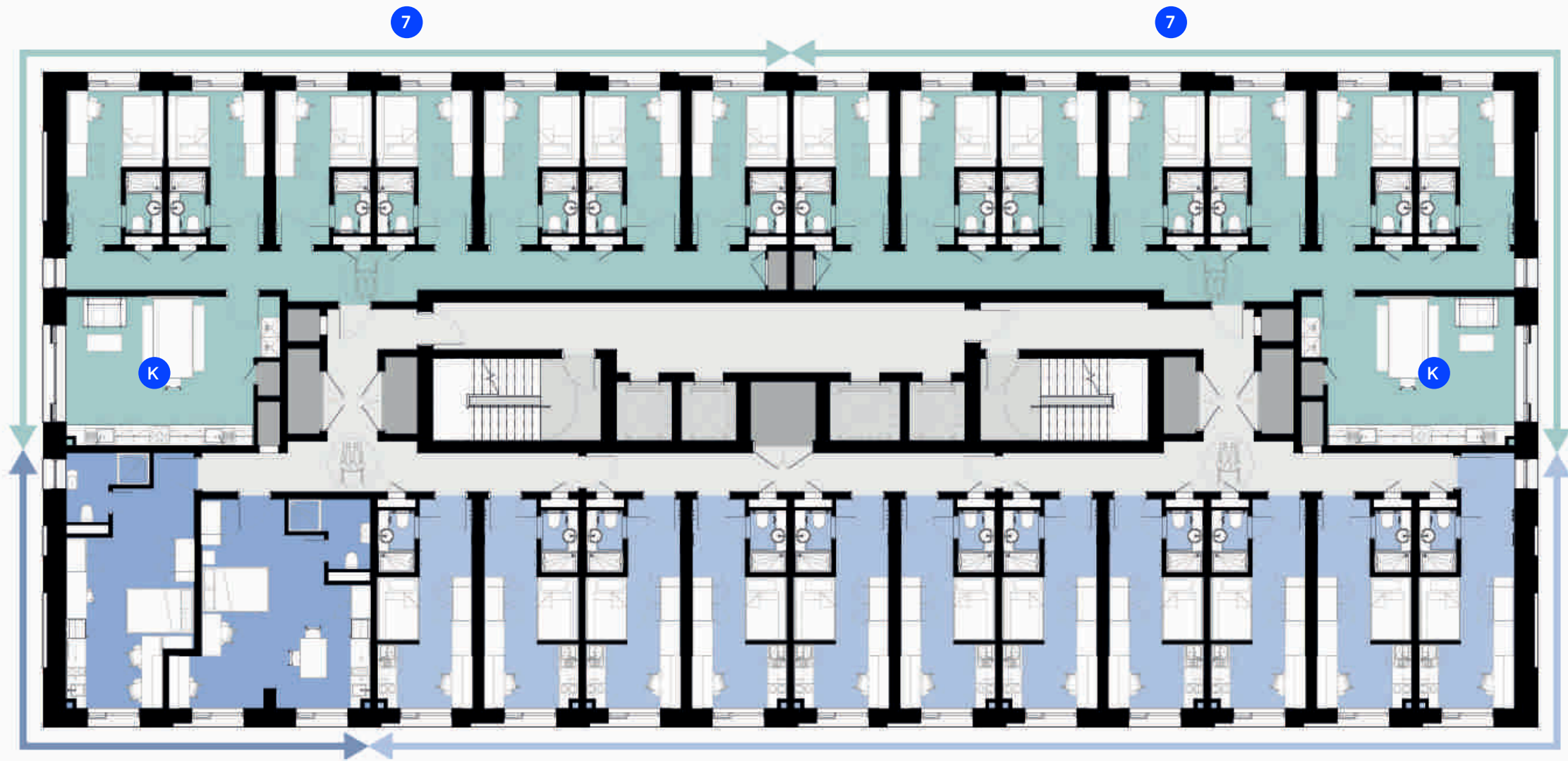
The kitchen locations have been carefully design within the plan. The Upper Brook block cluster kitchens are located centrally on the short elevations. This gives a focal point and a central setting out point to the elevations. Likewise, the Kincardine cluster kitchens are located on the short elevations but shifted toward the corners to take advantage of the increased views. The corner kitchen to the 7-bed cluster provides an opportunity to create a focal point on Kincardine Road drawing pedestrians into the public realm and community spaces.

- Legend
- Cluster Bedroom
 - Studio
 - Enlarged Studio
 - Cores / Plant / Back of House
 - 6 6 Bed Cluster
 - 7 7 Bed Cluster
 - 8 8 Bed Cluster
 - K Kitchen

Typical Floor Plan - Kincardine Road



Typical Floor Plan - Upper Brook Street Block

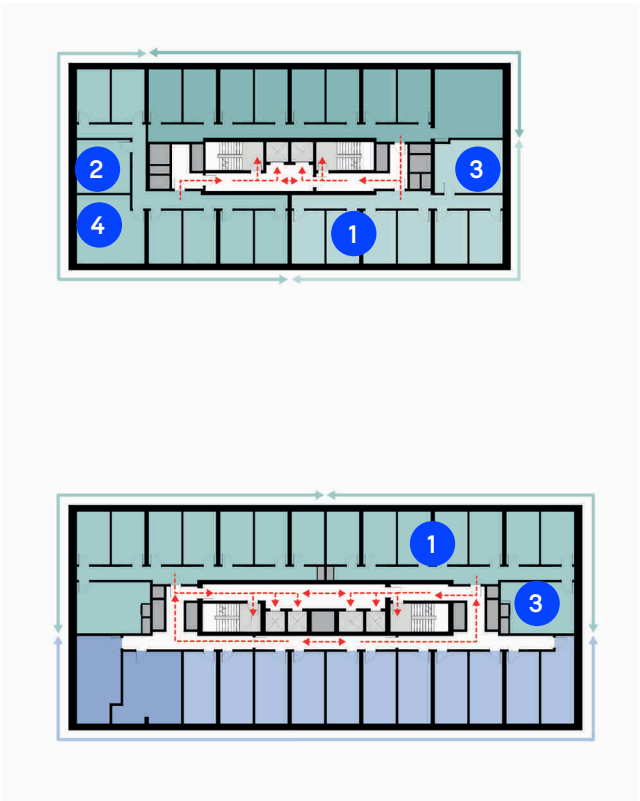


Typical Cluster Layouts

The building is arranged in a format that allows maximum repeatability across the upper floor plates.

The accommodation comprises 737 bedrooms, 449 of which are arranged in cluster format with a shared kitchen. Clusters are all en-suite and are grouped into flats of either 6, 7 or 8.

The rooms are to be further developed as the scheme develops.

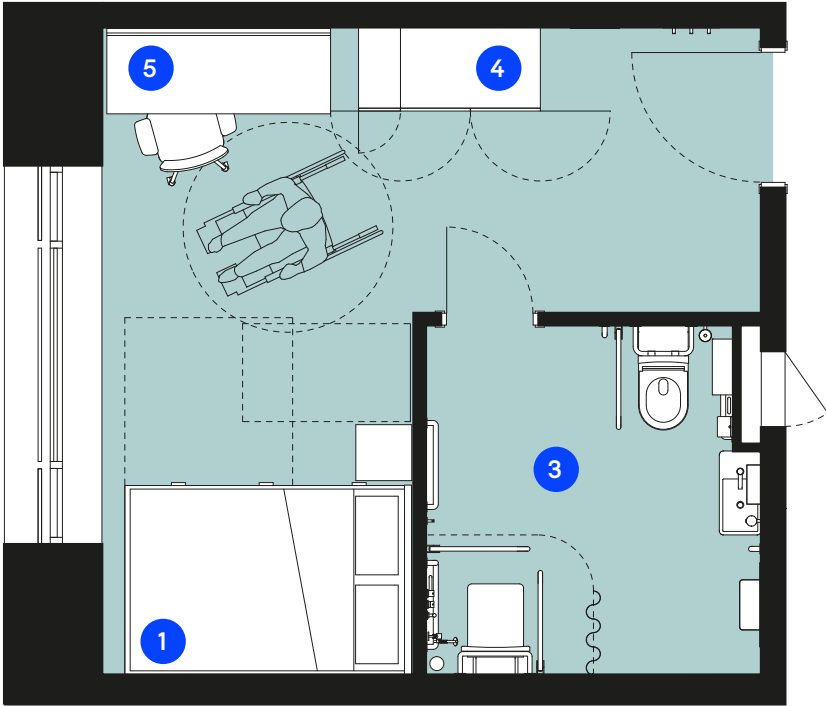


Legend

- 1 Typical Cluster Bedroom
- 2 Enlarged | Accessible Cluster Bedroom
- 3 Typical Cluster Kitchen
- 4 Enlarged | Accessible Cluster Kitchen

Accessible Bedroom

Accessible cluster bedroom is provided on levels 1 of Kincardine Block within a 7-bed cluster. Accessible cluster bedroom will be provided with a fully wheelchair accessible bathroom, charging area for a powered wheelchair, wardrobe, storage spaces and a desk for studying.

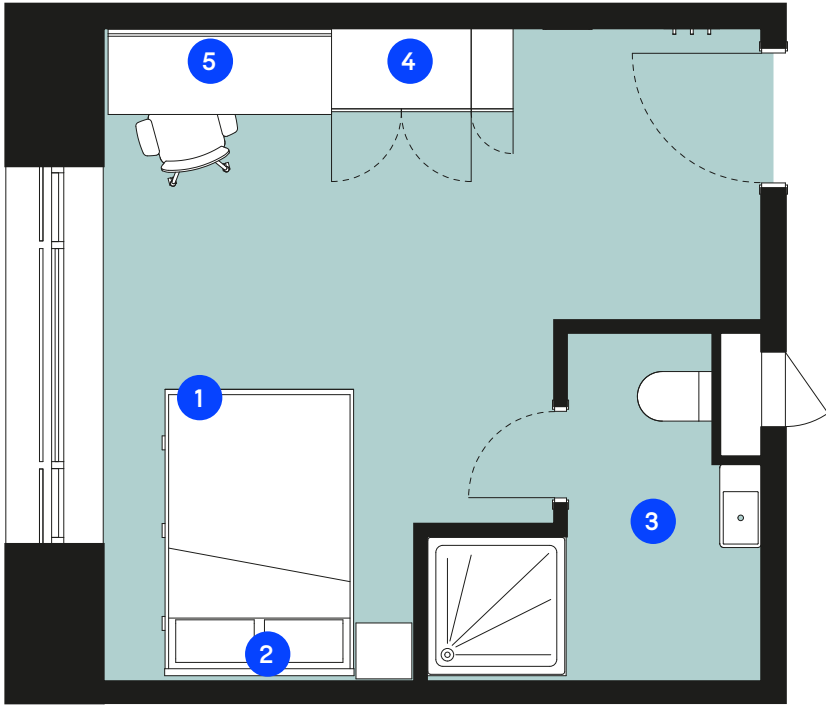


Legend

- 1 3/4 Bed
- 2 Bedhead with integrated shelving
- 3 En-suite pod
- 4 Wardrobe
- 5 Desk

Enlarged Cluster Bedroom

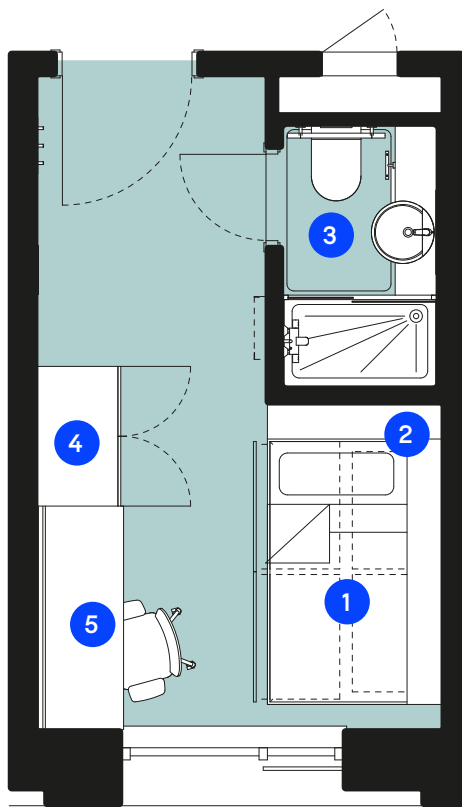
Enlarged cluster bedrooms are provided on levels 2-7 of Kincardine Block within a 7-bed cluster. The enlarged cluster rooms have been designed to allow them to be converted into fully accessible bedrooms. These bedrooms will be provided with bathrooms as wet rooms, wardrobe, storage spaces and a double desk for studying.



Typical Cluster Bedroom

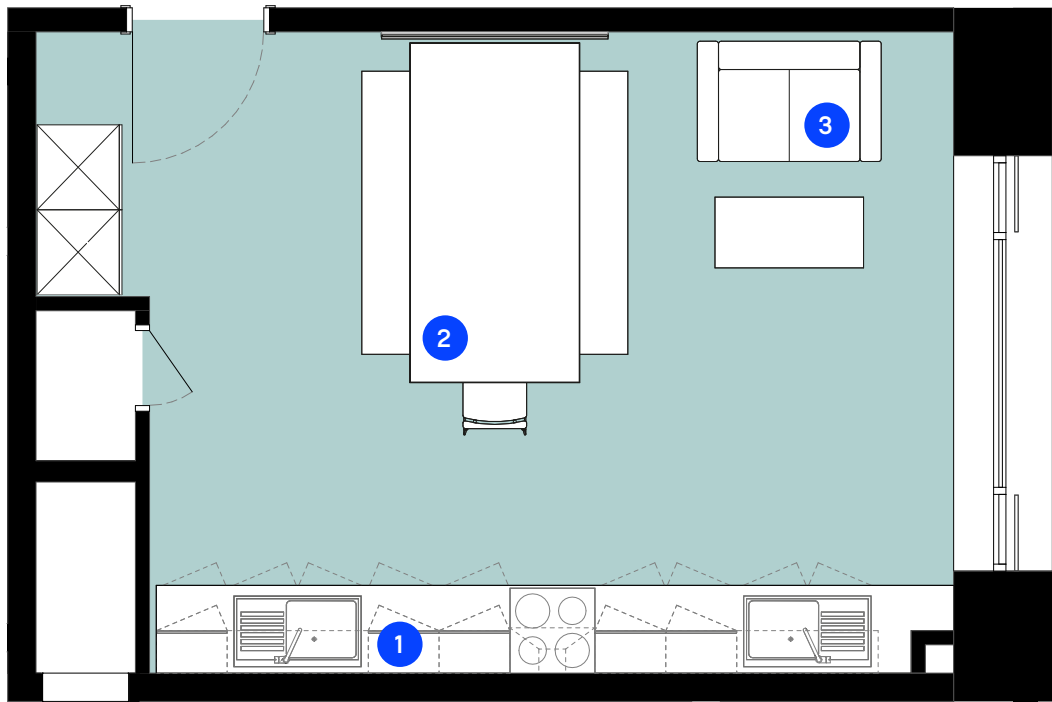
Clusters are laid out in a typical plan fashion, with a cluster hallway providing access to each bedroom area and a shared kitchen.

Each bedroom is en-suite and fully furnished with a 3/4 bed, wardrobe and storage spaces, along with a desk for studying.



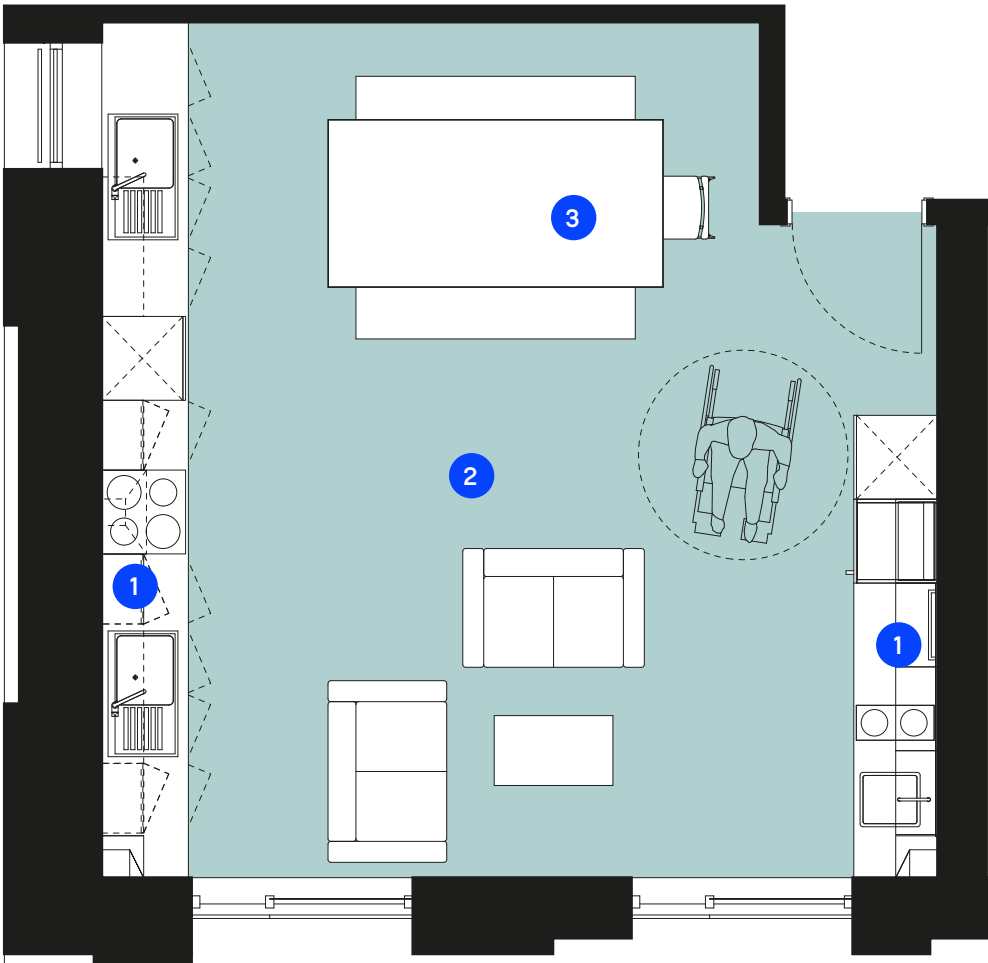
Typical Cluster Kitchen

Each cluster will share a kitchen for communal use. Shared kitchens are sized to cater for the number of students using. The kitchens will come fully equipped with a social kitchen space, dining area and a soft seating space for relaxation.



Accessible Cluster Kitchen

Enlarged cluster kitchens are provided on levels 2-7 within the 7-bed cluster. The enlarged cluster kitchens have been designed to allow them to be adapted to accessible kitchens. The kitchens will come fully equipped with a social kitchen space, dining area and a soft seating space for relaxation.



Legend

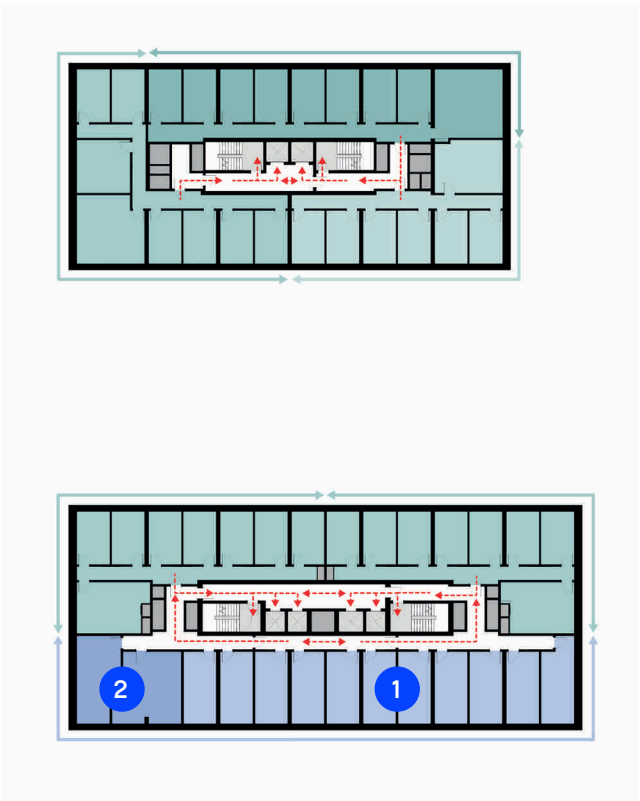
- 1 Cooking Area
- 2 Dining Area
- 3 Seating / Lounge Area

Typical Studio Layouts

The building is arranged in a format that allows maximum repeatability across the upper floorplates.

The accommodation comprises 737 bedrooms, 228 of which are self contained en-suite studios.

The rooms are to be further developed as the scheme develops.



- Legend
- 1 Typical Studio
 - 2 Enlarged / Accessible Studio

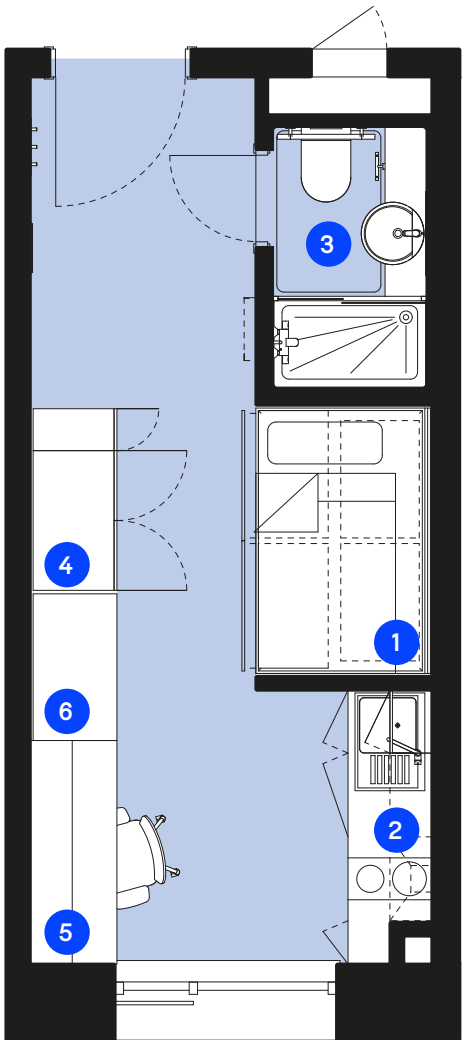
Accessible Studio

Level 1, 8, 17 and 18 will have two larger studios to the west corner on the Upper Brook Street block used as accessible studios. Accessible studios will be provided with a fully wheelchair accessible bathroom, wheelchair accessible kitchenette facilities, charging area for a powered wheelchair, wardrobe, storage spaces and a desk for studying.



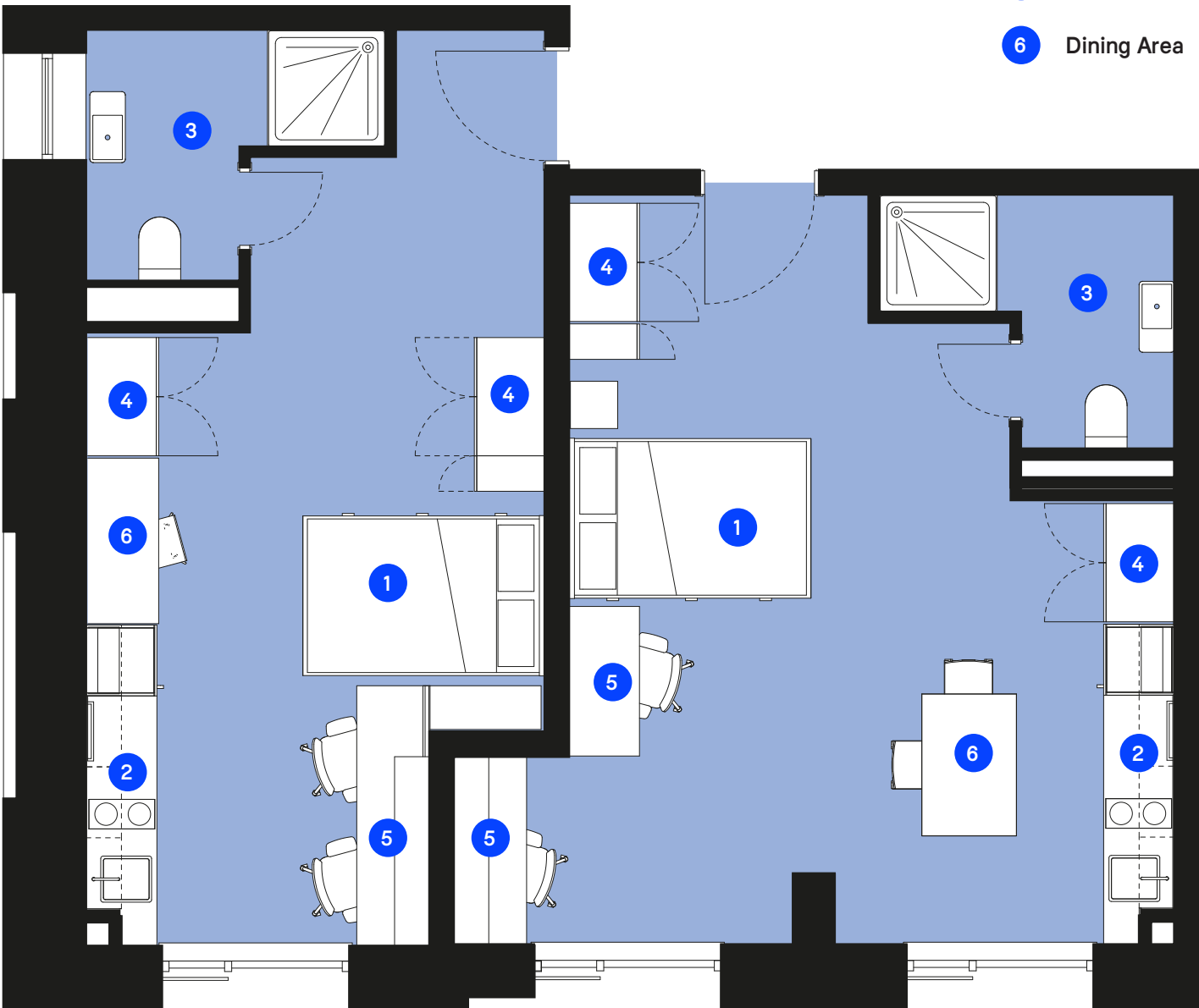
Typical Studio

Studios are designed as completely self-contained spaces. They include a kitchenette, a dining area, 3/4 bed, wardrobe, storage spaces and a desk for studying. The kitchenette is strategically located on the external envelope away from fire escape route.



Enlarged Studio

Levels 2-7 and 9-16 will have two larger studios to the west corner on the Upper Brook Street block readily available to be converted into fully accessible bedrooms depending on demand and special user's requirements. These enlarged studios will be provided with bathrooms as wet rooms, cooking area, wardrobe, storage spaces and a double desk for studying.



Legend

- 1 3/4 Bed
- 2 Cooking Area
- 3 En-suite Pod
- 4 Wardrobe
- 5 Desk
- 6 Dining Area





8.4 External Appearance

The following section explores the proposed materiality of the PBSA building, looking to the local built context as precedents for inspiration.

Materiality of Ardwick

As part of the design process, the local context was studied in terms of its architectural character and materiality. The architecture of Ardwick is predominantly characterised by the use of red brick. This is evident in both the heritage assets and Victorian buildings within the area, as well as the more recent residential developments.

The adjacent images show how brick has been used within Ardwick, both historically and in recent years, and how it has come to define the materiality of the area around the site.





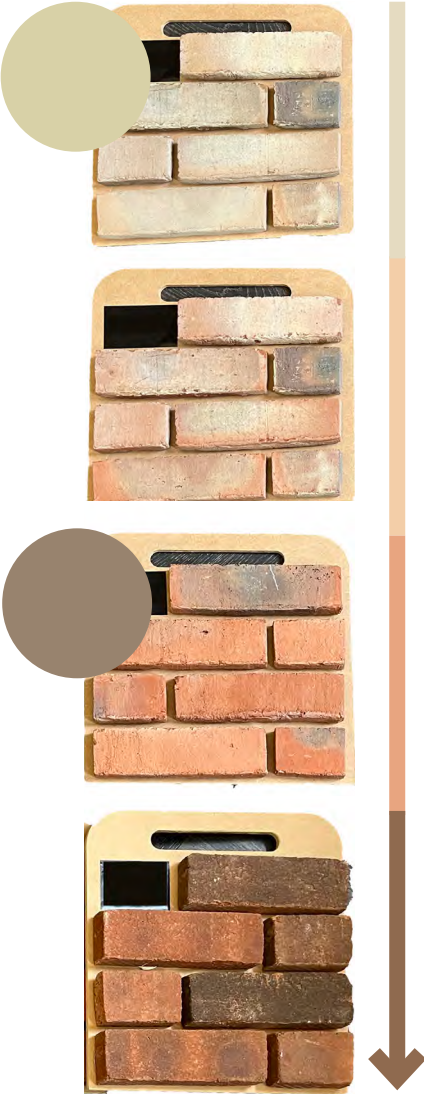
Facade Materiality - Brick Tone Options

From exploring the range of materials within the sites historical and residential context, it was agreed that a brick building would be the most suitable response to its surroundings.

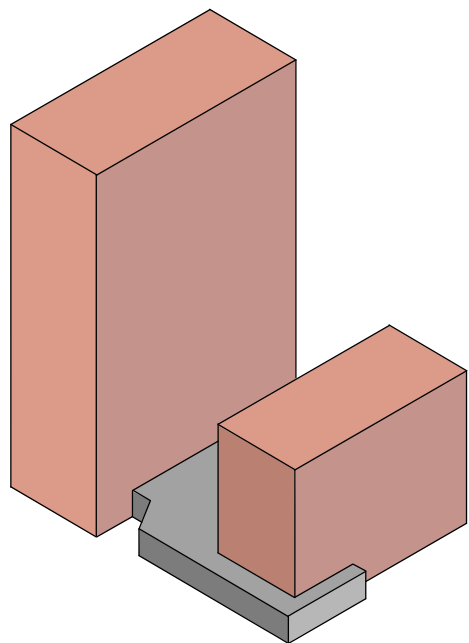
The idea of treating the two blocks with the same brick material but allowing the colour to reflect the immediate context was explored.

From this idea grew the option of a grey brick to the Upper Brook block facing the university and a red tone brick to the Kincardine block facing the community.

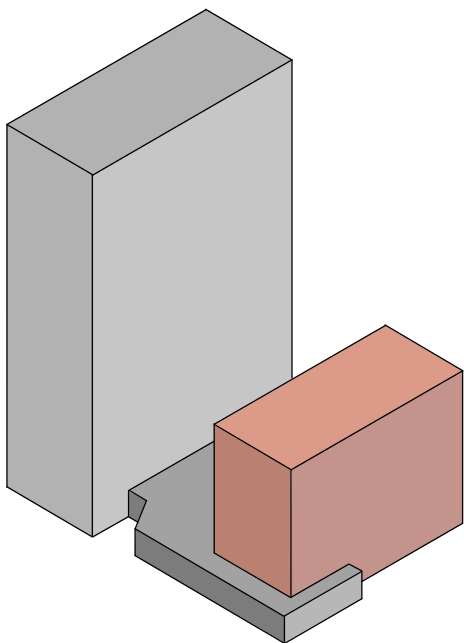
This concept was developed and tested with various tones of brickwork to the Upper Brook Street block. It was agreed that the most successful variation was a buff brick to the Upper Brook Block and a red brick to the Kincardine Block.



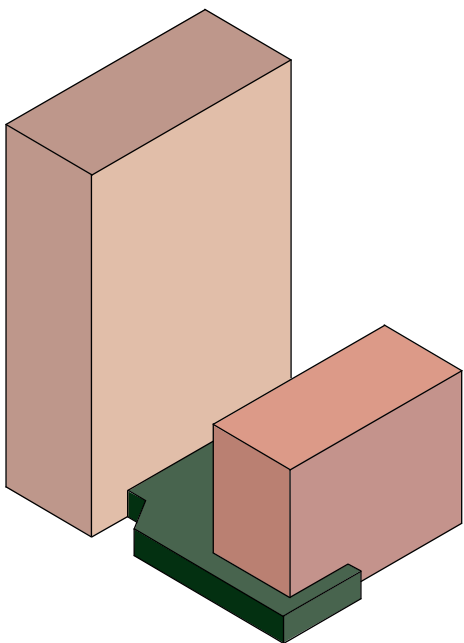
Selected Materiality



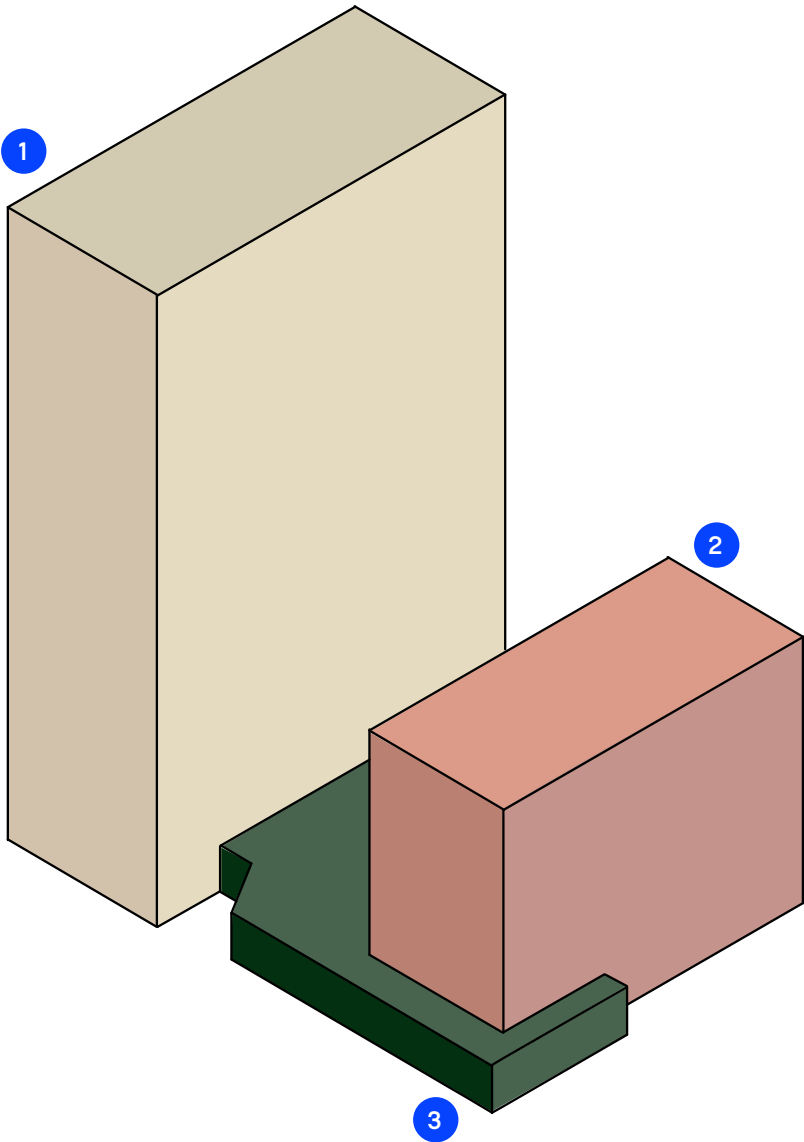
Matching Option - red brick to both blocks.



Marked Contrast Option - Pale grey brick to Upper Brook Street block, red brick to Kincardine Road block.



Two Tone Option - Lighter red / pink brick to Upper Brook Street block, red brick to Kincardine Road block.



- 1 A lighter brick and metal panel for the Upper Brook Street block facing the University.
- 2 A red brick and bronze panel for the Kincardine road block facing the community.
- 3 A coloured metal for the ground floor amenity and community space

Facade Technical Drivers

The facade is organised based on a number of technical drivers which set the constraints and setting out principles.

1. Available area

The available window area has been determined through Coordination with internal furniture layouts. In the Studios, the constraints are denoted by the kitchen and desk. The same principles are applied to the cluster room windows to maintain symmetry and rigour throughout the facade.

2. Glazing percentage

The Glazing percentage is calculated in relation to the internal window wall elevation. The glazing is based on guidance to optimise daylight whilst controlling overheating. A full height window is proposed in the studios, providing 30% glazing. The cluster bedrooms integrate a horizontal mullion to the lower portion of the window to reduce the glazing percentage to 21% in response to the rooms shallower plan.

3. Ventilation

The vent intake and exhaust for the mechanical ventilation strategy has been integrated into the window design across the scheme. Natural ventilation has been provided via the solid purge panel which is user operated as required.

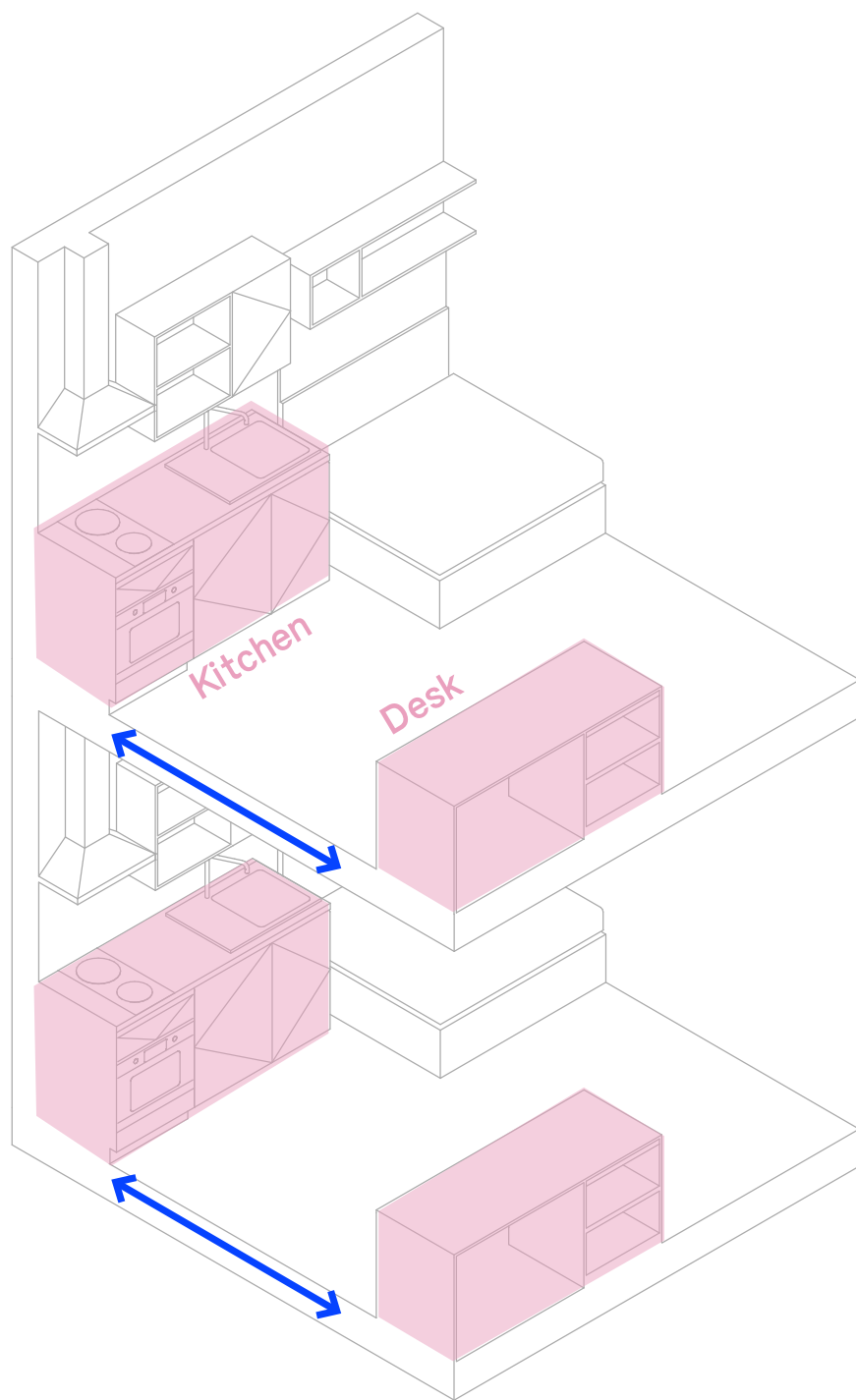
4. Solar Shading and Protection from Falling

The window framing has been designed to provide horizontal shading. Extruded horizontal elements provide facade relief adding both visual interest and solar shading.

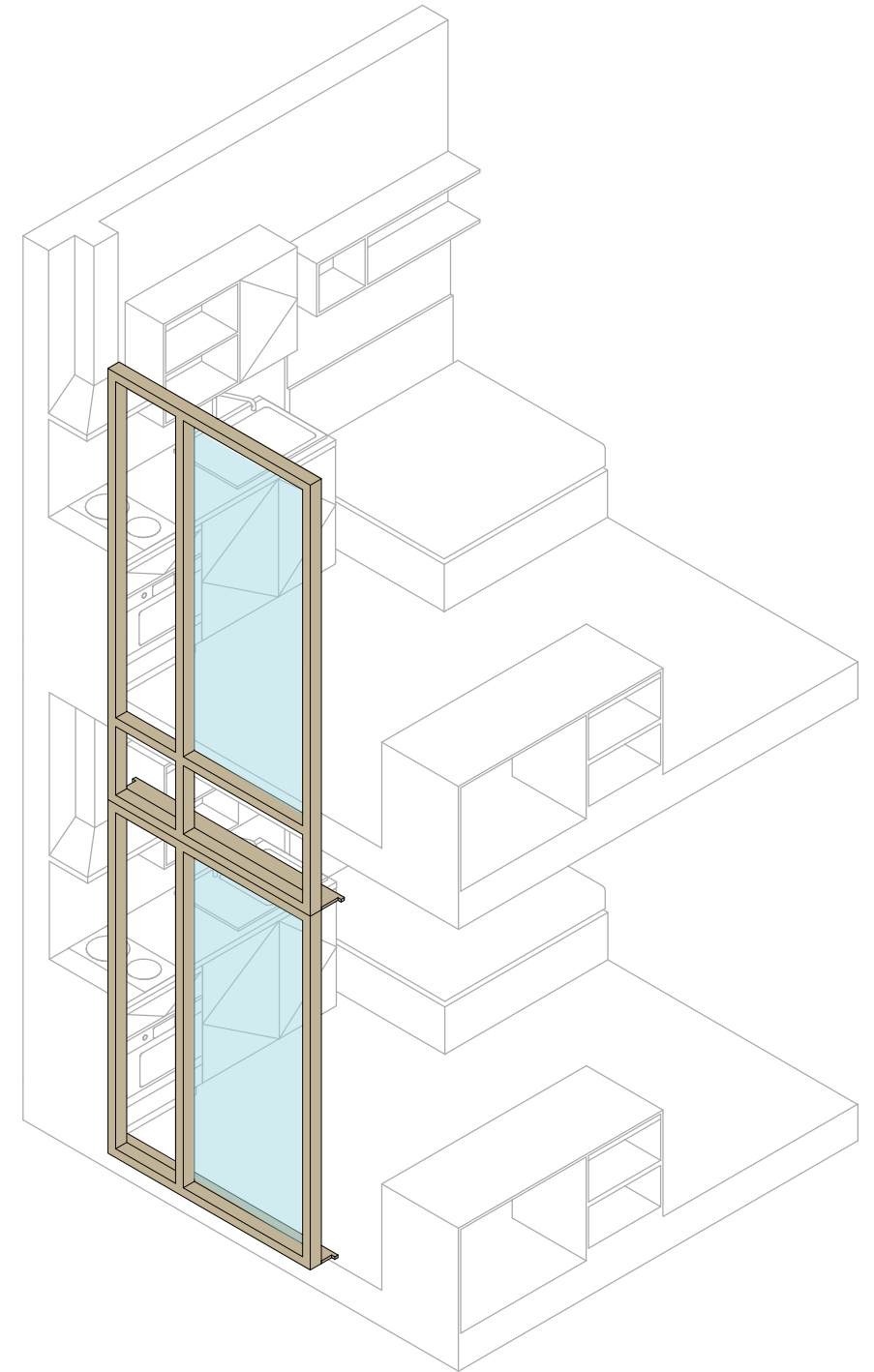
The perforated panels provide protection from falling when the purge panel is in its open position. The panel extends to mask the mechanical ventilation zone to conceal louvres

5. Solar Shading and Views

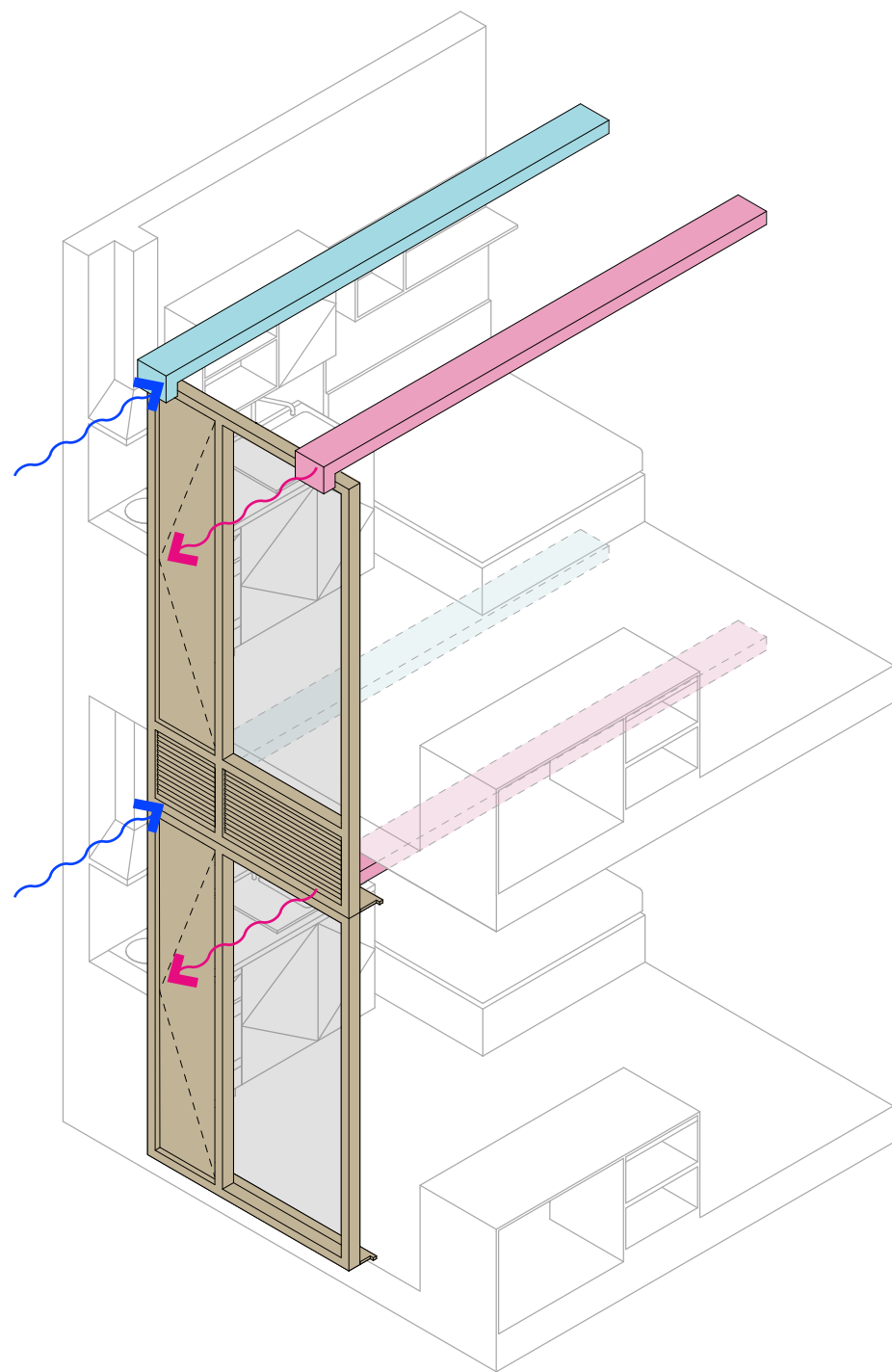
The stepped brick facade provides vertical shading at its deepest reveal. The steps have been designed such that the maximum reveal is adjacent to the glazed portion of the window to provide maximum shading. The opposing reveal steps away to maximise the field of view.



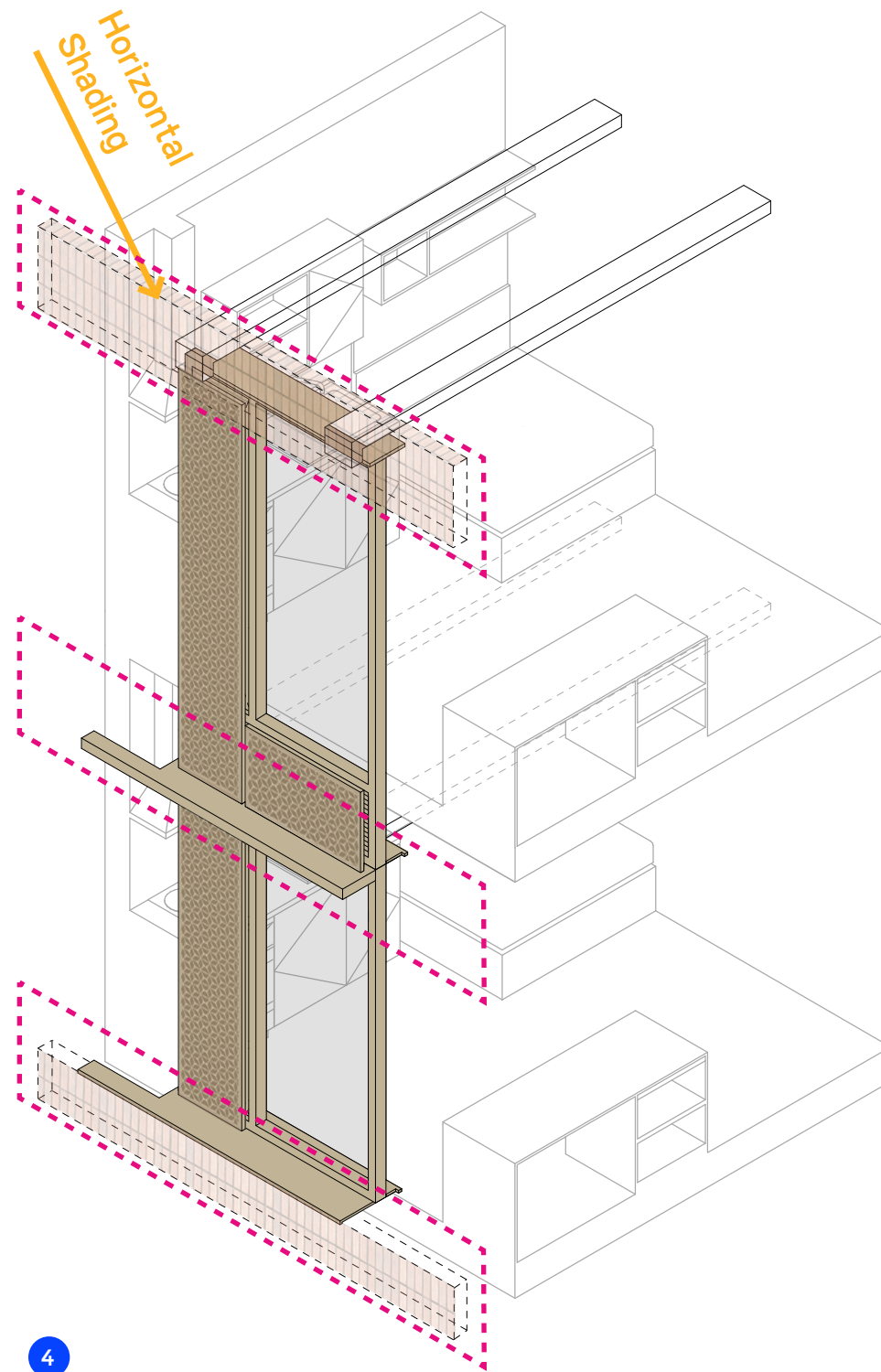
1



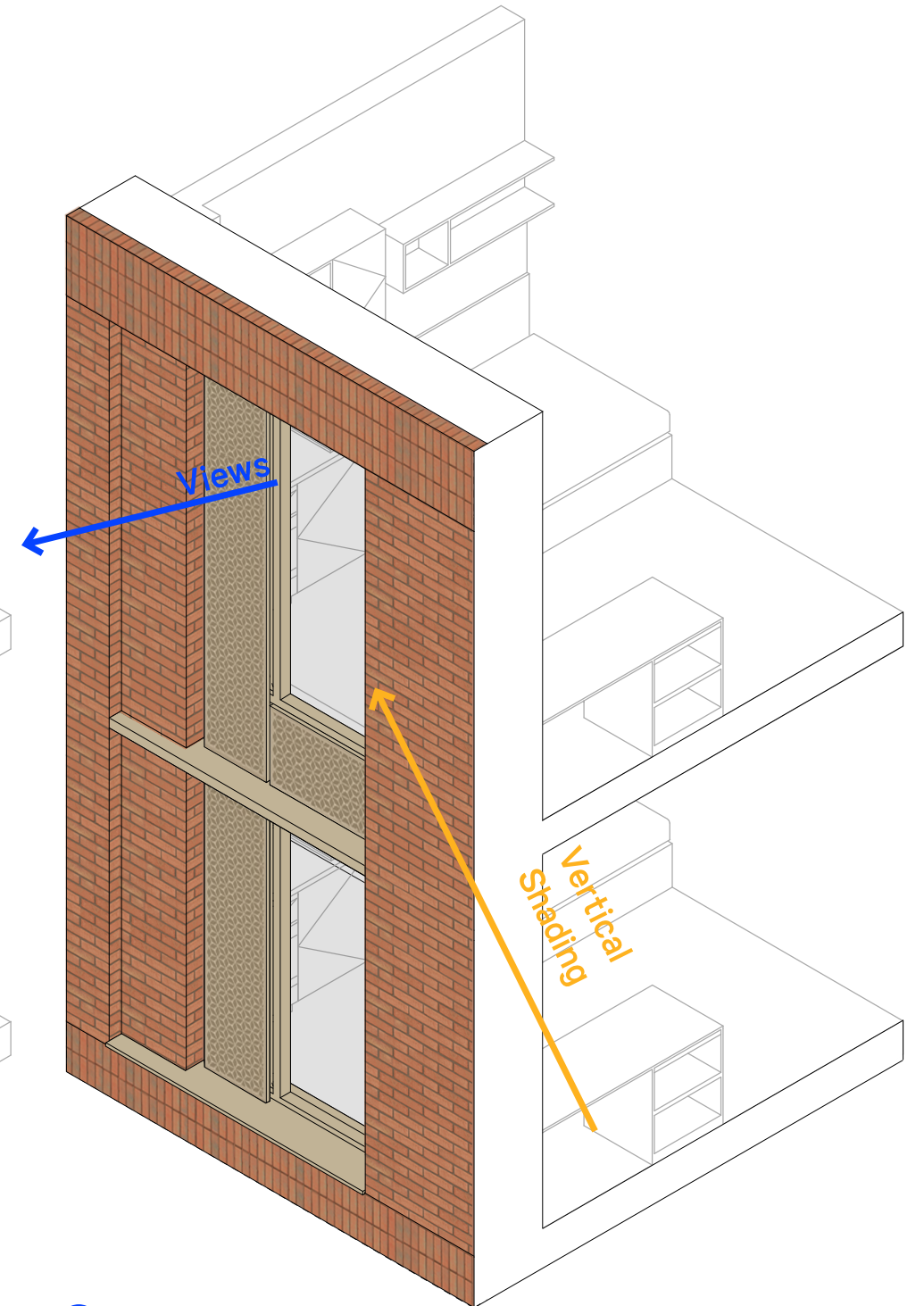
2



3



4



5

Brick Details

The brick detailing has been given careful consideration to ensure a high quality finish whilst enhancing the performance of the building.

All details shown at this stage should be regarded as design intent, for illustrative purposes only. All design intent will be developed during the next stages, with input from specialist Subcontractors and their supply chain. Specific products are used for reference only; equivalent products may be proposed. All materials and details concerning the external appearance of the buildings are expected to be conditioned and will be subject to MCC's approval as part of the planning consent.

Head Detail

The head detail integrates a half brick head detail allowing the soldier course above to wrap into the head. The metal element at the head allows the ventilation intake and extract to be concealed within the head detail.

Reveal Details

Brick reveals have been considered to be the deepest next to the glazed elements where shading is required and to step back to provide maximum views.

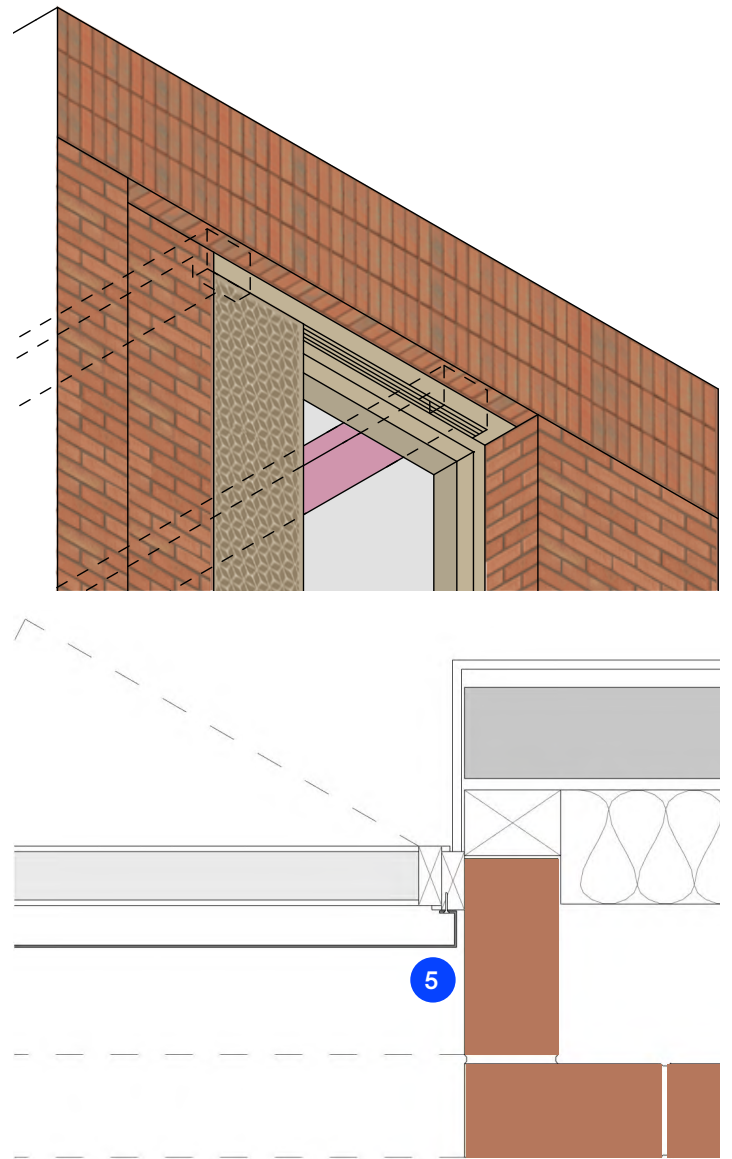
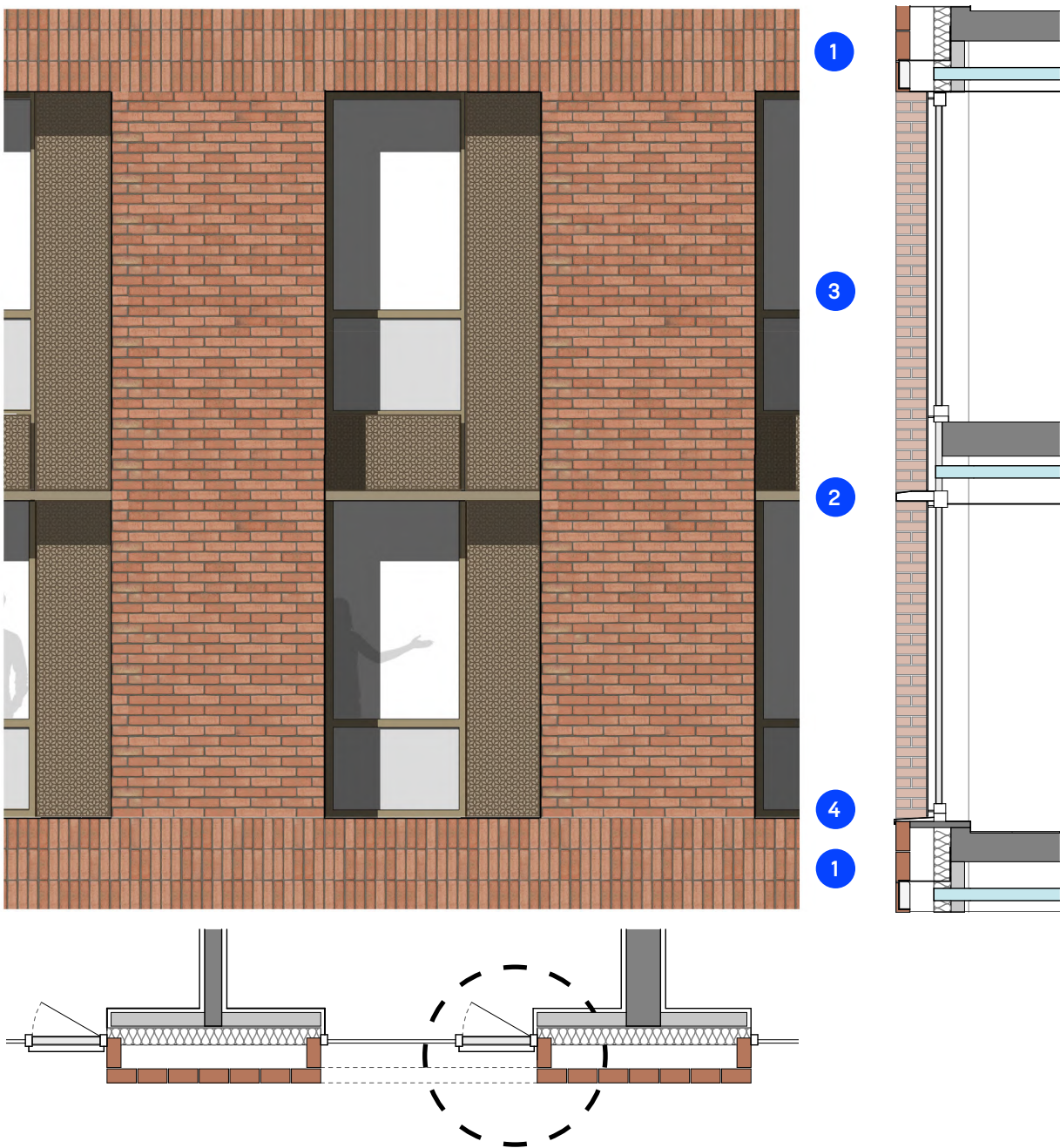
Metal Details

Decorative panels generally are to be secretly fixed as shown on the detail opposite.

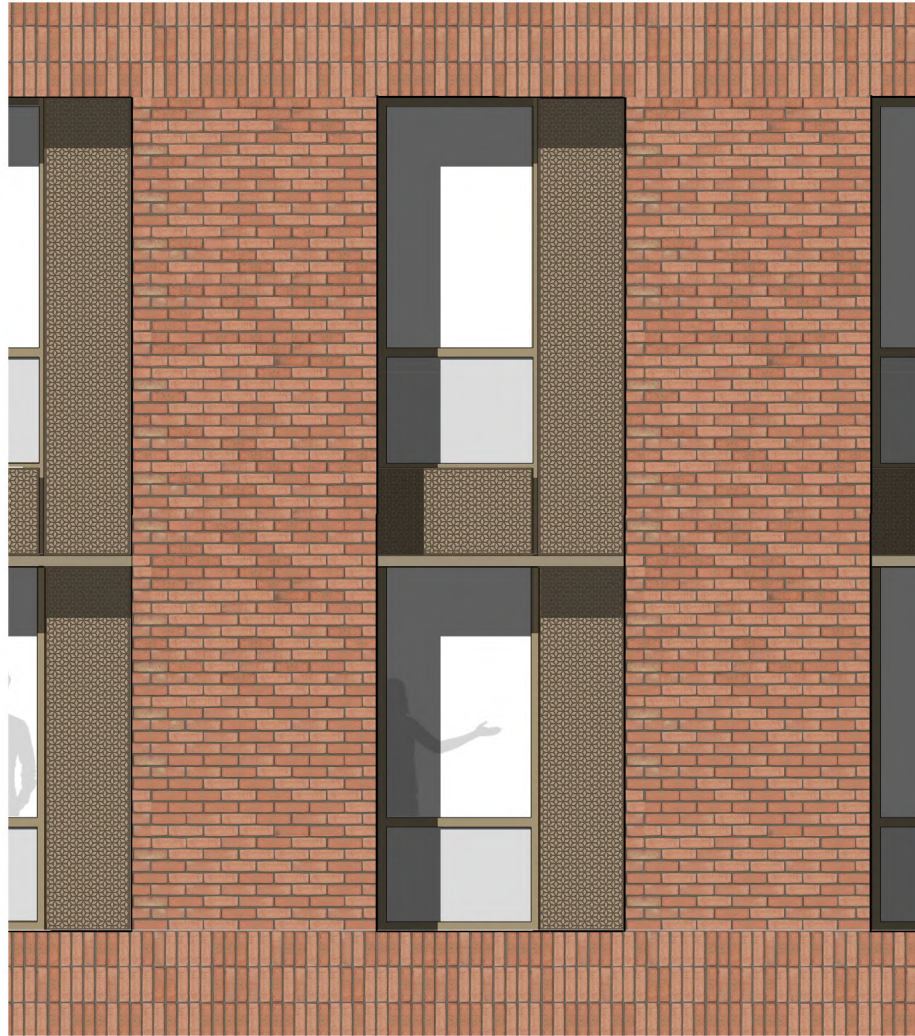
Creating a Range of Stepped Components

In order to provide playfulness and visual interest to the facade, a range of patterns and components have been explored based on the technical drivers, as shown on the facing page.

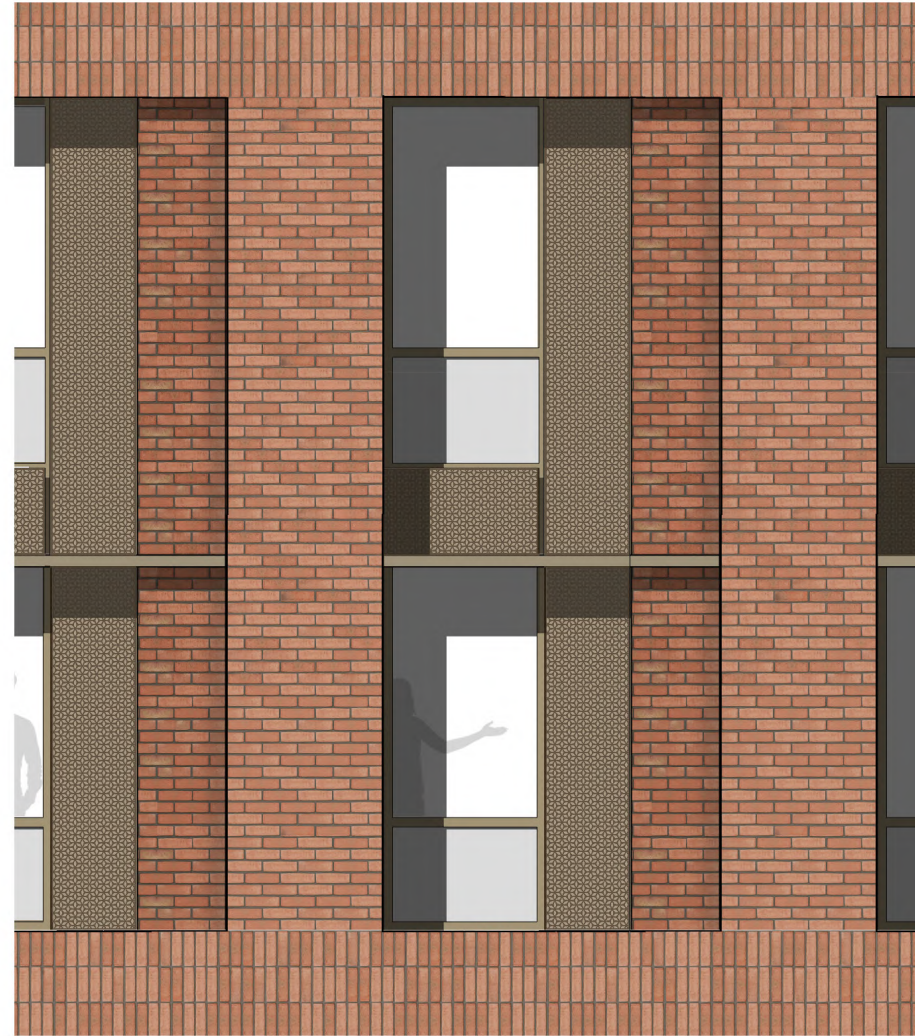
Three Components have been developed and applied across all façades.



- 1 Single soldier course Brick head with metal perforated vent. Metal finish to match decorative panel
- 2 Metal Horizontal shading element
- 3 Brick Reveal
- 4 Metal sill finish to match decorative panels
- 5 Fixing at regular centres to be confirmed with colour matched countersunk heads driven through perforations in decorative panel.



Zero Step - A



One Step - B



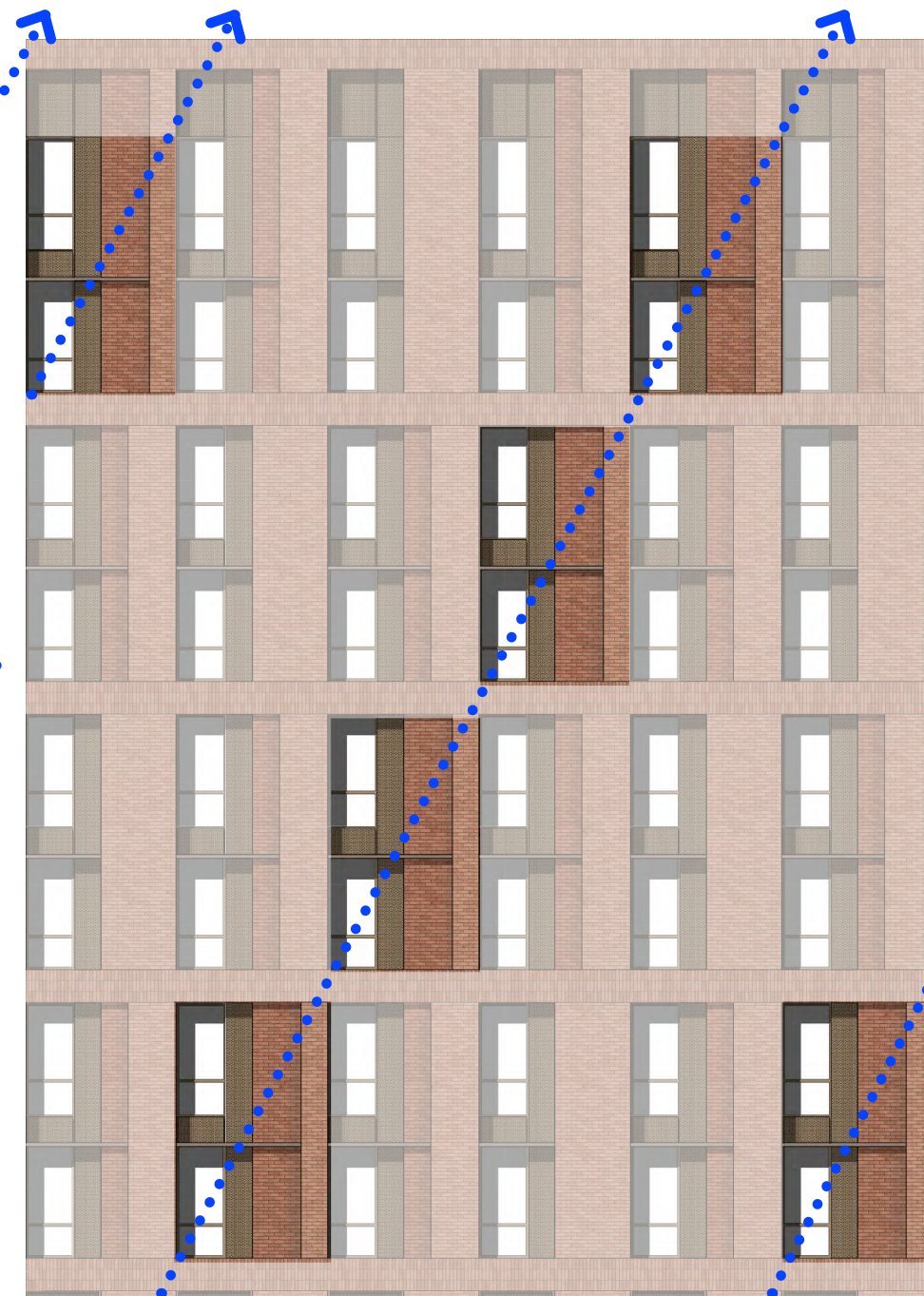
One Step - C



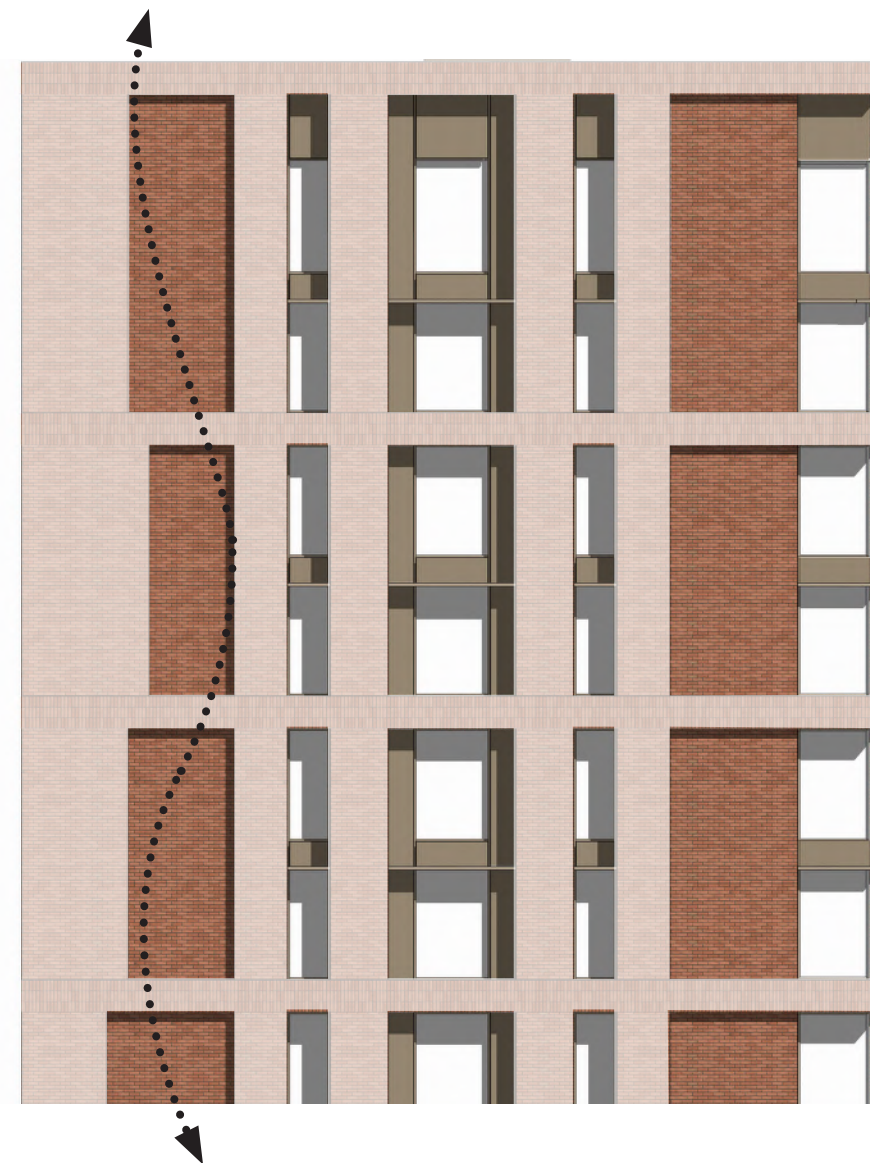
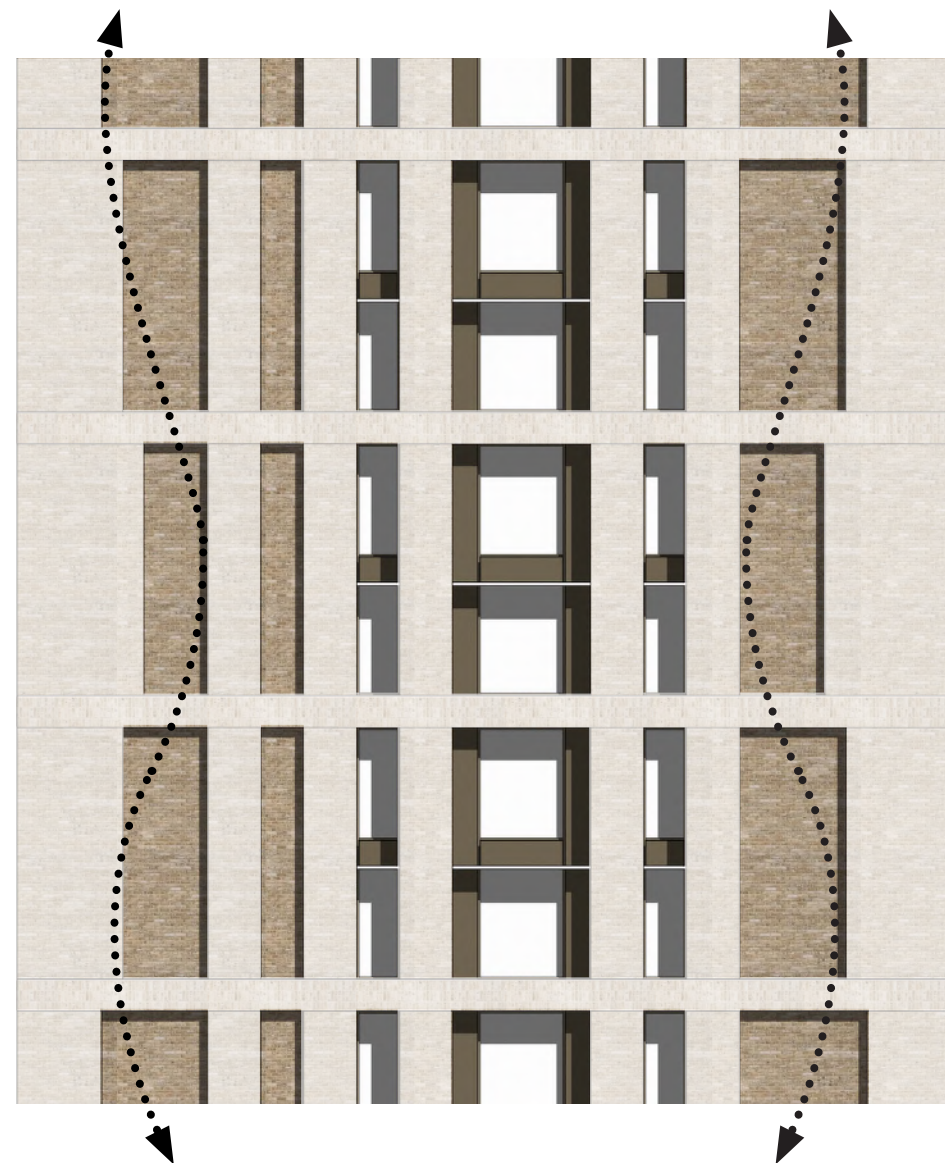
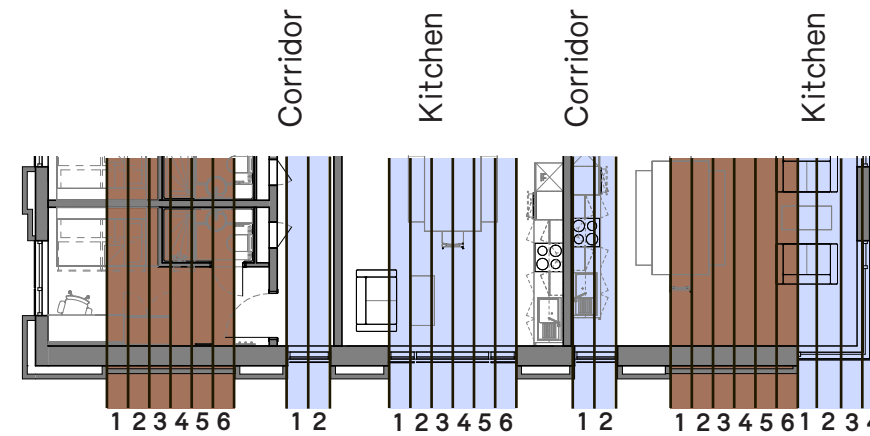
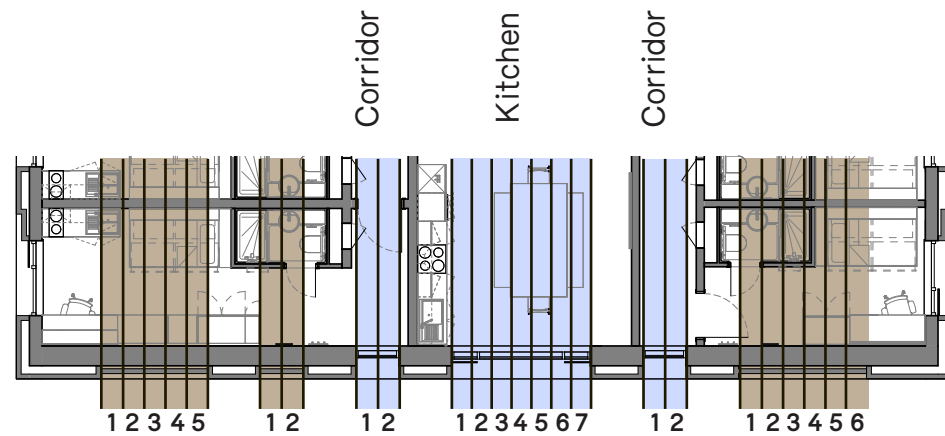
Zero Step - A



One Step - B



One Step - C



Facade Pattern Language

The same approach and pattern has been applied to all four main façades emphasising their equal importance on the site, in order to create a united visual ‘flow’ across all façades.

Zero Step -A

The Zero step component is the simplest form. One large brick column provides a strong visual contrast on the facade and draws the eye in a diagonal direction across the facade.

One Step -B

One step provides a larger brick column and smaller recessed brick bay. This is the most occurring component and creates a soft waving transition between the two neighbouring components

One Step -C

The third component provides a slimmer brick column and larger recessed brick bay. This component in contrast to the zero step component reinforces the diagonal direction of the facade.

Short Elevation Composition

In response to the change of nature of the short elevations, a composition has been developed which incorporates the recessed brick bays to provide relief to areas where glazing is not required.

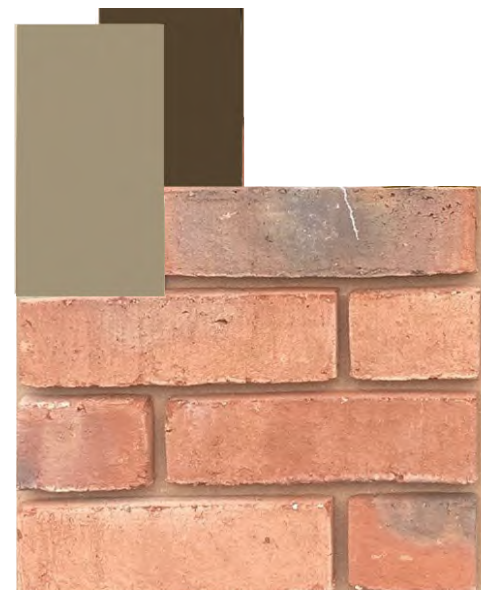
In all cases, a central window bay is proposed with smaller flanking windows to each side. Recessed brick bays are arranged in varying 450mm modules. The module proportions tie the short elevations into the main facade and provide flexibility to create the soft waving pattern similar to that of the main façades.

Legend

- 450mm wide window modules
- 450mm wide recessed brick modules

Kincardine Block Material Palette

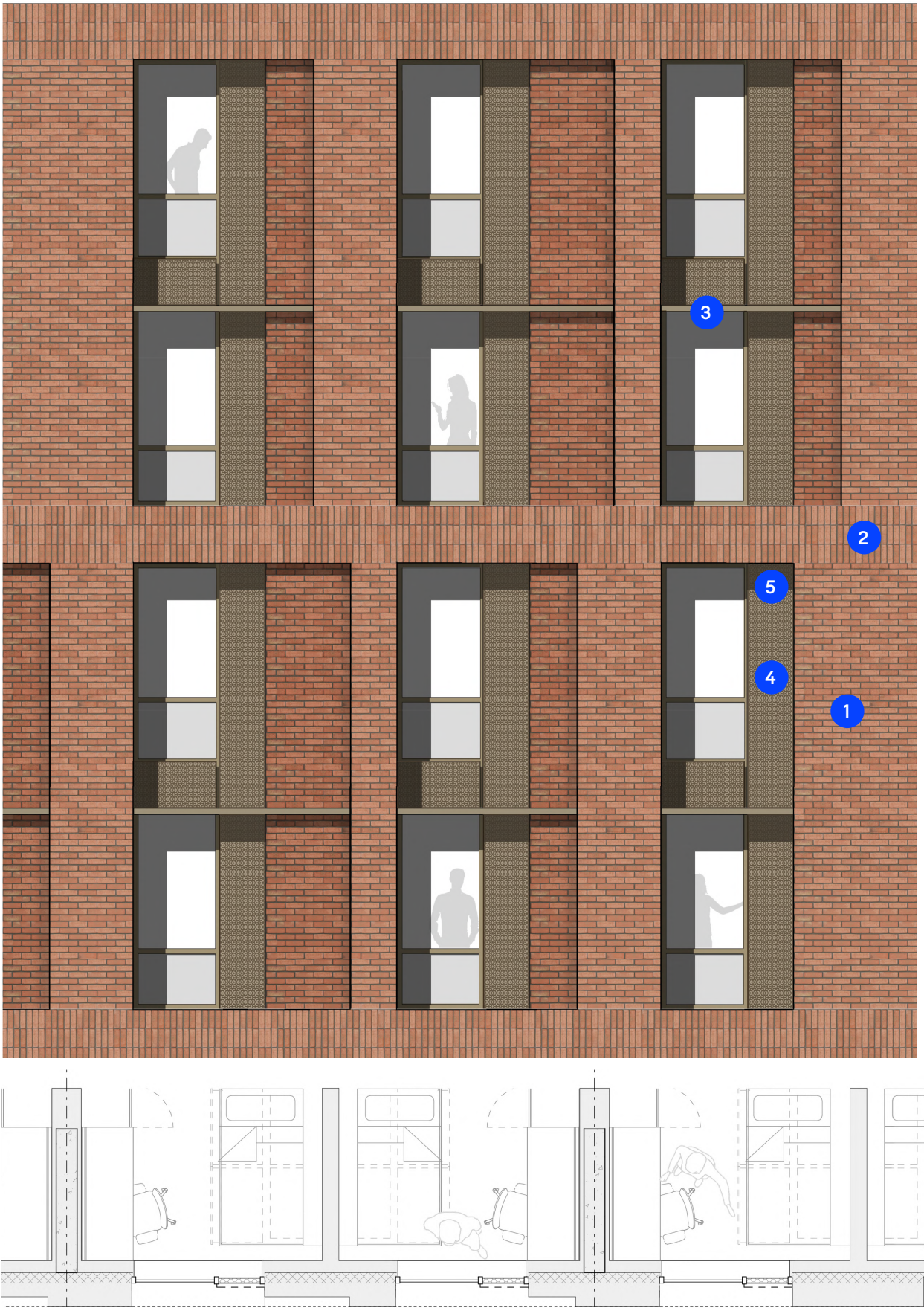
- 1. Red brick primary material
- 2. Horizontal three brick soldier course brick banding in red brick to every second floor.
- 3. Horizontal solar shading in mid bronze metal to every second floor between soldier courses
- 4. Purge panel mesh in mid bronze metal, solid purge panel in lighter bronze
- 5. Vent panel mesh in mid bronze metal

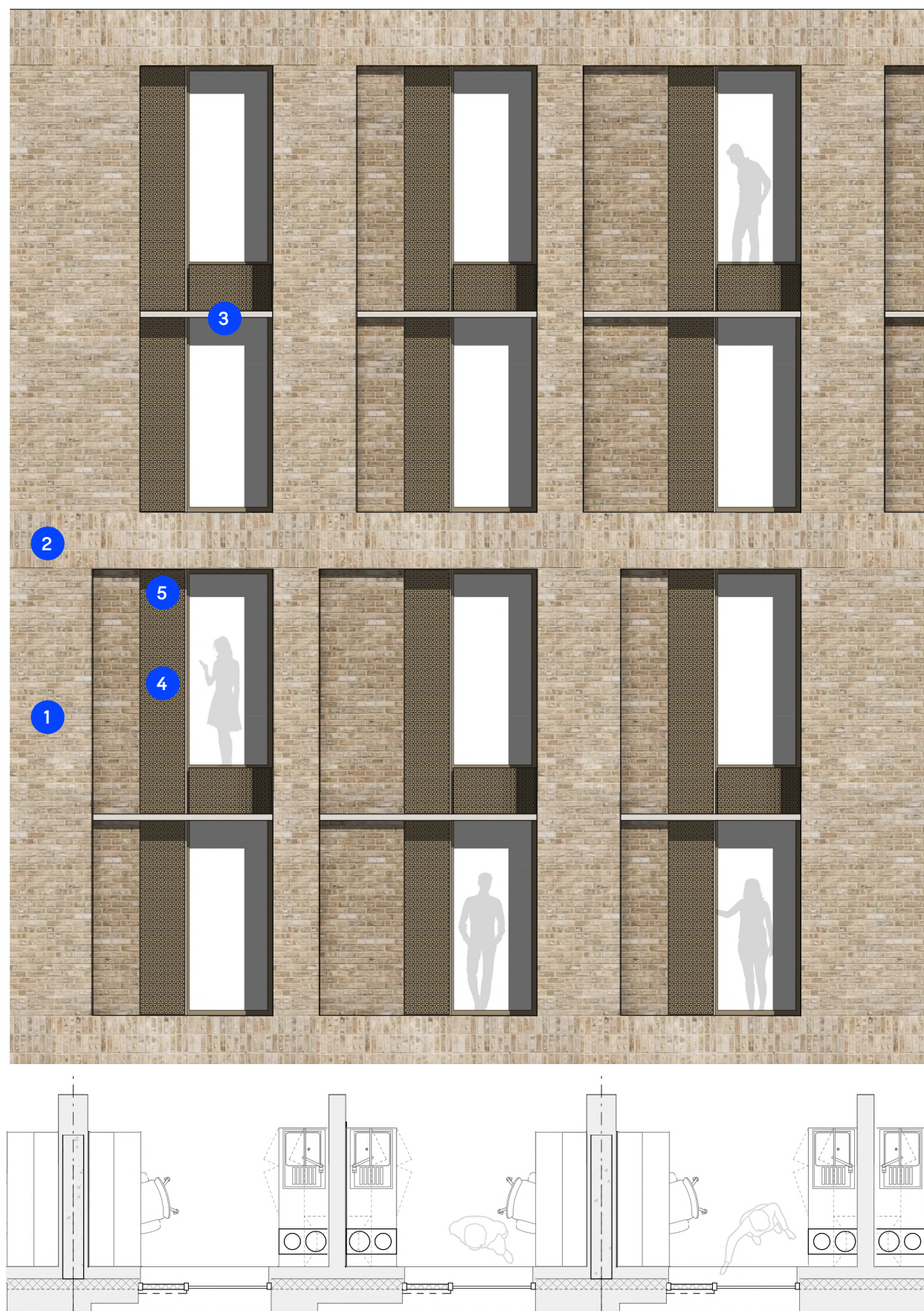


Brick and metal material swatches



Vent and Purge panel mesh pattern





Vent / Purge panel mesh pattern

Upper Brook Block Material Pallet

1. Buff brick primary material
2. Horizontal three brick soldier course brick banding in buff brick to every second floor.
3. Horizontal solar shading in Light grey metal to every second floor between soldier courses
4. Purge panel mesh in Dark bronze metal, solid purge panel in mid bronze
5. Vent panel mesh in Dark bronze metal



Brick and metal material swatches

Ground Floor Development

The ground floor is the prominent facade for pedestrians arriving or travelling through the site. This provides opportunity for a different material treatment to add emphasise and enhance the public realm.

Options for the ground floor colour, finish, and pattern were explored by taking inspirations and precedents from historic buildings within the local community.

Selected Materiality

The proposed ground floor is primarily glazed curtain walling to help activate the ground floor façades and promote transparency between the adjacent public realm and amenity spaces.

A decorative panel is proposed to conceal the louvred ceiling zone.

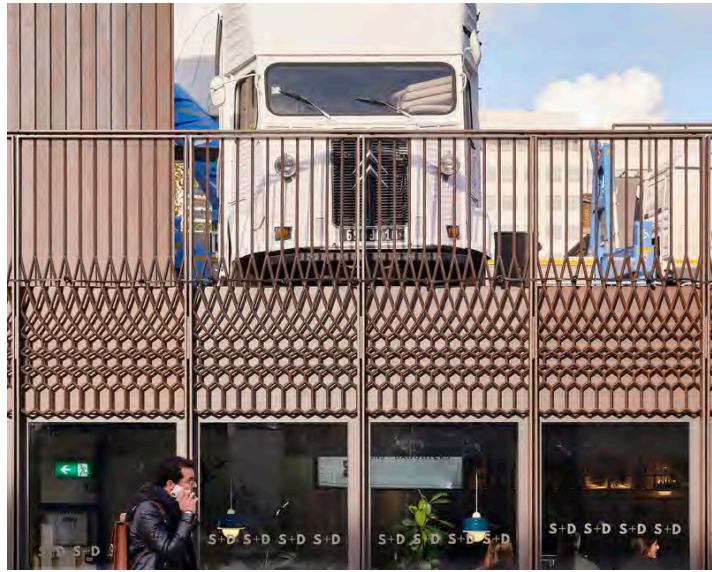
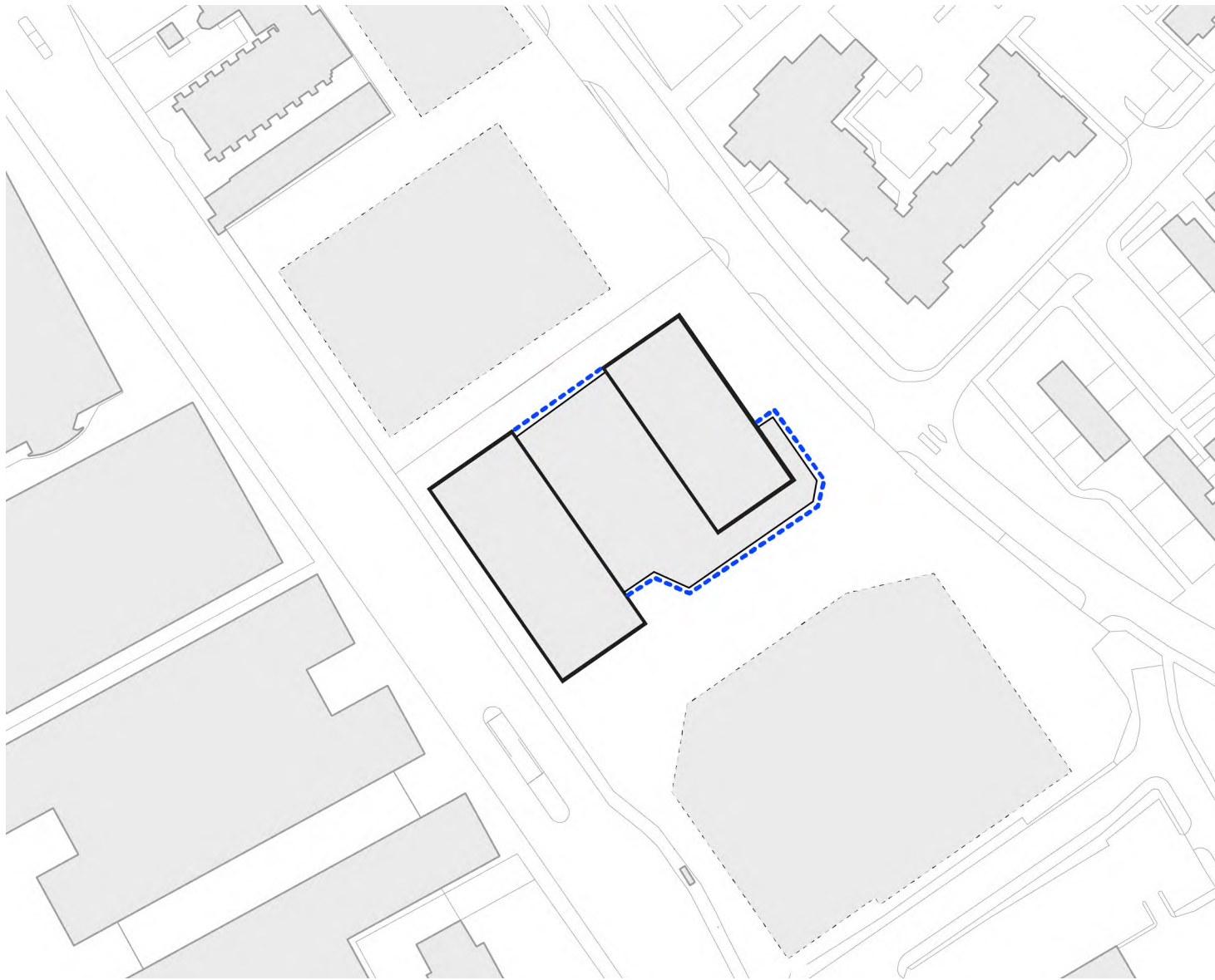
The proposed roof terrace balustrade is a continuation of the vertical elements of the decorative panel below to create a seamless transition between the levels.

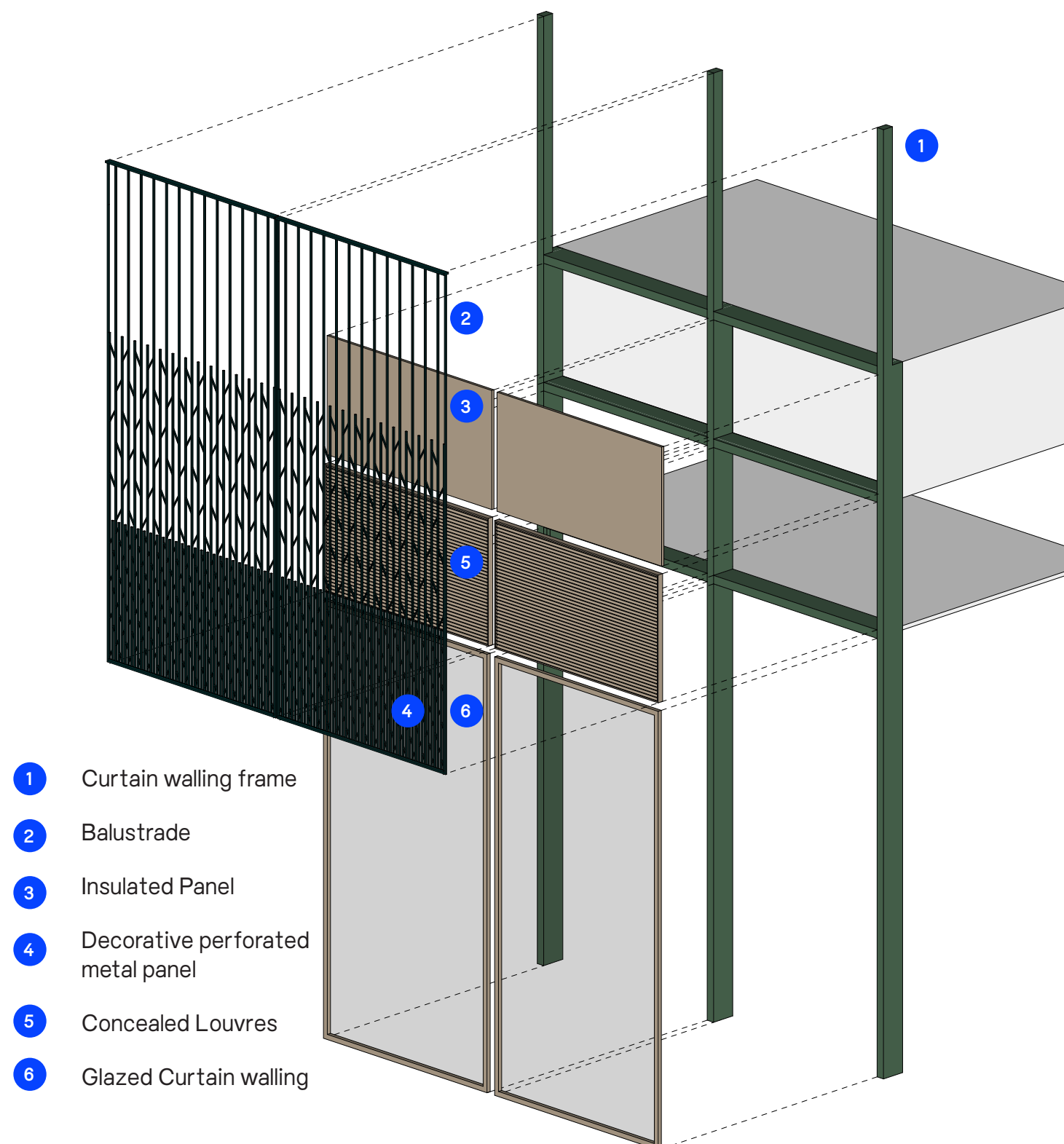
Pattern

The primary inspiration for the ground floor metalwork pattern was the derived from the decorative windows at Victoria Baths. Victoria Baths is a Grade II* listed building in Ardwick. Built in the early 19th Century and restored in 2007 the building has a wealth of decorative features to take inspirations from.

Colour

The colour combination of green and bronze is inspired by the decorative moulded ceiling in green and gold at the Mawson Hotel. The Mawson Hotel is a Grade II listed building situated on Frances Street.





8.5 Elevations
Kincardine Road Elevation





Thorburn Walk Elevation (East)





8.6 Amount

Area Schedule

The overall Gross Internal Area of the proposed development is 25,388m².

The student accommodation occupies 25,009m² and the remaining 379m² of area is occupied by the community and retail spaces.

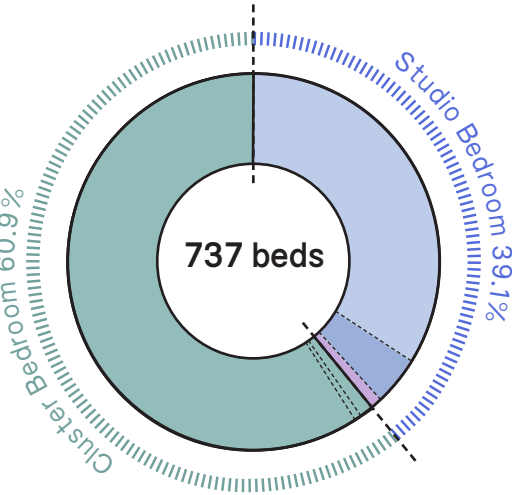
The GIA figures have been developed during the design process to meet the client’s needs and to accommodate the occupants requirements.

Level	Residential (m²) Upper Brook Street	Residential (m²) Kincardine Road	Amenity / BoH m² (inc. Plant)	Subtotal (m²) PBSA	Community (m²)	Total (m²)
23 (Roof)			13	13		13
22	495		225	720		720
21	819			819		819
20	819			819		819
19	819			819		819
18	819			819		819
17	819			819		819
16	819			819		819
15	819			819		819
14	819			819		819
13	819			819		819
12	819			819		819
11	819			819		819
10	819			819		819
9	819	13		832		832
8	819	460	100	1,379		1,379
7	819	643		1,462		1,462
6	819	643		1,462		1,462
5	819	643		1,462		1,462
4	819	643		1,462		1,462
3	819	643		1,462		1,462
2	819	643		1,462		1,462
1	709	643	112	1,464		1,464
0			2,001	2,001	379	2,380
	17,584	4,974	2,451	25,009	379	25,388

Accommodation Schedule

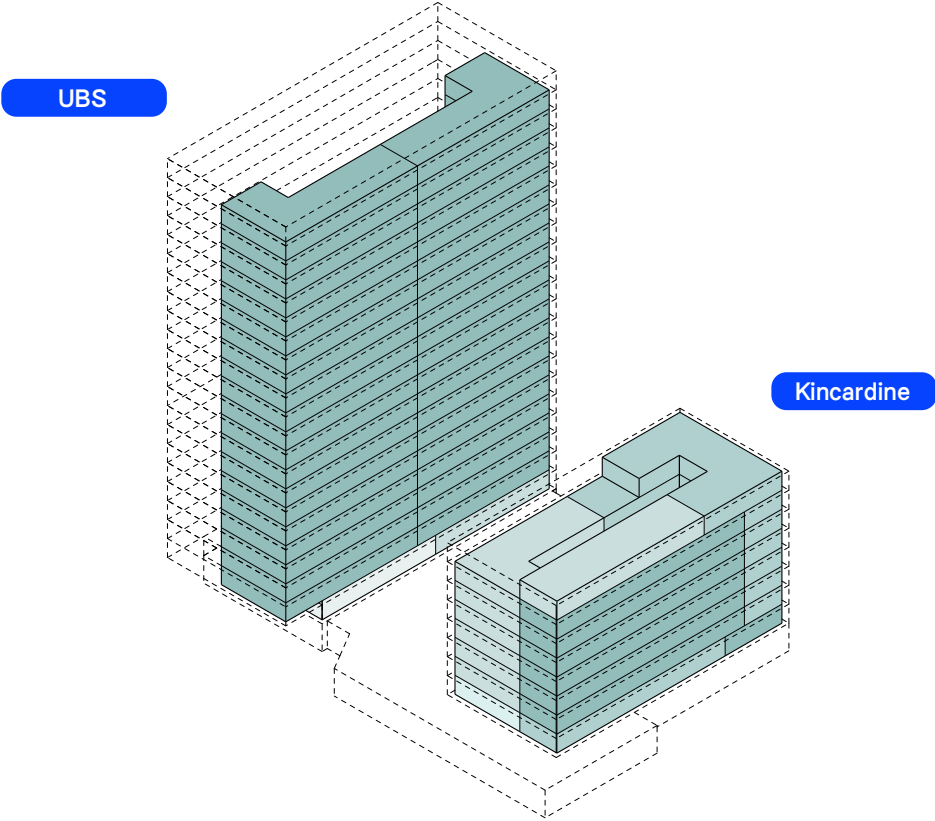
A total of 737 beds are provided in the student accommodation distributed across a variety of 5-8 bedroom clusters, three cluster bedroom (standard, accessible and enlarged/convertible) types and 3 different types of studios (standard, accessible and convertible). All standard bedrooms are provided with en-suite bathroom pods.

	Upper Brook Street	Kincardine Road	Total	Proportion
Studio	252	0	252	34.2%
Accessible Studio	8	0	8	1.1%
Enlarged Studio	28	0	28	3.8%
Cluster Bedroom	290	153	443	60.1%
Accessible Cluster Bedroom	0	1	1	0.1%
Enlarged Cluster Bedroom	0	5	5	0.7%
Total	578	159	737	



Legend

- Cluster Bedroom
- Studio
- Accessible Studio
- Enlarged Studio



Cluster Sizes

	UBS	Kincardine Road	Total
4-Bed	1	0	1
5-Bed	0	1	1
6-Bed	1	7	8
7-Bed	40	8	48
8-Bed	0	7	7
Total	42	23	65

9.0 PUBLIC REALM & LANDSCAPE

9.1 Introduction

Purpose of chapter

Re-form landscape architecture has been commissioned to prepare, on behalf of McLaren Property and Kadans, landscape design proposals to support the detailed planning application for the Upper Brook Street Masterplan - McLaren / Kadans

This Landscape chapter sets out the ways in which the landscape proposals fit within the wider emerging Upper Brook Street Masterplan and respond to the site's Context. It then provides an overview of the Landscape approach to design and appearance, access, materials, and sustainability.

This document summarises information contained within the following planning submission landscape drawings:

- 0967-RFM-XX-00-DR-L-0001 Landscape General Arrangement Plan
- 0967-RFM-XX-00-DR-L-0002 Illustrative Landscape Plan
- 0967-RFM-XX-00-DR-L-0003 AND 0004 Landscape Site Sections
- 0967-RFM-XX-00-DR-L-0005 Planting Strategy

9.2 SRFG Landscape Principles

SRFG Key Priorities for public realm

- Deliver high quality, inclusive new public realm, where communities can happen;
- Calm the vehicular dominated environment of Upper Brook Street, and create an appropriate environment for pedestrians through setting back buildings, tree planting, animation and interaction with building uses pedestrian environment along Upper Brook Street;
- Enhance pedestrian crossings to Upper Brook Street and simultaneously strengthen east to west connections across the Oxford Road Corridor area and through the Ardwick and Hulme;
- Enhance east to west connections and integrate new public realm with existing, including the upgraded Gartside Gardens and new Brunswick Park.

SRFG Opportunities

The proposals for Upper Brook Street present an exciting opportunity to build upon the principles of the Oxford Road Corridor SRFG. This includes:

- Delivering high quality, inclusive new public realm, where communities can connect and knowledge and skills-sharing can happen.
- Engage more positively with the Ardwick community
- Enhancing east to west connections and integrate new public realm with existing, including the upgraded Gartside Gardens and Brunswick Park.
- Creating an appropriate environment for pedestrians through setting back buildings, tree planting, animation and interaction with building uses.



Key Landscape Concepts

The wider landscape strategy for the emerging Upper Brook Street Masterplan will look to achieve the following aims:

Creating a positive frontage to Ardwick

- Extending the edge of Ardwick to re-establish the edge of the community along Upper Brook Street
- Creating a series of positive points of arrival/gateways announcing the arrival to Ardwick
- Providing a new positive active frontage for the community

Removing barriers and encouraging permeability

- Establishing new east west routes reconnecting the neighbourhood with Upper Brook Street and beyond
- Forming a series of clear pedestrian routes through the site
- Creating a legible hierarchy of routes through the site

Offering back to the Community

- Creation of a series of new community focussed spaces
- Spaces to support both the existing and new community users
- Green infrastructure plays a key role in creating a welcoming neighbourhood character

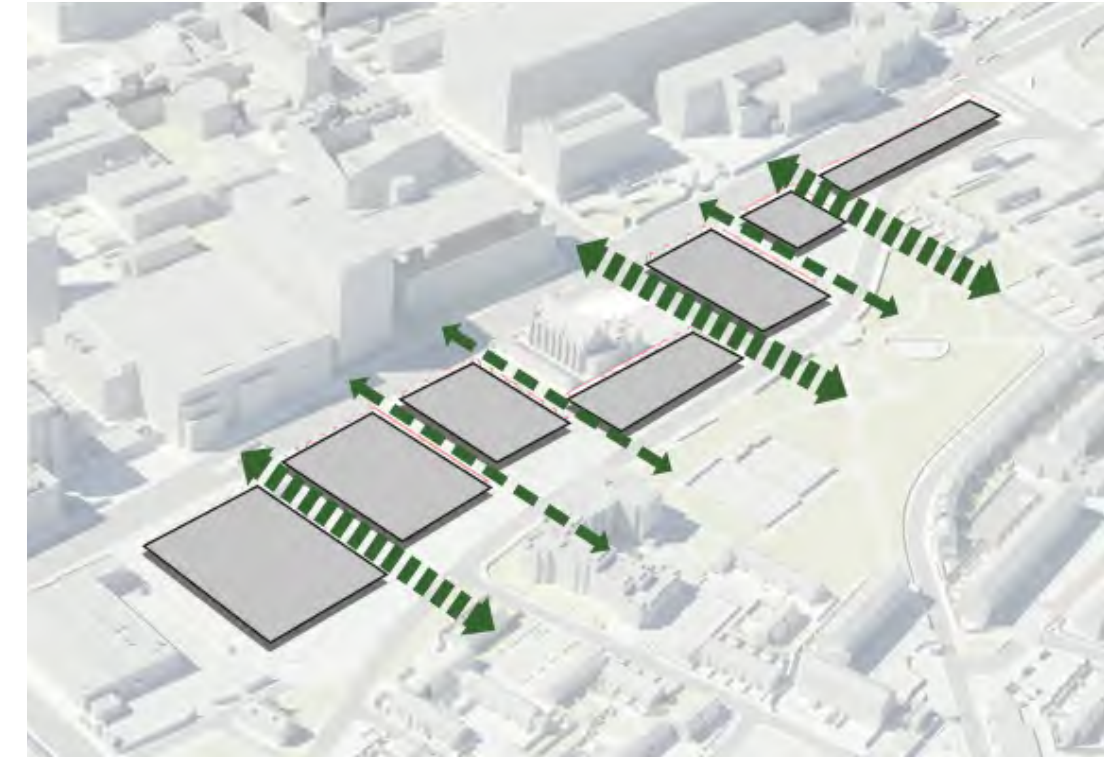
Extending Ardwick's Green Infrastructure

- Provide a new green streetscape to offer new opportunities for recreation and restoration
- Link to existing green areas including Gartside Gardens to form a green network

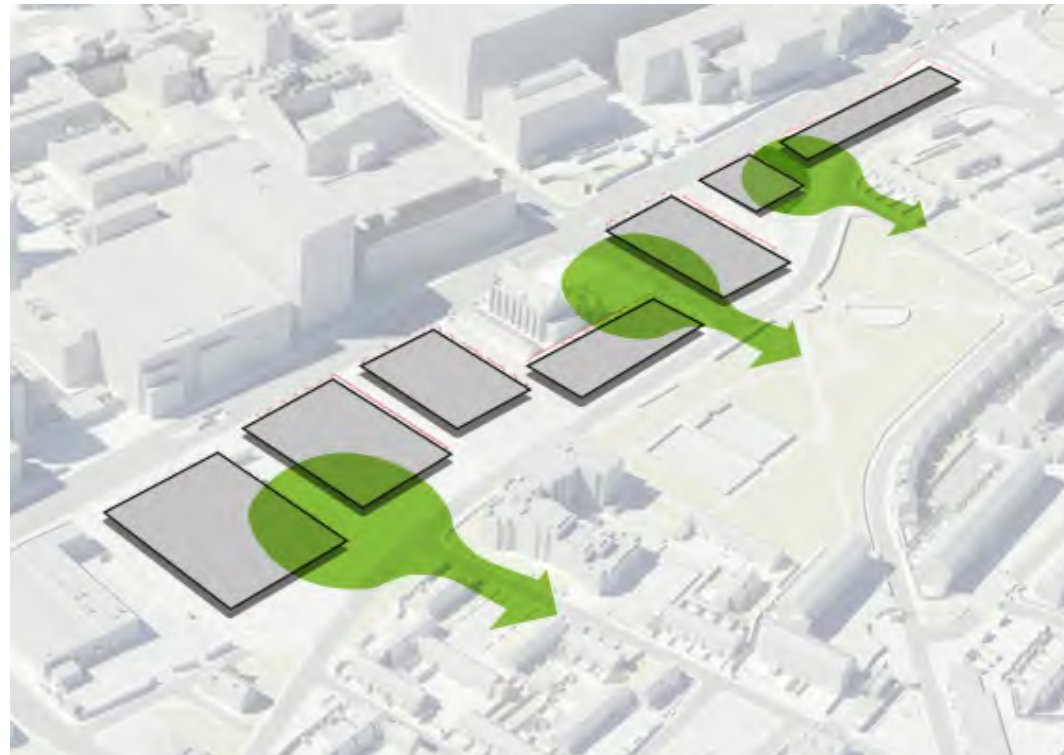
Creating a positive frontage to Ardwick



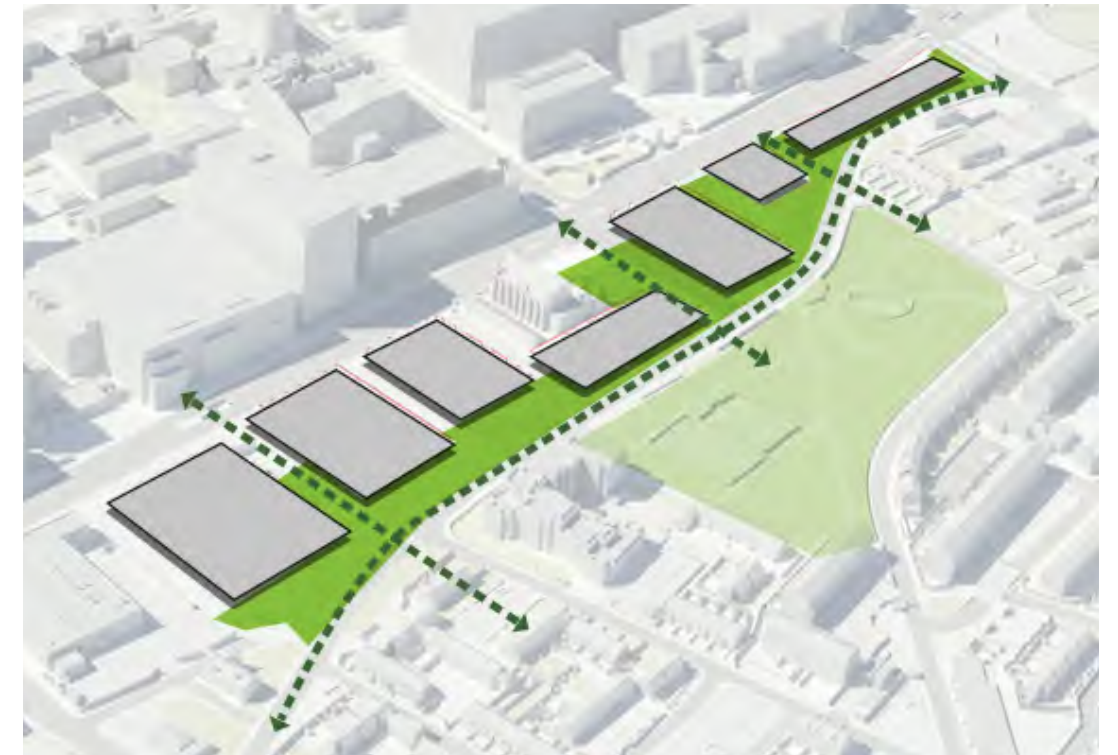
Removing barriers and encouraging permeability



Offering back to the Community



Extending Ardwick's Green Infrastructure



9.3 Landscape Design Principles

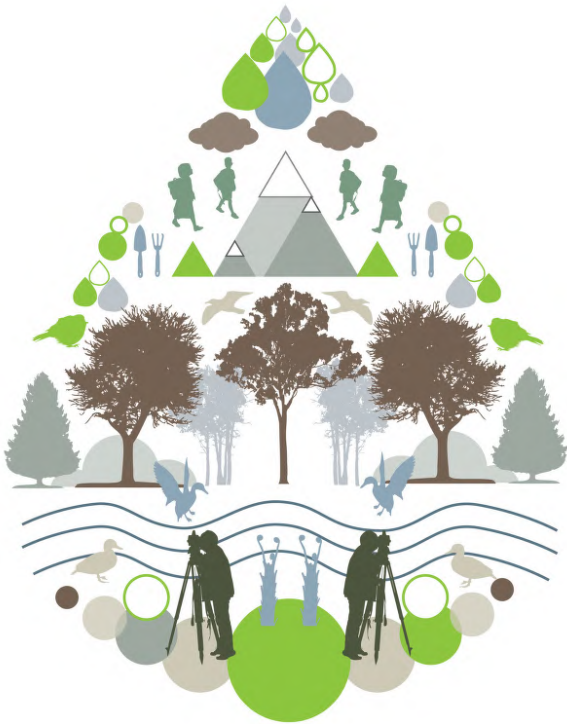
Given the size and location of the emerging Upper Brook Street Masterplan there is a great opportunity to establish a series of guiding principles that clearly address the importance of sustainability within the scheme. This will provide a bench mark for this and future developments within the Ardwick area and address targets set out in emerging planning policy.

Threading through the building and landscape design is the desire to create and build a sustainable development that responds to its environment. High quality landscape will be at the heart of the scheme. This will ensure the development knits into the surrounding city fabric, creating attractive streets and spaces for the public and residents to enjoy.

Three key sectors are outlined covering; climate sensitive design, biodiversity and carbon footprint

Climate Sensitive Design

- Inclusion of sustainable urban drainage systems where possible
- Permeable paving, rainwater gardens and bio-retention tree pits
- Introduction of hedging species that are known to capture micro pollutants from surrounding road network
- Responding to the microclimate of the site considering the aspect, daylight and shelter from the wind



Biodiversity

Careful selection of planting varieties including native species with seasonal variation

Including flowering and fruiting varieties that encourage insects and birds

Maximise the quality of the green spaces across the site including the podium and roof gardens



Carbon Offsetting

Considered specification of materials avoiding heavily processed materials

Natural materials such as FSC wood which has less embodied carbon to be used within the street furniture

Maximise the quantum of green spaces and incorporate trees and woody plant species that are known for their carbon sequestration properties



9.4 Landscape Analysis

Public Realm and Landscape Context

Within the wider site context there are a series of positive public spaces, from parks to greens that serve the surrounding communities and whilst these green spaces are a great resource for the area they are distinctly separate. Key spaces include; Gartside Gardens, Ardwick Green, Mayfield Park and Brunswick Gardens.

The development at Upper Brook Street offers an opportunity to harness these positive elements and expand on them through new and improved public realm and street greening, helping connect the surrounding areas of Ardwick and the university corridor.



Brunswick Park



University green spaces



Gartside Gardens



Local Character

Ardwick is a primarily domestic, with an emphasis on 2-3 storey terraced dwellings. Roadways currently dominate the majority of routes, and an opportunity to create a new pedestrian focussed public realm is apparent. Ardwick is largely characterised by red brick terraces with more modern developments incorporating a variety of warm tones in buffs and sandstone shades. Green spaces play an established role within the vicinity, with numerous streets set facing open areas of green. Gartside Gardens in particular provides an important community space to local residents.

Along Upper Brook Street and into the city centre, there is a stronger orthogonal emphasis to the streetscape character. Strong geometries, larger scale building plots and grey toned material palettes contribute to a more functional character.

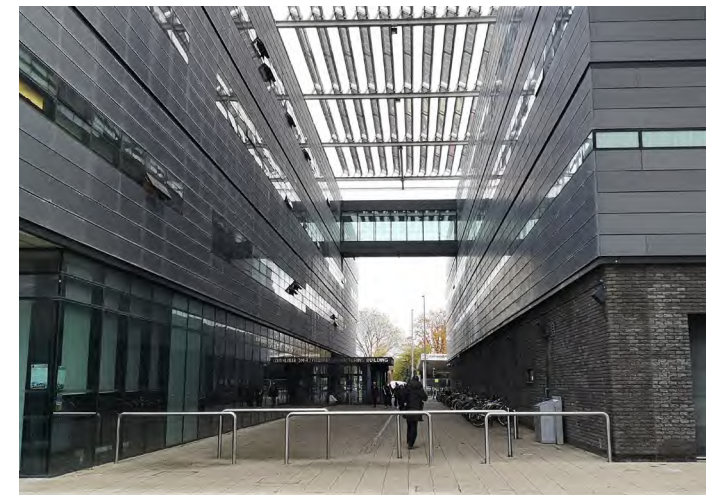
Historic Urban Character

Ardwick originally developed as a leafy domestic suburb, due to its close proximity to the industrial city centre. Small domestic dwellings continued to be built throughout the 19th century.

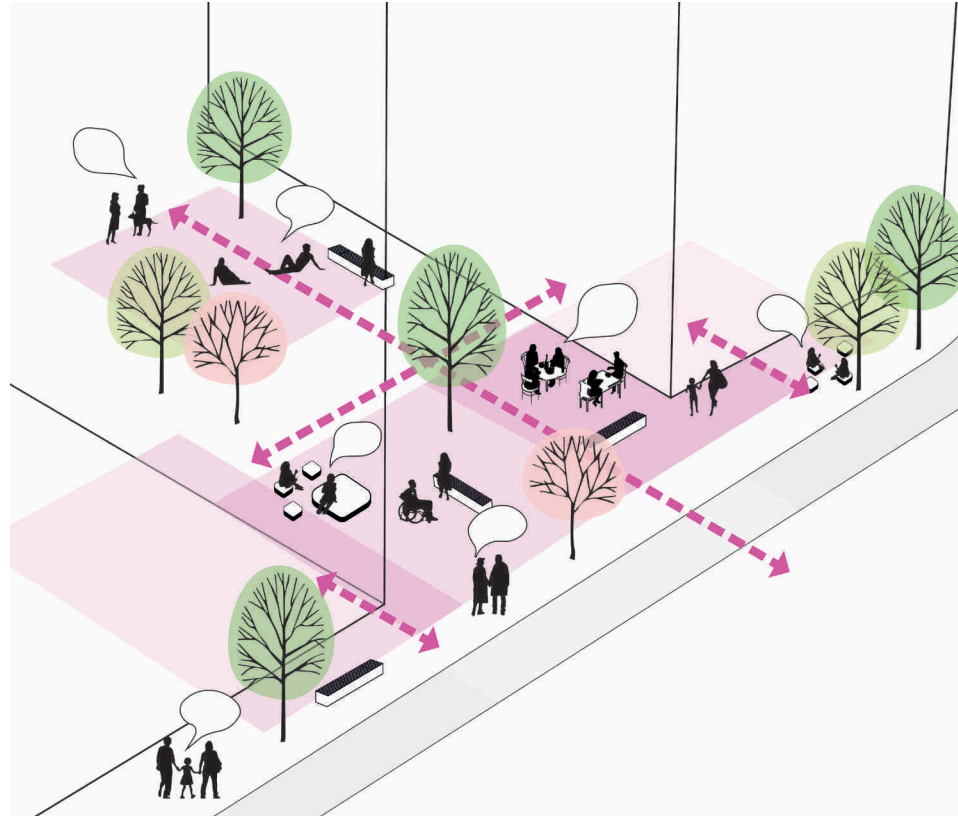
Within the site boundary, the land was largely occupied by domestic terraces and semi-detached housing. A Works appears to have been situated to the north-eastern area of the site between 1930 and the 1960s.

During the 20th century, the area became home to a number of significant recreational and cultural establishments, including the Empire Music Hall, the Ardwick Picture House, and the Apollo.

Historically, the area had a much finer urban grain, largely comprised of terrace housing and other small scale businesses. Maps from early 1900s also show a historic route, Thorburn street, cutting through the site.



9.5 Landscape Design Concepts



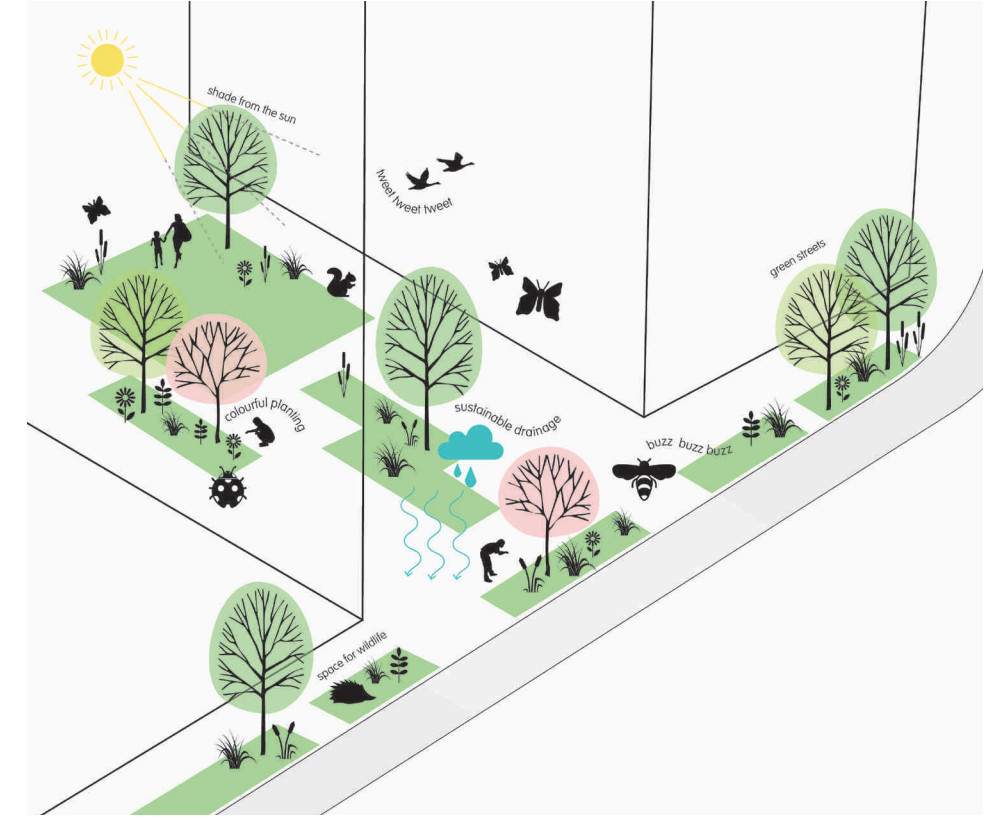
A Place to Connect with People

- Public realm will offer a variety of places to enjoy being outside and with others.
- A range of seating areas will create opportunities for gathering and quiet contemplation
- Social spaces to be amongst an abundance of trees, planting and green spaces that encourage walking, cycling and dwelling



A Place to Play and be Active

- Streets and spaces will include elements that encourage play, exploration and physical activity.
- Pedestrian focussed public realm with green character to encourage walking and activity through the site
- Play areas created along Kincardine Road to create an active and community oriented public realm space
- Play areas to be set within planting to enhance connection to nature



A Place for Nature

- Landscape to be designed as a whole system that will work to support and benefit nature
- Climate resilient planting with an emphasis on native species
- Raingardens to provide integrated SUDs system
- Planting to include species that are attractive to birds, pollinators and other wildlife

9.6 Design Proposals

Site Plan

The Site plan looks to encapsulate the key design strategies to create a cohesive and community oriented site.

Legend

- 1 Focal Tree to Thorburn Walk
- 2 Natural Play Route
- 3 Accessible Parking
- 4 PBSA Service Layby
- 5 Taxi/Service Drop Off
- 6 Service Yard
- 7 Garden Lawns to Thorburn Walk
- 8 Central courtyard
- 9 Cafe spill out area
- 10 Garden route
- 11 Avenue planting to UBS
- 12 Cycle parking
- 13 Spill out area
- 14 Cottenham Street
- 15 Occasional vehicle access route



9.7 Landscape Character Areas

Landscape character areas

The design is comprised of 4 key landscape character areas. Each of these will have distinct characteristics, whilst all working as part of a cohesive site plan.

- 1 Kincardine Road
- 2 Thorburn Walk
- 3 Upper Brook Street
- 4 Secondary Routes

1



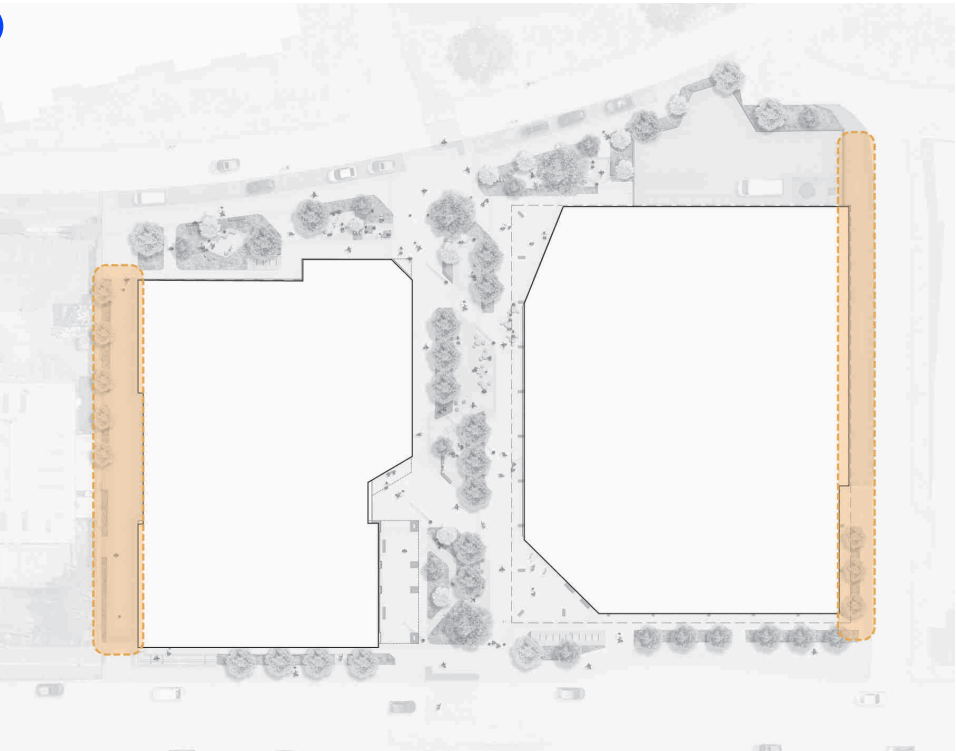
2



3



4



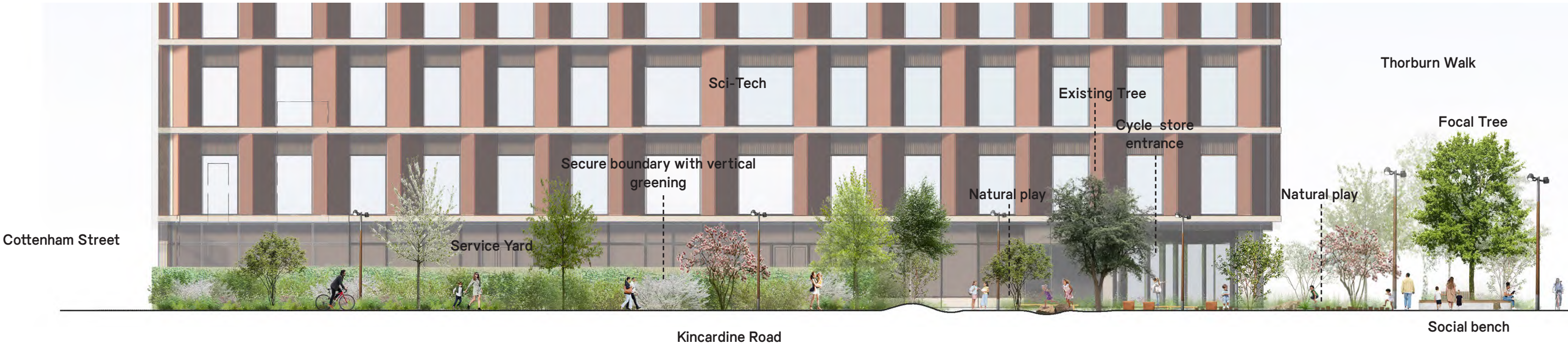
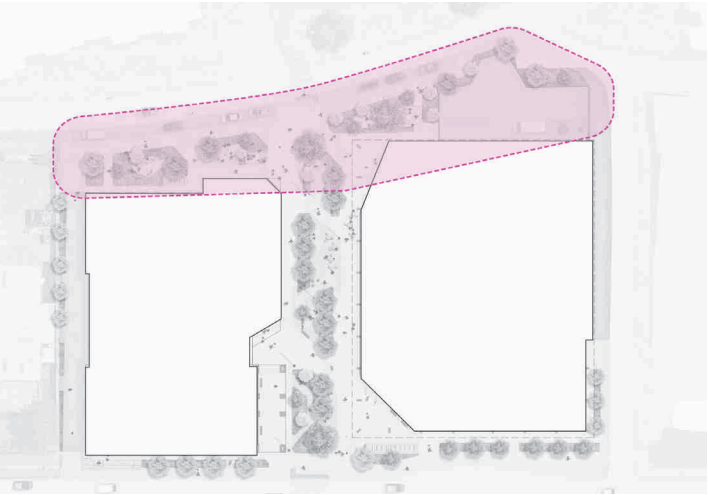
Kincardine Road

Kincardine Road will form a new community oriented and active edge to the Ardwick area. Tree, shrub and herbaceous planting will give the street a revived green character, interwoven with areas for seating and play.

A primary pedestrian path will be complemented by secondary routes meandering through areas of planting. Natural play elements will be woven throughout, encouraging residents to explore and play.

Kincardine Road will also include 7 disabled parking spaces and

The service yard to the Sci-Tech building will be screen by timber fencing and street planting to create a positive interface with the local neighbourhood.



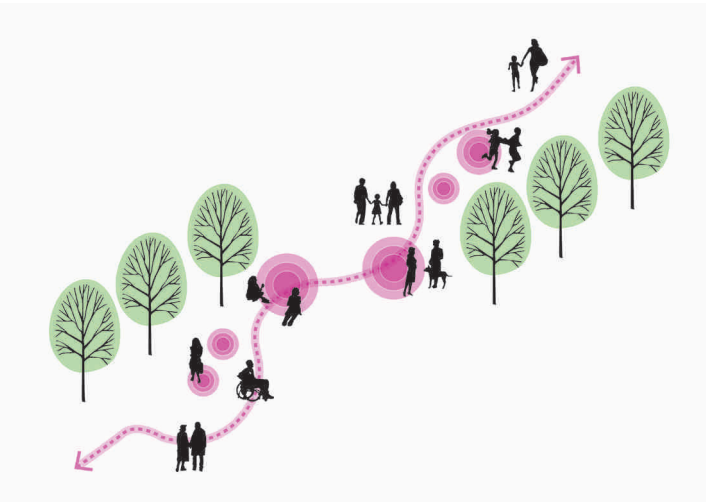


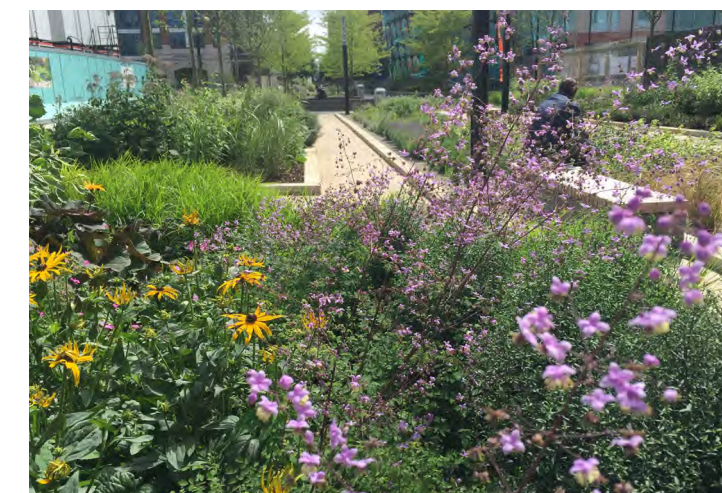
Thorburn Walk

Thorburn walk will create a new route connecting Kincardine Road and Upper Brook Street.

The creation of a sequence of small garden spaces , with open lawns and a variety of seating elements, will facilitate a range of community activities, including gathering, meeting and dwelling. These are arranged to respond to the active edges of the buildings on the site, encouraging a synergy between building and landscape. Broader routes along building edges will allow for occasional emergency access.

Avenue planting, mixed material surfacing and a variety of paths help create a sense of journey, encouraging people to slow down and connect with their surroundings. Areas of herbaceous planting will give the street a vibrant and restorative character.

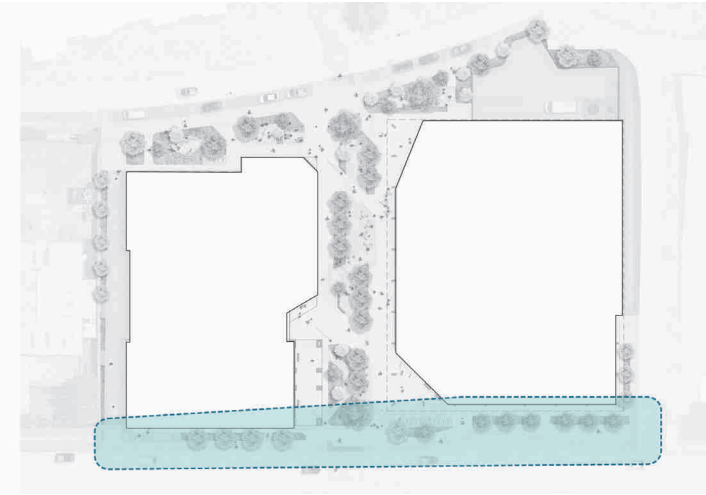


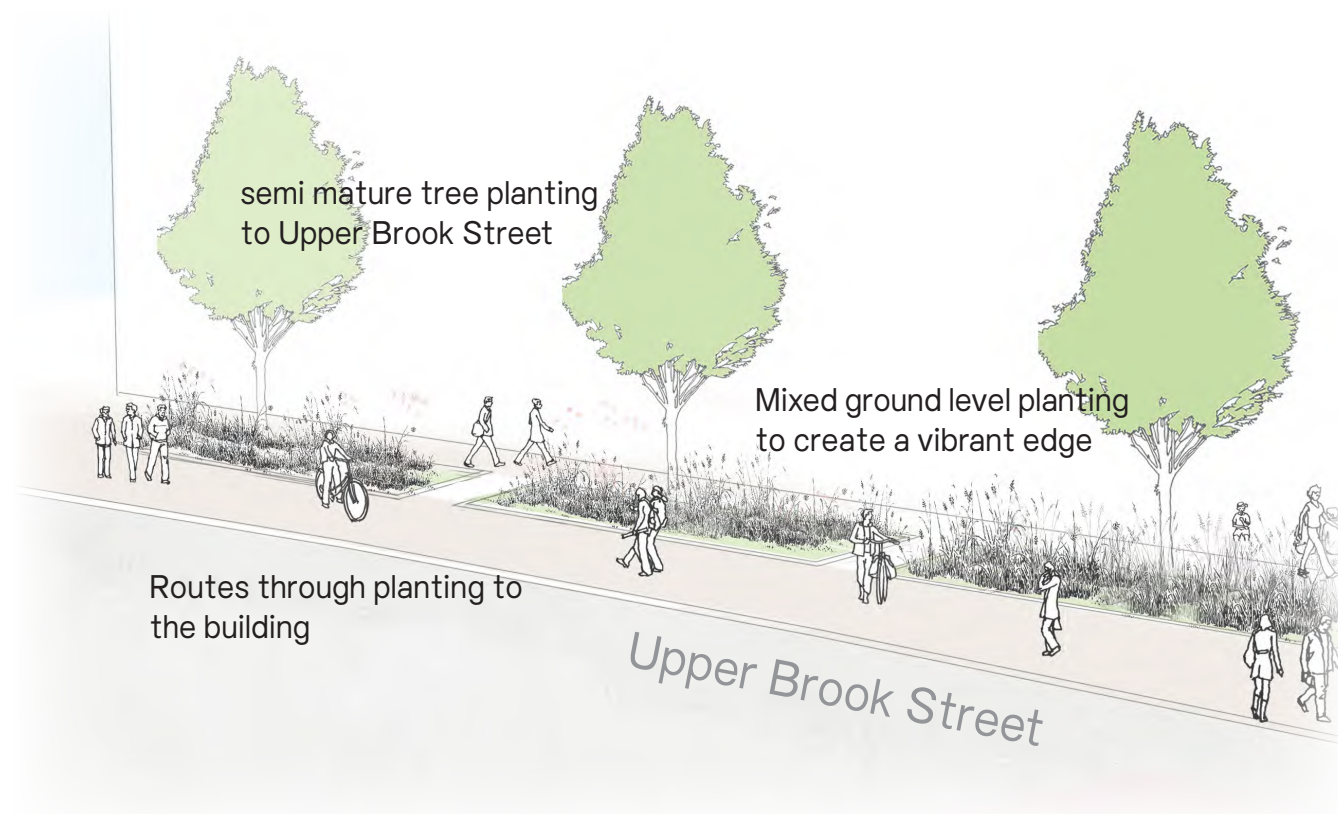


Upper Brook Street

Along Upper Brook Street, a more formal character with new areas of planting and will refocus this edge as part of a pedestrian streetscape. Avenue tree planting will create a strong sense of rhythm and journey. whilst also forming a buffer from the busy road edge, creating a more pleasant and pedestrian focussed route.

A pre-existing sharp level change along this edge of the site will be addressed through small stepped areas and gentle accessible slopes. These will also help define a small spill out area outside the commercial unit to the North-East of the site.



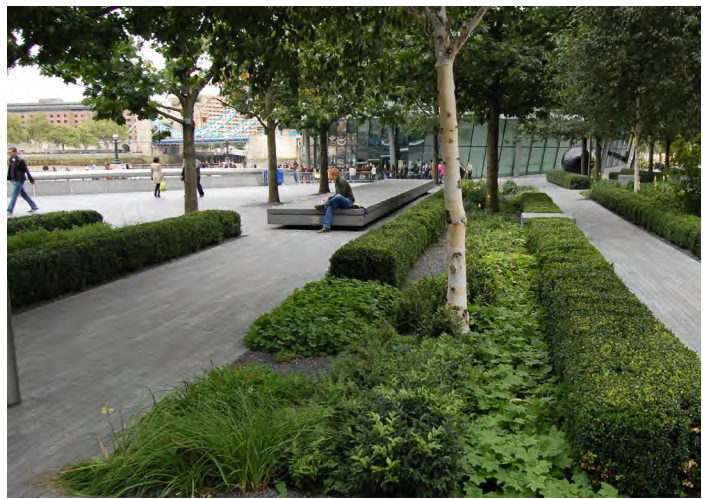


Secondary Routes

To the North and South of the site, two secondary routes will provide access between Kincardine Road and Upper Brook Street.

To the South of the site, Cottenham Street will introduce a new planting area in connection to Upper Brook Street.

Both routes will allow for emergency vehicle access and occasional service access to internal plant rooms.

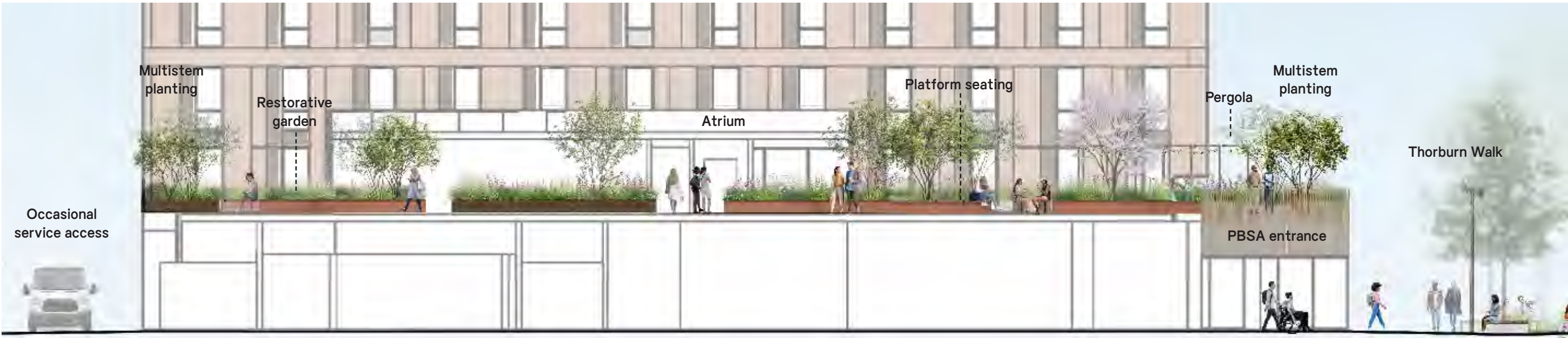


9.8 Roof Terrace

The PBSA building will include a roof terrace at first floor level.

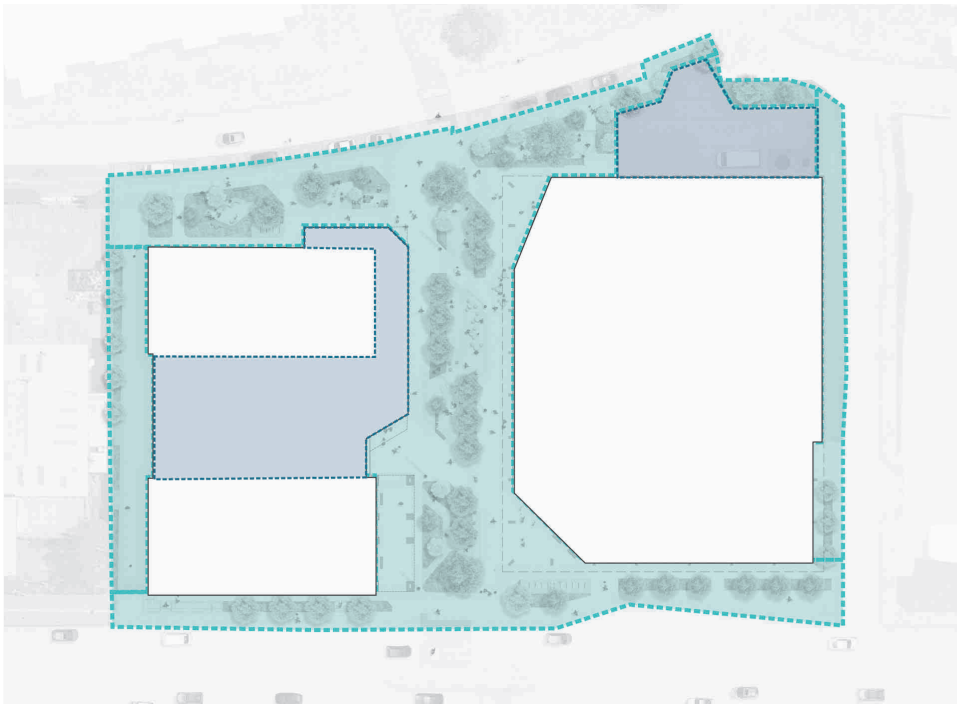
The roof terrace will provide a private recreational space for students. Areas of shrub and herbaceous planting will complement a variety of seating areas, with spaces for gathering and activities, as well as quiet contemplation. A more open area to the South of the terrace will allow for flexibility of use, with a pergola to provide shelter in all seasons.

To the South, the roof terrace will overlook contributing to an active streetscape. Along the Western edge of the terrace, multistem tree planting will create a green boundary along Kincardine Road.



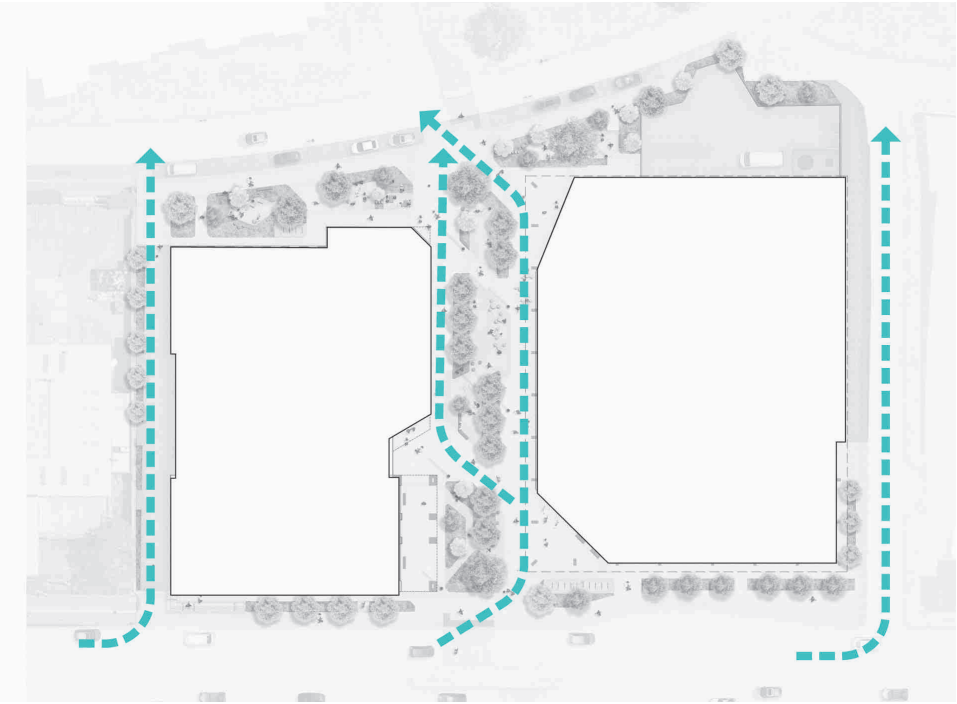
9.9 Functionality Schematics

Public Realm Access



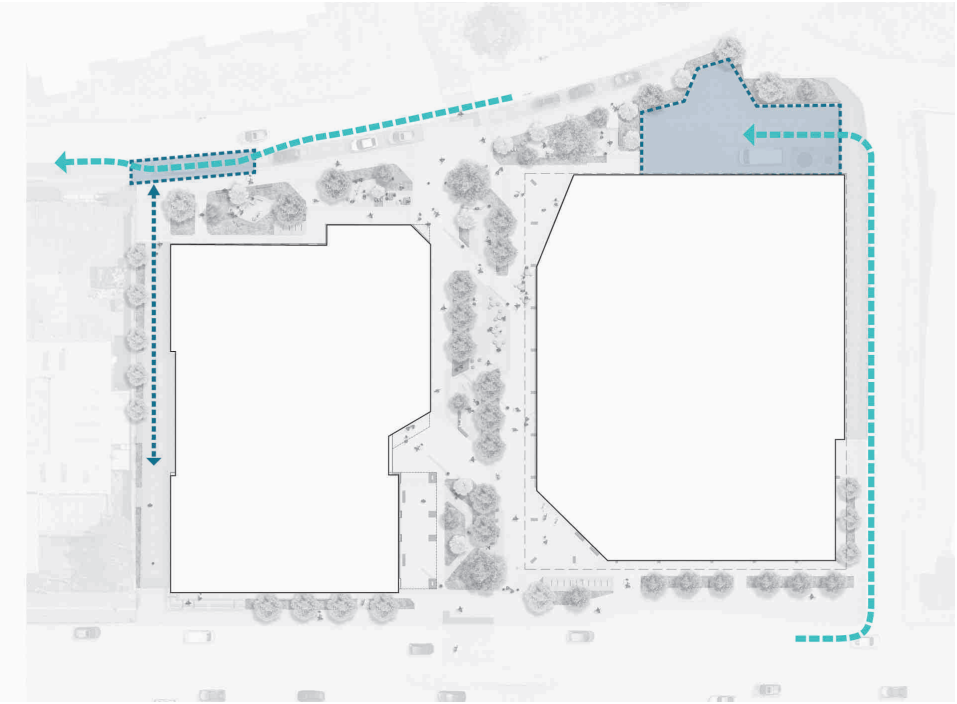
- The site is largely accessible to the public with the exceptions of the Service Yard and the PBSA Roof Terrace
- The site encompasses street improvements to two major frontages along Upper Brook Street and Kincardine Road, as well as establishing Thorburn Walk as a new pedestrian route

Emergency Access



- In the case of an emergency, the site provides fire tender access for both buildings
- Fire tenders can enter off Upper Brook Street onto Thorburn walk, and traverse adjacent to either building
- Access is also provided along Cottenham Street and to the North of the site
- Access to be controlled by sliding bollards

Service Access



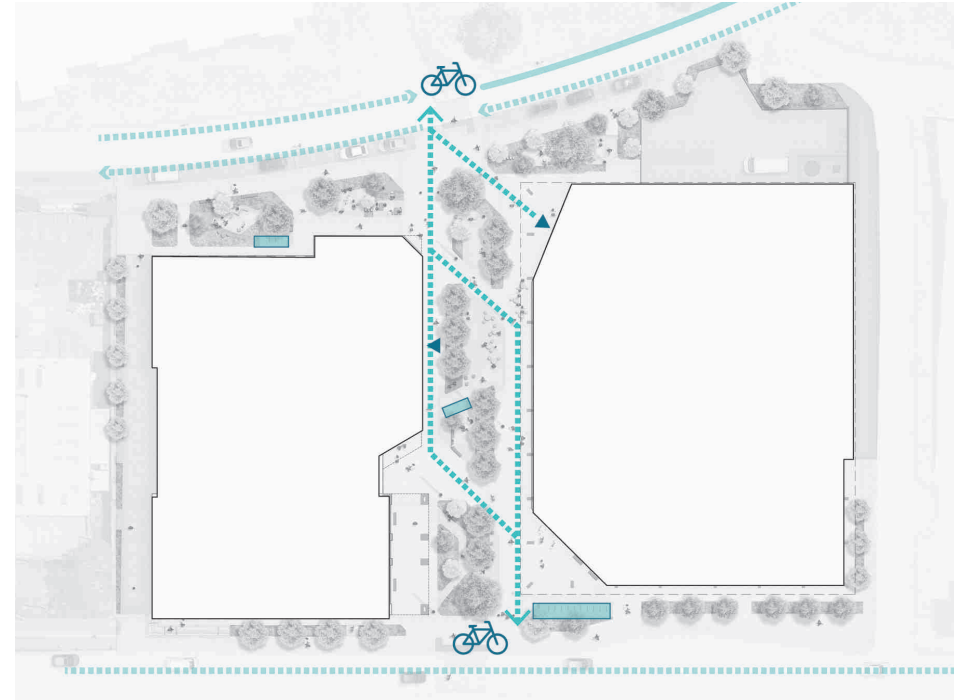
- A service Yard for the Sci-Tech building is provided to the South-West of the site, with entrance off Cottenham Street
- A service bay for the PBSA building is provided along Kincardine Road to the North-West of the site.
- Occasional vehicle access to plant rooms can be provided along the northern edge of the site

Vehicular Access



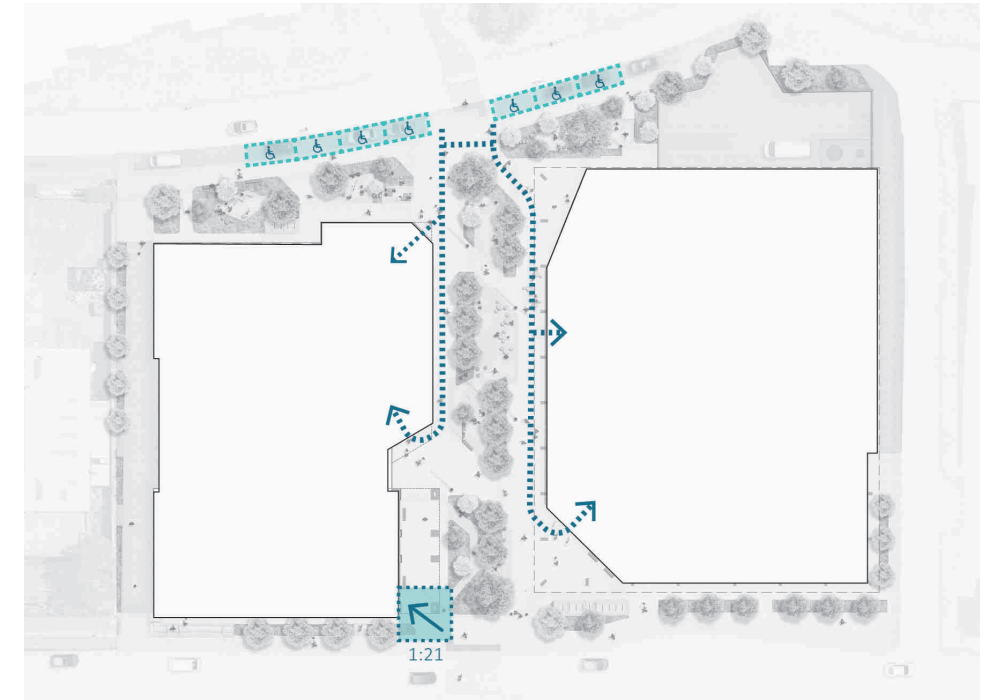
- 7 disabled parking bays are provided along Kincardine Road to be shared between both building
- Controlled vehicle access can be provided through the site to allow for move in/move out drop offs at the PBSA.

Cycle Access

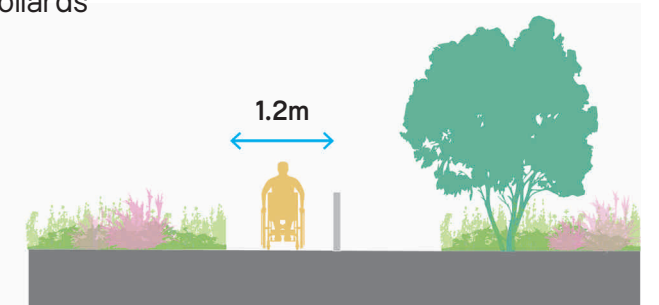


- Cycling routes will remain on road along Kincardine Road and Upper Brook Street
- Thorburn Walk will form a shared pedestrian-cycle route between Kincardine Road and Upper Brook Street
- A total of 36 external cycle spaces are provided
- 20 spaces are provided for the Sci-Tech building and 16 spaces are provided for the PBSA
- 5% of these spaces are suitable for accessible cycles

Accessible Routes



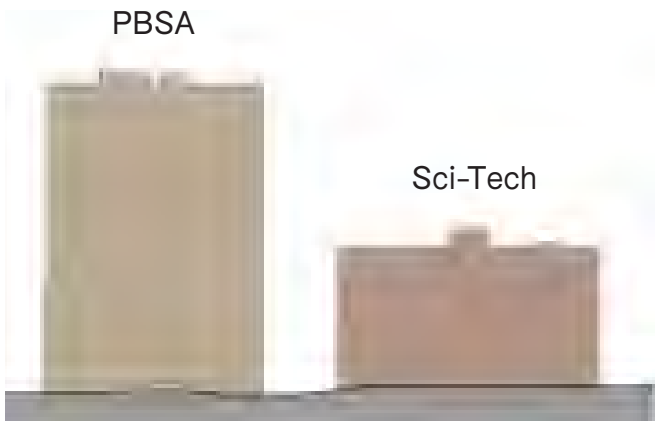
- The site topography is generally accessible, with minimal level changes throughout the majority of the site
- Along Upper Brook Street, an existing level change of 0.3m is accommodated through separate 1:21 slopes and stepped routes
- 7 accessible parking bays are provided along Kincardine Road
- Along Thorburn Walk, there are minimum distances of 2m between bollards
- Along the Northern edge of the site, there are minimum distances of 1.2m between bollards



9.10 Landscape Appearance and Quality

Hard Material Palette

- Key ideas:
- Choosing a palette of colours and textures inspired by the local Ardwick setting
 - Choosing surfaces and materials complimentary to the proposed architecture on the site
 - Using material changes to designate area functions
 - Creating a heirarchy of surfaces delineate routes and a variety of gathering areas
 - Utilising small elements of colour to add interest and depth



Understanding the existing palette



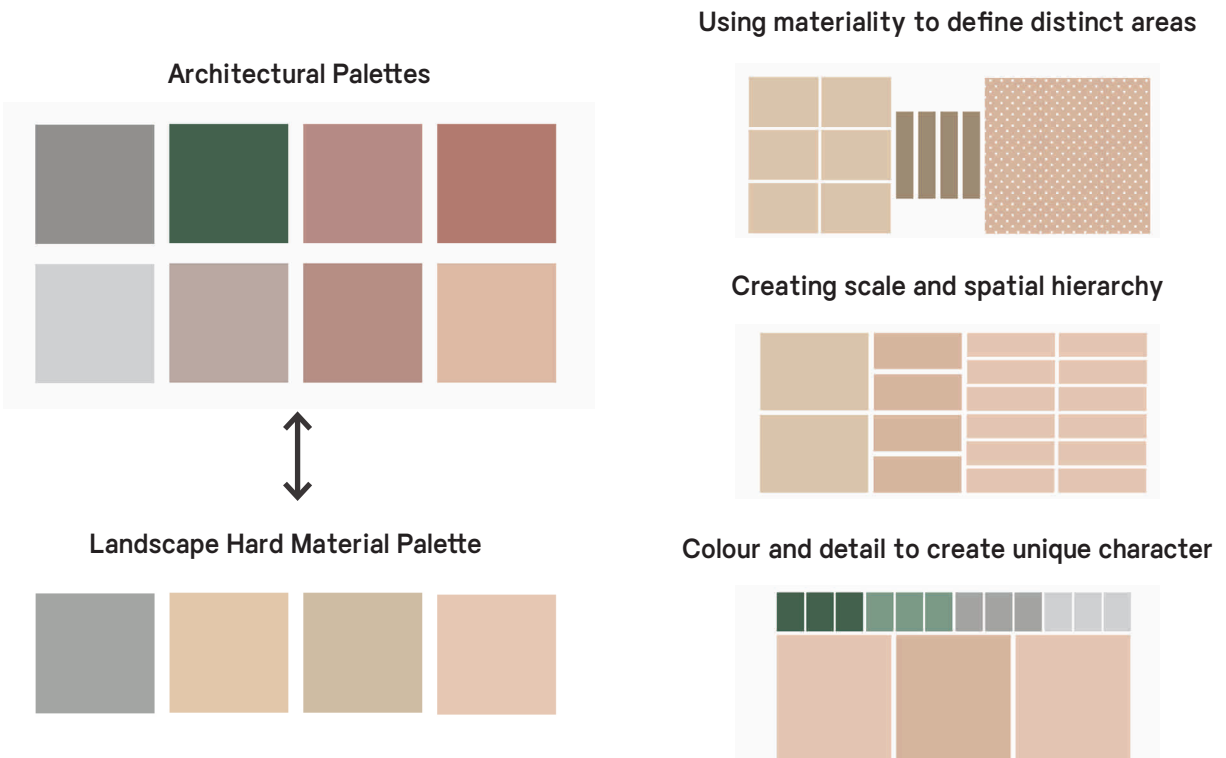
Existing red terraces



Mixed warm tone brick and green screening



Gartside Gardens red and buff surfacing



Proposed materials



Concrete paving to primary routes



Warm and light colour palette



Heirarchy of patterns and scales



Varied surface treatments



Resin bound gravel



Timber boardwalk to play areas

Hard Surfacing Plan

Throughout the site surface material changes will create a hierarchy of routes; highlighting entrance areas and key gathering points within the site.

On Kincardine Road, wider pedestrian routes in concrete paving will sit alongside several meandering play routes. These play areas will be interwoven through areas of street planting; forming a series of glades in resin bound gravel, connected by timber boardwalks

Along Thorburn Walk, the material palette will contribute to a sense of journey and discovery. Larger concrete block paving along primary paths will be complemented by areas of smaller block paving and resin bound gravel.

Larger block paving along Upper Brook Street will create a more formal streetscape. Routes along the North and South edges of the site will be paved in a complementary palette, to designate their secondary function.

Legend

- Concrete paving to main pedestrian routes
- Concrete setts to accessible parking and service bays
- Concrete paving to secondary routes
- Resin bound gathering areas
- Timber boardwalks
- Permeable paving to service yard
- Grass geo-grid to service yard turning area
- Concrete step units
- Tactile paving



Street Furniture

Key features

- A variety of seating elements to create active community orientated streetscapes
- Timber seating to include armrests and backrests to increase comfort
- Linear benches along walkways to provide resting points
- Social platform benches located in larger gathering areas
- Smaller seating elements grouped to create clusters of activity along key routes
- Cycle racks to provide external and visitor cycle parking located near building entrances
- Bollards to control vehicle access into site, centred at no less than 1.2m widths to facilitate wheelchair access at all points

Natural Play

A series of natural play elements will be located along Kincardine Road as part of an active street edge.

Key features

- Natural material palette including stone and timber
- Mixture of elements such as boulders, balance beams and stepping stones to facilitate a variety of play
- Set within areas of planting to increase connection to nature



Furniture Plan

Body Text

Legend

- Bench
- Cube bench
- Platform bench
- Indicative loose furniture
- Picnic bench
- Natural play features
- Cycle parking area
- Demountable bollard
- Secure boundary with vertical greening



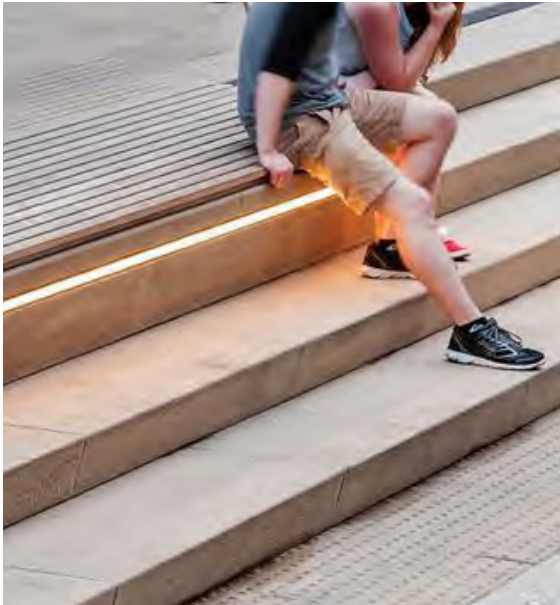
Lighting Strategy

Key features

- Create a series of well-lit routes with emphasis on social areas
- Pedestrian scale column lighting along Thorburn Walk
- Taller column street lighting to Upper Brook Street and Kincardine Road
- Focal lighting to building entrances, seating areas and play areas
- Uplighters to trees located within planting areas

Legend

- 1 Taller column lighting to road edge
To co-ordinate with Highways
- 2 Lower column lighting to Thorburn Walk
- 3 Lower column lighting to secondary routes
- 4 Focal lighting around building entrances and gathering areas
- 5 Uplighters to trees and planting
- 6 Lighting incorporated into street furniture



Planting Concepts



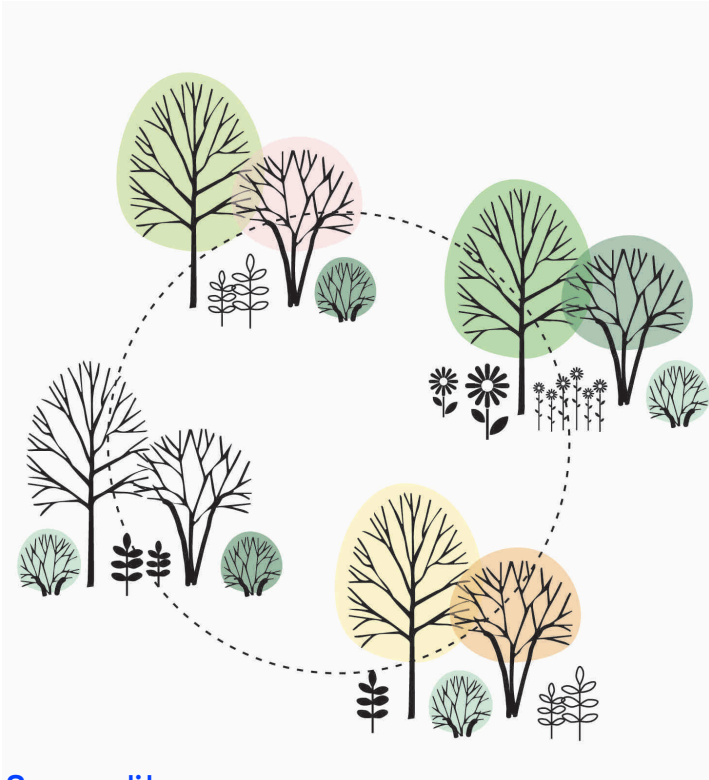
Placemaking

- Using tree and ornamental planting to define a sense of place
- Facilitate connection to nature
- Utilising focal trees, avenue planting and informal arrangements to create a variety of environments at various scales
- Incorporating play and social elements into planting areas



Climate Responsive

- Raingardens as part of a SUDs drainage strategy
- Trees will increase canopy cover and provide shade and protection in extreme weather conditions
- Tree planting will help reduce air pollution
- Trees and planting will enhance local microclimate



Seasonality

- Creating a planting palette that will provide year-round colour and interest
- Layering tree planting, shrubs and herbaceous perennials to provide multilayered planting
- Incorporating evergreen species to provide structure and textural interest in winter months



Supporting Local Biodiversity

- Incorporation of a variety of native species
- Choosing trees and plants that are beneficial to pollinators and wildlife
- Incorporating a range of species to increase resilience to disease

Soft Landscape Plan

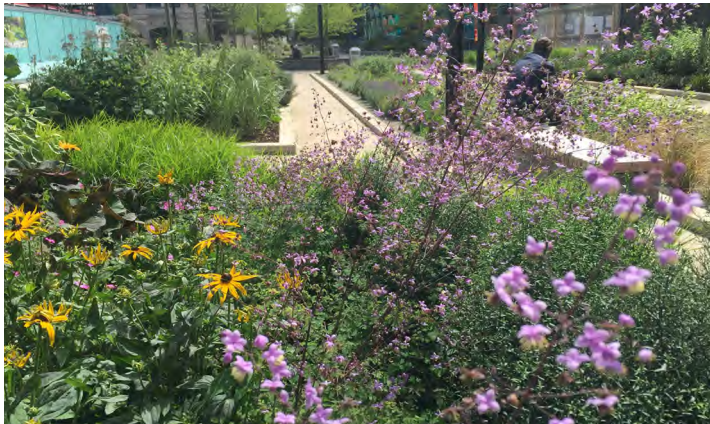
The soft landscape strategy incorporates a variety of native tree and planting species to create a verdent and attractive public realm.

Along Kincardine Road, ornamental planting areas will create a meandering route with natural play elements incorporated. Tree planting will include a variety of species in single and multistem forms, to create a vibrant and dynamic edge.

Along Thorburn Walk, alternating tree avenues will create a sense of journey. Areas of ornamental planting and open lawn will offer a series of garden areas, encouraging dwelling and gathering. Ground level planting will incorporate a variety of grasses, shrubs and flowering perennials to promote a restorative and diverse planting character. Ornamental multistems will compliment these areas and add additional seasonal interest throughout the year.

Along Upper Brook Street, a more formal planting approach will enhance the character of this major thoroughfare. Semi-mature avenue trees will provide a strong directional emphasis, with ground level planting creating a more pedestrian focussed environment and a softening to the character of Upper Brook Street.

The Roof Terrace to the PBSA building will include ornamental planting and compact multi-stem trees in raised planters. A more open social area to the south of the terrace will utilise a mixture of fixed and moveable planters to allow for a wide variety of uses. The north of the terrace will form a restorative gardens area, with a meadering route and small seating areas amongst sensory planting to create a calm environment.

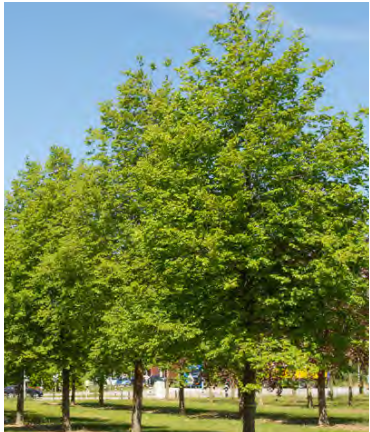


Indicative Tree Planting Palette

 Avenue Trees



Sorbus aucuparia



Tilia cordata 'Greenspire'



Carpinus betulus 'Frans Fontaine'

 Focal Trees



Alnus glutinosa



Acer campestre

 Ornamental Multi-stems



Betula pendula



Crataegus monogyna



Corylus avellana



Prunus cerasifera



Malus sylvestris

 Hedge Planting



Fagus sylvatica

 Hedgerow Planting



Prunus spinosa



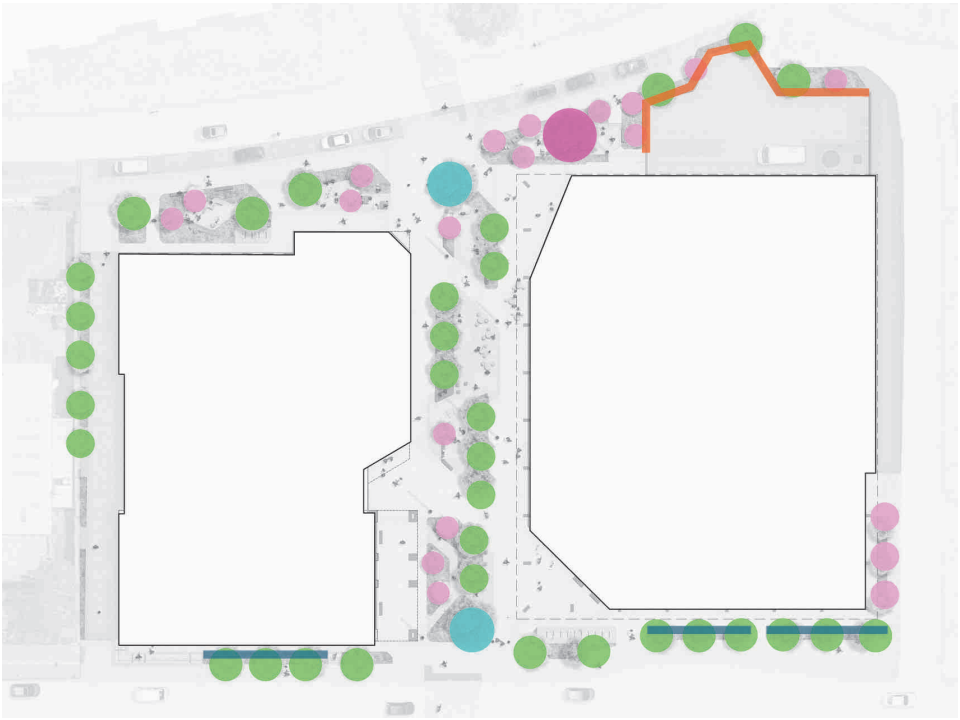
Euonymus europaeus



Ilex aquifolium



Rosa canina



Legend

-  Existing Tree
-  Focal Tree
-  Avenue Tree
-  Ornamental Multi-stem
-  Single Species Native Hedge
-  Mixed Native Hedgerow

Indicative Planting Palettes

Full Sun Ornamental Planting Mix



Carex muskingumensis



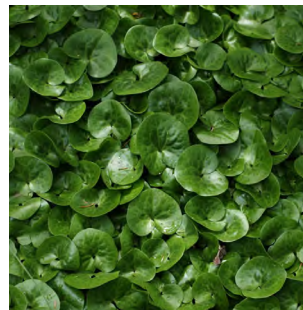
Aster x frikartii 'Mönch'



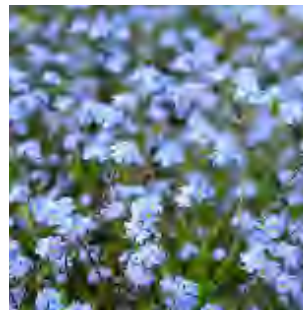
Seslaria autumnalis



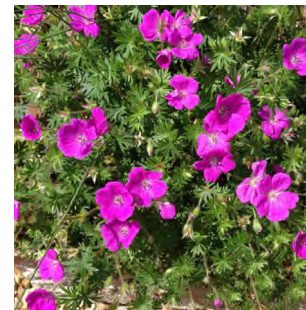
Polystichum polyblepharum



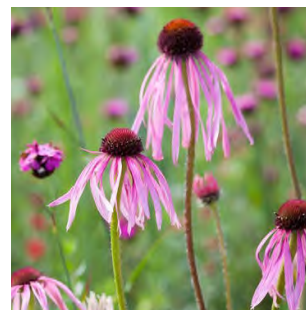
Asarum europaeum



Myosotis sylvatica



Geranium sanguineum



Echinacea pallida



Anemanthele lessoniana



Holcus lanatus



Melica uniflora f. albida



Alopecurus pratensis



Luzula sylvatica



Eurybia divaricata



Heuchera 'Plum Pudding'



Deschampsia cespitosa



Carex elata 'Aurea'



Carex panicea



Lavandula angustifolia 'Munstead'



Thymus pulegioides



Ajuga reptans



Hyacinthoides non scripta



Adiantum venustum



Polystichum tsussimense



Juncus effusus



Echinops ritro 'Veitch's Blue'



Kniphofia 'Tawny King'



Teucrium scorodonia



Scilla verna



Carex remota



Cardamine pratensis



Carex divulsa



Melica uniflora f. albida



Salix reticulata



Armeria maritima



Iris pseudacorus



10.0 ACCESS

10.1 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
- 7no. on-street car parking is designed to be suitable for wheelchair users to be used by both buildings
- Accessible cycle parking space for student residents, staff and visitors
- Inclusion of mobility scooter parking
- Wheelchair-accessible sanitary facilities alongside cycling facilities (public buildings), and at all reception areas
- Step-free access to all parts of the buildings, including balconies and roof terraces
- 1.2% of the student accommodation rooms will be wheelchair accessible from the outset with 4.5% adaptable
- Access to a second lift for all student residents on the rooms at upper levels of the student accommodation
- Emergency Egress /Protected Lifts as part of the fire strategy.



Illustrative access diagram for emerging masterplan

Masterplan

Pedestrian and cycle access around the masterplan is focused along Kincardine Road as it offers a quieter and safer alternative to Upper Brook Street.

The proposed public realm within the masterplan opens up new east-west links, connecting Ardwick with the University and improving access across the site for all. As part of the Upper Brook Street Masterplan - McLaren/Kadans works, the existing crossing will be assessed by TfGM and any recommended upgrades will be carried out as part of the proposed development.

Due to the existing volume of traffic on Upper Brook Street, and in response to advice from MCC, vehicular access to the site is from Kincardine Road, which will predominantly be accessed from Upper Brook Street via Brunswick Street to the south of the site.

As part of the Upper Brook Street Masterplan - PAG/Moda, there are a number of potential options being reviewed including the closure of Inchley Road to create a new public square and making the northern section of Kincardine Road one way towards the City Centre. The Upper Brook Street Masterplan - McLaren/Kadans proposals have been developed to ensure that they can accommodate such options in the future but they do not relate to, or form any part of this application.

Legend

- Pedestrian & Cycle Access
- Mancunian Way
- Primary Vehicle Access
- Secondary Vehicle Access
- - One way Vehicle Access
- Bus Stop

10.2 Accessing the Site

Pedestrian

Pedestrian access to the site will be from either Upper Brook Street or from Kincardine Road. The proposed development connects into the existing pedestrian routes around the site, providing access from both Ardwick and the University.

Building entrances are accessed from the new public realm between the building, creating legible and accessible space suitable for all building users and the general public. 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 Kincardine Road. Secure, indoor cycle parking will be provided within both buildings, with dedicated showers and changing facilities also being provided within the Sci-Tech building. Visitor cycle parking will also be provided within the public realm.

Legend

- ➔ Building Entrance
- Shared Surface (Pedestrian & Cycle Access)
- Pedestrian Access
- Cycle Access
- Cyclist Facilities
- Visitor Cycle Parking





Public Transport

The buildings are located on Upper Brook Street, a primary north-south bus route, connecting both Ardwick and the University to the City Centre. A southbound bus stop is located directly outside the proposed site, a northbound bus stop is approximately 3-4 minutes walk from the site.

Manchester Piccadilly and Manchester Oxford Road railway stations are both approximately 15 minutes walk from the site, and the closest metrolink (tram) stop is St. Peter's Square which is approximately 20mins walk.

Taxi

Taxi drop-off and collection will be via Kincardine Road to the north east of the site, with dedicated lay-bys adjacent to the new public realm.

Private Car

The proposed development will not encourage the use of private cars to access the site and therefore no general car parking will be provided as part of the development. However, a number of accessible parking bays will be provided along the boundary with Kincardine Road to ensure that the buildings are accessible to all.

Legend

-  Building Entrance
-  Private Vehicles & Taxis
-  Drop-off
-  Accessible Parking
-  Public Transport (Bus) Route
-  Bus Stop

10.3 Servicing

Deliveries

Deliveries to the Sci-Tech building will be via a secure service yard accessed from Cottenham Street via Brunswick Street. This service yard will be suitable for delivery vehicles to safely turn around before rejoining the public highway and retracing their route back to Brunswick Street.

The PBSA building will require less regular deliveries, so these will be via a dedicated lay-by accessed from Kincardine Road via Brunswick Street. Due to the existing one-way traffic flow at the southern end of Kincardine Road, vehicles will leave the lay-by and head north to Grosvenor Street.

No service vehicles will access the site directly from Upper Brook Street.

Collections

Waste collections from the Sci-Tech building will be via the secure service yard accessed from Cottenham Street via Brunswick Street. Waste will be stored and segregated within internal waste holds from which it will be collected directly.

Waste collections from the PBSA building will be via a dedicated lay-by accessed from Kincardine Road via Brunswick Street. Due to the distance between this lay-by and the internal waste stores, the building operator will ensure that all waste is moved to a temporary collection point to the north of the site prior to collection.

Legend

-  Building Entrance
-  Service Access
-  Service Yard / Lay-by
-  Waste Route (FM Services)
-  Waste Hold (Internal)
-  Waste Collection / Holding Point





Emergency Services

Fire tender access will be via Upper Brook Street as it is a primary arterial route. The proposed shared surface between the two buildings will be designed to accommodate fire tenders and allow access to the façades of both buildings in the event of an emergency.

The area of hard landscaping to the north of the PBSA, adjacent to the Upper Brook Street Masterplan - PAG/Moda, will also be designed to accommodate fire tenders and will provide fire-fighting access to the PBSA building in the event of an emergency.

Fire-fighting access for the Sci-Tech building will be via Cottenham Street and the Upper Brook Street frontage.

Legend

- ➔ Building Entrance
- Fire Tender Access
- Fire-fighting Access

11.0 SUSTAINABILITY

Executive Summary

Energy efficiency and sustainability are considered as one of the main drivers through the design evolution of the proposed development. The sustainable targets for the new development are outlined below in response to the local and national policy requirements, and the clients aspiration to implement environmentally sustainable measures in design, construction and operation of the proposed development.

Local Authority and Building Regulations/ Warrant Requirements

Further to the targets described in the section above, the scheme will also be compliant with the local authorities requirements, which are the following:

Manchester City Council's Core Strategy (July 2012)

Greater Manchester Spatial Framework (Revised Draft Jan 2020)

Building Regulations Part L2A 2021

11.1 Sci-Tech Building

Performance targets and requirements

Although the sustainability ethos for the combined development is consistent within all elements of design, each building will have their own unique sustainability targets. The new Sci-Tech development will target:

- BREEAM Excellent (Shell & Core) – target Outstanding (subject to review)
- WELL enabled
- Wiredscore – Minimum Gold. Target Platinum (subject to review)
- Smartscore – Minimum Gold. Target Platinum (subject to review)
- Carbon (Operational and Embodied) – 40% reduction over baseline (LETI Design Criteria Band C)
- Energy Performance Certificate; A-Rating

Sustainability Pre-Assessment

Prior to the development of the design, the sustainability consultant for the Sci-Tech scheme, produced an energy strategy pre-assessment, which presented the strategy to follow during the concept design stage and also identified the specific opportunities in the project to implement them.

The report identified the specific opportunities in the project. These included passive design considerations, as well as an analysis of the different heating and cooling systems and renewable energies and technologies.

Two more pre-assessment documents were produced by Wallace Whittle, one for BREEAM and one

for WELL. In these, the sustainability team assessed the various BREEAM and WELL credits relevant to meet the performance requirements and aspirations for the project creating an audit trail for the development, through the developed design and construction stages. These include but are not limited to:

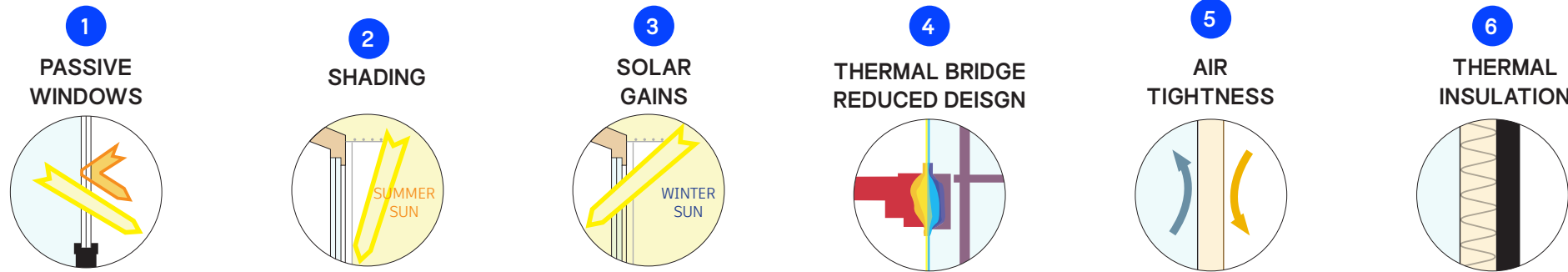
- Access to quality transit / green transport
- Rainwater management / Water use reduction
- Heat loss and overheating reduction
- Maximising quality of internal light
- Life cycle assessment / Material sourcing / Operational recycling
- Restrictions on use of harmful materials
- Internal air quality improvement
- Maximising quality of acoustic environment
- Quality of drinking water provision
- Encouraging active building occupants and physical health
- Carbon emission reductions

Wallace Whittle identified the “Energy Hierarchy” framework, which consists on a staged process methodology. The key objectives to develop the low carbon and energy efficiency are:

- BE LEAN: to reduce the building's energy demand.
- BE CLEAN: to meet the reduced energy demand in the most energy-efficient way.
- BE GREEN: to apply the most viable Low and Zero Carbon generating technologies to further reduce energy consumption and CO2 emissions.

Fabric First

To align with the sustainability strategy, the design team has taken a fabric first approach to the design of the building envelope. The below diagram illustrates the key principles considered and examples of areas of the building where they may be most successfully applied.



11.2 PBSA Building

Performance targets and requirements

The proposed PBSA development targets the following requirements:

- BREEAM 2018 Multi Residential - Excellent
- Minimum 15% improvement over the Building Regulations Part L 2010 Target Emission rate.
- Energy Performance Certificate; A-Rating
- External wall and roof U-Values in line with LETI guidance for medium and large scale housing.

Sustainability Strategies

The core strategies applied in the proposed PBSA building are outlined below:

- Highly efficient envelope to perform significantly better than current Building Regulation standards based on LETI guidance:

Floor U-Value:	0.12 W/m2K
Roof U-Value:	0.12 W/m2K
Ext. Wall U-Value:	0.15 W/m2K
Windows/Doors U-Value:	1.20 W/m2K
Air Leakage Rate:	3.0 m3/ (h.m2)
- Optimised facade design with balanced approach to glazing and integrated passive strategies to reduce solar gains and maximise the use of natural light within each space.
- Improved residents' wellbeing
- Mechanically ventilated spaces with heat recovery.
- Windows with integrated purge vent panels to reduce summertime overheating.
- Energy efficient services including highly efficient LED lighting and daylight controls to reduce the lighting energy use.
- Metered electrical and mechanical systems controlled with a full BMS to provide future opportunities for efficient improvement.

Sustainability Assessment

A sustainability assessment has been undertaken by Cundall to outline the development's approach to minimising the site's needs for energy and emissions of CO2. A summary of the outcome is presented below;

- 40.6% Improvement over the Building Regulations Part L 2013 Target Emission rate.
- 22.1% Improvement over the Building Regulations Part L 2021 Target Emission rate.
- 12.6% Reduction of carbon emissions due to the use of on-site renewables and low carbon technologies.
- 28.0% Reduction of carbon emissions through energy efficient measures

Optimised Facade

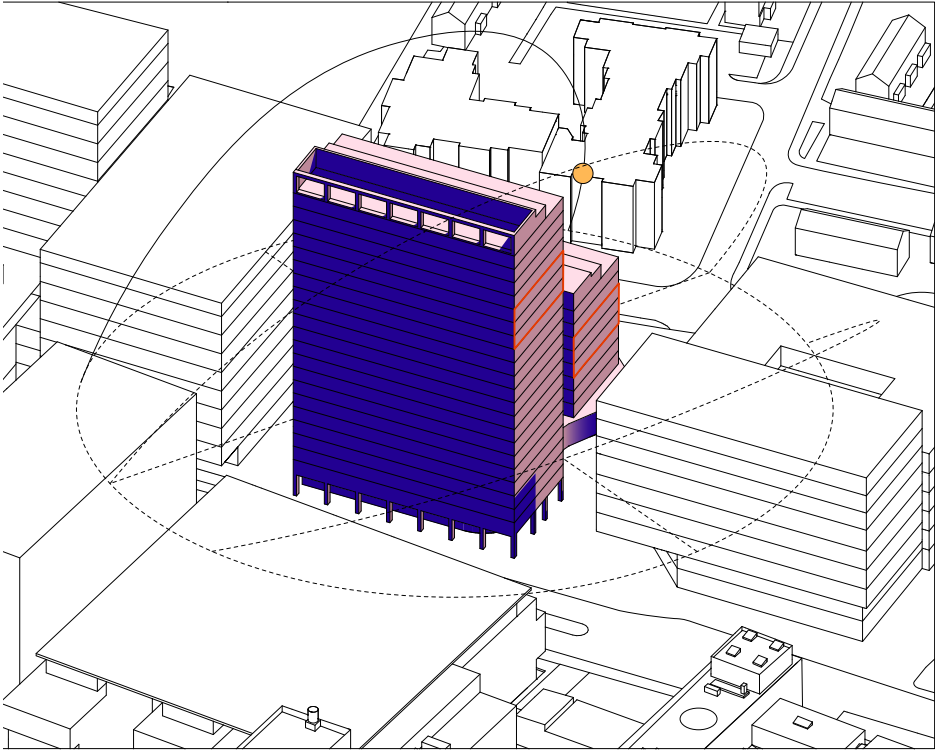
The design team has carried out a number of window studies to ensure the right balance between solar gains and daylighting for all student cluster bedrooms and studios:

- Reviewing percentage of glazing
- Comparing different window configurations with horizontal and vertical windows elements

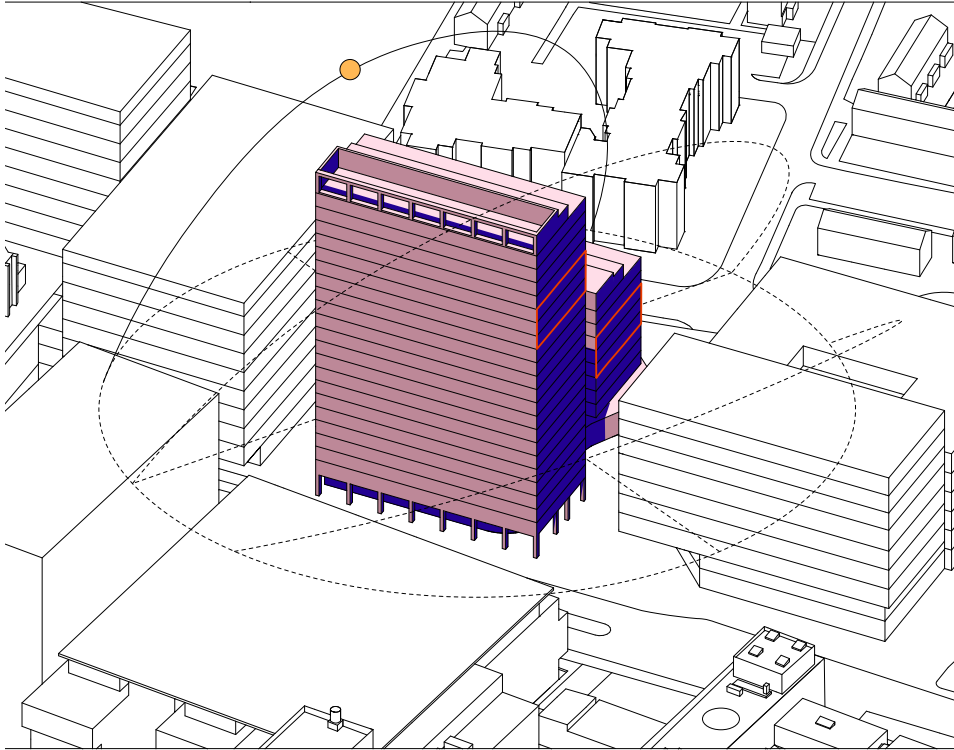
The South-West facade of the Upper Brook Steet block and part of the Kincardine block are not overshadowed from nearby buildings. Refer to Shading Analysis in the next page. To reduce the risk of overheating, an integrated shading strategy in the facade is developed.



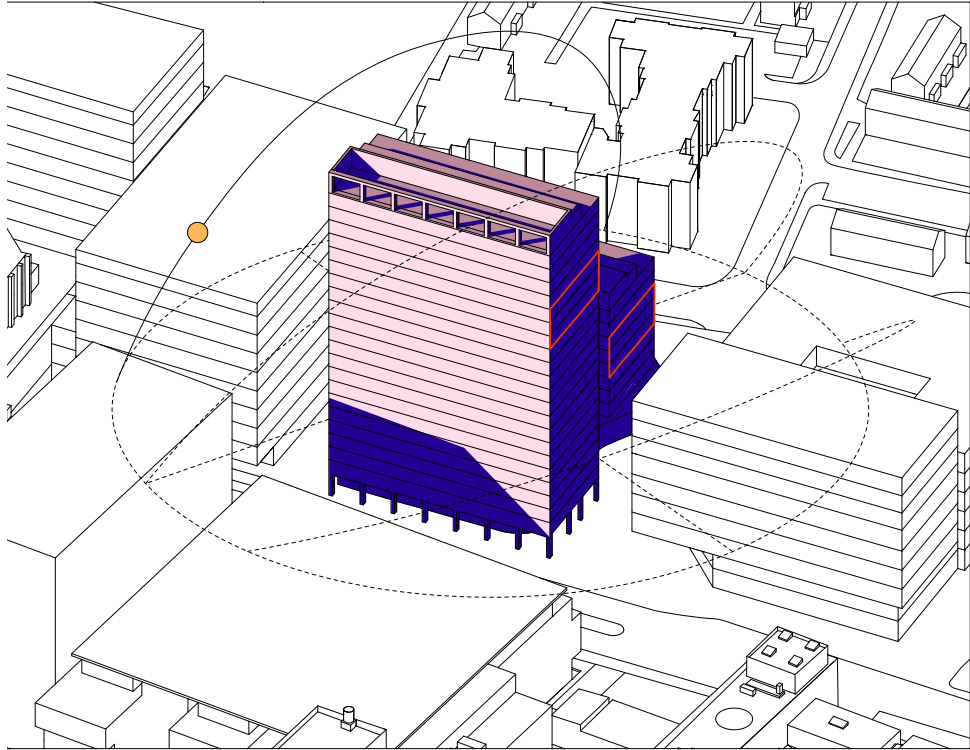
Shading Analysis



Summer Solstice / 9:00



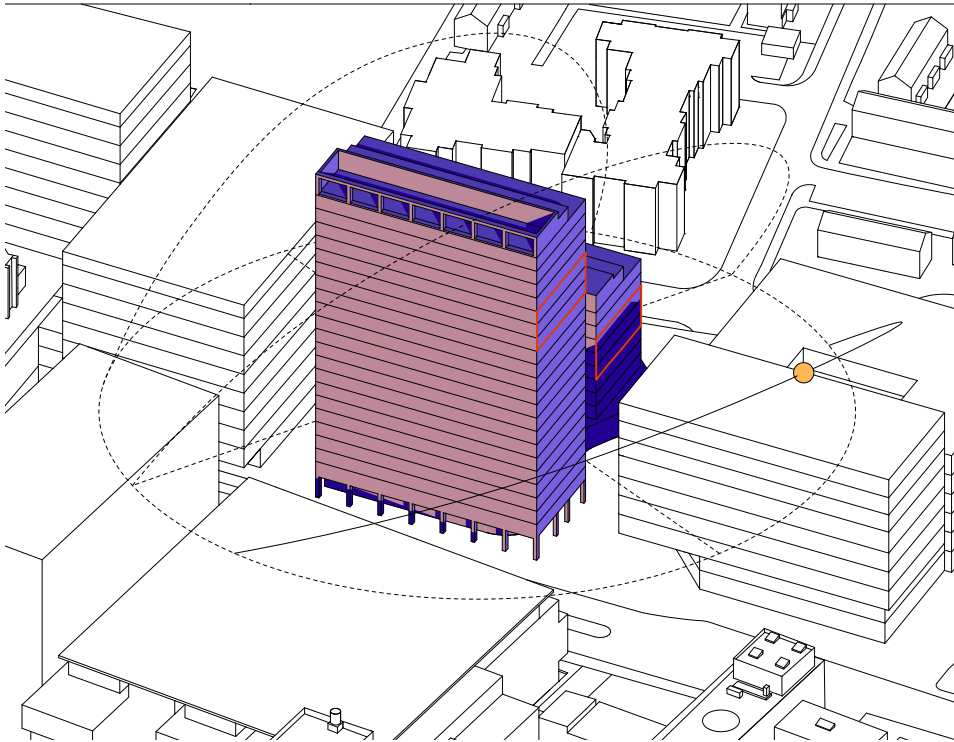
Summer Solstice / 13:00



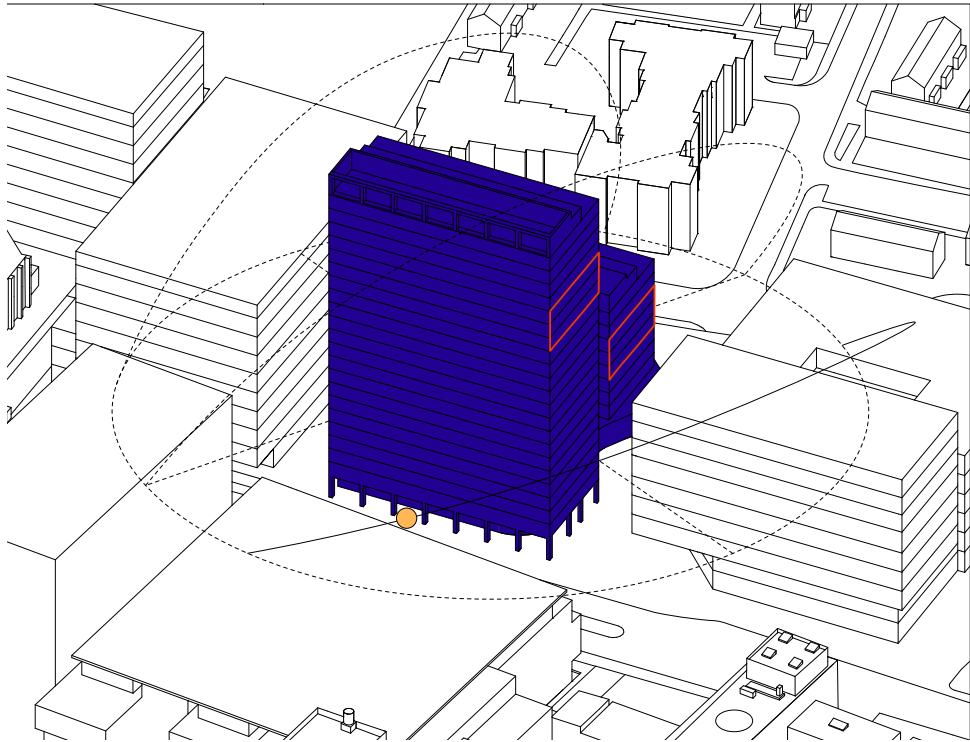
Summer Solstice / 17:00



Winter Solstice / 9:00



Winter Solstice / 13:00



Winter Solstice / 17:00

KEY

- | | |
|-------------------|-----------------|
| Entirely exposed | Moderate shade |
| Moderate sunlight | Entirely shaded |

Optimised Facade Design Drivers

The facade is organised based on a number of sustainability drivers which has influenced the facade design.

The window sizes have been design to provide maximum daylight by extending the window head to the ceiling level. In the cluster bedrooms where the rooms are shallower, a back painted insulated panel has been provided to the lower portion of the window to minimise solar gain from excessive glazing.

1. Natural Purge Ventilation

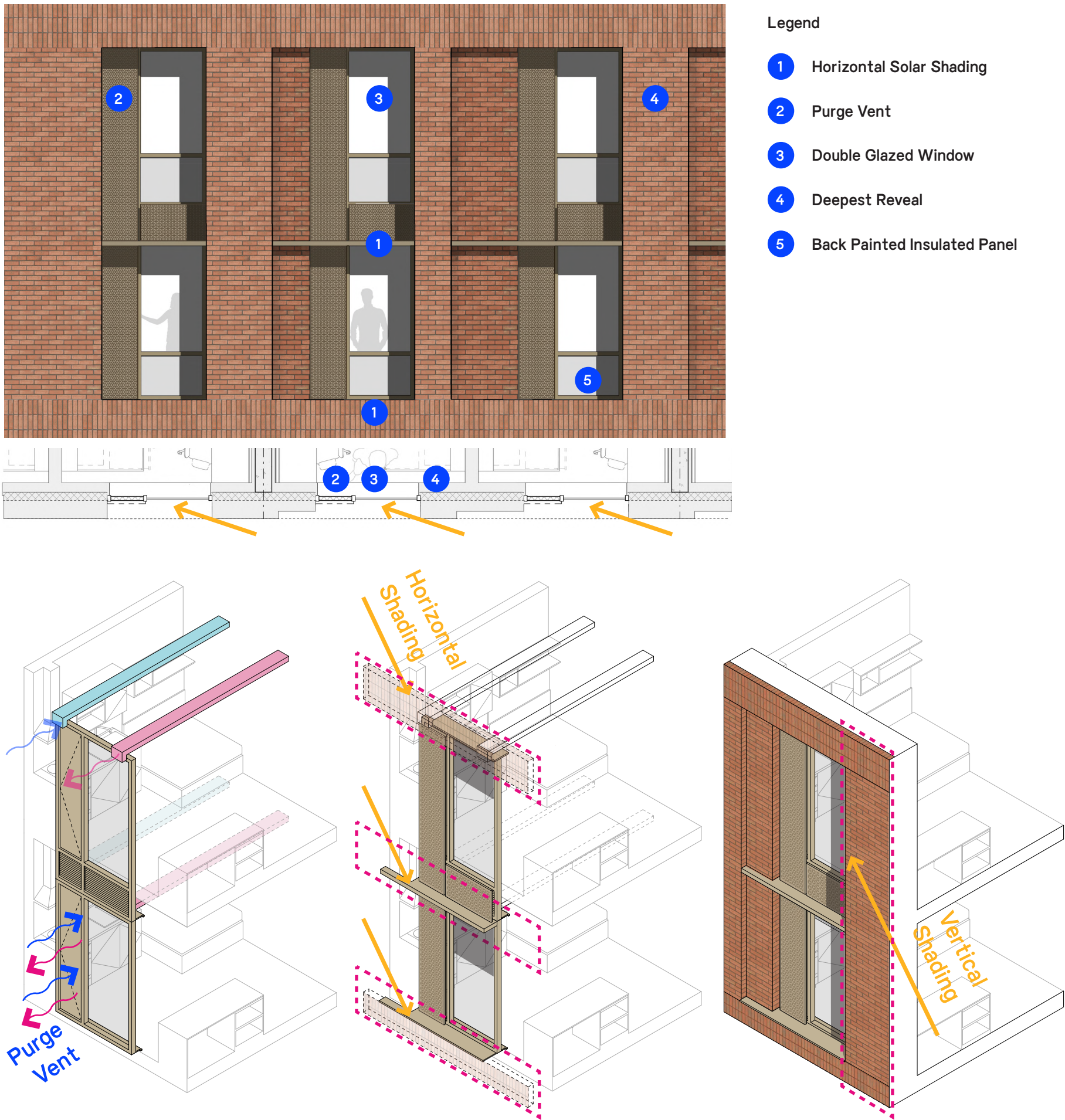
A solid purge panel has been provided to each living space. These are user operated to naturally purge the room as required.

2. Horizontal Solar Shading

Each level has been designed to accommodate horizontal shading to the head of the windows. The horizontal shading is provided by wither the horizontal brick soldier course or the horizontal metal element. Both elements extent to the maximum reveal depth to provide maximum solar shading.

3. Vertical Solar Shading

The arrangement of windows and vents have be purposefully organised across the facade to allow for the glazed element to be shaded by the deepest part of the stepped reveals. These reveals have been coordinated with the buildings orientation to provided maximum vertical solar shading.



Wellbeing

The proposed development has been developed to maximise opportunities to help promote positive mental wellbeing and create a more positive ‘home away from home’ environment for students.

Sensing What Matters for Students

Key wellness amenities can be found in the building with the aim of promoting a healthy study-work-life balance for students and also PBSA management staff.

- Flexible study areas for individual and group study.
- Relaxing calm areas away from noise in the top floor amenities
- Access to external planting landscape terrace.
- Access to local amenities including a public cafe in the Sci-Tech building.
- Fitness gym is provided on the ground floor.

Daylighting

Student room depths enable occupants to have access to a view out, which is important in allowing the eyes to refocus after periods of deep focus.

Efficient shading and glare control measures such as blinds allow occupants to regulate their own internal daylight conditions in line with their preferences.

Well daylit amenities have access to Thorburn Walk.

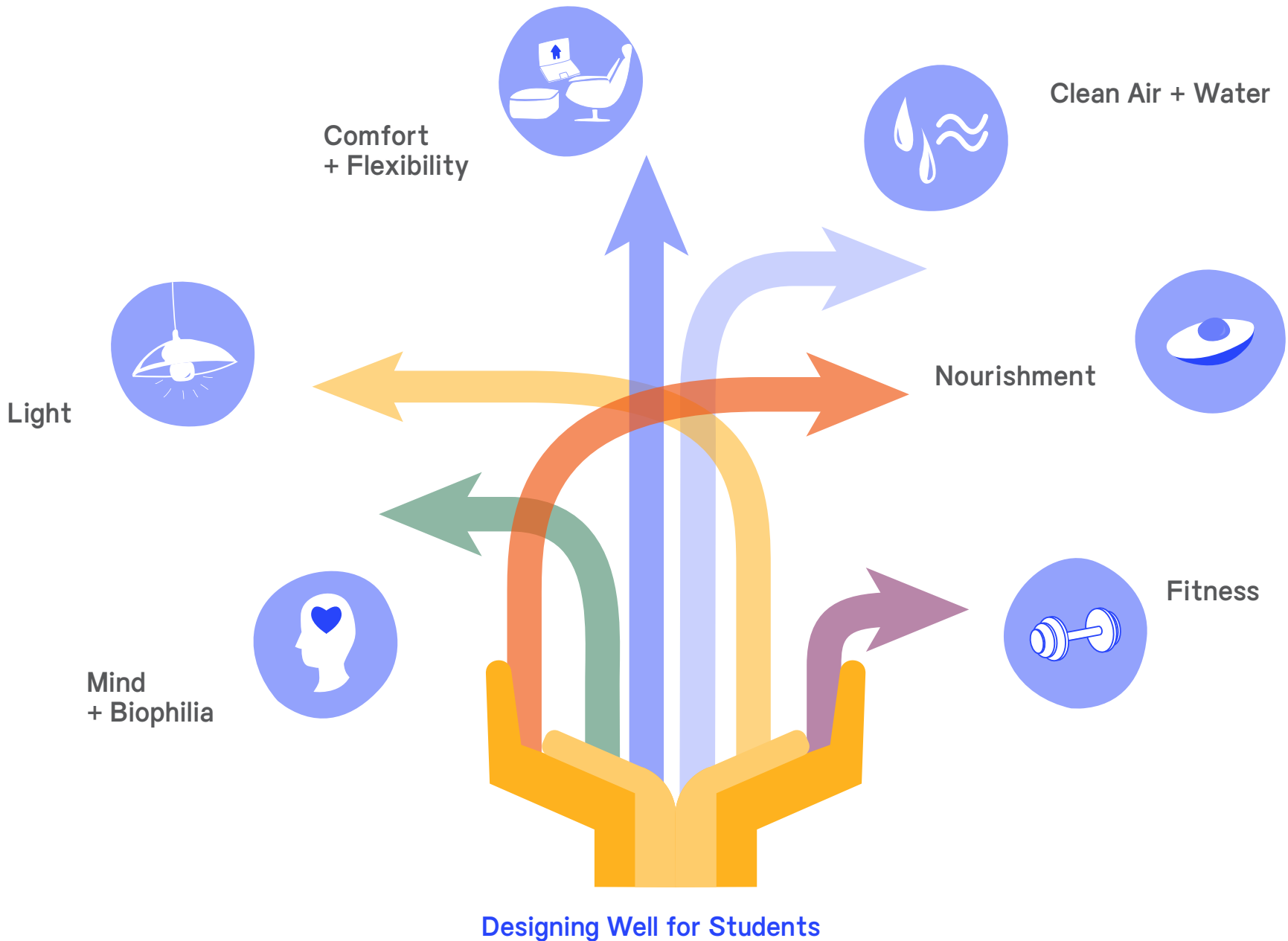
Thermal Comfort

The development will be mechanically ventilated with manually openable sections behind perforated panels on the façade adjacent to glazed areas that will enable free cooling during the day and purge vent.

Air Quality

Students are encouraged to cycle and travel by sustainable modes.

To protect occupants from higher levels of air pollution experienced at certain areas of the site, a background ventilation strategy that does not rely on openable windows is adopted.



12.0 FUNCTIONAL REQUIREMENTS

12.1 Fire Strategy

Fire Strategies for both buildings covering means of escape, fire safety systems, fire protection and compartmentation, fire spread and fire brigade access are being developed by Cundall.

An overview of these provisions is provided below for the Sci-Tech and PBSA buildings. As the Sci-Tech building is not a relevant building for the purpose of Planning Gateway One, only provisions to the PBSA building are covered in the Fire Statement.

For further information, refer to 'Fire Statement - Planning Gateway One' submitted with the planning application.

Sci-Tech Building

The proposed building is a combination of science laboratories and offices. It is over eight storeys with a height to the top occupied floor of under 30m. The building features a central atrium and four stair cores.

In accordance with BS 9999, the building will have an overall risk profile of A2 (Occupants who are awake and familiar with the building, Medium fire growth).

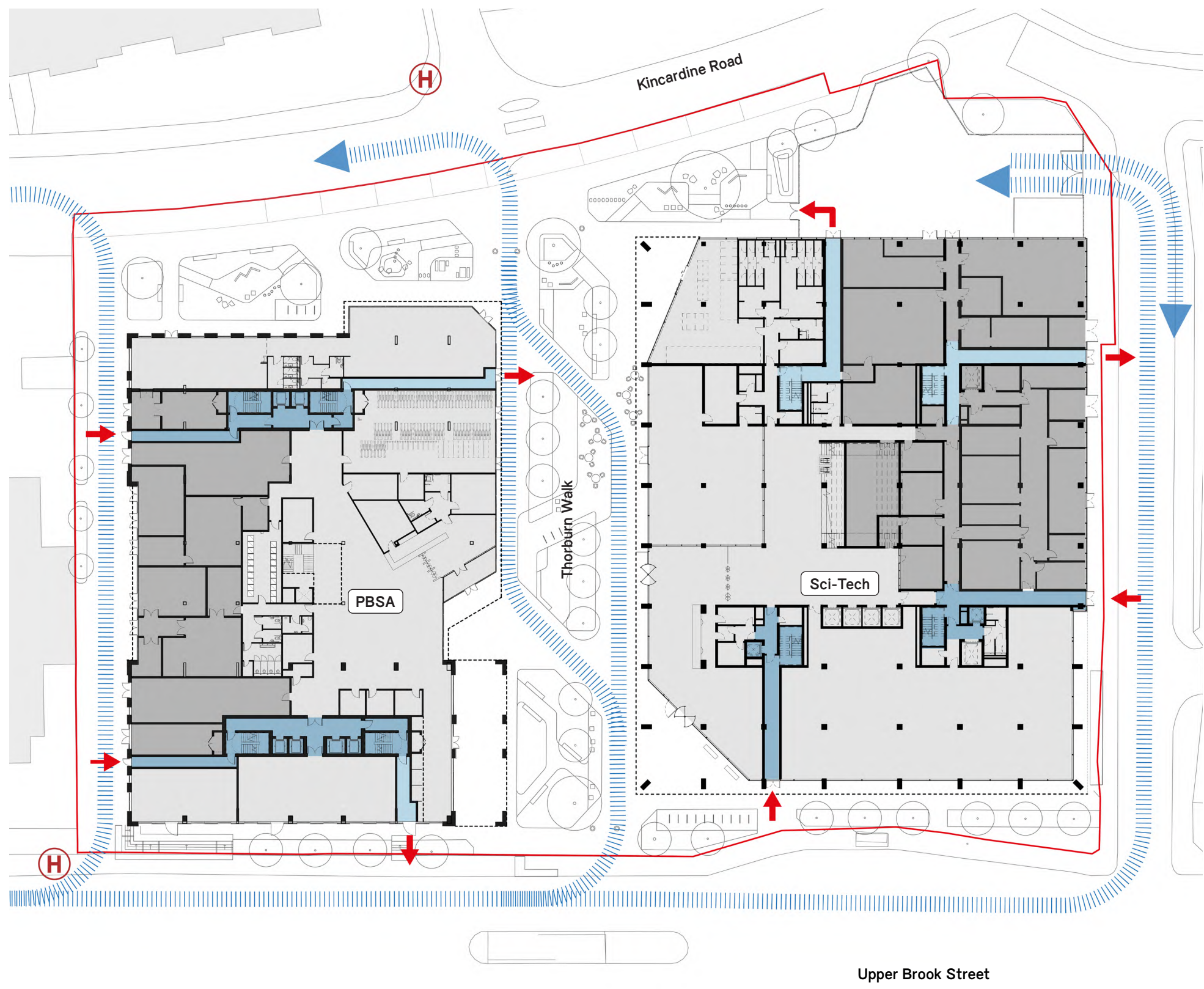
The fire strategy of Sci-Tech is based on the building adopting a simultaneous evacuation on sounding of the fire alarm system.

PBSA Building

The building is proposed to operate traditional stay-put evacuation strategy and is designed in accordance with appropriate guidance for blocks of flats and student accommodation.

The key principles of the means of escape are therefore:

- The building will be sprinklered throughout providing protection to both residential and non-residential areas including community, support spaces and common corridors.
- Both building blocks are proposed to be served by two stairs.
- Two evacuation lifts per building block (four number in total).
- An additional lift lobby is provided between the stair and common corridor to allow safer use of the evacuation lifts.
- Kitchenettes in student studios are away from the studio entrance and escape route.



Legend

- | | |
|-----------------------|-----------------------------|
| Fire Hydrant Location | Fire appliance access route |
| Access Point | Escape Route |

12.2 Cleaning and Maintenance

Sci-Tech Building

The cleaning and maintenance strategy of Sci-Tech Building has been developed with the broader design team in a series of workshops. The conversations focused on health and safety concerns, the nature of the architectural elements to avoid damaging, and also the avoidance of disruption in the immediate surroundings of the building.

There are three elements that need consideration:

- The facade: window cleaning, maintenance, inspections and replacement.
- The atrium: cleaning , maintenance, inspection and replacement both from the inside and the outside.
- Roof plant maintenance and replacement.

Facade

The facade elements above ground level are anticipated to be cleaned and maintained externally via BMU and/or abseiling, which will not be visible on the elevations. Internal replacement is possible depending on the internal layout as some specialist furniture elements may be difficult to dismantle.

Atrium

The inside of the atrium roof is anticipated to be cleaned and maintained with a system of cradles, which will move along a rail placed on the trusses. There are a few options to maintain the outside of the atrium roof: passageways along the trusses, a trolley in railings across the trusses, rated glazing. These will be reviewed in the following RIBA stages.

Roof Plant Replacement

It is anticipated that the goods lift from the core closer to the junction between Cottenham Street and Upper Brook Street will serve both roof levels. Small items can be replaced using that goods lift. In the rare event of replacement of bigger equipment, a crane can be installed in the service yard to avoid unnecessary disruption.

PBSA Building

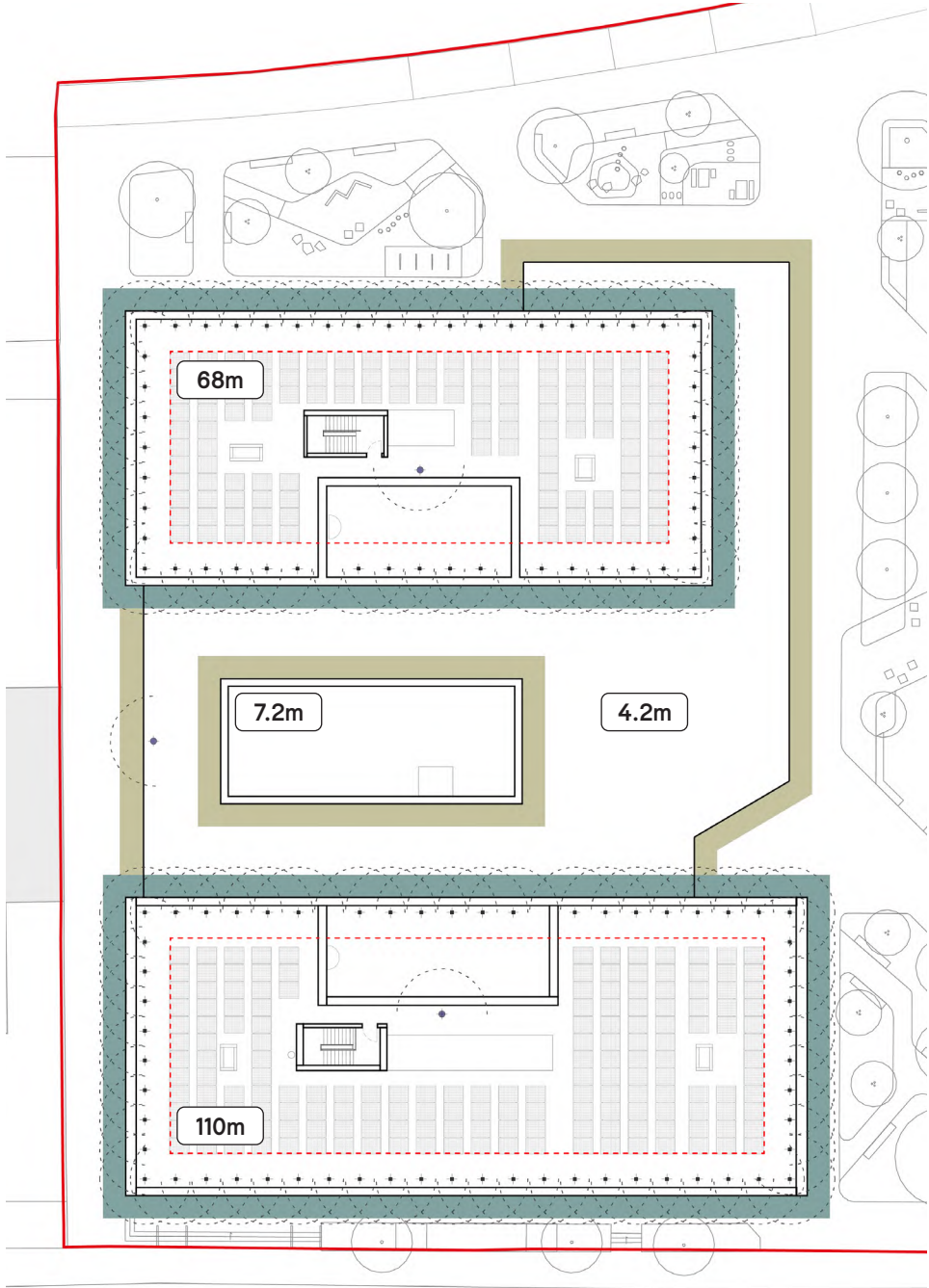
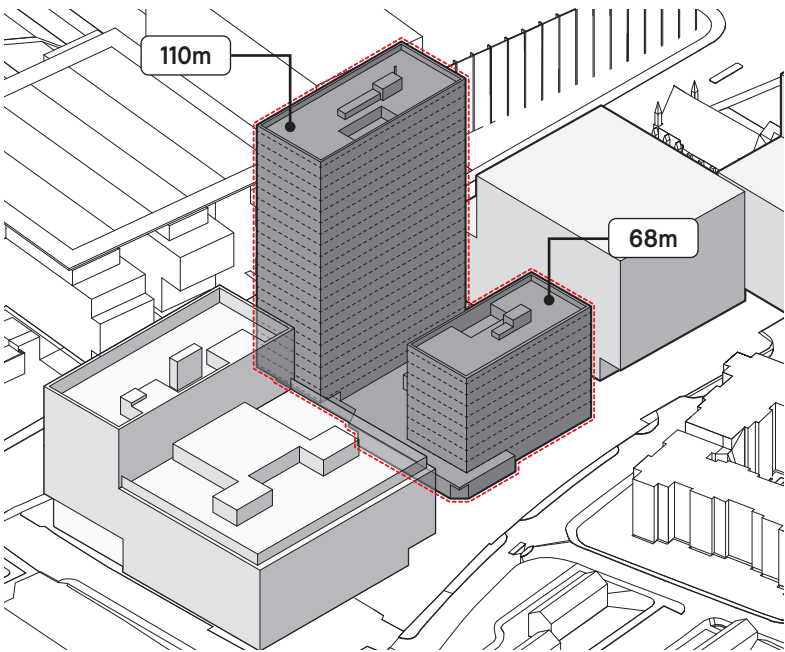
The cleaning and maintenance strategy of PBSA building was developed to ensure safe and sufficient facade access around both residential building blocks without requiring access from Upper Brook Street for regular maintenance.

The proposed facade access and maintenance system is a Davit Arm system, which could be used together with a cradle.

Permanent davit bases are installed at roof levels of both building blocks. The system includes a portable lightweight aluminium arm in line with BS 8610 standards, which could be rotated 180 degrees inboard of the parapet and is concealed from ground level. Davit bases are fixed within the 1.5-2m maintenance zone on the perimeter of the roofs. The cradle which hangs from the davit arm is stored in the building, although cradle hire is still under consideration.

Access to roof plant rooms is via lifts and internal stairs. Small plant equipment could be replaced using the lifts. Infrequent replacement of large plant equipment, which cannot fit in the lifts, could be replaced by a crane. Access to solar PV panels in residential roofs is provided via stairs and pulley system for lifting equipment.

The landscape scheme has been designed to ensure that 1.5m maintenance zone is provided around the building.



PBSA - Maintenance Zone

Legend

- 1.5m Clearance Zone - Ground and First Floor
- 1.5m Clearance Zone - Upper Floors
- Davit Arm & Cradle System Outreach
- Clear Zone - Davit Arm

12.3 Waste Strategy

The waste management strategies for the Sci-Tech building and PBSA building have been prepared by the design teams in consultation with Kadans and McLaren Property respectively.

Two separate strategies were developed to address requirements of two different typologies; Commercial Development (Sci-Tech) and High Rise Domestic Developments (PBSA).

The principles of these waste strategies including estimated waste volumes are based upon:

- MCC GD 04 ‘Waste Storage and Collection Guidance for New Developments’ Version 6.00.
- British Standard BS 5906: 2005 - ‘Waste Management in Buildings’.

Legend

- Planning Boundary Line
- ➡ Refuse Collection Vehicle Route
- ➡ Refuse Holding Area Route
- Refuse Collection Area Route
- Holding Areas
- Collection Area
- Bin Store



Sci-Tech Building

The designated area for waste is on the corner of the service yard, with Cottenham Street. Access will be through a secured door from the service yard, where collection will take place.

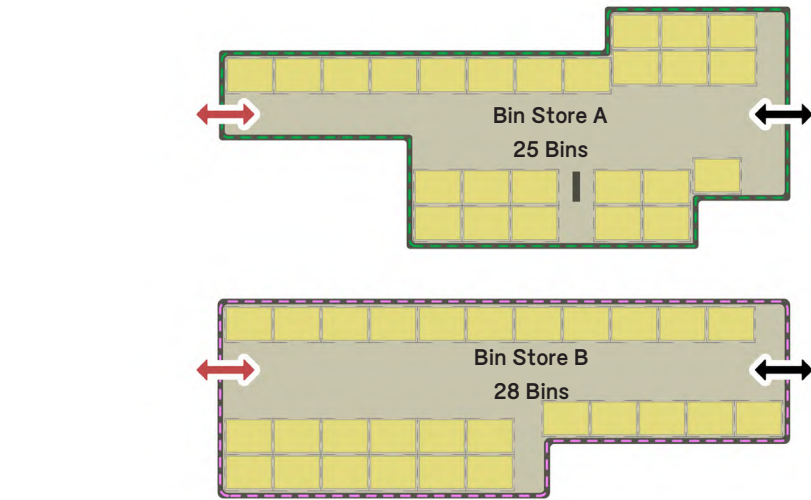
The design has considered the waste generation, storage and collection associated with office, labs and restaurant. The calculations were based on the Planning Document GD04 – Waste storage and collection guidance for new developments, version 6.00 – Appendix C.

- Office/lab use: 26 eurobins for recycling and 25 eurobins for general waste (51 in total),
- Restaurant space for about 60 spaces: 3 eurobins for recycling and 2 for general waste (5 in total).

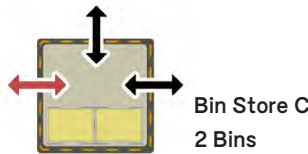
Segregated bins for paper / card, glass, aluminium, organic waste on each floor. All waste will be separated at source (paper, card packaging, food, glass, aluminium, plastic), collected daily and moved to designated bin storage.

We anticipate that cafe/restaurant waste will be stored in a separate waste hold area within the cafe/restaurant fit-out. A waste management strategy will be identified and agreed with the operator, whereby waste is moved from the hold area to the suitable collection area.

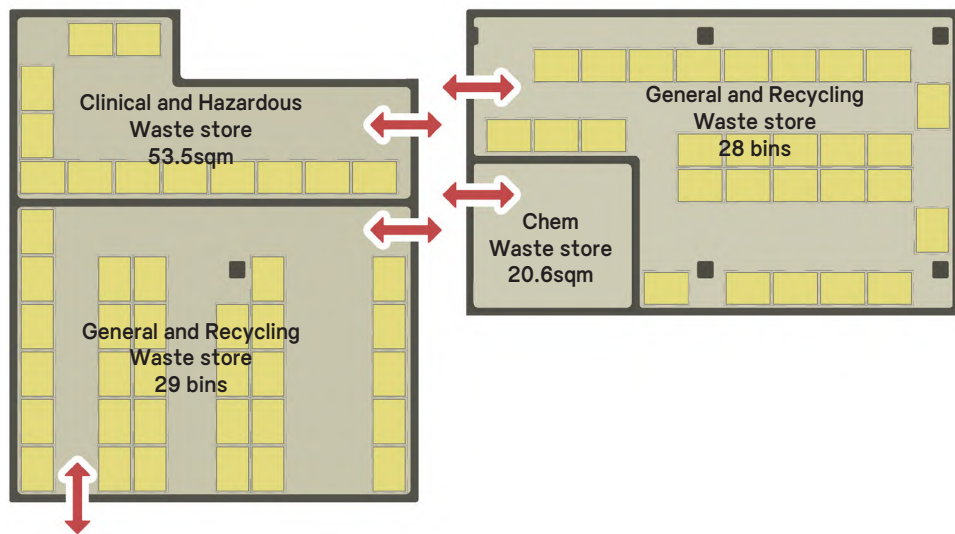
Secondary specialist waste stores have also been preliminary provided for hazardous and clinical materials. Provision has been made for clinical and hazardous waste (53.5sqm), and chemical waste (20.6sqm). These are separate rooms from the general waste to ensure only people with the necessary training has access to them. These waste streams will be collected by a private specialist contractor and disposed of off-site. It is not anticipated that recycled waste is sorted into separate streams within the building.



PBSA – Bin Stores Layouts



Community Centre – Bin Stores Layouts



Sci-Tech – Bin Stores Layouts

PBSA Building

Two bin stores are located on the ground floor of PBSA building with direct access from the cores of the two building blocks. An additional bin store is provided for the Community Centre. Refer to diagram in the previous page.

The waste containers are based upon BS 5906:2005 ‘Waste Management in Buildings’;

- 53no. 1100 litres wheeled bins for PBSA
- 2no. 1100 litres wheeled bins for the Community Centre.

The total area of the two bin stores is 190 m2 in line with GD 04 for High Rise Apartment Developments. The bin stores include space to manoeuvre and access the containers individually. Each bin store includes bins for food waste, general, pulpable recycling and mixed recycling waste.

The waste from the bin stores will be taken out for collection from Kincardine Road via the north-west road. An electric pulley tug will be used to take the bins out to delivery area on Kincardine Road. An area has been allocated for this purpose. Refuse vehicles will pull up in the loading bay on Kincardine Road.

Waste will be collected weekly by a combination of council and commercial waste services.

For further information on PBSA building Waste Strategy refer to the Appendices.

Legend

→ Entrance / Exit

↔ Refuse Holding Area Route

■ Bin

12.4 Cycle Store

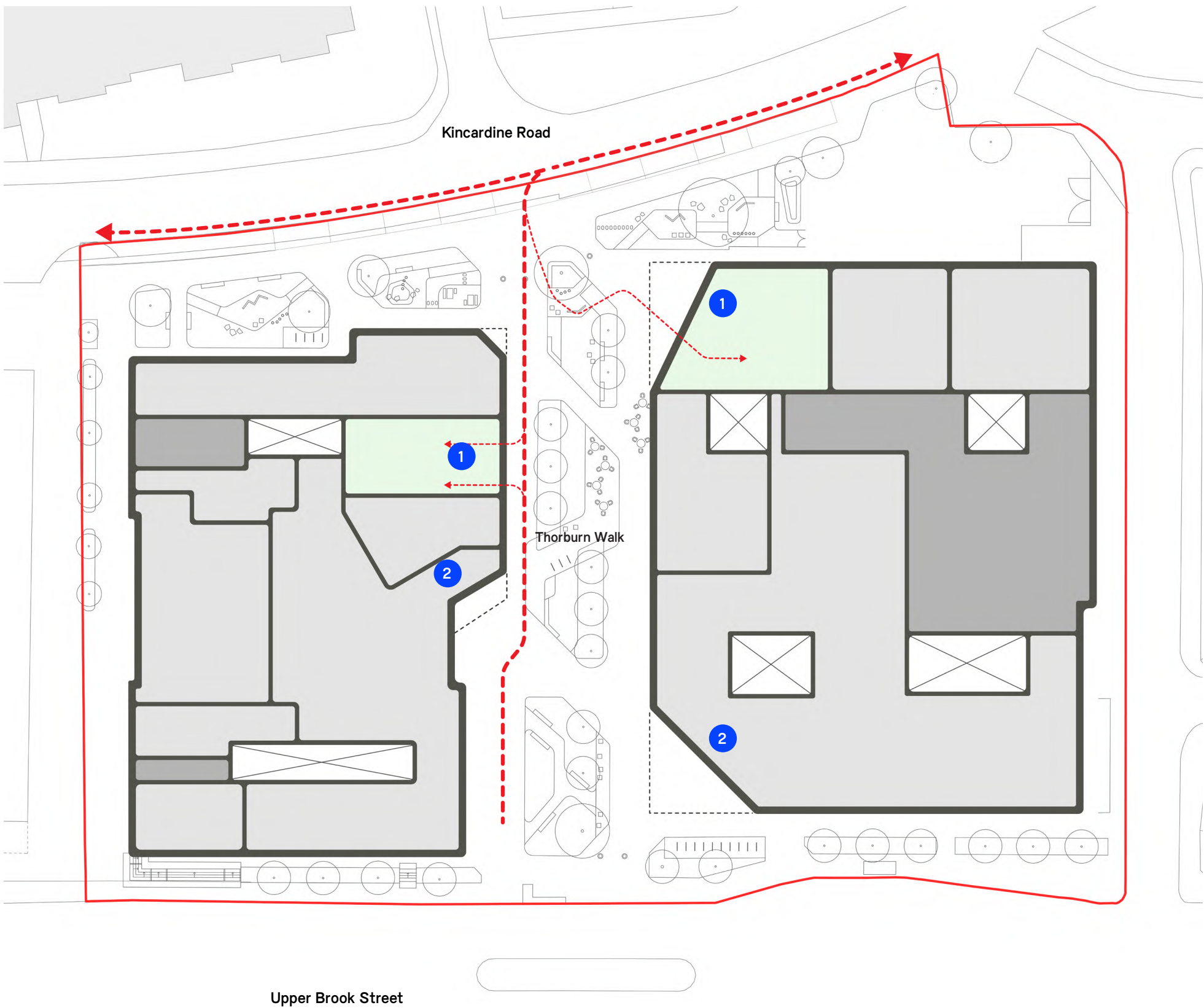
Cycle Store Location and Connectivity

The development will provide a new walking and cycling route through the middle of the site, between the student residential building and the Sci-Tech Building , provisionally referred to as Thorburn Walk. This will create a new connection for cycling and walking between Ardwick and Upper Brook Street.

Both cycle stores have been strategically located close to the main entrance with direct access from Thorburn Walk. The PBSA cycle store has been located close to the main entrance to ensure the cyclist arrival is not far removed for the pedestrian arrival.

As part of the wellbeing strategy, both cycle stores are visible from the outside, part of the active frontage, which will promote active transportation.

- Legend
- 1 Cycle Store Entrance
 - 2 Main Entrance
 - Cycle Store



Sci-Tech Building

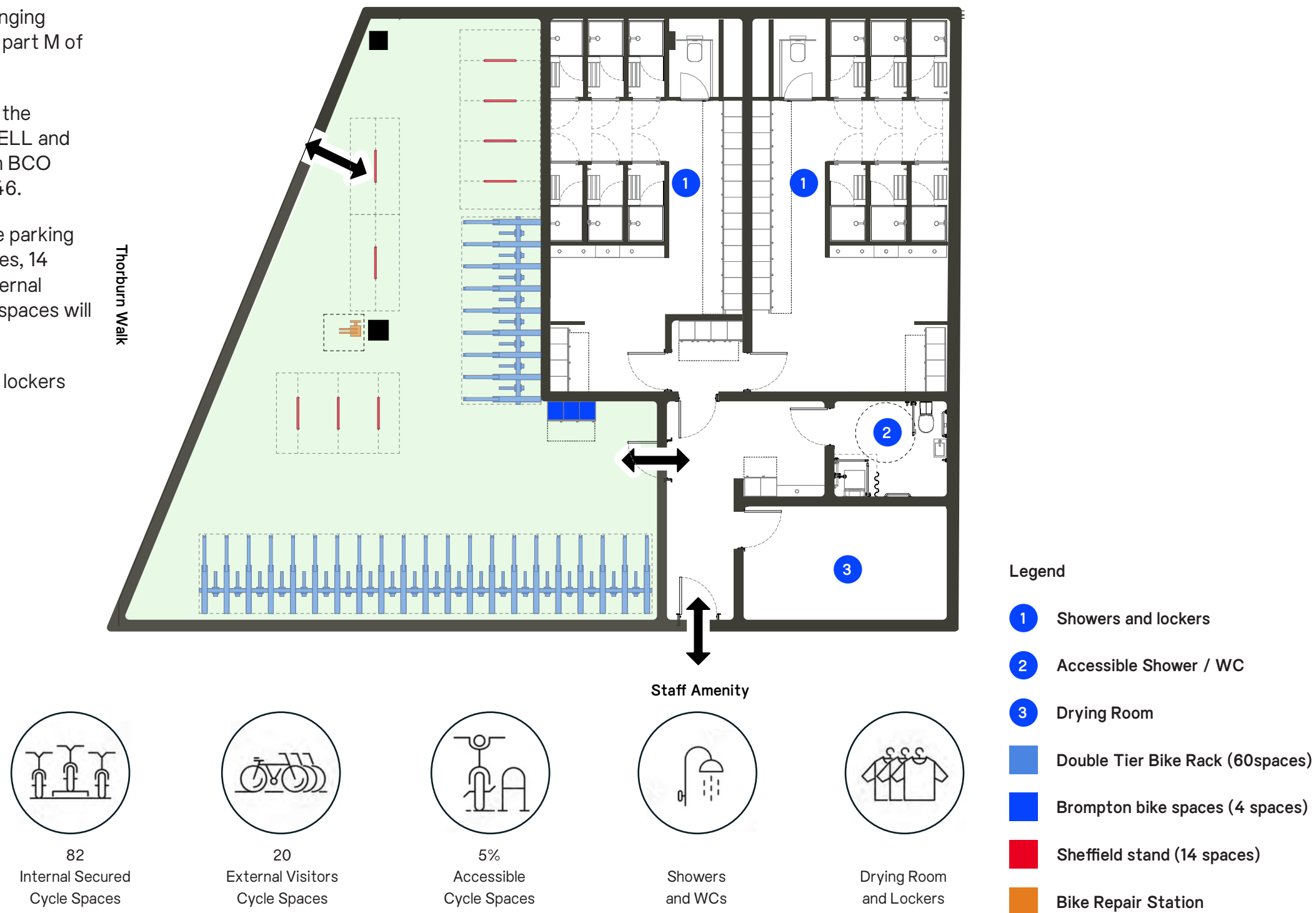
Cycling facilities have been provided both in a protected space within the building and in the public realm. Please refer to the Landscape proposal – Section 9.

The cycle store is located on the corner of Kincardine road and Thorburn walk, from where it is accessible through secured doors. Furthermore, it is provided with lockers, showers and changing facilities, which will also be accessible and compliant with part M of the Approved Documents.

The number of cycles has been calculated on the basis of the MLDF 2012, which is a more onerous requirement than WELL and BREEAM. The number of lockers has been calculated with BCO ratios, and the number of showers is compliant with BS646.

The ground floor accommodates a total of 82 indoor cycle parking spaces (60 double stacked spaces, 4 brompton bike spaces, 14 sheffield stand spaces) and 20 external sheffield stand spaces for visitors. 5% minimum of these spaces will be for accessible cycles.

In addition, 100 lockers are provided, including accessible lockers and 14 shower facilities.



PBSA Building

The proposal is a for a car free development. Therefore, the Travel Plan aims to make sustainable modes of transport as convenient as possible for residents to encourage its use.

To supplement the sustainable Travel Plan, the PBSA building caters for cyclists through cycle parking.

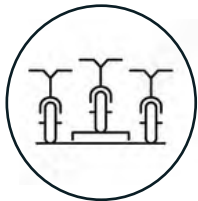
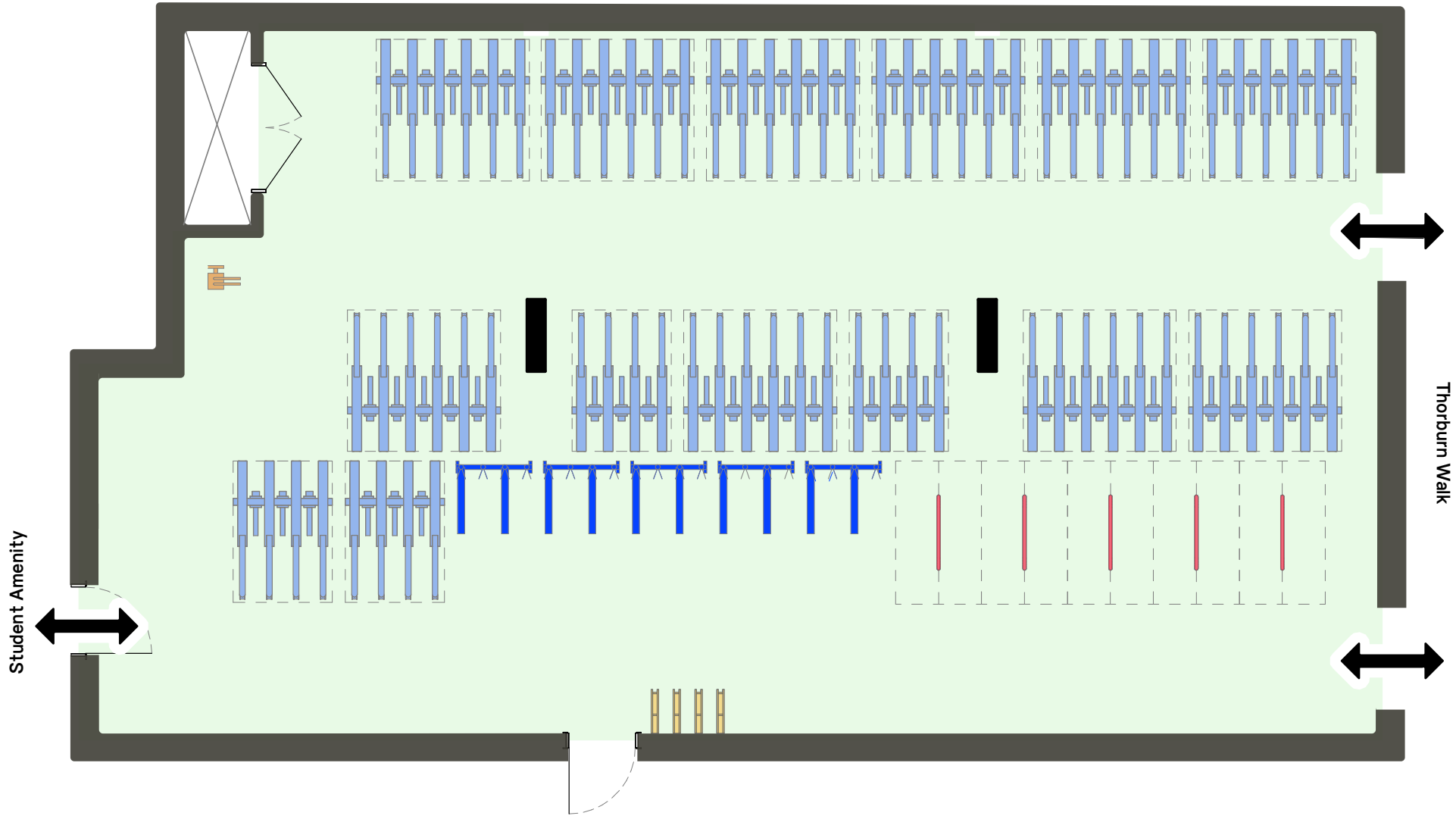
Cycle parking spaces have been calculated based upon BREEAM requirements, proximity to the university and good access to the cycle network. In response, the provision of cycle parking for 25% of the total residents has been accommodated within the design.

185no. internal cycle store spaces are provided on the ground floor of PBSA. A range of cycle racks have been allowed for ensuring cycling is accessible to as many people as possible. This includes 10% of single tier racks and 5% of wider-spaced Sheffield type racks to accommodate larger bikes.

The cycle store is secured in line with Secured by Design requirements. A bike repair station is provided for cyclists to re-inflate types, tune bikes and make repairs.

The store is accessed internally via the student amenity space or externally via Thorburn Walk.

Externally, cycle parking spaces for short-term cycle parking and visitors are provided through 14no. Sheffield type stands along Thorburn Walk, shown in the landscape plans.



185
Internal Secured
Cycle Spaces



14
External Visitors
Cycle Spaces



5%
Accessible
Cycle Spaces



Internal
Bike
Repair Station

Legend

- Double Tier Bike Rack (152 spaces)
- Single Tier Bike Rack (20 spaces)
- Wide Bike Rack (9spaces)
- Bike Repair Station
- Wall Bike Rack (4 spaces)

12.5 Security

The design of the proposed scheme has been developed with the objectives of creating a secure environment for residents, staff and visitors.

Key strategies include;

- The formation of a new pedestrian route, Thorburn Walk, between Sci-Tech and PBSA to link the University with Ardwick.
- Ground floor and flexible community spaces provide activity and surveillance out of hours.
- Receptions are strategically positioned to monitor all entrances within each of the buildings providing surveillance throughout working hours, and 24/7 for PBSA.
- Active CCTV with visible monitors in both receptions.
- Secured and non-visible bin stores to reduce the risk of arson.
- Secured cycle store visible from Thorburn Walk.
- Robust materials at ground floor to reduce risk of vandalism.
- Using bollards to control vehicle access to the site.

The proposed development has been assessed against the principles of crime prevention through environmental design by the Greater Manchester Police.

A few points have been identified and will be addressed in the next design stages.

- Landscape areas to be carefully designed so that areas of concealment or hard landscaping avoid generating antisocial behaviour.
- A video entry phone system with the picture viewable on the phone unit is not required for PBSA as access to the building is controlled 24/7 by the reception.
- Access control and comprehensive CCTV systems.

12.6 Air Quality

An Air Quality assessment has been undertaken by BWB Consulting for the PBSA building.

The site is located within the GMA Air Quality Management Area, which was declared for potential exceedances of the annual mean air quality objective for nitrogen dioxide.

Construction Phase Dust Assessment

With the implementation of the recommended measures of the Air Quality Management guidance, the impact of the construction phase dust emissions is considered to be 'not significant'.

Road Traffic Emissions Impact Assessment

The proposed development trip generation does not exceed the relevant screening criteria.

Concentrations of NO₂ PM₁₀ and PM_{2.5}

Concentrations of NO₂ PM₁₀ and PM_{2.5} were predicted across the site. Pollutant concentrations were predicted to be below the relevant air quality objectives and the site was therefore considered suitable for the proposed residential use.

Impact of the Development on Air Quality

Based on the assessment results, the impact of the proposed development on local air quality is considered to be not significant and mitigation measures are not required. However, the proposed scheme includes measures to promote active travel.

For further information, refer to 'Environment - Air Quality Assessment' by BWB Consulting, 'Energy and Sustainability Statement' by Cundall, and 'Transport Assessment' by Civic Engineers.

12.7 Wind Analysis

A Wind Microclimate Analysis has been performed of the wind conditions surrounding the Upper Brook Street Masterplan - McLaren/Kadans.

While the addition of the proposed development does increase the intensity of winds at pedestrian level, the magnitude of this increase is not sufficient to cause significant detriment to pedestrian comfort. There are no locations outside of the proposed site which are likely to involve sitting or standing that experience a change in the Lawson Criteria acceptability for sitting or standing respectively. There is likewise no change in the acceptability for strolling and business walking following the addition of the proposed development or the adjacent Upper Brook Street Masterplan - PAG/Moda.

The increased winds tend to be concentrated along Upper Brook Street and between the buildings of the proposed development, Thorburn Walk. Casual seating is currently planned in Thorburn Walk, an area which is considered to be unsuitable for sitting based on conditions with no foliage. Due to the potential for a flow channel to develop, it is recommended that the foliage specified by the landscape architect for this region have large, leafy canopies so as to mitigate these winds. This is particularly relevant for warmer months in which outdoor seating is most desired. With suitable planting, as is planned, it is expected that this region will be acceptable for the planned use.

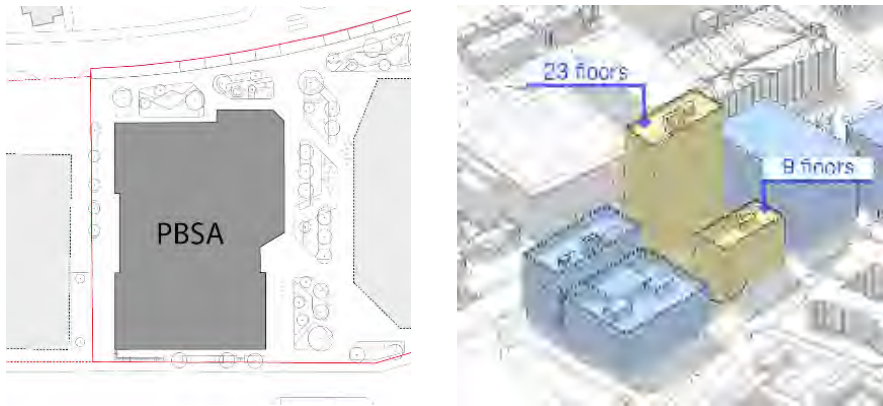
For further information, please refer to separate 'Wind Microclimate Study' produced by Wilde Analysis, that forms part of the submitted Environmental Impact Assessment.

13.0 APPENDICES

13.1 Waste Strategy -PBSA

The site is located in between Upper Brook Street, Brook Street and Kincardine Road. The proposed building is a Purpose-Built Student Accommodation (PBSA) with associated ancillary amenity spaces, access and servicing space, along with public realm. Community and commercial spaces are provided on the ground floor.

The new accommodation provides 737 student bedrooms (288 studios and 449 cluster bedrooms) and is arranged in two building blocks parallel to Upper Brook Street, which are linked on the ground floor. The tallest block facing Upper Brook Street has 23 storeys and the shortest block facing Kincardine Road has 9 storeys including ground floor.



Guidance

Waste forecast has been developed in line with MCC Waste Storage and Collection Guidance for New Developments (GD04) and best practice including British Standard’s BS 5906:2005 ‘Waste Management in Buildings’.

Waste Forecast and Frequency

The MCC guidance for residential use is solely based on the number of apartments. The proposed PBSA development includes a greater number of bedrooms than a typical apartment development due to the high number of studios (39%). Therefore, in addition to MCC guidance, we have used BS 5906: 2005, which includes a calculation that accounts for the number of bedrooms to provides a more robust figure of waste forecast.

These calculations are described below. The waste forecast is based on weekly collection as advised by McLaren Properties. Waste will be collected by council and commercial waste services.

The minimum waste storage requirement for PBSA is 151.79m2 (table below). The proposed development provides 190m2 in two separate bin stores associated with the two building blocks.

	High Rise Domestic Developments (0.43m² per apartment)	Number of Clusters	Number of Studios	Total Number of Apartments	Total Area m²
MCC Guidance (GD 04 v6) Waste Storage and Collection for New Developments	0.43	65	288	353	151.79

volumes are calculated separately for the residential building blocks in order to size accordingly the equivalent bin stores.

Management suite and student amenities are provided on the ground floor with supplementary smaller amenity spaces on first and top floor of Upper Brook Street Block. Student amenities are comprised of fitness gym, laundry and seating areas for socialising, studying and relaxing. These areas are included in the waste volume calculations. There is no specific guidance for student amenities. We have used standard retail operation 10lt/ floor area per week as the closest assumption.

	No. of Clusters	No. of Studios	
PBSA - Kincardine Block			
8 resi storeys	23	0	
No. Dwellings x (70 litres x Average No. of Bedrooms) + 30 Litres	Weekly Waste Collection (litres)	Weekly Waste Collection (litres)	No. of bins Kincardine Block
	11300	0	10

	Numbers of Clusters	Numbers of Studios	
PBSA-Upper Brook Street Block			
22 resi storeys	42	288	
No. Dwellings x (70 litres x Average No. of Bedrooms) + 30 Litres	Weekly Waste Collection (litres)	Weekly Waste Collection (litres)	No. of bins Upper Brook Street Block
	20610	20190	37

Weekly Waste Collection - Gym	Gym Area
Based on standard Retail Operation 10lt/m2	145
	Weekly Waste Collection (litres)
	1450

Weekly Waste Collection Gym
No. of bins
1

Weekly Waste Collection - Laundry	Laundry Area
Based on standard Retail Operation 10lt/m2	41
	Weekly Waste Collection (litres)
	410

Weekly Waste Collection Laundry
No. of bins
0.37

Weekly Waste Collection - Amenities	Amenity Area
Based on standard Retail Operation 10lt/m2	450
	Weekly Waste Collection (litres)
	4500

Weekly Waste Collection Amenities
No. of bins
4.09

Weekly Waste Collection - Reception + Management	Reception + Management Area
Number of Employees x 50 = Litres of Waste	5
	Weekly Waste Collection (litres)
	250

Weekly Waste Collection Reception + Management
No. of bins
0.23

Total No. of bins
53

not defined as they will be further developed by the residents in the next stages. It is envisaged as a flexible space for the local community to facilitate meetings and wellbeing classes such as yoga and pilates. The waste forecast of this community space is similar assumption to student amenities, standard retail operation 10lt/ floor area per week.

The purpose of the commercial unit on the Upper Brook Street is to promote local businesses. It is currently provided as shell and core. Depending on tenant's use, a bin store will be integrated.

Waste Volume Summary

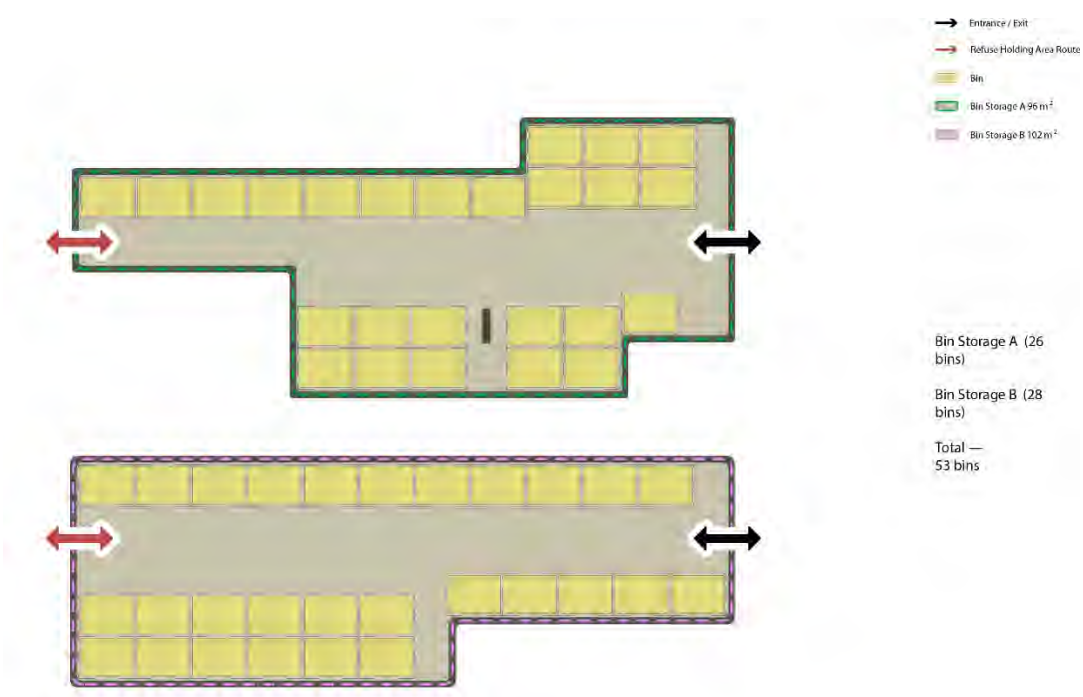
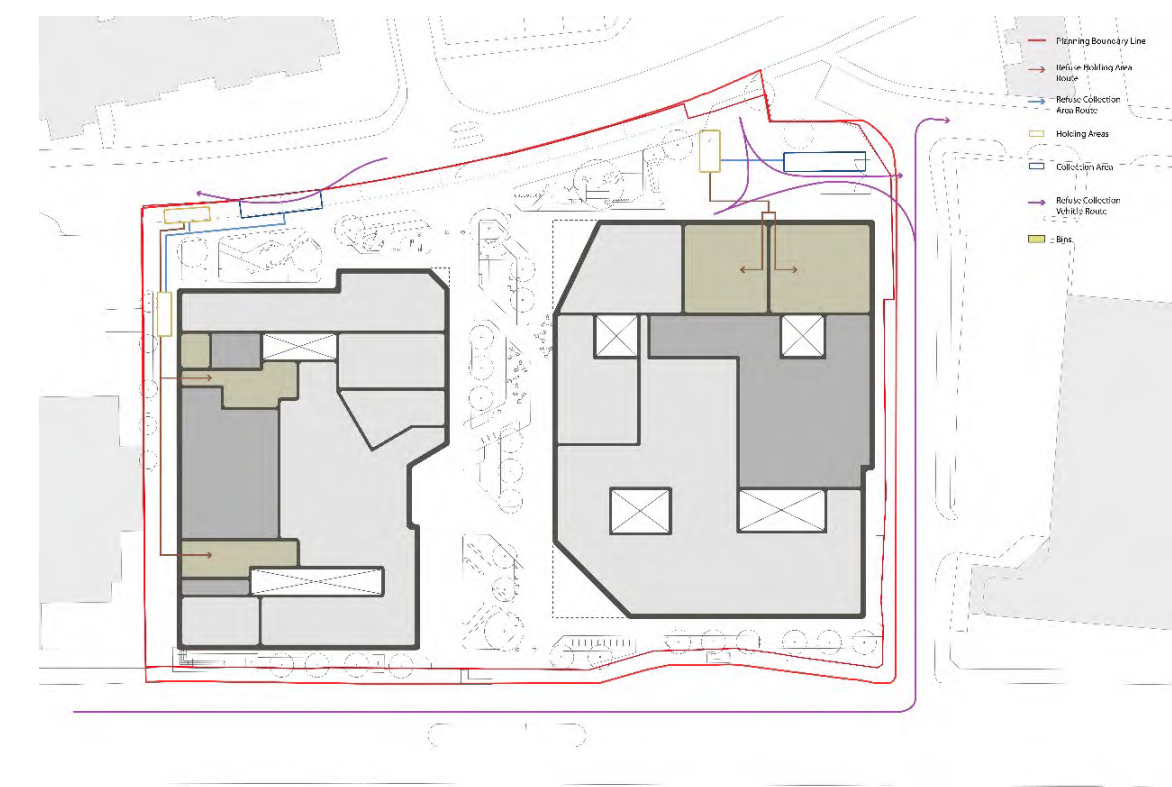
Based upon weekly collection, 53no. 1100 litres wheeled bins are provided in total for PBSA and 2no. 1100 litres wheeled bins for the Community space based on BS 5906:2005 'Waste Management in Buildings'.

Weekly Waste Collection - Community Centre	Amenity Area	Weekly Waste Collection Amenities
Based on standard Retail Operation 10lt/m2	230	
	Weekly Waste Collection (litres)	No. of bins
	2300	2

Location of Bin Stores and Collection

Two bin stores are located on the ground floor of PBSA with direct access from the cores of the two building blocks as shown in the image below. Each bin store includes bins for food waste, general, pulpable recycling and mixed recycling waste. 50% of PBSA waste volume is allocated storage for recyclable waste.

The waste from the bin stores will be taken out for collection from Kincardine Road via the north-west road. An electric pulley tug will be used to take the bins out to delivery area on Kincardine Road. An area has been allocated for this purpose as shown in the diagram below. Refuse vehicles will pull up in the loading bay on Kincardine Road.



Hygiene

All bin stores are mechanically ventilated. Water tap and gullies are provided. Frequent cleansing is essential and will be managed by PBSA's management team.

Appendix E Proforma for Planning Applications



Planning Application – Waste Management Strategy

Planning Application Number: TBC
Date Submitted: June 2023

Estimated volumes/ m² required by the development

Low Rise Domestic

Waste Types	Capacity Required (litres)	Number of bins required per household	Confirm what is to be provided
General refuse	140 / 240	1 x wheeled bin	Not applicable for this application
Pulpable Recycling	140 / 240	1 x wheeled bin	Not applicable for this application
Mixed Recycling	140 / 240	1 x wheeled bin	Not applicable for this application
Garden Waste	140 / 240	1 x wheeled bin	Not applicable for this application
Food Waste	23	1 x 23 litre caddy	Not applicable for this application

High Rise Apartment Developments

	Yes/No - how much space has been provided?
0.43m² has been provided per apartment for the container space. Space to manoeuvre and access containers individually has also been provided so that each container can be accessed and removed for collection individually.	Total area required - 151.79m² Total area provided - 190m² including amenities, commercial and community spaces.

Commercial Developments (Sci-Tech building)

Please state number of bins you propose, showing calculations where appropriate.

General Waste - 25 Eurobins	Calculations are based on planning document GD04 - Waste Storage and collection guidance for new developments, version 6.00 - Appendix C
Pulpable Recycling - TBC	
Mixed Recycling - 26 Eurobins	
Food Waste - 5 Eurobins (3 recycling, 2 general)	
Industrial Waste - TBC	

Has / will a contract be obtained with a licenced waste carrier?	☒	Yes
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Mixed Use Developments

Are the stores for residential and commercial separate from each other?	☒	Yes*
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*PBSA - Separate bins stores will be provided for the community and commercial units.

Internal Stores (Residential and Commercial)

Please provide details of internal stores / segregation of waste and recycling.

PBSA - Recycling bins will be provided in the bin stores and within the studios and cluster kitchens for organic, paper/card, plastic/metal/glass. Occupiers will be encouraged to separate waste to aid recycling. The students would bring their waste down the lift to the relevant bin stores where they will deposit the waste into a colour coded bin. Sci-Tech: The design has considered the waste generation, storage and collection associated with office and lab building, and restaurant. The waste store at this stage remains flexible to host different kind of hazardous waste (clinical, chemical and general hazardous) separate from the general waste and recycling. Users will be encouraged to separate waste to aid recycling at their work space.,
--

Storage Areas for Waste Containers (Residential and Commercial)

Please provide details of container stores, attaching plans if appropriate.

PBSA - Two bin stores are located on the ground floor and each includes bins for food waste, general and recycle waste. The bin store will accommodate a total of 53 Eurobins. Sci-Tech: In the general waste area, 26 eurobins are located for recycling and 25 eurobins for general waste (51 in total for the office area). For a restaurant space for about 60 spaces we will need 3 eurobins for recycling and 2 for general waste (5 in total). Provision has been made for clinical and hazardous waste (53.5sqm), and chemical waste (20.6sqm). These are separate rooms from the general waste to ensure only people with the necessary training has access to them.
--

Ensure all bins in the store are accessible	☒	Yes
Ensure recycling facilities are as easy to access as general refuse	☒	Yes

Please confirm details of waste store ventilation and hygiene / cleaning proposals

Ventilation -	PBSA - Natural ventilation and extract will be provided to the bin store (6 air changes per hour).
	Sci-Tech - Natural ventilation combined with mechanical ventilation for the rooms not directly in facade line will be provided to the bin store (6 air changes per hour).
Hygiene -	PBSA / Sci-tech- The on-site staff member/management would monitor the cleanliness on a regular basis and would ensure that all areas of the site are kept clean as required. Water tap and floor gullies will be provided.

Please provide details of who will be responsible for placing the bins at the collection point and returning them to the store / property promptly e.g. resident / management company

PBSA / Sci-tech - The on-site management would be responsible for transferring bins to collection point and returning bins after and ensuring that the bin stores and transfer routes are kept clean.
PBSA - The residents will be responsible for bringing the waste down to the bin stores.

Please ensure that you have attached:

Detailed plans of waste stores	☒	Yes
Location plans showing stores	☒	Yes
Location plans showing the proposed collection point and the route the collection vehicle will take	☒	Yes

Please ensure that you have completed this form in accordance with our GD04 Waste Storage and Collection Guidance for New Developments

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