

ALBERT BRIDGE HOUSE

DESIGN & ACCESS
STATEMENT

OCTOBER 2022





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INTRODUCTION

Executive Summary

Oval's vision for Albert Bridge House is to deliver an ambitious scheme that will help to transform the site of the Albert Bridge House and Bridge Street Car Parks within central Manchester. The site is currently dominated by surface level car parking and is impermeable to public access. The site of the existing Albert Bridge House, Bridge Street Car Park, and Albert Bridge Gardens will be consolidated to create new accessible public realm, framed by shops cafés and restaurants. New public pedestrian entry points will be provided from all approaches to the site, along with a revitalised ecological corridor along the River Irwell. The proposals for Albert Bridge House will deliver much needed housing within central Manchester along with a large-scale office to bolster the City of Manchester's already thriving economy and street scene within the local context and wider City.

This area of Manchester was the subject of the St Mary's Parsonage Strategic Regeneration Framework (SRF) study, which was endorsed in 2020, and which identified opportunity for large scale commercial. The SRF also outlined a need for public realm improvements and high quality landscape to improve local biodiversity, in addition to outlining the opportunity for a new landmark building on the site.

The proposals contained within this report meet Manchester's ambitions towards becoming a thriving, net zero carbon, climate resilient city. Through the provision of a residential tower and commercial offices that set ambitious targets to achieving Net Zero across their Whole Life Cycle, while promoting sustainable transport, and providing new public realm to complement existing retained trees and riverside ecology.



The Project Team

Client - Oval Real Estate

Architecture - Studio Egret West

Landscape Architecture - Studio Egret West

Planning Consultant - Deloitte

Quantity Surveyor - Cumming Group

Principal Designer - Studio Egret West

Structural Engineer - AKTII

Wind Engineer - AKTII

Civil / Drainage Engineer - AKTII

Facade Engineer - AKTII

Access & Maintenance Consultant - Hilson Moran

M&E Engineer - Hoare Lea

Sustainability Consultant - Hoare Lea

Acoustic Engineer - Hoare Lea

Public Health - Hoare Lea

Acoustics - Hoare Lea

Telecoms - Pager Power

Engagement - Counter Context

Fire Engineer - Urban Change

Daylight Sunlight / ROL Consultant - Avison Young

Transport Consultant - Curtins

Waste Management - Curtins

Environmental Impact - Turley

Visualisation / CGIs - NBV



Oval Real Estate

Oval was established in July 2013 as an asset manager of commercial real estate throughout the UK and has grown to a team of over 70 employees operating out of offices in both London and Birmingham.

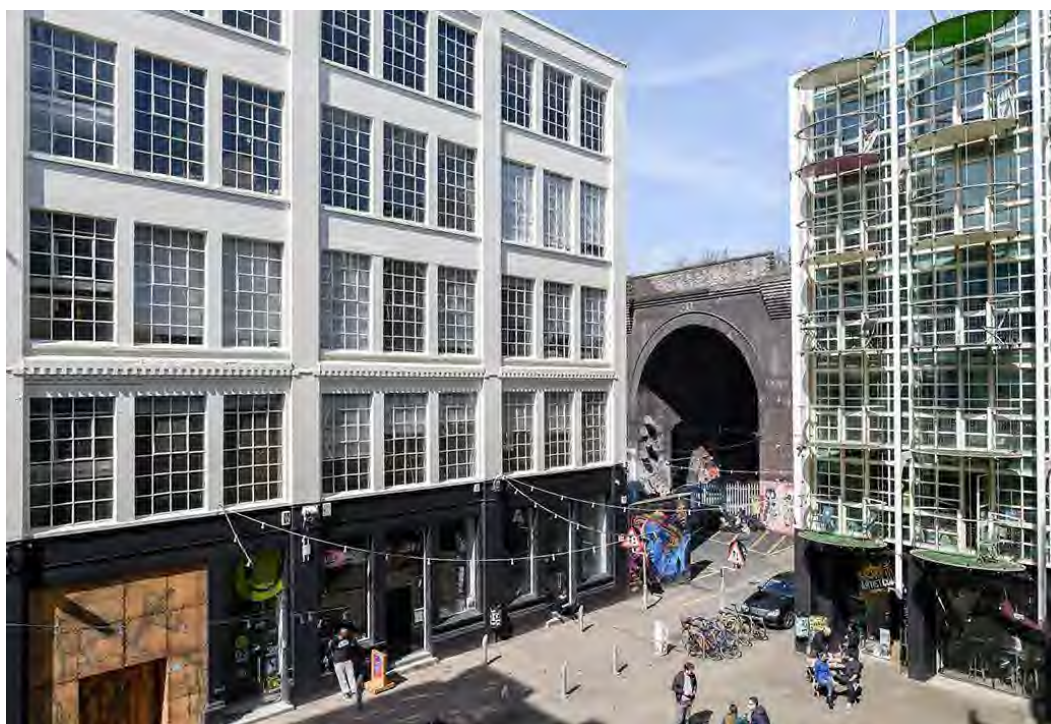


Fig 01 Digbeth, Birmingham



Fig 02 Wild Works, Birmingham

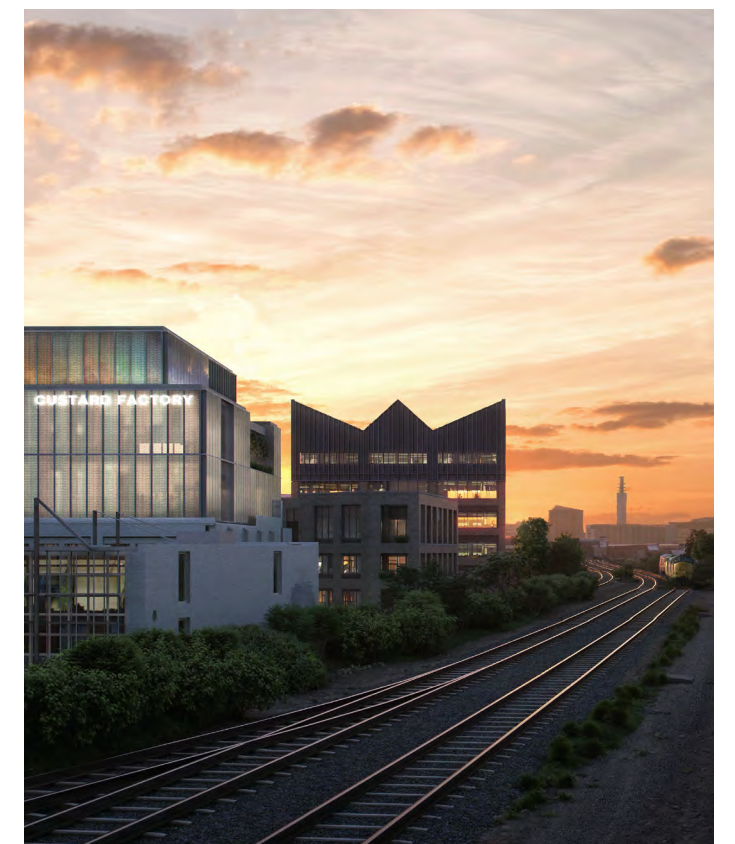




Fig 03 R+, Reading

Fig 04 Ealing Cross,

Fig 05 Fairfax, Bristol

Studio Egret West

For the past 15 years, Studio Egret West (SEW) have delivered some of the UK's most exciting, high quality place-making projects through the symbiosis of memorable architecture, strategic urban design and ecology-driven landscape.

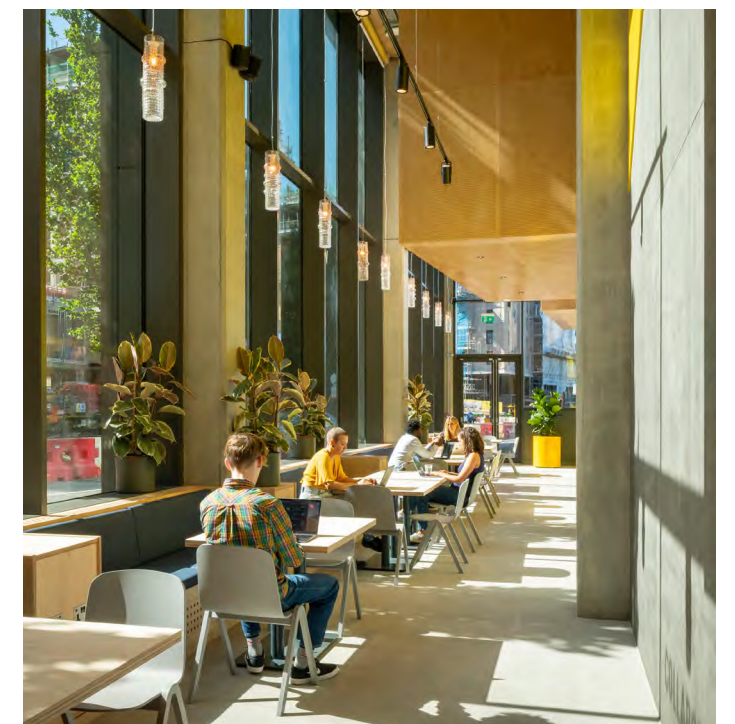
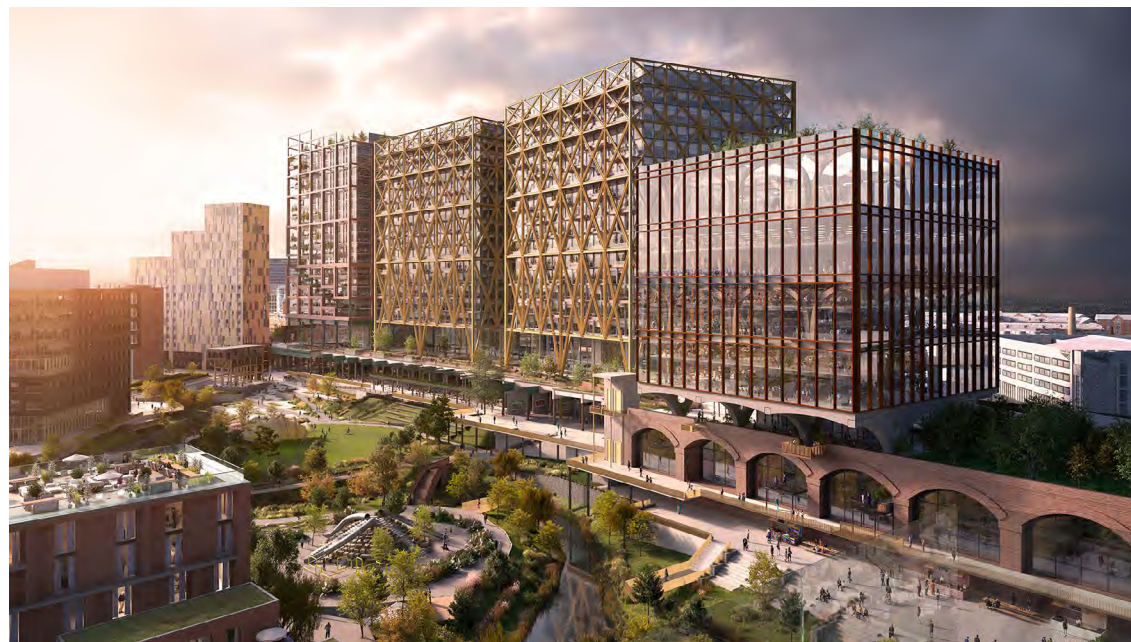


Fig 06 Mayfield, Manchester

Fig 07 Plus X, Brighton



Fig 08 Cotton Quay, Salford Quays



Fig 09 Brent Cross, London



Fig 10 The Landing, Maidenhead



2.0

CONTEXT

Wider Context

The Albert Bridge House site is located in a prime location of Manchester City Centre, ideally positioned at a gateway between Manchester and Salford, at the Albert Bridge, and near to retail, civic and cultural spaces, as well as open green space. Located at the north-west of the City Centre the site sits at the termination of King Street West. The triangular shaped site is bounded to the South by Bridge Street, to the North by the River Irwell, and to the East by St. Mary's Parsonage and Trinity Bridge landing.

The site is in a strategic transport location, within a short walk from Manchester Victoria Station and Salford Central Station, as well as Manchester Piccadilly Station to the South, slightly further afield. Due to its location next to the River Irwell, bordering the City of Salford, the site offers great views across Manchester to the South and East, Salford to the North and West, while also enjoying view corridors along the River Irwell, Bridge Street, King Street West, the Left Bank and St Mary's Parsonage.

Within the immediate surroundings, multiple urban regeneration proposals have come forward within recent years and will continue to emerge, transforming and revitalising the urban fabric of the local area, including Spinningfields to the South, the emerging Deansgate and Kendalls transformation proposals to the East, and the emerging New Bailey and Greengate developments to the West.

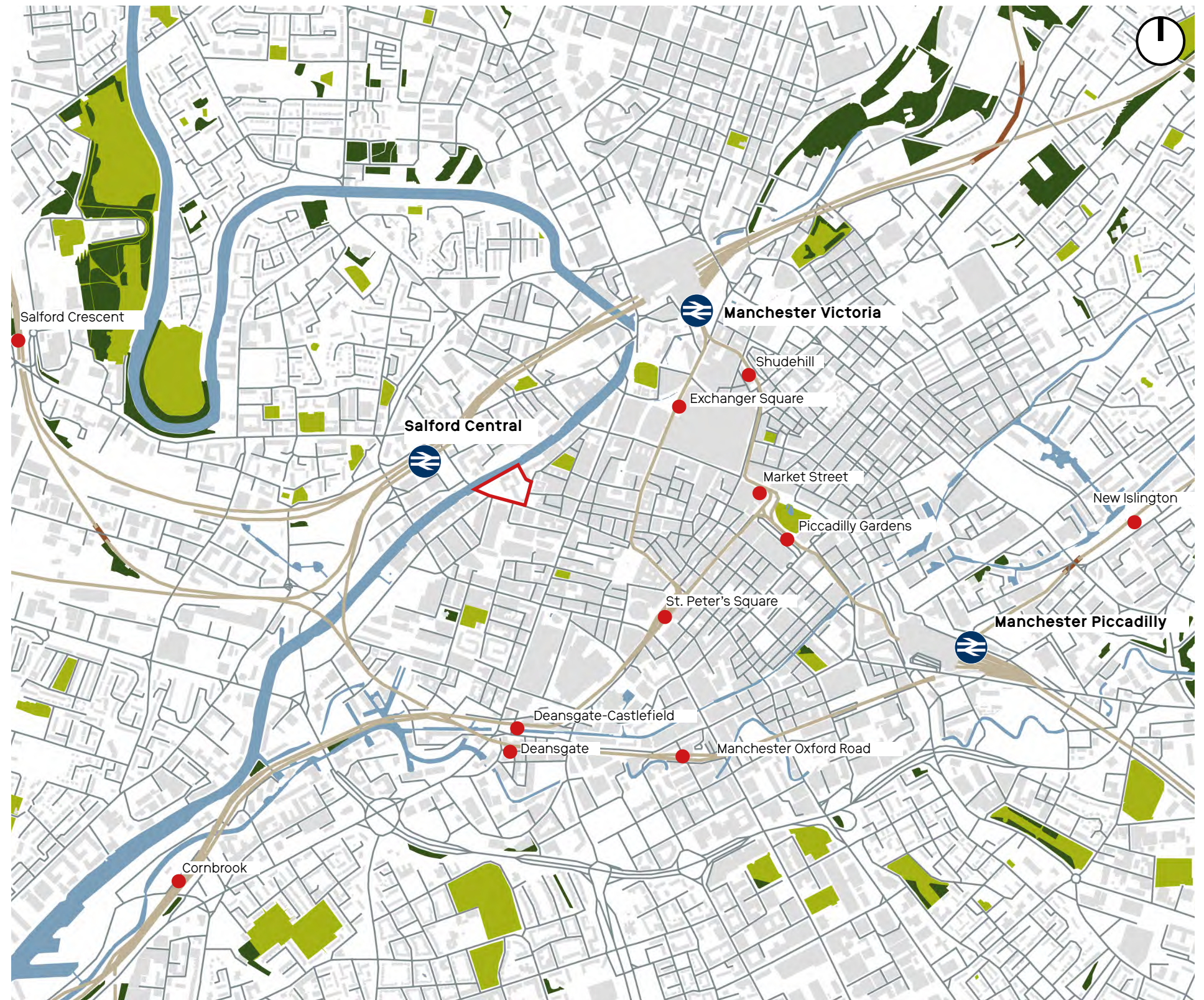


Fig 11 The site and its wider context



Fig 12 Aerial view of the site and neighbouring context

Site Location

The site is located in the centre of Manchester on Bridge Street, M3 3DS. The site is triangular in plan and located at the border with the City of Salford, with which the site is connected by two bridges; Albert Bridge (catering for both vehicular and pedestrian) and Trinity Bridge (pedestrian only). The existing Albert Bridge House is currently occupied by 4no. commercial buildings, under the name of Albert Bridge House, which includes ground level car parking.

The site is surrounded to the South and East by Conservation areas, including the Parsonage Gardens Conservation Area, the Deansgate Conservation Area, the St. Ann's Square Conservation Area, and the Albert Square Conservation Area

The national grid reference for the site is 383420, 398370.

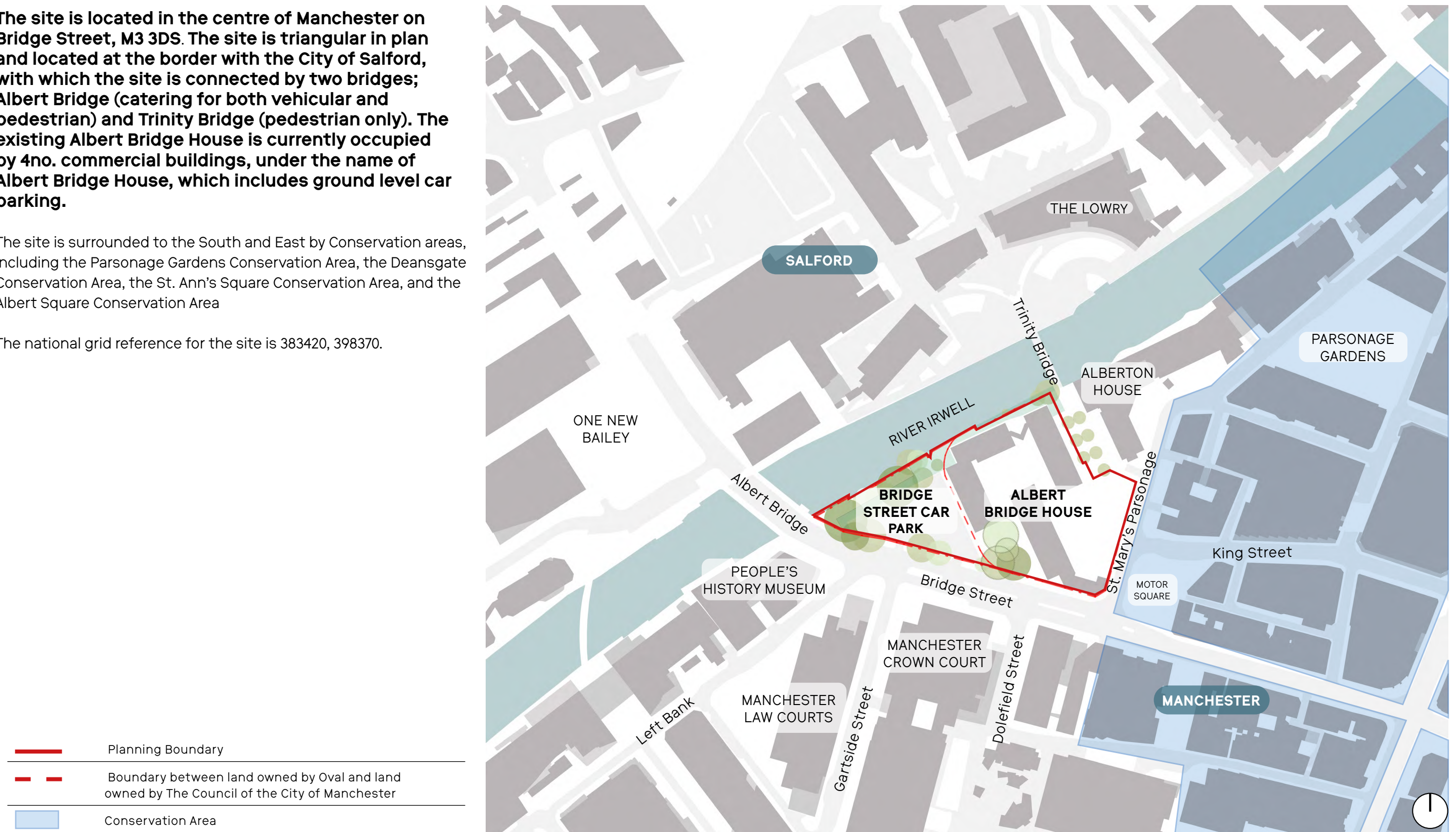


Fig 13 Site location diagram

Site Description

The Planning boundary encompasses 3 areas: to the West the land is currently owned my Manchester City Council occupied by the Bridge Street ‘pay and display’ car park and Albert Bridge Gardens facing the River Irwell. The land occupied by Albert Bridge House is a complex of 4no. commercial buildings, owned by Oval Real Estate. To the East of the application boundary lies a strip of land at the termination of Trinity Bridge, offering public pedestrian access to the Trinity Bridge, owned by The Council of the City of Salford.

The site presents a level difference with the River Irwell (circa 8m) along the North boundary edge. A banked planted zone containing shrubs, trees and bushes rises up to the ground level. Retention of the riverside bank is provided via a series of brickwork retaining walls. The vegetation along the river bank is impenetrable and dense in spots, requiring upkeep to promote a healthy ecological habitat.

The triangular site can be broadly subdivided into 3 areas:

- Zone 01: is occupied by the Bridge Street car park consisting of circa 60 car parking spaces, accessed off of Bridge Street; and Albert Bridge Gardens, a viewing platform facing the River, accessed via a set of descending stairs from Bridge Street, via a single point of access and egress. Albert Bridge Gardens is currently the site of anti-social behaviour, and is lacking in passive surveillance with no through access. To the westernmost part of the site a series of mature trees are very visible from the River Irwell, the Albert Bridge and the Salford Bank.
- Zone 02: the central area of the site is occupied by 4 existing mid-century commercial buildings, the tallest reaching 18-storeys, followed by a 6 storey, a 3 storey and a single storey block. Three of the buildings are parallel to each other and occupy the site perpendicular to the River Irwell. At the entrance of the main building along Bridge Street, 3 of the existing trees are protected by a Tree Preservation Order. The southernmost corner of the site facing Motor Square hosts an existing substation. Along the St. Mary’s Parsonage pedestrian pavement there is a fenced edge, as the existing street car park is at a lower level by circa 500/1000mm.
- Zone 03: the easternmost area of the site is the Trinity Bridge landing, the pedestrian connection between Manchester and The Lowry in Salford. The area presents 2 lines of trees, and is restricted in its use as it provides public access to Trinity Bridge.

	Zone 01 - Existing Street Car Park and Albert Bridge Gardens
	Zone 02 - Albert Bridge House Buildings
	Zone 03 - Public Access to Trinity Bridge
	Existing Buildings on site
	Existing substation on site
	Existing trees subject to TPO

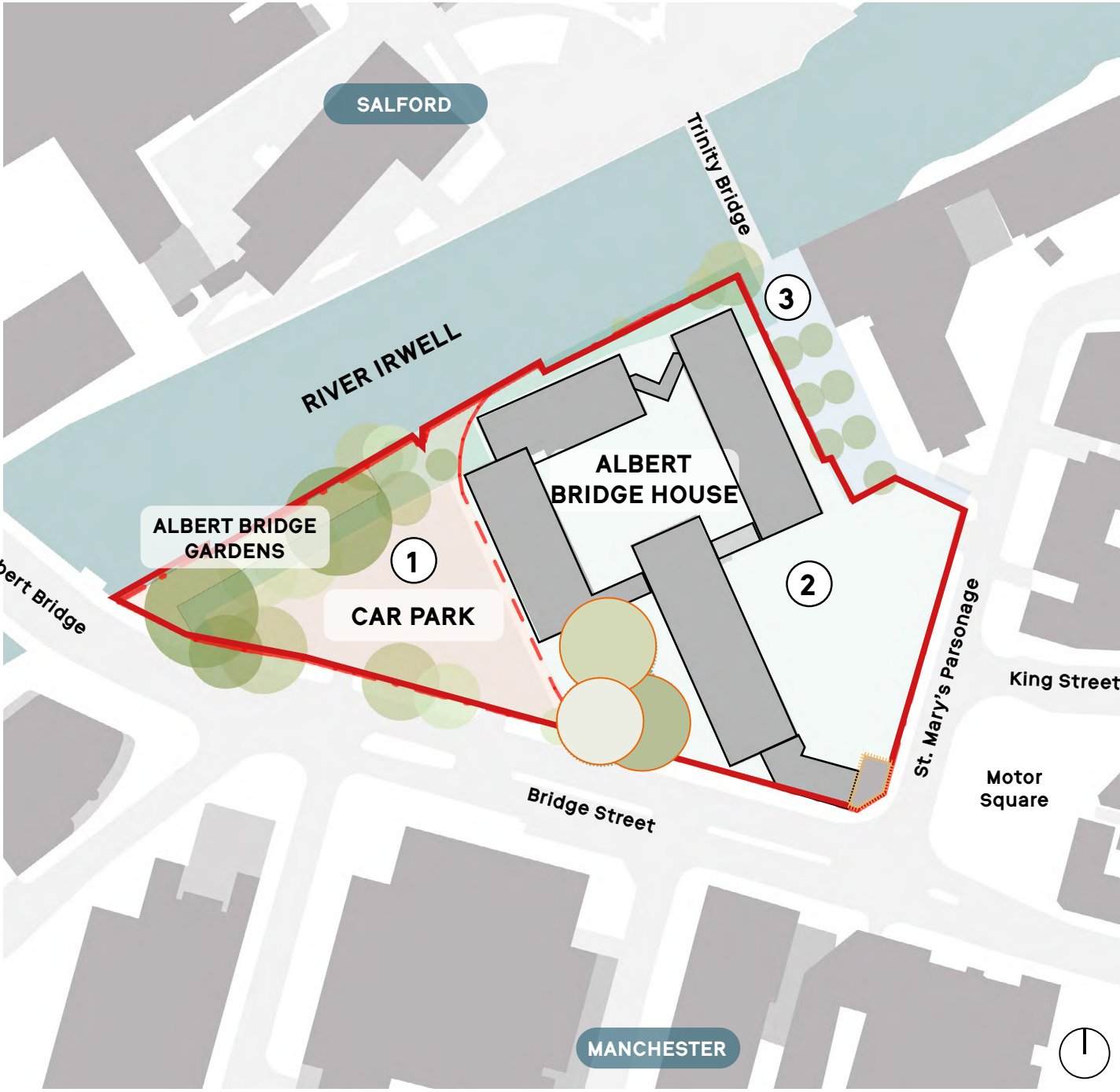


Fig 14 Existing buildings and trees diagram

	Planning Boundary
	Boundary between land owned by Oval and land owned by The Council of the City of Manchester

Zone 01 - Bridge St. Car Park



Fig 15 Site photos



Fig 16 Camera points diagram

Zone 02 - Albert Bridge House Site

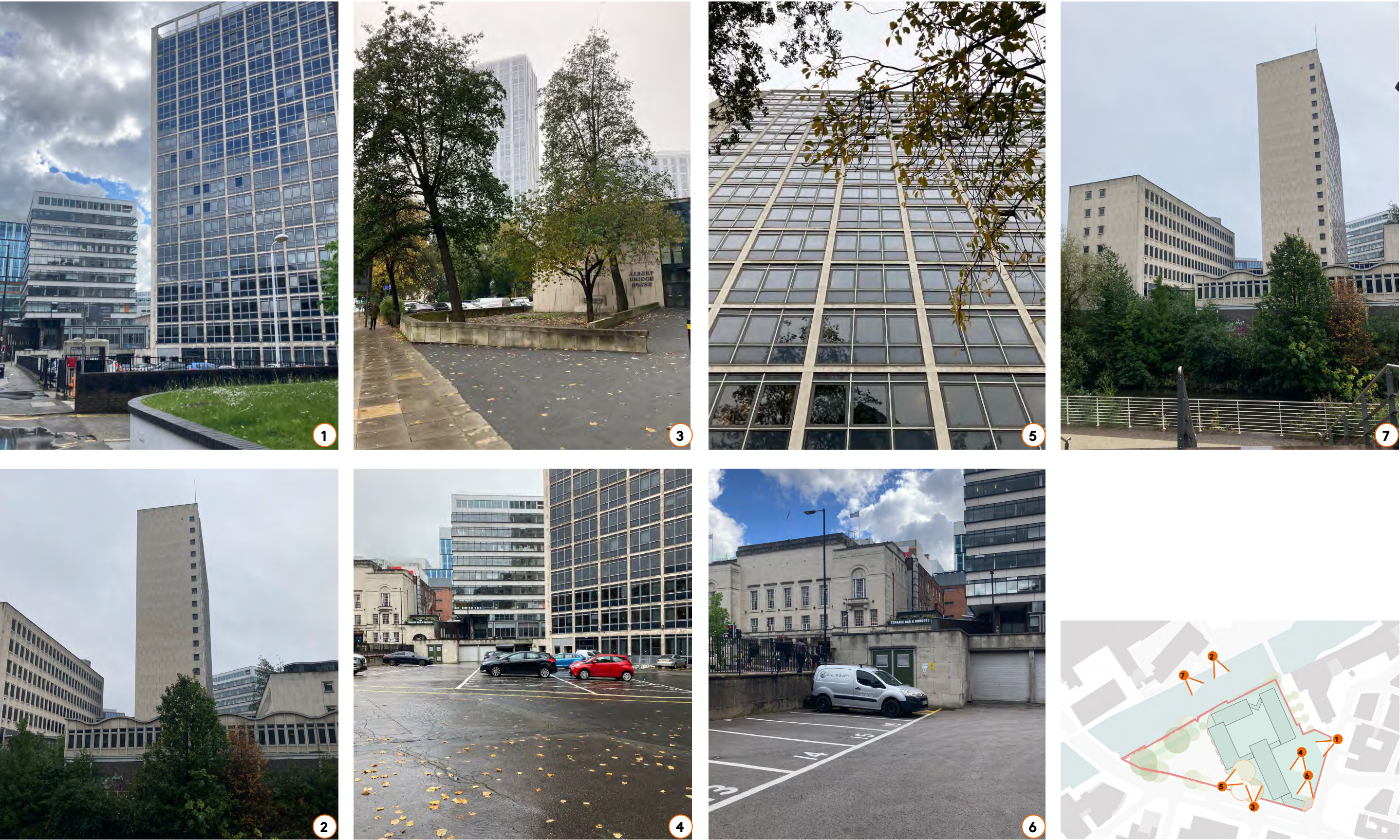


Fig 17 Site photos

Fig 18 Camera points diagram

Zone 03 - Trinity Bridge & Salford Link



Fig 19 Site photos

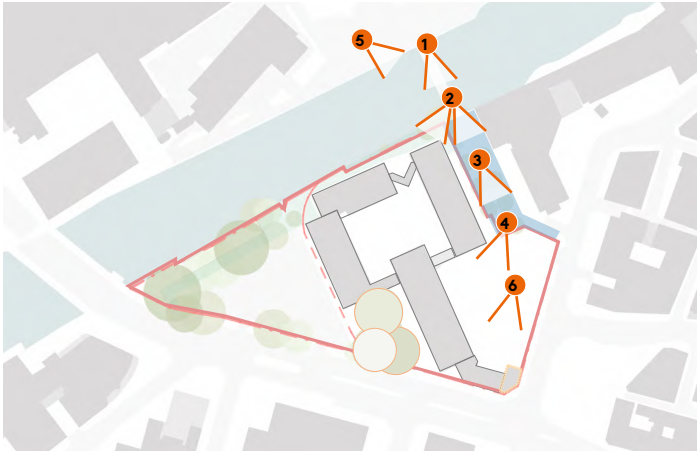


Fig 20 Camera points diagram

Wider Context - Approach to the Site



Fig 21 Site photos

Fig 22 Camera points diagram

Approach to the Site



Fig 23 View of the site from the Lowry, Salford



Fig 24 View of Trinity Bridge and the site from Albert Bridge, Salford



Fig 25 View of the site from New Bailey, Salford

Local Architecture: Materials and Colour

Within the site and surroundings an eclectic mix of building typologies and architecture can be found, with a wide array of materials, colour and tones. The variety of architectural styles contributes to a rich tapestry of urban expression, offering a wide range of potential reference with which to draw inspiration.

The Existing site
Within the site the existing Albert Bridge House is clad in pale grey/ beige Portland stone, consistent with commercial buildings of its era, a common material used throughout Manchester, including locally along the western edge of Parsonage Gardens, and on the Kendalls building along King St West.

Bridge Street
Opposite the site, to the South of Bridge Street, are some examples of contemporary architecture connecting into the Spinningfields area, including Law Offices designed by Denton Corker Marshal, clad in grey aluminium cladding, and distinctive projecting glazed boxes containing internal blue and yellow shading elements.

King Street West
From the South of the site, King Street West runs perpendicularly, with street frontage at a lower scale, providing a 4-5 storey datum of Georgian architecture. Red brickwork with sandstone architectural features are the predominant materials used.

St Mary's Parsonage & Parsonage Gardens
Along St Mary's Parsonage at No.3, to the Southeast of the site, sits a Venetian Gothic warehouse by Clegg and Knowles, with facade comprised of red brickwork, ornate detailing and sandstone feature. To the North of Parsonage Gardens, there are further examples of historic architecture in the form of the Baroque-style National Building, clad in red brick and pink terracotta. A modern extension in 2004 added a composition of glass and metalwork cladding, with the development subsequently renamed as the Century Buildings

River Irwell
Along the River Irwell, a number of contemporary buildings can be found of varying periods and styles, including warehouse conversions and contemporary new build architecture. The Corten volume of the People's History Museum provides a distinctive architectural focus adjacent the Albert Bridge, on the Left Bank.

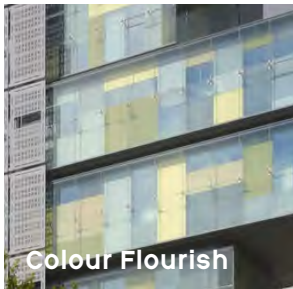
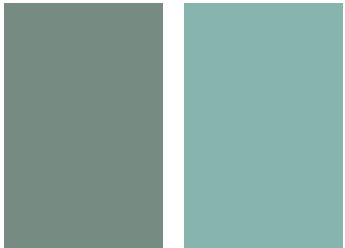
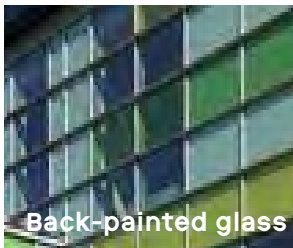
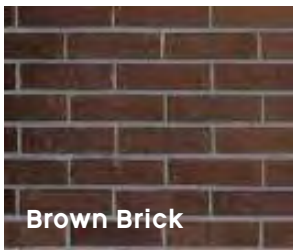
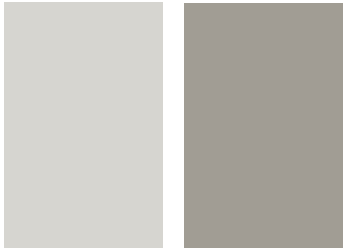
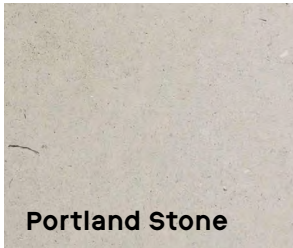
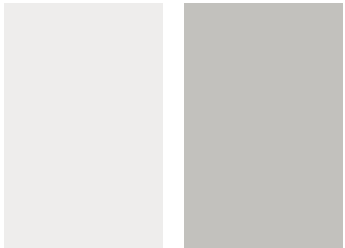


Fig 26 Context photos

Fig 27 Materials

Fig 28 Colours & Hues

Existing Context: Land and Building Use

Land use in the surrounding context

Surrounding the site of Albert Bridge House are a variety of complementary business, retail, and leisure uses.

The immediate context of the site contains a predominance of Office/Commercial to the South and East, with civic and community uses sitting southwest and along the River Irwell, with the Manchester Law Offices and Crown Courts sitting opposite the site to the south, and Spinningfields further afield.

To the north of the River Irwell, there sits the Lowry Hotel, alongside some civic and commercial use and with a larger concentration of residential use further north. Along the River Irwell to the northeast and southwest are residential uses, however the site of Albert Bridge House currently resides within a blank spot for residential use at the north-most termination of the Parsonage Road Conservation Area.

Retail, food and beverage amenities abound at ground level, throughout the south and southeast. The existing Albert Bridge House, former home to HMRC provides no access to the public at ground level.

Green spaces are sporadic in this area of Manchester, with the most significant Parsonage Gardens, to the northeast along St Mary's Parsonage, and smaller urban square within the forecourt of the Manchester Crown Courts.

Office/Commercial

Residential

Leisure / Hotel / Culture

Retail / Food and Beverage

Civic / Community

Car Park



Fig 29 Existing land and building use diagram

Existing Site Conditions

The site presents a series of physical conditions and constraints, varying in nature, which have been taken into account for the development of the proposal.

01 Physical

- The orientation of the site provides good exposure to the sun at varying times of day. The long edge along Bridge Street faces South. The buildings on the opposite side of Bridge Street vary in height, however allow high levels of sunlight to the site throughout the day.
- The Northern edge of the site is bound by the River Irwell. The site slopes significantly down to the river. The level difference between the walkable parts of the site (occupied by the buildings and car park) and the river is circa 8-9 m. This level transition is made through a lush embankment and series of retaining walls down to river level.
- The site presents a circa 3m level difference from the highest point (+32.84m AOD at the easternmost corner of the site) to the lowest point (+29.70m AOD to the North-West corner at the junction with Albert Bridge).
- Three of the trees in front of Albert Bridge House entrance are protected under a Tree Preservation Order.

02 Connections

- The site has frontage to St Mary's Parsonage and Bridge Street to the East and South
- The site is linked via two bridges to Salford: Albert Bridge (vehicular and cycle route) and Trinity Bridge (pedestrian).
- There is currently no public access to the site, other than Albert Bridge Gardens

03 Buildings

- There are 4no. existing buildings on site, the tallest at 18 storeys with a basement at +29.280 AOD
- An existing substation sits at the southernmost corner



Fig 30 Existing site conditions diagram

+ xx.xx AOD	Site level AOD
	Existing car park
	Existing Basement Extents

	Public open space
	Existing Pedestrian and Cycle Route
	Vehicular Route

	Potential Access to the River
	Sun path
	Existing trees subject to TPO

site History

The site of the existing Albert Bridge House was completed in 1959. Historic maps reveal to us that the buildings, which previously occupied the site, have all been demolished or destroyed. The table below summarises the site usage throughout recent history, to the present day:

- **18th Century**

Archive illustrations appear to show buildings on the site.

- **Mid 19th Century**

In 1844 Albert Bridge is constructed. The site is partly occupied by 'Manchester Gas Works' along with a number of mills and living accommodation along the River Irwell.

- **Late 19th Century**

A series of tram routes pass through the site and along Bridge Street. A number of mills continue to occupy the site, along with gun makers and a number of hotels. The gas works no longer exists on the site.

- **1930s**

Tram routes are still present along 'Albert Place', 'Bridge Street' and 'King Street West'. A police station is sited to the East of the site (maps dated 1932-33).

- **Late 1930-early 1940s**

The site was heavily bombed with the majority of the site recorded on the historical maps dated 1948-49 as 'ruins'.

- **1950s**

Following WWII the site was cleared and existing roads and thoroughfares remodelled to the present day arrangement.

- **1959**

Albert Bridge House (originally 'The New Crown Buildings') were completed in 1959, commissioned by the Government and designed by architect E. H. Banks for the Ministry of Works. At this time any remaining buildings on the site were removed.

- **1995**

The Trinity Footbridge is constructed to the North of the site, designed by Santiago Calatrava.

- **Present Day**

Albert Bridge House has been occupied by HMRC, who have now vacated the premises, providing the opportunity for revitalisation of the site to weave this, alongside the Bridge Street Car Park, into the surrounding city scape.



Fig 31 Artists impression of the area dated 1854 with Albert Bridge in the centre



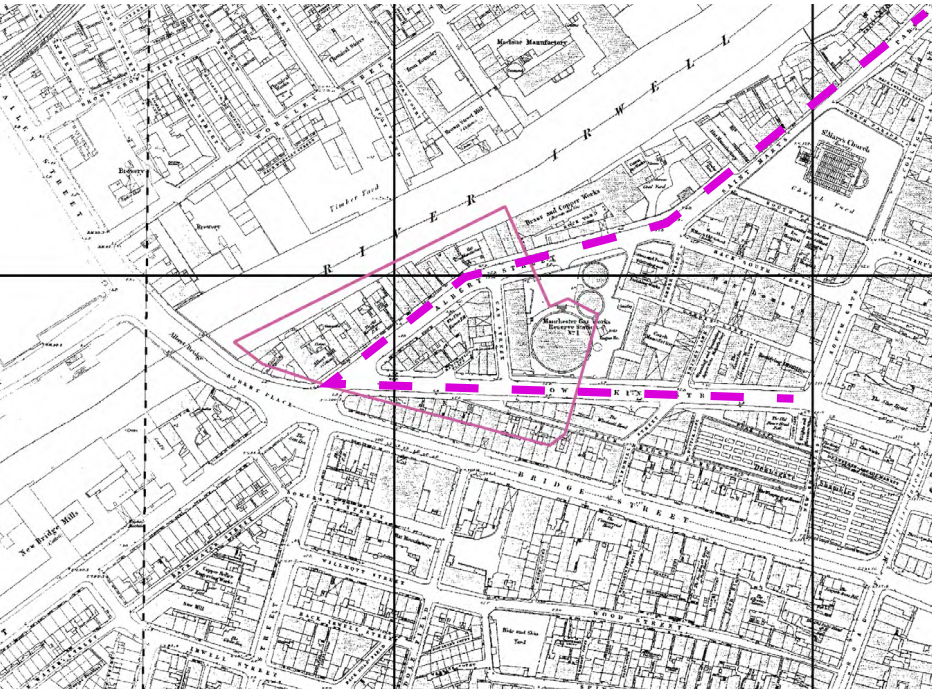
Fig 32 View of the site and the Manchester bank of the Irwell with Albert Bridge on the right hand side



Fig 33 River Irwell from St. Mary's Parsonage (1954). Albert Street on the left no longer exists. Albert St. ran through where the site now sits

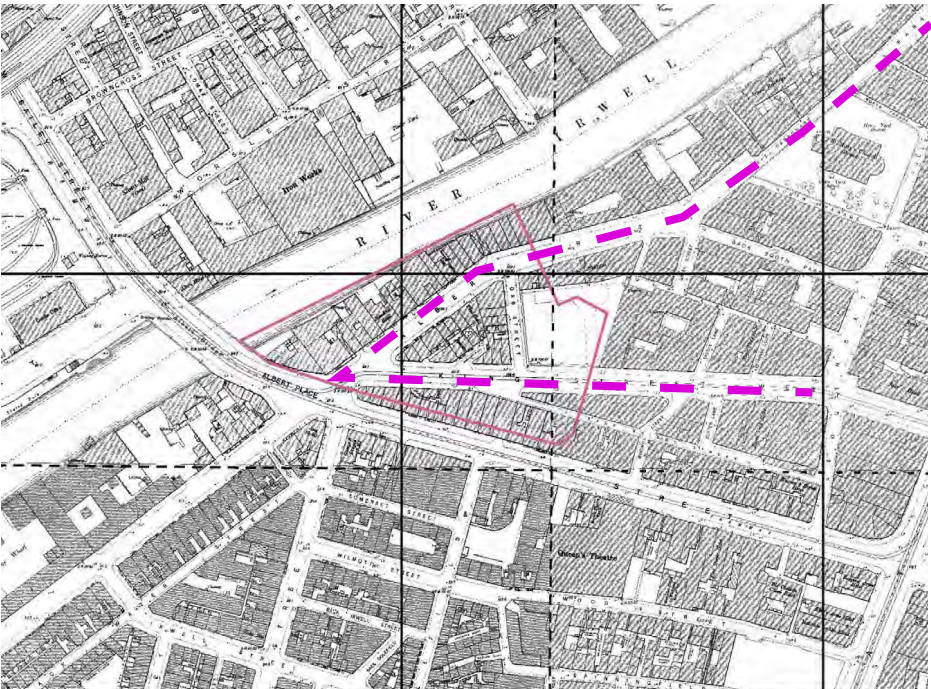


Fig 34 Albert Bridge House on the right of the river prior to construction with site hoarding (1957)



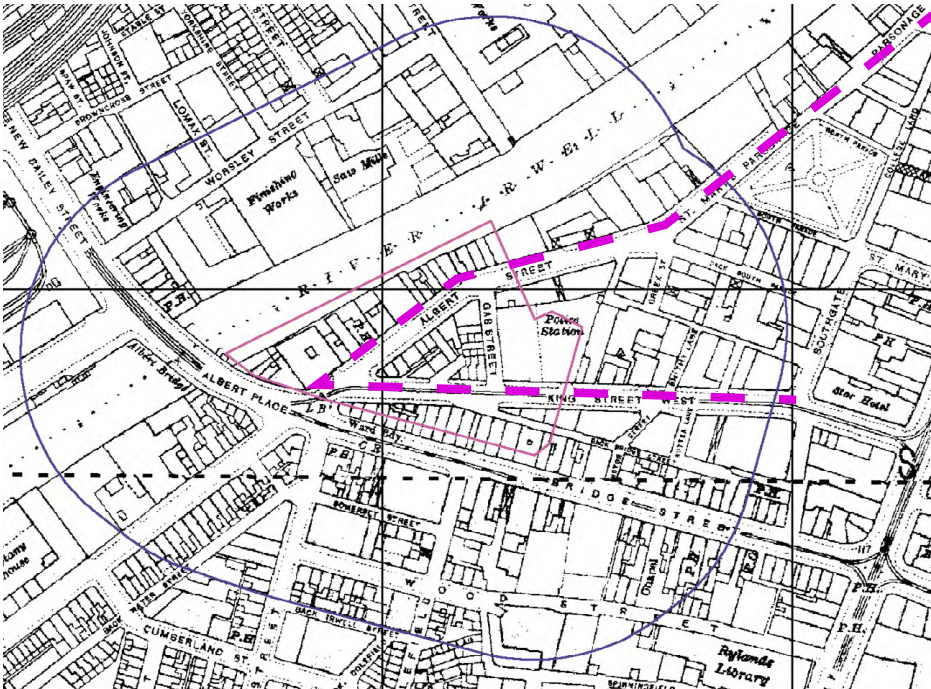
1850-1851

Fig 35 A densely developed area can be seen. From the West, the site area can be entered via Albert Bridge as it is today. Five principal routes are in existence including Gartside St., Bridge Street, Lower King Street (now King St. West), Albert St. and Water St. (both no longer in existence). The 'Manchester Gas Works' occupies the eastern part of the site.



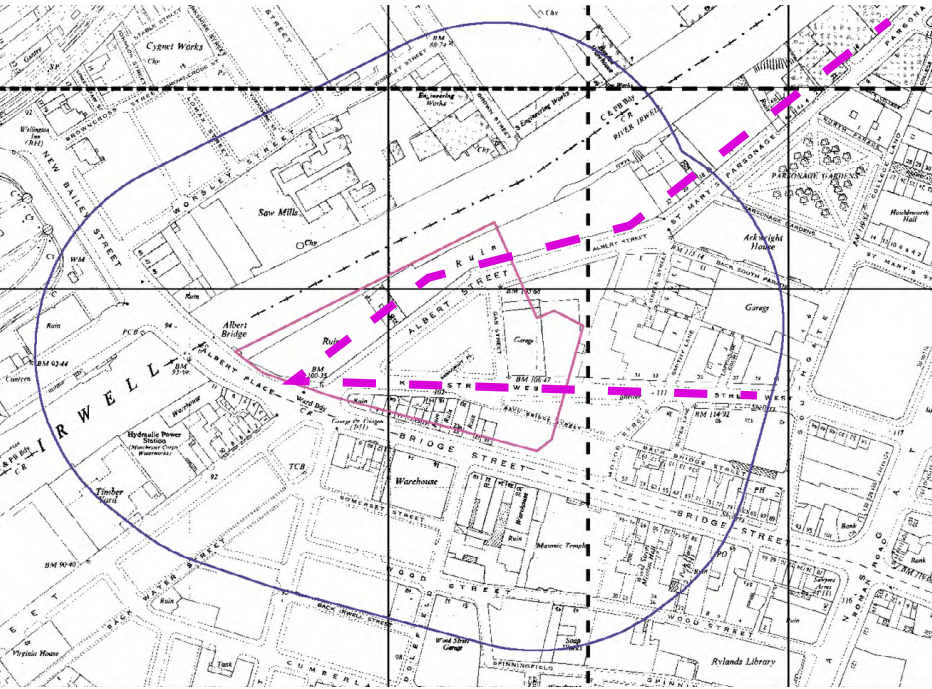
1891

Fig 36 The gas works has now been demolished. A tramway route runs through the site along King Street West. The increasing densification of the area shows compact yet permeable urban blocks. Albert St. and Water St. connect to the Albert Bridge, and to St. Mary's Parsonage and King Street .



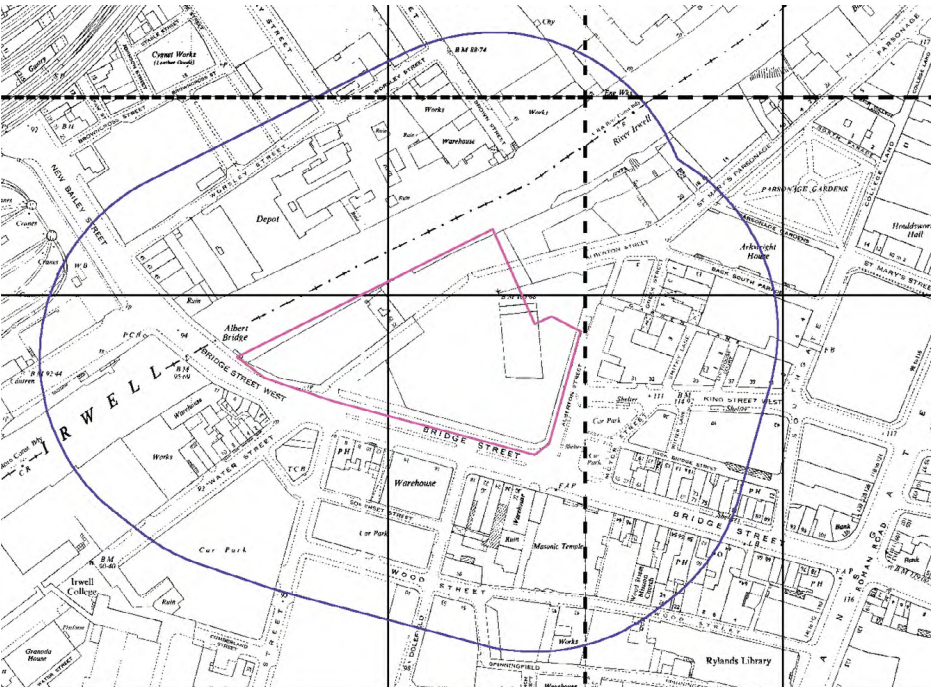
1932-1933

Fig 37 A police station occupies the old gas works to the East of the site. Albert St. and Water St. connect to the Albert Bridge, St. Mary's Parsonage and King Street .



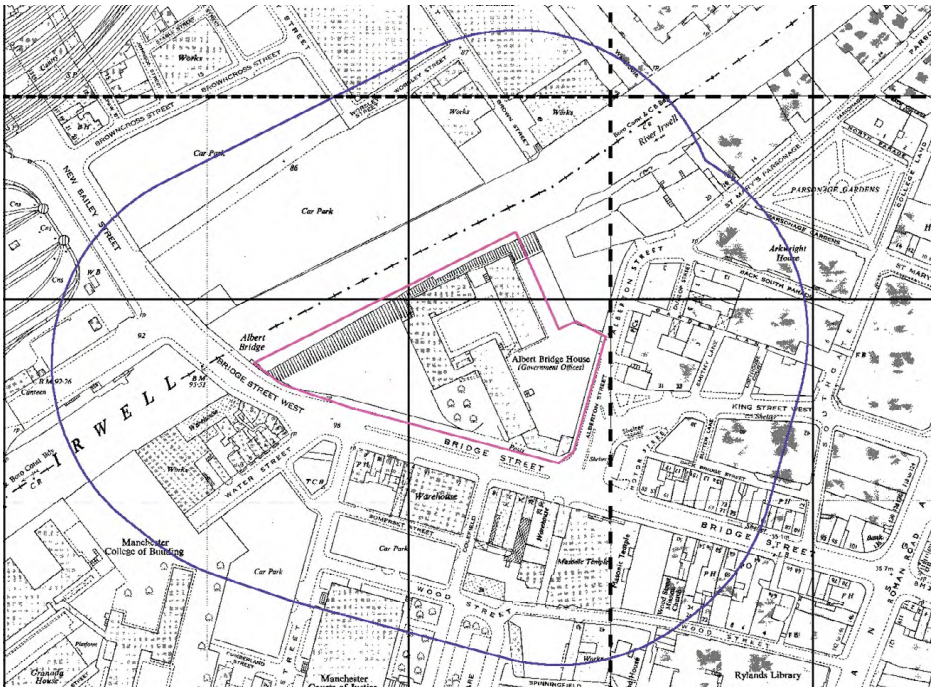
1948-1949

Fig 38 The majority of the site is labelled as 'ruins' after heavy bombing during WWII. Albert St. and Water St. connect Albert Bridge to St. Mary's Parsonage and King Street.



1954-1957

Fig 39 The site has been cleared of the 'ruins' and the road network remodelled to the present day arrangement, with a section of King Street West and Albert Street removed.



1962-1970

Fig 40 The Albert Bridge House development which currently occupies the site was completed in 1959.

Albert Bridge House

The works to build Albert Bridge House were carried out between 1957 and 1959, following extensive bombing of the site during WWII, which left a series of 'ruins' of what had previously occupied the site. Albert Bridge House was erected as a purpose-built tax office.

Most prominent of the four structures on the site is the concrete frame 18-storey block featuring a regular, repeating modernist grid language, clad in Portland stone. The lower 3-storey building facing the river was designed with a distinctive curving sinusoidal roof canopy. The use of Portland Stone was widespread for civic buildings of the era, and the use of the cladding on site strikes a relationship with the neighbouring Manchester Hall and Crown Court, built earlier in 20th Century.

The internal configuration and low floor to floor heights are reflective of office design of its time, appropriate for the demands of the market in the early 1960s. The internal office spaces lack character with low suspended ceilings and now dated finishes throughout. The narrow form of the building creates an inherently inefficient and long floorplan, which fails to meet the requirements of today's large scale occupiers in an increasingly competitive commercial market. The building is also environmentally inefficient, resulting in substantial operational costs for occupiers.

Albert Bridge House is poorly arranged spatially at ground level. The organisation of the 3 main blocks perpendicular to the river erased historic connections between King Street W. and Albert Bridge, and between Parsonage Gardens and Bridge Street. The fourth single storey block along the river bank does not allow any pedestrian level connection between the river front and adjacent pedestrian footways. Moreover the current configuration does not create any quality public space at ground. The previous occupation of the site as home to HMRC, and the council owned Bridge St. car park, has resulted in a site that is opaque to movement and connection at ground level.

At 18 storeys, Albert Bridge House is the tallest building along the St Mary's Parsonage. The building therefore creates a visual landmark along the Manchester skyline. In this regard, the existing building sets a strong precedent for landmark height to be provided on the Albert Bridge House site.



Fig 42 View East from the Salford side of the River Irwell with the low rise building along the Irwell still under construction. ca. 1959



Fig 41 Construction of Albert Bridge House underway facing East (1958)



Fig 43 View west along St. Mary's Parsonage with the Albert Bridge House development recently constructed (1959)



Fig 44 Alberton Bridge House (2022)



Fig 45 Stonework Pattern



Fig 46 Original Festival of Britain font



Fig 47 Grid pattern



Fig 48 Frame within the Frame



Fig 49 Soft Curves



Fig 50 Vertical Proportions

Site Constraints

An understanding of the site and its environment has formed an integral part of the design development process - a prerequisite of high quality design.

The design evolution of the scheme has taken into consideration physical and environmental constraints that arise specifically on the application site.

Specialist environmental assessment and coordination was sought at the earliest stages of the design process, which informed the design approach, to shape the proposal, and to ensure relevant regulation, standards and guidelines were met.

Subsequently, the design of the Proposed Development is the product of a collaborative effort with the EIA team to identify environmental impacts and how they are mitigated through design changes.

In summary, the following is a list of key site constraints, which were taken into consideration during the design phase:

- The existing Albert Bridge House building creates a visual and physical severing of the site, blocking access to the River Irwell. Its orientation on the site erased the historic connections to Albert Bridge from the South and East.
- The existing substation at the southern corner of the site requires retention within the site proposal.
- Steep level difference across the site and down to the River Irwell water level.
- Albert Bridge Gardens is a '*cul de sac*' along the river at a lower level. Its secluded location does not allow for any passive surveillance and makes it a perfect spot for antisocial behaviour.
- Existing trees on the site (including TPO trees) influence the extent of the developable plot area.
- Proximity to conservation areas require careful consideration.
- Bridge Street is a high traffic road, presenting high levels of noise.
- Vegetation on the river bank is so lush that it creates a physical and visual barrier.
- Existing sewer outflow in the north-west corner of the site.
- Soil composition and bedrock level places a limit on the depth at which it is possible to excavate.



Fig 51 Albert Bridge House - visual and physical barrier for site accessibility



Fig 52 Mature trees on site

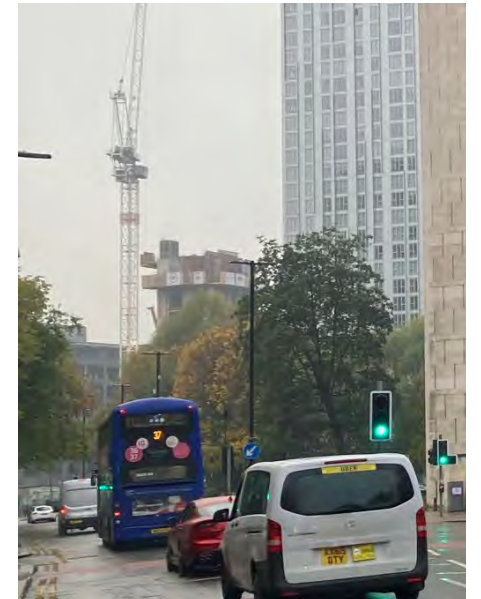


Fig 55 Trees subject to TPO



Fig 53 Albert Bridge Gardens

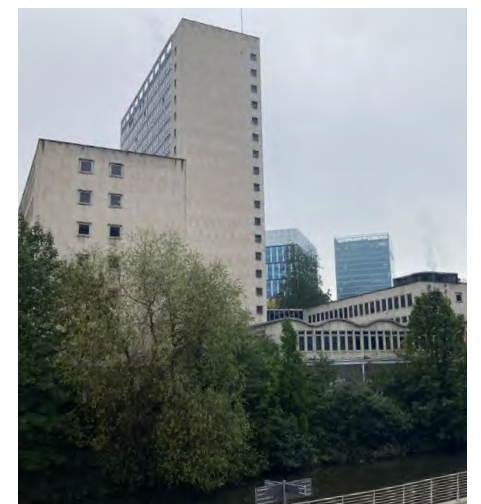


Fig 56 Green barrier on river Irwell



Fig 54 Level differences



Fig 57 Existing substation

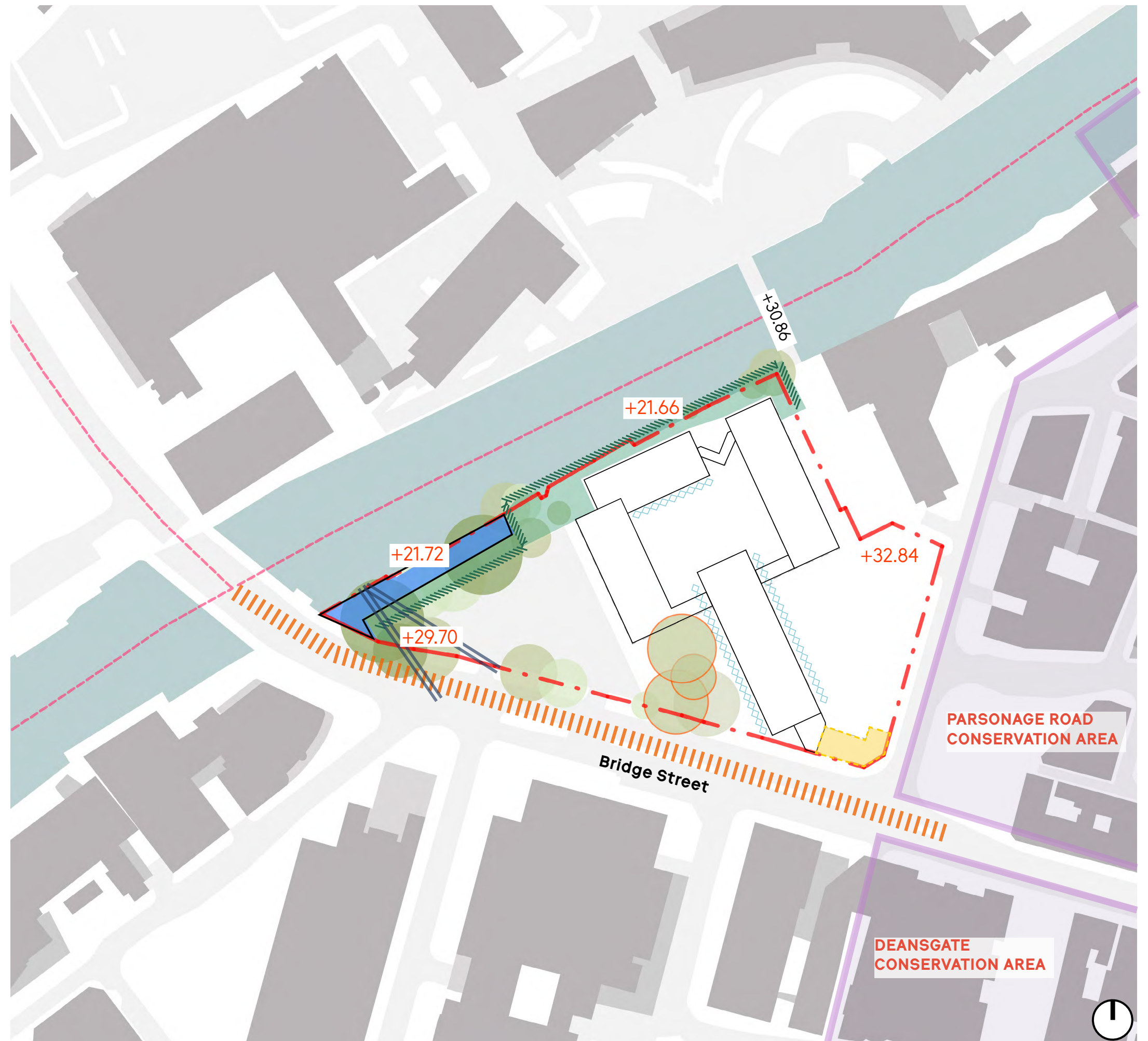
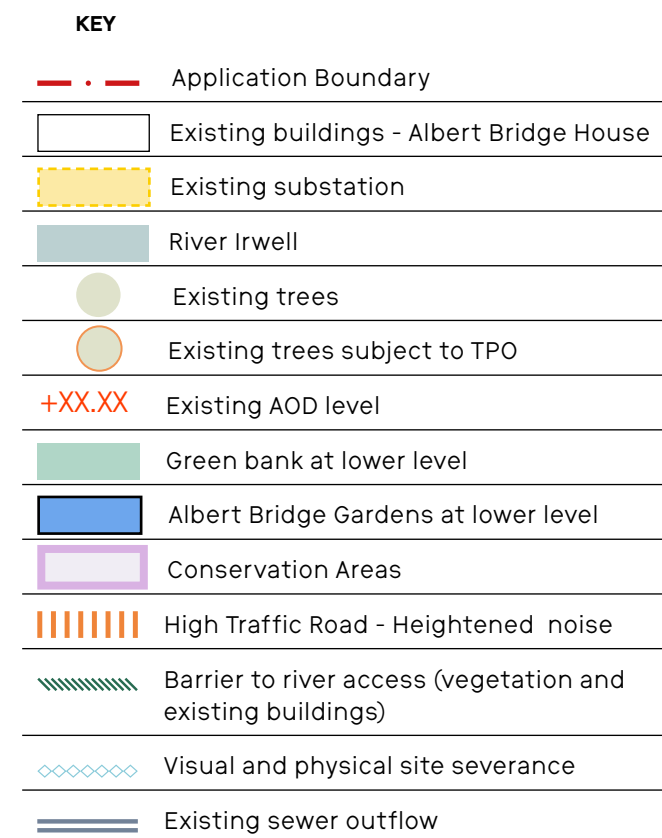


Fig 58 Site constraints diagram

Site Opportunities

The following is a list of key opportunities at the site:

- Existing trees on site, including trees subject to TPOs.
- Proximity to the River Irwell and natural amenity.
- Variety of buildings in the immediate surroundings: conservation areas next to new contemporary buildings.
- High quality contemporary architecture in the immediate surrounding, including Manchester Law Courts and Spinningfields development.
- Scale of the buildings along the river and in the surrounding context. Trinity Riverview apartments in Salford opposite the river sets the height for high-rise building.
- Central city location, at the termination of King Street and at the gateway with Salford.
- Proximity to existing transport links.
- Height of existing Manchester Crown Court, that allows for good sunlight levels on the site.



Fig 59 Manchester Law Courts and People's



Fig 60 Trees subject to TPO



Fig 63 Existing mature trees on site



Fig 61 Manchester Crown Courts



Fig 62 Existing mature trees on site



Fig 64 Trinity Riverview - high rise opposite the River Irwell in Salford

KEY

	Application Boundary
	Existing buildings - Albert Bridge House
	Existing trees
	Existing trees subject to TPO
	River Irwell
	Sun path
	Green bank at lower level
	High Rise Residential
	Manchester Law Courts
	Manchester Crown Courts
	Conservation Areas

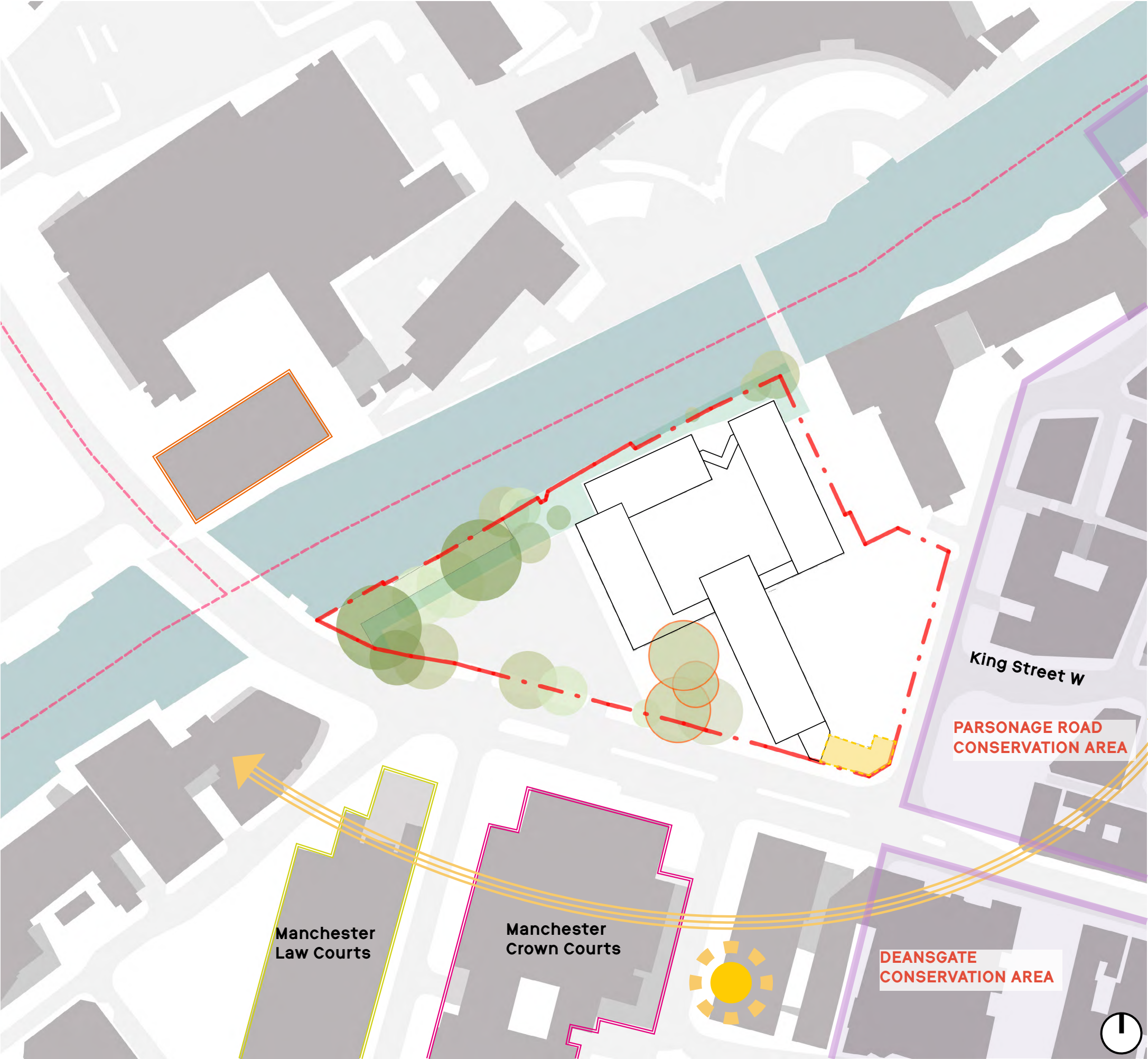


Fig 65 Site opportunities diagram

Public Transport Links

The site benefits from its city centre location, with a multitude of options for public transport in close proximity. The existing local infrastructure makes the area a strategic transport location.

Train

Within 20 minutes walk, 5 major national rail stations can be reached on foot: Manchester Victoria, Manchester Piccadilly, Salford Central, Deansgate and Manchester Oxford Road stations.

Tram

Several Metrolink tram interchange stations are within 15 minutes walking distance from the site.

Bus

The main bus stations, Shudehill Interchange and Piccadilly Gardens, also lie within a 15 minute walk. The Central Coach station is also approximately 15 minute walk from the site.

KEY

site

National Rail Station

National Rail and Metrolink Station

Metrolink and Bus Station

Metrolink Station

Coach Station

Walking radius

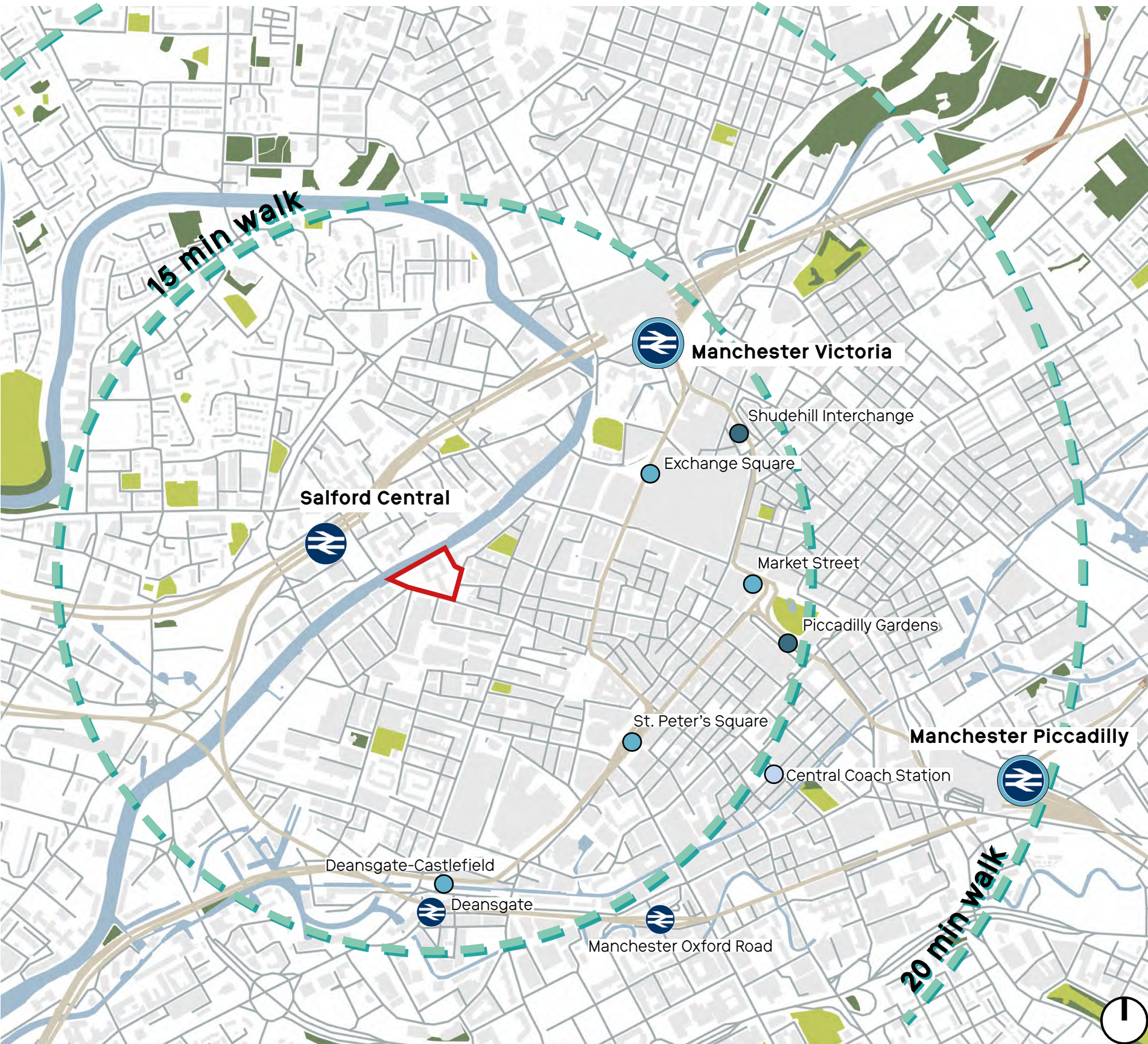


Fig 66 Local public transport nodes

Existing Bus Stops in the site's proximity

Adjacent to the site, along Bridge Street are city centre bus routes which contribute to a high level of connectivity, via public transport routes, both locally and nationally, running in the westerly and easterly directions, as follows:

Bus Stop WW (Westerly Route):

8	34
34A	36
37	38
50	51
67 Salford's Reds	67A Salford's Reds
100 Salford's Reds	V1 Vantage
V2 Vantage	

Bus Stop WF (Easterly Route)

1	8
34	34A
36	37
38	50
V1 Vantage	V2 Vantage
X39	

KEY

site

Bus Stop

Taxi Ranks

High Intensity Bus Route

Bus Route



Fig 67 Local City bus stops

Pedestrian, Cycle and Vehicular Movement

Pedestrian Movement

The site is well connected to pedestrian priority and pedestrian only routes within the City of Manchester. Existing primary, secondary and tertiary routes, including the Trinity Bridge connection along the East boundary of the site, link pedestrians to the pathway along the River Irwell, and King St. West pedestrian priority retail district to the South of the site. Generous pavement available along Bridge Street, St Mary's Parsonage, Left Bank, Gartside St. and Dolefield make the local surroundings highly navigable for pedestrians.

Cycle Movement

The Manchester City cycle network follows the Left Bank to the west of the site, crossing The Albert Bridge, and following the River Irwell along its north bank, crossing the Trinity Bridge and proceeding along St Mary's Parsonage. As such, the cycle network connects with the site at both its east and west boundaries.

Vehicular

Primary vehicular routes connecting the site with the wider highways and vehicular transport network are via Bridge St. and St Mary's Parsonage, along the South and East site boundaries.

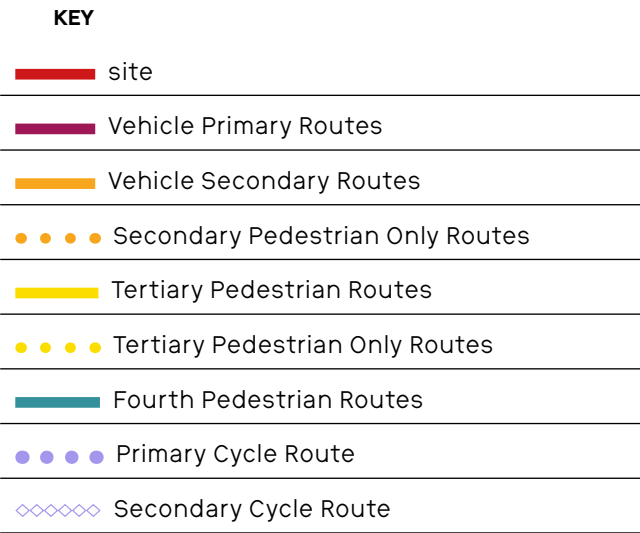


Fig 68 Movement diagram

Townscape and Heritage Context

Although the site does not fall within a Conservation Area, it is within close proximity to sensitive locations and views from within nearby Conservation areas, which have influenced the design development process for the proposal.

The Conservation Areas in proximity to the site include the Parsonage Road Conservation area directly to the southeast and east along St Mary's Parsonage, Deansgate and Albert Square Conservation Areas are south of Bridge Street and the site of Albert Bridge House, with views from the boundary edges of these Conservation Areas available along the Bridge Street Corridor.

From the site of Albert Bridge House, there is a visibility towards the development along King St W from St Ann's Square and Upper King Street Conservation Areas.



Image of Listed Building 4:
3 St. Mary's Parsonage
Grade II. 06/06/1994



Image of Listed Building 1:
Haywards Buildings
Grade II. 25/09/1973



Image of Listed Building 5:
Arkwright House
Grade II. 09/03/1982



Image of Listed Building 6:
Century Buildings
Grade II. 06/06/1994

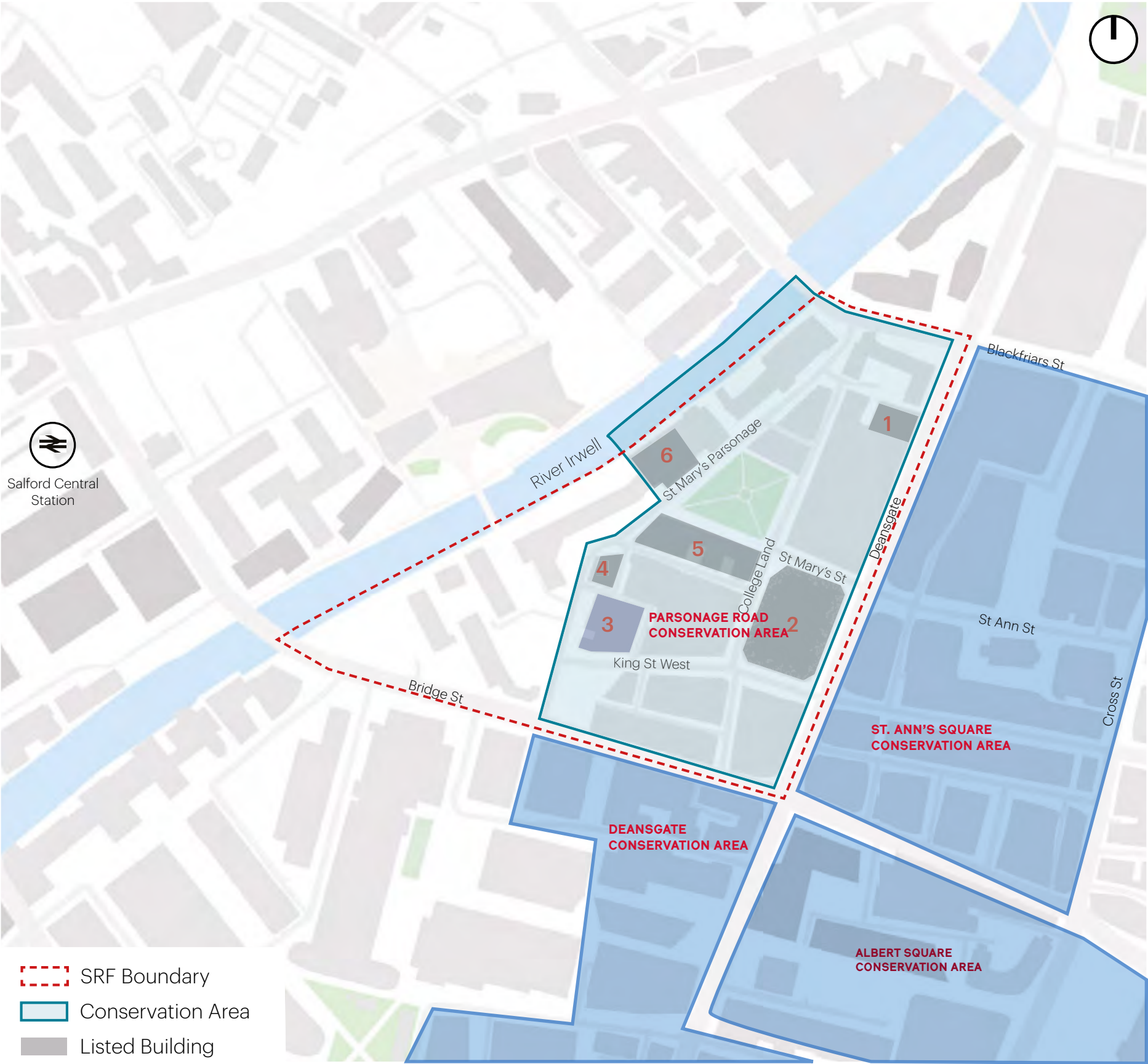


Fig 69 Townscape and heritage context diagram

Emerging Development Context

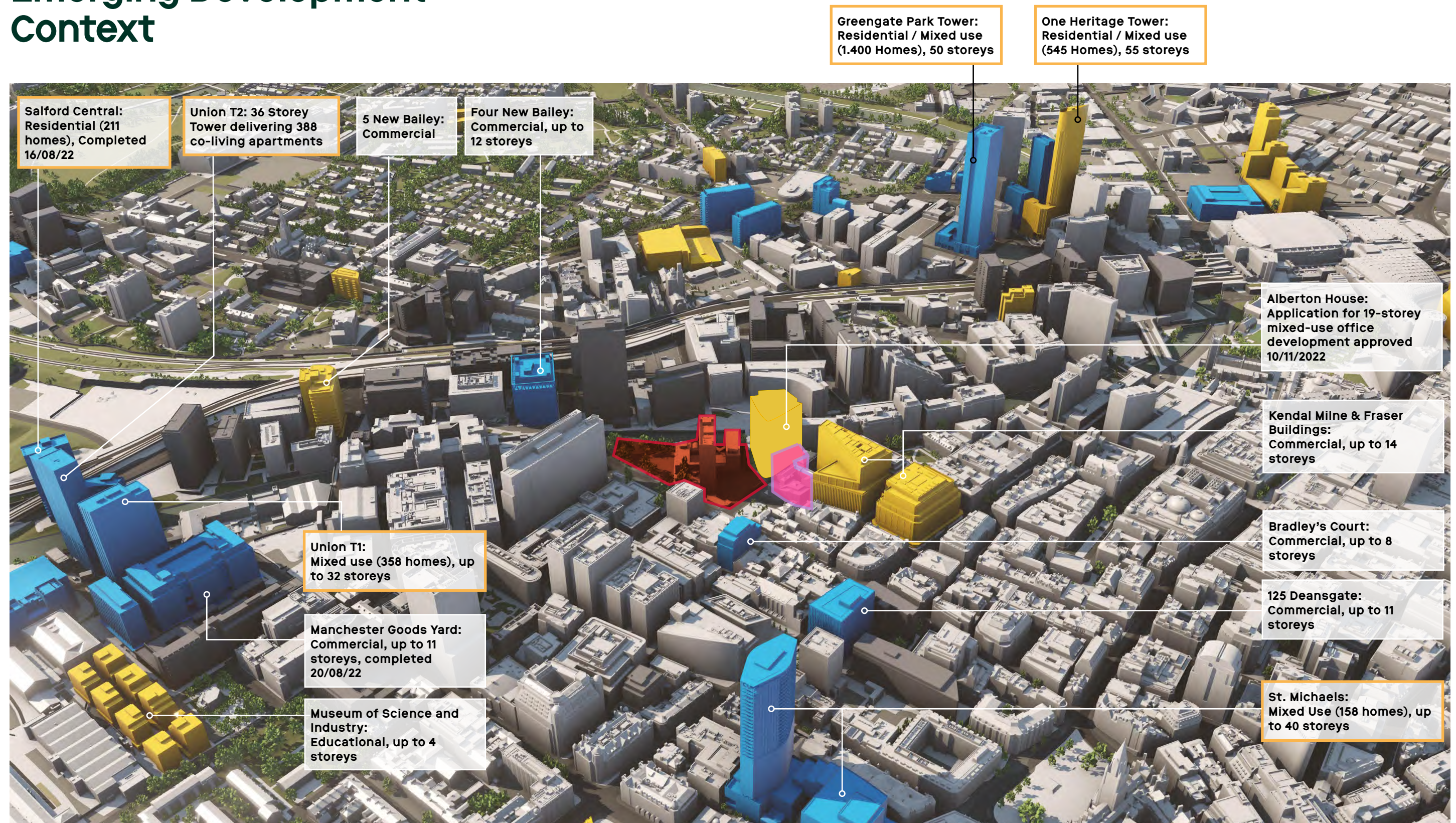


Fig 70 Information from VU.City and Manchester City Planning portal

■	Under Construction
■	Consented
■	Albert Bridge House site
	Tall Buildings



Fig 71 Information from VU.City and Manchester City Planning portal



Fig 72 Land Identified for housing developments



Fig 73 Land Identified for office developments

	Under Construction
	Consented
	Emerging (Reedham House)
	Albert Bridge House site

Strategic Regeneration Framework

The Strategic Regeneration Framework (SRF) was prepared in August of 2020, endorsed by the Executive Committee in the same year. The document focusses on the area of St. Mary's Parsonage that includes The Alberton, Reedham House, Albert Bridge House site and Parsonage Gardens.

Areas of guidance contained within the SRF include:

- highways and traffic management
- public realm and streetscape
- architecture, development heights and density
- water management
- waste management and street cleansing
- development uses
- sustainability
- the SRF itself and the consultation arrangements

Four key principles were identified in the Strategic Regeneration Framework, to form a strong strategy for the site.

These are:

- 01** Zero Carbon Developments by 2038 - 5 year plan for greater Manchester
- 02** To create a mixed-use place 'of Manchester character', improving vitality of City Centre
- 03** A place of 'best class' employment, leisure and residential
- 04** Celebrate special qualities and existing assets



Fig 74 Strategic Regeneration Framework diagram

Summary of the Strategic Regeneration Framework

The conclusions of the Strategic Regeneration Framework (SRF) identified opportunities for Albert Bridge House site, as likely to be some of the most significant within the wider SRF.

One significant opportunity identified was the delivery of substantial and comprehensive public benefits by introducing high quality public spaces and improving existing pedestrian connectivity. Key pedestrian connections are currently provided between the site and the City Centre, as well as to Salford along the existing Albert Bridge and the existing Trinity Bridge, crossing the River Irwell. These existing routes have been integrated into the design rationale of the proposal in order to further improve permeability and natural way-finding within the site.

In addition, the Albert Bridge House site was recognised within the SRF as well-suited for large floorplate buildings, in order to attract larger scale occupiers. Its location adjacent to the river also creates river views, that are seen as desirable for occupants, therefore creating the opportunity for a landmark building to be provided on site.

The prominence of proposals within this area will require the very best architectural quality, as it will serve as a flagship for the regeneration of the wider SRF. In this respect, it is essential for key heritage views to be assessed. Although the Albert Bridge House site does not fall within a conservation area, it is visible from multiple heritage assets.

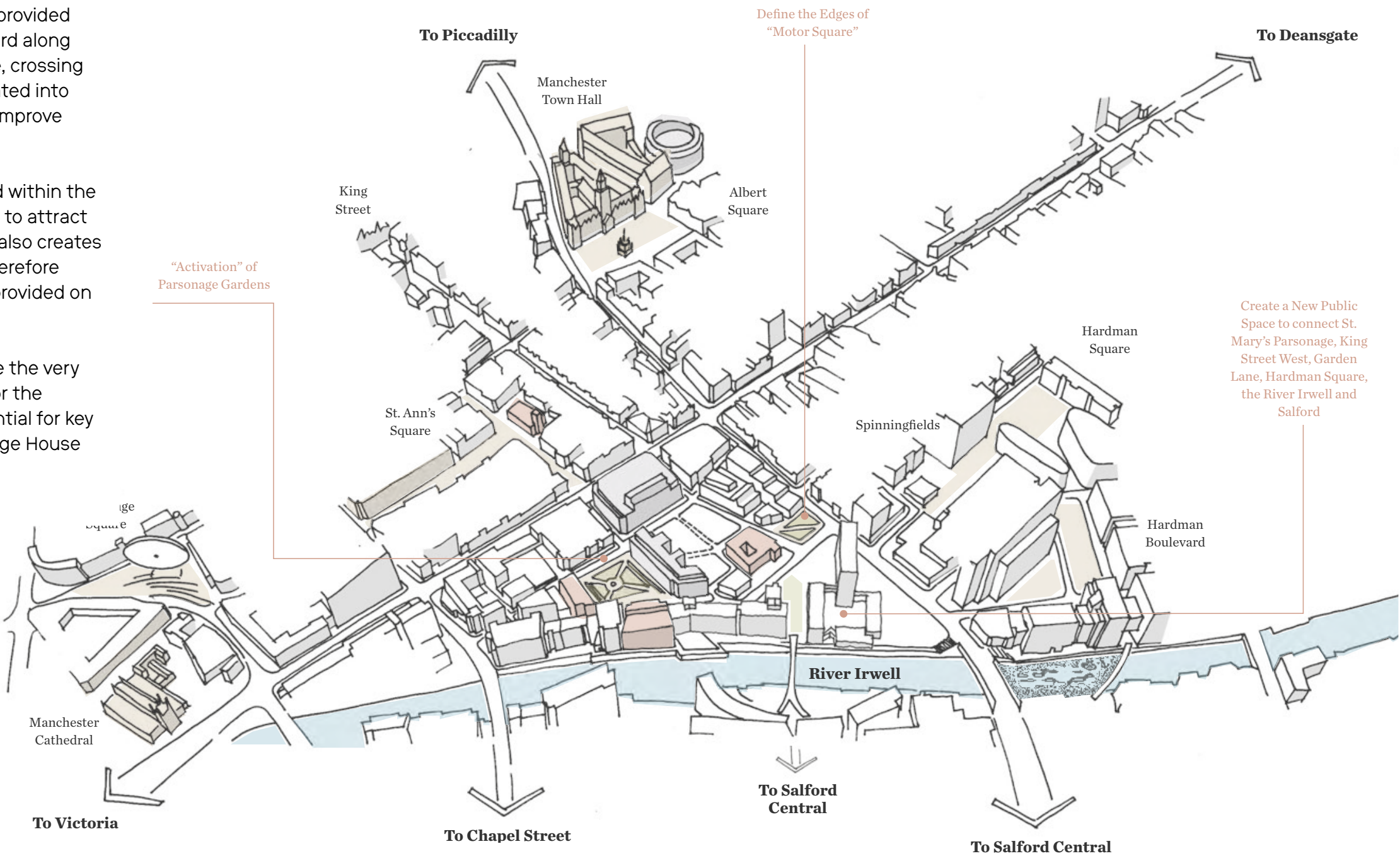


Fig 75 Strategic Regeneration Framework diagram

Policy Context

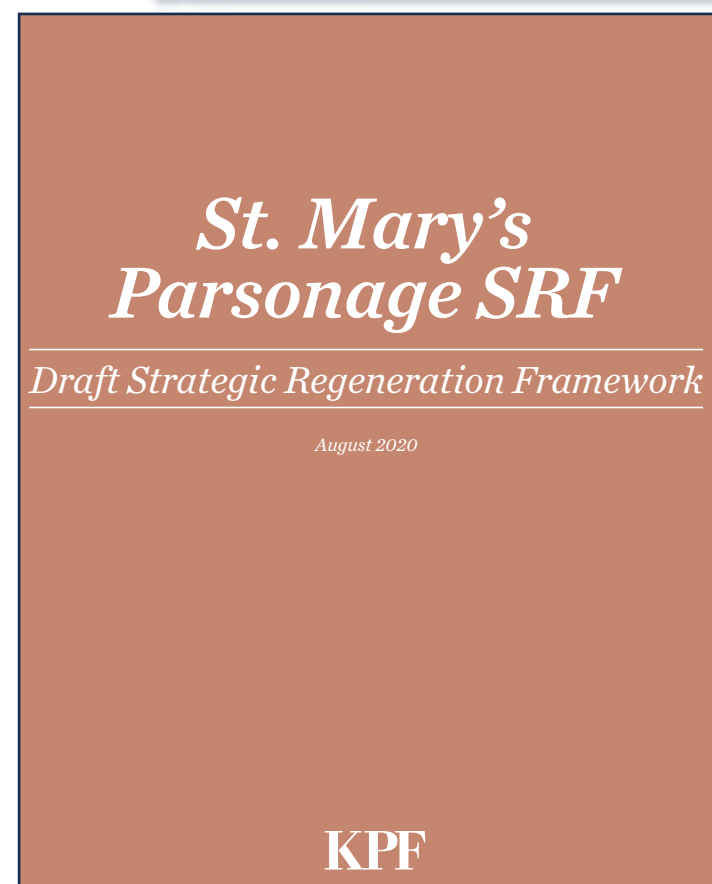
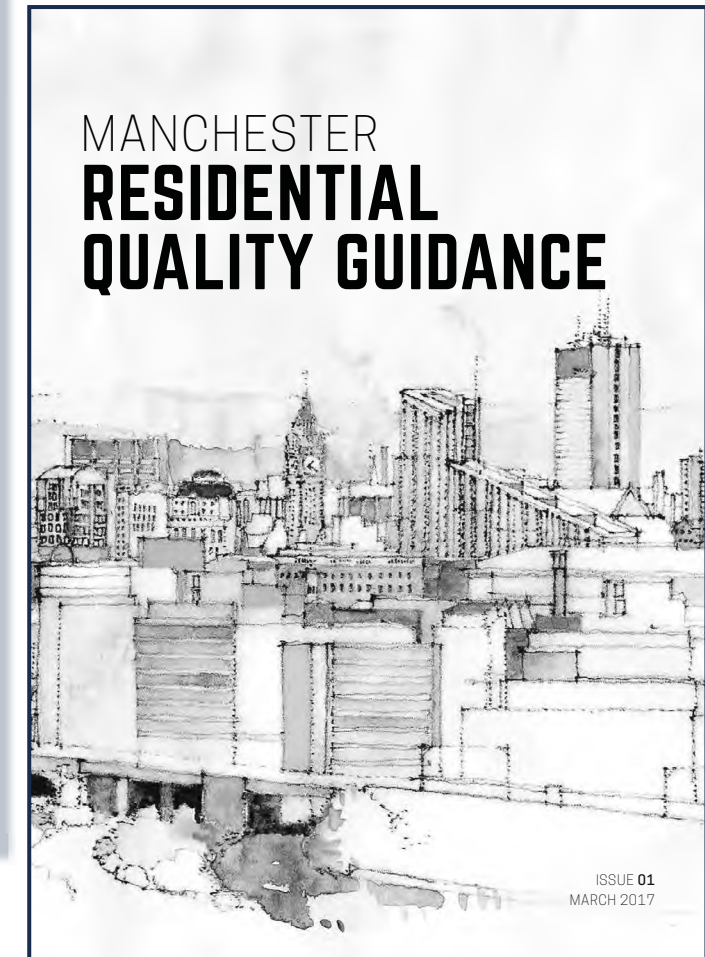
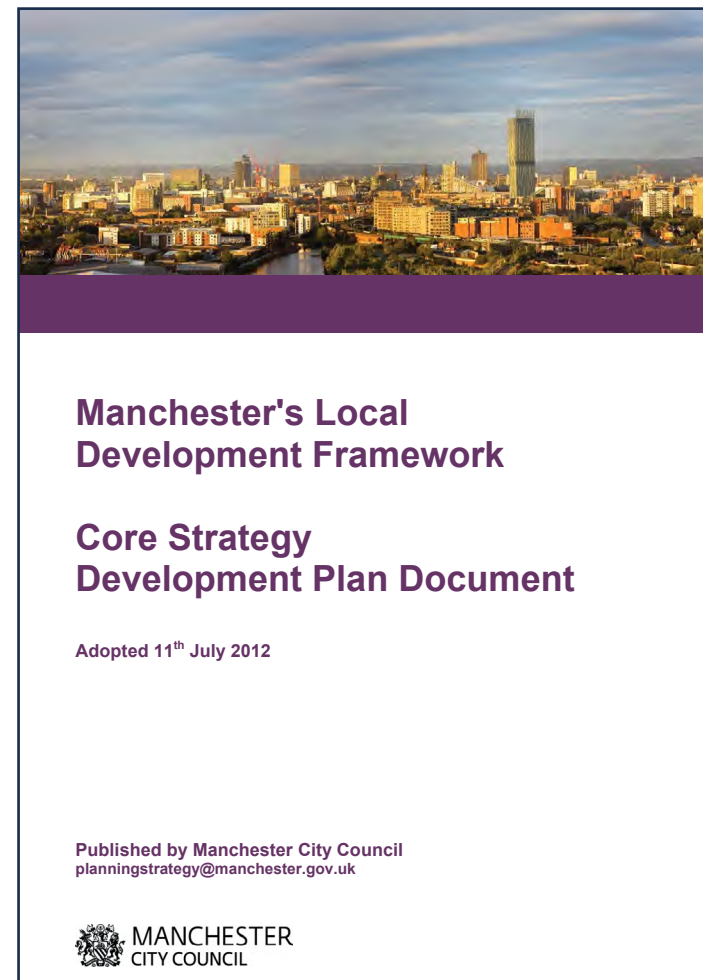
Manchester City Council have produced a comprehensive set of Planning Policy and Strategic Guidance documents which have informed the development of the proposal for the Albert Bridge House site. The below outlines the key documentation consulted relative to Strategic Guidance and Planning Policy:

Strategic Guidance Context

- 01 Our Manchester Strategy 2016-25
- 02 Ramada SRF (2018)
- 03 Regeneration Initiatives for Greengate. New Bailey and Channel Street, Central business district and Central Quarter, Spinningfields & St. Johns.
- 04 Manchester's Great Outdoors: a Green and Blue Infrastructure Strategy for Manchester 2015-25
- 05 Manchester's Residential Quality Guidance
- 06 The Greater Manchester Strategy
- 07 The St Mary's Parsonage Strategic Regeneration Framework (SRF)

Planning Policy Context

- 01 Manchester Core strategy
- 02 Environmental Improvement protection
- 03 Policy DC18.1 Conservation areas
- 04 The Greater Manchester Spatial Framework



Sustainability Context

Sustainability Policy Context

In additional to Core Planning Policy and Strategic Context Publications, Manchester City Council have also set out ambitious targets for addressing the Emergency of Climate and Biodiversity Breakdown.

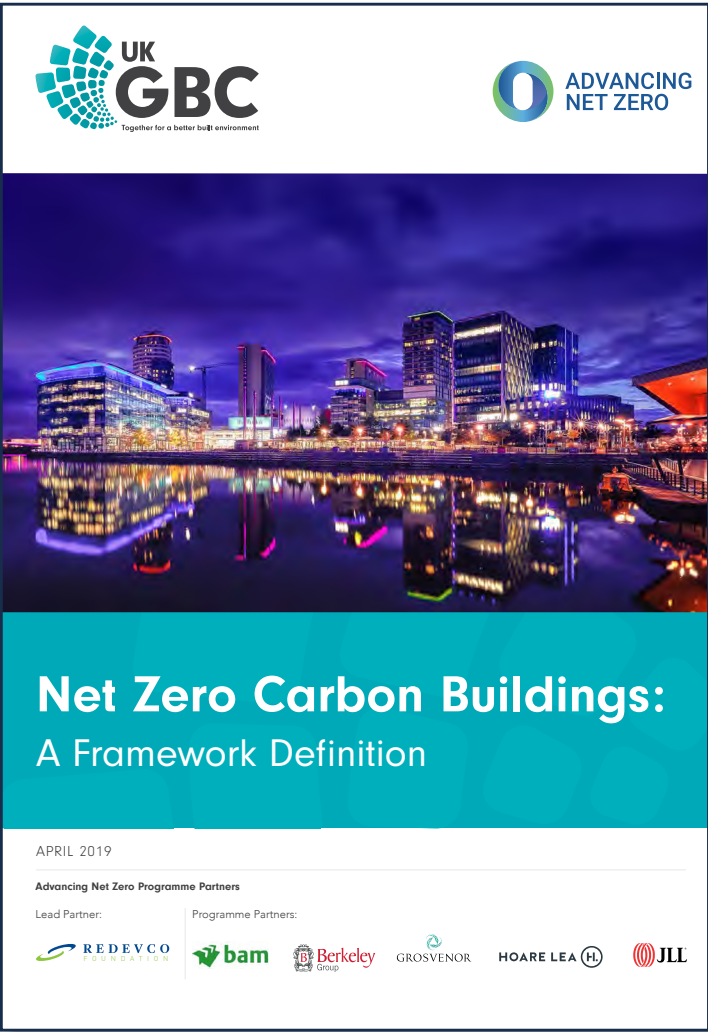
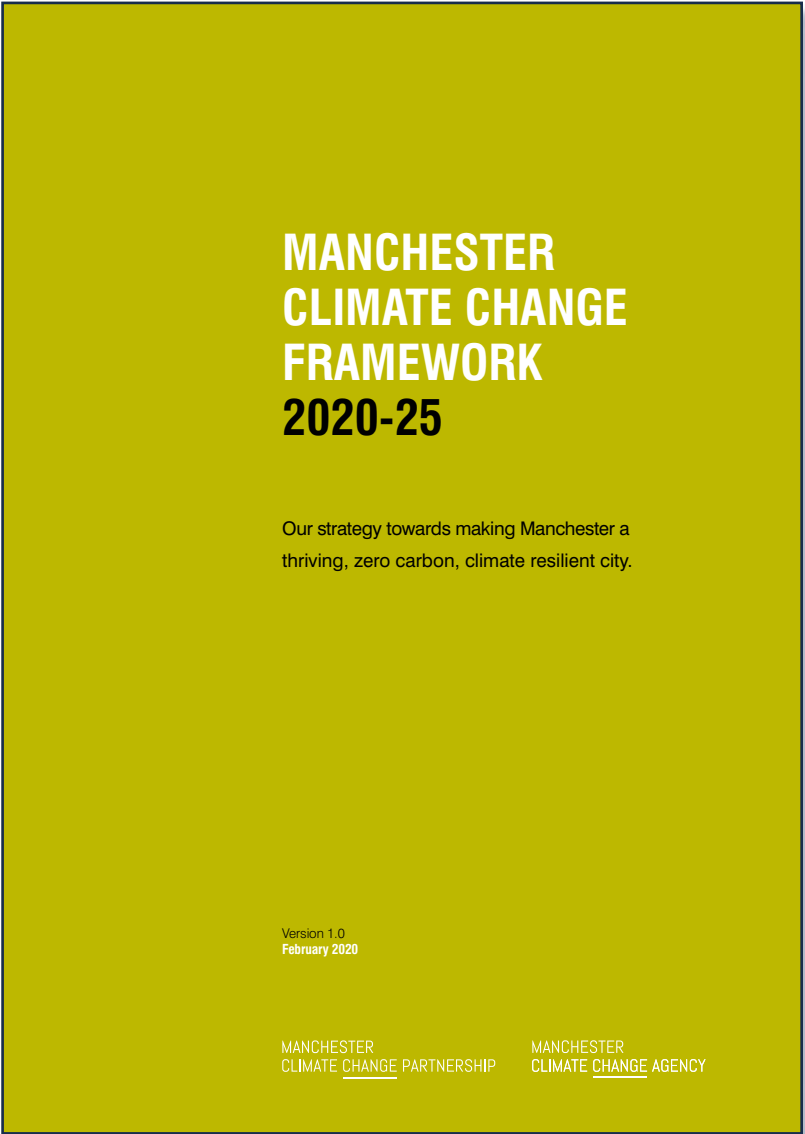
Greater Manchester launched its pioneering Manchester Climate Change Strategy in 2016, setting out how it will build a greener, more sustainable region.

The plan outlines four headline visions for Greater Manchester by 2020:

- 01 A rapid transition to a low carbon economy;
- 02 Collective carbon emissions reduced by 48%;
- 03 Be prepared for and actively adapting to a rapidly changing climate; and
- 04 ‘Carbon literacy’ will have become embedded into the culture of organisations, lifestyles and behaviours

Sustainability Guidance Context

The proposals for Albert Bridge House have been developed with further reference paid to the industry adopted sustainability framework definition, championed by the UK Green Building Council (UKGBC) which has informed the development of the designs, along with baseline, and targets for carbon reduction across the lifetime of the proposal.



3.0

DESIGN EVOLUTION

The Design Approach

The design approach taken for the Albert Bridge House proposal is summarised by the following steps:

- 01** Establish a strong understanding of local context with reference to policy and strategic guidance, review the constraints and opportunities of the site, with analysis to cover the feel of the local area, its street life and local character through site visits
- 02** Establish a set of principles upon which designs will be based, and upon which successful outcomes will be measured, targeting key criteria set out within framework and policy documentation.
- 03** Develop a series of exploratory investigations to test the opportunities of the site, including potential to retain key physical elements or materials from within the existing site, test of uses and typologies relating to policy guidance, alongside viability review exercises.
- 04** Establish baseline and targets for environmental performance and sustainability accreditations, which meet the aspirations of Manchester City Council, as well as the UK Net Zero targets, aligned with the Paris Climate Accord.
- 05** Seek to retain and augment existing landscape features, including existing trees, and key ecological habitat. Strategy the optimisation of revitalising biodiversity on the site, to complement the building and public realm proposals, to ensure that the landscape and architectural proposals exist in concert within the proposal
- 06** Assess microclimate and key constraints pertaining to Acoustics, Wind, Daylighting, Air quality and general weather condition for the location relative to rainfall
- 07** Develop designs based on the above principles, constraints, opportunities, local and national policy guidance, alongside aspirational sustainability targets, while balancing aesthetic and place-making principles to target best possible design outcomes.

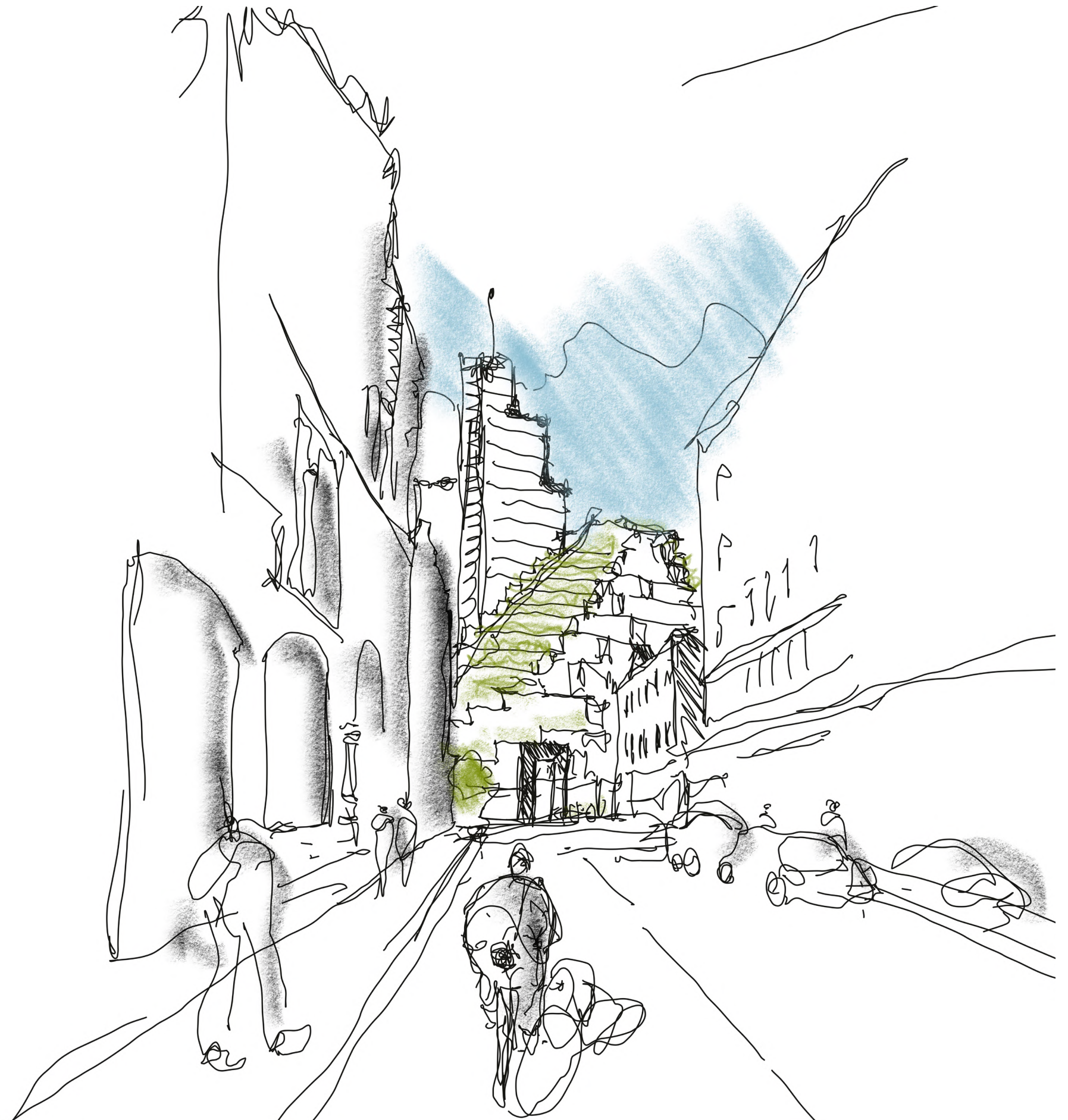


Fig 76 Concept sketch

Strategic Regeneration Framework: Lessons Learned

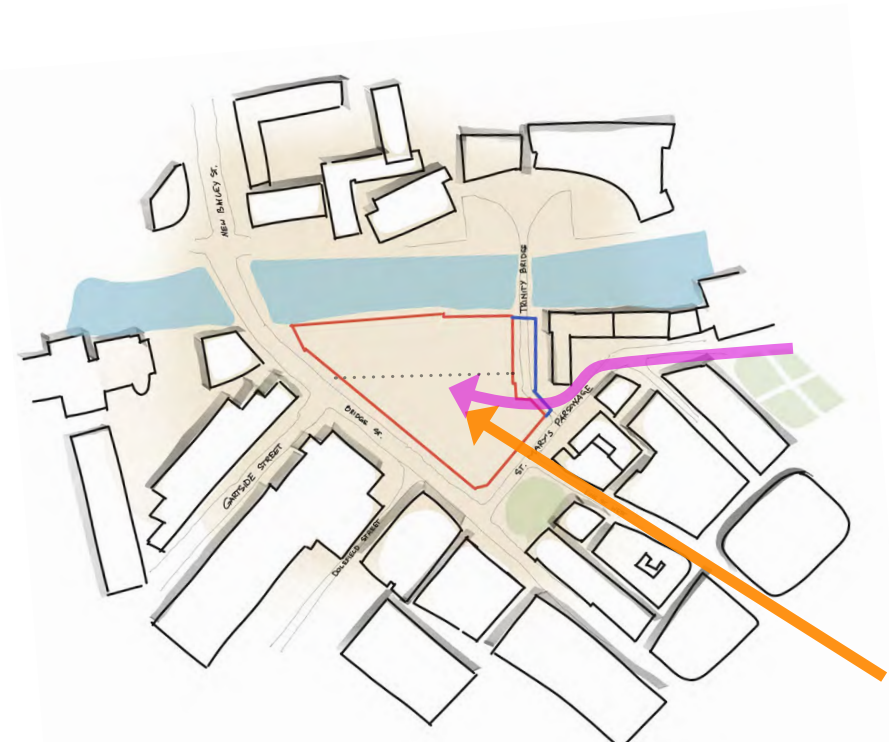


Fig 77 Addressing the historic urban grain

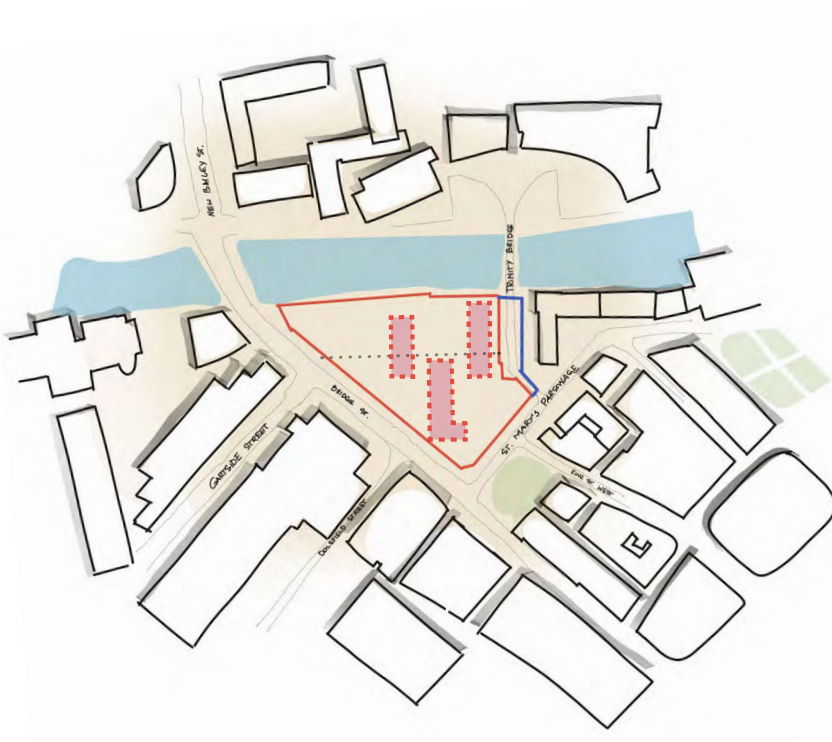


Fig 78 Improve ground level permeability and pedestrian connections by demolishing Albert Bridge House, a tired looking building, no longer fit for purpose and poorly configured at ground.

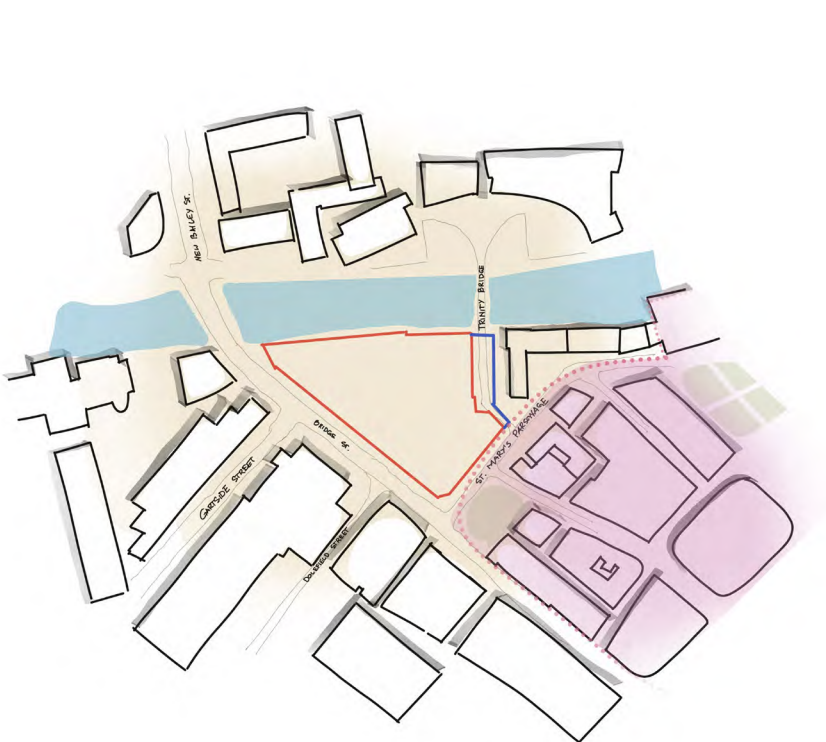


Fig 79 Responding to the neighbouring conservation area

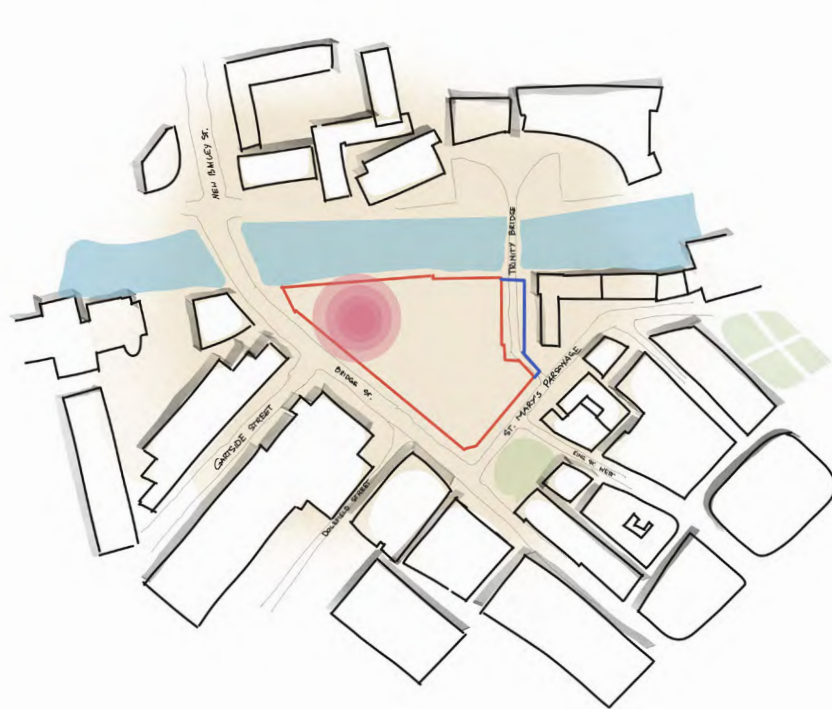


Fig 80 Opportunity to rise at the western edge of the site, where a tall building can act as landmark and contribute to legibility

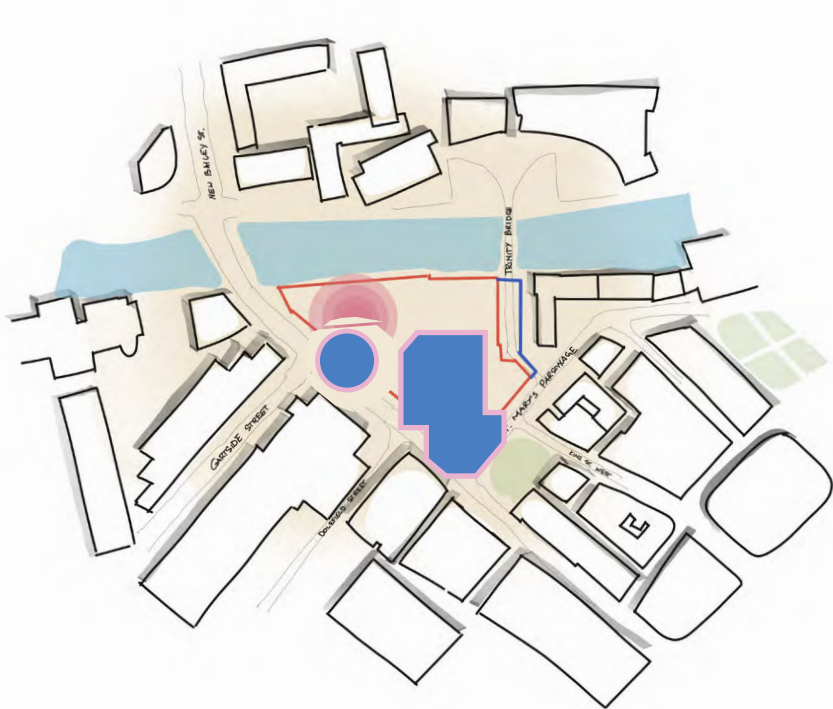


Fig 81 Location recognised as suited suitable for large commercial floorplates in order to attract larger scale occupiers

— Planning Boundary
— Adjoining strip of land

Existing Albert Bridge House

Initial design investigations started with a concept of retaining the main component of Albert Bridge House complex, i.e. the 18 storey tower.

The original building is planned out on a 7.5 meters structural grid with 2.7 meters clear height on a typical floor. With initial proposals to renovate and improve the existing building, two main proposals were consolidated:

- 01** To renovate and improve the existing office spaces of the main Office tower. By adding additional area to the East and West elevations, as well and combining vertical circulation spaces into one core, a renovated commercial building could be incorporated into a scheme proposing new offices, within a campus on the wider site area.
- 02** Alternatively, design team investigated proposals for residential use, exploring flexible communal living space designs.

Demolition

In the current market, existing building characteristics would not be seen as suitable for high quality working spaces, which require greater headroom for adequate ventilation and flexible electrical distribution. The existing storey heights are deemed to be below British Council of Offices (BCO) best practice guidance.

Additionally, in 2019, Historic England determined that the criteria for building listing was not met, stating the design of the building is typical of a building of that age lacking sophistication of layout and planning, innovative technology or quality artwork.

The comprehensive redevelopment of Albert Bridge House and adjacent car park therefore provides the opportunity to realise the full potential of the site – as set out within the St Marys Parsonage SRF which assumed all existing buildings on the site would be demolished to deliver the wider regeneration benefits.

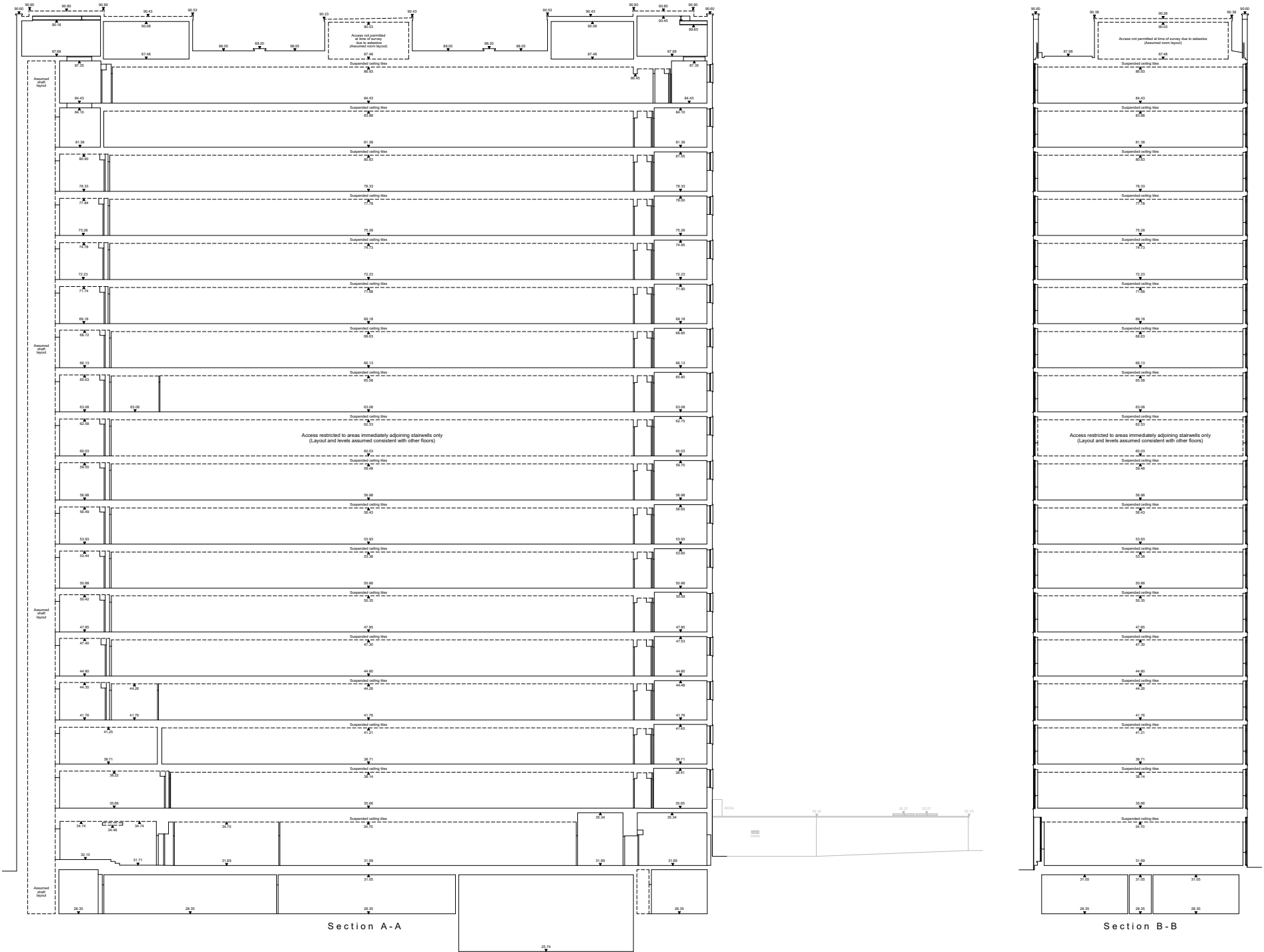


Fig 83 Existing Albert Bridge House, 18 storey building, section cuts AA and BB

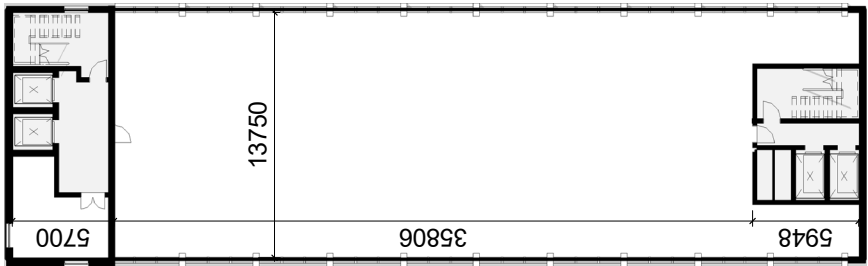


Fig 82 Existing Albert Bridge House, 18 storey building, typical floorplan

Albert Bridge House: Building Retention Testing

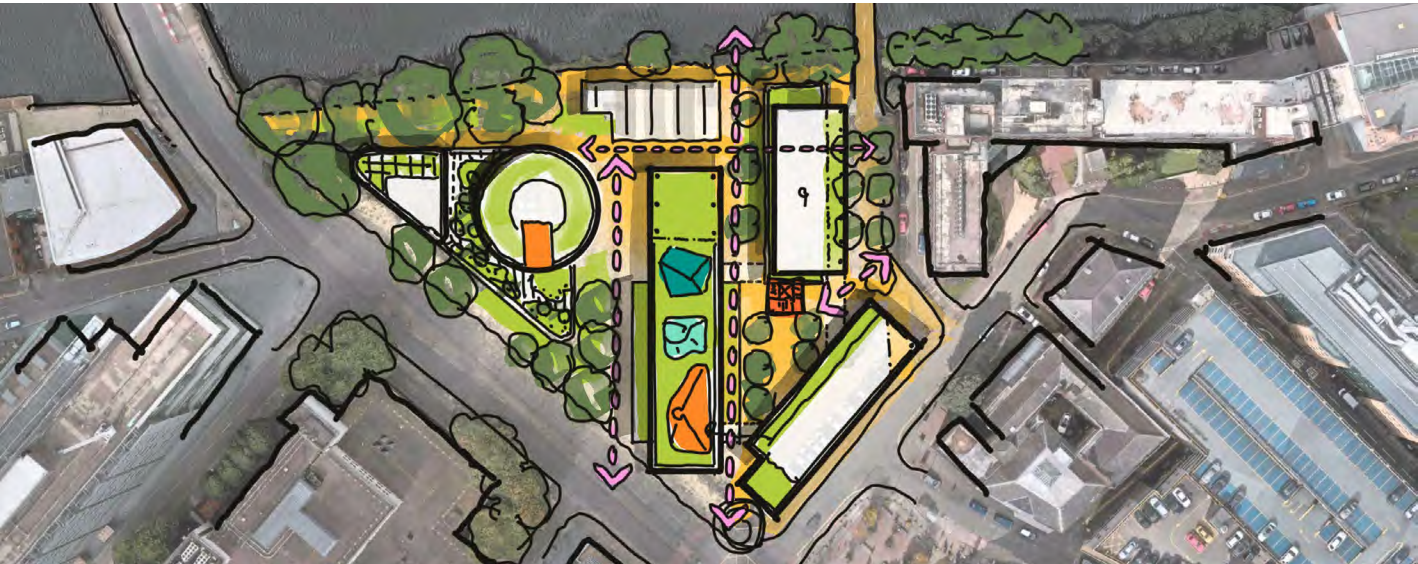


Fig 84 Concept plan, scenario 1



Fig 85 Retaining and extending 18 storey building, scenario 1

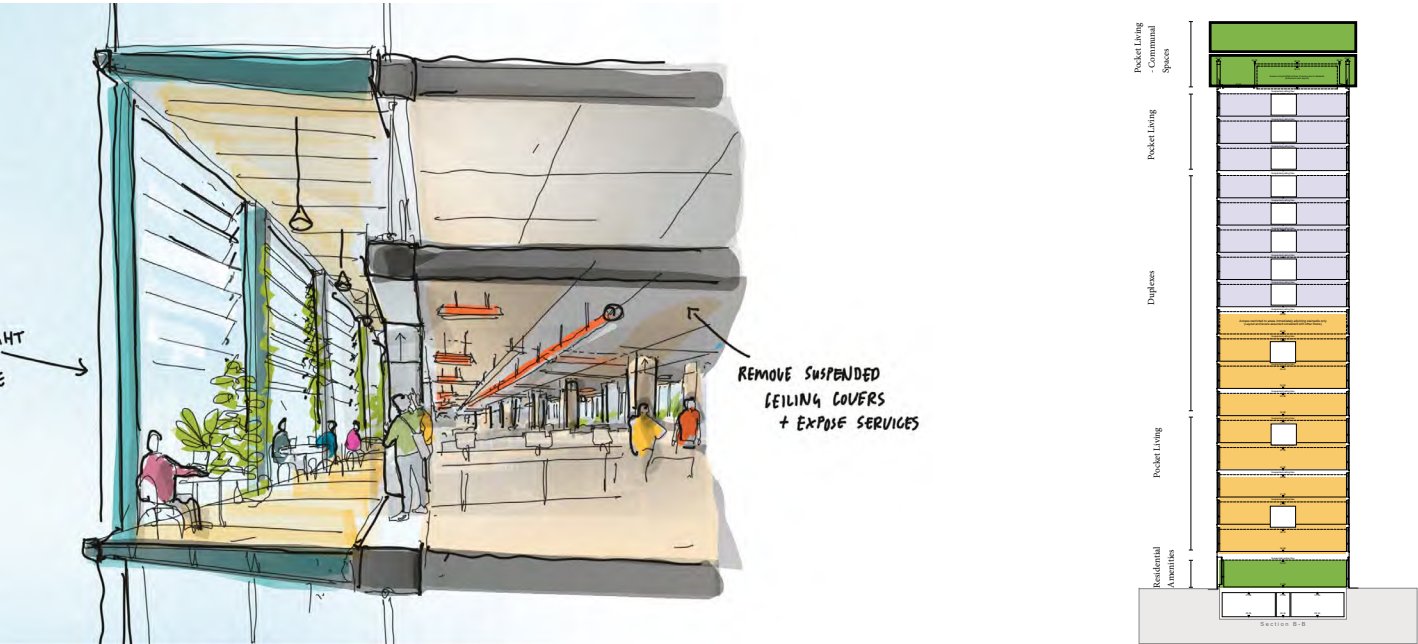


Fig 86 Sketch exploration



Fig 87 Concept plan, scenario 2

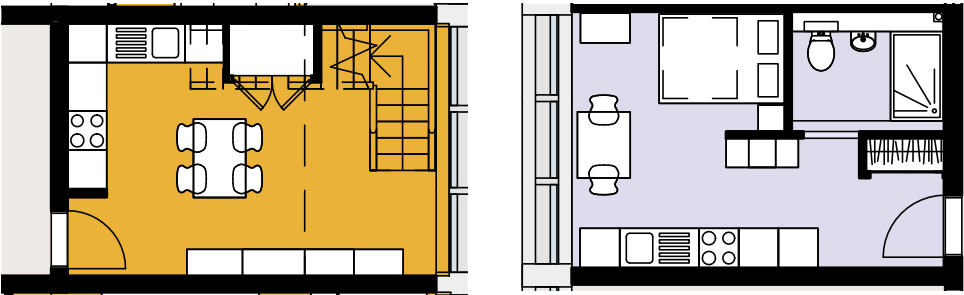


Fig 89 Type 01 (23 sq.m) - 1B1P+

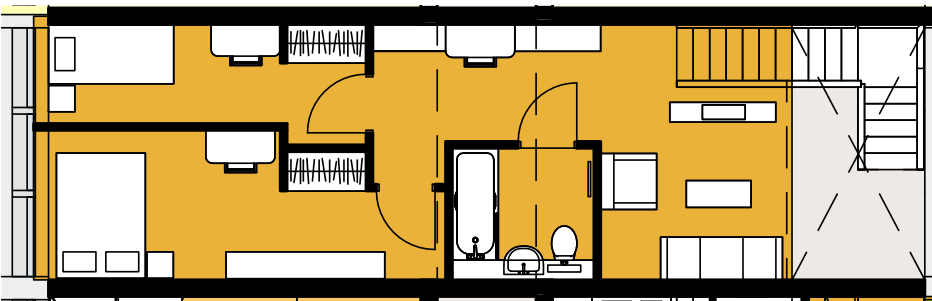


Fig 88 Type 02 Duplexes (67 sq.m) - 1B2P

Developing the Brief

To develop the brief extensive site testing was undertaken in the initial stages of design. This exercise took into consideration the vision for the development, site specific constraints and opportunities, viability, and logistical considerations.

An overarching target was established at early stage to deliver the site in a single phase of development. Options to deliver a fully commercial development were investigated, however due to the triangular nature of the site, and the ambition to deliver a large accessible public realm in the middle of the site, the develop-able area for commercial floorplates challenged the viability model relative to building efficiency.

The triangular configuration of the site lends itself to a building to the east of the site, suitable for a commercial floorplate needs, and a landmark tall building in the north west corner at the gateway with Salford, suitable for residential given the limit on the available building footprint. Key drivers for the definition of the brief include:

- Maximising public realm at ground.
- Permeability and accessibility from multiple approaches to the site.
- Opening up access to the river.
- Retention, repair and augmentation of the existing ecological assets on the site
- Delivering the scheme proposal as a single phase
- Massing and height that sit within the context of the River Irwell 'corridor', and the Albert Bridge as a gateway to Manchester City Centre, offering the opportunity for a landmark building

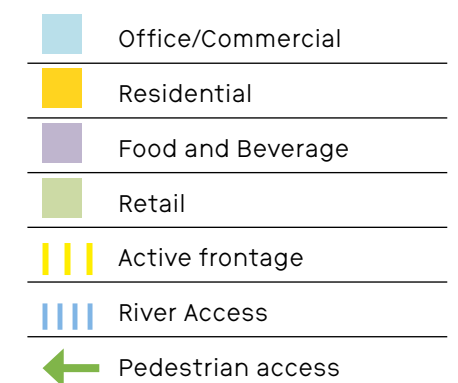
Following iterative testing and analysis, a mixed-use scheme was proposed, to fulfil the following benefits:

- Creating a rich mixed-use proposal where commercial, residential, retail, food and beverage uses co-exist within a vibrant new proposal with new public realm at its heart
- Activation at ground level to extend the commercial high street of King St W into the site.
- A large-scale office to complement a cluster of emerging new developments in the immediate surroundings, including Reedham House, Alberton House, and Kendalls
- Forming a landmark building in the form of a residential tower to sit at a prominent location at a gateway between Manchester City Centre and the City to Salford.



Fig 90 Developing the brief diagram

The proposal for Albert Bridge House delivers an optimised approach to both the development site and the local area, to deliver a new 'best in class' mixed-use scheme with a large commercial offering sitting alongside a distinctive residential tower, to attract a mixture of occupiers, business and new residents into the City Centre, boosting social and economic activity, while providing a public benefit through the provision of new public realm framed by active uses at ground.



Albert Bridge House: Option Testing



Fig 91 Early stage concept sketches

Development Principles

Strategic development principles

To unlock the potential of the site, key strategic development principles were established, to inform the early stage engagement dialogue with Manchester City Council, and to guide the design evolution.

Principle 01

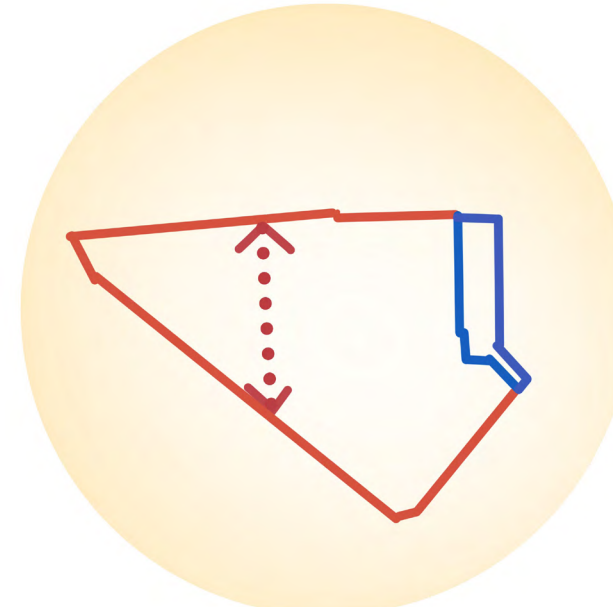
Prioritise delivery of public space, within a single phase development. Delivering early and full public realm offer and coherent address while improving site permeability.



Principle 01

Principle 02

Respecting constraints & boundaries that exist both within the site, and at the east abutment with the emerging Alberton House proposals. Respecting levels, frontages, ecology and trees under Tree Preservation Order along Bridge Street, and within Albert Bridge Gardens.



Principle 02

Principle 03

Mix of uses. Combining commercial, residential and retail with cafés and restaurants aids viability, helps to allow a single phase development to come forward, and contributes to vitality of place.



Principle 03

Principle 04

Viability and site intensity. Potential for landmark buildings as a townscape marker, with a tall building to the east and lower building to the west, both of exceptional design quality (and with concerns over hotel use on the site).



Principle 04

Principle 05

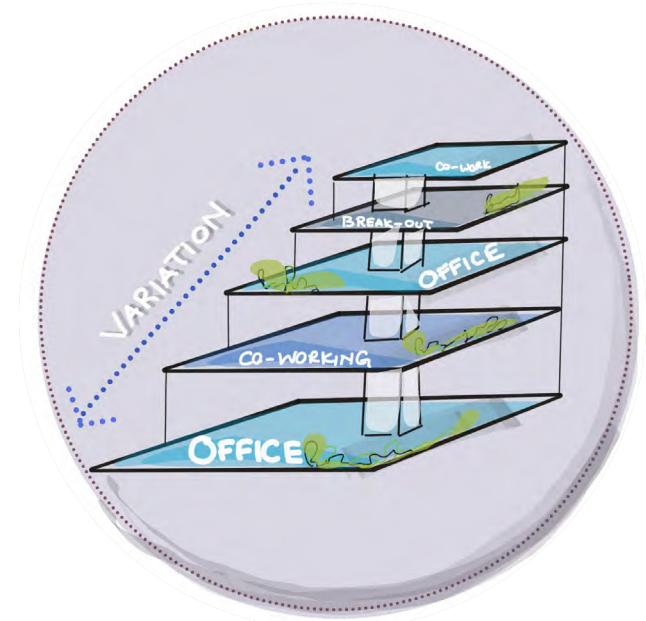
Sustainable offices for the future, targeting a net zero development, while providing healthy, vibrant and varied working environments, alongside a highly sustainable residential building, which includes communal amenity to prioritise health and well being and social sustainability.



Principle 05

Principle 06

Efficiency and flexibility. Delivery of a large-scale, flexible office, with floor plates targeting 25,000+ sqft, has been identified through market review as essential to meet emerging demand.



Principle 06

Design Principles

Key design principles

At a more granular level, and following on from the strategic development principles, the design team also set out key design principles, taking on lessons from the Strategic Regeneration Framework, Manchester Core Strategy, local context together with site analysis to inform the design development process.

Principle 01
Maximising views and access to the river front while protecting the riverside green ecological corridor.

Principle 02
Maximising the south-facing boundary to create open space, and an inviting new public realm, along a visible and trafficked thoroughfare within Manchester.

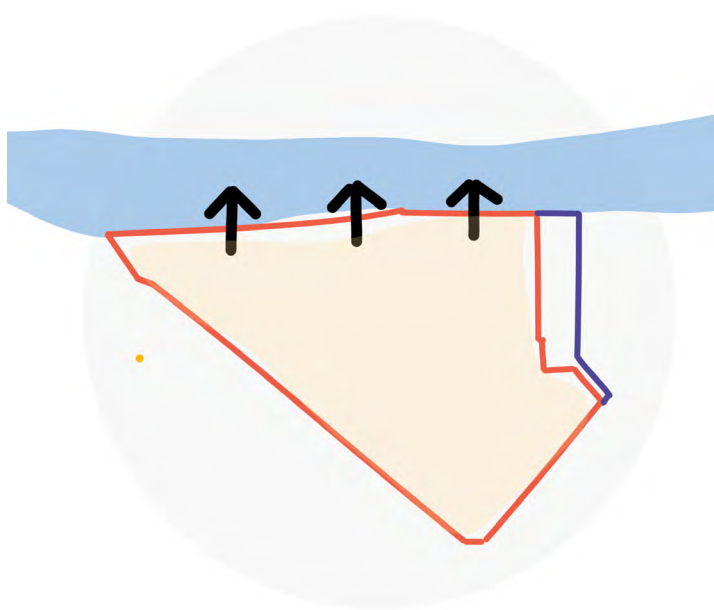
Principle 03
Preserving existing TPO trees as well as mature trees around the site as much as possible.

Principle 04
Addressing key arrival routes and reinstating historic circulation network into the site.

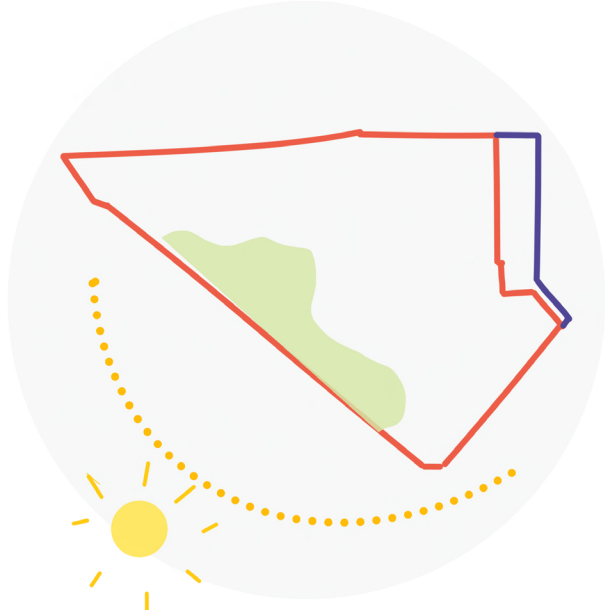
Principle 05
Maximising amenity spaces and terraces for both residential and office buildings, while sculpting massing to show sensitivity to local context and townscape.

Principle 06
Providing generous public space within the heart of the site, prioritising solar path to ensure high levels of sunlight within the public realm.

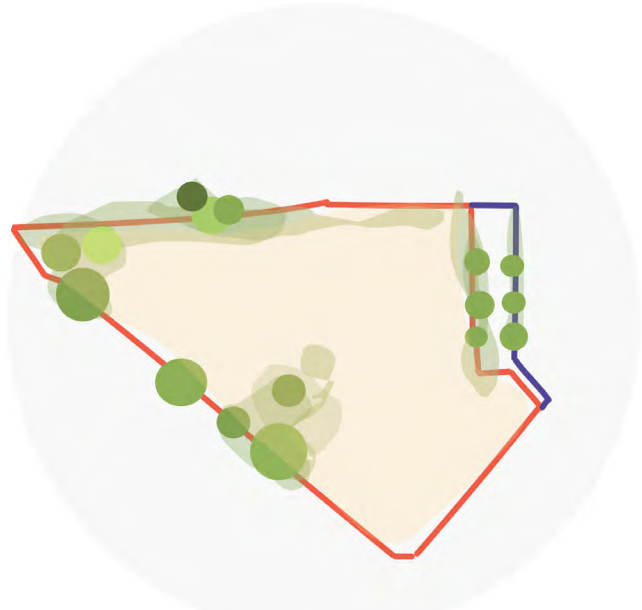
- Planning Boundary
- Adjoining strip of land



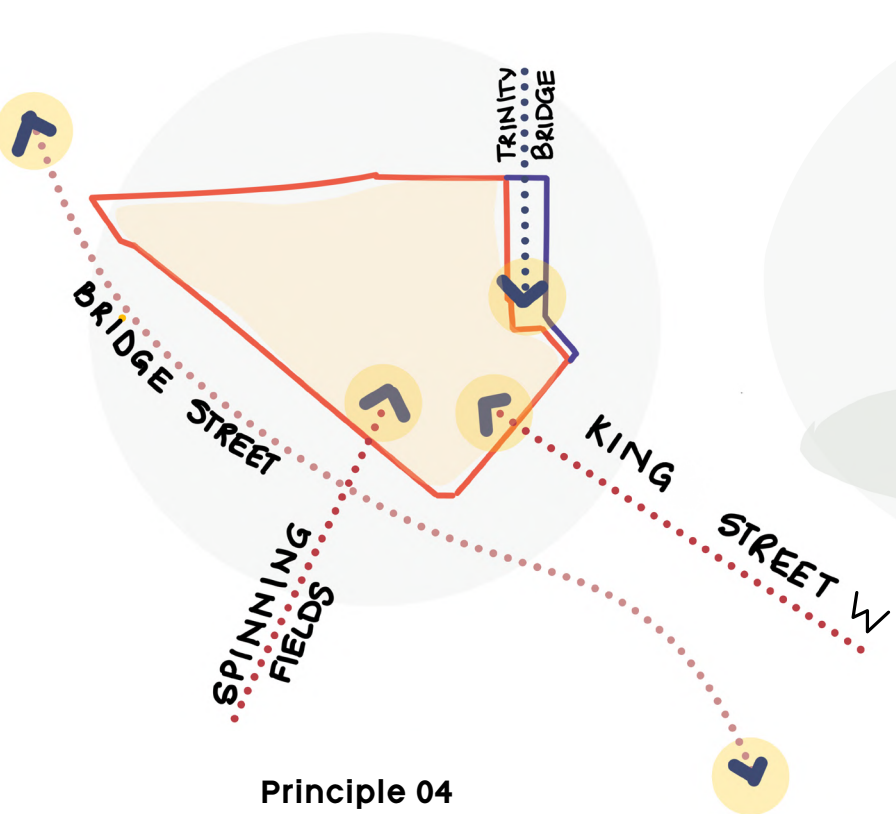
Principle 01



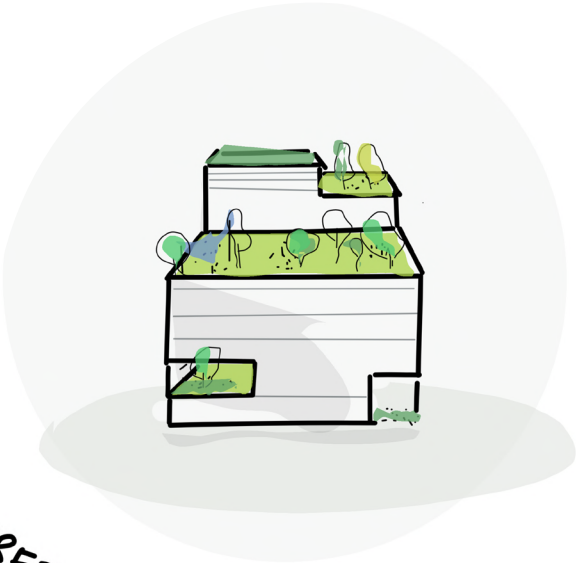
Principle 02



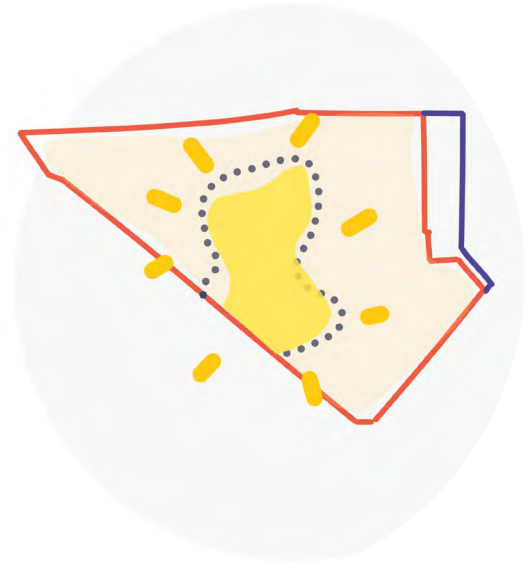
Principle 03



Principle 04



Principle 05



Principle 06

Massing Strategy

The proposal for Albert Bridge House marries the existing context with the emerging context, to capture a design which responds to its setting within the City of Manchester. The factors affecting the hierarchy of massing are set out below.

Landmark Location

Albert Bridge crosses the River Irwell connecting Manchester with Salford along Bridge Street forming a gateway access point between the two cities. The residential tower sits together with the Law Offices, designed by Denton Corker Marshall to form a new landmark. Towards the West and Southeast, and along the River Irwell towards the Northeast and West, visual corridors provide views to the marker building from multiple vantage points. The site is therefore optimally located for a landmark building to form a beacon at the Albert Bridge. The Strategic Regeneration Framework also advocates a landmark building on the site.

Skyline

Along the River Irwell a mixture of building heights can be observed, when viewed from Salford. The skyline creates a context of variation and visual interest. Buildings of varying height are therefore proposed along the river-facing North elevation, to contribute to complement the existing height variation, and sit comfortably within the overall composition.

Conservation Context

The site of Albert Bridge House sits to the North of the Parsonage Road Conservation Area, which contains buildings primarily comprised of 3 & 4 storeys in scale, rising to 6 & 7 storeys along St Mary's Parsonage. The massing strategy for the proposal therefore descends towards the South of the site. Where height is provided at the North of the site. Height reduction towards the southern tip of the site, where Bridge Street meets St Mary's Parsonage, helps the commercial building to blend into the height datum established within the local context.

In overall composition, the massing strategy responds to context of townscape, local heritage, and emerging height context. Through the stepping design of the commercial component, the passage of sunlight to ground level spaces within both the site and the neighbouring ground level spaces has been prioritised.

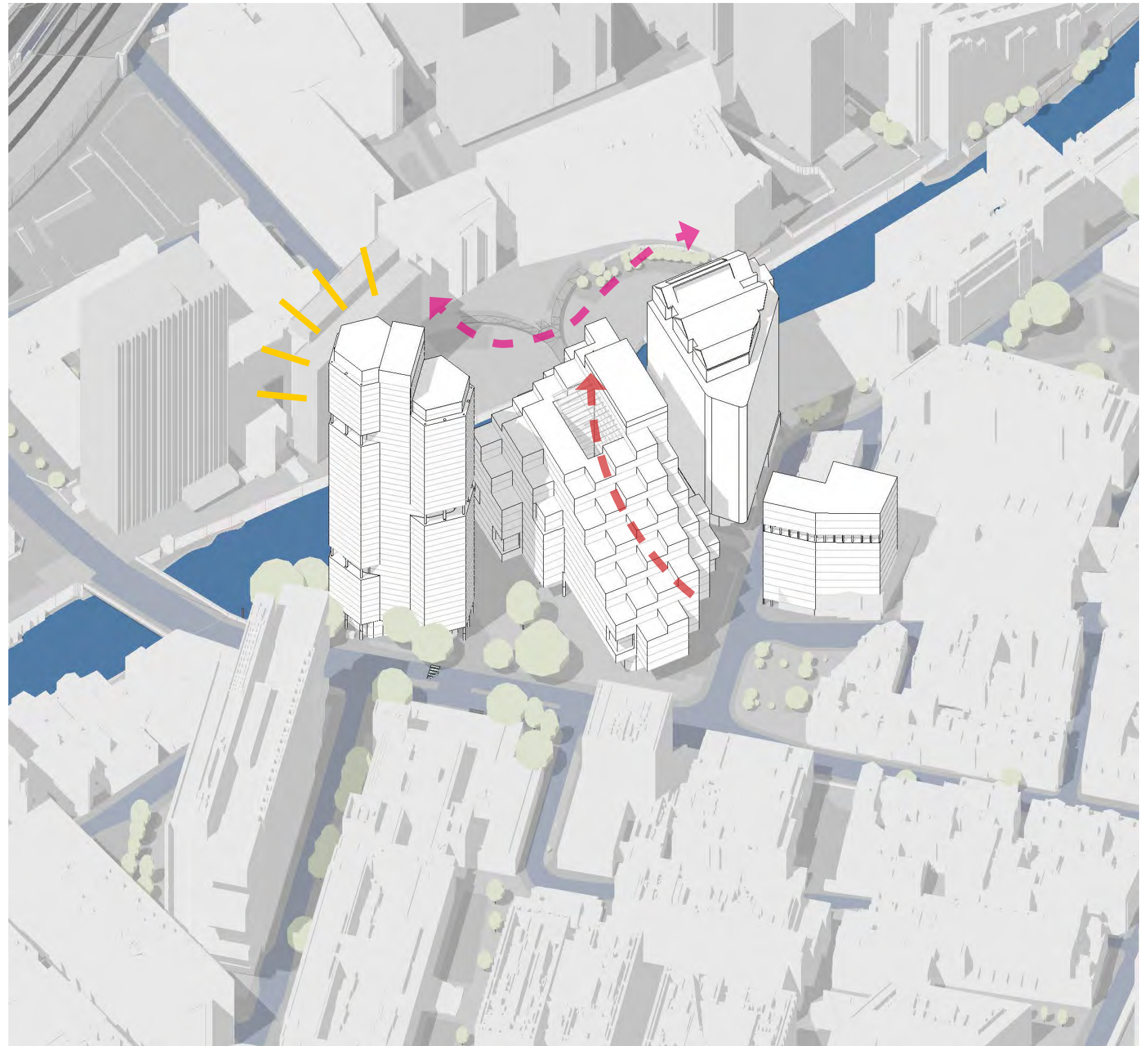


Fig 92 Massing strategy diagram

Massing Concept

The massing concept for the Albert Bridge House proposal utilises stepping as a design vehicle to accentuate the form and articulation of the buildings on the site, as a response to the function of each building. In addition the stepping allows each building to respond to the context of the adjacent urban grain.

Residential Tower

The residential tower is faceted into honeycomb shapes with high volumes rising to three termination heights at levels 34, 40, and 45. The faceting of the façades helps to reduce the visual impact of the long elevation when viewed from the South and North, while when viewed from the East and West, the tower presents a slender profile against the skyline. The faceted form of the tower also allows the floorplate to be planned with 73% dual aspect homes. Faceting also helps to reduce the negative impacts of wind acceleration onto the facade, avoiding adverse wind conditions at ground level.

Commercial Offices

The office massing utilises the simplicity of the regular grid to create a repetition of extrusion as the form of architectural expression. The push and pull of the 7.5m x 7.5m grid into building form provides numerous positive benefits in architectural terms:

- Simplicity in structural design equates to reduction in embodied carbon compared with baseline office design.
- Alignments of external walls with structural centres below allows the transfer of weight to contribute further to structural efficiency within the overall design.
- The stepping, which occurs in two directions, creates a repetition of one storey and 2 storey faces, allowing both repeating and varied facade design to promote visual interest.
- Stepping with height up the building creates opportunity for external amenity, both visual and accessible to be provided at a multitude of floor plates, helping to promote health and well being for office workers and visitors to the building.
- A wide variety of views from internal spaces can be provided with the regular stepping of cube forms, with users able to enjoy views down onto the public realm and existing streetscape, along St Mary's Parsonage towards Parsonage Gardens, along Bridge Street to the southeast and north-west, as well as along the River Irwell.

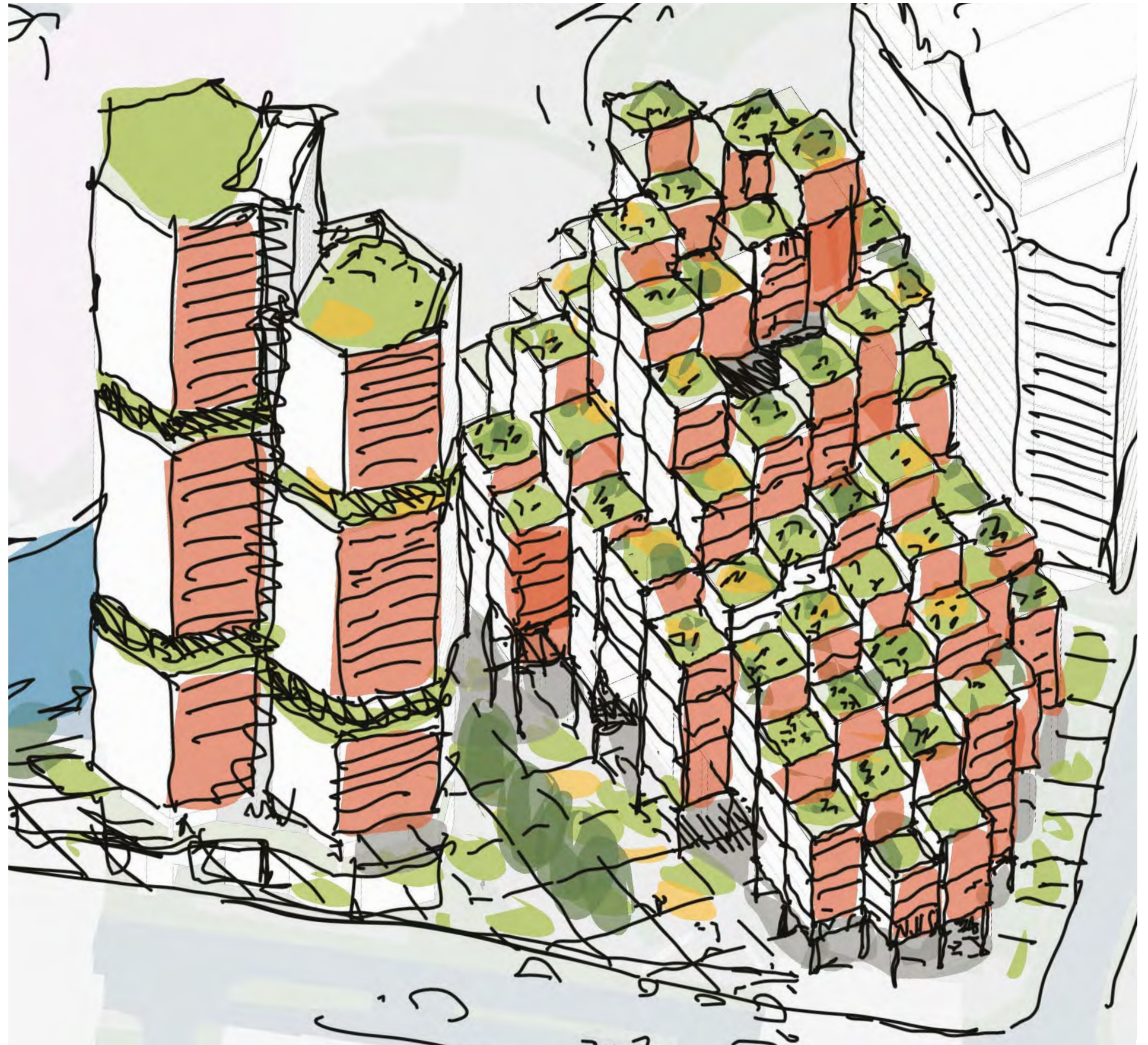


Fig 93 Massing concept sketch

Massing Evolution

The design development has been driven by a number of reviews to test outcomes against strategic development and key design principles, project team and design team coordination, and through the engagement process with Manchester City Council.

In addition, the proposal has been greatly informed by the designs shared by the development teams for the 2 neighbouring sites of Alberton House and Reedham House. Massing evolution for the proposal has developed through a number design options. Each iteration tested and evaluated through a variety of mediums and parameters, including:

- Digital and physical modelling
- 2D Drawings and hand sketches
- Eye level and aerial views
- Building scale and floorplate efficiency
- Quantum people movement and vertical transport
- Daylight and sunlight analysis

January 2022

The evolution of massing commenced in November of 2021 with the development of a stepping, wrapping massing composition, rising to 19 storeys at its highest point, and with faceted facade definition playing off of the faceting of the residential block comprised of two hexagons with a central core at the pivot point in the middle. A small podium was proposed in this early stage of design to enable a low level communal terrace and servicing spaces for the residential building.

March 2022

Following review of the structural designs in the early months of 2022, a rationalising of the form and massing came forward for the commercial block, placing all faces of the building on grid, to simplify the structure, removing transfers entirely from the design. As a result of viability exercises, the area of the commercial increased in this design development phase, with top height at 23 storeys. The residential tower progressed with small area changes, affecting footprint but remained largely unchanged.

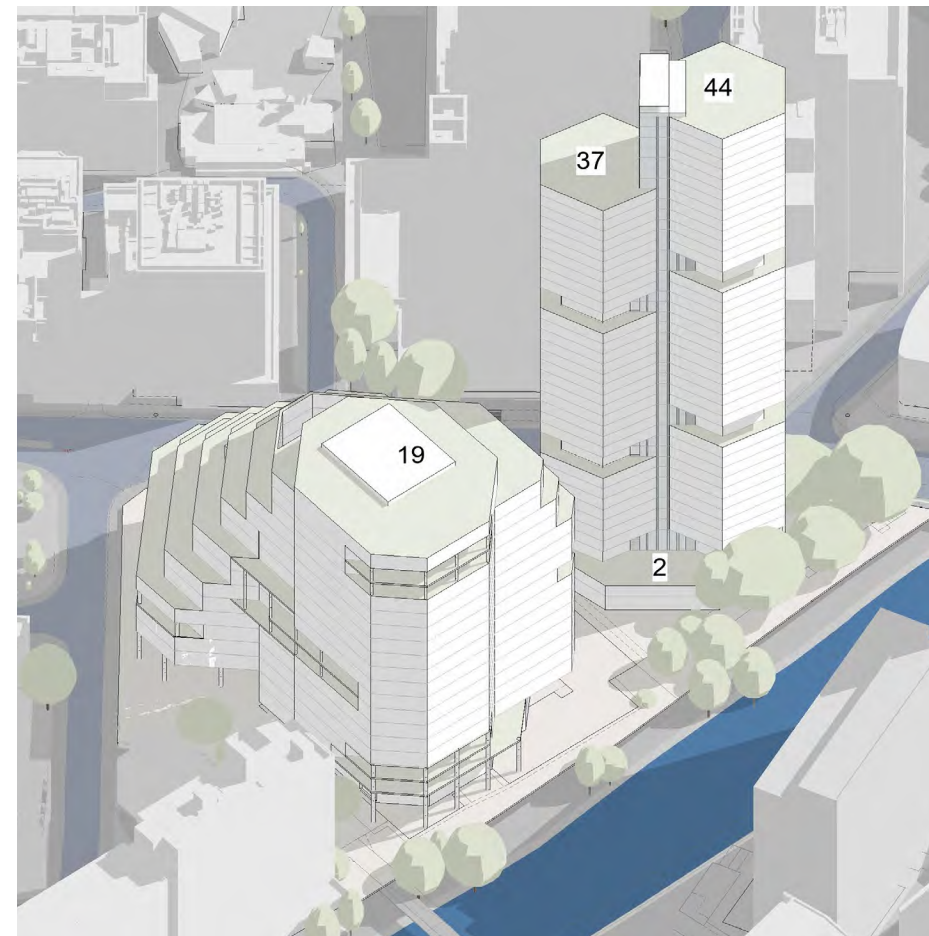


Fig 94 Massing - January 2022

Residential

Circa. 300 new homes
All dual aspect flats
Internal winter gardens to each home
2 communal sky garden terraces
First floor podium landscaped terrace

Indicative Mix

1 Bed 33%
2 Bed 62 %
3 Bed 5 %

Commercial

A new office for 3,000 - 4,000 people
circa 360,000 sqft net commercial floor area
circa 15,000 sqft ground level activation

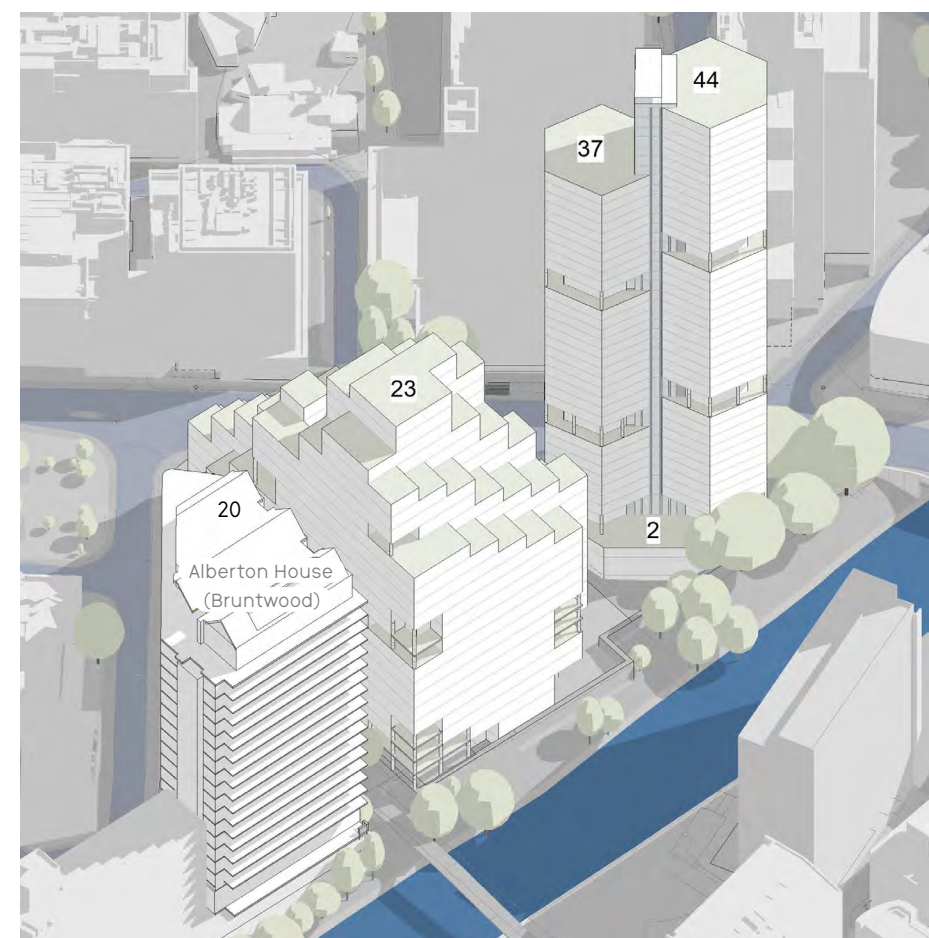


Fig 95 Massing - March 2022

Residential

Circa. 300 new homes
All dual aspect flats
Internal winter gardens to each home
2 communal sky garden terraces
First floor podium landscaped terrace

Indicative Mix

1 Bed 33%
2 Bed 62 %
3 Bed 5 %

Commercial

A new office for 3,000 - 4,000 people
circa 390,000 sqft net commercial floor area
circa 18,000 sqft ground level activation

July 2022

Market testing unfolded in the summer of 2022, resulting in a redistribution of areas sought within the proposal, due to the understanding of a limit to the maximum size of office needed. Area, as a result was replaced into the residential building, in order to balance the quantum within the scheme proposal. An added volume of faceted massing was added to the north-facing elevation of the residential tower, increasing the number of homes to be delivered by circa 70no. The small podium was removed, following review of the building’s servicing requirements and amenity space allocation, which allowed an increase to the area available for public realm

The stepping of the commercial building was further adjusted to clarify the hierarchy of single storey and two storey steps, in particular along the northern elevation. The top height of the commercial building was brought down to 19 storeys (to roof level) as a result of the commercial massing reduction.

November 2022

The final adjustments to the scheme design saw minor updates brought forward, as the design team progressed coordination and review of technical, logistical and commercial aspects of the scheme proposal. The final commercial area review simplified the approach to internal amenity spaces, with final height delivered as an 18 storey building, with massing stepping down to 7 storeys at Bridge Street. The residential final massing delivers a 45 storey building, with stepping at levels 40, and again at level 34.

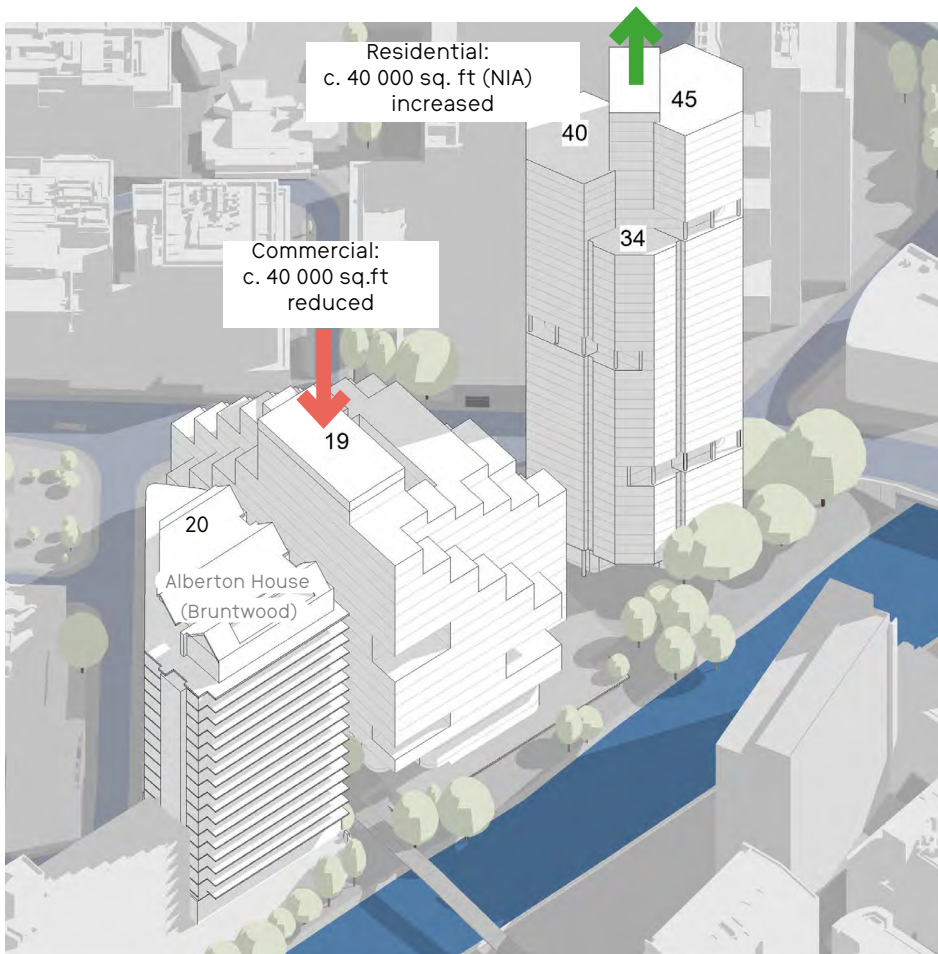


Fig 96 Massing - July 2022

Residential

Circa. 367 new homes
Internal winter gardens to each home
3 communal sky garden terraces
ca. 900 sqm communal internal amenity space

Indicative Mix

1 Bed 29%
2 Bed 59 %
3 Bed 12 %

Commercial

A new office for 3,000 - 3,500 people
circa 350,000 sqft net commercial floor area
ca. 30,000 sqft accessible amenity space
circa 20,000 sqft ground level activation



Fig 97 Massing - November 2022

Residential

367 new homes
Internal winter gardens to each home
3 sky garden terraces
ca. 900 sqm communal internal amenity space

Indicative Mix

1 Bed 32%
2 Bed 56 %
3 Bed 12 %

Commercial

A new office for 3,000 - 3,500 people
circa 365,000 sqft net commercial floor area
ca. 23,000 sqft accessible amenity space
circa 25,000 sqft ground level activation

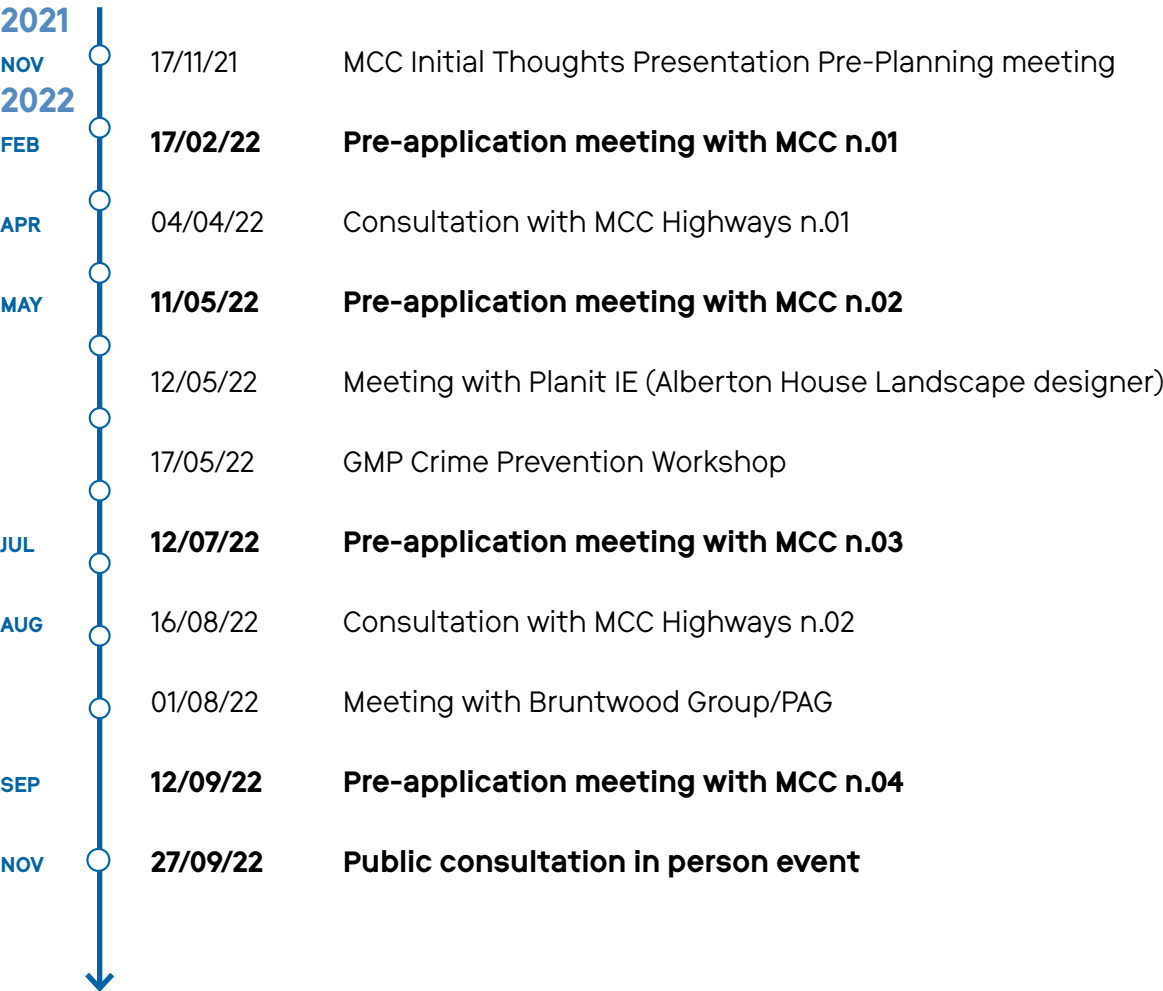
Planning Engagement

The planning time line shows the meetings attended.
The ones highlighted in bold have been elaborated on in the following chapter.

Each one of these meetings defined a change in the design of the buildings which has helped shape the proposal being submitted.

For each of the key meetings we shall give a brief overview of the work presented, the feedback given and the responses we have made.

Consultation Meetings Timeline





First Meeting with Manchester City Council

November 17, 2021

In November of 2021 the design team and Oval Real Estate presented first thoughts, design testing and the developing principles at an initial briefing meeting with Manchester City Council, to offer a vision for the site, set out broad ambitions, and present ideas developed up to that point as part of a feasibility design exercise.

The meeting focused on briefing key individuals within the Planning and Regeneration teams at Manchester City Council for initial proposals in development for the Albert Bridge House site.

At the meeting the following was presented:

- Brief discussion on the history and context of the site and lessons learned from the Strategic Regeneration Framework.
- The design team setting out a vision, ambitions and key principles for the project.
- Initial options for the site (including options to retain Albert Bridge House)
- Presentation of two main development options:
 - Option 01 - 100% commercially development, with 2 office buildings, up to 26 & 17 storeys.
 - Option 02 - Mixed use scheme with residential and office buildings, up to 44 & 17 storeys
- Concept for a highly sustainable development proposal in keeping with the aspirations of Manchester to become a net zero City.
- The initial concept for a residential typology comprised of 2 linked hexagons forms as a best fit for the site and capturing key design drivers for dual aspect, impact on townscape, and amenity strategy .
- Emerging landscape and public realm concept and vision.

A general consensus from the design team, on the preference for Option 02, was presented given this option would open up more land for public realm open space, and improved access to the river. Overall, the meeting received positive feedback. A supplementary document to set out and support the rationale for the introduction of a residential plot was subsequently submitted by the planning consultant.

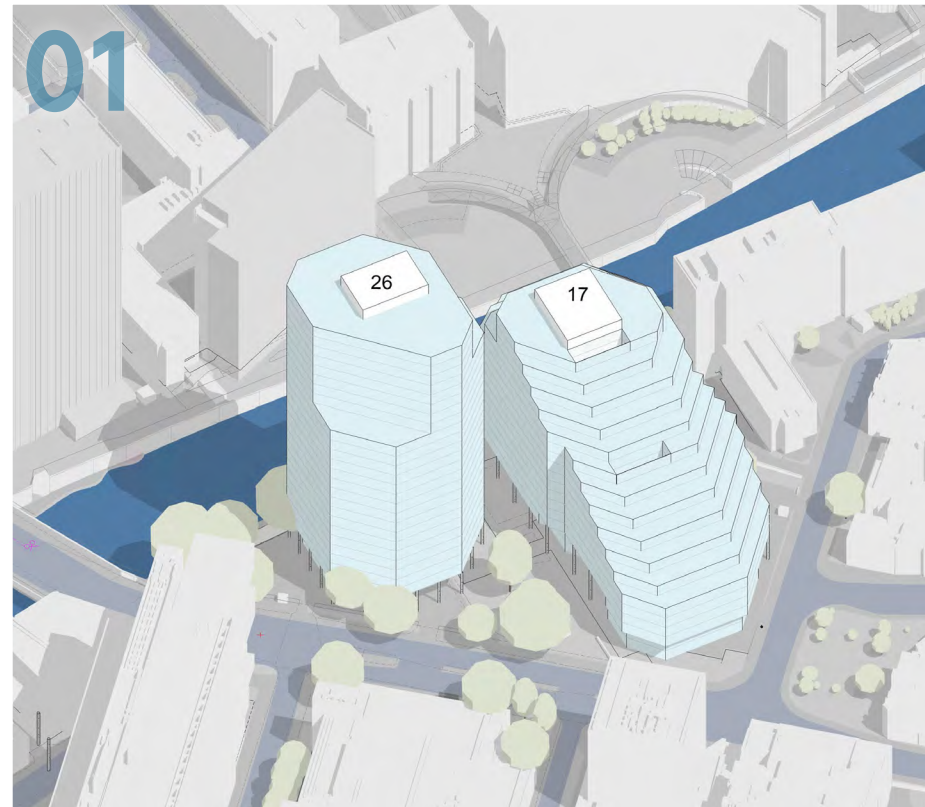


Fig 98 Option 1 - Axonometric

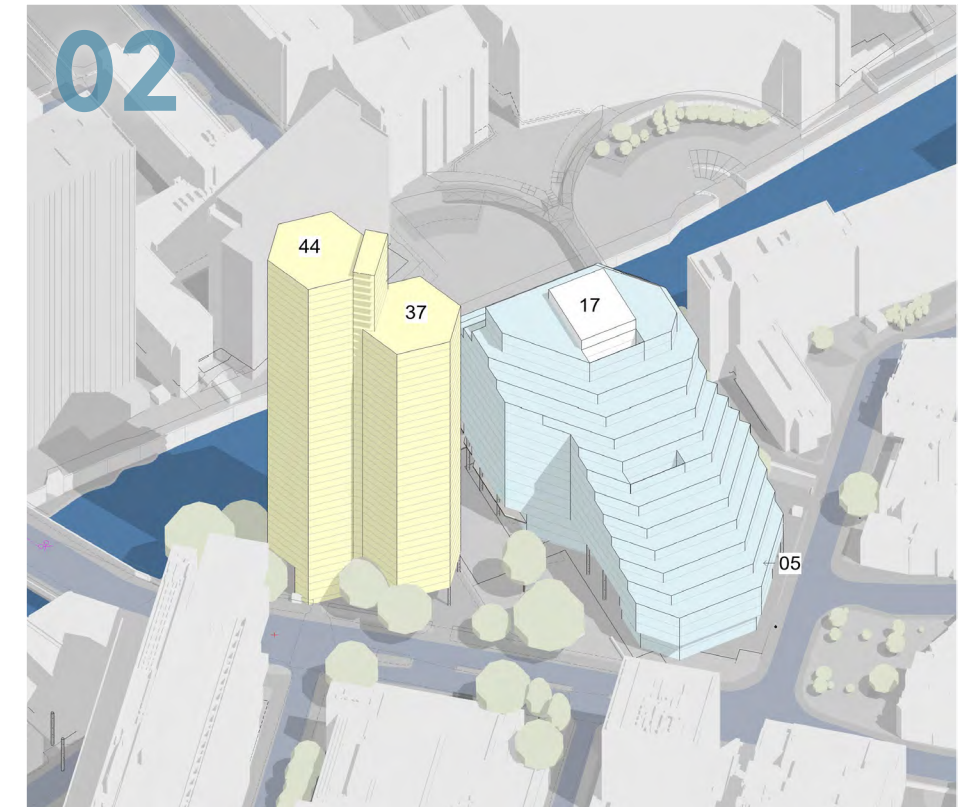


Fig 99 Option 2 - Axonometric

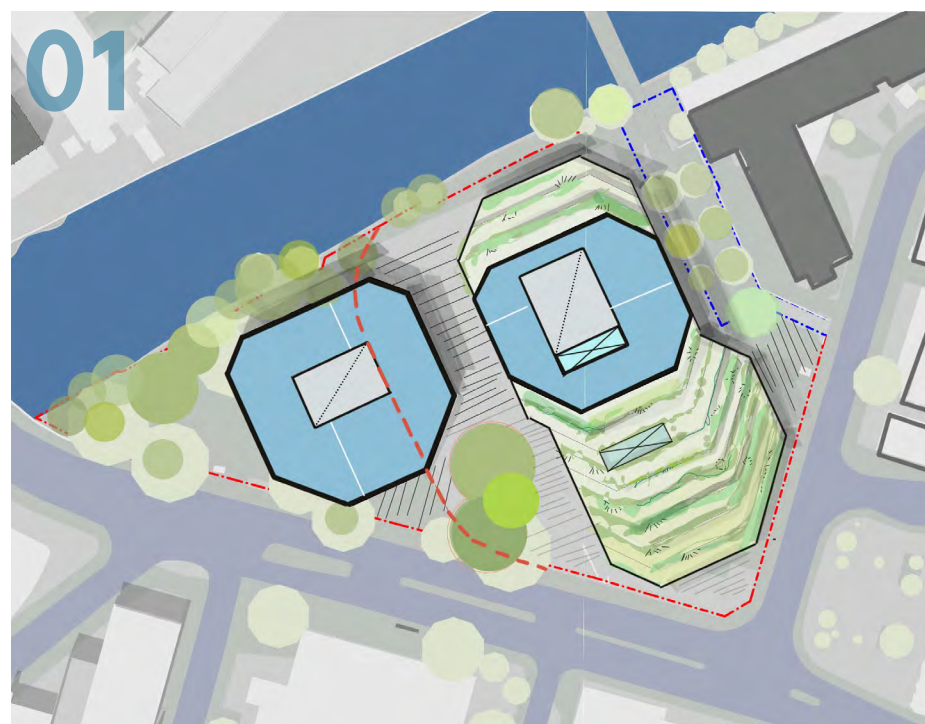


Fig 100 Option 1 - Upper Level

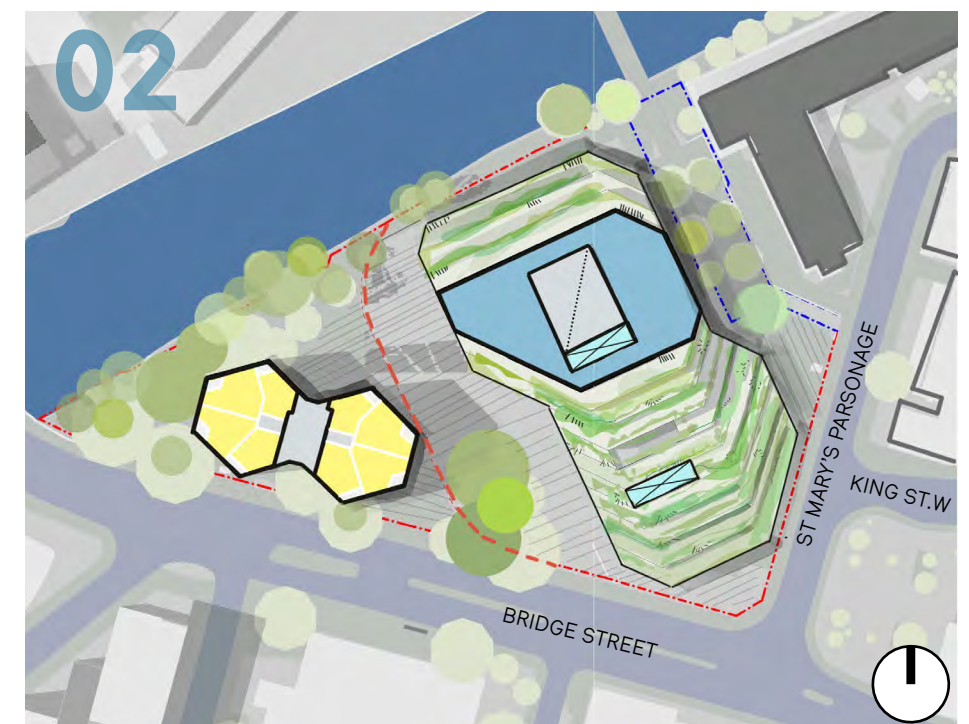


Fig 101 Option 2 - Upper Level



Fig 102 Commercial terrace sketch exploration



Fig 103 Commercial passageway sketch exploration



Fig 104 Sketch view from Trinity Bridge



Fig 105 Roof plan study

Pre Application Meeting 01

February 17, 2022

In February of 2022 the design team and Oval Real Estate held the first official Pre-Application meeting with Manchester City Council. The meeting focused on an illustrative sketch design development exercise, developed from the preferred option presented at the briefing in November 2021 (Option 02 - mixed use scheme).

At the meeting the following was presented:

- Presentation of the architectural design and public realm proposals.
- The public realm design was given priority within the presentation narrative, as requested by the Council.
- Design development on the general landscape and public realm concept and vision.
- Development of the office building massing, described as the 'sugarcube' option, which introduced a rationalised grid expression of extruded square volumes to align and simplify structure with an aim to reduce embodied carbon within a striking building form.
- The setting out of ambitions to achieve an office for the future, capturing new methods of working and change to market expectations for the workplace, as a response to post pandemic living and working.
- Design development for the residential building, nicknamed the 'honeycomb'.
- Some initial thoughts towards the internal residential layouts, capturing apartment internal quality, private and communal amenity strategy, and sketch design for lobby and approach to the building within the public realm.
- Initial concept sketches for look and feel of the architecture of both buildings in context.
- Setting out the timeline and the next steps.



Fig 106 Sugarcube sketch study



Fig 107 Sketch view from Albert Bridge



Fig 108 Sketch view from Bridge Street



Fig 109 Roof plan study

Pre Application Meeting 02

May 11, 2022

In May of 2022 the design team and Oval Real Estate presented the ongoing evolution of sketch design, along with general project updates. The primary purpose of the meeting was for the design team to present the updates to the scheme made since the last meeting with Manchester City Council, with particular focus paid towards the development of the architecture and facade.

At the meeting, the following was presented:

- Context analysis, relating to both current context and emerging context within the City Centre of Manchester, and City of Salford, along the River Irwell.
- Massing updates and comparison of quantum change, applying to residential housing mix, number of homes, commercial gross internal area, and indicative ground floor activation area, within the emerging proposals progressed during the preceding months of design development.
- Landscape and ground floor concept development, with thoughts progressed for the interface between internal spaces within both the residential and commercial, and the adjacent external public realm, both within and outside the application red line boundary.
- Design development on architecture and facade principles for both residential and commercial buildings
- Zoomed in bay study concepts and materiality proposals for the facade composition and architectural articulation.
- Setting out of the next steps.

Feedback from Manchester City Council remained positive in general, with one area of focus encouraged by the Council, to review and confirm that viability, and build-ability were in line to ensure that the development team could deliver the proposals.

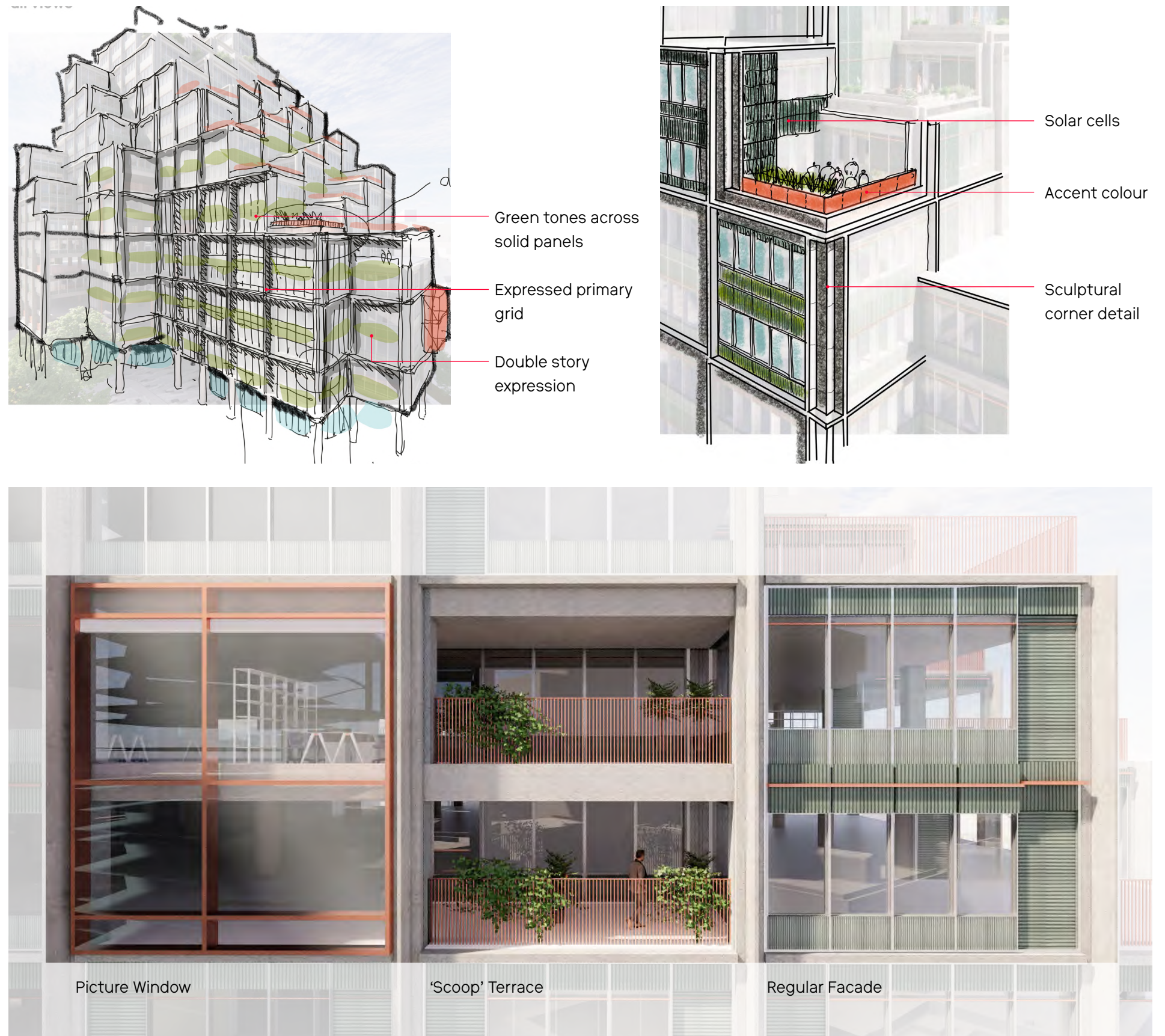


Fig 110 Commercial facade study



Fig 111 Residential massing update



Fig 112 Residential facade study

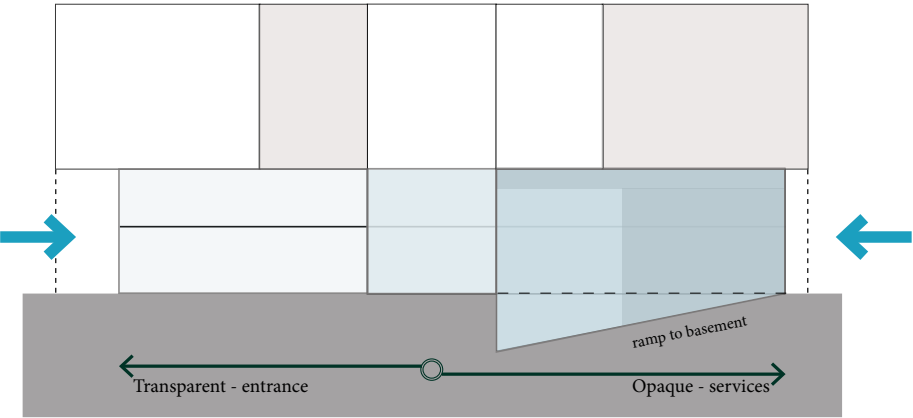
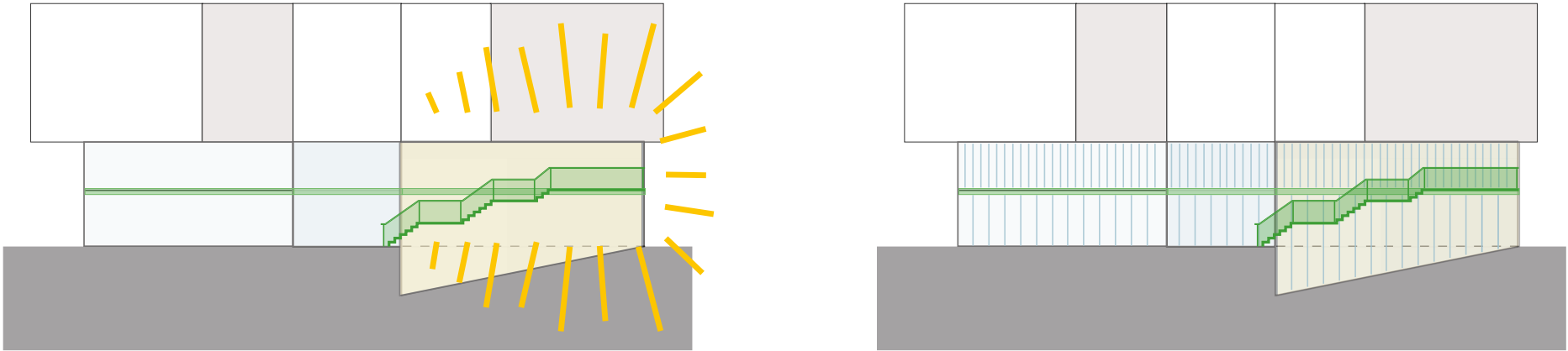


Fig 113 Residential base facade study



Pre Application Meeting 03

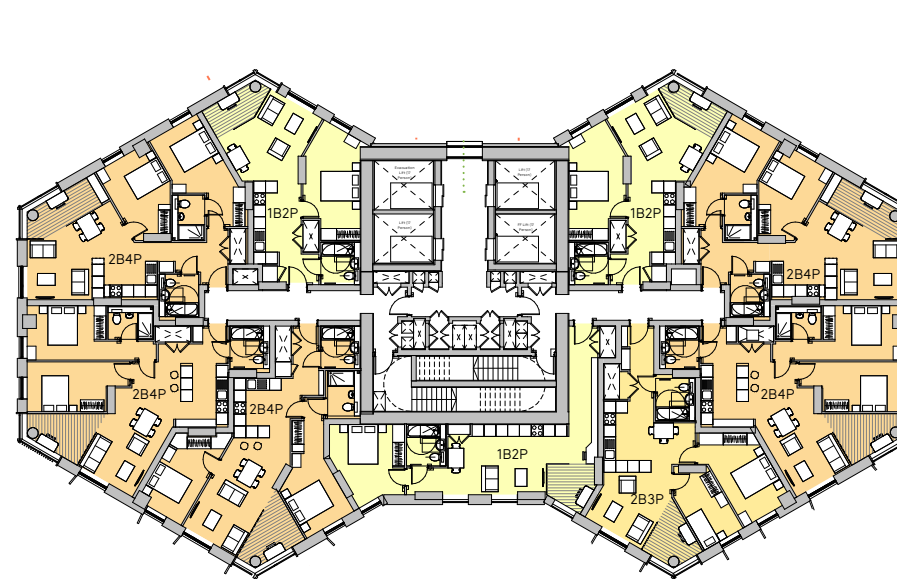
July 12, 2022

In July of 2022, a third Pre Application meeting was held with Manchester City Council. The purpose of this meeting was for the design team to present updates to the scheme since the last meeting, with particular focus paid to the facade development for the commercial building, and relevant technical considerations which were taken into account in targeting the aspirational energy standards and targets set at early stages of project development, as well as to present massing and quantum updates following financial appraisal by Oval Real Estate, the consulting project team and agents.

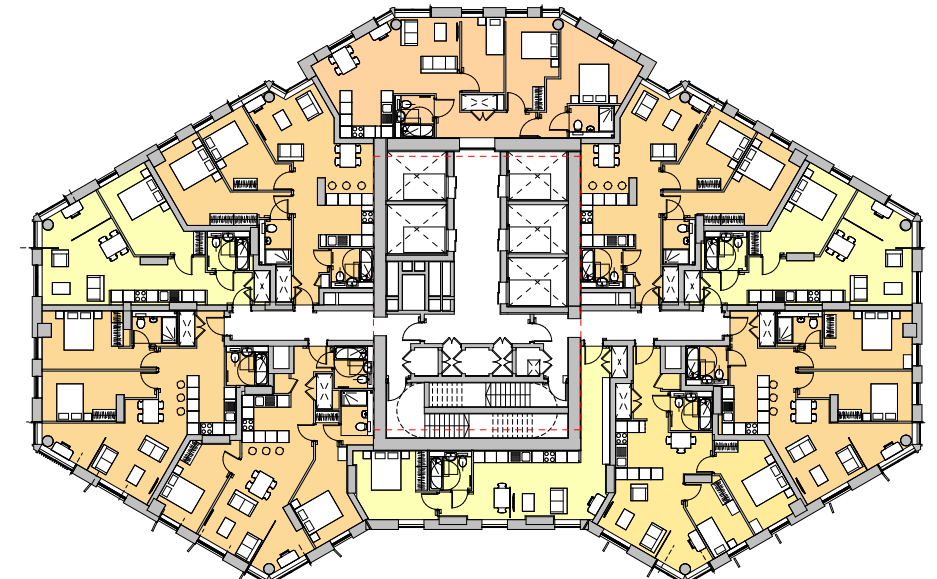
At the meeting the following was presented:

- The primary update captured during the period of design development, which included an uplift in the residential quantum alongside a reduction in the overall area for the commercial building.
- Quantum and mix updates corresponding to the above areas redistribution within the overall scheme.
- Massing illustrating the massing change, while evidencing that the impact on landscape, and available public realm area, would be minimal
- Key views and the benefits provided by the massing updates from the perspective of townscape, daylight and sunlight analysis.
- Updates to the residential footprint and flat internal layouts: from a 9-home per core typical floor arrangement to a 10-home per core on the typical floor. The additional home captured by the introduction of the additional volume of massing to the North elevation of the double hexagon arrangement.
- An updated concept for the office building facade, which had evolved from a gridded facade expression to a more lightweight and climate-responsive facade expression.
- Landscape and ground floor development.

Manchester City Council's feedback on the massing and resultant quantum update was positive in general, noting that improvements needed to be made on the residential building facade banding rhythm, which the design team took away to develop further for the next meeting.



May 2022 - Typical floor: 1 and 2 bed homes



July 2022 - Typical floor: 1, 2 and 3 bed homes



Fig 114 Residential footprint and massing update



Fig 115 Lightweight facade sketch exploration



Fig 116 South facing bay study



Fig 117 West facing bay study

Pre Application Meeting 04

September 12, 2022

IN September of 2022, the design team and Oval Real Estate met online with Manchester City Council for a Pre-Application briefing, to lead into the public consultation process. This meeting focused on the illustrative design development, the landscape strategy and public realm offer, as well as the residential and commercial building facade design updates.

At the meeting the following was presented:

- Landscape and public realm strategy development, including the concept design for the ground level and hard landscape, which captures a reference to the facade rhythm on the existing Albert Bridge House.
- Development of the layouts within the updated residential footprint, following review of the fire strategy for the building, and general technical coordination progressed throughout the summer months.
- Update on the residential facade horizontal banding rhythm, in response to comments received from MCC at the previous Pre-Application Meeting 03.
- Development of the office building facade, and update on the environmental and facade analysis, resulting in a contextual response to the facade bays, as a reflection of aspect and degree of direct sun on different façades
- Updated bay studies for both the commercial and residential buildings to reflect the technical and environmental review.
- The basement layout and servicing strategy.
- Programme for public consultation, communication to the public of the emerging designs, and to invite comment on the emerging designs, prior to completion of an application for planning.
- Timeline for preparation of the planning application.

The updates presented were positively received, with the design team subsequently confirming with Manchester City Council that the public consultation would commence



Fig 118 Sketch view of public realm



Fig 119 Sketch view of public realm and commercial building

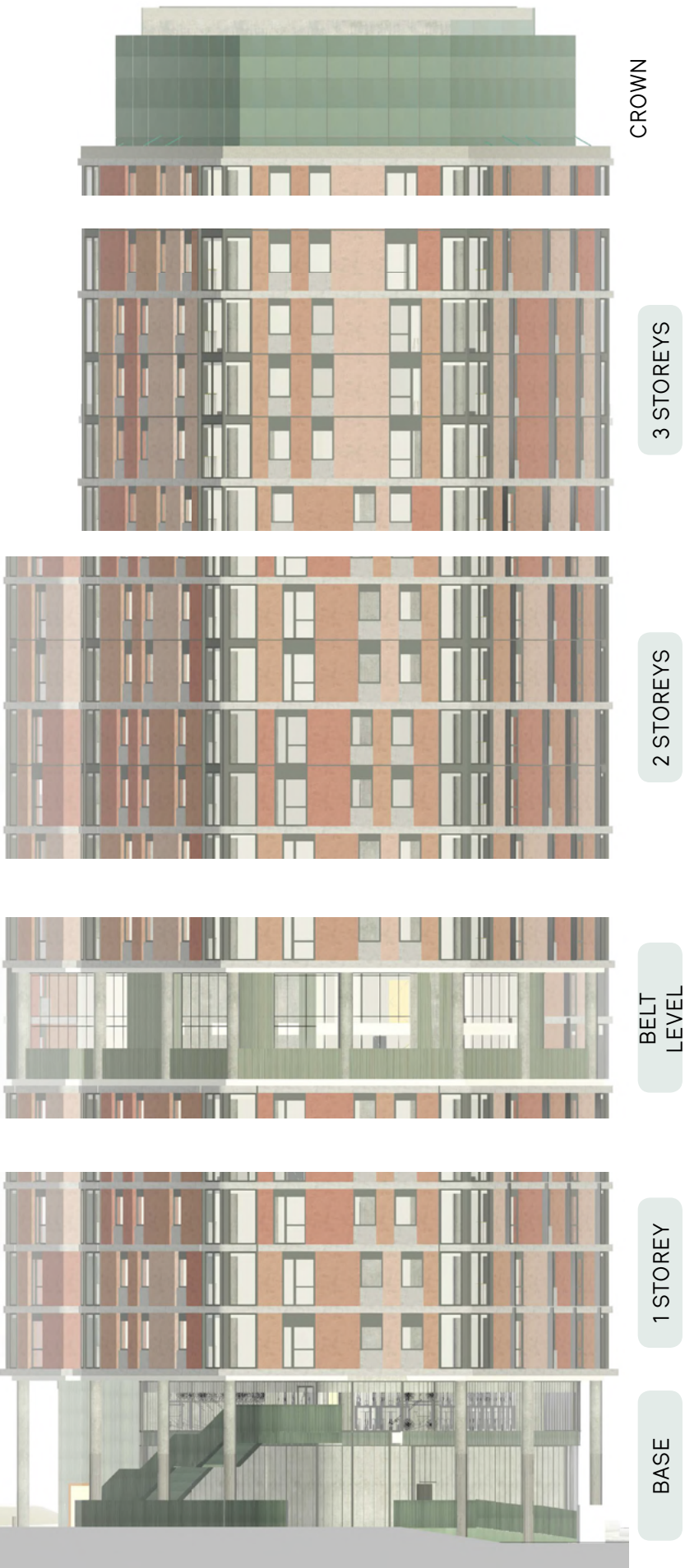


Fig 120 Summary of the residential horizontal banding rhythm update

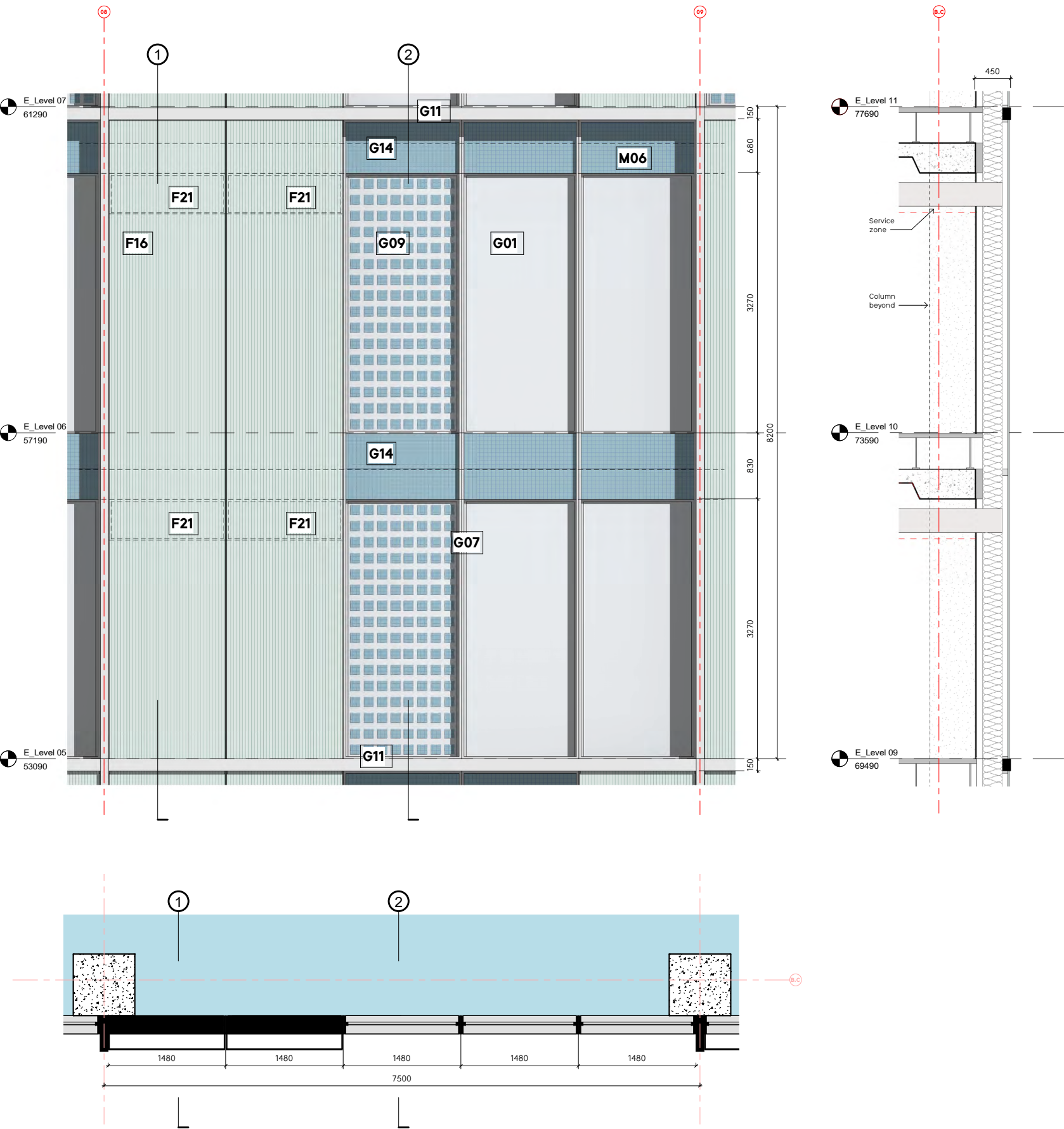


Fig 121 Commercial facade bay studies

Public Consultation and Engagement

The public consultation for the Albert Bridge House scheme design was commenced in the third week of September, following the Pre-Application Meeting 04, following which Manchester City Council had confirmed a general support for the scheme development to date.

An 'in person' public consultation was held on Tuesday 27th of September, to invite the public into a physical space allowing key members of the design team to talk through the emerging Albert Bridge House scheme with local residents, the public, Councillors, neighbouring businesses or other key stakeholders, with key design features presented on a series of boards alongside a slideshow of the historic sketch development.

Visitors to the consultation event were encouraged to provide feedback verbally on the day, or within more formalised feedback forms, to allow the design team to capture the comment within the next steps of design development on the project. The consultation was held at the Lowry Hotel (opposite and overlooking the Albert Bridge House site) from 2.45pm to 7pm.

The consultation received 20 responses in total and the overall sentiment was positive towards the proposals. Over 66% of the respondents responded that the development will make a positive contribution to the wider St Mary's Parsonage area and the city centre.



Fig 122 Public consultation event at The Lowry Hotel, 27 Sept 2022

A development that gives back to the city

With much of the existing site dedicated to car parking or off limits to the public, the starting point of our design was to open up the site and make a positive contribution to the city.

Ground floor activation
Ground floor retail and commercial space would help activate the surrounding public space, attracting people to the area.
Both buildings would feature ground floor retail and commercial spaces, providing amenities for residents, workers and visitors alike. These amenities would mean the site is lively and well-used throughout the day and evening, helping to create a safe and sustainable neighbourhood.

Routes and connections
We want to open up this site and celebrate a neglected part of the riverside.
Our plans build on the vision outlined in the SRF of creating new pedestrian connections through the site into the city centre, as well as opening up the riverside to more people.

Landscape and public realm
Our plans for the site would provide over **12 acres** of outdoor amenity space, promoting health and wellbeing of the occupants of the buildings as well as creating an attractive, sustainable place that people want to visit and spend time in. Extensive landscaping across the ground floor public realm and roof terraces of the office building will contribute to the character of the area, as well as climate change mitigation.

A landmark design

Both buildings have been designed to celebrate and enhance this prestigious location within Manchester city centre.
The height and massing of both buildings respond to the context of the emerging skyline in this fast-changing part of the city centre, with the landmark design contributing to its character and sense of place.
In line with guidance in the SRF, the taller building would be situated to the south of the site, celebrating the gateway location as an entrance to Manchester, while minimising potential impacts on the conservation area to the north. The hexagonal, stepped form of the residential building creates interest and a playful approach to design.
The office building, which is targeting Net Zero, would be similar in height to the adjacent Albert House. It employs a radical stepped design with green rooftop spaces providing external terraces for all occupants, whilst also creating a truly unique facade.

Immediate context - materials and colour tones

The texture and materials of both buildings have been carefully selected to complement the surrounding architectural context, as well as contributing to the energy efficiency of both buildings.

Fig 123 Public consultation boards

High-quality, flexible office space

To help meet increasing demand in the city centre
The SRF envisaged commercial development on the Albert Bridge House site, and with demand for commercial space remaining strong after the pandemic, the city centre is the focus for economic growth and employment.
Occupiers are choosing to move to 'best-in-class', sustainable new build offices which are rich in outdoor amenity space. Wrap around ground floor uses such as cafes and restaurants add to the offer for occupants, whilst also helping to promote collaboration and wellbeing.

The commercial building would reach up to **19 storeys** with a unique, stepped design maximising natural light, views.
The building would provide around **350,000 sq. ft.** of office floorspace, with flexibility being a key focus in the design of the floorplate.
It has been designed to meet the needs of a range of occupiers, from smaller start-up businesses to larger business looking to re-locate. The floorplate would mix traditional workstations with informal working and break out spaces, hot-desking and outdoor terraces.
Our emphasis on flexibility has been driven by the evolving role of the workplace as result of COVID-19.

A new community in the city centre

With a range of homes to meet different needs
With a rising population and increasing demand for housing in Manchester, residential development has a crucial role in helping meet the needs of a growing city.
The increasing popularity of city centre living reflects the importance of access to work, leisure facilities and high quality public transport connections.

Our plans would provide **367 new Build to Rent** homes in the city centre.
Apartments ranging from 1 to 3-bed (6 person) would cater to the different needs and preferences of those looking to live in the city centre.
The homes would be supported by communal amenity space, including three communal sky garden terraces.
The residential building would comprise three conjoined hexagonal towers, stepping from 34 to 40 to 45 storeys.

Residential building floorplans

The residential building would comprise three conjoined hexagonal towers, stepping from 34 to 40 to 45 storeys.
The unique shape of the floorplan created by this design allows for dual aspect homes that provide panoramic views in all directions and a communal lift lobby which would enjoy natural daylight.



4.0

THE PROPOSAL

Development Summary

The aspiration for Albert Bridge House is to deliver a best in class scheme that will help to transform a site within central Manchester, that is currently dominated by ground level car parking and entirely closed off to the public. The proposals for Albert Bridge House will deliver high quality ground level public open space, much needed housing within central Manchester, along with a large-scale office to bolster the City of Manchester's already thriving economy and street scene.

The application is being submitted as a Detailed Planning Application for the following elements:

Residential Building

A 45 storey (plus plant level) residential building which includes:

- 367 Build To Rent homes;
- 942 m² of annexed spaces (lobby, bike store and communal amenity spaces);
- 145 m² f E (a,b,c) Retail/ Restaurant/ Café uses at ground level.

Commercial Building

A 19 storey commercial building which includes:

- 43,45960 m² of E (g) Office use;
- 2,172 m² of accessible external amenity space.
- 2,190 m² of E (a,b,c) Retail/ Restaurant/ Café uses across L.00 and L.01.

Public Realm Offer/Landscape

Detailed landscape proposal for:

- 4,130 m² of public open space;
- 1,610 m² of green space.

Basement

4,750 m² basement, split between residential (1,430 m²) and commercial (3,320 m²) uses.

- 8 EV car parking spaces for residential use
- 16 EV car parking spaces for commercial use
- plant spaces;
- commercial cycle store and facilities.



Fig 124 Axonometric massing view

Overall Quantum

**The summary of quantum has been split by use class and building.
Please refer to summary table below.**

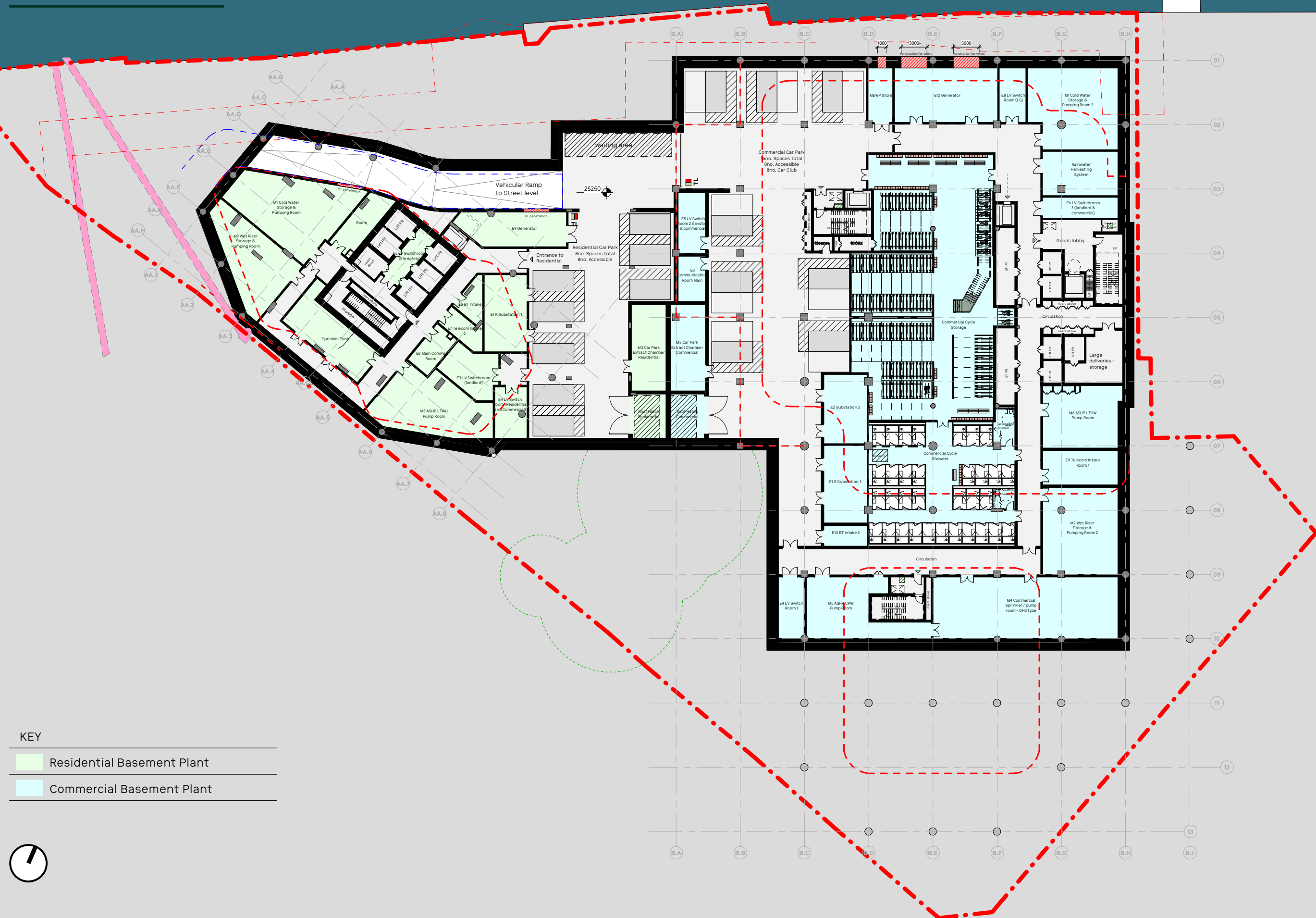
Use Class	C3 Residential					C3 Communal Amenity		Car Parking Spaces	E (a,b,c) Retail/ Restaurant/ Café				E (g) Office				E (g) Office Lobby Area		E (g) Office External Amenity	Car Parking Spaces	Sui Generis (Basement)		TOTAL			
									GEA		GIA		IPMS 1(GEA)		IPMS 2						GEA	GIA				
	Area	sqm	sft	sqm	sft	Units	sqm		sft	sqm	sqft	sqm	sqft	sqm	sq.ft	sqm	sq.ft	sq.ft	sqm		sqm	sqm	sf.ft	sqm	sq.ft	
ALBERT BRIDGE HOUSE																										
Building A - Residential	41,036	441,711	37,814	407,026	367	942	10,141	8	162	1,742	146	1,568	0	0	0	0	0	0	0	1,572	1,429	42,771	460,379	39,389	423,978	
Building B - Office	0	0	0	0	0	0	0	0	2,407	25,908	2,193	23,602	50,850	547,341	43,459	467,785	510	5,489	23,379	16	3,635	3,321	56,892	612,376	48,972	527,133
TOTAL	41,036	441,711	37,814	407,026	367	942	10,141	8	2,569	27,650	2,338	25,170	50,850	547,341	43,459	467,785	510	5,489	23,379	16	5,207	4,750	99,662	1,072,754	88,361	951,111

Fig 125 Area overview

	1B2P	1B2P M4(3)	2B3P	2B3P M4(3)	2B4P	3B4P	3B5P M4(3)	3B6P	Total
Total Units	108	10	27	22	157	28	5	10	367
	118		206			43			367
M4(3) homes		10		22			5		37
M4(2) homes	108		27		157	28		10	330
Percentage of Overall Mix	29%	3%	7%	6%	43%	8%	1%	3%	100%
	32%		56%			12%			100%

Fig 126 Residential Unit Mix

Basement site Plan



Ground Floor site Plan



Typical Level 01 site Plan



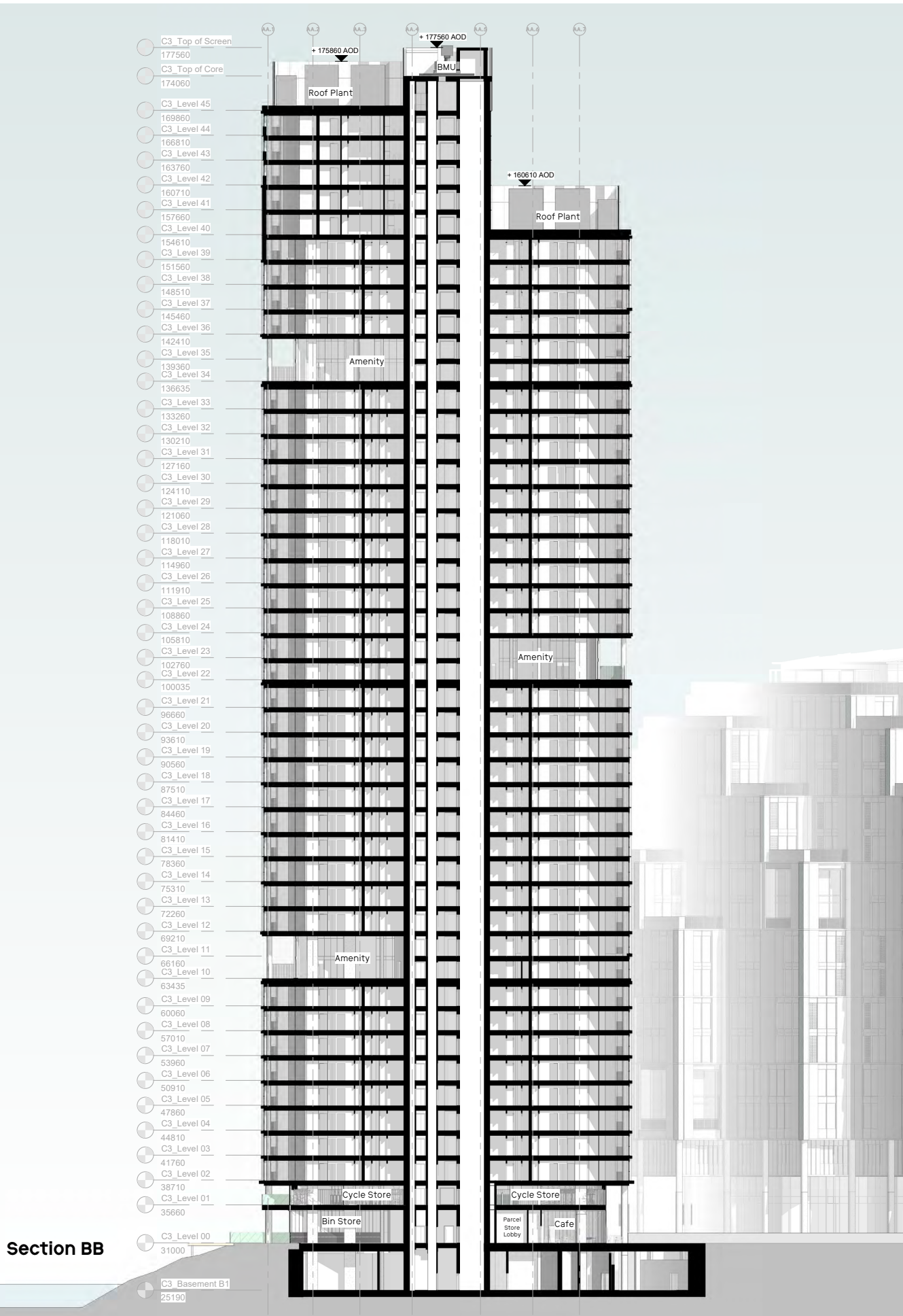
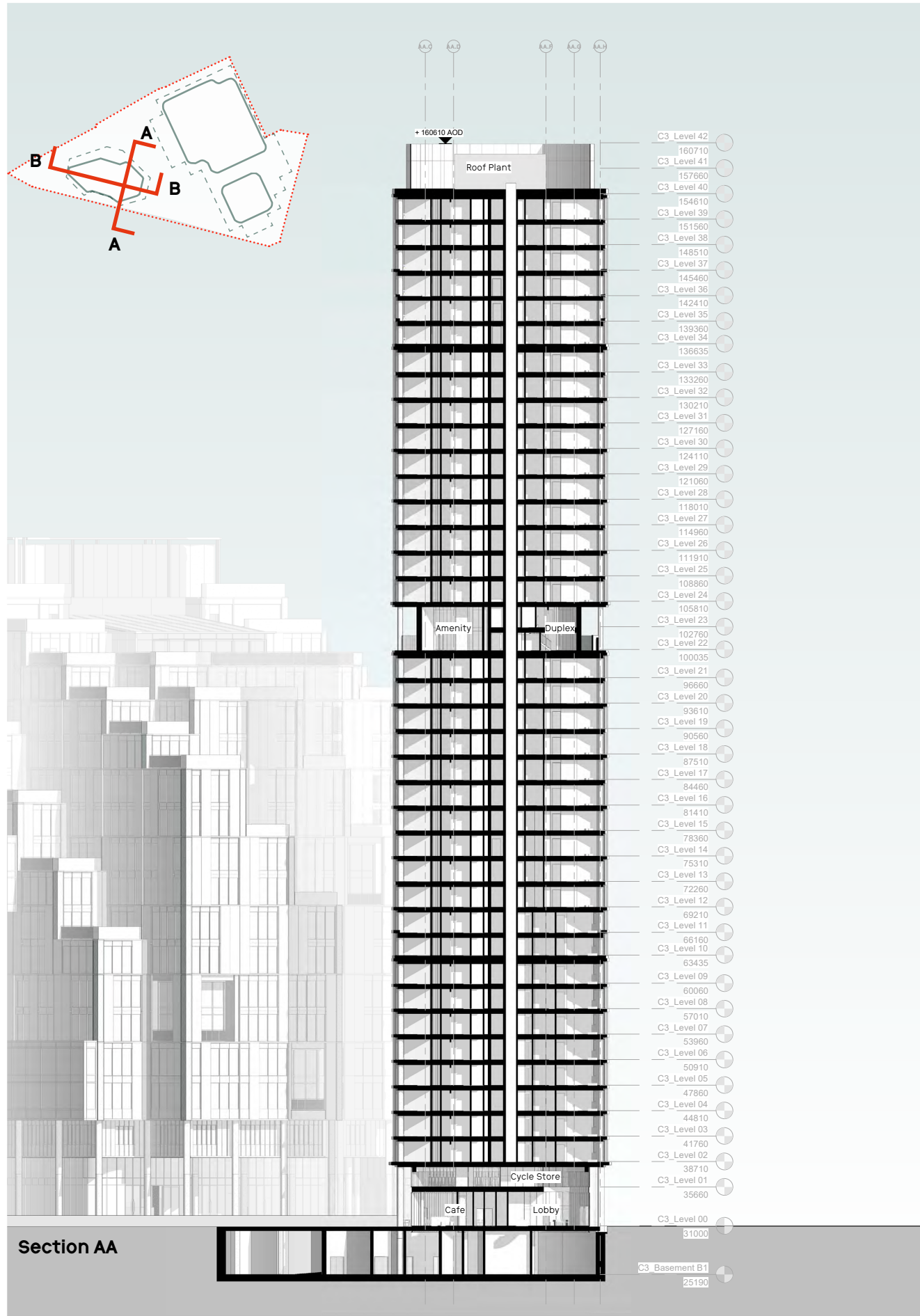
Typical Upper Floor site Plan



Roof site Plan



Residential Sections



Commercial Sections





Sustainability Approach

The proposal for Albert Bridge House seeks to provide a ‘best in class’ and future-proofed scheme to meet the aspirations of Greater Manchester’s target to be net zero by 2038, as well as Oval Real Estate’s Environment, Social and Governance (ESG) objectives.

Sustainability themes have been developed against the specific policies outlined in Manchester’s Core Strategy to provide a holistic overview of the proposals. In many cases, these themes overlap with BREEAM and WELL. Key national and local policy documents relevant to this development are as follows:

- Approved Documents Part L, F and O 2021
- Future Homes and Buildings Standard 2025
- Heat and Buildings Strategy
- Manchester Core Strategy
- Places for Everyone Joint Development Plan
- 5-Year Environment Plan for Greater Manchester

The mixed-use development is expected to contribute to sustainability in a broader sense through provision of:

- A high-density, well connected city-centre development
- Minimal on-site parking and high-quality cycle facilities
- High-quality accessible public realm and landscaping, re-activating the area and providing opportunity for
- Improvements to local biodiversity through the retention of existing trees and planting of additional trees
- Integration of sustainable urban drainage (SUDS) to mitigate flood risk and ease any undue burden on the existing sewer network

In addition to the general sustainable principles, which have underpinned the design throughout its evolution, a number of accreditation targets and performance criteria have been established, to inform successful scheme outcomes.

BREEAM and WELL

The commercial building at Albert Bridge House is targeting a BREEAM rating of “Outstanding” under the BREEAM 2018 New Construction scheme (shell and core), which requires a score of at least 85% and compliance with certain minimum standards.

The principles of the WELL Building Standard are being adopted to provide a Platinum ‘enabled’ building for the core/base build as a minimum, with consideration being given to full certification during the next stage of design development.

Home Quality Mark

The Home Quality Mark was created by the BRE in March 2015, in response to the Government’s withdrawal of the Code for Sustainable Homes as part of the Housing Standards Review (April 2015). Further consideration will be given to the applicability of this five star rating system for the residential units at Albert Bridge House during the next stage.

Operational Energy Performance

Operational performance targets were set at early stages of design development, and monitored at key stages to assess the impact of design evolution against key indicators for energy balance of the building.

A bespoke simulation model was created to input data across a number of areas (i.e. number of people, hours of use, small power density, engineering system performance, massing the glazing ratios etc.) in order to assess key stage design iterations, and to steer development towards low energy outcomes. The below key areas of design have been influenced through the simulation modelling design process:

- Part L performance targets for building fabric and engineering systems to help improve energy efficiency in buildings.
- Office demand for space cooling due to the quantity of people, lighting and ICT equipment.
- Facade performance - key to achieving operational net zero carbon - to limit heat losses in winter months.
- Glazing ratios appropriately designed to limit unwanted solar heat gains in summer, while providing good levels of natural light to reduce the need for artificial lighting.
- Maximising passive ventilation to reduce energy demand by reducing the cooling requirement for the building

Design for Performance & NABERS

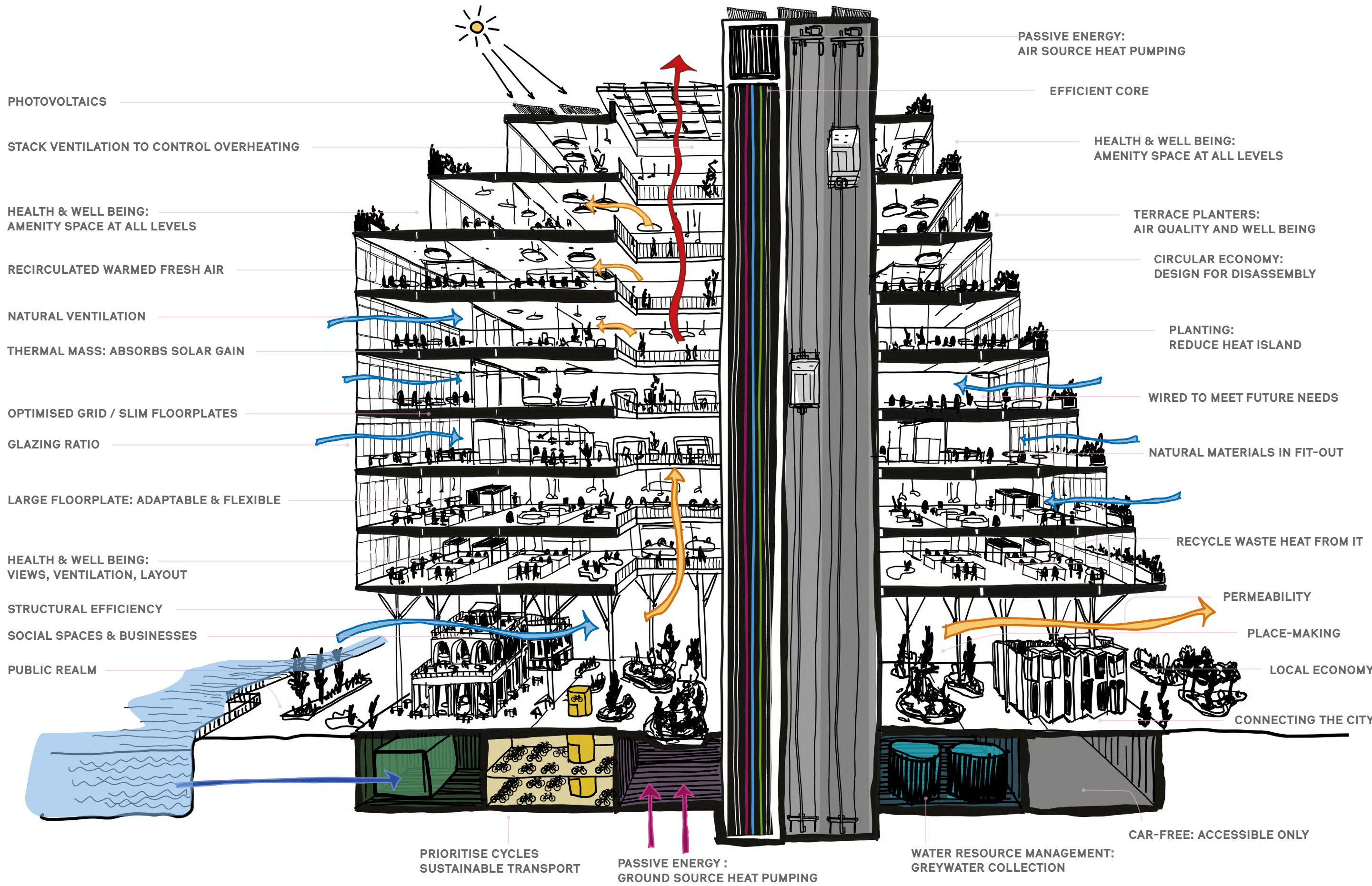
The Better Buildings Partnership have introduced the ‘Design for Performance’ (DfP) initiative to the UK which is based on the highly successful National Australian Built Environment Rating System (NABERS). This rating system is based on operational energy modelling, whereby annual energy consumption is measured and reported. Taking an approach based on DfP for Albert Bridge House has helped to influence the façade performance and engineering systems, as well as identify large energy consumers in the building. Albert Bridge House is aiming to achieve a minimum 5* rating under NABERS, with an aspiration to achieve 6*.

Embodied Carbon

Embodied carbon emissions form a significant part of the overall carbon impact of a building when measured across its Whole Life. Historically, energy performance has focussed on operational energy use, however Greater Manchester Combined Authority have set targets for net zero carbon development, which encompass both operational and embodied energy.

A high-level analysis of embodied carbon, commensurate with the project stage, has been completed to provide an initial estimate of embodied carbon and an indication of potential carbon hot spots. This suggests that the project is on track to align with Manchester’s Roadmap to Net Zero Carbon, with the initial estimation of upfront embodied carbon emissions coming out at less than 600kgCO₂e/sqm.

Sustainability Principles



2.0

LANDSCAPE

Introduction

The landscape design and approach to place making delivers a high quality new public realm within Manchester City Centre, creating permeability within a site previously cut off from pedestrian movement and access, while prioritising biodiversity through the retention of existing trees and ground level landscape with new planting to complement the existing green assets on the site. The following chapter illustrates the landscape proposals for Albert Bridge House, and how they have been informed by the site analysis, architectural concepts for the project, and the consultation with Manchester City Council.

The public spaces within Albert Bridge House have been designed to create a cleaner, healthier and more sustainable public realm environment for residents, office workers and the wider public to use. The design transforms the site, which is currently dominated by car parking, into a series of generously proportioned public spaces that allow for a variety of uses to benefit people, urban wildlife and ecology.

From the outset of the project, one of the key ambitions of the place making strategy was to ensure the new public realm would become a vibrant and active place, representative of its city centre location. The design has been carefully considered to cater for a diverse range of activities that residents, office workers and the wider public can enjoy.

To create wide-ranging opportunities for different users, the public realm proposals are composed of four character areas that range in scale, aspect, character and function. These spaces carefully link together spaces within the site, and to the wider surroundings to create legible sequences of space to connect Albert Bridge House to the surrounding City of Manchester.

Accessible green space flows between the buildings within the proposal, as well as up and on top of the proposed buildings. This is achieved through a series of stepped terraces that punctuate the commercial building, and two storey cuts into the residential building at intermediate levels. Creating multi-layered landscape, which maximises the potential for engagement, chance encounters, and the creation of wonderful experiences.

PUBLIC REALM ASPIRATIONS

- 1 **ENHANCING THE RIVER ECOLOGICAL CORRIDOR**
- 2 **PUBLICLY ACCESSIBLE WALKWAY ALONG THE RIVER**
- 3 **IMPROVING PERMEABILITY THROUGH THE SITE**
- 4 **A CONTEMPORARY GARDEN SQUARE FOR MANCHESTER**
- 5 **A MULTI-LAYERED LANDSCAPE ON THE BUILDINGS**



Existing Site Condition

Currently, the site is divided into 3 sections; Albert Bridge Gardens, The Bridge Street Car Park, and Albert Bridge House (containing the 4no. buildings on the site). The majority of the ground level within the site is taken up by car parking. The extent of parking has resulted in the vast majority of the public realm directly adjacent to the existing buildings being paved with a tarmac surface to manage the number of vehicle movements, both within the publicly accessible Bridge Street Car Park, and the privately managed HMRC parking area.

The public realm which leads up to the entrance of Albert Bridge House is a wide pedestrian walkway. There are several large existing trees directly adjacent to the generously proportioned walkway. These trees have a Tree Protection Order applied to them.

The northern site boundary is a heavily vegetated linear piece of land that borders the River Irwell orientated from east to west. This section of land is overgrown with vegetation and there is a lower terraced seating area (Albert Bridge Gardens) that forms a dead-end. This area is not overlooked by the adjacent road, therefore the lack of natural surveillance has resulted in antisocial use.

The eastern site boundary is a pedestrian walkway which leads north to Trinity Bridge allowing pedestrians to cross the River Irwell into the City of Salford. The southeastern boundary follows the line of St Mary's Parsonage. The site's southwestern boundary follows Bridge Street which allows pedestrians to travel south deeper into Manchester City Centre and culminates in crossing the River Irwell via Albert Bridge to the west.

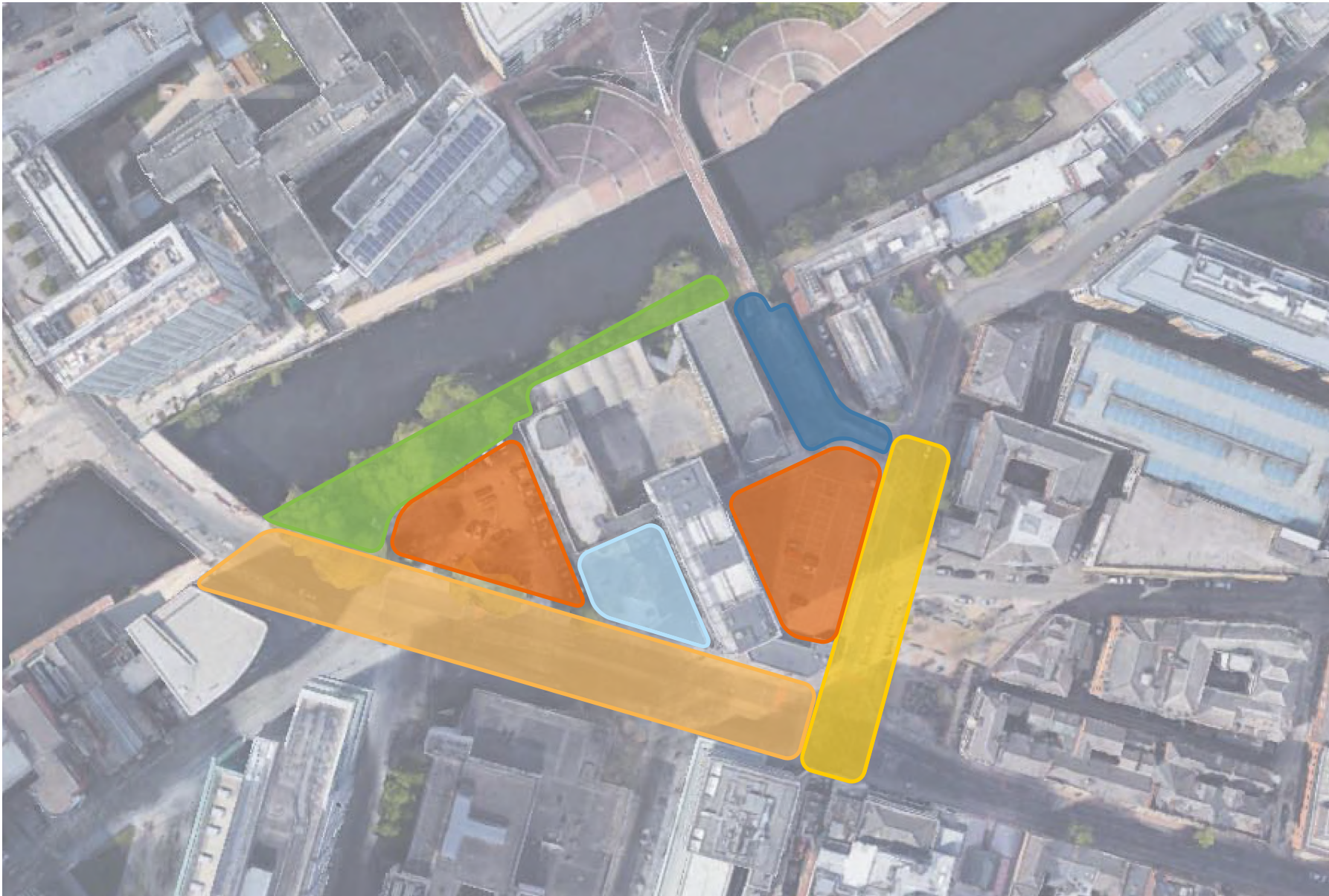


Fig 127 Existing site open spaces diagram

KEY

-  Northern boundary
-  Eastern boundary - Pedestrian Walkway
-  Southeastern boundary - St Mary's Parsonage
-  Southwestern boundary - Bridge Street
-  Car parking
-  Existing entrance landscape





Fig 128 Existing eastern car park on-site



Fig 129 Existing western car park on-site



Fig 130 sites northern boundary



Fig 131 sites northern boundary



Fig 132 View along the pedestrian walkway leading to Trinity Bridge



Fig 133 View towards Albert Bridge House from St Mary's Parsonage



Fig 134 View towards Albert Bridge from Bridge Street

Landscape Approach

The redevelopment of the public realm surrounding Albert Bridge House offers the opportunity to amplify the character of the River Irwell within the city centre of Manchester and create a greener public realm along its banks.

Manchester's coat of arms depicts The Rivers Irk, Irwell and Medlock across its central shield, represented by three diagonal stripes, and yet the visibility, enjoyment and presentation of these important water courses are severely lacking throughout the city centre.

Within the proposals for Albert Bridge House, there is an opportunity to amplify the presence of the River Irwell within the public realm. Bringing people closer to the river and improving the conditions for wildlife along its banks are two of the key principles driving the design of the public realm.

Within the city centre of Manchester, there is a lack of publicly accessible green spaces. There are a number of small green spaces within the local surroundings, including Cathedral Gardens, Vimto Park, Parsonage Gardens, Sackville Gardens and Angel Meadows. Although, all of these spaces are embedded within the built fabric of the city and do not sit adjacent to the three Rivers within the city centre of Manchester. Therefore, the design of the Albert Bridge House site offers a unique opportunity to create a flexible open green space adjacent to the River Irwell.

There are two public squares which currently sit on the northern bank of the River Irwell. These are Greengate Square and the square adjacent to Trinity Bridge. These spaces have a civic character and are dominated by the presence of hard materials.

A key ambition of the design of the public realm surrounding Albert Bridge House is to create a public space which celebrates and interacts with the verdant character on the southern bank of the River Irwell. Therefore, offering the public access to a unique open space typology within the city centre.

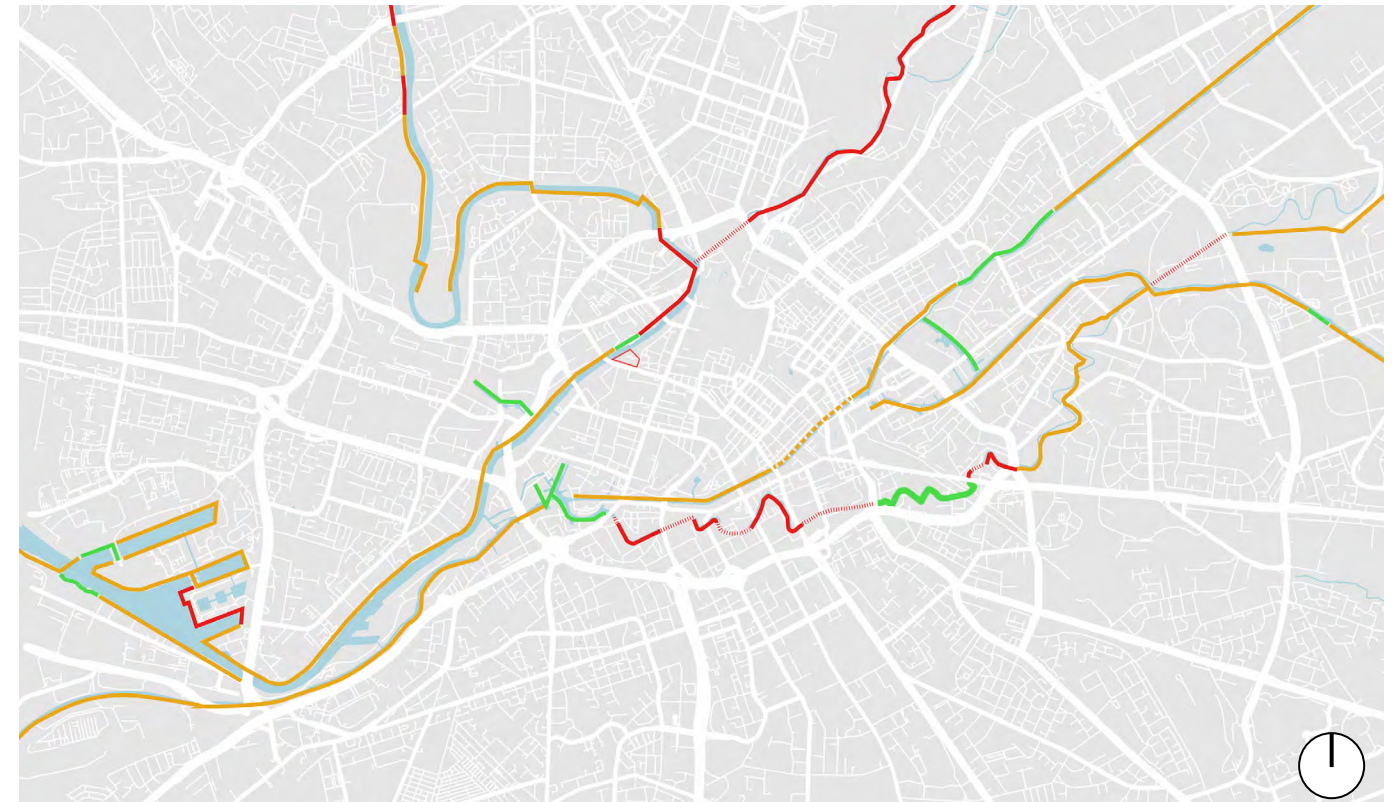


Fig 135 River and waterways diagram



Fig 136 Park and flexible open green spaces

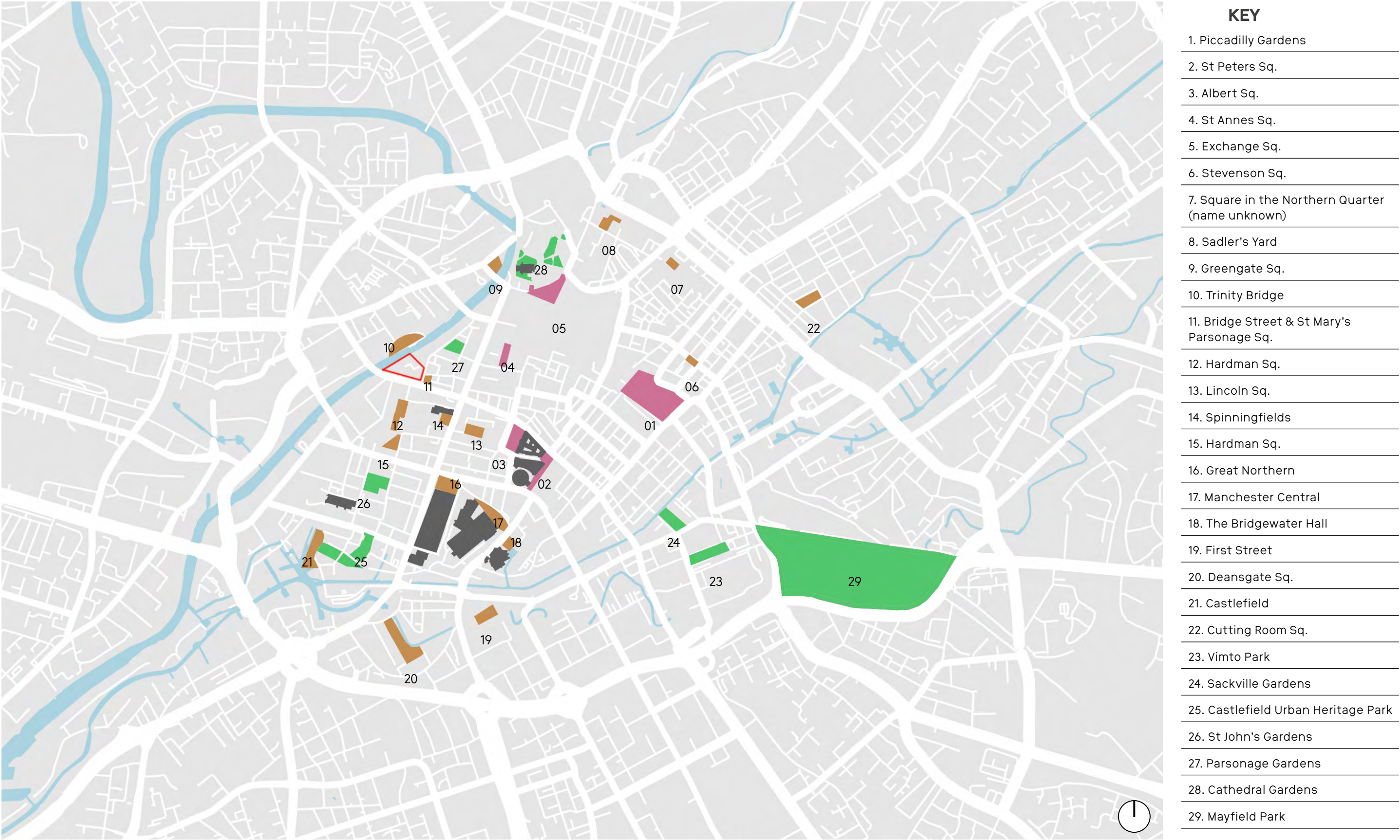


Fig 137 Diagram highlighting Manchester city centre's public spaces

Landscape Concept

The Landscape concept for the proposals for Albert Bridge House are formed of two key components; the ground floor public realm, and a series of stepping roof terraces on the commercial building.

At the heart of the development, there is a series of spaces located within the public realm surrounding the ground floor of the building, which transforms the current site, to become part of the vibrancy of Manchester's city centre. The public realm is structured as a succession of four character areas culminating in a verdant square located on the site's southwestern boundary with Bridge Street.

The design of the character areas has been informed by two overarching themes; woodland glade planting from the northern boundary and riverside ecology, and alpine planting rising up the commercial building on the stepping roof terraces. The character areas are therefore underpinned by an understanding of the natural processes that form woodland glades and alpine environments.

A woodland glade is a small clearing that sits under the canopy of deciduous trees. Therefore, the planting which forms the four character areas gives each space a calm atmosphere removed from the activity of the surrounding city.

On the upper floors of the building the character of the vegetation changes to be more reflective of an alpine landscape. The robust planting found within mountainous terrain is well adapted to thrive in exposed conditions. Therefore, the selection of alpine vegetation will make the unique outdoor amenity terraces spatially interesting throughout the year.



Fig 138 Landscape concept diagram



Fig 139 Woodland glade planting



Fig 140 Alpine planting



- KEY**
- 1. Albert Bridge Square
 - 2. River Walk
 - 3. Motor Square Connection
 - 4. Servicing route
 - 5. Underground car park access

Fig 141 Illustrative plan of the ground floor public realm

Public Realm

Landscape Character Areas

Although the public realm is designed as a cohesive series of spaces and possesses an overarching visual design language, the landscape proposals are split into four distinct character areas to cater for a variety of spatial programmes.

The landscape character areas are:

- 01 Albert Bridge Square
- 02 River Walk
- 03 Building Interface
- 04 Motor Square Connection



Fig 142 Landscape character areas diagram

KEY	
	Albert Bridge Square
	River Walk
	Building Interface
	Motor Square Connection

Albert Bridge Square

Albert Bridge Square is the central space within the proposed development, which provides a setting to accommodate and celebrate a variety of uses within the ground level of the residential and commercial buildings, which provide a frame to animate the public realm. The square has been designed to be a verdant and multifunctional space that is constantly animated by the activities which take place within it.

The design of the hard materials, low level planting and tree planting identify the square as the most spatially significant public space within the Albert Bridge House development. The well-considered combination of hard and soft landscape elements ensures the square possesses a human scale where visitors are encouraged to relax, spend time and socialise.

The trees which have a Tree Protection Order applied to them will be retained within the square. New trees of the same species as the existing cherry tree, will be planted around them to amplify the character of the existing alder and cherry trees.

There is an ambition for the natural Portland stone cladding on the existing Albert Bridge House to be re-purposed and re-used as a series of ‘broken’ tile paving elements to sit in and around the existing TPO trees, to spatially define the square at the ground plane. The planting strategy builds on the existing character of the trees on site.

The extent of woodland inspired planting on the ground plane within the square will ensure it has a verdant character providing a public space which contrasts with Motor Square located to the south of the site.



Fig 143 Sketch view showing Albert Bridge Square



Fig 144 Retention of mature trees within a public square
Precedent: Kornmarkt, Bregenz



Fig 145 Use of recycled material at ground level
Precedent: Navy Yard, Philadelphia

The River Walk

The River Walk is a linear route which links the western corner of the site at Albert Bridge with Trinity Bridge at the site's eastern edge. The River Walk provides a meandering border that responds to pockets of riverside soft landscape and existing habitat, and is defined by a series of different moments at the ground level also, which responds to the ground floor uses of the adjacent buildings.

To the western end of the route, the topography of the river bank will be remodelled to create a generously proportioned slope gently leading down to the embankment wall of the river, however which is inaccessible to pedestrian access, providing visual amenity and riverside ecological habitat. The slope will be planted with a biodiverse meadow that will encourage wildlife to populate the banks of the River Irwell. Adjacent to the slope a raised walkway will create a safe pedestrian route for the public along the banks of the river and connect to Trinity Bridge on the site's eastern extremity.

Due to the change of level between the ground level and river level below, the River Walk will be formed by a raised walkway. The walkway extends out over the generously planted slope in two locations to create viewing platforms that offer views over the River Irwell.

At the eastern end of the River Walk, a dining terrace is located adjacent to the café situated on the northeastern corner of the commercial building. The terrace will possess a verdant character and offer views out towards the river.



Fig 146 View showing the River Walk



Fig 147 Viewing platform at Mayfield Park



Fig 148 Biodiverse meadow planted on a slope

Motor Square Connection

The Motor Square Connection character area has been designed to allow for unobstructed access to the commercial building and the public square directly to the south of the site. The public realm within this character area responds to the way that the building's ground floor will be populated, as well as level transitions from the high point of the site on the eastern boundary.

The planting within the Motor Square Connection is structured to emphasize the important spatial connection between Trinity Bridge and Motor Square. The formal tree planting located along the site's southeastern boundary adds greenery to the approach along St Mary's Parsonage, while framing the view through to Motor Square for pedestrians approaching from Trinity Bridge. The woodland-inspired ground plane planting assists in dealing with the level difference between the street and the finished floor level of the proposed commercial building with planted areas combined with steps and a ramp to ensure that accessible movement, as well as movement along desire lines are available to pedestrians.

An overhang extends over the public realm that sits underneath the commercial building, therefore the planting within this landscape character area is relatively limited and has been strategically positioned in areas where there is adequate exposure to sunlight and rainwater.

This area of the public realm has been designed through workshops with the landscape design team for the adjacent applicant for Alberton House to ensure the space is future-proofed to work as one seamless connecting space leading from Trinity Bridge to Motor Square.

In addition to the pedestrian route linking Trinity Bridge with Motor Square the character area wraps the commercial frontage of Bridge Street and St Mary's Parsonage to form a seamless approach to the pavement area, and its connectivity to Motor Square along the southeastern site boundary.



Fig 149 Visualisation of the Motor Square Connection viewed from St Mary's Parsonage



Fig 150 Formal street tree planting

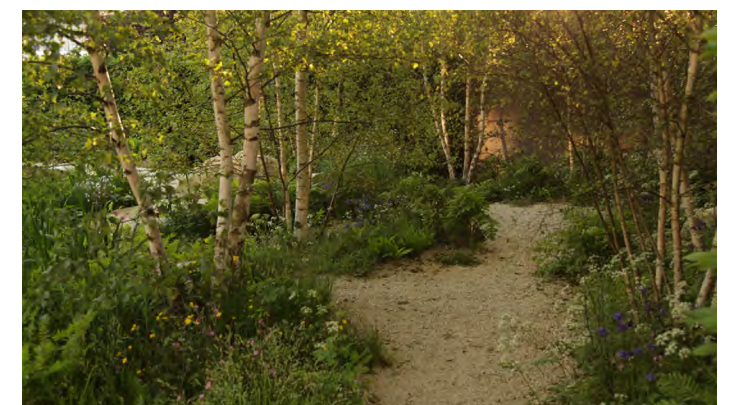


Fig 151 Woodland inspired ground plane planting

Building Interface

The public realm at the interfaces with the residential and commercial buildings is an important aspect of the landscape design, to ensure that the character of the Albert Square, and the threshold moments with the activated frontage, entrances and exits from the buildings, and sequence of public, to semi-public, to more private spaces works in concert to create a considered and high quality space for the public to enjoy at all times of day and year. The Building Interface character area has been designed to accommodate ease of access, external seating and informal gatherings through a mix of planting, steps and raised terrace areas.

The ground floor of the commercial building is populated by independent cafés, shops and restaurants, therefore the public realm has been designed with this in mind. There is an ample amount of space to allow for the activities that take place within the building to spill out into the public realm, helping to amplify a sense of vibrancy and activity within the public realm.

Most notably there is a generously proportioned external terrace, offering spill-out space to the restaurant, on the north-western side of the building spatially defined by a series of seating steps, tree planting and stairs. The shape of the terrace draws pedestrians through Albert Bridge Square which links to and opens up towards the River Walk, allowing patrons of the restaurants or people sitting on the seating benches to enjoy the view out over the River Irwell.

In the location where the residential building meets the square, the ground floor is populated by the lobby entrance and a retail unit. On this side of the building, there is a generously proportioned area of paving to enable external seating for the cafe, that flows up to the building's most active frontage. There is a large specimen tree located adjacent to the lobby entrance marking its location and giving it prominence along Bridge Street. The combination of robust urban planting and hard landscaping creates a more welcoming setting for people accessing the residential lobby and retail unit on the south-eastern side of the building.



Fig 152 Visualisation showing the Building Interface and Albert Square character areas



Fig 153 Tiered seating



Fig 154 Dining terrace with verdant character

Hard Landscape

Public Realm - Hard Materials

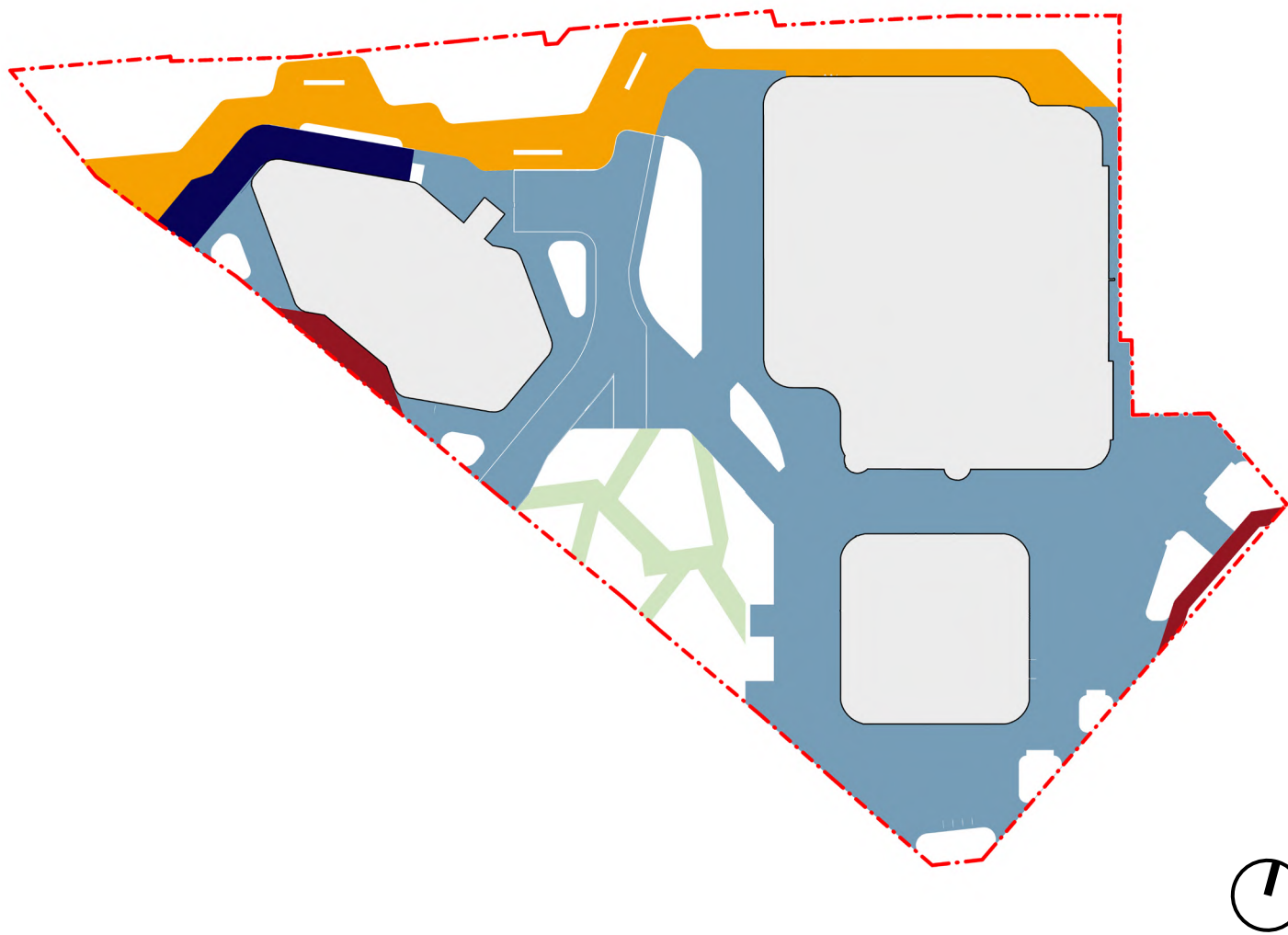
Albert Bridge Square is the most significant public open space within the proposals. The square has a clearly defined shape, formed of open hard landscape, planting and stepped seating. For the hard landscape areas Yorkstone is proposed, while in the area of public open space beneath the retained TPO trees and new planting, the ground paving will be formed by the combination of the re-purposed stone reclaimed from the facade of the existing Albert Bridge House, and gravel. The use of the re-purposed stone cladding clearly defines the spatial frame of the cluster of trees to the south of the square, and amplifies the informal character of the space contrasting with the other more civic areas of the public realm.

Composite decking defines the River Walk landscape character area. The use of a softer material helps to emphasise the route's more natural character adjacent to the River Irwell promoting calm movement, and moments of pause with benches and extended areas of decking pushing out towards the river.

The other public spaces on site are paved with Yorkstone. This gives the entirety of the public realm a sense of cohesion while also linking well with the public realm works being undertaken as part of the redevelopment of the neighbouring Alberton House. The proposed paving pattern is reminiscent of the pattern of the Portland stone cladding that formed the façade of the existing Albert Bridge House to reflect the history of the site within the new proposal.

An area of tarmac leads down to the underground car park. The proposed surface links well into the existing surface of Bridge Street and is robust enough to deal with the number of expected vehicle movements into the basement.

At two moments within the landscape strategy, the addition of servicing lay-bys, on Bridge Street and St Mary's Parsonage, draws the public pavement within the red line boundary. In order to ensure the clarity of movement for pedestrians, the paving material proposed will match and blend in with the public footpath, outside of the red line boundary.



KEY

	Composite decking
	Yorkstone paving
	Reclaimed Portland stone and gravel
	Tarmac
	Paving to match public footpath

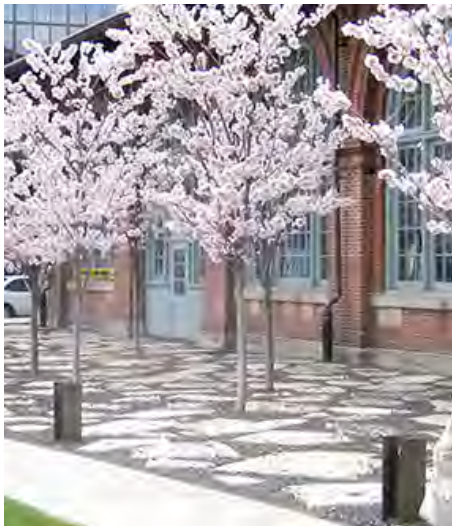


Fig 155 Reclaimed stone



Fig 156 Yorkstone paving



Fig 157 Pattern of existing cladding

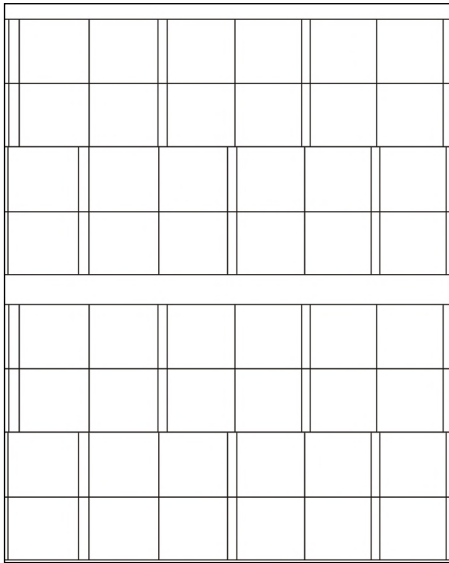


Fig 158 Pattern of existing cladding

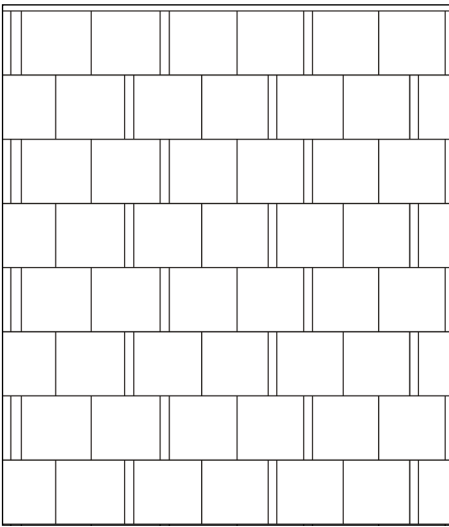


Fig 159 Proposed Yorkstone paving pattern

Public Realm - Lighting Strategy

The primary function of lighting in the public realm is to ensure a sense of safety and security. A secondary function, in the context of the proposal is to highlight and celebrate moments within the design, to augment the experience of the user within each space, defined by the character areas and buildings.

The lighting within the public realm has been used as a design tool to influence the users' experience of the space. Lighting can completely change someone's perception of the landscape by drawing attention to certain design elements. For example, highlighting particular areas, forms or specific vegetation.

Within the Albert Bridge House proposals, lighting will be used to ensure safety, amplify design gestures and highlight the different spatial qualities of the landscape character areas within the public realm.

A spatial emphasis is placed on Albert Bridge Square within the scheme through the use of sculptural lighting poles within the square.

Within the Motor Square Connection lighting poles have been integrated into areas of the soft landscape. As a result, this not only gives an order to the lighting elements distributed across the public realm but also helps to keep areas used for circulation as clear as possible.

A more sensitive approach to the design of the public lighting which lines the River Walk will be taken to marry the need for safety and security within the public realm, with the required sensitivity for the potential commuting and foraging habitat for wildlife that will exist in the vegetation below along the river's edge, and within the riverside trees. Therefore, the light placement will be downward, and one directional, back towards the public realm open space, to prevent excess horizontal or vertical light spill, and negative impact on local wildlife, including birds or bats roosting beneath the raised walkway.



Fig 162 Illustrative external lighting plan

KEY

- Lighting Pole Type 1
- Lighting Pole Type 2
- Lighting Pole Type 3
- Lighting Pole Type 4 - Illustrative proposal within Alberton House
- Lighting integrated into the soffit of the building
- Linear lighting element



Fig 160 Lighting pole

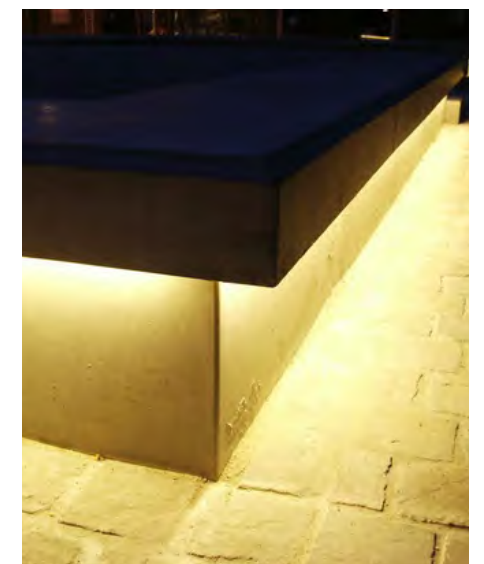


Fig 161 Linear lighting element

Public Realm - Street Furniture

The site-wide street furniture strategy is structured to amplify the character of each landscape area while subtly expressing the site’s industrial heritage.

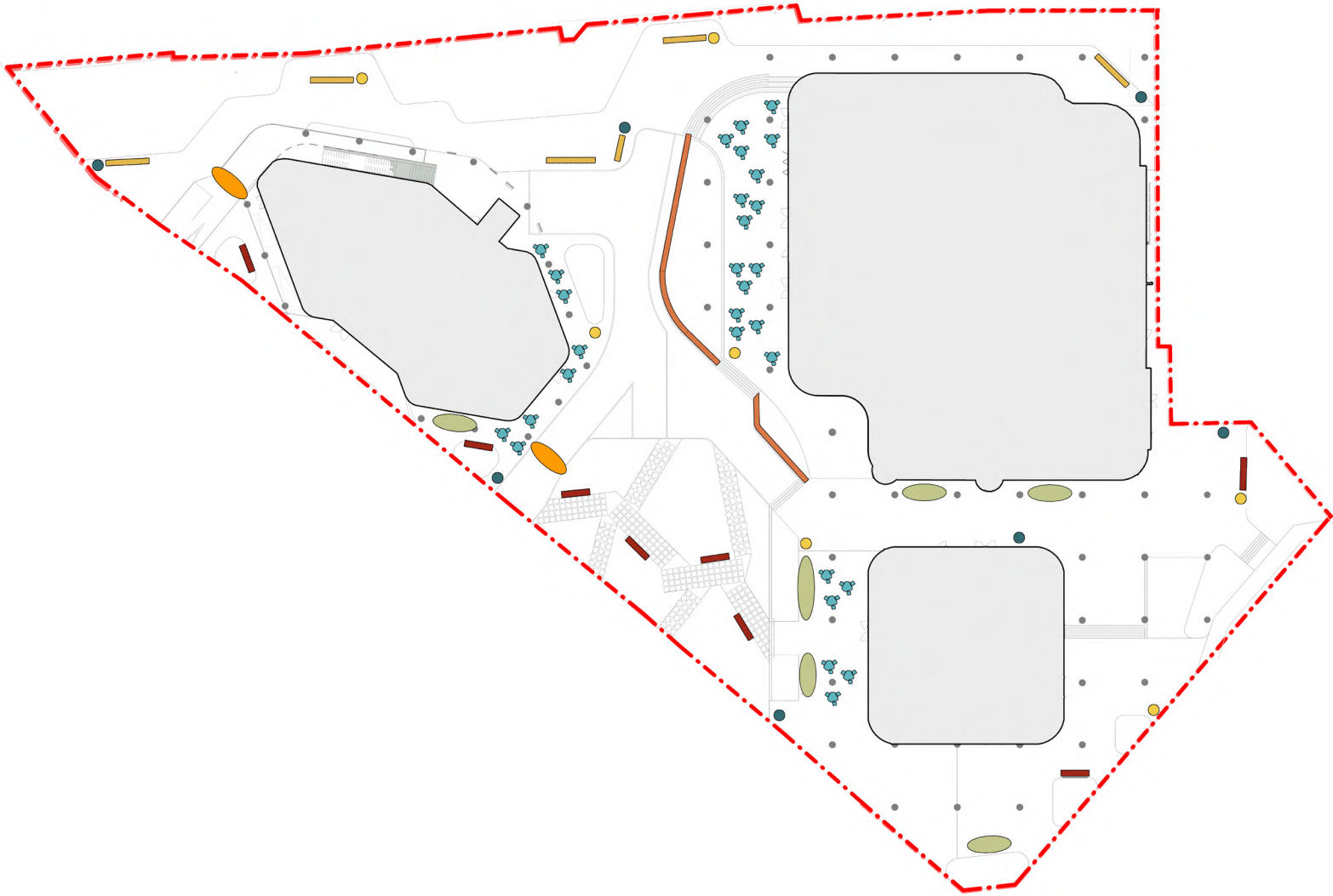
Within Albert Bridge Square and the Motor Square Connection, the street furniture will be composed of clean timber and metalwork. These materials will complement the proposed architecture while contrasting with the broadly naturalistic look and feel of the woodland-inspired planting.

The street furniture within the River Walk will amplify its character as an ecological corridor within the scheme. Seating elements composed of large reclaimed pieces of timber will punctuate the linear walkway. The rougher material palette will emphasise the River Walk’s more naturalistic character.

Throughout the scheme, seating elements are provided at 50m intervals to provide comfort to less mobile people and assist in their use of the public realm. The seating elements will also have integrated back rests and armrests. This is consistent with the guidance outlined within Manchester City Council’s ‘Design for Access 2’, relating to the setting out of external seating elements.

The public realm areas adjacent to food and beverage units located on the ground floor of the buildings have been designed to possess sufficient space for operators to populate the landscape with seating, tables and chairs.

Other standard elements of street furniture such as bins, cycle stands and wayfinding elements used throughout the scheme will tie in with the overall public realm material strategy. Consequently, strengthening the visual cohesion across the entirety of the proposals.



KEY

	Bench Type 1
	Bench Type 2
	Area of cycle stands
	Litter bins
	Wayfinding elements
	Unfixed furniture (Operator managed)
	Seating edge
	Area of bollards



Fig 163 Bench type 1



Fig 164 Bench type 2

Soft Landscape Strategy

Public Realm - Tree Planting Strategy

Currently, there are thirty-eight existing trees within the site's boundary. Due to how the structure of the residential building hits the ground thirteen trees need to be removed. Furthermore, two of the existing trees within the site boundary have been categorised as Category U trees meaning that they are in a poor condition and should be removed. Throughout the entirety of the scheme, there is a total of 32 proposed trees in the public realm. Consequently, these trees not only provide an important visual amenity for residents, the public and office workers. They also assist in combating the effects of the urban heat island effect.

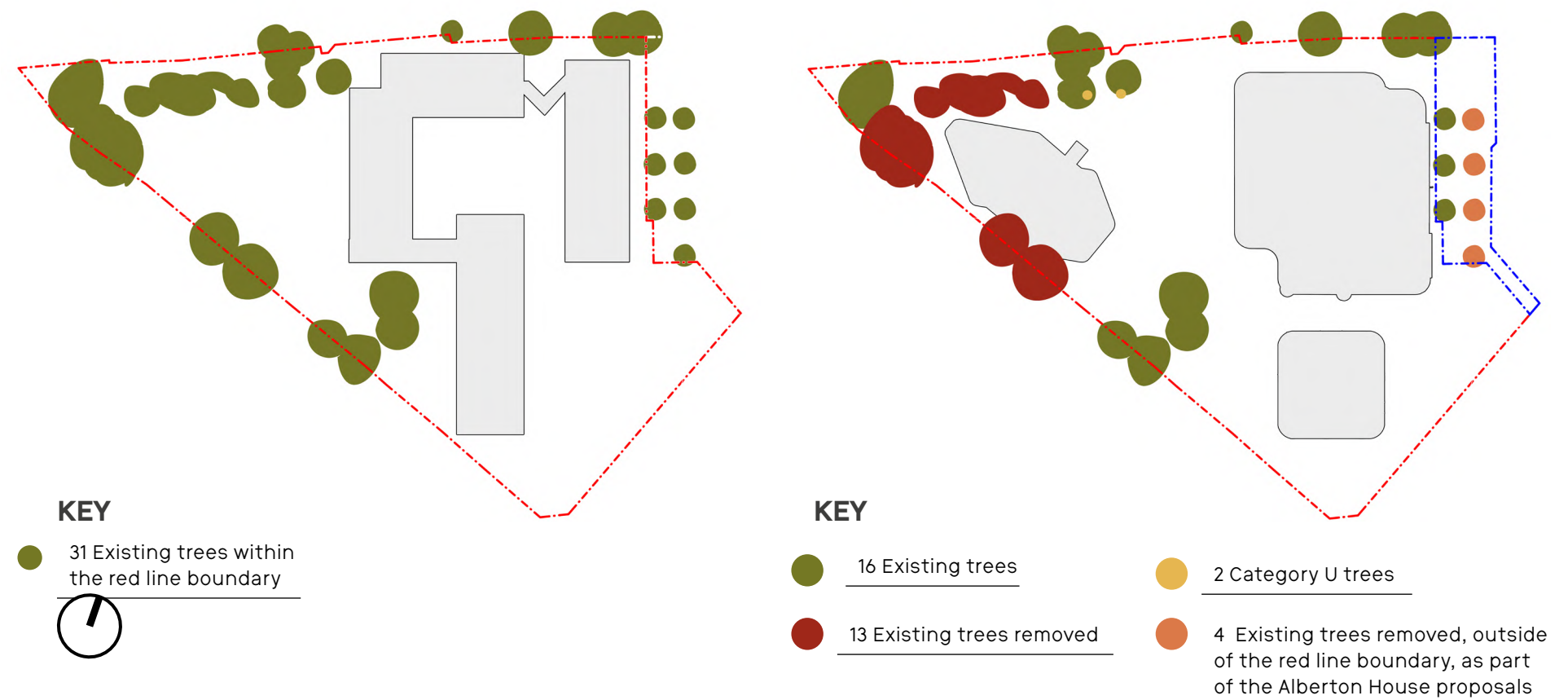
The planting strategy for the public realm is to plant species commonly found within British woodlands and amplify the character of each area by building on the structure of the existing planting.

The existing mature trees that are retained within Albert Bridge Square give the space prominence and mark the square's location on Bridge Street. The character of the square is further reinforced by the addition of new trees which are of the same species as the existing cherry tree, under TPO. Consequently, giving the space a distinct and coherent character which builds upon the existing tree planting structure on site.

The River Walk is planted with deciduous trees in combination with the biodiverse meadow used as a ground cover giving the landscape character area a naturalistic aesthetic. The proposed tree species along the River Walk all have a light deciduous canopy allowing light through to the meadow planting below. A combination of multi-stem and single-stem trees will be planted giving the space an informal character.



Fig 165 Woodland glade planting

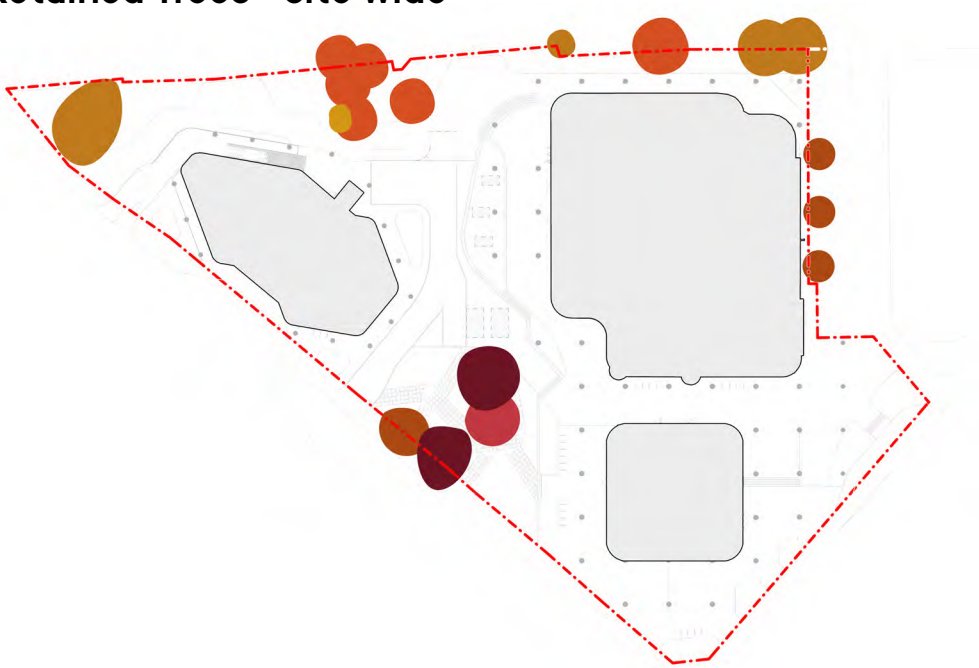


Within the Motor Square Connection, there are two key areas for planting. The tree planting sits adjacent to the dining terrace and the street trees located along St Mary's Parsonage. The tree planting adjacent to the terrace spatially defines the external seating area for the food and beverage units on the ground floor creating a calmer more enclosed atmosphere at the upper level. The street trees which line St Mary's Parsonage not only add need greenery to that particular section of the street but also frame views towards Motor Square when pedestrians are approaching from Trinity Bridge.

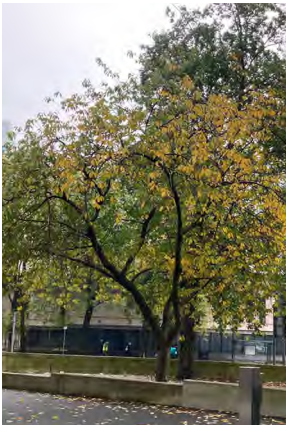
Furthermore, the atmosphere within woodland glades is often defined by the seasonal change visible in the canopy of the surrounding deciduous woodland trees. Therefore, the seasonal colours of the proposed species have been considered in the context of the two neighbouring buildings. The seasonal change visible in the canopy of the proposed trees will complement the warmer tones present in the façades of the residential and commercial buildings.



Retained Trees - site Wide



Alnus cordata



Prunus avium



Tilia cordata



Acer
pseudoplatanus



Prunus
laurocerasus



Salix fragilis

Proposed Trees - Albert Bridge Square



Acer
pseudoplatanus



Betula pendula

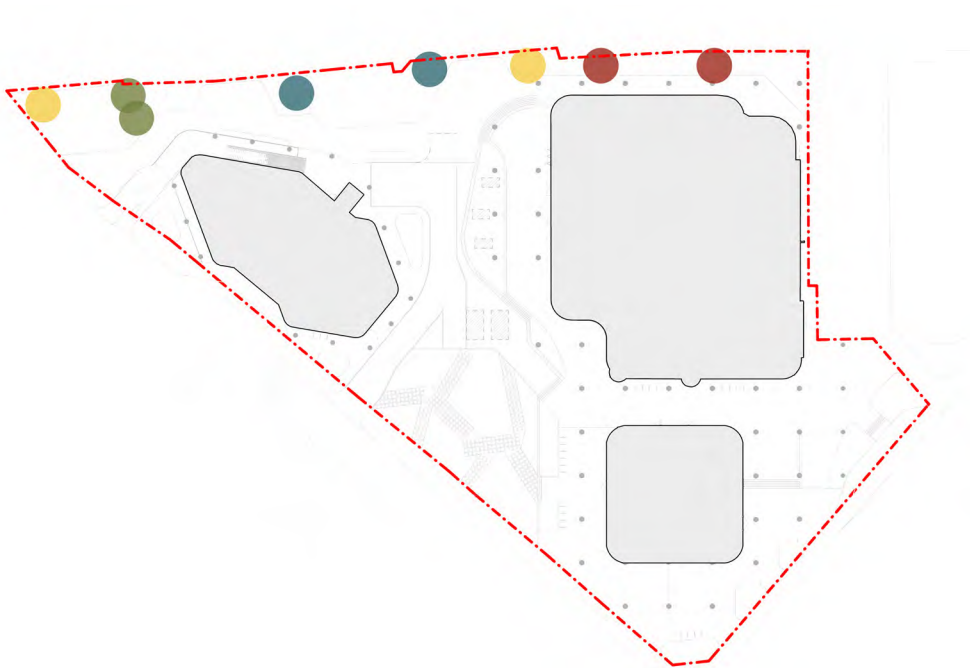


Prunus avium
'Plena'



Tilia cordata

Proposed Trees - River Walk



Alnus glutinosa



Betula pendula

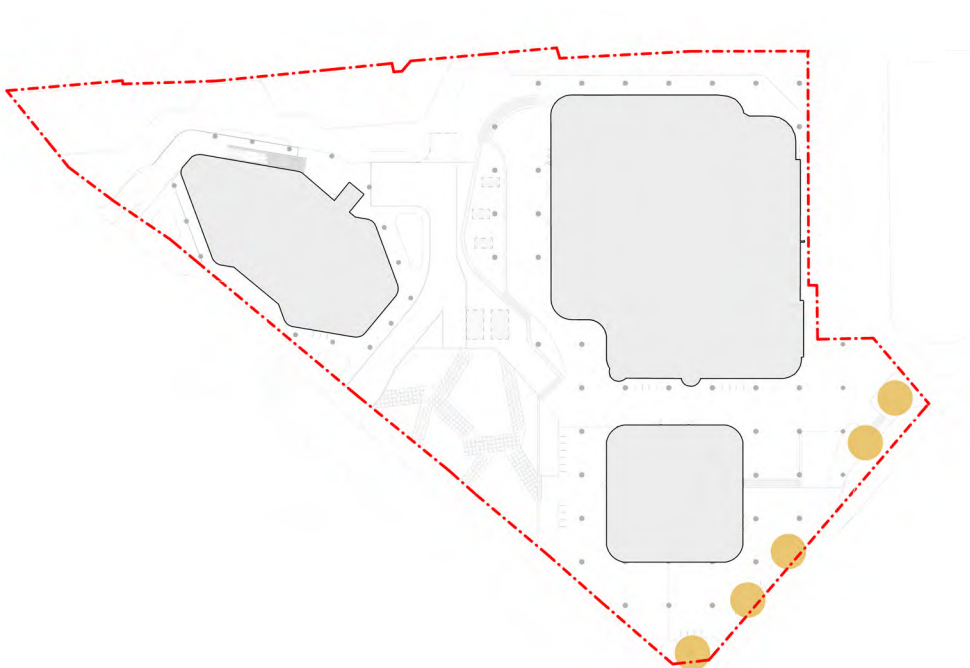


Populus tremula



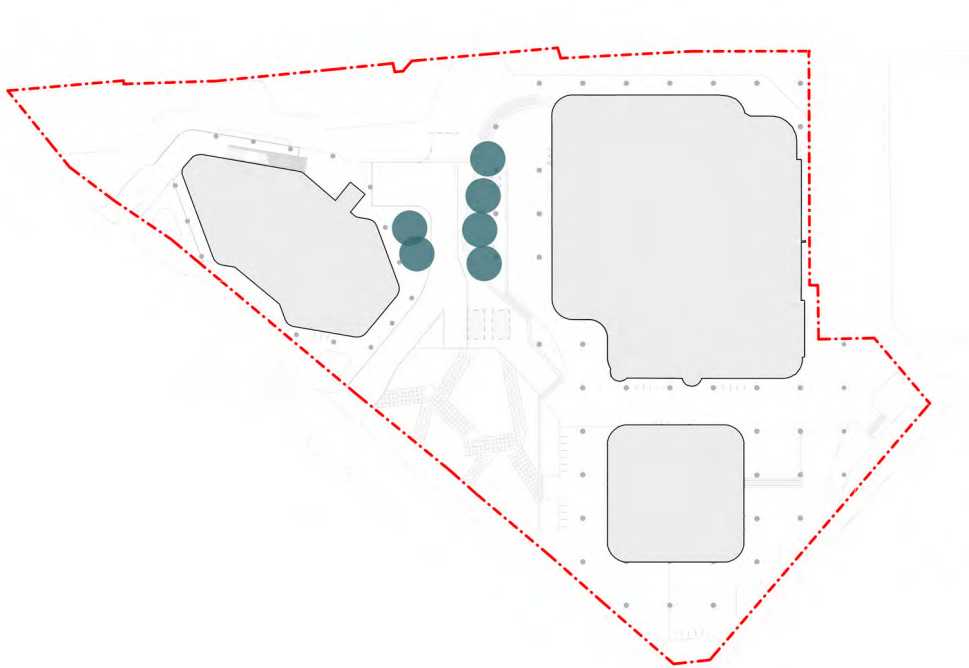
Salix alba

Proposed Trees - Trinity Square Connection



Tilia cordata

Proposed Trees - Building Interfaces



Betula pendula

Public Realm - Ground Plane Planting Strategy

The planting which populates the ground plane is composed of species found within British woodlands and is evocative of the atmosphere within a woodland glade.

The planting design ensures that the series of spaces are designed with one overarching visual design language. However, each area is planted with a specific planting typology that responds to the microclimatic conditions affecting the space.

The planting within the public realm at ground level is composed of three mixes.

The first planting mix sits along the site's southeastern boundary and lines St Mary's Parsonage. The ground level planting in this specific location will add much-needed greenery to this section of the street. This section of the landscape is south facing. Therefore, the plants are species that are proven to thrive in conditions that are exposed to sunlight.

The second species mix is located within a more shaded location between the two proposed buildings. This particular area will receive a limited amount of direct sunlight. Consequently, the plants which have been selected to populate the ground plane in this particular location are woodland under-storey plants that grow well in more shaded conditions.

The third planting mix is located adjacent to the River Irwell. The plants in this location will slope down to the river embankment. The planting in this location intends to encourage the presence of insects and wildlife along the banks of the River Irwell. As a result, the planting in this location is composed of a shade-tolerant wildflower turf. The wildflower turf not only encourages more wildlife to populate the area in the future but will also assist in creating a naturalistic character adjacent to the River Walk.

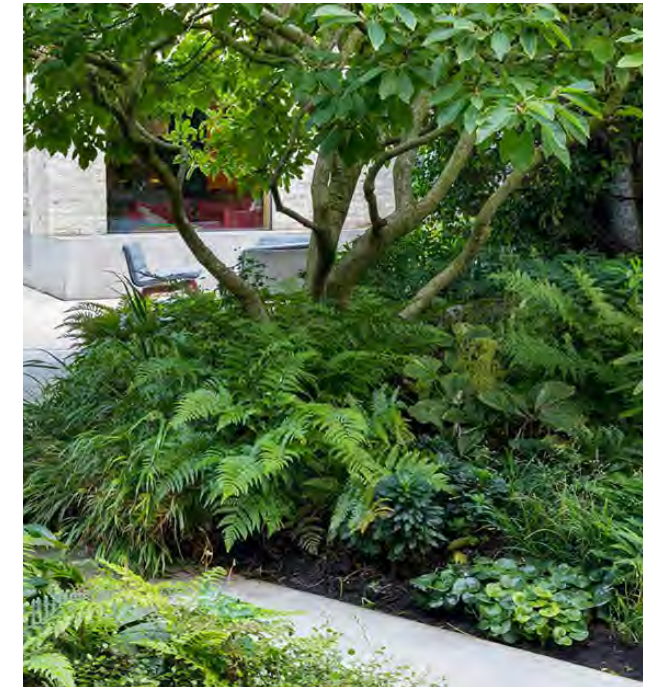
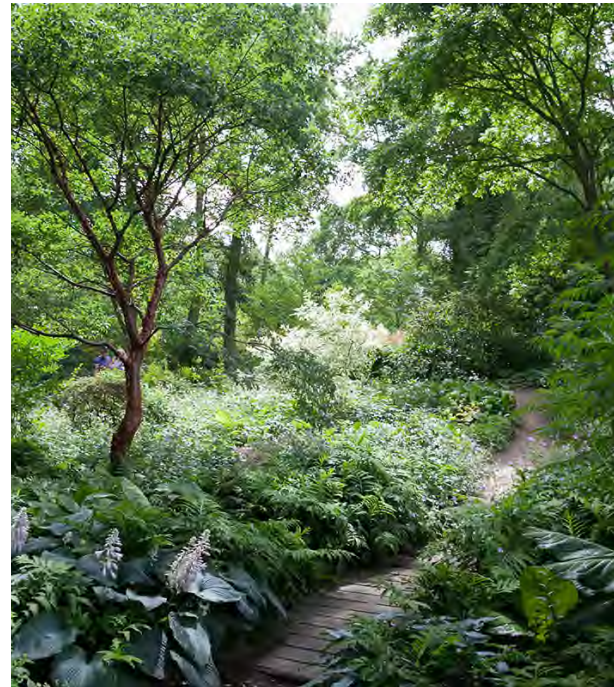


Fig 166 Images which are indicative of the look and feel of a woodland under-storey planting palette

Planting Mix One

Ground Covering Plants					
	Fragaria vesca	Geranium macrorrhizum 'Ingwersen's Variety'	Hedera helix	Vinca minor	Viola sororia 'Freckles'
					
	Cenolophium denudatum	Dryopteris wallichiana	Hedera helix	Eryngium yuccifolium	Hylotelephium spectabile
					
	Polystichum setiferum	Rodgersia pinnata 'Superba'	Sanguisorba officinalis 'Red Thunder'	Sesleria nitida	Valeriana officinalis
Emergent Grasses					
	Anemanthele lessoniana	Deschampsia cespitosa	Iris foetidissima	Luzula nivea	Luzula sylvatica



Planting Mix Two

Ground Covering Plants



Alchemilla mollis



Geranium macrorrhizum
'Ingwersen's Variety'



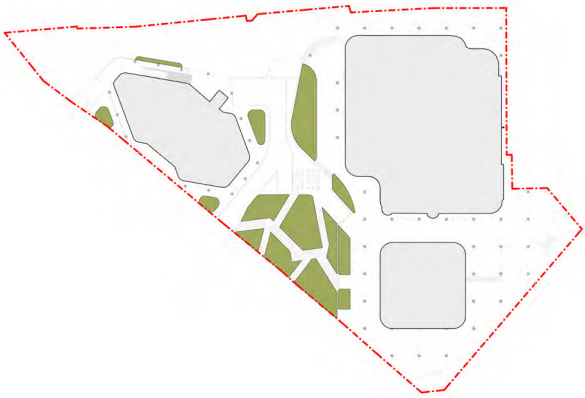
Hedera helix



Lamium maculatum 'Pink
Pewter'



Vinca minor 'Atropurpurea'



Seasonal Planting



Asplenium 'Crispum Boltions
Nobile'



Astilbe 'Fanal'



Carex remota



Dryopteris affinis



Dryopteris filix-mas



Eurybia x herveyi



Hosta 'Patriot'



Hosta 'Sum and Substance'



Sesleria autumnalis



Tellima grandiflora

Emergent Grasses



Anemone x hybrida 'Honorine
Jobert'



Aruncus horatio



Digitalis purpurea



Philadelphus coronarius



Polygonatum x hybridum

Planting Mix Three

Flora species								
	Achillea millefolium	Anthyllis vulneraria	Campanula trachelium	Centaurea nigra	Daucus carota	Eupatorium cannabinum	Filipendula ulmaria	Galium verum
								
	Geranium pratense	Geum rivale	Hesperis matronalis	Hypericum perforatum	Hypochaeris radicata	Knautia arvensis	Lathyrus pratensis	Leontodon autumnalis
								
	Leontodon autumnalis	Leucanthemum vulgare	Linaria vulgaris	Lotus corniculatus	Lychnis flos-cuculi	Malva moschata	Myrrhis odorata	Onobrychis vicifolia
								
	Origanum vulgare	Plantago lanceolata	Primula veris	Prunella vulgaris	Ranunculus acris	Rhinanthus minor	Rumex acetosa	Sanguisorba minor
Grass species								
	Silene dioica	Silene latifolia	Stachys officinalis	Teucrium scorodonia	Trifolium pratense	Vicia sativa		
								
	Cynosurus cristatus	Festuca ovina	Trisetum flavescens					



Roof Terraces

Accessible and Non Accessible Roof Terraces

The roof terraces which form the private outdoor amenity spaces for the commercial building are composed in a distinct arrangement that acts as a defining architectural feature for the building. From street level, the presence of vegetation on the terraces will add character and vibrancy to the building, fulfilling the concept of the alpine character, while also drawing greenery up the building to extoll the principles of health and well being, which has underpinned the architectural design intent.

The terraces fall into two overarching categories. They are accessible and non-accessible roofs.

The majority of accessible terraces are composed of a simple design which seeks to maximise usability, providing an ample amount of usable space for office workers and mature vegetation. The majority of the terraces are thirty meters squared and have been designed with spatial flexibility in mind. The spatial arrangement of the terrace can cater for a range of different activities.

The majority of roof terraces are accessible to office workers. However, in some instances, these roofs are inaccessible to allow for provision of PV panel arrays and/or biodiverse roof systems. The roof areas populated with PV panels are all located at high level, on roof areas that will receive direct sunlight at varying times of day and year. These panels will act as a valuable source of passive electricity for the commercial building to assist with the energy strategy. The biodiverse roofs will contain several plant species that can support a variety of invertebrates and pollinators, contributing to an ecological knock-on effect, in providing food sources for small mammals and birds. Biodiverse meadows also require minimal maintenance throughout the year.



Fig 167 Illustrative roof plan

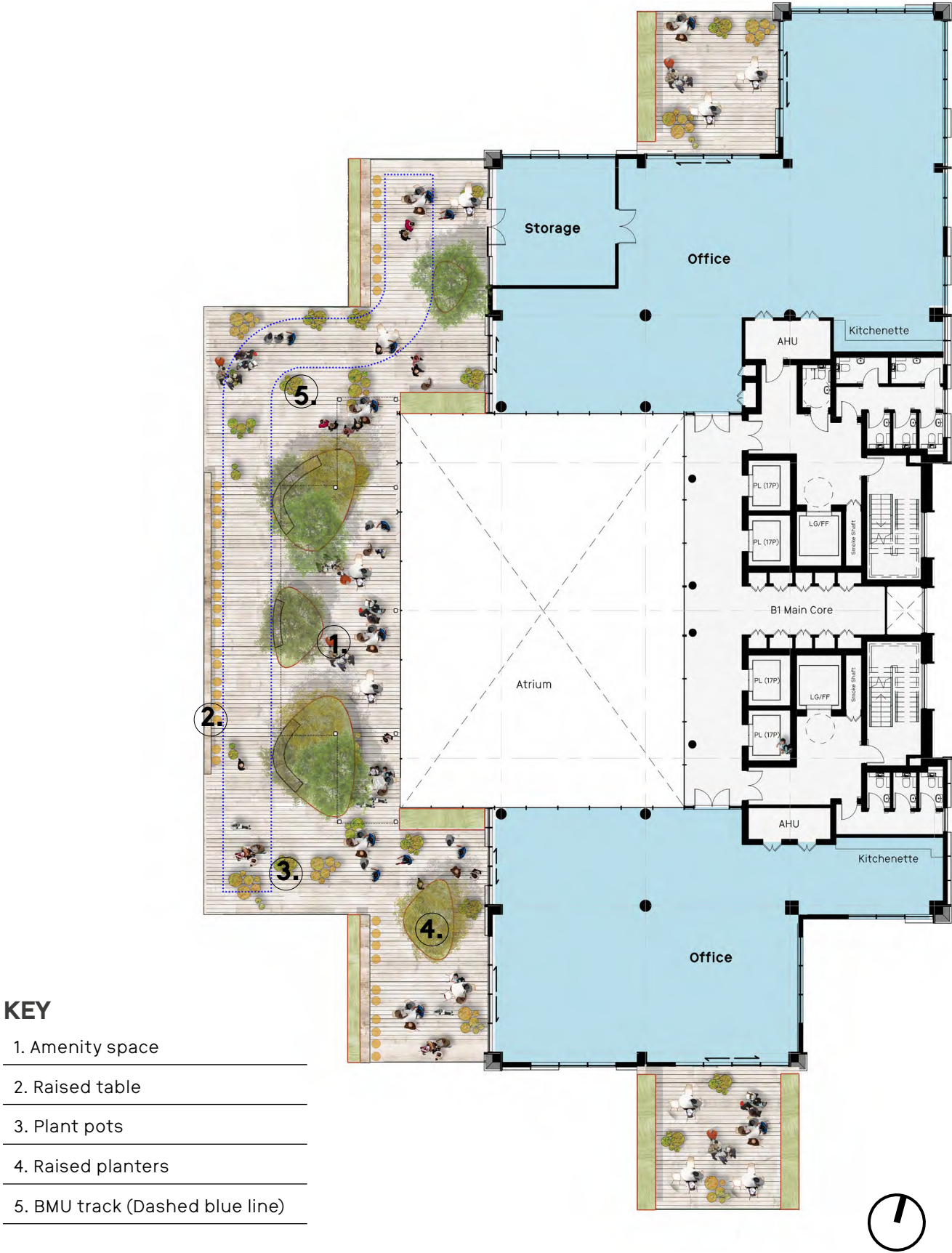


Fig 168 Illustrative plan of the consolidate terrace at Level 16



Fig 170 Illustrative view of the consolidated terrace at Level 16



Fig 169 Illustrative view of the consolidated terrace at Level 16

Roof Terrace Uses

The approach of creating a multi-layered landscape within the design of the commercial building, offers opportunity for activities which take place within the office spaces to spill out onto the roof terraces. Consequently, this creates a tangible relationship between the interior and exterior spaces. On this page, the various activities that can be undertaken on the accessible terraces are outlined.

The roof terraces can be used in several different ways, dependent on the roof terraces' location, scale and aspect, some will be more suited to accommodate certain activities than others.

At particular points in the building, larger terraces are provided on the commercial building. These more generously proportioned terraces can cater for larger events. The diverse offering for how the external amenity spaces on the building can be used, gives the building tenants more choice and flexibility, and also allows for future flexibility as the building adapts to changes of use over time.

The opportunities to use the terraces on the southern section of the building are greater because they receive more exposure to sunlight and rainwater. These terraces can be used as an outdoor seating, working or dining space. Furthermore, a tenant could choose to utilise the outdoor space as exercise, yoga or tai chi, for office workers during the warmer months of the year.

There are inset terraces on the northwestern corner of the commercial building. Therefore, due to the amount of exposure they would receive to sunlight and rainwater they have been designed with a limited amount of vegetation. The majority of the space on these terraces is left open to accommodate external furniture to allow office workers to socialise and work outside.



Fig 171 Illustrative view of yoga taking place on one of the south facing terraces



Fig 172 Illustrative view of one of the south facing terraces



Fig 173 Event on a roof terrace



Fig 174 Accessible roof terrace

Roof Terraces - Hard Materials

The materiality of the roof terraces has been carefully considered in order to complement the colour and textures found within the façade of the commercial building.

The generously proportioned planter is formed of a weathered steel which will develop a distinctive patina over time. The warm tone of the steel planter echoes the pale green metalwork found on the façade of the building. Consequently, giving the building and terraces a visual cohesion.

The decking of the terraces is formed of a composite material. This material has been selected for its durability, to accommodate a variety of activities throughout the day and seasons throughout the year.

A key component of the planter is that it incorporates an integrated bench which is formed of the same material as the decking. The linear bench is generously proportioned in order to optimise the amount of space for external seating on the terrace.

In some instances pots punctuate the terrace adding colour and vibrancy, as well as flexibility in the spatial use of each terrace. The warm tones of the clay pots will complement the earthy tones found within the design of the building façade. As a result this further enhances the visual relationship between the architecture and the external amenity spaces.



Fig 176 Precedent image of roof terrace with a decked surface



Fig 175 Precedent image for generously proportioned steel planters



Fig 177 Decking material being used to form a linear seating element



Fig 178 Clay planting pots

Roof Terraces - Soft Landscape

The planting strategy for the roof terraces has been informed by the natural processes that form vegetation within alpine landscapes. Alpine planting is robust and well adapted to thriving in exposed conditions and extremes of weather. The specific species specified within these landscapes have been chosen to be well suited to growing in exposed locations such as the roof terraces on top of the commercial building.

In order to understand the planting structure found within alpine landscapes an analysis of the planting structure was undertaken. From the analysis that was undertaken four key characteristics of the alpine landscape planting were drawn. These were:

- 01** Exposed landscapes with occasional trees
- 02** They have a diverse range of species on the ground plane
- 03** There is a naturalistic patchwork of ground cover plants
- 04** The occasional trees often have a distinctive form because they have been shaped by the wind

Subsequently, a structure for the proposed planting emerged out of the above conclusions. The planting on the roof terraces is composed of four distinct layers of robust alpine vegetation.

- 01** The first layer is of low growing evergreen species with a diverse range of forms and colour.
- 02** The second layer is formed of seasonal plants such as grasses and ferns to provide interest throughout the year.
- 03** The third is a layer composed of emergent evergreen shrubs that will give the planting a consistent structure.
- 04** The final layer is tree planting with distinctive forms giving the terraces a distinctive character and animating the building from street level.

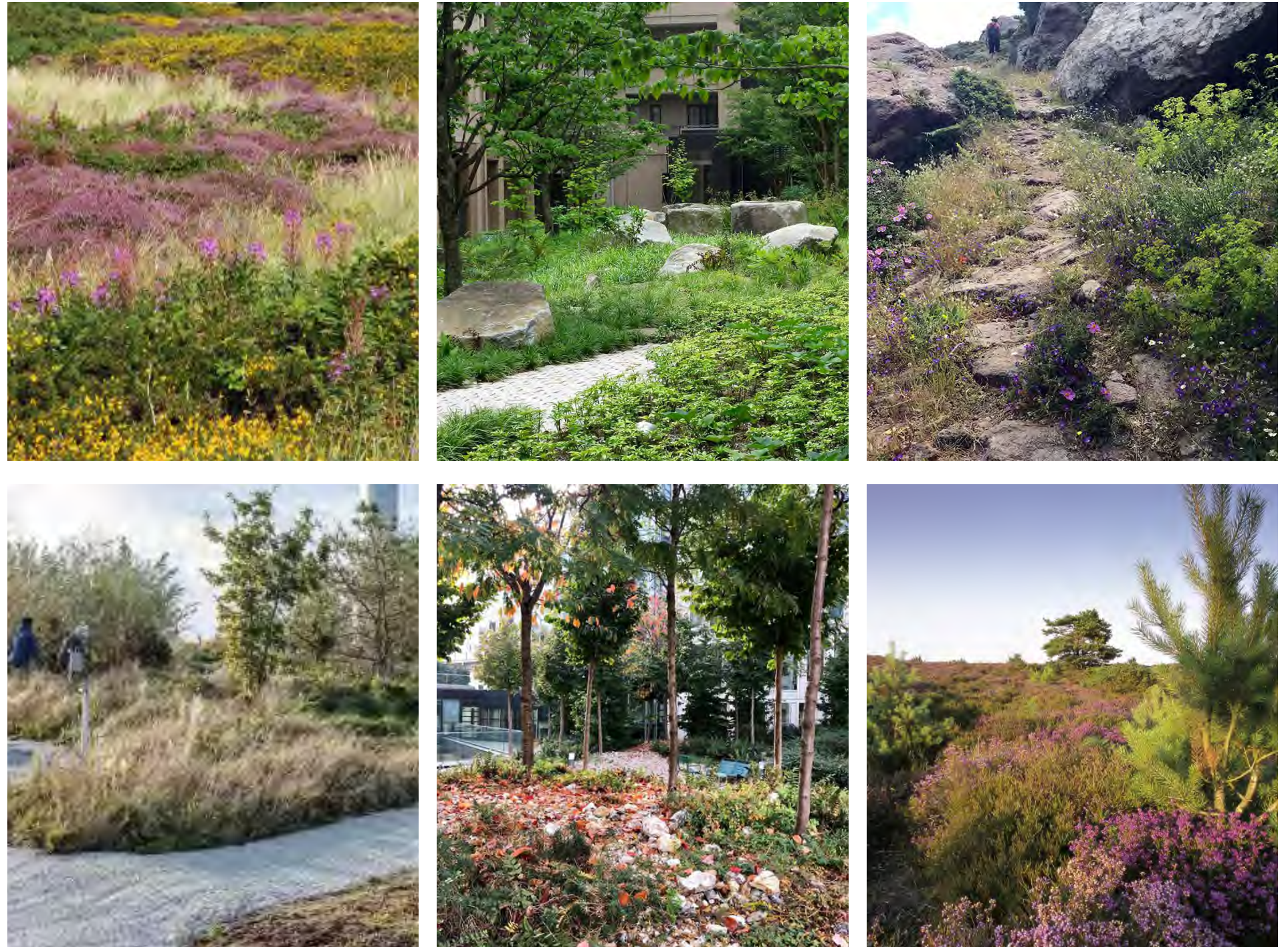


Fig 179 Images which are indicative of the look and feel of an Alpine planting palette

Groundcover - Low growing evergreen species						
	Calluna vulgaris 'Alicia'	Erica carnea f. alba 'Whitehall'	Hedera helix	Helianthemum 'The Bride'	Thymus praecox 'Coccineus'	Thymus serpyllum 'Snowdrift'
Seasonal plants- Grasses and ferns						
	Festuca gautieri	Festuca glauca 'Golden Toupee'	Melica ciliata	Stipa calamagrostis		
Structural plants - Evergreen shrubs						
	Pinus mugo 'Gnom'	Pinus mugo 'Benjamin'	Erica lusitanica	Pinus mugo		
Tree planting						
	Betula nigra	Hippophae rhamnoides				

Ecology and Biodiversity

Introduction

A preliminary ecological appraisal has been undertaken by the project’s ecologists to help inform the landscape design. The report outlines the existing ecological value of the site and provides recommended ecological enhancements to minimise the ecological impact of the potential development.

The following section summaries the findings in the report and details the incorporation of recommended features within the landscape design. The diagram opposite locates the recommended features within the landscape plan.

Survey Results

The survey identified the existing site to be of very low ecological value as it mainly comprises buildings and hard-standing. Existing conditions offer limited opportunities to bats, birds and invertebrates

Bats

None of the buildings within the site are considered to offer any suitable potential for roosting bats and existing trees are considered to be of very limited value to bats. The trees and scrub associated with the existing public realm offer limited potential foraging and navigational opportunities to bats.

Birds

The site offers limited potential to support breeding birds and only common and widespread species were recorded during the surveys.

Invertebrates

Given the hard-standing nature of the existing conditions and regular activity and use, it is not considered that any notable species other than the common range of invertebrates would be present on the site.

Planting Proposals

Given the hard-standing nature of the existing conditions and regular activity and use, it is not considered that any notable species other than the common range of invertebrates would be present on the site.

Wild Flower Meadow

Wildflower meadows form crucial habitats that provide biodiversity benefits further along the food chain. The large number of plant species within a meadow can support a variety of invertebrates and pollinators, having a knock-on effect by providing food for small mammals and birds. This planting typology is proposed along the entirety of the slope which gently falls towards the embankment wall of the River Irwell.

Native Tree Planting

New trees planted within the public realm and on the residential podium mitigate winds and ensure comfortable micro-climates for the users. They also provide shelter to bats, birds and insects. It is important that the majority of these trees are native as native trees tend to support more wildlife than non-native species. The native woodland trees selected are outlined within the previous chapter entitled ‘Public Realm - Tree Planting Strategy’. in addition, the proposal outlines 3 new trees for every existing tree removed from the site.

Surface Water Management

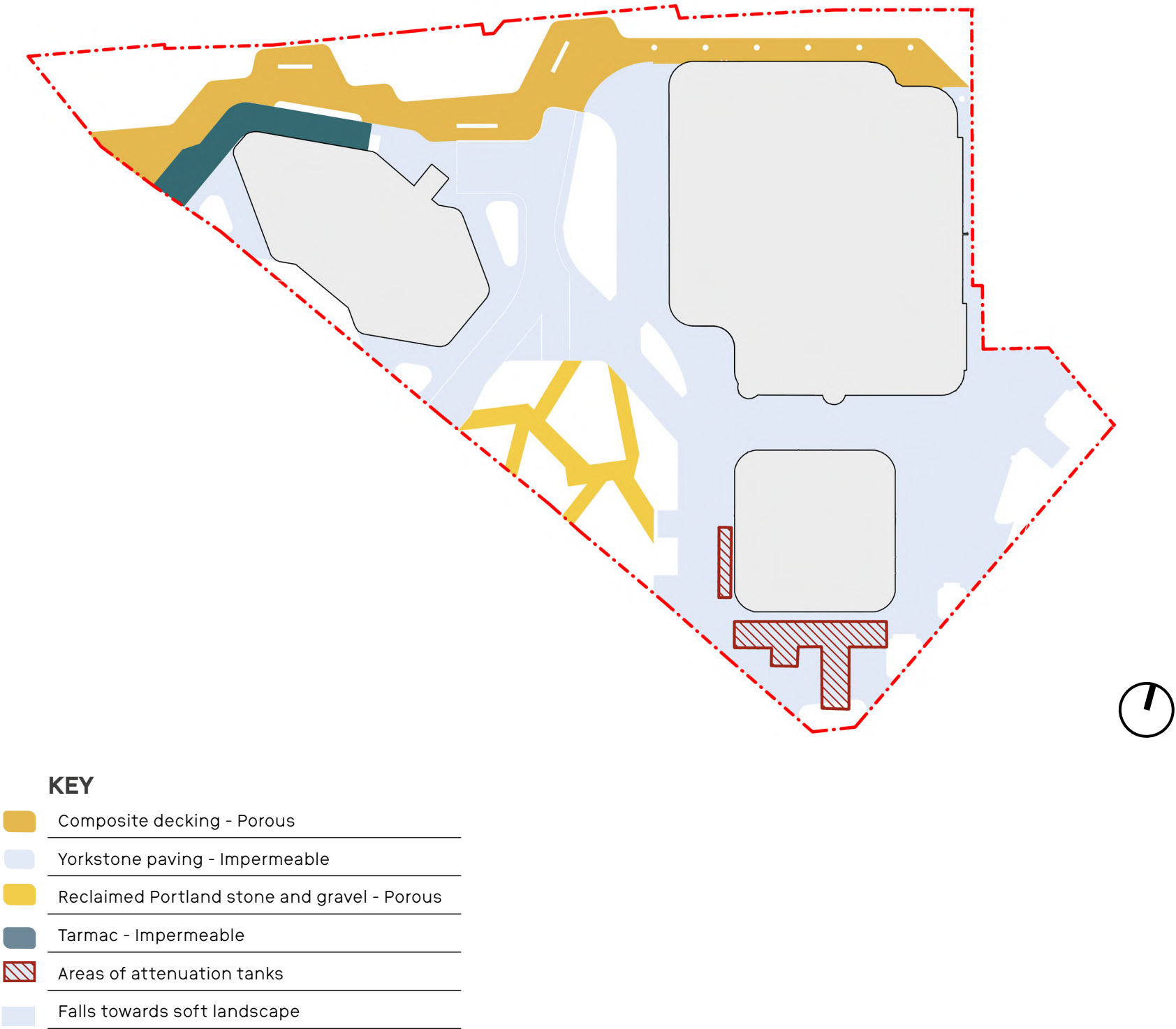
In consultation with the project technical design team, a drainage strategy has been developed for the site, that manages water in a climate-resilient manner. Drainage of the public realm within Albert Bridge House is achieved through two key design moves.

- 01 To ensure that areas of the hard landscape are graded to fall back towards the planting, therefore reducing the requirement for drains and gullies required throughout the site.
- 02 The introduction of below-ground attenuation cells/tanks located beneath underneath the public realm in strategic locations, and with respect to existing drainage outflows to the existing sewer network.

As described within the materiality section of this chapter the majority of the public realm is paved with a robust natural stone, due to the extent of the activity that is expected to take place and to give the proposals visual consistency both within the red line and with other public spaces throughout Manchester. Where possible the stone finish will be laid to direct water back to the surrounding soft landscape areas. However, in some locations drains may have to be installed, the designs for which will be fully coordinated at the next stage.

Underground water attenuation tanks will store rainwater collected from the roofs of the building and from the public realm. The attenuation tanks temporarily store stormwater for a period of time and then slowly release the water back into the sewer network.

In addition to the careful consideration of the levels of the hard landscaped areas and the attenuation tanks, the design of the commercial building includes a number of green roofs to ensure that rainwater is intercepted before it reaches ground level.



5.0

**RESIDENTIAL
BUILDING**

Summary

The residential building is the tallest of the development, occupying a prominent position at the western corner of the site, and at the gateway between Manchester and Salford, which provides a favourable setting for a landmark building.

The scheme provides 367 build-to-rent homes over 45 storeys, generous double-height managed lobby connected to F&B uses at ground level, active cycle store at level 01 accessed by bike lifts and a cycle stair ramp, 3 internal double height communal amenity spaces at levels 10,22 and 34 for the enjoyment of the residents with annexed terrace.

The mechanical plant is split between the top of the roof and the basement below the building, which also provides 8 EV car parking spaces.

Main Use	C3 Residential - Build to rent	ca. 39,389 sqm GIA (total building GIA inc. basement)
N. Homes	367 homes	10% M4(3) provision (37 homes)
Storeys	45	
Ground Floor Uses	C3 Residential Lobby	105 sqm GIA
	C3 Residential Waste	203 sqm GIA
	E (a, b, c) Retail / F&B	145 sqm GIA
Communal Amenity Uses	L. 10, 22, 34	367 sqm GIA
BOH Ancillary & Car Park	Basement Level	1430 sqm GIA
Car Parking Spaces	8 (4 accessible, 3 Car Club, 1 delivery)	
Cycle Parking Spaces	368 cycle spaces	468 sqm GIA at L.01
Homes per floor (typical)	10	
n. Lifts	5 x 17 people lifts (all FF/evacuation)	

	UNIT MIX (367 HOMES)			
	Percentage %		Count	
1 Bedroom Homes	32%		118 homes	
			M4(2)	M4(3)
	1B2P	32%	108	10
2 Bedroom Homes	56%		206 homes	
			M4(2)	M4(3)
	2B3P	13%	27	22
3 Bedroom Homes	2B4P	43%	157	
	12%		43 homes	
			M4(2)	M4(3)
	3B4P	8%	28	
	3B5P	1%		5
	3B6P	3%	10	

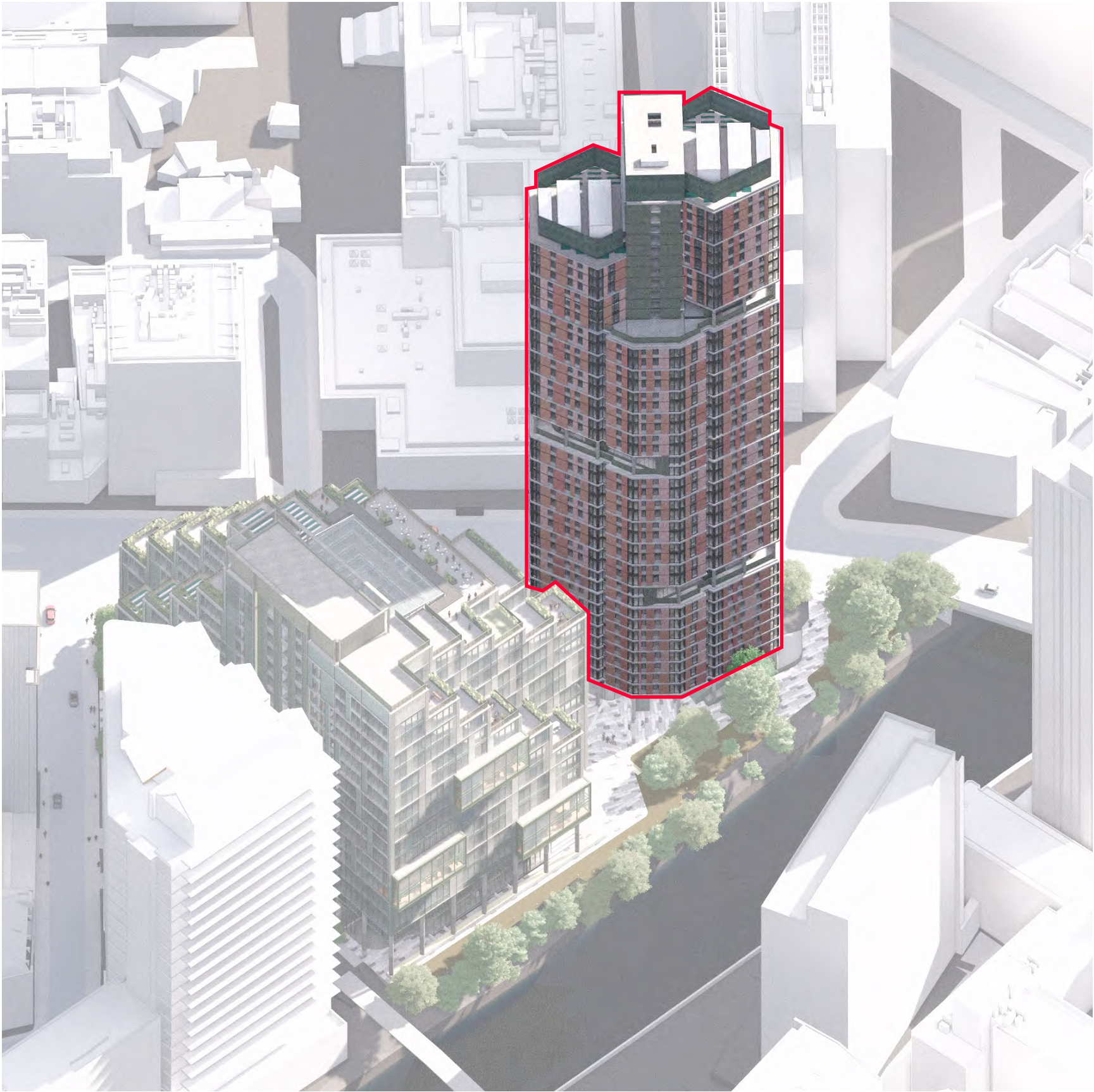


Fig 180 Residential model view

Use and Amount

Fig 181 Area overview

Use Class	C3 Residential					C3 Communal Amenity		Car Parking Spaces	E (a,b,c) Retail/ Restaurant/ Café				Sui Generis (Basement)		TOTAL			
Area	GEA		GIA		Units				GEA		GIA		GEA	GIA	GEA		GIA	
	sqm	sft	sqm	sft					sqm	sqft	sqm	sqft	sqm	sqm	sqm	sf.ft	sqm	sq.ft
ALBERT BRIDGE HOUSE																		
Building A - Residential	41,036	441,711	37,814	407,026	367	942	10,141	8	162	1,742	146	1,568	1,572	1,429	42,771	460,379	39,389	423,978

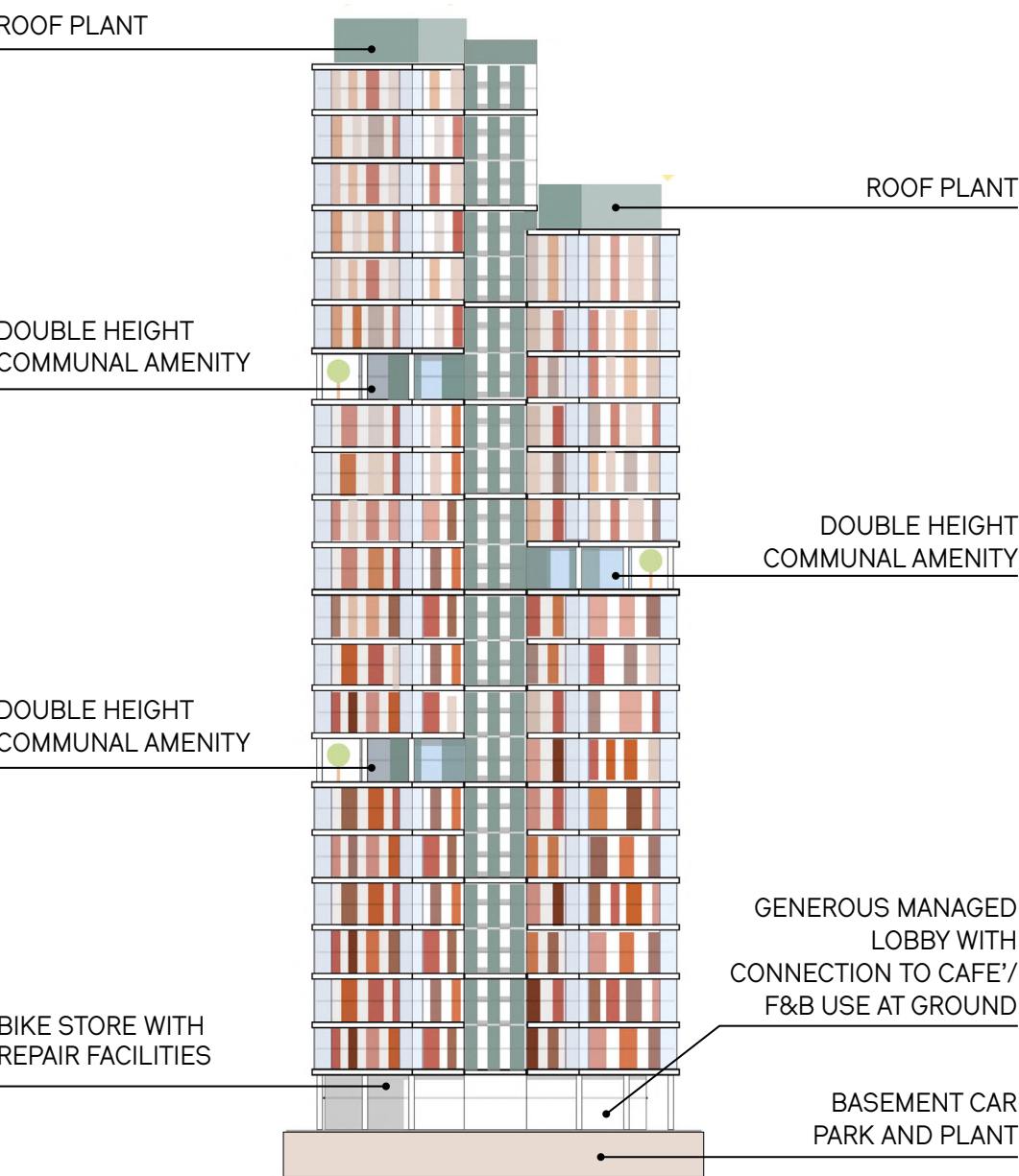


Fig 182 Building diagram

	1B2P	1B2P M4(3)	2B3P	2B3P M4(3)	2B4P	3B4P	3B5P M4(3)	3B6P	Total
Total Units	108	10	27	22	157	28	5	10	367
	118		206			43			367
M4(3) homes		10		22			5		37
M4(2) homes	108		27		157	28		10	330
Percentage of Overall Mix	29%	3%	7%	6%	43%	8%	1%	3%	100%
	32%		56%			12%			100%

Fig 183 Unit mix

The residential building delivers 367 homes to M4(2) space standards, of which 10% (37 homes) are designed to be M4(3): Wheelchair user dwellings.

Of the overall total 73% (269 homes) enjoy a dual aspect, with aspect in more than one direction, due to the building footprint facets.

Of the remaining 27% (98 homes), 61% (60 homes) have enhanced aspect living room, with a view out over the River Irwell, and across the City of Salford.

Note:
M4(2) - accessible and adaptable dwellings that include features that make it suitable for a range of potential occupants, including older people, individuals with reduced mobility and some wheelchair users.
M4(3) - wheelchair user dwellings that include provisions for a wheelchair user to live in the dwelling and have the ability to use any outdoor space, parking and communal facilities.



Building Concept

The general concept for the building form is the combination of hexagonal shapes, and a faceted infill, linked in the middle by a central core, where the circulation and services run vertically. This faceted shape of the building allows for a distinctive sculpted and stepped massing while optimising the aspect and views for occupants.

The percentage of dual aspect homes, and enhanced views available, is of particular importance at the interface with the commercial building, whereby residents have view options towards Manchester City Centre, the River Irwell, the high quality landscape of the public realm and the trees below, as well as the streets-cape of Manchester. The unique floorplan shape, and orientation within the site proposed fulfils the highest quality design aspiration, while maximising:

- retention of existing trees at ground level
- available open space public realm & connection to the river at ground level
- relationship with the commercial building relative to separation distance
- surprise and delight within apartment internal arrangements.
- permeability from adjacent public footpath into the site from multiple approaches

All the homes were arranged to have the living room in the corners, which have full-height glazing on both sides. An additional area, exceeding minimum nationally described space standards allows for a corner of each living space to be designated as private amenity space, in the form of a winter garden, contained within the thermal envelope.

The facets formed by the hexagon arrangement also helps to dissipate wind, to reduce the impact of downwash and high levels of wind at ground within the public realm. From key ground level viewpoints, the profile of the tower presents a slender appearance, helping to limit the visual impact of the tower from key viewpoints, helping sunlight infiltration to ground level spaces within the site and surroundings.

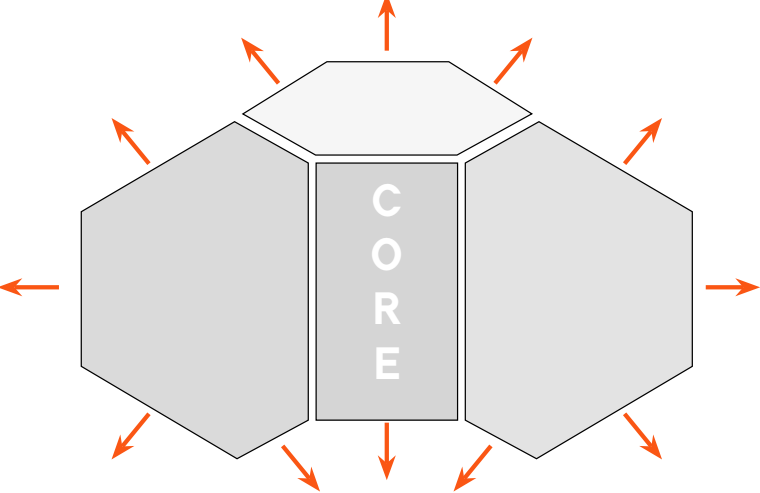


Fig 184 Building footprint concept



Fig 185 Building orientation, views, offset and distances

Massing Approach

The residential building occupies a portion of the site that was identified in the Strategic Regeneration Framework (SRF) as appropriate for a landmark building.

This is supported by:

- the location at a gateway between Salford and Manchester, makes the site a key development zone within the City Centre;
- the scale of the buildings in the immediate surroundings (the Manchester Law Courts and the Affinity Living Riverview in Salford);
- the favourable location along the river, which naturally provides distance with the buildings to the north, along with view corridors, together with Bridge Street to the building from a number of public realm locations within the immediate context

The massing approach creates a building which acts as a recognisable landmark, while contributing to site and townscape legibility and wayfinding by it's faceted footprint. The massing has been carefully articulated to create slenderness from key viewpoints along Bridge Street, and to break up the massing from viewpoints to the south and north of the site.

The massing heights of the four volumes step in three locations, down towards Manchester City Centre and the adjacent commercial building to the east, to create a layered height approach. Double height set-back levels host communal amenity spaces, which carve the building to create a sense of rhythm and proportion. This also helps to break down the volume into 'neighbourhood' clusters of homes internally.

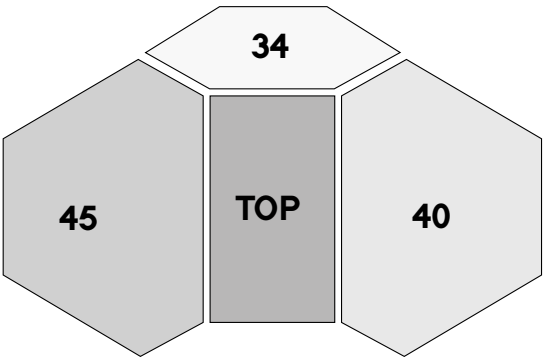
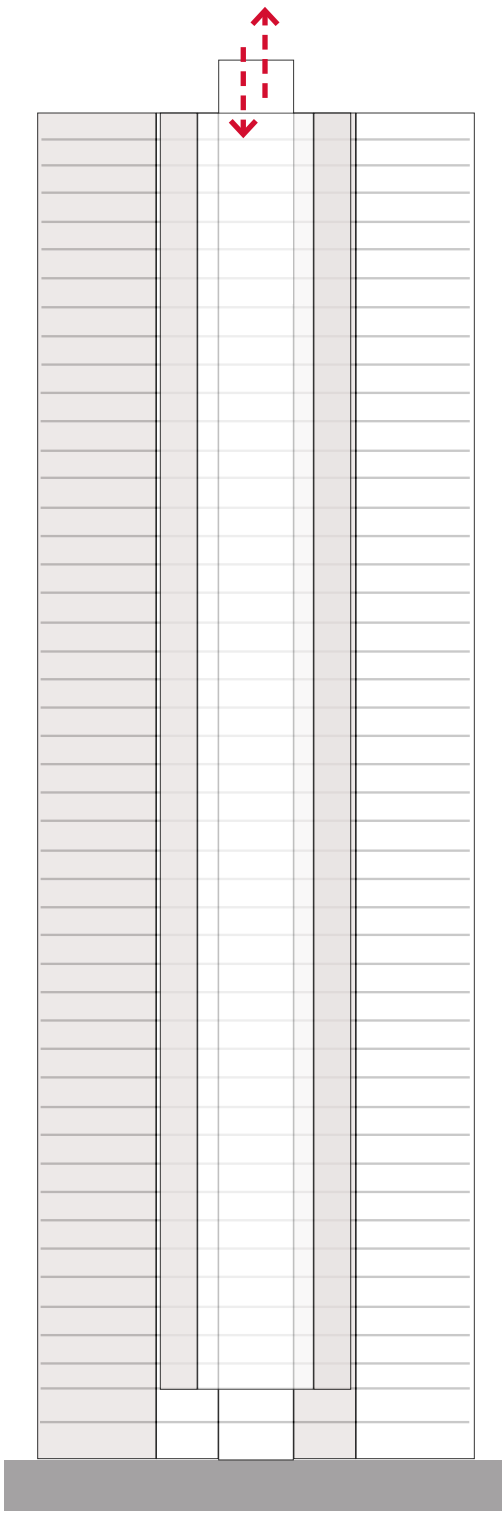
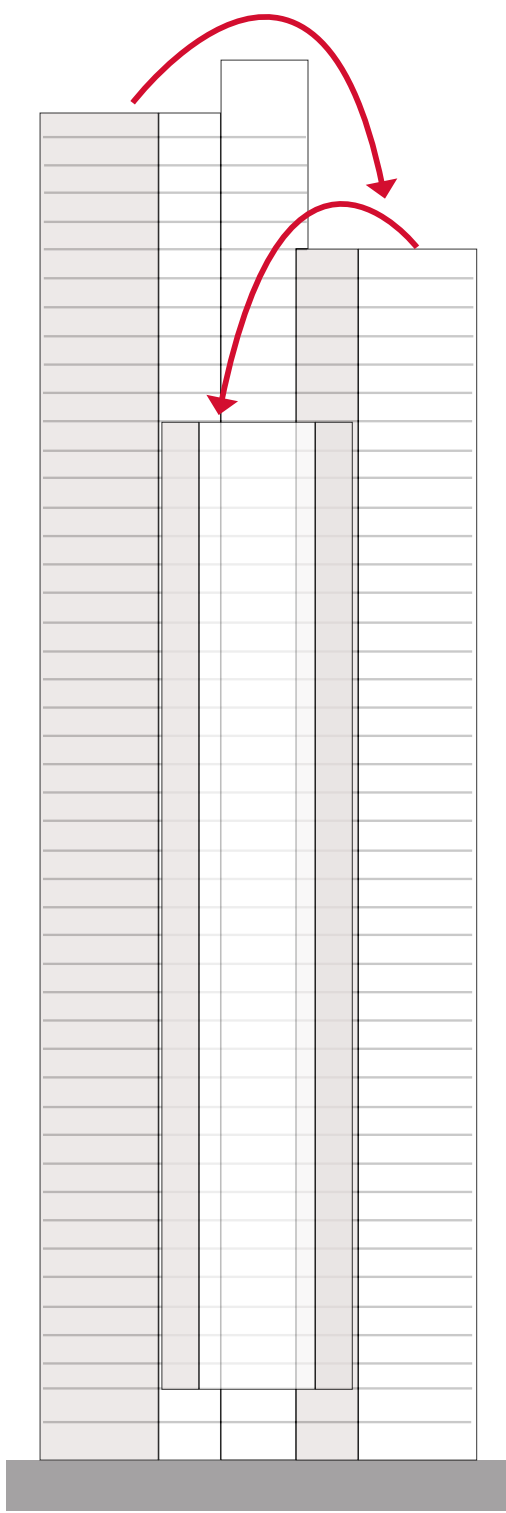


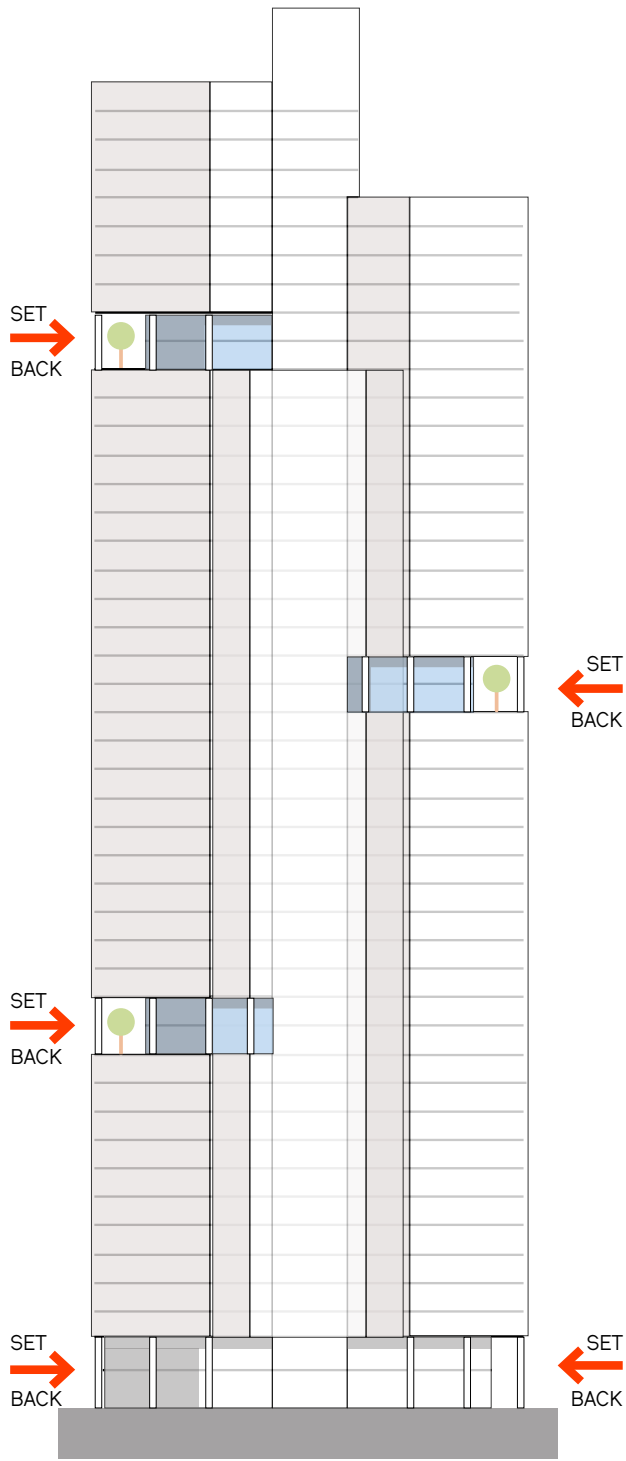
Fig 186 Plan principle - stepping volumes



1. Three faceted volumes connected by the core



2. Stepping heights down towards Manchester City Centre and the adjacent commercial building.



3. Set back ground floor and amenity levels to break down the volume and create neighbourhood clusters

Fig 187 Massing strategy -sculpted form

Design Evolution



Fig 188 Residential concept sketch February 2022



Fig 189 CGI proposal October 2022

Building Base Layouts

Ground Floor Level

The ground and first floor envelopes of the residential building are set back from the main building line, offering spill out space from the active frontage of the retail/ cafe use adjacent and connected to the entrance lobby, while providing overhang protection, to shield pedestrians and visitors to the site from the elements at key entrance points.

The setback of facade forms a double height expression on the elevation, articulated by a colonnade, which defines a threshold of public to semi-public on approach to the building at ground level. Also contained within the double height setback are the accessible lifts and shallow stair, with wheel track for residents to take their bikes up to the first floor cycle store.

The ground floor is accessed via a generous managed lobby with double height entrance along Bridge Street in close proximity to the pedestrian crossing towards Manchester Crown Court and Spinningfields. The residential bin store is connected to the core for ease of waste disposal, with access for managed waste collection via ramp along Bridge Street.

A publicly accessible cafe/retail space wraps around the eastern part of the floorplan providing frontage and activation to the public realm. Primary access to the cafe/ retail space is from Albert Bridge Square, however the space is also connected via fob access to the residential lobby, to provide an additional layer of amenity for residents of the tower, so occupants feel part of the city.

KEY

	Residential Lobby
	Cafè / F&B
	Bin Store
	Active Frontage
	Entrance
	Access to Level 01 cycle store

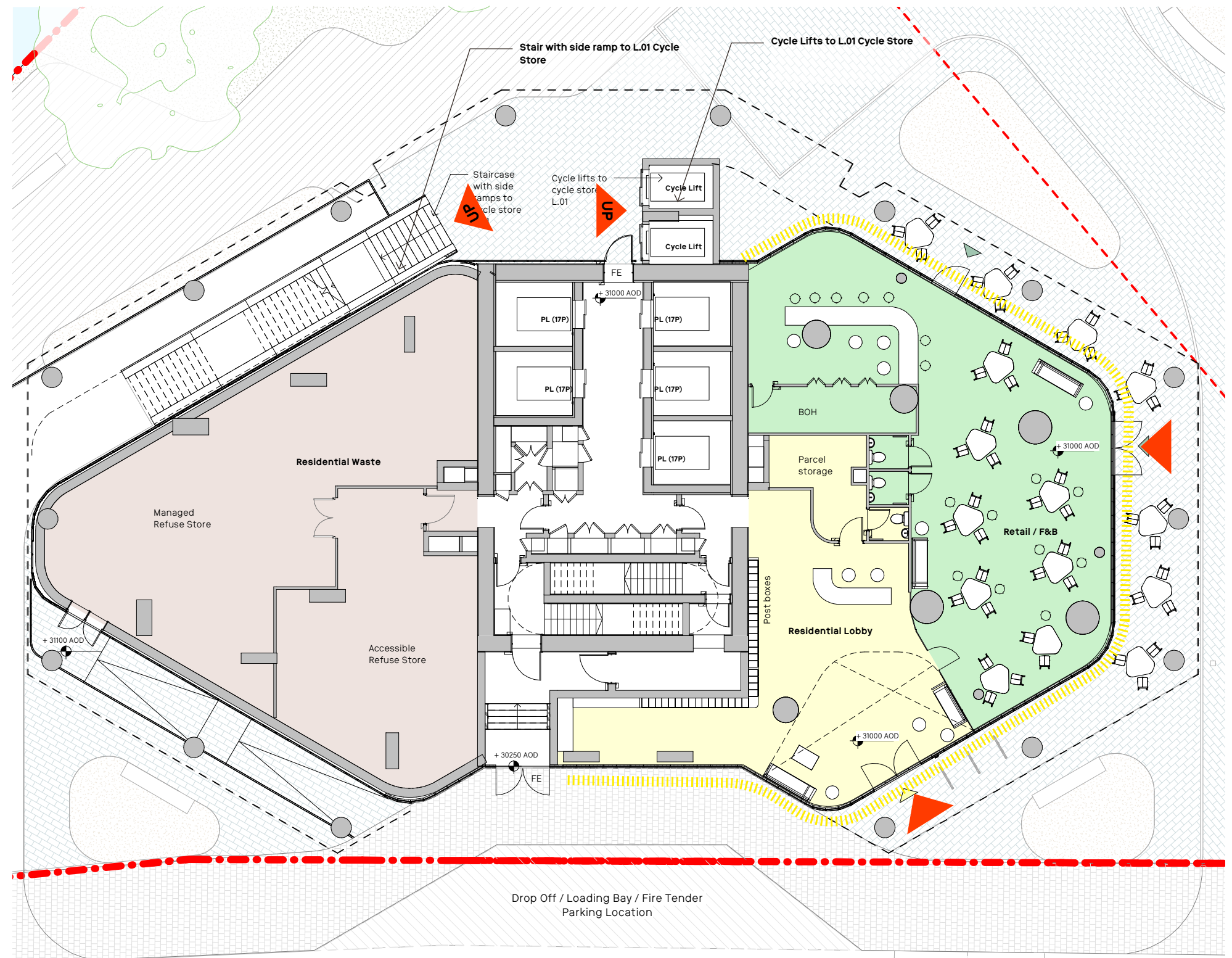


Fig 190 Level 00 Plan



First Floor Level

The first floor is occupied by the cycle store, which is accessed by the feature external shallow cycle stair, along the northern frontage of the building at low levels. Coupled with the shallow cycle stair is a set of 2no. cycle lifts, to enable cyclists with accessibility needs to access the first floor store.

The cycle store provides 368 cycle spaces overall in a mix of high density double-height racks, and sheffield stands to allow for oversized, sit down cycles and electric cycles to be stored alongside traditional pedal bicycles.

Additionally, the store area offers a zone for bike cleaning and repairing to ensure that sustainable transport methods are prioritised with suitable on-site facilities to allow residents to maintain their cycles in house, on a daily basis.

The facade at first floor is wrapped in a fritted/opaque channel glass which enables translucency. This material allows silhouettes of the bikes and activity of the space, when viewed from outside, without revealing the specifics of the stored bicycles to ensure a security for the storage area.

A void space sits above the main entrance below, providing a double height entrance moment, while also creating a visual connection between ground and first floors.

KEY

Residential Lobby

Caf  / F&B

Bin Store

Fire Escape Route

Active Frontage

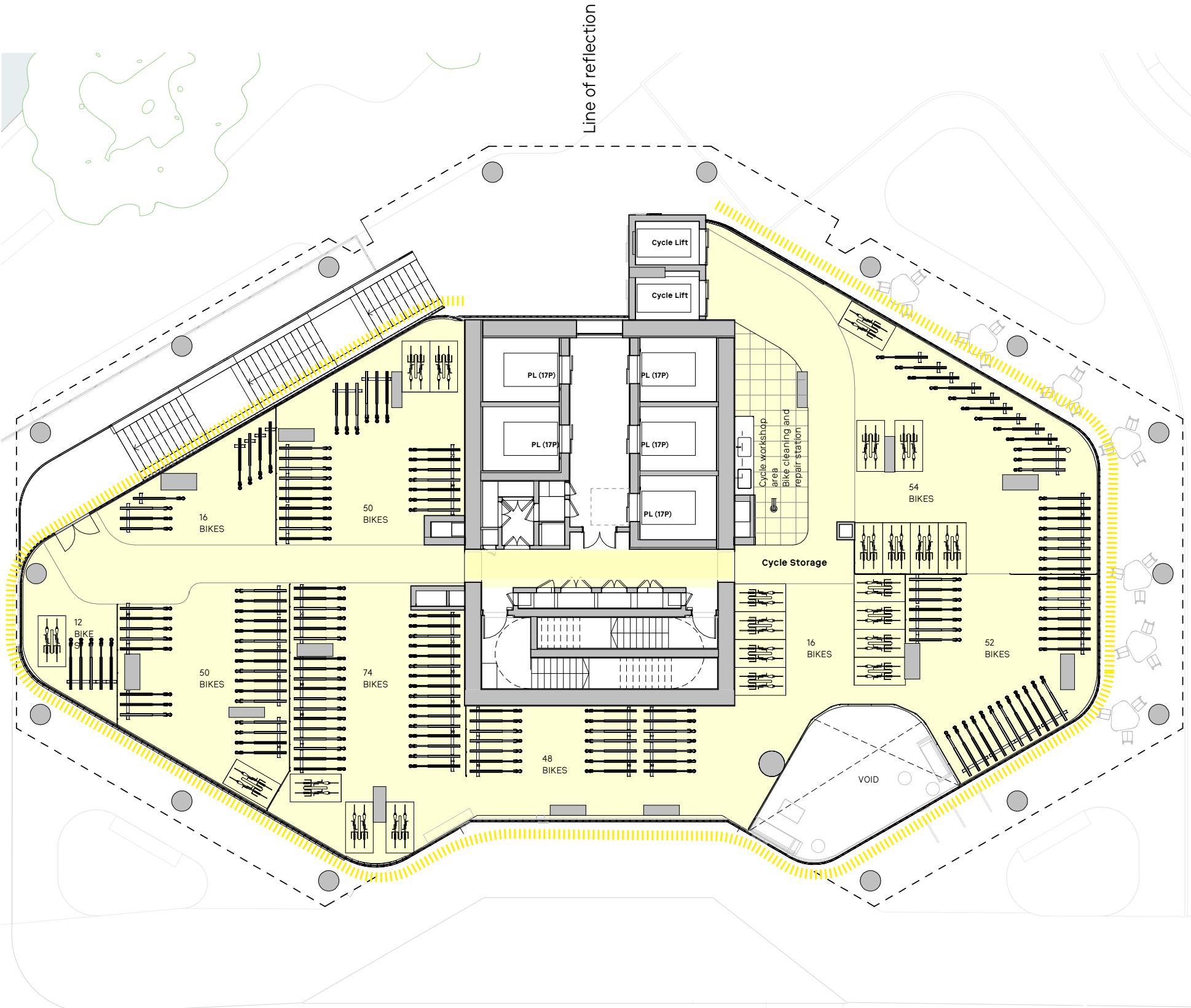
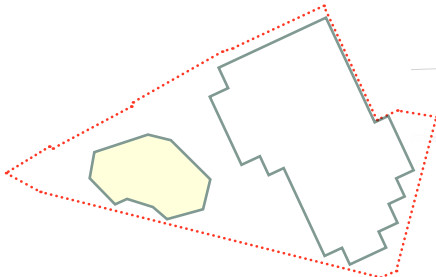


Fig 191 Level 01 Plan



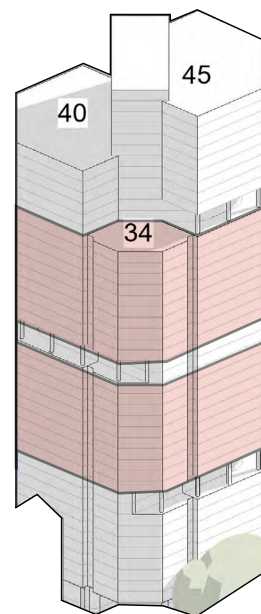
Residential Layouts

Typical Floor Plan A

This typical residential floorplan occurs between levels 14-21 & 23-33. These levels deliver 10 apartments per level with the following mix.

- 3no. 1B2P homes
- 1no. 2B3P home
- 5no. 2B4P homes
- 1no. 3B4P home

On the typical floor 70% of the apartments are fully dual aspect, while the 2B4P homes (no's 1 & 9) enjoy enhanced aspect with views towards the River Irwell. On a clear day the profile of the Peak District mountains will be visible in the distance within this enhanced aspect.



KEY

	1 Bed 2 People
	2 Bed 3 People
	2 Bed 4 People
	3 Bed 4 People
	3 Bed 6 People
	Reflected flat type
	Unique (per floorplate) flat type

West prevailing winds diverted

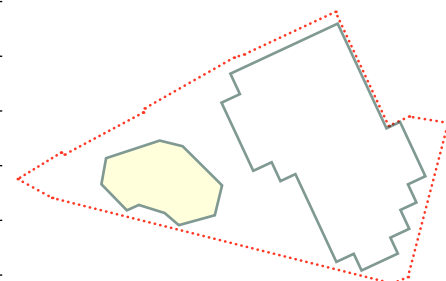


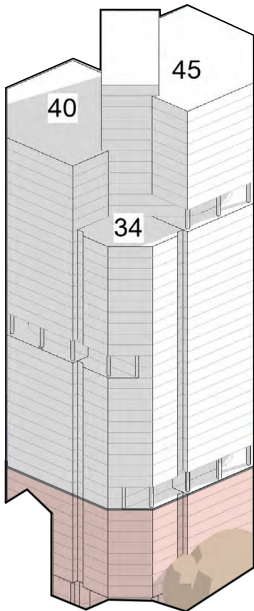
Fig 192 Typical Floor Pan A

Typical Floor Plan B

This typical residential floorplan occurs at levels 02-09, delivering 10 apartments at each level, 3 of which are M4(3) wheelchair user dwellings.

The following overall mix occurs at these floor levels:

- 4no. 1B2P homes
 - 3no M4(2) dwellings
 - 1no. M4(3) dwellings
- 2no. 2B3P homes (M4(3) dwellings)
- 3no. 2B4P homes
- 1no. 3B4P homes.



KEY	
	1 Bed 2 People
	2 Bed 3 People
	2 Bed 4 People
	3 Bed 4 People
	3Bed 6 People
	Reflected flat type
	Unique (per floorplate) flat type

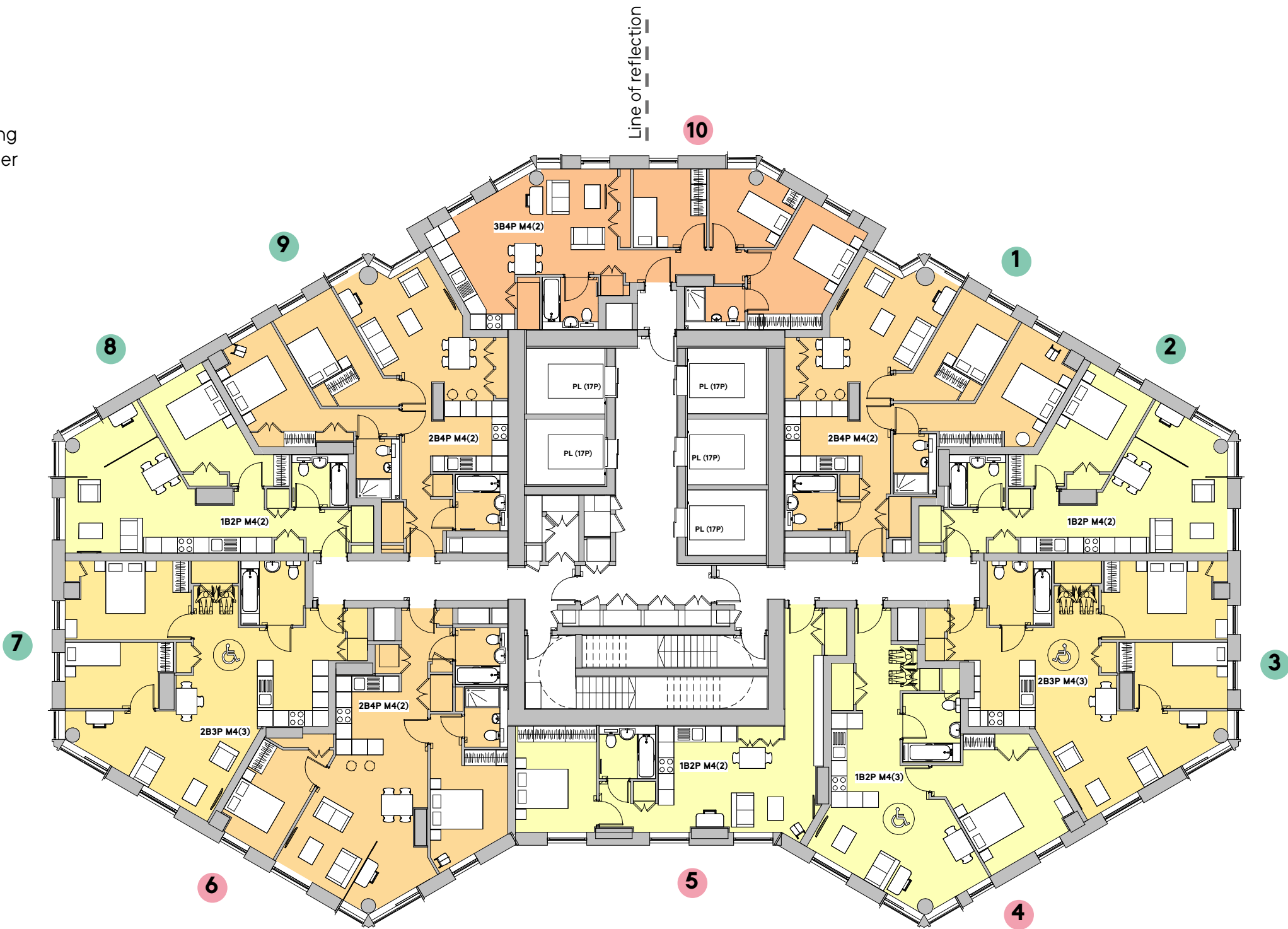
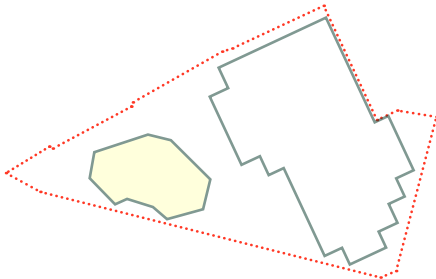


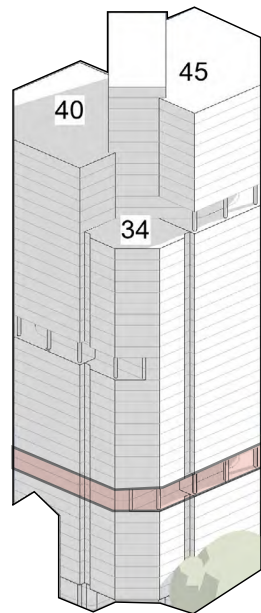
Fig 193 Typical Floor Plan B



Lower Belt Level: Lower Floor Plan

The first of 3 ‘belt levels’ occurs at level 10-11. The facade is set back along the north and west aspects to create a colonnade and external terrace amenity. The floorplan delivers 7no. homes, and hosts 2no. of the 6no. communal amenity spaces, which are double height spaces with full height glazing and external wrap-around terrace. Each space is accessible from communal areas within the core and corridor.

The floorplan also delivers 2no. 2B4P duplex apartments. These special homes will benefit from spacious kitchen-living-dining area with full height glazing connected to the external terrace. The rest of the floorplan delivers 4no. typical apartments stacked with the typical floor above.



KEY

	1 Bed 2 People
	2 Bed 3 People
	2 Bed 4 People
	3 Bed 4 People
	3Bed 6 People
	Reflected flat type
	Unique (per floorplate) flat type

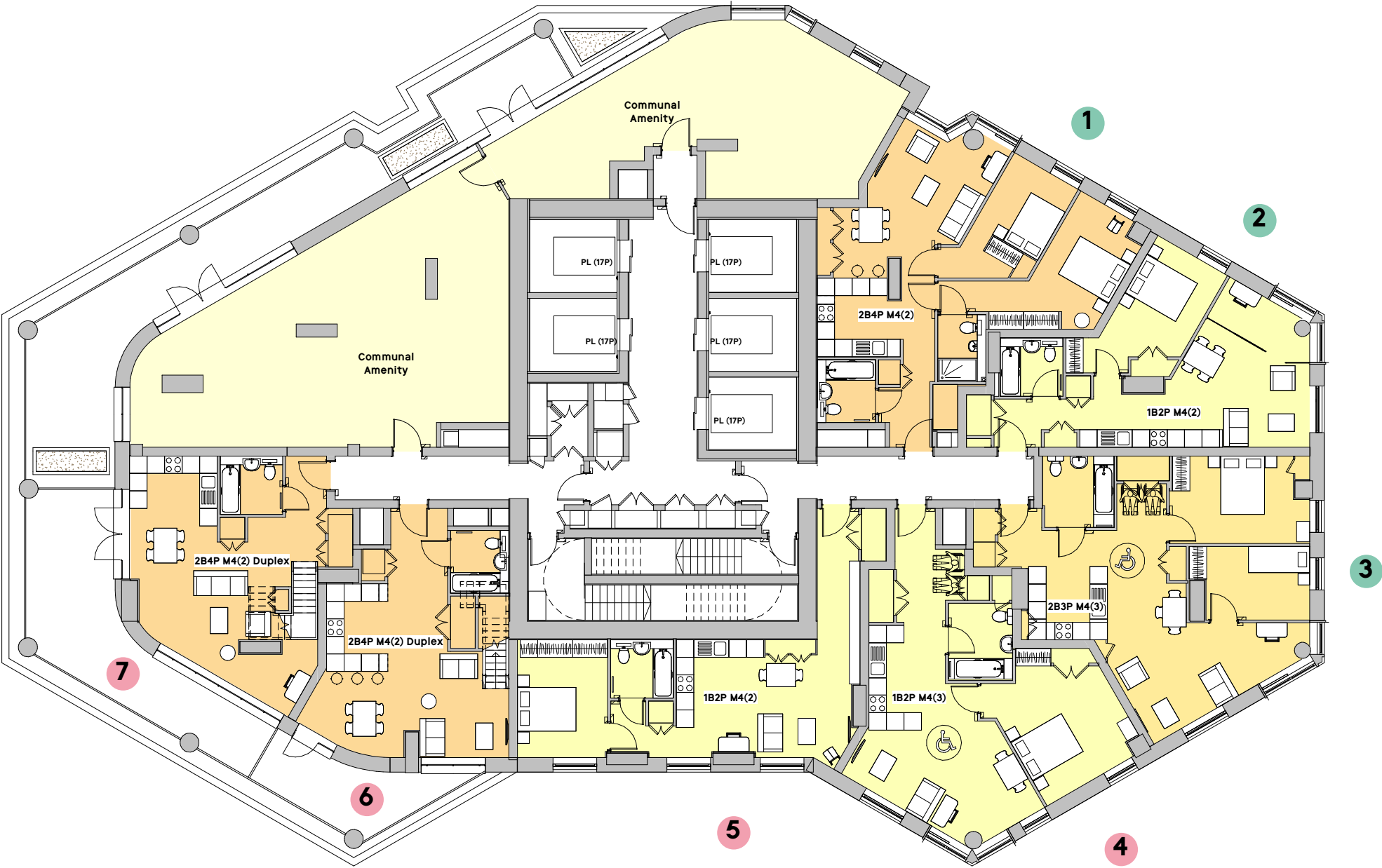
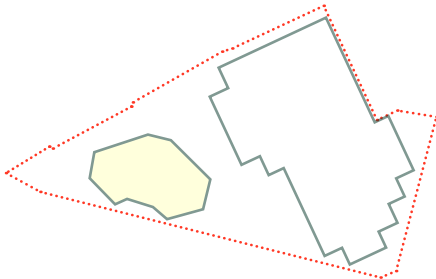
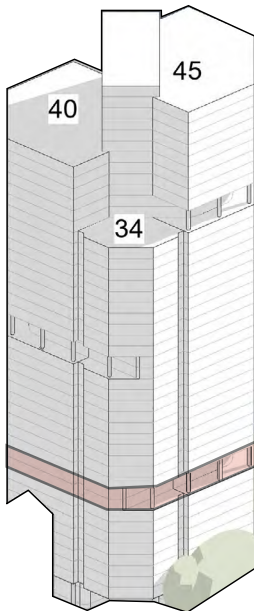


Fig 194 Level 10

Lower Belt Level: Upper Floor Plan

Between levels 11-12 sits the upper level of the lower ‘belt’. This level is occupied by the void above the double height communal amenity space. The available headroom enables the opportunity to be fitted out with an internal infill mezzanine, to be developed at the next stage with potential providers.

The upper level of the 2no. duplex apartments also occurs at level 11, where the bedrooms and ensuite are located. In addition the remaining 5no. typical apartments also occur at this floor level, which stack with the levels above.



KEY

	1 Bed 2 People
	2 Bed 3 People
	2 Bed 4 People
	3 Bed 4 People
	3Bed 6 People
	Reflected flat type
	Unique (per floorplate) flat type

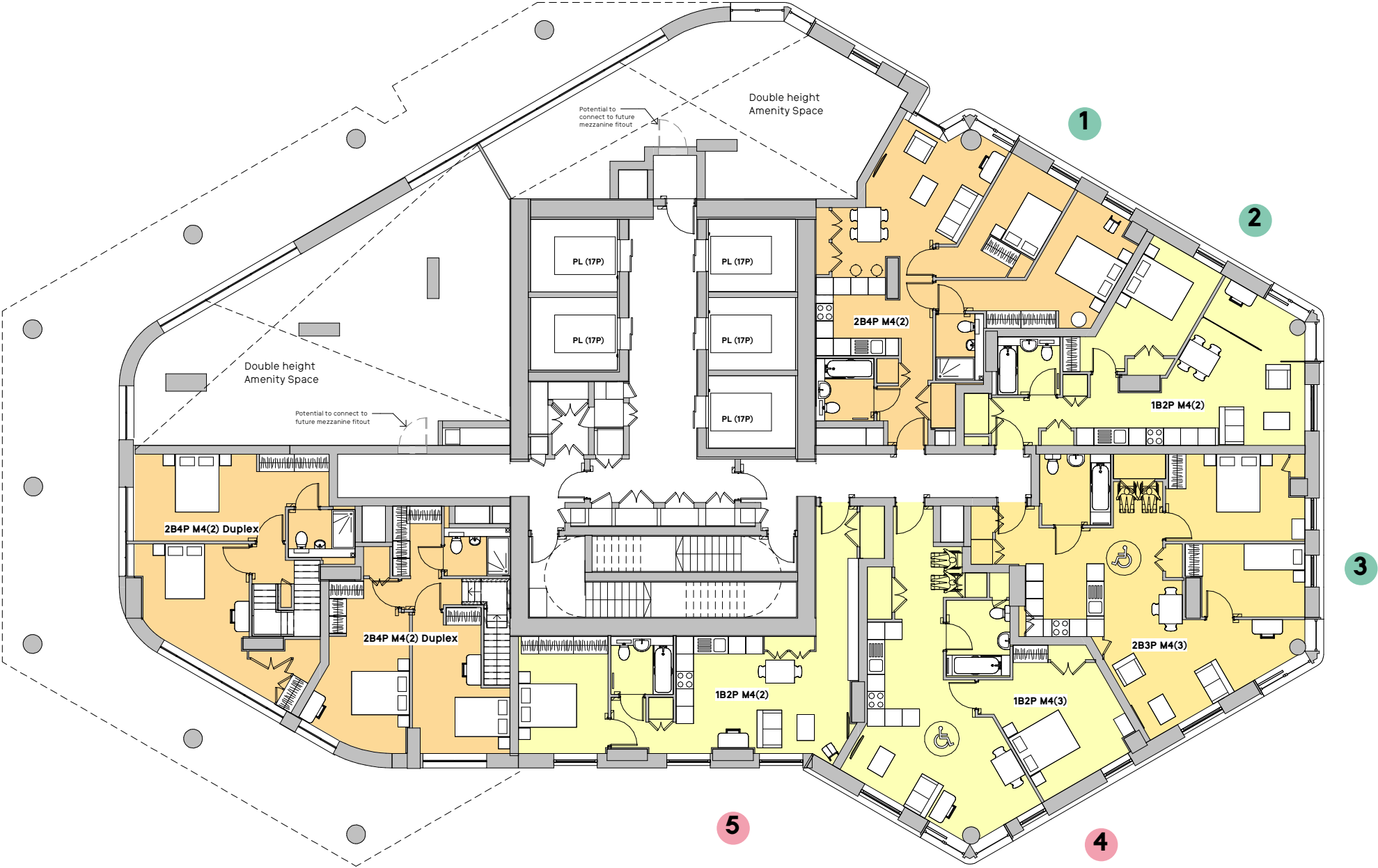
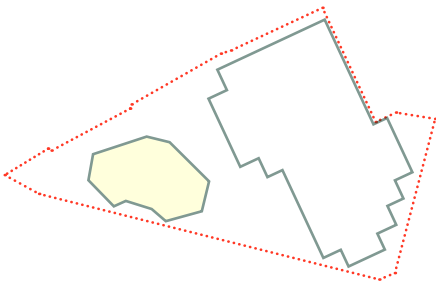


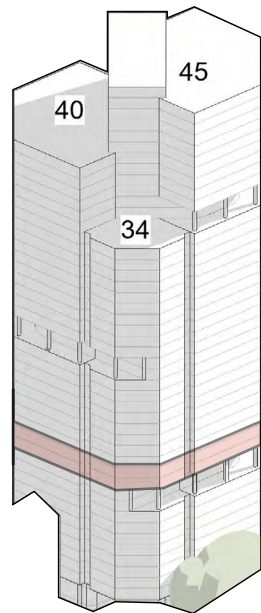
Fig 195 Level 11



Typical Floor Plan C

The floorplan on levels 12-13 delivers 10 apartments within a slightly different mix to the Typical Floor Plan B to accommodate 2no. wheelchair user dwellings within the floorplate, with mix as follows:

- 3no. 1B2P homes M4(2)
- 3no. 2B3P homes
 - 2no. M4(2)
 - 1no. M4(3)
- 3no. 2B4P homes M4(2)
- 1no. 3B4P homes M4(2)



KEY	
	1 Bed 2 People
	2 Bed 3 People
	2 Bed 4 People
	3 Bed 4 People
	3Bed 6 People
	Reflected flat type
	Unique (per floorplate) flat type

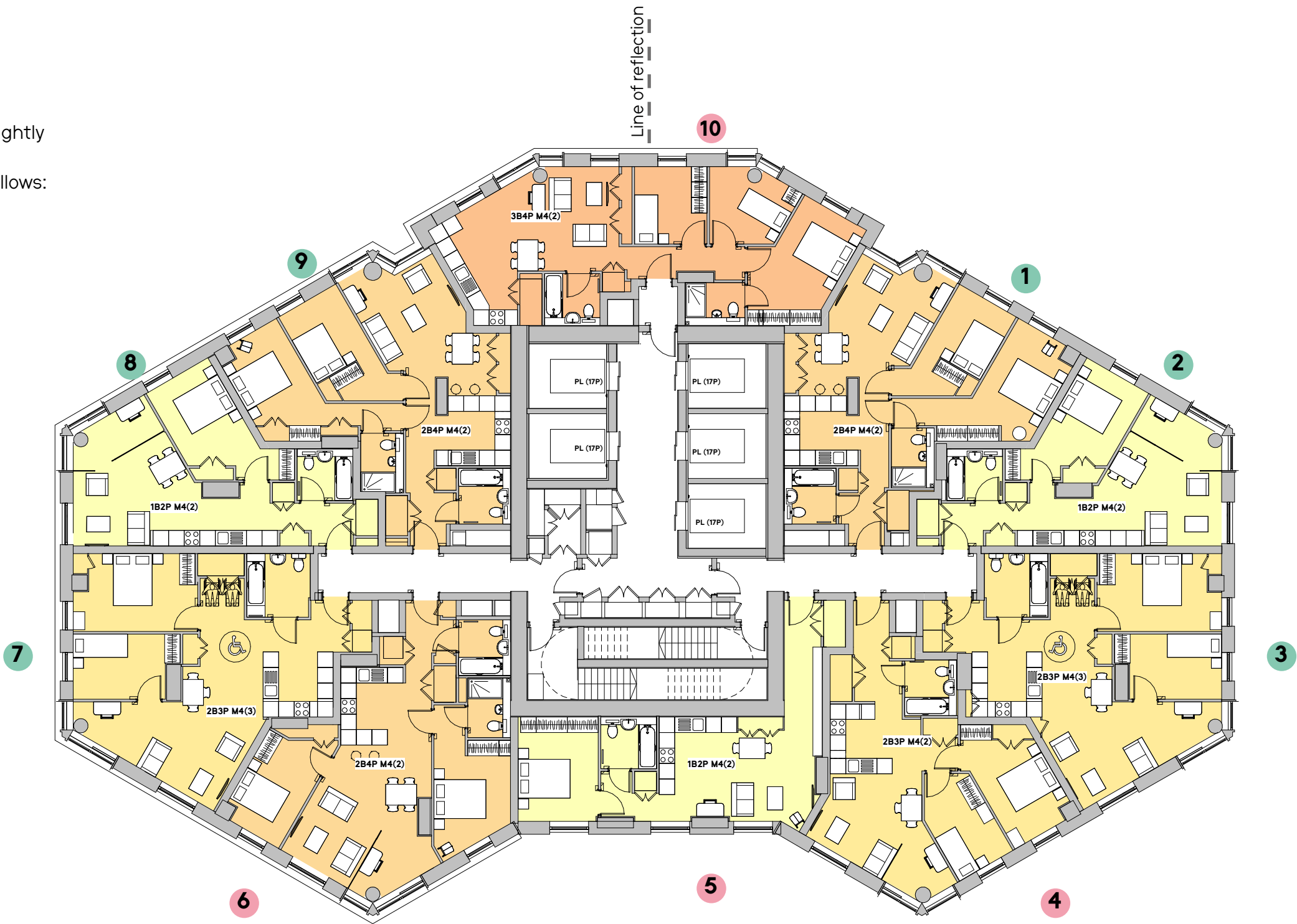
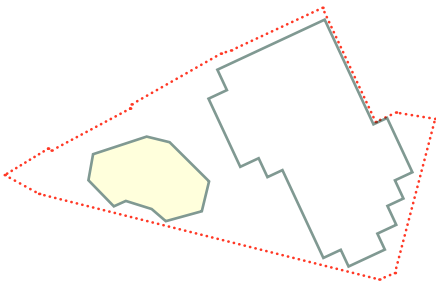


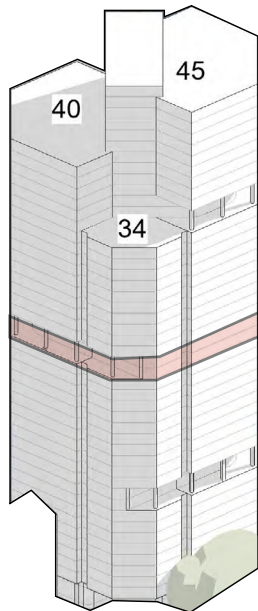
Fig 196 Typical Floor C



Middle Belt Level Floor Plan

The second 'belt level' occurs at level 22-23, with similar arrangement to the lower belt level at level 10. At Mid belt level the volumetric setback is orientated to the south and east façades of the building, with the overall floorplate delivering a double height communal amenity space and external amenity terrace with view out over Manchester City centre along 7no. homes with mix as follows:

- 2no. 1B2P homes
- 3no. 2B4P homes
- 2no. 2B3P duplex apartments with external terrace



KEY	
	1 Bed 2 People
	2 Bed 3 People
	2 Bed 4 People
	3 Bed 4 People
	3Bed 6 People
	Reflected flat type
	Unique (per floorplate) flat type

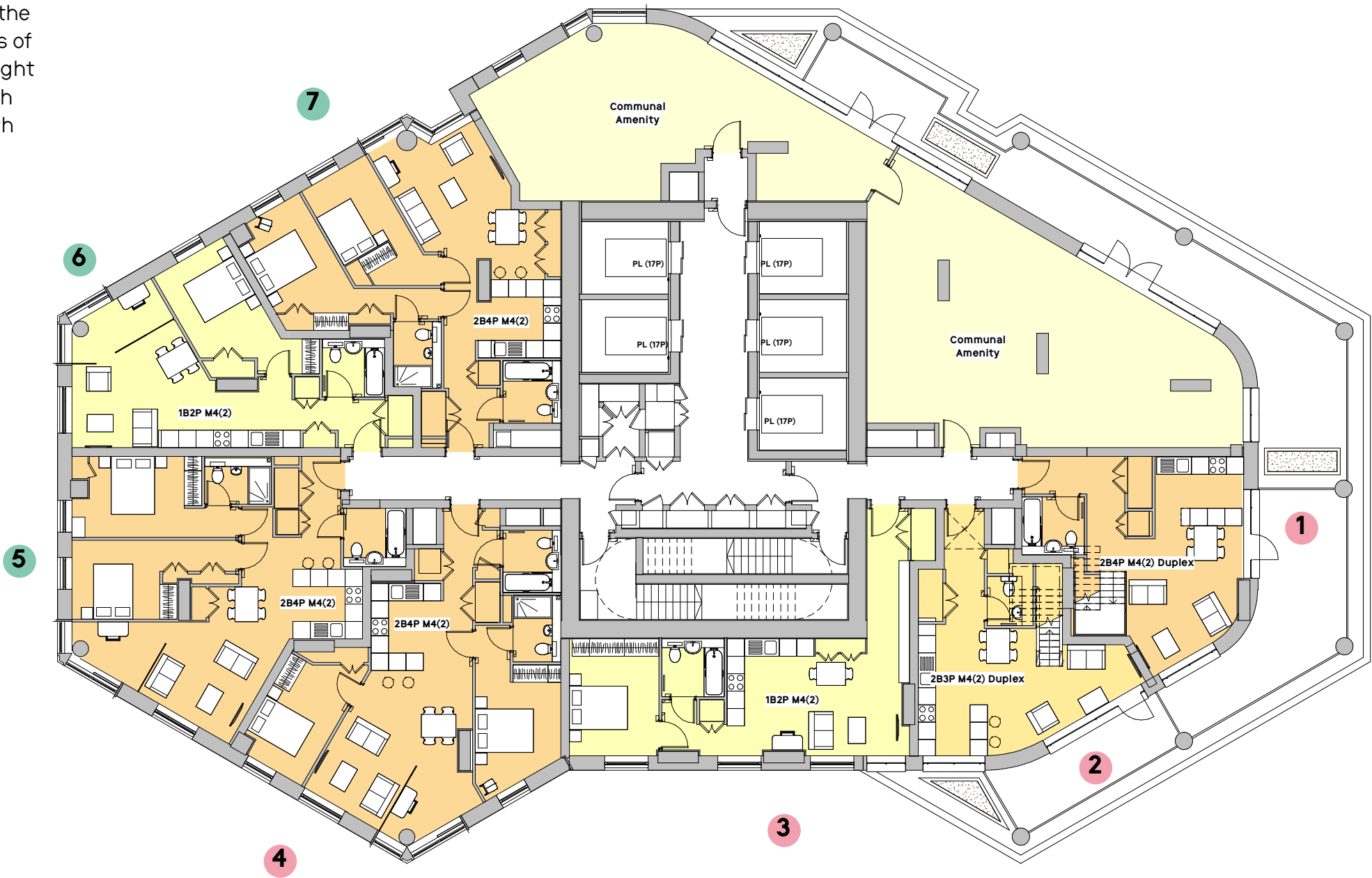
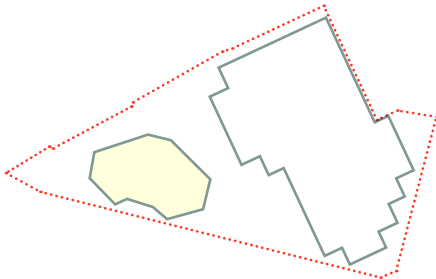


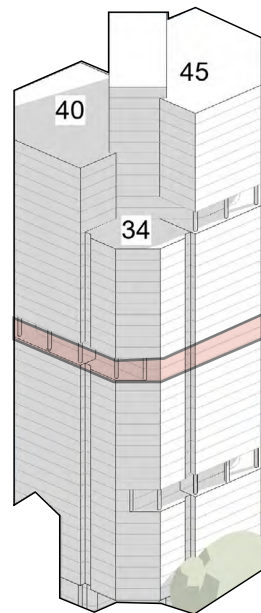
Fig 197 Mid Belt Level



Middle Belt Upper Level Floor Plan

The upper level of the second belt is at level 23, and is occupied by the void of the communal amenity double height space, which has the opportunity to be fitted with mezzanine, along with the upper level of the 2no. duplex apartments where the bedrooms and ensuite are located. In addition, this floorplan delivers 5no. typical apartments with the following mix:

- 2no. 1B2P homes
- 3no. 2B4P homes



KEY	
	1 Bed 2 People
	2 Bed 3 People
	2 Bed 4 People
	3 Bed 4 People
	3Bed 6 People
	Reflected flat type
	Unique (per floorplate) flat type

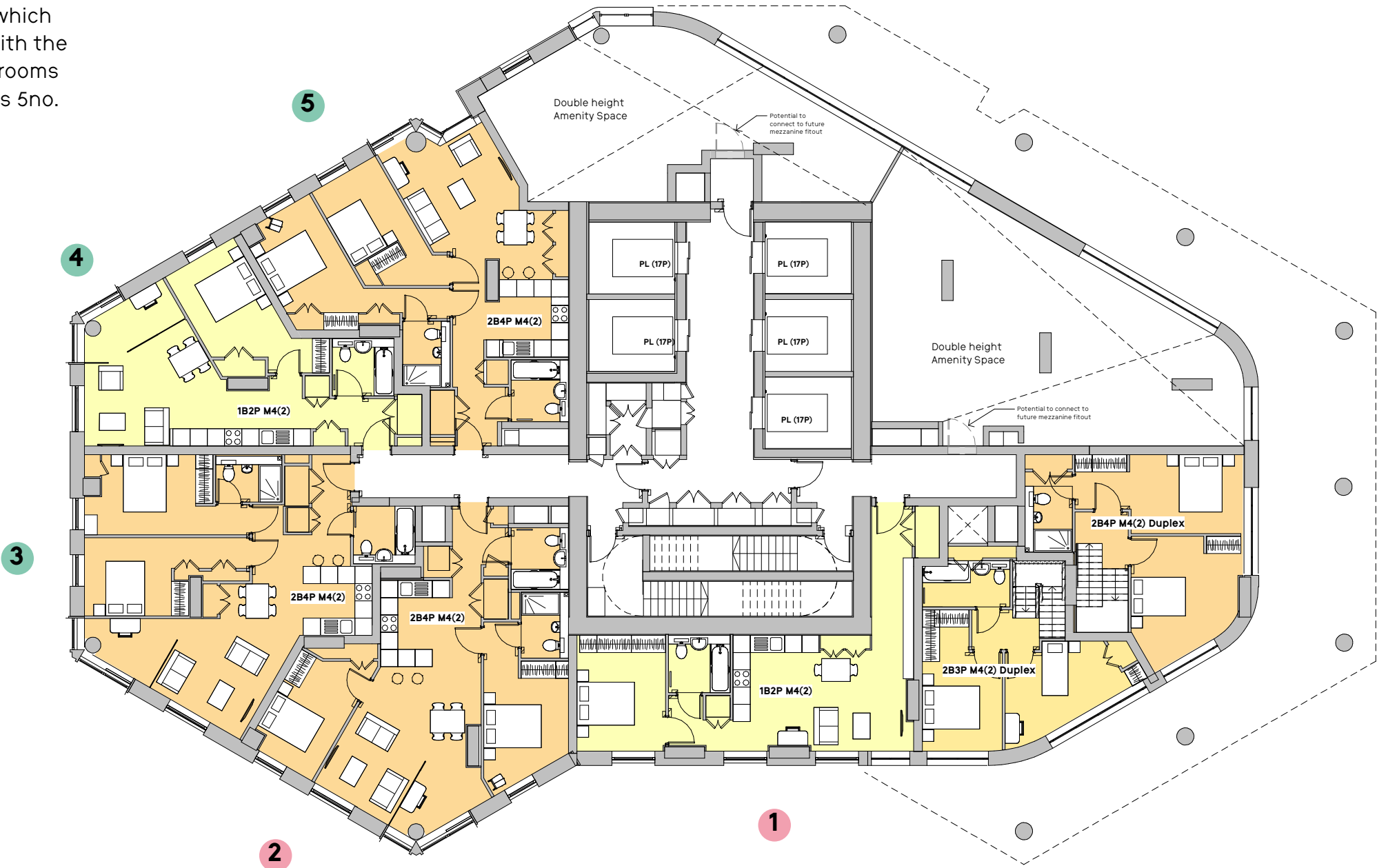
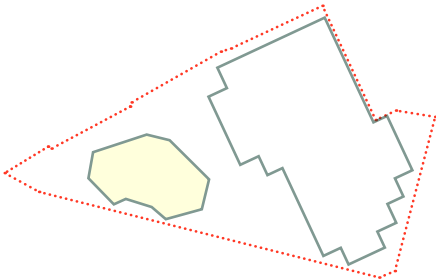
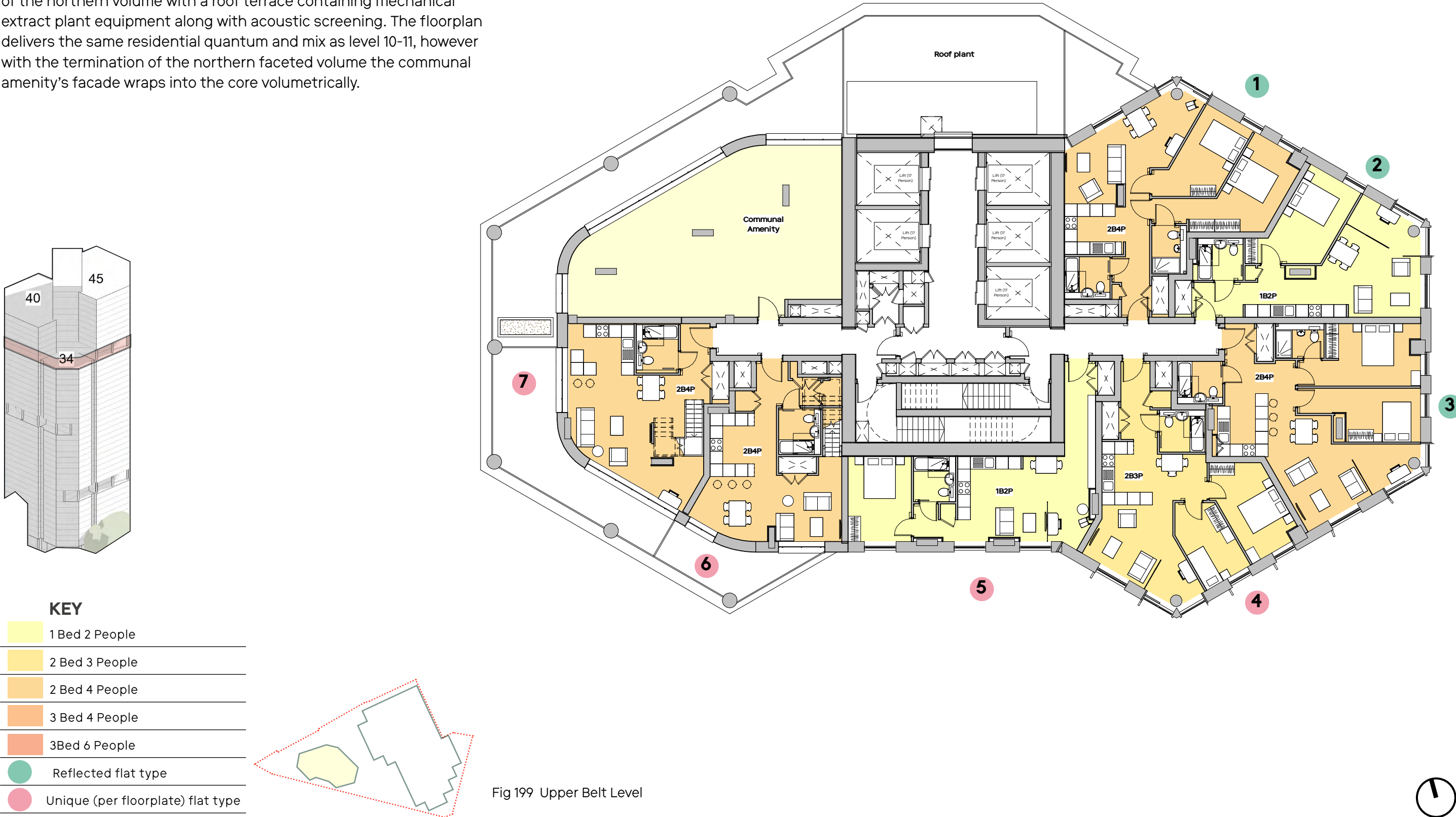


Fig 198 Mid Belt Level Upper Floor

Upper Belt Level Floor Plan

The third 'belt level' occurs at levels 34-35 and marks the termination of the northern volume with a roof terrace containing mechanical extract plant equipment along with acoustic screening. The floorplan delivers the same residential quantum and mix as level 10-11, however with the termination of the northern faceted volume the communal amenity's facade wraps into the core volumetrically.



Upper Belt Level Floor Plan

The upper floor of the top belt occurs at level 35, and is occupied by the same mix and quantum as occurs at level 11.

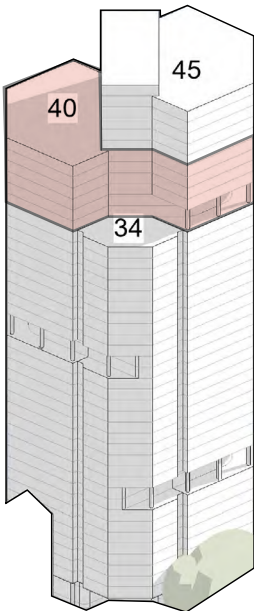
From this level upwards the core benefits from views out towards Salford and the profiles of the Peak District in the distance. In addition, the typical flat type 1 now enjoys additional view out from the external facade facing north.



Typical Floor Plan D

This floorplan occurs at levels 35-39, with each floorplate delivering 9 apartments, 8 of which fully dual aspect, and the remaining single aspect flat enjoying views from height out over Manchester. The following mix occurs within these floor levels:.

- 3no. 1B2P homes
- 1no. 2B3P homes
- 5no. 2B4P homes.



KEY	
	1 Bed 2 People
	2 Bed 3 People
	2 Bed 4 People
	3 Bed 4 People
	3Bed 6 People
	Reflected flat type
	Unique (per floorplate) flat type

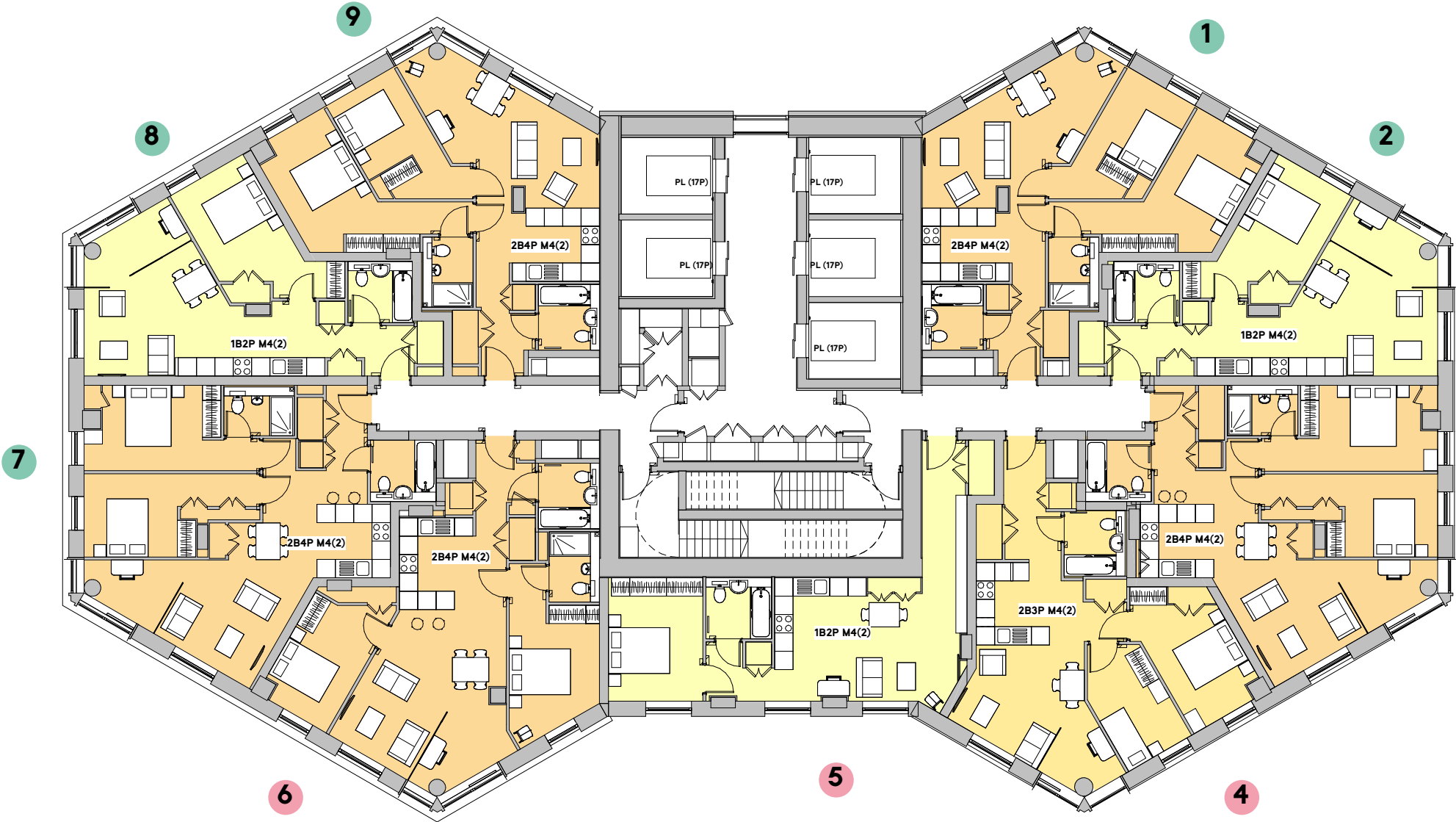
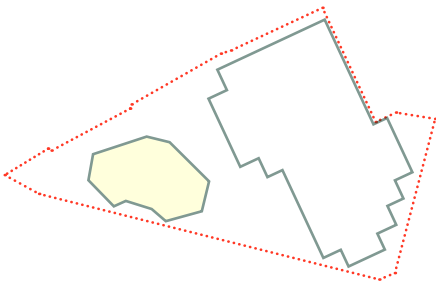


Fig 201 Typical Floor Plan D

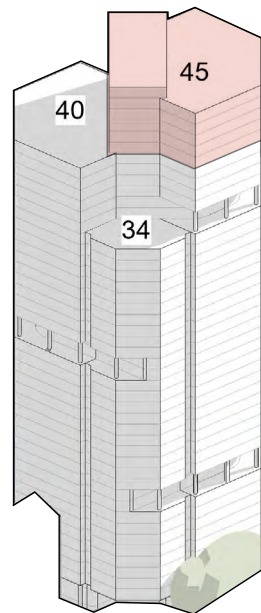


Typical Floor Plan E - Beacon Level

The eastern hexagon terminates at level 40 to create the buildings iconic silhouette, with the volume of a single hexagon connected to rising core rising up a further 6 storeys, from level 40-45.

At level 40 the roof terrace hosts plant for the building, along with acoustic screening, to protect the upper level flats from plant noise. The floorplan containing accommodation delivers the largest apartments throughout the building with 3no. 3 bedroom homes per floor, as follows:

- 2no. 3B6P homes M4(2)
- 1no. 3B5P home M4(3)



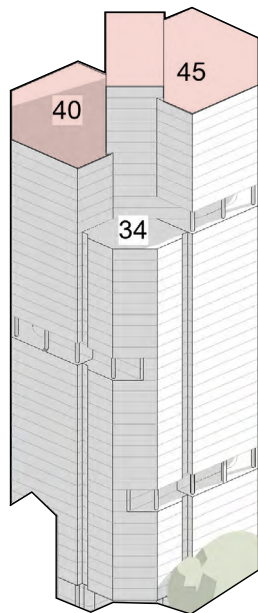
KEY	
	1 Bed 2 People
	2 Bed 3 People
	2 Bed 4 People
	3 Bed 4 People
	3Bed 6 People
	Reflected flat type
	Unique (per floorplate) flat type



Fig 202 Typical Floor Plan E - Beacon Level

Roof Plan

The remaining roof plant is hosted at the top of the western volume at the last accessible floor via the stair-core, at level 45. The top of the core is accessed through an access hatch from the level 45 stair lobby. This topmost levels hosts the lift machine rooms, satellite dishes, the termination of the boiler flue and the Building Maintenance Unit for maintenance, cleaning and servicing of the building facade.



KEY

	1 Bed 2 People
	2 Bed 3 People
	2 Bed 4 People
	3 Bed 4 People
	3Bed 6 People
	Reflected flat type
	Unique (per floorplate) flat type

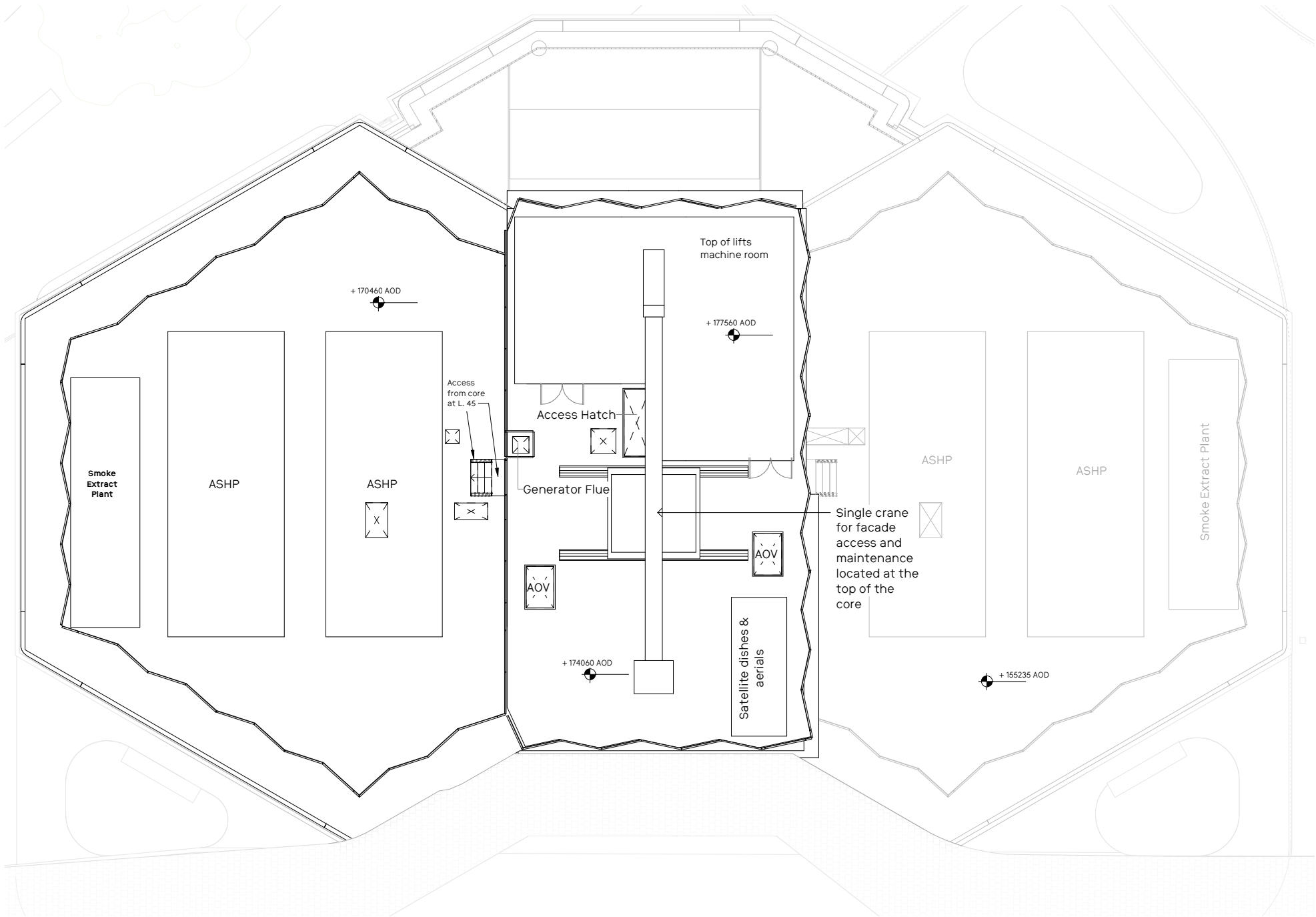
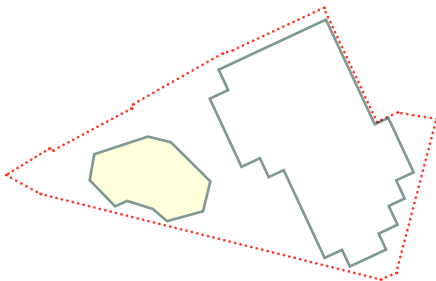


Fig 203 Roof plan



Private Amenity Strategy

All homes in the residential building will be provided with a private amenity space, in the form of an internal winter garden, or external amenity terrace on the belt levels.

Winter Gardens

Glazed winter garden spaces are designed as an integral feature to all of the residential apartments on typical floors. These spaces sit within the thermal envelope of the building, to create a simple and energy efficient design, while providing a usable space throughout the year, and regardless of weather conditions or season, and that sits outside of the living room area.

The winter gardens are clad with increased transparency to create visual breaks and animation to the façades. The winter garden spaces are separated spatially from the adjacent open plan layouts to create a clear distinction between the amenity and the main living areas, which will enjoy a bright and spacious connecting room.

Terraces

External amenity terraces are provided to the duplex apartments occupying the belt levels. They provide generous external amenity spaces for the occupiers. Floor-to-ceiling glazing strengthens the connection between inside and out, enabling good levels of daylight into the homes and offering panoramic views beyond. The terraces will be separated from adjacent terraces, and communal amenity terraces by dividing screens, to provide privacy, and clearly designate the amenity for each home.

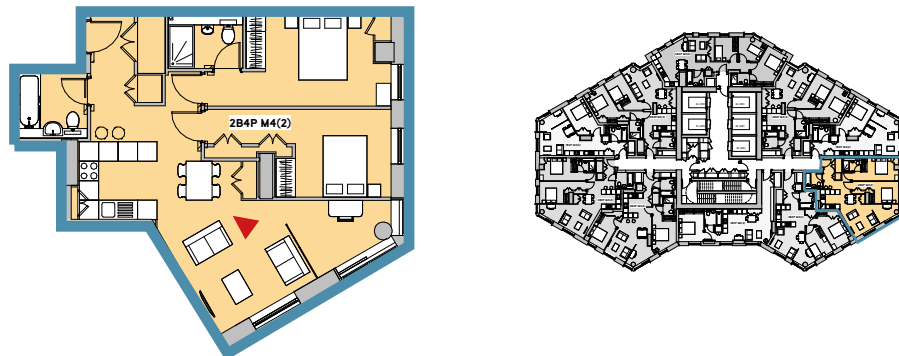


Fig 204 Sketch of proposed apartment living room with winter garden

Internal Residential Quality

Each apartment features a generous open plan kitchen, living and dining area (KLD), which are located within the corners of the apartment layouts in order to capture the benefits of dual aspect faceted arrangement for the building.

The open plan KLD spaces connect to a full-height-glazed winter garden providing an opportunity to extend the living area and allow natural light to pass through. If the resident prefers to separate the space, a screen, curtain or glazing can be drawn to segregate uses. Each winter garden features an exposed column in the corner.

This has been designed in line with Manchester Residential Quality Guidance, stating importance of ‘larger windows, particularly to living areas, with an aspect of the sky and direct views of external spaces’. It also provides additional private amenity space, highlighted as a key requirement to successful home design.

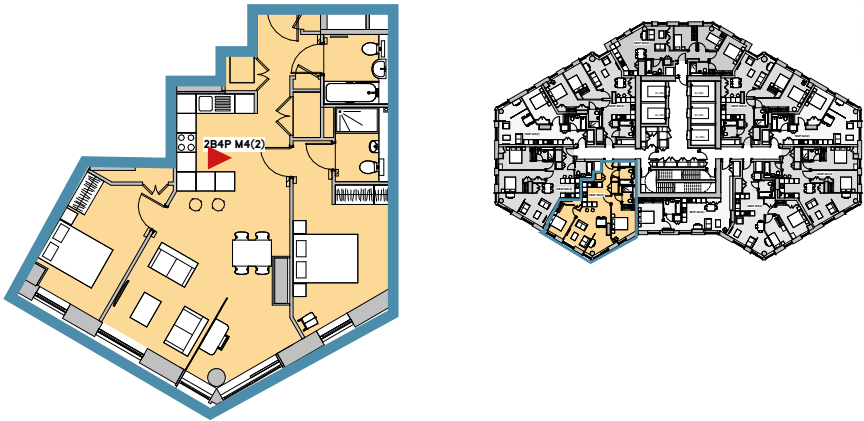
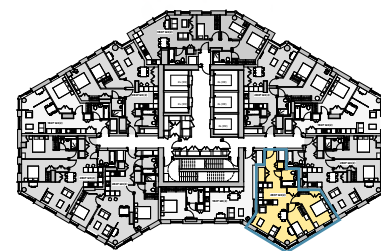


Fig 205 Sketch of proposed apartment living-kitchen-dining area with winter garden

Internal Residential Quality

Each apartment is intended to also feature a carefully curated selection of textures, materials and details throughout. The design intent is for a natural palette, complemented by splashes of bold colours, creating light-filled, warm and contemporary living spaces. The flexible design of the apartments provides a home that is suitable for a variety of users across all walks of, or stages in life.



HIDDEN STRIP LIGHTING
SURROUNDING TILES

WHITE TILES WITH
DARK GROUT TO
CONTRAST COLOUR

TIMBER KITCHEN CUPBOARD
DOORS PAINTED IN BOLD
COLOURS TO CONTRAST
NATURAL PALETTE AND
ADD VIBRANCY



Fig 206 Sketch of proposed apartment living-kitchen-dining area with winter garden

Internal Residential Quality

In the north-west facing apartments, the careful location of the winter garden provides immediate views out over Manchester upon arrival. This positioning also allows high levels of natural light to filter through the hallway. An exposed concrete wall features on one side of the hallway entrance, while the other is aligned with bespoke timber shelving, cupboards and an integrated desk.

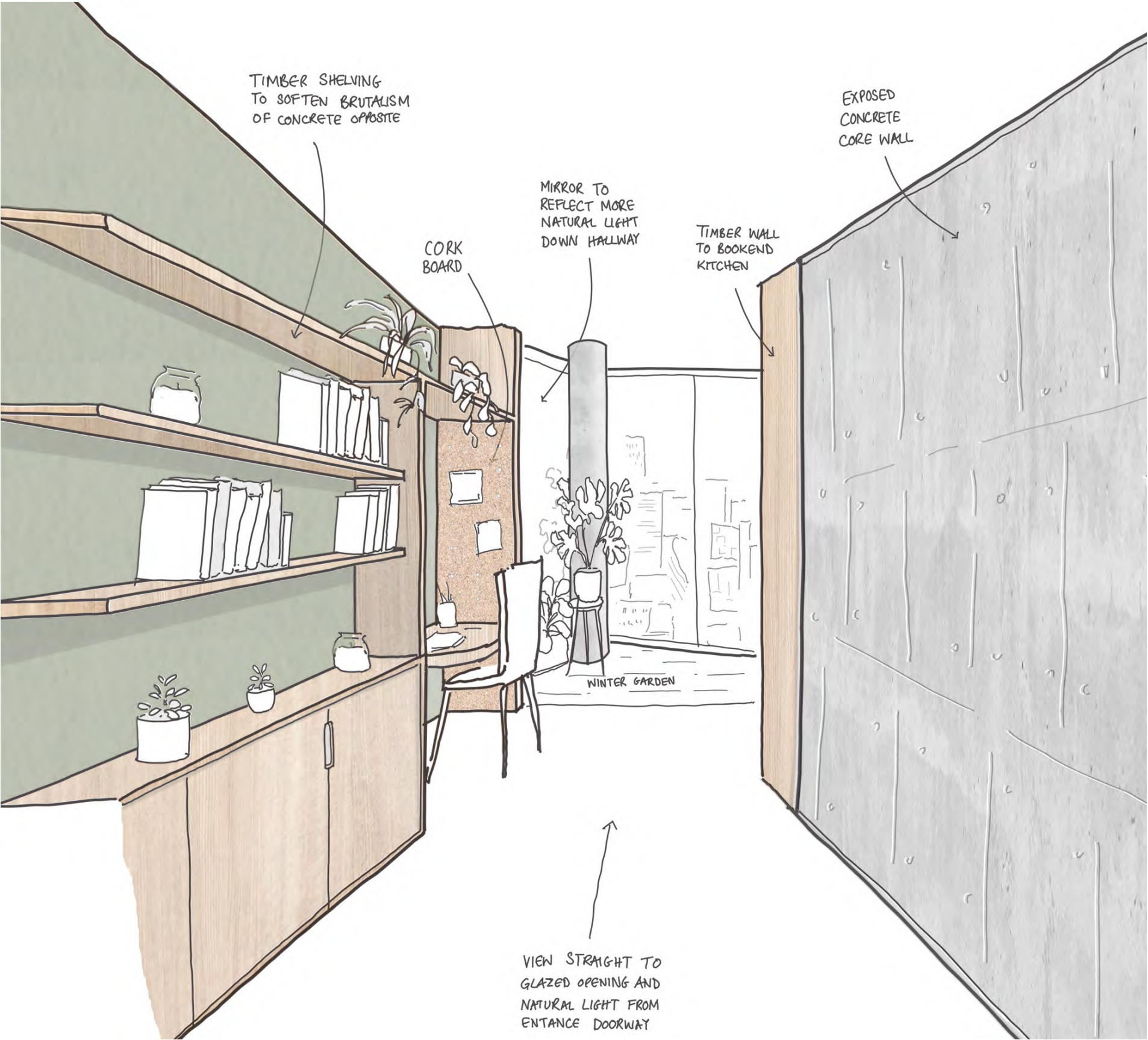
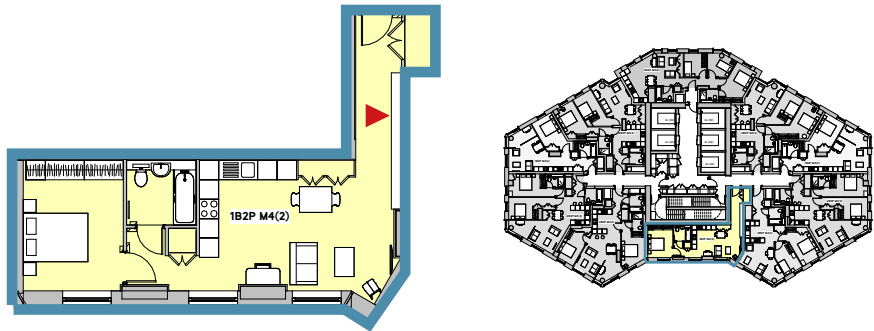


Fig 207 Sketch of proposed apartment living-kitchen-dining area with winter garden

Access and Circulation

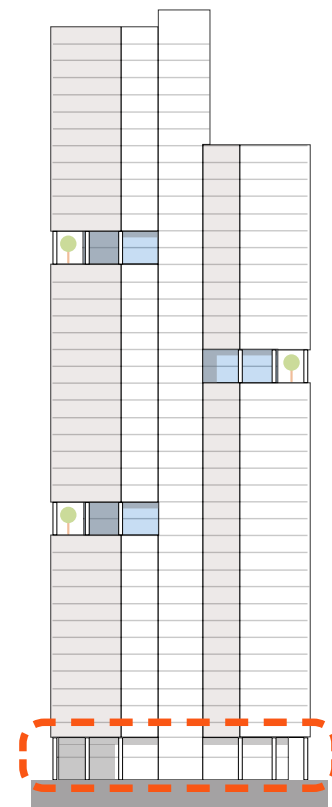
Vehicular Access

Vehicular access is limited to a basement beneath the building, accessed via Bridge Street via a single lane ramp at the western corner of the site. The car flow will be managed with a traffic light system, rising bollards at the entry point from the public highway and a waiting area, to allow cars to exit the basement while avoiding tailbacks onto Bridge Street. A second waiting area sits at the bottom of the ramp to enable priority for those coming into the basement.

A loading bay lay-by for drop-off, deliveries, fire tender and waste vehicle parking is located along bridge street directly adjacent to both the entrance lobby, refuse store and fire escape stair.

Pedestrian approach to the building

All building entrances have been located for visibility relating to their intended function. The entrance to the residential lobby is situated along Bridge Street, to maximise the address, legibility and its wayfinding. The concierge sits centrally within the lobby space for clear line of sight to the entrance door and the loading bay. Access for pedestrian with bikes to the cycle store at level 01 is granted through external bike staircase or accessible lifts.



The public entrance to the cafe/retail space comes via the public realm on Albert Bridge Square.

The ground and first floor envelope is set back from the main building line, offering protection from the elements and the downward winds at the key entrance points.

Circulation to the apartments

The core, which provides vertical circulation and servicing, is positioned centrally in the floorplan. 5no Fire-Fighting and Evacuation lifts and 2no. staircases in a scissor arrangement are provided as best practice fire safety measures for a tall building.

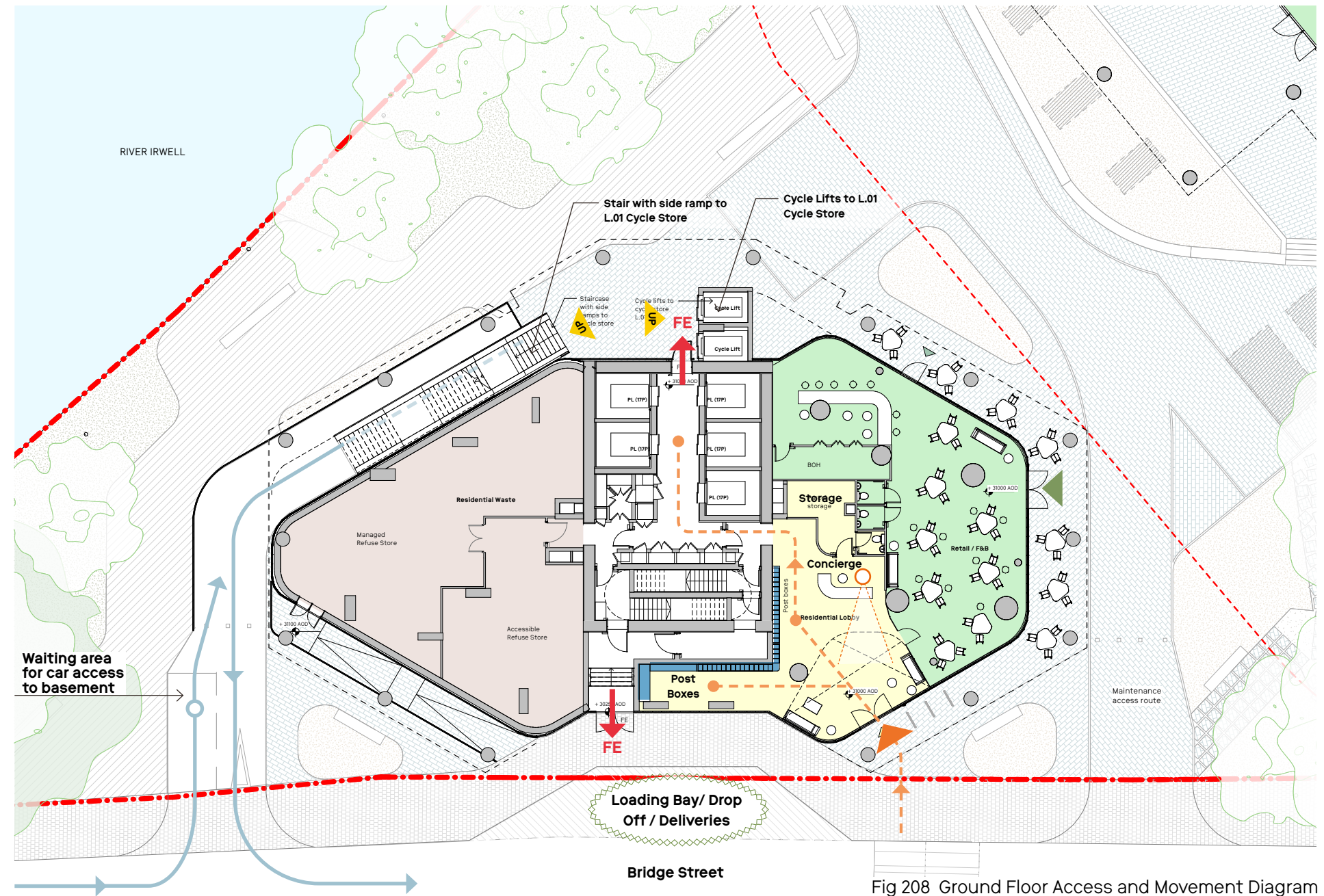


Fig 208 Ground Floor Access and Movement Diagram

KEY

	Residential Lobby
	Café / F&B
	Bin Store
	Drop Off / Deliveries / Waste Collection
	Fire Escape Route
	Resident's Route Home
	Concierge view cone

	Cafe' Entrance
	Residential Entrance
	Access to L.01 Cycle Entrance
	Post Boxes & Parcel
	Car route to basement



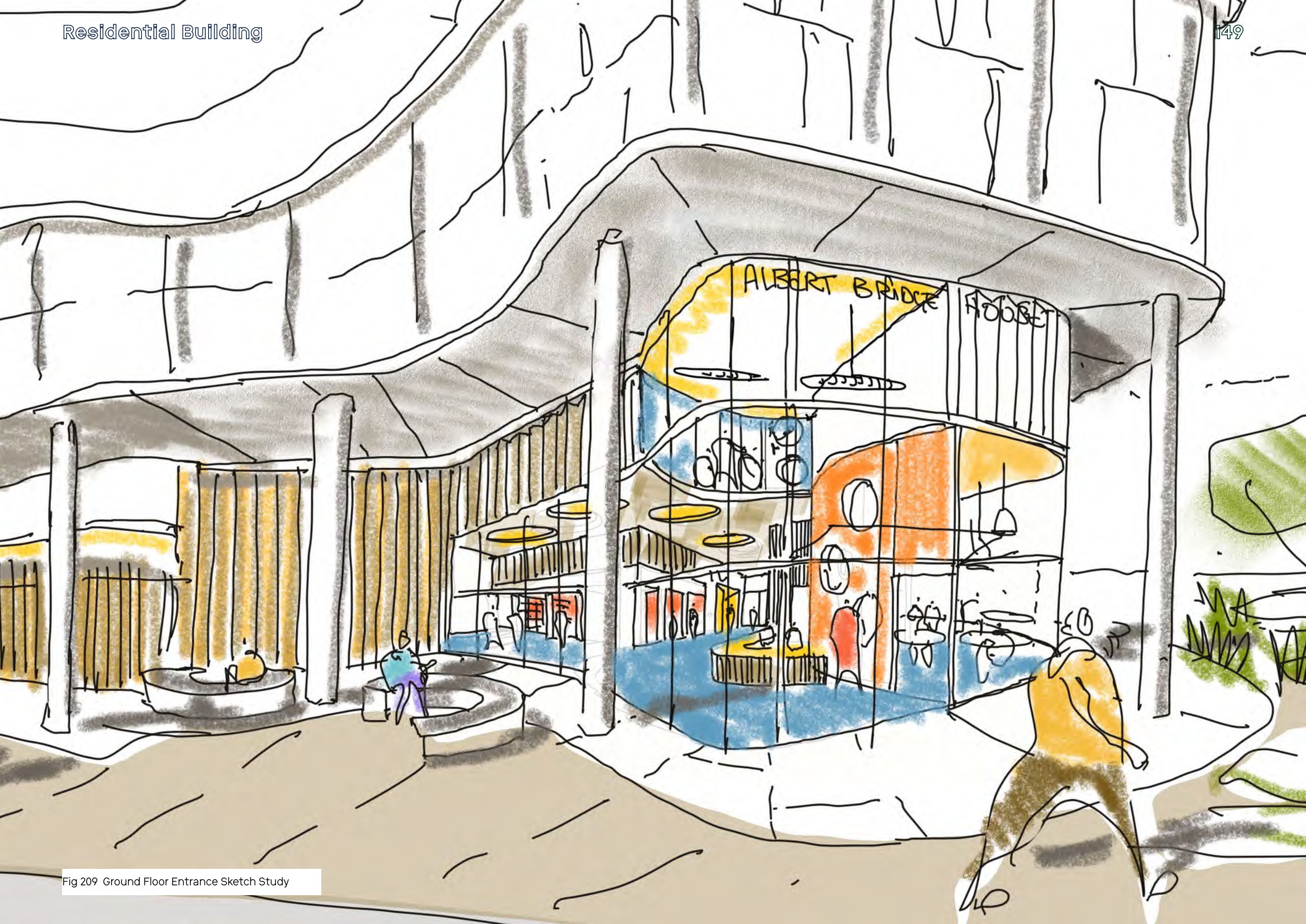


Fig 209 Ground Floor Entrance Sketch Study

Communal Amenity Strategy

The residential communal amenity spaces are provided across multiple levels to ensure ease of use for residents throughout the building. In each instance amenity uses are located in close proximity to the core.

The amenity areas are located at ground and first floors, and across three double-height spaces evenly spread up the height of the building. These areas provide valuable opportunity for a build to rent provider to promote lifestyle, health and well being, activity and community spaces to encourage interaction and engagement between residents, promoting a sense of community within the building.

Each amenity space sits within a volume that is set back from the building footprint for legibility of the amenity allocation throughout the building. A broad range of facilities are able to be fitted out, detail to be developed at the next stage. The double height spaces at upper level benefit from panoramic views of the surroundings, and will be immersed in natural light to create pleasant internal



Fig 218 CGI of Amenity terrace

L. 00	Lobby	110 sqm GIA
L. 01	Cycle Store	460 sqm GIA
L. 10 - L. 11	Double Height Communal Amenity	143 sqm GIA
L. 22 - L. 23	Double Height Communal Amenity	143 sqm GIA
L. 34 - L. 35	Double Height Communal Amenity	82 sqm GIA

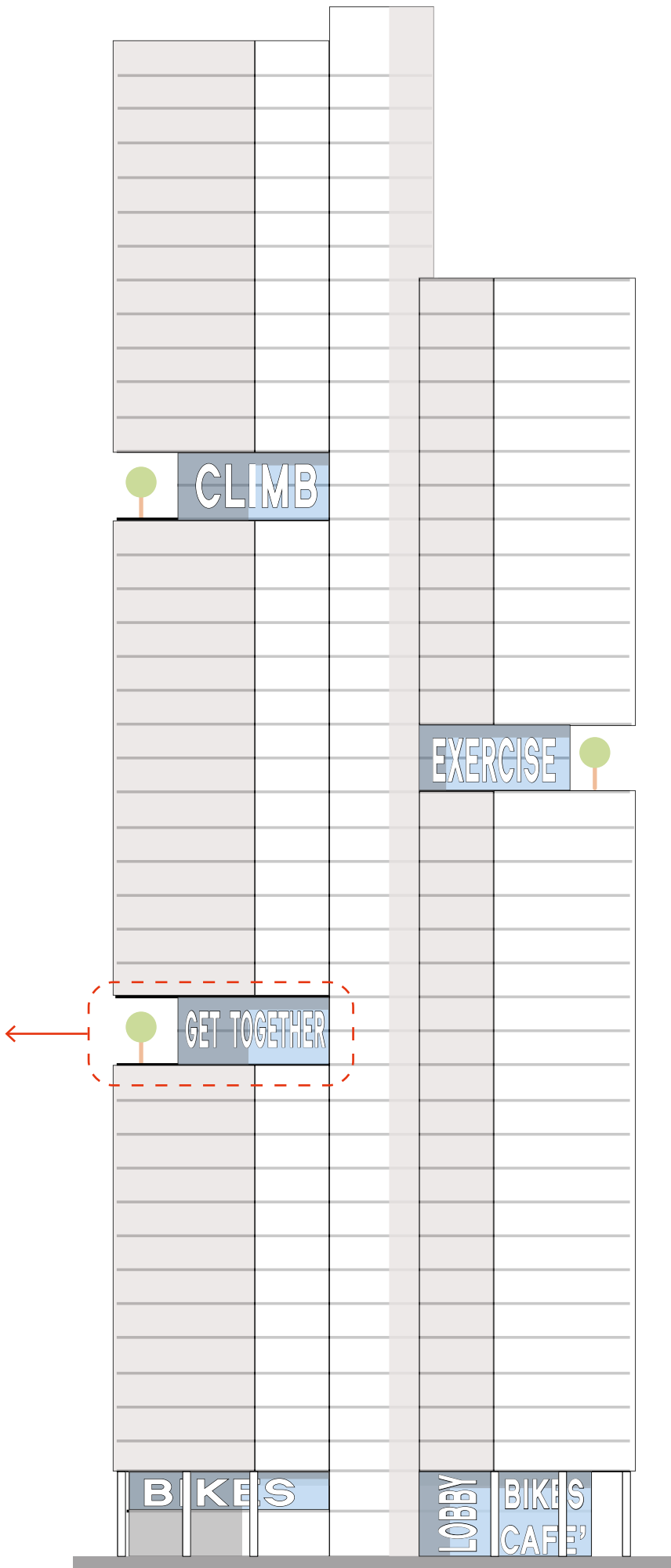


Fig 219 Amenity distribution diagram



Fig 210 Precedent of screening room



Fig 211 Precedent of residents' communal dining



Fig 212 Precedent of yoga terrace



Fig 213 Precedent of residents' gym



Fig 214 Precedent of cycle workshop



Fig 215 Precedent of bouldering area

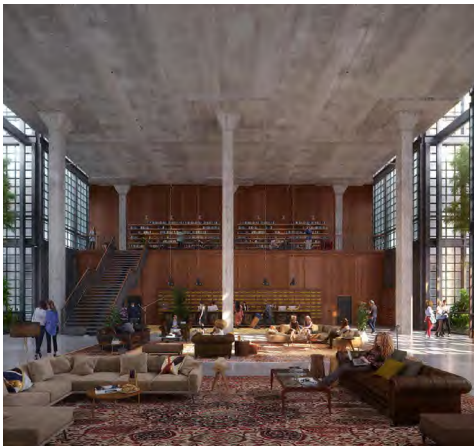


Fig 216 Precedent of lobby lounge



Fig 217 Precedent of cafe space

Ground and First Floor Amenity

Amenities at ground level include a lounge space within the lobby, and a publicly accessible cafe', which can also be accessed from the lobby via secure doors. An external seating area adjacent the cafe is sheltered by the building undercroft due to facade set back from the footprint above. At level 01 a cycle workshop provides facilities to fix and maintain bikes, encouraging healthy lifestyles and sustainable transport while fostering community for residents.

Lobby

The lobby entrance is double height, creating a welcoming moment at the front door of the building, and acting as a transition between the threshold of outside and inside. Here there are visual links to the activity of the cycle workshop and store above at level 01, along with glazed visual connection to the adjacent cafe. The concierge has a good surveillance point from central position within the lobby, as it able to overlook the lobby entrance, the cafe entrance internal access point, as well as the external vehicular lay-by. A parcel store is located behind the concierge desk to provide space for secure drop-off and pick-up of deliveries.

Wayfinding

Clear lines of sight within the lobby, and externally allow for good wayfinding. This includes the visual link with the concierge desk at the lobby entrance, as well as towards the core lifts and stairs which is marked out using colour and projecting elements for clarity.

Post and Parcel Delivery

Postboxes are clearly arranged, in line with accessibility best practice standards. These are stacked per level with the addition of alcove and lounge seating built into the post box array, informal seating is available for use while opening post. Parcel lockers are located at the end of the postboxes, as well as a parcel room behind the concierge.

Lobby Interior Design

The design intent for the lobby interior is to use soft materials, with a range of textures and colours, particularly at human scale to foster feelings of a domestic environment. This creates a homely and grounded atmosphere which is responsive to and complementary of the façade's earthy tones.

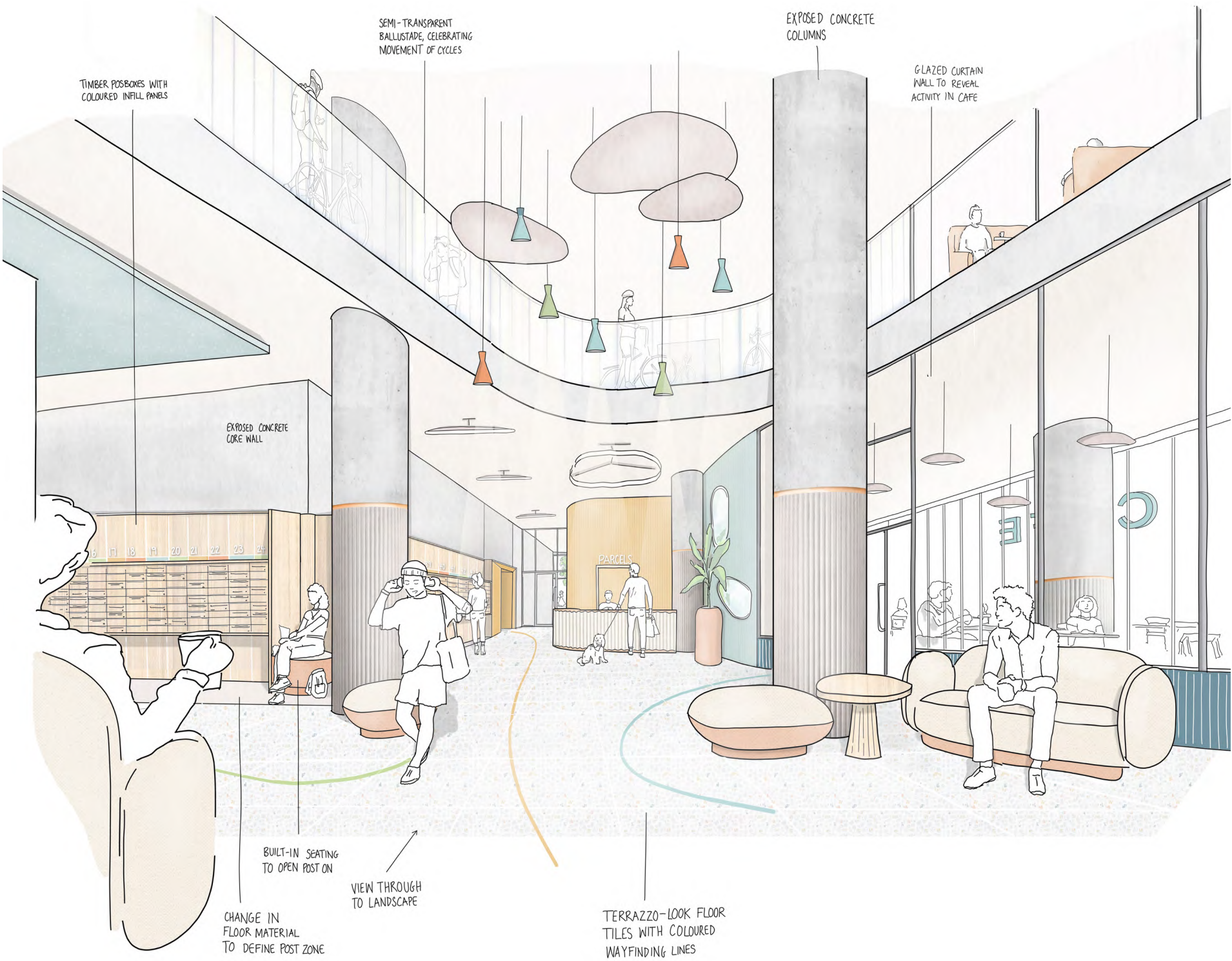


Fig 220 Illustrative sketch demonstrating the design quality proposed within the residential lobby

Dining/Cinema Rooms

At levels 10-11 communal rooms have been designed in sketch, offering residents communal space within the building to host events and enjoy larger gatherings with friends. This area can accommodate smaller, more intimate screening spaces, or flexibility to open up for larger groups of residents to meet and enjoy films or sporting events together. The test fit-out illustrates the potential to introduce a mezzanine area with co-working or dining lounges providing shared space for study, work, or communal meals to be enjoyed.



Fig 221 Co-working precedent



Fig 222 Cinema room precedent



Fig 223 Precedent of a bookable private dining room

KEY

1 Bed Homes

2 Bed Homes

Communal amenity space

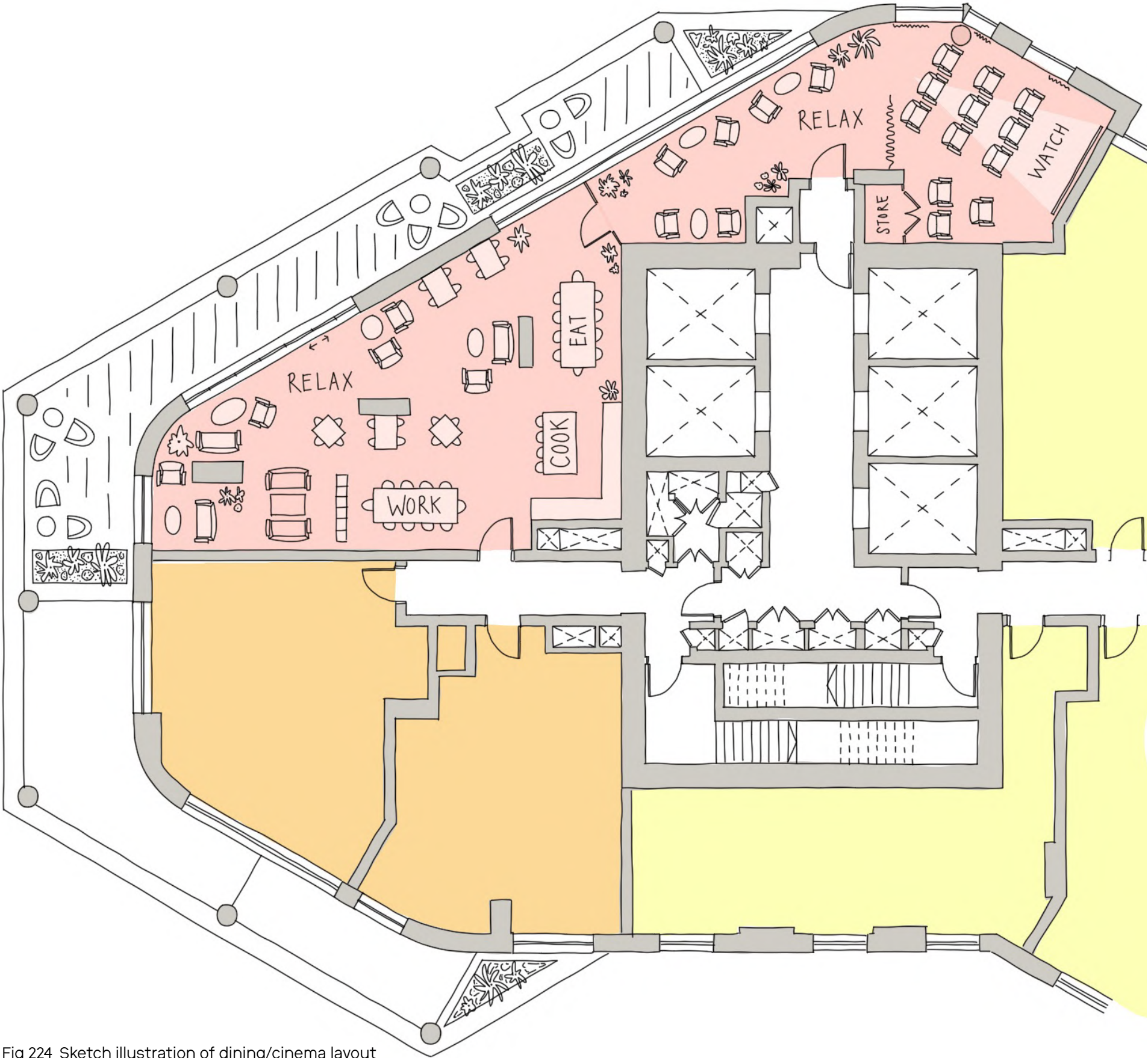
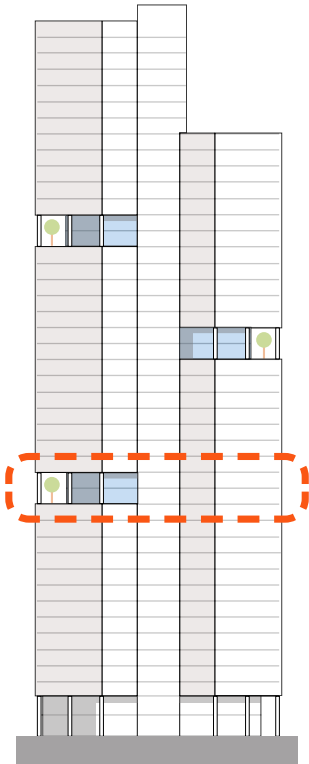


Fig 224 Sketch illustration of dining/cinema layout

Residents Gym

At levels 22-23, a gym can be offered to residents. Gyms provide popular in-house facilities for occupants of high-rise, city centre buildings. An open studio space that can host a variety of activities, such as yoga and pilates, can be accommodated alongside fitness machines and rest areas both internally and externally on the accessible outdoor terrace. Servicing has been coordinated within the project team to allow for flexibility of use to be defined at a later date. The detail of amenity space provision will be developed at the next stage.



Fig 225 Precedent of terrace providing space for yoga class



Fig 226 Precedent of gym in residential building



Fig 227 Precedent of gym in residential building

KEY

1 Bed Homes

2 Bed Homes

Communal amenity space

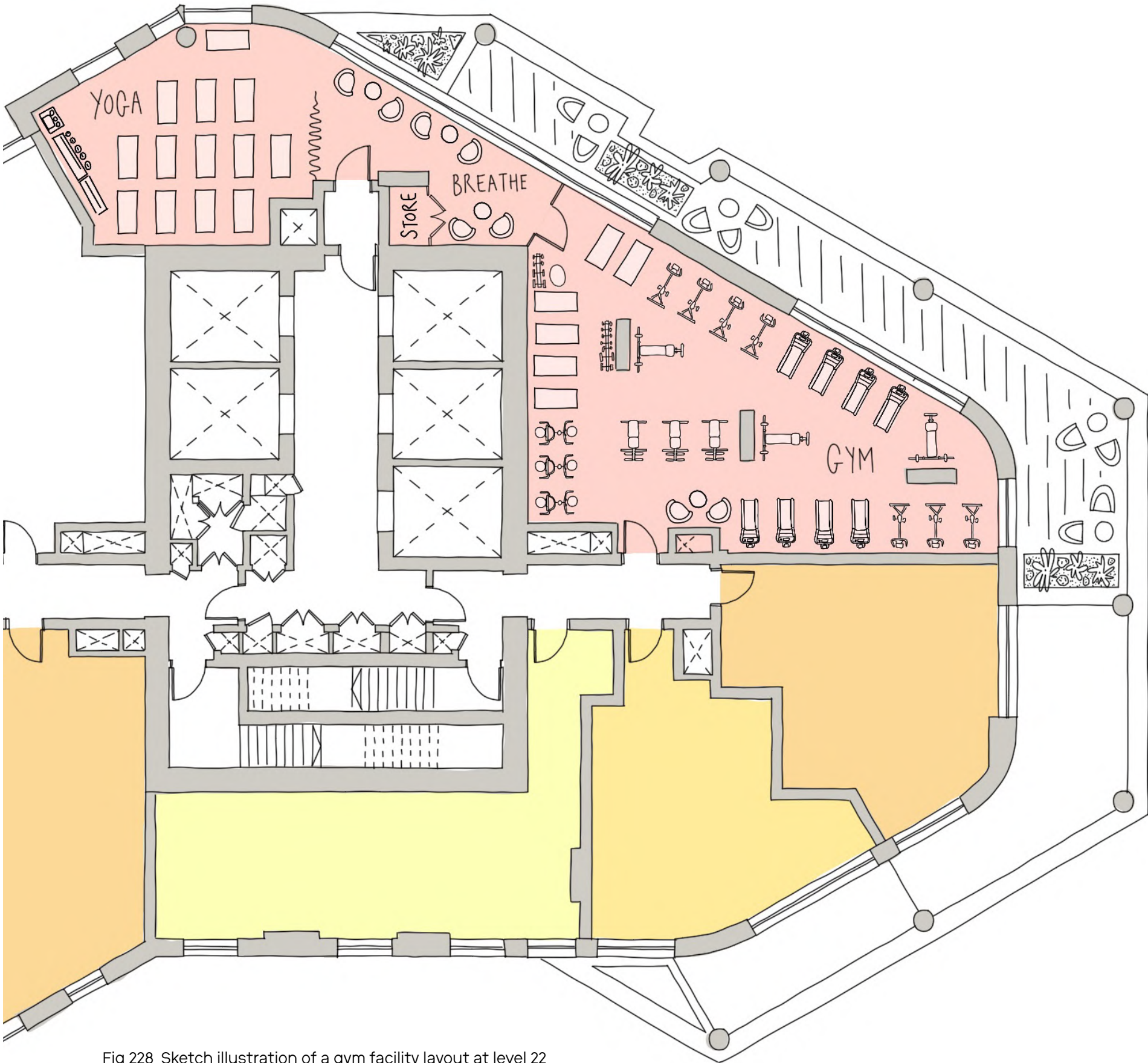
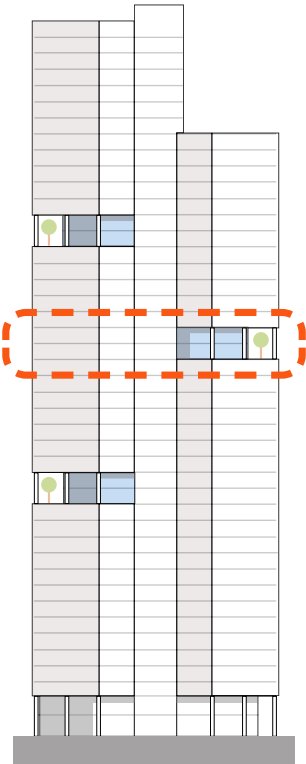


Fig 228 Sketch illustration of a gym facility layout at level 22

Bouldering Wall

At level 34, a unique leisure amenity space has been envisioned for the building. Climbing is a growing sport, particularly among young people, with people drawn to the health and well being benefits as well as the social nature of the sport. The double-height quality of the amenity set-back level provides ideal space and height to accommodate a series of bouldering surfaces and routes, with space for seating areas and an external terrace for socialising.



Fig 229 Precedents images of bouldering wall and seating area

KEY	
	1 Bed Homes
	2 Bed Homes
	Communal amenity space

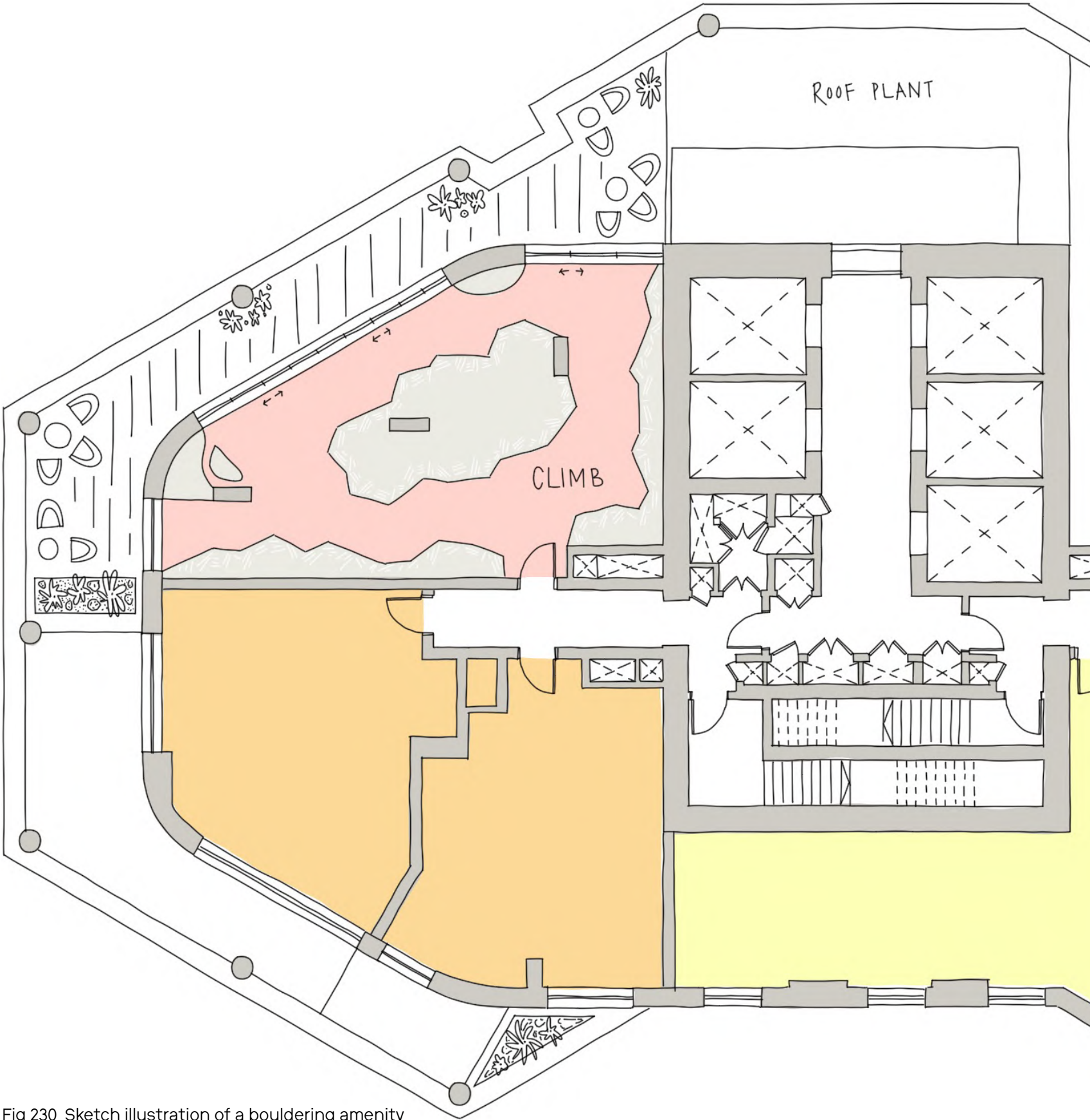


Fig 230 Sketch illustration of a bouldering amenity



Fig 231 Amenity "belt-level" seen from the office building roof terrace

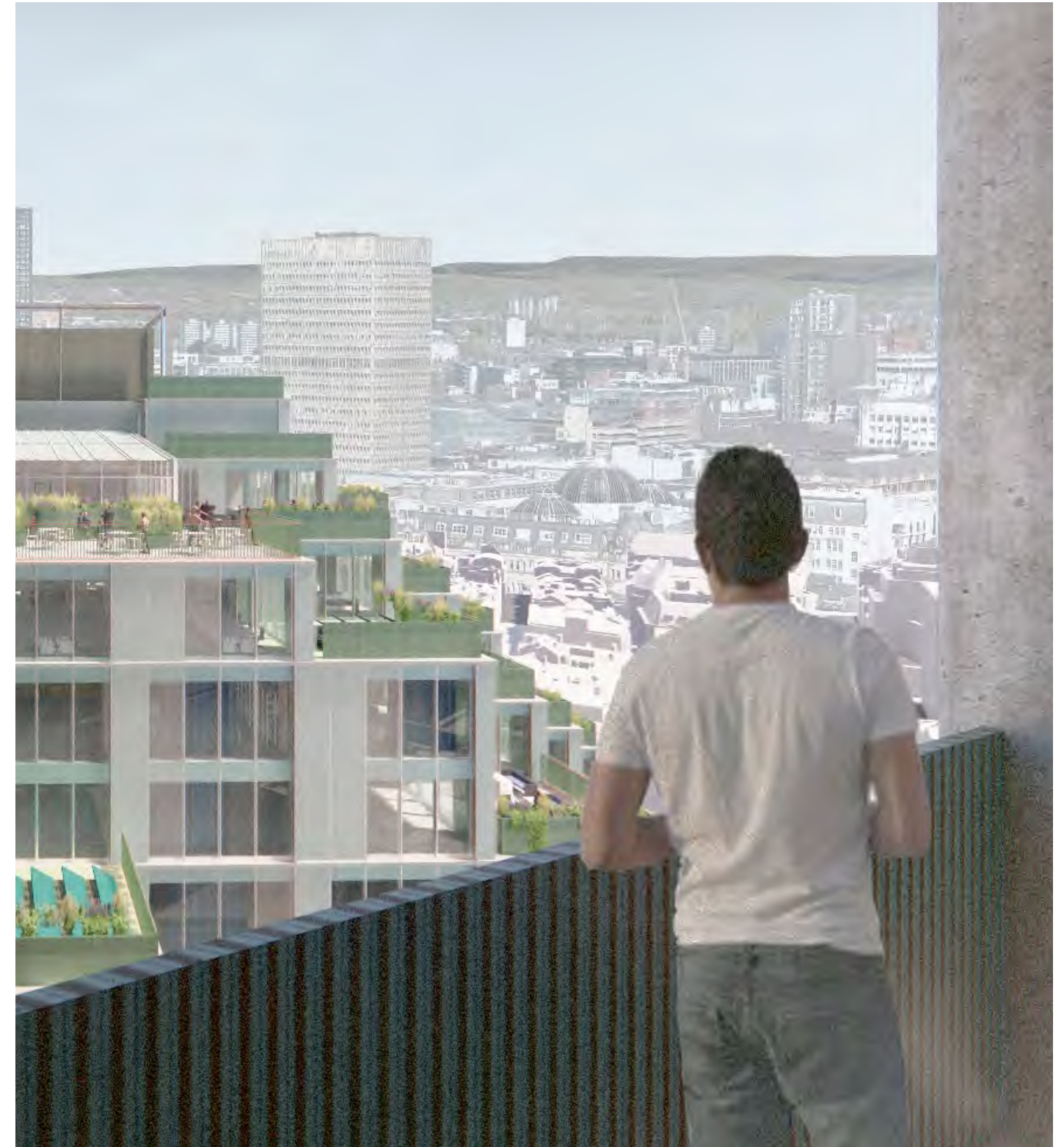


Fig 232 View from the amenity "belt-level" back to the commercial building

Appearance and Materiality

The appearance and materiality of the residential building has evolved throughout the design process as an expression of the site and its opportunities and constraints, the findings of the Strategic Regeneration Framework, the local context and architecture, and setting within Manchester City centre. Careful consideration has been paid to the language, framing, scale, tone and materials to arrive at the resolved proposal.

Main Colour Palette

The proposed facade takes inspiration from the Manchester vernacular red brick. Warm rust and clay tones were chosen to strengthen the identity of the building as a residential typology, fostering a sense of domesticity and complementing the colour palette of the immediate context.

Elevation Composition

The composition of the elevations uses horizontal banding and vertical glazed corners to create rhythm and order to the facade. The banding rhythm increases with height up the building, starting with single storey banding at low levels, increasing to double storey expression within the middle portion of the building, and triple storey expression at the top.

The gradation of banding makes the building more solid at its base where the building sits within the streets-cape, and more light and open at its top, where the building meets the sky. The changes in banding order occur at belt levels, which create massing breaks and physical cuts in the building, helping to split down the height of the tower into visually calm volumes.

To provide a contemporary expression and sense of movement throughout the elevations, windows and coloured panels shuffle up the height of the building, and varying colour tones augment the sense of dynamism and movement. Warmer and darker red/rust tones are used at the lower levels, which progressively become lighter with the increasing height of the building, compounding the sense of solidity transitioning to lightness with height up the building.

Secondary materials

The cladding of the core, belt levels, base and top of the tower uses green accent materials in combination with glazing to complement the rust and red tones of the primary materiality. The use of green also complements the existing and emerging context of the site. Polished concrete is proposed for the expressed columns and concrete finish also used for the soffit of the setbacks. The facade at the base of the building was designed to feel light, open and welcoming by using channel glass with varying degrees of opacity depending on the use. An expressive crenelated plant screen is used to “crown” the volumes and screen rooftop plant.



Fig 233 View of Residential Building

Context Colour Palette and Architecture Details

Context Colour Palette

An investigation of the local context revealed a colour palette rich in tone and material. The materials found within the local architecture have informed both the residential and commercial buildings in terms of tonality and colour temperature. To foster a sense of domesticity for the residential building, the facade colour palette was inspired by the Manchester vernacular, and predominant material found in the city centre, of the warm tones of red brick.

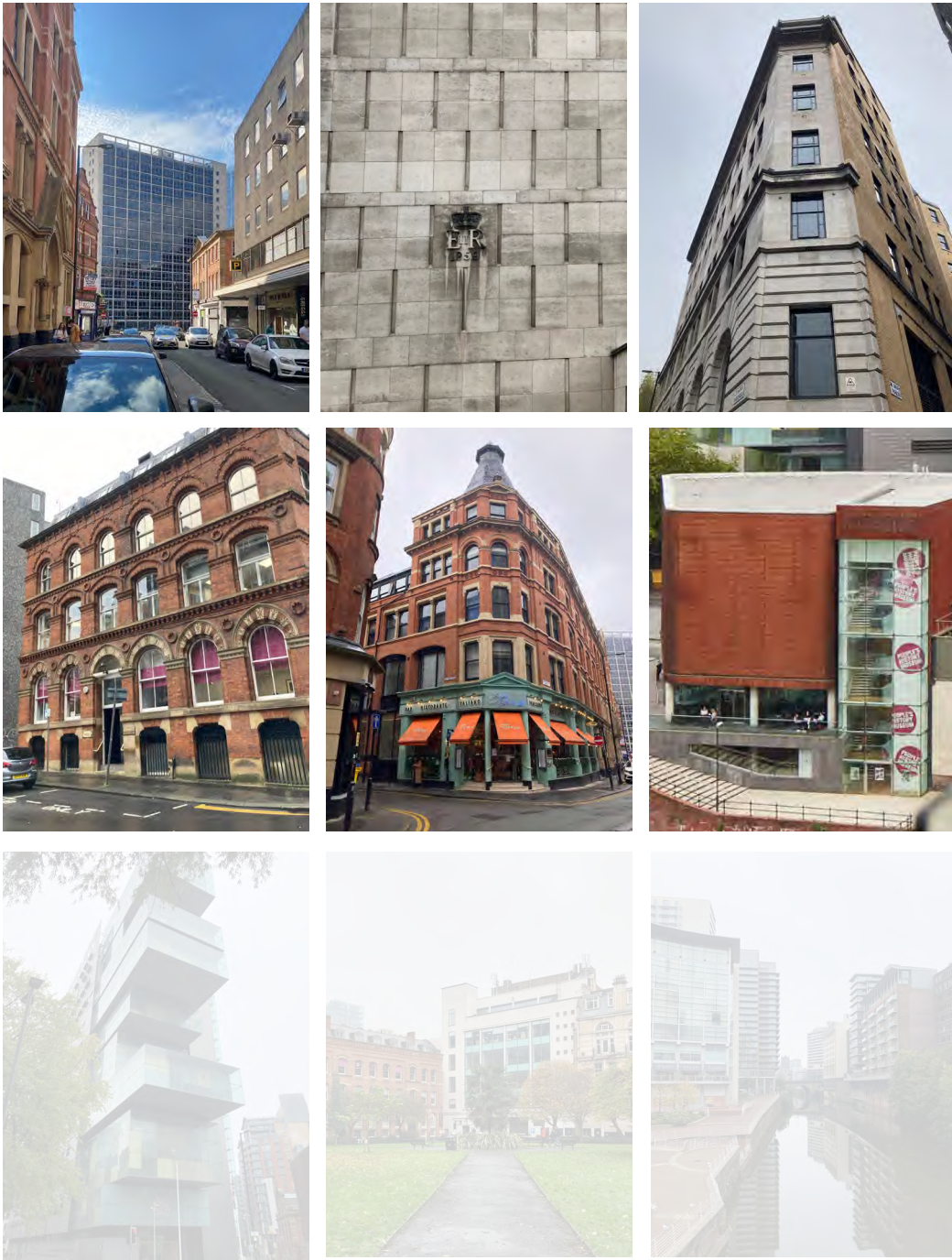


Fig 234 Context palette

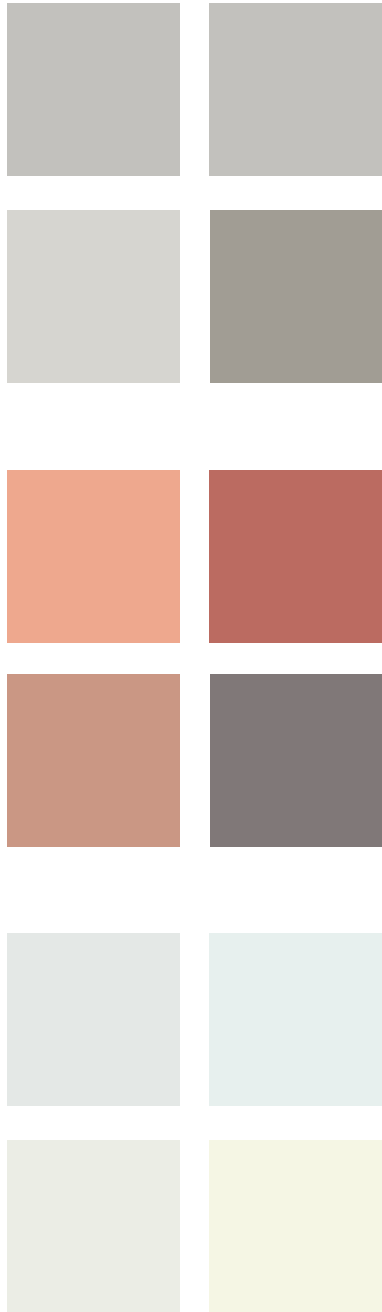


Fig 235 Colours and Hues

Strong Floor to Floor Fascia Expression

The warm tones of rust and red are paired with light accents expressed in the form on horizontal banding, which strengthen the clarity of the faceted floorplan. The combination of red brick and rust colours paired with pale grey and beige accents was informed by the local architecture, where fascia, lintel and cornicing features provide accent within Georgian, and Venetian Gothic architecture in the locality.

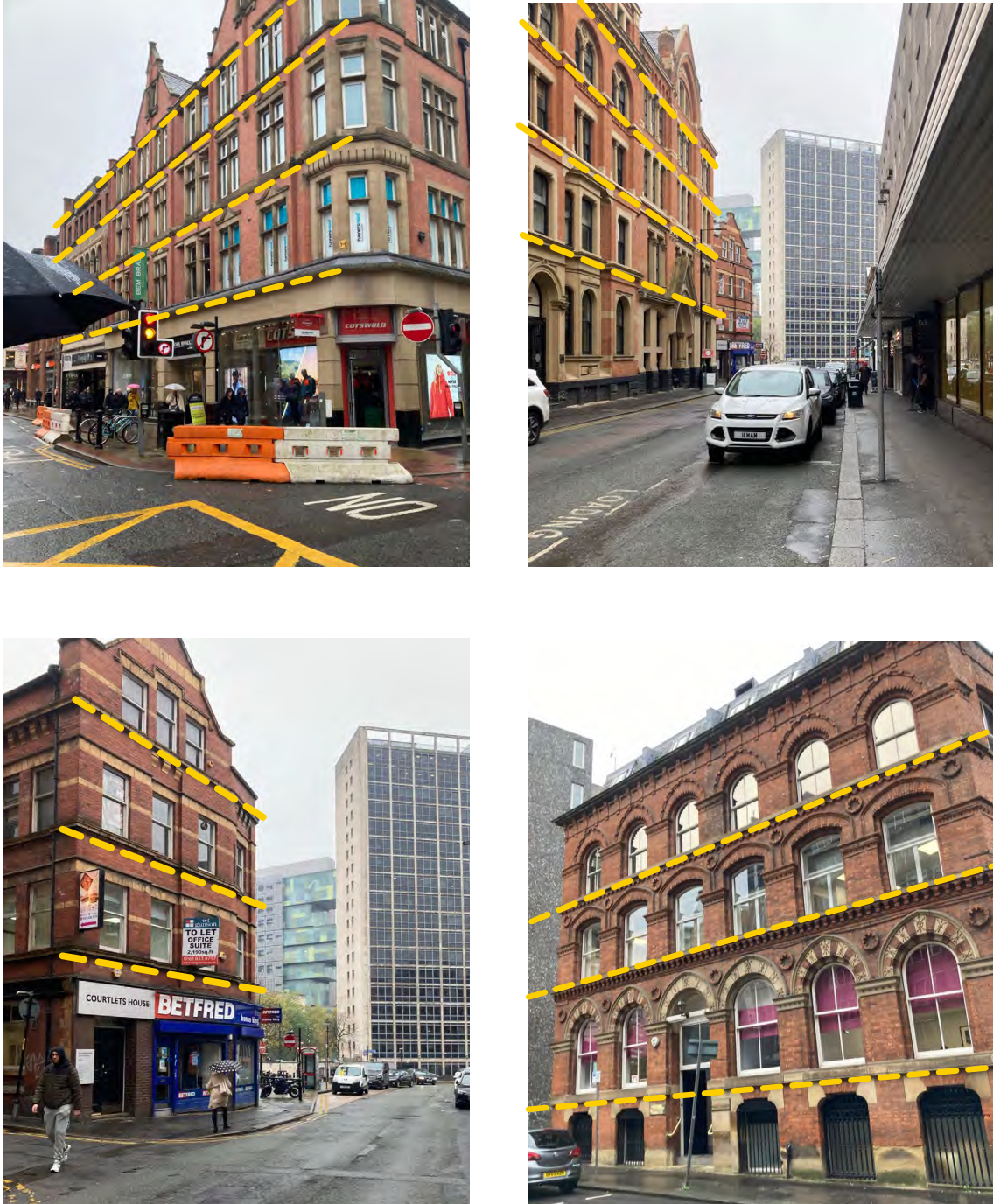


Fig 236 Photos of nearby historic architectural context

Elevation Strategy

The elevation design has been developed through the interrogation of a series of layers of expression, setting out subdivisions of massing, a hierarchy of articulation and order within the façades with height up the building, and movement through the composition and materiality of each facet bay.

01 Creating the ‘framework. Horizontal banding and vertical glazed corners define the primary language of the building. Volumes of massing are interrupted by setbacks to emphasise framing expression.

02 Adding dynamism to the composition.

Rust and red-toned facade panels are inspired by the context and vernacular of Manchester. The panelling expression shuffles across banding expression to create movement. Tones of panel becoming lighter towards the crown of the building.

03 Create symbiosis with the contemporary local architecture and the proposed future buildings.

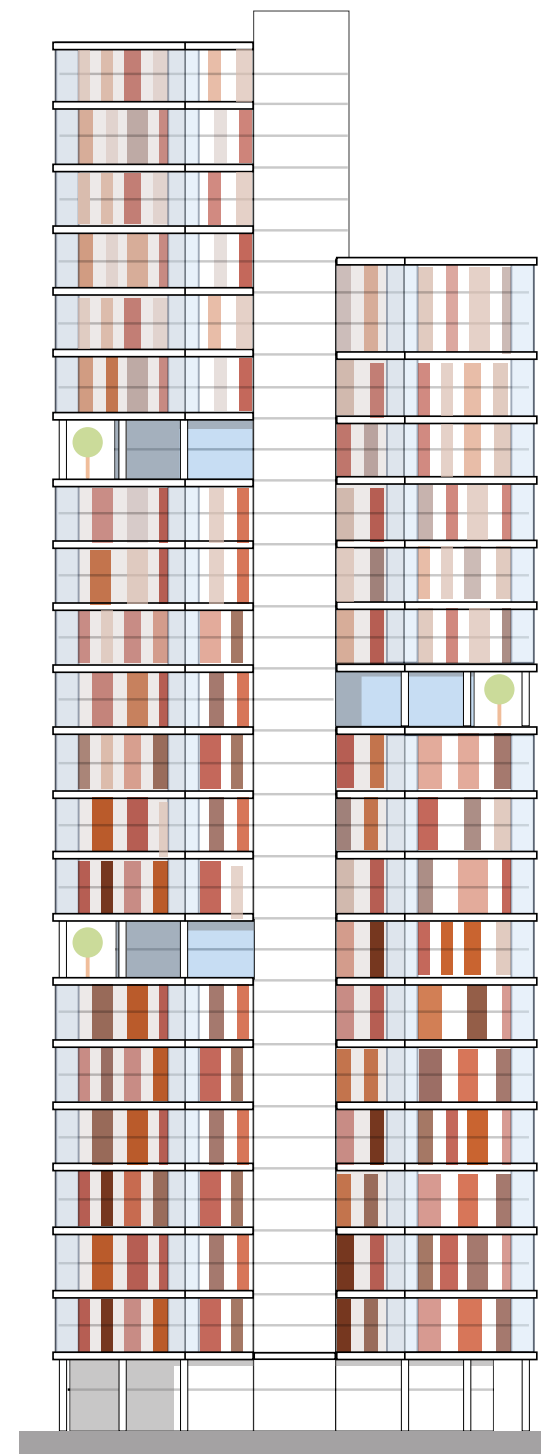
Expressing the central linking volume, the “belt levels” facade and the crown with green hues creates a relationship with the commercial building on site, the existing context, and the emerging developments within the surroundings.



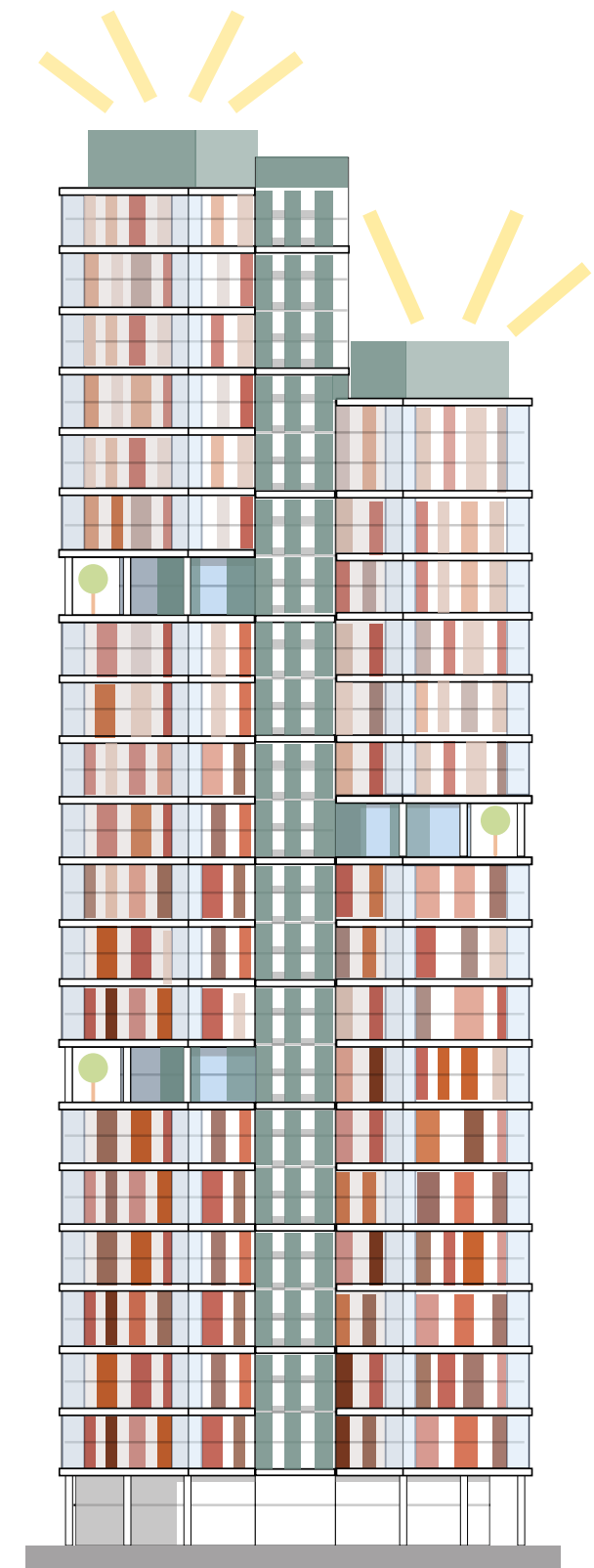
Fig 237 Materiality - Aluminium corrugated panels in varying rust tones



01. Creating the ‘framework



02. Adding dynamism to the composition with a domestic colour palette



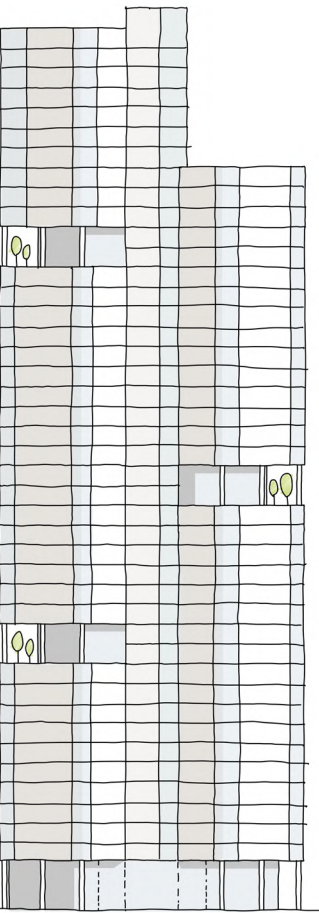
03. Create symbiosis with the contemporary local architecture and the proposed future buildings

Elevation Composition

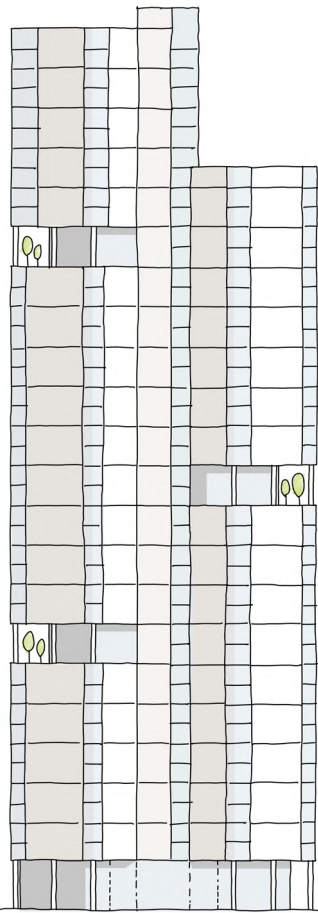
Through initial design stages the team carried out a series of composition studies to establish the rhythm of framing language, to inform the primary facade expression. Three distinct banding rhythms were tested to interrogate the frequency of the horizontal banding:

- Option 1 - Single storey height
- Option 2 - Double storey height
- Option 3 - Triple storey height

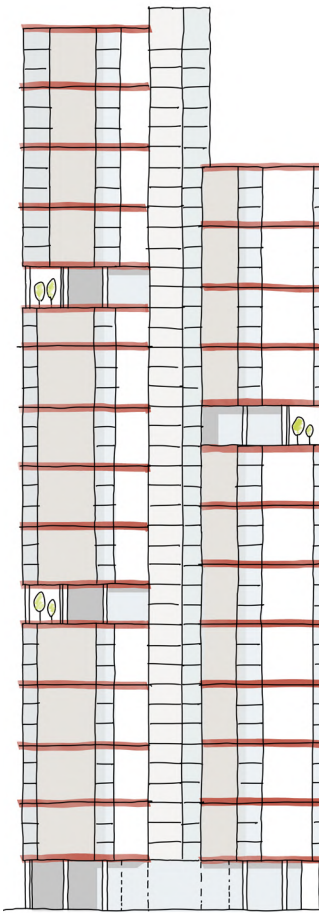
Each option carried benefit or dis-benefit, dependent on the distance the building was seen from. The final composition (Option 04) takes all three options, combining these to create gradation with height up the building, using belt levels to transition the banding rhythm. In this solution, a single storey expression is used at the lower levels where solidity and protection works successfully in concert with the street condition, is relatable at the human scale, and creates a positive relationship with the surrounding buildings. The banding rhythm then becomes increasingly less dense with height up the building, at the top terminating with a triple storey banding expression. This solution helps with the optical distortion that comes with the height of the building, while serving to feel lighter as the building meets the sky at its apex.



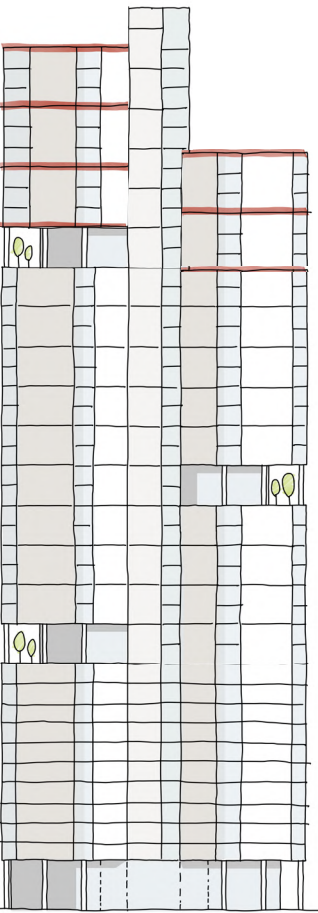
Option 1
Single bay expression



Option 2
Double bay expression



Option 3
Triple bay expression



Option 4
Single+Double+Triple

Facade Expression Bay Studies

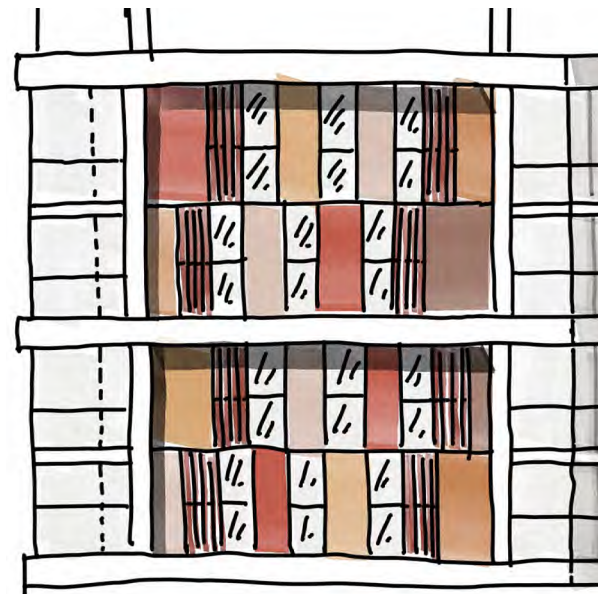


Fig 238 Option 1 - Alternating panel each level

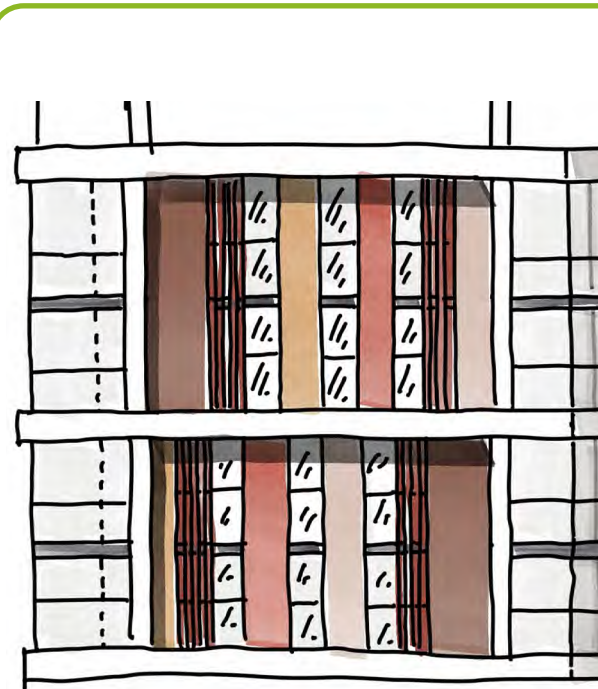
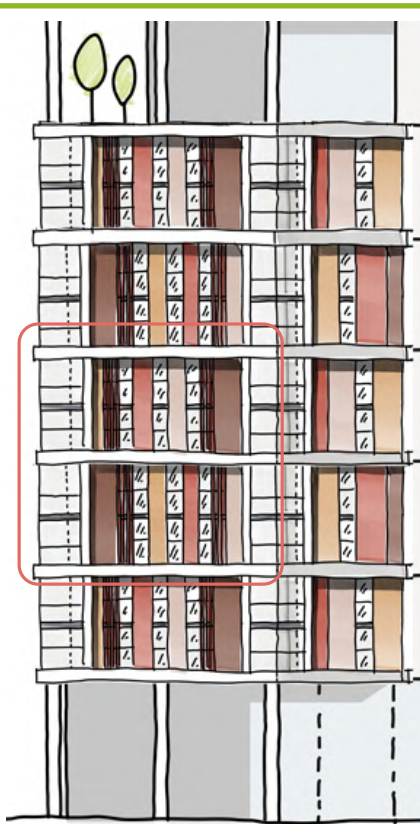


Fig 239 Option 2 - Alternating panels each banding level



Facade Colour Strategy

The choice of the colour tones for the residential cladding was informed by the vernacular of Manchester, and local architecture within the site surroundings. A palette of shades of red, pink and rust colours were selected within the primary palette of material expression for the façades when viewed holistically, the façades reflect also the natural habitat of the site, and verdant riverside bank, with an abstraction of the foliage of autumnal trees.

A key principle for the colouring strategy also references the overall height of the tower, concentrating more intense, saturated and darker colours at the lower levels, while fading and lightening the colour tones with height up the building to create solidity at the base of the building, and a sense of lightness at the top of the building.



Fig 240 Red colour tones test



Fig 241 Pink colour tones test

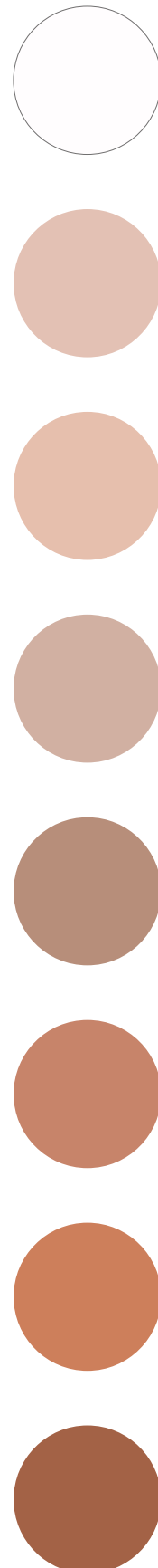


Fig 242 Rust colour tones test

Facade Components and Elements

A unitised curtain walling systems is proposed for the facade construction - an appropriate system solution for a high-rise building, which enables speed and safety on site, economy of material and detailing, and high levels of performance. A unitised system utilises off-site assembly in quality controlled factory conditions, minimising health and safety risks, and allows for a fast track construction programme.

The facade is composed of a set of repeating elements:

- Precast masonry horizontal banding. This projects 150mm to the main facade build-up line
- Anodised aluminium corrugated solid panels, in 8 different tones of red, rust, pink, silver and green.
- 3 window types, with all openings designed to provide adequate ventilation and limit overheating.
 - Type 1: Living room full height window (1.6m wide), with opening panel at 1.1m transom height and side fixed full height pane.
 - Type 2: Bedroom window, openable, with 1.1m solid cill height. This allows more privacy while reducing facade heat loss and solar gains. The cill is recessed by 75mm to the main facade.
 - Type 3: Winter garden corner window, full height. One side of the corner is fixed whilst the other one is full height sliding to provide sense of openness, with internal 1.1m railing.

The acoustic consultant's assessment of the noise environment has been taken into account in configuring the glazing and opaque panel build-up. The overall depths of the facade zones were established by calculating the required wind resistance and thermal performance. The glass specification has been reviewed with the technical team to meet the solar, visual and thermal constraints for each facade type, whilst maximising acoustic performance. The MEP consultant's ventilation strategy has been incorporated in the facade design.

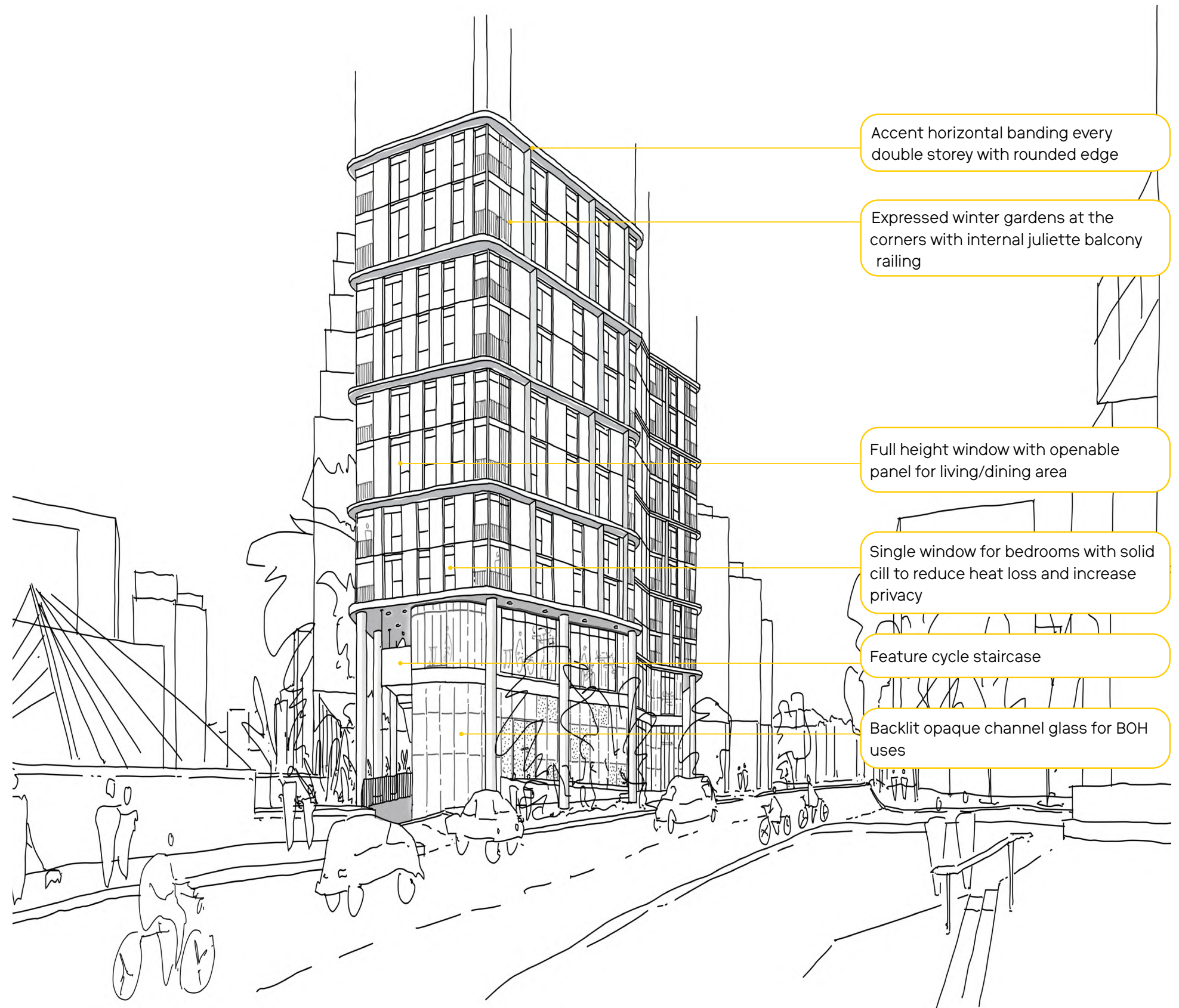


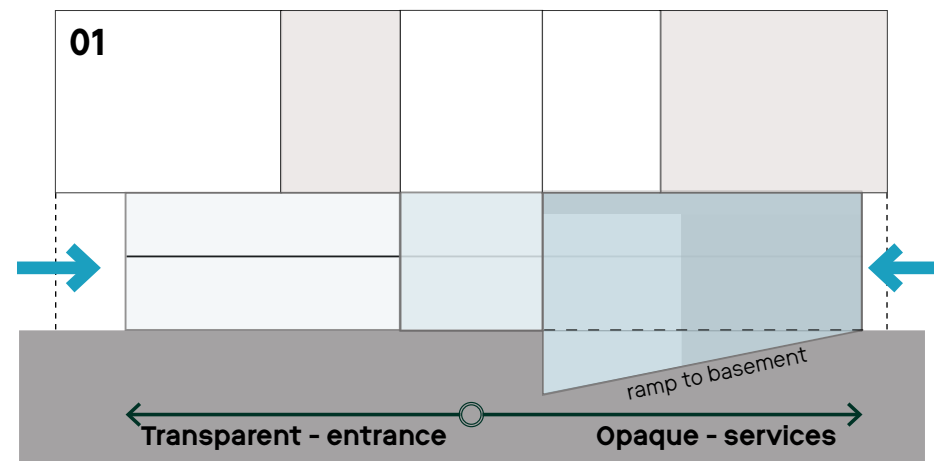
Fig 243 Initial facade exploration sketch - April 2022

Building Base Facade Treatment

The facade of the building base was designed to maximise the sense of lightness and openness to the surrounding public realm. Below are the key principles that drove the design.

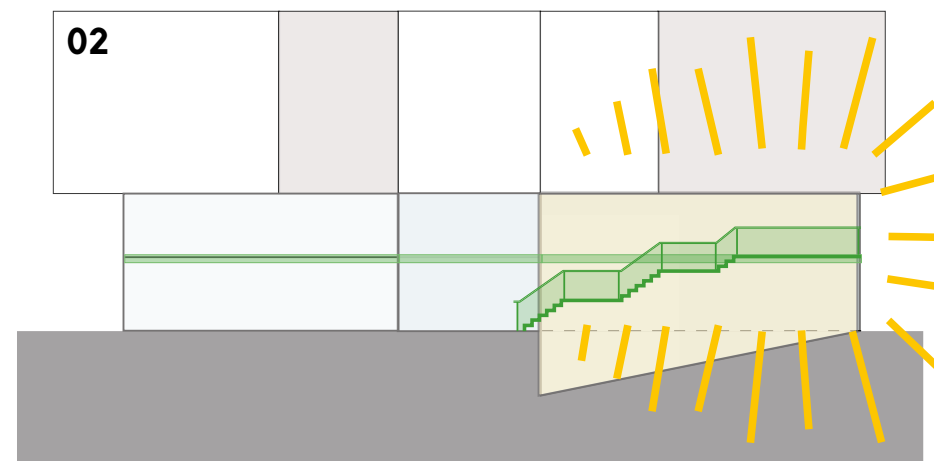
01. Uniform material with light and open feel

The residential base envelope is set back to allow for active uses spilling out, wind and rain protection and to define a datum height for the public realm at a human scale. Channel glass is used as a uniform background material, with varying degrees of transparency employed across the facade depending on the use.



02. Feature staircase

The external cycle staircase leading to the level 01 cycle store becomes a feature to animate the north-west facade and define a continuous banding around the envelope with an accent colour complementing the primary facade material colours above. A feature staircase creates a sculptural element within the landscape, and also helps to act as a wayfinding element, improving the legibility of the route to the cycle store. Back-lit panels brighten the back of house spaces overlooking Albert Bridge Gardens.



03. Facade rhythm

The use of two different channel glass pane widths provides a change of rhythm within the two storey ground level setback. The subtle change of rhythm articulates the base and improves the legibility of open and inviting next to more protected and private.

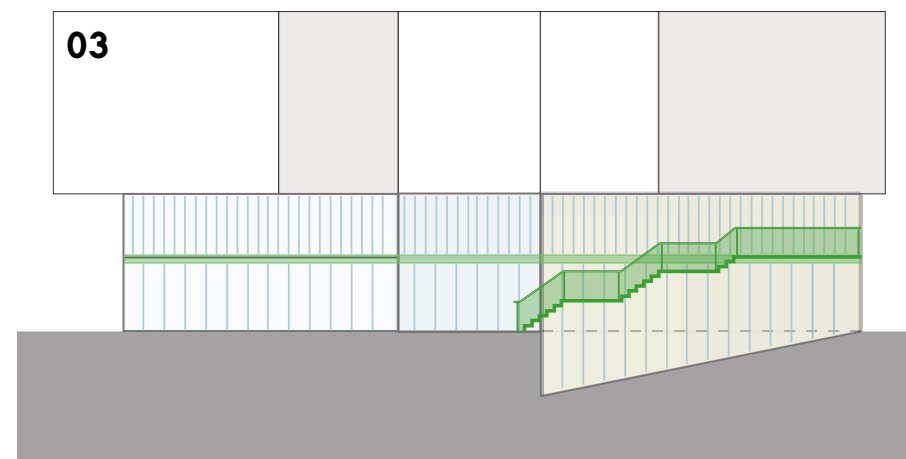


Fig 244 Carles Rahola Public Library, Mario Corea Arquitectura



Fig 245 English National Ballet Headquarters, Glenn Howells

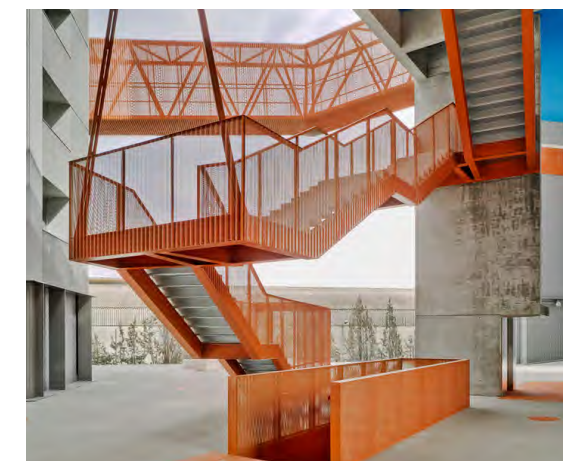


Fig 246 Residential Building in Coslada, Amann Canovas



Fig 247 Science Industry Museum Manchester, Carmody Grooke

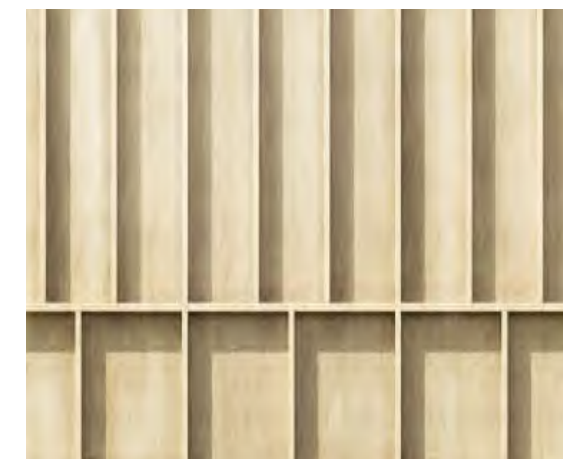


Fig 248 Alternating rhythm over 2 levels



Fig 249 Alternating rhythm over 2 levels



Materials

For the facade materials, one of the key drivers for material selection has been durability and detailing. The primary facade panel building elements are comprised of precast masonry for the horizontal banding, corrugated anodised aluminium for the panels, channel glass for the ground and first floor levels.

Aluminium Corrugated Anodised

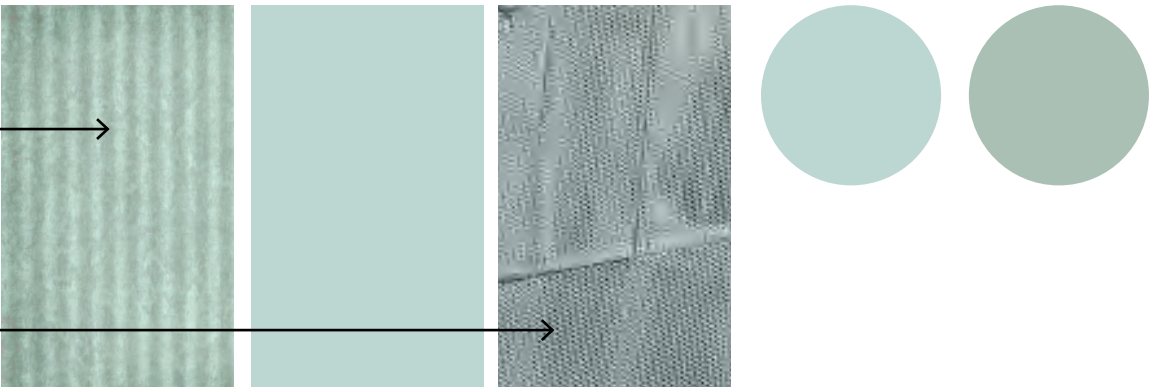


Light-tone Precast Masonry Banding



Aluminium Corrugated Anodised

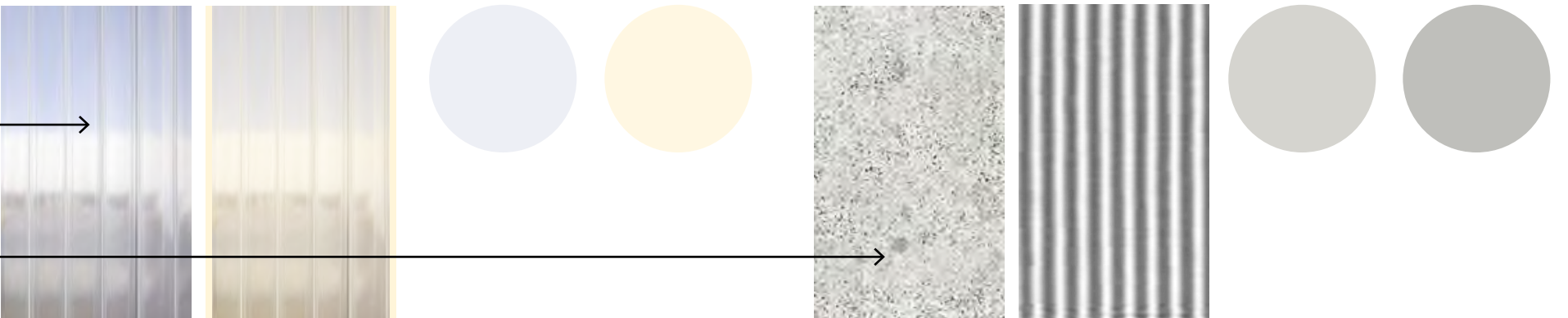
Core Screen, Set Back Levels Cladding



Aluminium Perforated Anodised

Plant Screen

Channel Glass - Ground and First Floor Cladding



Polished Concrete and Ribbed Vertical Finish Concrete
Exposed Columns



Proposed Elevations

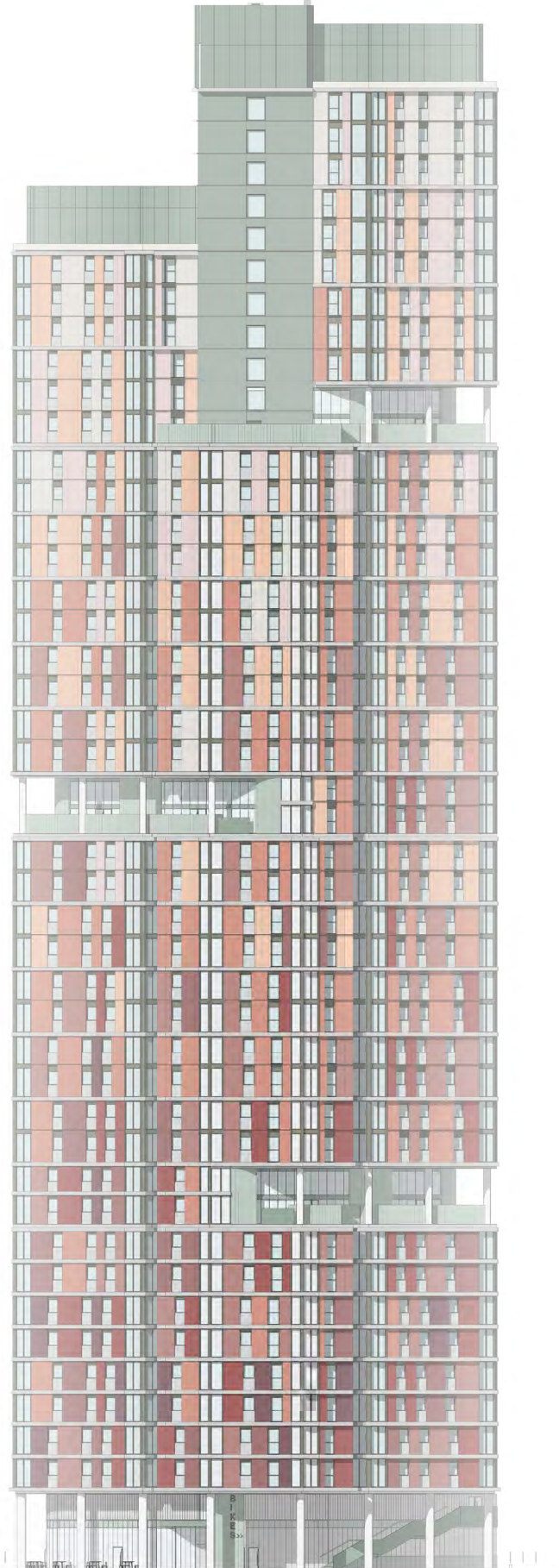


Fig 250 North Elevation



Fig 251 East Elevation



Fig 252 South Elevation

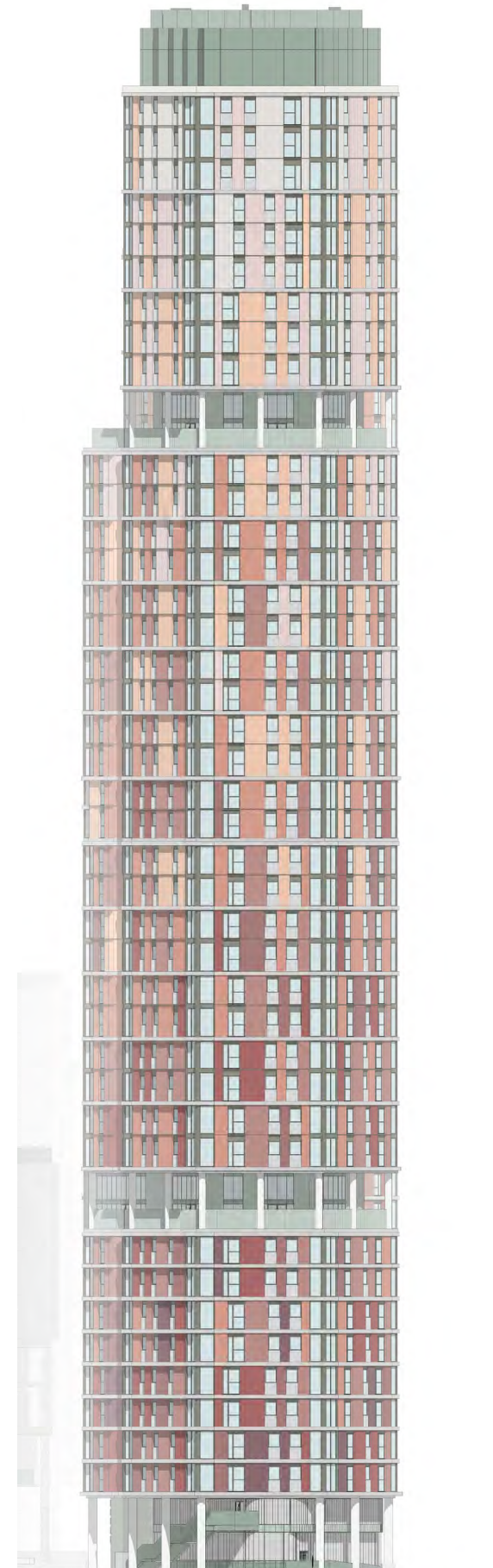


Fig 253 West Elevation

Elevation Articulation

The banding expression is graded with height up the building. A single storey expression is used at the lower levels to provide solidity, visibility at pedestrian level, and to relate to the human scale. Within the middle portion of the building the banding widens to a double storey expression, then triple storey at the top of the building.

The banding articulation helps to alleviate optical distortion that comes with the height of the building, where the amenity level massing cuts provide the break moments to transition the order changes in banding heights.

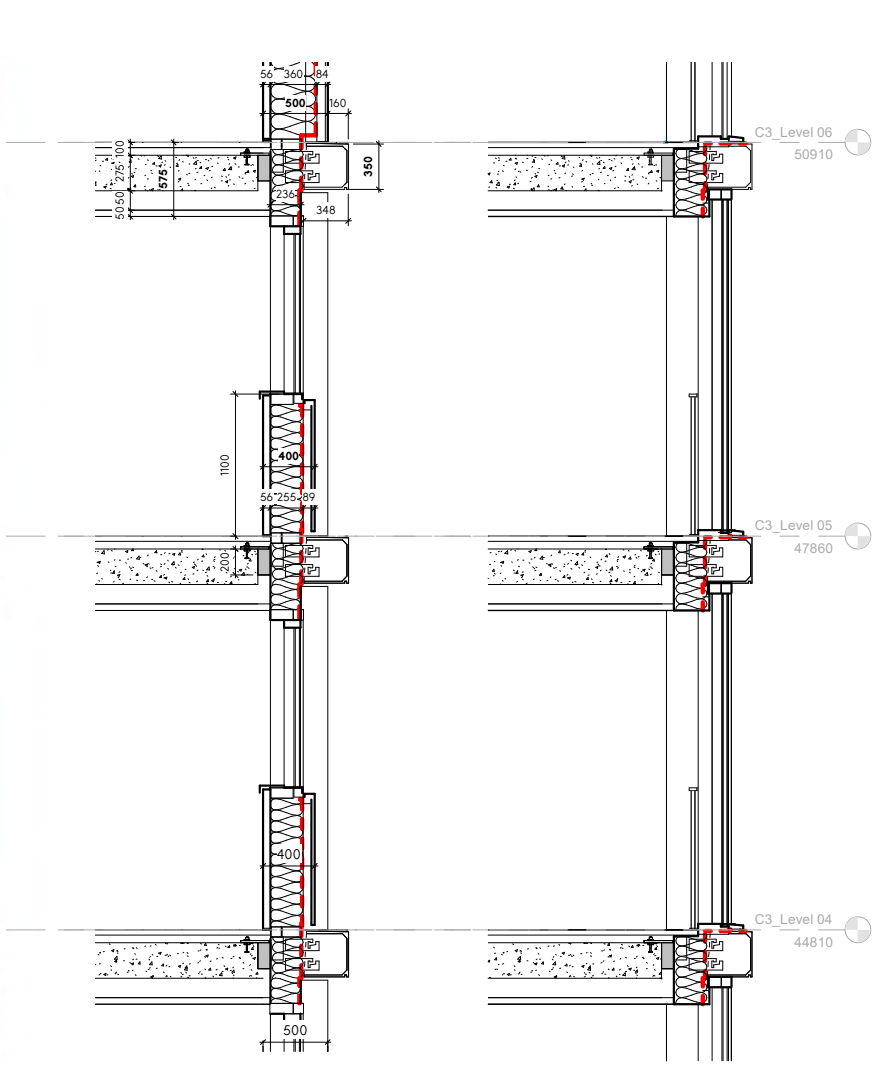
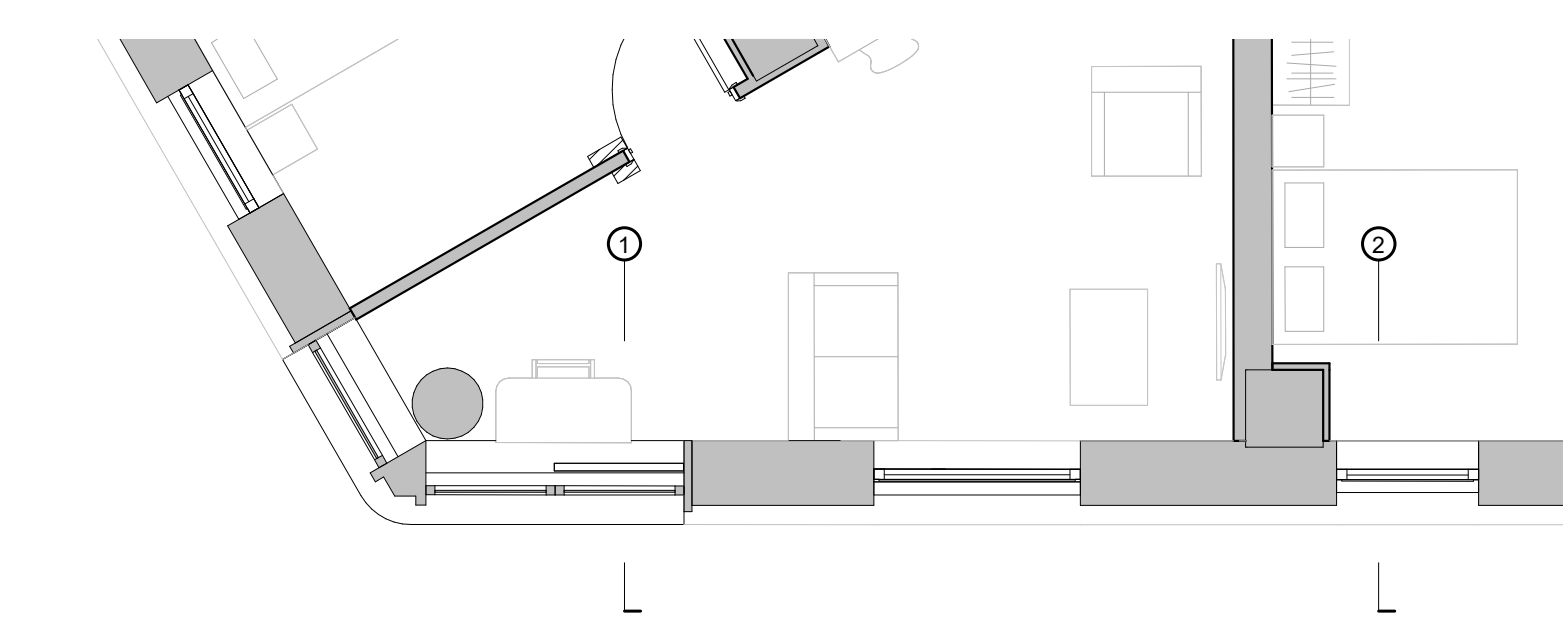
The overall impact helps to contribute to a lightening of the façades with height up the building, both in articulation of the horizontal expression, and also complemented by lightening of facade panel tonality.

The banding strategy evolution was developed following feedback received from Manchester City Council, at Pre-Application Meeting 03 on July 12, 2022.



Proposed Facade Detailed Bay Study

Typical Bay Study Single Storey



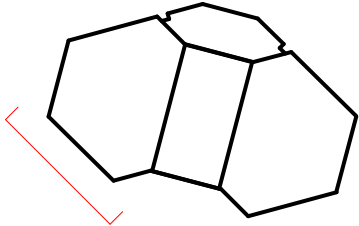
Section 1

Section 2

KEY

F03	Precast Banding with rounded corners - White
F06-12	Anodised Aluminium Corrugated Rainscreen Panel - Varying tones
F15	Anodised Aluminium Corrugated Panel, Set Back - Tone 11 Grey
G01	Glazing, Clear
G02	Aluminium Window Frame - Tone 01 Grey
M07	Aluminium vent in correspondence of service zone. Flush with window - Tone 01 Grey
M08	Winter garden internal railing

Note: Variation in the arrangement of panels will occur within the typical bays.





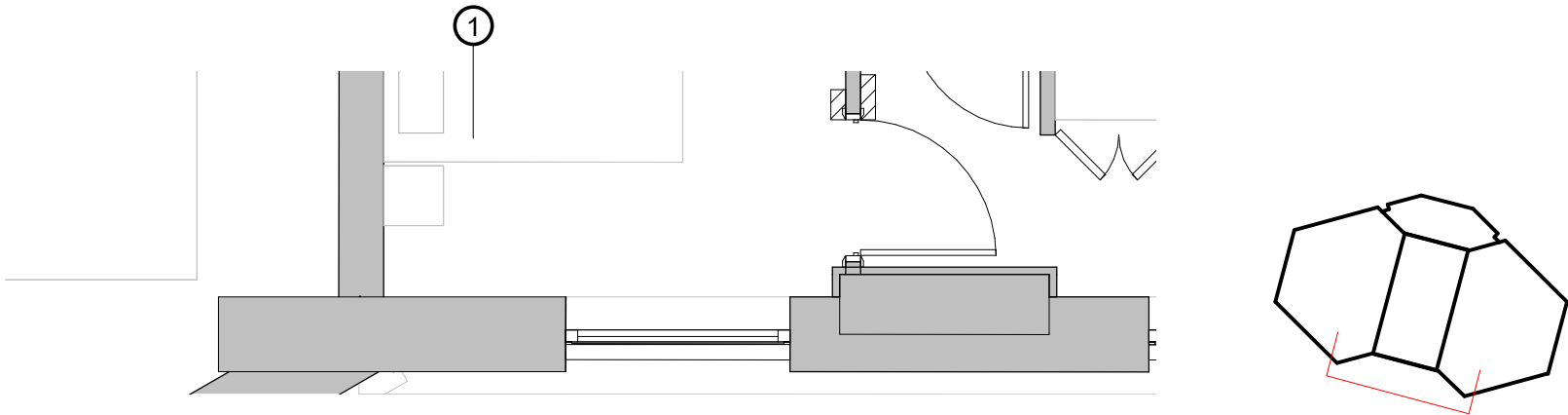
Linking Volume Bay Study Double Storey

The full length of the south facade, within the linking volume, is clad in a green anodised aluminium corrugated rainscreen panel which features three full height openable windows. A light grey precast masonry banding cuts through the facade at either single, double or triple storey, dependent on height up the building.



KEY

F03	Precast Banding with rounded corners - White
F06-12	Anodised Aluminium Corrugated Rainscreen Panel - Varying tones
F15	Anodised Aluminium Corrugated Panel, Set Back - Tone 11 Grey
G01	Glazing, Clear
G02	Aluminium Window Frame - Tone 01 Grey
M07	Aluminium vent in correspondence of service zone. Flush with window - Tone 01 Grey
M08	Winter garden internal railing
Note: Variation in the arrangement of panels will occur within the typical bays.	



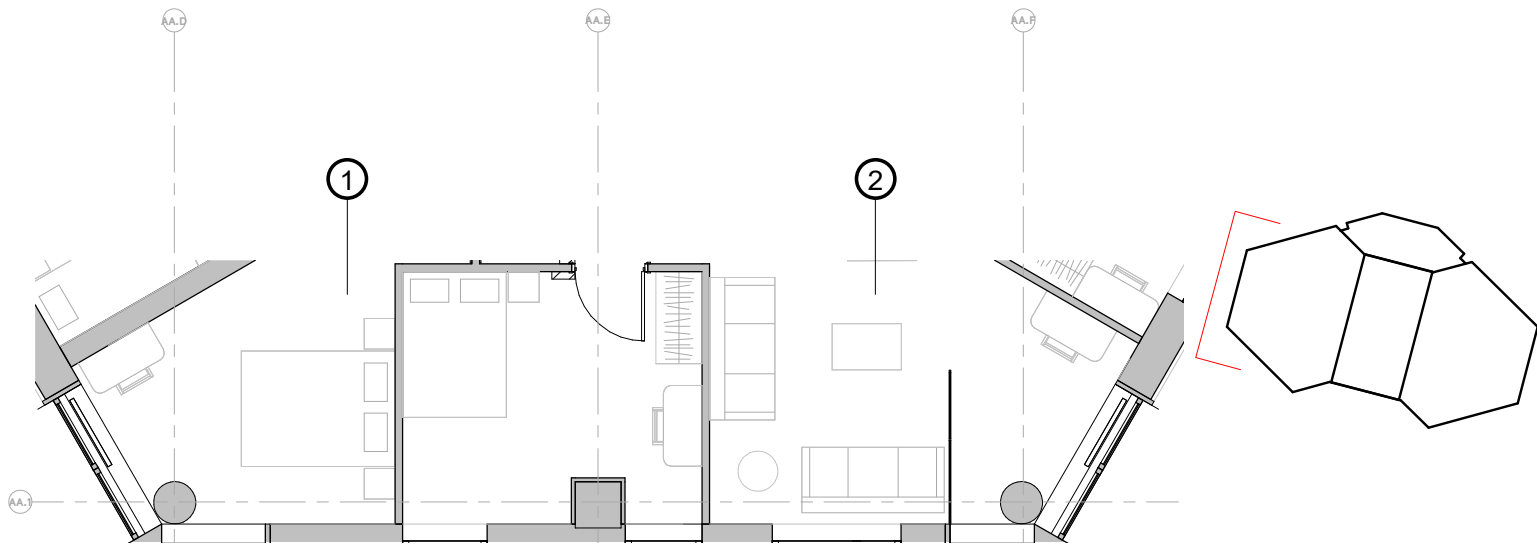
Typical Bay Study Triple Storey

The triple storey bays at high levels of the building facade are defined by light grey precast banding, and light coloured anodised aluminium rainscreen panels within the same shades as lower levels, however with lightened tones. The coloured anodised aluminium panels at mid levels within each three storey bay are subdivided horizontally by a grey metal banding detail in colour to match the window framing, along with the vertical break created by window openings. The winter gardens sit at the two corners of the elevation and provide full height glazing.



KEY

F03	Precast Banding with rounded corners - White
F06-12	Anodised Aluminium Corrugated Rainscreen Panel - Varying tones
F15	Anodised Aluminium Corrugated Rainscreen Panel, Set Back - Tone 11 Grey
G01	Glazing, Clear
G02	Aluminium Window Frame - Tone 01 Grey
M07	Aluminium vent in correspondence of service zone. Flush with window - Tone 01 Grey
M08	Winter garden internal railing
Note: Variation in the arrangement of panels will occur within the typical bays.	



6.0

**COMMERCIAL
BUILDING**

Office Summary

The Albert Bridge House commercial building is situated towards the eastern boundary of the site, addressing the intersection of Bridge street and St. Mary's Parsonage to the south, fronting the neighbouring development of The Alberton to the East, and facing the River Irwell to the north.

The scheme provides 42,000sqm of flexible office space over 18 storeys, with accessible amenity terraces at every level, a consolidated amenity roof terrace space at level 16, green roofs and photovoltaic arrays at upper levels.

At ground level, a generous and inviting office reception invites users and visitors into a spacious internal lobby environment, which connects to cafés, retail units, and a restaurant across two levels. All levels within the office building will benefit from an internal atrium running from ground to roof level, which provides natural daylight into central areas of the floorplan, of particular importance at low levels, while also animating internal environments with multiple view and outlook opportunities from the internal floorplates.

The office assumes a 1:10 occupancy, catering for circa 3,200 people, with the design offering adequate internal and external cycle parking, sanitary and storage facilities, that are fully accessible via stair or lift.

Main Use	E (g) Office	41,886 sqm GIA
Ground Floor Uses	2,324 sqm GIA	
	E (g) Office	1,276 sqm GIA
	E (a, b, c) Retail /Restaurant / Cafe	1,048 sqm GIA
Office Amenity Uses	L. 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16	2,526 sqm GIA
BOH Ancillary & Car Park	Basement Level	3,314 sqm GIA
Storeys	18 storeys	
Car Parking Spaces	14 no.	
Cycle Parking Spaces	377 (incl. public realm)	327 at Basement
no. Lifts	11 x 17 people lifts	
	2 x goods lifts / fire fighting lifts	

Fig 254 Right: View from Bridge Street towards Alberton Bridge House proposal

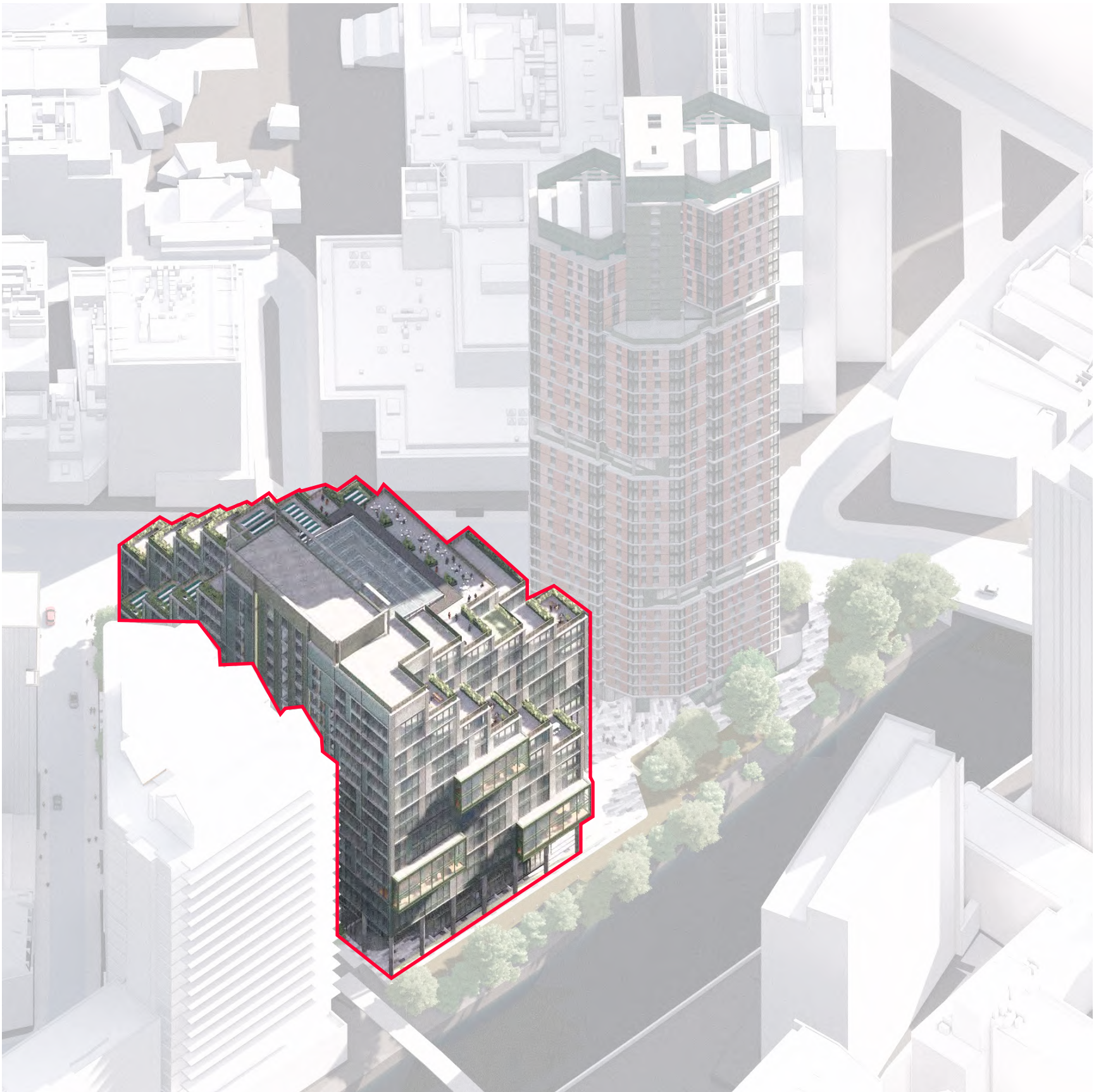


Fig 255 Axonometric view of Alberton Bridge House proposal



Building Concept: Eroded Mass

The primary concept for the building was to create a large-scale office with massing that steps down from north to south in order to blend into a local context or lower scale urban grain. The aspiration at earliest stages of design was to create a sustainable design providing green amenity spaces at every level, while offering an array of different size floorplates. This was driven not only by the focus on health and well being of the future occupants, but also a sensitive response to the surrounding conservation areas.

The concept of a traditional building extrusion, which is eroded to reduce in height towards key aspects to the south, west and north was developed. This allowed for a building which responds to the lower buildings across St. Mary's Parsonage and King's St W., reduces in height relative to the adjacent residential tower, to create breathing space between the two buildings on the site, and towards the north, to enable the office building to address the River Irwell and City of Salford.

At the ground level the concept of an eroded mass is also applied to allow the building to create inviting moments, protected areas beneath undercroft and building overhang to provide moments of shelter for pedestrians, active frontages which sit behind expressed colonnade, and a human-scale datum to marry a large office building with an open and inviting public realm.

The moments of setback at low levels enable a large-scale office to exist on the site without sacrificing the available site area for public realm, which sits at the heart of the design intent for the proposal.

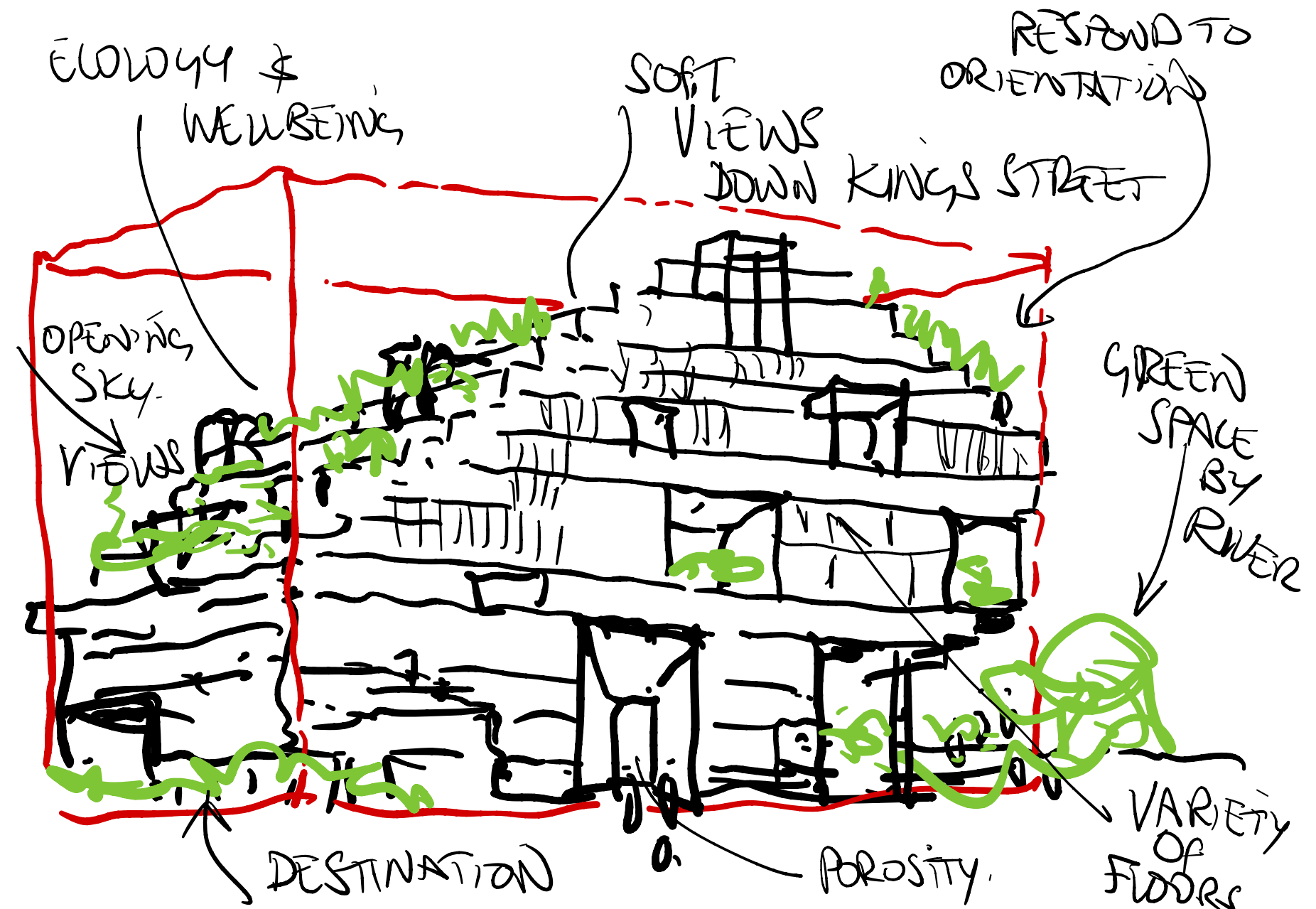


Fig 256 Early concept sketch of an eroded mass

Massing Evolution: Stepping Gardens

The evolution of the eroded mass developed from early stages with testing of a number of stepping designs to review the benefits of variations of form, stepping direction, whether providing greater degrees of focus to the south, west, east or north facing aspects.

A series of stepping gardens was conceived at every floor. These cascading green terraces address the key views from Bridge Street, King's Road and St. Mary's Parsonage. Also with the stepping introduced, a variety of office floor plate types began to emerge, through the ever reducing floor plan size with each ascending level.

Early massing tests were characterised by long wrapping terraces spanning predominantly from east to west. However, through interrogation of structural complexity, the strategy was rationalised to remove structural transfers, increase 90 degree wall junctions, and reduce the 'floor to envelope' ratio

A 'sugarcube' stepping concept was therefore introduced, which allowed for cascading terraces in multiple directions, in keeping with the original concept for the building, however within a strategy of repeating detail, and simple extrusion of the structural grid, where all building faces align with structural centres of a strict 7.5m grid throughout the building. The application of the regular repeating grid enables a large building with a simple structural frame, allowing for low embodied energy per square metre.

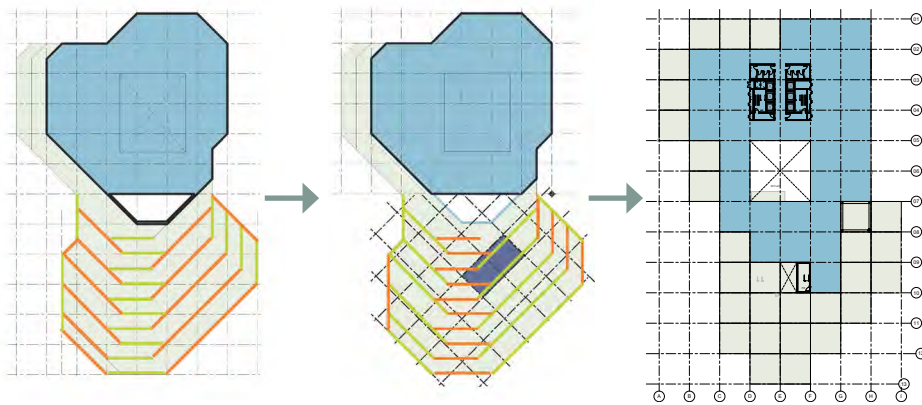


Fig 257 Complicated structure with large spans

Fig 258 Exposed thin terraces, less usable

Fig 259 Structural efficiency with characterful terracing

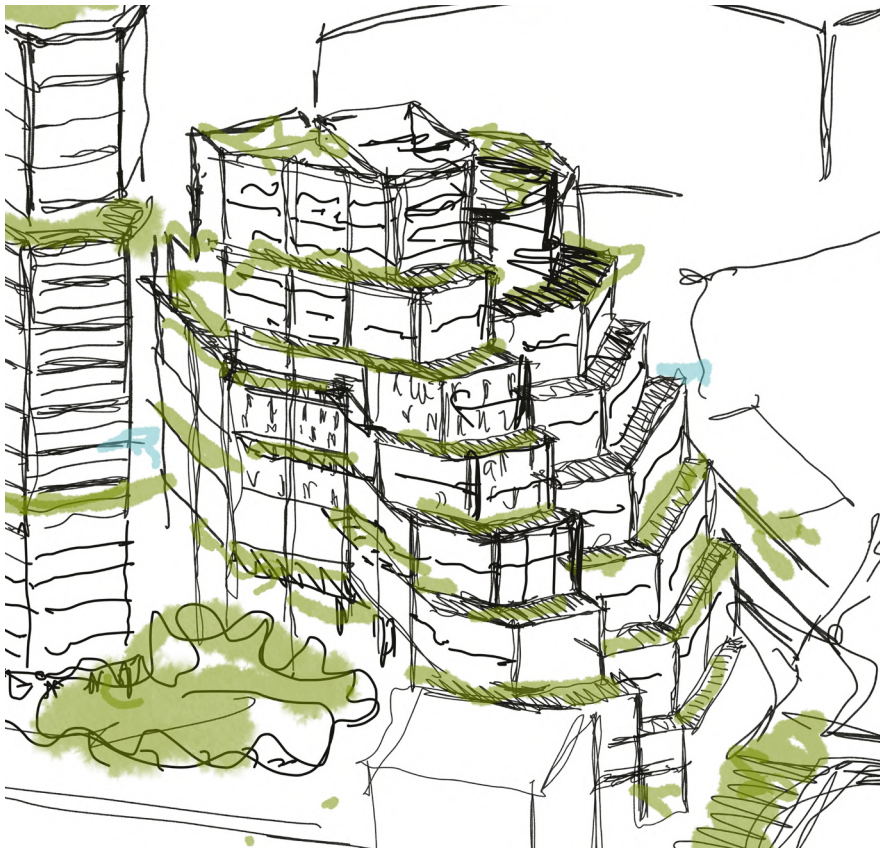


Fig 260 November 2021 - Commercial Massing

Fig 261 February 2022 - Commercial Massing

Building Concept

A re-imagining of the gridded facade design of the existing Albert Bridge House building helped to inform and consolidate the facade language of the 'sugarcube' office proposal. The volume of the building steps in a regular and repeating relationship presenting cube forms and cuts when viewed in elevation, supporting a strategy towards a repeating language of framing expression.

This articulation also allows for the introduction of accessible green terraces across all stepping levels. Volumetrically, the building is split into that which addresses the ground plane, including activated uses at ground and first floors at the human scale, along with a consistent gridded language of expression at upper levels to clad the office use above.

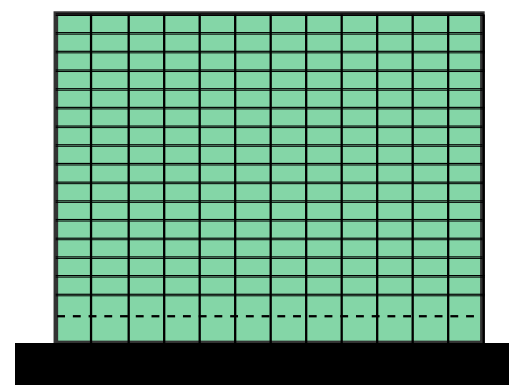
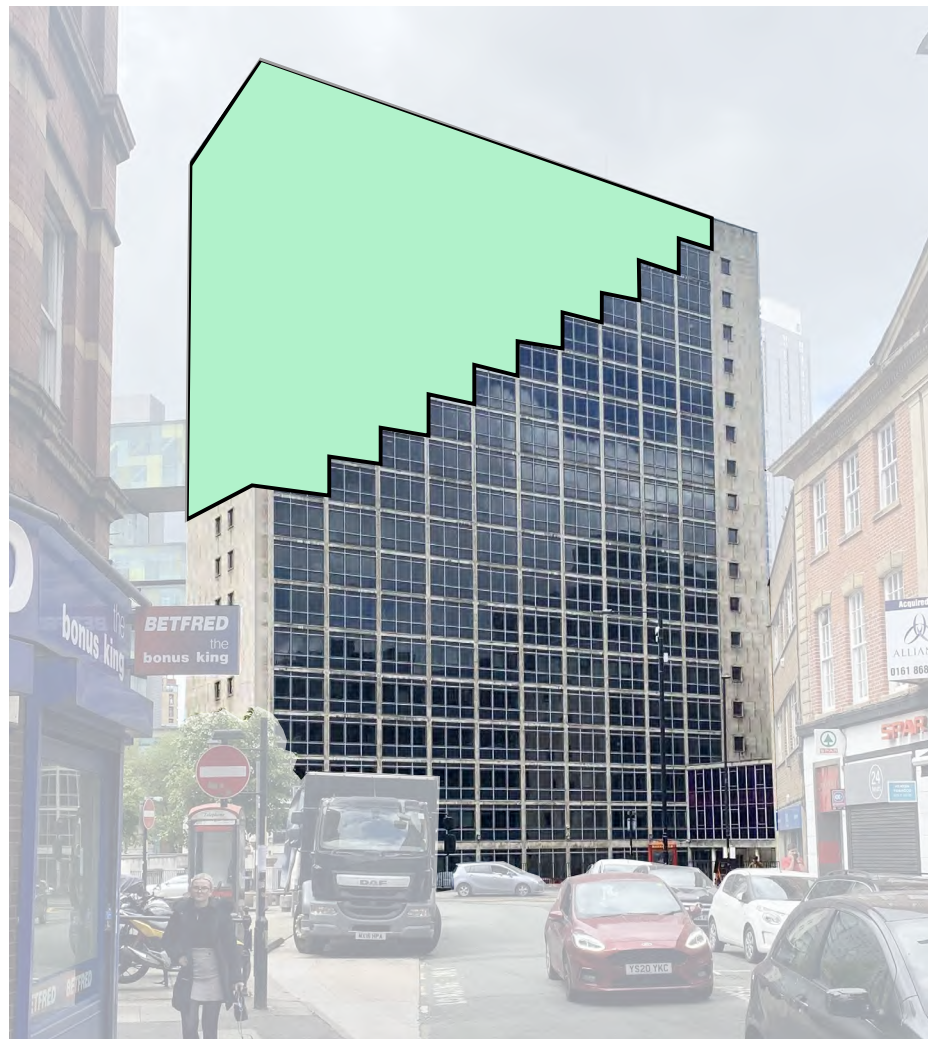


Fig 262 1. Extruded typology - existing Albert Bridge House

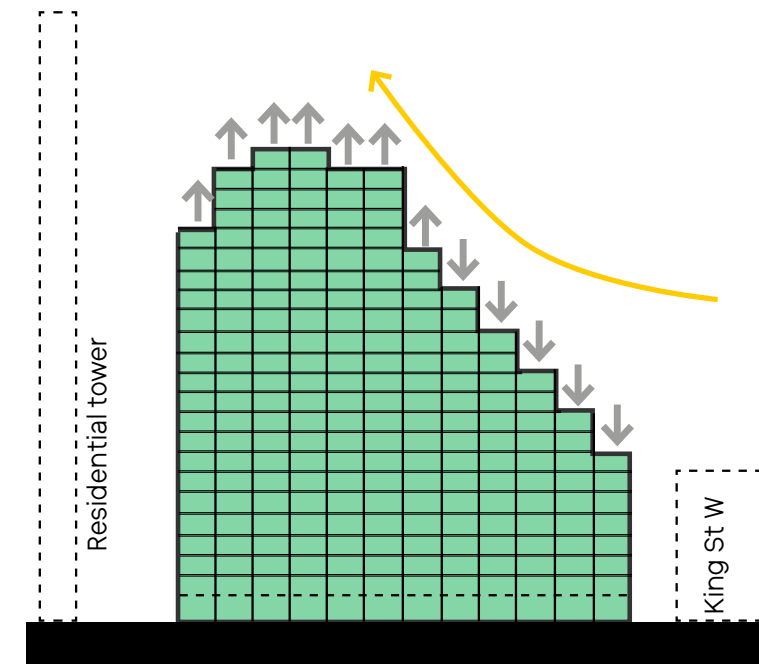


Fig 263 2. Setting back the massing to respond to context

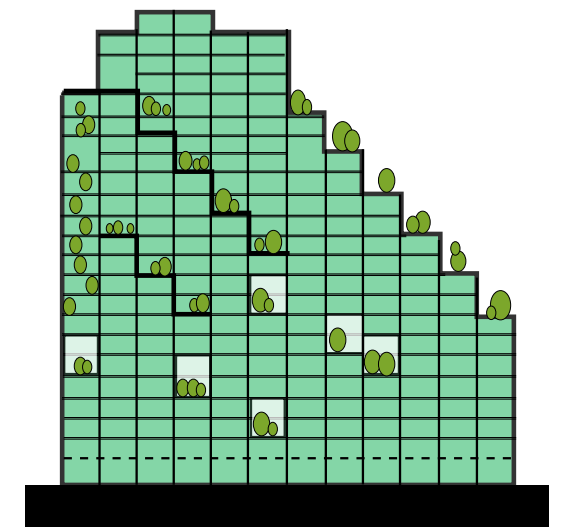


Fig 264 3. Introduction of terraces for all office levels

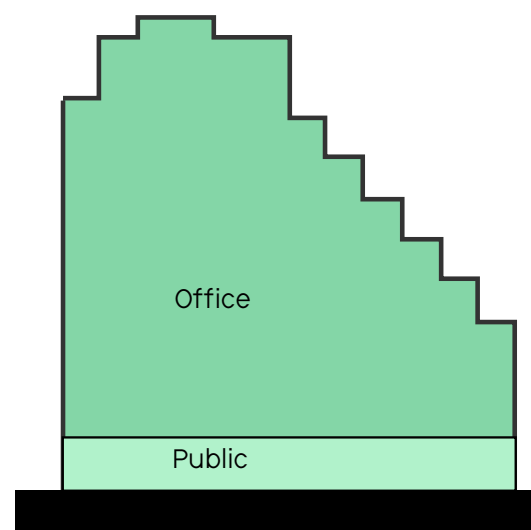


Fig 267 4. Define uses

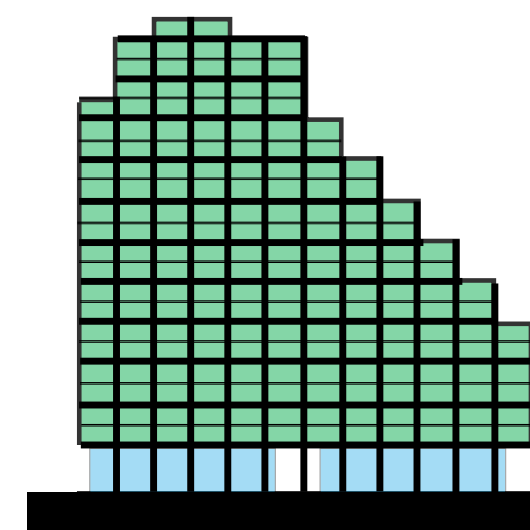


Fig 266 5. Ground floor responds to human scale

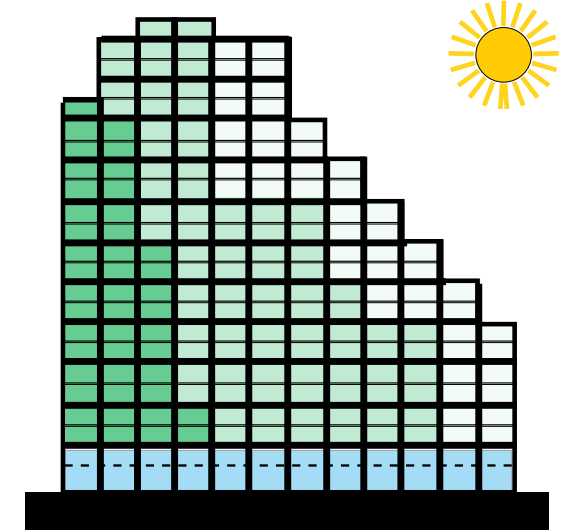


Fig 265 6. Facade responds to lighting

Floorplans

Ground Floor

At ground floor of the office an inviting entrance is provided, located under the protection of a two storey undercroft. The entrance lobby is across two storeys, leading into an open office reception space, with adjacent flexible gallery exhibition display area and cafe uses connected the publicly accessible lobby and reception.

Through secure access gates the ground floor opens into a light filled lobby space, which connects internally to the food and beverage space, restaurant and a cyclist cafe at the north end of the floor plan. A dedicated cyclist entrance and retail area is provided at the northeast boundary, accessed from the Trinity Bridge landing area, which feeds into the cyclist cafe and workshop area, and providing access to the basement cycle storage, lockers and showers.

The central core for the building sits on the east of the central atrium space, providing access to all levels, together with the commercial waste store, and welfare facilities for reception workers and management staff for the building.

The entrance undercroft passage bisects the floorplate into separate volumes, with the area south of the passage providing further retail, food and beverage spaces, across two storeys, to create a high degree of activation, to link with the King St. W retail district and reinforce key desire lines within the local streetscape.



KEY

	E (g) Office
	E (a,b,c) Retail/Restaurant/Cafe
	Commercial Core
	Substation

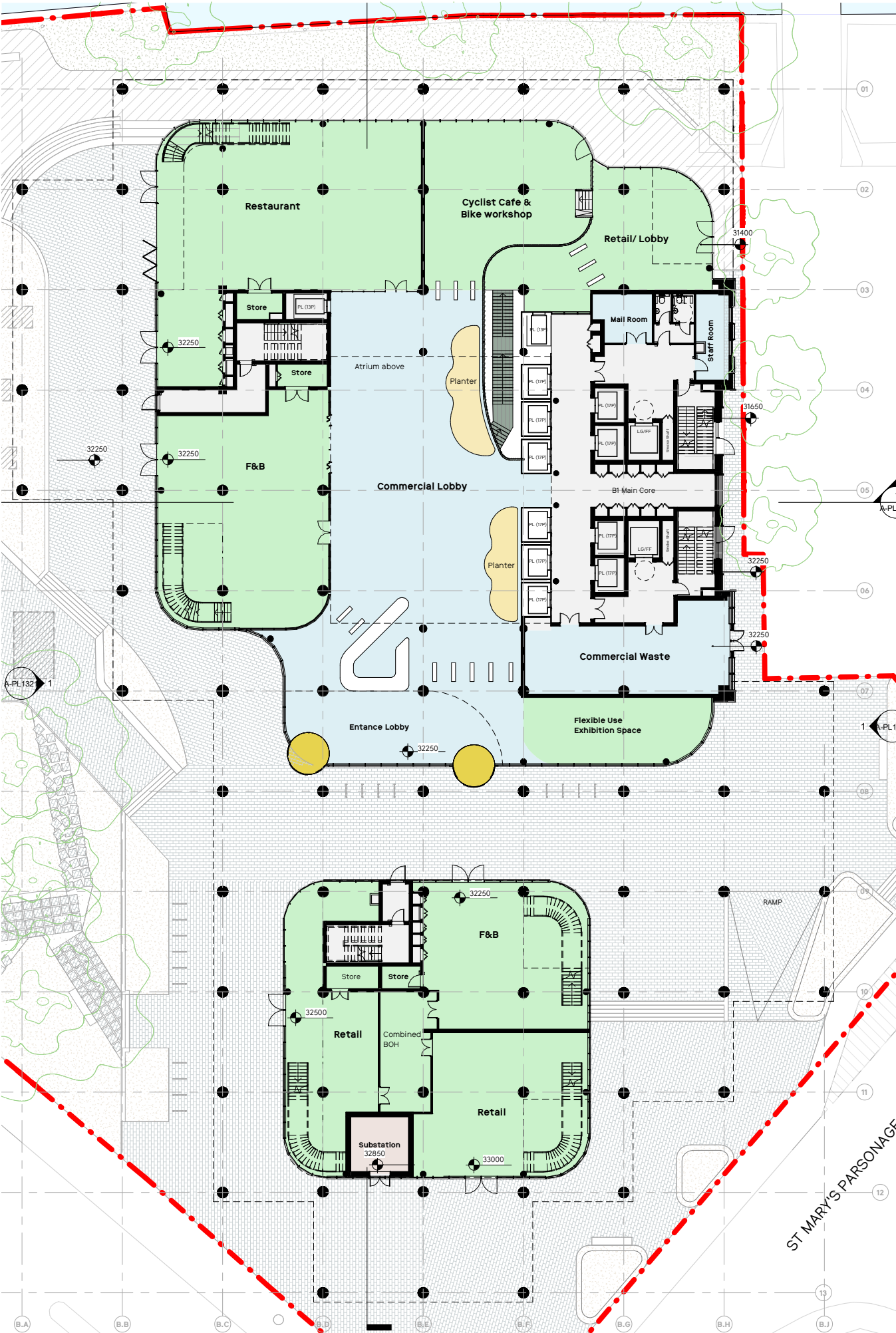


Fig 268 Ground level general arrangement extract

First Floor Plan

The first floor plan sits together with the ground in forming a two storey activated frontage at the base of the building, designed to emphasise the public uses on the ground floor and provide a double height expressed base expression for the building. Both the cafe and a restaurant to the north feature a mezzanine floor, while the restaurant space at first floor benefits from river views.

Colourful expressed stairs sat within double height void spaces help to animate the building at ground level, and articulate the vertical movement within the generous retail spaces at the south of the building at the first floor.

Above the reception area an open office lounge area is provided to create spill-out space for the office building, where informal meeting, flexible seating and waiting areas can be provided, for general use for the building. The office lounge area sits over the office reception entrance area, and connects to the atrium to provide a dynamic open area with aspect and views to be enjoyed in all directions, to both internal and external environments.



KEY

- E (g) Office
- E (a,b,c) Retail/Restaurant/Cafe
- Commercial Core

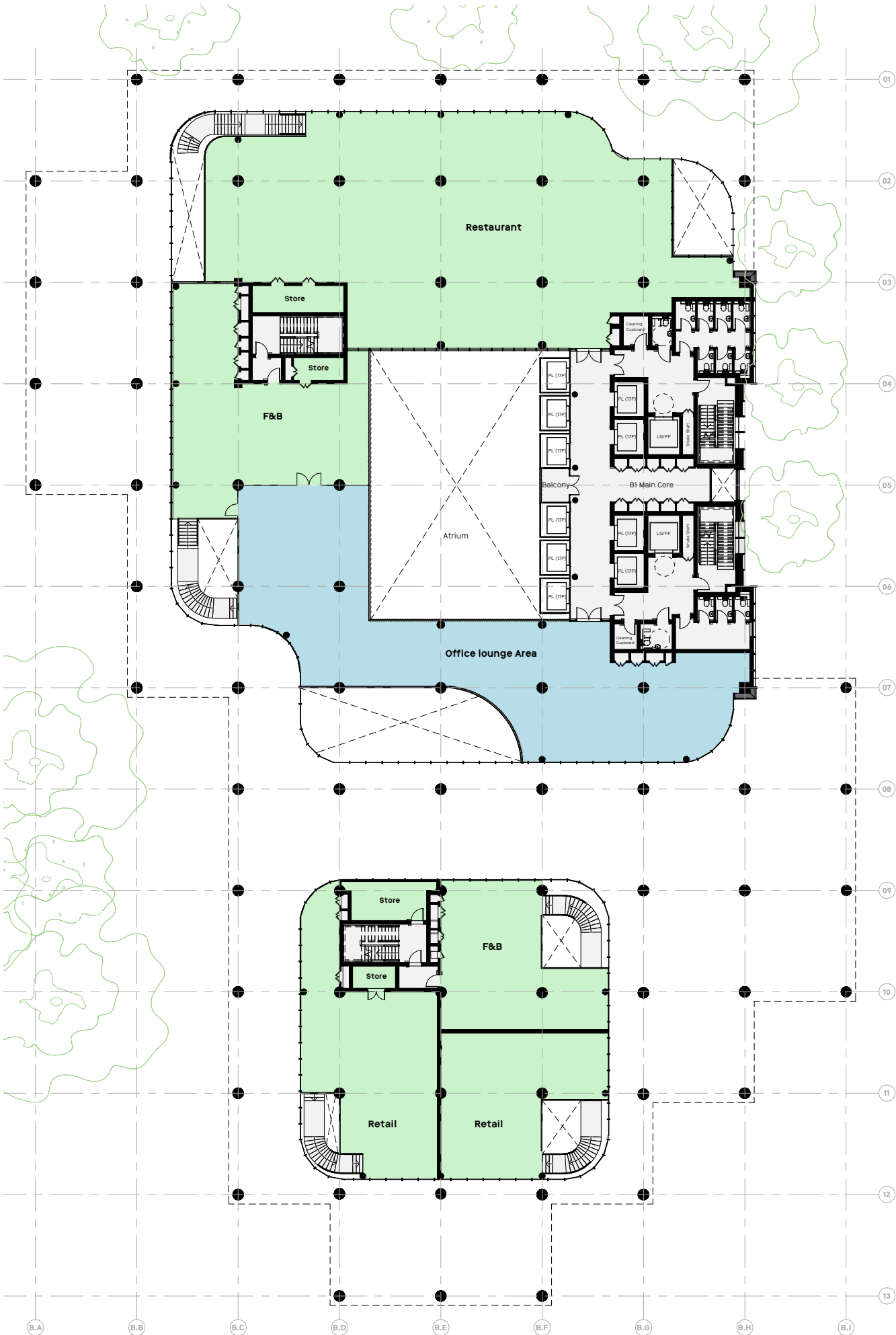


Fig 269 First floor level plan

Third Floor Plan

The largest floorplates within the office building occur at levels 3 and 4. These floors provide a net area of just over 2745 square metres, these floorplates can host an arrange of tenants in need of a large floorplate, or be subdivided into 2-4 different tenancies. In order to provide adequate fire escape options for a building of this scale, two satellite cores are provided at the north-west corner of the atrium and towards the southern volume of the office. In addition to fire escape option, these satellite cores provide an alternative servicing route up the building from basement plant spaces. All floors up to level 11 are serviced via the main core and the two satellite cores.

The central atrium space volume provides natural daylight to the floorplan across all levels of the building. On the east of the atrium are scenic lifts which serve ground level to level 10. The scenic lifts are glazed with a central balcony located on every second floor level, to provide dynamism and activation to the atrium space. On the western face of the atrium, a balcony spill-out area is located, which provides an extension to the office floorplan, to provide opportunity for more private phone call or informal meeting space. Coloured meeting boxes extend into the atrium volume on several floors, to provide a volumetric activation of the atrium and pop of colour within the centre of the building.



KEY

	E (g) Office
	Commercial Core
	Internal Amenity

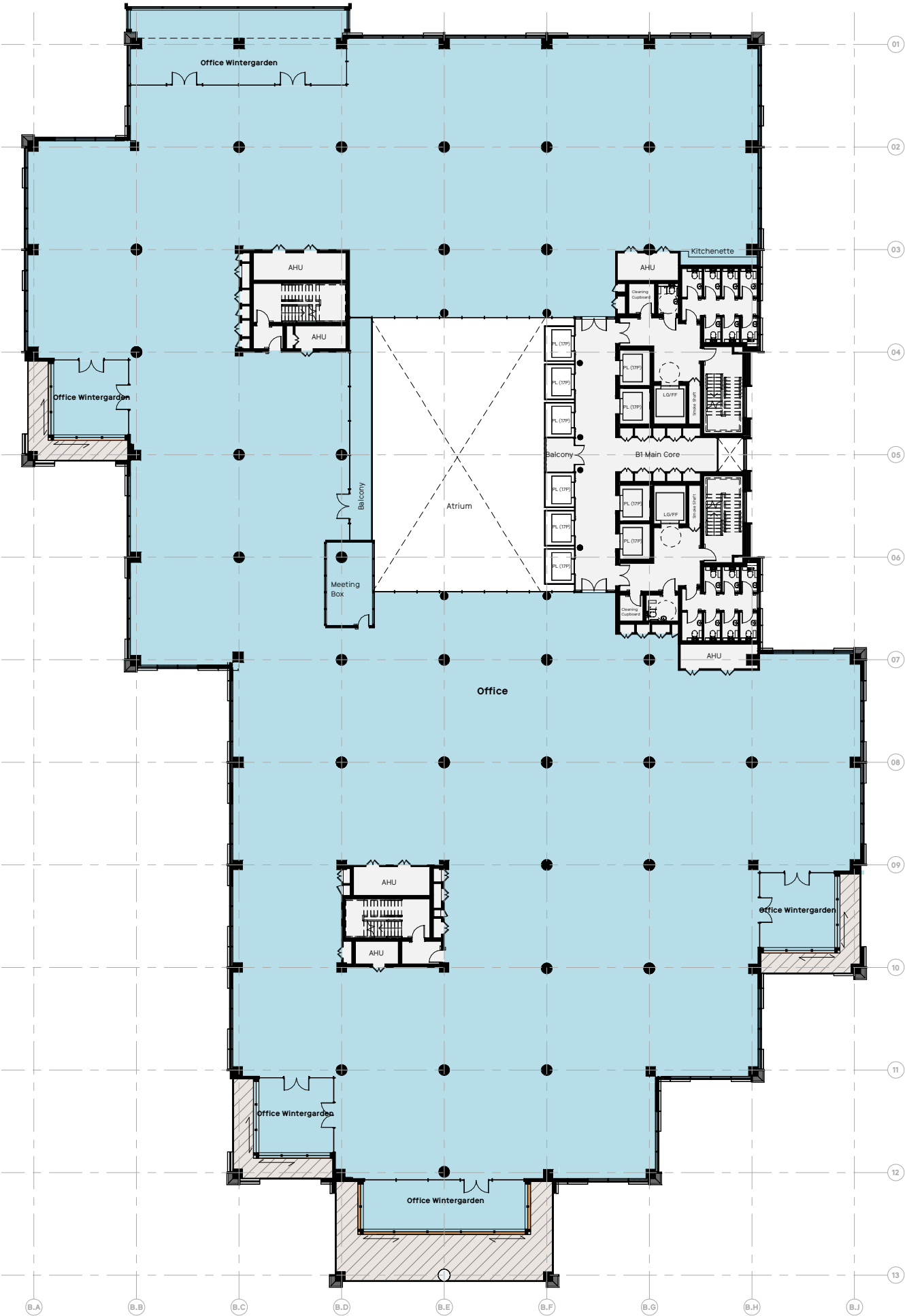


Fig 270 Level 3 Plan

Fifteenth Floor Plan

The uppermost lettable floor in the office building is level 15. This floor provides 1050 square metres of office space with multiple green visual, and accessible roof terrace amenity spaces. Despite a smaller area, relative to lower floors, the floorplan provides 10m width of floor space in three directions, and enjoys panoramic views, to offer a potential wide array of fit out opportunities, suited to a single tenant interested in a more nuanced space.

At the upper levels of the building, the scenic lifts drop off, with the upper floors serviced by 4no. high rise lifts, which are capable of providing the required movement of people to service the expected population and floor area.



KEY

- E (g) Office
- Commercial Core
- External Amenity (Accessible)
- External Amenity (Inaccessible)

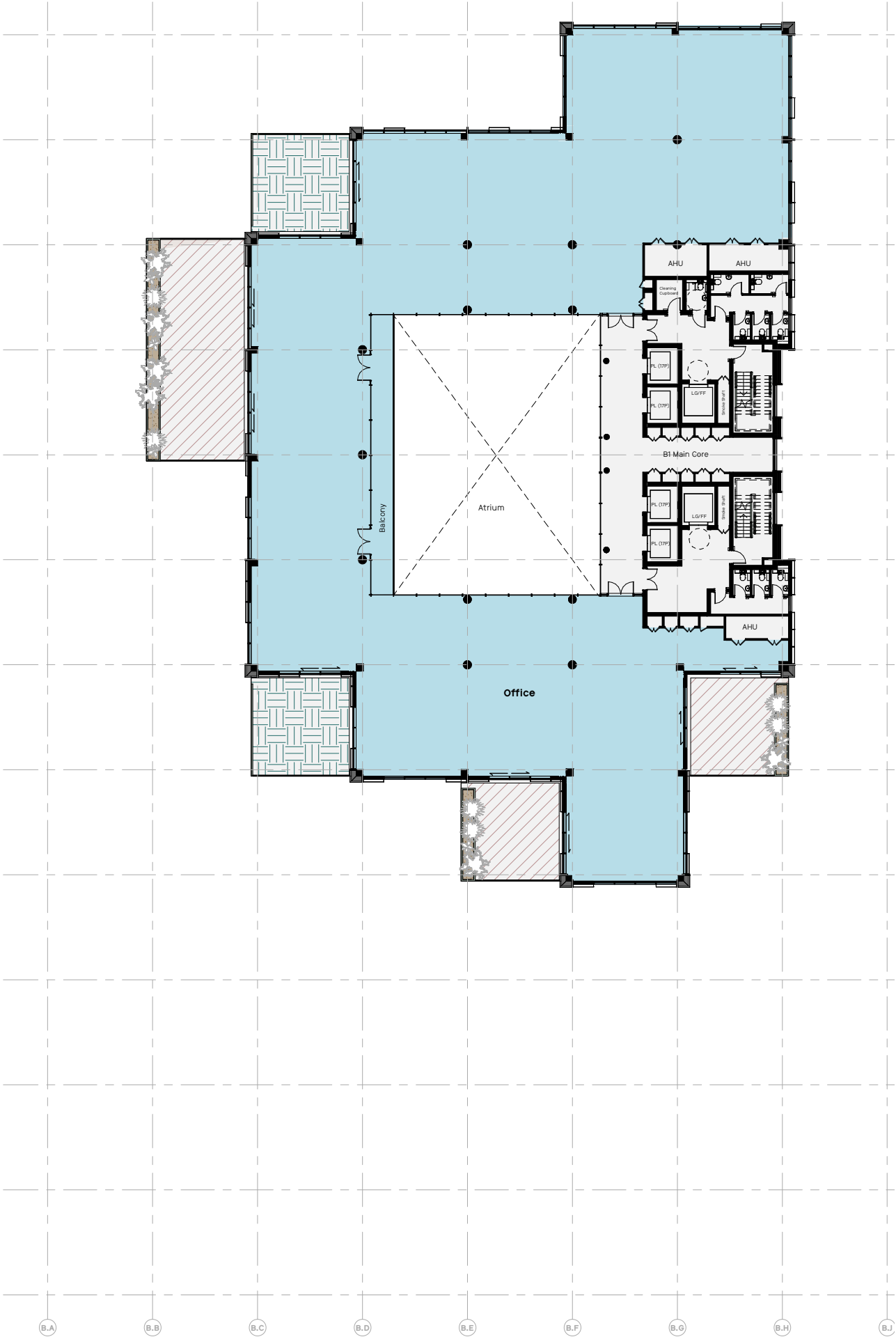


Fig 271 Level 15 Plan

Access and Circulation

There are two main commercial entrances provided into the central lobby entrance and reception area. These are accessed via the passageway through the building, with entrances located for visibility on two principle approaches from King St W, and from Bridge Street and Spinningfields.

Office users will pass through the concierge desk and security line, through the lobby to the main core. The core is designed to work with an intelligent lift call system, allowing users to, at the push of a button, be directed to the arriving lift that will take them to their desired floor level. For access to lower levels this will be in the form of the scenic atrium lifts, and if accessing upper levels the 4no. high rise lifts will be used.

Beyond each array of lifts, which are set out in a symmetrical array, are the access and escape stairs, as well as the Light Goods and Fire Fighting Lifts. Retail, F&B and Restaurant uses have their own entrances, internal stair cases, and if required within tenant fit out can be provided with an internal lift to provide access needs.

At the northeast corner of the cycle access entrance can be found, off of the Trinity Bridge landing. The entrance is located at a lower level to the main commercial ground floor level, and via secure access control, cyclists are able to proceed down to the basement cycle storage area, via a shallow cycle stair or adjacent accessible lift.

KEY

Entrance Sequence for Office User

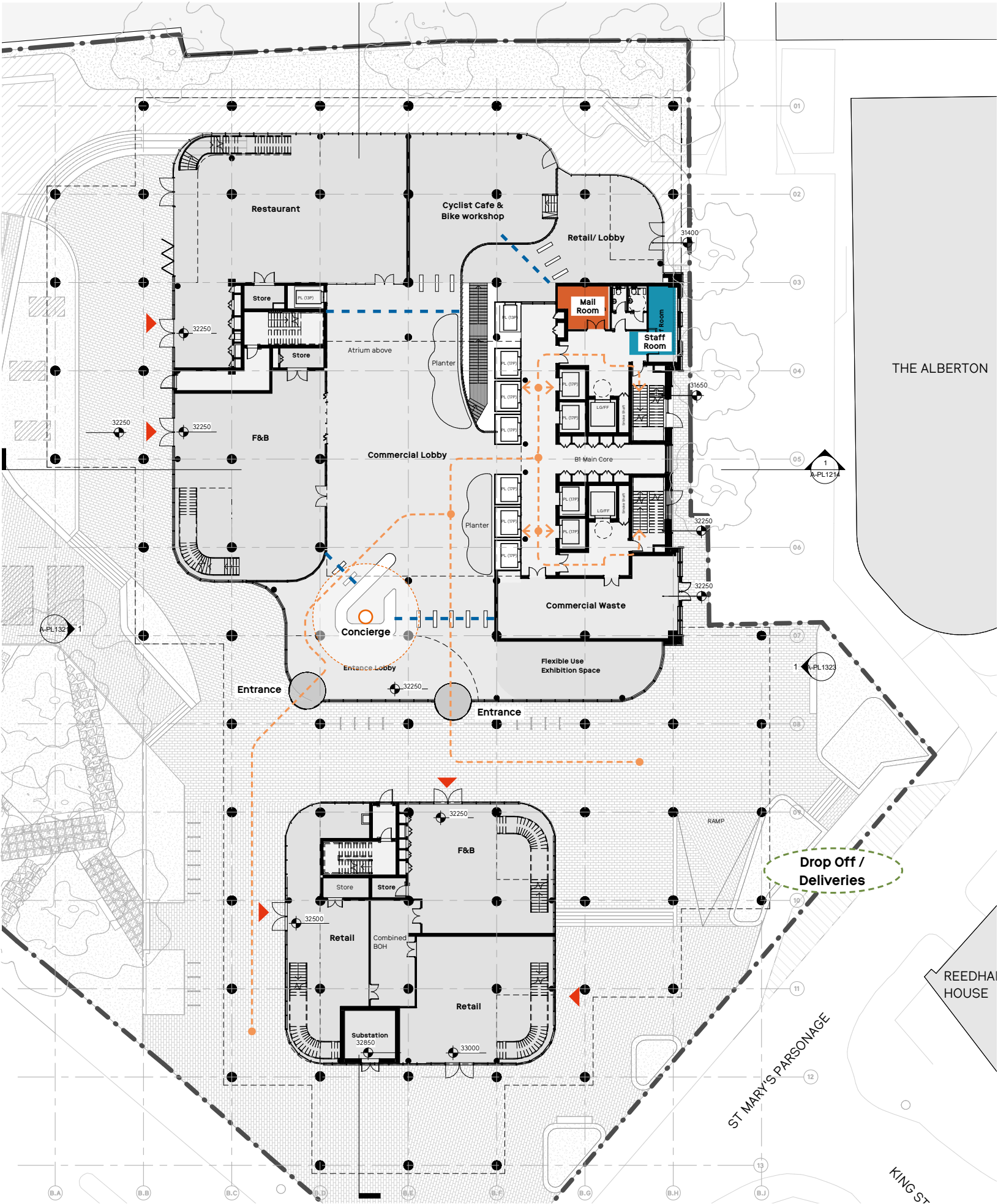
Concierge View sight

Fig 272 Ground floor - access and circulation diagram

Core Design

The Office building is serviced via a main core to the east of the floorplates alongside two satellite cores to the north and south which offer alternative means of escape and servicing risers and on floor air handling unit plant space. The arrangement of the primary cores provide compliant escape distances, allow for consolidated servicing strategy and four different staircases to encourage physical movement through the building. Through the centre of the symmetrical core there are double height spaces every other floor, to provide space for moments of a phone conversation or to enjoy a coffee away from the formal internal floor spaces. These double height moments allow for daylighting to penetrate the central area of the core space.

The primary core features 6 no. scenic passenger lifts, which are glazed and exposed to the atrium space. The scenic lifts terminate at level 10, while 4 no. additional high rise lifts serve all of the floors. There are two staircases within the primary core, each benefiting from daylight and views out to improve user experience.

Sanitary provision varies depending on the expected occupancy on each floorplate. WC's are designed as superloos, following British Council for Offices (BCO) guidance. The number and type of WC's within the arrangement is flexible to be adjusted dependent on tenant needs.

The primary core also contains two dedicated light goods/fire-fighting lifts to provide fire fighter access throughout the building in the case of emergency, while also providing distribution of goods to all floor levels, and linked to basement. Cleaner's cupboards are provided at every level.

KEY

	Scenic Atrium Lift - Low Rise
	Passenger Lift - High Rise
	Light Goods / Fire Fighting Lift
	Stair/ Fire Escape
	WCs
	Accessible WC
	Risers
	AHU Plant Room
	Cleaning Cupboard

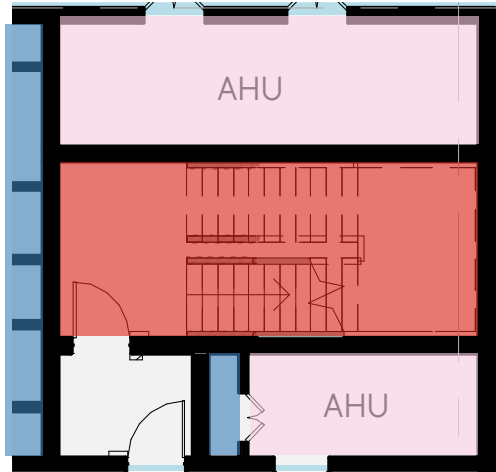


Fig 273 Level 4 - Satellite Core Diagram



Fig 274 Level 4 - Main Core Diagram

Commercial Passage

The undercroft passage through the commercial building at ground floor sits along a movement and desire line connecting St Mary's Parsonage with the central public realm, Albert Bridge Square, within the proposal. The passage is visible at the northern end of King St W, an active and vibrant retail district, to help to weave the site proposal into the local city environment.

A variety of directions, proportions and framing options were tested throughout the design development process, with consideration paid to wayfinding, visual connections, legibility of entrances, the relationship with the structural grid and column locations, as well as framing of views, including towards the law offices, and TPO trees. An important element of the review process was to ensure that the width and height of the passage would sit comfortably within the ground floor massing.

The chosen design (Option 3) provides clear wayfinding from Bridge Street and St Mary's Parsonage, with visibility towards the main office entrances. The colonnade and facade successfully frame the passage providing uninterrupted visual connection to the surrounding public realm.



Fig 275 Sketch view to the law offices from the ABH commercial passage

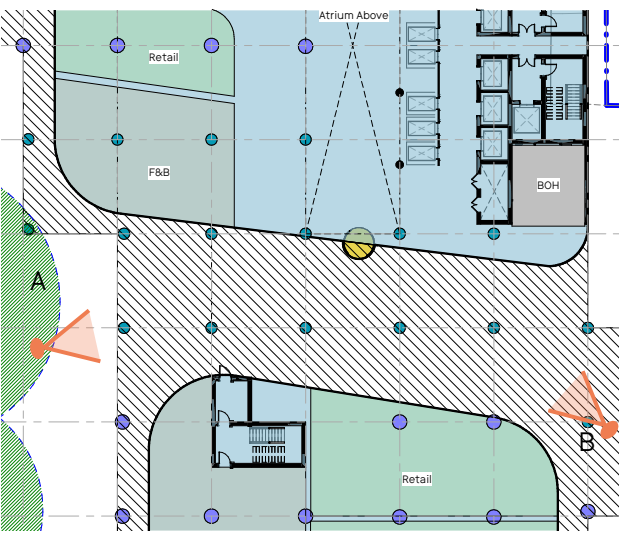


Fig 276 Option 1 - Clear connection between Parsonage and new public space

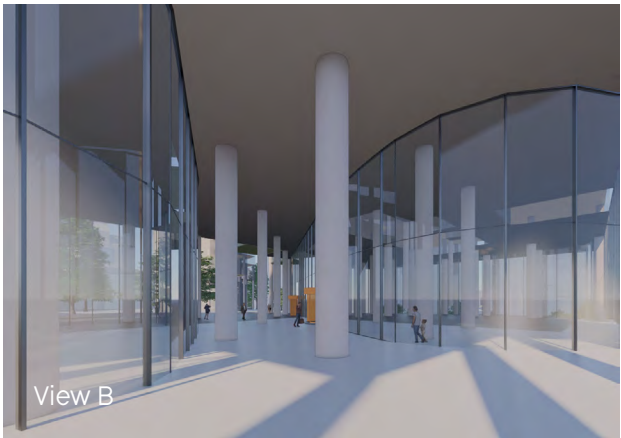
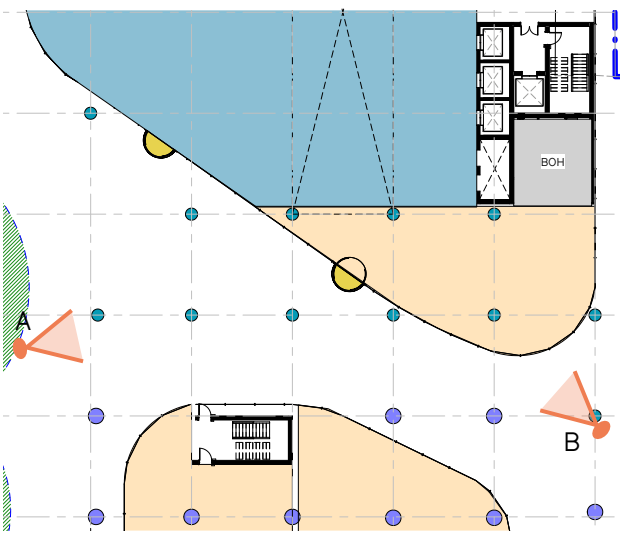


Fig 277 Option 2 - Direct visual connection with king street

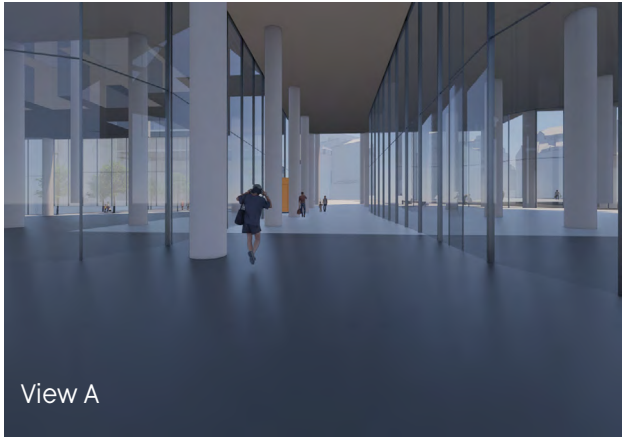
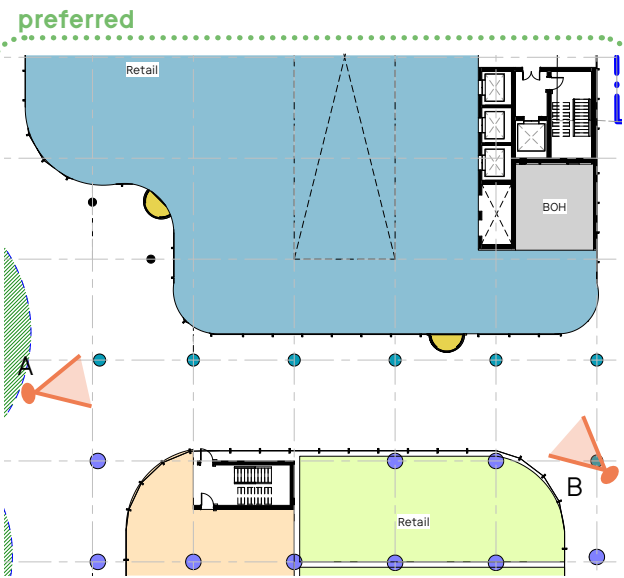
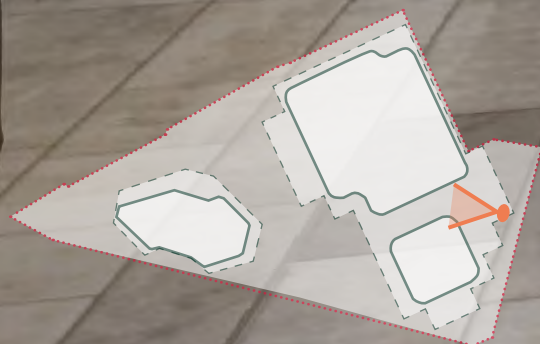


Fig 278 Option 3 - Colonnade and facade frame the passage



Commercial Passage Approach

St Mary's Parsonage

A key driver for the design of the ground level of the site and public realm, was to reinstate key routes through the site by enhancing connectivity between both King St West and St Mary's Parsonage with Bridge Street and the Albert Bridge. In addition by creating new routes within the site, linking King Street West and River Irwell, and creating pedestrian connections along the river from the Albert Bridge to Trinity Bridge, the site proposal delivers permeability never before seen on the site.

Accessibility and permeability to the central public realm of Albert Bridge Square is provided by an undercroft passage, which forms a direct line of sight between St Mary's Parsonage and the Albert Square. On the approach to the cut-through passage, pedestrians pass under a triple height overhang area, which creates an area of protection and invitation at the base of the building, at its interface with the public realm. The passage steps down to a double height space across the passage, creating a gradation of scales to reinforce the transition from public to private environments at the building interface.

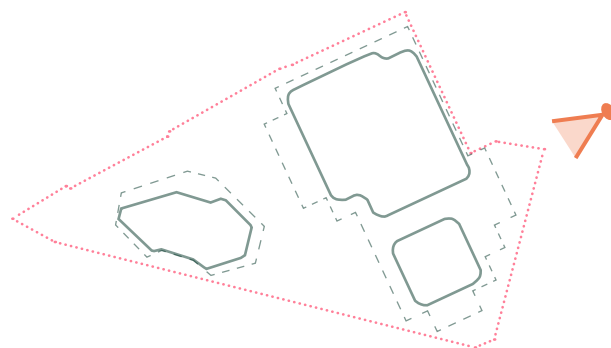


Fig 279 View from St Mary's Parsonage towards the commercial building

Office for the Future

The vision for the office internal layout design is to deliver an office design for the future, offering resilient workspace, that can adapt to the needs of the future while providing the needs of today.

Key design features include the provision of good quality daylighting while limiting overheating through carefully coordinated facade design, access to nature and outdoor spaces for all office users to promote health and well being, as well as high quality finishes and option for a variety of spatial arrangements.

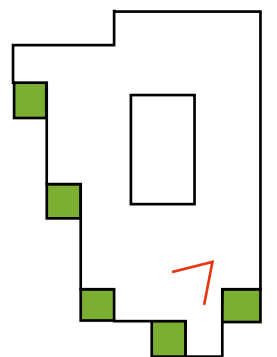
Each office floorplate is designed to accommodate a variety of internal fit-out arrangements, within open-plan office space, that enjoys aspect to all façades, as well as an internal atrium lightwell. High density desks and seating can be accommodated, alongside more granular meetings rooms, video booths and breakout spaces that can accommodate flexible and loose furniture arrangements in line with the needs of a variety of potential tenants.

The regular office grid and waffle slab soffit provide a simple, sculptural quality to the internal space, while underfloor servicing distribution strategy will enable the servicing design to develop at the next stage of design, avoiding an overly cluttered high level space. Exposed concrete will reduce the need for finishes and associated embodied energy, while contributing to slab cooling and passive heat gain strategies via exposed thermal mass.

In addition to the level by level spatial flexibility offered on each floorplate, due to the nature of the stepping design, a variety of floorplates are also available within the building, to create a host of varied offer of tenancies to the market.



Fig 280 Typical floor concept sketch



Internal Fit-out Flexibility

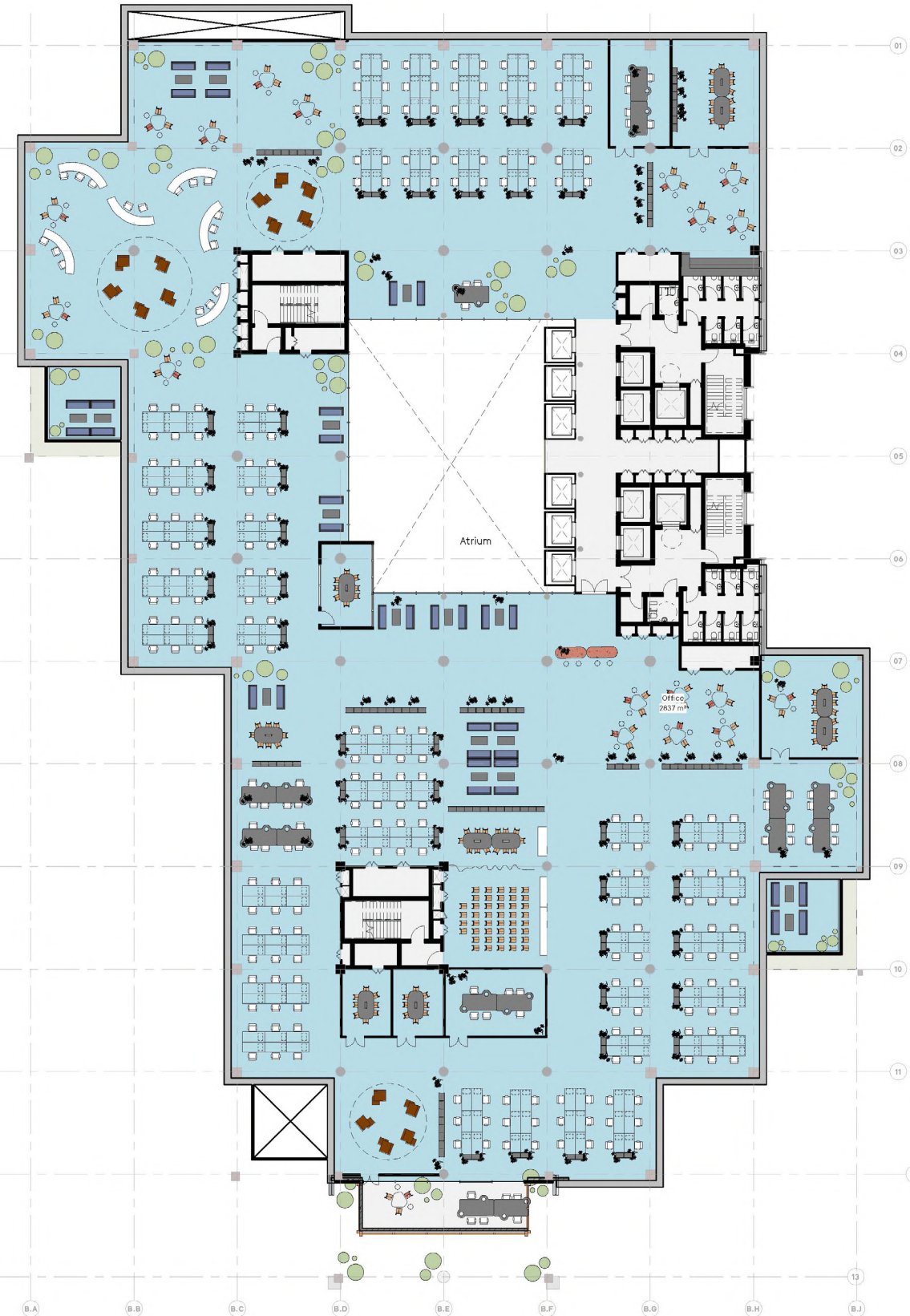


Fig 288 Level 4 - Furniture layout



Fig 281 Hot desking



Fig 282 Informal working spaces



Fig 283 Outdoor terraces



Fig 284 Traditional workstations



Fig 285 Phone booths



Fig 286 Wiki booths



Fig 287 Meeting rooms

Unique Floorplates at Every Level



Fig 289 Level 11 - Illustrative furniture layout

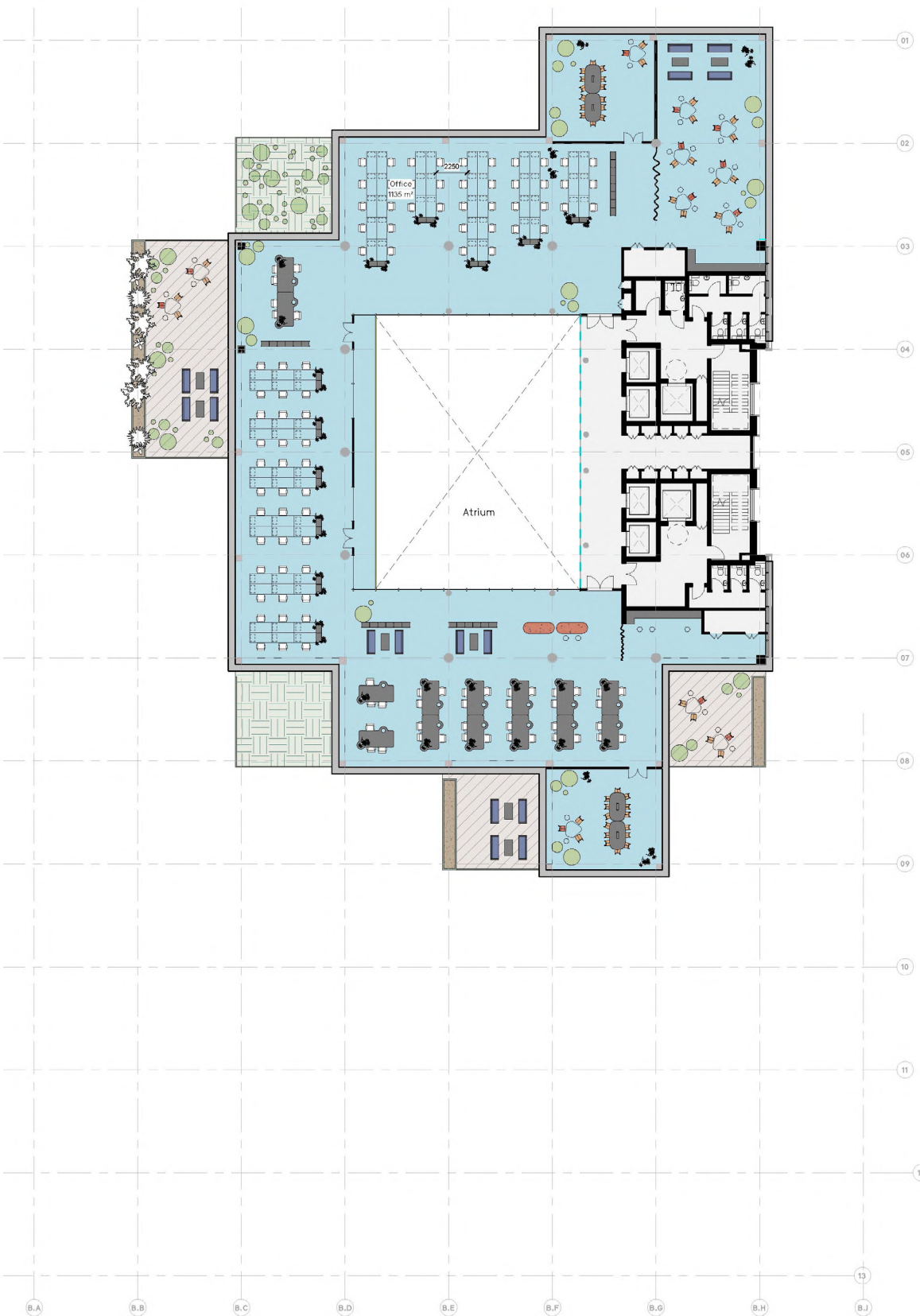


Fig 290 Level 15 - Illustrative furniture layout

Atrium Design Testing

The atrium has formed a key element of the commercial office space from earliest stages of design testing. Within a large-scale office, containing floorplates deeper than 15m, a central lightwell helps to provide natural daylighting to deep plan areas, particularly at low levels, to ensure high quality internal environments, and helping to avoid excessive energy burden through reliance on artificial lighting to create adequate lighting levels.

The area, proportion and location of the atrium within the Albert Bridge House floorplate has been tested through a number of arrangements. The preferred design locates the atrium in the centre of the floorplate with the core to the east, allowing the massing to extend to its full height at the north and east of the site extents, and floorplate to extend to the south and west at low levels without sacrificing the quality of the space at all levels.

The atrium location allows sufficient levels of natural light to filter through on every floor. Introducing the atrium allows the floor to span up to 21m at lowest floor levels. The atrium is encased by a continuous curtain wall to create the required fire compartmentalisation. On its eastern face the atrium is articulated by scenic glazed lifts, balconies and circulation space. On its western face there are active balconies, offering spill-out space to the adjacent office floor, and meeting boxes which cantilever 2.5m from the structural grid, to provide a volumetric animation to create interest and variety.

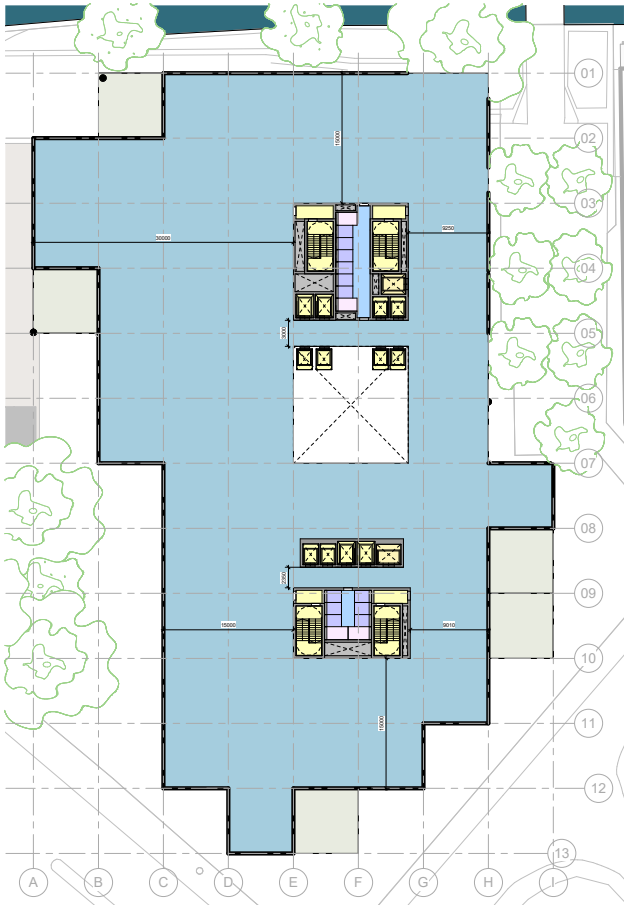


Fig 291 Option 1 at Fourth Floor Square, central atrium with split core

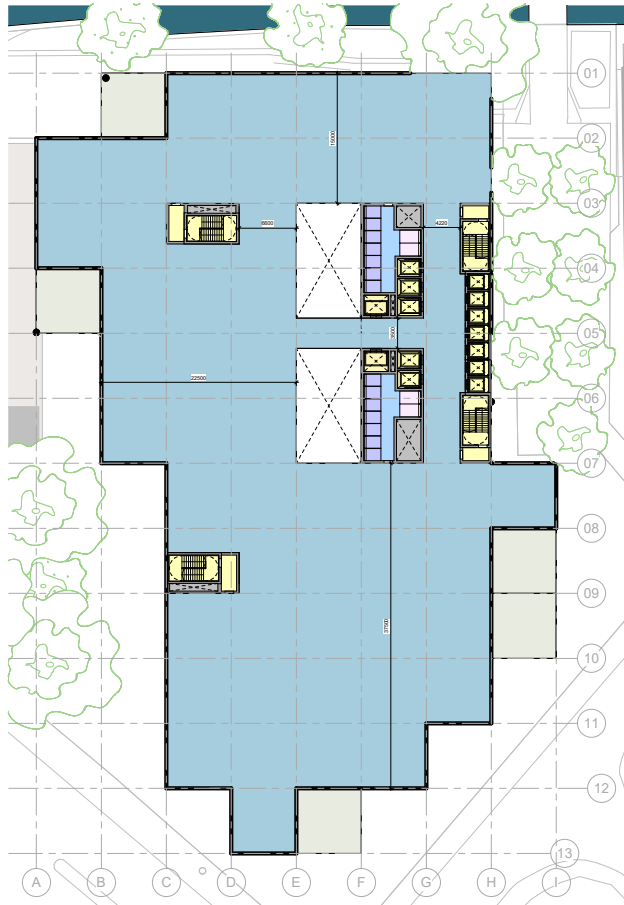


Fig 292 Option 2 at Fourth Floor North-south aligned split atrium with core to the east

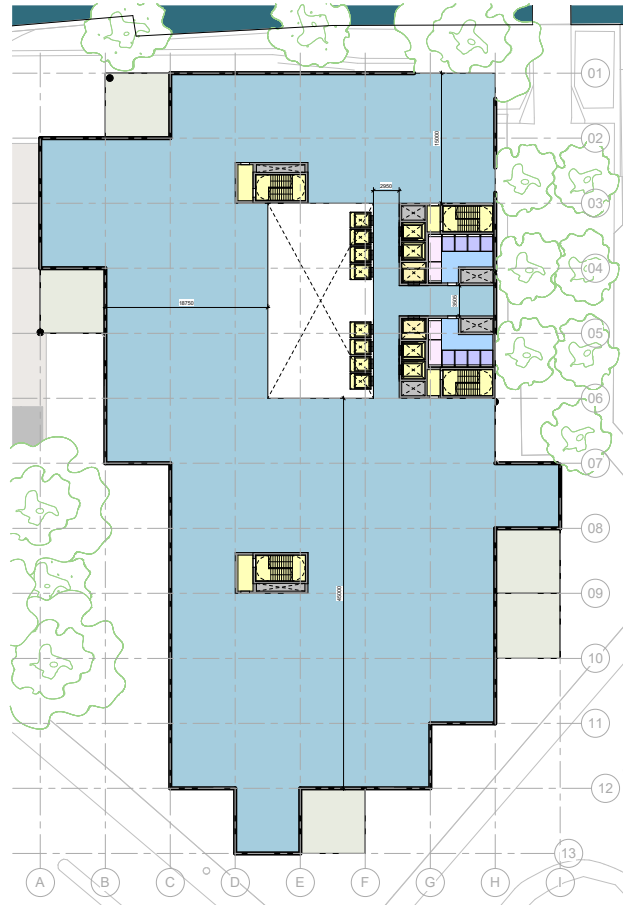


Fig 293 Option 3 at Fourth Floor North-south aligned atrium with core to the east

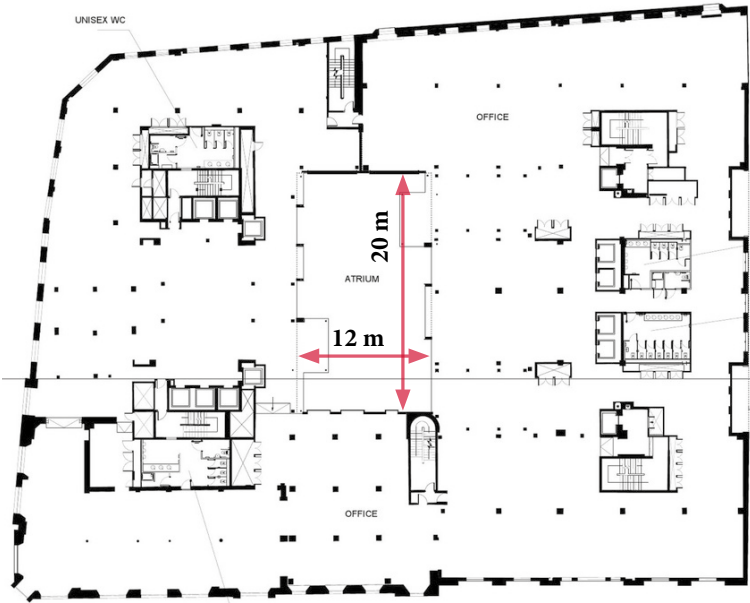


Fig 294 Alphabet Building, London. Plan and Photo precedent of projecting meeting pods



Fig 295 Henning Larsen Office. Precedent for ground & first floor design



Fig 296 Eskitune Campus (3XN) Precedent for balconies with mix of solid and railing

Atrium Design

On the west elevation of the atrium, a set of distinct yellow projecting meeting boxes protrude from the atrium façade, which are linked by balconies providing further spill out area for the office. The projecting volumes reflect the projecting amenity space volumes visible along the north elevation facade. When viewed internally the volumes provide splashes of colour, and contribute to a sense of wow when viewed from the entrance lobby, ground floor of the atrium space.

The space above each meeting box provides additional area for officer workers to use. Plants and greenery cascade from the balconies, reflecting the concept of stepping gardens externally. On the east elevation six scenic lifts activate the internal façade, serving ground up to level 10. At alternating levels, a balcony projects out in-between the two arrays of scenic lifts, providing further break-out space for office users to take a phone call or enjoy a coffee.

The atrium design presents changing outlook, moments of spill out, and a variety of views, textures and volumes throughout the building, for users to enjoy at multiple levels.



Fig 297 Office atrium sectional axonometric

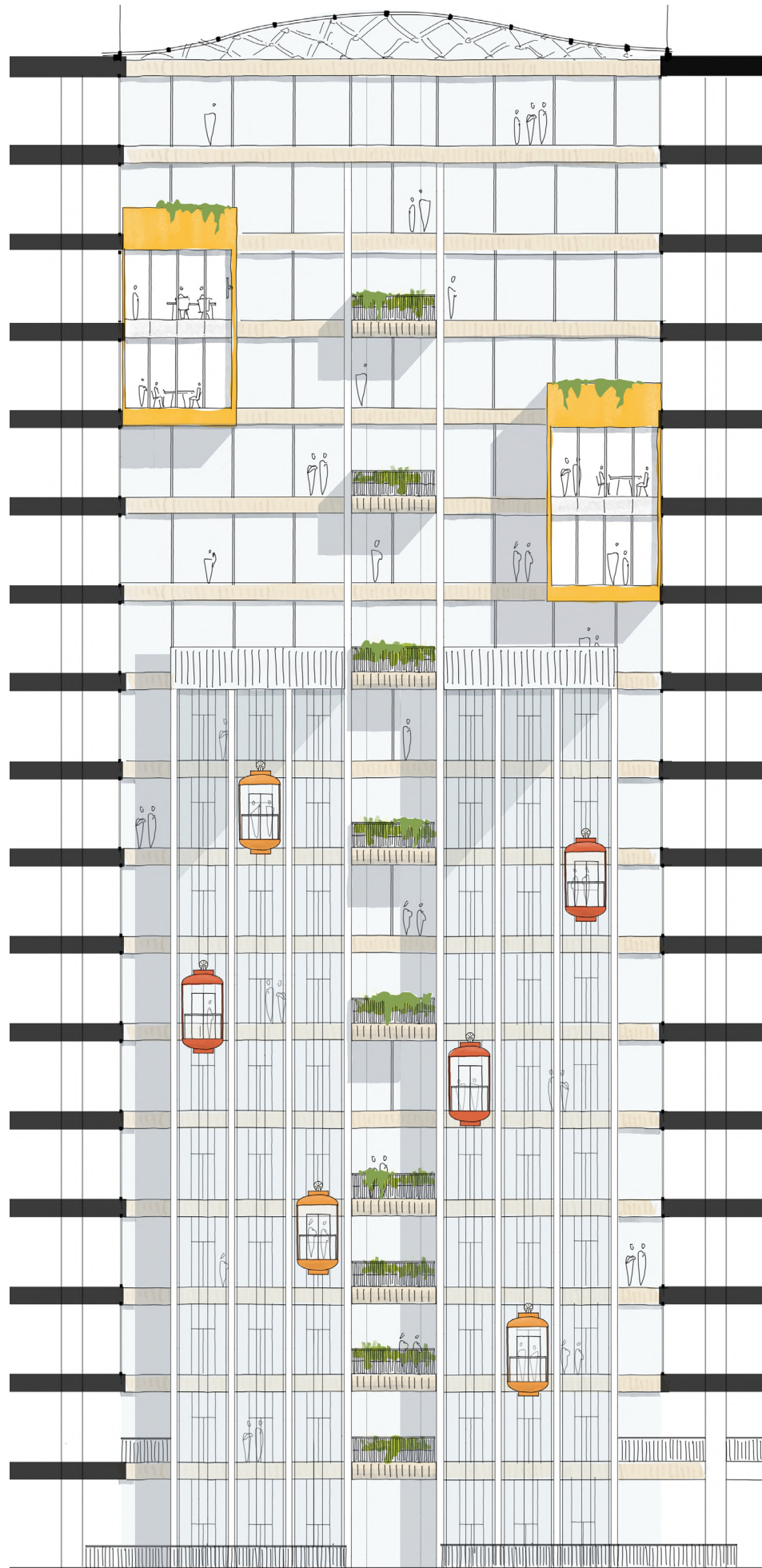


Fig 298 Early sketch concept illustration - East elevation



Fig 299 Illustrative atrium design of the view towards the western and northern atrium elevations



Fig 300 Atrium design sketch view towards the meeting pods

Amenity Strategy

A key principle for the commercial building centres on maximising health and well being for the office users. The primary means of fulfilling this outcome is through the stepping nature of the massing, which provides flexible outdoor amenity terraces at roof level, occurring from levels 7 to 16. The terraces are orientated to enjoy high levels of direct sunlight to the south, east and west aspects maximising the desirability for use during office hours. Each terrace is defined by a planter to the west, helping to increase privacy, and a railing to the south allowing sunlight to reach all areas of each terrace, while helping the users to enjoy views down to Bridge Street, Motor Square, and across wider areas of Manchester.

Planting on the western edge of the terraces forms part of the solar shading strategy for the building, fulfils another design principle of gardens and landscape rising up the building, and create visual interest and access to green space for office users. Planting on the terraces helps to mitigate overheating, ad improve air quality whilst providing shaded and framing for the outdoor spaces.

In addition to the roof terraces, a series of enclosed internal ‘wintergarden’ amenity spaces, are also present within the design at levels 3 to 6. these amenity spaces provide an outdoor balcony, however due to the higher levels of noise at low levels of the building, the enclosure is better suited to the microclimate. These amenity spaces also provide an environmental buffer, due to location at building corners which receive increased potential for solar gain, to allow solar shading, and natural ventilation within a mixed mode ventilation strategy to benefit also from the buffer space on the facade edge.

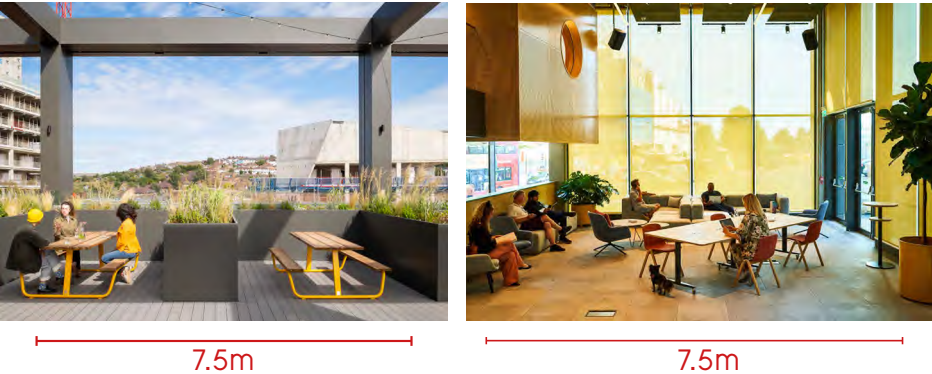


Fig 301 Plus X, Brighton (Studio Egret West). Precedent of amenity space



Fig 302 Sugarcube concept sketch

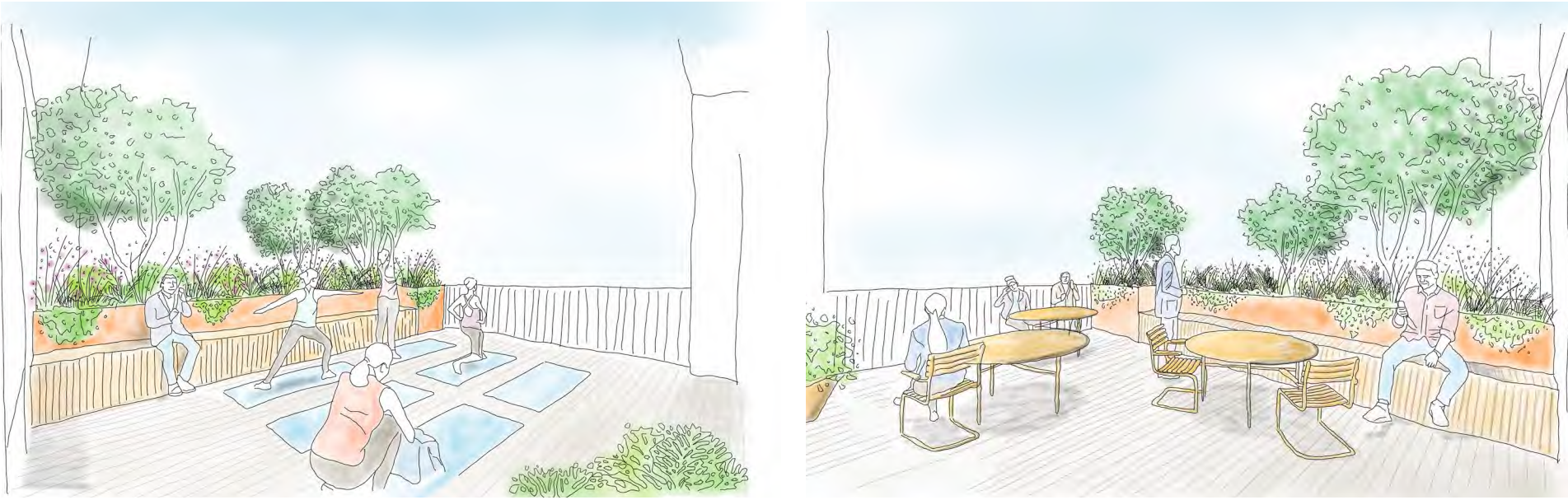


Fig 303 Flexible amenity terraces at every level

Commercial Roof Plan

To maximise usability of all the terraces, an array of different programmes are proposed, in response to location, orientation, aspect and height up the building. The primary programme provides external amenity terraces for office workers to enjoy enhancement to health and well being at the workplace. These terraces are designed to be fully accessible with a level access from internal spaces, planters and flexible open space for outdoor furniture to be arranged.

Several terraces also provide green roof space visual amenity and are only accessible for maintenance purposes. Green roof visual amenity at upper levels are also host to arrays of PV panels to provide passive energy for the commercial building.

A consolidated communal roof terrace, located at level 16 provides option for open external amenity space to all building occupants, particular those from lower levels which do not have direct access to an on floor roof terrace. The consolidated terrace is able to host larger events for tenants, who are able to enjoy panoramic views across the cities of Manchester and Salford.

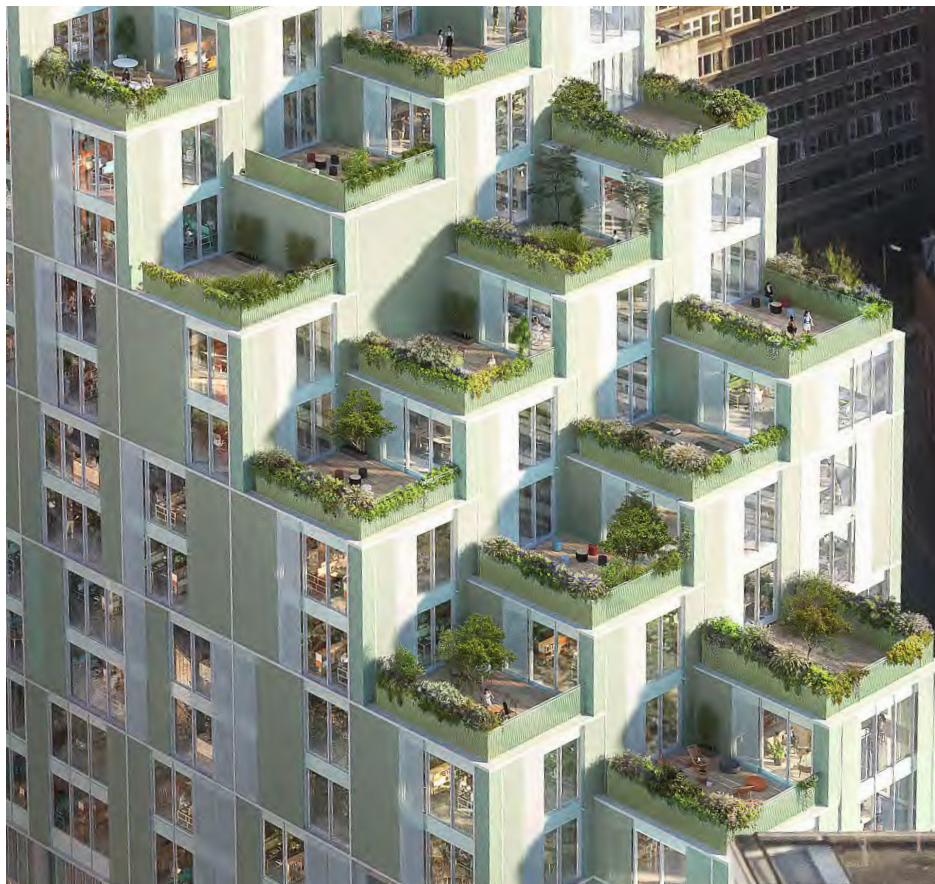


Fig 304 CGI image of stepped amenity terraces



Fig 305 Illustrative Roof Plan

Rooftop Plant Screening Articulation Testing

At levels 17 and 18, at the top floors of the commercial building, the stepping massing completes with a crowning expression providing internal spaces dedicated to plant equipment, mainly in the form of air source heat pumps and smoke extract ventilation, alongside servicing terminations.

Visually, the cladding for these volumetric elements has been conceived as a marriage of the colour, material texture and rhythm of cladding on facade below, however in satisfying the technical requirements to provide free air intake to the plant equipment, along with acoustic screening to mitigate noise impact to local receptors, the cladding elements for the plant spaces are required to be free of openings.

As a result, a cladding expression of pleated and perforated anodised aluminium panels is proposed to form the plant enclosure screening, adopting an expression of a folded metal object at the top of the building sat within an expressed framing that helps to complete the language of the cladding from lower levels.

The screening sits behind and set back from the framing expression to provide a visual separation, creating a sense of a receding building at its crown, while creating maintenance zones to suit the operations requirements for the building.



Fig 306 Sketch test for an integrated frame language



Fig 307 Sketch test of a zigzag screening language



Fig 308 Adopted concept for a continuous frame with screening behind

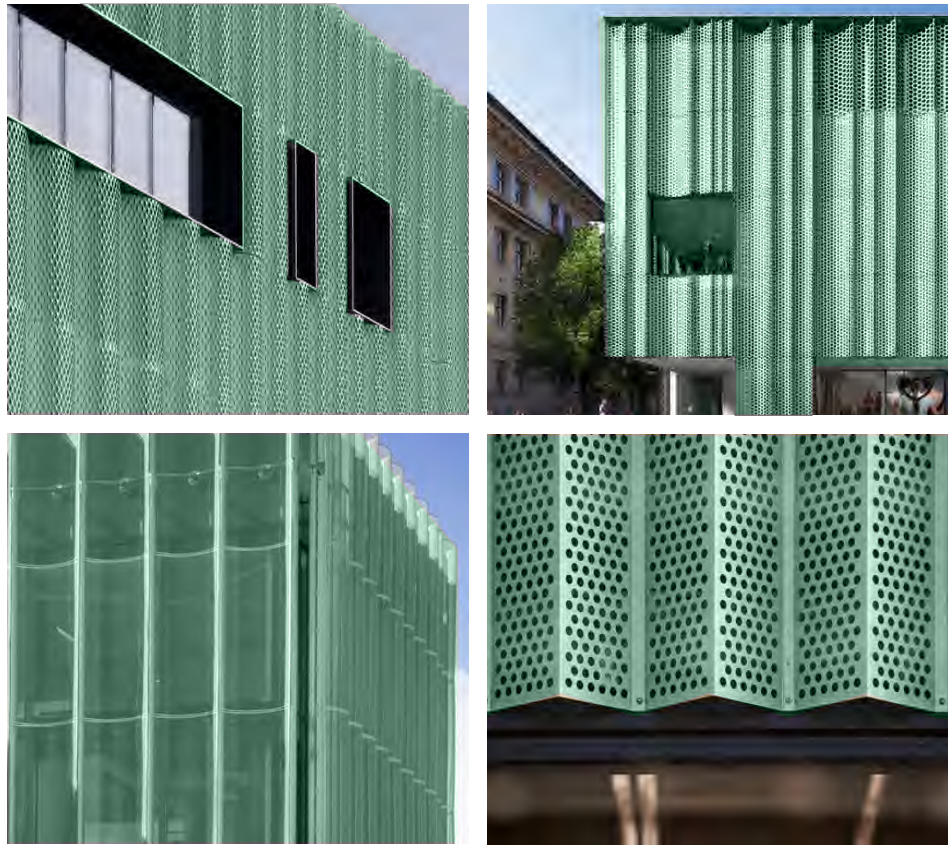


Fig 309 Precedent images for green aluminium pleated & perforated panels

Rooftop Garden

A consolidated communal rooftop amenity space has been provided at level 16, which is accessible to all tenants of the office. The amenity terrace provides 450 square metres of open space, which is south and west facing, containing planters, greening, fixed and informal seating, along with the requirements for servicing and maintenance of the cladding at lower levels. A Building Maintenance Unit (BMU) track will be integrated within the terrace decking, to track along the facade edge, with space allocated at the northern extents of the terrace, to park the BMU, clear of the general open terrace space.

Access to the roof terrace is via the north and south wings of the internal space, directly from the core. Above the open terrace, to provide canopy protection from the elements, and opportunity for passive energy generation, Building Integrated Photovoltaics (BIPV) are set within a glazed canopy, providing cover from the rain, and 50% sunlight penetration.

The roof terrace is intended for use for gatherings, events, leisure or as a break-out space. Internally, level 16 is equipped with kitchenette and break-out area, that can support functions for the terrace, with detail of use and operations to be developed at the next stage of design.

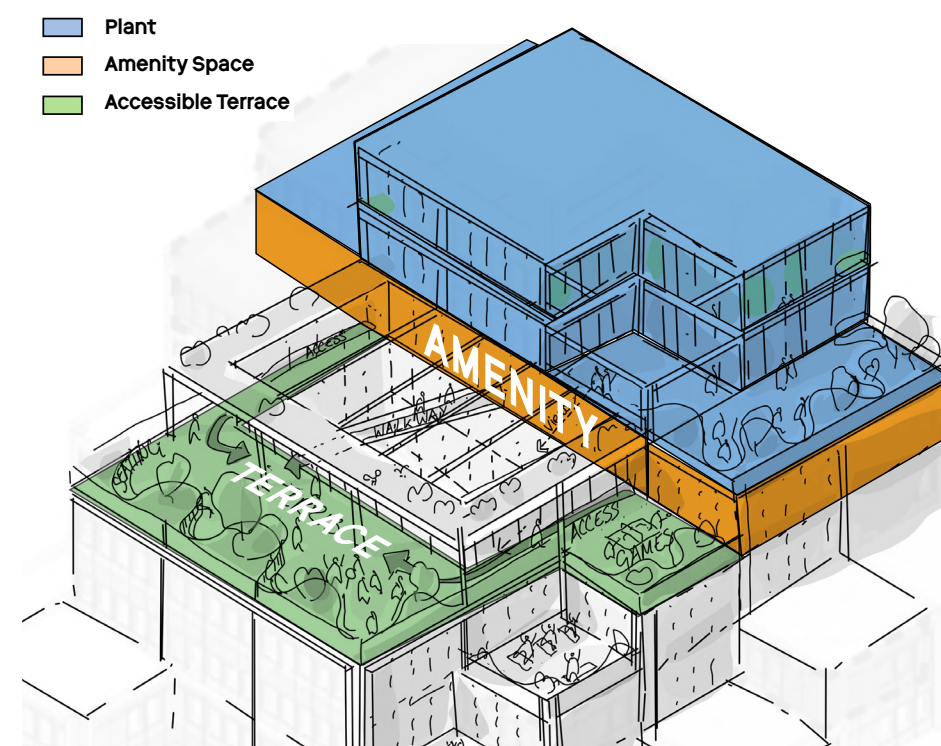


Fig 310 Sketch diagram rooftop amenity and terrace strategy



Fig 311 Initial sketch exploration of a rooftop garden

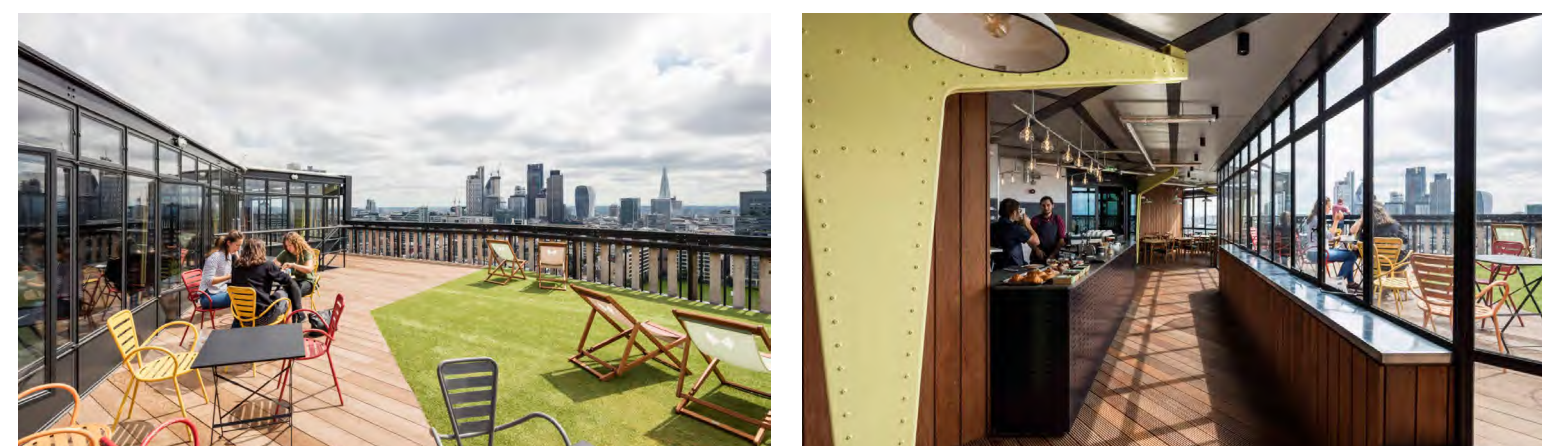


Fig 312 Precedent: Rooftop Cafe, White Collar Factory, London (AHMM)



Fig 313 Illustrative view of the consolidate terrace at Level 16

Facade Colour Palette

The site analysis context colour palette has informed both the residential and office building material, tonality and texture. While the residential building is associated with more domestic warm brick tones, the office building is inspired by the contemporary buildings and colour palette within the immediate context. Key references include the law offices south of Bridge Street, Century buildings at the north end of Parsonage Gardens, emerging context of The Alberton & Reedham House, along with contemporary context within Spinningfields.

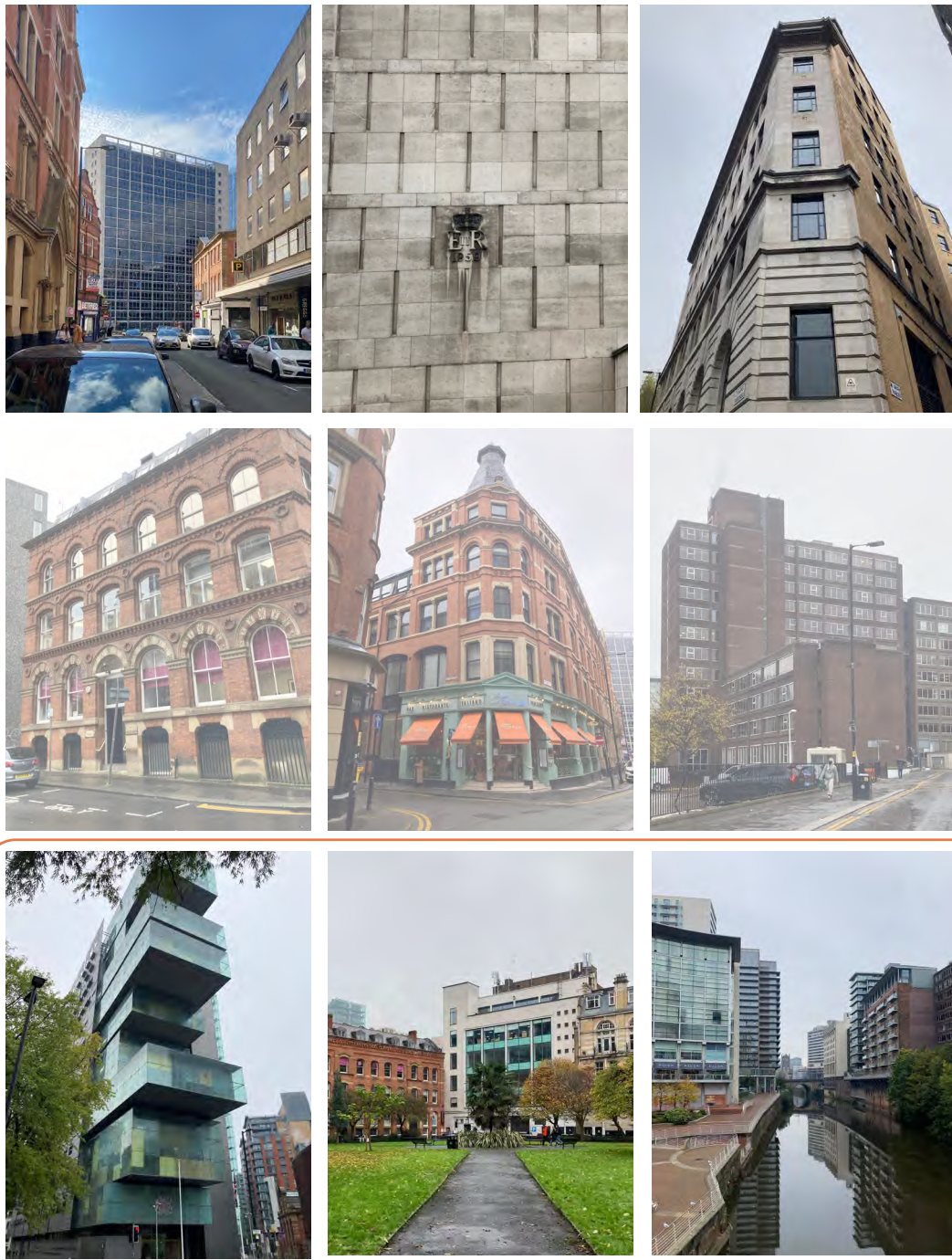


Fig 314 Context palette

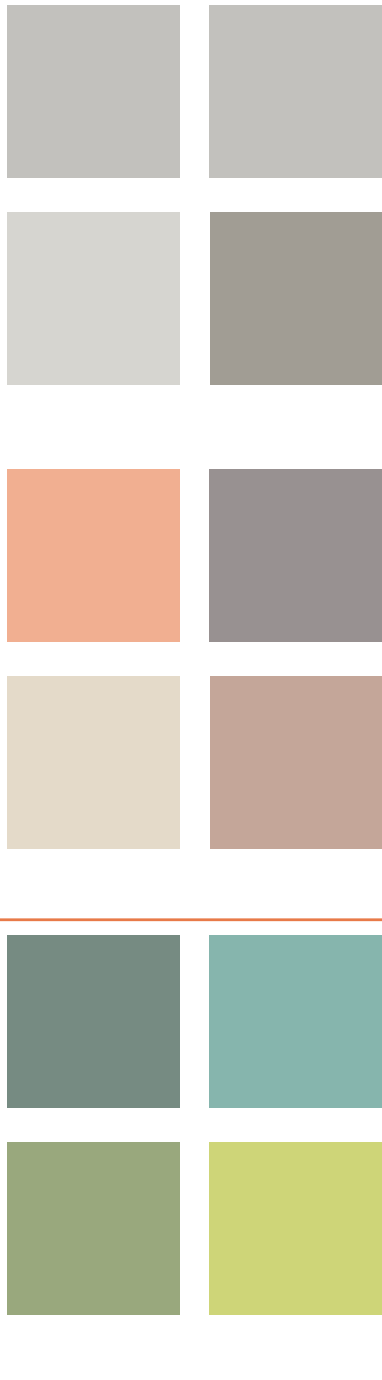


Fig 315 Colours and Hues

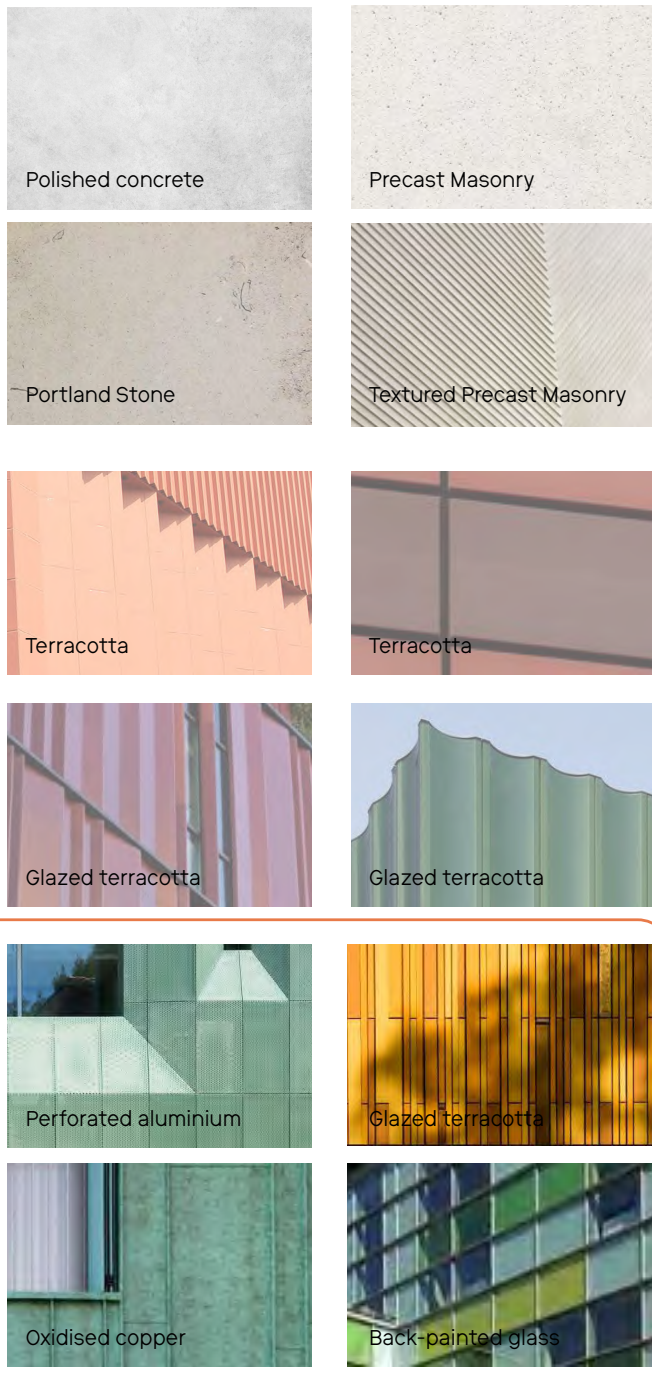


Fig 316 Materials

Responsive Facade Design

Within the aspiration for a net zero commercial building, a responsive facade design is key to ensuring that the energy balance is achieved, within the limits set by the energy strategy. This includes appropriate facade glazing ratios relative to aspect and potential for solar gain. Limiting solar overheating within internal spaces reduces energy demand from cooling load.

- 01** Response to solar gains and acoustic condition at street level at south-facing building corners through reduced glazing to facade ratio.
- 02** Responding to the adjoining context, glazing ratios are increased adjacent to the overshadowing element of the residential building to the west.
- 03** Along the north elevation, solar gains are reduced, therefore glazing ratios are higher, allowing maximising of views toward the River Irwell and Salford.
- 04** Increasing opacity higher up the building is required due to increased exposure to the direct sun.
- 05** Increasing glazing ratio opacity at corner massing improves the stepping and facade composition legibility while controlling energy balance with appropriate facade ratios.

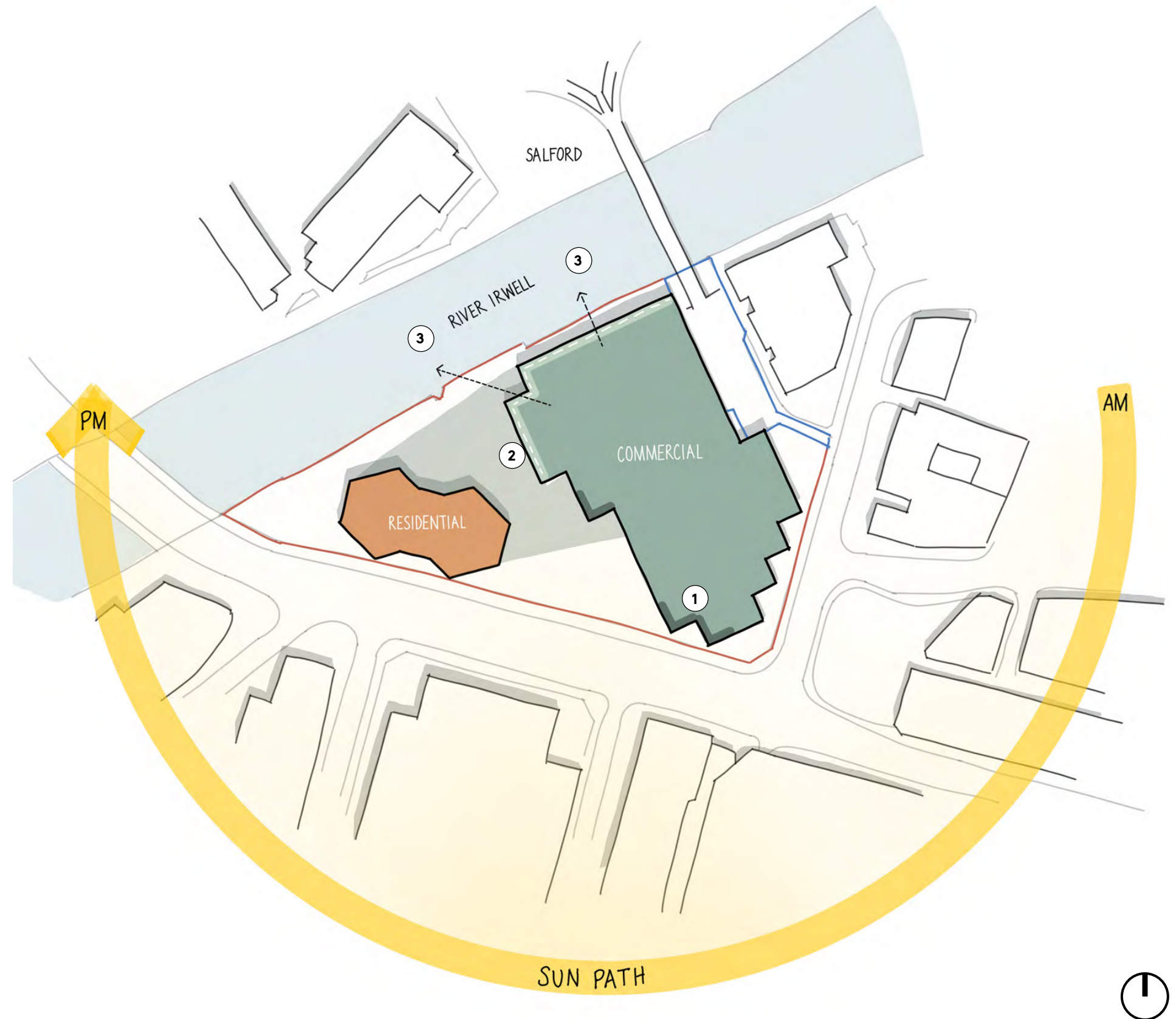
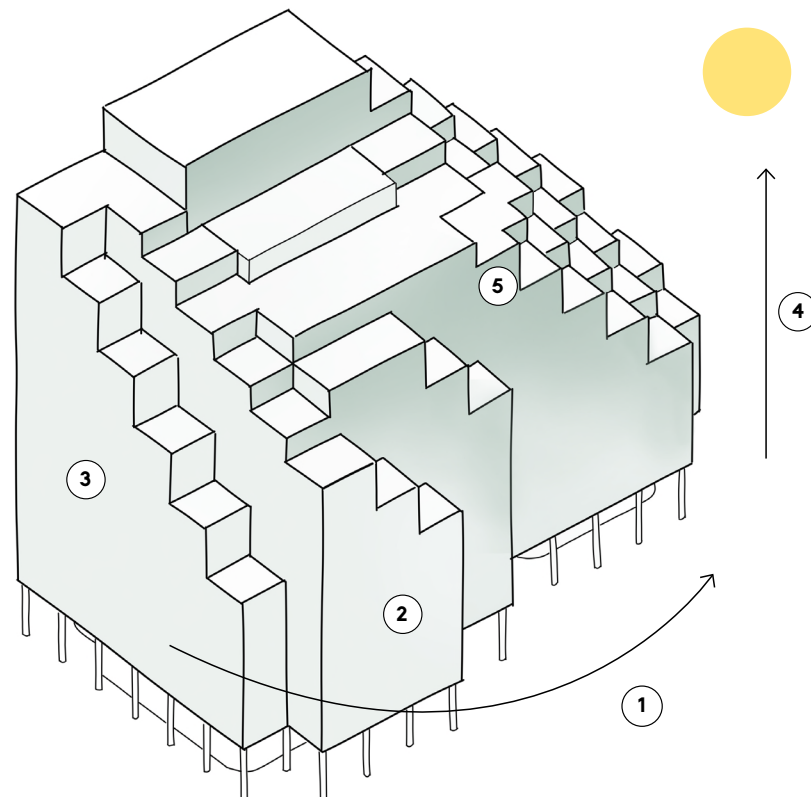


Fig 317 Proposed site plan

Materials

The Albert Bridge House sits within Manchester city centre, at a gateway location between Manchester and Salford. The facade designs and approach to materiality serves as a reflection of the local historic and contemporary architecture, to complement the urban grain.

Following extensive testing throughout the design process, the office building material concept centres on the use of lightweight metalwork facade solutions utilising texture, porosity and rhythm to reflect the proportions and composition of local historic buildings. The application of polished concrete and precast masonry feature at low levels, helps to ground the building with solidity, using materials that are durable, and recognisable as typical for commercial and civic buildings throughout the city.

Articulation of facade is achieved through proposal for a corrugated profile aluminium rainscreen, back-fixed to an insulated wall panel or full height glazing. In addition, back-painted glass spandrels, with integrated photovoltaic glazed panels on south-facing elevations, provide transition between glazed and solid elements, while brighter coloured framing elements create moments of accentuation and interest, in particular within recessed balcony and wintergarden areas.

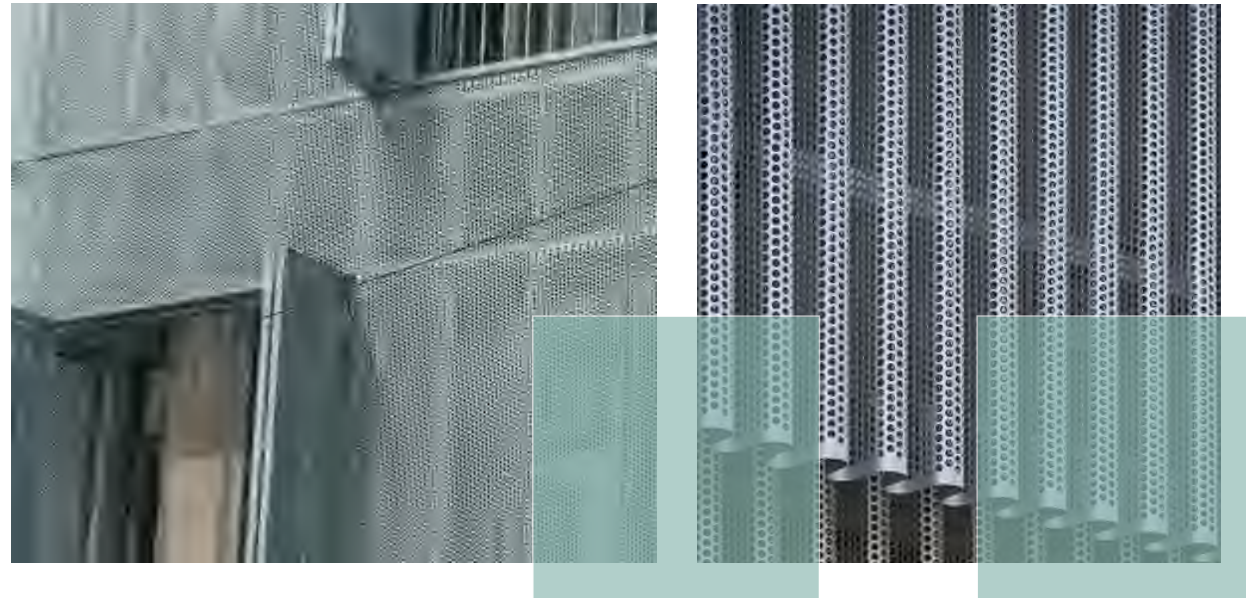


Fig 318 Perforated and corrugated material + tone
Screening system to provide shading as well as variation in the facade language

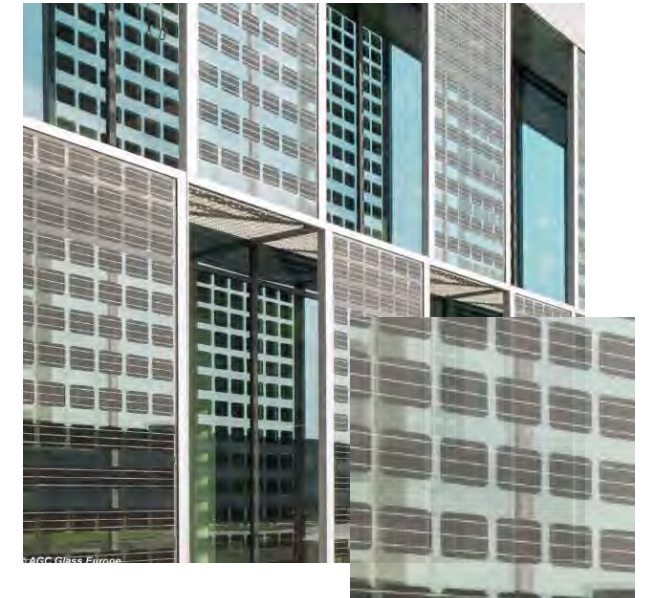


Fig 319 Building Integrated PV Glazing



Fig 320 Spandrel Panel + tone
back-painted glass

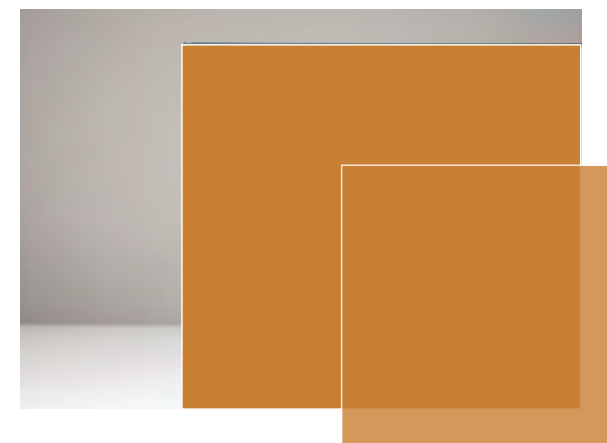


Fig 321 Inset Window Spandrel Panel + tone
back-painted glass

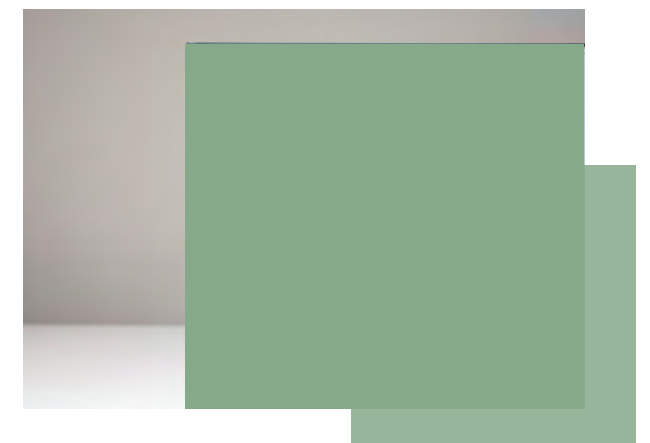


Fig 322 Pop-out Window Spandrel Panel + tone
back-painted glass



Fig 323 Polished Concrete Columns

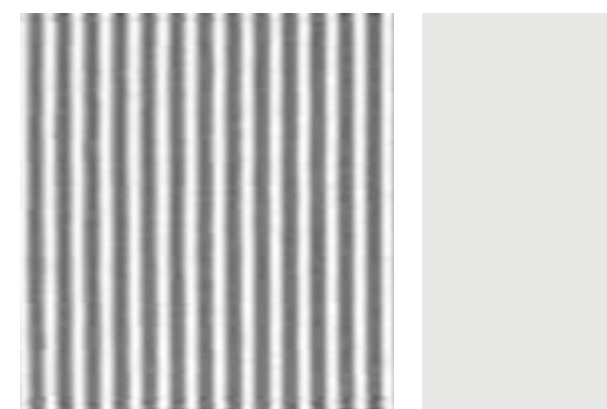


Fig 324 Ribbed Concrete Column Base

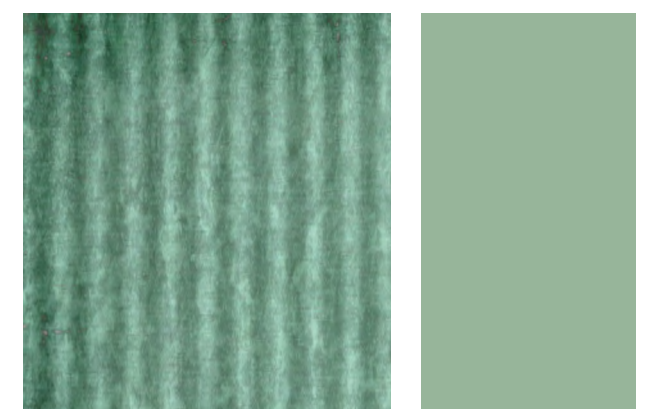


Fig 325 Solid planter balustrade + tone -
corrugated green aluminium

Facade Principles

The design of the commercial building facade can be described through a set of principles, which have underpinned the overall composition of the elevations

- 01** The stepping volume of the office creates a regular rhythm of solid and void up the building, occurring in either single storey or two storey increments
- 02** The order of the articulation is set as a regular two storey bay, expressed by thin white aluminium seams,
- 03** A veil-like lightweight facade solution is proposed to give the impression of lightness and movement throughout the facade.
- 04** Facade elements of varying transparency, perforation, shading, projection and recess contributes to a varied expression, within an overall unifying composition.

At the base of the building a different language is used to promote openness, vibrancy and a sense of welcoming, highlighting the activation. Here a lightweight curtain wall wraps and curves around an inset slab, which is set back from the upper floors to create a three storey colonnade datum addressing the human scale at ground, first and second floors.



Fig 326 A veiled facade - FRPO, Estacion San Jose



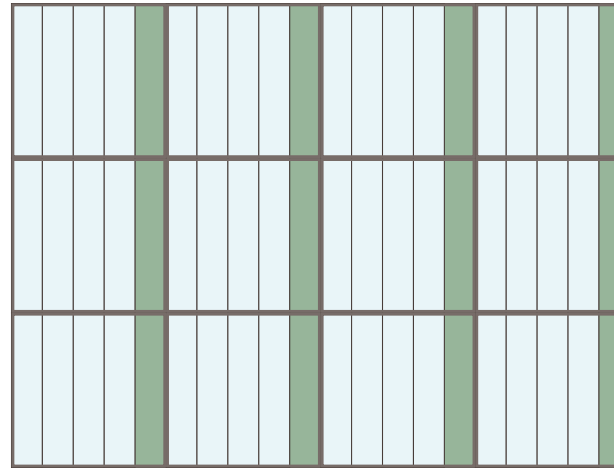
Fig 327 Concept sketch - Lightweight facade

Facade Bay Composition

The facade composition, in a more granular sense, captures both repetition and variation, through the application of regular and repeating panel sizing. Each 7.5m bay is divided into 5 panels allowing for regular and repeating glazed, opaque and perforate aluminium panel sizing, which match in proportion, and which are combined in variety of compositions within each bay.

The application of a strategy of regular repetition and variation helps to:

- 01** Emphasize the ground floor datum of three storeys at the base of the building.
- 02** Provide a calmness with the use of a regular panel size, which as a set of 2 panels side by side creates a golden ratio in proportion.
- 03** Introduce movement and variety within a rational and repeating 7.5m structural grid.
- 04** Celebrate the building form of terracing and stepping massing, creating amenity spaces at roof level, to host greening and cascading verdant landscape features.
- 05** Compose solid and screened facade panels within a randomised pattern, which can continue to adapt through later stages of design development as environmental designs and energy modelling captures greater levels of detail to fulfil the target for a net zero building.



1. Standard stacked panelling approach



2. Staggered, regular panelling approach



3. Randomised panel approach

Fig 328 Facade principle diagram



Fig 329 Concept elevation - Lightweight facade

Facade Language

To create variation within the rationalised facade language, three different facade bay expressions were used for variation within the overall composition.

- 01** The 'Regular Facade' covers the most area across the elevations and contain a mix of glazed, solid and transparent lightweight veil-like language.
- 02** This is broken up by expressed amenity spaces, provided in two forms of expression; as a recessed volume 'Inset Window', setback from the general facade line, or as
- 03** Articulated protruding 'Picture Window' elements, which are set in two storey and double length bay modules, which project from the north elevation, out over the River Irwell



PV Application - Facade and Roof Strategy

Prioritising on-site passive energy helps to reduce the requirements for energy within the proposal. On the commercial building there are four types of photovoltaic (PV) panels used for capturing passive solar energy:

- 01** At roof level standard roof mounted PV panels fill roof spaces in arrays that maximise their capacity to collect solar energy through the day and differing seasons.
- 02** On south, east and west-facing glazing, building integrated photovoltaic panels (BIPV) are integrated within glass panels to perform a dual function of providing solar shading by allowing 50% light to pass through the glazing to internal spaces.
- 03** Also on south, east and west-facing glazing, building integrated photovoltaic panels (BIPV) are integrated within floor separation spandrel panels with a pattern to match the glazing integrated BIPV panels, however with insulation and fire-stopping detail behind to meet thermal and compartmentation requirements.
- 04** At level 16, BIPV are integrated within a roof terrace canopy structure, providing shading and shelter to users of the roof terrace, while capturing solar energy

The BIPV cells have been illustrated indicatively within the application, however can be arranged in custom layouts and densities, suited to the desired energy or shading target, to be developed at the next stage.

KEY

-  01 South and West facing glazing
-  02 South and West facing spandrel panels
-  03 Roof canopy at Level 16

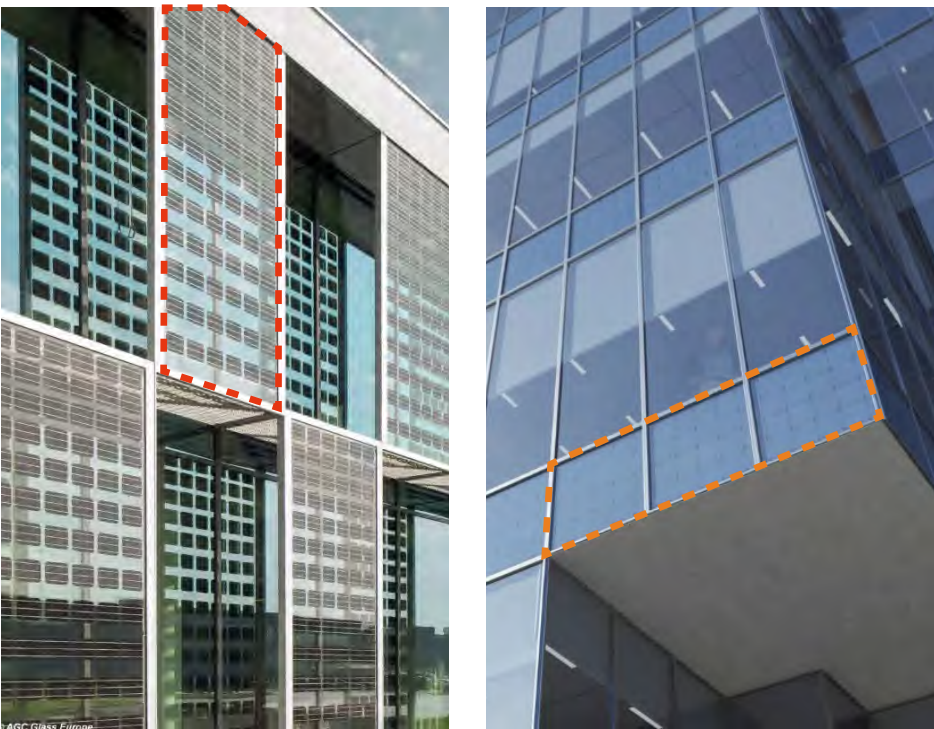


Fig 330 Precedent of Building Integrated PVs used as facade and spandrel panel application. AGC Technovation Centre, Belgium

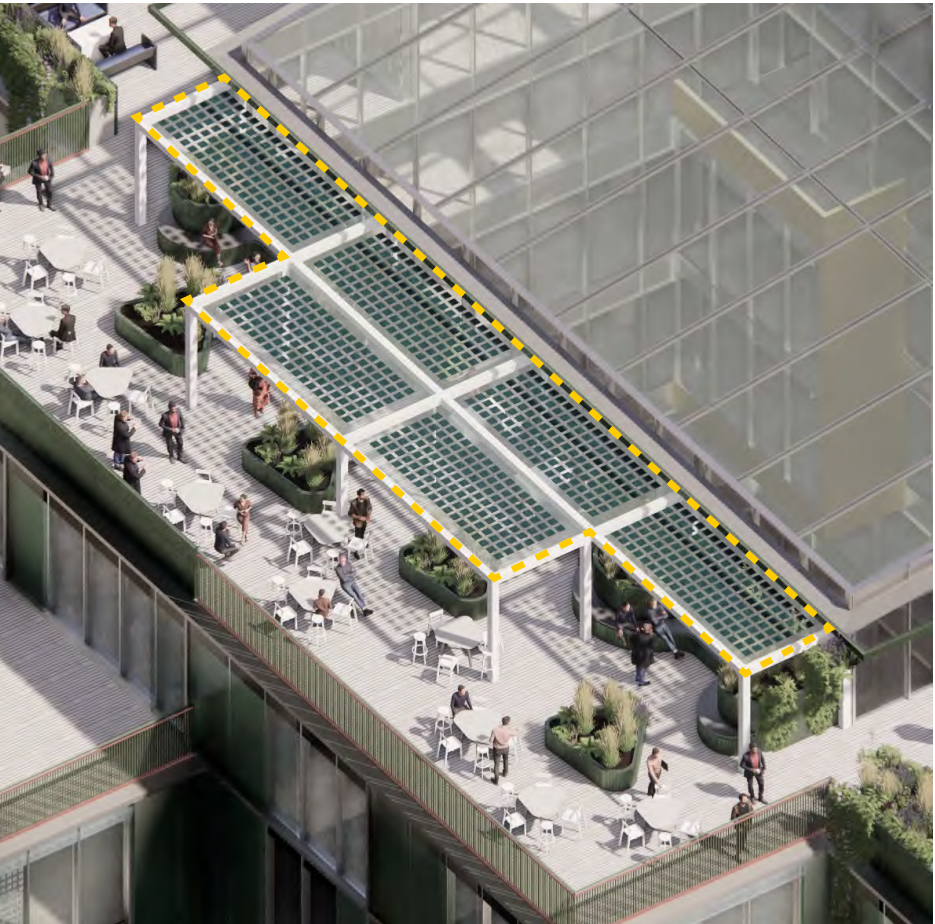


Fig 331 Precedent of a Roof canopy PV Application Ecole Hôtelière Monaco, France

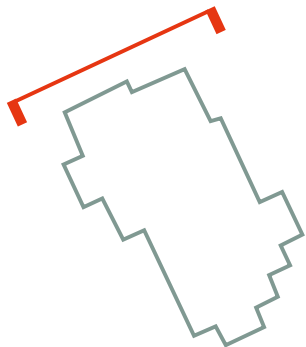


Elevations

North Elevation

Overlooking the River Irwell, the north elevation of the office is designed to take advantage of the views across the river and over the City of Salford. In response to the aspect the result is a more open and glazed facade language when compared with other elevations, which are subject to greater overheating risk.

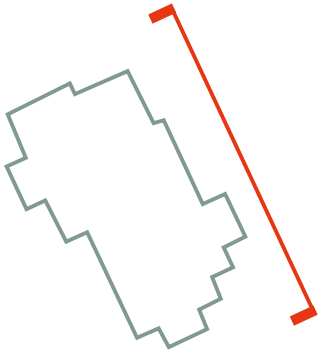
In addition, north elevation features 3 projecting winter-garden style 'bay window' volumes, that provide an internal amenity space, connected to, but separated from the general office floorplate. This helps to articulate what is an otherwise flat elevation within the overall massing design.



East Elevation

The east elevation is designed to celebrate the vertical circulation within the primary office core (B1). Both stairwells servicing the building levels, as well as the double height opening at the axis of the office core are expressed through a line of stacking glazed openings, so that the movement of people can be perceived when viewed from the ground or adjacent buildings. This play of movement and activity helps to animate the building, and place its function within the setting of a global city.

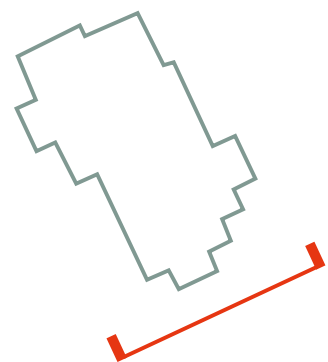
Playful placement of solid and screened panels helps to achieve privacy for the sanitary spaces adjacent to each stairwell and lift lobby, while providing a visual break from an otherwise consistent language of panelling and gradient of transparency, which can be seen to the north (right) and south (left) within the elevation view.



South Elevation

Benefiting from volumetric articulation, the south elevation celebrates the stepping concept of the overall building design most distinctly. The cascading terraces step down to address the intersection of Bridge street and St. Mary's Parsonage with a double-bay size amenity space, providing further interest at levels 3 and 4.

Due to exposure to sun throughout the day, the proportion of glazing to opaque and screened panels is reduced along this elevation, ensuring that solar heat gains are limited to avoid excess burden on the energy strategy in the form of cooling load. Due to a limit to the development of the energy model, the facade design will require ongoing review at the next stage of design, with more detailed facade energy modelling.



West Elevation

Similar in facade design approach to the south elevation, the west elevation benefits from depth created by the stepping volumes. In order to address corner overheating risk, acoustic condition at low levels on the building, and to provide visual interest, a series of recessed bay window facade elements are dotted within the overall elevation.

The recessed bays contain an external terrace, which wraps a ‘winter garden’ style internal amenity space. Each is clad in a warm tone of bronze-orange, which adds balance to the green facade, while striking a relationship to the adjacent residential building, clad in autumnal rust, reds and pink colours.



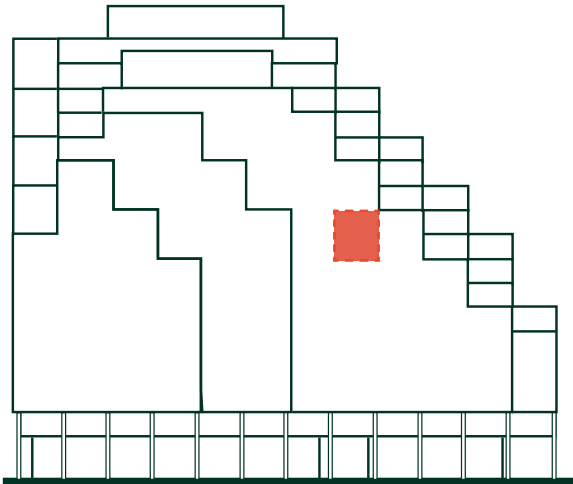
Bay Studies

Typical Bay Study 1 - West Elevation

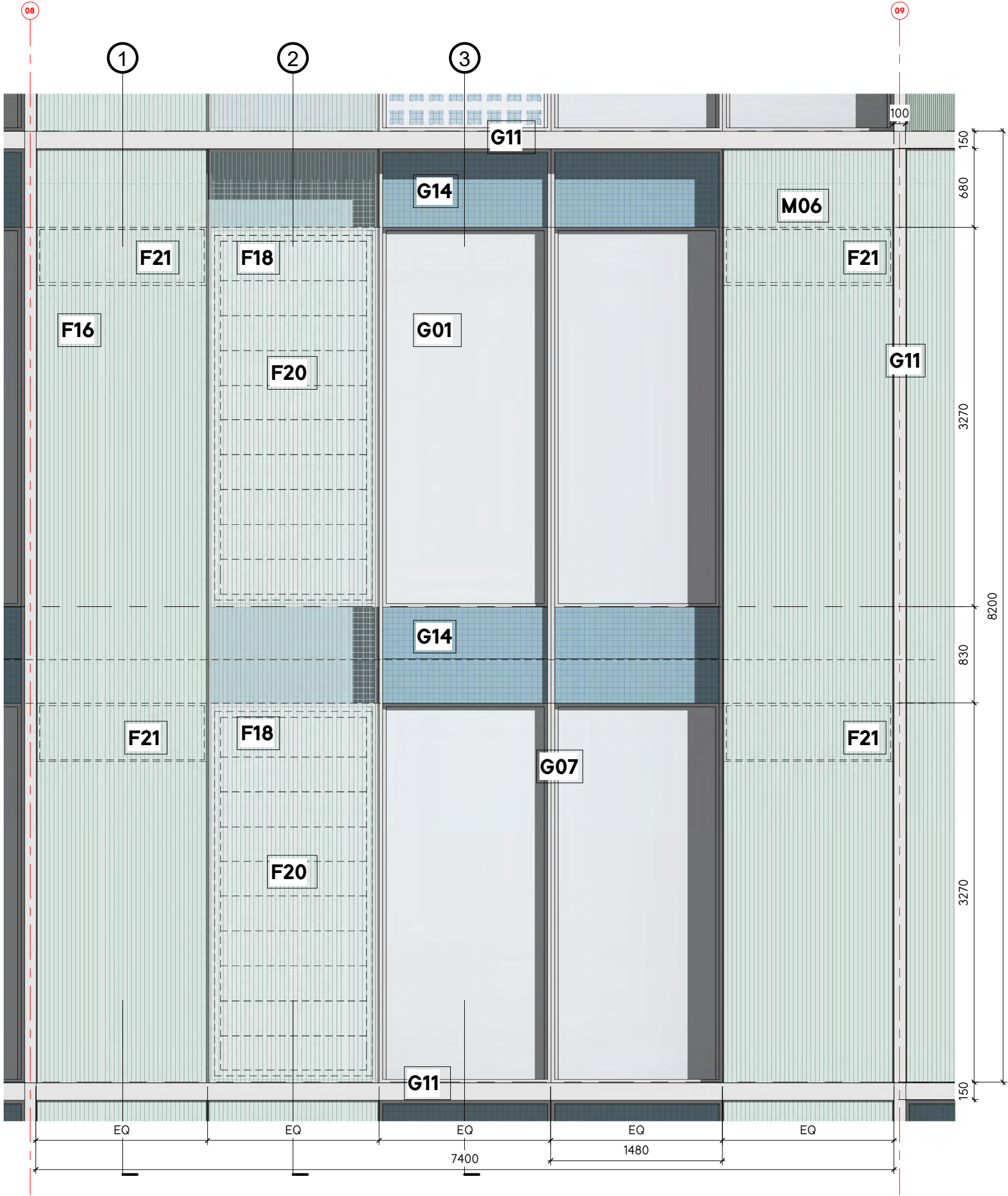
A limited number of bay studies were designed to allow for a level of standardisation, consistency and modularity. Each of the following bay studies represents a number of different panels used in one bay however their composition differs.

Typical Bay Study 1 includes 2 screened opaque insulated wall panels, 1 perforate screen glazed panel, with an openable window behind and 2 clear full height glazed panels.

- Key
- F16. Anodised aluminium screen, backfixed infront of insulated solid panel, perforated and corrugated - Tone 12 10 Green
 - F18. Anodised aluminium screen, backfixed infront of glazed panel, perforated and corrugated - Tone 12 Green
 - F19. Backpainted Glass - Green (North and East elevation)
 - F20. Automatic opening glazed louvre for natural ventilation (location and size TBC)
 - F21. Air Intake and extract vent behind perforated panel (size & location to be confirmed by HL)
 - G01. Full Height Clear Glazing
 - G07. Aluminium Window Frame - Tone 02 Light Grey
 - G11. Aluminium Bay Frame - Tone 02 Light Grey
 - G14. Pvs integrated into backpainted spandrel glass (south and west elevation) - Tone 12 Green
 - M06. RC Waffle Slab (behind) to St Eng. design and spec.



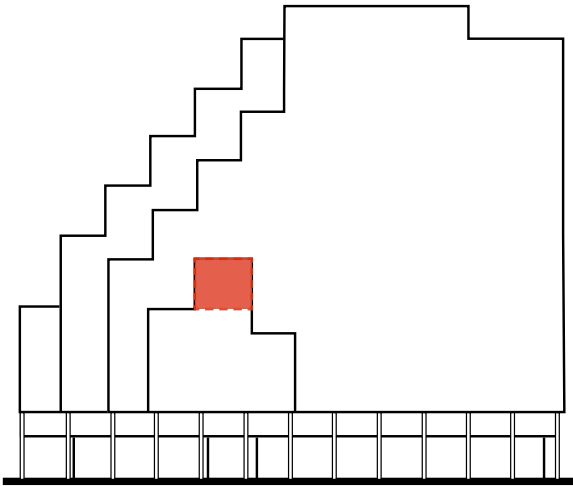
West Elevation



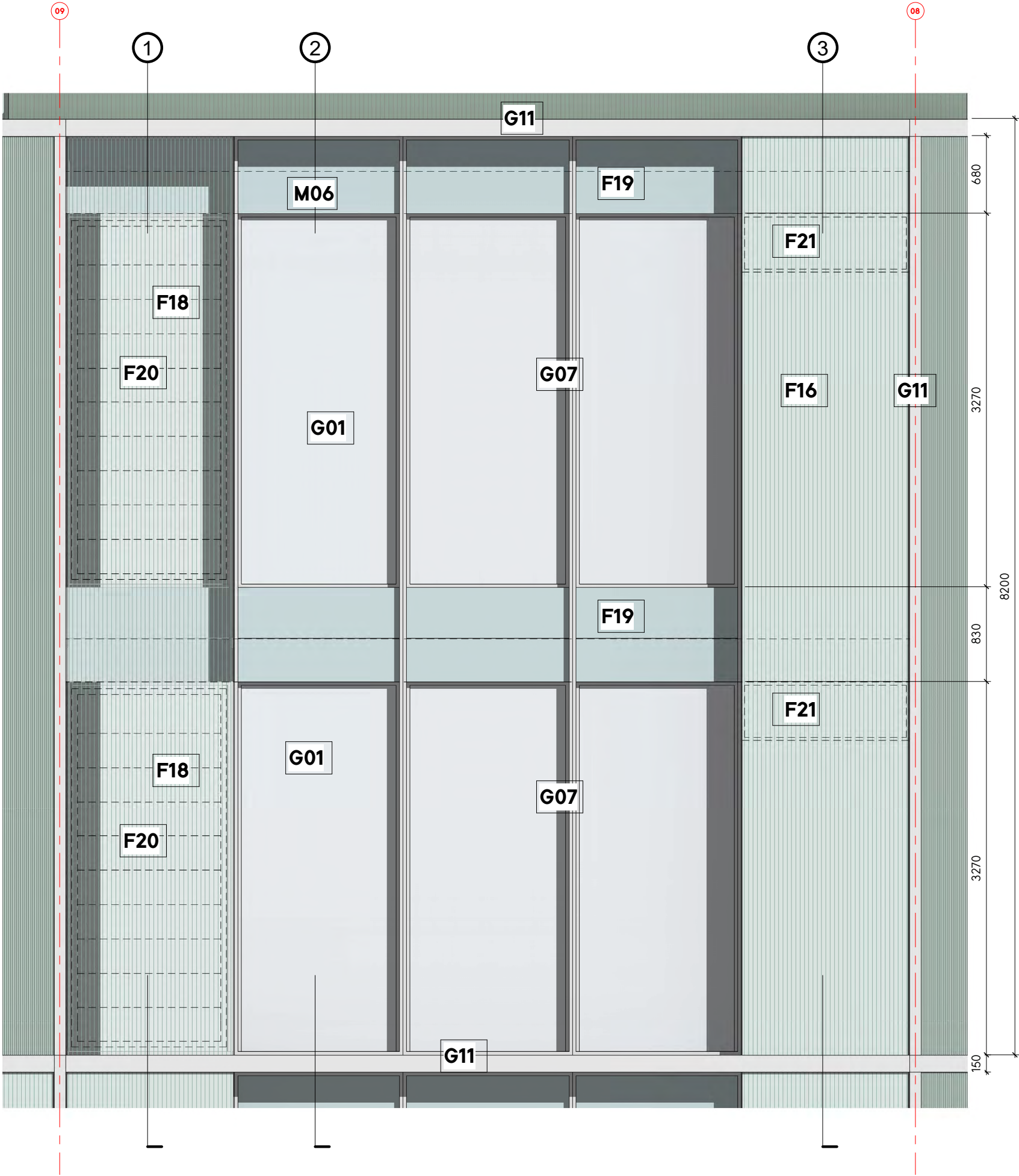
Typical Bay Study 2 - East Elevation

Typical bay study 2 includes 1 screened opaque insulated wall panel, 1 perforate screen glazed panel, with an openable window behind and 3 clear full height glazing panels.

- Key
- F16. Anodised aluminium screen, backfixed infront of insulated solid panel, perforated and corrugated - Tone 12 10 Green
 - F18. Anodised aluminium screen, backfixed infront of glazed panel, perforated and corrugated - Tone 12 Green
 - F19. Backpainted Glass - Green (North and East elevation)
 - F20. Automatic opening glazed louvre for natural ventilation (location and size TBC)
 - F21. Air Intake and extract vent behind perforated panel (size & location to be confirmed by HL)
 - G01. Full Height Clear Glazing
 - G07. Aluminium Window Frame - Tone 02 Light Grey
 - G11. Aluminium Bay Frame - Tone 02 Light Grey
 - G14. Pvs integrated into backpainted spandrel glass (south and west elevation) - Tone 12 Green
 - M06. RC Waffle Slab (behind) to St Eng. design and spec.



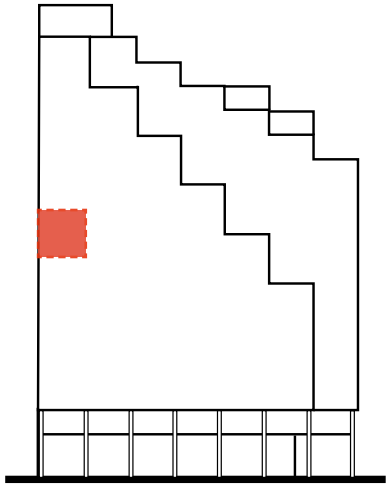
East Elevation



Typical Bay Study 3 - North Elevation

The northern aspect features a composition of more open bay types. Typical Bay Study 3 features 4 full height glazing panels and 1 perforate screened glazing panel with openable window panel contained within.

- Key
- F16. Anodised aluminium screen, backfixed infront of insulated solid panel, perforated and corrugated - Tone 12 10 Green
 - F18. Anodised aluminium screen, backfixed infront of glazed panel, perforated and corrugated - Tone 12 Green
 - F19. Backpainted Glass - Green (North and East elevation)
 - F20. Automatic opening glazed louvre for natural ventilation (location and size TBC)
 - F21. Air Intake and extract vent behind perforated panel (size & location to be confirmed by HL)
 - G01. Full Height Clear Glazing
 - G07. Aluminium Window Frame - Tone 02 Light Grey
 - G11. Aluminium Bay Frame - Tone 02 Light Grey
 - G14. Pvs integrated into backpainted spandrel glass (south and west elevation) - Tone 12 Green
 - M06. RC Waffle Slab (behind) to St Eng. design and spec.



North Elevation



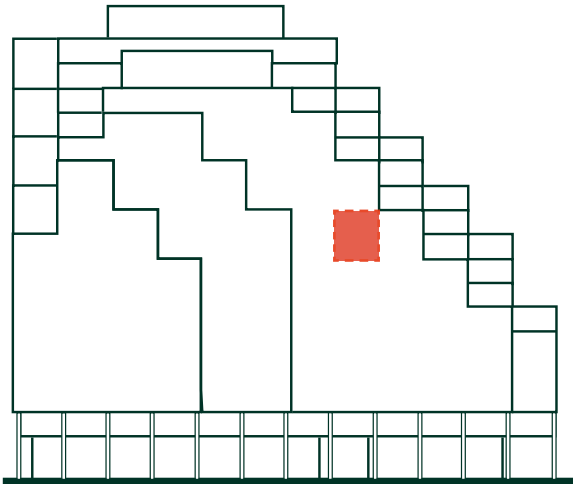
Typical Bay - Integrated PV Cells

To maximise opportunity from the sun exposure experienced on the south and west aspects, while contributing to the energy requirements of the building as a whole, BIPV solar cells are introduced to full height glazing panels, as well as to exposed spandrel panels which sit at intermediate floor levels within each double height bay expression.

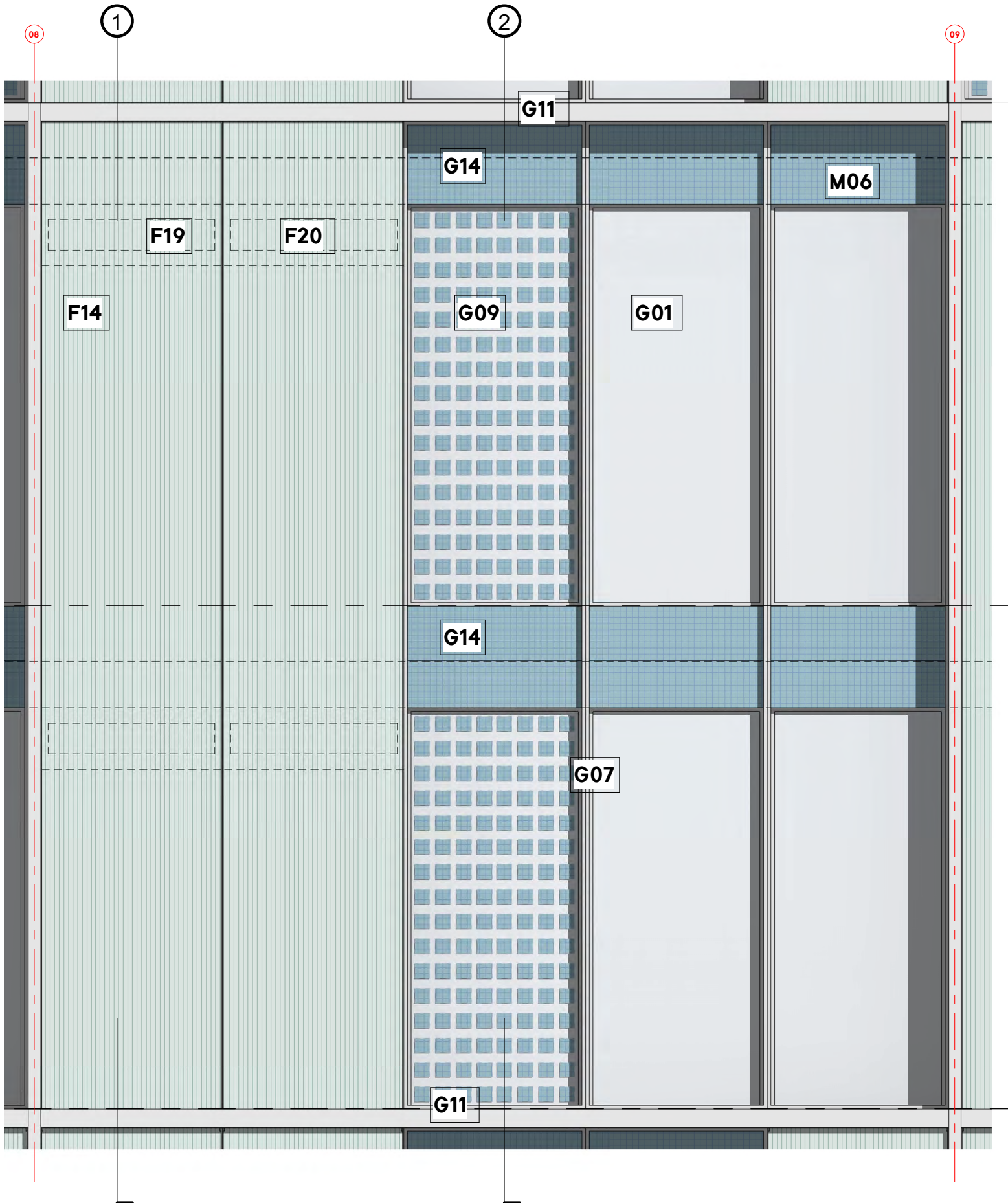
Similar to the perforate aluminium screens, the glazed BIPV panels provide an element of solar shading to internal environments, which will experience 50% of sunlight penetration, to assist in reducing risk of overheating, while helping to ensure good levels of natural daylighting.

Key

- F14.** Anodised aluminium screen, backfixed infront of insulated solid panel, perforated and corrugated - Tone 10 Green
- F16.** Anodised aluminium screen, backfixed infront of glazed panel, perforated and corrugated - Tone 10 Green
- G01.** Full Height Clear Glazing
- G07.** PPC Aluminium Window Frame - Tone 02 Light Grey
- G09.** PVs integrated into full height glazing
- G11.** PPC Aluminium Bay Frame - Tone 02 Light Grey
- G14.** PVs integrated into backpainted spandrel glass (south and west elevation) - Tone 12 Green
- F19.** Air Intake for Vent System
- F20.** Ventilation Extract Louvre - size & location to be confirmed by HL
- M06.** RC Waffle Slab (behind) to St Eng. design and spec.



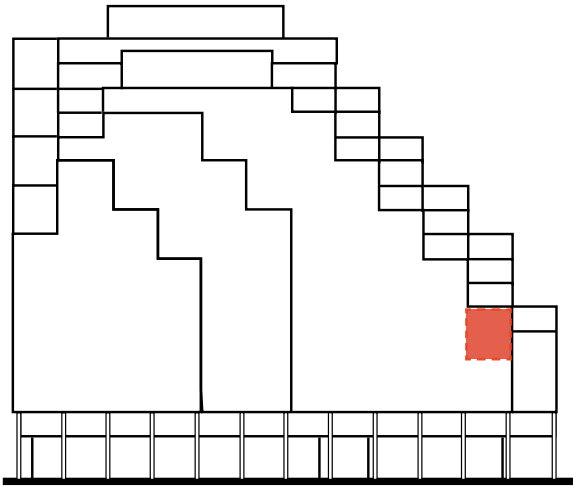
West Elevation



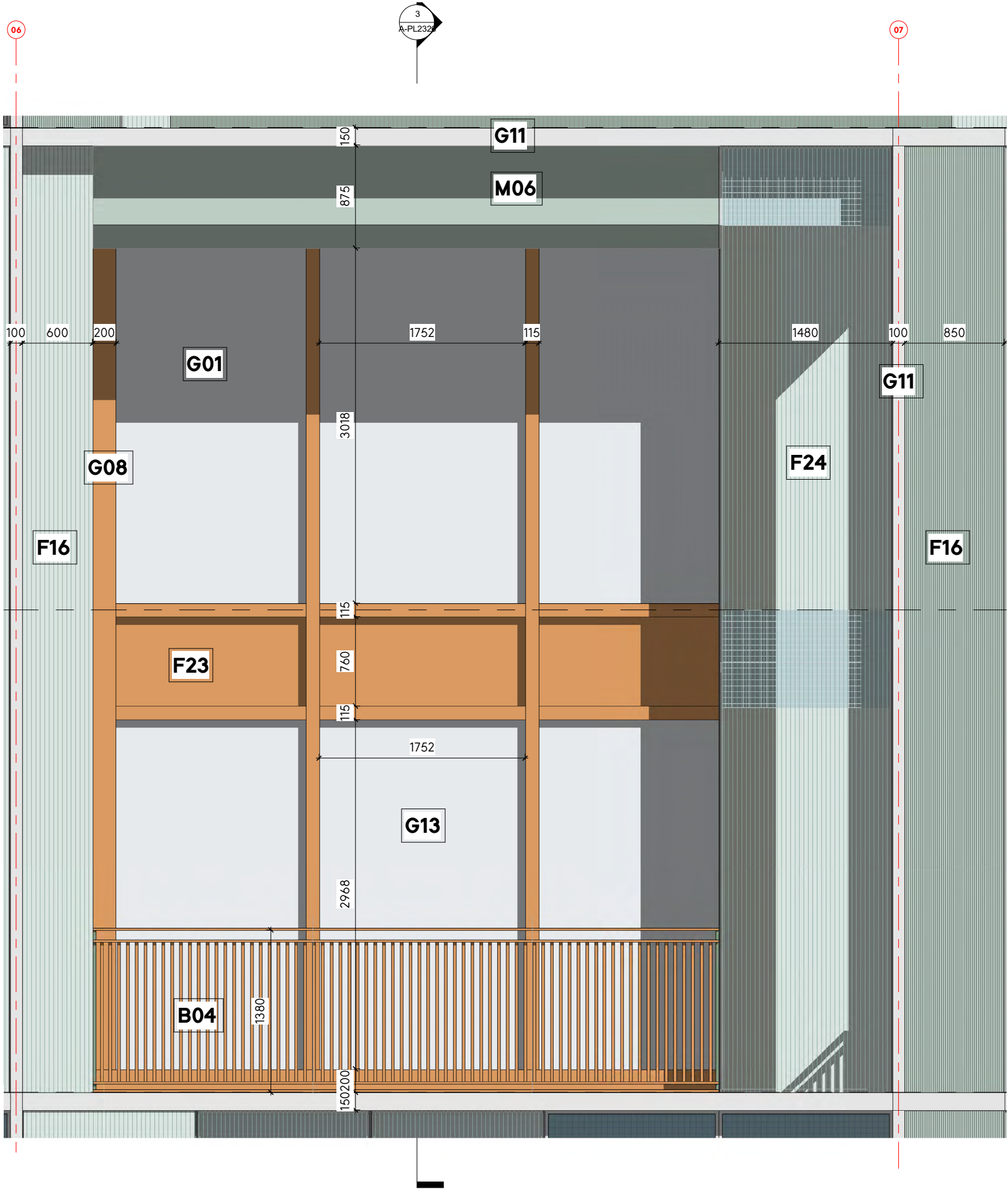
Typical Bay - Inset window

Inset window bays are introduced into the facade to celebrate internal amenity spaces as well as provide additional levels of shading to the facade corners which are vulnerable to overheating. These double-height facade elements stand out with a warm orange tone anodised aluminium and are designed with a variant window proportions to create a distinct facade expression, balance and complement the green facade with a warmer tone, while striking a relationship with the adjacent residential tower, clad in rich tone autumnal colours..

- Key
- F16.** Anodised aluminium screen, backfixed infront of insulated solid panel, perforated and corrugated - Tone 10 Green
 - F23.** Anodised Aluminium Rainscreen Panel - Tone 14 Orange
 - F24.** Perforated, corrugated, anodised aluminium screen, backfixed. Tone 12 Green
 - G01.** Full Height Clear Glazing
 - G08.** Aluminium Window Frame - Tone 13 Orange
 - G11.** Aluminium Bay Frame - Tone 02 Light Grey
 - G13.** Glazed Door in PPC Aluminium Frame - Tone 13 Orange
 - B04.** Aluminium Railing - Tone 13 Orange
 - M06.** RC Waffle Slab (behind) to St Eng. design and spec.



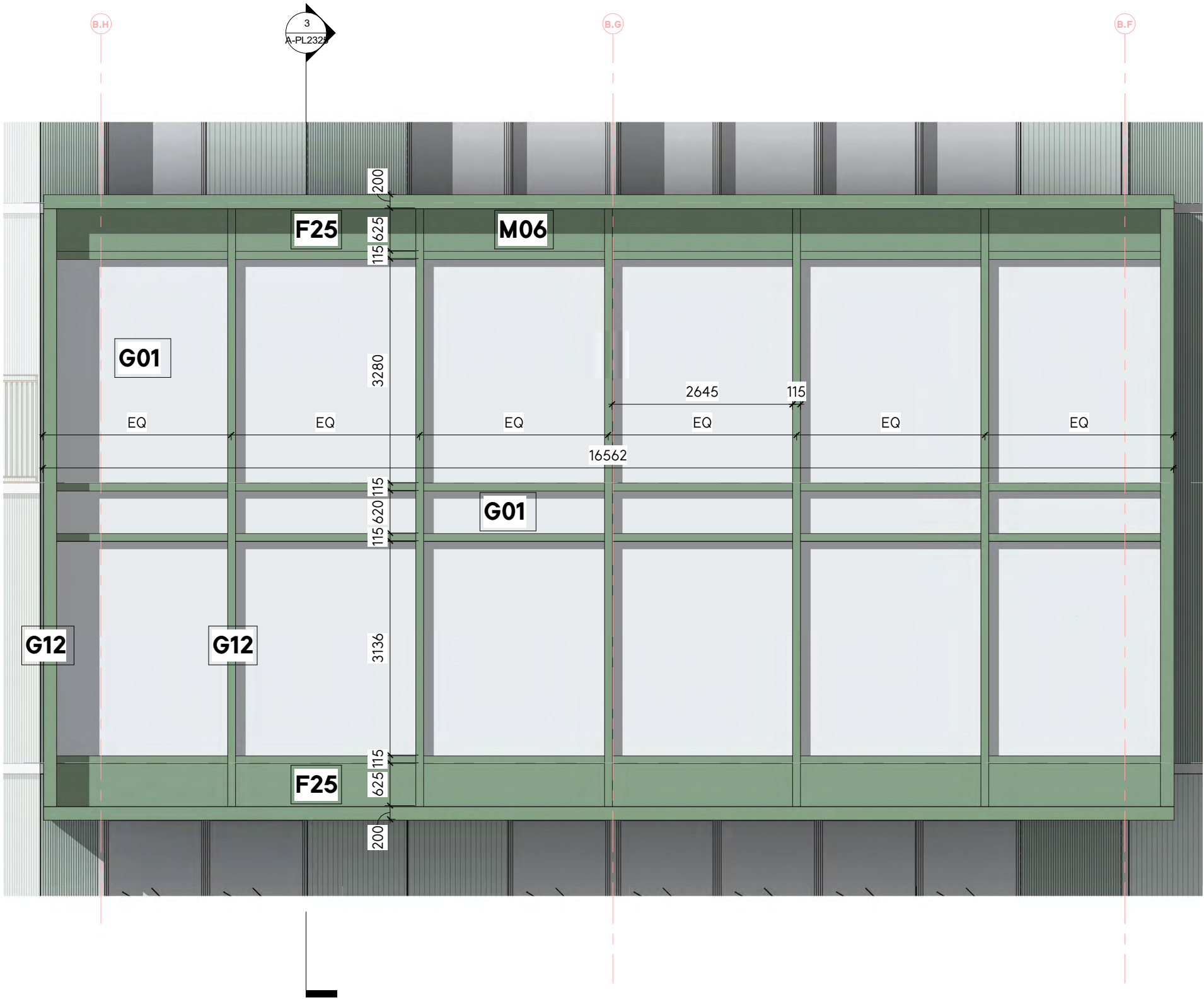
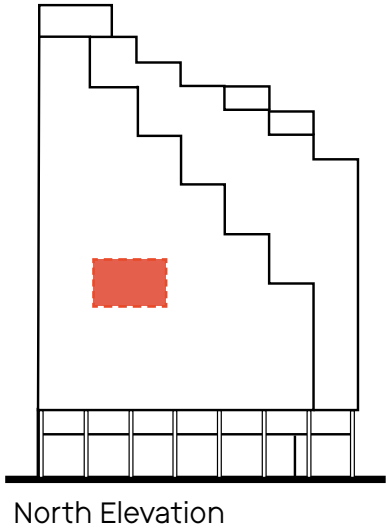
West Elevation



Typical Bay - Projecting Window

In a similar way to the inset bay windows, projecting bay window volumes project from the north-facing facade, providing an alternative facade ‘break’ expression, and counterpoint to the insets creating a push and pull approach to celebrating amenity space within the commercial building, at mid-height up the facade. The projecting bay window volumes are framed double height spaces, providing amenity and spill-out spaces for the internal office environment. The projecting bays are orientated to the north to benefit from the views towards the river. These are clad in a complementary, but darker green colour, in anodised aluminium.

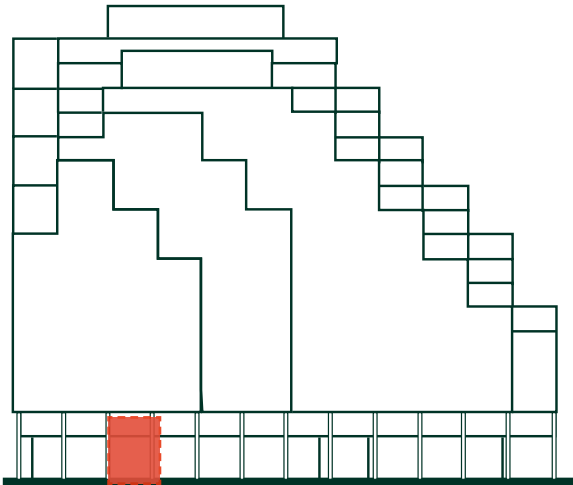
- Key
- F25. Anodised Aluminium Rainscreen Panel - Tone 11 Dark Green
 - G01. Full Height Clear Glazing
 - G12. Aluminium Window Frame - Tone 11 Dark Green
 - M06. RC Waffle Slab (behind) to St Eng. design and spec.



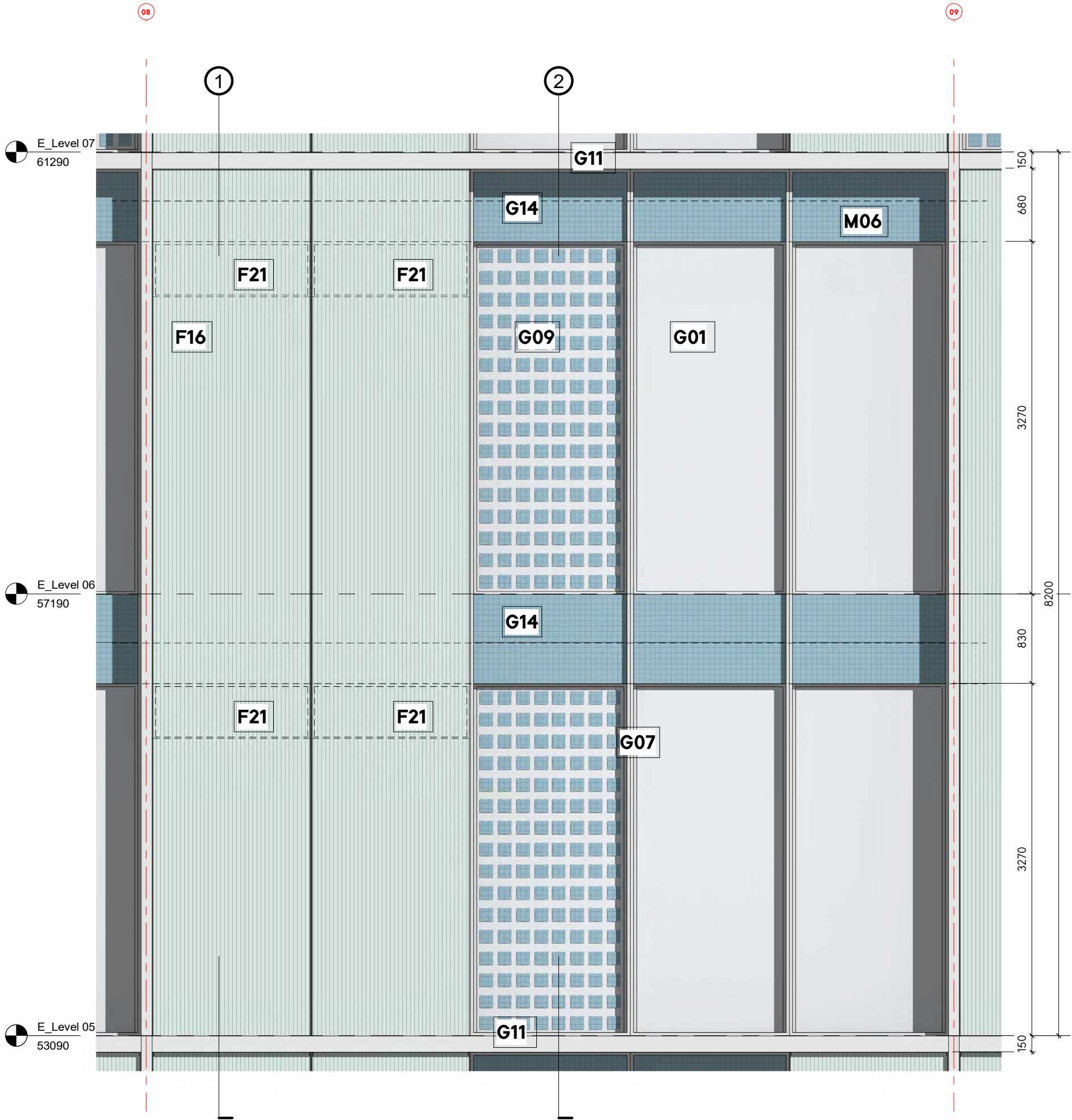
Typical Bay - Ground Floor and Level 01

The ground and first floors feature a continuous glazed curtain wall that curves at corner moments to promote fluid movement throughout the pubic realm spaces. Curtain walling with both solid and glazed spandrel panels define these lowest levels of the building, which sit behind a sheltered colonnade. The movement of people in the restaurant, cafe and retail spaces activate the facade and help to animate the public realm. For users of the internal spaces, uninterrupted views can be enjoyed out over the River Irwell or high quality landscape within the public realm design proposal. This bay study describes the double height restaurant entrance, bi-folding doors and terrace seating.

- Key
- F16.** Anodised aluminium screen, backfixed infront of insulated solid panel, perforated and corrugated - Tone 12 Green
 - G01.** Full Height Clear Glazing
 - G07.** Aluminium Window Frame - Tone 02 Light Grey
 - G09.** PVs integrated into full height glazing
 - G11.** Aluminium Bay Frame - Tone 02 Light Grey
 - G14.** PVs integrated into backpainted spandrel glass (south and west elevation) - Tone 12 Green
 - F21.** Air Intake and extract vent behind perforated panel (size & location to be confirmed by HL)
 - M06.** RC Waffle Slab (behind) to St Eng. design and spec.



West Elevation

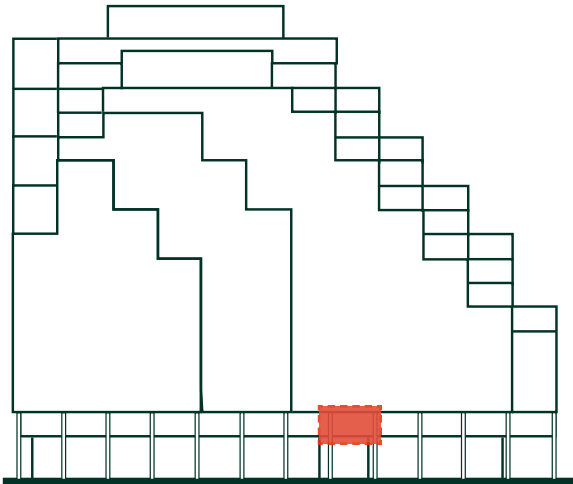


Typical Bay Study - Level 02

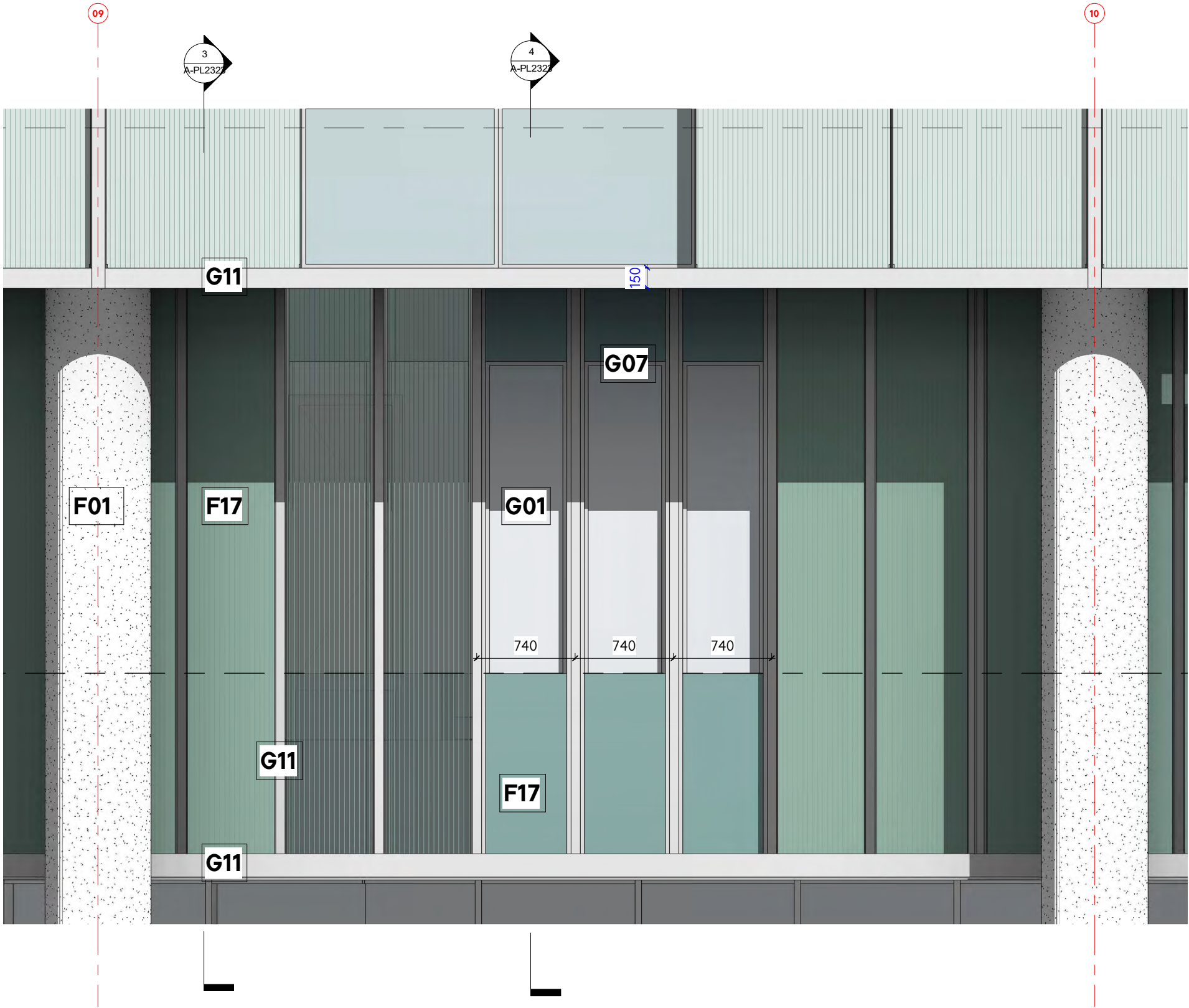
The elevation design at level 02 features a setback facade, that allows the columns to become expressed elements within the elevation composition, establishing a base language and three storey datum at the base of the building.

A more frequent rhythm of vertical expression provides a distinctive character to the facade at level 02, which helps to transition between the open and fluid facade design at lower floors with the veiled and light expression above.

- Key
- F01. Polished Concrete
 - F17. Anodised Aluminium Corrugated Rainscreen Panel - Tone 13 Dark Green
 - G01. Full Height Clear Glazing
 - G07. Aluminium Window Frame - Tone 02 Light Grey
 - G11. Aluminium Bay Frame - Tone 02 Light Grey



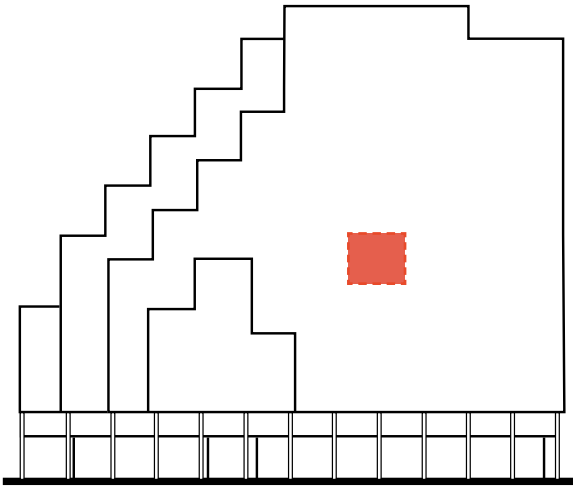
West Elevation



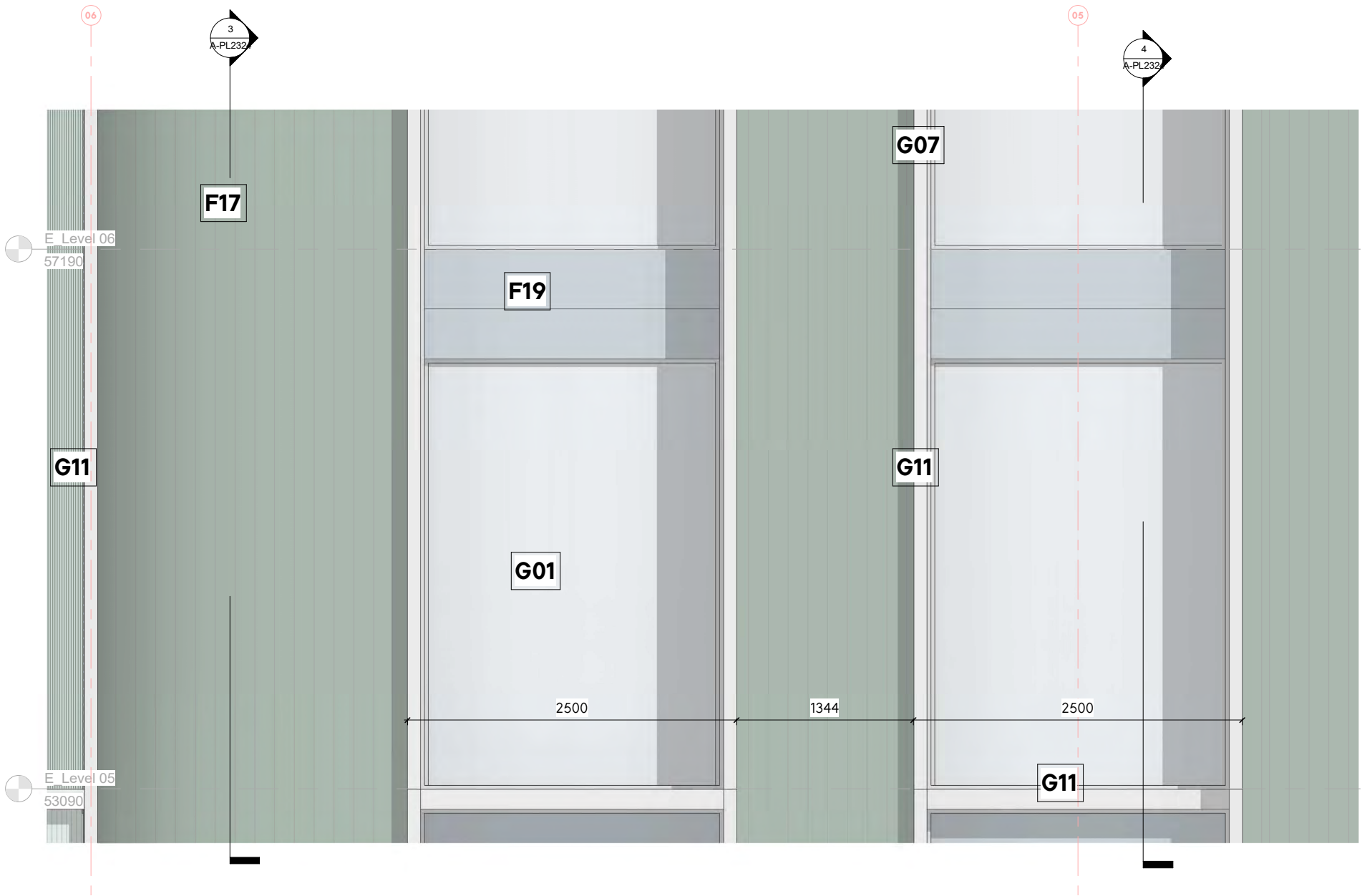
Typical Bay Study 4 - East Elevation

The east elevation core facade presents a unique condition on the elevations, which helps to express the internal function of vertical movement at the external face of the primary circulation core of the building. The typical bay is composed of corrugated aluminium with vertical stacked large window openings that form a break for the typical bays, regular facade expression, and opens up the staircases and core circulation spaces to allow light into the centre of the core.

- Key
- F17. Anodised Aluminium Corrugated Rainscreen Panel - Tone 13 Dark Green
 - F19. Backpainted Glass - Green (North and East elevation)
 - G01. Full Height Clear Glazing
 - G07. Aluminium Window Frame - Tone 02 Light Grey
 - G11. Aluminium Bay Frame - Tone 02 Light Grey



East Elevation





7.0

ACCESS

Introduction

The proposal for Albert Bridge House delivers a new Public Realm that provides both hard and soft landscape feature to complement existing retained trees and riverside ecology. The public realm is framed by ground level activated uses, set within the base of the residential tower and commercial building. Activation is provided in the form of shops, cafés and a new restaurant within a two storey undercroft to protect pedestrians from inclement weather. The proposal introduces permeability to the site where no public pedestrian access was previously available.

Pedestrian Access

There are several main access points to the site from the local surroundings. Permeable lines of movement are encouraged along key desire lines at pedestrian crossings of Bridge Street and St Marys Parsonage. Landscape planters have been designed to sit in key moments to encourage flows into and out of the site at ground level, while providing opportunity for protected enclosure to shop and cafe frontages. From the Albert Bridge, a new pedestrian route is provided to promote movement to and along the River Irwell, alongside Albert Bridge Gardens, which is to be replaced with a rewilded riverside bank extending the bankside ecological corridor adjacent to the River. From the Trinity Bridge, and strip of land between Albert Bridge and Alberton House proposals, a new pedestrian route is provided to the north of the commercial footprint, completing the River Walk character area along the full extent of the northern boundary to the site, while fostering connection to those crossing the Trinity Bridge from Salford. This helps to celebrate sustainable transport by encouraging movement to, and through the cyclist cafe and cycle shop at the cyclist entry to the commercial building.

Surrounding the façades of both the commercial and residential buildings a covered area is created by virtue of the facade setback from upper levels. Pedestrians are able to explore frontages at ground level under the shelter of a two storey undercroft, which accentuates the base element to the facade composition.

Vehicular Access

The Albert Bridge House proposal includes a basement which contains the majority of plant, back of house and management spaces, along with limited car parking to satisfy accessibility and maintenance requirements for the buildings for both the residential and commercial buildings. The basement is served by a single-lane ramp operated via a traffic light system, with waiting zones at top and bottom to avoid conflicts of movement up or down the ramp.

The basement is sub-divided to serve the residential and commercial areas separately with secure access gates to each area. Within the commercial basement there are 16no. vehicle parking spaces, alongside a loading area, with 8no. dedicated accessible, and 8no. for private car sharing scheme to serve the commercial and management operations of the building. Within the residential car park there are 8no. parking spaces, all of which accessible. Each parking space across the basement will be enabled to provide electric vehicle charging to ensure that sustainable transport is prioritised.

Servicing Access, Refuse & Deliveries

In order to facilitate servicing 2no. lay-bys have been provided to enable setdown for servicing vehicles. The lay-bys are proposed on Bridge Street, adjacent to the residential tower entrance and bin store, and along St Marys Parsonage near to the principle entrance to the commercial lobby beneath the undercroft passage. The public footpath is maintained at a minimum 3m width adjacent to both lay-bys. Landscape planters have been designed to sit adjacent to and alongside the lay-bys in order to minimise the visual impact of servicing vehicle parking, albeit expected to be infrequent in occurrence, as well as to encourage pedestrian movement, away from potential clashes with heavy vehicles, to ensure that public safety is prioritised.

In addition to the lay-bys, a shared surface route has been designed through the centre of the Albert Bridge Square. This enables plant replacement to be carried out via a podium/roof hatch to the basement below, allowing the hoisting of heavy equipment from ground level down into the basement, and avoiding the requirement for large vehicles to enter the basement area along the basement access ramp. To avoid large vehicles reversing into the public highway, a hammerhead is provided so that HGV and Fire tender are able to both enter and exit the site in a forward gear.

Cycle Access

Cycle parking is provided within the commercial basement for the offices. The entrance is at the south termination of the Trinity Bridge, connecting the entry to the building for cyclists with the wider cycle network, which runs along the River Irwell in Salford. From the ground level entrance cyclists arrive within a cycle retail and lobby space, which sits alongside a cyclist cafe, overlooking the river. A shallow rise access stair (complete with wheel tracks) allows cyclists to comfortably move their cycles to the basement storage area. An accessible lift is provided, ensuring that users of all abilities are able to use the facilities.

Within the residential tower a similar strategy has been adopted, however with the cycle storage located at first floor level, accessed via shallow rise access stair. An accessible lift is also provided, via fob/security code entry system, to enable residents to safely, and accessibly park their bikes within the secure communal cycle store. The visibility of the cycle store area within the translucent facade, visible from the ground level public realm helps to celebrate the use of sustainable transport within the proposal.

Site Movement

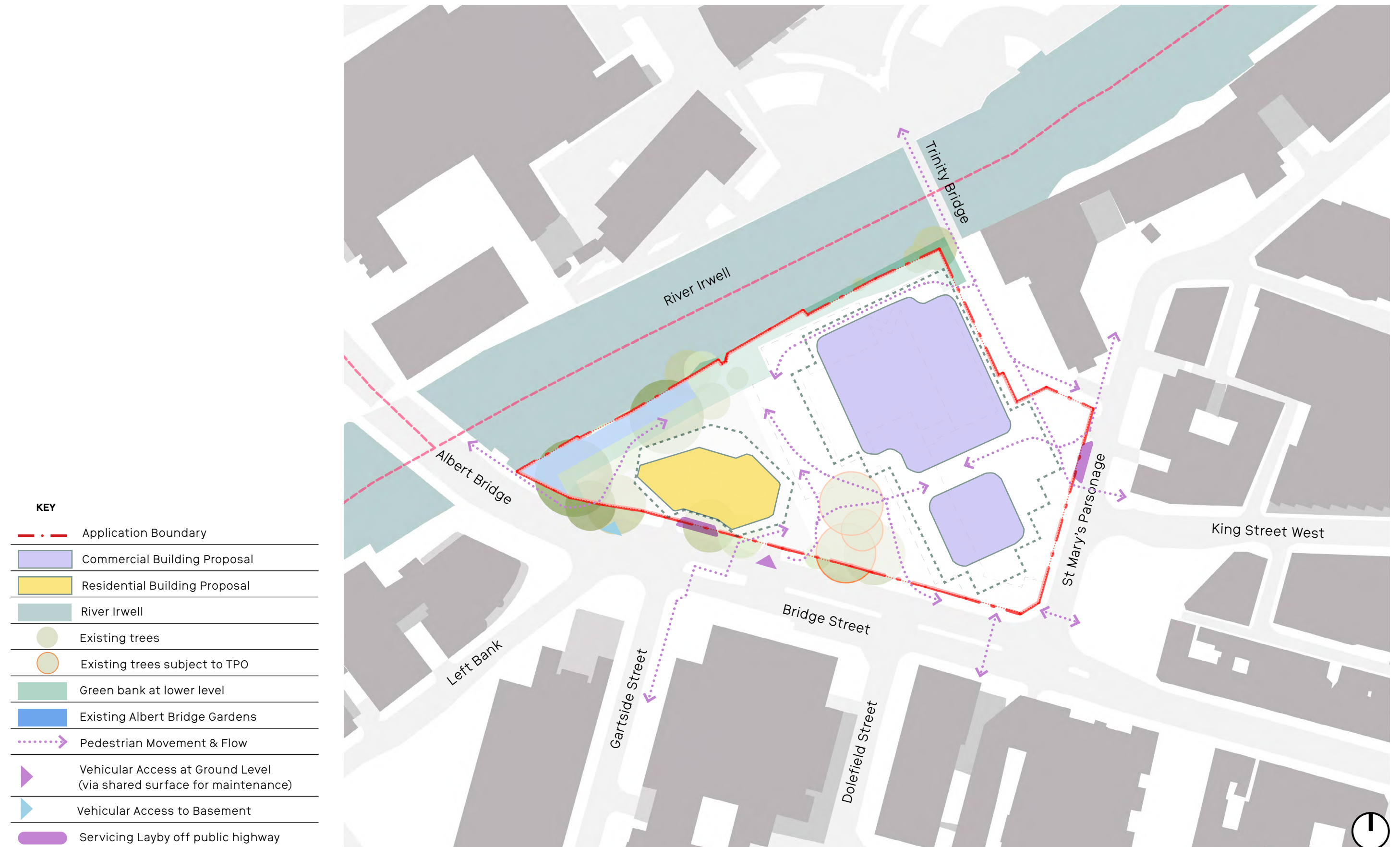


Fig 332 site Movement Diagram

Basement Level

At basement level accommodation is provided to service both the residential and commercial components of the proposal. Access to the basement is via Bridge Street, near to the existing Bridge St. Car Park entrance at ground level, located at the topographical low point along the site boundary, to reduce the depth of excavation required.

A single lane access ramp provides access, and includes waiting areas at both top and bottom with a traffic light system to ensure that vehicles are able to move up or down the ramp, free from obstruction and avoid any tailback risk onto the public highway.

While the basement substructure is conjoined for efficiency of excavation and waterproofing, the spatial arrangement at the base of the ramp includes secure and separate access to the commercial and residential components, to ensure that security can be provided, in line with the operations and management strategies for both uses.

Residential Basement

At the base of the ramp, a secure automatic opening gate is provided, at a right turn when coming down the ramp. The gate will be operated via fob/remote control, provided for the allocated accessible car parking spaces, or in the event of requirement for maintenance access, to be coordinated with the management company and/or concierge for the building. Within the residential basement area 8no. Accessible parking spaces are provided .

Access to the ground floor and upper levels is via protected stair from the basement level, or accessible lift located in close proximity to the car parking area. A communal corridor provides access to the various back of house, plant and ancillary spaces for maintenance access. Within the primary core, a series of lift pits sit at the base of the residential core.

Commercial Basement

A secure gate also ensures access control to the commercial component of the basement arrangement. Within the commercial basement there are 16no. car parking spaces, divided into 8no. accessible spaces, along with 8no. spaces dedicated to a private car club, operated by the commercial management company. An access corridor forms a loop connecting the car park at two ends, and three stair cores within the commercial basement, within the 'access loop' the cycle storage, lockers and showers form a central cycle hub within the centre of the arrangement. Surrounding the perimeter of the access loop are the plant, management, riser and ancillary spaces for servicing the commercial building.

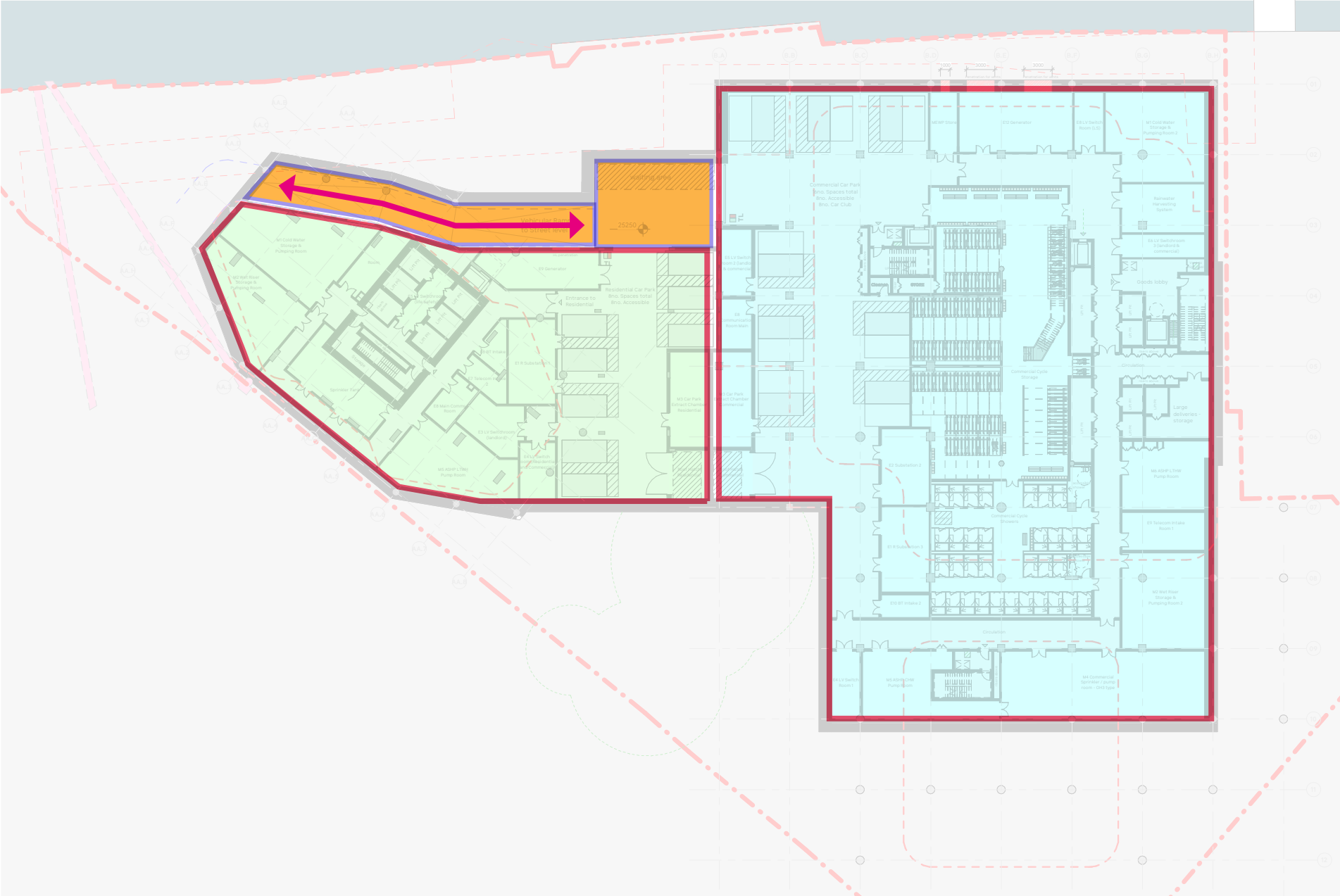


Fig 333 Basement Diagram - Residential/Commercial Split

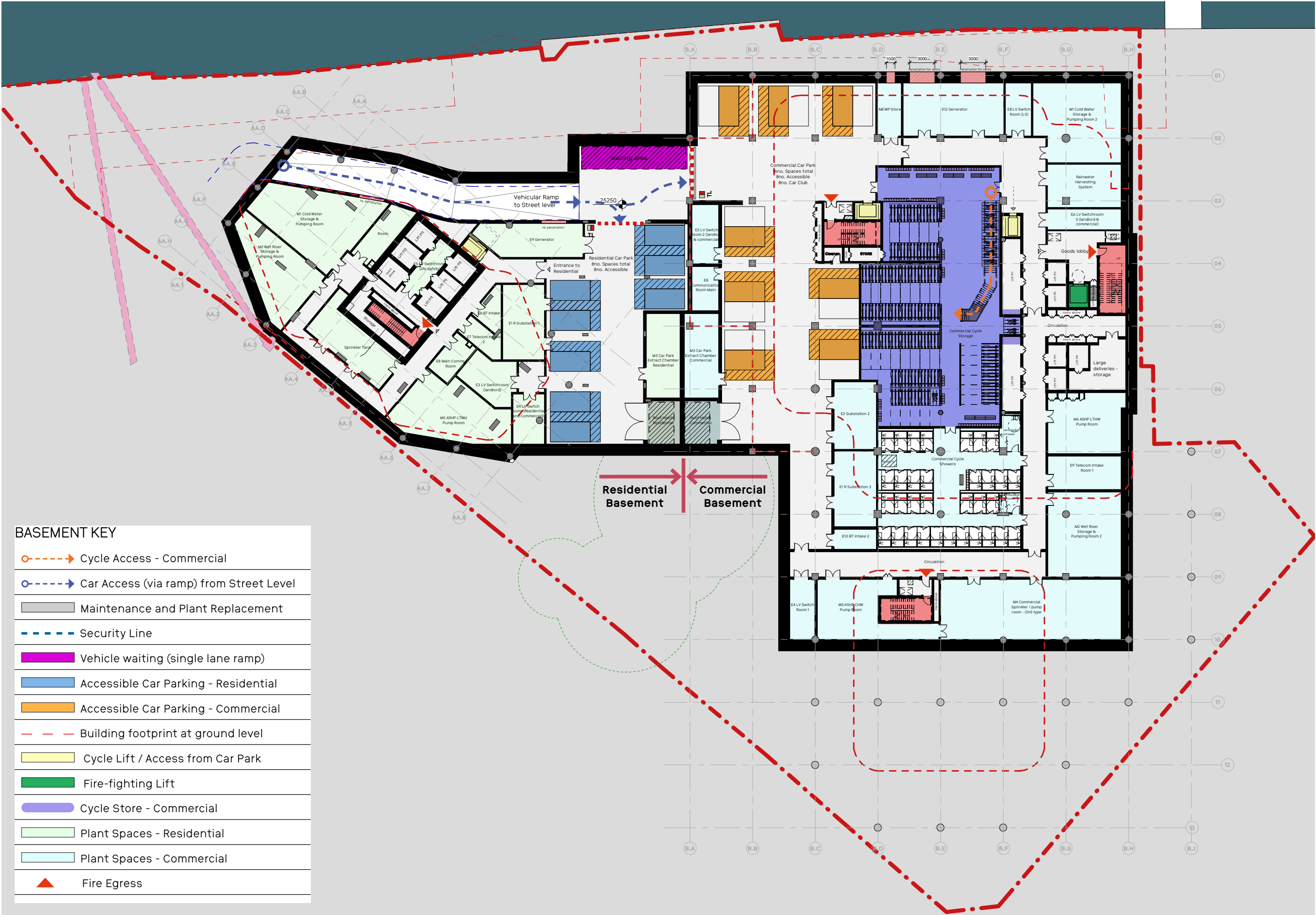


Fig 334 Annotated Basement Plan

Ground Floor Level

At ground level there are a number of key access points to the development both for entrance and egress. All entrances and fire escape exits are proposed to be step-free. Entrances will be clearly defined, with principal entrances set back within a sheltered undercroft to enable protection from weather, within a well-lit colonnaded space. All communal facilities entrances at ground will conform to BS 8300 and Building Regulations Approved Document M: Volume 2.

Appropriate signage and lighting will assist with wayfinding and help to define entrance moments and escape routes for building users. Activated uses at ground level, including retail, food & beverage and restaurant will sit within two storey glazed frontage

Access to the basement car park is via Bridge Street, with drop-down bollards installed at the basement access to ensure that access is limited to authorised visitors.

GROUND FLOOR KEY

- Entrance by Cycle
- Car Access (via ramp) from Street Level
- Maintenance Access Hatch
- Vehicle waiting (single lane ramp)
- Residential Passenger/ Fire Lifts
- Commercial Passenger Lifts
- Cycle Lift / Access from Car Park
- Light Goods / Fire-fighting Lift
- Waste Store - Residential and Commercial
- Office Lobby - Public
- Office Lobby - Private
- F&B, Retail and Restaurant
- Fire Egress
- Main Entrance
- Activation Entrance
- Secure line

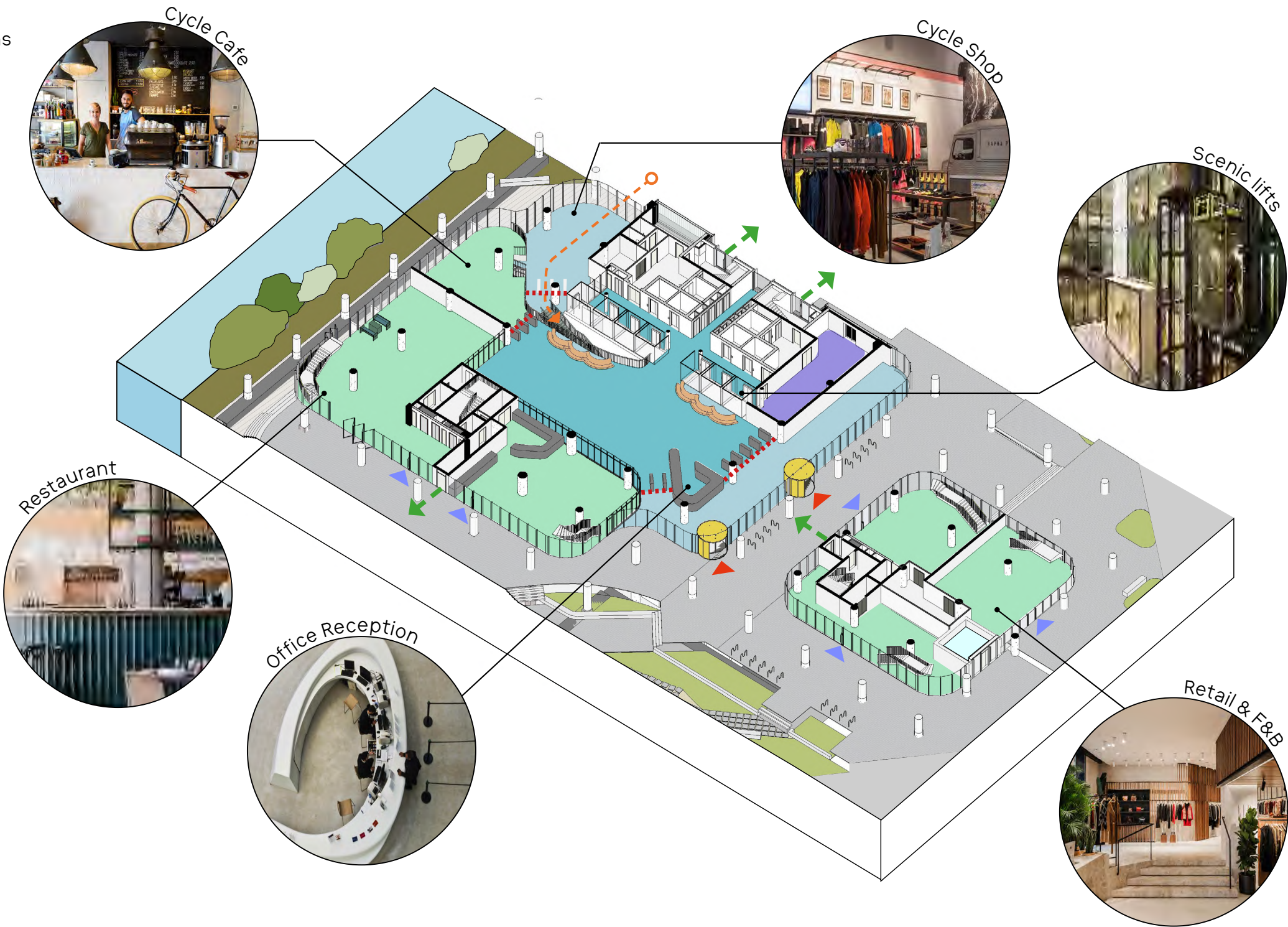


Fig 335 Commercial ground floor axonometric



First Floor Level

Commercial building

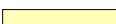
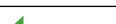
The first floor is occupied by second floor of retail, restaurant and food and beverage uses. Each of these are accessed at ground via entrances visible from within the public realm. Each space is split over two levels, accessed via a feature stair within a double height void space to maximise visibility lines and natural daylight to internal spaces. To provide operators with flexibility to define the internal layout, space allowance has been made for the location of internal lightweight lifts connecting ground to first floor level.

Part of the first floor is occupied by an office lounge space, dedicated to commercial building users only. This is connected to the food & beverage space via secure access, and can also be accessed from the primary core or the publicly accessible feature staircase within the adjacent cafe space.

Residential building

The first floor of the residential building is occupied by the cycle store with integrated bike workshop. The store is accessed from ground floor, either via 2 external scenic cycle lifts or from the external shallow cycle stairs, fitted with side bike track to allow easy wheeling of the bike. The store is connected to the main core via fob access for security.

FIRST FLOOR KEY

	Entrance by Cycle
	Residential Passenger/ Fire Lifts
	Commercial Passenger Lifts
	Cycle Lift / Access from Car Park
	Light Goods / Fire-fighting Lift
	Cycle Store - Residential
	Office Space - Private
	F&B, Retail and Restaurant
	Fire Egress
	Secure line

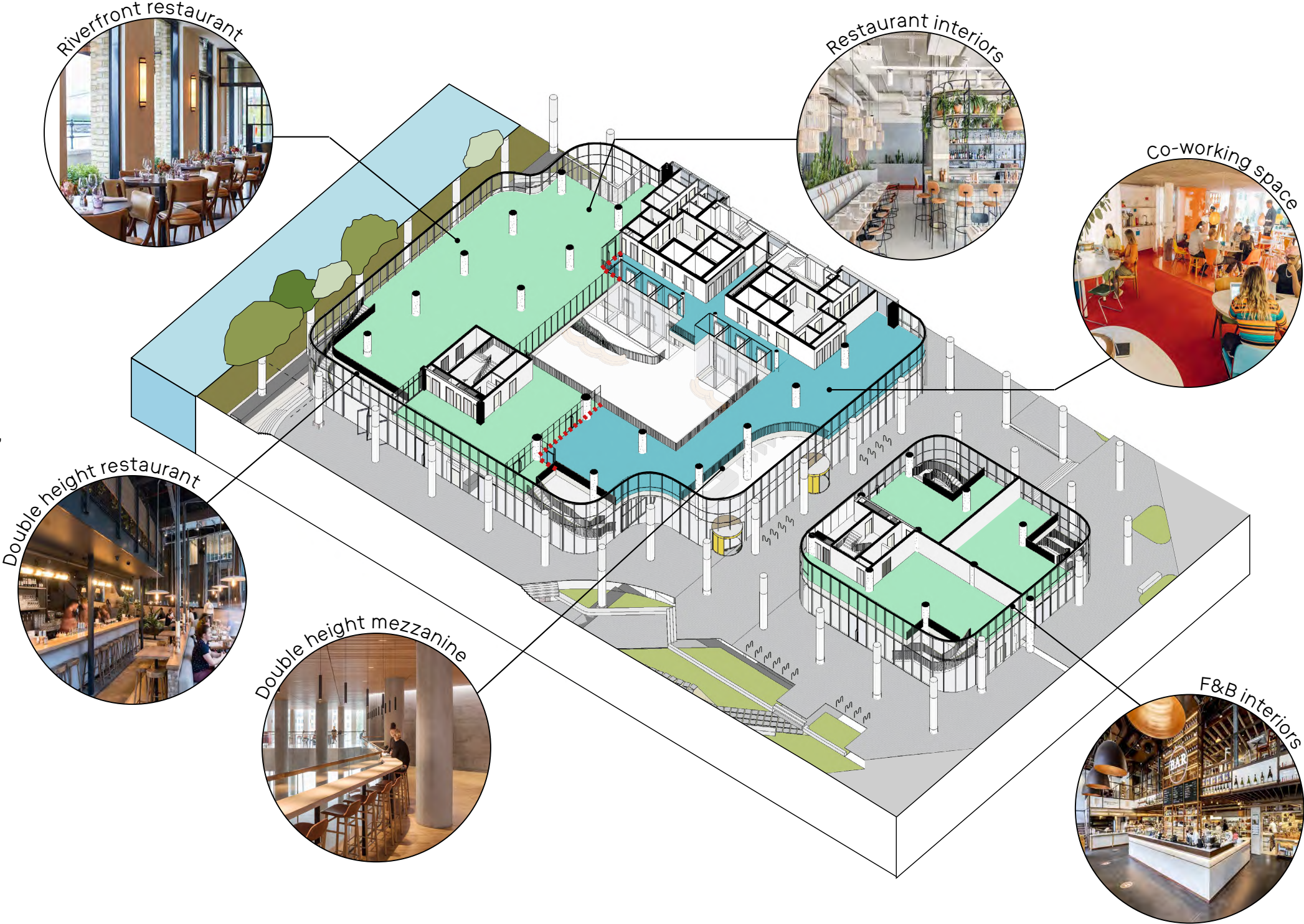
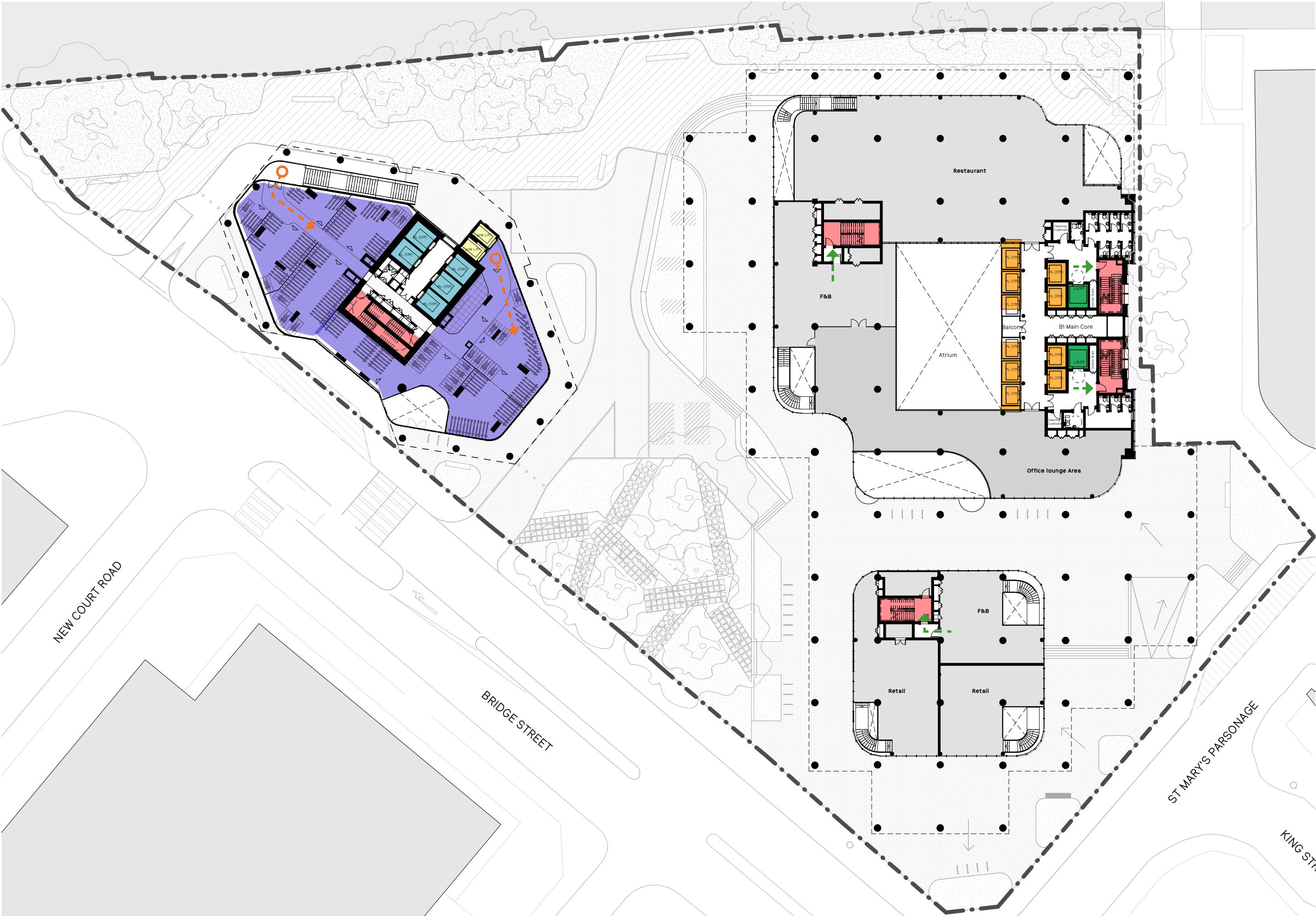


Fig 336 Commercial first floor axonometric



Residential Waste Collection Strategy

The residential refuse store is located on the ground floor, occupying the western area of the footprint. It is conveniently connected to the core, resident access to dispose waste on their way out of the building, and for the building manager/concierge to gain direct access at ground level.

A managed solution with bi-weekly private collection is proposed, in order to limit the overall area requirement at ground floor, therefore maximising activated use, lobby and frontage at ground level.

The refuse store is also conveniently located adjacent the collection point on Bridge Street, facilitated through the addition of a new lay-by off of the public highway. The management company will collect the bins from the waste store and transport them to the collection point at collection times. Once the bins have been emptied they will be carried immediately back to the refuse store by the management company.

The overall refuse store accommodates:

- 52no. 1100L Eurobins, 50% of which dedicated to recycling
- 16no. 240L compost bins.

An area of the store (68m²) is accessible by the residents directly from the core, allowing for 1500mm wide circulation in front of all bins. This space accommodates:

- 13no. 1100L Eurobins, 7 of which dedicated to recycling
- 3no. 240L compost bins.

Adjacent to this room, there is a managed waste storage room where bins can be arranged in a more compact and efficient manner, in an area of 136m².

In the event of adoption by Manchester City Council, the basement car parking area has been allocated for additional area provision in the event that the building may need to revert to weekly council collection.

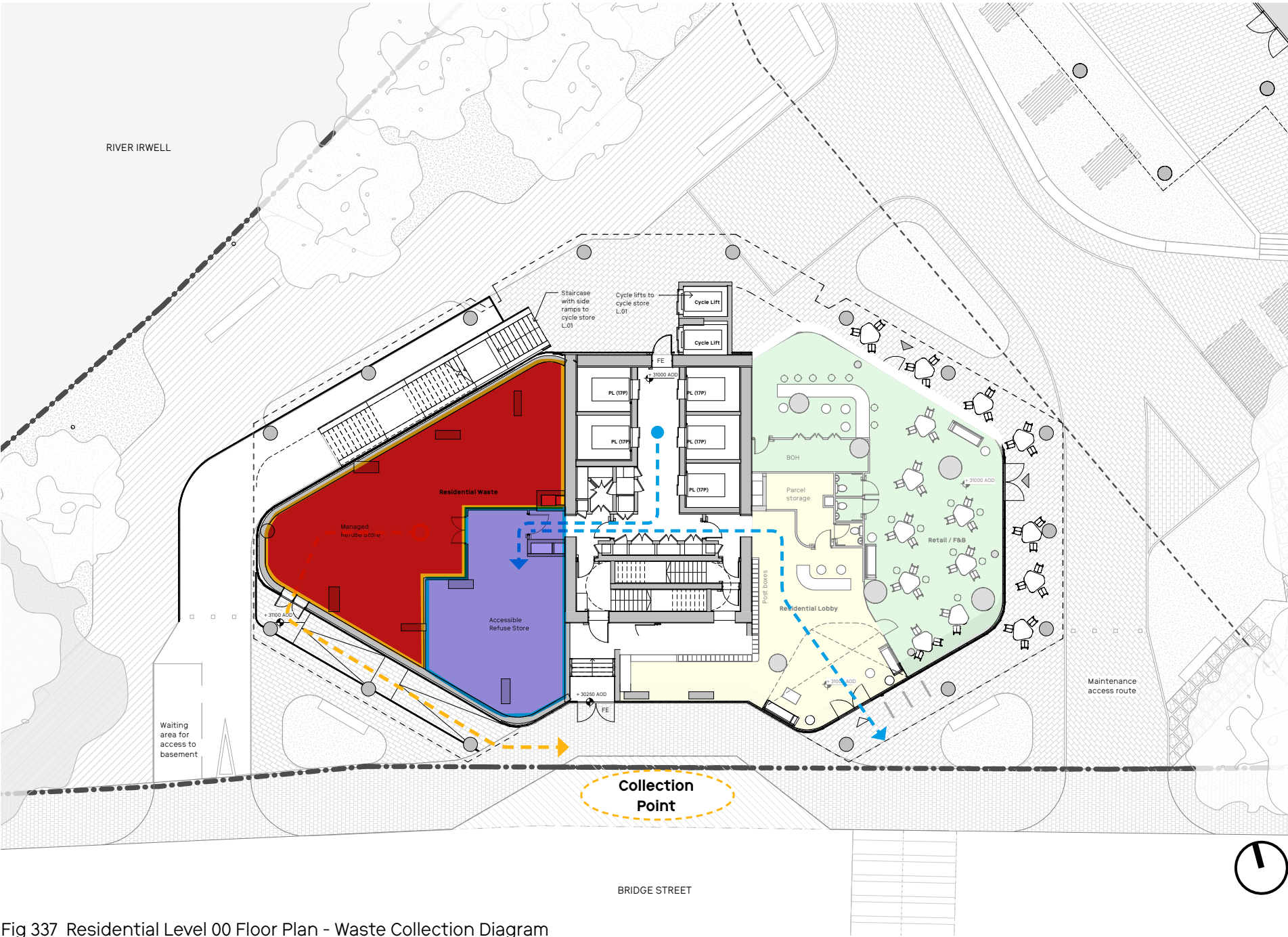


Fig 337 Residential Level 00 Floor Plan - Waste Collection Diagram

KEY	
	Resident's Route to Waste
	Resident/Workers Accessible Waste Store Room
	Management Team Route to Waste Bi-weekly Collection
	Waste Store Room Accessible by Management
	Waste Collection Point - managed biweekly

Commercial Waste Collection and Servicing Strategy

The strategy for commercial waste collection is via dedicated refuse store at ground floor adjacent to the primary core, enabling waste arisings to be brought from the upper levels of office, collected via an internal managed strategy throughout each day, directly into the refuse store from one of the available good lifts.

To enable waste storage for ground level retail, food and beverage a secondary waste store has been provided within the commercial hub within the southern volume of ground level activation, for the adjacent retail, food & beverage uses. This store is for temporary use only of waste, which will be combined with the main store out of normal operating hours, as part of the operations and management strategy for the building.

It is envisaged that the collection of waste from the main store will occur via private, managed service with collection frequency as follows:

- Office Use - 5 times a week
- Commercial Use (Retail) - 3 times a week
- Commercial Use (F&B) - 5 times a week

A new lay-by loading bay is proposed along St. Mary's Parsonage, near to the office and ground level commercial uses, also in close proximity to the primary waste store. The management company will be responsible for moving the bins to the collection point along St. Mary's Parsonage on collection day and returning them to the bin store once emptied in line with waste, operations and management strategies.

The new lay-by loading bay will also perform the dual function of enabling set down for post and parcels to be delivered to the commercial building.

KEY

Office Tenant's Route to Waste Storage

Commercial Waste (Private Collection) and management team route to combine waste

Waste Collection Point - managed daily

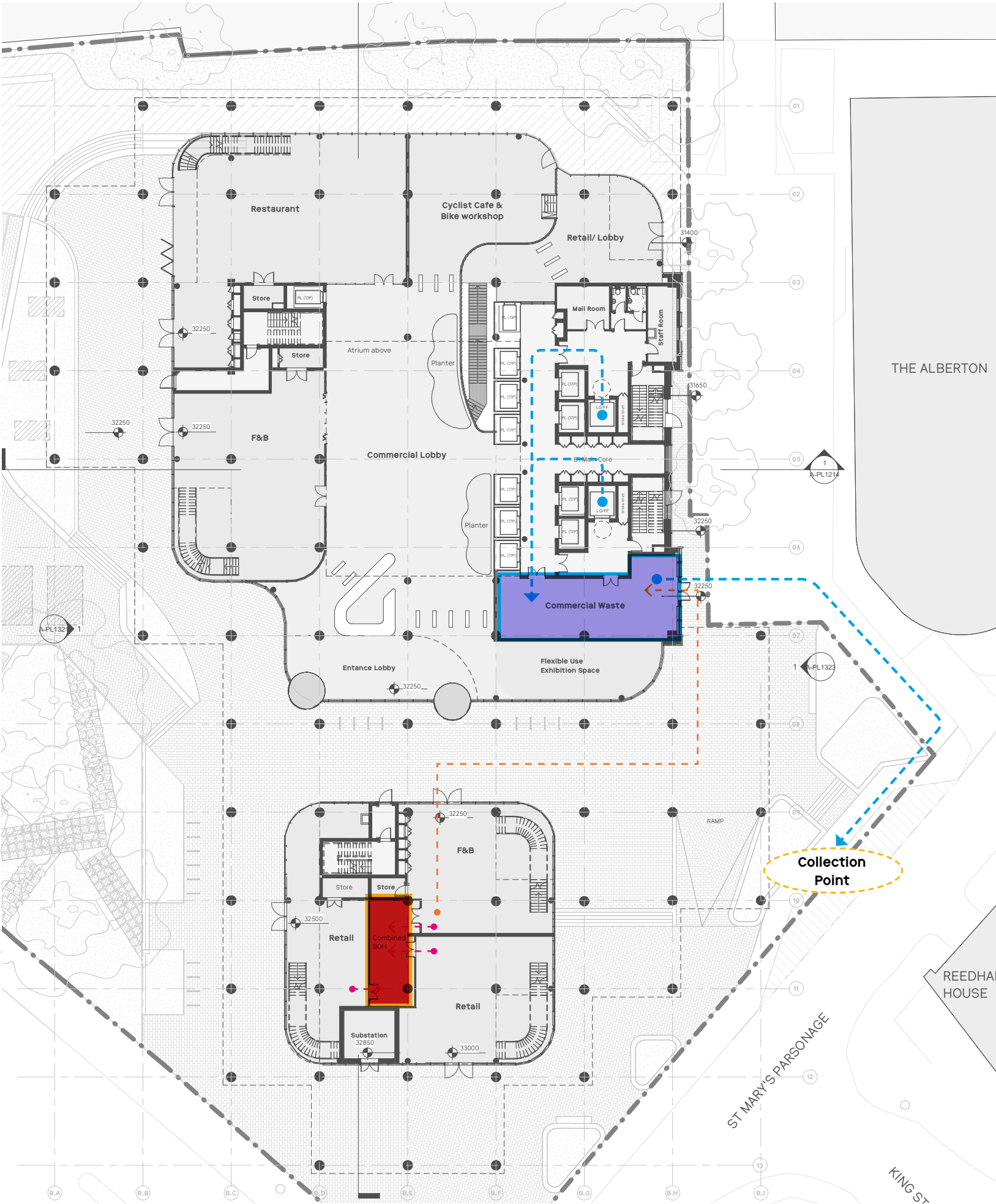


Fig 338 Ground Floor - Waste collection and servicing strategy diagram

Residential Cycle Store Strategy

The residential cycle store is located at level 01, accessed externally from the ground level via 2 options; external accessible cycle lifts, or via an external shallow cycle stair (with risers at maximum 150mm) fitted with side bike track to allow easy wheeling of cycles up or down the stair. The cycle stores provides 368 sheltered and secure cycle spaces, of which 44no. are Sheffield stand spaces (12%), and 324no. are double tier bike spaces (88%).

The cycle store provides space to accommodate oversized, and electric cycles, in addition a cycle workshop with facilities to clean, fix and maintain bikes has been provided, to prioritise the use of sustainable transport, and encourage healthy lifestyles, while also presenting an opportunity for interaction between residents to help foster a sense of community within the building.

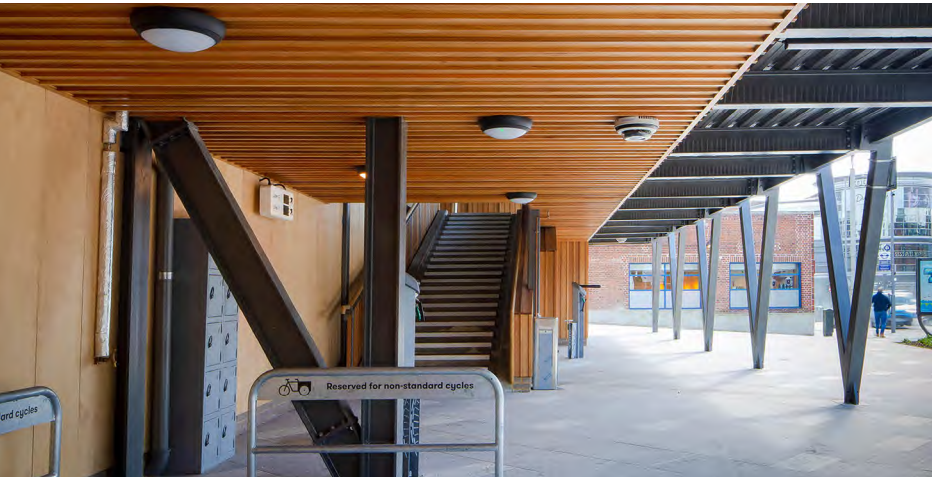


Fig 339 Example of shallow staircase with side bike track
GoCycle, Kingston Cycle Station. Sarah Wigglesworth

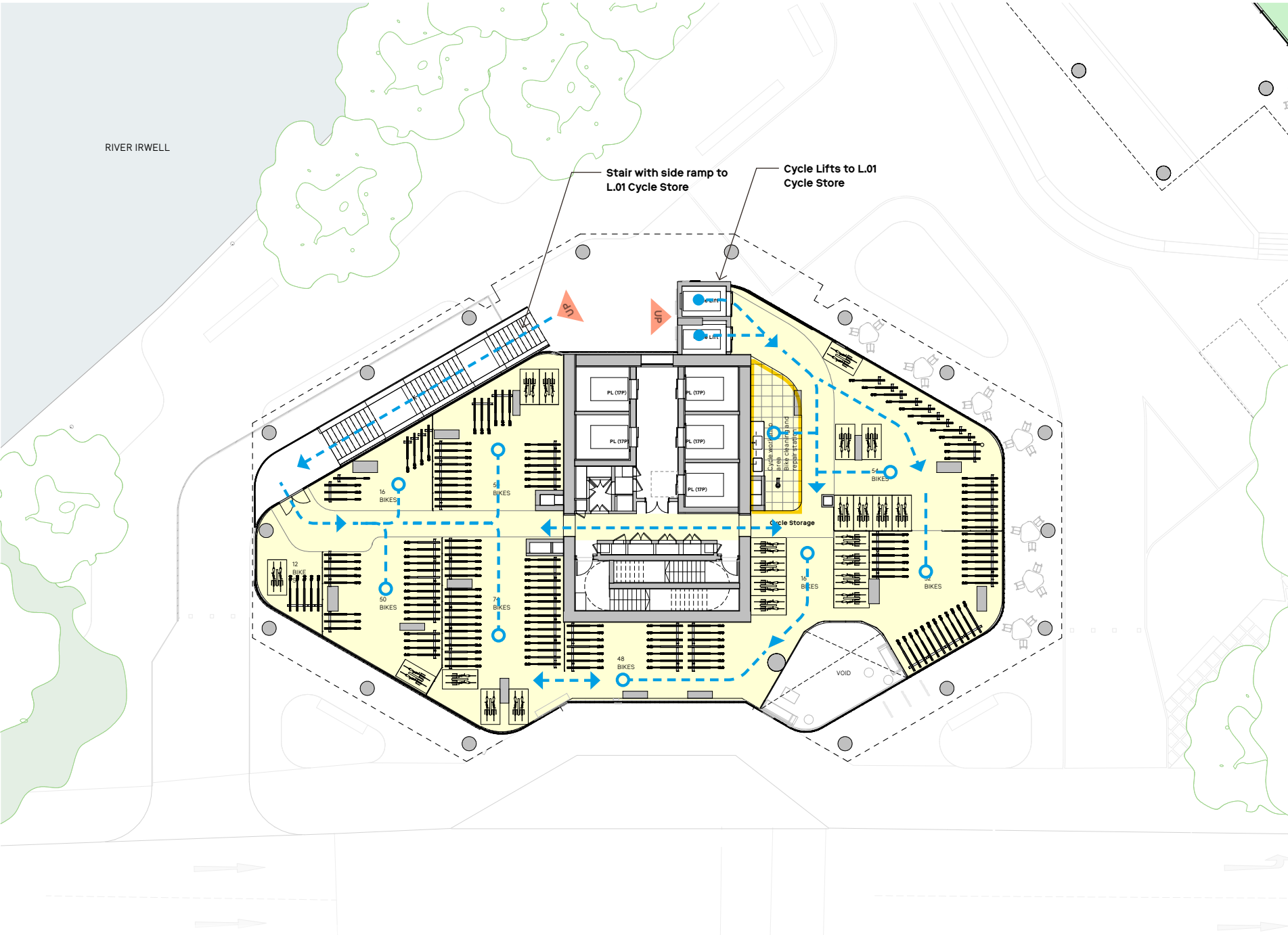


Fig 340 Residential building - Level 01 floorplan

KEY	
	Cycle store
	Cycle store
	Route to cycle store
	Vertical access from ground to Level 01

Commercial Cycle Store Strategy

The commercial cycle store is located within a central cycle hub in the basement of the commercial building providing bike racks, lockers and shower facilities for office workers in line with BCO guidance. Cyclists arrive at a dedicated entrance for office workers at ground level off or the Trinity Bridge Landing (Location 1) in immediate proximity to the City of Manchester’s cycle network. Access down to basement is provided via accessible cycle lift (Location 2) or shallow rise cycle stair to the point of arrival at basement cycle storage (Location 3).

Within the cycle hub options are available for the use of either double tier bike racks or sheffield bike stands (provided at 5% of the total spaces) within the cycle ‘hub’ along with shower rooms and storage lockers (Location 4). Returning to ground level following use of the cycle facilities can be made via the use of the shallow rise cycle stair (Location 3), accessible lifts (Locations 2 & 5) or via the stair within the primary core which takes users directly to the bank of lifts at ground floor level.

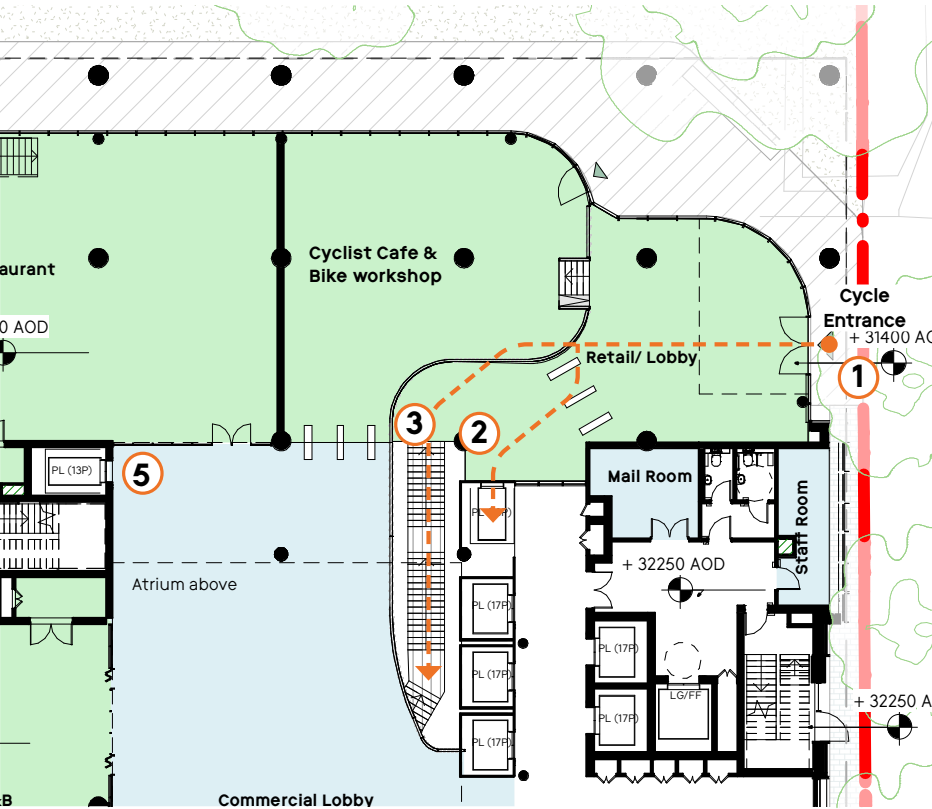


Fig 342 Ground Floor - Cycle entrance

KEY

- Route to Cycle Store
- Access to bike storage, shower rooms and lockers

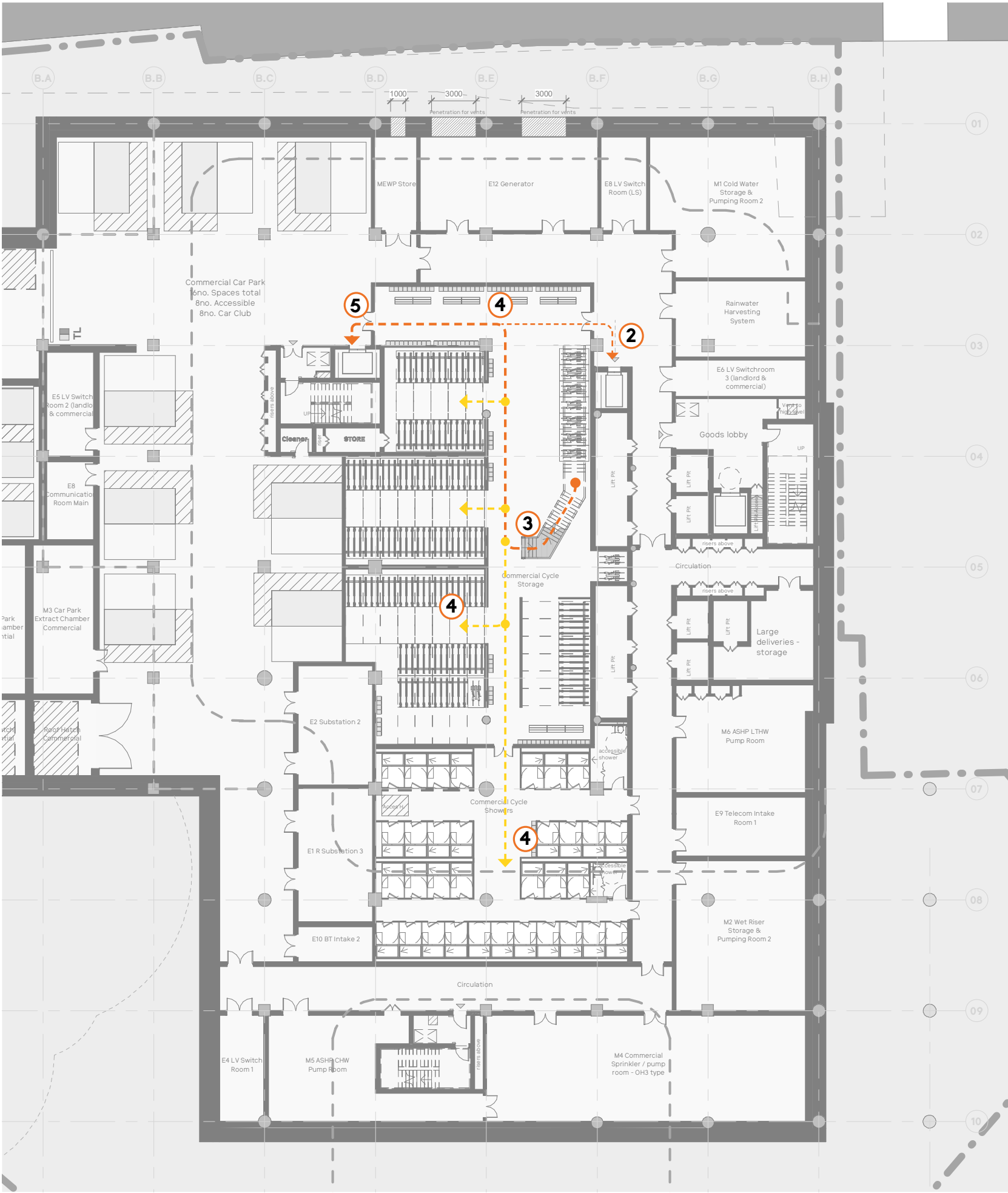


Fig 341 Basement Plan - Cycle store strategy diagram

Microclimate Analysis

Microclimate analysis has been a part of the design development to respond to the existing climatic conditions of the site to inform and optimise passive design strategies, including an assessment of the local climate conditions of Manchester, humidity, rainfall, solar radiation, solar path in interaction with the site, prevailing winds, and acoustics.

Sunlight, Daylight and Overshadowing

Analysis of the impact of development proposal has been undertaken at key stages through the design process. From first principles, the massing concept and site arrangement prioritised available sunlight at key moments at ground level, and considering sun path at varying times of day and throughout the seasons.

The primary area public realm within the site sits along the southern boundary, and enjoys direct sunlight throughout the day. In addition, direct sunlight will again be enjoyed along the north-west boundary of the site in the late afternoon, where the public realm adjoins the south bank of the River Irwell.

The summary of impacts concluded that nearby impacted residential developments would experience a negligible magnitude of change as a result of the proposed scheme. In addition, due to site layout and building orientation, high levels of natural daylight and direct sunlight will be experienced within the public realm, both within the site, as well as outside of the redline boundary within nearby areas of public realm.

Refer to: Daylight, Sunlight and Overshadowing within the Environmental Statement

Wind

Wind modelling was performed at three stages during the design process to assess the scheme development as follows:

- Initial testing of massing proposals
- Massing update including mitigation measures
- detailed assessment of proposals accounting for all design mitigation in order to assess microclimate in finder detail within.

The geometry of the building forms for both the residential and commercial components sought to minimise adverse wind conditions for occupants, users and visitors to the development, and also to pedestrians, cyclists and motorists in neighbouring surroundings and developments.

The facade of the residential form adopted a faceted form to dissipate wind, avoiding large flat faces which can cause wind acceleration and downwash onto ground level open spaces. For the commercial building the massing steps with height up the building, again avoiding large flat faces of facade, helping to mitigate wind acceleration from prevailing wind directions to reduce the risk of high wind conditions for those at ground level, and also users of the upper level terraces.

The results of modelling undertaken by the Design Team determined that limited adverse conditions were created by the massing proposals at ground level, with small areas of mitigation incorporated to ensure that comfort for standing, sitting and strolling could be provided.

At roof terrace (belt) levels of the residential and commercial (level 16 roof terrace) components mitigation measures are required to ensure comfort levels can be enjoyed for users of these spaces. Mitigation measures include the use of solid balustrades, planters on roof terraces, small tree planting within raised planting beds, and canopy/screening feature elements to reduce facade wind flows.

Refer to: Wind Microclimate Assessment within the Environmental Statement

Acoustics

A noise survey was carried out at early stage to assess the acoustic condition within the site. Some elevated noise levels are observed within the red line boundary, primarily due to traffic along Bridge Street - expected within a city centre development. Design measures have been introduced to the proposal to reduce the acoustic impact on occupants of both the commercial and residential components within the proposal.

For the commercial component, mixed mode ventilation has been proposed for the offices to enable a blend of fresh and conditioned air to provide the ventilation required for the offices, including heating and cooling. There are a series of openable windows provided, to enable user control over the ventilation during summery days where sun and heat levels may become elevated, however the manual opening windows are not relied upon for the ventilation requirements for the office workers, therefore allowing users to enjoy high levels of fresh air without exposure to elevated noise levels from the street below. For the residential tower, several design measures were employed to mitigate the effects of noise and to provide high quality homes, including the following:

- Residential use starts at level 02, where the noise levels are slightly lower than at street level.
- All apartments have been provided with winter gardens that offer sheltered and contained private amenity space, connected with the internal living area, providing generous living space within each home.
- Communal amenity spaces are located higher up the building within a facade setback, to bring the amenity use off of the main facade helping to reduce the impacts of ambient noise levels. In addition, solid screening employed to mitigate wind levels at communal amenity terraces will also assist in reducing noise levels within external amenity spaces.
- Enhanced MVHR specification provides a degree of comfort cooling, along with purge ventilation in the apartments at night to reduce the impacts of overheating.
- Glazing/facade ratios have been reviewed throughout to ensure that overheating risk is mitigated from the outset.

At roof level of both the commercial and residential components a series of air source heat pumps, mechanical extract ventilation will result in elevated noise at the top of the buildings. Acoustic screening has been included within the designs, in order to limit noise impacts for nearby receptors (office terrace use or apartments at the top floors of the building).

Heritage

Although the site itself does not sit within a conservation area, a number of conservation areas sit within close proximity to the site. Historic England were consulted as part of the engagement and consultation process with Manchester City Council. It was determined that, given the site is not within a conservation area and does not contain any designated or listed heritage assets, impacts of the development proposal would be minimal.

Townscape

The relationship of building heights with city skyline and townscape was carefully considered throughout the design process. Along the River Irwell an undulating series of building heights can be observed. Combined with The Alberton, proposals for Albert Bridge House complement the building height variation. The commercial component of Albert Bridge House marries height with the neighbouring proposal on the site of the Alberton House, reducing in height as one proceeds west, then rising again to a landmark building height for the residential tower at the prominent location, adjacent to the Albert Bridge.

A series of townscape and visual impact assessment views were established through the Environmental Impact scoping process.

Refer to: Townscape and Visual Impact Assessment Views within the Environmental Statement

Accessibility

The development proposal responds to Manchester City Council's 'Design for Access 2' guidance, which establishes minimum standards for accessibility, applicable to both the residential and commercial components, including:

- Ramps, external steps and features within the public realm.
- External doors, internal doors and lobby spaces to include uninterrupted 2000mm turning circle, and designed to be step-free including level thresholds.
- Signage and wayfinding strategy to support individuals with vision impairment.
- CCTV systems located at key entrances, and monitored at reception to ensure safety and security for building users.
- Main entrances to both the commercial and residential lobbies
- Entrances to retail, restaurant and other food and beverage spaces at ground level which will be accessed from the public realm. Despite a level difference of circa 2m from east to west across the site, a step-free route is available to all ground use.
- Toilets are designed to enable access for all, including provision for oversize cubicles, unisex (all commercial loos are designed to accommodate 'superloos'), and wheelchair accessible WCs.
- Lighting levels within internal and external spaces will be designed to a level suitable to define the area of environments being lit, to assist in spatial movement and wayfinding.
- Finishes to limit sound reverberation, accommodating baffling and acoustically absorbent material where required, and shiny polished flooring avoided to ensure slip resistant floor finish.

Operations and Management Strategies will be developed at the next stage of design, and should ensure that adequate maintenance, cleaning and oversight are in place, as required to ensure that safety, security and accessibility for all users are provided at all times.

Fire Strategy

The fire strategy for Albert Bridge House includes consideration to fire safety for users of a residential tower, commercial offices with ground floor uses, and public realm. The developing fire strategies have considered the available precautions that work effectively and robustly, which include wet risers, non-combustible construction, and sprinkler protection.

The assessment criteria for the development is established within the Fire Engineering Briefing Document (Produced by Urban Change Group).

site

All vehicle stopping locations are within direct sight of the entrance points, with visual connections incorporated into the Albert Bridge House public realm and landscape design proposal. Wet riser inlet cupboards are located adjacent to the Fire Service emergency access location for both building. These sit adjacent the scissor stair on the residential building, and within the public realm adjacent to St Mary's Parsonage for the commercial building.

A large single storey basement sits beneath both of the residential and commercial buildings. The basement features ancillary plant spaces, along with car and cycle (in the case of the commercial component) parking facilities. The car parking spaces feature electric vehicle chargers.

The strategy therefore incorporates multiple access points for the responding fire service. A mechanical smoke & heat ventilation system and a fixed automatic sprinkler installation offer fail-safe fire safety solution against accidental fire outbreaks in the basement. A suitable fire intervention strategy will be developed through discussion with the Greater Manchester Fire Service.

From the basement area, evacuation is available via 1 no. stair escape from under the residential area, and 3 no. stair escapes from the commercial area, to ensure that escape distances are kept within recommended maximums, with redundancy available.

Residential Building

A scissor stair has been incorporated within the design of the residential tower core (rather than a single stair design). The adoption of a dual stair approach increases options and redundancy in the event of a fire emergency. The design will therefore minimise the distance of escape from apartments to the protected core, and stair escape.

The design will offer clear wayfinding signage, floor identification labels, emergency floor plans, apartment numbering & wayfinding tags, and a stair colour coding & naming system to avoid confusion in emergency situations. A firefighting lift lobby separates each floor level exit serving each stair core. The common areas will benefit from automatic mechanical smoke clearance provision via shafts which open out from corridor areas. The firefighting lobby features a wet rising main, enabling the Fire Rescue Service to further protect the integrity of the stairs in firefighting mode.

The residential tower will feature a fixed automatic suppression system throughout, satisfying a Category 4 level of coverage, including sprinkler protection within common corridors. Disabled/ reduced mobility occupants can exit the tower via the emergency evacuation lifts.

The design of the site surrounding the Residential tower will feature two rendezvous points, that allow fire vehicles to stop & set up in response to fire emergencies, at locations which avoid both direct and indirect threats at the tower base, as well as the flow of occupants exiting the building.

The fire strategy has recognised the benefits of a fixed automatic sprinkler installation paired with primary & secondary fire compartmentation subdivisions. These provisions, alongside active smoke & heat ventilation within common corridors, offer a robust fire safety that is layered to support a stay-put policy. The strategy also offers the fire service the ability to evacuate building portions via an Evac Alert System (EAS).

Communal amenity spaces are incorporated within the design of the residential component, for residents and guests to utilise for communal gatherings. Amenity spaces have been formed with an assumed increased number of occupants. The large communal amenity spaces will feature alternative escape routes within the maximum recommended travel distance limits, and feature automatic sprinkler protection. Communal amenity spaces are bisected to ensure that the maximum area of operation aligns with the hazard category stated within BS9251, with maximum area of under 100 square metres.

Commercial Building

For the commercial building the primary core features 2no. escape stairs, 2no. fire-fighting and fire evacuation (alongside light goods) lifts, which benefit from a smoke clearance shaft connected to the lobby space, which will be linked to mechanical extract system at roof level, to ensure smoke clearance from the primary fire evacuation and access routes.

A rectangular-shaped atrium passes through all compartment floors. The current design concept reflects an approach in accordance with Annex 6 of BS9999. The solution will include a combination of passive and active measures, including fire-resistant glazing, fire & smoke curtains, alongside a dedicated heat & smoke clearance system for use by the responding fire & rescue service.

Access for fire to the commercial office spaces are located on the lower levels of the building from levels 02 to 05. The main entrance to the office accommodation is via the central public atrium space with entrance doors to the north and south sides as described in the sections above.

Similarly to the residential tower there are two RVPs present at ground level in close proximity to the commercial building. Rendezvous Point 1 is located 27m from the main entrance door, while Rendezvous Point 2 is located 35m from the nearest fire fighting stair entrance. Although the recommended distance from fire appliance to building entrance is marginally exceeded, the wet riser infill point can be located within the recommended distance to the parking point.

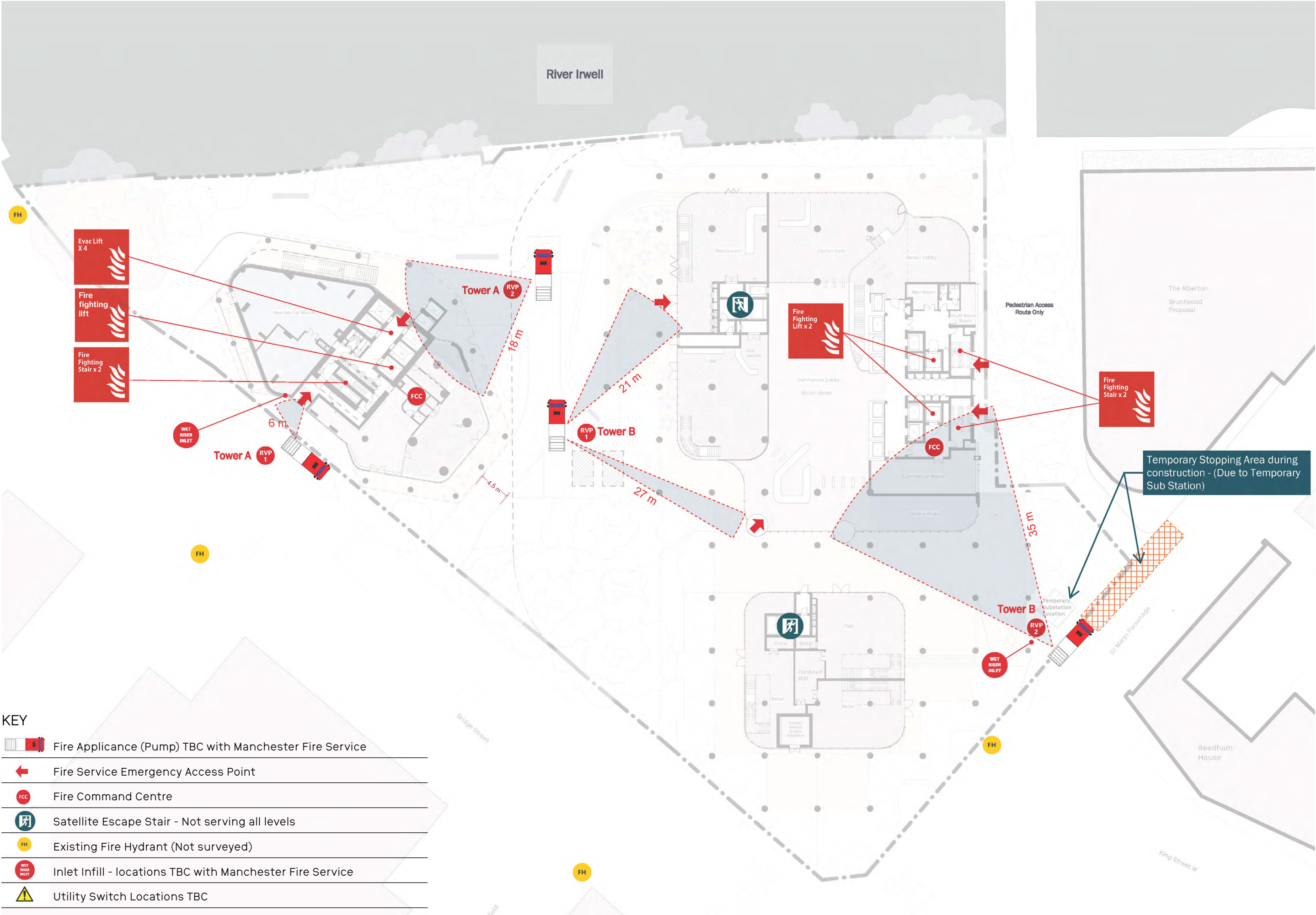


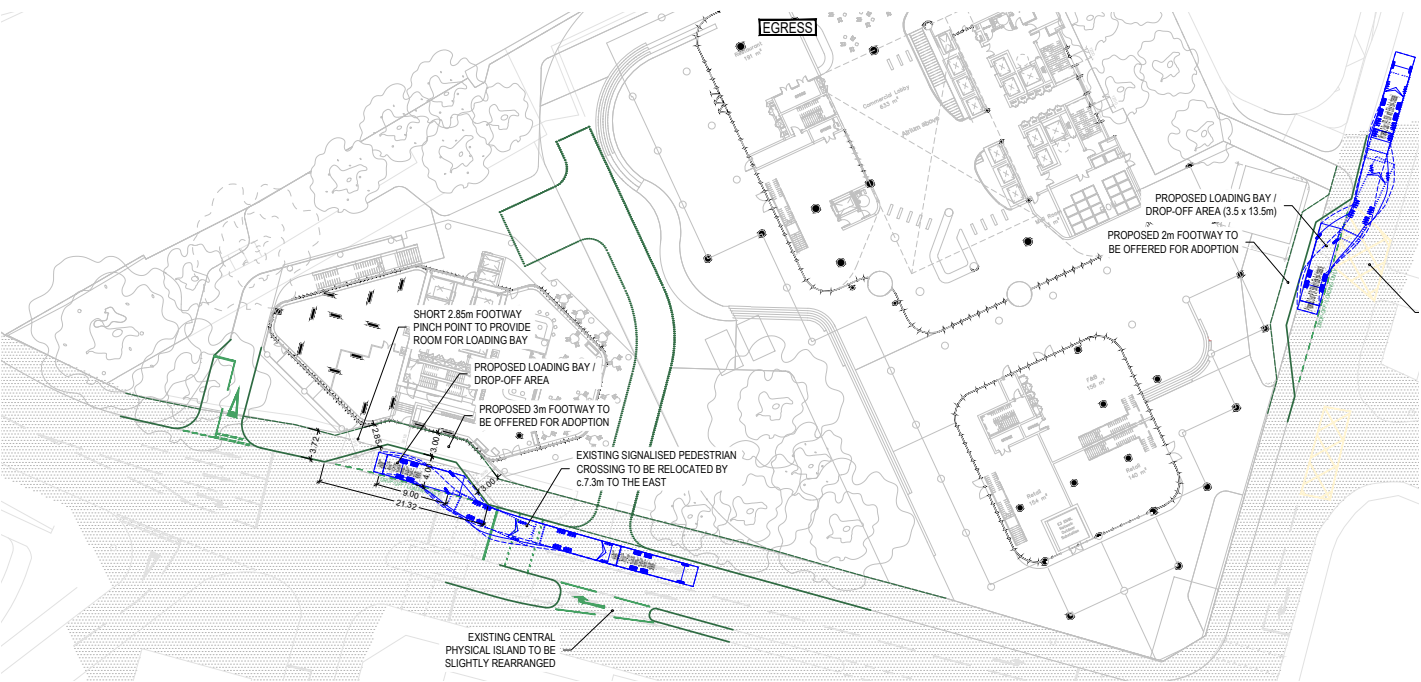
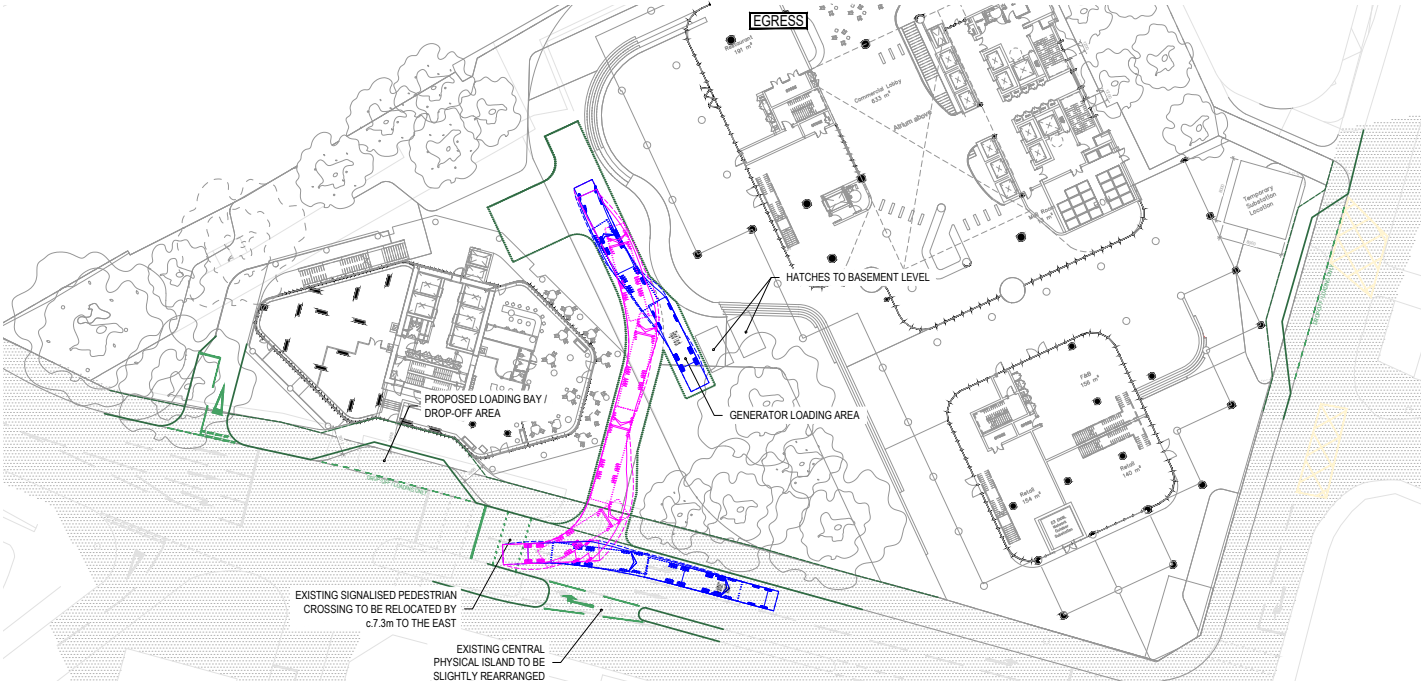
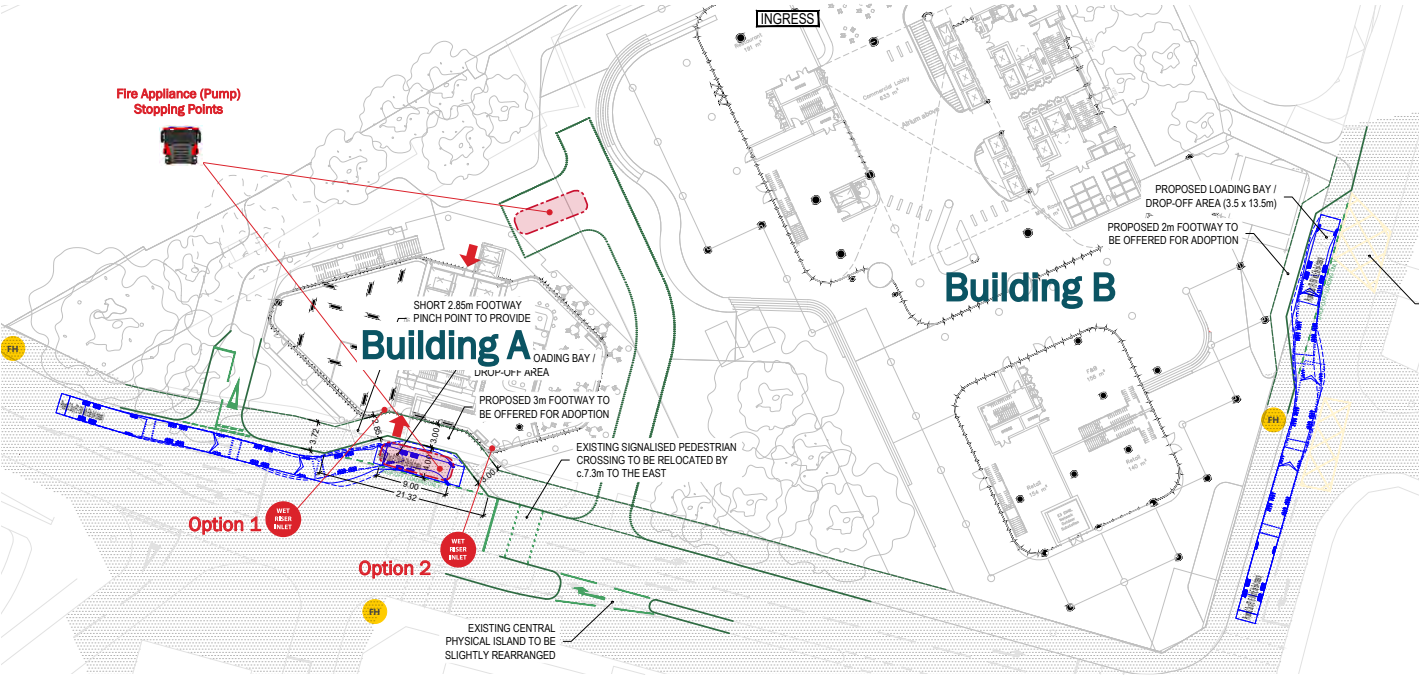
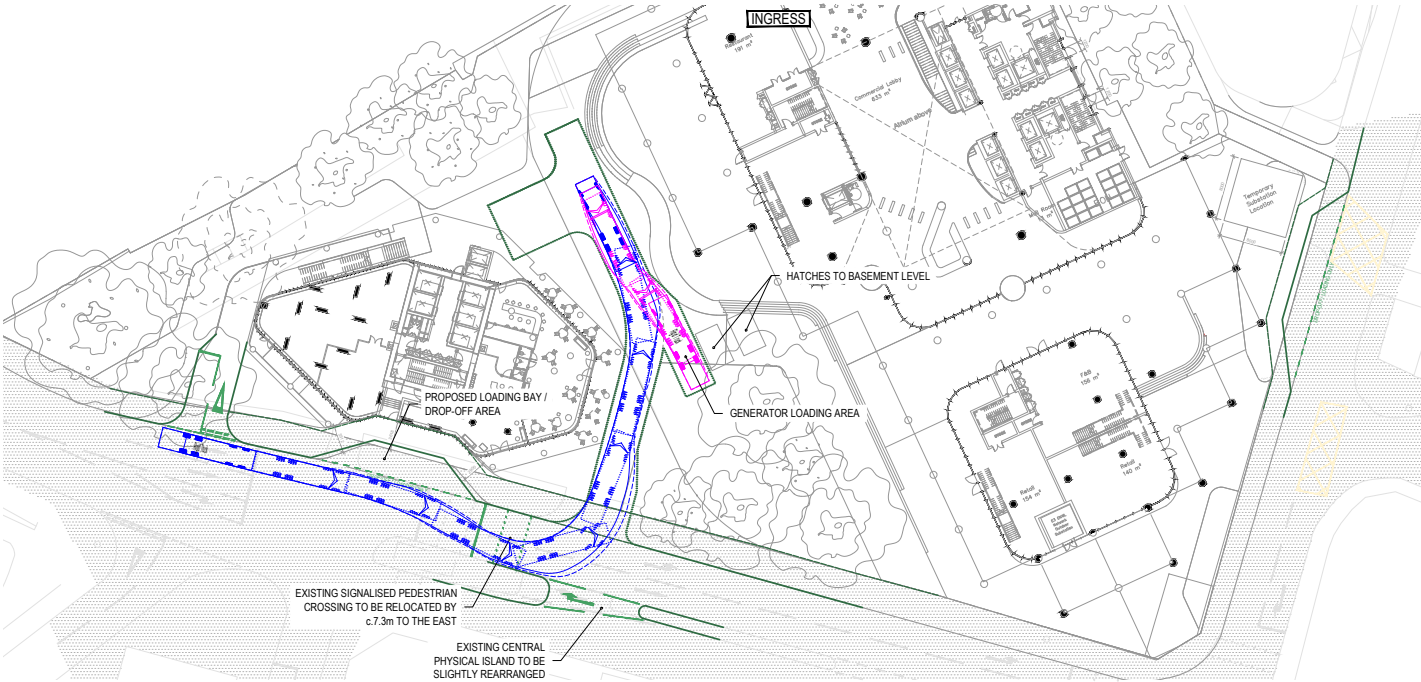
Fig 343 Sitewide fire strategy diagram

Fire Strategy - Representative Swept Path Analysis

11.2m Refuse & 12m HG Vehicles

KEY

-  Fire Pump Stopping Point
-  Building Access Point
-  Proposed Wet Riser Tank Infill Options
-  Existing Fire Hydrants



Residential Fire Strategy



KEY

-  Location of west riser outlet within lobby would simply for the fire service intervention (TBC with Manchester Fire Service High Rise Policy)
-  Opening type and ventilation arrangement TBC (linked to corridor fire detection system)
-  Calibrated fire and smoke door (hold open / swing free device linked to AFDA within common corridor)
-  Corridor doors offering stair protection and redundancy during fire incidents
-  05 Access via MEWP system
-  06 Access via maintenance track around atrium

Access and Maintenance Strategy Residential

Facade Access and Maintenance

The access and maintenance strategy for the residential building considers ease of cleaning and maintenance for the entirety of the building facade. The glass replacement strategy will be internally throughout the building.

The external facade areas can be described as occupying 3 ‘zones’, or conditions with which the access will need to be provided:

- Zone 1 occupies levels 00 and 01. At low level access is available from locations of safety at ground level via long reach pole (max 12m) or Mobile Elevated Working Platform (to max 15m).
- Zone 2 describes the intermediate belt level glazed façades. These areas can be accessed directly from the adjacent external terrace with maintenance via long reach pole.
- Zone 3 encompasses the rest of the facade. A building maintenance unit (BMU) sits at roof level, allowing a 24m arm reach to access all remaining areas of facade on the building.



KEY	
	Zone 1: MEWP/Long Pole
	Zone 2: Long Pole
	Zone 3: BMU

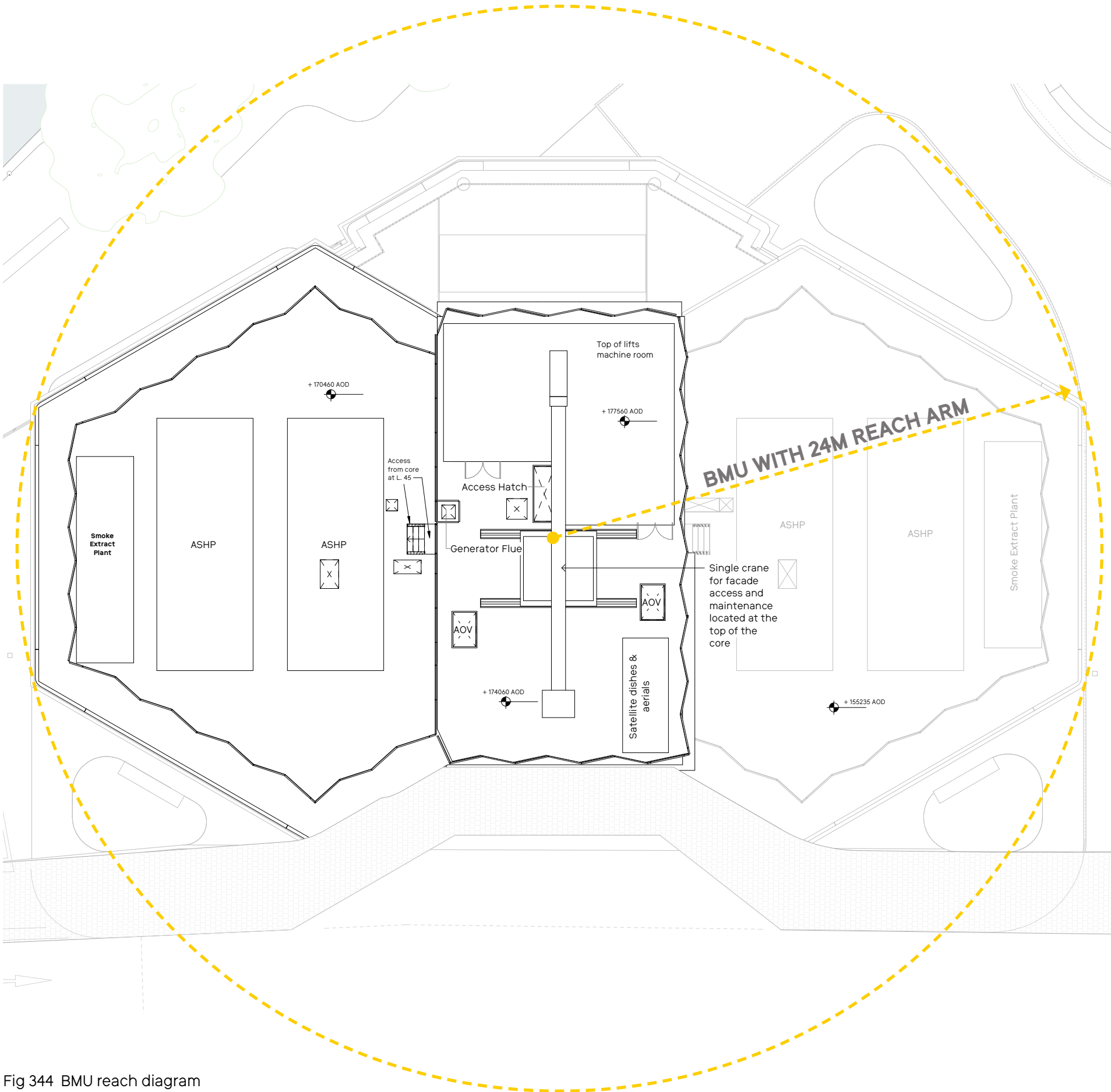


Fig 344 BMU reach diagram

At roof level there is an exhaust flue (for the life safety generator), which terminates 3m above the last occupied level, where the Building Maintenance Unit (BMU) is located. The final maintenance solution will conclude at the next stage of design, however options available to provide access include the BMU sitting on a track system to allow the BMU basket to swivel to all areas of facade from two locations, thereby avoiding the flue. For this option a standard crane type BMU with telescopic jib would be appropriate. Alternatively, a Z-luffing type BMU can also be considered, which enables the crane system to lift up above any below obstructions.

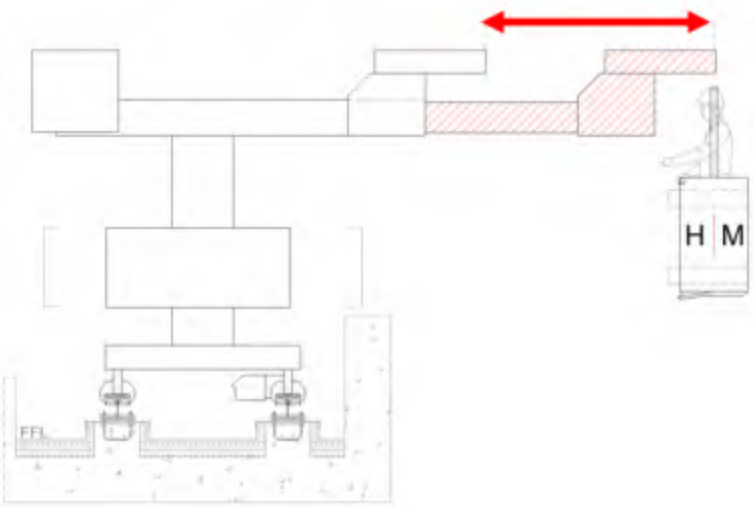


Fig 345 Option 1: BMU crane type unit with telescopic jib

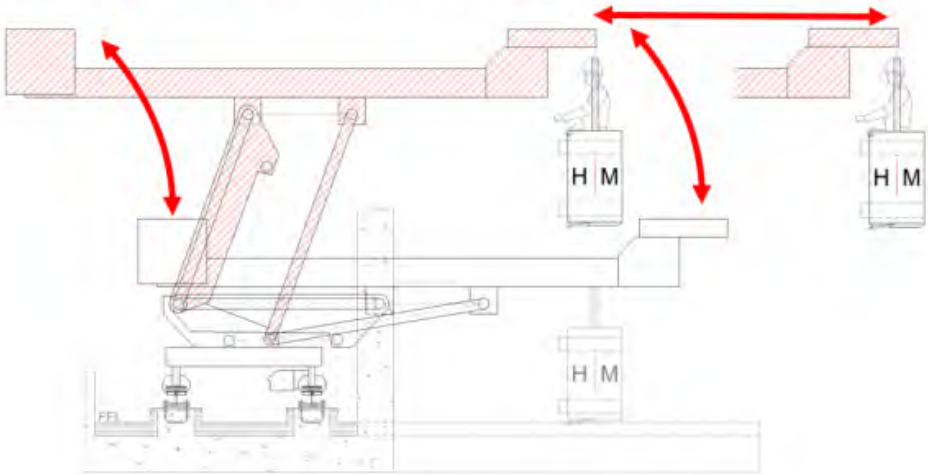


Fig 346 Option 2/Preferred: BMU Z-luffing/
Parallelogram type unit with telescopic jib:

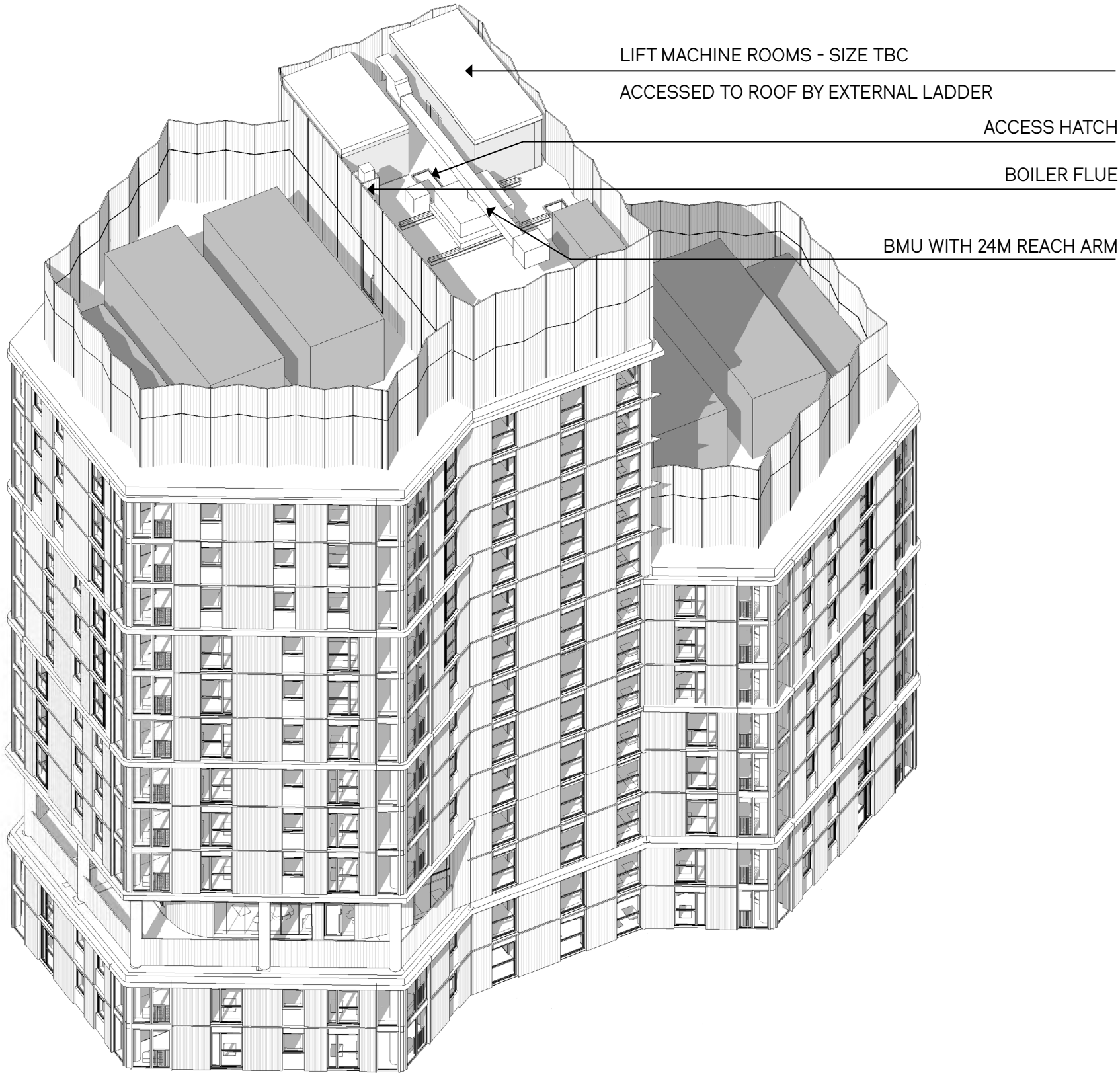


Fig 347 Residential Building Roof axonometric

Access and Maintenance Strategy Commercial

The commercial office building access and maintenance strategy will be facilitated through a mix of access arrangements. The primary method of facade access will be provided through 2 no. Building Maintenance Units (BMUs), which will be located at roof levels 16 and 19. BMU tracks are allocated at level 16 integrated within the roof terrace open space, at the western edge of the terrace. The track will enable top down maintenance access to the west and northwest façades, with parking location provided nearby, within the northern section of the roof terrace shape. At level 18, a similar track is provided, to enable top down access to the northeast, and east façades.

A full height atrium runs through the central mass of the building from ground to roof level. For access and maintenance a monorail suspension track will be fitted to the atrium roof structure. The cradle can be accessed from the core circulation area at level 15, with the cradle used to allow access to cleaning and maintenance of the atrium facing glazed partitions, lighting and servicing elements.

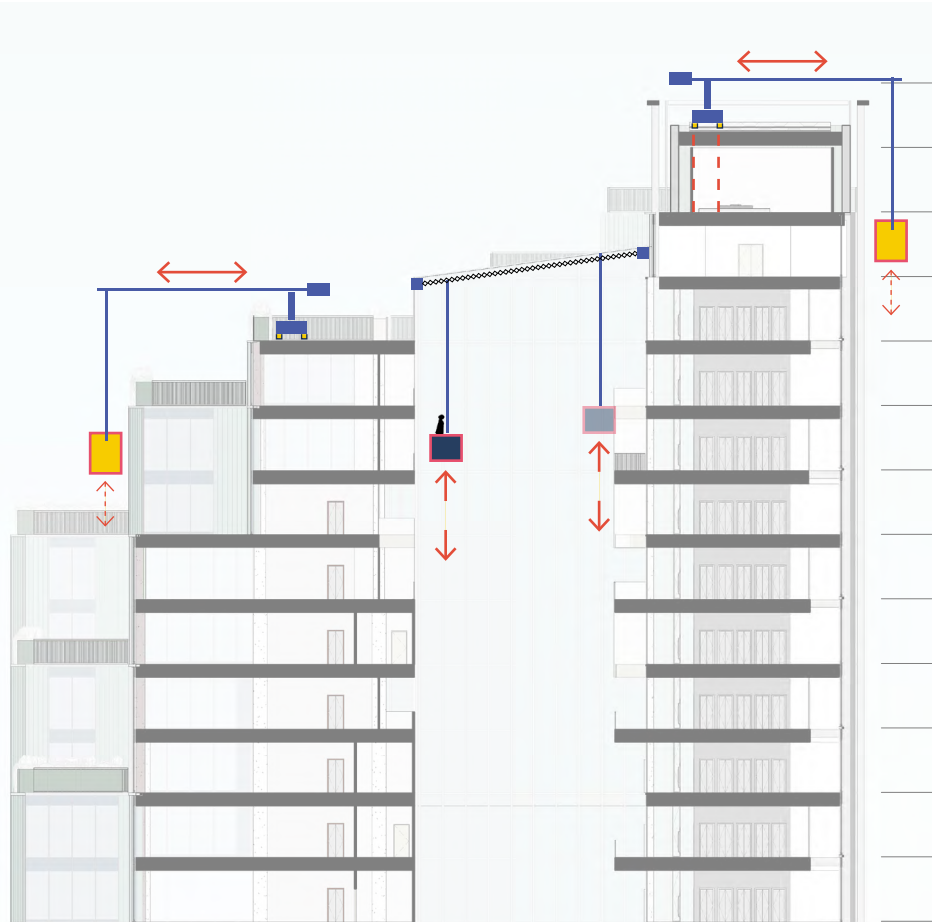


Fig 348 Section diagram, BMU's and atrium maintenance



- KEY
- BMU Access radius via level 16 roof
 - BMU Access radius via level 19 roof

Fig 349 Roof Plan showing BMU tracks on levels 16 and 18

The BMUs at roof level are able to provide access to facade areas for the taller elements of the building. However along roof terrace areas, and towards the southeast and southwest, there are access areas which can not be reached by the BMU. These areas will be accessed by other means. Overall 5 different means of cleaning and maintaining for the façades will be provided the facade:

- 01 Access provided from the ground, via extension pole or within reach of maintenance worker, from an area of hardstanding.
- 02 Access provided for a building maintenance unit along a track located on the lower roof (level 16), The roof terrace decking will be designed as such to co-exist with the exposed track, ensuring that any gaps are covered with removable panels
- 03 Access provided for a building maintenance unit along a track located on the upper roof (level 18). The exposed track will sit below the framed expression, enabling a BMU to track back and forth, with telescopic jib clear of impediment once in operation
- 04 Access from roof terrace to enable cleaning with an extending pole from a place of hardstanding
- 05 Access from ground level using a mobile elevated working platform (MEWP) system. A flat area of 2+ metres has been allowed for within the landscape design proposals

Spatial allocation for a number of potential BMUs has been coordinated for the design proposal, however details of final unit or product to be in operation for the building will be developed at the next stage of design.

KEY	
	01 Access from the ground
	02 Access via lower roof (level 16) BMU
	03 Access via upper roof (level 18) BMU
	04 Access from terrace
	05 Access via MEWP system
	06 Access via maintenance track around atrium

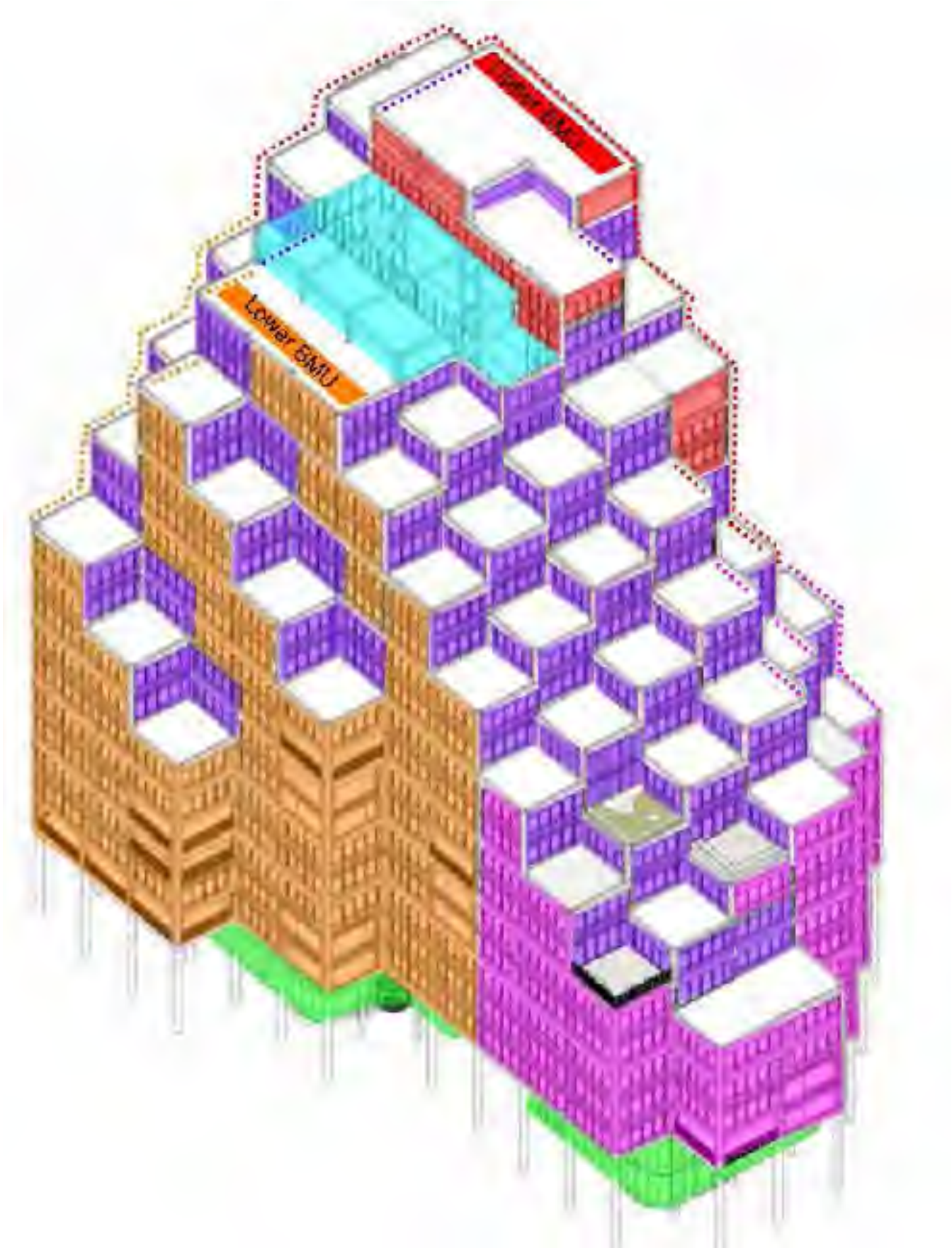


Fig 350 Diagram of access conditions for the commercial building

Site Safety and Security

Site safety and security is paramount to the design and integral to the successful function of spaces within both the public and private realms within the proposal. The designs have been reviewed against Manchester’s ‘Design for Access 2’ guidance, alongside HEA06 credits under BREEAM, which are targeted for the development. A Suitability Qualified Security Specialist (SQSS) has therefore been consulted as part of the design development.

A presentation and review was undertaken with Greater Manchester Police (GMP) on 17/05/2022 to run through the design proposals, with subsequent follow up of further developed designs forwarded in September of 2022, enabling GMP to develop the Crime Impact Statement accompanying the application.

General maintenance and regular management ‘walk around’ security checks of the site area will be set out within the operations and management strategy, to be performed across both the day and evening. Anti-social activity in the form of loitering, alcohol and drug abuse, skateboarding, littering and graffiti will be controlled therefore through a mix of CCTV and management checks. Ensuring broken items are fixed, lighting, and building fabric elements are kept in good working order, will help to support a sense of residents, workers and visitors well being, with the knowledge that their building and environment is well maintained.

Within the basement a series of security controls will be employed to ensure that building security and safety for users is maintained at all times. Vehicular access to the basement will be managed with the installation of bollards at the mouth of the entry to the basement access ramp at ground level. At the bottom of the ramp the basement is divided into two separate and secure areas, for servicing of the residential and commercial buildings respectively. Each will be independently accessible via security control access, with entry points covered by CCTV monitoring. All plant, ancillary, and storage spaces will be accessible by secure access, to ensure double layers of security control throughout the basement areas.

Key measures included within the designs are set out below, applicable at ground level (with reference to the diagram on the opposite page):

- 1 CCTV to be provided at key entrance moments and access areas for cyclist arrival to both the commercial and residential buildings.
- 2 Overlooking available to both internal and external spaces from the lobby reception areas in both the residential and commercial buildings
- 3 Lines of security from public entrances, to the private environments within the building
- 4 Lighting provided within areas of the public realm that do not benefit from overlooking
- 5 Street furniture located adjacent to but away from the building to avoid opportunities for climbing up to access upper level apartments or commercial areas
- 6 Bollards (drop-down) installed within the ground level public realm to control access into the central public realm area of the site, and also the basement car park ramp
- 7 Public realm lighting design to ensure well-lit environments and lines of visibility through the public realm environments within the site, while ensuring light pollution is avoided onto riverside ecological habitat.
- 8 Scenic lifts provided for step-free access to the residential cycle storage space at first floor, to enable visibility to the cycle entry and arrival space (fob security control to access the lifts and opening to the store area at first floor to also be provided).
- 9 Clear lines of sight maintained within the public realm, landscape, to ensure that tree canopies do not obstruct visibility across the site.

KEY



Fire Egress



Main Entrance



Activation Entrance



Secure line



Typical Apartments

Residential Layouts

The internal layouts for 90 % of all dwellings within the residential component will be designed to minimum Approved Document Part M: Volume 1 - Category 2 requirements so that they can be adapted to become accessible if required in the future, for occupants with specific access needs including old age and disability.

37no. of the units (10%) have been designed to be Approved Document Part M (2015): Volume 1 - Category 3 - 'wheelchair adaptable' which has been achieved by providing adequate spatial and structural provision so that more easy adaptation is possible. Adaptation can be achieved by adding fixtures and fittings to suit the resident's preferences or specific needs.

Typical 1B2P - AD M Cat 2 Apartment

Approved Document Part M Volume 1 Category 2

Features include:

- 01 Suitable dwelling entrance effective opening width of 850mm as per the AD M requirement
- 02 Internal dwelling doors have a minimum 750 – 800mm clear opening width related to width of the corridor with 300mm space to the leading edge side
- 03 Suitable accessible WC facilities at entry level with a minimum required clear space to the side and in front of the WC pan
- 04 An accessible bathroom provided on the same level as a main double bedroom containing the required minimum transfer spaces
- 05 Adequate 750mm manoeuvre space adjacent beds in main and secondary bedrooms
- 06 Adequate 1200mm clear space in front of kitchen units
- 07 Internal amenity space in addition to the total NIA
- 08 Storage cupboard that equals or exceeds the SPG 2015 minimum

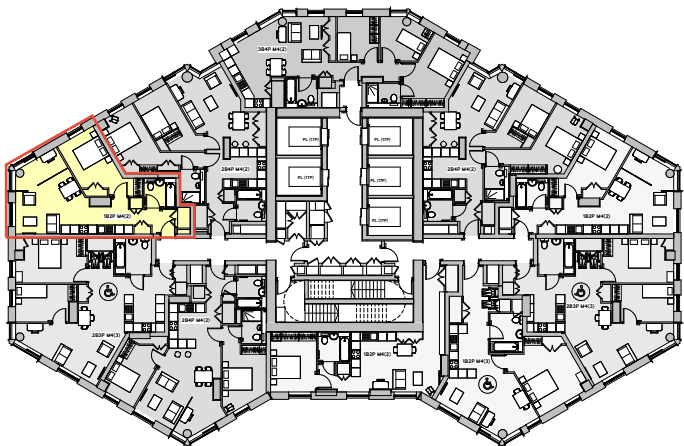
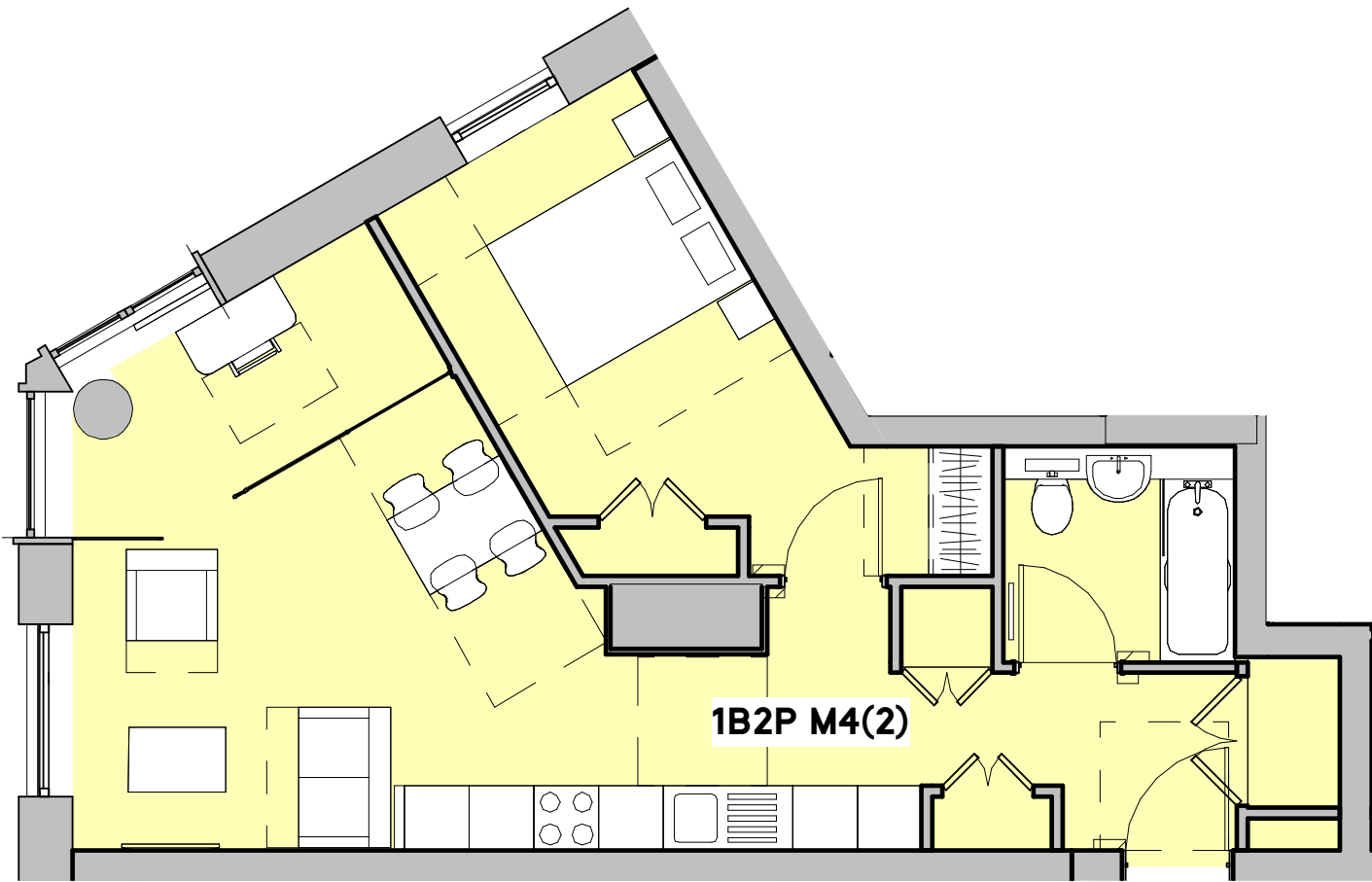


Fig 351 Typical AD M Cat 2 Apartment
1B2P (c. 55 sqm)

Typical 1B2P - AD M Cat 3 Apartment

Approved Document Part M Volume 1 Category 3

Features include:

- 01** Level internal circulation
- 02** 1500mm x 1800mm circulation space in the entrance hall
- 03** Adequate clear opening width of 850mm to all doors
- 04** 4. Nib spaces of 300mm on leading edge and 200mm on following edge of door
- 05** Adequate 900mm minimum corridors with turning spaces where required and most corridors exceed this dimension and are 1050 – 1200mm wide
- 06** Location identified for wheelchair charging and storage area near the dwelling entrance
- 07** Adequate manoeuvre space in bedrooms with two 1200mm x 1200mm manoeuvre squares plus 1000mm passage widths
- 08** 1500mm space in kitchens in front of all units
- 09** Suitable bathroom facilities with a 1500mm turning circle clear of bath/shower and other fittings
- 10** Internal amenity space in addition to the total NIA

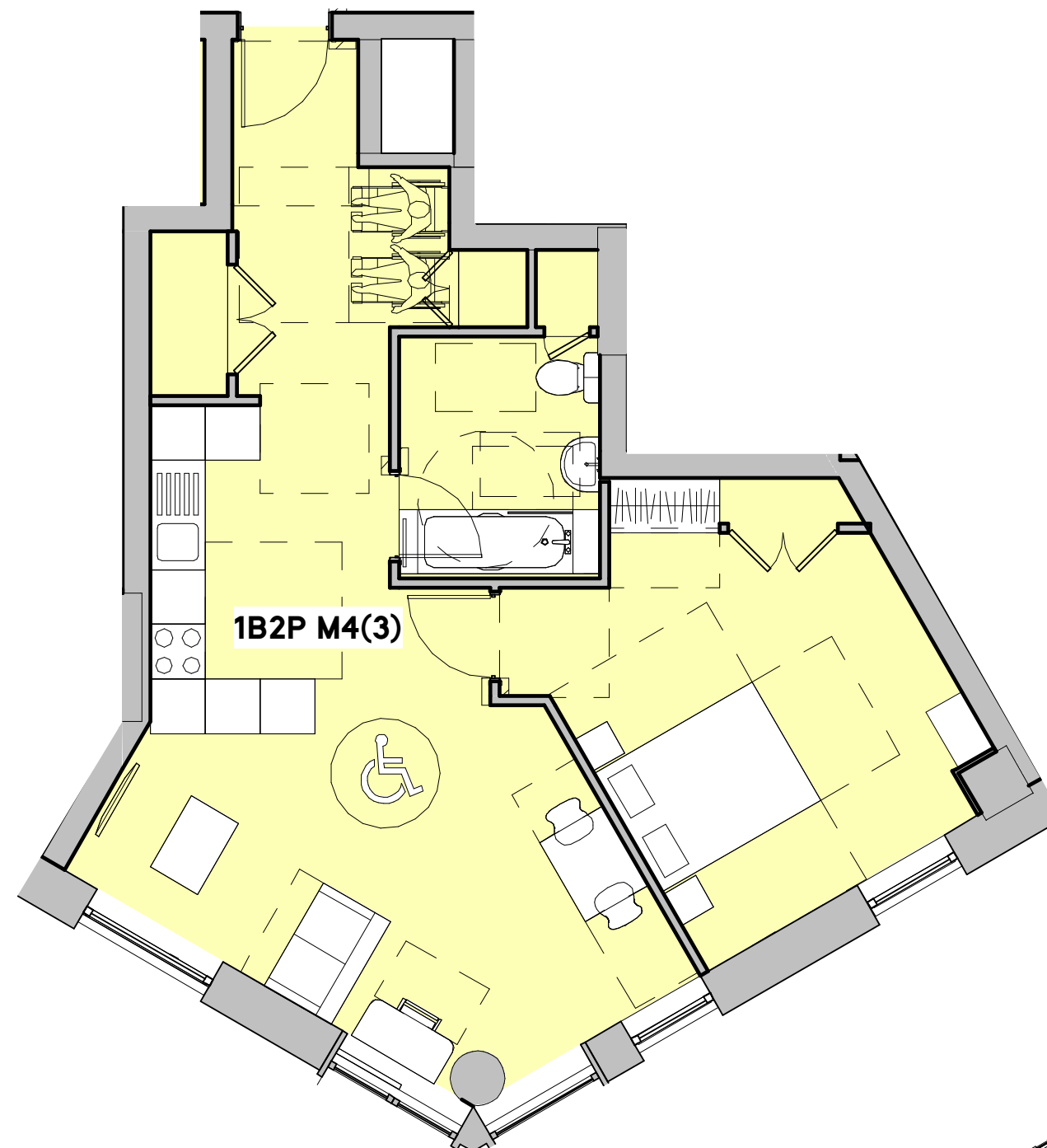
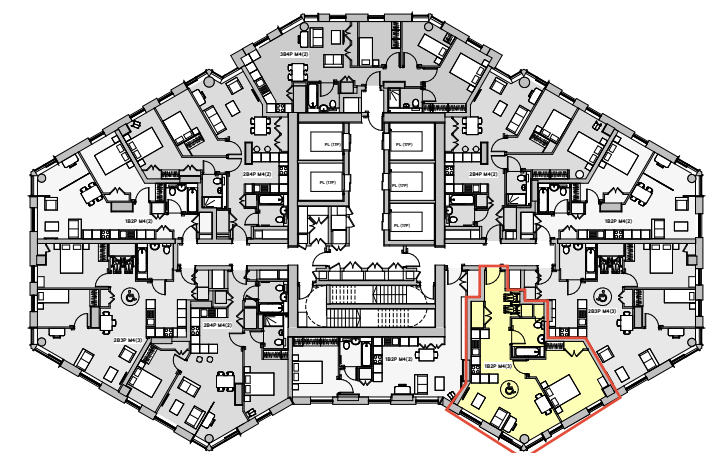


Fig 352 Typical AD M Cat 3
Apartment 1B2P (c. 65 sqm)



Typical 2B3P - AD M Cat 3 Apartment

Approved Document Part M Volume 1 Category 3

Features include:

- 01** Level internal circulation
- 02** 1500mm x 1800mm circulation space in the entrance hall
- 03** Adequate clear opening width of 850mm to all doors
- 04** 4. Nib spaces of 300mm on leading edge and 200mm on following edge of door
- 05** Adequate 900mm minimum corridors with turning spaces where required and most corridors exceed this dimension and are 1050 – 1200mm wide
- 06** Location identified for wheelchair charging and storage area near the dwelling entrance
- 07** Adequate manoeuvre space in bedrooms with two 1200mm x 1200mm manoeuvre squares plus 1000mm passage widths
- 08** 1500mm space in kitchens in front of all units
- 09** Suitable bathroom facilities with a 1500mm turning circle clear of bath/shower and other fittings
- 10** Internal amenity space in addition to the total NIA

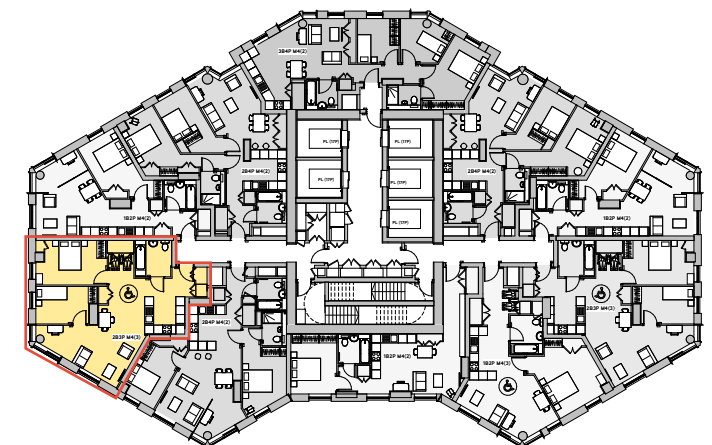
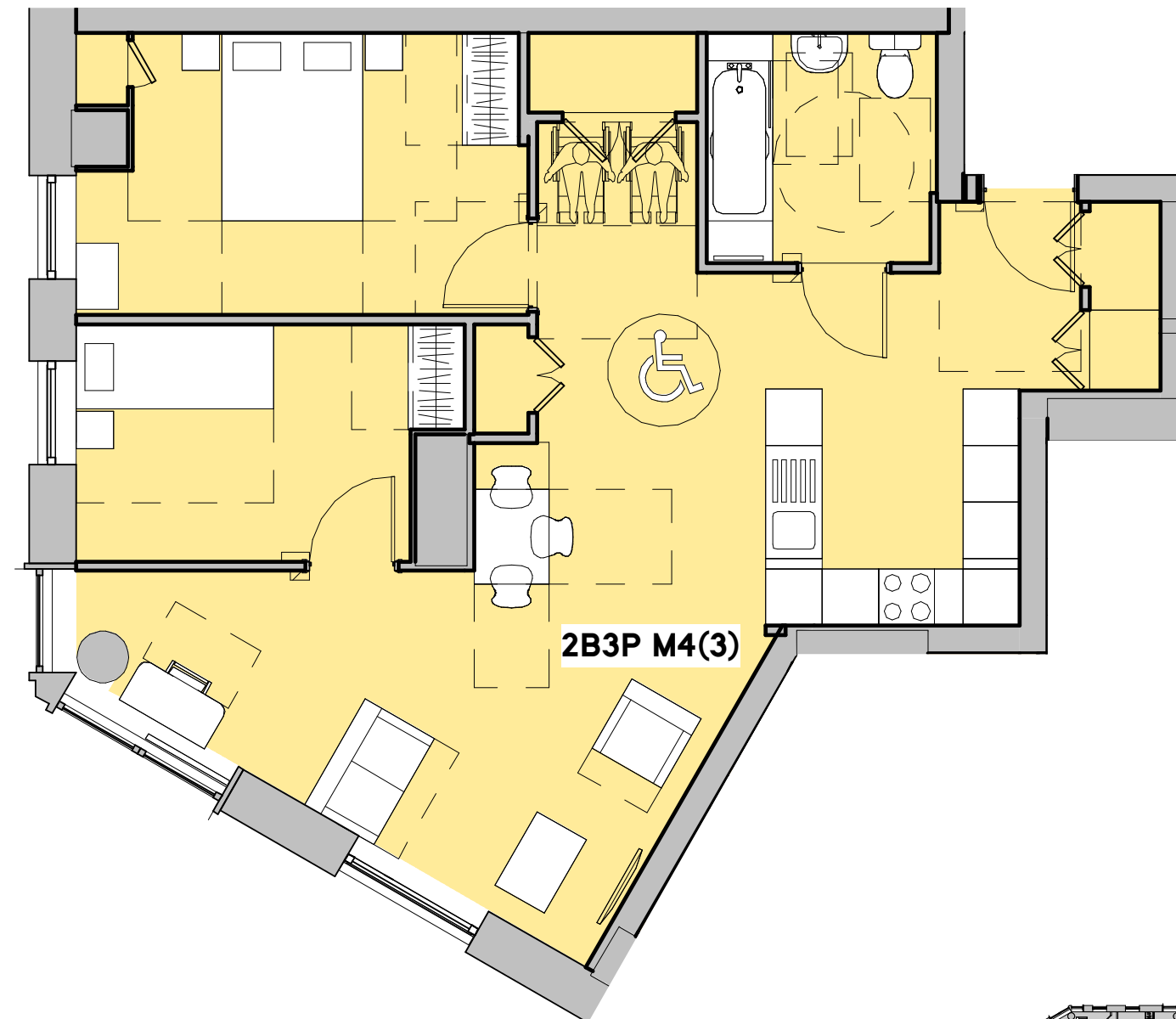


Fig 353 Typical AD M Cat 3
Apartment 2B3P (c. 78 sqm)

Typical 3B5P - AD M Cat 3 Apartment

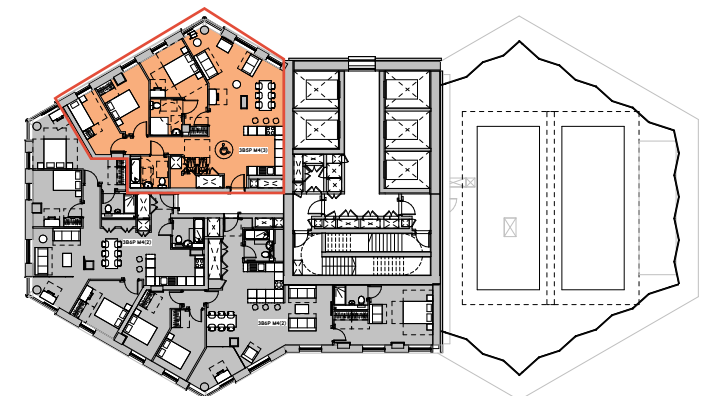
Approved Document Part M Volume 1 Category 3

Features include:

- 01** Level internal circulation
- 02** 1500mm x 1800mm circulation space in the entrance hall
- 03** Adequate clear opening width of 850mm to all doors
- 04** Nib spaces of 300mm on leading edge and 200mm on following edge of door
- 05** Adequate 900mm minimum corridors with turning spaces where required and most corridors exceed this dimension and are 1050 – 1200mm wide
- 06** Location identified for wheelchair charging and storage area near the dwelling entrance
- 07** Adequate manoeuvre space in bedrooms with two 1200mm x 1200mm manoeuvre squares plus 1000mm passage widths
- 08** 1500mm space in kitchens in front of all units
- 09** Suitable bathroom facilities with a 1500mm turning circle clear of bath/shower and other fittings
- 10** Internal amenity space in addition to the total NIA



Fig 354 Typical AD M Cat 3
Apartment 3B5P (c. 109 sqm)



Green & Blue Infrastructure Statement

Introduction

Manchester’s Green & Blue Infrastructure Strategy highlights that the city needs to demonstrate that it can be both a green city and a growing city. In order to demonstrate how the design proposals for Albert Bridge House respond to the ambitions set out within Manchester City Council’s strategy, we have outlined how we are responding to each objective set out within the document.

These are as follows:

- Objective One - Improve the quality and function of existing green and blue infrastructure
- Objective Two - Use appropriate green and blue infrastructure as a key component of new developments to help create successful neighbourhoods and support the city’s growth.
- Objective Three - Improve connectivity and accessibility to green and blue infrastructure within the city and beyond
- Objective Four - Improve and promote a wider understanding and awareness of the benefits that green and blue infrastructure provides for residents, the economy and the local environment

Objective One

The landscape proposals outlined within this report make improvements to the existing green and blue infrastructure within Manchester’s city centre by improving the condition of the landscape directly adjacent to the River Irwell on the site’s northern boundary. The River Irwell is an important habitat feature which provides value to multiple protected species such as kingfisher and otter known to be present in the surrounding area.

The ground plane of the slope that leads down to the river embankment wall will be planted with biodiverse meadow turf. A large number of plant species within a meadow can support a variety of invertebrates and pollinators, having a knock-on effect by providing food for small mammals and birds. Additionally, trees will be planted along the slope which leads down to the Rivers edge. The tree planting strategy includes native species that provide pollen and nectar. This planting will encourage wildlife to populate the banks of the River Irwell enhancing its function as an ecological corridor.

Furthermore, the large existing trees which punctuate the site’s southwestern boundary are retained within the proposals. Consequently, ensuring that the new public realm possesses a mature character.

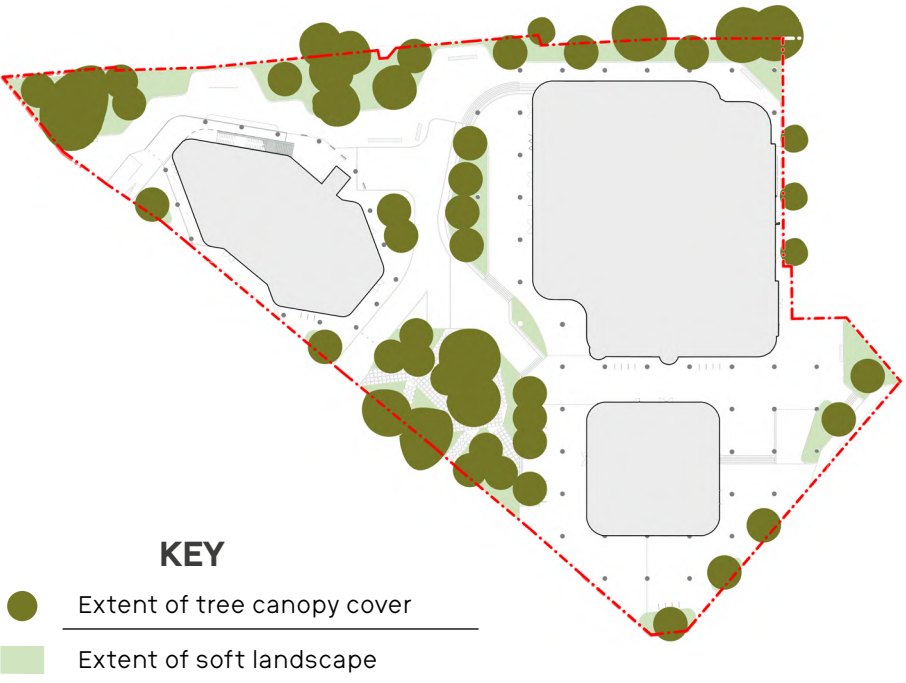


Objective Two

A key ambition of the green infrastructure strategy on-site has been to implement a strategy that makes the public realm more resilient to the effects of climate change in the future. To reduce the impact of the Urban Heat Island Effect within Albert Bridge House the areas of soft landscape on the ground plane have been sculpted around building entrances and vehicular tracking. Consequently, making them cover a significant proportion of the public realm.

In addition, the number of proposed trees and the size of the canopies form a key component of the green infrastructure strategy and have been carefully considered to provide shading. Consequently, this will result in a cooler and more usable public realm environment for residents and the public over the coming years.

A key aspect of the blue infrastructure incorporated on-site is the integration of blue roof systems into the design of the roof terraces on the upper floors of the commercial building. A blue roof controls rainwater where it lands to fulfil one of the core pillars of SUDS design. The blue roof outlet restricts the discharge of stormwater to a calculated and defined flow rate to significantly slow down the volume of water leaving the site.

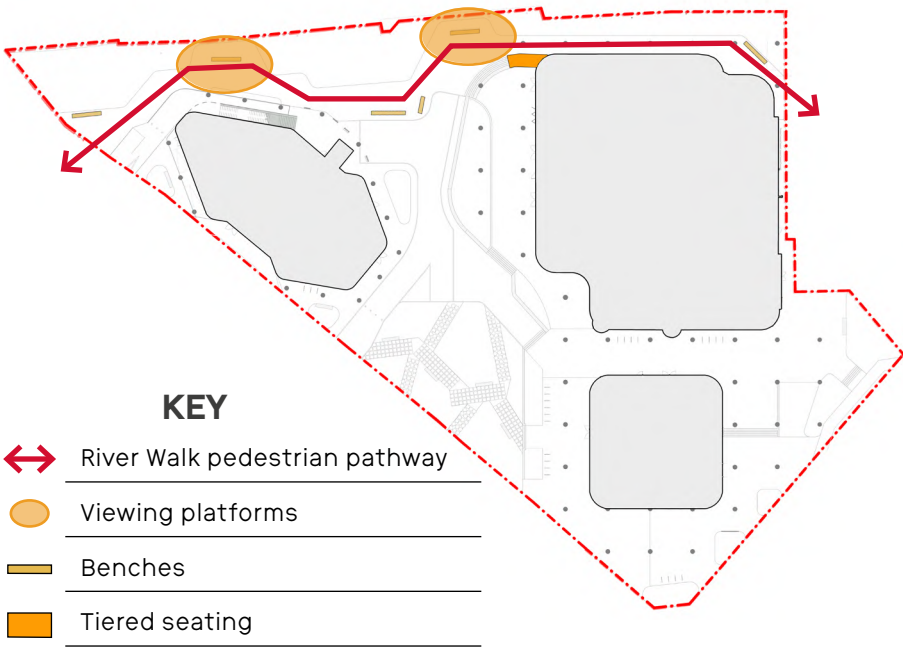


Objective Three

The transformation of the site, that’s currently dominated by areas of car parking, into a series of generously proportioned green spaces that allow for a variety of uses will improve connections to green and blue infrastructure within Manchester.

Within the proposals for Albert Bridge House, the pathway along the River Walk brings people physically closer to the banks of the River Irwell. The path is structured in a way that it becomes wider at certain moments where views over the River that were previously hidden by the former building and overgrown vegetation are exposed. Seating elements such as large benches and tiered seats populate the route to allow the public to enjoy the experience of being closer to the banks of the River. Therefore, the connection to a key element of the blue infrastructure within the city of Manchester is improved through the combination of the provision of an accessible route along the banks of the River and the seating elements which populate it.

The landscape proposals for Albert Bridge House also improve the access to green and blue infrastructure through the provision of a pedestrian-priority public realm that meets the criteria set out within BS 8300-1:2018 8.1 (access routes). Furthermore, the design of the landscape has been informed by the principles set out within Manchester City Council’s Design for Access 2 guidance document.

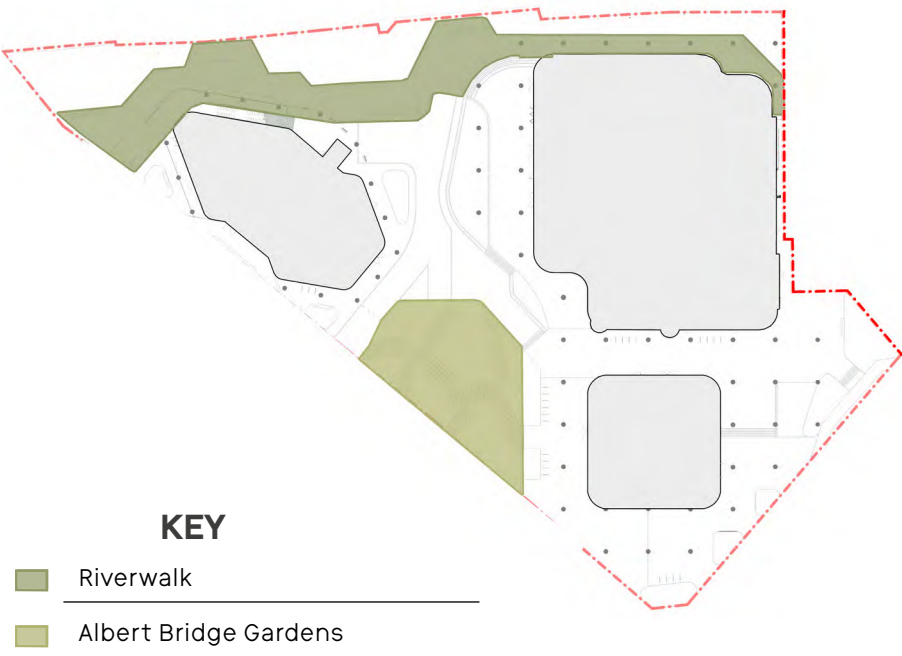


Objective Four

The spaces and routes through the proposed public realm encourage members of the public and office workers into spaces where the blue and green infrastructure is celebrated. This is particularly evident in two locations within the proposed plan. The first moment is at Albert Bridge Gardens and the second is at the Riverwalk.

The verdant character of Albert Bridge Gardens will be primarily created through the retention of the existing trees which populate that space. The retention of the existing trees and the way in which they have been sensitively integrated into the design to create one of the key destinations within the public realm will enhance the awareness of the benefits of green infrastructure within Manchester.

The Riverwalk is a destination boardwalk that follows the path of the River Irwell on-site. The pathway draws people through the public realm and into locations where they can enjoy the visual amenity of the riparian river’s edge. Consequently, these spatial moments along the Riverwalk will increase the awareness of the importance of the river’s role in the wider green and blue infrastructure present in Manchester.



Public Realm Access

Approach to Inclusive Design

The proposals for Albert Bridge House aspiration is to create an inclusive public realm providing access to civic spaces and nature for all age groups and people.

Creating inclusive and accessible environments starts with the simple premise that inclusion is embedded in the design process to remove barriers and continuously challenge and interrogate the design. Our strategic approach to access, inclusion and delivering a scheme that exceeds minimum requirements, means that in developing Albert Bridge House, people will be able to use the public realm safely, with dignity, comfort, convenience and confidence.

The Commission for Architecture and the Built Environment's inclusive design principles are to be incorporated, putting people at the heart of the design and offering choice when a single design solution will not meet everyone's needs without undue separation. From the outset, the following four principles are to be considered during the design process and embedded into the outcomes to ensure that all parts of the built environment:

- Can be used safely, easily and with dignity by all regardless of disability, age, gender, culture or ethnicity
- Are convenient and welcoming with no disabling barriers, so everyone can use them independently without undue effort, separation or special treatment.
- Are flexible and responsive taking account of what different people say they need and want, so people can use them in different ways.
- Are realistic, offering more than one solution to help balance everyone's needs, recognising that one solution may not work for all.

Inclusive design guidance and standards

Inclusive design issues related to the design of Albert Bridge House are to be reviewed in accordance with the objectives of the following documents:

- Building Regulations 2010 and associated Approved Documents
- Equality Act 2010
- Greater Manchester Planning Policy
- Manchester City Council Planning Policy
- National Planning and Policy Framework, 2012
- Planning and Compulsory Purchase Act, 2004

Reference is to be made to the following documents during design development for this project:

- BS 8300-1:2018, Design of an accessible and inclusive built environment; Part 1 External environment – Code of practice
- Building Regulation Approved Document K – Protection from falling, collision and impact 2013
- Building Regulation Approved Document M – Access to and use of Buildings Vol 2: Buildings other than dwellings, 2015
- Design for Access 2, 2003
- Greater Manchester Cycling Design Guidance and Standards (draft) 2014

Design for Access 2

As the design of the public realm has progressed particular attention has been paid to the standards set out within the Design and Access 2 document produced by Manchester City Council. The points outlined below describe how the elements within the public realm have been designed around the guidance set out within the Design and Access 2 and where there are slight differences to other inclusive design guidance and standards.

- External steps which 'feather' into ramps are not be used within the proposals, as changes of level are not easily detected.
- The tread depth for steps are 280mm.
- The rise of each step is 150mm, and each rise within a flight, or series of flights, is uniform.
- A central handrail is provided when the width of the ramp, stairs or steps exceeds 1800mm.
- Handrails are fixed 1000mm above the surface of landings, 900mm above the surface of ramps and stair nosings and not more than 100mm beyond the surface width of the ramp or stairs.
- Handrails are fixed 65-70mm from any adjacent wall or surface.
- Frequent resting places should be provided, not more than 50 metres apart, in pedestrian areas and at transport interchanges.
- Seats are positioned off the footway, and allow an area of 400mm in front of the seat
- The seat levels are 475-500mm from the ground. If a number of seats are to be provided, then some of these should be at a higher level
- Seat widths are 500mm and include a back support and armrests on both sides of the sitting position
- A firm wheelchair parking area 900mm wide should be provided on both sides of the seating

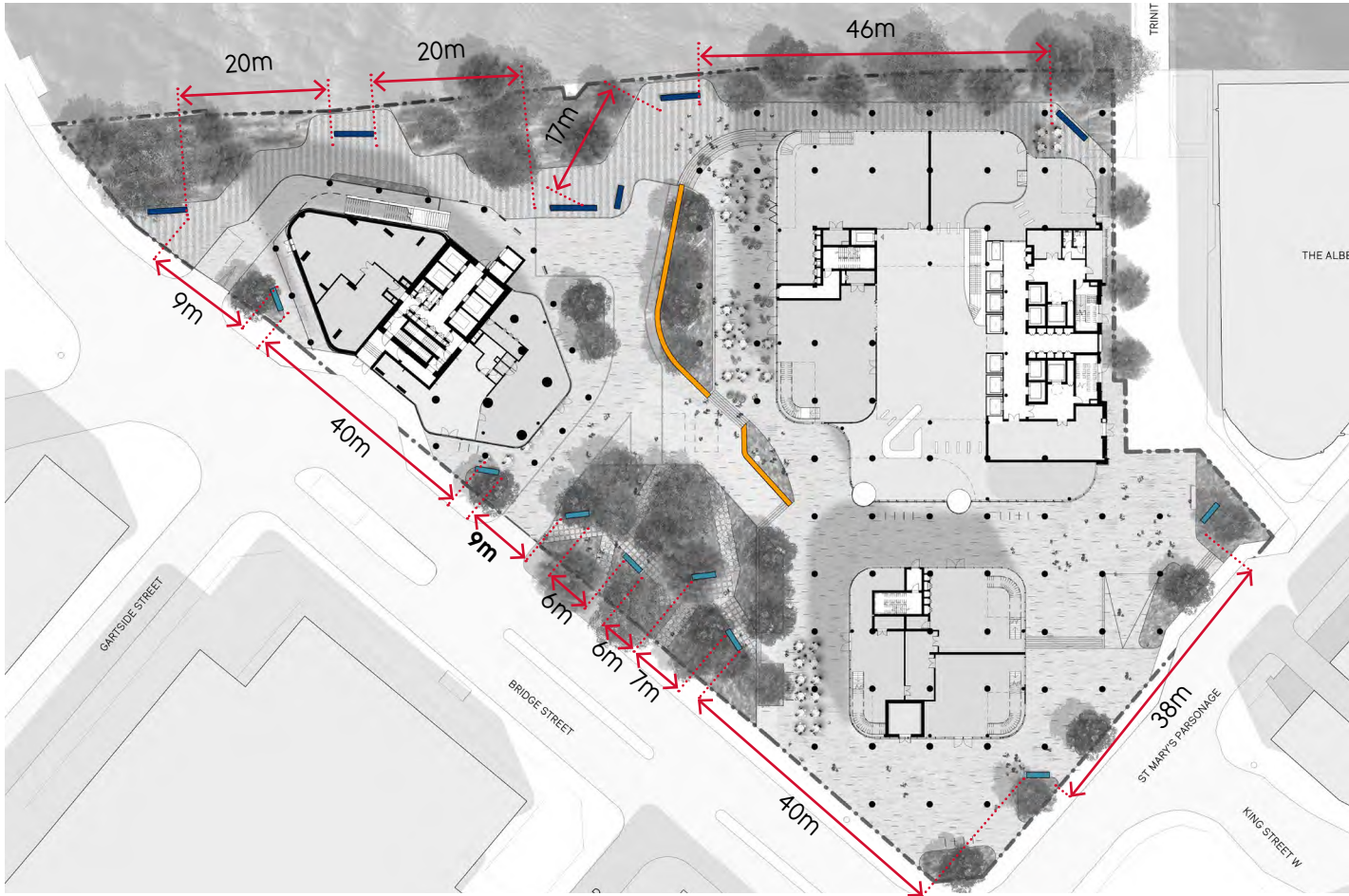


Fig 355 Illustrative diagram showing the external seating elements. All distances between seats are under 50m.

KEY

Bench type 1

Bench type 2

Seating edge

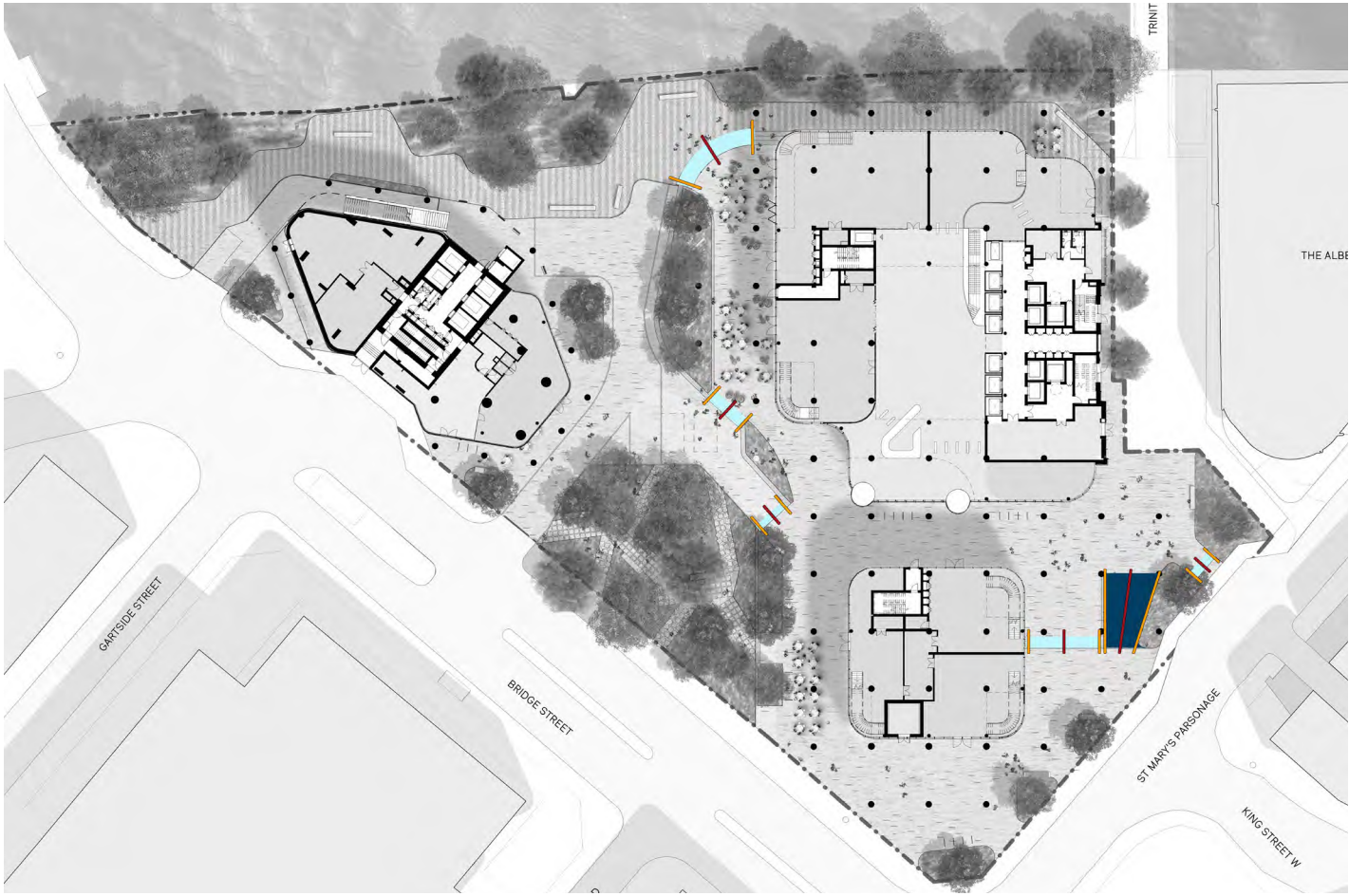


Fig 356 Illustrative diagram showing external stairs, ramps and handrails

KEY

External stair more than 1.8m wide

External ramp more than 1.8m wide

Handrail

Central handrail

Landscape Management

Introduction

This section of the document contains details of the long term maintenance and management of the hard landscape features and soft landscape treatments for Albert Bridge House.

The establishment and future success of the landscape is largely dependent on the standard and frequency of the subsequent maintenance and management it receives.

The purpose of this section of the document is to provide a long term maintenance and management plan throughout the 5 year establishment period and to help inform any long-term maintenance and management strategies.

To ensure the successful establishment of trees and planting, operations stated on the following pages are necessary for a minimum of 5 years after practical completion of the proposal.

SEW would recommend the frequency of maintenance visits as a minimum of 2 no.visits per month during the growing season and 1 no.per month during the dormant period. The frequency of maintenance visits should always be based on achieving the objectives set out in this document

Key objectives for maintenance and management include:

- To facilitate an efficient and sustainable landscape management and maintenance regime through the lifetime of the Development;
- To provide a safe, high quality external environment for all site users;
- To maintain a robust and visually appealing landscape setting;
- To ensure that the landscape develops in a manner commensurate with the original design intentions;
- To ensure the successful establishment and continued growth through to maturity of the trees and other planting.

A successful planting maintenance plan is comprised of two components; an establishment phase for the first 5 years, followed by long term, ongoing maintenance.

Soft Landscape

The soft landscape denotes all area of existing and proposed tree planting, herbaceous planting shrubs and green roofs on the commercial building.

The objectives of the soft landscape maintenance are:

- To establish a robust planting scheme suitable for a central mixed use development;
- To provide diverse range of planting, favouring those plants that are most successful without these becoming too dominant;
- To maintain the landscape scheme for the benefit of the residents, the public and office workers, allowing for their uses to be catered for, including making minor changes to allow for heavy or unforeseen use.

The maintenance of the existing trees should be in accordance with the Arboriculturist Methodology Statement.

Existing Tree Planting

All works should be carried out in accordance with BS 3998:1989 Recommendation for Tree Work, and BS 5837:2012: Trees in Relation to Design, Demolition and Construction. It should be should be undertaken by certificated personnel from the Arboricultural Association's list of Registered Contractors.

- Temporary protective fencing should be maintained throughout the construction period.
- All operations should avoid damage to retained trees on site or neighbouring trees adjacent to site.
- The existing trees should be checked annually for sign of deterioration or distress.
- In dry periods, trees are to be watered as necessary to maintain healthy growth.
- Pruning shall be limited to the minimum necessary to maintain good form and vigour and to remove dead, diseased or dying branches. Inform Arboriculturist of any ongoing issues.
- The existing trees that are established on site should be monitored at pre-agreed regular intervals to assess any damage, distress or potential future issues that could be due to the existing trees.

Proposed Tree Planting

The proposed trees should be maintained in accordance with BS 7370: Part 4, section 3.5, 4.1, 4.2.2 and 4.2.4.

- New trees are to be closely monitored at each maintenance visit to ensure that they are upright, firm, stable and in good health.
- Maintenance of a weed free area, 1m out from the base of semi-mature each tree;
- Watering to ensure moisture levels are maintained appropriately for optimum growth. Trees should be maintained and watered to field capacity through the first and second years of planting. They should be watered with the use of a hose being left to run slowly down the irrigation tube until the pit reaches full capacity;
- Application of a slow release fertiliser in spring around the base of all trees to ensure soil fertility is maintained;
- The removal of any vandalised, unhealthy or dead specimens as soon as possible and replacement with trees of the same size to those adjacent, during the next available planting season;
- Inspection, adjustment and maintenance of anchors. Ensure that the trees are stable. Replace or re-secure loose or missing guy wires;
- Removal of any items that have been attached to trees;
- Re-firming of trees after strong winds, frost heave or other disturbances;
- Leave trees with a well-balanced natural appearance. Prune to remove dead, dying or diseased wood during dormant season;
- Topping up mulch at the end of the rectification period to achieve a 75mm layer;
- Identify trees on slopes with exposed root balls and assess needs for stabilisation and soil covering.
- Following the establishment maintenance period, it is recommended that selected landscape contractor undertakes the relevant operations listed in the establishment period. Mulching and fertilising are not necessary. Watering is only required in periods of drought.
- A qualified arboricultural consultant or tree surgeon must be consulted before any major tree works. Twice yearly tree inspections are required to assess any surgery and/ or maintenance requirements.

Proposed Herbaceous & Shrub Planting

The maintenance of the herbaceous planting and shrubs should incorporate the following points and be in accordance with BS 7370: Part 4, section 4.7, 4.8.

- Keep planting beds clear of weeds.
- Pruning of shrubs to remove weak, dead, damaged and diseased branches. Ensure shrubs maintain a well-balanced natural appearance and desirable ornamental features eg. flowers, fruit, autumn colour and stem colour;
- Removal of dead growth and trim herbaceous perennial and ornamental grass plants, avoiding damage to any new shoots that have emerged;
- The removal of any failed, vandalised, unhealthy or dead specimens as soon as possible and provide replacement of the same size to those adjacent, during the next available planting season;
- Watering of plants to ensure moisture levels are maintained for optimum growth and establishment;
- Removal of litter and dead wood from all planting beds. Planting beds should have no litter;
- Top up mulch annually to achieve a 50mm layer.
- The edges of all planting beds should be in a neat and tidy condition. Bed soil shall be pushed back and left at a 45 degrees angle from the edge, starting slightly below surround levels.
- Watering is no longer required unless in drought.
- As the planting matures it may be necessary to selectively thin the planted areas at 5 and 10 years to achieve an appropriate cover. Examples might include shrubs which have overgrown their position and become too tall, wide or mature.

Wild Flower Meadow Turf

Existing vegetation should be killed or removed. Dig over or rotavate the soil to at least 100mm deep and rake over to create a reasonably fine tilth. Remove large stones, roots or clods of earth as it is important that the roots of the plants in the turf are all in close contact with the soil.

Ensure soil is not waterlogged or compacted prior to laying the turf. The soil does not need to be fertilized before or after laying the turf. We would advise not stripping back the top soil to reduce soil fertility before using Wildflower Turf as it needs some level of fertility to get well-established initially and is an unnecessary ground preparation step.

Once laid, water the turf thoroughly, for the first couple of weeks (weather dependent), until the turf is rooted in. Ensure the soil underneath the turf is damp to be sure you have given it adequate water. Do this by lifting a corner of the turf. Do not allow the turf to dry out while it establishes, which should take approximately 2-3 weeks (weather dependent). Do not over water the turf, as this can promote grass domination in the sward. Once established the wildflowers can be fairly drought tolerant and shouldn't need watering again.

No fertilizer is needed, although in some circumstances, for example on a green roof or where the turf is on very low fertility soil such as sand or gravel, the addition of a light dose of fertilizer in the spring may improve plant development.

Once established Wildflower Turf requires little maintenance. For the annual maintenance cut in the Autumn, it is important to cut the meadow down to 1 to 2 inches (25mm to 50mm) off the ground and remove all cuttings. This can be done by strimming and raking, or using a mower and collecting the cuttings. Make sure these tools are sharp. The cut is an important part of the meadows life cycle and ensures that re-growth and species diversity year on year. Cuttings should not be left on the meadow, as they add undesirable fertility to the ground. It is also important to remove all leaf litter that falls onto the area.

The annual maintenance cut should be done in late September, early October. There is no need for a set date, but this timing will allow the plants in the meadow to regenerate before the first frost typically in November. You can choose to cut only half of the meadow area at one time to allow time for fauna to migrate to the uncut meadow. Allow some regrowth of the cut area before cutting the second half, but aim to have finished all cutting by the end of the first week of October. Alternate the areas that are cut early and the areas that are left as this will benefit species diversity.

Hard Landscape

The hard landscape denotes all area of areas of hard landscape and street furniture including benches, fencing and gullies. The following sets out maintenance activities required for areas of hard landscape:

- Inspect the hard landscape areas on a six monthly basis to identify and repair any damaged areas.
- Sweep paved surfaces regularly with a stiff brush to remove dust and detritus. There is a tendency for algae, lichens and mosses to colonise stone paving that is permanently shaded and/or damp. This can be safely removed by a pressure washer.
- The paving should be cleaned as soon as deterioration is visible to prevent permanent staining.
- Cleaning the natural stone paving after an initial deep clean should take place three times a year.
- Seasonal maintenance (leaf and snow clearance) as required. Clear snow and ice as to not damage surface below.
- Surfaces to be kept weed and litter free at all times. Hard surfaces shall not exceed 5% weed growth of any area. Weeds include moss.
- All street furniture elements, such as bollards, railings, gates, benches, play equipment and all other street furniture elements are to be regularly maintained throughout the year to meet function and health and safety requirements.
- All timber features including benches and play equipment should be clear of splintering and minor repairs should be

carried out as required.

- All railings, walls and gates shall be checked for damage/wear and when necessary shall be replaced/ repaired or painted as appropriate.
- Ensure all railings are clear from obstruction/potential damages from nearby structures/trees.
- Ensure that all railings have nothing leaning against them. The duplex railings should not have features within the front gardens that obstruct views or that are unsightly to the architectural aesthetic e.g bamboo fencing, external storage.
- Gate locks should be maintained in a good working order.
- Drainage systems associated with hard surfaces to be inspected annually and maintenance work undertaken as necessary. All shall be clear of silt, dirt, debris, leaves, litter, stones, concrete etc. as necessary.
- Water should run freely in gullies and drains.
- Records of inspections and maintenance undertake should be kept.

Conclusion

Throughout the design process, the project team have considered access and use of the environment for all users of the proposed development including residents, workers and visitors including the requirements of disabled and older people. The features and measures incorporated within the proposed development as outlined in the Access Statement report maximise the accessibility of the development, not only to meet minimum legal requirements by following good practice guidance, but also to facilitate access, use and enjoyment by as many people as possible.

Working with constraints presented by the existing site the project team have ensured good accessibility while maintaining architectural aspirations, and creating buildings and environments that will be easy to use and pleasant places to be for everyone.









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