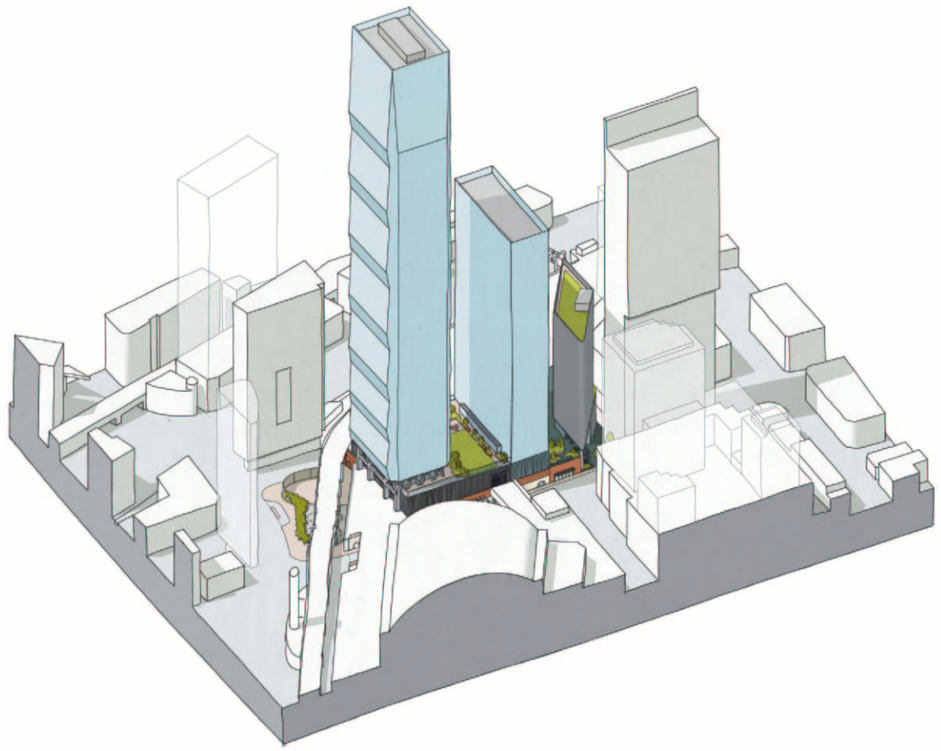


simpsonhaugh

Former Bauer Millet Site - Viadux Phase 2 - Plot 2a & 2b - Manchester

DESIGN & ACCESS STATEMENT | NOVEMBER 2024

10448-SHP-B5D9-RP-DAS001 | REV P02



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1.0 Introduction



Aerial View of the Site Showing Site Boundary and Surrounding Context

1.1 Description

Purpose

This Design and Access Statement has been prepared by SimpsonHaugh with input from others on behalf of Salboy Central Limited (The Applicant).

It accompanies an application for detailed planning permission for Viadux Phase 2 on the site known as the Former Bauer Millett Site, Albion Street and the Beetham Tower rear service yard area (known as the Slot Site).

The document describes the design development process and proposals for the development of the site, and should be read in conjunction with the associated application drawings and all other information submitted in support of the planning application.

This amended Design and Access Statement takes into account design changes which have taken place since the Applications were submitted and validated to amend elements of Plot 2a and to remove former Plot 2c. No changes to Plot 2b are proposed. Plot 2a, now includes hotel rooms as well as the residential units. As part of the updated design to accommodate the mixed hotel-residential use, former Plot 2c is omitted and is replaced by an entrance to the residential and hotel use. The amendments to Plot 2a have resultant changes to the Grade II listed Castlefield Viaduct and Great Bridgewater Street Bridge. Further highway alterations are now sought, namely a taxi drop off on Albion Street.

The Design and Access Statement, plans and standalone reports have all been updated to reflect the current proposals and supersede the previously submitted versions.

Project

The Proposed Development will deliver 585 residential apartments, of which 133 are affordable homes; 160 hotel bedrooms, commercial space; residential amenities; secure cycle parking; public realm improvements & green landscaping; and associated works to the public highway.

The Proposed Development will be delivered across two plots:

- Plot 2a is located immediately east of the recently completed Phase 1 building, on land partially comprising the grade II listed Castlefield Viaduct. This plot will deliver a 76-storey mixed use tower comprising a hotel (Use Class C1) with associated bar and restaurant and residential units above comprising 1, 2 and 3 bed, and penthouse apartments (Use Class C3) with associated residential amenity spaces. Secure cycle spaces, serving this and the Phase 1 building, are provided at the ground floor level. At viaduct level, a redesigned service yard for the conference centre is enclosed by a new podium structure with residents' external amenity space above. A section of the Great Bridgewater Street bridge (deck) is removed to bring light into the street below.
- Plot 2b, located at the western-most section of the Site between the viaduct and Beetham Tower, consists of a 23-storey residential building accommodating affordable 1, 2 and 3 bed apartments (Use Class C3), secure cycle parking spaces, flexible commercial units (Use Class E) opening onto the viaduct, and public realm enhancements on Great Bridgewater Street.

1.2 Project Team

Process

The proposals have been developed with input from a comprehensive and highly experienced team of specialist consultants, with the intention to deliver a unique project which not only maximises the development potential of the site & responds to market demand, but also embraces the site's unique heritage and delivers key policy objectives and statutory requirements.

The proposed development has been subject to extensive pre-application consultation with the Local Planning Authority, statutory consultees and local stakeholders. The involvement of statutory consultees at the pre-application stage has informed the design development and changes to the scheme have been included where appropriate.

Document Structure

The document has been prepared in accordance with CABE guidance 'Design & Access Statements: How to write, read and use them' (2006), which identifies the four key stages of the design process that need to be described in the planning submission. These are Assessment, Involvement, Evaluation and Design.

DEVELOPMENT TEAM

Developer

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Unit 3
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BSA, CDM Principal Designer & Client CDM services

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Manchester
M1 6EQ

Fire Engineer

Design Fire Consultants

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Manchester
M1 4PZ

Facade Engineers

WSP

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Manchester
M15 4RP

Daylight & Sunlight

GIA

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Manchester
M15 4RQ

Ecology

Penny Anderson Associates

Park Lea
60 Park Road
Buxton
Derbyshire
SK17 6SN

Archeology

University of Salford

University of Salford
Centre for Applied Archaeology
Joule House
Salford
M5 4WT

ArcAero

Architectural Aerodynamics

Kemp House
128 City Road
London
EC1V 2NX



2.0 Site and Context Appraisal

2.1 Location

Area

The Site is located in Manchester City Centre and extends to approximately 1.49 hectares. It is bound by the former Grade II* Listed Manchester Central Railway Station (now Manchester Central Convention Complex) to the north, Albion Street to the east, the Beetham Tower to the west, and Deansgate-Castlefield Metrolink Station & Deansgate Locks to the south.

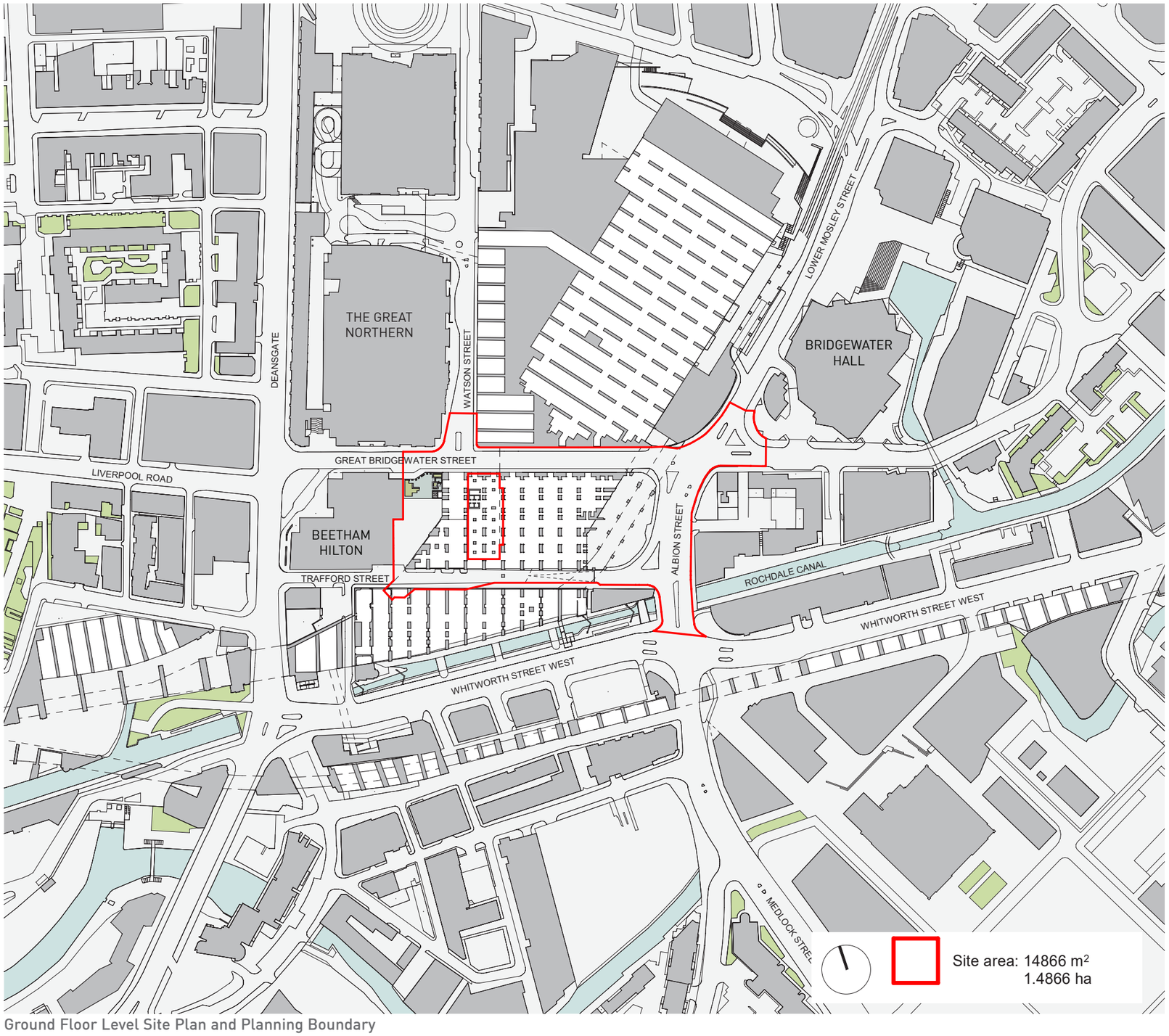
The Site encompasses the eastern-most section of the Castlefield Viaduct. At street level it comprises railway arches underneath the viaduct which previously accommodated the former Bauer Millet car showroom and forecourt fronting onto Albion Street. On top of the viaduct is a car park and service yard serving the adjacent Manchester Central Convention Complex, with vehicular and pedestrian access routes across the site.

Vehicular access to the site is from the previous car showroom forecourt on Albion Street (below the Metrolink Bridge) and from Trafford Street, which incorporates a ramp to the upper viaduct level where the Manchester Central Convention Complex service yard is located.

Connectivity

Whilst there are pedestrian links between the Manchester Central Convention Complex and the Deansgate-Castlefield (DCF) Metrolink Stop, there is a lack of permeability across the site as a whole, which has been exacerbated by poor way-finding signage and poor pedestrian routes. Connectivity to the south has been improved in recent years through the introduction of a new stair and green wall with integrated lift on the corner of Deansgate and Whitworth Street West. To the First Street end of the stop a new stair and bridge arrangement provides access directly down on to Whitworth Street West.

Access from DCF and the application site north into the city centre was very poor, involving an arduous and convoluted route across the edge of the Manchester Central service yard down and the side of the exhibition hall. A new public realm stair and lift linking the top of the viaduct to Great Bridgewater Street and Watson Street has recently been constructed as part of Viadux Phase 1.



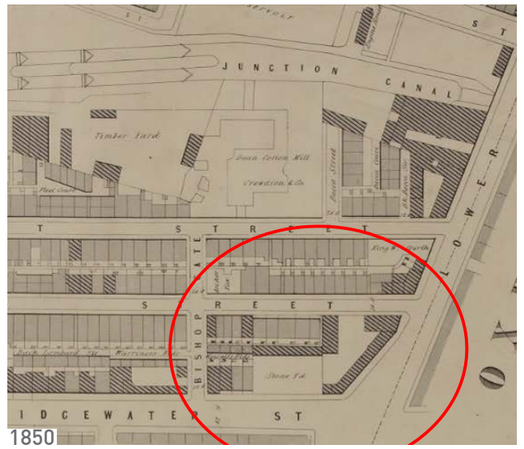
Ground Floor Level Site Plan and Planning Boundary



1750



1800



1850



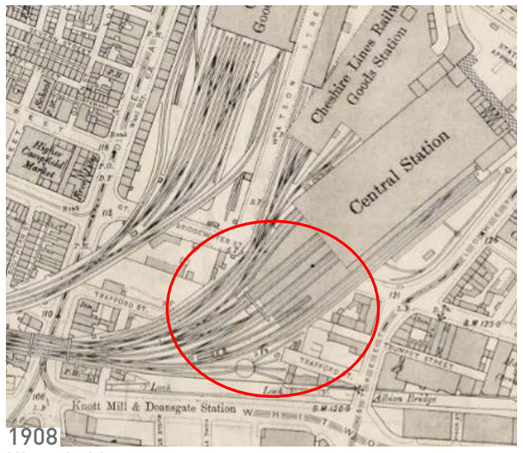
1871



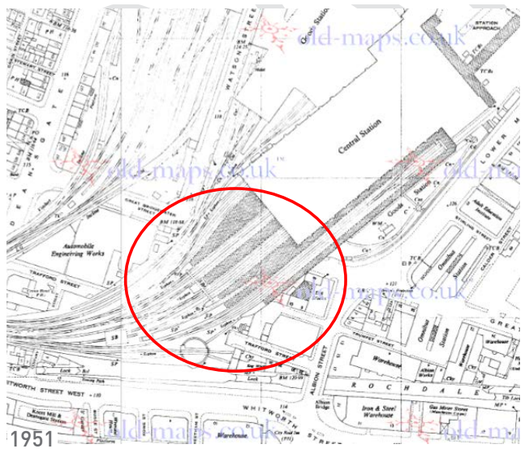
1878



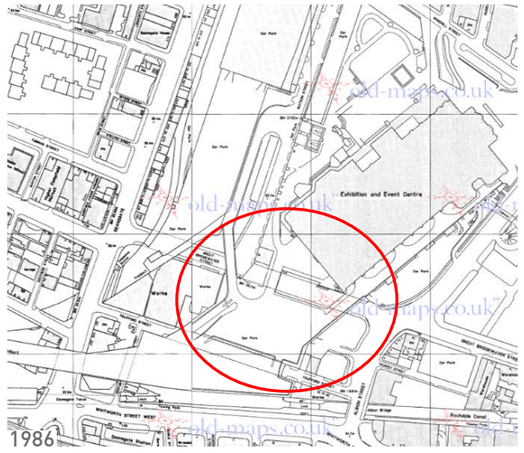
1891



1908



1951



1986

Historic Maps

2.2 History

The uses of the subject site and immediate surrounding area have substantially changed over the last 140 years, from a heavily populated area of slum dwellings and industry to a major central transport hub connecting several railway lines, stations and interchanges.

Before the construction of the mid-19th Century railway network, the subject site contained several streets and courts. Primarily these were Trumpet Street, Trafford Street, Opening Street, Rostocks Court and Thompsons Court.

Manchester Central Railway Station was constructed between 1876 and 1879. The south of the new station was cleared to make way for the new high level track beds, which would branch off from the existing Castlefield Viaduct. This resulted in a large area of brick undercroft/arches linking the two, with a cast-iron bridge/ viaduct structure carrying the tracks over Great Bridgewater Street.

The plan form and street grid around the subject site remains in various states of completeness and dates to the late 18th century when the subject site and the adjacent plots were largely defined. The urban grain reached its present configuration by the 1880s when the Central Station (now Manchester Central Convention Complex) was built and the last remaining residential premises were replaced by commercial and civic buildings, which resulted in a larger urban grain.

Central Station was closed as a station in 1969 and lay unused until the late 20th-Century with the restoration of the former Central Station for use as the G-MEX Convention Centre in 1986 (now known again as Manchester Central). The site has been used as a service yard for the convention complex since this date.

Formerly vehicular access was provided via a ramp over Watson Street from the site that the Leisure Box now occupies (to the rear the Great Northern Warehouse). Latterly a section of the arches and viaduct were removed which originally bridged Trafford Street, to allow for a vehicular ramp to access the high-level car parking, and Deansgate-Castlefield Metrolink stop. This remains the current arrangement.

The later 1990's Metrolink bridge and viaduct structures, to the east of the site, have further cluttered the space, providing visual intrusion to the ability to appreciate and understand the listed arches and viaduct in their entirety.

The Beetham Tower was developed immediately adjacent to the site in 2003 and involved the demolition of the part of the railway viaduct which connected to the Great Northern Goods Warehouse. The portion of the application site which sits between the Beetham Tower and the railway viaduct (known as the Slot Site) was originally included within the development site for the Beetham Tower, for the purpose of an undelivered but consented office building which was also intended to provide included a public lift and stair connection to Great Bridgewater Street. More recently, the Deansgate Castlefield Metrolink stop with stair and lift access to the south of the application site was completed in 2015. Viadux Phase 1 has recently been completed which includes a new public realm stair & lift connection to Great Bridgewater Street and Watson Street.

2.3 Existing Buildings

Castlefield Viaduct

The Grade II listed brick vaulted undercroft was last used for car parking, accessed from Trafford Street. The eastern section of the viaduct arches was, at this time, in use as a car showroom (Bauer Millett). Following cessation of that use, the premises was in temporary use as a multi-arts venue. A live primary substation is located in the southwest corner of the undercroft. At the upper level the viaduct has a tarmac covering and is used as the service yard for Manchester Central Convention Complex.

The viaduct interiors, which are not currently visible from the street, are of high quality with brick vaulting, stone quoins and pointed transverse arches connecting the main vaulted spaces. The outline of these transverse arches is visible on the western elevation of the viaduct, facing the Beetham Tower. Overall, the fabric is in poor condition following many years of inactivity and minimal maintenance.

Great Bridgewater Street Bridge

This Grade II Listed cast-iron bridge structure spans across Great Bridgewater Street, from the application site over to the main island site of the Manchester Central Convention Complex. There are two road connections across it, which were constructed using concrete link beams (installed above the original cast iron structure), that provide service access to the exhibition halls. Remaining areas of the original bridge construction are unsuitable for vehicle access and are in a poor state of repair.

The bridge, originally constructed to carry the approach lines to Manchester Central Station over Great Bridgewater Street, was largely completed by 1877. This applies specifically to the forty-four, cast-iron, segmental arches that make up the main part of the structure. The wrought iron or steel plate girder extensions observable at either end of the structure were believed to be later additions.

The construction of Viadux Phase 1 included the partial removal of the first sections of the bridge fronting Watson Street. The central portion of the bridge will be removed as part of Phase 2 proposals.

A supplementary significance appraisal was carried out on the bridge structure by Dr Ron Fitzgerald, and included within the appendix of the Heritage Appraisal which was prepared as part of the approved 2017 application.



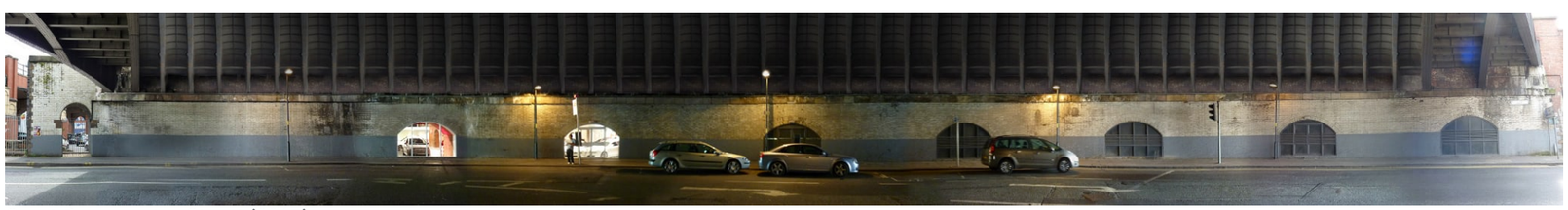


Brick Vaulted Undercroft of Application Site (2017)









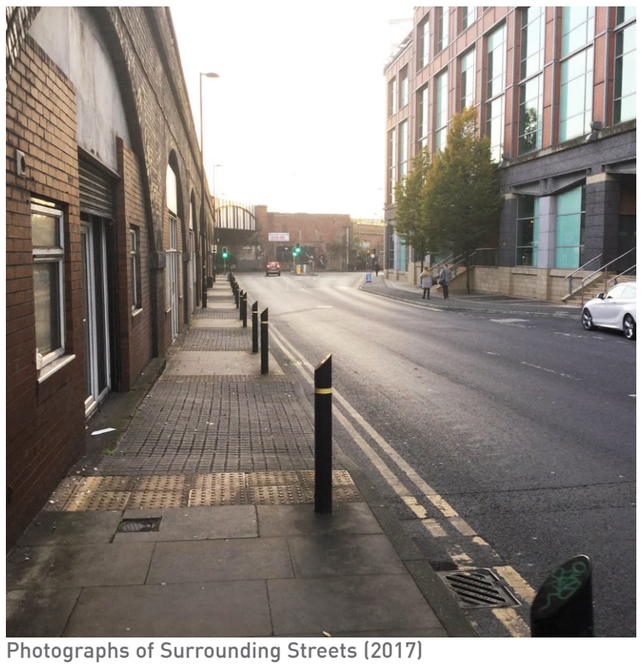
Great Bridgewater Street (2017)













Photographs of Surrounding Streets (2017)

2.4 Surrounding Streets

Environment

The streets surrounding the site are characterised by a poor pedestrian environment, dead frontages and unwelcoming spaces. The environment acts as significant physical and psychological barrier to movement around this part of the city centre.

Watson Street

Watson Street, running parallel with Deansgate, connects Great Bridgewater Street to Peter Street. The street is currently little more than a back street, and after Great Northern Square, there is a lack of active frontage and it is predominantly used for vehicular access to the two car parks under the Great Northern Warehouse and Leisure Box.

Watson Street has the potential to become a key route linking DCF Metrolink Station with Great Northern Square and Peter Street. To achieve this, significant public realm improvements are required, together with activate uses in the arches and the new (Phase 1) stair & lift connection to the top of the viaduct structure.

Great Bridgewater Street

Great Bridgewater Street offers the last opportunity to connect across the city east-west travelling north up Deansgate until Peter Street some 120m later. It is however an under used pedestrian route due to the poor street level environment. The road has no active frontage on either side and is flanked by car parking and boarded up arches. The significant length of the existing bridge creates a dark and unsafe feeling environment, which effectively cuts off this part of the street as a welcoming pedestrian route.

Albion Street

Albion Street is a wide vehicular route with a busy junction at Whitworth Street. A particularly wide throat to the junction to Trafford Street has created a difficult pedestrian environment to navigate, with a convoluted series of staggered crossing points. The introduction of the Metrolink bridge has left an awkward forecourt of residual space against the street, with little definition to the street edge.

Trafford Street

The introduction of the ramp to the upper viaduct level and Manchester Central service yard has effectively split this street in two. The first half from Albion Street provides access to the ramp, the second half runs from Deansgate and terminates under the ramp. The environment under the ramp and along the back of Deansgate Locks is particularly poor and is currently little more than a service road for the Beetham Tower and premises on Deansgate Locks.

2.5 Heritage Context

Heritage Significance Appraisal

A Heritage Significance Appraisal was prepared by Stephen Levrant Heritage Architecture at the outset of the project to provide a detailed understanding of the significance of the heritage assets on and adjacent to the site. This significance appraisal, dated October 2016, was submitted in support of the 2017 Former Bauer Millett Site application (reference 115871/FO/2017). Further to this, an updated Heritage Impact Assessment has been prepared to provide an understanding of the impact of the proposals with regards to the consented wider Viadux scheme.

Conservation Areas

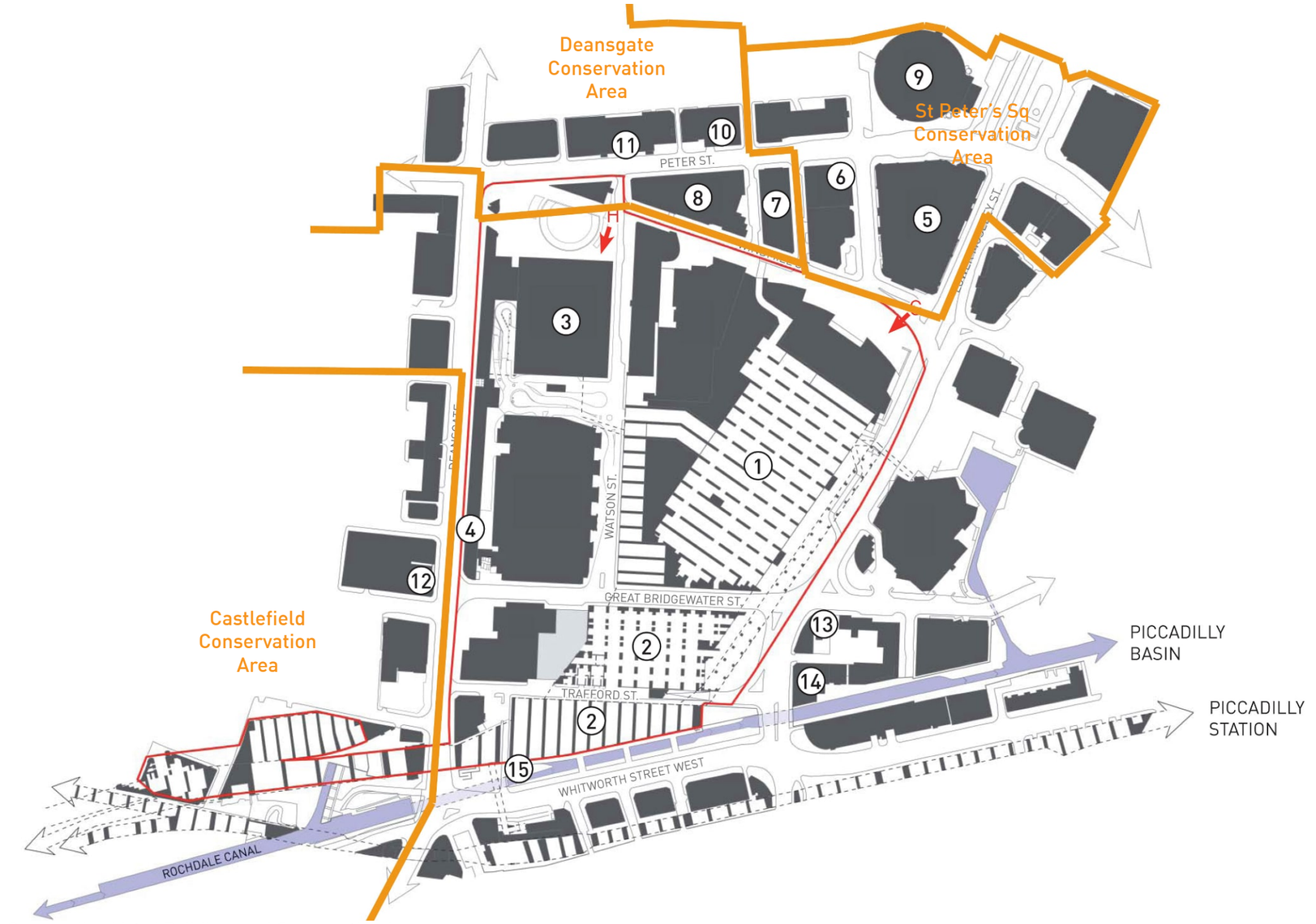
The site is not in a Conservation area, however there is potential for development on the site to impact on the character and appearance of surrounding Conservation Areas to the north and west:

- St Peter's Square Conservation Area
- Albert Square Conservation Area
- Deansgate/Peter Street Conservation Area
- St John Street Conservation Area
- Castlefield Conservation Area

Heritage Assets

The development site comprises the eastern most end of the Grade II listed Castlefield Viaduct. It is also located in the vicinity of several imposing listed structures, most notably the Grade II* listed former Manchester Central Station building located immediately to the northeast of the site.

	Building	Listing
1	Manchester Central	Grade II*
2	Castlefield Viaduct	Grade II
3	Deansgate Goods Station	Grade II*
4	235-291 Deansgate	Grade II
5	Midland Hotel	Grade II*
6	56-58 Peter Street	Grade II
7	Royale Club	Grade II
8	Free Trade Hall	Grade II*
9	Central Public Library	Grade II*
10	Harvester House	Grade II
11	Albert Memorial Hall	Grade II
12	Castlefield Info. Centre	Grade II
13	The Britons Protection	Grade II
14	13-17 Albion Street	Grade II
15	Lock Keeper's Cottage	Grade II

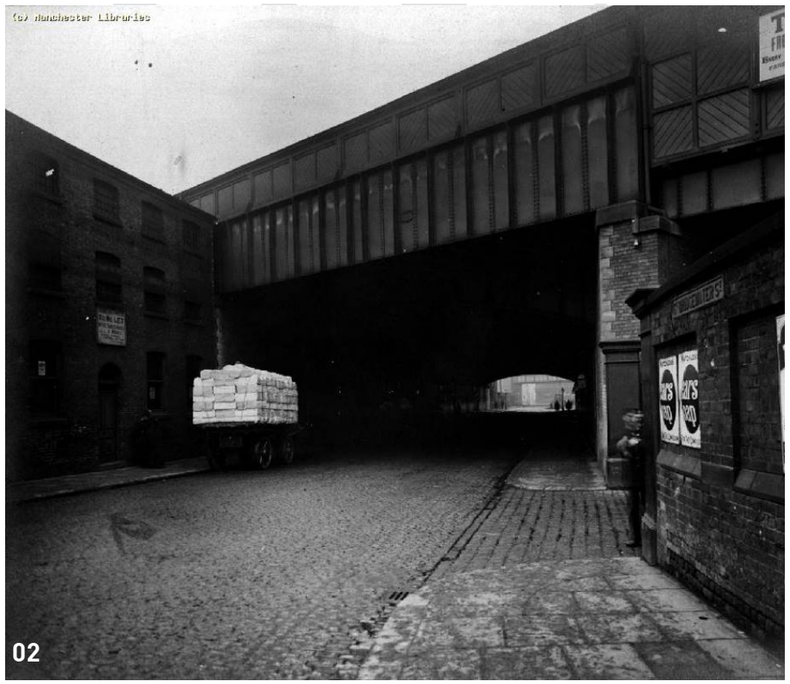


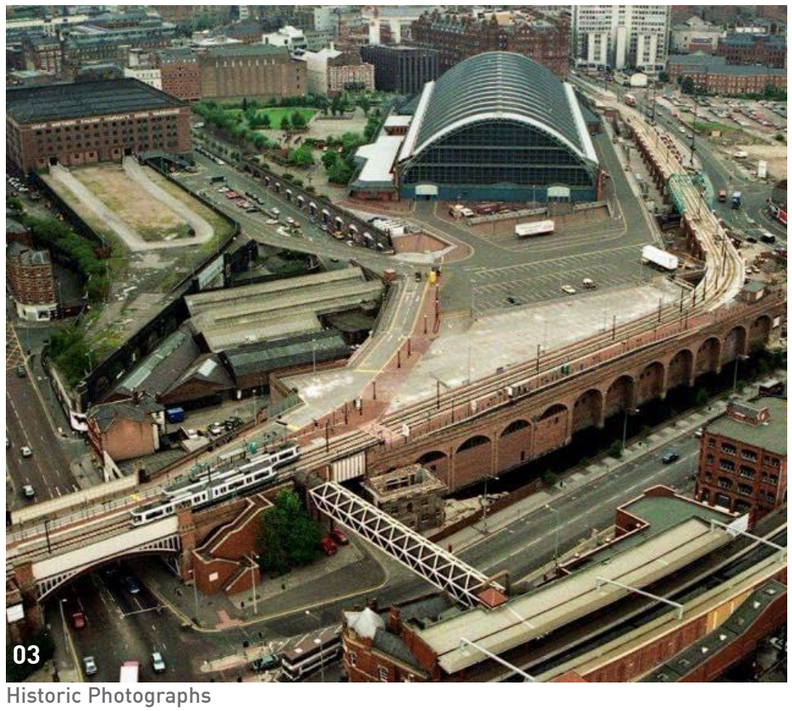
Surrounding Listed Buildings and Conservation Areas



Listed Building Images









Historic Photographs

Photograph 01
View from Great Bridgewater Street / Albion Street looking west 1900.

Photograph 02
Eastern end of the bridge / viaduct seen from Great Bridgewater Street in 1909. Following the addition of a further railway line which can be seen running horizontally across the image on extended piers.

Photograph 03
Aerial image of the site looking north from 1992 prior to the construction of the Trafford Street ramp.

Photograph 04
Aerial image looking west from 2010.

2.6 Development Context

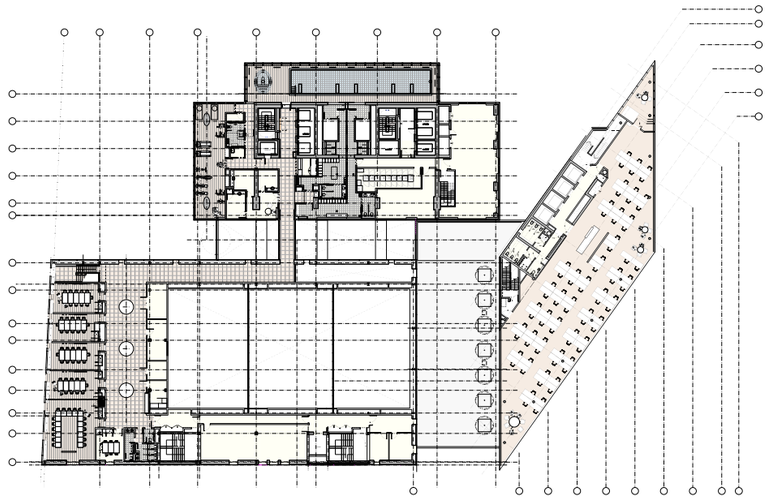
Strategic significance

The former Bauer Millett site has long been identified as a key regeneration site by Manchester City Council, in particular since approval of Manchester City Council's Civic Quarter Regeneration Framework (2010), which envisaged a major mixed-use development coming forward on the site. This ambition has been retained and reinforced in the Strategic Regeneration Framework for Great Northern, Manchester Central and Castlefield Quay, which was approved at the Executive Committee in February 2017.

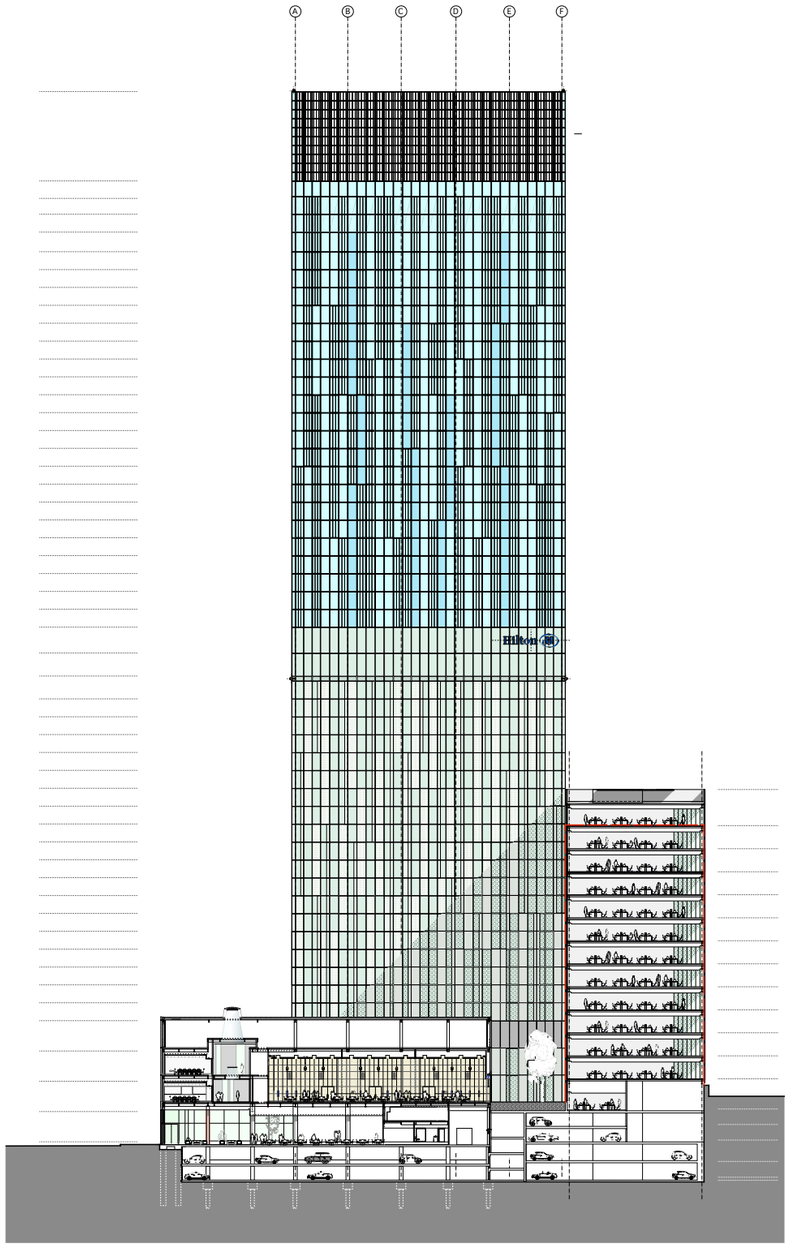
Beetham Tower Office Planning Applications 2003 & 2005

The planning consent for the Beetham Tower (application reference 068662/FO/2003/C3) included the erection of a 14-storey office building on the site in between the Beetham Tower and the Viadux site (known as the Slot Site).

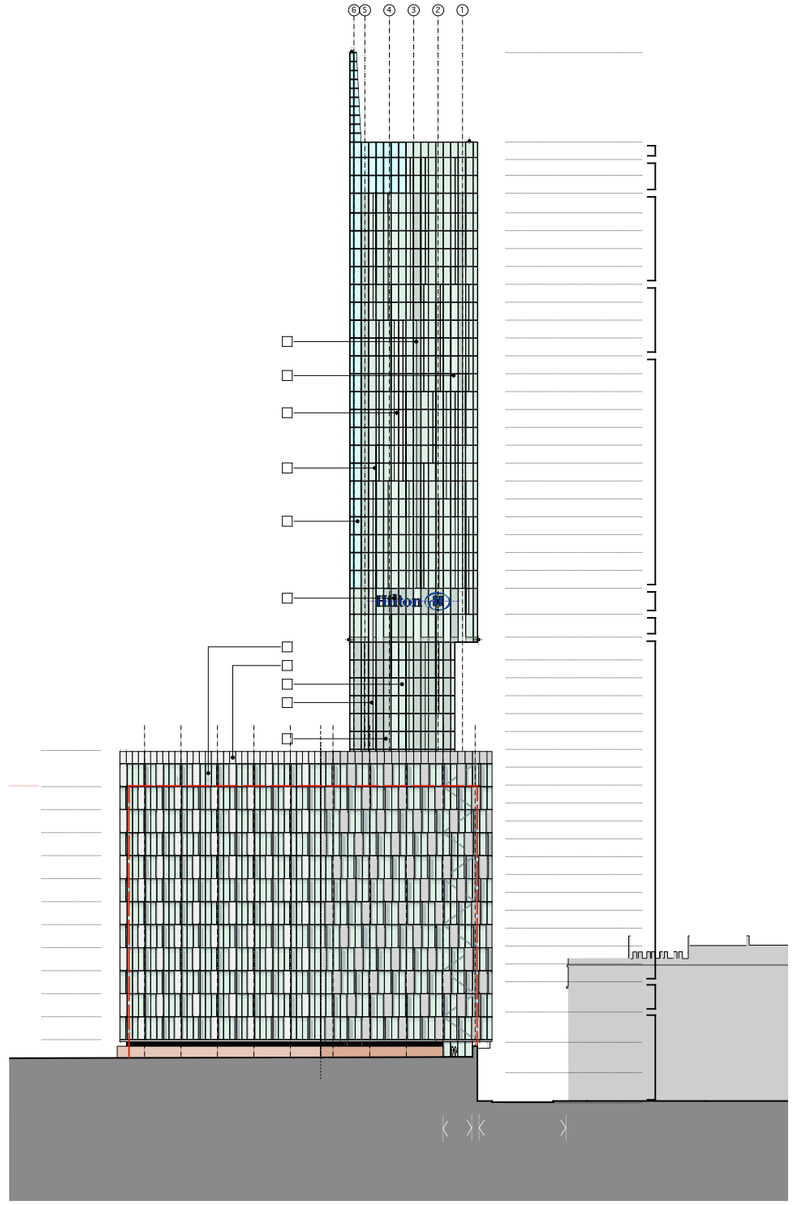
A revised application was 'accepted in principle' in 2005 which included alterations to the Beetham tower and an increase in footprint and height of the office building. The consent for this scheme is still live due to the construction of the tower. This site has remained unused and hoarded off since the completion of the Beetham Tower in 2007.



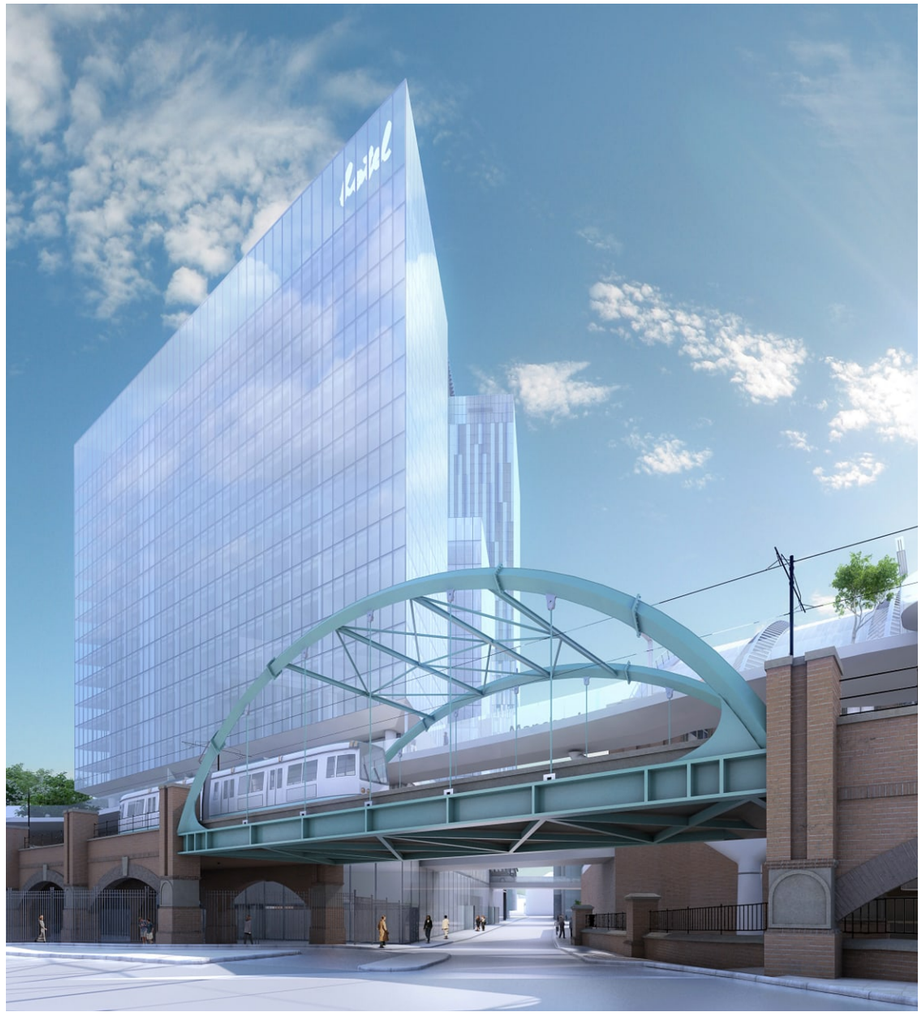
2005 - Beetham Tower Office Planning Approval Drawings - Plan



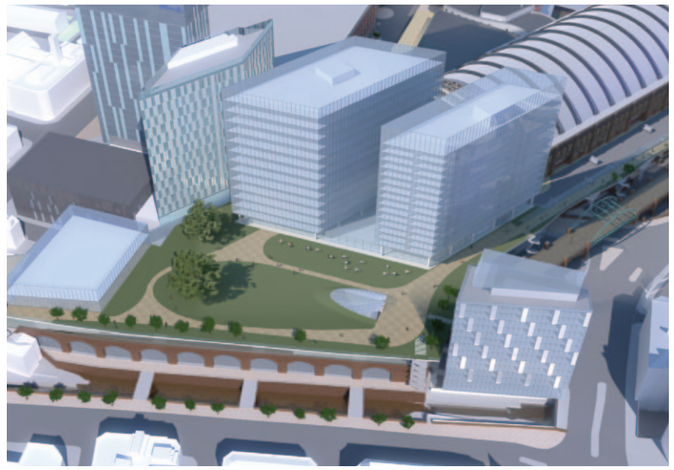
Section



Elevation







2009 - Manchester Central Masterplan Visualisations

Manchester Central Masterplan 2009

SimpsonHaugh were appointed by TfGM to prepare a masterplan for the subject site and Deansgate-Castlefield Metrolink (DCF) site in 2009. The original masterplan proposed a roof deck over the entire site area, extending out across Trafford Street and the Metrolink stop area with an open aspect over Deansgate Locks. The roof deck was envisaged to support a new landscaped public realm forming a 'green heart' of a new 'place' and focus for the masterplan area. The masterplan proposed a significant mixed use scheme comprising office, retail and hotel uses arranged on the deck. The masterplan envisaged the wholesale demolition of the viaduct structure within the site, including the railway arches and the bridge over Great Bridgewater Street.

Civic Quarter Regeneration Framework 2010

The Manchester Central site is one the last remaining sites to come forward as identified in the Framework in 2010. A key priority of the Framework was to see the transformation of Deansgate interchange into a world class space, where the pedestrian environment is given priority over all forms of vehicular traffic, alongside high quality, modern public transport and new public realm, which embraces the 'greening' of the city. The framework identifies the site for 70,000sqm of new office, retail and hotel space within a collection of tall buildings to complement the Beetham Tower.

Deansgate Castlefield (DCF) Metrolink Stop 2015

SimpsonHaugh were appointed by TfGM to assist with the detail design of the Deansgate-Castlefield Metrolink stop proposals in 2010.

Due to financial and logistical issues with building the deck level over the tenanted arches, the full deck solution proposed in the 2009 Masterplan was deemed not to be viable.

The revised concept for the stop looked to 'cut back' the extent of the roof deck, strengthened the theme of interconnected multi-level green spaces. The concept of the stop within a garden space was promoted and a contextual diagram of the stop as one of a 'string' of waterside green spaces, linking Castlefield with The Bridgewater Hall canal side public realm areas was developed.

The stop was completed in 2015 and includes high quality hard and soft landscaping, a green wall, stair and lift at the Deansgate end of the stop, and a stair and bridge at the First Street end.



DCF Metrolink Stop - New Vertical Circulation and Green Wall



DCF Metrolink Stop - New Stop Arrangement

Great Northern, Manchester Central, Castlefield Quay SRF 2017

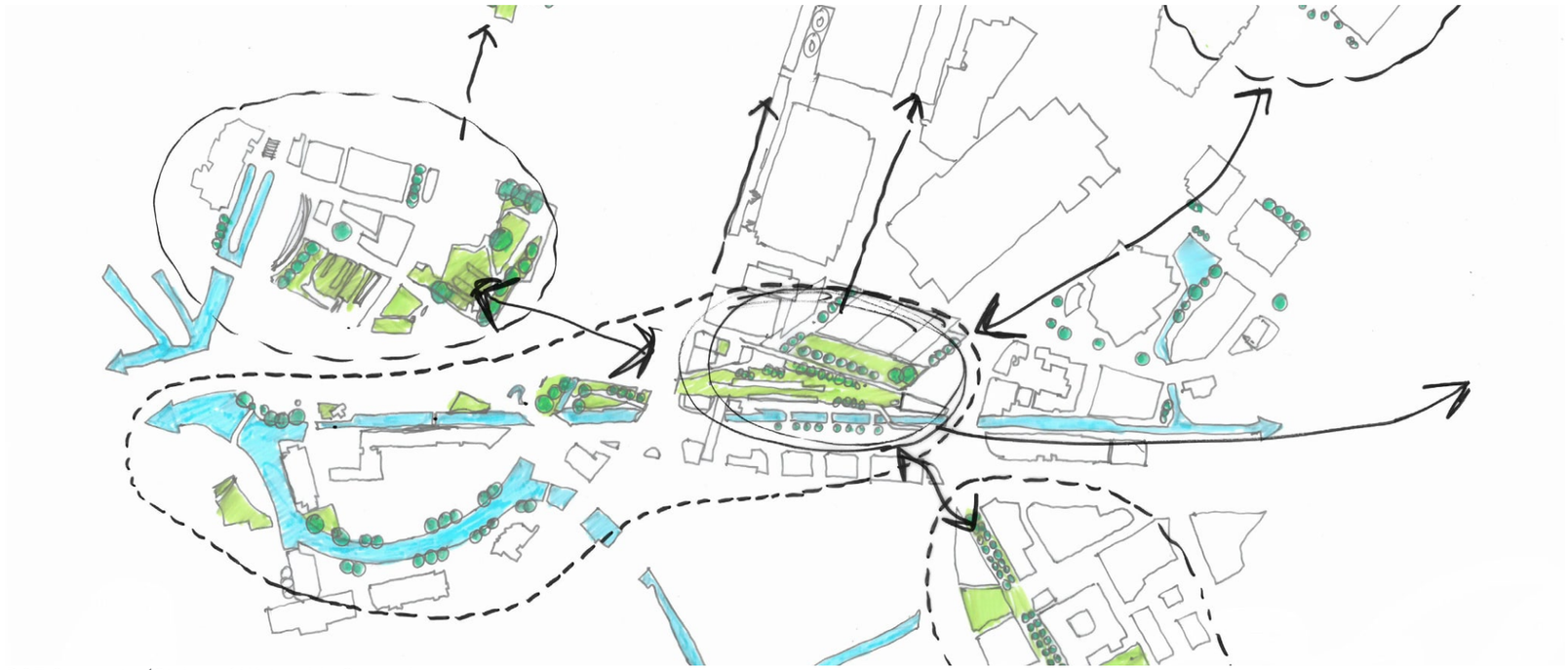
The former Bauer Millett (Manchester Central) site is one of three sites included within this Strategic Regeneration Framework (SRF) endorsed by the MCC Executive Committee in February 2017. The SRF was prepared to guide the future reconfiguration, re-development and re-positioning of the Great Northern, Manchester Central and Castlefield Quay sites in Manchester City Centre.

These interlinked and strategic sites, at the southern edge of the city centre, are situated in a pivotal location between a number of Manchester's key established and emerging economic growth and regeneration areas. Whilst inherently interlinked, each area has its own character, faces distinct challenges and presents unique opportunities. Consequently, the framework considers site-wide issues, together with detailed site analysis and development principles for each of the sub-areas.

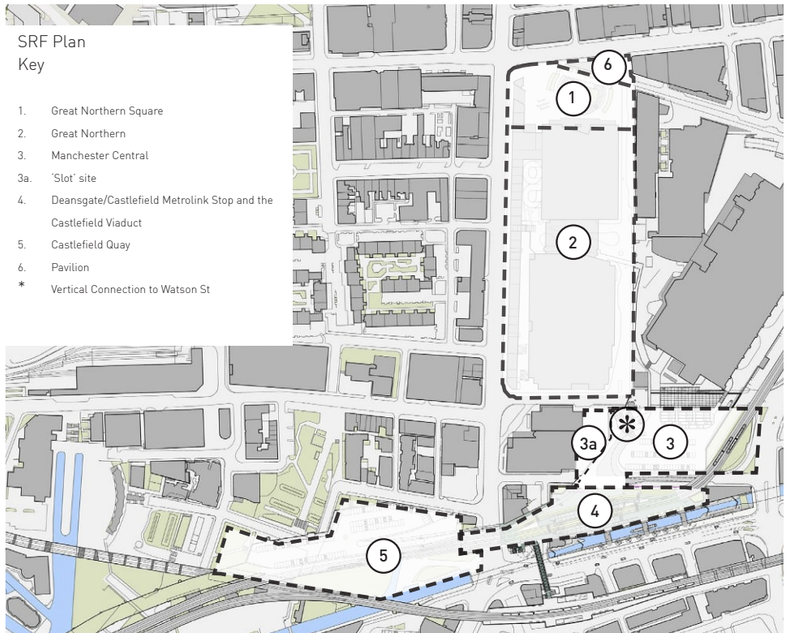
The SRF looked for the Manchester Central site to deliver on its potential for a gateway site for this part of the city centre, providing safe and legible connections. The following is a list of relevant key development principals taken from the SRF:

- To deliver a critical mass and mix of high quality city centre uses that will combine in order to create a distinctive sense of place as well as life and vitality on weekdays, in the evenings and at the weekend.

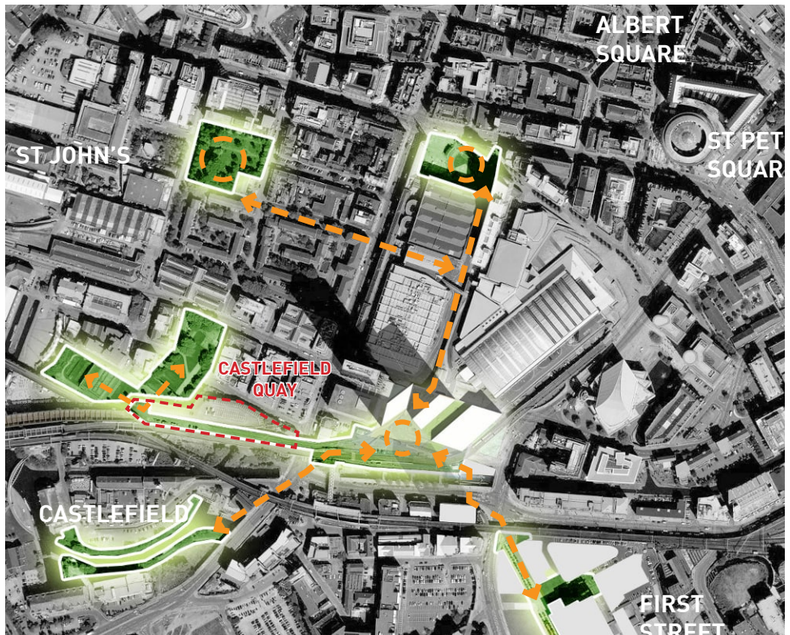
- To deliver a high quality mix of uses that will support the sensitive and long term reuse of the site's key heritage assets including the listed buildings and viaducts. The site's heritage assets will lie at the heart of any proposals within the Strategic Regeneration Framework area.



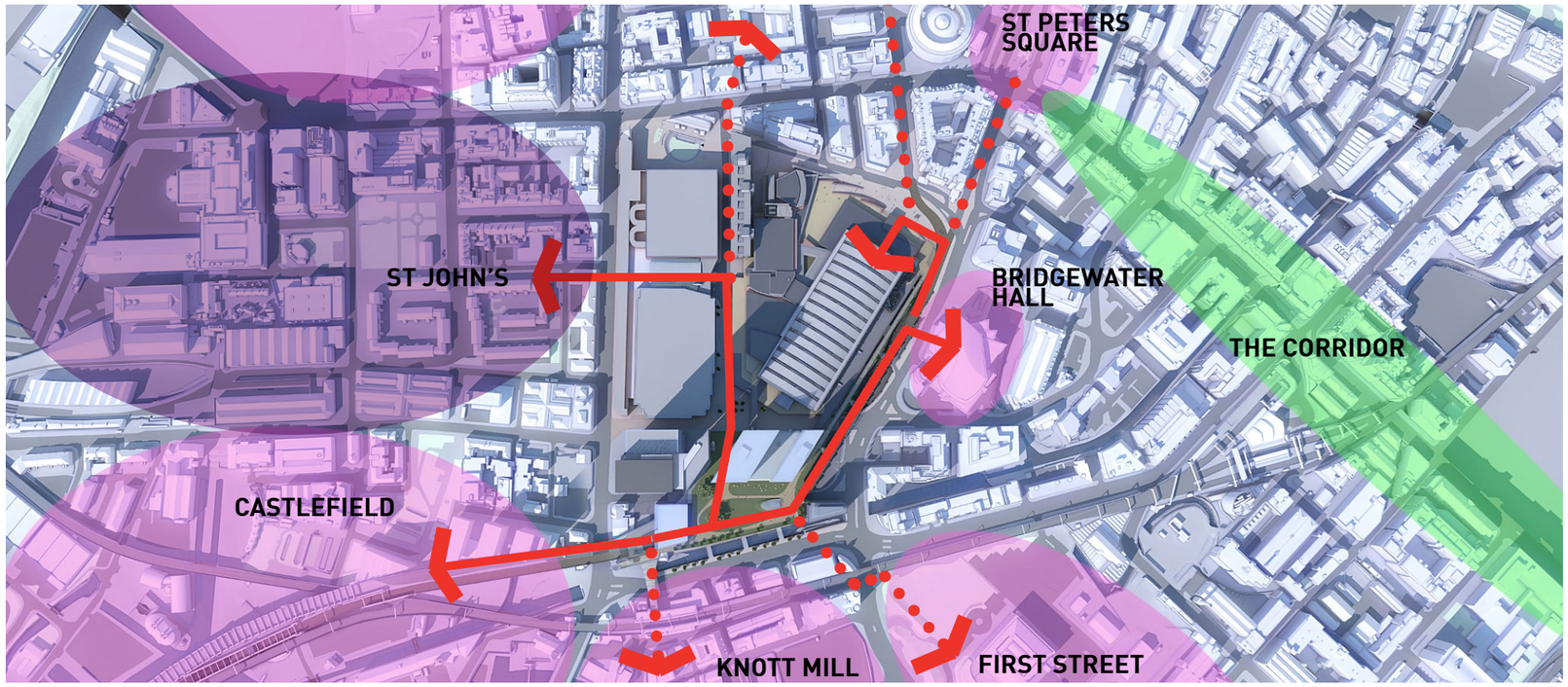
DCF Concept - 'String of Waterside Spaces'



2017 SRF - Development Sites



2017 SRF - Linked Spaces



2017 SRF - Strategic Connectivity

- To enhance the setting of listed buildings and structures, and to promote as well as celebrate the site's history through the use and arrangement of the built environment, and through encouraging significantly uplifted levels of pedestrian flows through the area.

- To improve permeability through the site by the introduction of legible, animated, at-grade, high quality north/south and east/west pedestrian linkages. This would also establish positive, pedestrian friendly linkages between the city's Southern Gateway regeneration areas, including First Street; the city centre's existing commercial core; Spinningfields, The civic core of Manchester around Albert/St Peter's Square, St John's and Castlefield, The Deansgate Castlefield metrolink stop and Deansgate Station, the Conference Quarter, and, the wider city centre.

- The SRF area can and should accommodate buildings of scale which complement the existing (Beetham Tower) and emerging context of tall buildings in the area. This will assist in connecting the site back to the core of the city centre and will continue the process of expanding that core southwards.

The framework was updated in 2019 in so far as it related to the Great Northern Warehouse Complex, with a view to incorporating the additional Grade A office use into the overall mix of uses to come forward within the Warehouse building. (The Great Northern Warehouse SRF Update March 2019).

The framework also highlights the opportunity to deliver a hotel use as part of the mix of uses, which given its immediate adjacency to the Convention Centre would further support Manchester's economic growth.

Petersfield Study 2022

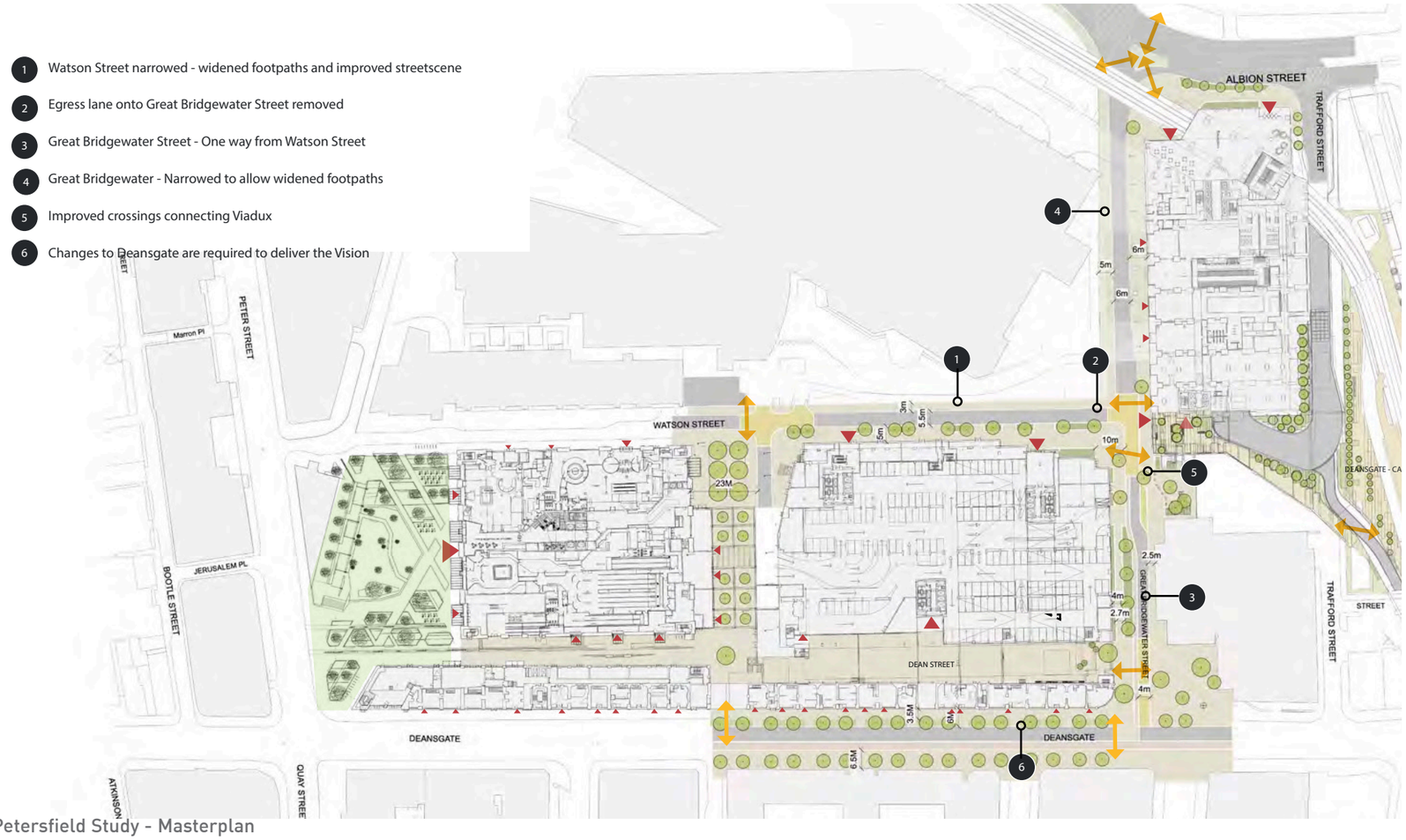
Following initial pre-application consultations with Manchester City Council, it became clear that a series of placemaking principles needed to be established to guide improvements to the principal streets surrounding the Great Northern and Viadux sites, to respond to the changing character of this area as a high quality mixed use residential neighbourhood within the city. This was undertaken as a stand-alone study for Manchester City Council.

Working in collaboration with the Great Northern development team and Manchester City Council, a vision study (The Petersfield Study') was undertaken to set out a strategy for improvements to Watson Street, Great Bridgewater Street and Albion Street, and the integration of these principles with the emerging strategy for future improvements to Deansgate being developed separately by Manchester City Council. The over-arching objective for the study was to develop initial concepts for high quality streetscapes that prioritised pedestrian and cycle movement, whilst carefully integrating the necessary vehicular traffic movements. Improved pedestrian connection to the new lift and stair access to Deansgate Castlefield Metrolink station was a key priority of the study.

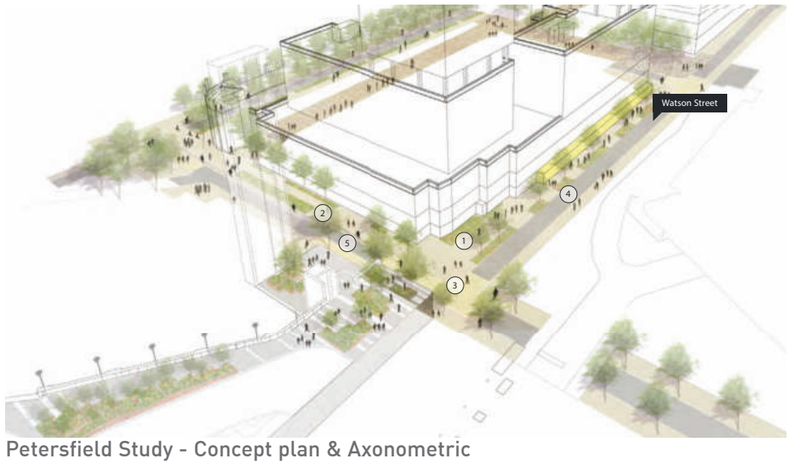
The strategy incorporates suggested improvements to Watson Street and Great Bridgewater Street, including narrowing the carriageway widths and increasing footway widths, 'de-engineering' and de-cluttering the streets, incorporating high quality materials and tree planting where possible.

The first phase of these improvements will be focussed on the junction between Watson Street and Great Bridgewater Street, the connection to the Metrolink access stair and lift, and improvements to Watson Street itself.

1. Watson Street narrowed - widened footpaths and improved streetscene
2. Egress lane onto Great Bridgewater Street removed
3. Great Bridgewater Street - One way from Watson Street
4. Great Bridgewater - Narrowed to allow widened footpaths
5. Improved crossings connecting Viadux
6. Changes to Deansgate are required to deliver the Vision



Petersfield Study - Masterplan



Petersfield Study - Concept plan & Axonometric



Petersfield Study - Watson Street



Aerial View Looking West



Aerial View Looking South East

KEY: APPLICATION SUBMITTED/ CONSENTED | UNDER CONSTRUCTION / RECENTLY COMPLETED

Great Northern Warehouse (GNW) Planning Application 2022

An application for the phased redevelopment of the Great Northern Warehouse (GNW), Deansgate Terrace and Leisure Box, including areas of public realm (application reference Ref: 135565/FO/2022) was approved February 2023.

The proposals include the refurbishment and redevelopment of the Grade II* listed Warehouse and Grade II listed Deansgate Terrace to create a new mixed-use urban quarter for Manchester.

The refurbishment of the listed buildings will be complemented by the comprehensive redevelopment of the southern part of the site to create new high-quality residential apartments and associated amenity spaces, accommodated in three tall buildings arranged around a shared residents' courtyard.

The site's under-used public realm, which includes the Great Northern Square, will be completely transformed, creating a green, bio-diverse oasis within the city, and introduce vibrant new pedestrianised streets, improving connectivity and legibility.

The application consisted of:

- The restoration and re-use of the Great Northern Car Park to provide office and retail uses.
- The refurbishment, restoration, partial demolition and erection of a 3-storey extension to Deansgate Terrace (northern section) and Goods Yard Entrance to form office and retail uses. .
- The partial demolition of the existing leisure box to erect three residential buildings (ground plus 16, 27 and 34 storeys) to provide 746 residential apartments and the reconfiguration of existing car parking to create office and retail uses.

2.7 Planning Policy

2.7.1 The Development Plan

The 'Planning and Tall Building Statement' covers in detail the relevant planning policy framework which forms the basis for the consideration of the Proposed Development. Relevant Core Strategy with regard to design and access is outlined in further detail across the following chapter, supplementing the DAS:

Core Strategy Policy Sp1 – Spatial Principles

The spatial principles behind Manchester's Core Strategy seek to emphasise the role of the City to the Greater Manchester economy, and also ensure that the City grows in a way which reflects the aspirations of its residents.

The Site is within the Regional Centre and City Centre. Policy EC3 includes housing as an appropriate use in the Regional Centre where this complements the development of mixed use employment areas, such housing will generally be higher density

Core Strategy Policy CC3 – Housing

CC3 specifically includes the Southern Gateway, in which the proposal is located, as a key location for residential development. It notes that developments in the City Centre will comprise apartments that are of a high standard offering accommodation which suites a range of occupants.

Core Strategy Policy CC4 – Visitors -Tourism, Culture and Leisure

Policy CC4 recognises the importance of new hotel development to support existing visitor attractions in the city. It notes that new hotel development which contributes to the quality of the City Centre hotel offer will be supported.

Core Strategy Policy CC6 – City Centre High Density Development

High density development in this location is supported by Core Strategy Policy CC6. Through design development, the layout, massing, Site position and facade have been tested and refined so that the buildings reach their potential and provide a high-quality addition to Manchester's built environment and skyline.

Core Strategy Policy CC7 – Mixed Use Development

Policy CC7 promotes mixed use developments within the City Centre as the most efficient use of land, providing both employment opportunities and active public functions to animate the surrounding public realm.

Core Strategy Policy En1 – Design Principles and Strategic Character Areas

Policy EN 1 seeks to ensure that all developments follow the seven principles of urban design (Character, Community and Enclosure, Quality of Public Realm, Ease of movement, Legibility, Adaptability and Diversity). In the City Centre developments are expected to consider the City's heritage. It is noted that there is an opportunity to create landmark buildings that positively relate to the street level and quality areas of public space and permeability should be realised.

Core Strategy Policy EN2 – Tall Buildings

Policy EN 2 relates specifically to tall buildings - ensuring they are of an excellent design quality and contribute to the skyline acting as landmarks. On this basis, the proposals accord with Advice Note 4 and will deliver a functional design and meets the requirements of Policy EN2 with regard to creating an attractive pedestrian environment

Core Strategy Policy EN4, EN6 & EN8

Policy EN4 seeks to ensure that all development is designed to improve energy efficiency and incorporate low and zero carbon technologies. Policy EN6 provides specific targets that developments should achieve. Policy EN 8 seeks to ensure that all developments are adaptable to climate change by virtue of there design, layout and siting.

Core Strategy Policy EN11 - Quantity Of Open Space, Sport & Recreation

Identifies opportunities for open sport and recreation space across Manchester with new open spaces being interconnected and accessible to all.

Core Strategy Policy CC9 – Design and Heritage

Policy CC 9 seeks to ensure development preserve or enhance heritage assets. It supports high density development in the City Centre but recognises the design challenges that need to be overcome. The proposed design is a considered response that provides a high quality development on a site that is currently underutilised and fails to make a positive contribution to the local streetscape or wider built environment in line with Core Strategy Policy CC9.

Saved UDP Policy DC18.1 & 19.1

Saved UDP Policy DC 18 and DC 19 apply to developments within the setting of Conservation Areas or Listed Buildings, with developments preserving or enhancing the setting of historic assets.

Core Strategy Policy DM1 – Development Management

Policy DM 1 includes specific issues that developments must have regard to. Accessibility is key to this with the supporting text referring to DFA2.

Core Strategy Policy T2 - Accessible Areas of Opportunity & Need

T2 seeks to ensure that new development is accessible to all in terms of its location and connections to the wider City and also provision of car parking that reflects the accessible nature of a site.

Core Strategy Compliance

The Core Strategy fully supports mixed use, high density, tall buildings within this area. In line with the Core Strategy policies, the Proposed Development has been designed to the highest quality to positively contribute to the City's Skyline. The technical team has been involved in every step of the design process to ensure that microclimate issues, access, energy and sustainability considerations have been factored into the design from the outset.

› **Places For Everyone - Joint Development Plan (2022-2039)**

Places for Everyone was in draft during the preparation of the Proposed Development and therefore was a material consideration as the Proposed Development was being designed.

Since its adoption in March 2024, the relevant policies have been reviewed in relation to design and access and these include

Policy JP-H3: Type, Size & Design of New Housing

Policy JP-H3 states that Residential developments should provide an appropriate mix of dwelling types and sizes reflecting local plan policies, and having regard to masterplans, guidance and relevant local evidence. Additionally JP-H3 states that all new dwellings must:

1. Comply with the nationally described space standards; and
2. Be built to the 'accessible and adaptable' standard in Part M4(2) of the Building Regulations unless specific site conditions make this impracticable.

All units within the Proposed Development comply with the nationally described space standards. Due consideration has been given to the provision of 'accessible and adaptable' units, which is covered in detail in chapter 5.

The Proposed Developments contains 10% accessible and adaptable units to M4(2) standard, however where possible, the design team will expand upon this and incorporate achievable dimensional M4(2) elements within the available apartment areas.

The affordable housing proposed in plot 2b has seeked to maximise the amount of accommodation that can be provided on the site, and provide a wide range of different sized units. However, there are significant spatial constraints posed by constrained site and non-orthogonal footprint, making the M4(2) standard challenging to achieve in all units.

2.7.2 Other Material Considerations

The 'Planning and Tall Building Statement' covers in detail the relevant planning policy framework which forms the basis for the consideration of the Proposed Development. Relevant policy with regard to design and access, is outlined in further detail across the following chapter, supplementing the DAS:

› National Planning Policy Framework

The NPPF is clear that the purpose of the planning system is to promote sustainable development (Paragraphs 7 and 8).

Section 5 seeks to deliver a sufficient supply of homes with sufficient access to services and employment opportunities.

Section 8 seeks to promote healthy, inclusive and safe places with beautiful buildings. Places should be designed so that they are safe, accessible and promote social interaction, for example through mixed use developments (Para 96).

Section 11 promotes efficient use of land in meeting the needs of homes and other uses, multiple benefits can be achieved in the creation of mixed-use developments (Para 124).

Section 12 seeks to ensure that developments are well designed with high quality, beautiful and sustainable buildings and places being fundamental (Para 131).

› Design for Access 2 (2003)

The Design for Access Manual was published in December 2003, providing practical guidance to inclusive design. It requires developments to be fully inclusive and accessible and the Council's vision is for Manchester to be recognised as the most accessible City in Europe. MCC recognises that inclusive design needs to take account of cross-impairment and community-based issues.

The aim of Design for Access 2 is to provide guidance on best practice. However, it is acknowledged that it may not always be possible to meet all the standards. Design principles that will help to achieve accessible development that are relevant to the Proposed Development include the approach taken to developing inclusive design, the key issues and difficulties of the particular scheme, and the sources of advice and guidance used.

› Providing for Housing Choice (2008)

Adopted in 2008, this Supplementary Planning Document provides guidance about the mix of new housing provision required in Manchester, setting out the proportion and types of affordable housing required, the sites on which this will be required and the practical planning, design and procedural requirements.

› Manchester Residential Quality Design Guidance SPD (2017)

The Residential Quality Guide to Development in Manchester sets a number of design criteria that should be followed for residential schemes.

Opportunities to Meet - Residential development requires local amenities such as local shops, community facilities and recreation space, which can act as focal points for residents to come together and interact with one another. Within buildings, the lobbies, lifts, stairs and corridors shape the most local experience of a place, with shared access and communal space creating a strong sense of ownership and community.

Housing for All - Different groups have specific needs; for younger families it might be the relationship to play space and play facilities; for the older generation it may be more restorative spaces with access to medical services.

Development must also consider how it might become adaptable in the future, taking into consideration changes in population that might take place in the future as well as the life cycle of its residents. The RQG 2017 continues that Manchester is, by its very nature, a sustainable location with access to a range of facilities and served by a range of transport modes. A key goal for Manchester is to reduce its CO 2 emissions and develop a sustainable future. At the same time, the city needs to continue to function and retain its competitiveness. As a consequence, there is a need to balance the provision of sufficient parking with the need to encourage different, more sustainable modes of transport and working towards reducing the dependence on the car.

› Great Northern, Manchester Central, Castlefield Quay SRF (2017)

Approved in 2017, this SRF was prepared to guide the future reconfiguration, re-development and re-positioning of the Great Northern, Manchester Central and Castlefield Quay sites in Manchester City Centre. It recognises the Manchester Central site as a high profile arrival point into the southern part of the city centre, and looks for the site deliver on its potential for a gateway site, providing safe and legible connections. A list of key development principals taken from the SRF is included in section 2.6 of this document.

› Tall Buildings - Historic England Advice Note 4 (2022)

This advice note identifies a series of steps that should be undertaken in terms of pre-application consultation and how tall buildings can have a positive relationship with Heritage assets and their setting, important views and the impact on the skyline. It proposes a Design Framework consisting of the following six guiding principles:

1. The response to local context
2. The impact on the local environment
3. Architectural quality
4. Functional design
5. Sustainable design
6. A well-design inclusive environment

2.8 Emerging Context

The immediate area surrounding the site has a number of schemes which have recently been completed, under construction, or have a recent planning consent. These include the following:

Recently Completed

4.	Man University Science & Eng. Bldg	7 storeys
8.	Viadux Phase 1	40 storeys
10.	The Blade	52 storeys
10.	Three60	52 storeys

Under Construction

1.	Plot 9a, First Street	10 storeys
2.	Plot 10b, First Street	14 storey
3.	First Street South (Sq Gardens)	10 - 45 storeys
5.	Great Jackson St. Plot F (Contour)	51 storeys
6.	Havelock	9 storeys
7.	Barclay House	Refurb
9.	Staycity Manchester	22 storeys
11.	Town Hall refurbishment	Refurb
12.	St Micheal's	11 & 44 storey
13.	Number 3 Circle Square	15 storeys
14.	Deansgate South (Fusion)	28 storeys
18.	Vision	35 storeys

Consented

15.	One City Road	11 & 14 storeys
16.	One Medlock Street	11 – 38 storeys
17.	St George's Place	8 & 9 storeys
19.	Plot 10a First Street	13 storeys
20.	Plot G Great Jackson St. (Park Place)	56 & 56 storeys
21.	Bridgewater House	4 storeys
22.	Great Northern Warehouse	17 – 35 storeys
23.	Upper & Lower Campfield	Refurb
24.	Metropolitan University Library	13 storeys
25.	Student Castle	4 – 55 storeys
26.	Crown Street Plot D (The Lighthouse)	71 Storeys
27.	Crown Street Plot C & E (The Green)	47 - 51 Storeys

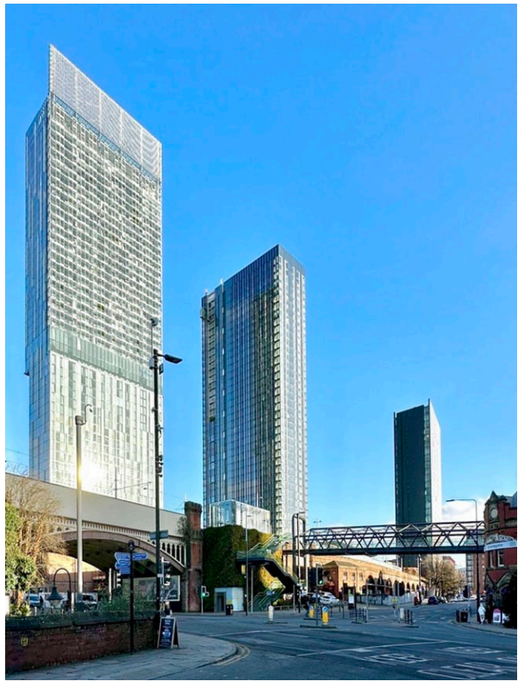
Submitted

28.	Apex Tower	26 storeys
29.	Plot 11 Block C First Street South	28 storey
30.	Hotspur House	4 – 37 storeys

(Approximate storey heights including parapets)

These developments are changing the immediate context and scale of the site area. The area is being transformed from a tight knit urban grain of low to mid rise buildings, to a cluster of tall buildings emerging around Beetham Tower, firstly with Axis at 27 storeys, Viadux Phase 1 at 40 storeys, 325 Deansgate at 22 Storeys and Vision at 37 storeys.

A further cluster of tall buildings is nearby in New Jackson neighbourhood. This emerging district comprises a variety of developments in various stages development.



Viadux Phase 1



325 Deansgate



Fusion (Deansgate South)



New Jackson District



Axis



Vision



Square Gardens - First Street South



Plot F - New Jackson



Great Northern Warehouse



Location Plan Showing Emerging Site Context

2.9 Viadux Planning History

2.9.1 Phase 1 Residential (2017)

Below is a summary of the site's planning history. A detailed overview of the site's planning history can be found in the Planning Supporting Statement which accompanies this application.

An application for the construction of a mixed-use development on the former Bauer Millet site (Ref. 115871/FO/2017) was approved 27 July 2017. The application consisted of:

- The development of a 40 storey residential building to provide 375 apartments.
- A 14 storey office building with 36 car parking spaces at grade accessed from Trafford Street.
- Flexible ground floor retail space with access from Great Bridgewater Street.
- Enhanced public realm, landscaping and associated works including a staircase and lift from street to viaduct level.

Simultaneously, Listed Building Consent (Ref. 115872/LO/2017) was granted for:

- Alterations to the viaduct structure including insertion of columns and circulation cores.
- Creation of shop fronts and staircase to Great Bridgewater Street.
- Staircase to Great Bridgewater Street.
- Alteration and removal of cast iron ribs to Great Bridgewater Street bridge.

These approvals were subsequently amended by means of a Minor Material Amendment (Ref. 126868/JO/2020), approved on 20 August 2020, and a Section 19 of the Planning (Listed Buildings and Conservation Areas) Act 1990 (Ref. 129168/JO/2021), approved on 4 March 2021. The amendments included a reduction in overall height by 2.5m and various ground floor layout changes, including enlargement of residents lobby together with re-location of the cycle store and reduction in car parking.

In addition to these approvals, an application pursuant to the main consent (Ref 127260/FO/2020) was submitted in relation to the north western corner of the site for the erection of a staircase and lift linking Great Bridgewater Street to the Castlefield Viaduct; construction of a new residential entrance on Great Bridgewater Street; lobby and amenity space within the viaduct; landscaping and associated works. This application was approved on 28 October 2020.

Three further Non-Material Amendments to the amended application were made:

- 129152/NMC/2021 was approved 4 March 2021 to make alterations to the ground floor including enlargement of amenity areas.
- 131326/NMC/2021 was approved 26 August 2021 to facilitate elevational alterations to stair, planters and lift shaft.
- 139045/NMC/2024 was approved on 1 February 2024 to reduce the number of apartments from 375 to 362, remove plant from level 19, introduce decorative louvres and amend the service yard gates.

Phase 1 construction works completed in Spring 2024 and the building is now occupied.



View Northeast from Metrolink Bridge



View South along Lower Mosley Street



View along Watson Street



View down Great Bridgewater Street

Original 2017 Application Images (Ref. 115871/FO/2017)



View North East from castlefield Basin - Completed Building



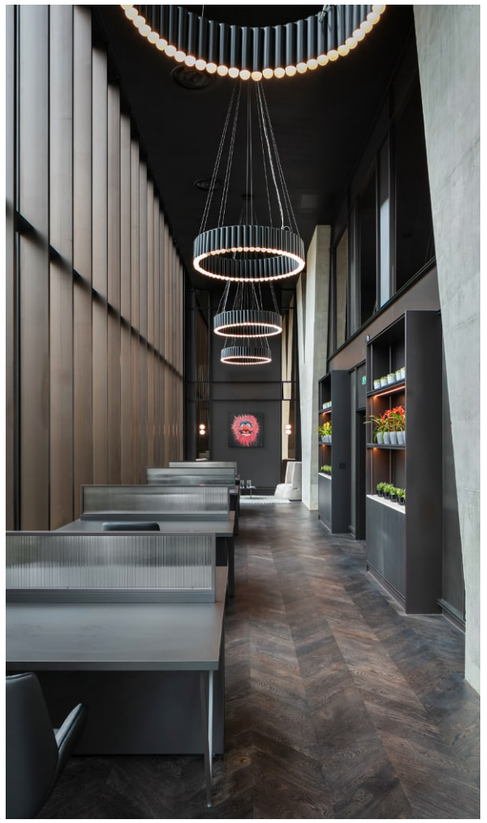
Ground Floor - Reception



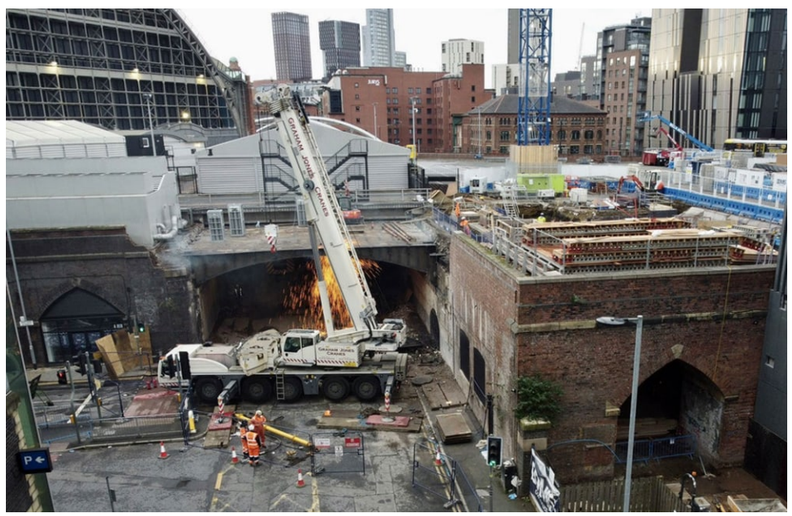
Level 01 Mezzanine - Amenity



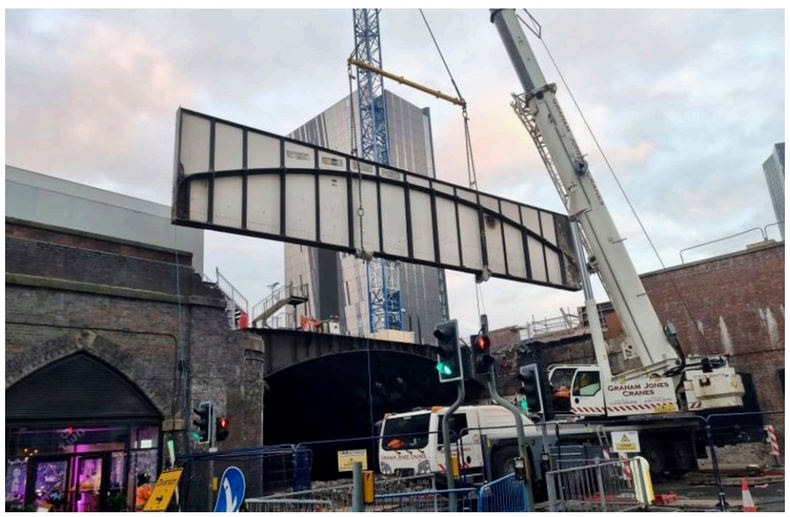
Ground Floor - Amenity



Level 01 - Amenity



Bridge Removal



Parapet Retention



Stair & Lift Completion

Progress Photographs

2.9.2 Phase 2 Office (2022)

The detailed design work for Viadux Phase 2 office resulted in a Minor Material Amendment to planning permission 126868/JO/2020 and LBC 129168/JO/2021.

Minor Material Amendment (Ref.133998/JO/2022) was approved 15 August 2022 and consisted of:

- Elevational alterations.
- The reconfiguration of the commercial floor spaces, including the creation of a triple height entrance foyer and encapsulation of the tram line.
- The creation of amenity spaces including green rooms and external terraces, alterations to landscaping and creation of an external seating area, and other associated works.

On the same date an accompanying Section 19 of the Planning (Listed Buildings and Conservation Areas) Act 1990(Ref. 133760/JO/2022) consisted of:

- New penetrations to the arches to accommodate structural columns, foundation and stair works.
- Temporary opening through arches for tower crane installation.

The reconfiguration of the office core allowed for more of the historic viaduct to be retained and used as front of house amenity spaces. As a result, the office entrance pavilion was reconfigured to provide a triple height foyer and improved sense of arrival. The tram line was encapsulated within a precast concrete tunnel which could be seen within the entrance foyer. This dealt with issues of fire, acoustics, derailment, bomb blast and provided a safe zone for construction. The encapsulation featured a mural or relief which provided a visual reference to the steel lattice work of Manchester Central.

Following the MMA Approval in August 2022, the complexity of oversailing the tramline with a large footprint was re-evaluated and the decision made not to proceed with Phase 2 as an office development. The feasibility for a residential scheme, with a smaller footprint pulled away from the tramline, was then reviewed by the team.



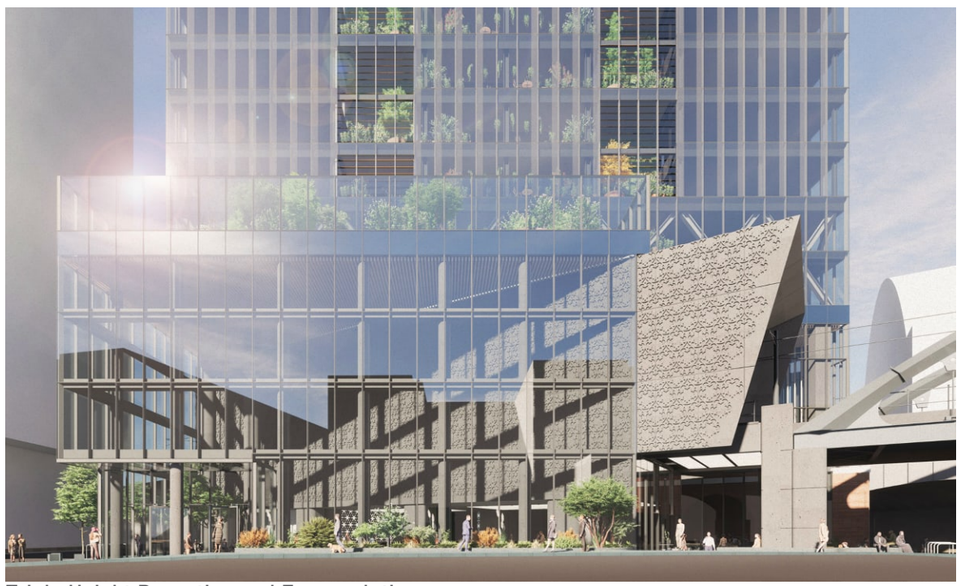
Eastern Elevation



View South along Lower Mosley Street



Metrolink Encapsulation



Triple Height Reception and Encapsulation

2022 MMA Approval (Ref. 133998/JO/2022)

2.9.3 Timeline

The adjacent timeline illustrates the progress of works to date.

2005 — ORIGINAL HILTON OFFICE PLANNING APPLICATION

2005 — COMPLETION OF THE BEETHAM TOWER

FEBRUARY 2017 — GREAT NORTHERN, MANCHESTER CENTRAL & CASTLEFIELD QUAY SRF

JULY 2017 — VIADUX PLANNING APPROVAL
(Ref. 115871/FO/2017 & LISTED BUILDING Ref. 115872/LO/2017)

AUGUST 2020 — PHASE 1 START ON SITE

AUGUST 2020 — MINOR MATERIAL AMENDMENT APPROVED
(Ref. 126868/JO/2020 & LISTED BUILDING Ref. 129168/JO/2021)

- REDUCTION IN HEIGHT BY 2.5M
- REMOVAL OF 3 BED APARTMENTS
- REMOVAL OF CAR PARK FROM WITHIN VIADUCT
- ADDITIONAL AMENITY SPACE PROPOSED TO RE-ACTIVATE VIADUCT
- REDUCTION IN SIZE OF COLUMNS / OPENINGS THROUGH VIADUCT

OCTOBER 2020 — PUBLIC REALM STAIR & LIFT APPLICATION APPROVED
(Ref. 127260/FO/2020 & LISTED BUILDING Ref. 127365/LO/2020)

- REMOVAL OF SPANISH STEPS
- REPOSITION & INCREASE OF ENTRANCE / RECEPTION

MARCH 2021 — NON-MATERIAL AMENDMENT APPLICATION APPROVED
(Ref 129152/NMC/2021)

- ENLARGEMENT OF GROUND FLOOR, LEVEL 01 & 03 AMENITY AREAS
- ALTERATIONS TO RESIDENTS CYCLE STORE & ACCESS RELOCATION

AUGUST 2021 — NON-MATERIAL AMENDMENT APPLICATION APPROVED
(Ref 131326/NMC/2021)

- ELEVATION & MATERIAL CHANGES TO PUBLIC REALM STAIR & LIFT APPLICATION

OCTOBER 2021 — PHASE 1 BRIDGE REMOVAL COMPLETED

- PARAPET WAS CAREFULLY REMOVED AND IS IN TEMPORARY STORAGE OFF SITE

AUGUST 2022 — MINOR MATERIAL AMENDMENT - PHASE 2 OFFICE - APPROVED
(Ref. 133998/JO/2022 & LISTED BUILDING Ref. 133760JO2022)

- ROTATED CORE & TRAM ENCAPSULATION

AUGUST 2022 — CLIENT RE-EVALUATION AND DECISION NOT TO PROCEED WITH PHASE 2 OFFICE
OPPORTUNITY TO REVIEW FURTHER OPTIONS

DECEMBER 2023 — PHASE 2 RESIDENTIAL PUBLIC CONSULTATION

FEBRUARY 2024 — NON-MATERIAL AMENDMENT APPLICATION APPROVED
(Ref. 39045/NMC/2024)

- REDUCTION IN NUMBER OF APARTMENTS
- REMOVE LEVEL 19 PLANT
- DECORATIVE LOUVRES

SPRING 2024 — PHASE 1 PRACTICAL COMPLETION

APRIL 2024 — PHASE 2 RESIDENTIAL PLANNING SUBMISSION

MAY 2024 — PHASE 1 OCCUPATION

OCTOBER 2024 — PHASE 2 HOTEL & RESIDENTIAL CONSULTATION

2.10 Archaeology

Extensive archaeological works have already been carried out within the listed viaduct. The text below and adjacent images provide a summary of the findings.

The railway viaduct played a significant role in the preservation of the findings. Construction trenches for the brick piers were no wider than the base of the arches and the ground in-between the rows of brick piers was left unscathed. The result was that both Roman and 19th century archaeology survived relatively intact.

Trial trenching revealed the presence of a series of co-axial ditches. These features were sample excavated during the evaluation, recovering Roman pottery including Samian ware, Cheshire plains ware and black burnished ware.

Based on the initial evaluation results, the available space beneath the undercroft was subject to detailed archaeological excavation. This confirmed the presence of two large ditches, both with recuts. One of these was in the middle of the site and the other further to the north-east. It is thought that these could represent several phases of enclosure around the agricultural land on the eastern side of the civilian settlement (vicus), the north-eastern one potentially representing the furthest reaches of this expansion in the 2nd century. The geology in the western part of the site was sandy and overlain by lighter, free-draining soils, favourable for agriculture. Near the north-eastern limit of the excavation, where the furthest of the large ditches lay, the geology changed to glacial till - the clay here would have been less conducive to arable farming in the past. This larger north-eastern ditch might mark the furthest extent of the agricultural hinterland supporting the vicus.

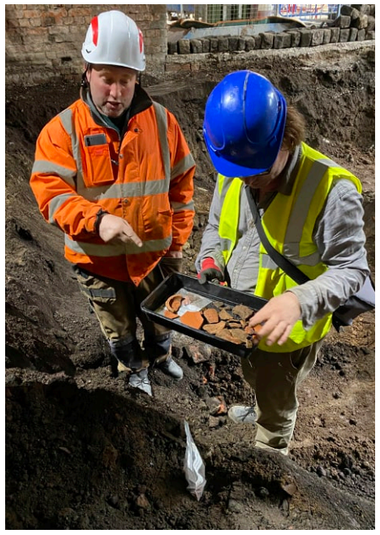
Other more regularly spaced ditches were seen to delineate a series of rectangular plots of land laid out in a grid; these plots possibly flanked the eastern road out of the Roman fort. Some signs of settlement activity in the form of rubbish pits were identified within these plots.

Aside from the Roman archaeology, several 19th-century house cellars were uncovered. Perhaps the strangest find beneath the floor of one of these was a human leg, which had been deliberately buried with a dog. The reasoning behind this is yet to be explained.



Slots Excavated through a Roman Ditch





Roman Pottery Findings





19th Century Cellar

3.0 Brief and Design Process

3.1 Site Analysis 2017

3.1.1 Constraints

Analysis of the existing site in 2017 identified a series of factors and constraints that had to be taken into account when considering any development on the site.

Grade II Listed Arches

The elevated nature of the site effectively separates any development above from street level. This separation needs to be carefully considered to ensure the two levels are successfully connected to improve navigation and wayfinding.

The arches were designed to support the weight of freight trains and therefore have limitations to the extent of development they could support. Any independent structure will have to be carefully positioned to avoid existing brick piers.

Manchester Central Service Yard

The service yard for Manchester Central Convention Complex provides a unique challenge for the development of the site, both during construction of the development and post completion.

The service yard must be fully operable during construction and operation of the development with the utilisation of off-site holding areas for vehicles. Access must be maintained through the yard to allow vehicles to service the Convention Centre. The introduction of columns and core elements to support development above, will have to be carefully positioned to minimise their impact on the usability of the space.

Metrolink Tram Line

The tram line from Deansgate Castlefield to St Peter's Square cuts across the southeastern corner of the site. Consultation with Transport for Greater Manchester (TfGM) established a series of design parameters and no build zones horizontally and vertically from the tram lines.

Electricity North West Primary Substation & Easement

A live primary substation is located at ground level within the arches to the southwestern corner of the site. Through consultation with ENW it was established that no development could take place that would locate structure or a building over or through the zone of the primary substation.



Constraints - Site Wide

The site forms a pedestrian 'black hole' within the wider city centre context. There is a 'deadzone' at ground level

In the study area, there is:

HALF A MILE OF 'DEAD' CITY CENTRE FRONTAGE

Very poor East West links:

- GT BRIDGEWATER STREET IS A 'DARK TUNNEL'
- TRAFFORD STREET IS 'LOST' TO PEDESTRIANS [A VEHICULAR RAMP]
- NO EAST WEST CONNECTION FOR THE 120m LENGTH OF THE GREAT NORTHERN TERRACE

The study area represents the largest area of impermeable built fabric in the city centre

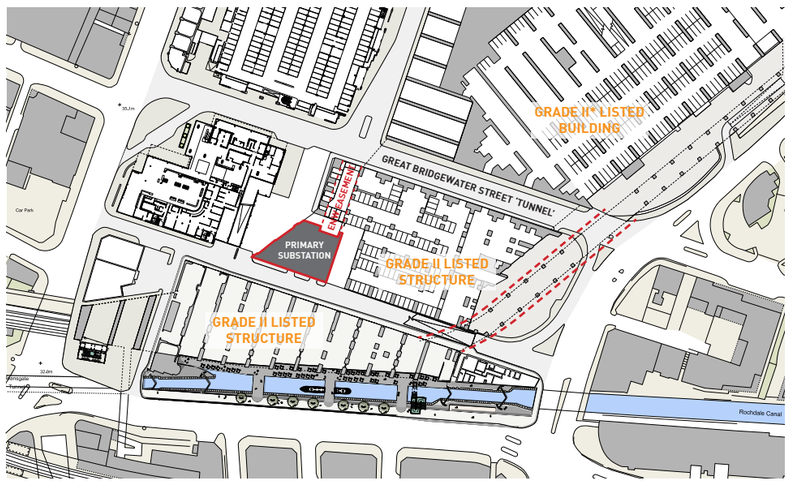
KEY

'DEAD' frontage

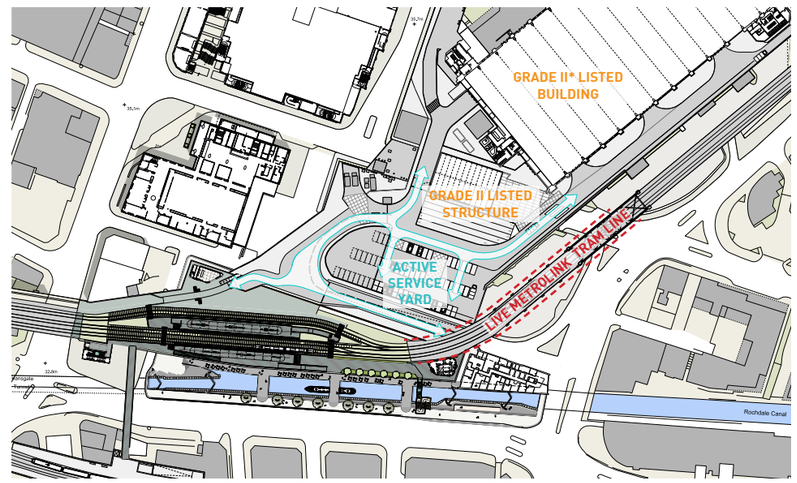
ACTIVE frontage

IMPERMEABLE built form

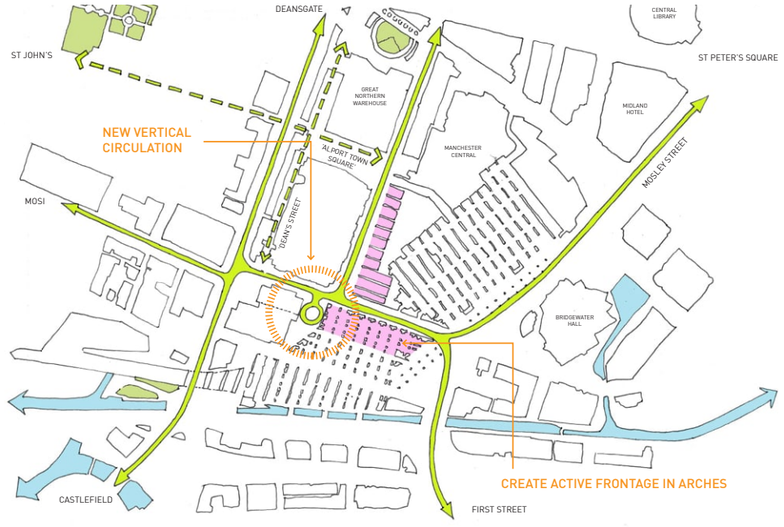
Great Northern, Manchester Central and Castlefield Quay Strategic Regeneration Framework - August 2016



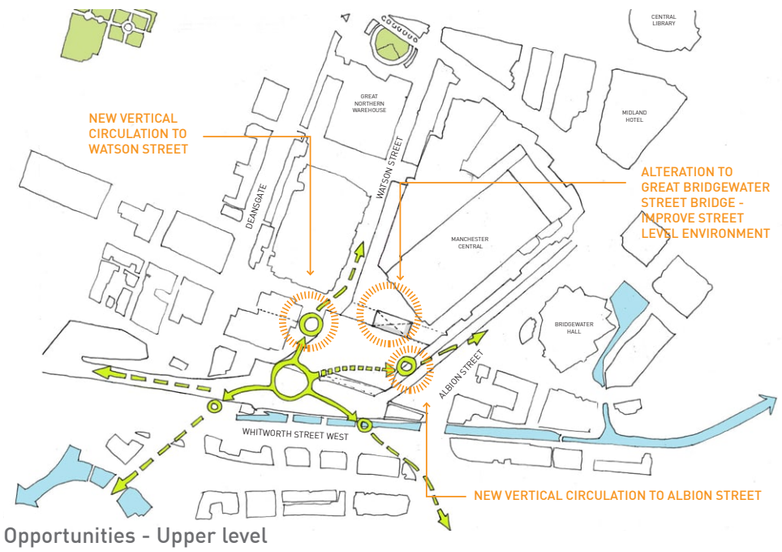
Constraints - Ground



Constraints - Upper



Opportunities - Street level



Opportunities - Upper level



3.1.2 Opportunities

Strategically the site provides the opportunity to unlock what has been an underdeveloped and poorly connected part of the city for over 20 years.

Quantum of Development

The size of the available site area provides one of the few remaining opportunities to create much needed accommodation within the city centre. The site sits at a pivotal location between the city centre's civic and commercial core and surrounding key regeneration areas.

Connectivity

The elevated nature of the site provides the opportunity to improve pedestrian connectivity, in particular north to the city. The potential to create a new vertical circulation down from the site and Deansgate-Castlefield Metrolink Stop north into the city would in effect create a new front door to the city for tram and rail passengers.

This link has recently been provided by means of a new public realm stair & lift which has been installed as part of Viadux Phase 1 proposals.

Opportunities to circulate east/west in this part of the city are limited, Great Bridgewater Street offers the potential to create a much more pleasant pedestrian environment along this connection.

Listed Assets

The existing brick vaulted arches beneath the viaduct provide a heritage asset which is underutilised and largely unknown to the general public. Future development provides an opportunity to open up and introduce active uses into the arches.

There is also an opportunity to connect the Grade II* Listed Manchester Central Convention Complex into the city core, resolving the poor quality and fractured public realm and to create new vantage points to appreciate the building.

Street Level Environment

The environment at street level currently suffers from a lack of any form of active frontage and creation of building entrances at street level will help to significantly improve the pedestrian environment. In physical terms the bridge over Great Bridgewater Street has created a dark tunnel which is undesirable day or night. The opportunity to bring light into this area whilst activating a number or arches at street level will help to repair this important east/west connection.

3.2 Design Summary 2017

3.2.1 Options Appraisal

The design team have been working on this site for eight years and were involved in developing the scheme for the 2017 planning permission. A full design appraisal containing all the options considered can be found within the Design and Access Statement produced for the planning application in 2017 (Document no. 10053-MP-A-B5D9-RP-DAS-001).

In summary, the design was developed from a detailed appraisal, based on the following strategical themes.

- Minimal intervention / alteration of listed fabric.
- High quality and desirable mixed use accommodation including office and residential
- Improved street level pedestrian environment
- Office address on Albion Street
- Minimal interruption to Manchester Central Conference Centre Operations

This appraisal resulted in the design decision to bring the proposed building cores and columns through the centre point of the viaduct arches to solid foundations. This was considered to provide the optimum structural solution which had the potential to deliver an appropriate density of development to meet SRF objectives whilst minimising impacts on the heritage assets. This decision informed the subsequent design proposals developed for the site.

3.2.2 Design Brief 2017

The results of the appraisal informed the following client brief for the 2017 permission.

Listed Assets

- Ensure minimal impact on the listed viaduct.
- Fully explore potential to mitigate impacts on views of Manchester Central from the south.

Residential

- 350-375 apartments
- Quality internal & external amenity
- Maximum 33% 1 bed apartments to meet MCC requirements.
- Comply with the standards set out in the MCC Residential Quality Guidance, including meeting National Space Standards, in order to deliver an exemplar residential development.

Office

- Minimum 245,000 sqft NIA Grade A office space
- 20,000sq ft NIA floorplate to meet occupier demand
- Typical floorplate efficiency Net to Gross 80% +
- Terrace provided at roof level
- Albion Street address

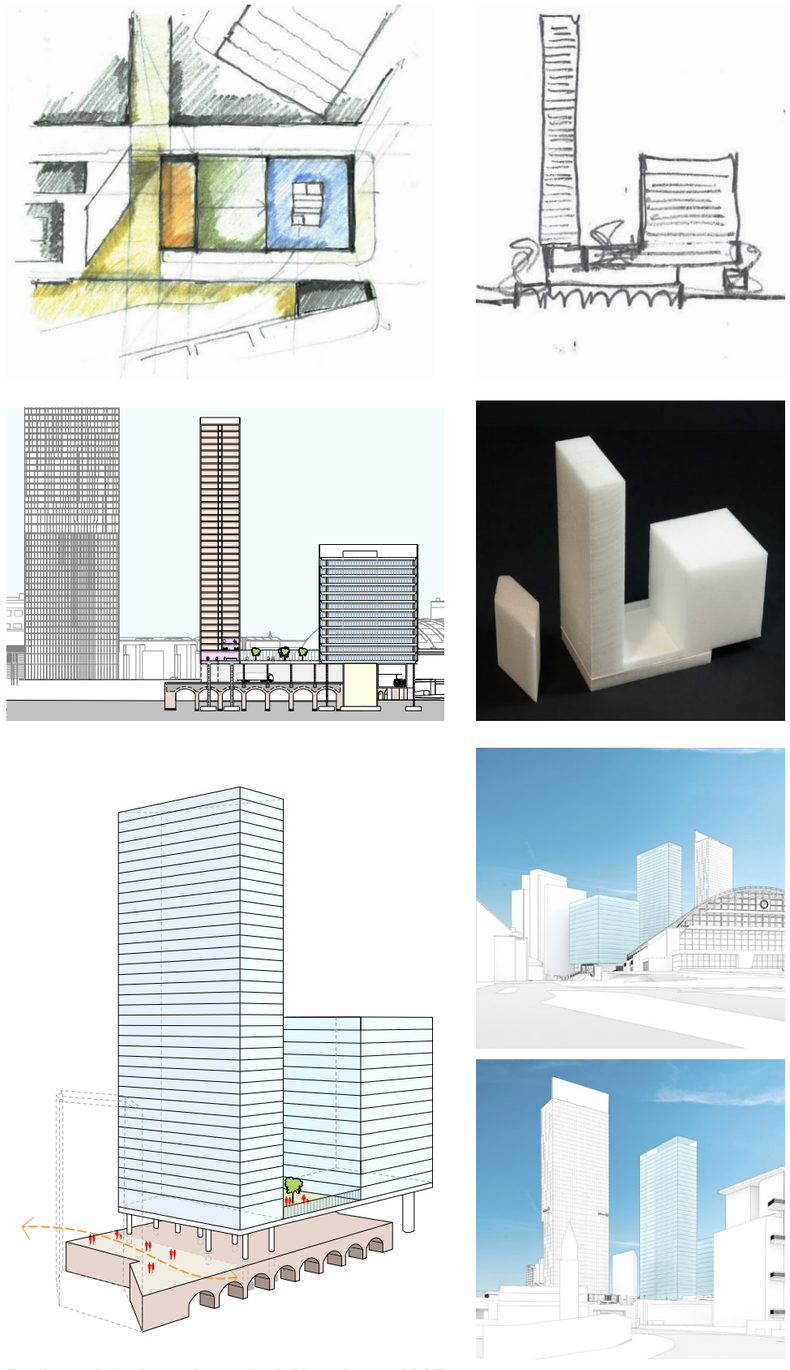
Ancillary

- Improve street level environment
- Retail / leisure required to activate arches along Great Bridgewater Street

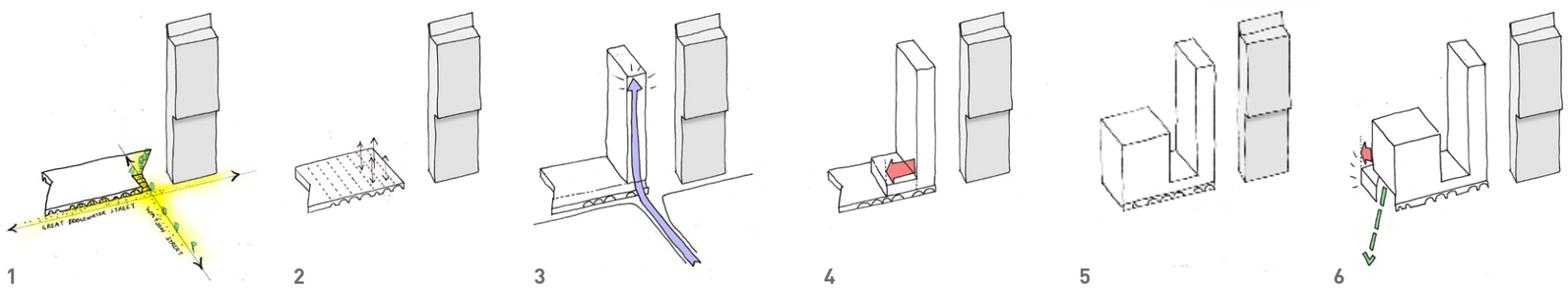
Landscaping

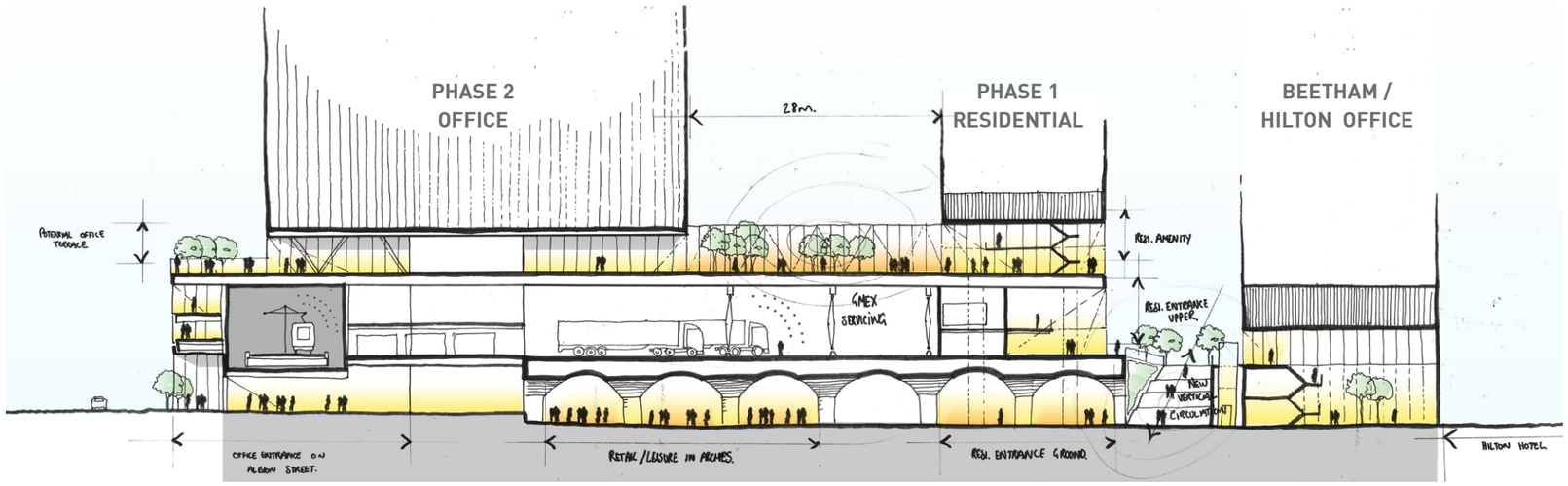
- Create new high quality public route from Metrolink Tram Stop to Watson Street
- Create high quality private amenity space for the residential + office developments
- Repair the street scene along Great Bridgewater Street and Albion Street.

The preferred option created the most elegant formal response, composed of two rectilinear blocks, separated by a distance of 28m. The orientation and positioning of the two blocks (Phases 1 and 2) worked with the grid of the listed fabric and minimised the structural intervention. The residential tower (Phase 1) was formally locked into the immediate city context aligned to Watson Street, and perpendicular to the Beetham Tower. The office (Phase 2) was pushed out over the Metrolink line allowing for greater separation between the two buildings.

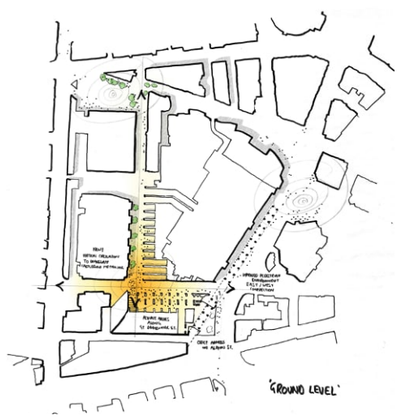


Preferred Option - Appraisal Sketches - 2017





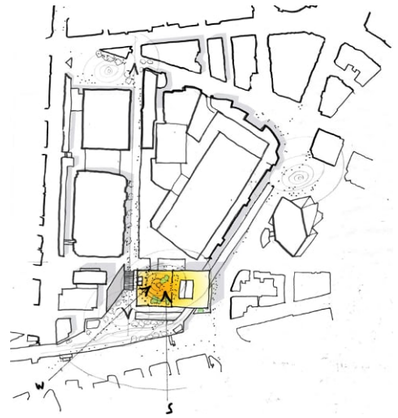
Concept Section - Layers of Activity



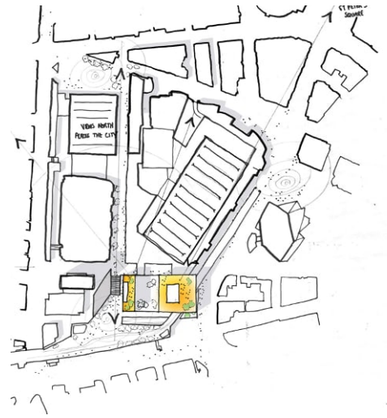
Concept - Ground Level



Concept - Tram Stop Level



Concept - Amenity Level



Concept - Rooftop Level

Preferred Option - Concept Sketches - 2017

3.2.3 Concept Sketches 2017

The concept sketches from 2017 illustrate the key moves which were established to create a clear and legible massing diagram.

1. Active frontages - repair street level environment
2. Locate viable structural column positions
3. Create a marker on Watson Street - frame new public route
4. Extend a shared amenity space to conceal the service yard operations
5. Extrude the office building, creating an address on Albion Street
6. Dissect the office building with the tram line and create an entrance building

The detailed design of the residential tower (Viadux Phase 1) was undertaken in 2020 – 2021 and the subsequent construction is due for completion in spring 2024 (Refer to section 2.9.1).

Due to the complexities of dealing with the tramline constraint together with a change in market conditions, the office building (Phase 2) was re-evaluated and considered unviable. This created a unique opportunity for the design team to re-consider the form of development for this strategic site.

3.2.4 Great Bridgewater Street

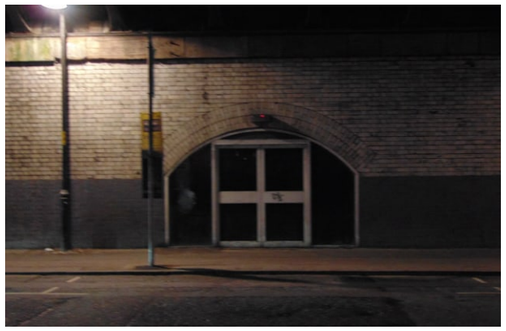
In the 2017 application, consideration was given to the pedestrian experience within and around the Site, and the functional requirements of the development. This necessitated further consideration of the appropriate design solution to enhance the pedestrian experience along Great Bridgewater Street, one of the aims of the 2017 SRF. As defined in the SRF, the key objective was to bring light and activity into this dark and unwelcoming underpass.

The advantages and disadvantages of various options for the Great Bridgewater Street were examined; from no intervention at all, to the removal of the bridge altogether.

Option 'v' was chosen as the most suitable to deliver the required public realm improvements and activity along the street, thereby repairing this key route. It was considered essential to introduce some form of natural daylight to the street; this necessitated removal of sections the bridge.

At the time, structural advice confirmed that removing sections of the bridge would have no adverse impact upon the structures on either side of the street – the Castlefield Viaduct or Manchester Central building.

This option is still considered the most appropriate, retaining the maximum amount of the Castlefield Viaduct façade, whilst opening up the arches for active uses and drawing people back into the historic structure. The sections of bridge to be removed represent the optimum intervention to draw light into the area, whilst retaining significant sections of the viaduct bridge.



Option i
No intervention

Do nothing.

Advantages

- No impact on listed bridge structure
- Lower construction costs

Disadvantages

- Continued poor quality pedestrian environment - no daylight
- Unviable to create active frontage along Great Bridgewater Street
- Not in line with objectives of the SRF or MCC



Option ii
Full Removal

Entire length of bridge removed and replaced with two new bridge links to service Manchester Central.

Advantages

- Greatly improves pedestrian environment - in line with the SRF and MCC objectives.

Disadvantages

- Complete loss of listed bridge structure.
- Requires construction of new bridge links.



Option iii
Lighting Strategy

Full retention of the bridge structure with a lighting strategy to improve the visual appearance and perception of light and safety.

Introduce active uses into the arches fronting onto Great Bridgewater Street.

Advantages

- No impacts to the listed bridge structure
- Lower construction costs

Disadvantages

- Limited improvement to pedestrian environment - no daylight
- Minor impacts to viaduct facade to open up arches to active uses
- Perceptual barrier to movement remains
- Impact of bridge retention considered likely to impact upon viability of retail units, which are so essential to reactivating the street.



Option iv

Partial removal - Arched openings

Partial removal of the bridge structure to bring natural daylight into the area. Introduce active uses into the arches, with large arched apertures to allow maximum appreciation of the vaulted arches.

Advantages

- Maximises views through to listed structure
- Greatly improves pedestrian environment - in line with the SRF and MCC objectives

Disadvantages

- Disrupts detail of existing Castlefield Viaduct elevation
- Partial loss of listed structure



Option v

Partial removal - Rectilinear openings

Partial removal of the bridge structure to bring natural daylight into the area. Introduce active uses into the arches, with large arched apertures to allow maximum appreciation of the vaulted arches.

Advantages

- Greatly improves pedestrian environment - in line with the SRF & MCC ambitions
- Rectilinear openings respect existing stone course detail of Castlefield Viaduct

Disadvantages

- Loss of small extent of listed structure



Option vi

Partial removal - Western end retained

Following presentation to Historic England on March 1st, it was suggested that an option should be explored that retained the western end of the bridge.

Advantages

- Some improvement to pedestrian environment
- Rectilinear openings respect existing stone course detail of Castlefield Viaduct

Disadvantages

- Loss of small extent of listed structure
- Poor environment and approach to residential building due to retention of bridge structure above.



Option vii

Removal of deck - Retention of cast iron arches at the western end

Further correspondence from Historic England queried if it was possible to retain the structural 'ribs' at the western end of the bridge, but remove the solid deck above. Thereby retaining the character and story of the structure whilst allowing natural light down to street level.

This option was explored but due to the depth of the rib sections and height of the balustrade, even with the deck removed the natural light penetrating to street level was compromised by this arrangement.

Advantages

- Negligible improvement to pedestrian environment over option vi.
- Less alteration than option v.

Disadvantages

- Loss of small extent of listed structure
- Poor environment and approach to residential building due to retention of bridge structure above.

3.3 Design Summary April 2024

3.3.1 Phase 2 Review

Following the re-evaluation of Phase 2 the design team carried out a series of feasibility studies to help inform a new brief for the site. The feasibility studies utilised the design principles established in 2017, together with the structural knowledge gained from Phase 1 to produce a series of design options to replace the Phase 2 office.

Importantly all future development needed to be pulled away from the adjacent Metrolink line to remove the complexity of encapsulating the tramline. This decision detached the site fronting Albion Street from the rest of the development. A standalone building to fill the residual space and restore the building frontage to Albion Street was an essential component of the overall vision for the site.

The feasibility studies also included the potential use of the Slot Site which is located between the listed viaduct and Beetham Tower. The Slot Site has an existing consent for a 14 storey office building, originally approved as part of the Beetham Tower project.

The feasibility options were tested for market demand and development viability which formed a revised client brief. This evolved throughout the design process.

This application was submitted and validated in March 2024 (ref 139715/FO/2024).

3.3.2 Design Brief 2023

Listed Assets

- Ensure minimal impact on the listed viaduct.
- Restore and maximise activity and intervisibility within the listed arches.
- A creative engineering solution, taking lessons from Phase 1, to minimise impact of the listed arches.

Residential (Plot 2a)

- Residential tower to replace the 2017 approved office block.
- Footprint stepped back from Albion Street to avoid the tramline and better respect Manchester Central.
- Respond to the changed context of the site surroundings to complete the cluster of tall buildings at Manchester Central.
- Deliver a tower of the highest quality design that can act as a genuine landmark for the city.
- Complete this key southern gateway to the city.

Residential (Plot 2b)

- Deliver an affordable housing building on the Slot Site, repairing this lost part of the city fabric and giving back to the city.

Retail (Plot 2c)

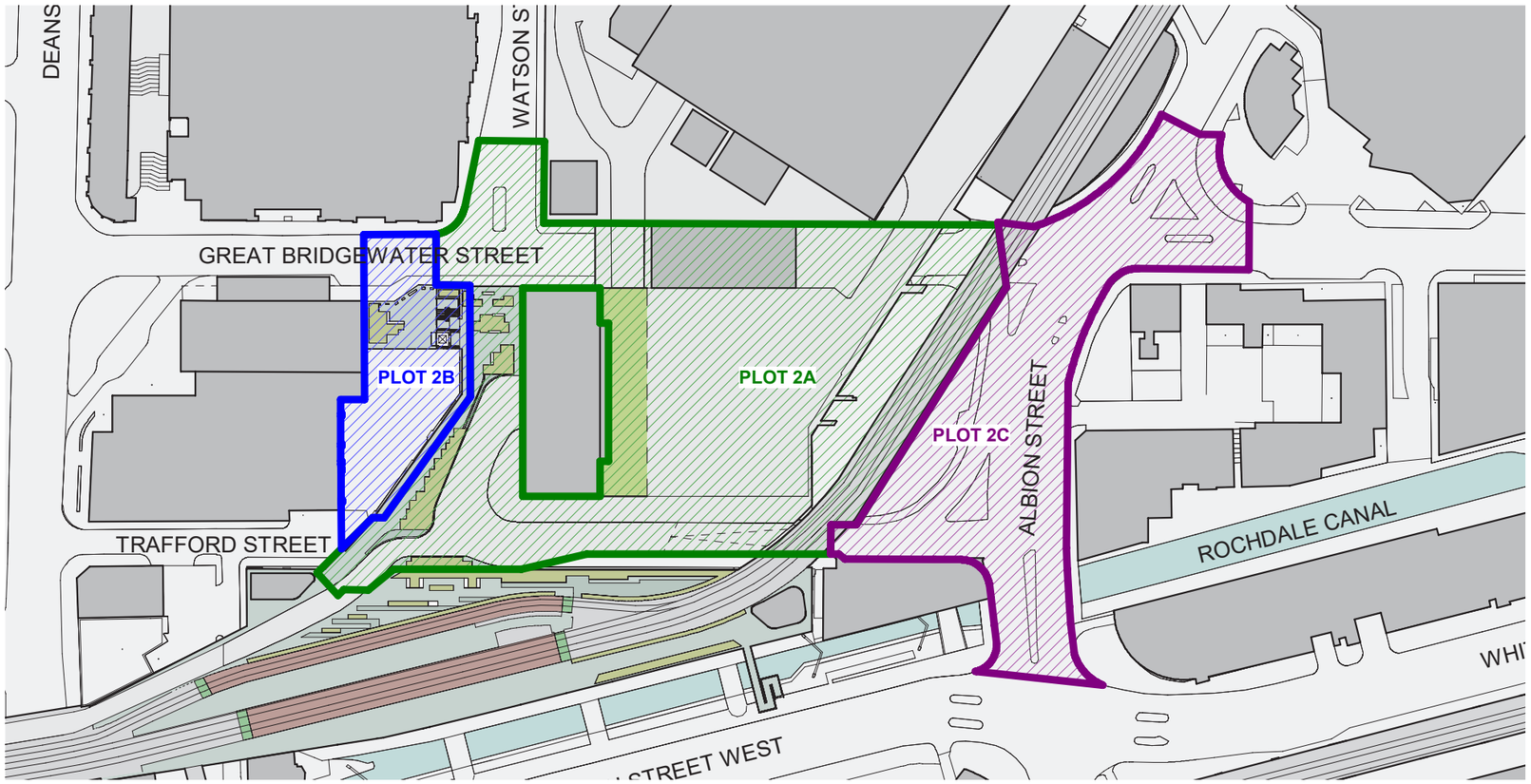
- Provide retail building to complete the city bock and repair the street scene along Albion Street.

Ancillary

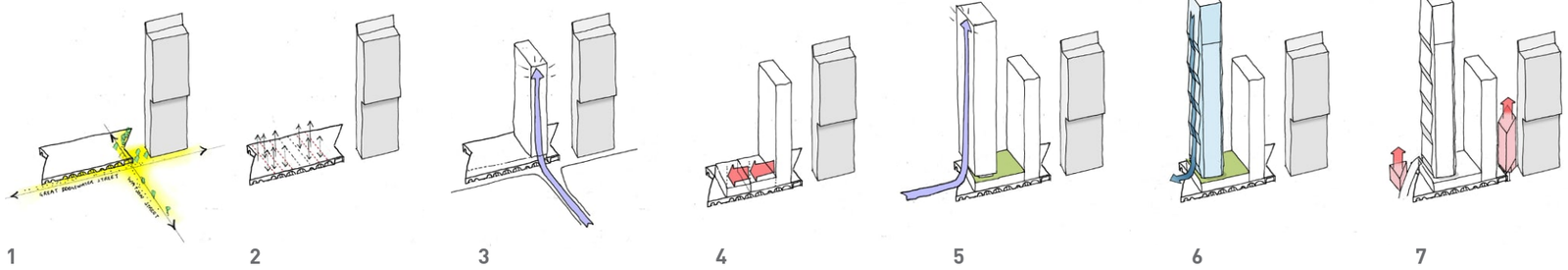
- Repair the streetscape to create an attractive and amenable environment for residents and citizens alike.
- Sufficient quantum of development to support premium design and engineering solutions.

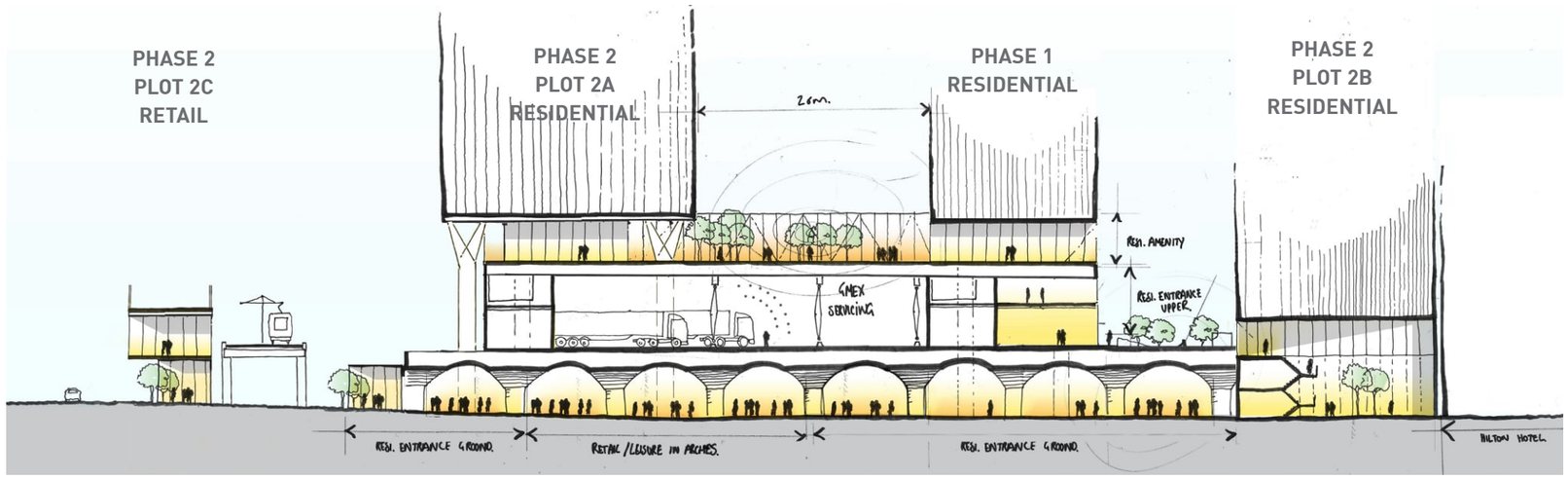
Landscaping

- Provide active frontage at viaduct level and Great Bridgewater Street to new public route from Metrolink Tram Stop to Watson Street.
- Repair the street scene along Great Bridgewater Street and Albion Street.



Plot Plan - Plot 2a, 2b & 2c





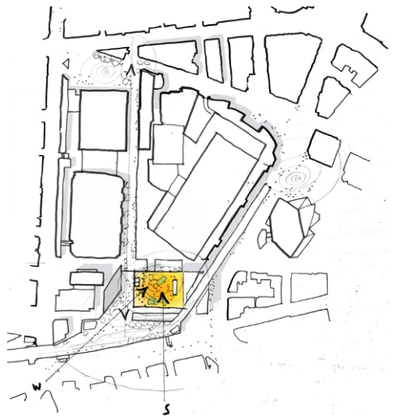
Revised Concept Section - Layers of Activity



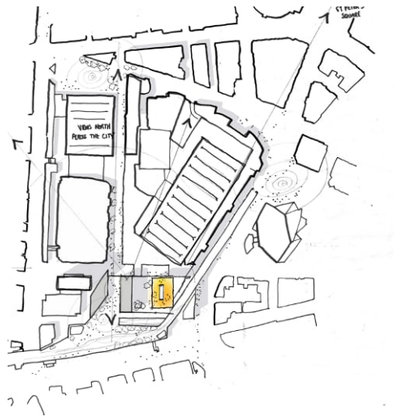
Concept - Ground Level



Concept - Tram Stop Level



Concept - Level 03 Amenity



Concept - Upper levels Amenity

Preferred Option - Concept sketches - 2023

3.3.3 Concept Sketches 2023

The concept sketches from 2017 were updated to demonstrate how the remaining massing moves 5, 6 & 7 have evolved to take into account the revised client brief. The updated proposals retain the established clear and legible massing diagram.

1. Active frontages - repair street level environment
2. Locate viable structural column positions
3. Create a marker on Watson Street - frame new public route
4. Extend a shared amenity space to conceal the service yard operations
5. Extrude form to create focal point to the cluster of tall buildings
6. Model the extrusion to create an iconic form and attractive silhouette
7. Complete and repair the city block

The Plot 2a building adopts the same orientation as Phase 1, aligning the design to the grid of the listed structure below.

This means the structure has a relatively low impact on the listed fabric. Phase 1 used bifurcating (Y-shaped) columns to transfer the loadings, whereas the Plot 2a building uses a transfer truss to limit the penetrations through the historic viaduct.

The transfer truss structural solution enables the Plot 2a building to be lifted above the Phase 1 podium to create an independent form that is visually separated from the viaduct.

To complete the wider city block, two further infill buildings are proposed. Firstly, the Plot 2c retail building fills the awkward residual space left over by the Metrolink bridge which subdivides the edge of the city block.

The second infill site, Plot 2b, was historically approved as an office building as part of the Beetham Tower development. The revised proposal for an affordable residential building is a development of this approved design, which edges the existing viaduct structure to form a parallelogram in layout. The building projects above the Phase 1 public realm Stair & Lift and new retail units will provide active frontage.

3.4 Design Proposals (Hotel & Residential)

3.4.1 Phase 2 Review

Following the submission and validation of application ref. 139715/FO/2024 (as described in the previous chapter) a study was undertaken by the design team to determine the feasibility of incorporating a hotel into the proposed Plot 2a building. The outcome of this study was positive and detailed coordination has been undertaken to incorporate the new requirements, and subsequently update the planning submission documentation.

Key changes include:
- Hotel incorporated into the lower levels of Plot 2a.
- Removal of Plot 2c (retail unit), which is replaced with the hotel entrance.
- Removal of GBS bridge deck and retention of cast iron beams.

There are no proposed amendments to the Plot 2b (affordable housing) proposals, which will remain as per the validated scheme.

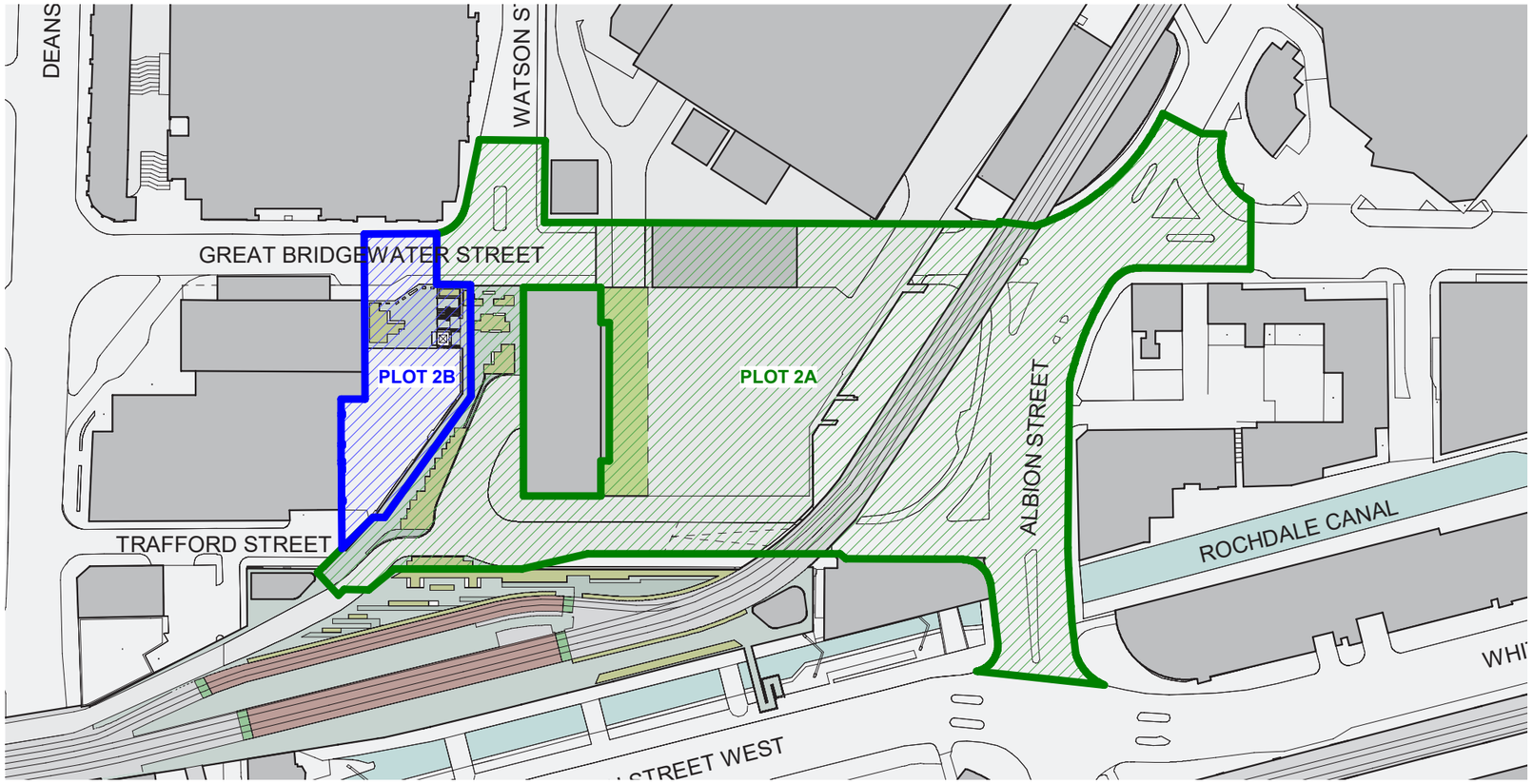
Listed Assets
- Ensure minimal impact on the listed viaduct.
- Restore and maximise activity and intervisibility within the listed arches.
- A creative engineering solution, taking lessons from Phase 1, to minimise impact of the listed arches.

Hotel & Residential (Plot 2a)
- Footprint stepped back from Albion Street to avoid the tramline and better respect Manchester Central.
- Respond to the changed context of the site surroundings to complete the cluster of tall buildings at Manchester Central.
- Deliver a tower of the highest quality design that can act as a genuine landmark for the city.
- Complete this key southern gateway to the city.
- 160 hotel bedrooms / 450 residential apartments.
- Upper-level restaurant, bar, events/conference spaces & leisure facilities.
- Ground floor bar with street presence.
- Prominent main entrance with dedicated vehicle drop-off.
- Secondary hotel & residential entrance.
- Dedicated passenger and service lifts for hotel, residential and amenities.
- Centralised building services for hotel rooms, and where possible for amenities.

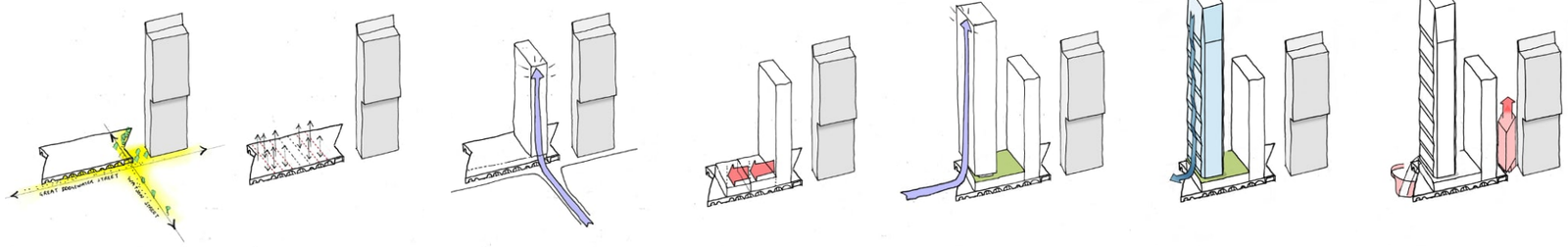
Residential (Plot 2b)
- Deliver an affordable housing building on the Slot Site, repairing this lost part of the city fabric and giving back to the city.

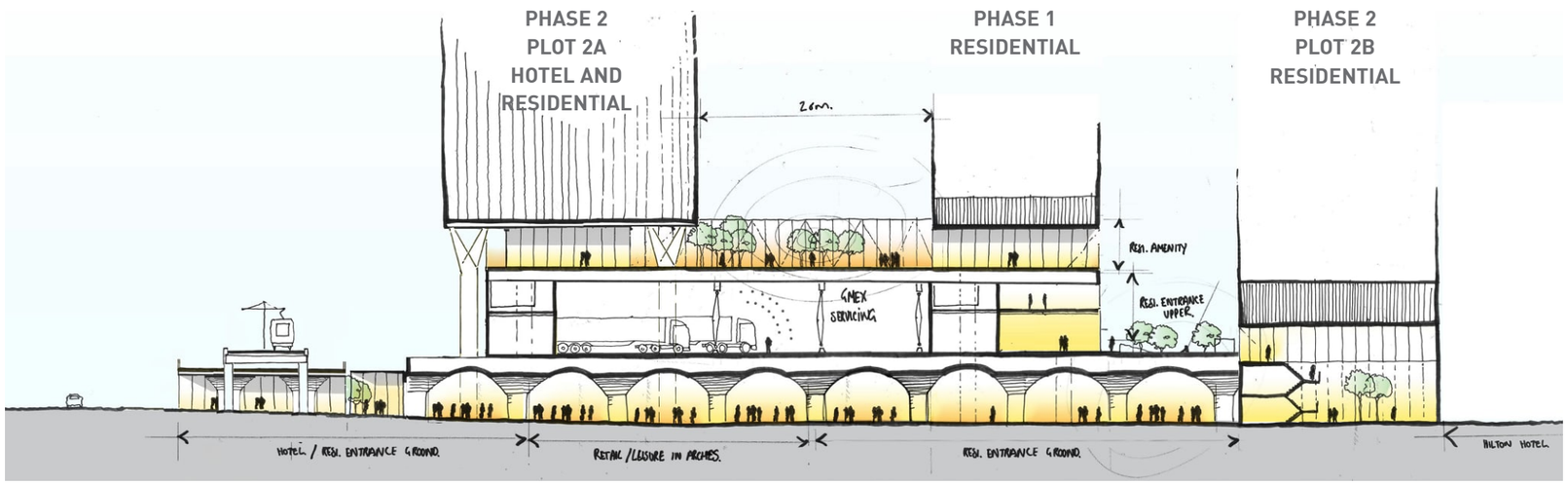
Ancillary
- Repair the streetscape to create an attractive and amenable environment for residents and citizens alike.
- Sufficient quantum of development to support premium design and engineering solutions.

Landscaping
- Provide active frontage at viaduct level and Great Bridgewater Street to new public route from Metrolink Tram Stop to Watson Street.
- Repair the street scene along Great Bridgewater Street and Albion Street.



Plot Plan - Plot 2a & 2b





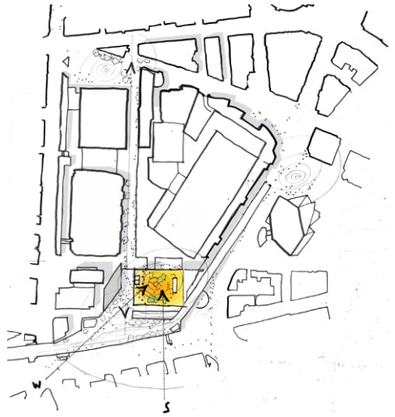
Revised Concept Section - Layers of Activity



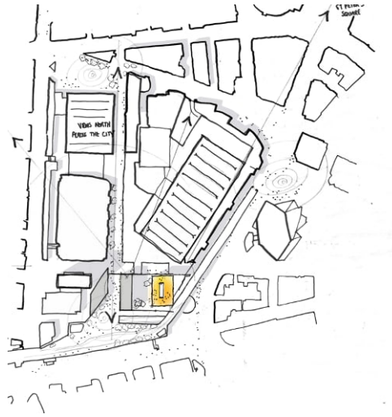
Concept - Ground Level



Concept - Tram Stop Level



Concept - Level 03 Amenity



Concept - Upper levels Amenity

Preferred Option - Concept sketches - 2024

3.4.3 Concept Sketches 2024

The concept sketches from 2017 and March 2024 have been updated to demonstrate the proposed amendments to Plot 2a, and omission of Plot 2c.

All of the design principles explained in the previous chapter in relation to massing and townscape remain unchanged, with only subtle differences to massing moves 6 and 7, to incorporate the hotel use.

3.5 Design Development

3.5.1 Building Footprint

Plot 2a

The development options considered for Plot 2a are underpinned by the structural knowledge gained from the detailed design and construction of Phase 1.

Phase 1 was developed with the core and columns passing through the apex of the arches to solid foundations at ground level. This was considered to provide the optimum structural solution for the site which allows for the construction of a more sustainable, taller building.

The options explored for Plot 2a were based on the same principle, positioning the core and structural columns to fall centrally between the existing viaduct piers. This retains the arch springing stones to respect the existing load paths, minimising the risk of future movement and damage. Unlike the consented scheme for the office, this will avoid the loss of a significant section of the existing masonry abutments which stabilise the arches.

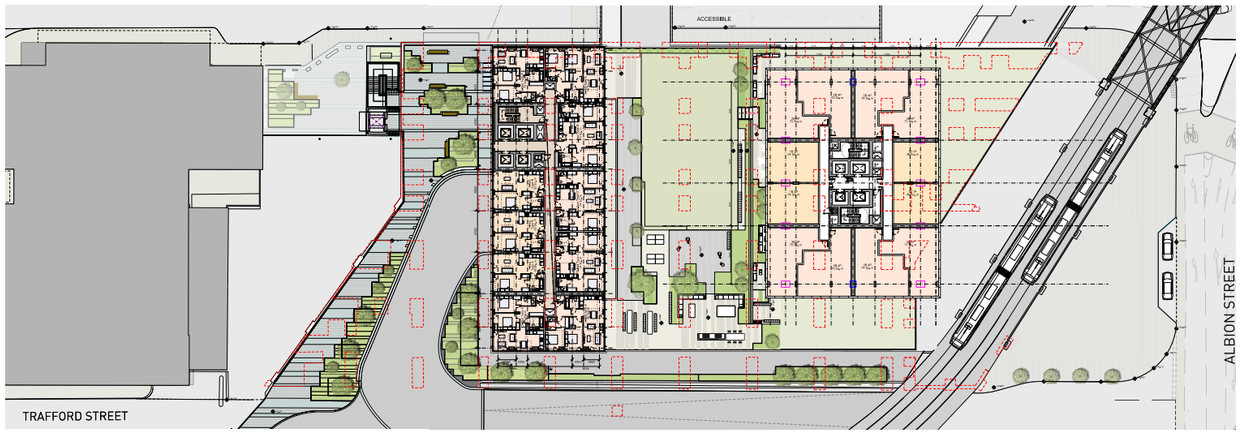
Various central core layouts were developed with 4, 5 & 6 lift car solutions which dictated the number of residential units per floor and building height. Following the introduction of the hotel at the lower levels, the central residential core was still considered the most appropriate solution, and a second core serving only hotel levels was introduced to the western side. This core comes to ground level in the adjacent viaduct arch.

Although the building core is larger than Phase 1, the structural solution follows the same steel reinforced concrete box methodology to form the opening through the viaduct.

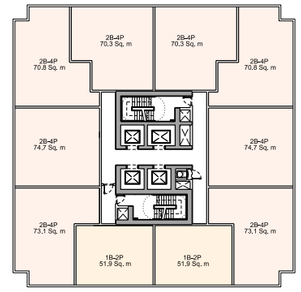
Plot 2b

The building footprint for Plot 2b was developed from the consented layout for an office. The main design change was the decision to simplify the consented plan by pulling the core back into the overall parallelogram layout which allowed more distance between the proposal and Beetham Tower. The other change was the allowance of a buffer zone between the layout and the historic viaduct at the lower levels. From level 02, the upper levels cantilever over the buffer zone and the public realm Stair & Lift to edge the viaduct. The initial brief was to retain the office use for the site, this however evolved during the design development of the masterplan to become the affordable residential provision.

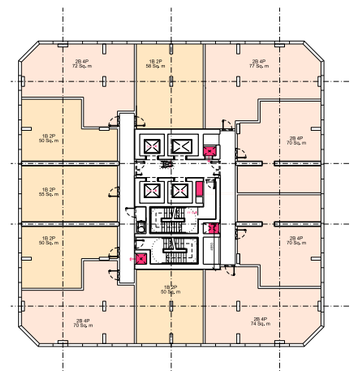




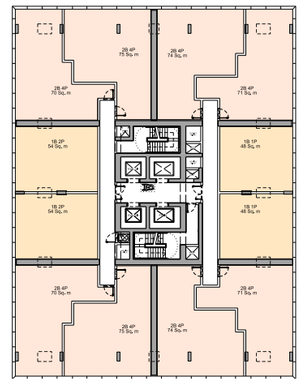
Plot 2a Feasibility Studies 2022 (Viaduct abutments overlaid in red)



(10 units per floor) 40 Storey
37 residential floors - 382 units



(11 units per floor) 48 Storey
45 residential floors - 460 units



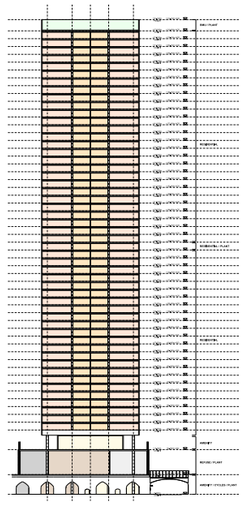
(12 units per floor) 52 Storey
48 residential floors - 576 units



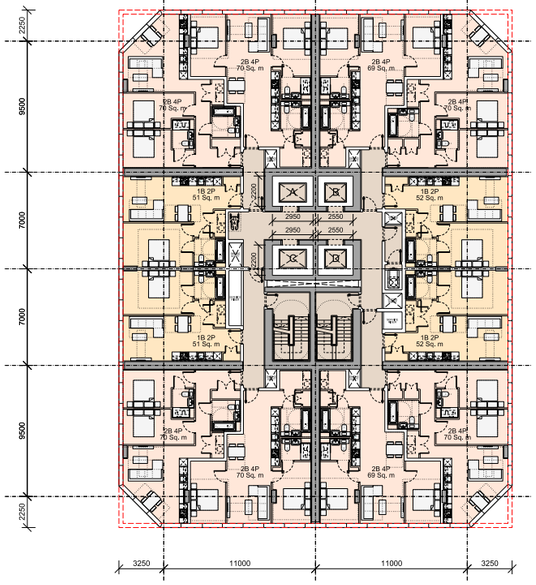


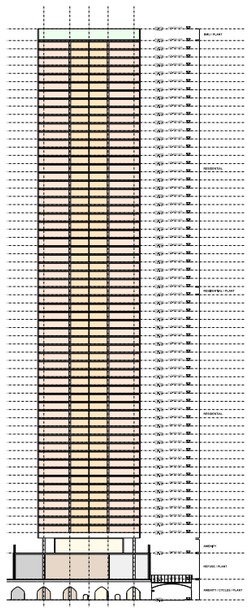



Plot 2a Feasibility Studies 2022

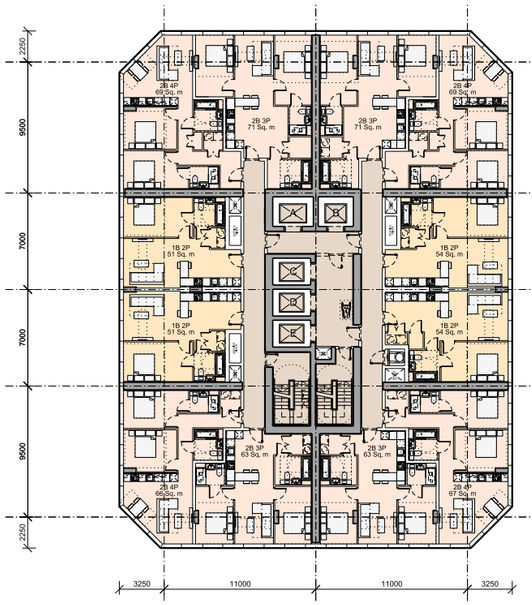


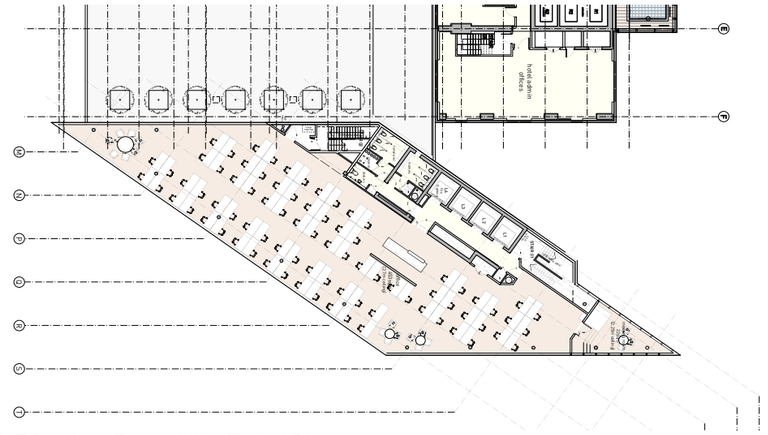
4 Lifts (12 units per floor) 55 Storey
50 residential floors - 600 units



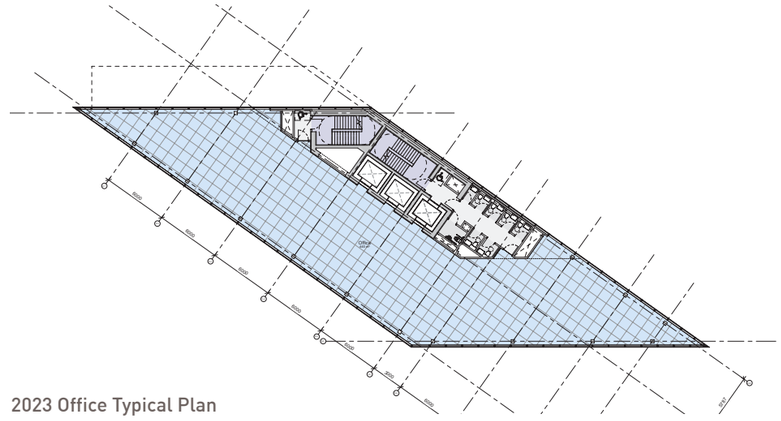


5 Lifts (12 units per floor) 64 Storey
60 residential floors - 720 units

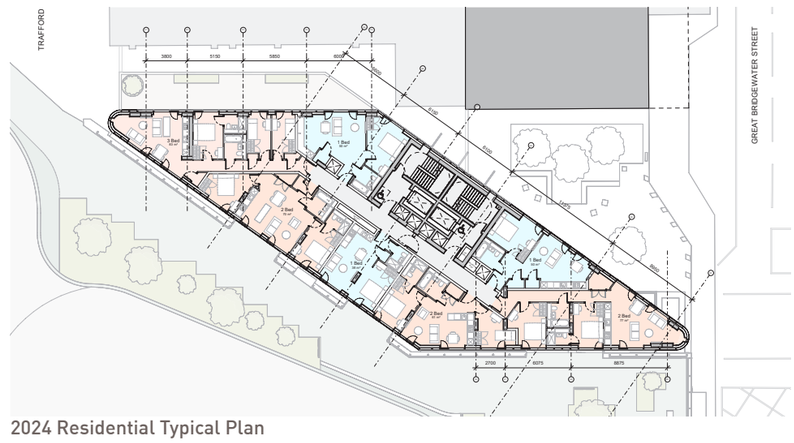




2005 Beetham Tower Office Typical Plan



2023 Office Typical Plan



2024 Residential Typical Plan

Plot 2b Building Footprint Comparison

3.6 Consultation

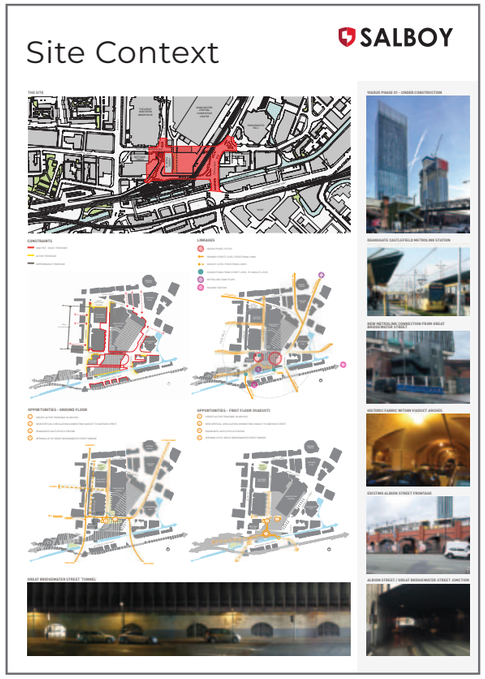
3.6.1 Consultation

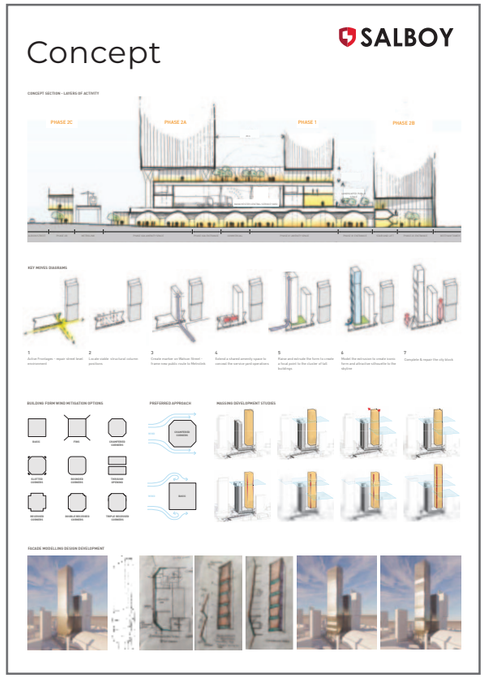
The proposed scheme has been developed in consultation with the Local Planning Authority, Statutory Consultees, key stakeholders and adjoining owners and occupiers.

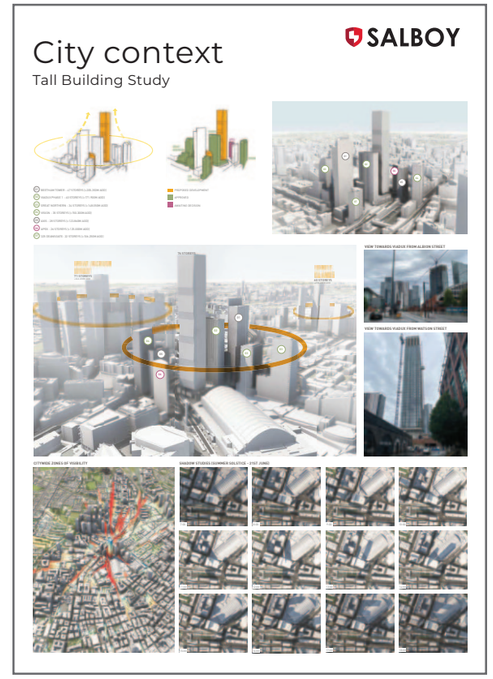
Full details of all consultations and responses can be found in the Statement of Consultation, which accompanies this application.

As part of the consultation process, the following key stakeholders have been engaged:

- Manchester City Council
- Historic England
- Manchester Central Convention Complex
- Transport for Greater Manchester
- Greater Manchester Police
- Counter Terrorism Unit
- Local Ward Councillors
- Local businesses and residents

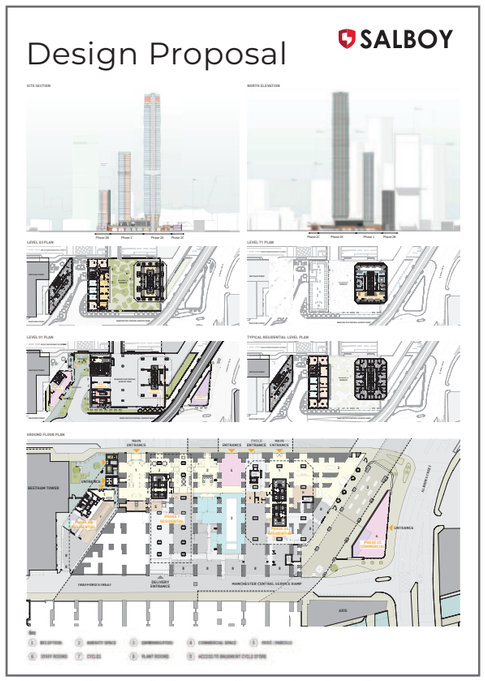


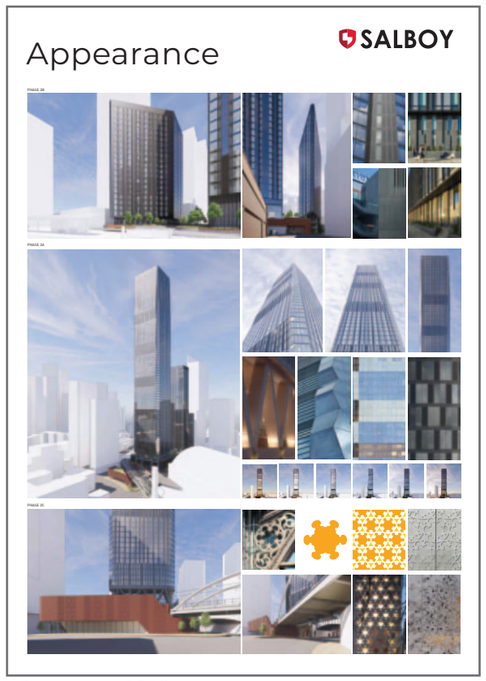






Viadux Phase 2 Physical Site Model



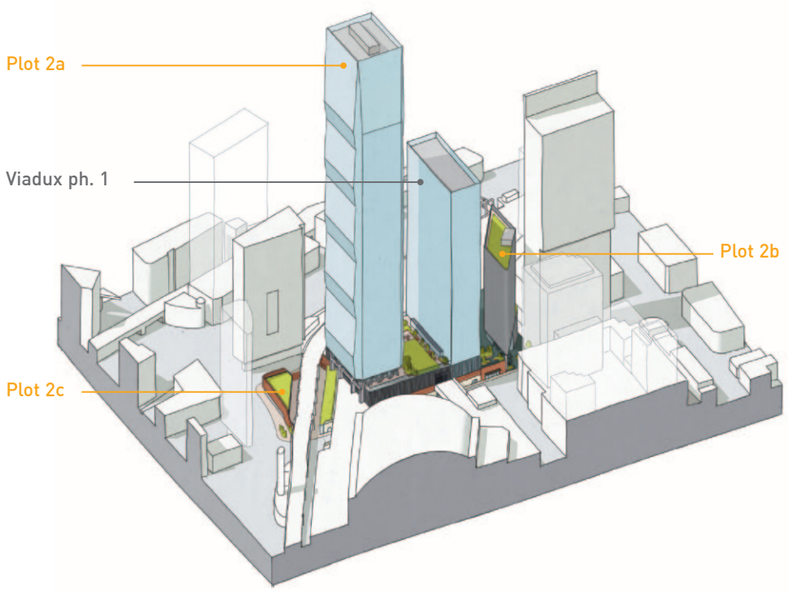




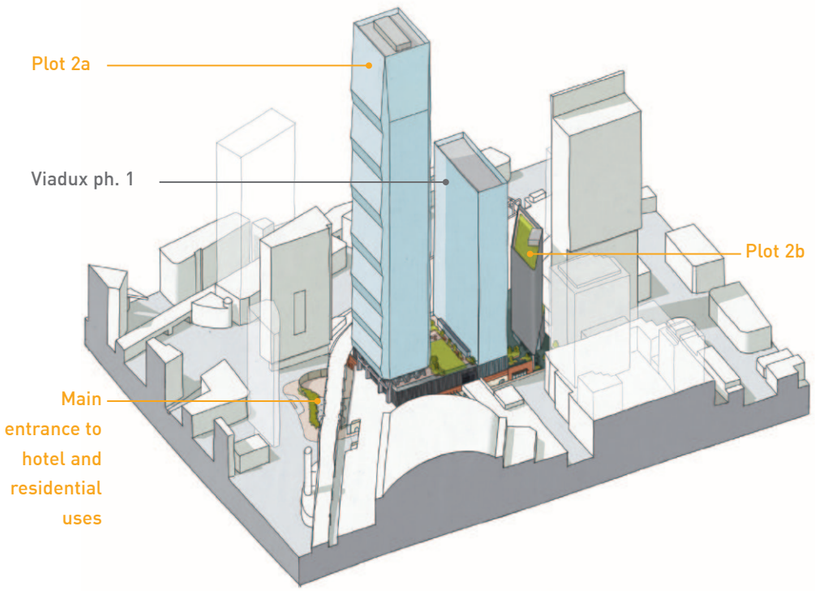
Viadux Phase 2 Public Consultation Presentation Boards - December 2023



Viadux Phase 2 Public Consultation Presentation Photographs - December 2023



Application submitted - March 2024



Revised details application - November 2024

Viadux Phase 2 Website Consultation Comparison - October 2024

3.6.2 Public Consultation - Dec 2023

The first public consultation was an in-person drop-in session held on 4th December 2023 at 53two (Arch 19, Watson St, Manchester, M3 4LP) between 4pm and 7pm. The venue was chosen as it ensured ease-of-access for local residents and neighbours due to the close proximity to the site.

The sessions provided an opportunity for local people to learn more about the proposals, meet members of the project team, and provide feedback. Physical feedback forms were available at the event as an alternative to the online form. Of the 25 who attended the event, 7 completed feedback forms.

Of the feedback received via forms or by email, the majority of respondents supported the regeneration of the site, the provision of new housing and public realm improvements.

Photographs from the events are included for reference. Details of the communications/engagement tools used can be viewed in the Statement of Consultation, along with a summary of the comments and queries raised and responses to those queries.

Information about the Viadux Phase 2 proposals was made available on a dedicated consultation website (www.viadux2-consultation.co.uk). Under the 'Next Steps' section of the website, an online questionnaire was linked so that people could comment on the plans and provide the project team with feedback.

3.6.3 Public Consultation - Oct 2024

The consultation website (www.viadux2-consultation.co.uk) has been updated with the revised proposals. A leaflet drop and press release provided details and links to direct people to the website, and the online questionnaire enables people to provide their comments for review by the project team.

3.6.4 Public Consultation Responses - Dec 2023

A summary of the topics raised by the general public concerning the architectural elements of the scheme have been outlined below, along with responses to the feedback.

› **Publicly Accessible Tower Top**

Requests to include some form of publicly accessible space, viewing level and/ or restaurant at the top of the residential tower.

March 2024 Response: *Providing a publicly accessible viewing level or restaurant at the top of the tower would not be viable as this would be separate use and involve separate operators, meaning a separate lift and escape stair provision would be required. This would increase the core size and result in a larger opening through the listed viaduct to bring the stairs and lifts to ground level. The increase in core size would pose a significant reduction in the building efficiently, affecting commercial viability.*

October 2024 Update: *A publicly accessible hotel restaurant will be provided at level 06 and a publicly accessible hotel bar will be provided at ground floor (within the viaduct) and at levels 08 & 09. The upper level restaurant and bar will be accessed via the hotel core and are grouped with the other hotel uses at the lower tower levels to maximise operational efficiency and floorplate efficiency.*

› **Materiality/ Design**

Comments criticised the similarity of the glazed design of the buildings in comparison to other recently built high-rise buildings in the city centre. It was suggested that the design should be more unique, innovative and visually striking. It was also suggested that the design should relate to Manchester's character and identity. Another respondent expressed concern for the choice of materials/colour palette for the towers and the glazed design of the buildings on the grounds that it will result in poor energy efficiency.

Response: *The Viadux buildings have been designed to have a strong compositional relationship with one another, the Beetham Tower, and the urban surroundings. This geometric composition led to the development of a rational approach to the façade design to form a collection of unique buildings which complement each other and read coherently on the skyline, whilst not distracting from the heritage assets at lower levels. The buildings use a simple palette of high-quality materials, clear glass, opaque (enamel fritted) glass, perforated aluminum vents, aluminum fins and aluminum spandrels to articulate the facade within a curtain wall system.*

The proposals are underpinned by a 'fabric first' approach to design, using orientation and glazing ratios to maximise daylight penetration and reduce overheating. The use of high-performance building envelopes with low u-values and advanced glazing technology provides a high quality and durable finish which limits future requirements for maintenance and replacement.

A comment expressed opposition to the use of 'black' cladding for the side of the podium that faces the tram station. It was suggested that it could be a designed as a 'living wall' instead.

March 2024 Response: *Following updates to Part B of the Building Regulations (Fire Safety) green living walls are no longer permitted as part of a residential development.*

The podium façade to the service yard utilises decorative perforate bronze-coloured aluminium panels to all sides to visually screen and maintain adequate natural ventilation.

The repetitive pattern or symbol for the perforated panels has been derived from an exploration of the local context. The most iconic and successful pattern was derived from the steel lattice work of Manchester Central.
The repetitive pattern has been utilised at two different scales.

- *A large scale pattern has been used for the service yard.*
- *A small scale pattern has been used for the rapid ventilation panels (inward opening windows) to the apartments.*

The use of the same pattern and material provides consistency to the proposed appearance of the building (refer to page 59 of Design & Access Statement).

October 2024 Update: *The proposed design and materiality of the podium is unchanged with the updated proposals.*

Several respondents made specific suggestions and requests in relation to other design aspects of the buildings:

- A few suggested that the proposed buildings appear to be situated too close together.
- A suggestion to include lit signs on each of the buildings like the one currently on the Viadux Phase 1 building.
- A suggestion to not have a 'white blinds' showing on the building design. This respondent referenced other Renaker buildings in the area as an example of where this has been done.

March 2024 Response: *The separation distance between the main residential towers is approximately 25.5m to 26.5m as the building chamfers in and out.*

This exceeds the typical distances between residential towers illustrated within the 2018 adopted Great Jackson Street Development Framework which range between 15m to 27m.

October 2024 Update: *The separation distances between buildings is unchanged with the updated proposals.*

Other comments expressed strong support for the design of the scheme.

› **Site Layout**

A comment that the design of the site layout lacks 'good circulation' which will likely result in the development becoming a residents-only zone.

March 2024 Response: *The Design & Access Statement (DAS) illustrates how the masterplan has addressed the requirements of the Strategic Regeneration Framework (SRF) to improve pedestrian connectivity, in particular north to the city.*

This transformation has already been improved with the construction of Phase 1, which includes the new public realm Stair & Lift connecting GBS to the upper viaduct level and Deansgate Castlefield station. This creates a new front door to the city for tram and rail passengers.

The east-west pedestrian connection will be significantly improved by the creation of openings within Great Bridgewater Street Bridge, the provision active frontages and public realm improvements.

October 2024 Update: *The inclusion of a hotel, restaurant, bars and events space in the revised Plot 2a proposals will enable the public to visit the building and enjoy these amenities. The proposed main entrance on Albion Street enhances the building's street presence and will draw people into the building. Furthermore, the proposed ground floor bar opening on to Great Bridgewater Street will allow the public to experience the interior of historic viaduct arches.*

› **Height/ Massing**

Several respondents expressed concern in relation to the proposed the height of the buildings.

- Potential overlooking of nearby properties
- Overshadowing/loss of light for nearby properties
- Comments that the increasing number of skyscrapers in Manchester is ruining the city's skyline.

March 2024 Response:
Separation distances have been carefully considered to address overlooking concerns and maintain views from neighbouring properties. Consideration has also been given to the impact of the proposal with regards to sunlight, daylight and shadowing both within the site itself and through to the surrounding area. A detailed Daylight, Sunlight and Overshadowing report has been prepared and submitted as part of the application.

October 2024 Update: *The separation distances between buildings is unchanged with the updated proposals. There is a small, 4.645m increase to the height of Plot 2a.*

Suggestions to increase the height of the proposed buildings to over 250m.

March 2024 Response:
The height has been carefully considered and was determined by the size of the tower footprint. The development of the tower plan has been driven by the spatial constraints of the viaduct below, to ensure that all proposed structure is brought to ground in optimal locations to limit demolition of the listed viaduct structure. This has led to an elongated core and a larger footprint comprised of twelve residential units, compared to other residential towers in the vicinity which comprise of an average of ten or eleven units. The height of the tower is proportionate to the footprint which prevents the massing from appearing too wide and bulky and creates a slender elegant landmark (refer to page 52 of Design & Access Statement).

October 2024 Update: *Due to the requirement to increase some of the hotel floor to ceiling heights and the lift overrun height there is a 4.645m increase to the overall building height. The proposed height is now +245.645m (+281.575m AOD).*

› **Landscaping, Public Realm and Streetscape**

Comments emphasised the importance of providing high quality public realm. It was noted that the project has the potential to revitalise a neglected corner of the city and to prioritise connectivity and the pedestrian experience. There was also a request to incorporate as much green and blue space as possible throughout building to support nature recovery and local biodiversity.

Another respondent suggested the redesign the Albion Street junction and roads to make the area pleasant for residents and visitors.

March 2024 Response: *A Landscape Design & Access statement has been prepared which fully considers the connectivity, pedestrian experience and materials.*

The proposed landscaping capitalises on the site's unique elevated setting and expands upon the highly successful green space at Deansgate-Castlefield Metrolink Stop. The new public realm connection to and from the Metrolink Stop leads people between the residential towers (Phase 1 and Plot 2b), down the newly installed public realm Stair & Lift into a newly configured connective space, providing a legible link to Great Bridgewater Street.

The pedestrian route along Albion Street has been improved by the re-alignment of the road to provide a more accessible route into the city. This allows for a more generous public realm and landscaping planting scheme to be provided in the form of rain gardens and tree planting, acting as a buffer to the junction with Great Bridgewater Street.

October 2024 Response: *The aspirations of the landscape proposals to make significant improvements to the surrounding public realm are unchanged. The introduction of new building entrance and associated landscaping works to Albion Street will activate the streetscape and provide presence to draw people inside.*

› **Sustainability and Environmental Impacts**

One respondent stated that sustainability needs to be addressed in the plans and that the inclusion of a roof garden will not suffice. Another comment emphasised the importance of giving ample consideration to the environmental impact of the development in relation to the local wildlife, as well as the carbon pollution and impact of using any raw materials. It was suggested that the development should look to offset any of the aforementioned impacts and should achieve net zero.

March 2024 Response: *An Energy Strategy Report prepared by Ridge and Partners LLP accompanies this application and provides a detailed review of the proposed low carbon design strategies, underpinned by the Energy Hierarchy methodology.*

The proposals are underpinned by a 'fabric first' approach to design, using orientation and glazing ratios to maximise daylight penetration and reduce overheating.

New and innovative building services systems will future proof building performances. Options currently being explored include mechanical ventilation with heat recovery and highly efficient air source heat pumps to meet all heating, hot water and cooling demands.

At the heart of the development is the positive reactivation of a central quarter of the city which, for many years, has been unwelcoming, inaccessible and undesirable.

October 2024 Response: *All relevant environment and ecology reports have been updated with the revised proposals and accompany the application. A BREEAM accreditation is also introduced for the hotel.*

› **Overdevelopment**

Comments that the proposal represents further overdevelopment and will overcrowd the area. Suggestions that the development will contribute to the loss of the historic character of the area.

Another respondent suggested that historic areas such as this should left as they are with as minimal intervention as possible.

March 2024 Response: *The Site has been a long-term regeneration priority for the City, and has been included in a number of Regeneration Frameworks. The Proposed Development has been designed to respond to the surrounding area and context. A comprehensive townscape and visual analysis have been undertaken to ensure that the scale of the development reflects its prominent location at a key gateway into the City Centre. It achieves the desired streetscape variety and will act as a landmark entry-point to the City Centre. The Proposed Development fully complies with the City Council's policies and guidance in relation to tall buildings.*

The Proposed Development has been designed to minimise the impact on the historic character of the area. A key way in which this is to be achieved is through the re-activation of the listed arches which are currently underutilised and under appreciated. By re-activating these arches through the provision of active frontages will allow for better appreciation of this important heritage asset. A significant amount of work has been undertaken to reduce alterations to the listed asset and ensure the amount of viaduct that is lost is minimised.

October 2024 Response: *The revised proposals intend to retain the cast iron bridge beams to the Great Bridgewater Street bridge. This will ensure that the important historic relationship between the Castlefield Viaduct and Manchester Central can be fully understood and appreciated. The proposed removal of the deck will enable light to penetrate to the streetscape and improve the public realm, in accordance with the aspirations of the Strategic Regeneration Framework.*

› **Microclimate Impacts**

A comment expressed concern for the impact of the development on the local microclimate, particularly in relation to wind at the street level.

March 2024 Response: *A wind tunnel study has been carried out to assess the wind microclimate for the proposed development. The findings of the wind tunnel study have been considered and incorporated within the design, the public realm proposal and landscape design has been revisited to incorporate the requirements.*

Full details of the study and adopted mitigation measures are included within the Environmental Impact Assessment which accompanies the Planning Application.

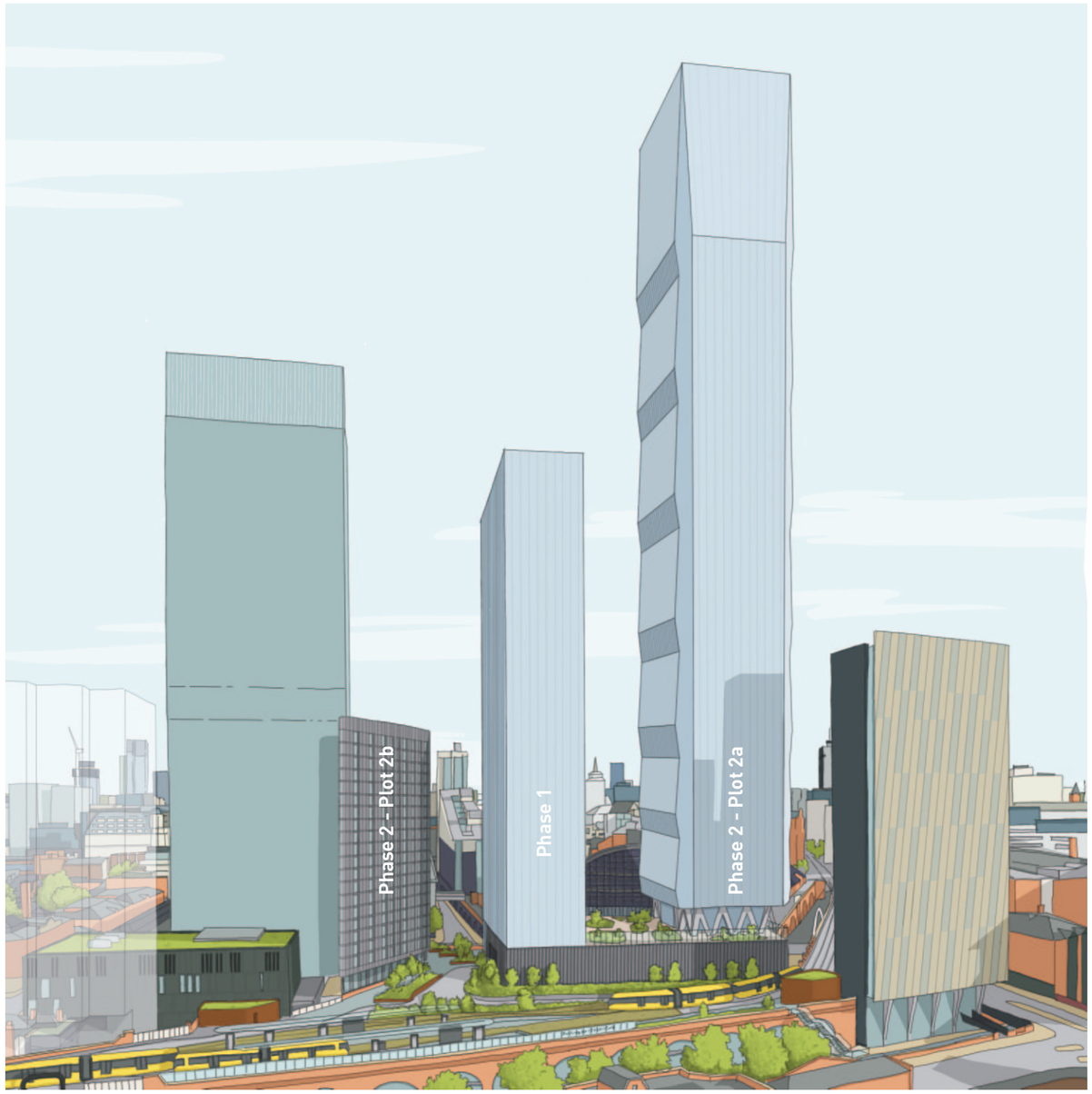
› **Pedestrian experience on Albion Street**

Several respondents expressed concern with the proposed taxi drop off on Albion Street, and potential damage this will cause to the pedestrian experience and public realm.

October 2024 Response: *The application includes a proposal for the significant narrowing of Albion Street and the transformation of the Albion St / Gt Bridgewater St junction and signals. This will include the removal of the left hand slip lane from Trafford Street, which is replaced with a standard give way junction. The layout change will allow pedestrians to have a signalised crossing and to cross Great Bridgewater Street efficiently in one movement, with environmental and landscaping improvements for pedestrians and cyclists.*

The Hotel Drop Off is intended to offer a quality space for pedestrians as well as those arriving by taxi. The number of taxis is expected to be relatively modest at 3-4 per hour and to give pedestrians priority in this space we have proposed a Copenhagen style crossing with a high quality shared surface.

4.0 Design



Masterplan Illustration

4.1 Use

Response
The development seeks to provide a vibrant mix of accommodation befitting a core city centre location, recognising the opportunity for the site to deliver a critical mass of high quality uses to support the economic growth of Manchester. The proposed uses meet the objectives of the 2017 SRF.

Residential
The Planning and Tall Building Statement provides full justification for the uses.

The Core Strategy Policies support residential uses in this location, additionally the SRF identifies the site as being in both an existing and an emerging residential location that forms part of a series of connected neighborhoods. The connected central location and the opportunity for scale both suit hotel and residential uses.

The Manchester Residential Growth Strategy (2016) cites the need to locate higher density developments towards district centres and transport hubs. The site is incredibly well connected to both heavy and light rail a short walk to the city centre.

Affordable Residential
In contribution to Manchester's housing need, the opportunity has been identified to deliver the Slot Site as affordable housing.

Hotel
As identified in the SRF, the site is appropriate for a large-scale mixed-use development, providing efficient use of land and contributing to the quality of the hotel offer in Manchester City Centre. The proposed hotel use is complimentary to existing uses and visitor attractions in the area, particularly the adjacent MCCC.

Leisure / Retail
Opportunities for characterful leisure usage within the existing arches are well suited and will help to re-animate Great Bridgewater Street. The proposed bar, which forms part of the hotel offer, will enable the public to experience the historic viaduct spaces. In addition, the upper-level bar, restaurant and events spaces will allow public access into the building and enjoyment of views afforded from the elevated position.

The realignment of the streetscape along Albion Street provides the opportunity for a significant improvement to the public realm. It also facilitates the creation of an impressive new entrance way into the building, considered appropriate for a building of this scale. The proposed highway/landscape works include of a dedicated drop off lay-by adjacent to the entrance.

The development of the Slot Site presents an opportunity for creation of leisure/ retail use on top of the viaduct. Entrances will open directly on to the newly landscaped public realm linking to the Stair & Lift. Active frontages and amenities in this location will contribute greatly to the quality of the new public realm.

Summary
Plot 2a Hotel & Private Residential , Ground Floor Bar and Upper-level Restaurant, Bar and Events Space.

Plot 2b Affordable Residential and Level 01 Commercial Unit

4.2 Layout Masterplan

4.2.1 Masterplan

Ground Floor

A key objective of the SRF is to improve the east-west connection along Great Bridgewater Street (GBS) to address the quality of the environment underneath the existing bridge. This transformation has already commenced with the construction of Phase 1, which includes:

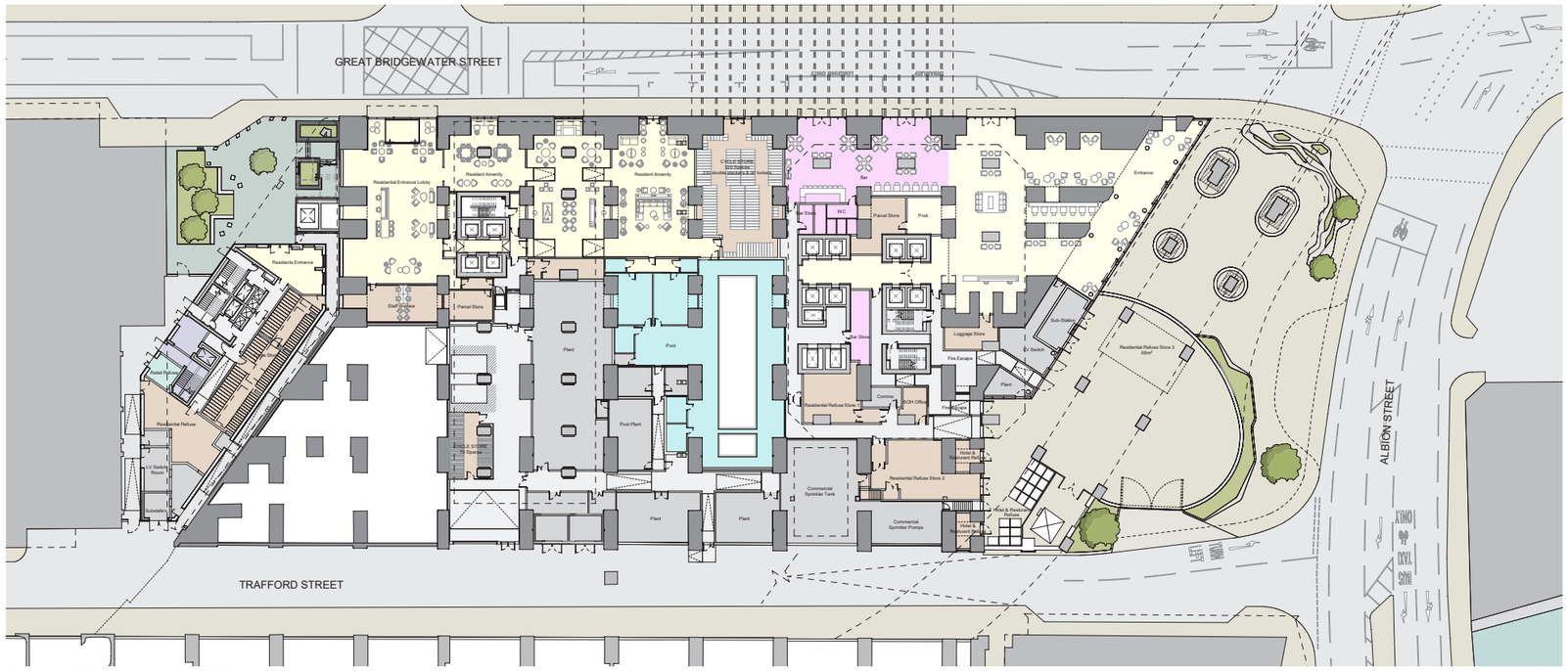
- Removal of the western section of the bridge.
- New public realm Stair & Lift connecting GBS to the upper viaduct level.
- Main residential entrance within a vaulted brick arch accessed from GBS.
- Residential amenities in adjacent arches with active frontage to GBS.
- Service access to the rear of the site from Trafford Street.

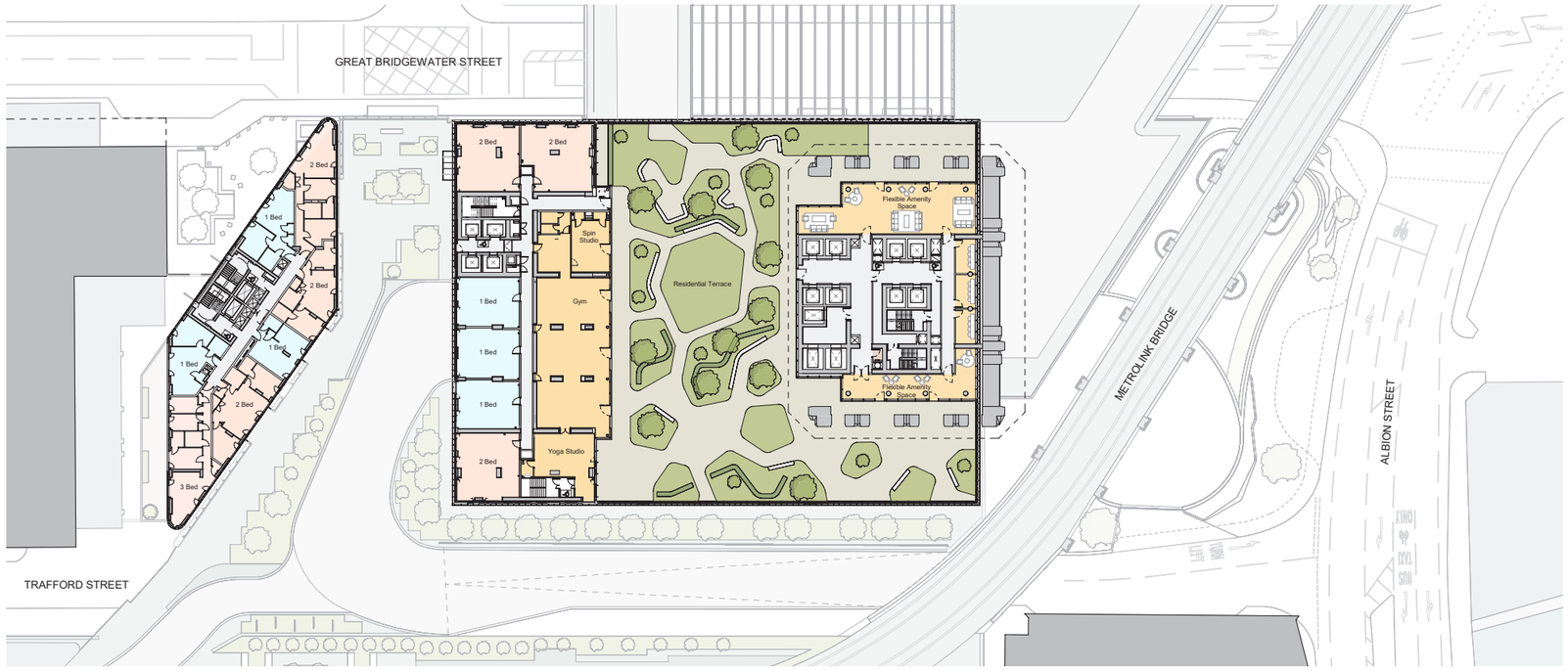
The proposed Phase 2 works will complement this approach and complete the vision for GBS. Importantly, this includes the redevelopment of the unfinished site between the Beetham Tower and Phase 1 (known as the Slot Site) which is a crucial component in the regeneration of the area. Significant improvement works are also proposed to the eastern boundary of the site with Albion Street.

The main entrance into Plot 2b is positioned with direct access from GBS, via a landscaped public space to the base of the public realm Stair & Lift, adjacent to the Phase 1 main entrance. Further entrances to the Plot 2a commercial unit; Plot 2a secondary entrance; and the combined Phase 1 & Plot 2a cycle store are also directly accessed from GBS. Proposed works to carefully remove the central portion of the viaduct bridge deck above these entrances will bring light to street level & greatly improve the quality and security of the public realm. Retention of the cast iron bridge beams will provide visual interest and allow the shared history of the viaduct and the former Manchester Central Railway Station (now MCCC) to be understood and celebrated.

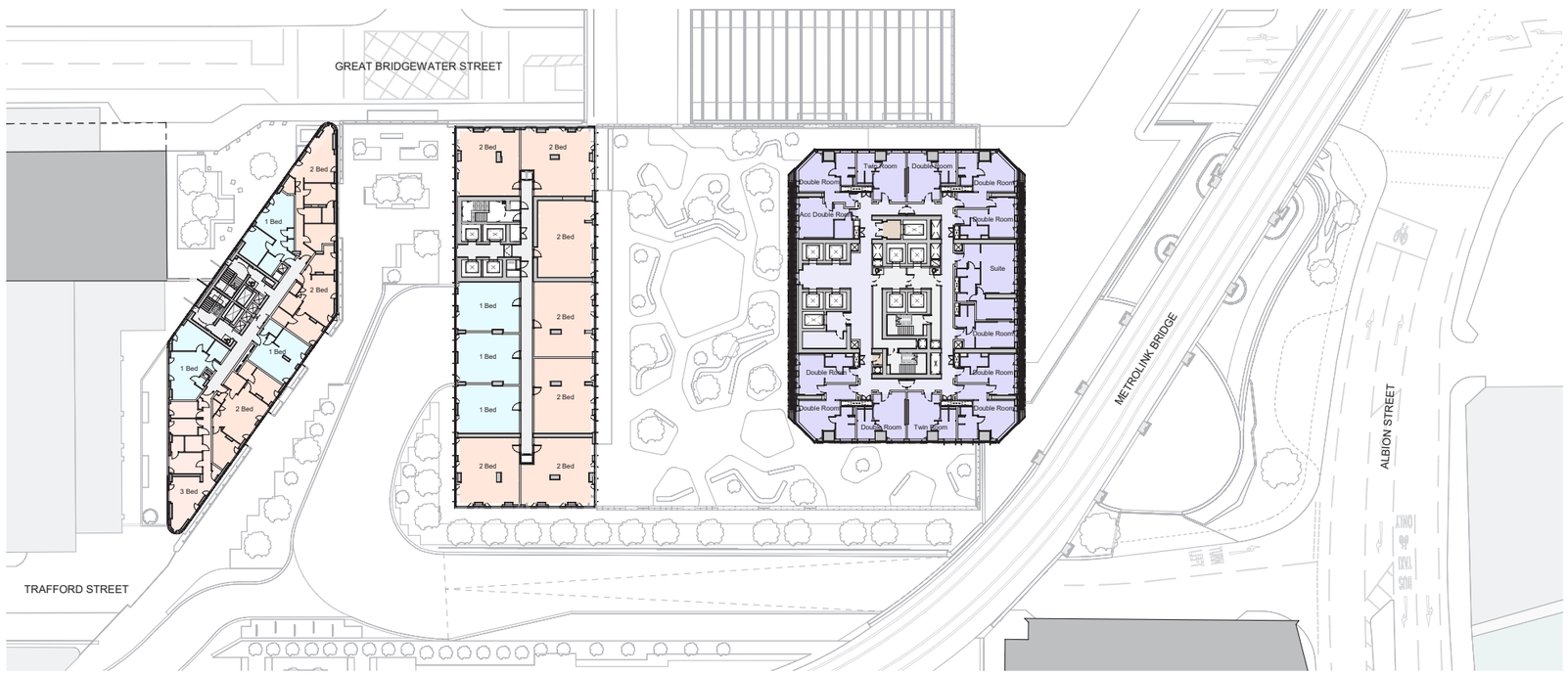
Works to Albion Street include the re-alignment of the road & pavement, which will repair the fractured streetscape & improve pedestrian accessibility. It is proposed that the main entrance to Plot 2a will be positioned here, with an associated vehicle drop off lay-by outside. The space between the street edge and the viaduct is constrained by the existing Metrolink Bridge, meaning pedestrians must pass underneath this to access the building. Therefore, to improve the environment and provide a secure and welcoming entrance, a new 'undercroft' structure is proposed. This will wrap around and below the existing bridge structure to lead pedestrians through to the building entrance, also opening up views into the viaduct from the streetscape.

New lighting proposals and a carefully selected palette of high-quality materials will enhance to the quality of the public realm. The structure will also function to enclose the proposed building service area, which has vehicle access from Trafford Street.


GREAT BRIDGEWATER STREET
TRAFFORD STREET
ALBION STREET
Residential Entrance Lobby
Resident Amenity
Resident Amenity
Bar
Entrance
Residents Entrance
Staff Welfare
Parcel Store
Plant
Pool
Pool Plant
Parcel Store
Post
Luggage Store
Fire Escape
Sub-Station
HV Switch
Residential Refuse Store 3
66m²
Residential Refuse
HV Switch Room
Residential Refuse Store
Comms
MCH Office
Fire Escape
Plant
Residential Refuse Store 2
Hotel & Restaurant Bins
Commercial Sprinkler Tank
Commercial Sprinkler Pumps
Fuel & Refrigerant Store
CYCLE STORE
77 Spaces
Substation
Plant
Plant
Plant
Hotel & Restaurant Bins
Residential Refuse Store 1
Commercial Sprinkler Tank
Commercial Sprinkler Pumps
Fuel & Refrigerant Store
CYCLE STORE
120 Spaces
Double-tiered cycle racks
Substation
Plant
Plant
Plant



Shared Amenity - Level 03



Typical Upper Level

The south of the site interfaces with Trafford Street. To the east is the vehicle ramp to the upper viaduct level and to the west it is a service road providing access to the rear of surrounding buildings, with no through access due to the ramp. Service access to Phase 1 for deliveries and plant room is provided from here. In keeping with this approach, proposed service access to the Plot 2b building for refuse collections, retail deliveries and plant room access will also be from here.

First Floor

Proposals for the upper viaduct level are already significantly advanced with the construction of Phase 1, which includes:

- New public realm Stair & Lift down to GBS.
- Landscaped public realm connection from the Metrolink station to the Stair & Lift.
- Re-aligned road & undercroft entrance into the Man. Central service yard.
- Secondary residential entrance to Phase 1.
- Partial completion of the podium enclosing the service yard.

Proposed Plot 2a works seek to complete the construction of the podium structure. Numerous consultations have been undertaken with Manchester Central to ensure their operations will not be adversely impacted, particularly in relation to vehicle tracking around the proposed structure. When compared to the approved office scheme, the eastern elevation is now pulled back in alignment with the viaduct, mitigating concerns raised by TfGM.

The development of the Slot Site, the Plot 2b building, has provided the opportunity for active uses at the upper viaduct level. Two proposed retail units will be accessed directly off the Phase 1 public realm, with lightweight pedestrian bridges connecting to the existing viaduct structure.

Third Floor

The top of the podium structure provides a landscaped amenity terrace which includes formal and informal play space for residents of Phase 1 and Plot 2a. Benefitting from its elevated position of approximately 18m above street level, it will provide views across the city to the north and the Castlefield Skyline to the south.

To the perimeter of the Plot 2a tower footprint an impressive transfer truss is visible, required to transfer tower loadings to ground level via minimal penetrations through the viaduct structure. Set back behind the truss are two levels of flexible amenity space.

Typical Upper Levels

The typical floorplans commence from level 02 in the Plot 2b building and level 11 (hotel) / level 27 (residential) in the Plot 2a building. The specifics of these are discussed further in section 4.6 of this document.

4.3 Scale & Massing

4.3.1 Masterplan

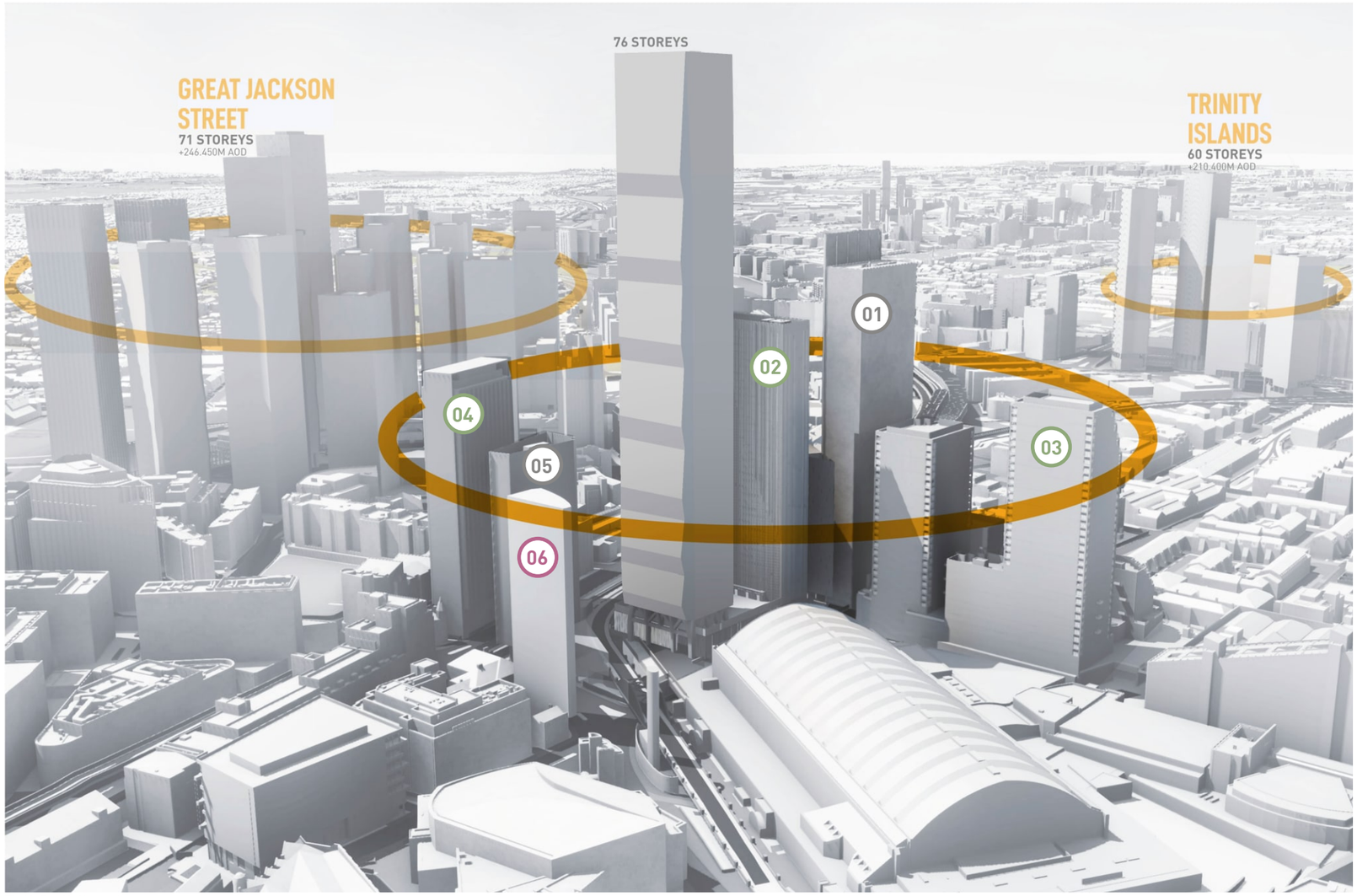
The proposed building heights have been carefully considered in relation to the immediate site context and also views from heritage and townscape settings in numerous locations throughout the city. Fully rendered, wireline and kinetic views have been developed which are contained within the Visual Impact Assessment which accompanies this application.

Plot 2a: 76 storeys tall and 245.645m from ground level (281.575m AOD)
Plot 2b: 23 storeys tall and 69.725m from ground level (105.655m AOD)

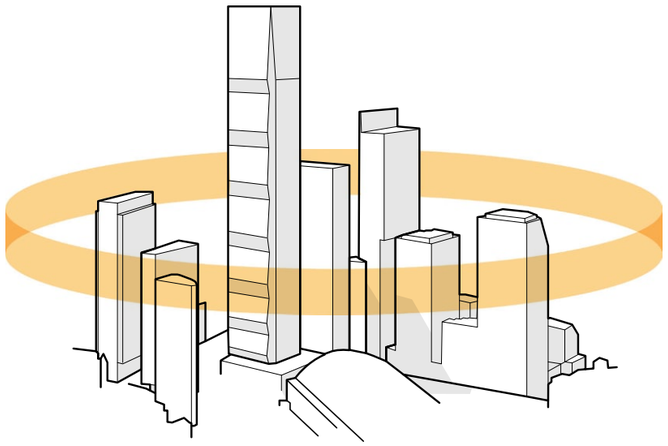
As demonstrated in the adjacent diagrams, the proposed buildings are well integrated into and positively respond to the immediate tall building cluster, providing a well-defined variation of heights. The positioning of the tallest component (the Plot 2a residential building) centrally within the cluster creates a focal point from which other building heights graduate downwards. The proposed massing and scale of each proposed building is discussed in detail in the next sections.

Identified in the 2010 Civic Quarter Framework, the 2017 SRF identifies that there is an opportunity to create taller buildings to complement the adjacent Beetham Tower.

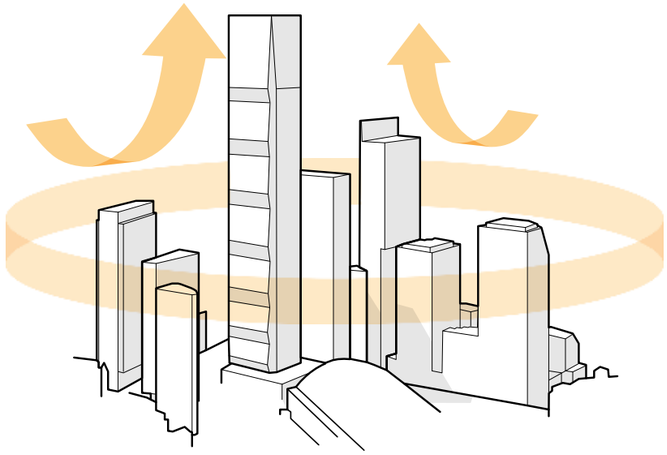
01 BEETHAM TOWER - 47 STOREYS (+205.353M AOD)
02 VIADUX PHASE 1 - 40 STOREYS (+171.900M AOD)
03 GREAT NORTHERN - 34 STOREYS (+148.050M AOD)
04 VISION - 35 STOREYS (+150.300M AOD)
05 AXIS - 28 STOREYS (+123.860M AOD)
06 APEX - 26 STOREYS (+125.000M AOD)
07 325 DEANSGATE- 22 STOREYS (+106.250M AOD)



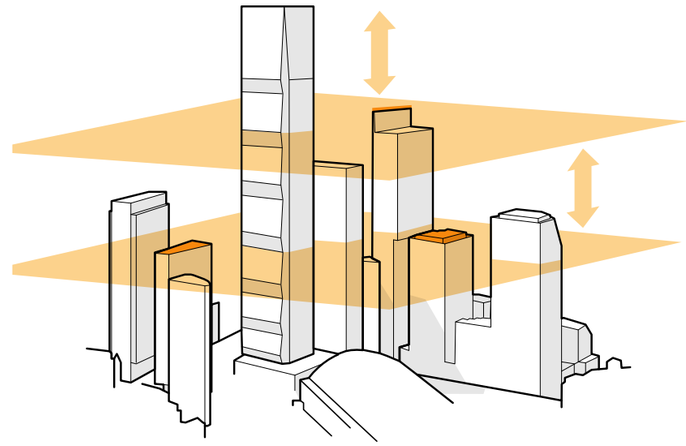
Tall Building Clusters



Tall Building Cluster



Peak to Define the Cluster

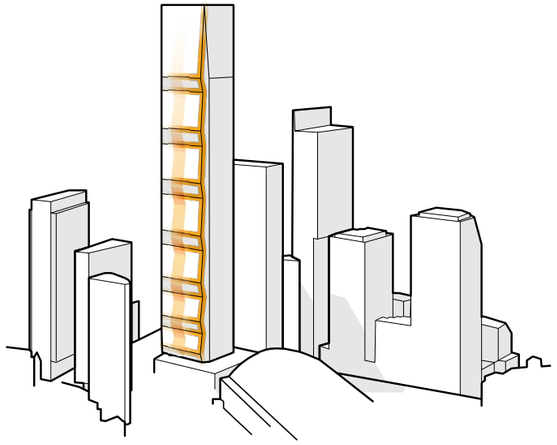


Variation of Building Heights

Stepping Down Towards Edges



Complementing not Competing



Dynamic Profile / Silhouette

4.3.2 Plot 2a

Height

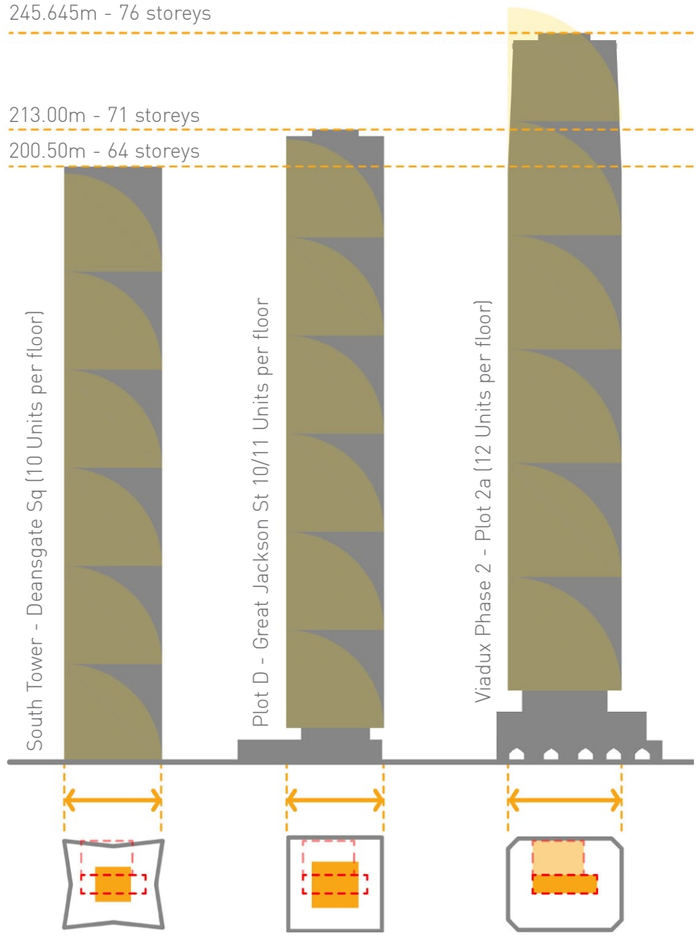
The position of the Plot 2a building centrally within the tall building cluster creates an opportunity for a building of increased scale, providing a peak to define the cluster from which other building heights graduate downwards. This height variation is well proportioned and considered necessary to provide articulation and elegance to the cluster.

The height has also determined by the size of the tower footprint. The development of the plan arrangement has been driven by the spatial constraints of the viaduct below, to ensure that all proposed structure is brought to ground in optimal locations to limit demolition of the listed viaduct structure. This has led to an elongated core and a larger footprint comprised up to thirteen residential units, compared to other residential towers in the vicinity which comprise of an average of eleven units. The height of the tower is proportionate to the larger footprint which prevents the massing from appearing too wide and bulky, and creates a slender elegant landmark. The adjacent diagram illustrates this. The height of the Plot 2a tower equates to approximately six times the footprint width, and while the proposed tower is taller, it has similar proportions to the towers within the Great Jackson Street masterplan.

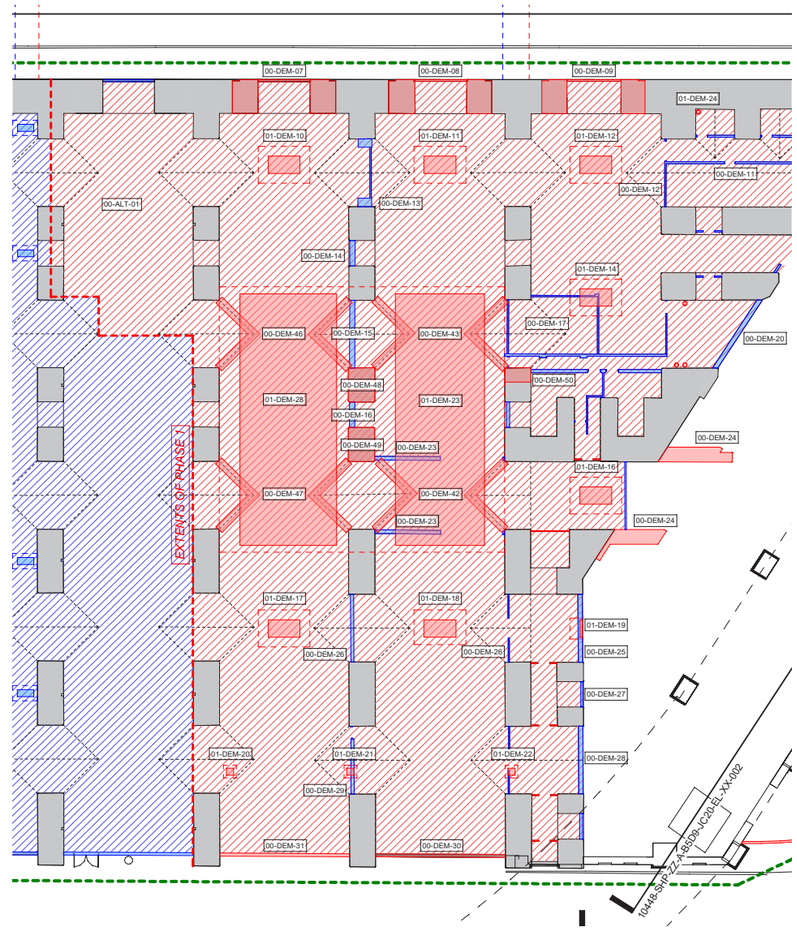
Another key driver and justification for increased height is the geographical location of this site, which is considered to be the 'Southern Gateway' into the city core. The creation of a landmark in this location will contribute to city wide orientation and wayfinding, providing a marker at this key location directly adjacent to the major transport hubs of Deansgate Castlefield Metrolink Stop and Deansgate Railway Station.

The impact of the proposed height to the immediate streetscape around the viaduct has also been carefully considered. The tower form is set back from the edges of the site, which is deep plan and insular due to the large footprint of the viaduct. This set back, which is particularly important along Great Bridgewater Street, ensures the tower elevation is subservient to the viaduct elevation, meaning the pedestrian scale to the historic streetscape is maintained and the listed viaduct remains the prominent architectural feature.

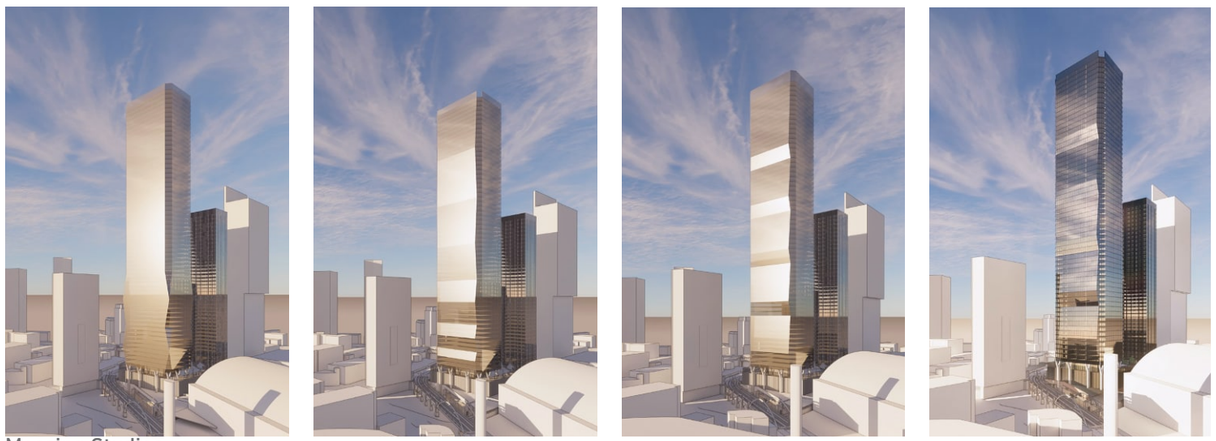
In addition, when compared with the approved Phase 2 office scheme, this change can also be appreciated along Albion Street and from the junction with Whitworth Street. The reduction in footprint size and set back of the eastern elevation opens up the streetscape and sympathetically reveals a much larger proportion of the listed Manchester Central elevation.



Core size and tower height comparison diagram



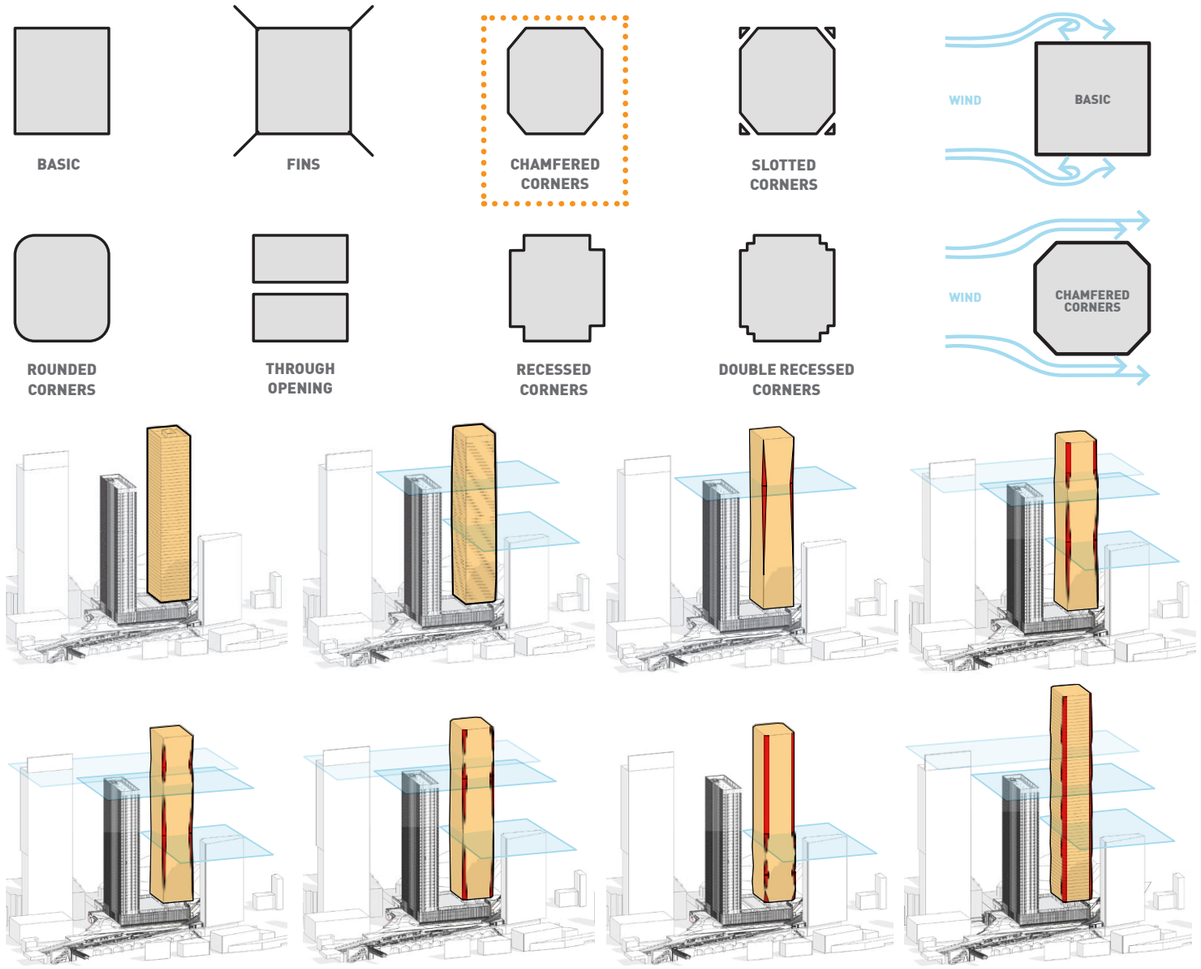
Viaduct Plan - Structure strategically positioned to limit demolition



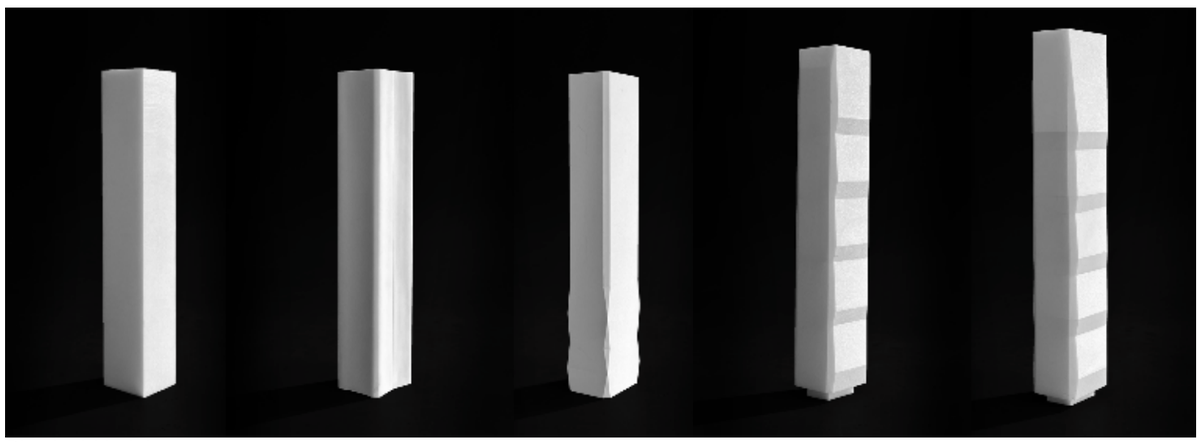
Massing Studies



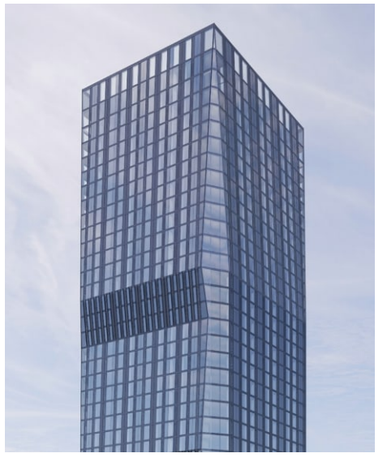
Physical Model



Wind Analysis - Plan Form and Massing



Physical Models







'Top, Middle & Bottom'

Form

The proposed tower form was interrogated early in the design process with input from a specialist wind consultant, who advised the team what massing options and features would interact most favorably with the wind environment. The approach to chamfer corners and introduce inclined facades was determined to be the most aerodynamic, reducing wind speeds and lessening the impact to pedestrian comfort at street level.

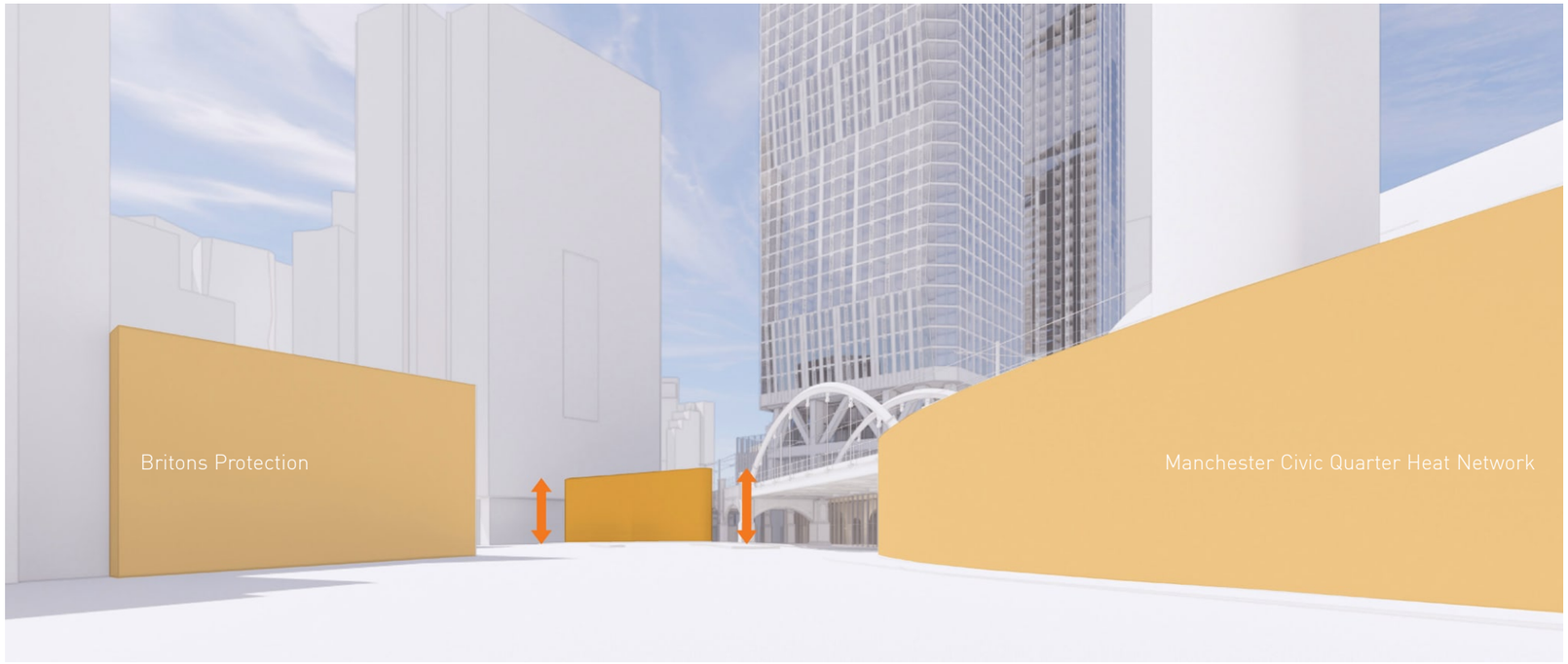
Once determined, the integration of these features into the architectural modelling was carefully developed, utilising physical massing models, computer models and 3D animation. Continual testing of massing options with the plan layout enabled the approach to be refined, ensuring that the building form and layout work together harmoniously to a create an exceptionally high-quality architectural response and the provision of well-proportioned, high quality and desirable accommodation.

The proposed modelling creates well defined 'top, middle and bottom' sections to the building, which is an important townscape consideration and a key component in Historic England's Tall Building Advice Note. To the lower levels the tower form is raised above the viaduct and podium levels, creating a visual separation with the historic viaduct fabric. An impressive structural transfer truss at the 'bottom' of the tower wraps around the perimeter of the footprint, signaling the start of the tower form. The 'middle' component is characterized by a combination of chamfered corners regularly spaced inclined facades, visually reinforced by elevational differences and materiality changes. To the 'top' of the building, the mass is broken down by inward tapering to all four building elevations, dissolving the corner chamfers to create a refined and elegant termination to the top of the building.

4.3.3 Plot 2a Entrance

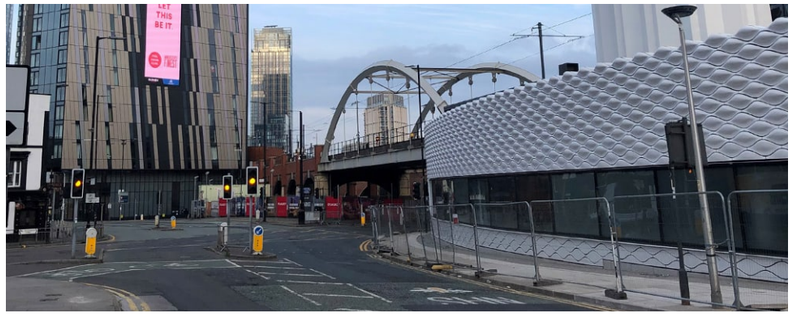
The entrance into Plot 2a is via a standalone undercroft structure, which wraps around and below the existing Metrolink bridge. Highway works to realign the roadway along Albion Street will create space for this entrance, and also vastly improve the accessibility of the public realm along this important connection towards St. Peter's Square. The new entrance structure will edge the streetscape and provide an active and lively frontage.

The proposed low-level massing is a similar scale to the existing Metrolink bridge, and also the adjacent Manchester Civic Quarter Heat Network building & Grade II listed Britons Protection pub. In addition, the proposed height is sympathetic to the high-level Axis advertising screen and will not disrupt views of this on the approach from St. Peter's Square.



Massing Concept Sketch

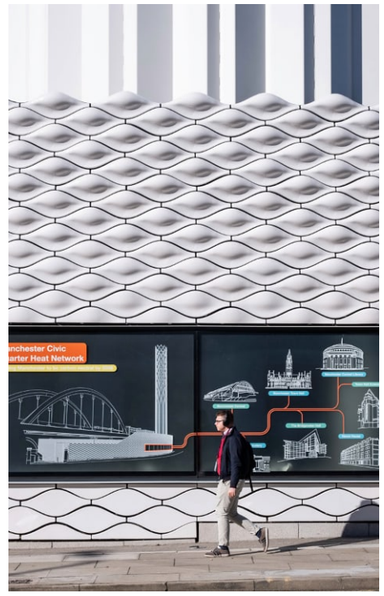




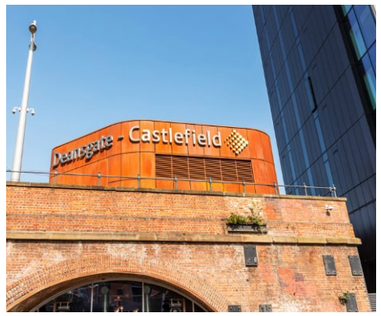
Existing Albion Street Frontage



Manchester Civic Quarter Heat Network





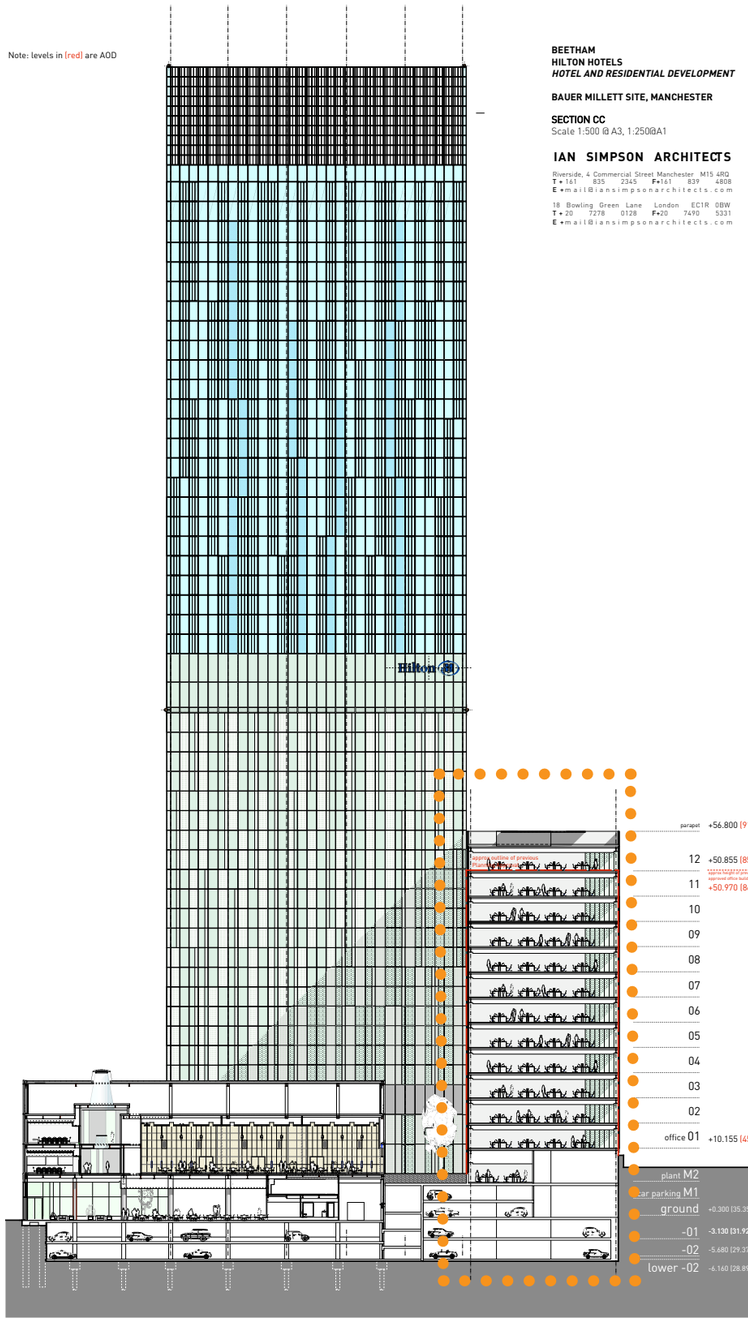




Massing Visual looking East along Great Bridgewater Street



Stair & Lift Planning Approval - 2020



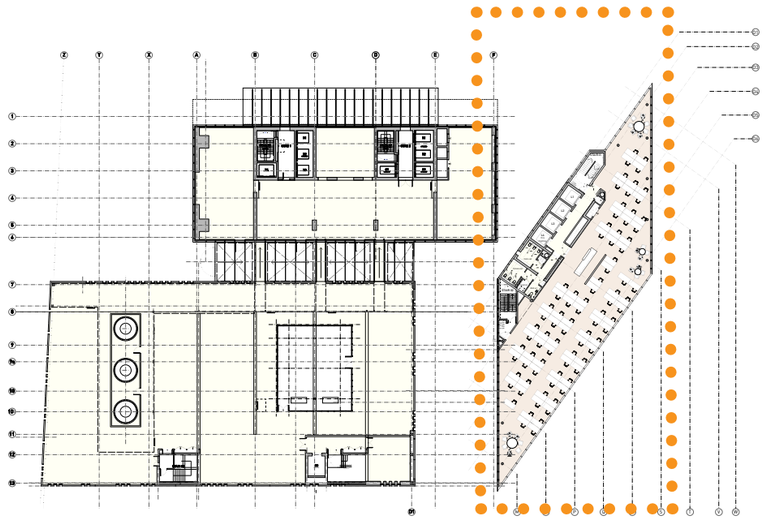
Beetham Tower Office Planning Approval - 2005

4.3.4 Plot 2b

The massing for the building on Plot 2b is based on the previously approved Beetham Tower Office scheme, however, subtle changes have rationalised the form and improved the separation distance with the Beetham Tower. The introduction of curved prows (as opposed to pointed) ensures the internal space is more usable and visually softens the external appearance. An architectural slot window to the centre of each prow creates visual interest and will provide a distinctive feature in the living spaces.

The upper volume of the building, which contains the residential accommodation, is raised up above the level of the viaduct public realm to provide privacy to the apartments. To the north this volume cantilevers over the public realm Stair & Lift to create a sheltered approach to the main building entrance, and a striking architectural feature on the approach from GBS and Watson Street. The lower volume, forming the building podium, has a smaller footprint which is pulled back adjacent to the boundaries with the viaduct and the Beetham Tower to provide a more generous public realm and access & maintenance zone. To the southwest there is an extension to the podium block, improving the internal proportions of the lower volume and providing a south facing terrace to the level 01 retail unit.

The overall height of the building has been maximised based on the development parameter to not exceed the height of the Beetham Tower Cloud 23 Bar. Due to the proximity of the buildings this is to mitigate privacy issues which would otherwise arise resulting from direct overlooking between residential dwellings.



4.4 Appearance

4.4.1 Strategy

The treatment of the elevations has been carefully considered throughout the design development process to ensure the proposals are robust and deliverable. The material strategy has been developed to respond to the established and emerging context of the area.

Each of the proposed buildings, including Viadux Phase 1, benefits from having a strong compositional relationship with the other, the Beetham Tower, and the urban surroundings. The elegant silhouettes and geometric composition have led to the development of a rational approach to the cladding that responds to the wider city context and the vertical form of the buildings. The result is a collection of buildings that complement each other and complete this tall building cluster. The response for each element is detailed in this section.

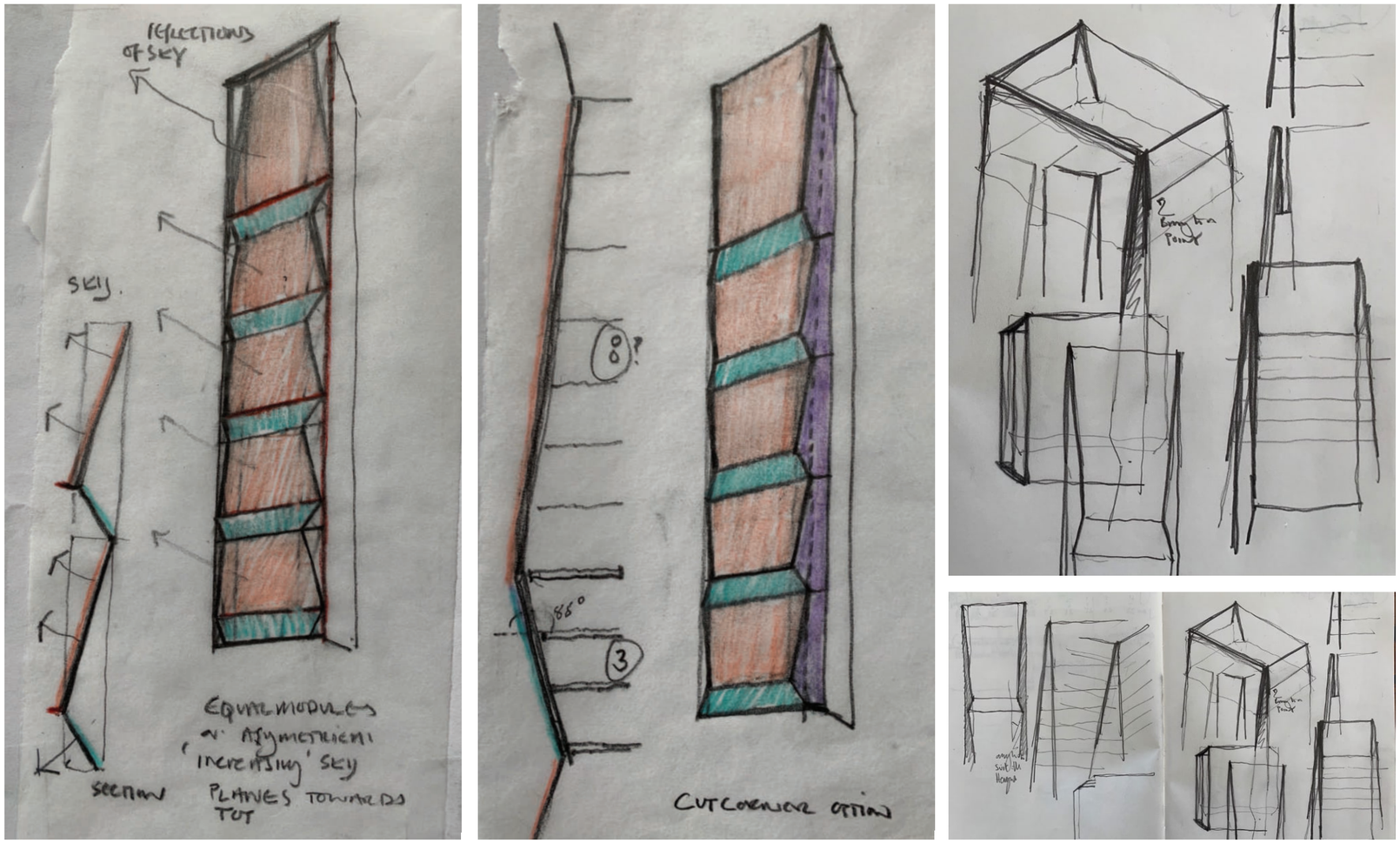
4.4.2 Plot 2a

The building utilises a simple palette of high-quality materials, clear glass, opaque (enamel fritted) glass, perforated aluminum vents, aluminum fins and aluminum spandrels to articulate the facade within a curtain wall system. This is based on a 1500mm / 750mm module, adopted across all the buildings in the masterplan to provide a rational and unified response.

The longer building elevations to the east and west are articulated by inclined facades which taper in up the height of the building. The proposed proportions of the tapers reflect the internal uses, with a tighter spacing observed at the base of the tower where the hotel accommodation is situated. The proposed treatment to the upward and downward facing facets has been considered separately to emphasize this form, exploring surface reflectivity, texture and shadow. There is a higher proportion of glazing to the upward facing facets, with flush joints to provide a smooth and reflective surface. In contrast, the downward facing elevations have a higher proportion of aluminum and projecting vertical fins on a tighter 750mm module throughout. These facets will therefore reflect much less light and the fins will create depth and shadow. This contrast will create variation and visual interest, accentuating the elegant form and ensuring a dramatic response to changing light conditions.

Proposed fully glazed, chamfered corners interface will with the east & west inclined facades to create a distinctive, faceted edge, the expression of which will be accentuated by the introduction of a projecting aluminum edge profile.

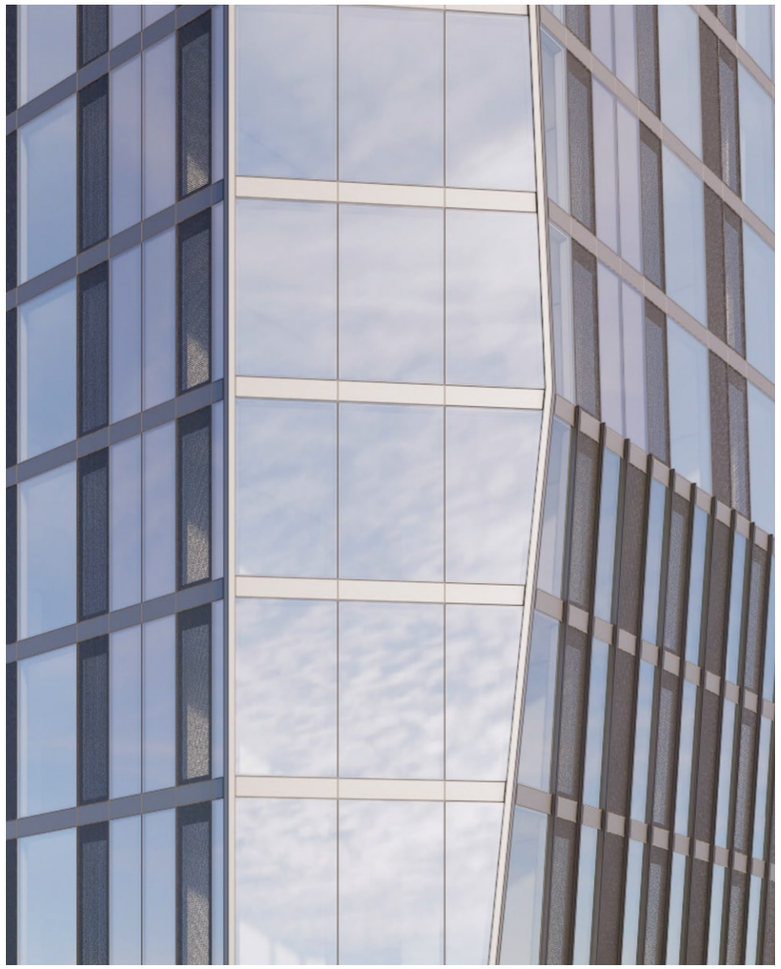
In contrast to the east and west elevations, the north and south adopt a more conventional approach. These flush elevations have more emphasis on verticality and interface with the corner chamfers in a much simpler manner.



Concept Sketches



Response to Changing Light Conditions





Facade Details

This façade strategy echoes the approach adopted in Phase 1, whereby the east & west facades have projecting vertical fins to create depth, and the north & south façades have smooth, flush glazing with no projections. A key difference, however, is that the symmetrical plan arrangement proposed for this building has lent itself to a symmetrical façade grid. This is different to Phase 1 strategy where constraints at viaduct and service yard levels determined an asymmetrical plan and elevational approach.

Natural ventilation is provided via rapid vents, which incorporate glazed internal doors. The bespoke perforation pattern for the outer aluminum panels has been inspired by the shape of the arch keystones in the listed viaduct structure, demonstrated in the adjacent images

The podium, which has been partially constructed with Phase 1, consists of perforated aluminum panels on a 750mm grid with projecting vertical fins, and a glazed parapet to the residential terrace. For consistency the same materiality and construction methodology are proposed for the Phase 2 portion.

Detail

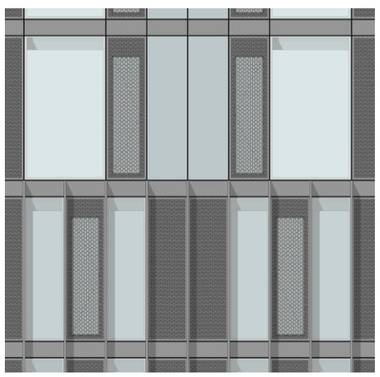
The highest quality materials are proposed that are appropriate to their purpose and location, and an attention to detailing will be maintained to ensure an exemplar of good design. The materiality of the building is summarised on the following drawings submitted as part of the planning application:

10448-SHP-ZC-A-B5D9-G200-EL-XX-001 - North & East Elevations
10448-SHP-ZC-A-B5D9-G200-EL-XX-002 - South & West Elevations
10448-SHP-ZC-A-B5D9-G251-DE-XX-103 - Facade Detail – East & West Elevation
10448-SHP-ZC-A-B5D9-G251-DE-XX-104 - Facade Detail – North & South Elevation
10448-SHP-ZC-A-B5D9-G251-DE-XX-105 - Facade Detail – Corner Chamfer
10448-SHP-ZC-A-B5D9-G251-DE-XX-002 - Facade Detail – Level 03 & 04 Amenity
10448-SHP-ZC-A-B5D9-G251-DE-00-001 - Facade Detail – Main Entrance

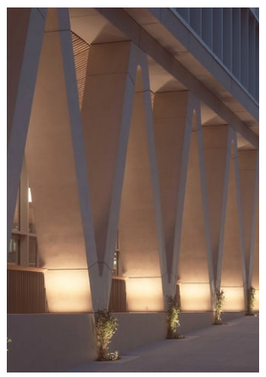


Rapid Vent Perforation Pattern Concept





Facade Detail







Precedent Studies

4.4.3 Plot 2a Entrance

The new 'undercroft' entrance and screen wall to the service area is a standalone structure which will wrap around and below the existing Metrolink Bridge. The proposed sculptural form will be constructed using a lightweight steel frame, with fluted steel sections to form the casings around the existing bridge piers. The frame will be clad with a carefully selected palette of high quality, lightweight materials.

To the column casings and screen wall, terracotta cladding is proposed. Making reference to the historic glazed terracotta tiles of the viaduct and the adjacent energy centre, the proposed design will adopt a smaller scale rhythm/grid, the detailed design of which will be developed using 3D virtual & physical modelling. Terracotta is a versatile material with multiple options for colour, texture and finish, therefore, material samples will be procured and carefully reviewed to ensure an appropriate selection is made. The screen wall will also provide a backdrop for building signage, the design and detailing of which will be carefully considered in conjunction with the cladding strategy.

The proposed soffit will be formed using lightweight anodised aluminum cladding panels, with feature lighting strips to provide appropriate illumination, both in the daytime and at night. The proposed geometric pattern, featuring concentric circles radiating out from the column casings, is reflective of the landscape strategy. This unified, cohesive design response will provide the space with a simple and beautiful elegance, greeting visitors and drawing them into the building.

A planting zone is proposed to the perimeter of the rooftop. This will visually soften the roofscape when viewed from street level and provide an attractive feature for people travelling past on the Metrolink, building on the success of the extensive planting at Deansgate Castlefield Metrolink station. Further details, including proposed plant species, is provided within the landscape Design & Access Statement as part of this submission.

A thorough review of TfGM access and maintenance requirements will be undertaken during the detailed design phase, with strategies to enable safe inspection of the existing Metrolink bridge embedded into the design proposals. This is likely to include demountable cladding or access doors to column casings, fixed vertical access to the roof and a suitable fall protection strategy.



View from Albion Street



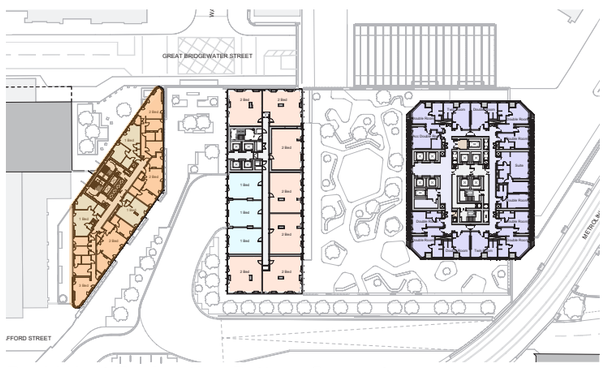
Materiality Precedent



View from Watson Street

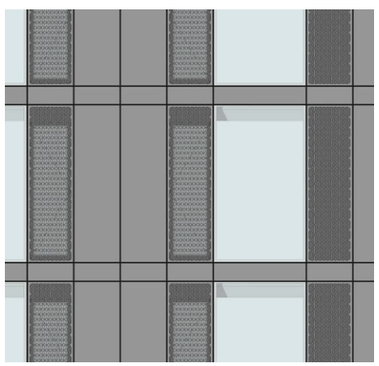


Views from Deansgate Castlefield Metrolink Station



Rapid Vent Perforation Pattern Concept





Facade Detail

4.4.4 Plot 2b

Similarly to the Plot 2a building, proposals for Plot 2b utilise a simple palette of high-quality materials, including glazing, aluminum panels, perforated aluminum vents and precast panels. Again, these are based on a 1500mm / 750mm module, which is adopted across all the buildings in the masterplan to provide a rational and unified response.

It is proposed that the upper volume will have a lighter-weight appearance with a curtain wall system comprising glazing, aluminum panels and perforated vents. This simple and rational approach places emphasis on verticality and works successfully with the internal arrangements to provide optimal natural lighting and ventilation.

The lower volume will contrast to provide a heavier appearance, akin to the adjacent brick viaduct structure and the facade strategies adopted for the Stair & Lift and Beetham Tower podium. As such, the proposed cladding will be a combination of precast panels and glazed curtain walling. This will provide a durable and hard wearing material finish at the key interfaces with the public realm, mitigating against potential damage and degradation.

To the north of the site the upper volume cantilevers above the public realm and Stair & Lift, exposing a large area of soffit. This will be clad with aluminum panels and incorporate lighting to provide visual interest and illuminate the public realm below.

Natural and purge ventilation is provided via rapid vents, which incorporate glazed internal doors. The bespoke perforation pattern for the outer aluminum panels has been inspired by the distinctive shape of the building footprint, demonstrated in the adjacent images.

Detail

The highest quality materials are proposed that are appropriate to their purpose and location, and an attention to detailing will be maintained to ensure an exemplar of good design. The materiality of the building is summarised on the following drawings submitted as part of the planning application:

10448-SHP-ZF-A-B5D9-G200-EL-XX-001 – East & South Elevations
10448-SHP-ZF-A-B5D9-G200-EL-XX-002 – West & North Elevations
10448-SHP-ZF-A-B5D9-G251-DE-TY-001 - Facade Detail – Typical Residential
10448-SHP-ZF-A-B5D9-G251-DE-00-001 - Facade Detail – Main Entrance
10448-SHP-ZF-A-B5D9-G251-DE-01-001 - Facade Detail – Retail Entrance

4.4.5 Great Bridgewater Street Arches

The rationale and options considered for opening up the existing GBS arches were presented and approved as part of the Phase 1 works. In summary:

- The opportunity to open up the facade was welcomed by Historic England in order to reveal the arched undercroft beyond.
- Numerous options were considered in the development of this element of the design, which are summarized in the Design and Access Statement for the original 2017 consent (Ref. 126868/JO/2020).
- It was determined that a discreet rectilinear opening that maximized the available frontage up to the underside of the stone horizontal stone course was the most appropriate response.
- Within the new opening a large format curtain wall glazing system was proposed, maximising natural light and visibility into the arches, and creating a discernible contrast between old and new.

In 2020/2021 updates to the space planning of the Phase 1 ground floor included the relocation of the main entrance into the adjacent arch, where the public realm stair had been initially proposed. This arch already had a larger opening suitable for the main entrance, so the decision was taken to retain the existing smaller arch openings to the adjacent residential lounge & library amenity spaces. Due to the function of these spaces this strategy was determined to be more appropriate, and more of the listed fabric could be retained.

The revised proposals for Plot 2a include the repositioning of the main building entrance from GBS to Albion Street. As a result, the proposed removal of the central portion of the GBS bridge has been reconsidered. Consultation advice from Historic England has reinforced the importance and value of this bridge connection in understanding the relationship between the Castlefield Viaduct and the former Manchester Central Railway Station (now MCCC). Therefore, it is proposed that the level of harm will be reduced by removal of the bridge deck but retention of the existing cast iron bridge beams. This approach will allow natural light to penetrate down to street level, which is necessary to improve the quality of the public realm, whilst preserving and celebrating this aspect of Manchester's Victorian railway heritage. There are still secondary entrances into the building proposed along GBS, which will activate the streetscape and improve security.

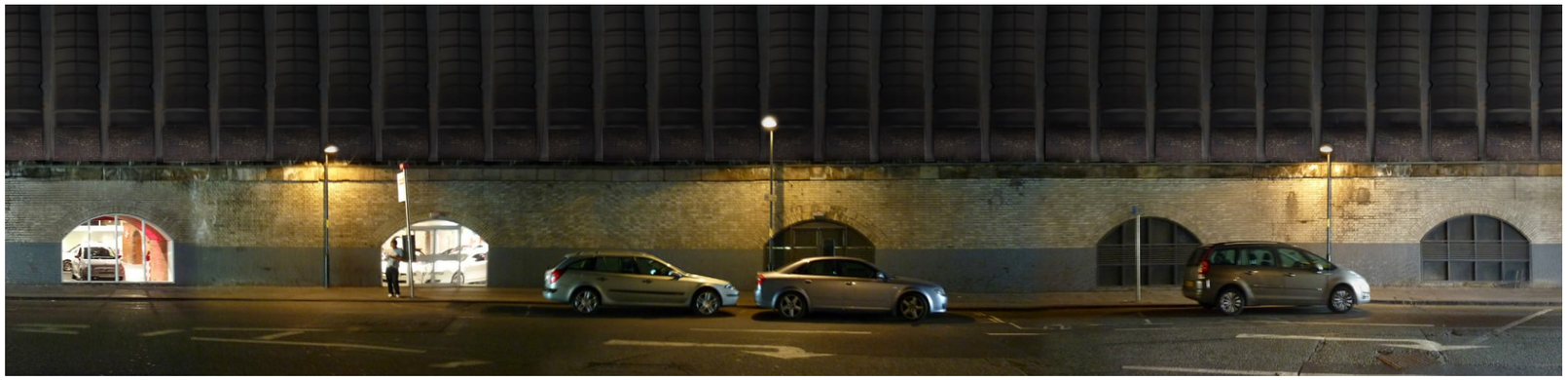
In accordance with the existing consent, it is proposed that three of the existing arch openings fronting GBS will be enlarged:

Arch A – Secondary Residential Entrance
Arch B – Hotel Commercial Unit (Bar) Entrance & Frontage
Arch C – Hotel Commercial Unit (Bar) Entrance & Frontage

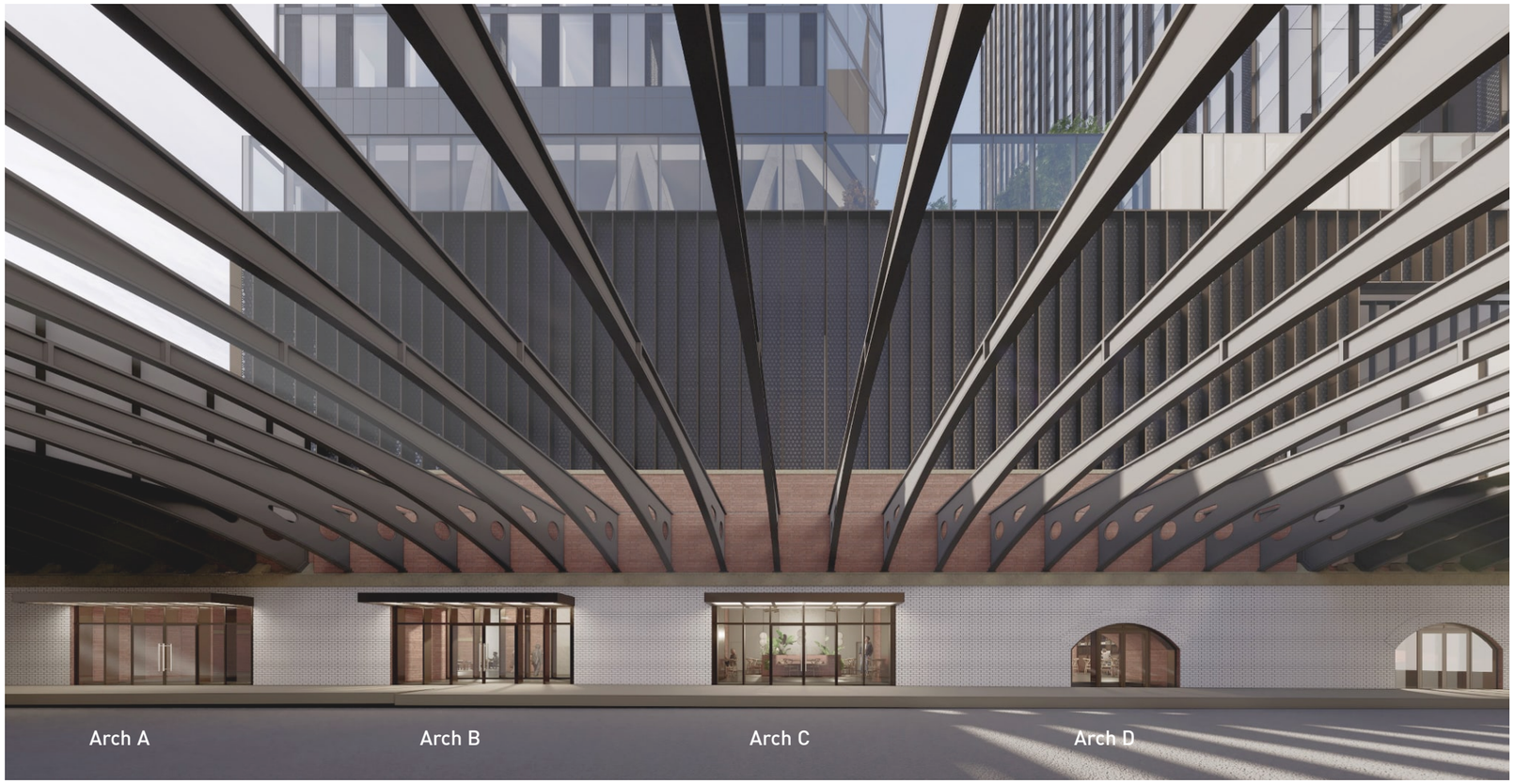
The enlargement of these openings will:

- Create much needed active frontage to improve the quality of the public realm.
- Open up the viaduct and reveal views into the impressive arched undercroft beyond.
- Enable suitably sized entrance doors, signage zones and canopies to be accommodated.

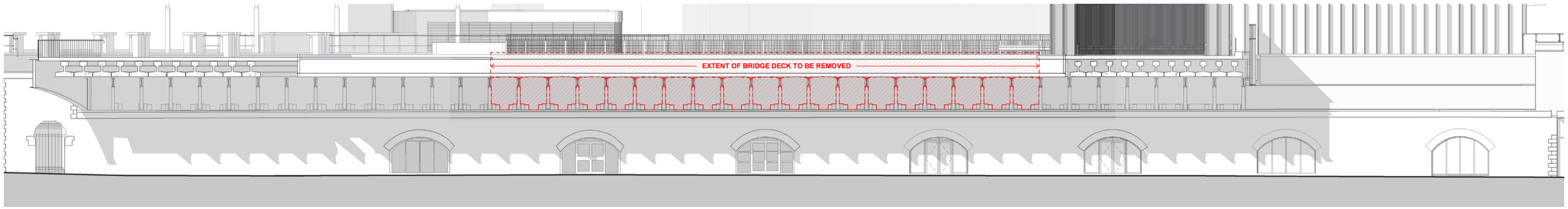
For remaining arch (Arch D), it is proposed that the original smaller arch opening will be retained. The current façade infill to this arch was approved and constructed as part of the Phase 1 works to provide access to the temporary Phase 1 cycle store. With the revised Plot 2a proposals it is proposed that this cycle store will become permanent. The glazed façade infill which has been constructed is consistent with the approved design and materiality of the GBS infills, therefore, it is proposed that this will also become permanent.



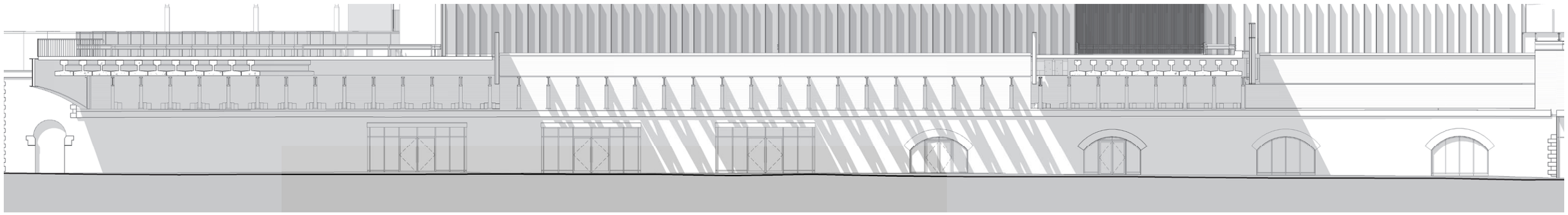
Existing - Great Bridgewater Street (South) Elevation (2017)



Proposed - Visual showing Bridge Deck Removal and Enlarged Openings



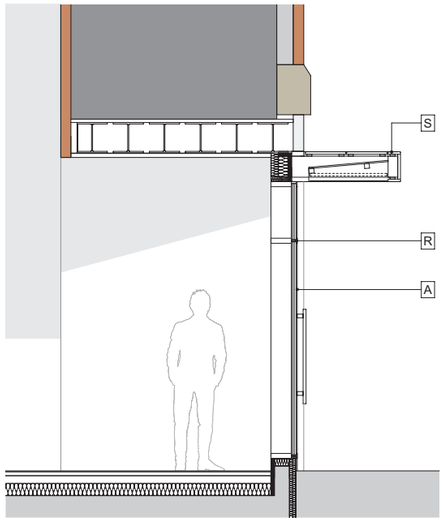
Existing - Great Bridgewater Street South Elevation



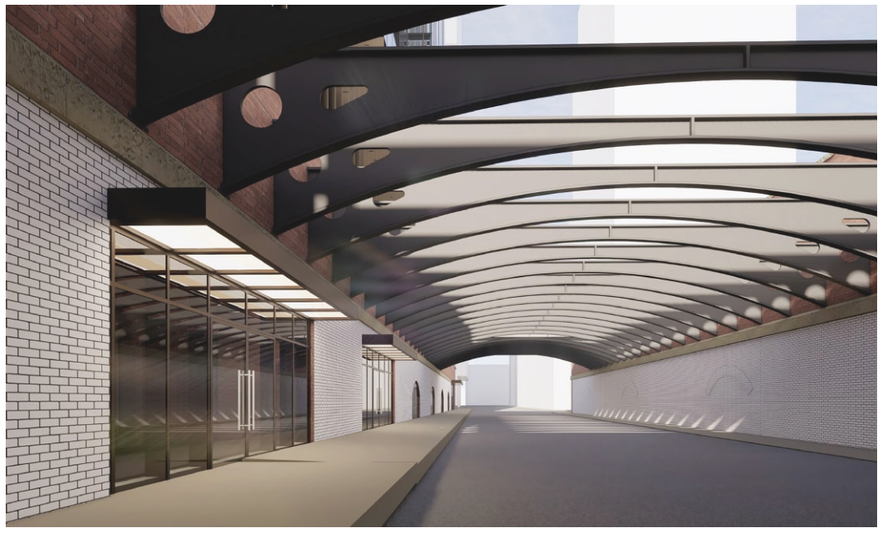
Proposed- Great Bridgewater Street South Elevation



Proposed - Enlarged Opening to Plot 2a Main Entrance - Elevation



Section



Visualisation

4.5 Amount

The overall quantum of accommodation within the development has been derived as a product of the composition and massing of building elements in response to location, orientation, and programme. The residential apartments have been designed to meet, and in some cases exceed, the National Space Standards defined in the Manchester City Council Residential Quality Guidance.

QUANTUM

Phase 2 - Plot 2a
- Residential GIA 52,808sqm
- Hotel GIA 27,128sqm

Phase 2 - Plot 2b
- Residential GIA 11,924sqm
- Retail GIA 198sqm

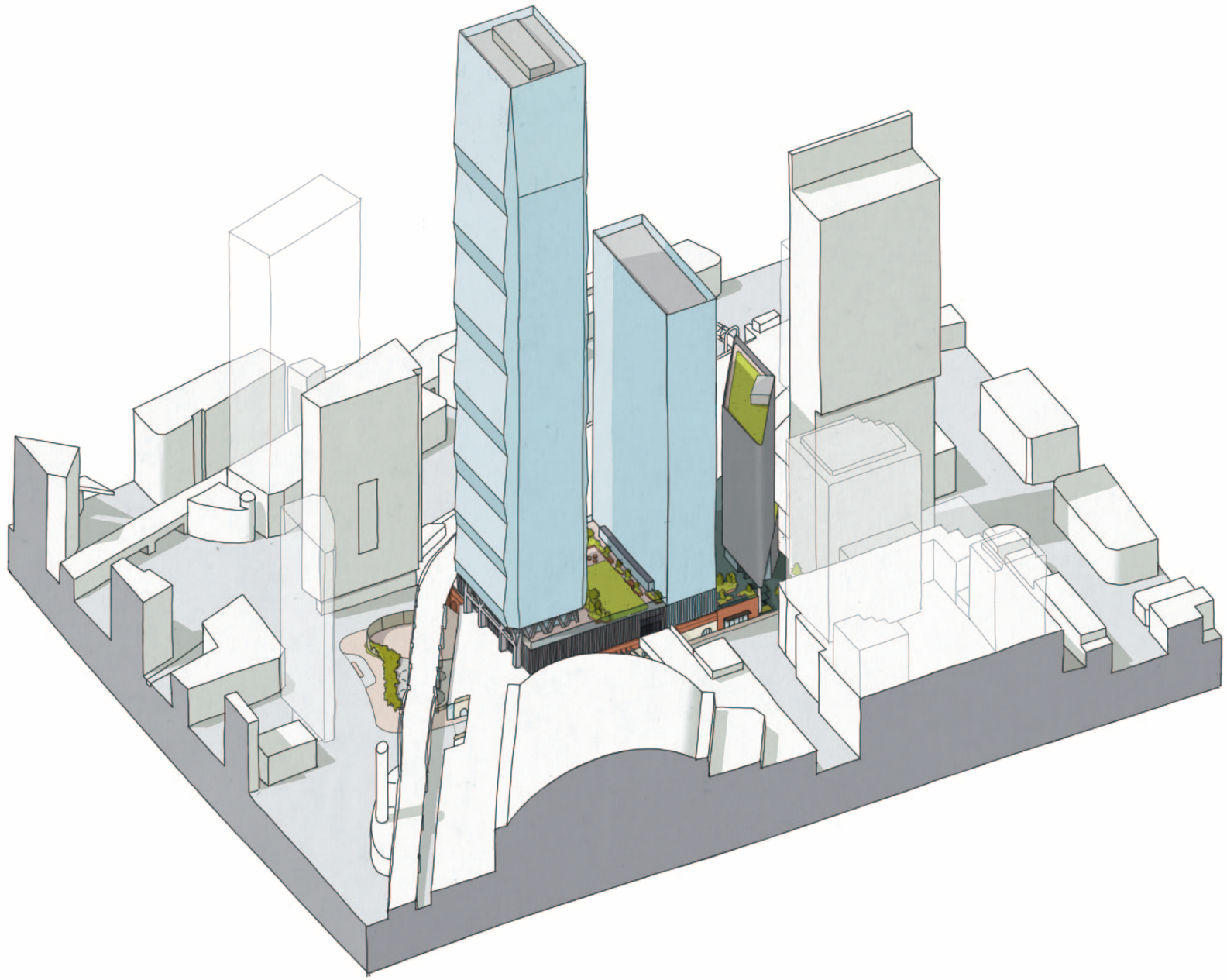
Overall
- Residential GIA 64,732sqm
- Hotel GIA 27,128sqm
- Retail GIA 198sqm

RESIDENTIAL MIX

The Plot 2a building has a total of **452** residential apartments, comprising:
- 51 studio / one person apartments
- 100 one bedroom / two person apartments
- 18 two bedroom / three person apartments
- 260 two bedroom / four person apartments
- 20 three bedroom / six person apartments
- 3 penthouse apartments

The Plot 2b building has a total of **133** residential apartments, comprising:
- 19 one bedroom / one person apartments
- 38 one bedroom / two person apartments
- 19 two bedroom / three person apartments
- 38 two bedroom / four person apartments
- 19 three bedroom / four person apartments

CYCLES
- Plot 2a - **390** secure cycle spaces available in ground floor stores *(shared storage with Phase 1)*
- This includes 16 spaces for hotel use in line with MCC cycle parking standards (1 space per 10 guest rooms).
- Plot 2b Residential - **133** secure cycle spaces in ground floor store.



Masterplan Axonometric



Visualisation

4.6 Building Layouts

4.6.1 Plot 2a

Vertical Arrangement

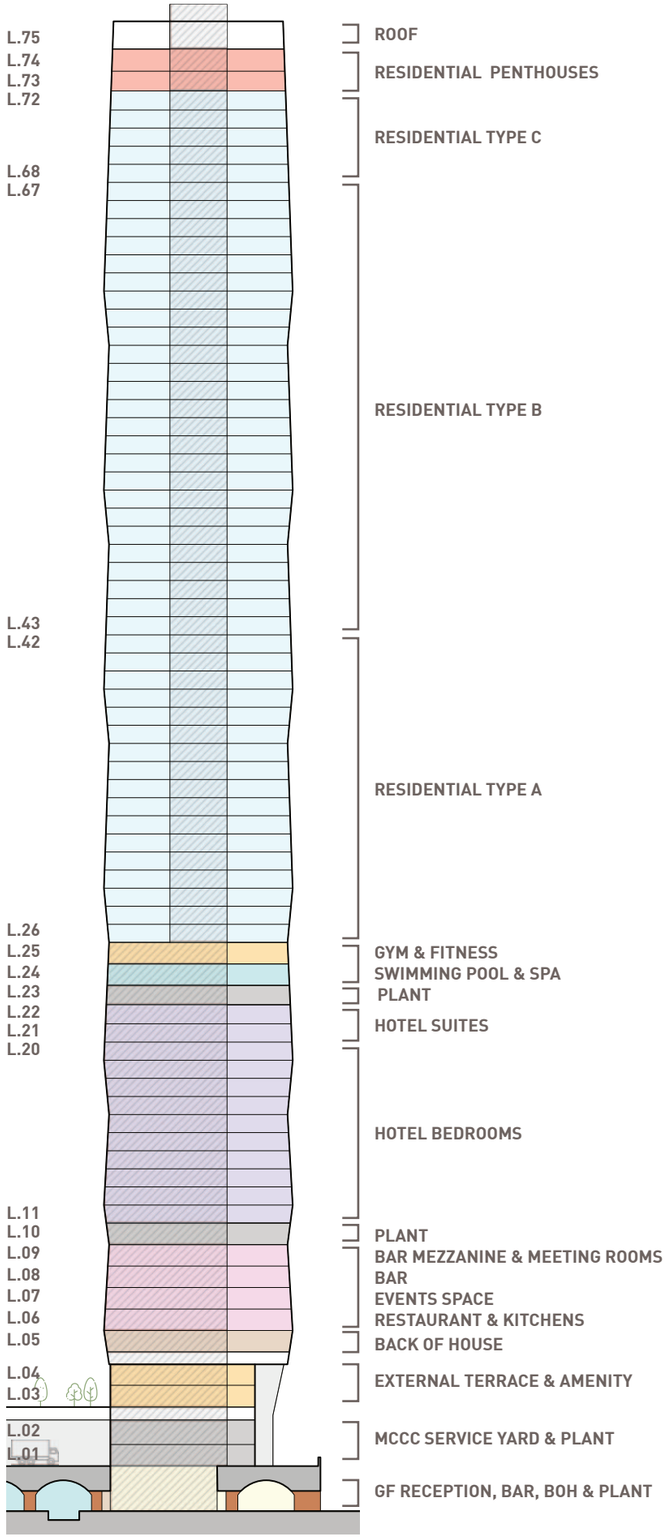
The adjacent section diagram demonstrates how the how the different uses within the building are vertically arranged. Grouping the hotel functions at the lower levels maximises the efficiency of the building, as the hotel circulation core is not required to extend the full height of the building.

Core Arrangement

The proposed arrangement is the result of a lengthy optioneering appraisal undertaken by the architect, fire engineer and structural engineer to find a solution that balances layout functionality (firefighting & escape strategy) and structural performance, with the significant spatial constraints at the lower levels. Proposed changes to the core arrangement as it ascends vertically up the building are summarized in the adjacent diagrams. This not only improves efficiency but overcomes some of the constraints at ground and first floor levels.

There are two escape stairs which extend from ground to roof level, each of which is connected to its own firefighting lobby and firefighting / evacuation lifts. It is proposed that these lifts are dual purpose with the residential passenger lifts and serve every floor level. The firefighting lobbies have allocated space for disabled refuge, smoke ventilation and life safety riser cupboards.

The number of passenger and goods lifts has been determined by a robust lift traffic analysis undertaken by the vertical transport consultant.



Section Diagram



The hotel core drops off entirely and the space becomes residential net floor area.

Restaurant / bar / events service lifts drop off and the core size reduces. A linen store is incorporated into space which was previously the goods lift lobby.

Introduction of residential service lift to north side of core, serves levels 5 and above only.

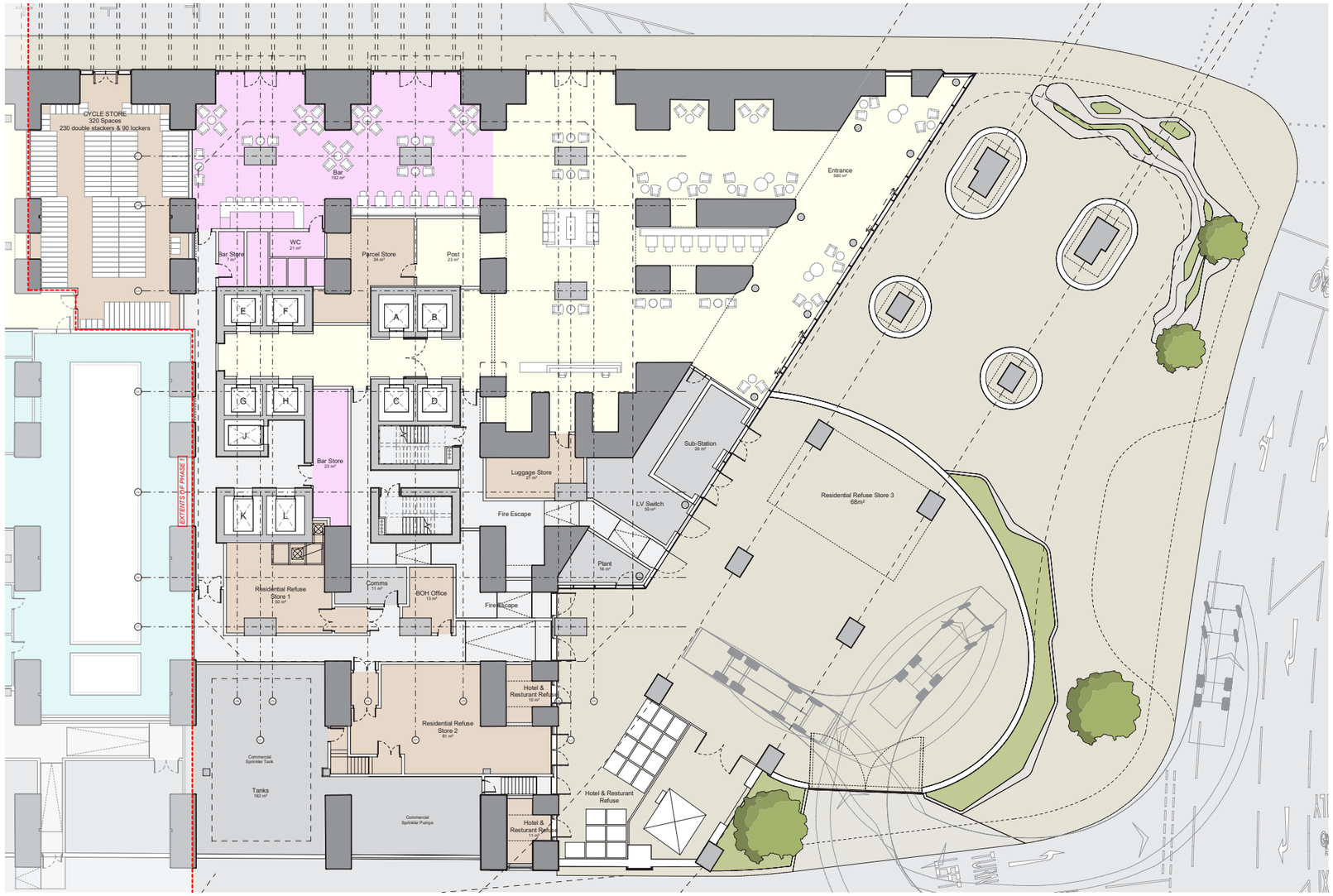
Constraints on core position and configuration posed by the MCCC Service Yard at level 01.

Constraints on core position and configuration posed by the existing viaduct structure and support structure required to form the opening.

KEY:

- RESIDENTIAL PASSENGER LIFTS / FIRE FIGHTING &EVACUATION LIFTS
- CIRCULATION & ESCAPE STAIRS
- HOTEL PASSENGER LIFTS
- RESTAURANT / BAR / EVENTS PASSENGER LIFT
- HOTEL GOODS LIFT
- RESTAURANT / BAR / EVENTS GOODS LIFTS
- RESIDENTIAL GOODS LIFTS

Core Arrangement



Ground Floor Plan

Ground floor

The main entrance into the building is from Albion Street, where there are significant improvements proposed to the quality and accessibility of the public realm. Situating the entrance in this location provides the presence which is commensurate for a building of this scale and use, however, the existing Metrolink bridge creates a barrier between the street edge and the viaduct. To overcome this and provide a safe and welcoming approach into the building, a new undercroft structure is proposed which will wrap around the existing bridge structure and carefully open up the views into and from the viaduct. The sculptural form, complemented by high quality materiality, lighting, planting and signage will create a striking addition to the public realm.

The structure has the dual function of providing a screen around the adjacent external service area, which will be used for deliveries, refuse collections, building maintenance access and firefighting access. Given the proximity of the building entrance and streetscape, the screen is important to visually separate space and provide a secure barrier. Vehicle access is from the base of the MCCC ramp on Trafford Street, via secure vehicle gates.

As required for the hotel, a dedicated vehicle drop-off lay-by is proposed outside the main entrance. The design of this has been coordinated with the other proposed highway improvements and consultations have been undertaken with relevant stakeholders throughout the design process.

To the north of the site along GBS there are proposed 'secondary' building entrances, which include a secondary residential entrance into the main reception area, public entrances into the ground floor hotel bar and access into the shared Phase 1 and Plot 2a cycle store.

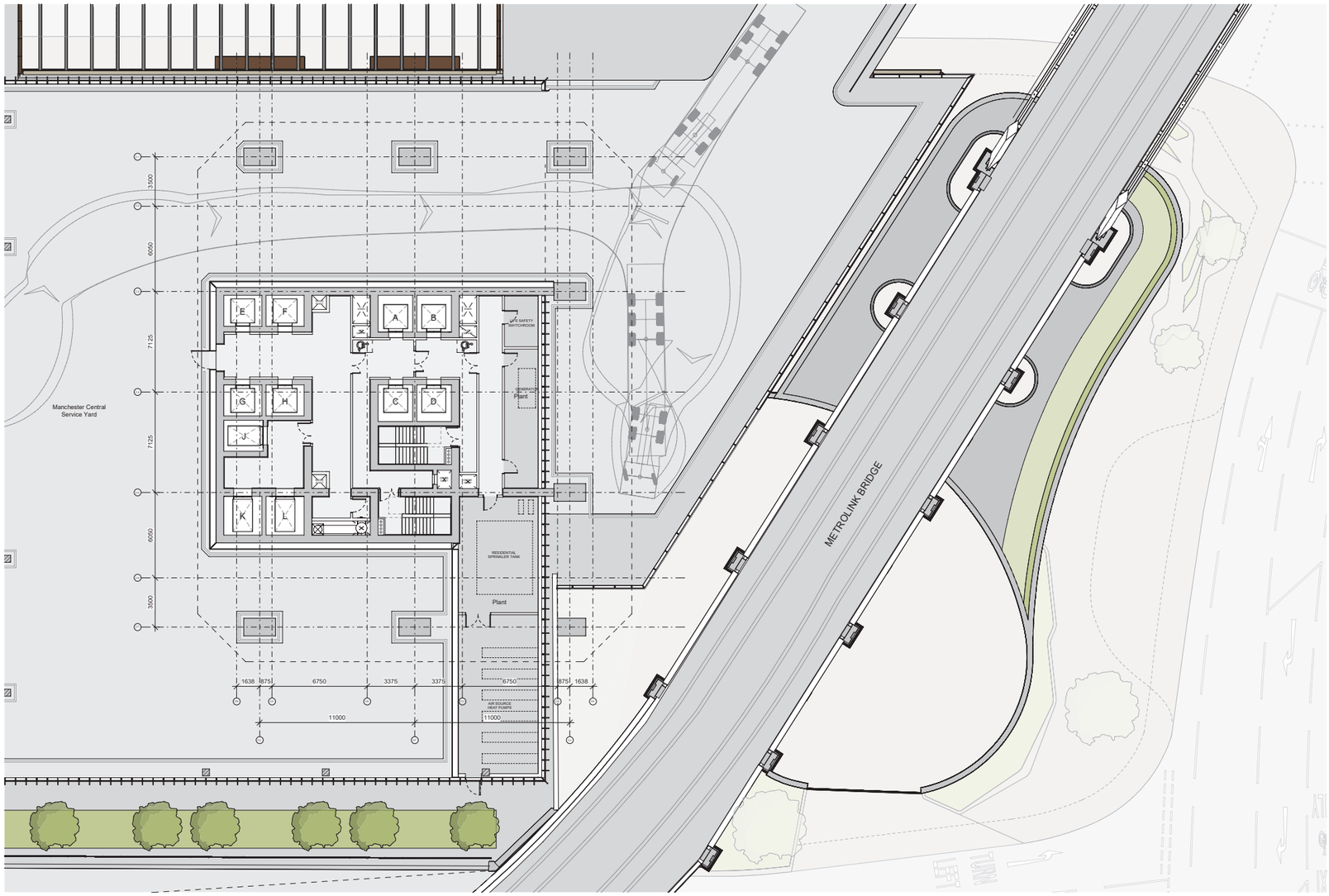
Upon arriving at the building, visitors and residents enter the vaulted arches of the viaduct structure. There is a sizeable entrance lobby with reception facilities, lounge seating & amenity areas and direct access to the ground floor hotel bar. These 'active' spaces are positioned to the north and eastern parts of the site to activate the streetscape along Albion Street and GBS. Non-active uses, including plant rooms, refuse stores and other ancillary functions are positioned to the south of the site adjacent to Trafford Street and the service area. The viaduct boundary along Trafford Street is non-active and is largely inaccessible due to the MCCC vehicle ramp.

Level 01 & 02

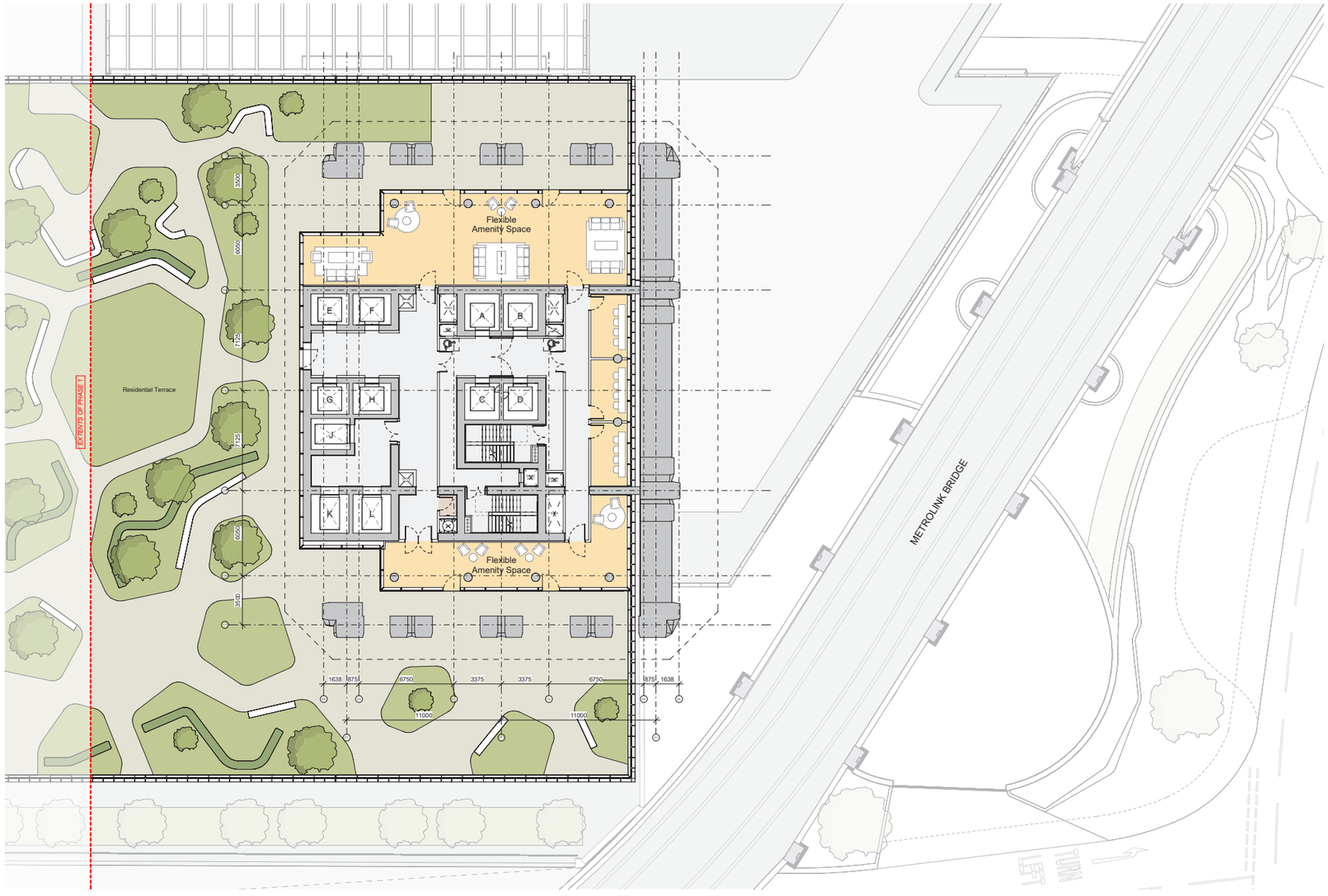
At upper viaduct level the double height podium structure will enclose the remaining area of the MCCC service yard. The placement of structural columns and the core have been carefully considered to ensure vehicles, including HGVs, can safely manoeuvre and access the vehicle bridges across GBS. An extension of the road layout on to the roof of the eastern viaduct extension ensures HGVs have sufficient space to turn and reverse towards MCCC.

Within the main building footprint are plant rooms and the core, which provides vertical circulation to the upper levels. To limit operational conflicts with MCCC there are no external access doors proposed to plant rooms, the external door from the core to the enclosed service yard is a requirement for firefighting access only.

These levels are back-of-house areas and will not be accessible to residents or building visitors.



Level 01 Plan - MCCC Service Yard



Level 03 Plan - Amenity & External Terrace

Level 03 & 04

At level 03 a shared external amenity terrace is proposed which sits on top of the podium structure and connects to the existing Phase 1 podium. A temporary landscape strategy has been adopted for Phase 1, and upon completion of Plot 2a this will be re-landscaped to provide a large, cohesive external amenity space which is open to users of both buildings. Further details of the landscape proposals can be found in Chapter 3.10.

To the perimeter of the Plot 2a tower footprint, an impressive two-storey structural transfer truss is proposed. This is required to transfer the tower loadings to the reduced column grid which passes through the MCCC service yard and the viaduct structure to ground.

Internally, a series of flexible amenity spaces are proposed which, at level 03, will open out directly to the external amenity terrace.

Level 05

Level 05 is the first level of the tower form. It will be accessible to staff only and contain management & IT offices, housekeeping facilities, staff facilities and storage. A residential service lift, serving the tower levels only, is introduced to the northern side of the residential core. Due to spatial constraints at level 01 this lift cannot extend to ground, however, hotel service lifts can be utilised for the movement of large items, which can be transferred to this lift to access the upper residential levels.

Level 06

The hotel restaurant and commercial kitchens are located here. The impressive double height restaurant is positioned to the northern side of the building where it will benefit from views across the city centre. The large kitchen spaces to the rear will provide catering for the restaurant, events spaces, meeting rooms and hotel & residential room service.

Level 07

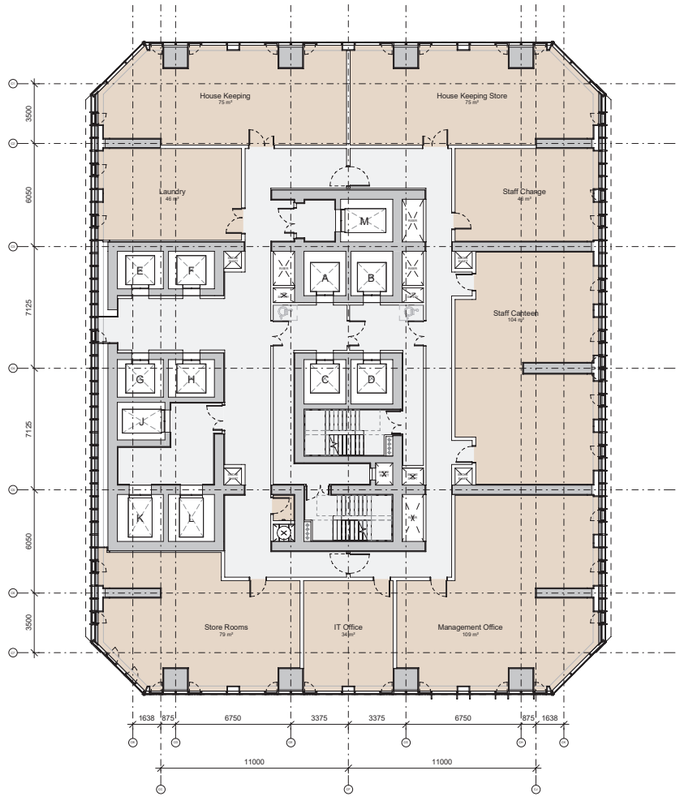
A double-height events space and associated pre-function room/s are proposed at this level.

Level 08

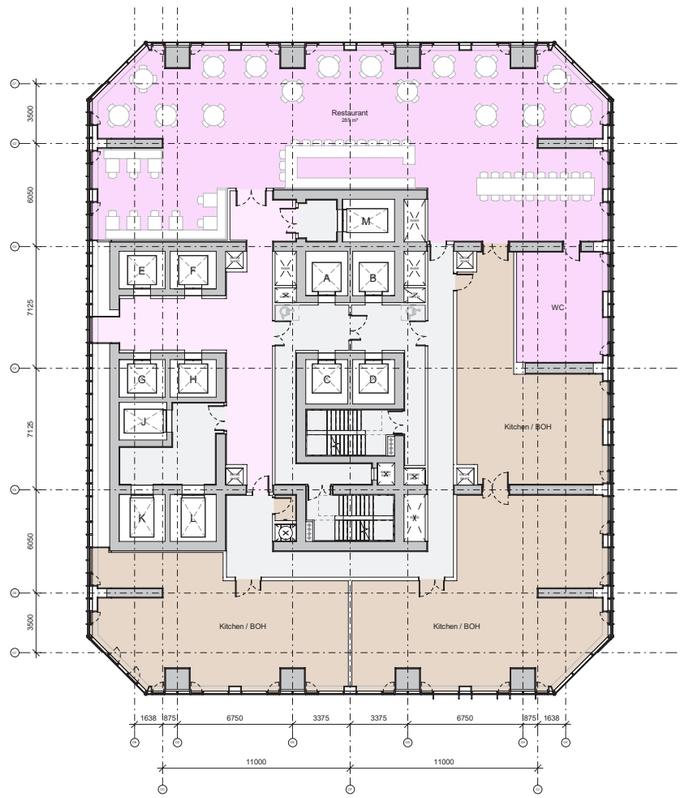
The hotel bar sits above the restaurant at this level, also benefiting from a double height aspect along the north elevation. The bar wraps around to the east of the building footprint, where smaller private hire booths could be provided.

Level 09

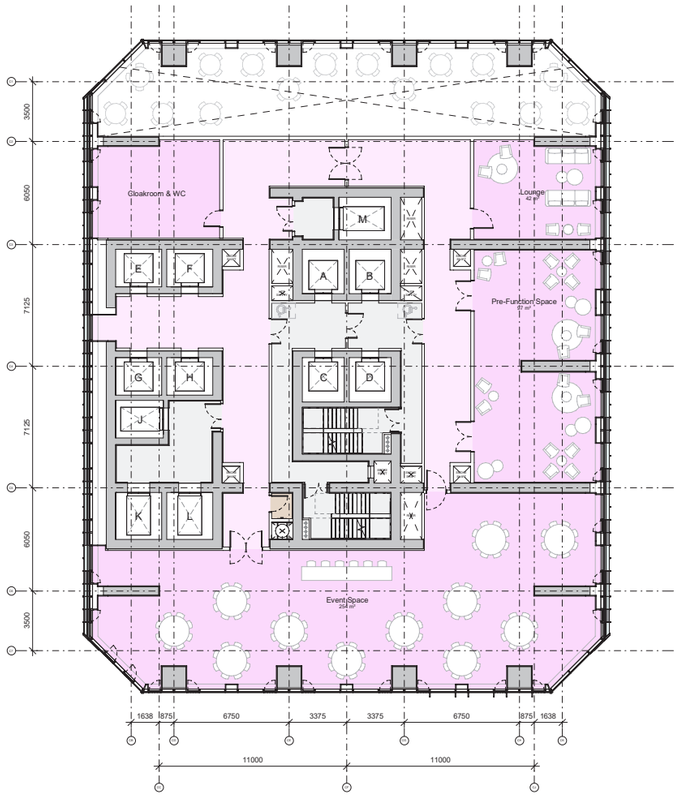
Within the same double height volume as the bar, a bar mezzanine level is proposed here. To the south and east elevations a series of flexible meeting rooms, boardrooms and lounges will wrap around the floorplate.



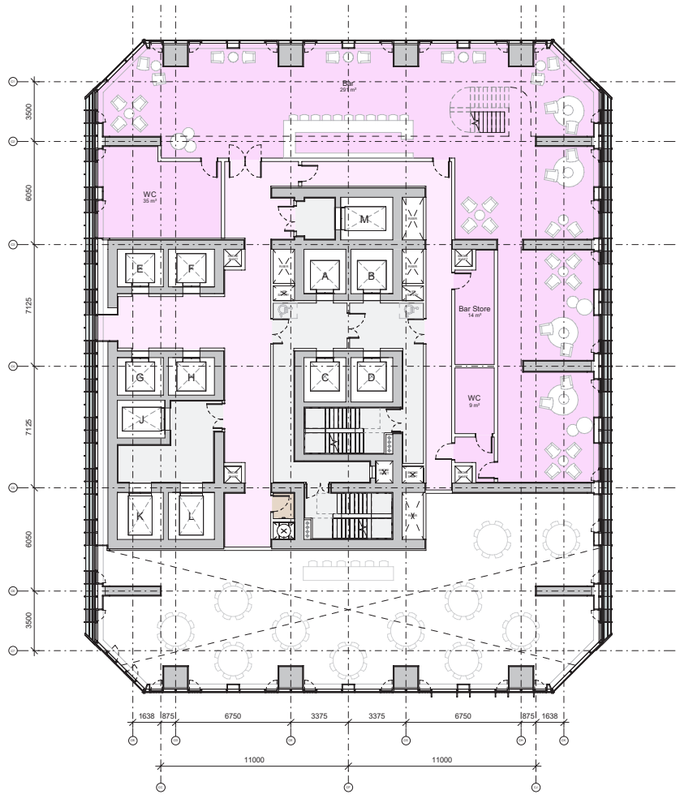
Level 05 Plan - Back of House



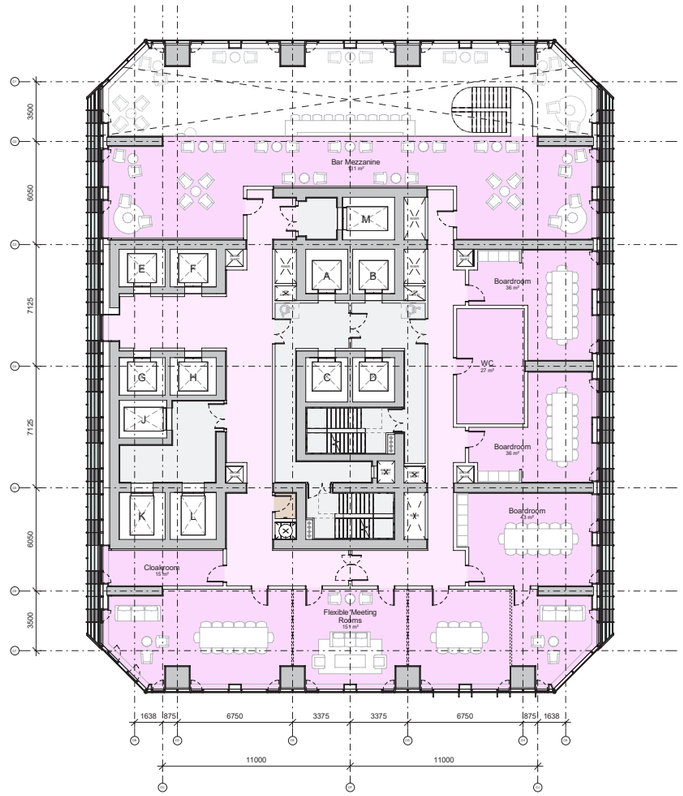
Level 06 Plan - Restaurant & Kitchens



Level 07 Plan - Events Space



Level 08 Plan - Bar



Level 09 Plan - Bar Mezzanine and Meeting Rooms

Level 10
This plant level is strategically positioned between hotel bedroom levels (above) and 'front of house' areas (below), housing central air handling equipment and providing space for drainage stacks to be transferred.

Level 11-20 Hotel Bedroom Levels
This typical arrangement consists of thirteen hotel bedrooms (a flexible mix of double and twin rooms) and one larger suite. One or more of the hotel bedrooms (per level) has the potential to become a wheelchair accessible room, and the proposed arrangement for this is included on the typical plan. The final mix of double, twin and accessible rooms will be subject to further briefing from the future hotel operator.

All bedrooms are accessed from a common corridor, which wraps around the full perimeter of the residential core to provide two directional escape routes into the firefighting lobbies and escape stairs.

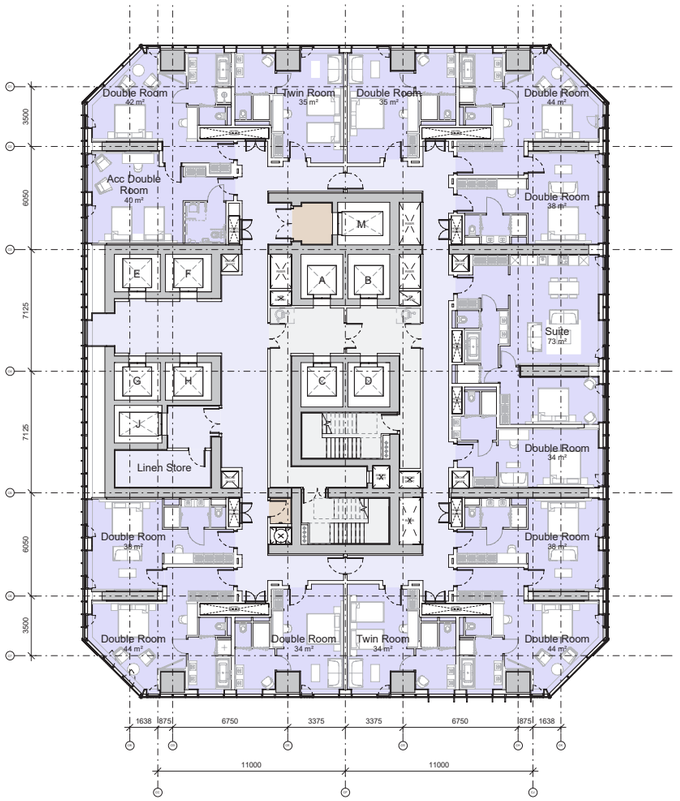
Due to the modelling of the east and west facades there is a subtle variation in the size of each floorplate.

Level 21-22 Hotel Suite Levels
These floors adopt the same layout principles as the levels below, but provide larger suites to each corner. Overall there are five suites and five double or twin bedrooms per level. One suite is planned to be wheelchair accessible, and the proposed arrangement is shown on the plans.

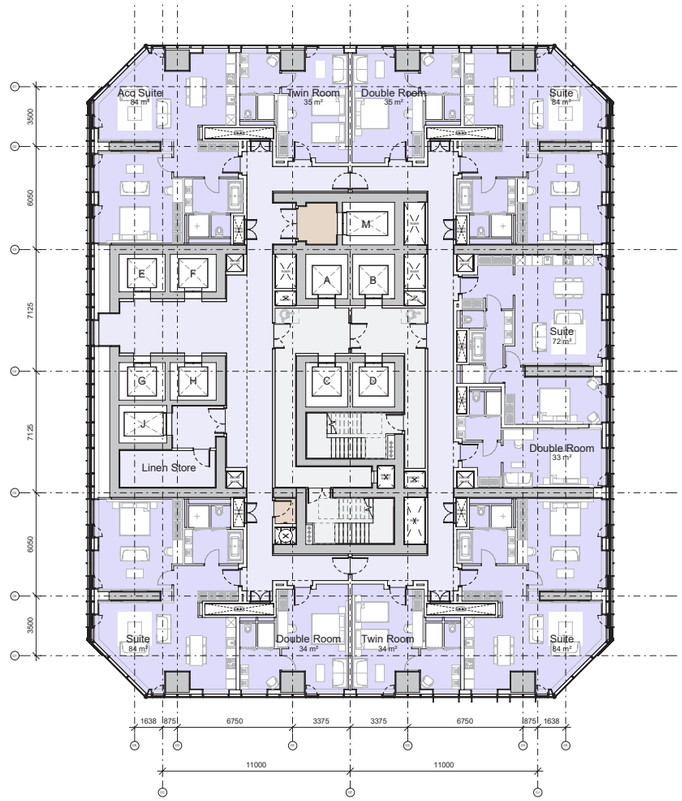
Level 23
A further full storey of building services plant is proposed at this level. It will contain structure and plant equipment to serve the swimming pool and spa areas above.

Level 24
A floor of hotel and residential amenity space, containing a swimming pool and spa facilities, is proposed at this level. The swimming pool will be within a double height volume to the north side of the building.

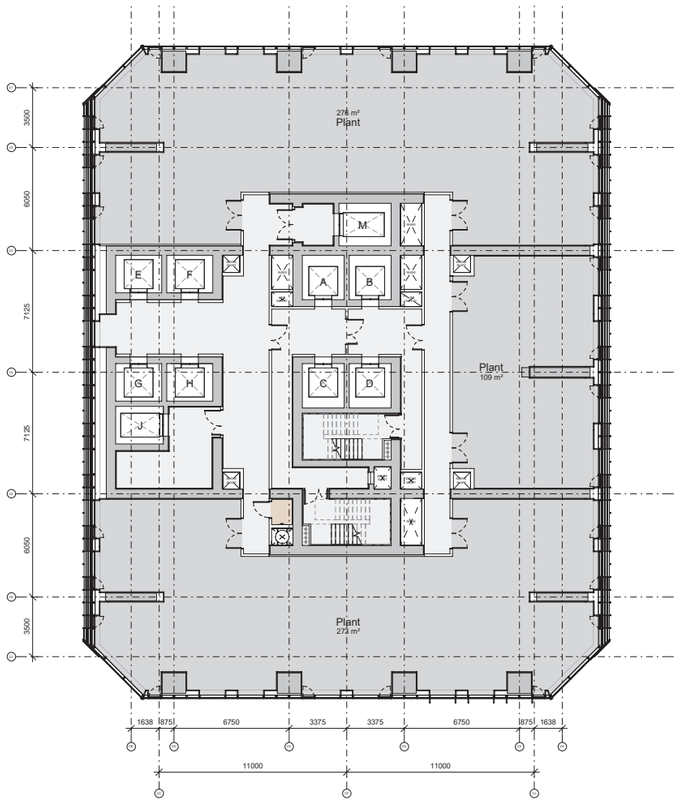
Level 25
Complementary to the swimming and spa facilities below, this level will include a gym and fitness studios.



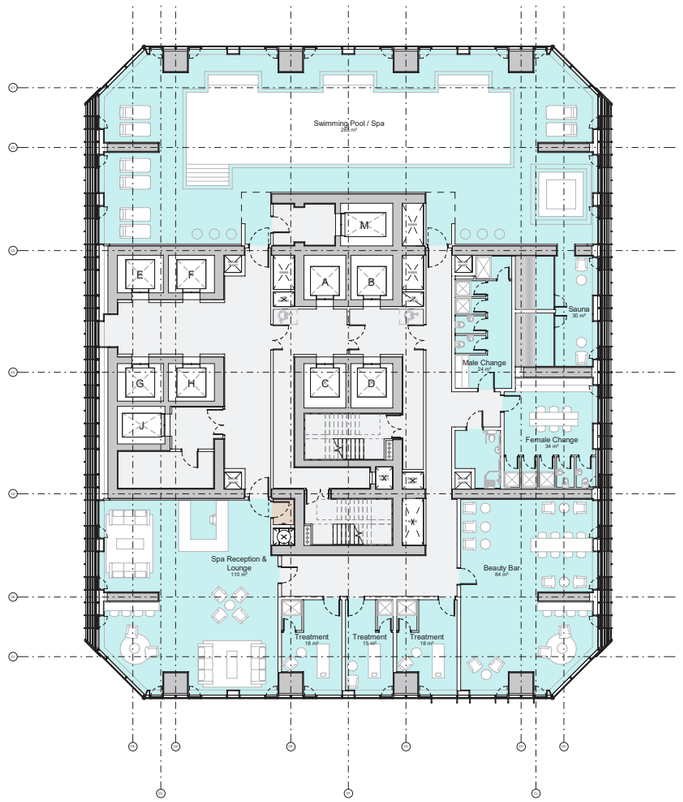
Level 11-20 Plan - Hotel Bedroom Levels (largest floorplate)



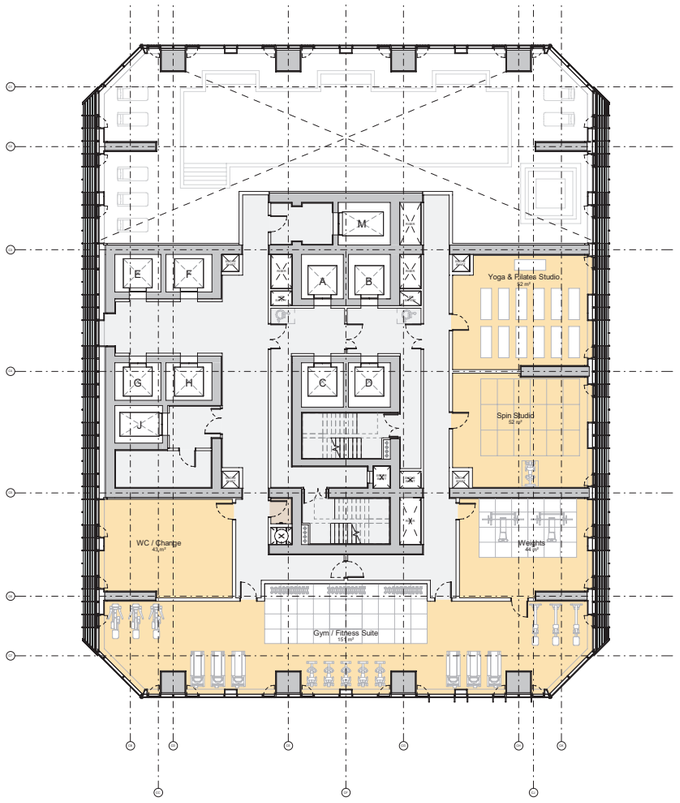
Level 21-22 Plan - Hotel Suite Levels (largest floorplate)



Level 10 & 23 Plan - Plant



Level 24 Plan - Spa & Swimming Pool



Level 25 Plan - Gym & Fitness Studios

Residential Levels
From level 26, the hotel core to the west of the building footprint drops off and the typical residential floorplans commence. The efficient layouts comprise a central core with the residential accommodation to full perimeter. Three different typical floorplans provide a varied accommodation offer, as outlined below.

Type A Residential Floorplan
Thirteen residential units are provided in this floorplan type, consisting of three studio apartments, four 1-bed apartments and four 2-bed apartments.

Type B Residential Floorplan
With the 1-bed apartments grouped at the lower levels, this typical plan has a symmetrical arrangement and provides eight 2-bed apartments.

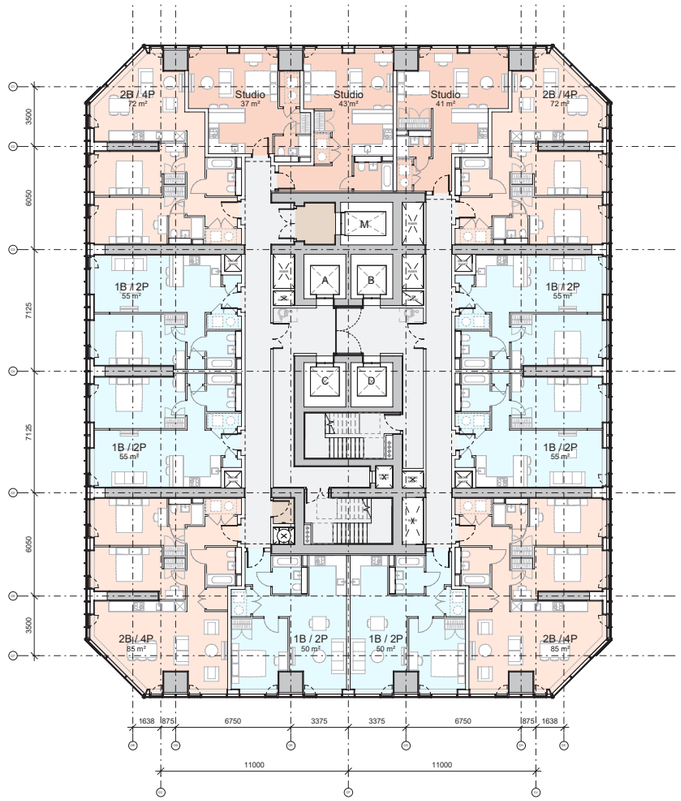
From level 62 the north and south façades begin tapering inwards, which gradually reduces the footprint size of the levels above.

Type C Residential Floorplan
This floorplan type is only proposed for the five uppermost levels (below the penthouses) and contains two 2-bed apartments and four 3-bed apartments.

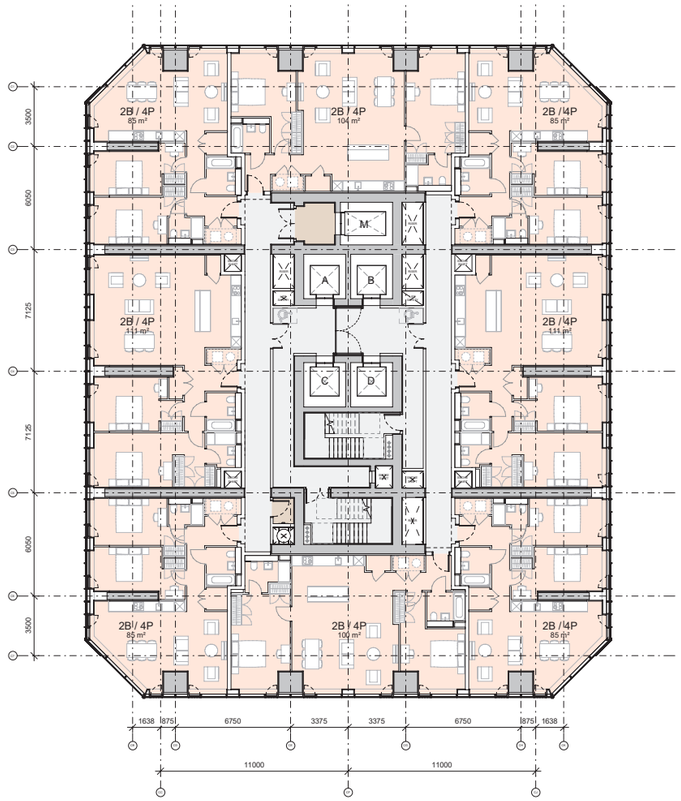
Level 73 - 74 Duplex Penthouse
Three duplex penthouse apartments are proposed. These units will have private double height winter garden spaces, positioned in each corner of the building footprint.

Level 75 Roof
Lift overruns, building services plant and a perimeter track mounted building maintenance unit are proposed at roof level. This essential equipment will be screened by a continuation of the building façade to provide a 4.5m high parapet. The level will be accessible to building maintenance personnel only.

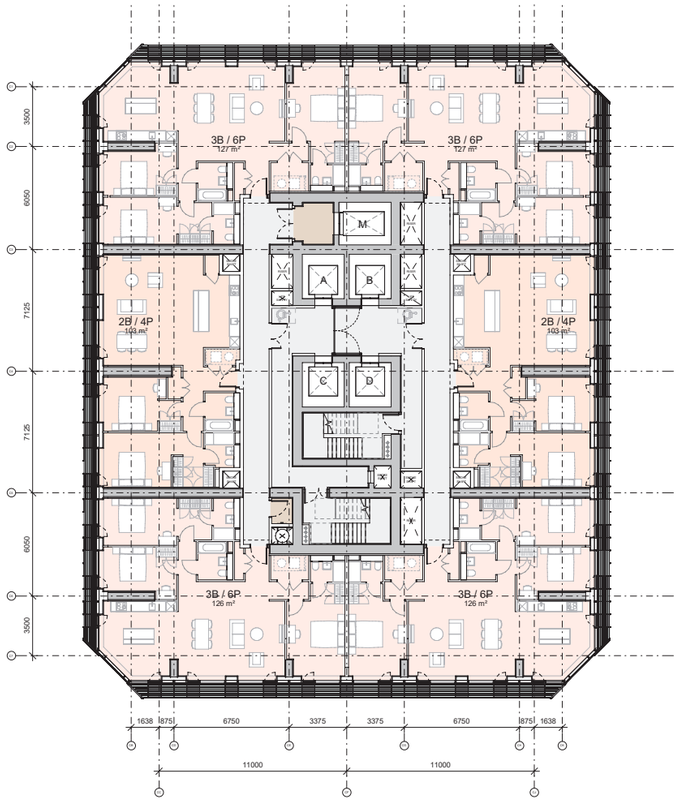
Compliance
The apartments have been designed to meet or exceed the National Space Standards defined in the Manchester City Council Residential Quality Guidance (RQG), demonstrating a range of well-planned and proportioned apartment layouts. Units have also been designed for future adaptation to accessible units - further details of this are included in section 4.1 Inclusive Access.



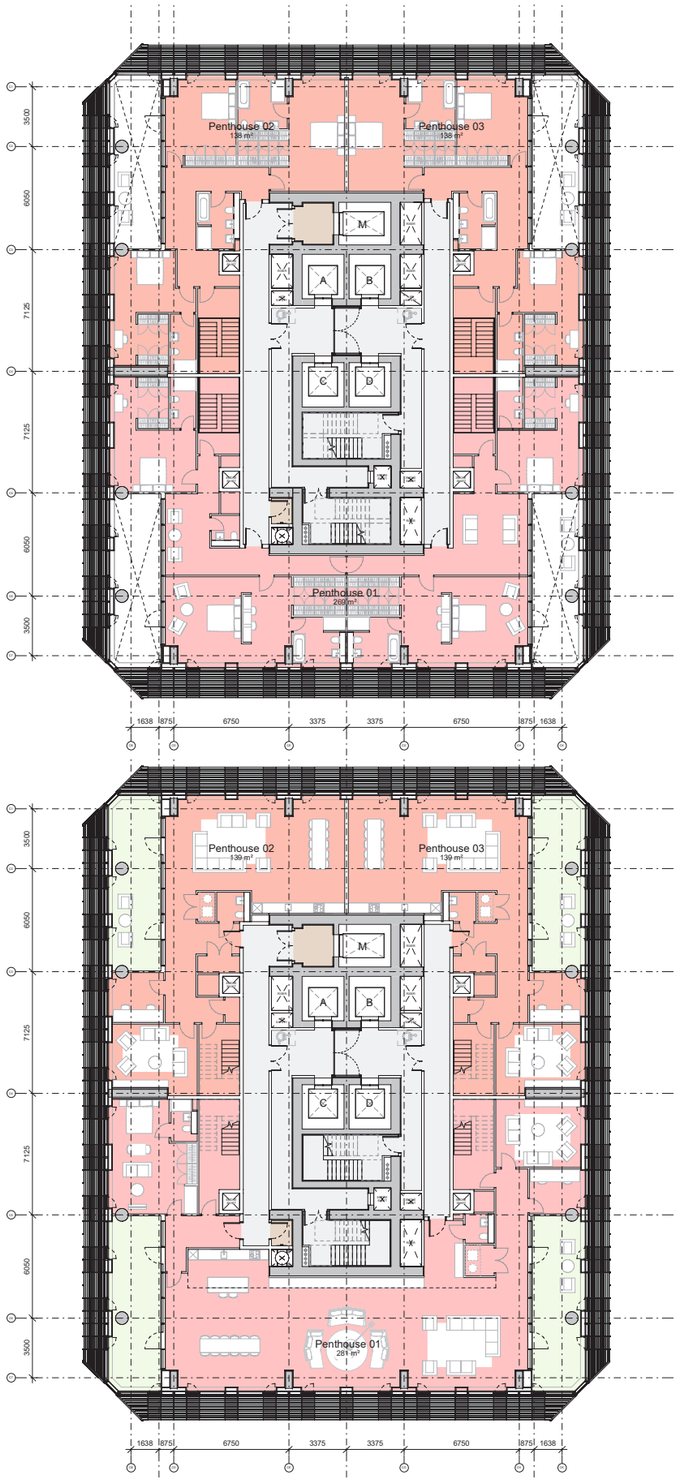
Level 26-42 - Type A Residential Floorplan (largest floorplate)



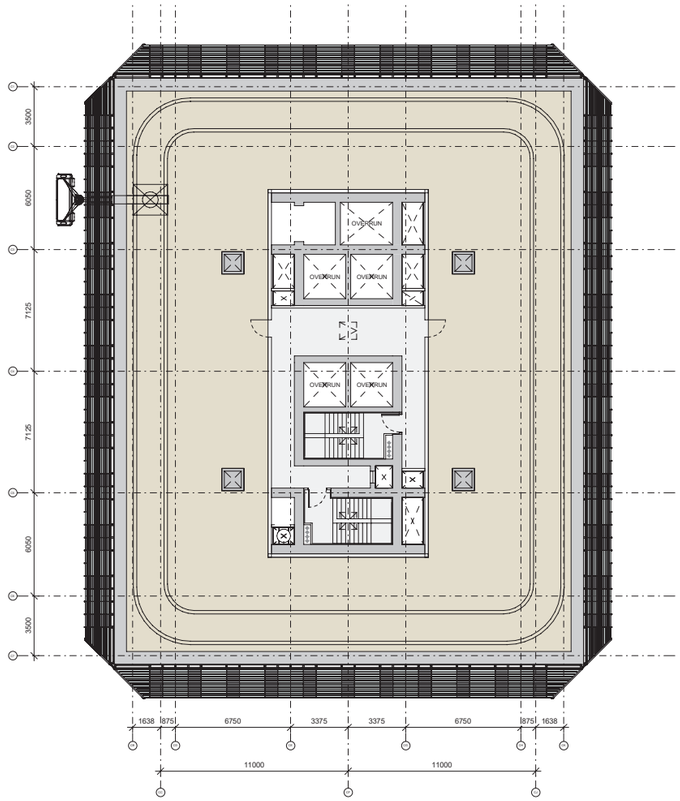
Level 43-67 - Type B Residential Floorplan (largest floorplate)



Level 68-72 - Type C Residential Floorplan (largest floorplate)



Level 73 & 74 Plan - Duplex Penthouse



Level 75 - Roof

4.6.2 Plot 2b

Floorplate Design - Ground Floor & Mezzanine

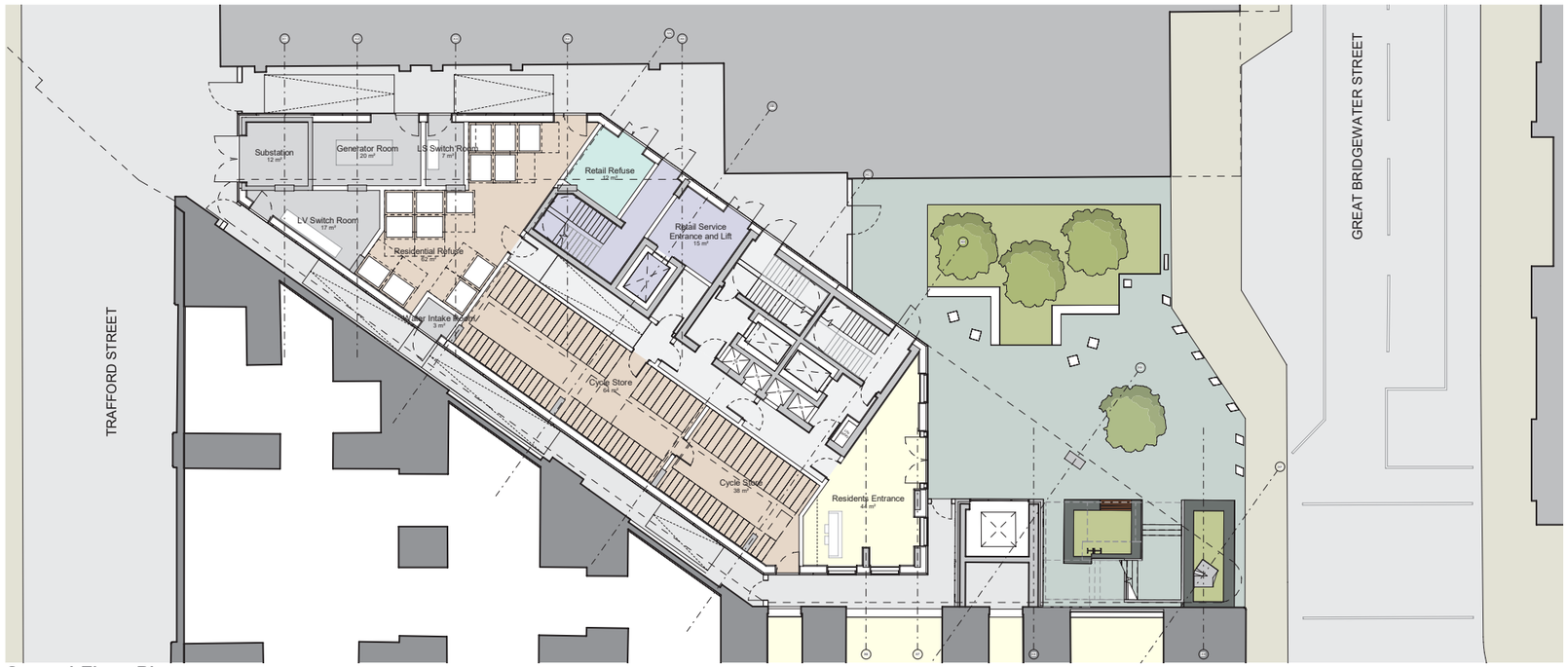
The main entrance into the Plot 2b building is via the landscaped area at the base of the new public realm Stair and Lift. The residential floorplate above extends over this space, providing shelter on approach to the entrance. Upon entering there is a double-height reception with space for a concierge desk to address visitors prior to entering the lift lobbies. Specific briefing requirements for the design of this reception space from the affordable housing operator will be reviewed and incorporated when available.

Along the western site boundary with the Beetham Tower and the eastern boundary with the viaduct, the building edge has been pulled back to provide an external maintenance zone / service route around the building. This is beneficial as the constrained nature of the site means it has minimal street frontage for access. Low level ramps bridge the north-south level change across the site. Secure gated access into the eastern passageway, to the left of the main entrance doors, provides an external route for movement of bikes in and out the cycle store, which provides 1:1 cycle storage to residents. There is a further internal connection between the store and the main circulation corridor for direct access to and from apartments. The western service route provides external access to plant rooms, refuse stores and the level 01 retail units (via the dedicated lift and stairs). Vehicle access for deliveries and refuse collection is via Trafford Street. Both residential escape stairs exit along the north-west boundary, with the exit closest to GBS also providing the main firefighting access into the building.

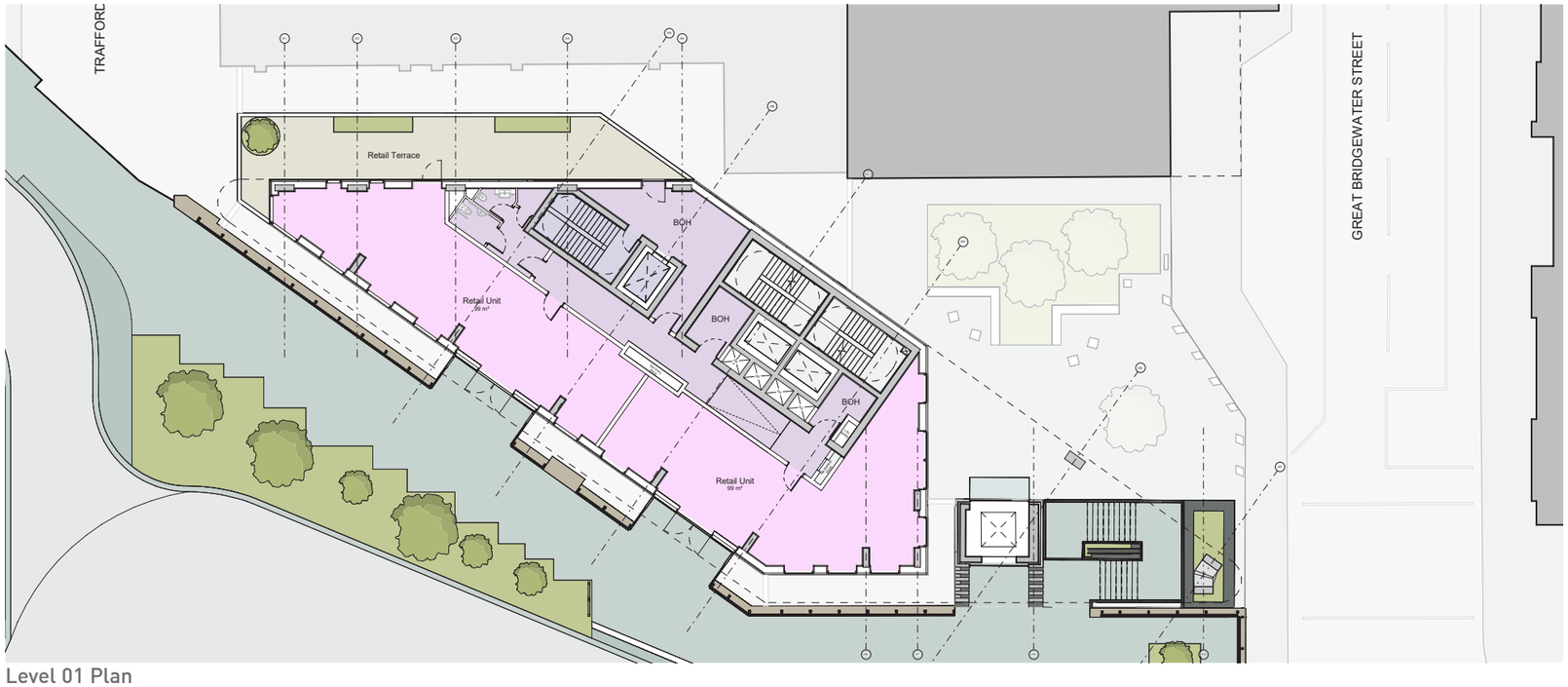
Above ground floor a mezzanine level is proposed which comprises plant rooms, staff facilities and/or residential amenity space. The inclusion of, and arrangement for staff areas and amenity spaces will be subject to briefing requirements from the affordable housing operator.

Level 01 Plan

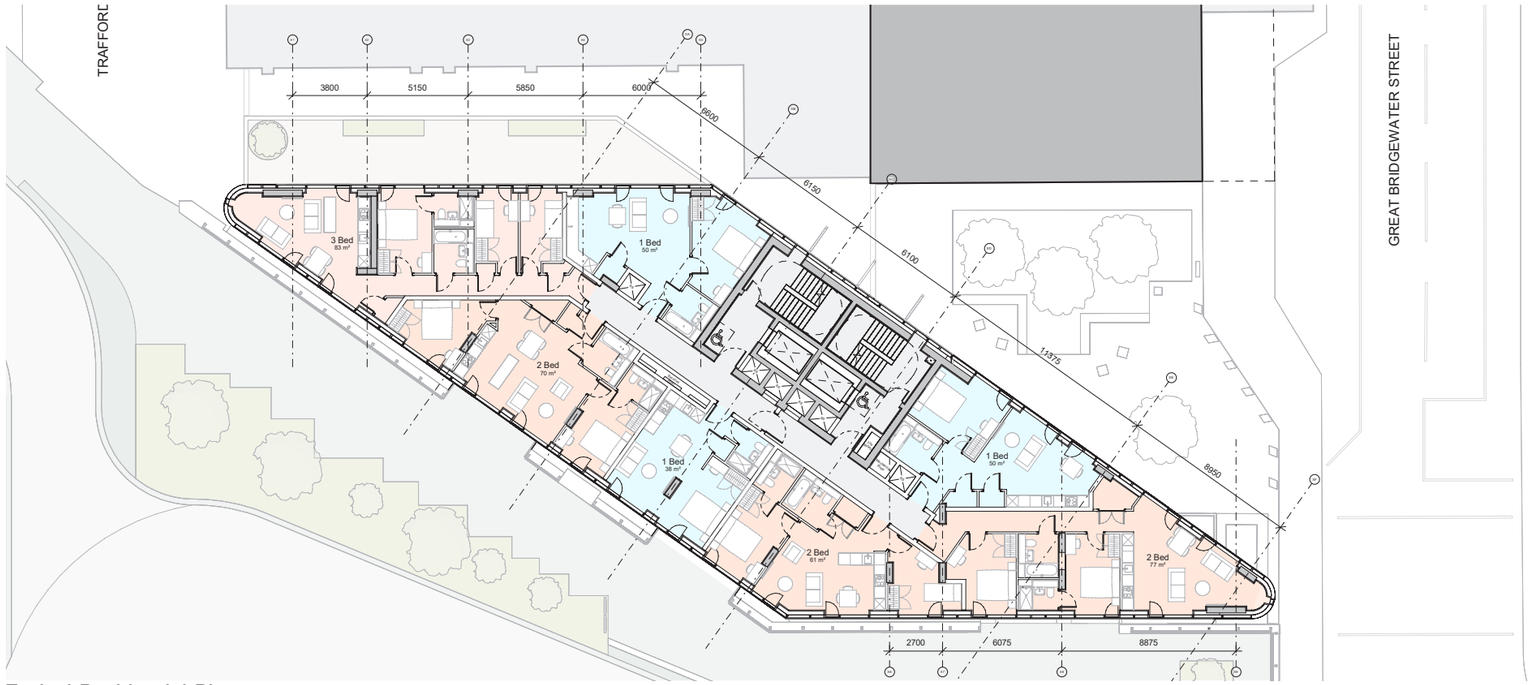
At level 01 (upper viaduct / service yard level), there are 2 retail units proposed which are accessed directly from the new public realm connection between Deansgate Castlefield Metrolink Station and the public realm stairs and lift. Glazed frontages will activate the space and encourage natural surveillance of the public realm and the southern unit also encompasses an external south facing terrace. The units are serviced via the dedicated lift and stair connecting to ground level / Trafford Street.



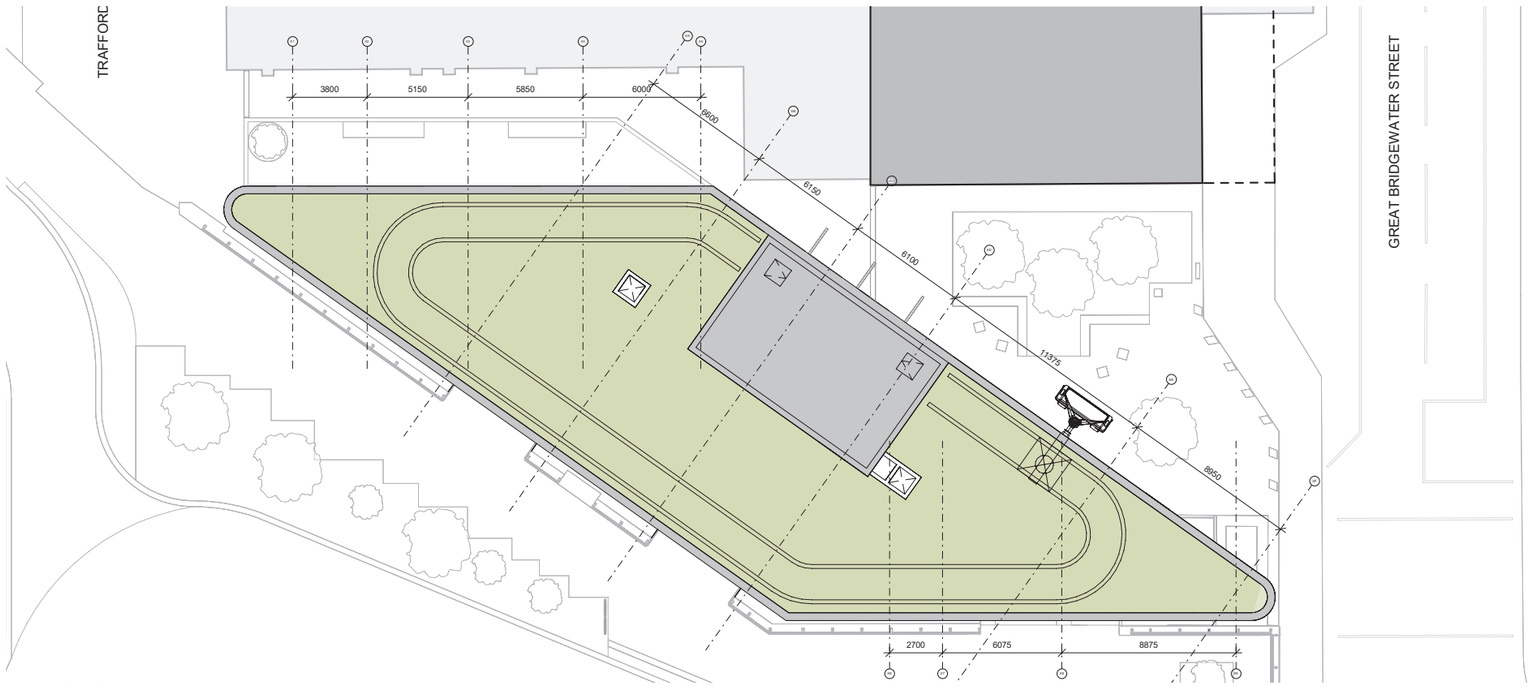
Ground Floor Plan



Level 01 Plan



Typical Residential Plan



Level 21 Roof Plan

Floorplate Design – Residential Levels

Level 02 is the first residential level, and this proposed plan will stack neatly for all 19 residential levels, providing 7 units per level, 133 in total. The core is strategically positioned centrally and to the northwest elevation adjacent to the corner of the Beetham Tower, thus limiting overlooking between the buildings. The central linear communal corridor has direct access to both lift lobbies and all seven residential units. The mix has been designed to provide variety of unit sizes, a typical floor comprising one 1bed / 1person apartment, two 1bed / 2person apartments, one 2bed / 3person apartment, two 2bed / 4person apartments and one 3bed / 4person apartment. Changes to this mix required by the affordable housing operator can be reviewed and incorporated where practical.

Level 21 Plan

Level 21 is the roof level, which is accessible for service access / maintenance only. A full height parapet is proposed to the perimeter, along with a track mounted BMU for façade access and maintenance. Drainage pop ups, plant and smoke extract equipment will be positioned centrally adjacent to the core.

Core Design

The proposed core design follows the same principles that have been adopted on Plot 2a, providing two escape stairs and the potential for two fire-fighting lobbies. Although only a single firefighting lobby is required by the fire strategy, the proposed arrangement will future proof any future requirement for a second. Each lobby has access to a passenger lift, with dual function for firefighting / evacuation purposes. Each lobby contains a wheelchair refuge with intercom access.

The lobby proportions are generous and will provide sufficient space for the movement of goods in and out of the lifts. The linear residential communal corridor is 1500mm wide and facing apartment entrance doors have been avoided where possible.

Compliance

The apartments have been designed to meet or exceed the National Space Standards defined in the Manchester City Council Residential Quality Guidance (RQG), demonstrating a range of well-planned and proportioned apartment layouts. Wherever possible, units have been designed for future adaptation to accessible units - further details of this are included in section 4.1 Inclusive Access.

4.7 Interventions

4.7.1 Historic Fabric

Approach

Further information to support this application has been appended to the document (Appendix 6.1) which schedules out any works to the listed structure, and the location of all interventions have been photographed wherever possible. In addition, a structural report covering the methodology has been submitted.

It was established early in the design process that it would not be possible to achieve the required quantum of accommodation on the site without substantial alterations to some elements of the listed structure. This is due to the requirement to found structure and circulation cores at ground level, resulting in alteration to the listed fabric.

However, the limitation of alterations to the listed structure has been a fundamental driver of the approach taken to develop the design.

Columns

The Plot 2a building columns have been consolidated using a transfer truss at levels 03 & 04, which results in only seven columns penetrating through the viaduct structure, as opposed to fifteen columns in the lower levels of the tower. The columns have been carefully positioned to penetrate centrally through the apex of the viaduct arches, minimising the intervention required.

The podium landscaped deck over the service yard is supported centrally from a line of columns which have been inserted as part of the Phase 1 works. Two further columns have been added to support the adjoining Phase 2 landscaped deck.

Core

Due to the size of the building, the Plot 2a tower circulation core must come down to ground level for structural stability, therefore a degree of alteration is required. Two localised areas of the viaduct arches will be impacted by this, with partial removal of the central brick piers also proposed.

Project Tile:	**Viadux Phase 2 - Plot 2a & 2b**
Document Tile:	**Proposed Alterations to Listed Structure - Schedule of works**
Document Code:	**10448-SHP-ZZ-A-B5D9-Z330-SC-XX-101**
Revision:	**P02** **31/10/2024** **Planning Issue - Hotel & Residential**
Status:	**Planning**

simpsonhaugh

	Works Number	Description of works	Original Fabric	Photographed
Ground	00-DEM-06	Removal of non-original infill louvered panel	Y/N	Y
	00-DEM-07	Removal of part of original brick arch and non-original infill glazed panel	Y/N	Y
	00-DEM-08	Removal of part of original brick arch and non-original infill glazed panel	Y/N	Y
	00-DEM-09	Removal of non-original infill glazed panel	N	Y
	00-DEM-10	Removal of external glazed panel	N	Y
	00-DEM-11	Removal of internal wall	N	N
	00-DEM-12	Removal of internal wall	N	N
	00-DEM-13	Removal of internal wall	N	Y
	00-DEM-14	Removal of internal wall	N	Y
	00-DEM-15	Removal of internal wall	N	Y
	00-DEM-16	Removal of internal wall	N	Y
	00-DEM-17	Removal of internal wall	N	N
	00-DEM-19	Removal of external glazed panel	N	Y
	00-DEM-20	Removal of external glazed panel	N	Y
	00-DEM-21	Removal of internal wall	Y	N
	00-DEM-22	Removal of internal wall	Y	Y
	00-DEM-23	Removal of internal wall	N	Y
	00-DEM-24	Removal of brick pier	Y	Y
	00-DEM-25	Removal of external glazed infill	N	Y
	00-DEM-26	Removal of brick internal wall	N	Y
	00-DEM-27	Removal of external glazed infill	N	Y
	00-DEM-28	Removal of external glazed infill	N	Y
	00-DEM-29	Removal of internal wall (brick)	N	Y
	00-DEM-30	Removal of external glazed and brick wall	N	Y
	00-DEM-31	Removal of external glazed and brick wall	N	Y
	00-DEM-42	Removal of brick arch for stair & lift core (Residential)	Y	N
	00-DEM-43	Removal of brick arch for stair & lift core (Residential)	Y	N
	00-DEM-44	Removal of existing railings & fixings to viaduct abutment	N	N
	00-DEM-45	Removal of railings	N	N
	00-DEM-46	Removal of brick arch for stair & lift core (Hotel)	Y	N
	00-DEM-47	Removal of brick arch for stair & lift core (Hotel)	Y	N
	00-DEM-48	Removal of brick pier	Y	N
	00-DEM-49	Removal of brick pier	Y	N
	00-DEM-50	Part removal of brick pier	Y	N

Alterations and Demolition Works Schedule

	Works Number	Description of works	Original Fabric	Photographed
Ground	00-ALT-01	Excavation of basement for plant room / foundations and introduction of ground floor slab for phase 2 works	Y	Y

	Works Number	Description of works	Original Fabric	Photographed
First	01-DEM-09	Repositioned central portion of bridge deck to be removed	Y	Y
	01-DEM-10	Removal of section of brick arch for column	Y	Y
	01-DEM-11	Removal of section of brick arch for column	Y	Y
	01-DEM-12	Removal of section of brick arch for column	Y	N
	~~01-DEM-13~~	~~Removal of section of brick arch for column~~	Y	N
	01-DEM-14	Removal of section of brick arch for column	Y	N
	~~01-DEM-15~~	~~Removal of section of brick arch for column~~	Y	N
	01-DEM-16	Removal of section of brick arch for column	Y	Y
	01-DEM-17	Removal of section of brick arch for column	Y	Y
	01-DEM-18	Removal of section of brick arch for column	Y	N
	01-DEM-19	Removal of section of brick arch for column	Y	Y
	01-DEM-20	Removal of section of brick arch for podium column	Y	Y
	01-DEM-21	Removal of section of brick arch for podium column	Y	Y
	01-DEM-22	Removal of section of brick arch for podium column	Y	N
	01-DEM-23	Removal of section of brick arch for stair and lift cores (Residential)	Y	N
	01-DEM-24	Core drilled hole through viaduct abutment for drainage connection	Y	N
	01-DEM-25	Removal of brickwork to create pockets above existing stone course for reception extension steel beams	Y	Y
	01-DEM-26	Removal of section of parapet for new retail entrance	Y	Y
	01-DEM-27	Removal of section of parapet for new retail entrance	Y	Y
	01-DEM-28	Removal of section of brick arch for stair and lift cores (Hotel)	Y	N
	01-DEM-29	Removal of brick balustrade	Y	Y

	Works Number	Description of works	Original Fabric	Photographed
	01-ALT-08	New slab for phase 2	N	Y

Alterations and Demolition Works Schedule continued

Openings

Interventions within the Great Bridgewater Street elevation were considered as part of the original planning submission to create viable retail units and entrances.

A number of options were considered, the preference was for enlarged rectilinear openings which allow for maximum appreciation of the vaulted arches and provide natural surveillance of the street. This solution was considered the most appropriate because it retained the maximum amount of the Castlefield Viaduct façade, whilst opening up the arches for active uses and drawing people back into the historic structure.

Three enlarged openings are proposed as part of the Plot 2a proposals. Two of these will provide entrances and frontage to the hotel bar and one will provide a secondary residential entrance.

Great Bridgewater Street Bridge

A key objective defined in the 2017 SRF was to enhance the pedestrian experience to Great Bridgewater Street by bringing light and activity into this dark and unwelcoming bridge underpass. This necessitated the removal of sections the bridge.

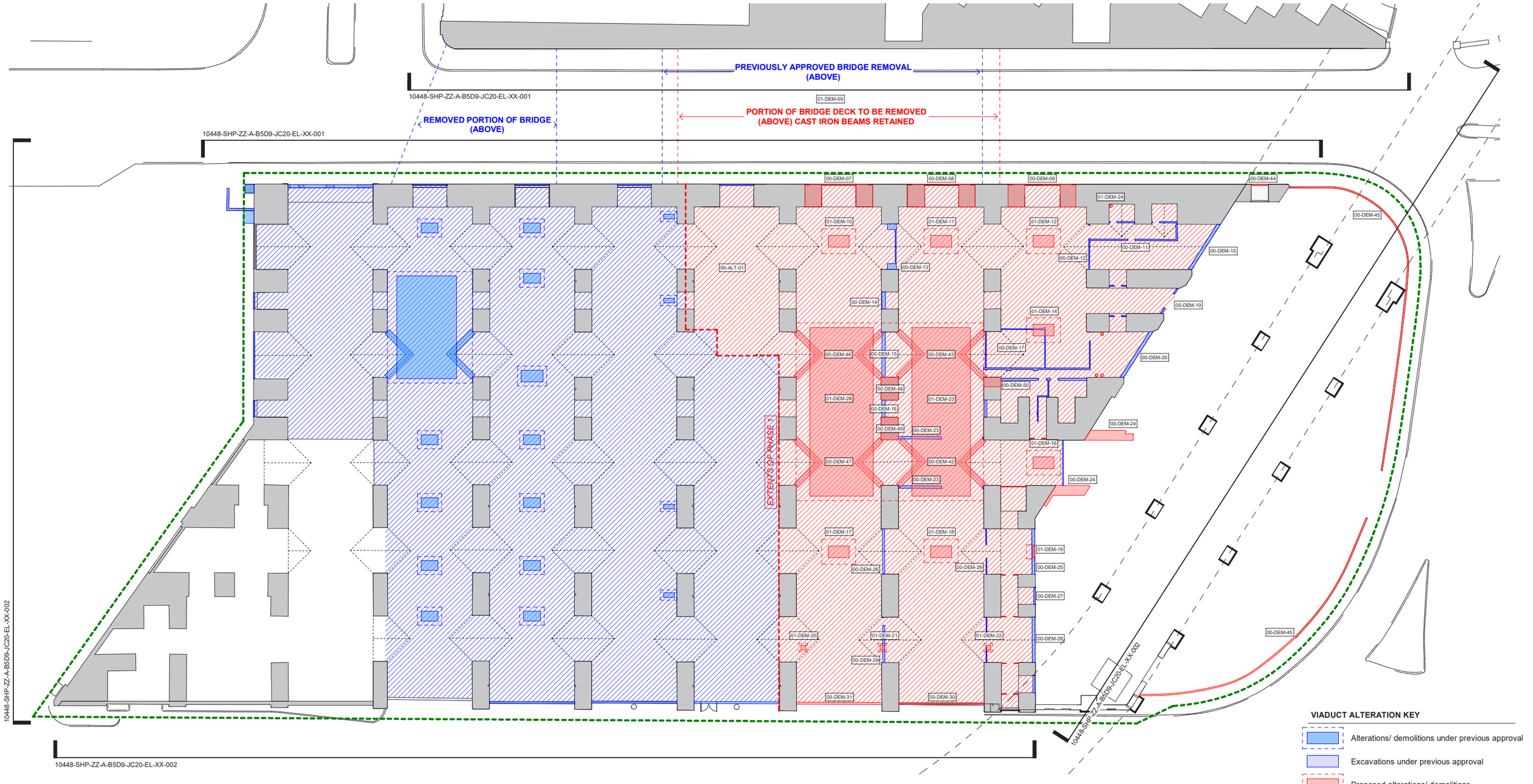
The alterations to the bridge were approved as part of the Phase 1 proposals, and included the removal of two sections of existing cast iron ribs, making good the existing brickwork and the introduction of a new balustrade around the opening.

The first section of bridge removal to the Watson Street end of the Viaduct was undertaken in 2021 during the Phase 1 construction works.

The approach taken to the removal of the second (central) portion of the bridge has been reconsidered during the development of the Plot 2a proposals, as submitted in April 2024. Consultation advice from Historic England has reinforced the importance and value of this bridge connection in understanding the relationship between the Castlefield Viaduct and the former Manchester Central Railway Station (now MCCC). Therefore, it is proposed that the level of harm will be reduced by removal of the bridge deck only, and retention of the cast iron bridge beams. This approach will allow natural light to penetrate down to street level, which is necessary to meet the SRF aspirations, whilst also preserving and celebrating this aspect of Manchester's Victorian railway heritage. The positioning of the section of deck to be removed has been amended to align with the openings below.

Plot 2b - Residential Building

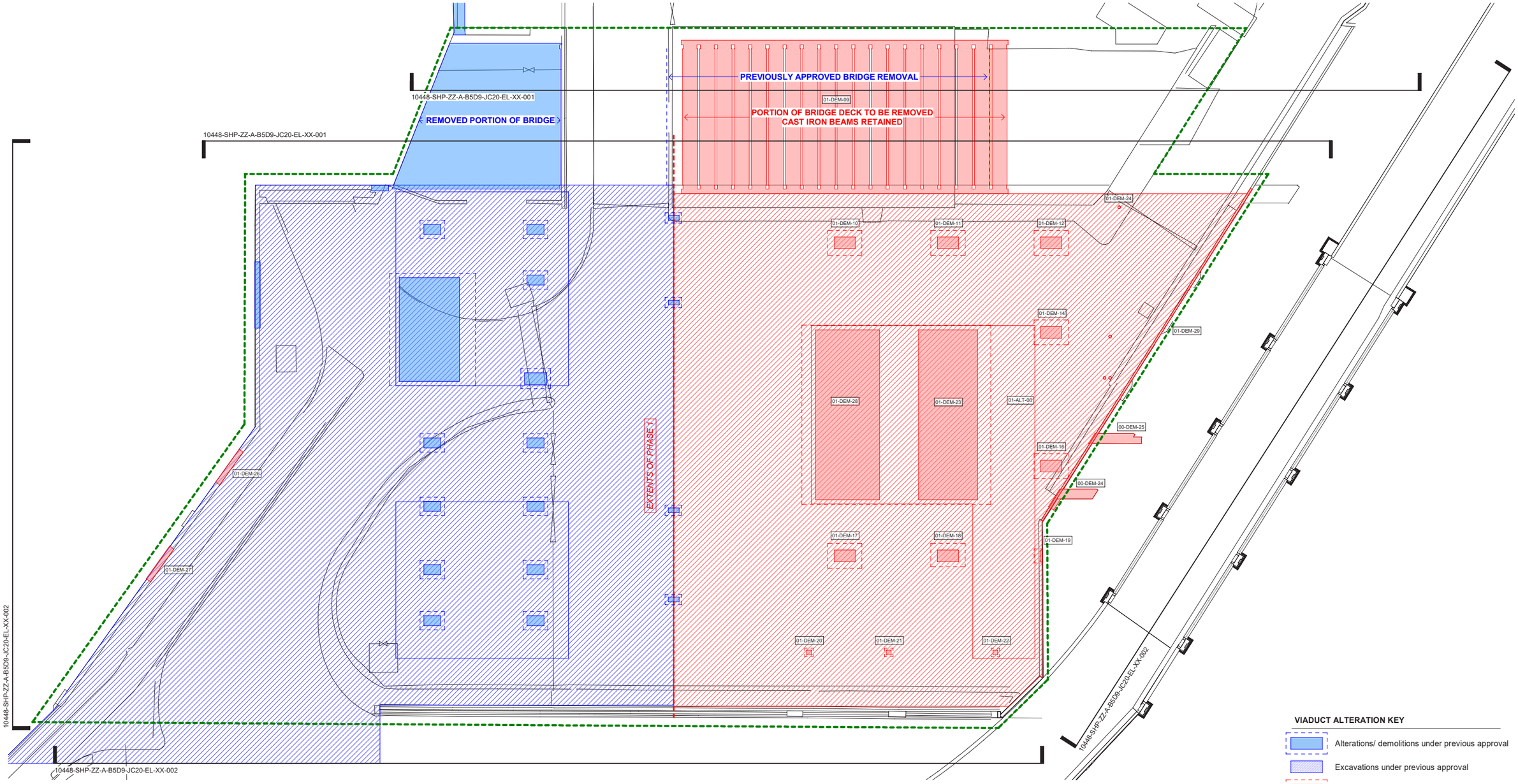
The Plot 2b residential building has been carefully positioned to leave a buffer zone between the proposal and the listed viaduct. Two openings are proposed within the existing parapet at the upper viaduct level to provide access to the proposed commercial units.



Viaduct Alterations Plan - Level 00

VIADUCT ALTERATION KEY

- Alterations/ demolitions under previous approval
- Excavations under previous approval
- Proposed alterations/ demolitions
- Proposed excavations
- Propsed removal of non original street furniture, fixtures & services
- Proposed extent of site clearance to carefully remove non original street furniture, fixtures & services. (In agreement with Manchester Central)
- XX-DEM-XX — Demolition / Alteration - Refer To Schedule



Viaduct Alterations Plan - Level 01

VIADUCT ALTERATION KEY

- Alterations/ demolitions under previous approval
- Excavations under previous approval
- Proposed alterations/ demolitions
- Proposed excavations
- Propsed removal of non original street furniture, fixtures & services
- Proposed extent of site clearance to carefully remove non original street furniture, fixtures & services. (In agreement with Manchester Central)
- XX-DEM-XX — Demolition / Alteration - Refer To Schedule

4.8 Landscaping

The proposal contains significant new elements of landscaped space and public realm which will support delivery of the wider Strategic Regeneration Framework vision. This section provides a brief overview of the landscape and public realm strategy. Further detail is provided in a landscape Design & Access Statement as part of this submission.

The landscape masterplan capitalises on the site's unique elevated setting and expands upon the highly successful green space at Deansgate-Castlefield Metrolink Stop. The new public realm connection to and from the Metrolink Stop leads people between the residential towers (Phase 1 and Plot 2b), down the newly installed public realm Stair & Lift into a newly configured connective space, providing a legible link to Great Bridgewater Street. The landscaping provides an attractive approach to the Plot 2b residential entrance with seating and a verdant edge to one side of the space. At level 01 two entrances are introduced through the parapet wall, over bridges to retail units within Plot 2b building. The granite paving, installed as part of the Phase 1 works will be extended to provide a seamless connection.

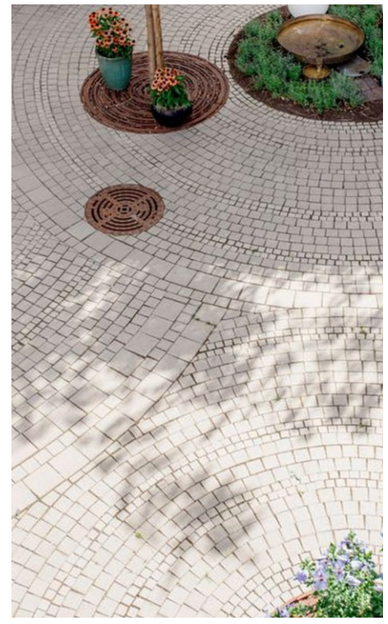
The roof gardens between Phase 1 & the Plot 2a building at level 03 will provide valuable amenity for the residents. A relatively informal design approach is taken to the layout, with a central lawn area and winding routes forming different sized pockets for formal & informal play. A key design driver was the importance of having a design which is visually pleasing on the eye from the apartments above.

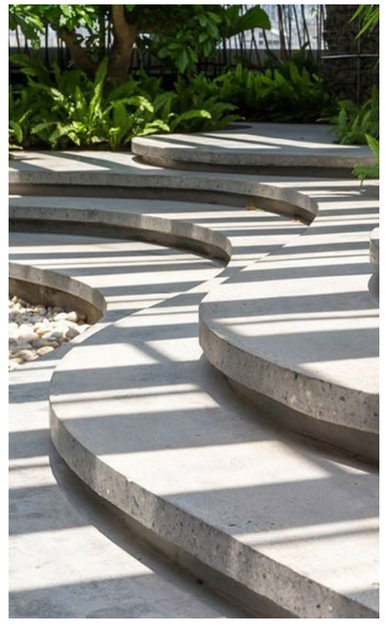
The pedestrian route along Albion Street, in front of the Plot 2a entrance has been improved by the re-alignment of the road to provide a more accessible route into the city. This allows for a more generous public realm and landscaping planting scheme to be provided in the form of rain gardens and tree planting, acting as a buffer to the junction with Great Bridgewater Street.











Landscape Precedent Images



Landscape Masterplan

4.9 Environmental Impact

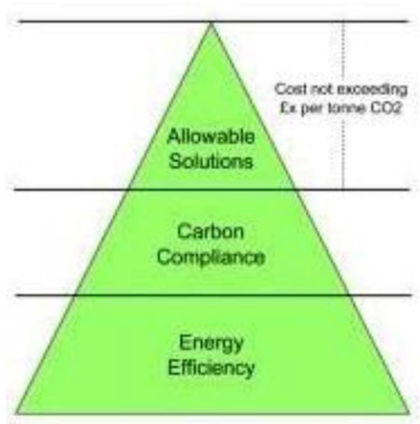
4.9.1 Sustainability

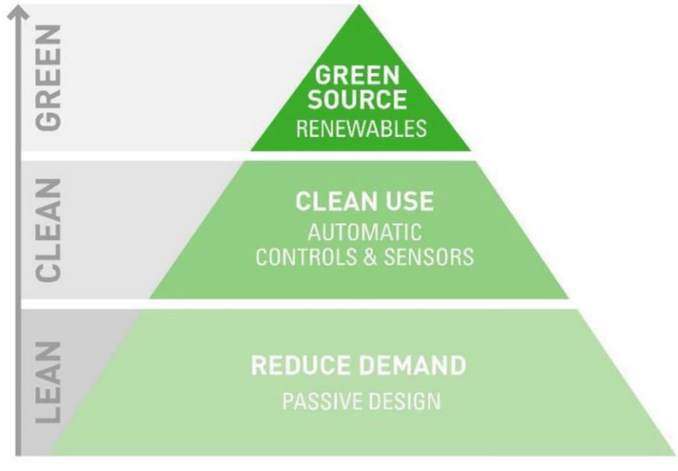
The proposals are underpinned by a 'fabric first' approach to design, using orientation and glazing ratios to maximise daylight penetration and reduce overheating. This is supplemented by high performance building envelopes with low u-values and advanced glazing technology. The high quality and durable finishes proposed throughout will limit future requirements for maintenance and replacement.

New and innovative building services systems will future proof building performances. Options currently being explored include mechanical ventilation with heat recovery and highly efficient air source heat pumps to meet all heating, hot water and cooling demands.

At the heart of the development is the positive reactivation of a central quarter of the city which, for many years, has been unwelcoming, inaccessible and undesirable. Proposals will transform the area, reactivating the existing historic viaduct and repairing sites that have been left unfinished and fractured. Phase 1 has seen the beginning of this transformation and the refreshed Phase 2 proposals widen this ambition and will ultimately see the culmination of many years of strategic thinking, planning and investment.

An Energy Strategy Report prepared by Ridge and Partners LLP accompanies this application and provides a detailed review of the proposed low carbon design strategies, underpinned by the Energy Hierarchy methodology.





The Energy Hierarchy Methodology

Reduce Demand

Passive design:

- Thermal insulation
- Natural ventilation
- Natural daylight
- Thermal mass
- Air tightness
- Solar shading/Glass Specification
- A Rated White Goods

LEAN

Meet demand efficiently

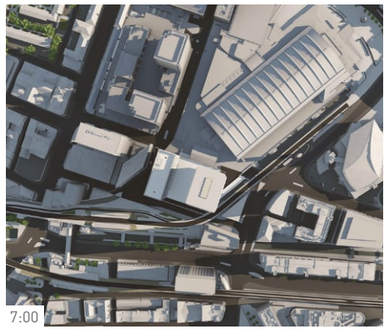
- Low energy fit out
- Heat recovery
- Mixed mode ventilation
- Low energy lighting (LED)
- Power management
- Variable speed drives
- Demand Operated Systems
- Low Specific Fan Power
- Wastewater Heat Recovery

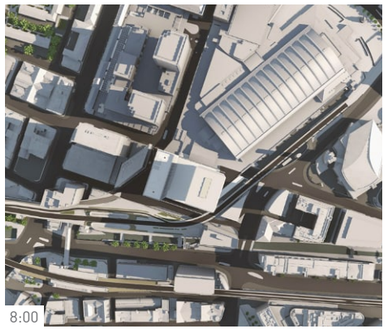
MEAN

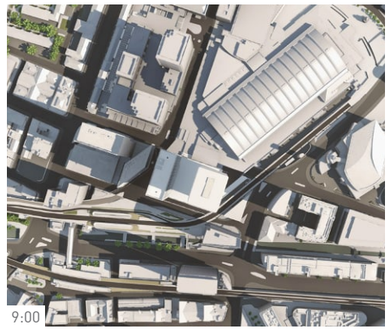
Supply energy from low and zero carbon technology

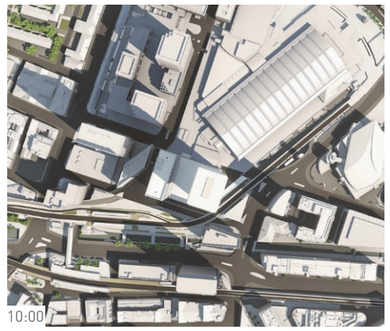
- Combined heat power/tri-generation
- Biomass/biofuels
- Solar thermal hot water
- Ground source heat pumps (GSHP)
  - Open loop
  - Closed loop
- Photovoltaics
- Fuel cells
- Air source heat pumps (ASHP)
- Wind
- Hydro

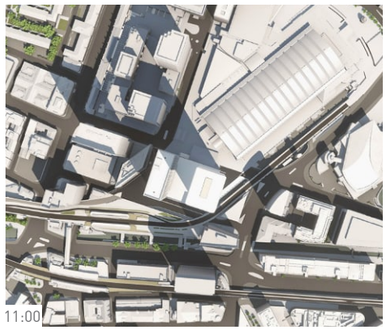
GREEN

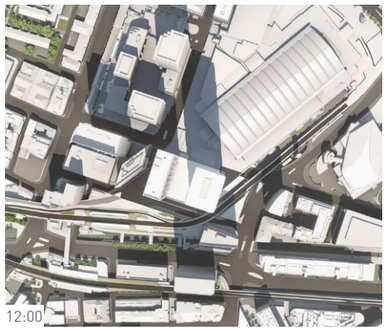


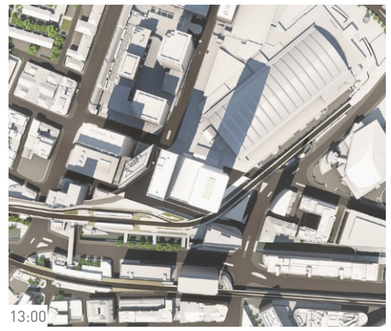


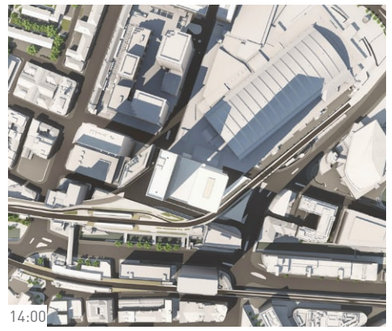


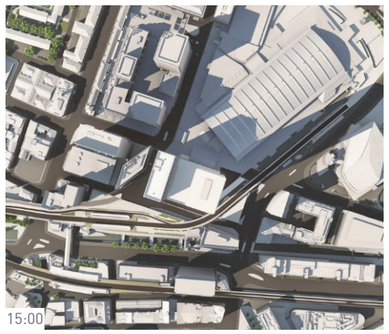


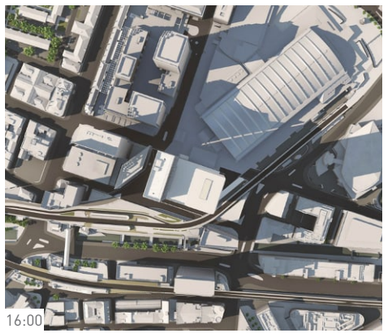


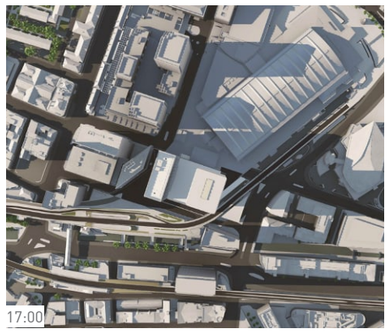


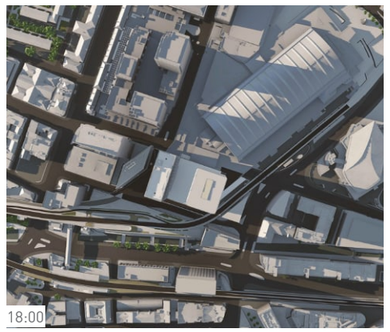












Shadow Analysis Diagrams - Summer Solstice

4.9.2 Daylight Study

Careful consideration has been given to the impact that the proposed scheme has with regard to sunlight and daylight access and shadowing both within the site itself and through to the surrounding area.

A detailed Daylight, Sunlight and Overshadowing report has been prepared by GIA to assess the likely significant effects of the proposed development. This can be found in the relevant EIA chapter.

4.9.3 Solar Glare Analysis

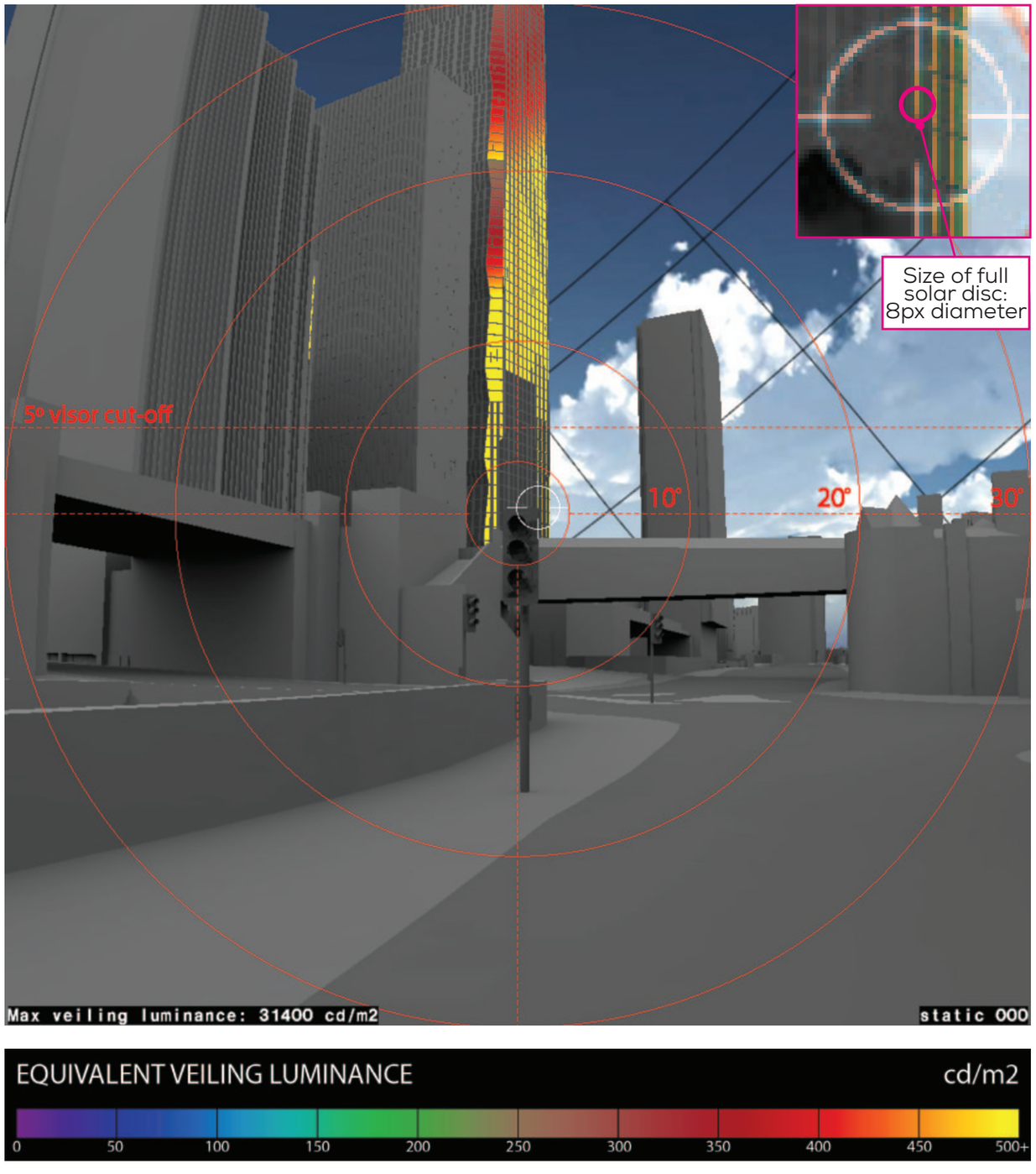
A detailed assessment has been carried out by GIA to determine the likely solar glare impact the proposed development has upon the site and surrounding area. The full report is contained within the relevant EIA chapter and outlines the methodology for assessment, results and technical mitigation strategies that have been adopted.

The process of reviewing the solar glare impact and, where necessary, the development of appropriate mitigation strategies was undertaken in close consultation with specialist consultants from GIA, the architects and facade engineer. Particular impact was observed in specific areas of the Plot 2a southern & eastern elevations and corner chamfers. This impact has been successfully mitigated through a combination of low reflectivity glazing, projecting fins and extra perforated rapid vent panels. It is proposed that these features are introduced locally where required, rather than been replicated across entire facades.

Further detail is demonstrated in the following drawings which accompany this application:

- 10448-SHP-ZC-A-B5D9-G251-DE-XX-107
  South Facade Detail - Glare Mitigation Fins
- 10448-SHP-ZC-A-B5D9-G251-DE-XX-108
  South/West Chamfer Facade Detail- Glare Mitigation Rapid Vents

Further testing is to be undertaken in relation to mitigation requirements to the Plot 2a eastern elevation (levels 06-09). Due to the exceedance of the glare threshold, it is recommended that during detailed design stages the offending glazed panels are screened or substituted with non-reflective panels to avoid reflections directly behind the traffic lights, impacting drivers at this location.

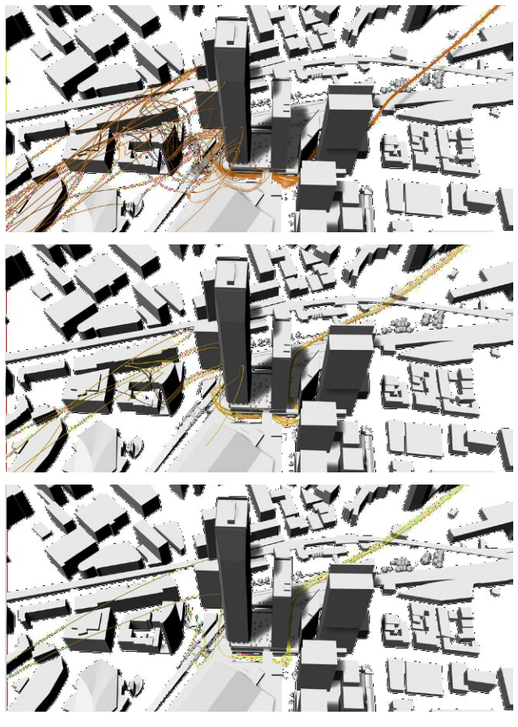


GIA - Solar Intensity Study Diagram (Peak) - Viewpoint Castle Street (CS1) Junction with Bridgewater









ArcAero - Wind Tunnel Test Physical Model & CFD Modelling.

4.9.4 Wind Microclimate

A wind tunnel study has been carried out to assess the wind microclimate for the proposed development.

The wind tunnel study has enabled the pedestrian level wind environment at the site to be quantified and classified in terms of suitability for current and planned usage, based on the industry standard Lawson criteria for pedestrian comfort and safety.

The study combines measured pedestrian level wind speeds at key areas in and around the site with long-term wind frequency statistics to determine the probability of local wind speeds exceeding comfort and safety thresholds for a range of common pedestrian activities based on the industry standard Lawson criteria. This defines the type of activities for which the wind conditions would be safe and comfortable.

Several iterations of the design have been developed and tested in the wind tunnel within the context of both existing and future surrounds, and, where appropriate, mitigation measures have been developed to ensure that conditions are comfortable for existing and planned uses within the site and surrounding area.

The findings of the wind tunnel study informed the building design and the public realm and landscape proposals. Mitigation measures have been developed further using Computational Fluid Dynamics (CFD) modelling and there will be further wind tunnel tests to validate the results.

Full details of the study and adopted mitigation measures are included within the Environmental Impact Assessment which accompanies the Planning Application.

4.10 Townscape Impact

The architectural composition takes account of the impact of the buildings at both local level and within the context of the wider city centre and also takes into account both the current and emerging future context.

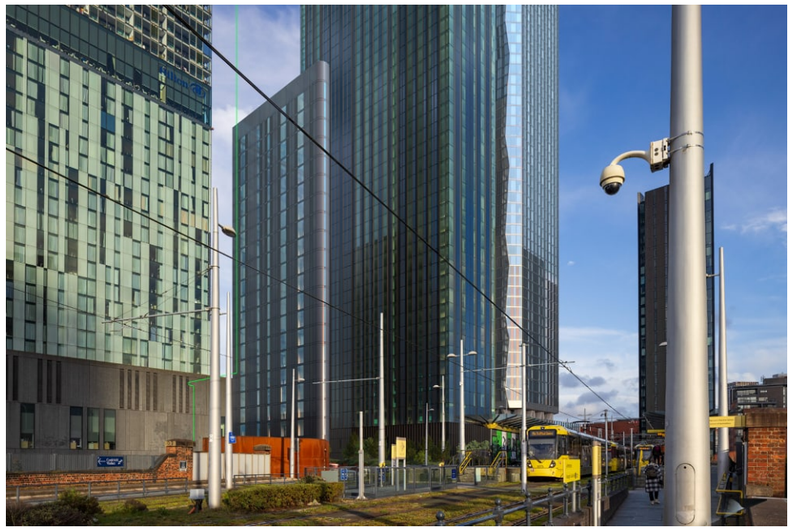
The scale and massing of the scheme has been designed to relate to, and connect with, both the immediate surroundings and also with due regard to the setting of and views to the city of Manchester.

The impact of the proposals has been tested through a series of meetings and discussions with Historic England and other key stakeholders, during which key views have been established. The impact of the development on townscape, visual impact and built heritage assets is included within the submitted Environmental Statement and discussed in the Planning Supporting Statement and Tall Building Evaluation.

A summary of the views are included in the following pages.



Viewpoint Locations



01



02



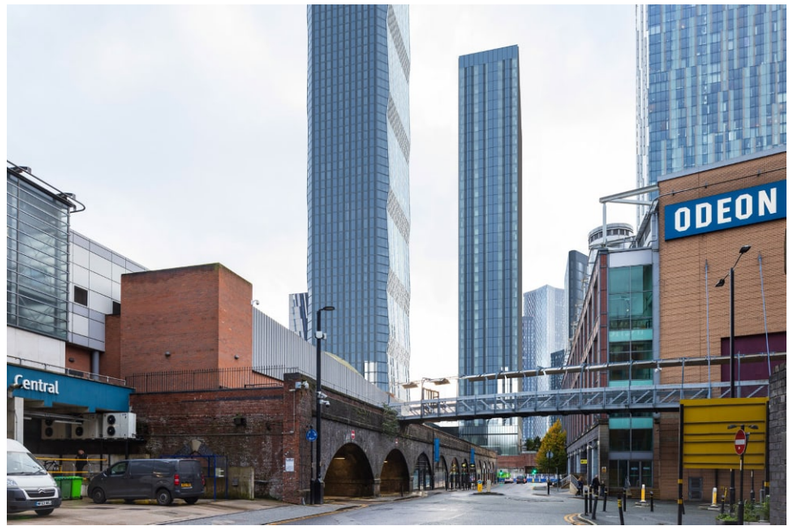
03



04



04 - Night



05

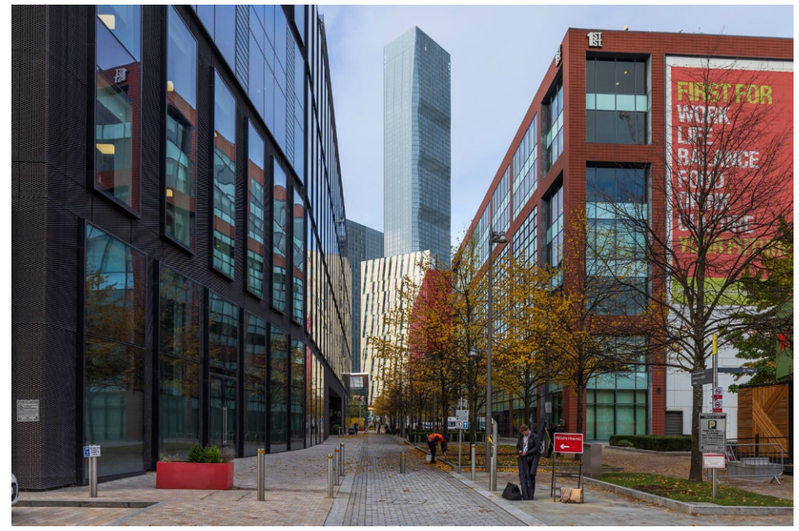
Visual Impact Assessment Views



06



07



08



09



10



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Visual Impact Assessment Views



12



13



14



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16



17

Visual Impact Assessment Views



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19



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21



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23

Visual Impact Assessment Views



24



25



26



27



28

Visual Impact Assessment Views



5.0 Access

5.1 Inclusive Access

5.1.1 Overview

This section of the report sets out details of the measures that have been employed with regard to inclusive access. The design of the buildings and surrounding public realm have been developed in consideration of national legislation, seeking to avoid discrimination regardless of disability, age or gender.

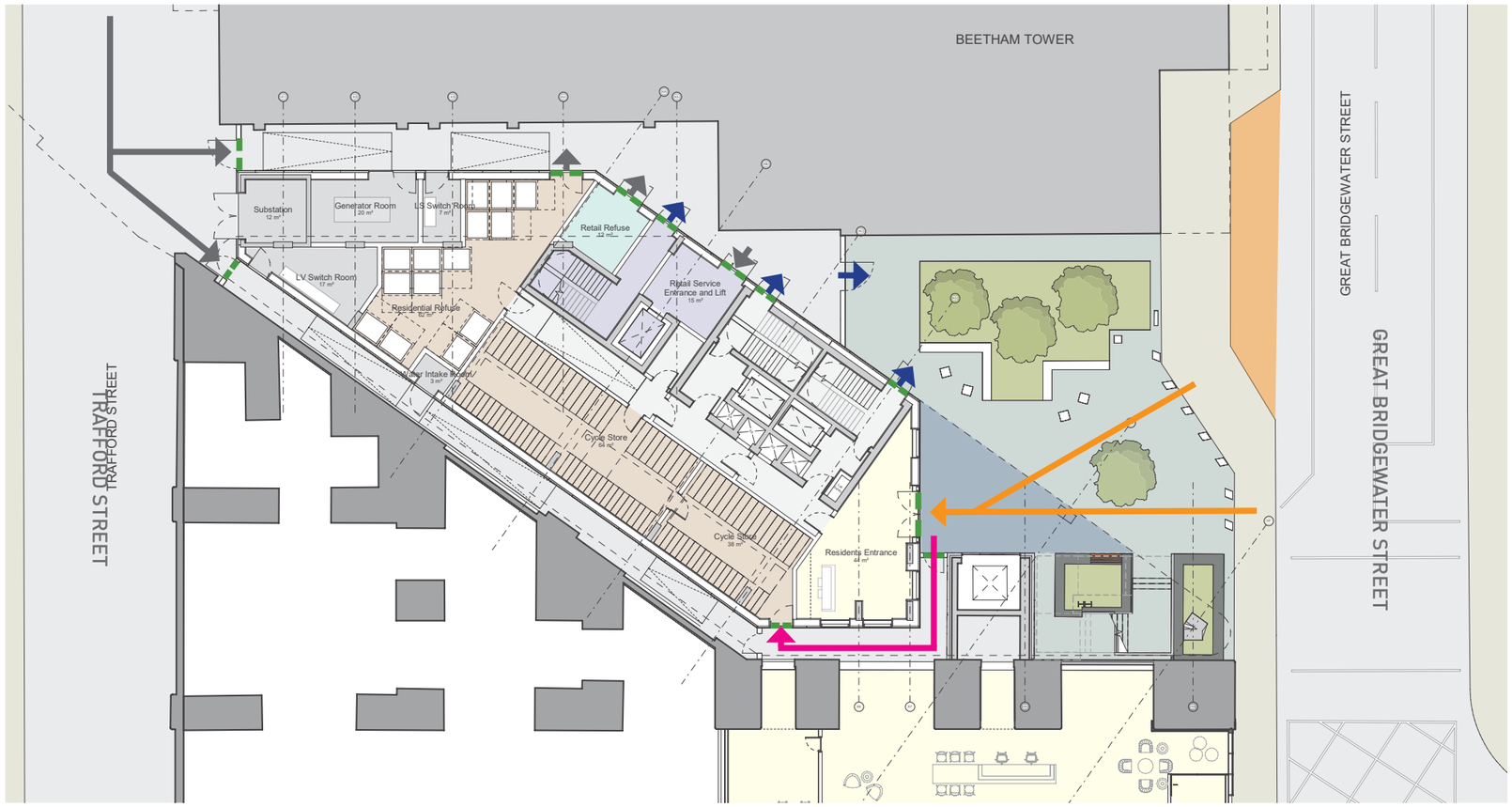
The approach has been guided by the requirements of Part M of the Building Regulations and Manchester City Council's 'Design for Access 2' best practice guidance. Colour coded schedules which demonstrate compliance with these documents are included in the following pages.

Access at Site Boundary
The setting of building levels has been determined by existing pavement and road levels to ensure that the buildings can be accessed from flat and level approaches. Existing openings within the historic viaduct structure have also dictated where some entrances and exits can be located.

Communal Entrances
The clear width of all access routes from pavements to main entrances are at least 1800mm wide; and comply with, or exceed, statutory guidance. Similarly, the gradients of access routes are 'flat' (cross falls introduced for drainage only) and will be set at no more than 1 in 21.

Access routes will be finished in hard landscaping with appropriate slip resistant, textured surfaces. The selection of appropriate finishes and design of level accessible thresholds will facilitate ease of access for wheelchair users.

As indicated on the adjacent diagrams, there is a vehicle drop off lay by proposed in close proximity to each primary entrance. Entrances will be demarcated with clear signage to assist way finding. There is no resident's parking proposed for either residential building.



Plot 2b Ground Floor Diagram

LEVEL ACCESS ROUTE TO PRIMARY BUILDING

ACCESS TO RESIDENT'S CYCLE STORE

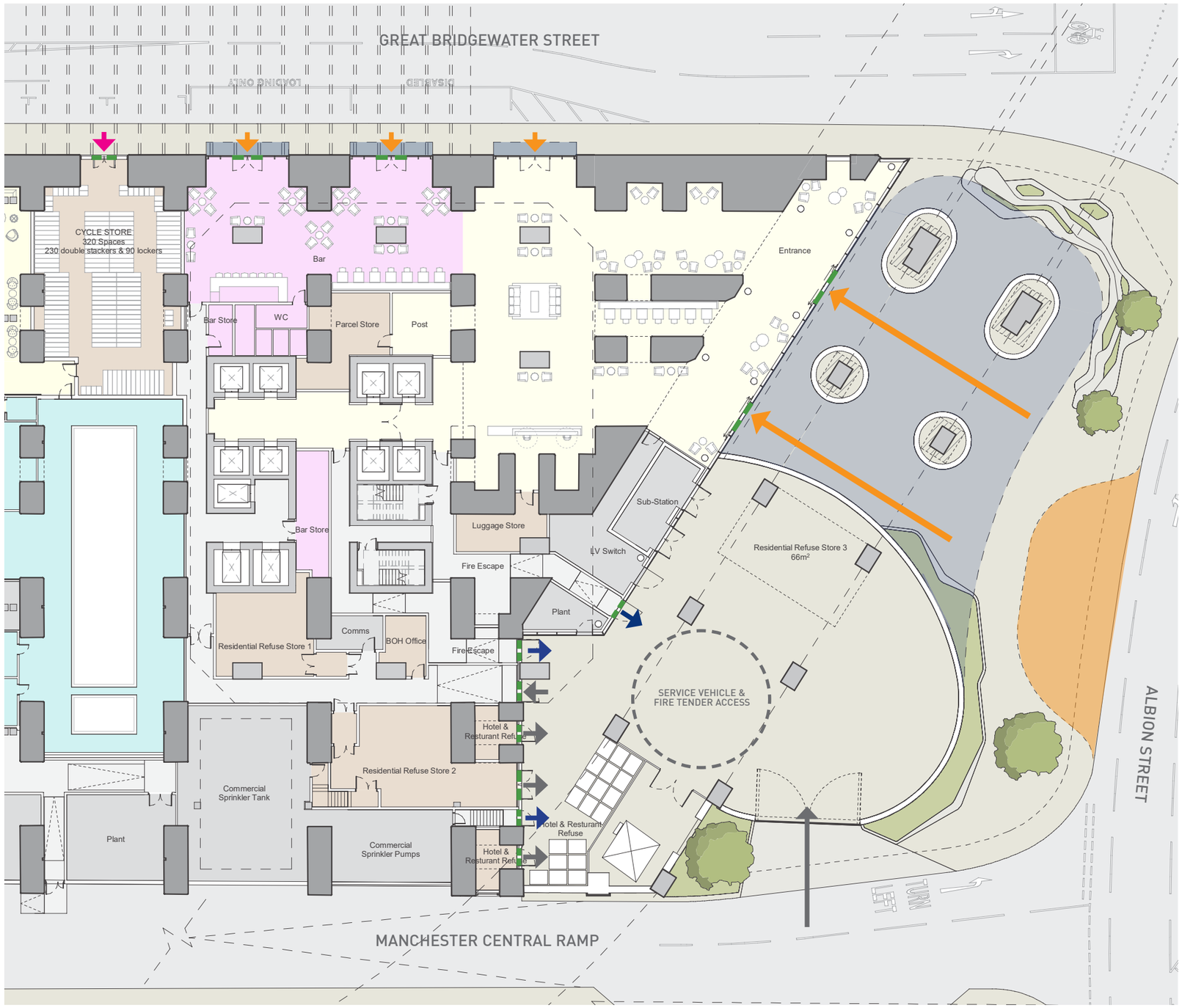
SERVICE ACCESS

EMERGENCY EGRESS

LEVEL THRESHOLDS

DROP OFF LOCATION

WEATHER PROTECTION BY BUILDING OVERHANG OR CANOPY



Plot 2a Ground Floor Diagram

Reception Areas

There are reception/concierge areas proposed to both building entrances and further detailed design will be undertaken with the end users to determine a suitable fit out and interior design. The following principles will be considered in development of these proposals:

- Reception desk with low level desk area which is accessible to wheelchair users.
- Space planning to define clear circulation routes.
- Materials to reduce surface glare with appropriate contrasting colour luminance.
- Clear directional signage to aid way finding.
- Transitional lighting on dusk-dawn sensors.
- Solid floor surfaces to access routes to facilitate ease of wheel chair movement.

LEVEL ACCESS ROUTE TO PRIMARY BUILDING

ACCESS TO RESIDENT'S CYCLE STORE

SERVICE ACCESS

EMERGENCY EGRESS

LEVEL THRESHOLDS

DROP OFF LOCATION

WEATHER PROTECTION BY BUILDING OVERHANG OR CANOPY

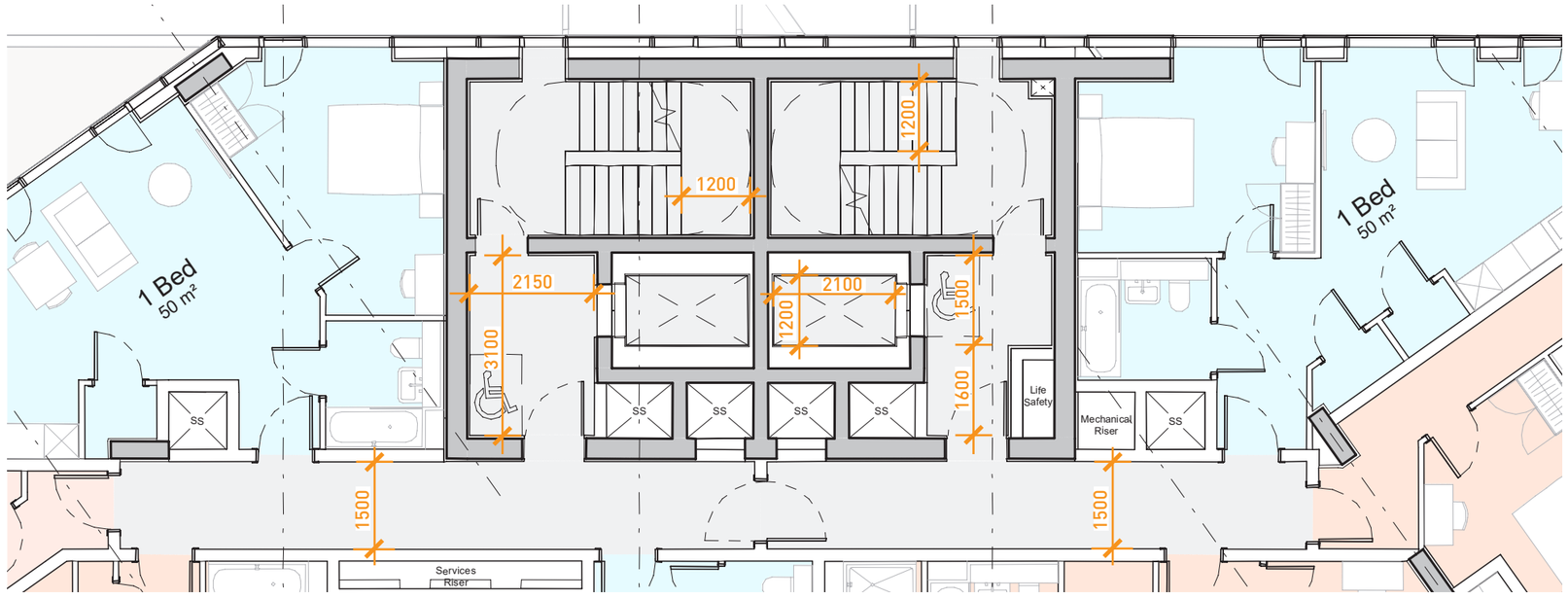
5.1.2 Communal Areas and Circulation

The arrangement of the stairs and lifts within the core of each building has been the result of extensive design development to provide a robust strategy in terms of fire safety and compliance with all appropriate guidance and regulations. Both buildings have the potential to incorporate two fire-fighting lobbies, each with access to a lift which can be used for fire-fighting and evacuation. Spaces within the lobbies are identified for wheelchair refuge, with intercom access to the concierge provided. A specialist Fire Strategy Report has been produced for each residential building which includes full details of emergency egress procedures and fire fighting access.

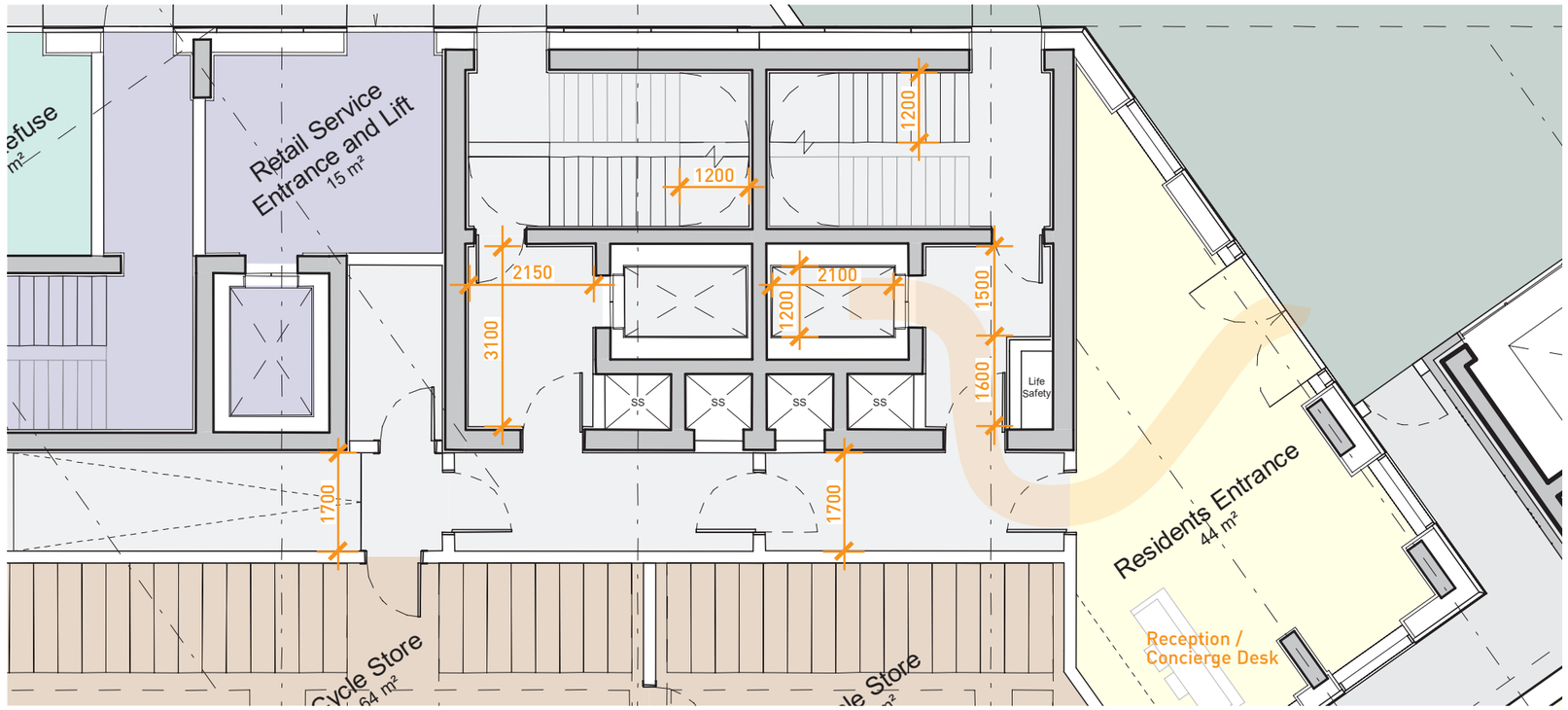
Both buildings incorporate two stairs which serve every level, all of which are designed to comply with the requirements of Part K for a General Access Stair.

All primary circulation corridors are a minimum 1500mm wide. This exceeds the 1200mm minimum clear width required by Approved Document M, but not all corridors adhere to the 1800mm width advised in DFA2.

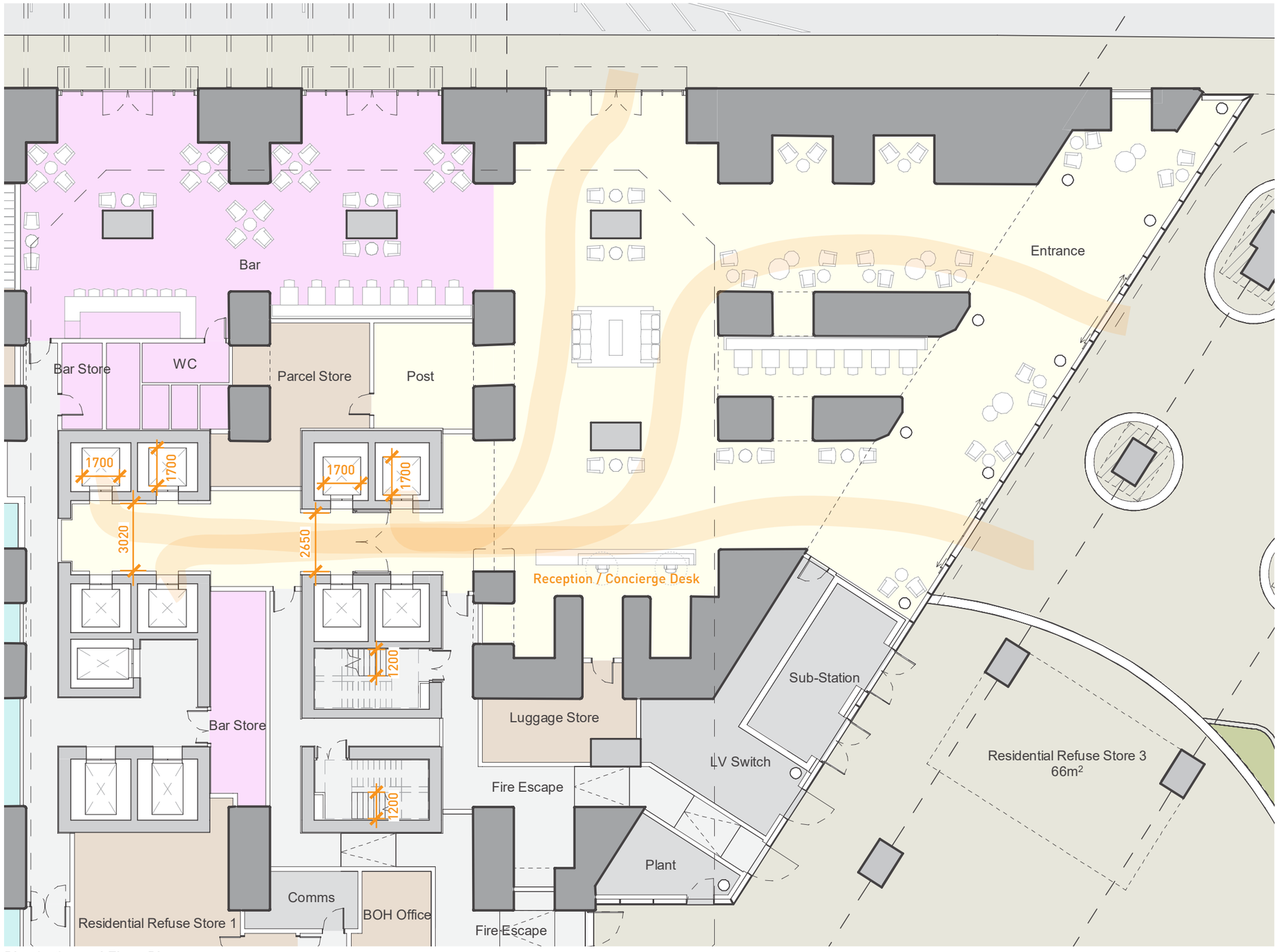
The lift lobbies vary in size but the minimum 1500mm x 1500mm clear space in front of lift doors (required by Approved Document M) is comfortably achieved in all instances. In most locations, the 1800mm x 1800mm clear space advised by DFA2 is also met or exceeded.



Plot 2b Typical Residential Level Plan



Plot 2b Ground Floor Plan



Plot 2a Ground Floor Plan

Key Spatial Criteria

Part M4(2)
Level landing min. 1500mm x 1500mm directly outside the entrance and clear of any door swing.

A min 300mm nib is provided to the leading edge of the door or gate, maintained for a min distance of 1200mm beyond it.

The reveal on the leading side of the door has a maximum depth of 200mm.

DFA2
Corridors and internal spaces should be a minimum of 1800mm wide.

Provide unobstructed turning space of 2000mm diameter at corners.

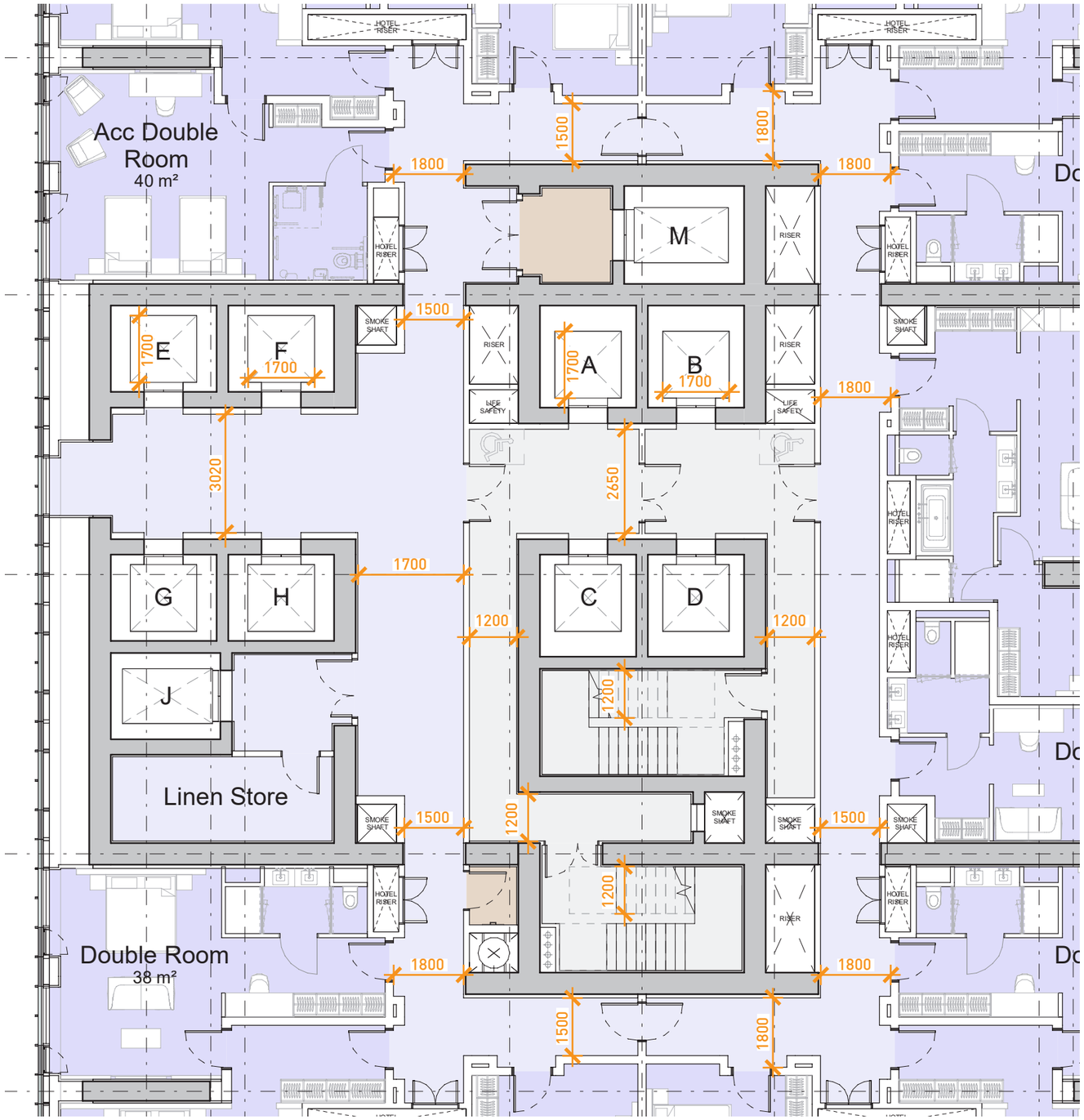
Part M4(2)
Lift car to be min. size 900mm wide x 1250mm deep.

DFA2
Internal lift dimensions should be min. 2000mm wide x 1400mm deep x 2000mm high. For constrained circumstances minimum internal size of 1100mm wide x 1400mm deep is sufficient

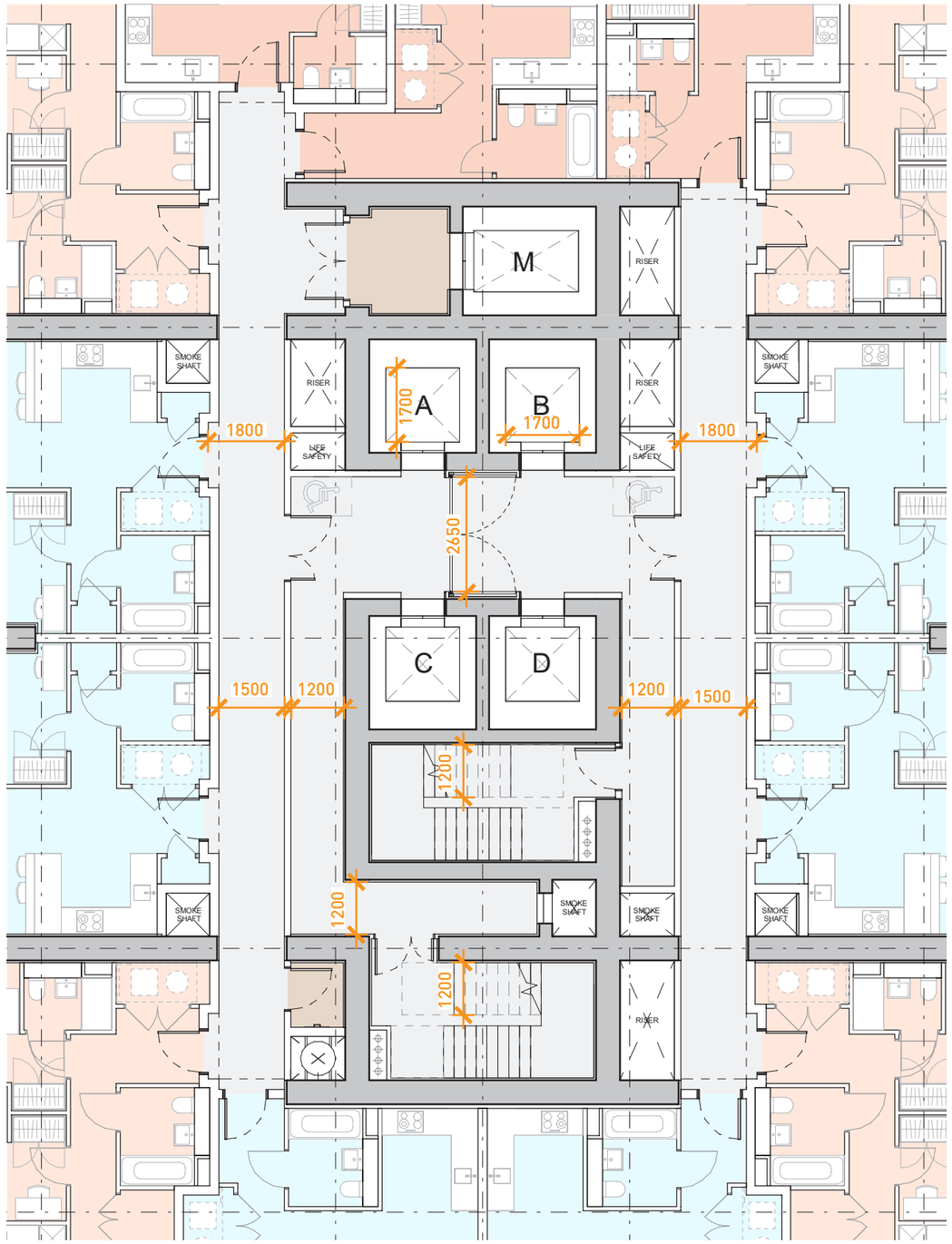
Part M4(2)
Clear landing min. 1500mm x 1500mm directly in front of the lift door at every floor level.

DFA2
There should be an unobstructed area of 1800mm x 1800mm in front of the lift.

Part M4(2)
The principle communal stair that gives access to the dwelling should meet the requirements of Park K for a General Access Stair.



Plot 2a Typical Hotel Plan

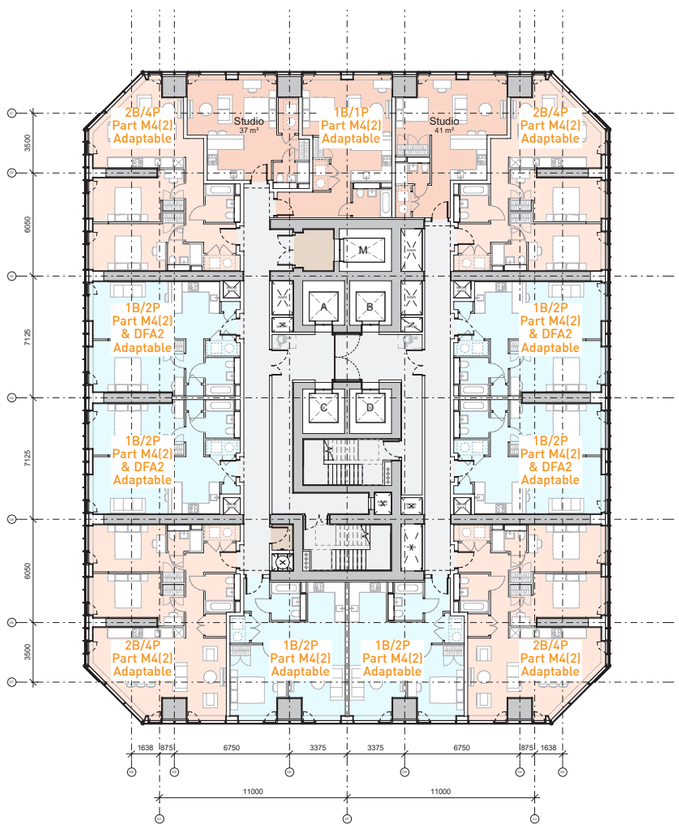


Plot 2a Typical Residential Plan

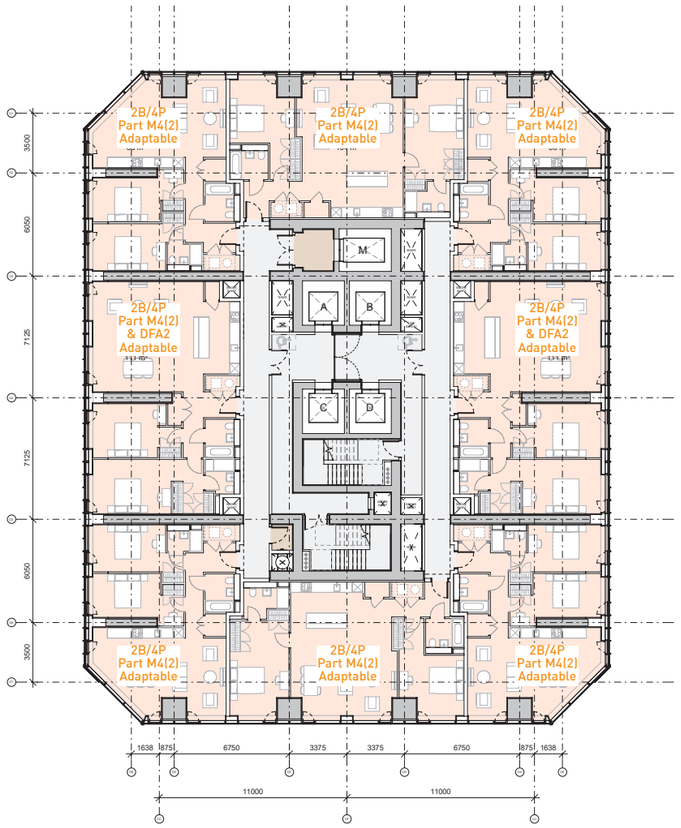
5.1.3 Plot 2a Accessible Dwellings

All proposed apartments on typical levels are single storey and have been designed to meet the requirements of Part M4(1) Visitable Dwellings. Where possible apartments are also designed for future adaptation to meet the requirements of Part M4(2) Accessible and Adaptable dwellings. The potential to adapt some of the layouts to meet the more onerous standards in DFA2 has also been explored and the following pages demonstrate the extent to which these requirements can also be incorporated.

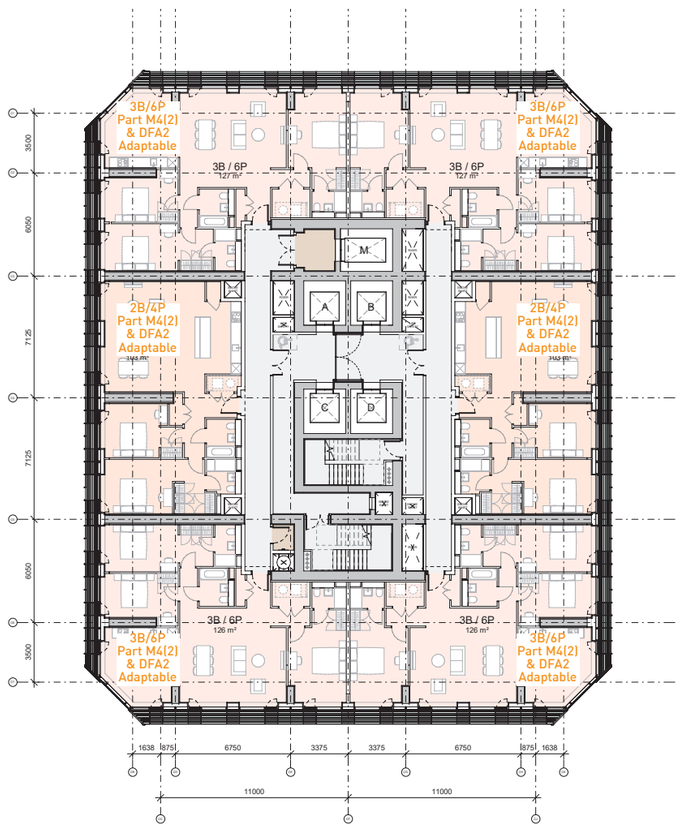
The biggest challenge in adapting the apartment layouts to meet these requirements is incorporating a level access shower. This is because there is only a 15mm floor finishes zone proposed above the slab at standard residential floor levels, and this doesn't provide sufficient zone for the drainage. Therefore, it is proposed that the bathroom floor levels will be locally raised, with a small internal ramp on the approach to them. Please see overleaf for the proposed arrangements, which are to be read in conjunction with the compliance schedule.



Type A Residential Floorplan

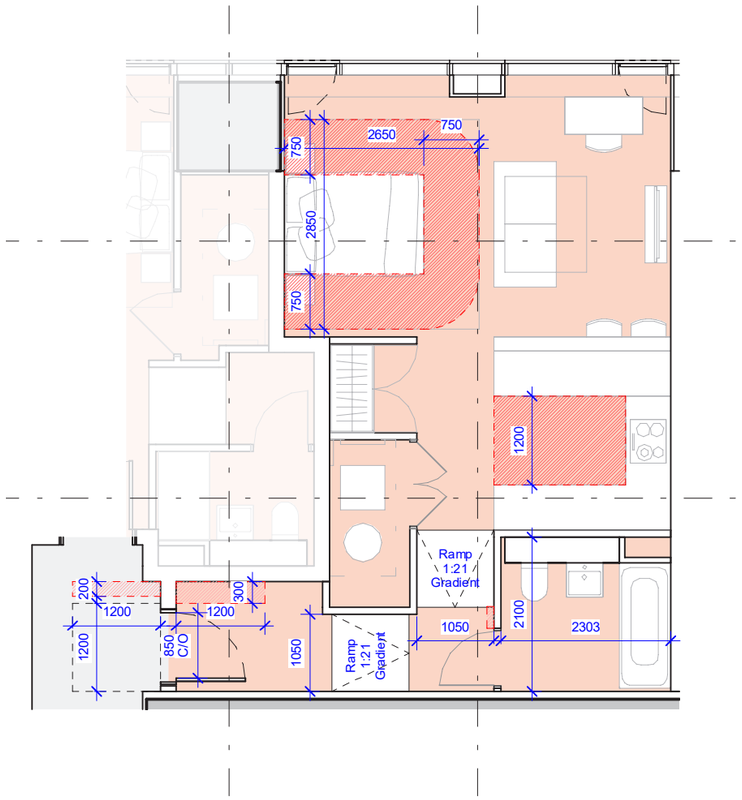


Type B Residential Floorplan

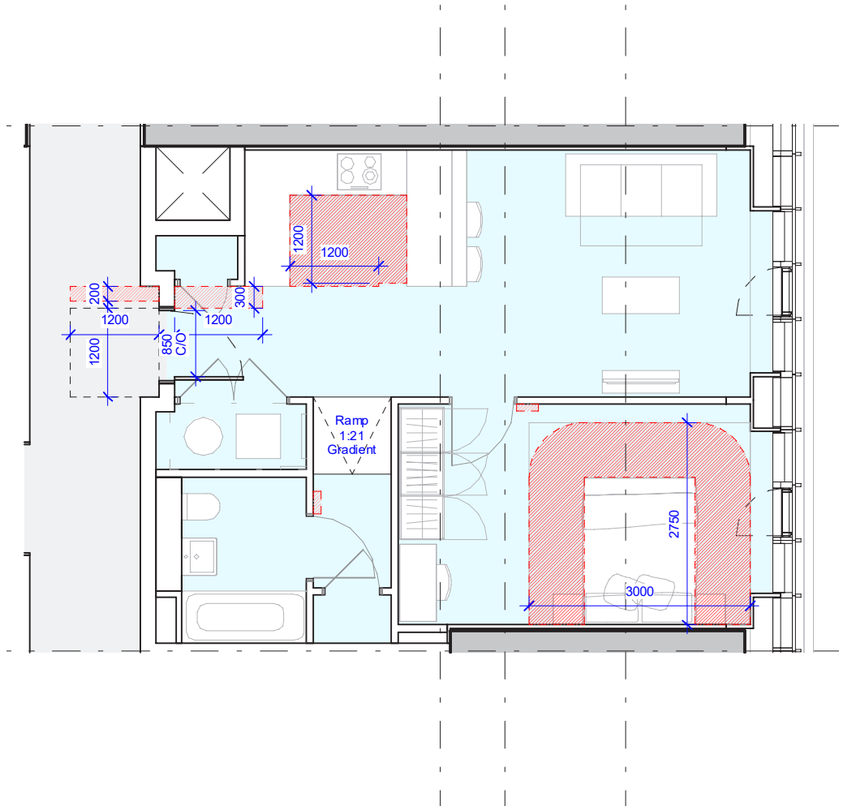


Type C Residential Floorplan

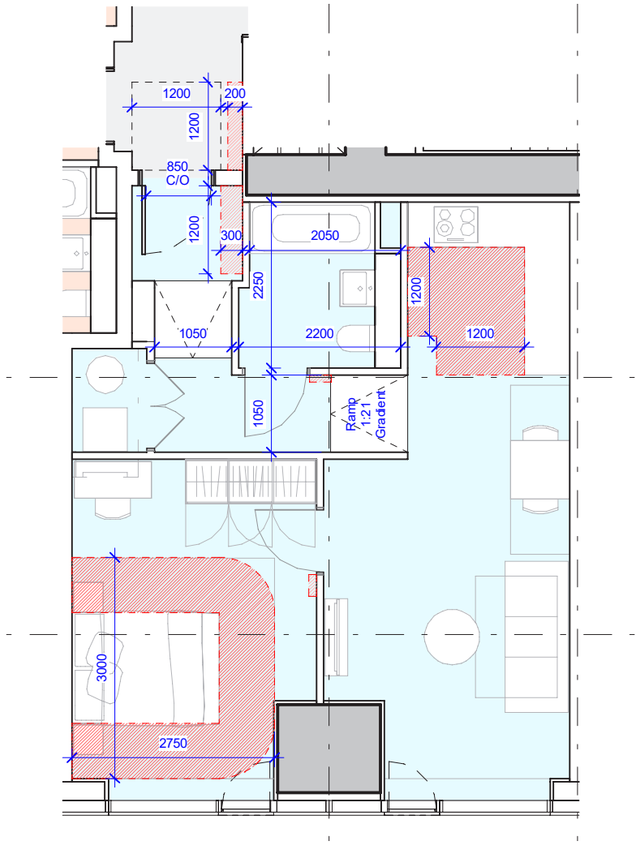
Plot 2a - PART M4(2) Adaptable Layouts



1 BED 1 PERSON UNIT



1 BED 2 PERSON UNIT

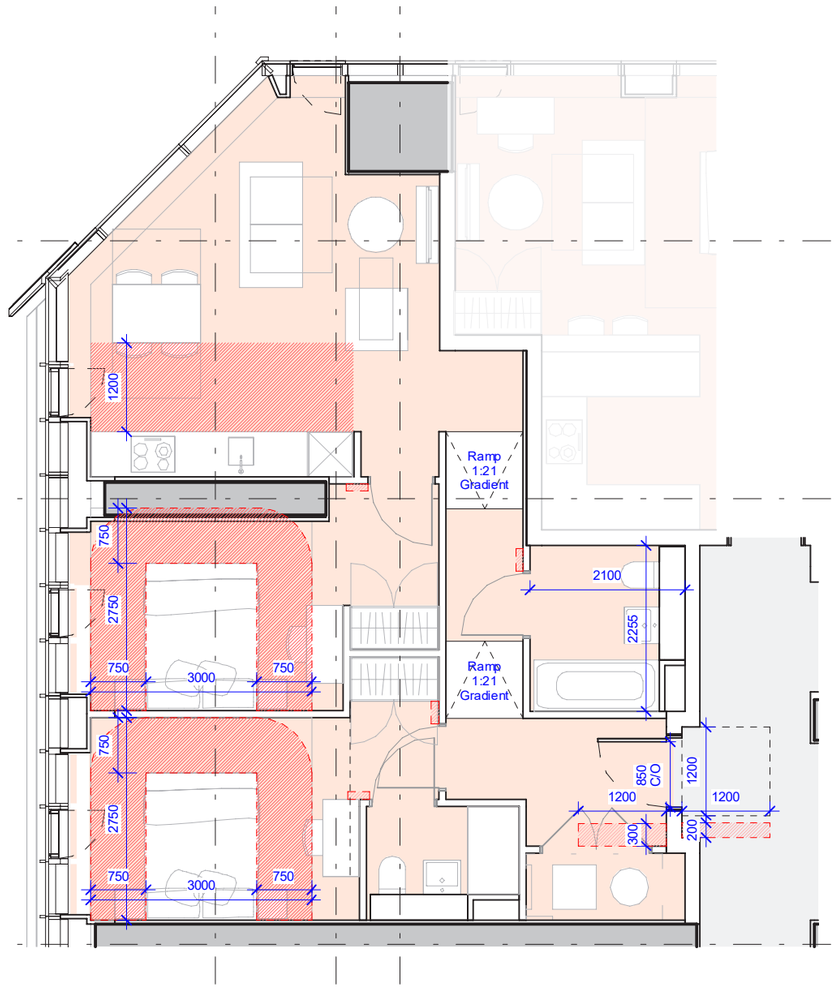


1 BED 2 PERSON UNIT

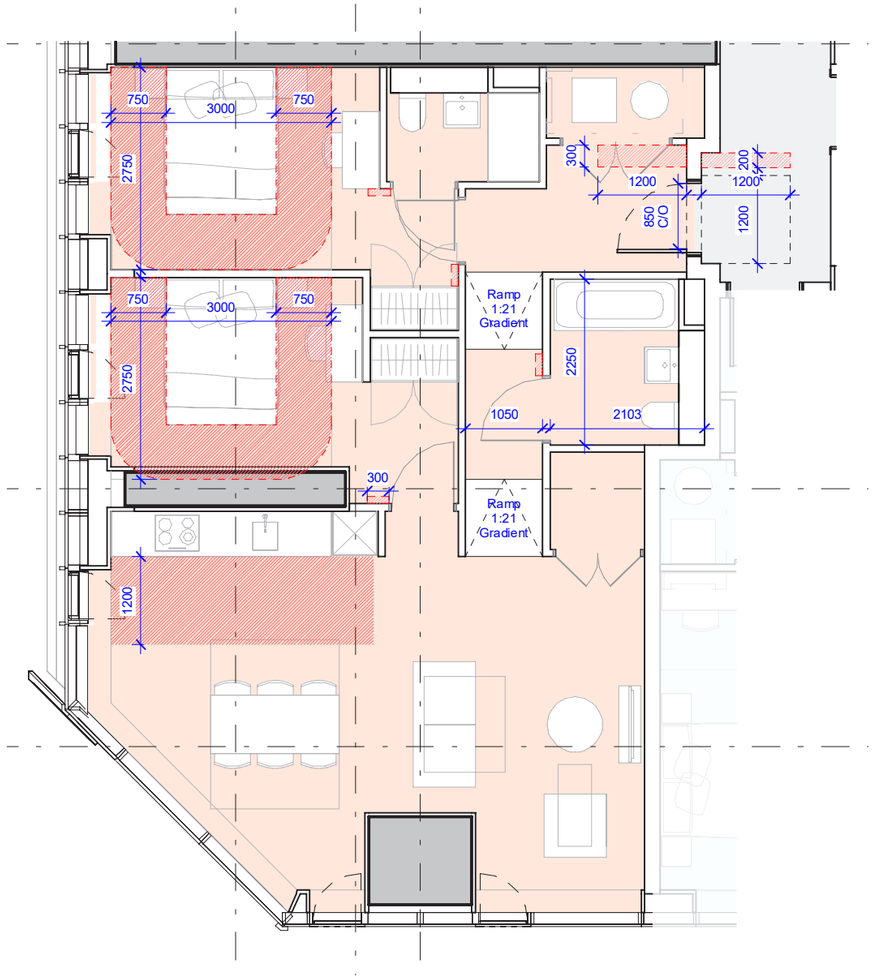
Part M4(2) Key Spatial Criteria

- Entrance door has a min. clear width of 850mm where there are 2 leaves the principle one should have the required clear opening width.
- Level landing min 1200mm x 1200mm directly outside the entrance and clear of any door swing.
- A min 300mm nib is provided to the leading edge of the door or gate, maintained for a min distance of 1200mm beyond it. The reveal on the leading side of the door has a maximum depth of 200mm.
- A minimum 1200mm clear space is provided in front of and between kitchen units.
- Every bedroom to have a clear access route of 750mm from the door to the window.
- Bathroom layout of should meet the minimum clear space and access zone requirements. Example room dimensions 2150mmx1900mm or 2150mmx2000mm.

Plot 2a - PART M4(2) Adaptable Layouts

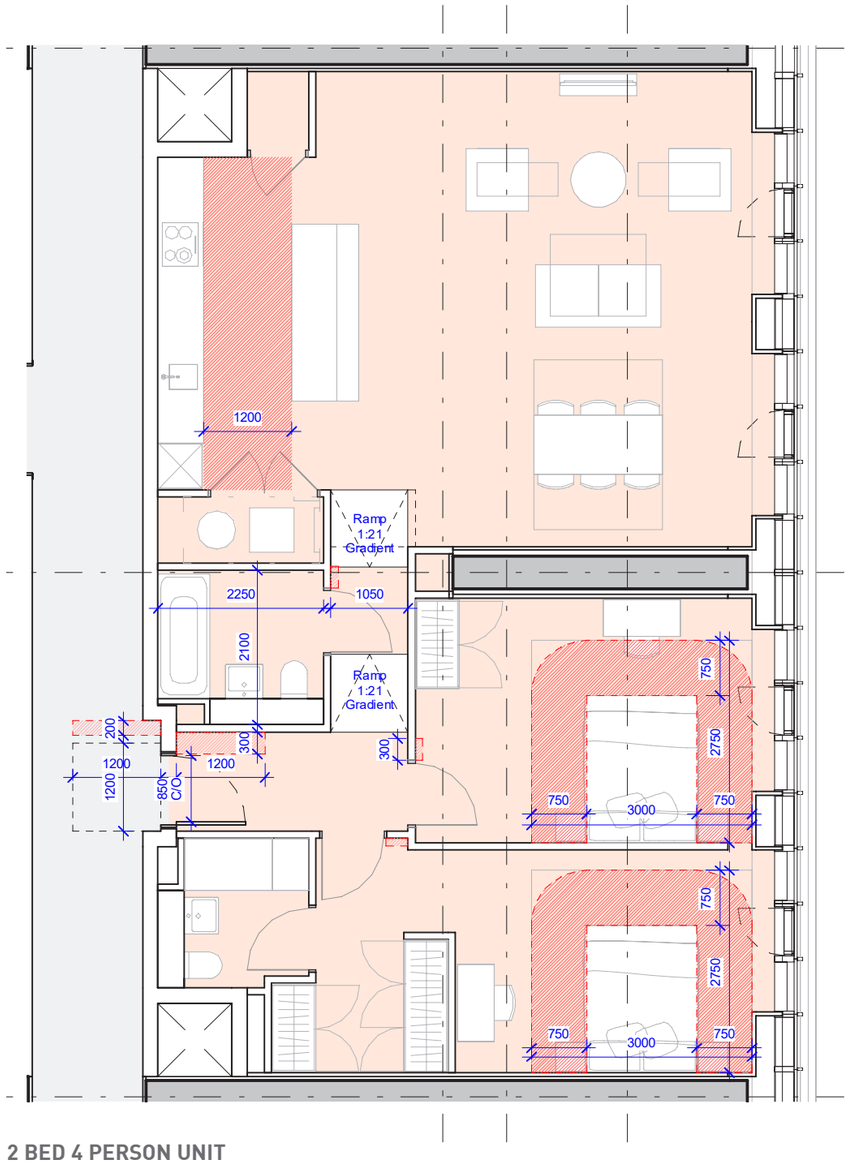


2 BED 4 PERSON UNIT

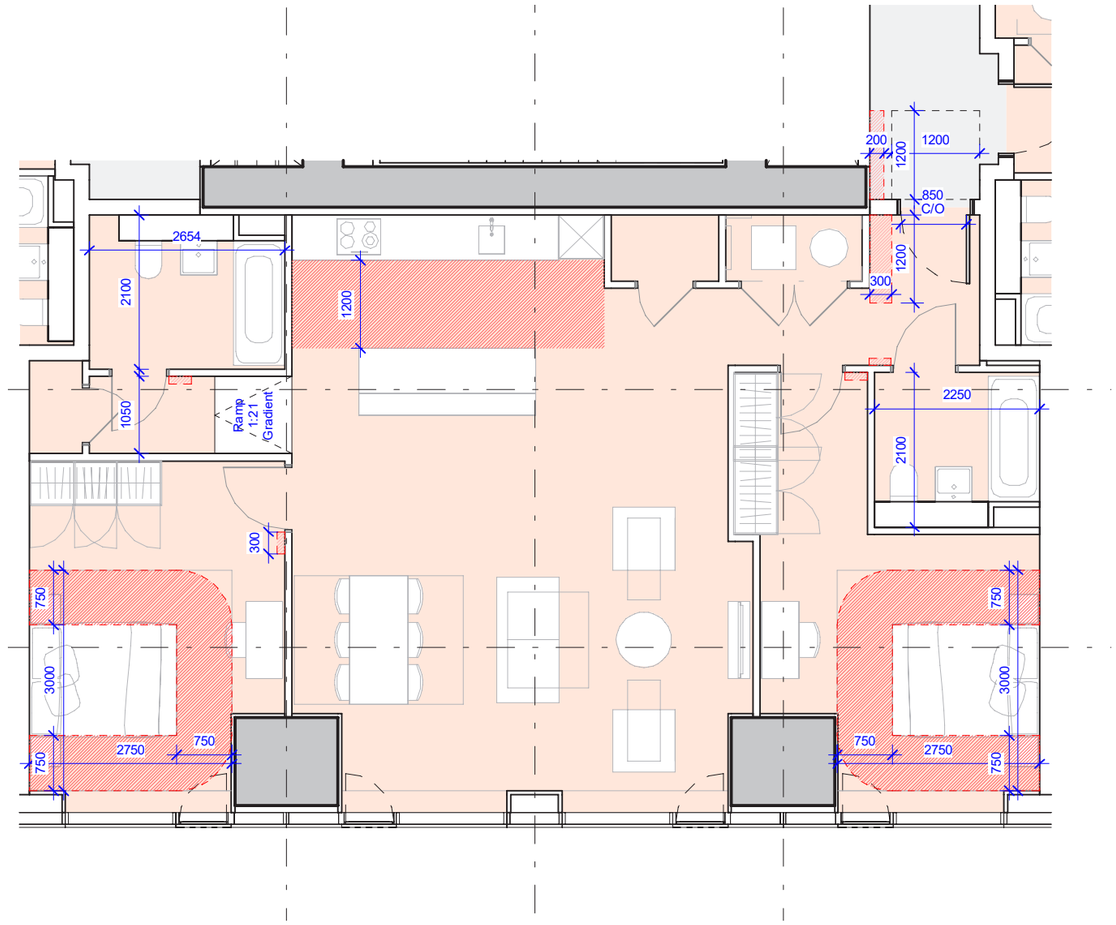


2 BED 4 PERSON UNIT

Plot 2a - PART M4(2) Adaptable Layouts

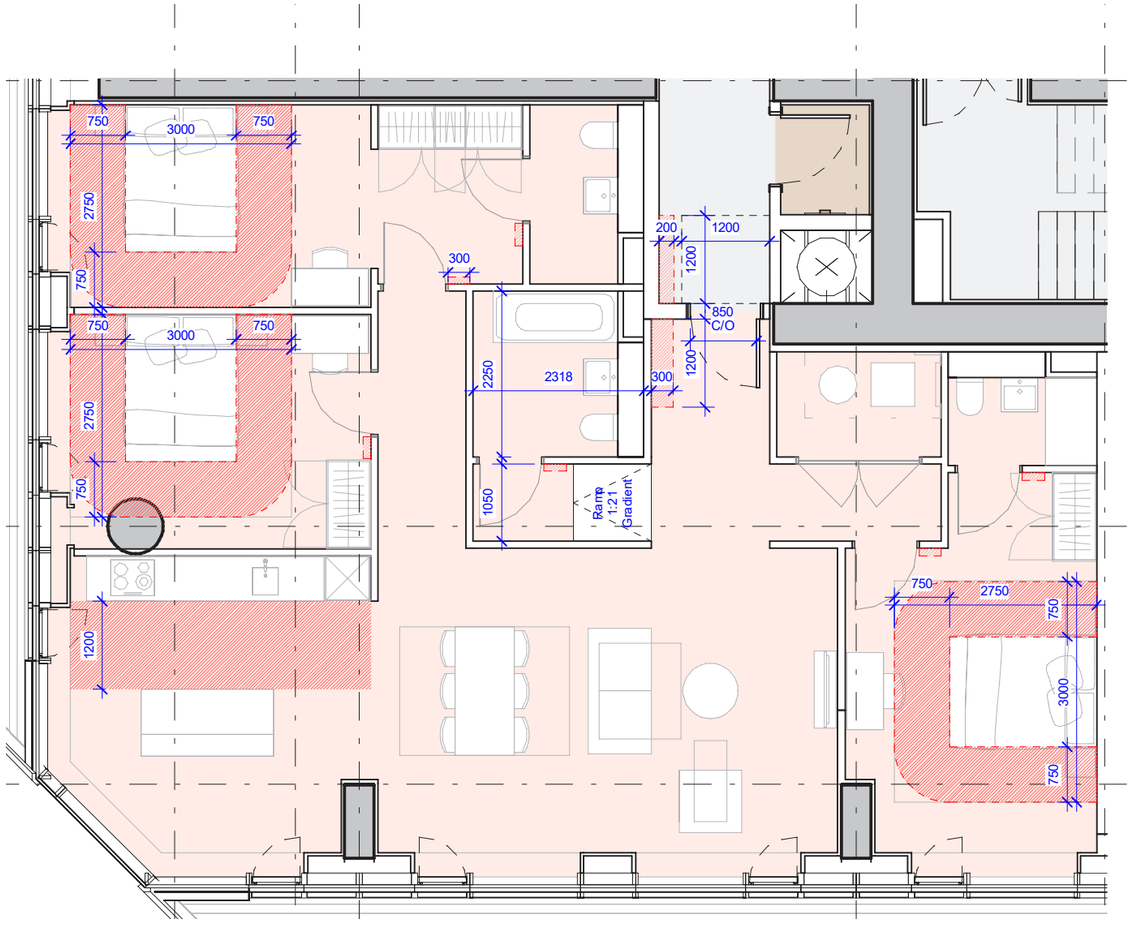


2 BED 4 PERSON UNIT



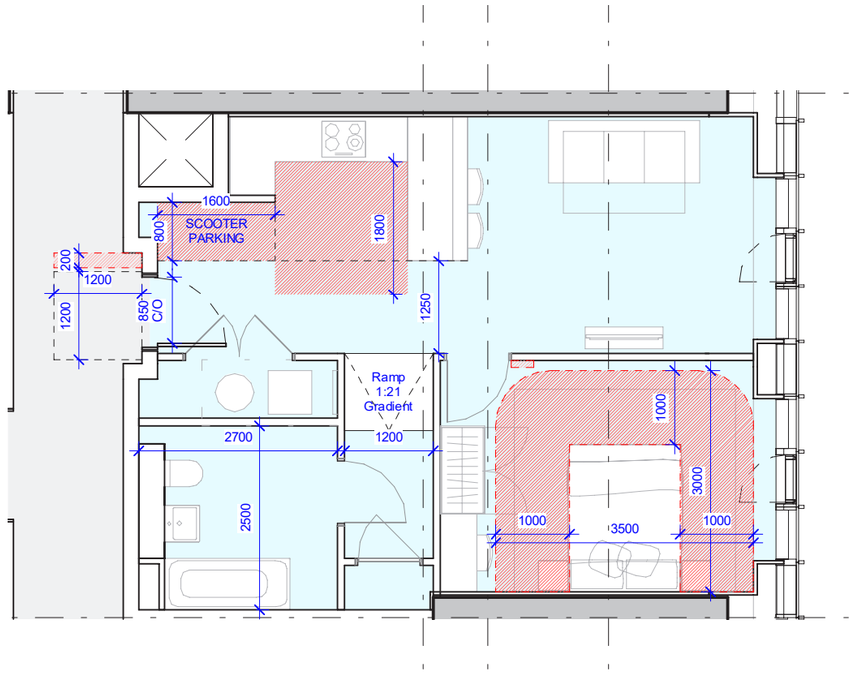
2 BED 4 PERSON UNIT

Plot 2a - PART M4(2) Adaptable Layouts



3 BED 6 PERSON UNIT

Plot 2a - DFA(2) Adaptable Layouts

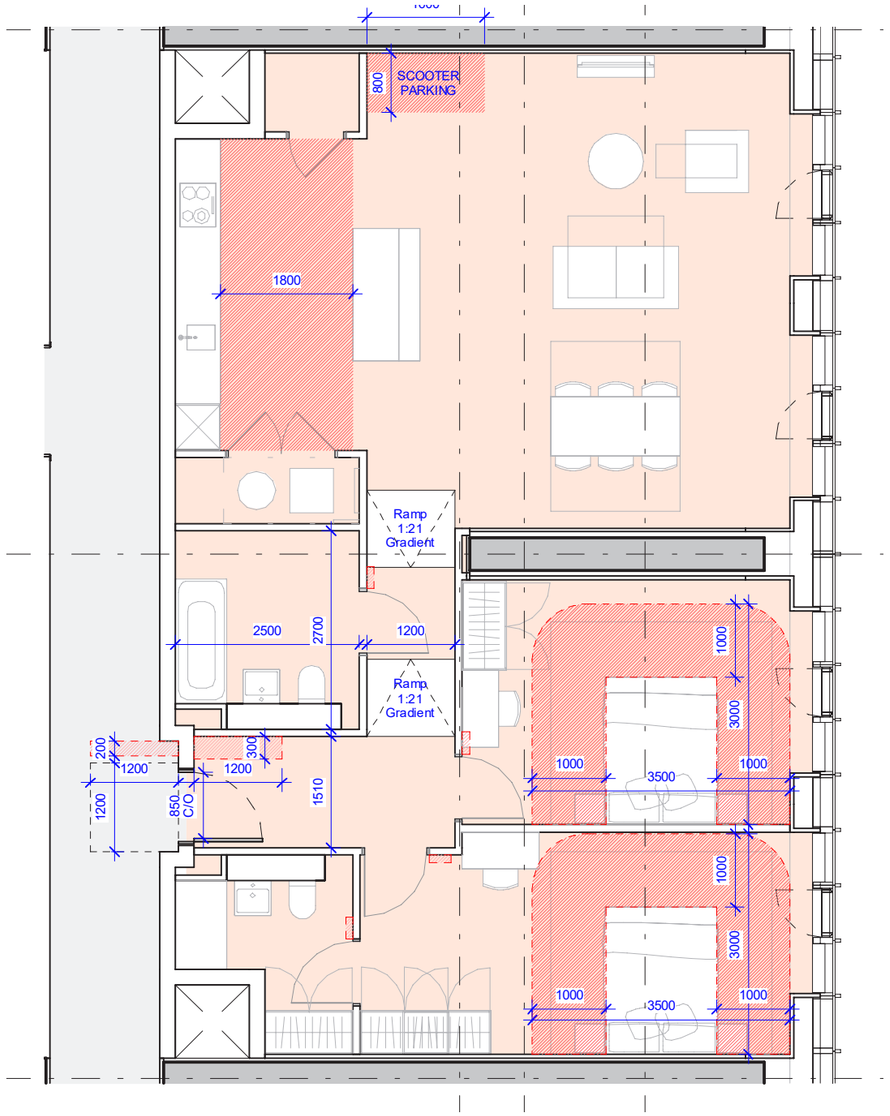


1 BED 2 PERSON UNIT

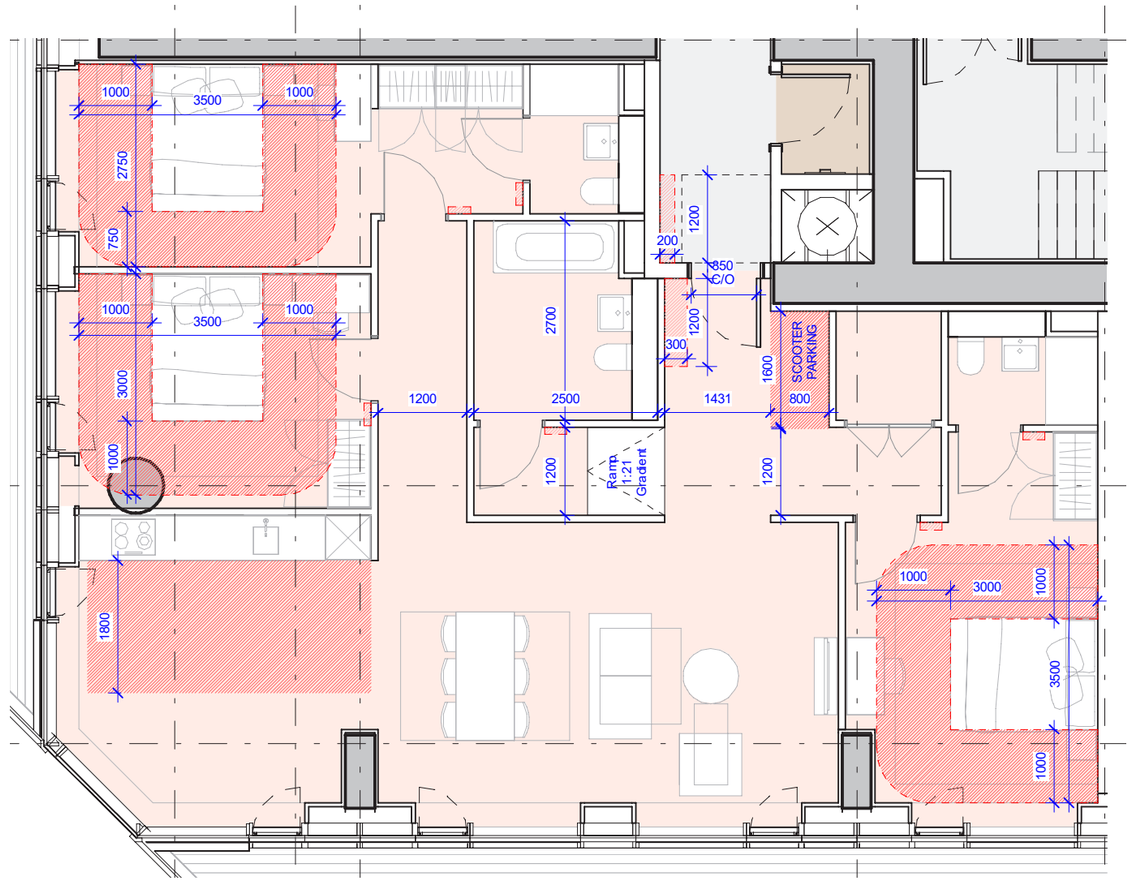
DFA(2) Key Spatial Criteria

- A suitable, safe location should be identified within each dwelling for parking and charging a power wheelchair or scooter.
- At least one bedroom in each dwelling should be provide of minimum dimensions 4000mm x 4000mm.
- Where only 1 bathroom is provided it should have min. dimensions of 2700mm x 2500mm to allow for provision of a WC, a wash basin and a shower.
- Circulation space of min. 1800mm x 1800mm should be made available in kitchens.
- Internal doors should have a min clear opening of 800mm.

Plot 2a - DFA(2) Adaptable Layouts



2 BED 4 PERSON UNIT



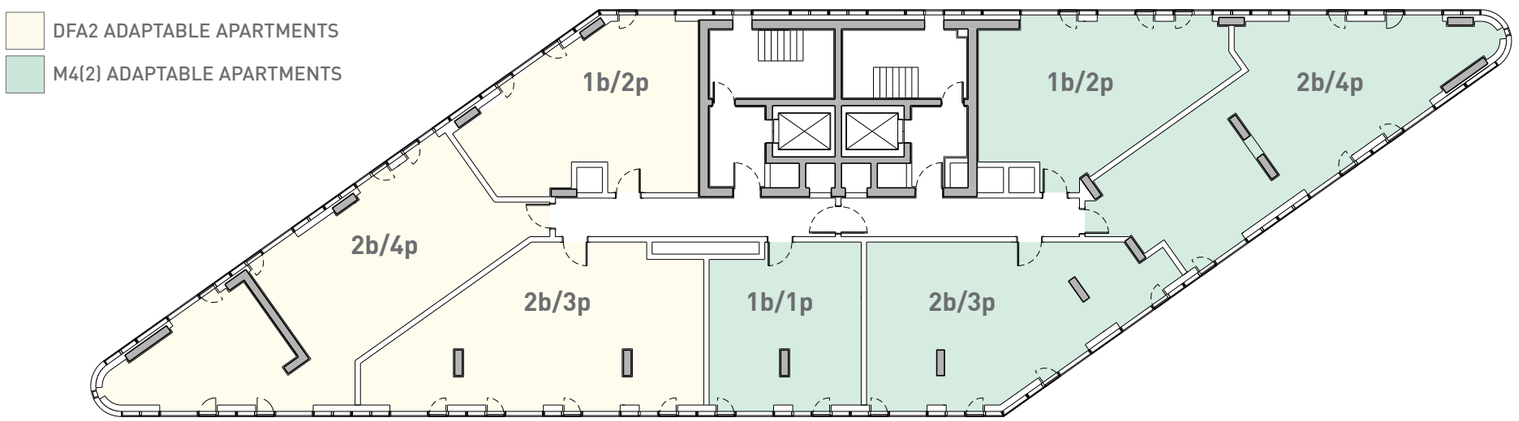
3 BED 6 PERSON UNIT

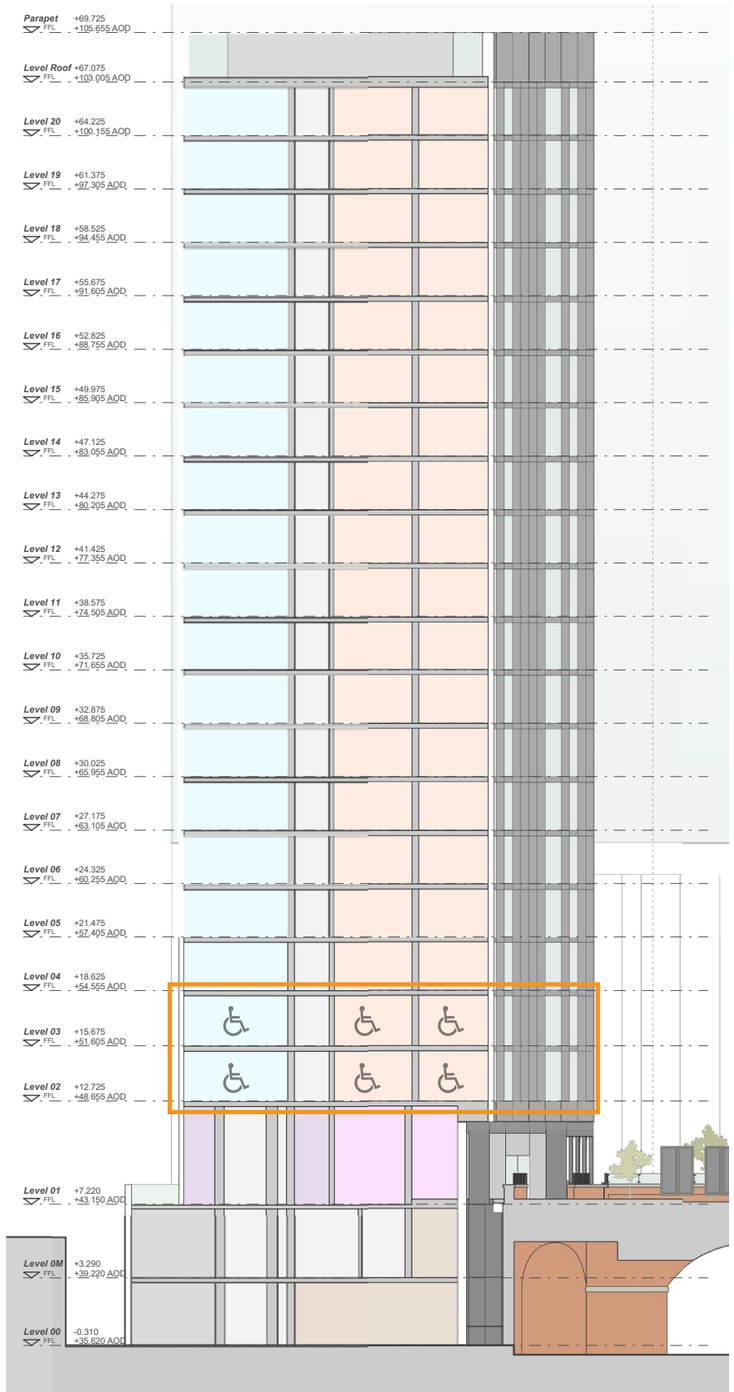
5.1.4 Plot 2b Accessible Dwellings

All of the proposed apartments are single storey and have been designed to meet the requirements of Part M4(1) Visitable Dwellings. In addition to this, 10% of the apartments are designed for future adaptation to meet the requirements of Part M4(2) Accessible and Adaptable dwellings. The potential to adapt some of the layouts to meet the more onerous standards in DFA2 has also been explored and the following pages demonstrate the extent to which these requirements can also be incorporated.

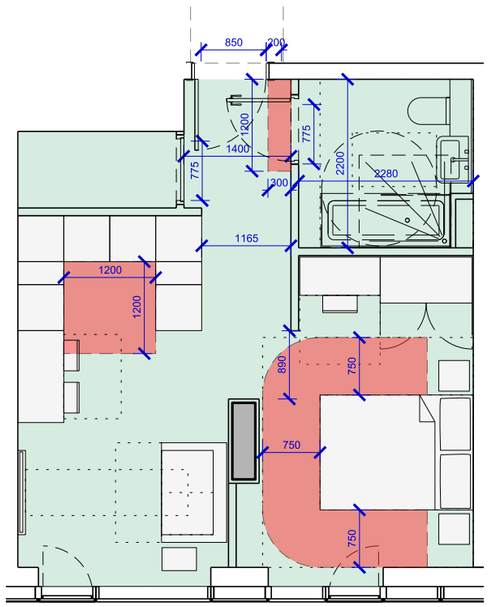
The biggest challenge in adapting the apartment layouts to meet these requirements is incorporating a level access shower. This is because there is only a 15mm floor finishes zone proposed above the slab at standard residential floor levels, and this doesn't provide sufficient zone for the drainage. The potential to locally raise the floor levels within bathrooms has been explored, however, incorporating ramps into some of the more irregular shaped units results in a significant compromise to the internal arrangements. This option has therefore been discounted. Instead it is proposed that the floor to floor height of the first two residential levels is increased and a floor zone large enough to accommodate level access shower drainage will be included in the base build. This will mean that any of the apartments at these levels (10.5% of the overall number) are capable of future adaptation to meet the requirements of Part M4(2) or DFA2. The proposed internal arrangements for these units is shown overleaf, which are to be read in conjunction with the compliance schedules on the following pages.

In addition to this, any specific briefing requirements from the future affordable housing operator will also be accommodated.

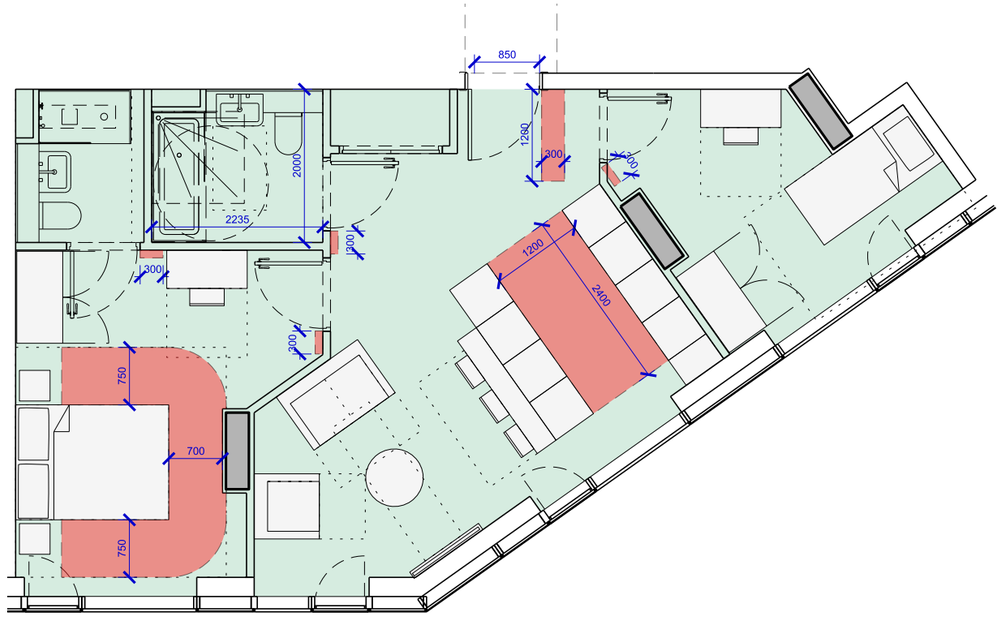




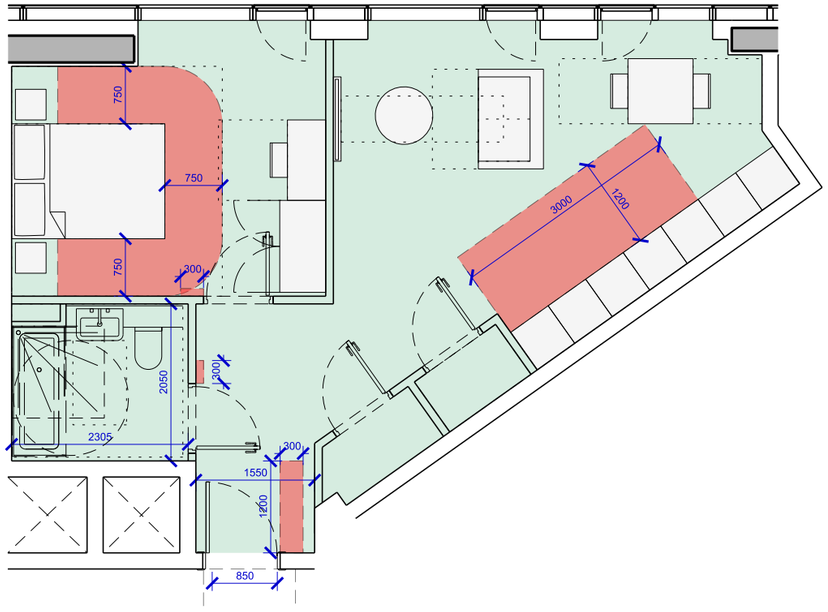
Plot 2b - PART M4(2) Adaptable Layouts



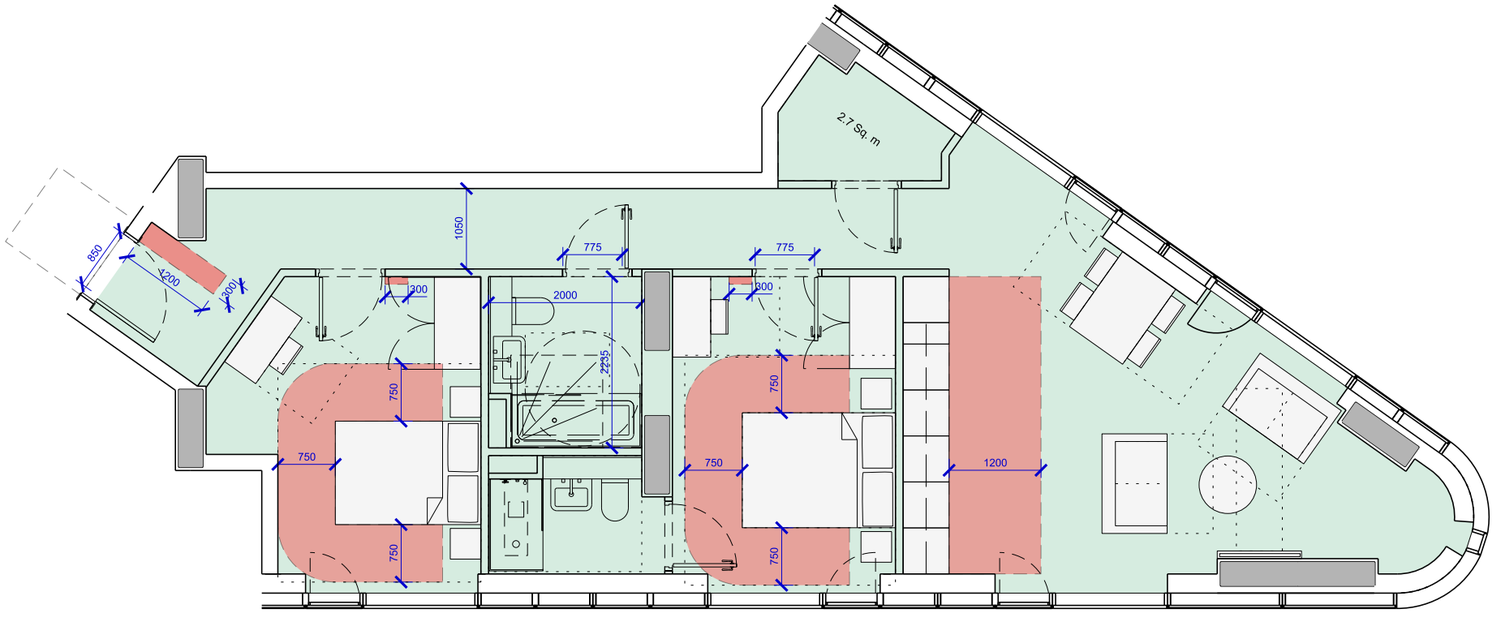
1 BED 1 PERSON UNIT



2 BED 3 PERSON UNIT



1 BED 2 PERSON UNIT

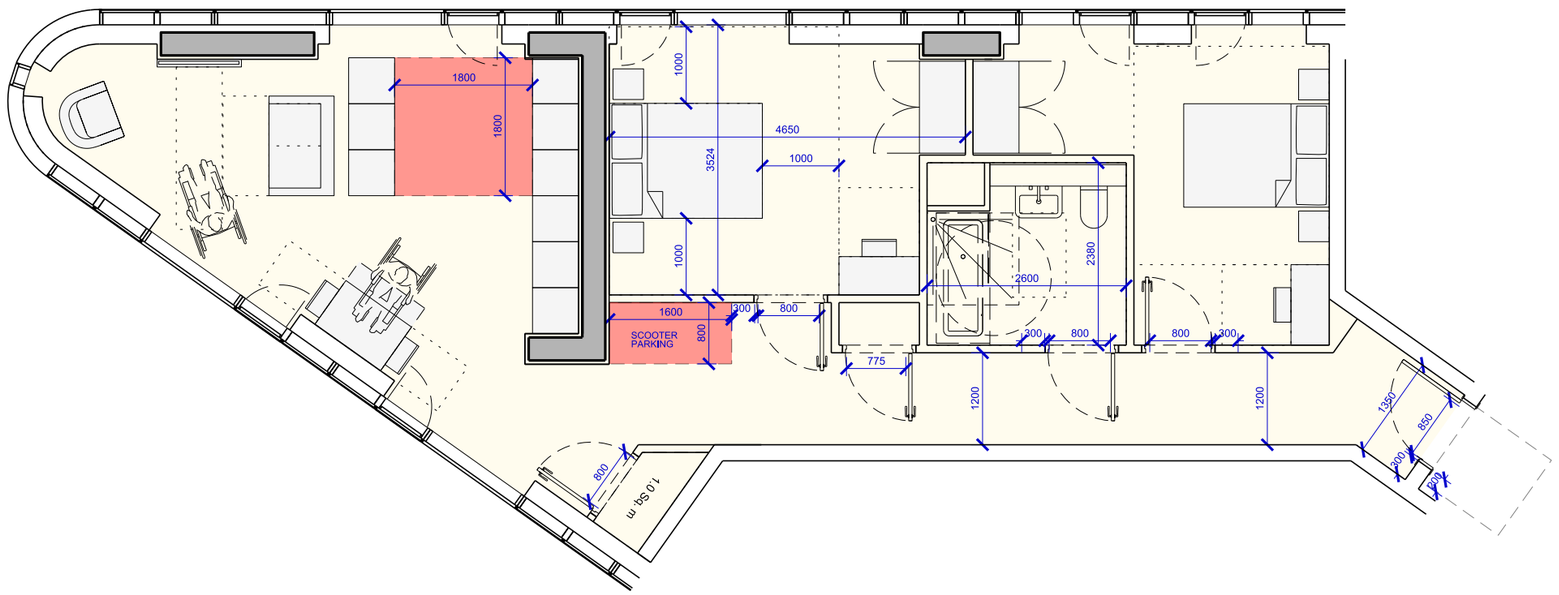


2 BED 4 PERSON UNIT

Part M4(2) Key Spatial Criteria

- Entrance door has a min. clear width of 850mm where there are 2 leaves the principle one should have the required clear opening width.
- Level landing min 1200mm x 1200mm directly outside the entrance and clear of any door swing.
- A min 300mm nib is provided to the leading edge of the door or gate, maintained for a min distance of 1200mm beyond it. The reveal on the leading side of the door has a maximum depth of 200mm.
- A minimum 1200mm clear space is provided in front of and between kitchen units.
- Every bedroom to have a clear access route of 750mm from the door to the window.
- Layout of should meet the minimum clear space and access zone requirements. Example room dimensions 2150mm x 1900mm or 2150mm x 2000mm.

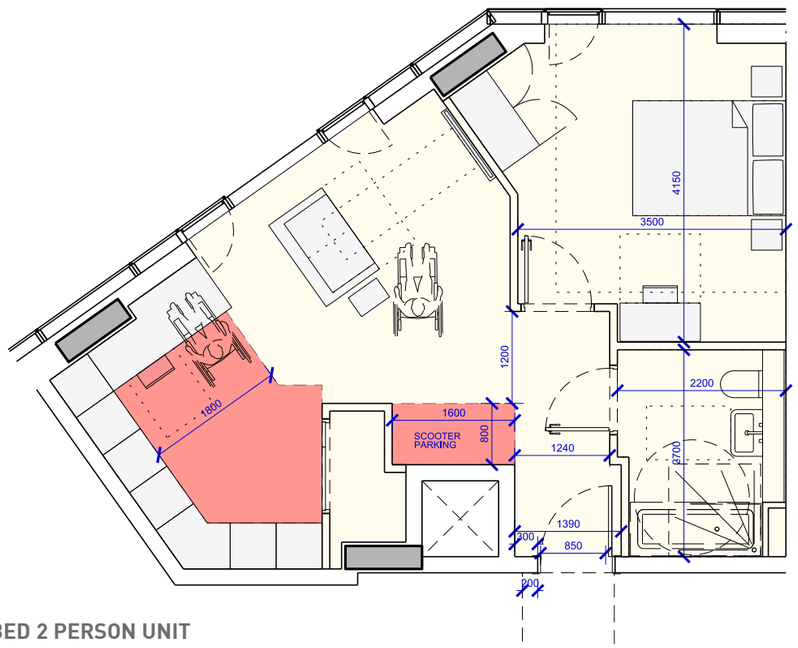
Plot 2b - DFA(2) Adaptable Layouts



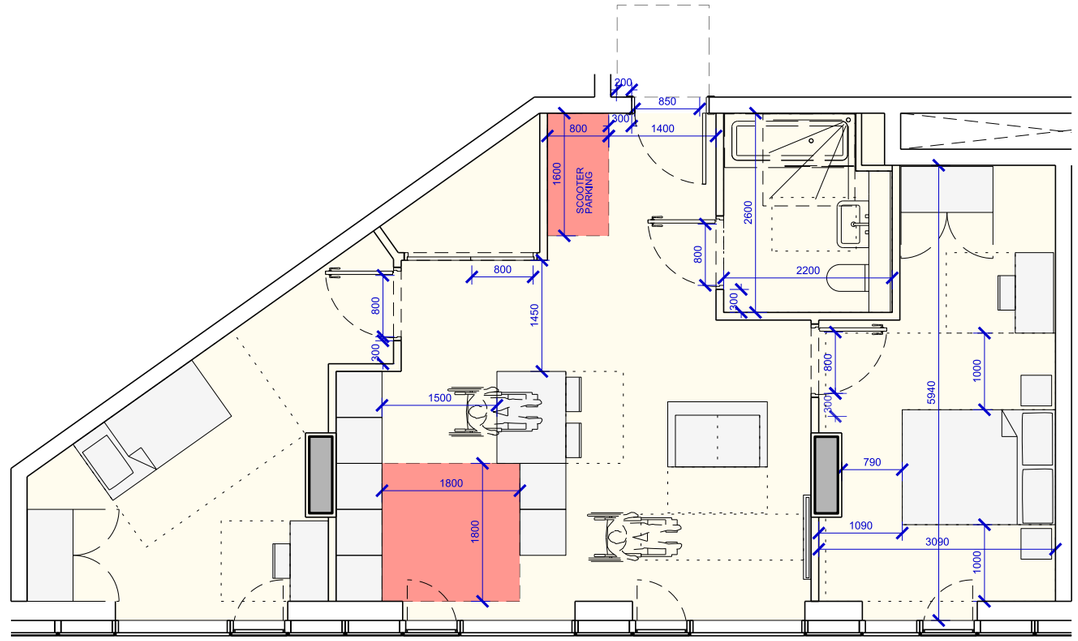
DFA(2) Key Spatial Criteria

- A suitable, safe location should be identified within each dwelling for parking and charging a power wheelchair or scooter.
- At least one bedroom in each dwelling should be provide of minimum dimensions 4000mm x 4000mm.
- Where only 1 bathroom is provided it should have min. dimensions of 2700mm x 2500mm to allow for provision of a WC, a wash basin and a shower.
- Circulation space of min. 1800mm x 1800mm should be made available in kitchens.
- Internal doors should have a min clear opening of 800mm.

2 BED 4 PERSON UNIT



1 BED 2 PERSON UNIT



2 BED 3 PERSON UNIT

5.1.5 Plot 2a Compliance Schedules

PART M4(2) Compliance (Dwellings)

Compliant
Partially Compliant
Not Compliant

Category	M4(1) Visitable Dwellings	M4(2) Accessible and Adaptable Dwellings	Compliance Notes
Approach to the Dwelling	The approach route is level, gently sloping, ramped or where unavoidable, stepped.	The approach route is level, gently sloping, or where necessary, ramped.	
	All external parts of the route should have a suitable ground surface.	All external parts of the route should have a suitable ground surface.	
	Be a **minimum of 900mm wide with a maximum cross fall of 1:40.**	Private parts of the approach route should have a **min. clear width of 900mm** (750mm by localised obstructions) Communal parts of the approach route should have **min. clear width of 1200mm** (1050mm by localised obstructions).	
		Every gate or gateway should have a min. **850mm clear width and a 300mm leading edge**.	
		Drop off point to be located close to the principle entrance, and meet with the following requirements: - Level or where unavoidable gently sloping. - Suitable ground surface. - Where a dropped kerb is provided it is a min 1000mm wide and reasonably flush with the adjacent ground with max gradient of 1:12.	
Communal Entrances	Min. clear opening width of **775mm**.	Min. clear opening width of **850mm** Where there are 2 leaves the principle one should have the required clear opening width.	
	Accessible thresholds.	Accessible thresholds.	
	Ground surface or flooring not to impede wheelchair movement.	Ground surface or flooring not to impede wheelchair movement.	
		Level landing min **1500x1500** directly outside the entrance and clear of any door swing.	
		A min **300mm nib** is provided to the leading edge of the door or gate, maintained for a min distance of 1200mm beyond it.	
		The reveal on the leading side of the door has a maximum depth of **200mm**.	
		Where there is a lobby or a porch the doors are a minimum of **1500mm apart** / clear of door swings .	
		Lighting provided with fully diffused automatic luminaires on dusk to dawn sensors.	To be reviewed in next stage/ lighting specification
		Door entry controls are **900-1000mm above FFL** and at least 300 from any projecting corner.	
Communal Passenger Lifts	Clear landing min **1500mmx1500mm** directly in front of the lift door at every floor level.	Clear landing min **1500mmx1500mm** directly in front of the lift door at every floor level.	
	Doors to have **min. clear opening of 800mm.**	Doors to have **min. clear opening of 800mm.**	
	Car to be min. size **900 wide x 1250 deep.**	Car to be min. size **900 wide x 1250 deep.**	Car Dimensions **1700mm wide x 1700mm deep**
	Load capacity is at least 400kg.	Meets the requirements of BS EN 81-70:2003.	To be reviewed in next stage/ lift specification
	Tactile indications on controls and for landing storeys.		
	Lift incorporates a signalling system that gives visual notification that it is answering a landing call.		
	5 second dwell time before its doors begin to close after being fully open.		
	When serving over 3 storeys visual and audible indicators to be provided for floor reached.		
	Landing and car controls are between **900mm - 1200mm from FFL** and a minimum of **400mm** measured horizontally from the inside of the front wall.	Landing and car controls are between **900mm - 1200mm from FFL** and a minimum of **400mm** measured horizontally from the inside of the front wall.	
Communal Stairs	Where the dwelling is on an upper level with no lift access the stair meets the requirements of Park K for a General Access Stair.	The principle communal stair that gives access to the dwelling should meet the requirements of **Park K for a General Access Stair.**	Lift access to all levels and both stairs meet the requirements of **Part K for a General Access Stair** (which is more onerous than a utility stair)
	Where the dwelling is on an upper level with lift access the stair meets the requirements of **Park K for a Utility Stair.**		
		Threshold to be accessible.	Threshold to be accessible.	
		Where a step is unavoidable the rise should be a max of 150 aligned with the outside face of the door.		No steps proposed
			Level landing min **1200mm x 1200mm** directly outside the entrance and clear of any door swing.	
			A min **300mm nib** is provided to the leading edge of the door or gate, maintained for a min distance of **1200mm** beyond it.	
			The reveal on the leading side of the door has a maximum depth of **200mm.**	
			Where there is a lobby or a porch the doors are a minimum of 1500 apart / clear of door swings.	No lobbies or porches proposed within the apartments
			Lighting provided with fully diffused automatic luminaires on dusk to dawn sensors.	To be reviewed in next stage/ lighting specification
Circulation and Internal Doorways		**When approached head on, corridor width to be min. 900mm & door clear opening to be min. 750mm.**	**When approached head on, corridor width to be min. 900mm & door clear opening to be min. 750mm.**	See Below
		When approach is not head on, corridor width to be min. 1200mm & door clear opening to be min. 750mm.	**When approach is not head on, corridor width to be min. 1200mm & door clear opening to be min. 750mm.**	See Below
		When approach is not head on, corridor width to be min. 1050mm & door clear opening to be min. 775mm. *Note: A standard 826mm door leaf up to 44mm thick is deemed to satisfy the requirement for a clear opening of 775.*	**When approach is not head on, corridor width to be min. 1050mm & door clear opening to be min. 775mm.** *Note: A standard 826mm door leaf up to 44mm thick is deemed to satisfy the requirement for a clear opening of 775.*	All internal apartment doors consist of **826mm leaves and min. corridor widths are 1050mm.**
		When approach is not head on, corridor width to be min. 900mm & door clear opening to be min. 800mm.	**When approach is not head on, corridor width to be min. 900mm & door clear opening to be min. 800mm.**	See Above
		Any localised obstruction, such as a radiator, does not occur opposite or close to a doorway and is no longer than 2m in length, and the corridor is **not reduced below 750mm width** at any point.	**Min. clear width of every hall or landing is 900mm**. Localised obstructions do not occur opposite or close to a doorway.	
			A min.300mm nib is provided to every door in the entrance storey.	
Habitable rooms			Within the entrance storey there is a living area.	
			A minimum **1200mm** clear space is provided in front of and between kitchen units.	
			Glazing to the starts at a maximum of **850 above FFL** or the max height necessary to comply with	All glazing is full height
			Every bedroom to have a clear access route of **750mm** from the door to the window.	
			At least one double bedroom (the principle bedroom) can provide a clear access zone of **750mm** to both sides of the bed.	
			Every other double room can provide a clear access zone of **750mm** to one side and the foot of	
			Single or twin rooms can provide clear access zone of **750mm** to one side of each bed.	
Bathrooms			A bathroom containing a WC, basin and bath is located on the same floor as the principle	
			Layout of should meet the minimum clear space and access zone requirements. Example room dimensions **2150x1900 or 2150x2000.**	
			Provision for a level access shower is made if not provided elsewhere in the dwelling.	
Services and Controls		Switches, sockets etc should have their **ctr. line 450-1220 above FFL.**	Switches, sockets etc should have their **ctr. line 450-1220 above FFL.**	
		Consumer units mounted so that switches are **1350-1450mm above FFL.**	Consumer units mounted so that switches are **1350-1450mm above FFL.**	
			The handle to at least one window in the living area is located between **450-122 above FFL.**	
			Handles to other windows are located between **450 and 1400 above FFL.**	

DFA(2) Compliance

Compliant
Partially Compliant
Not Compliant

	DFA2 - 21.1 Visitor Access	Compliance Notes
21.1.1	The design for external areas should meet the guidance in the manual.	Ref Landscape Architect proposals
21.1.2	At least one accessible parking space should be provided for each dwelling.	No parking proposed
21.1.3	A level access route of **min. 1800mm** wide should be provided to the principle entrance to each dwelling. A level access route should also be provided to bin stores, garages and other facilities.	Level access corridors range in width from 1500mm-2000mm wide
21.1.4	Single leaf external doors to have minimum clear opening of **1000mm.**	
	For double doors at least one leaf should have a clear opening not less than **1000mm**.	
	Power operated sliding doors should be provided where possible.	No sliding doors proposed
	Where there are revolving doors, there should also be an accessible side hung or sliding door which is in regular use.	
	All outward opening doors should be recessed.	No outward opening access doors proposed, other than to escape routes and plant rooms in BOH areas.
	Protection from the weather should be provided at all non-powered entrance doors.	
	Thresholds should be flush.	
	Lobby doors should be positioned for easy, unobstructed approach and passage and should ideally be two-way swing.	
	When a door into a lobby is open, there should be a min. turning circle of **2000mm diameter** remaining in the lobby.	Corridor widths range between 1500mm-1900mm.
	Mats should be flush with floor.	
	Transition lighting to be provided.	To be reviewed in next stage/lighting specification
	Corridors and internal spaces should be a minimum of **1800mm wide.**	Corridor widths range between 1500mm-2000mm.
	Corridors and communal spaces should be free of obstructions.	
	Provide slip resistant floor coverings.	
	Provide unobstructed turning space of **2000mm** diameter at corners.	Achieved in wider corridors. Min. 1500mm turning circle achieved everywhere.
	Contrasting colour and luminance between walls and ceilings and walls and floors.	To be reviewed in next stage/interior specification
21.1.5	Facilities for parking and charging power wheelchairs and scooters should be provided close to function rooms, meeting rooms and communal areas.	To be reviewed in next stage/interior specification
21.1.6	Lift access should be provided to every dwelling above ground level.	
	Internal lift dimensions should be min**. 2000 wide x 1400 deep x 2000 high.**	Car Dimensions 1700mm wide x 1700mm deep
	For constrained circumstances minimum internal size of **1100 wide x 1400mm deep is sufficient.**	
	There should be an unobstructed area of **1800x1800** in front of the lift.	
	The area in front of and to the side of the lift should be kept clear of obstructions to allow access to the controls.	
	Illuminated and audible systems to identify floor levels should be positioned inside and outside the lift.	
	Internal handrails should be provided above 900mm from floor level.	To be reviewed in next stage/lift specification
	Where a lift has a single door, a mirror with min dimensions of 1000 wide x 1000 high should be positioned inside the lift on the wall opposite the door at no higher than 900mm above floor level.	
	Doors should include a presence sensor, and where possible, have a min. opening time of 20 seconds.	To be reviewed in next stage/lift specification
	The door to the lift should provide a **min. clear opening width of 900mm.**	
	Call buttons outside the lift, preferably to the right side of the door, should be colour and luminance contracted with the surround, should have embossed symbols and should be positioned no higher than 900mm.	To be reviewed in next stage/lift specification
	All controls should be identifiable with raised and Braille symbols, and be in a contrasting colour and luminance on non-reflective surface.	To be reviewed in next stage/lift specification
	Lifts should have emergency communication systems no higher than 900mm above floor level.	
	Floor wall and ceiling finishes should be opaque, non-reflective and slip resistant.	
	Lighting within lifts should avoid glare, reflection, shadows or pools of light.	
	At least one lift in each area of the building should be designed as an evacuation lift, with an independent power supply, and should be clearly indicated for this use.	
	Signage indicating the floor level should be provided on the wall opposite the lift doors on each landing.	
21.1.7	For single family dwellings, external doors should have a minimum clear opening of **850mm.**	
21.1.8	All dwellings that have access to a garden area, for example a garden or balcony, should provide a level or ramped access to this area.	Level access to communal terrace
21.1.9	Where accommodation is split level, provision should be made for visitors to access the main living room.	All units are single storey except the duplex penthouses. Entrance doors are provided at both levels and both levels are served by the lifts.
21.1.10	For single family dwellings, the min. clear width of halls and lobbies should be **1200mm** and all rooms downstairs should preferably be access from the hall or lobby. If there are passageways the min. clear width should be **900mm**. The design should accommodate circulation space.	
21.1.11	An accessible WC should be provided at entrance level within each dwelling. An accessible WC should have minimum dimensions of 1500mm x 2000mm and should include a wash hand basin installed at a max. height of 740mm, and a close coupled cistern with a large dimple type flushing handle at a height of 1800mm at transfer side.	
21.1.12	Handles and locks, including those for garages and bin stores, and other controls and door and window furniture should be easy to operate by disabled people and positioned so as to be accessible.	
	Door and window weight should be as low as possible.	To be reviewed in next stage/specification
	Where possible, use power assisted activators for windows and doors which are operated by remote control, or design the structure to allow for powered control in the future.	To be reviewed in next stage/specification
	Use fittings capable of being adapted to specific requirements.	To be reviewed in next stage/specification
	All handles, levers, catches, keys and locks should be large enough to hold easily.	To be reviewed in next stage/specification
	Catches, handles and projections should contrast in colour and luminance with their surroundings.	To be reviewed in next stage/specification
	Door fastenings and mechanisms should be of the level type and be fixed at a height not exceeding **900mm**. Where a lock is needed for privacy this should be externally accessible in case of an emergency and incorporated an engaged indicator.	
	Locks should be fixed at **850mm** above floor level.	
	Where horizonal handles are fitted these should be a min. width 400mm and fixed 900mm above floor level.	
	Diagonal and vertical 'D' type handles should be fixed at 900mm from the centre of the handle to the floor.	
	Window fastenings should be located at 900mm above floor level.	
21.1.13	Switches, sockets and service controls for heating, lighting, radio, television, telephones and computers etc should be centred **900mm** above floor level.	

	DFA2 - 21.2 Provision for Adaption	Compliance Notes
21.2.1	A suitable, safe location should be identified within each dwelling for parking and charging a power wheelchair or scooter.	
21.2.2	The design of new dwellings that are on more than one level should incorporate a provision for a future chair lift, and also a suitably identified space of min. 1400mm x 1100mm for the future installation of a house lift from the ground to the first floor.	To be reviewed in next stage/specification
21.2.3	At least one bedroom in each dwelling should be provide of minimum dimensions **4000mm x 4000mm.**	Refer to adapted layouts for principle bedroom sizes. Whilst 4m in both directions cannot be achieved, a clear zone of 1000mm is provided to either size and the end of the beds which is the requirement in Part M4(3) wheelchair dwelling.
21.2.4	Where a development incorporates dwellings with 3 or more bedrooms, a proportion of these should have a second bedroom of min dimensions **3000mm x 3000mm.**	Not applicable
21.2.5	Where possible, ensuite facilities should be provided, of minimum dimensions **2000mm x 2000mm** and should include a WC, a wash hand basin and a shower.	No ensuite facilities in adapted layouts.
21.2.6	Where only 1 bathroom is provided it should have min. dimensions of **2700mm x 2500mm** to allow for provision of a WC, a wash basin and a shower.	Part M4(3) provides example wheelchair accessible bathroom layouts which are 2200x2600 or 2450x2450. Where possible these dimensions have been improved upon.
21.2.7	Walls in bathrooms, showers and toilets should be constructed to take adaptions, such as track hoists.	
21.2.8	Ceilings, floors and walls in bedrooms, toilets, showers and bedrooms should be constructed to take adaptions, such as track hoists.	
21.2.9	Circulation space of min. **1800mm x 1800mm** should be made available in kitchens.	
21.2.10	On each floor there should be no stepped changes in level.	
21.2.11	Internal doors should have a min clear opening of **800mm.**	
21.2.12	Window sills should be no more than 900mm above floor level. Any glazing less than 900mm above floor level should be safety glass.	
21.2.13	The width of internal stairs should be min. 900mm.	All units are single storey
21.2.14	Do not use open risers or open recesses under stairs.	All units are single storey
21.2.15	A step should not overlap the one below.	All units are single storey
21.2.16	There should be a continuous handrail on both sides of the stairs and on landings.	All units are single storey
21.2.17	The use of residential sprinklers should be considered.	Fire strategy requires sprinklers.

5.1.6 Plot 2b Compliance Schedules

PART M4(2) Compliance (Dwellings)

Compliant
Partially Compliant
Not Compliant

Category	M4(1) Visitable Dwellings	M4(2) Accessible and Adaptable Dwellings	Compliance Notes
Approach to the Dwelling	The approach route is level, gently sloping, ramped or where unavoidable, stepped.	The approach route is level, gently sloping, or where necessary, ramped.	
	All external parts of the route should have a suitable ground surface.	All external parts of the route should have a suitable ground surface.	
	Be a **minimum of 900mm wide with a maximum cross fall of 1:40.**	Private parts of the approach route should have a **min. clear width of 900mm** (750mm by localised obstructions) Communal parts of the approach route should have **min. clear width of 1200mm** (1050mm by localised obstructions).	
		Every gate or gateway should have a min. **850mm clear width and a 300mm leading edge**.	
		Drop off point to be located close to the principle entrance, and meet with the following requirements: - Level or where unavoidable gently sloping. - Suitable ground surface. - Where a dropped kerb is provided it is a min 1000mm wide and reasonably flush with the adjacent ground with max gradient of 1:12	
Communal Entrances	Min. clear opening width of **775mm**.	Min. clear opening width of **850mm** Where there are 2 leaves the principle one should have the required clear opening width.	
	Accessible thresholds.	Accessible thresholds.	
	Ground surface or flooring not to impede wheelchair movement.	Ground surface or flooring not to impede wheelchair movement.	
		Level landing min **1500x1500** directly outside the entrance and clear of any door swing.	
		A min **300mm nib** is provided to the leading edge of the door or gate, maintained for a min distance of 1200mm beyond it.	
		The reveal on the leading side of the door has a maximum depth of **200mm**.	
		Where there is a lobby or a porch the doors are a minimum of **1500mm apart** / clear of door swings .	
		Lighting provided with fully diffused automatic luminaires on dusk to dawn sensors.	To be reviewed in next stage/ lighting specification
		Door entry controls are **900-1000mm above FFL** and at least 300 from any projecting corner.	
Communal Passenger Lifts	Clear landing min **1500mmx1500mm** directly in front of the lift door at every floor level.	Clear landing min **1500mmx1500mm** directly in front of the lift door at every floor level.	
	Doors to have **min. clear opening of 800mm.**	Doors to have **min. clear opening of 800mm.**	
	Car to be min. size **900 wide x 1250 deep.**	Car to be min. size **900 wide x 1250 deep.**	Car Dimensions **1200mm wide x 2100mm deep**
	Load capacity is at least 400kg.	Meets the requirements of BS EN 81-70:2003.	To be reviewed in next stage/ lift specification
	Tactile indications on controls and for landing storeys.		
	Lift incorporates a signalling system that gives visual notification that it is answering a landing call.		
	5 second dwell time before its doors begin to close after being fully open.		
	When serving over 3 storeys visual and audible indicators to be provided for floor reached.		
	Landing and car controls are between **900mm - 1200mm from FFL** and a minimum of **400mm** measured horizontally from the inside of the front wall.	Landing and car controls are between **900mm - 1200mm from FFL** and a minimum of **400mm** measured horizontally from the inside of the front wall.	
Communal Stairs	Where the dwelling is on an upper level with no lift access the stair meets the requirements of Park K for a General Access Stair.	The principle communal stair that gives access to the dwelling should meet the requirements of **Park K for a General Access Stair.**	Lift access to all levels and both stairs meet the requirements of **Part K for a General Access Stair** (which is more onerous than a utility stair)
	Where the dwelling is on an upper level with lift access the stair meets the requirements of **Park K for a Utility Stair.**		

Private Entrances	Door to have **min. clear opening width of 775mm**.	Entrance door has a **min. clear width of 850mm** where there are 2 leaves the principle one should have the required clear opening width.	All apartment entrance doors have **850mm** clear width
	Threshold to be accessible.	Threshold to be accessible.	
	Where a step is unavoidable the rise should be a max of 150 aligned with the outside face of the door.		No steps proposed
		Level landing min **1200mm x 1200mm** directly outside the entrance and clear of any door swing.	**1500mm x 1500mm** clear zone outside each entrance
		A min **300mm nib** is provided to the leading edge of the door or gate, maintained for a min distance of **1200mm** beyond it.	
		The reveal on the leading side of the door has a maximum depth of **200mm.**	
		Where there is a lobby or a porch the doors are a minimum of 1500 apart / clear of door swings.	No lobbies or porches proposed within the apartments
		Lighting provided with fully diffused automatic luminaires on dusk to dawn sensors.	To be reviewed in next stage/ lighting specification
Circulation and Internal Doorways	**When approached head on, corridor width to be min. 900mm & door clear opening to be min. 750mm.**	**When approached head on, corridor width to be min. 900mm & door clear opening to be min. 750mm.**	See Below
	When approach is not head on, corridor width to be min. 1200mm & door clear opening to be min. 750mm.	**When approach is not head on, corridor width to be min. 1200mm & door clear opening to be min. 750mm.**	See Below
	When approach is not head on, corridor width to be min. 1050mm & door clear opening to be min. 775mm. *Note: A standard 826mm door leaf up to 44mm thick is deemed to satisfy the requirement for a clear opening of 775.*	**When approach is not head on, corridor width to be min. 1050mm & door clear opening to be min. 775mm.** *Note: A standard 826mm door leaf up to 44mm thick is deemed to satisfy the requirement for a clear opening of 775.*	All internal apartment doors consist of **826mm or 926 leaves and min. corridor widths are 1050mm.**
	When approach is not head on, corridor width to be min. 900mm & door clear opening to be min. 800mm.	**When approach is not head on, corridor width to be min. 900mm & door clear opening to be min. 800mm.**	See Above
	Any localised obstruction, such as a radiator, does not occur opposite or close to a doorway and is no longer than 2m in length, and the corridor is **not reduced below 750mm width** at any point.	**Min. clear width of every hall or landing is 900mm**. Localised obstructions do not occur opposite or close to a doorway.	
		A min.300mm nib is provided to every door in the entrance storey.	
Habitable rooms		Within the entrance storey there is a living area.	
		A minimum 1200 clear space is provided in front of and between kitchen units.	
		Glazing to the starts at a maximum of 850 above FFL or the max height necessary to comply with Part K.	All glazing is full height
		Every bedroom to have a clear access route of 750mm from the door to the window.	
		At least one double bedroom (the principle bedroom) can provide a clear access zone of 750 to both sides of the bed.	
		Every other double room can provide a clear access zone of 750 to one side and the foot of the bed.	
		Single or twin rooms can provide clear access zone of 750mm to one side of each bed.	
Bathrooms		A bathroom containing a WC, basin and bath is located on the same floor as the principle bedroom.	
		Layout of should meet the minimum clear space and access zone requirements. Example room dimensions 2150x1900 or 2150x2000.	
		Provision for a level access shower is made if not provided elsewhere in the dwelling.	
Services and Controls	Switches, sockets etc should have their **ctr. line 450-1220 above FFL.**	Switches, sockets etc should have their **ctr. line 450-1220 above FFL.**	
	Consumer units mounted so that switches are **1350-1450mm above FFL.**	Consumer units mounted so that switches are **1350-1450mm above FFL.**	
		The handle to at least one window in the living area is located between **450-122 above FFL.**	
		Handles to other windows are located between **450 and 1400 above FFL.**	

DFA(2) Compliance

Compliant
Partially Compliant
Not Compliant

DFA2 - 21.1 Visitor Access		Compliance Notes
21.1.1	The design for external areas should meet the guidance in the manual.	Ref Landscape Architect proposals
21.1.2	At least one accessible parking space should be provided for each dwelling.	No parking proposed
21.1.3	A level access route of **min. 1800mm** wide should be provided to the principle entrance to each dwelling. A level access route should also be provided to bin stores, garages and other facilities.	Level access corridors range in width from 1500mm-1700mm wide
21.1.4	Single leaf external doors to have minimum clear opening of **1000mm.**	
	For double doors at least one leaf should have a clear opening not less than **1000mm**.	
	Power operated sliding doors should be provided where possible.	To be reviewed in next stage, subject to housing operators requirements
	Where there are revolving doors, there should also be an accessible side hung or sliding door which is in regular use.	No revolving doors proposed
	All outward opening doors should be recessed.	No outward opening access doors proposed, other than to escape routes and plant rooms in BOH areas.
	Protection from the weather should be provided at all non-powered entrance doors.	The main entrance will be power operated. It is also positioned below a cantilevered part of the building which will provide shelter.
	Thresholds should be flush.	
	Lobby doors should be positioned for easy, unobstructed approach and passage and should ideally be two-way swing.	
	When a door into a lobby is open, there should be a min. turning circle of **2000mm diameter** remaining in the lobby.	1800-2000 achievable in lift lobbies
	Mats should be flush with floor.	
	Transition lighting to be provided.	To be reviewed in next stage, subject to housing operators requirements
	Corridors and internal spaces should be a minimum of **1800mm wide.**	Corridors and lobbies range in width from 1500mm-2150mm wide
	Corridors and communal spaces should be free of obstructions.	
	Provide slip resistant floor coverings.	
	Provide unobstructed turning space of **2000mm** diameter at corners.	1800-2000 turning circles achievable in lift lobbies.
	Contrasting colour and luminance between walls and ceilings and walls and floors.	To be reviewed in next stage, subject to housing operators requirements
21.1.5	Facilities for parking and charging power wheelchairs and scooters should be provided close to function rooms, meeting rooms and communal areas.	Can be accommodated at mezzanine level.
21.1.6	Lift access should be provided to every dwelling above ground level.	
	Internal lift dimensions should be min**. 2000 wide x 1400 deep x 2000 high.**	Refer to next item.
	For constrained circumstances minimum internal size of **1100 wide x 1400mm deep is sufficient.**	Proposed dimensions of both lifts are **1200mm wide x 2100 deep x 2280 high.**
	There should be an unobstructed area of **1800x1800** in front of the lift.	
	The area in front of and to the side of the lift should be kept clear of obstructions to allow access to the controls.	
	Illuminated and audible systems to identify floor levels should be positioned inside and outside the lift.	
	Internal handrails should be provided above 900mm from floor level.	To be reviewed in next stage/lift specification
	Where a lift has a single door, a mirror with min dimensions of 1000 wide x 1000 high should be positioned inside the lift on the wall opposite the door at no higher than 900mm above floor level.	
	Doors should include a presence sensor, and where possible, have a min. opening time of 20 seconds.	To be reviewed in next stage/lift specification
	The door to the lift should provide a **min. clear opening width of 900mm.**	
	Call buttons outside the lift, preferably to the right side of the door, should be colour and luminance contracted with the surround, should have embossed symbols and should be positioned no higher than 900mm.	To be reviewed in next stage/lift specification
	All controls should be identifiable with raised and Braille symbols, and be in a contrasting colour and luminance on non-reflective surface.	To be reviewed in next stage/lift specification
	Lifts should have emergency communication systems no higher than 900mm above floor level.	
	Floor wall and ceiling finishes should be opaque, non-reflective and slip resistant.	
	Lighting within lifts should avoid glare, reflection, shadows or pools of light.	
	At least one lift in each area of the building should be designed as an evacuation lift, with an independent power supply, and should be clearly indicated for this use.	
	Signage indicating the floor level should be provided on the wall opposite the lift doors on each landing.	
21.1.7	For single family dwellings, external doors should have a minimum clear opening of **850mm.**	
21.1.8	All dwellings that have access to a garden area, for example a garden or balcony, should provide a level or ramped access to this area.	No gardens or balconies proposed
21.1.9	Where accommodation is split level, provision should be made for visitors to access the main living room.	All units are single storey
21.1.10	For single family dwellings, the min. clear width of halls and lobbies should be **1200mm** and all rooms downstairs should preferably be access from the hall or lobby. If there are passageways the min. clear width should be **900mm**. The design should accommodate circulation space.	
21.1.11	An accessible WC should be provided at entrance level within each dwelling. An accessible WC should have minimum dimensions of 1500mm x 2000mm and should include a wash hand basin installed at a max. height of 740mm, and a close coupled cistern with a large dimple type flushing handle at a height of 1800mm at transfer side.	All units are single storey
21.1.12	Handles and locks, including those for garages and bin stores, and other controls and door and window furniture should be easy to operate by disabled people and positioned so as to be accessible.	
	Door and window weight should be as low as possible.	To be reviewed in next stage/specification
	Where possible, use power assisted activators for windows and doors which are operated by remote control, or design the structure to allow for powered control in the future.	To be reviewed in next stage, subject to housing operators requirements
	Use fittings capable of being adapted to specific requirements.	To be reviewed in next stage/specification
	All handles, levers, catches, keys and locks should be large enough to hold easily.	To be reviewed in next stage/specification
	Catches, handles and projections should contrast in colour and luminance with their surroundings.	To be reviewed in next stage/specification
	Door fastenings and mechanisms should be of the level type and be fixed at a height not exceeding **900mm**. Where a lock is needed for privacy this should be externally accessible in case of an emergency and incorporated an engaged indicator.	
	Locks should be fixed at **850mm** above floor level.	
	Where horizonal handles are fitted these should be a min. width 400mm and fixed 900mm above floor level.	
	Diagonal and vertical 'D' type handles should be fixed at 900mm from the centre of the handle to the floor.	
	Window fastenings should be located at 900mm above floor level.	
21.1.13	Switches, sockets and service controls for heating, lighting, radio, television, telephones and computers etc should be centred **900mm** above floor level.	

DFA2 - 21.2 Provision for Adaption		Compliance Notes
21.2.1	A suitable, safe location should be identified within each dwelling for parking and charging a power wheelchair or scooter.	
21.2.2	The design of new dwellings that are on more than one level should incorporate a provision for a future chair lift, and also a suitably identified space of min. 1400mm x 1100mm for the future installation of a house lift from the ground to the first floor.	All units are single storey
21.2.3	At least one bedroom in each dwelling should be provide of minimum dimensions **4000mm x 4000mm.**	Refer to adapted layouts for principle bedroom sizes. Whilst 4m in both directions cannot be achieved, a clear zone of 1000mm is provided to either size and the end of the beds which is the requirement in Part M4(3) wheelchair dwelling.
21.2.4	Where a development incorporates dwellings with 3 or more bedrooms, a proportion of these should have a second bedroom of min dimensions **3000mm x 3000mm.**	No 3 or more bedroom adapted layouts proposed.
21.2.5	Where possible, ensuite facilities should be provided, of minimum dimensions **2000mm x 2000mm** and should include a WC, a wash hand basin and a shower.	No ensuite facilities in adapted layouts.
21.2.6	Where only 1 bathroom is provided it should have min. dimensions of **2700mm x 2500mm** to allow for provision of a WC, a wash basin and a shower.	Part M4(3) provides example wheelchair accessible bathroom layouts which are 2200x2600 or 2450x2450, which have been adopted in the adapted layouts.
21.2.7	Walls in bathrooms, showers and toilets should be constructed to take adaptions, such as track hoists.	To be reviewed in next stage/specification
21.2.8	Ceilings, floors and walls in bedrooms, toilets, showers and bedrooms should be constructed to take adaptions, such as track hoists.	
21.2.9	Circulation space of min. **1800mm x 1800mm** should be made available in kitchens.	
21.2.10	On each floor there should be no stepped changes in level.	
21.2.11	Internal doors should have a min clear opening of **800mm.**	
21.2.12	Window sills should be no more than 900mm above floor level. Any glazing less than 900mm above floor level should be safety glass.	
21.2.13	The width of internal stairs should be min. 900mm.	All units are single storey
21.2.14	Do not use open risers or open recesses under stairs.	All units are single storey
21.2.15	A step should not overlap the one below.	All units are single storey
21.2.16	There should be a continuous handrail on both sides of the stairs and on landings.	All units are single storey
21.2.17	The use of residential sprinklers should be considered.	Fire strategy requires sprinklers.

5.2 Vehicular & Transport

5.2.1 Introduction

This section of the Design and Access Statement is supported by a Travel Plan, Transport Statement and a Waste and Servicing Strategy Report submitted as part of the application.

5.2.2 Pedestrian & Cycle Access

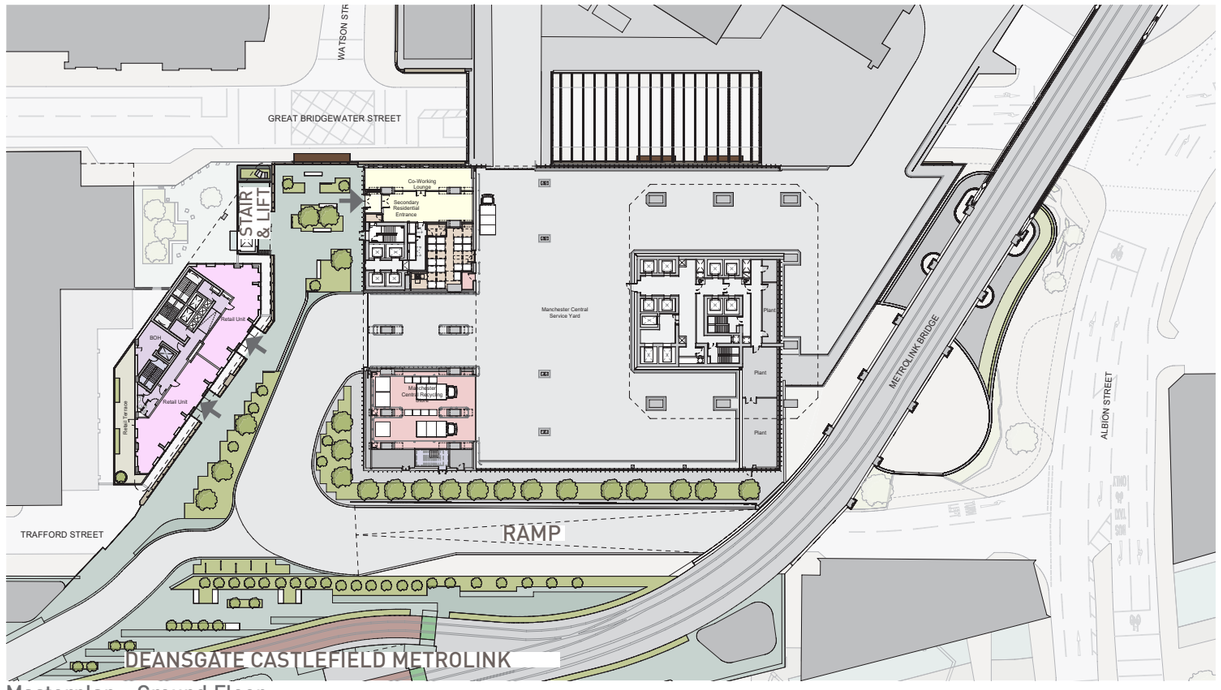
The main pedestrian access to the site is along Great Bridgewater Street, Albion Street, and at the upper viaduct level from Deansgate Castlefield Metrolink Station and Deansgate Railway Station. The new Stair & Lift connection provides a direct accessible route between these spaces and creates an important pedestrian connection to the wider regeneration area along Watson Street.

In accordance with Manchester guidance, secure cycle facilities are provided to both proposed buildings. To Plot 2b there is a ground floor storage providing 1:1 provision, which is accessed via a pedestrian gate adjacent to the main entrance. To Plot 2a, there is a ground floor storage area which is accessed via a separate entrance from Great Bridgewater Street. This store is currently a temporary storage area for Phase 1 cycles and will be enlarged to become a combined store for Phase 1 and Plot 2a cycles.

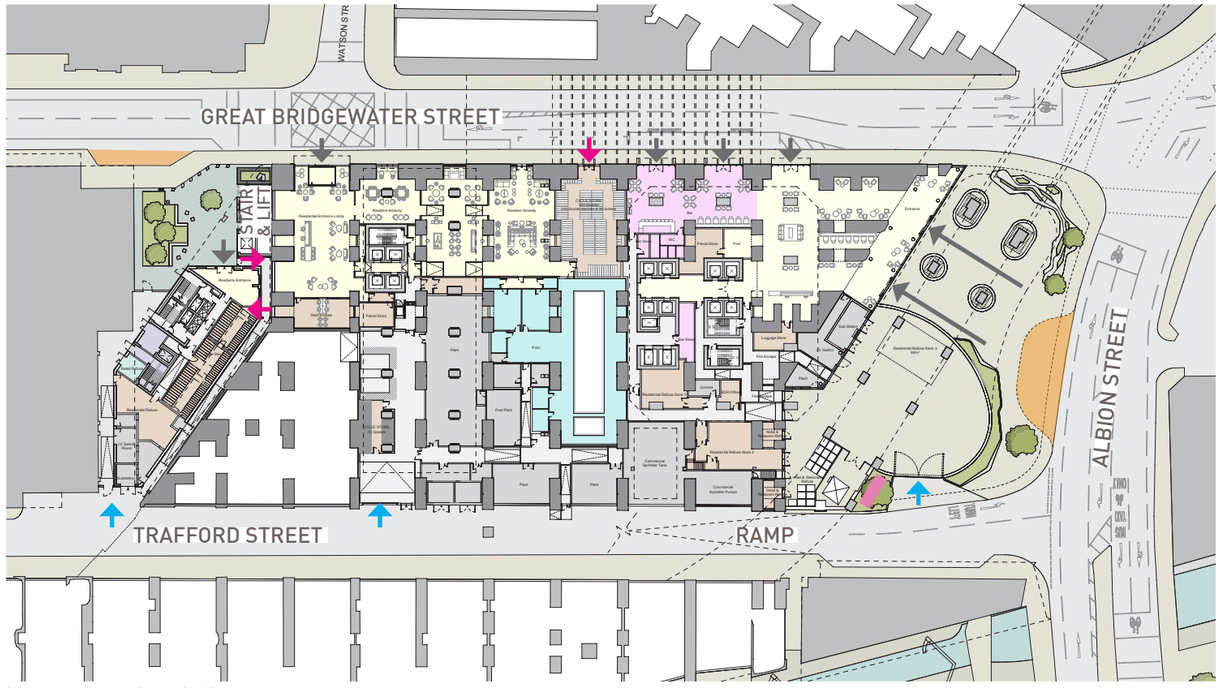
5.2.3 Vehicle Access

There is vehicle access to the North of the site along Great Bridgewater Street and to the South along Trafford Street. Positioned in close proximity to each building entrance is a vehicle drop of lay-by.

The site is within walking distance of many amenities in the city core and is very well connected to rail, tram and bus routes. As a result of this there is no residential parking provision included within this application. There are existing pay and display on street bays on Great Bridgewater Street and also a number of large multi-story car parks in very close proximity at Manchester Central, Great Northern and First Street.



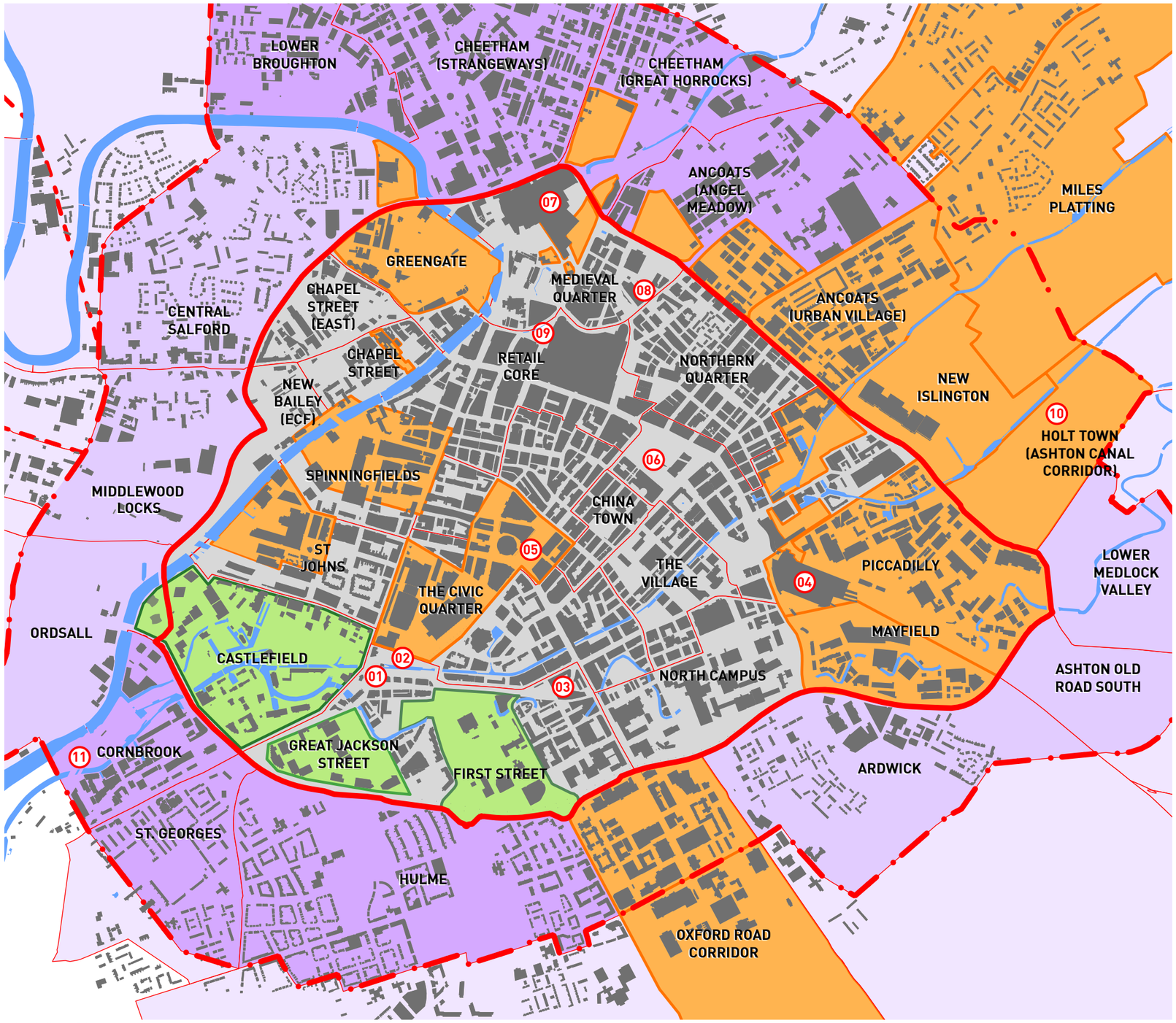
Masterplan - Ground Floor



Masterplan - Level 01

KEY

- BUILDING ENTRANCE
- CYCLE STORE ENTRANCE
- SERVICE ACCESS
- DROP OFF
- PUBLIC REALM CYCLE PARKING



City Wide Plan

5.2.4 Sustainable Transport Connections

A key element of national, regional and local policy is to ensure that new developments are located in areas where alternative modes of travel are available. It is important to ensure that developments are not isolated but are located close to complementary land uses. This supports the aims of integrating planning and transport, providing more sustainable transport choices, and reducing overall travel and car use.

This site is highly accessible by sustainable modes of transport. It is directly linked to the elevated Deansgate Castlefield Metrolink Stop; and just a short walk over the bridge to heavy rail connections at Deansgate Railway Station. Bus stops are located nearby on Great Bridgewater Street immediately to the north of the site and Whitworth Street West to the south.

In addition, the site is within easy walking distance of the central retail, civic and commercial districts of Manchester city centre.

TRAIN STATIONS / METROLINK TRAM STOPS

01 DEANSGATE STATION
02 DEANSGATE - CASTLEFIELD
03 OXFORD ROAD STATION
04 PICCADILLY STATION
05 ST PETER'S SQUARE
06 PICCADILLY GARDENS
07 VICTORIA STATION
08 SHUDEHILL
09 EXCHANGE SQUARE
10 NEW ISLINGTON
11 CORNBROOK

5.3 Refuse & Servicing

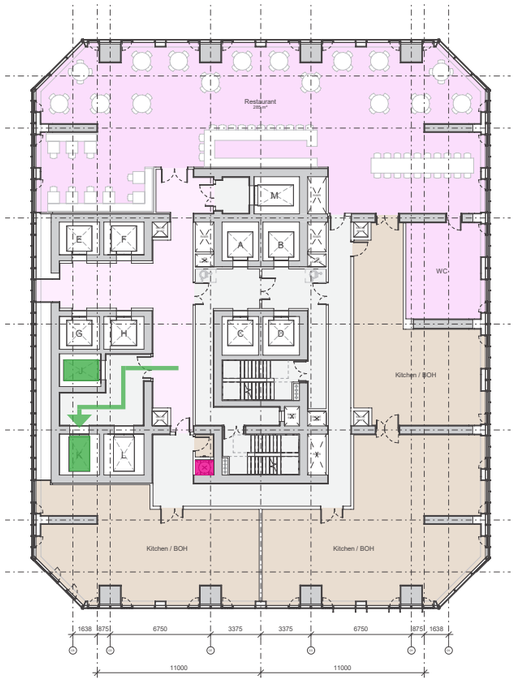
Plot 2a

Service access to Plot 2a is via a vehicle gate to the eastern side of Trafford Street, at the base of the MCCC ramp. The gate leads to a secure external service area below the Metrolink Bridge, where refuse collection vehicles can pull into to collect waste. Vehicles for hotel deliveries, building maintenance access and fire tender access will also access this service area. Therefore, to ensure safe management of the space, operations will be controlled by a delivery bay manager who has a dedicated BOH office near the service entrance.

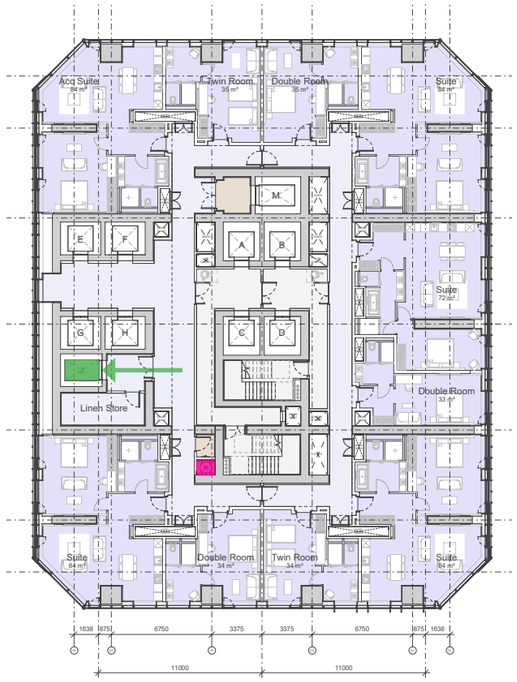
For residential refuse, a chute is proposed that is accessible from every residential level via a lobby off the communal corridor. As required by the fire strategy, this lobby will have sprinkler protection and CCTV monitoring, and the self-closing chute doors will incorporate an alarm system to minimise the risk of them being left open. Ventilation at roof level will limit odors & fumes. A tri-separator chute has been selected, which will connect to a separating hopper in the ground floor refuse store. This allows residents to select the required waste stream (general waste, glass/plastic/metal or paper/cardboard recycling) by pressing a button at the chute entrance.The chute is a continuous vertical drop for the majority of the building, however, a small transfer is required between level 02 and ground floor to ensure it terminates in the correct location within the ground floor store. It is not proposed that the chute will be used for hotel waste, however, access is provided at these levels for general maintenance.

At ground floor, there are two internal storage areas and one external storage area, and the combined area of these meets the requirements of Manchester City Council's 'GD 04 – Waste Storage and Collections Guidance for New Developments'. Within this document, the guidance for high rise developments states that 0.43sqm of storage is required per dwelling, therefore the total residential storage area required for this development is 194.4sqm, which is comfortably achieved by the three proposed stores.

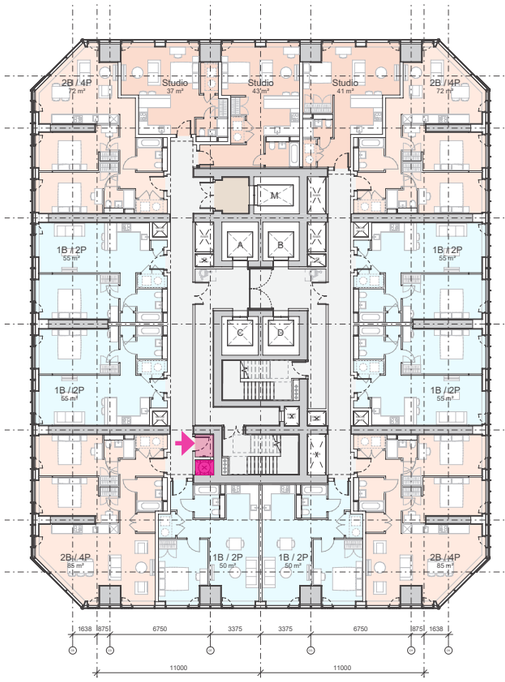
For hotel refuse, the hotel goods lifts will be utilised to bring waste to ground level. Here it will be segregated into the relevant bins for general waste, glass/plastic/metal recycling, paper/cardboard recycling or food waste recycling. Regular collections will be made, as outlined in the refuse strategy which accompanies this application.



Plot 2a - Hotel Restaurant Plan - Refuse Strategy



Plot 2a - Typical Hotel Plan - Refuse Strategy



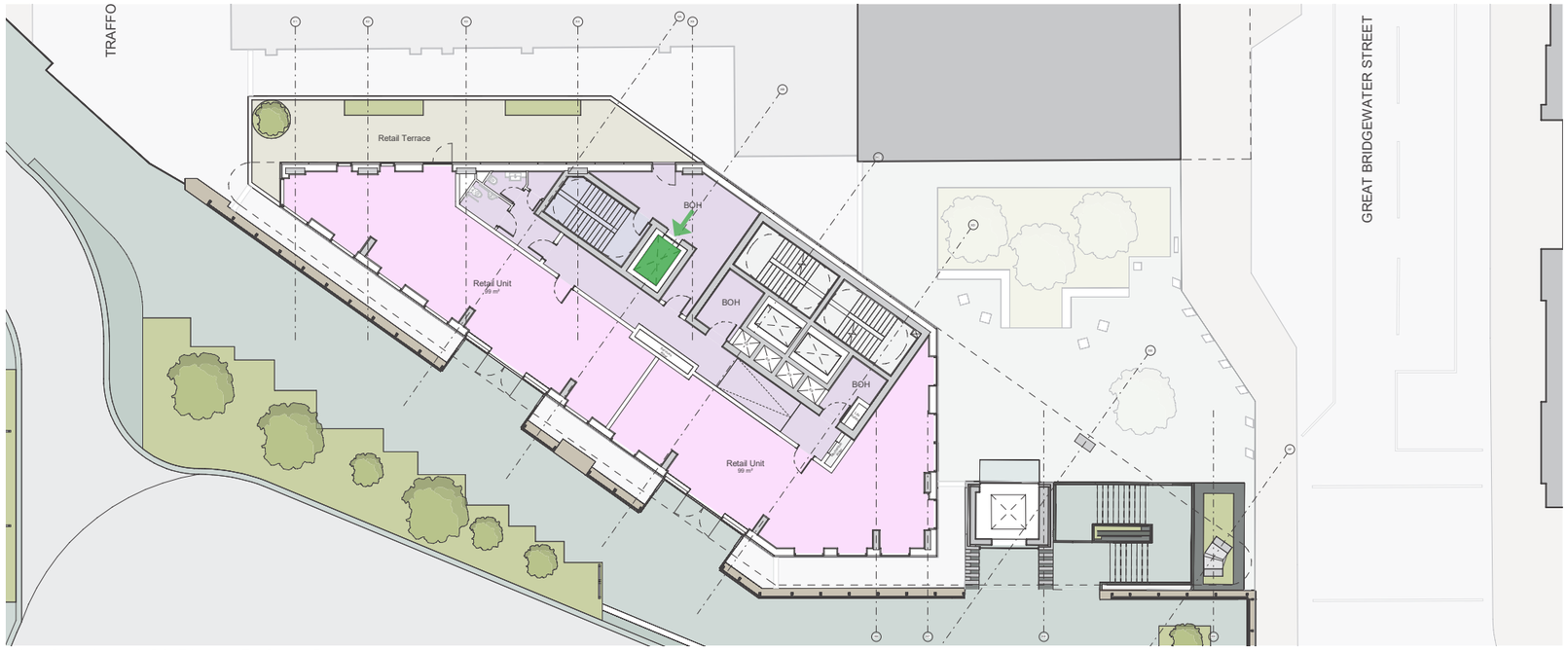
Plot 2a - Typical Residential Plan - Refuse Strategy



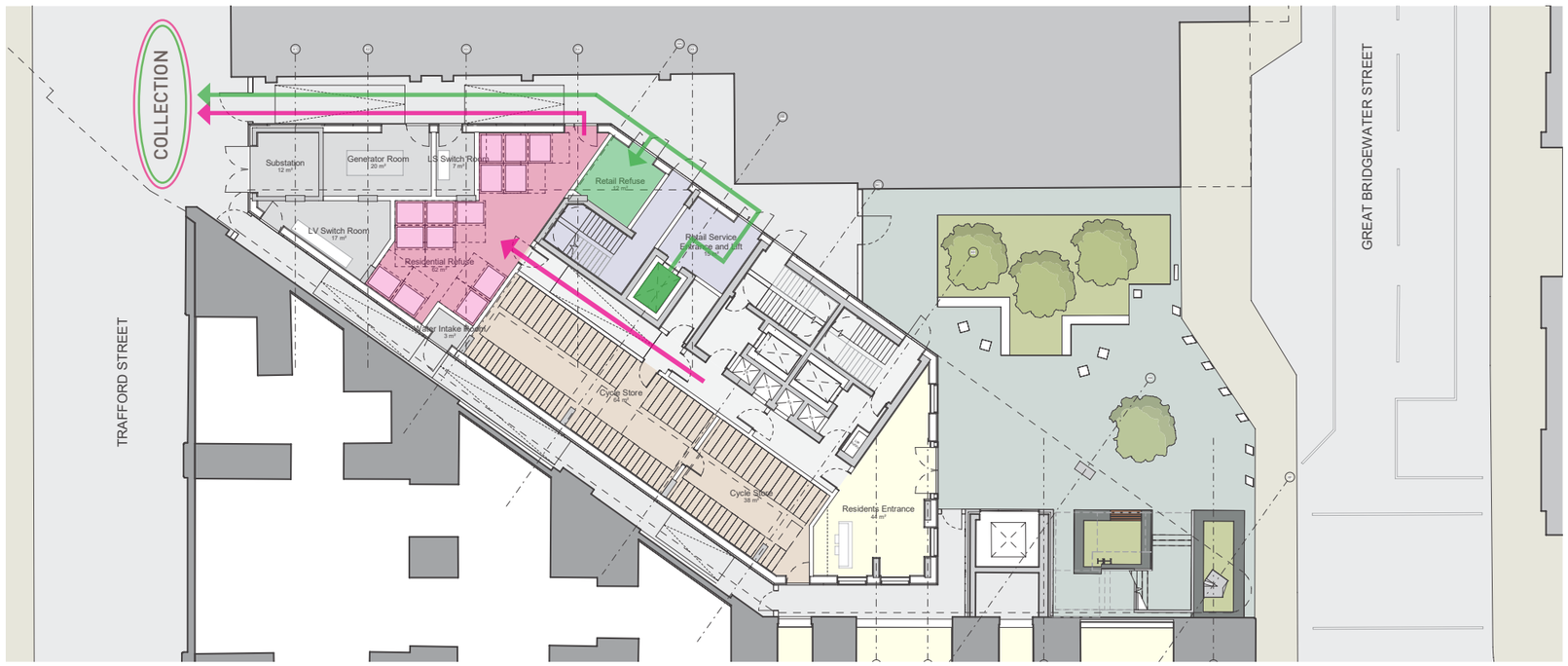
Plot 2a - Ground Floor Plan - Refuse Strategy

RESIDENTIAL REFUSE

COMMERCIAL REFUSE



Plot 2b - Level 01 Plan - Refuse Strategy



Plot 2b - Ground Floor Plan - Refuse Strategy

Plot 2b

Service access to Plot 2b is from Trafford Street, where there is secure access to the perimeter of the building. The pedestrian access route to the western side of the building provides access to the commercial unit service entrance and ground floor refuse stores. This route will be used to take bins to Trafford Street on collection days and to deliver goods to the commercial units.

For residential refuse, there is a central refuse store proposed at ground floor level, which is accessible to all residents via the rear ground floor communal corridor. To mitigate odors and fumes it will be well sealed and externally ventilated. The store will house bins for general waste, glass/plastic/metal recycling and paper/cardboard recycling. On refuse collection days, building management staff will move the relevant bins to Trafford Street for collection. In accordance with Manchester City Council's 'GD 04 – Waste Storage and Collections Guidance for New Developments', 0.43sqm of storage space is required per dwelling, which equates to 57.2sqm in total. This is comfortably achieved.

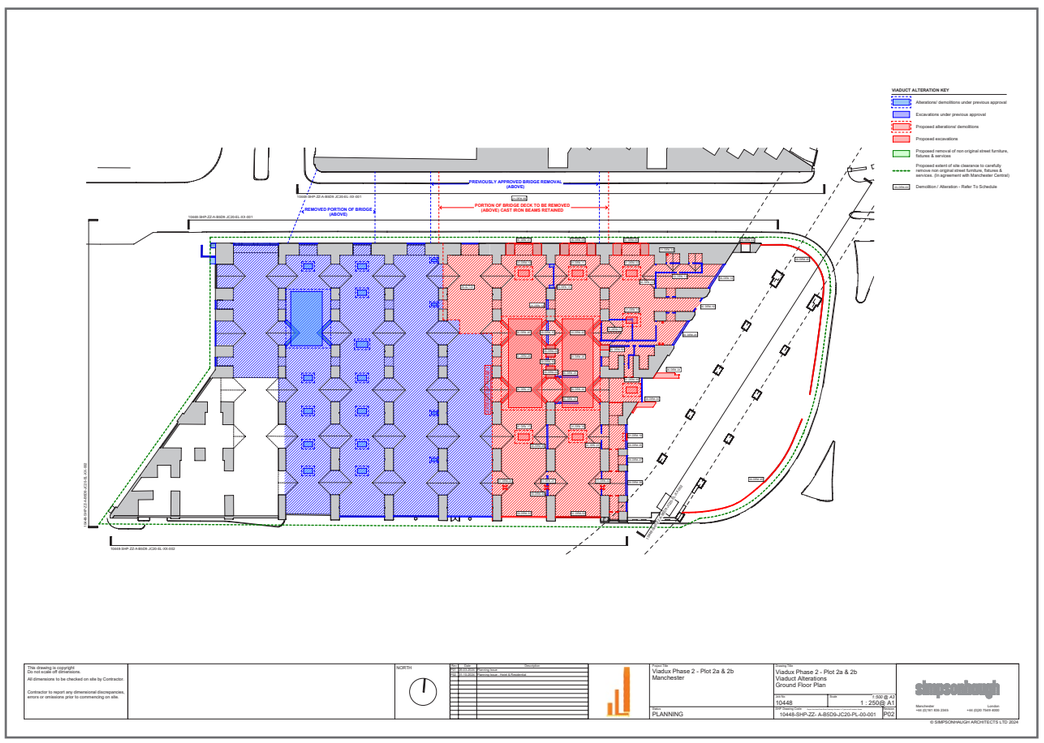
For commercial refuse, there is a small storage area proposed adjacent to the service entrance. The goods lift will be used to bring waste to ground floor where regular collections will be made, as outlined in the refuse strategy which accompanies this application.

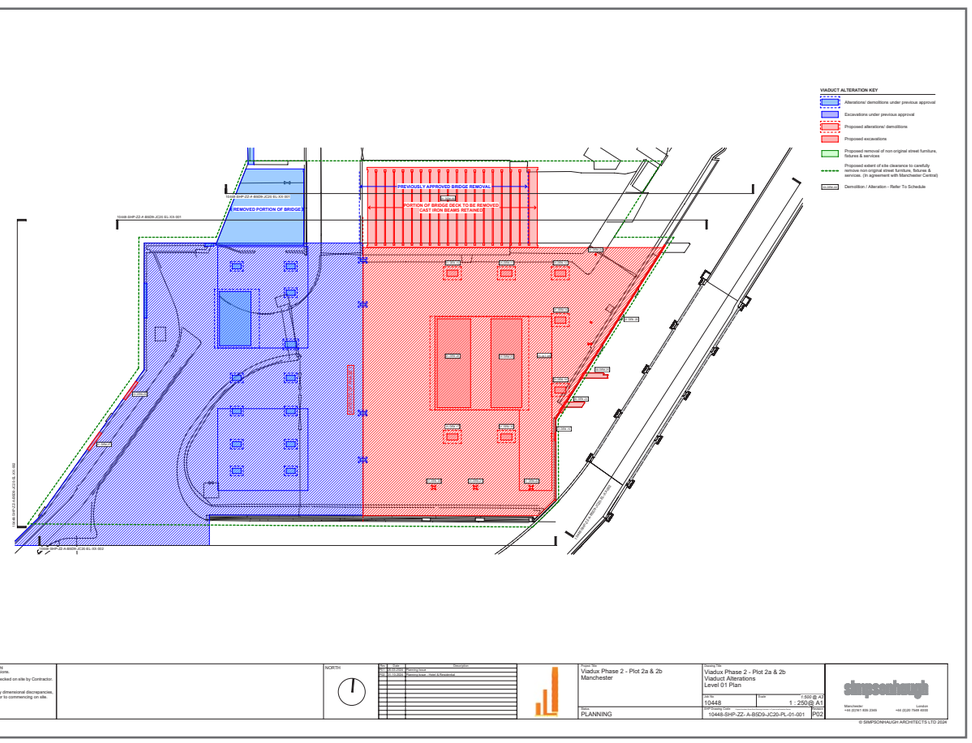


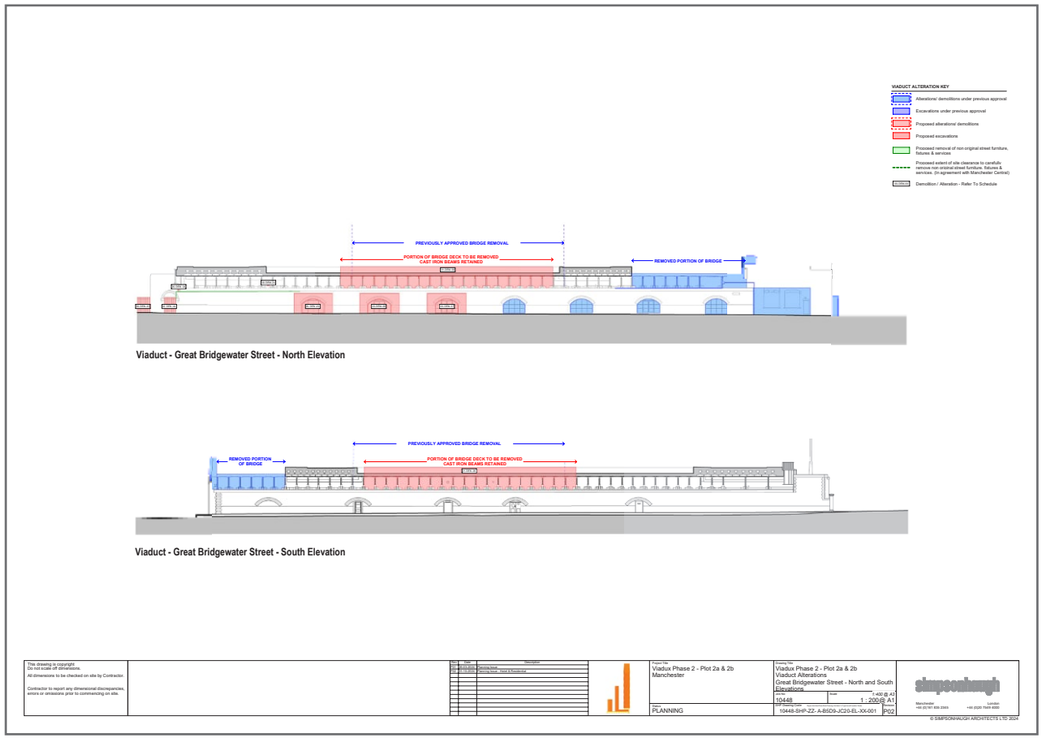
6.0 Appendices

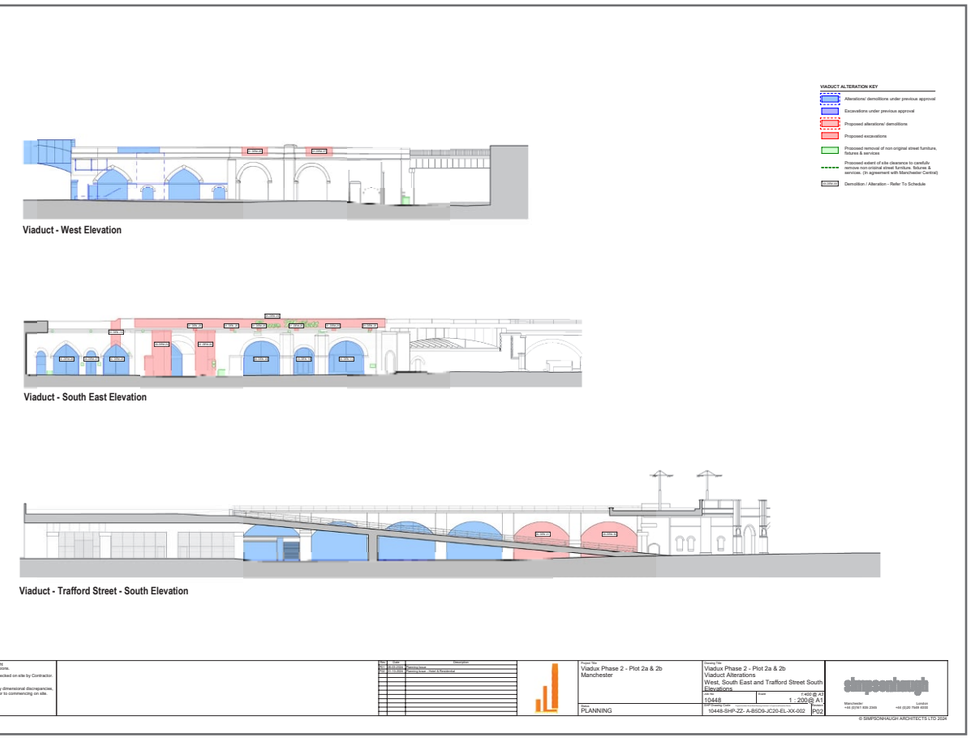
Alterations

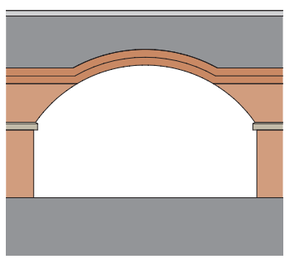
6.1 Drawings


VIADUCT ALTERATION KEY
Alterations/ demolitions under previous approval
Excavations under previous approval
Proposed alterations/ demolitions
Proposed excavations
Proposed removal of non-original street furniture, fixtures & services
Proposed extent of site clearance to carefully remove non-original street furniture, fixtures & services. (In agreement with Manchester Canal)
Demolition / Alteration - Refer To Schedule
PREVIOUSLY APPROVED BRIDGE REMOVAL (ABOVE)
PORTION OF BRIDGE DECK TO BE REMOVED (ABOVE) CAST IRON BEAMS RETAINED
REMOVED PORTION OF BRIDGE (ABOVE)
This drawing is copyright
Do not scale off dimensions.
All dimensions to be checked on site by Contractor.
Contractor to report any dimensional discrepancies, errors or omissions prior to commencing on site.
NORTH
Rev. Date Description
A 14.08.24 Planning Issue
B 12.09.24 Planning Issue - Views & Amendments
Project No.
Viadux Phase 2 - Plot 2a & 2b
Manchester
Drawing No.
Viadux Phase 2 - Plot 2a & 2b
Viaduct Alterations
Ground Floor Plan
Status
PLANNING
Scale
1 : 250@ A1
1 : 500 @ A3
10448-SHP-ZZ- A-BSD9-JC20-PL-00-001
P02
simpsonhaugh
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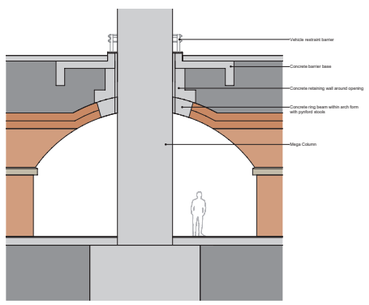

VIADUCT ALTERATION KEY
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PREVIOUSLY APPROVED BRIDGE REMOVAL
PORTION OF BRIDGE DECK TO BE REMOVED
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Project No.
Viadux Phase 2 - Plot 2a & 2b
Manchester
Drawing No.
Viadux Phase 2 - Plot 2a & 2b
Viaduct Alterations
Level 01 Plan
Status
PLANNING
Scale
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1 : 500 @ A3
10448-SHP-ZZ- A-BSD9-JC20-PL-01-001
P02
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Proposed alterations/ demolitions
Proposed excavations
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Demolition / Alteration - Refer To Schedule
PREVIOUSLY APPROVED BRIDGE REMOVAL
PORTION OF BRIDGE DECK TO BE REMOVED CAST IRON BEAMS RETAINED
REMOVED PORTION OF BRIDGE
Viaduct - Great Bridgewater Street - North Elevation
PREVIOUSLY APPROVED BRIDGE REMOVAL
REMOVED PORTION OF BRIDGE
PORTION OF BRIDGE DECK TO BE REMOVED CAST IRON BEAMS RETAINED
Viaduct - Great Bridgewater Street - South Elevation
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Rev. Date Description
A 14.08.24 Planning Issue
B 12.09.24 Planning Issue - Views & Amendments
Project No.
Viadux Phase 2 - Plot 2a & 2b
Manchester
Drawing No.
Viadux Phase 2 - Plot 2a & 2b
Viaduct Alterations
Great Bridgewater Street - North and South Elevations
Status
PLANNING
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10448-SHP-ZZ- A-BSD9-JC20-EL-XX-001
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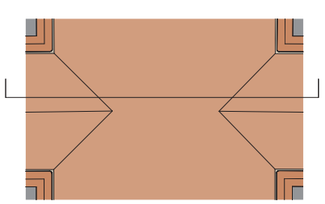

VIADUCT ALTERATION KEY
Alterations/ demolitions under previous approval
Excavations under previous approval
Proposed alterations/ demolitions
Proposed excavations
Proposed removal of non-original street furniture, fixtures & services
Proposed extent of site clearance to carefully remove non-original street furniture, fixtures & services. (In agreement with Manchester Canal)
Demolition / Alteration - Refer To Schedule
Viaduct - West Elevation
Viaduct - South East Elevation
Viaduct - Trafford Street - South Elevation
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All dimensions to be checked on site by Contractor.
Contractor to report any dimensional discrepancies, errors or omissions prior to commencing on site.
Rev. Date Description
A 14.08.24 Planning Issue
B 12.09.24 Planning Issue - Views & Amendments
Project No.
Viadux Phase 2 - Plot 2a & 2b
Manchester
Drawing No.
Viadux Phase 2 - Plot 2a & 2b
Viaduct Alterations
West, South East and Trafford Street South Elevations
Status
PLANNING
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1 : 200@ A1
10448-SHP-ZZ- A-BSD9-JC20-EL-XX-002
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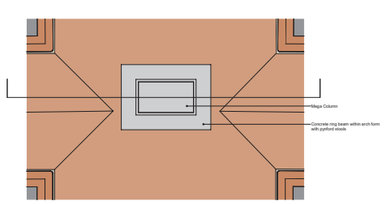
Detail Section - Existing Viaduct



Detail Section - Proposed Column Penetration Through Viaduct



Reflected Ceiling Plan - Existing Viaduct



Reflected Ceiling Plan - Proposed Column Penetration Through Viaduct

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Rev	Date	Description
P01	14.11.2024	Planning Issue
P02	15.11.2024	Planning Issue - Date & Numbered

Project Title
Viadux Phase 2 - Plot 2a & 2b
Manchester

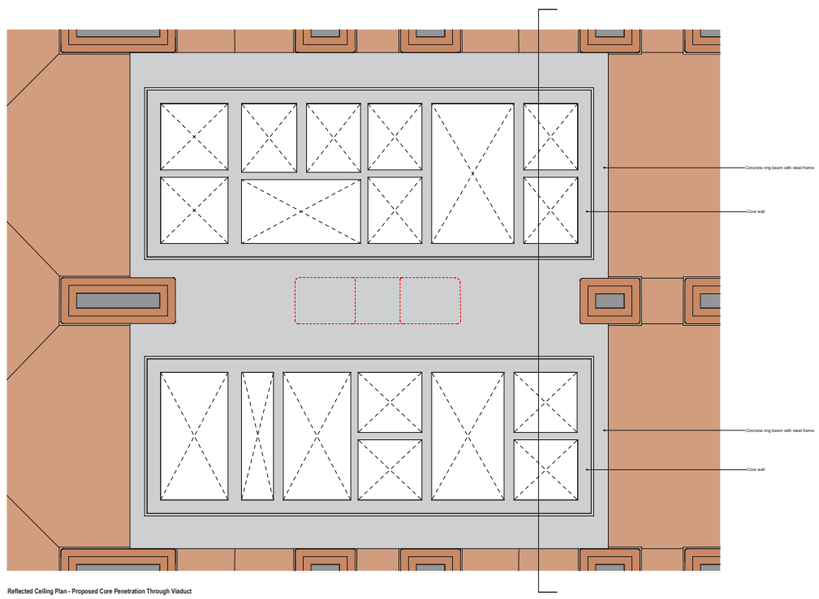
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Viadux Phase 2 - Plot 2a
Column Penetration Detail Through Viaduct

Job No. 10448 | Scale 1 : 100 @ A1 / 1 : 50@ A1

Status PLANNING | Drawing Number 10448-SHP-ZC- A-BSDS-G200-DE-XX-001 | P02

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Reflected Ceiling Plan - Proposed Core Penetration Through Viaduct

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Rev	Date	Description
P01	14.11.2024	Planning Issue
P02	15.11.2024	Planning Issue - Date & Numbered

Project Title
Viadux Phase 2 - Plot 2a & 2b
Manchester

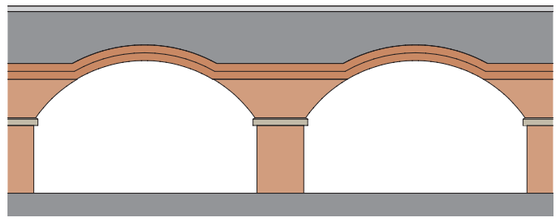
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Viadux Phase 2 - Plot 2a
Core Penetration Detail Through Viaduct - Reflected Ceiling Plan

Job No. 10448 | Scale 1 : 50@ A1

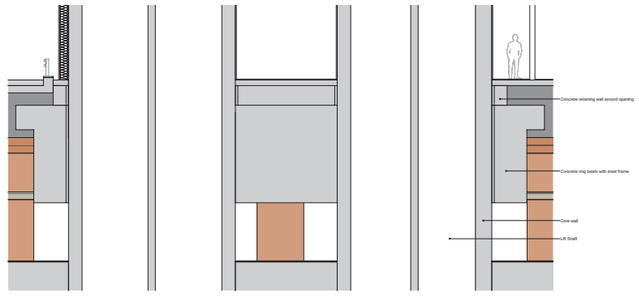
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Detail Section - Existing Viaduct



Detail Section - Proposed Core Penetration Through Viaduct

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Rev	Date	Description
P01	14.11.2024	Planning Issue - Date & Numbered

Project Title
Viadux Phase 2 - Plot 2a & 2b
Manchester

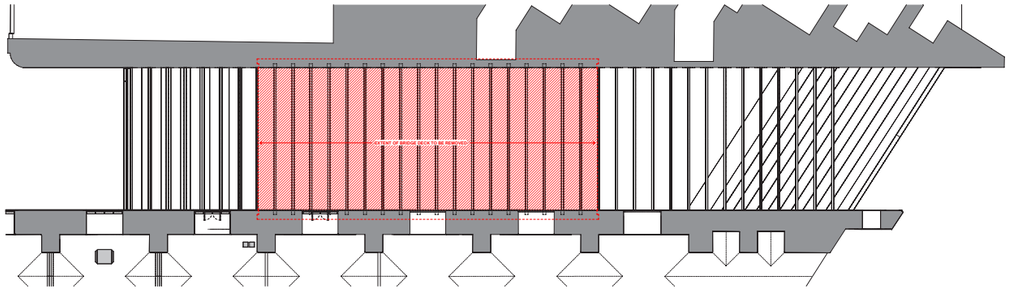
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Viadux Phase 2 - Plot 2a
Core Penetration Detail Through Viaduct - Sections

Job No. 10448 | Scale 1 : 100 @ A1 / 1 : 50@ A1

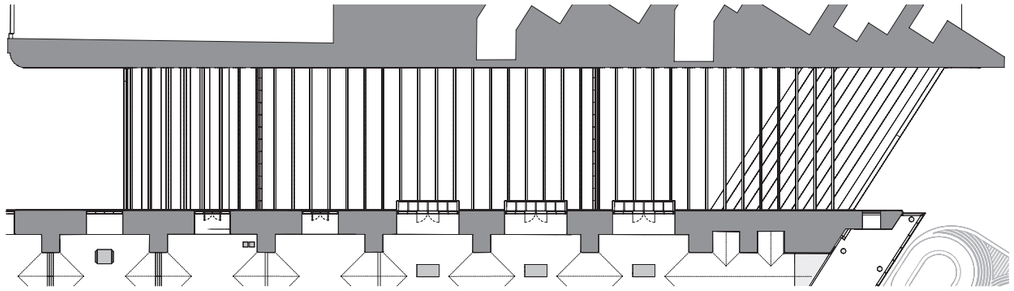
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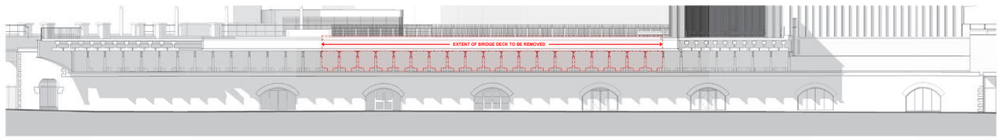
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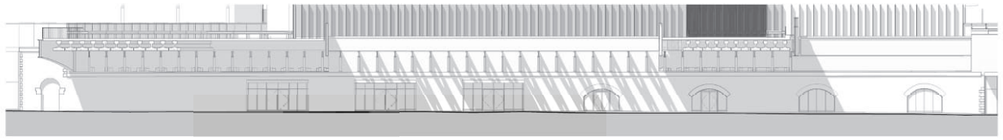
Bridge Removal - Existing Reflected Soffit Plan



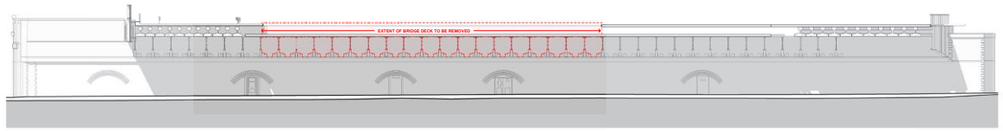
Bridge Removal - Proposed Reflected Soffit Plan



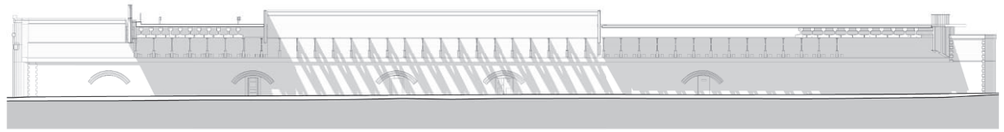
Bridge Removal - Existing South Facing Section



Bridge Removal - Proposed South Facing Section



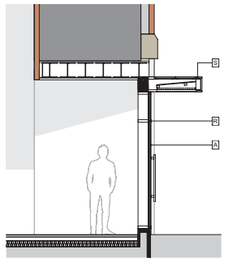
Bridge Removal - Existing North Facing Section



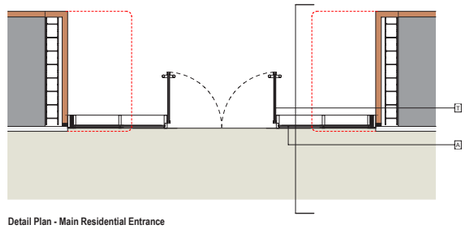
Bridge Removal - Proposed North Facing Section



Detail Elevation - Main Residential Entrance



Detail Section - Main Residential Entrance



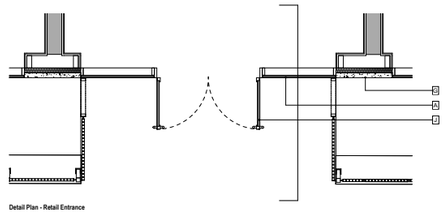
Detail Plan - Main Residential Entrance

DETAILS - MATERIALS KEY

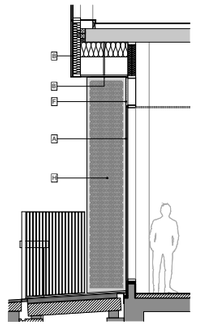
- Clear glazed unit
- Glass fronted opaque unit with 100% ceramic frit behind
- Perforated aluminium purge vent panel with glazed behind. Finish - Anodised 'dark grey'
- Perforated aluminium panel with solid aluminium panel behind. Finish - Anodised 'dark grey'
- Solid aluminium horizontal spandrel panel. Finish - Anodised 'dark grey'
- Projecting curtain wall fin at 750mm centres. Finish - Anodised 'dark grey'
- Aluminium profile cap. Finish - Anodised 'dark grey'
- 250mm deep projecting curtain wall fin. Finish - Anodised 'dark grey'
- Clear glazed balustrade
- Perforated aluminium panel. Finish - PPC 'bright clay'
- Projecting curtain wall fin at 750mm centres. Finish - Anodised 'bronze'
- Projecting horizontal curtain wall fin. Finish - Anodised 'bronze'
- Aluminium coping
- Perforated aluminium panel with vent behind. Finish - Anodised 'dark grey'
- Tapered concrete truss
- Glass fronted door
- Aluminium soffit panel. Finish - Anodised 'dark grey'
- Aluminium mullion. Finish - Anodised 'bronze'
- Metal canopy with integrated downlighting. Finish - Anodised 'bronze'
- Glazed door with aluminium frame. Finish - Anodised 'bronze'
- Glazed sliding door
- Geometric ceramic tile facade
- Perforate metal service yard gates. Finish - Anodised 'bronze'
- Aluminium soffit with feature lighting. Finish - Anodised 'bronze'
- Signage zone



Detail Elevation - Retail Entrance



Detail Plan - Retail Entrance



Detail Section - Retail Entrance

DETAILS - MATERIALS KEY

- Clear glazed unit
- Solid aluminium panel. Finish - Anodised 'dark grey'
- Solid aluminium horizontal spandrel panel. Finish - Anodised 'dark grey'
- Perforated aluminium purge vent panel with glazed behind. Finish - Anodised 'dark grey'
- Perforated aluminium panel with solid aluminium panel behind. Finish - Anodised 'dark grey'
- Perforated aluminium panel with vent behind. Finish - Anodised 'dark grey'
- Precast concrete panel
- Perforated aluminium wind baffle panel. Finish - Anodised 'dark grey'
- Aluminium coping
- Clear glazed door
- Perforated aluminium gate

6.2 Schedule

Project Tile:	**Viadux Phase 2 - Plot 2a & 2b**
Document Tile:	**Proposed Alterations to Listed Structure - Schedule of works**
Document Code:	**10448-SHP-ZZ-A-B5D9-Z330-SC-XX-101**
Revision:	**P02 31/10/2024 Planning Issue - Hotel & Residential**
Status:	**Planning**

simpsonhaugh

	Works Number	Description of works	Original Fabric	Photographed	
Ground	00-DEM-06	Removal of non-original infill louvered panel	Y/N	Y	Phase 1
	00-DEM-07	Removal of part of original brick arch and non-original infill glazed panel	Y/N	Y	
	00-DEM-08	Removal of part of original brick arch and non-original infill glazed panel	Y/N	Y	
	00-DEM-09	Removal of non-original infill glazed panel	N	Y	
	00-DEM-10	Removal of external glazed panel	N	Y	Phase 1
	00-DEM-11	Removal of internal wall	N	N	Phase 1
	00-DEM-12	Removal of internal wall	N	N	Phase 1
	00-DEM-13	Removal of internal wall	N	Y	Phase 1
	00-DEM-14	Removal of internal wall	N	Y	Phase 1
	00-DEM-15	Removal of internal wall	N	Y	Phase 1
	00-DEM-16	Removal of internal wall	N	Y	Phase 1
	00-DEM-17	Removal of internal wall	N	N	Phase 1
	00-DEM-19	Removal of external glazed panel	N	Y	Phase 1
	00-DEM-20	Removal of external glazed panel	N	Y	Phase 1
	00-DEM-21	Removal of internal wall	Y	N	Phase 1
	00-DEM-22	Removal of internal wall	Y	Y	Phase 1
	00-DEM-23	Removal of internal wall	N	Y	Phase 1
	00-DEM-24	Removal of brick pier	Y	Y	
	00-DEM-25	Removal of external glazed infill	N	Y	
	00-DEM-26	Removal of brick internal wall	N	Y	Phase 1
	00-DEM-27	Removal of external glazed infill	N	Y	Phase 1
	00-DEM-28	Removal of external glazed infill	N	Y	Phase 1
	00-DEM-29	Removal of internal wall (brick)	N	Y	
	00-DEM-30	Removal of external glazed and brick wall	N	Y	
	00-DEM-31	Removal of external glazed and brick wall	N	Y	
	00-DEM-42	Removal of brick arch for stair & lift core (Residential)	Y	N	
	00-DEM-43	Removal of brick arch for stair & lift core (Residential)	Y	N	
	00-DEM-44	Removal of existing railings & fixings to viaduct abutment	N	N	
	00-DEM-45	Removal of railings	N	N	
	00-DEM-46	Removal of brick arch for stair & lift core (Hotel)	Y	N	
	00-DEM-47	Removal of brick arch for stair & lift core (Hotel)	Y	N	
	00-DEM-48	Removal of brick pier	Y	N	
	00-DEM-49	Removal of brick pier	Y	N	
	00-DEM-50	Part removal of brick pier	Y	N	

	Works Number	Description of works	Original Fabric	Photographed
Ground	00-ALT-01	Excavation of basement for plant room / foundations and introduction of ground floor slab for phase 2 works	Y	Y

	Works Number	Description of works	Original Fabric	Photographed
First	01-DEM-09	Repositioned central portion of bridge deck to be removed	Y	Y
	01-DEM-10	Removal of section of brick arch for column	Y	Y
	01-DEM-11	Removal of section of brick arch for column	Y	Y
	01-DEM-12	Removal of section of brick arch for column	Y	N
	~~01-DEM-13~~	~~Removal of section of brick arch for column~~	Y	N
	01-DEM-14	Removal of section of brick arch for column	Y	N
	~~01-DEM-15~~	~~Removal of section of brick arch for column~~	Y	N
	01-DEM-16	Removal of section of brick arch for column	Y	Y
	01-DEM-17	Removal of section of brick arch for column	Y	Y
	01-DEM-18	Removal of section of brick arch for column	Y	N
	01-DEM-19	Removal of section of brick arch for column	Y	Y
	01-DEM-20	Removal of section of brick arch for podium column	Y	Y
	01-DEM-21	Removal of section of brick arch for podium column	Y	Y
	01-DEM-22	Removal of section of brick arch for podium column	Y	N
	01-DEM-23	Removal of section of brick arch for stair and lift cores (Residential)	Y	N
	01-DEM-24	Core drilled hole through viaduct abutment for drainage connection	Y	N
	01-DEM-25	Removal of brickwork to create pockets above existing stone course for reception extension steel beams	Y	Y
	01-DEM-26	Removal of section of parapet for new retail entrance	Y	Y
	01-DEM-27	Removal of section of parapet for new retail entrance	Y	Y
	01-DEM-28	Removal of section of brick arch for stair and lift cores (Hotel)	Y	N
	01-DEM-29	Removal of brick balustrade	Y	Y

	Works Number	Description of works	Original Fabric	Photographed
	01-ALT-08	New slab for phase 2	N	Y

NOTE: Schedule to be read in conjunction with masterplan demolition plans & elevations
Drawings: 10448-SHP-ZZ-A-B5D9-JC20-PL-00-001 - P02
10448-SHP-ZZ-A-B5D9-JC20-PL-01-001 - P02
10448-SHP-ZZ-A-B5D9-JC20-EL-XX-001 - P02
10448-SHP-ZZ-A-B5D9-JC20-EL-XX-002 - P02

6.3 Supporting Photographs




















00-DEM-14


00-DEM-19 & 01-DEM-25


00-DEM-23


00-DEM-15


00-DEM-20 & 01-DEM-25



00-DEM-23


00-DEM-16



00-DEM-22



00-DEM-24 & 01-DEM-25 & 29



00-DEM-24


00-DEM-27, 25


00-DEM-28


00-DEM-28, 27, 25


00-DEM-29, 01-DEM-21

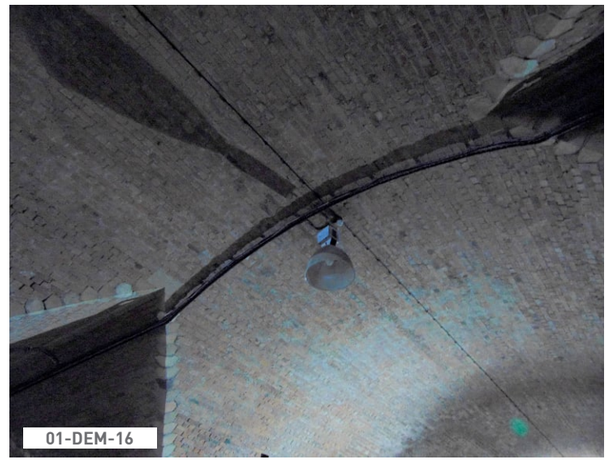

00-DEM-28, 27, 25


00-DEM-26


00-DEM-31, 30


00-DEM-31


01-DEM-09


01-DEM-16


00-ALT-01

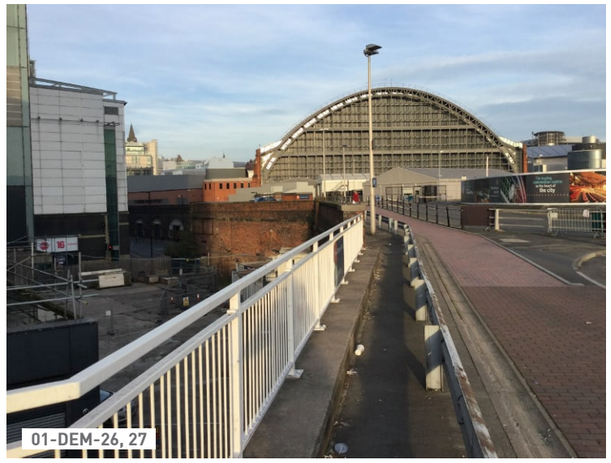

01-DEM-10


01-DEM-17


01-DEM 17, 20


01-DEM-11


01-DEM-19


01-DEM-26, 27


01-DEM-26, 27


01-ALT-08



01-ALT-08 & 01-DEM-29


01-DEM-09


01-DEM-09

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