

FORMER BAUER MILLETT SITE | MANCHESTER

DESIGN & ACCESS STATEMENT

10053-MP-A-B5D9-RP-DAS-001

Rev 00 - 30 March 2017

SimpsonHaugh
AND PARTNERS

MANCHESTER
Riverside, 4 Commercial Street
Manchester M15 4RQ

T +44 (0)161 835 2345
F +44 (0)161 839 4808

mail@simpsonhaugh.com

LONDON
5-8 Roberts Place
London EC1R 0BB

T +44 (0)20 7549 4000
F +44 (0)20 7490 5331

www.simpsonhaugh.com

Contents

1.0 Introduction

1.1 Introduction 7
1.2 Project Team 8

2.0 Brief & Design Process

2.1 Location 12
2.2 History 13
2.3 Existing Buildings 14
2.4 Surrounding Streets 15
2.5 Heritage Context 16
2.6 Development Context 18
2.7 Emerging Context 21
2.8 Socio-Economic 22
2.9 Planning Policy 23
2.10 Brief Development 24

3.0 Design

3.1 Options Appraisal i 28
3.2 Options Appraisal ii 38
3.3 Consultation 40
3.4 Use 44
3.5 Layout 46
3.6 Amount 52
3.7 Scale & Massing 54
3.8 Appearance 56
3.8.1 Strategy
3.8.2 Residential
3.8.3 Office
3.8.4 Arches & Podium
3.9 Interventions 70
3.10 Landscaping 74
3.11 Environmental Impact 76
3.12 Townscape Impact 78

4.0 Access

4.1 Inclusive Access 86
4.2 Vehicular & Transport 87
4.3 Management 87
4.4 Security 87
4.5 Refuse & Recycling 88
4.6 Parking & Servicing 89

5.0 Energy & Sustainability

5.1 Approach 93

6.0 Appendices - 10053-MP-A-B5D9-RP-AP-001

6.1 Alteration Report
6.2 Management Strategy

1.0 Introduction



1.1 Introduction

1.1.1 Purpose

This Design and Access Statement has been prepared by SimpsonHaugh and Partners with input from others on behalf of Ask Central Limited (The Applicant). This document accompanies an application for detailed planning permission at a site known as the Former Bauer Millett Site, Albion Street which forms an early phase of development described within the Great Northern, Manchester Central and Castlefield Quay SRF (adopted February 2017).

This 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.

1.1.2 Project

This application seeks Full Planning Permission and Listed Building Consent for:

Construction of a mixed use development comprising one 40 storey residential building (Use Class C3), one 14 storey office building (Use Class B1), flexible ground floor retail space (Use Class A1, A3 or A4), an enclosed service yard, new and enhanced public realm including a staircase and lift from street-level on to the viaduct, ground level car and cycle parking, landscaping and associated works including alterations to the Grade II Listed viaduct structure.

1.1.3 Process

The proposals have been developed with input from a highly experienced and comprehensive team of specialist consultants with the intention of delivering a unique project which not only maximises the development potential of the site and directly 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 of the development, and changes to the scheme have been included where appropriate.

1.1.4 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

ASK Central Ltd

Ask Real Estate Limited
3rd Floor, Clarence House
Clarence Street
Manchester
M2 4DW

CONSULTANT TEAM

Architect

SimpsonHaugh and Partners

Riverside
4 Commercial St
Manchester
M15 4RQ

Planning Consultant

Deloitte

2 Hardman Street
Manchester
M3 3HF

Heritage Architect

Stephen Levrant

Barnett House
53 Fountain Street
Manchester
M2 2AN

Structural Engineer

Curtins

Merchant Exchange
17-19 Whitworth Street West
Manchester
M1 5WG

Cost Consultant

Aecom

1 New York Street
Manchester
M1 4HD

Project Manager

Arcadis

5th and 10th Floor
3 Piccadilly Place
Manchester
M1 3BN

Sales Agent

Jones Lang LaSalle

One Piccadilly Gardens
Manchester
M1 1RG

Daylight & Sunlight

Gray Scanlan Hill

Brook House
Spring Gardens
Manchester
M2 2BQ

1.2 Project Team

Building Services

Ridge

1B Abito
85 Greengate
Manchester
M3 7NA

Landscape Architect

Planit

2 Back Grafton Street
Altrincham
Cheshire
WA14 1DY

Transport

Vectos

4th Floor Oxford Place
61 Oxford Street
Manchester
M1 6EQ

Sustainability

RPS

20 Western Avenue
Milton Park
Abingdon
Oxfordshire
OX14 4SH

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

Fluid Dynamics

BMT

Goodrich House
1 Waldegrave Road
Teddington
Middlesex
TW11 8LZ

Fire Engineer

Design Fire Consultants

Suite 1.11
Jactin House
24 Hood Street
Manchester
M4 6WX

2.0 The Brief and Design Process

2.1 Location

2.1.1 Area

The Site is located in Manchester City Centre and extends to approximately 0.72 hectares. It is bound by the former Manchester Grade II* Central Railway Station (now Manchester Central Conference Centre) to the north, Albion Street to the east, the rear service courtyard to Beetham Tower to the west, and Deansgate-Castlefield Tramstop and Deansgate Locks to the south.

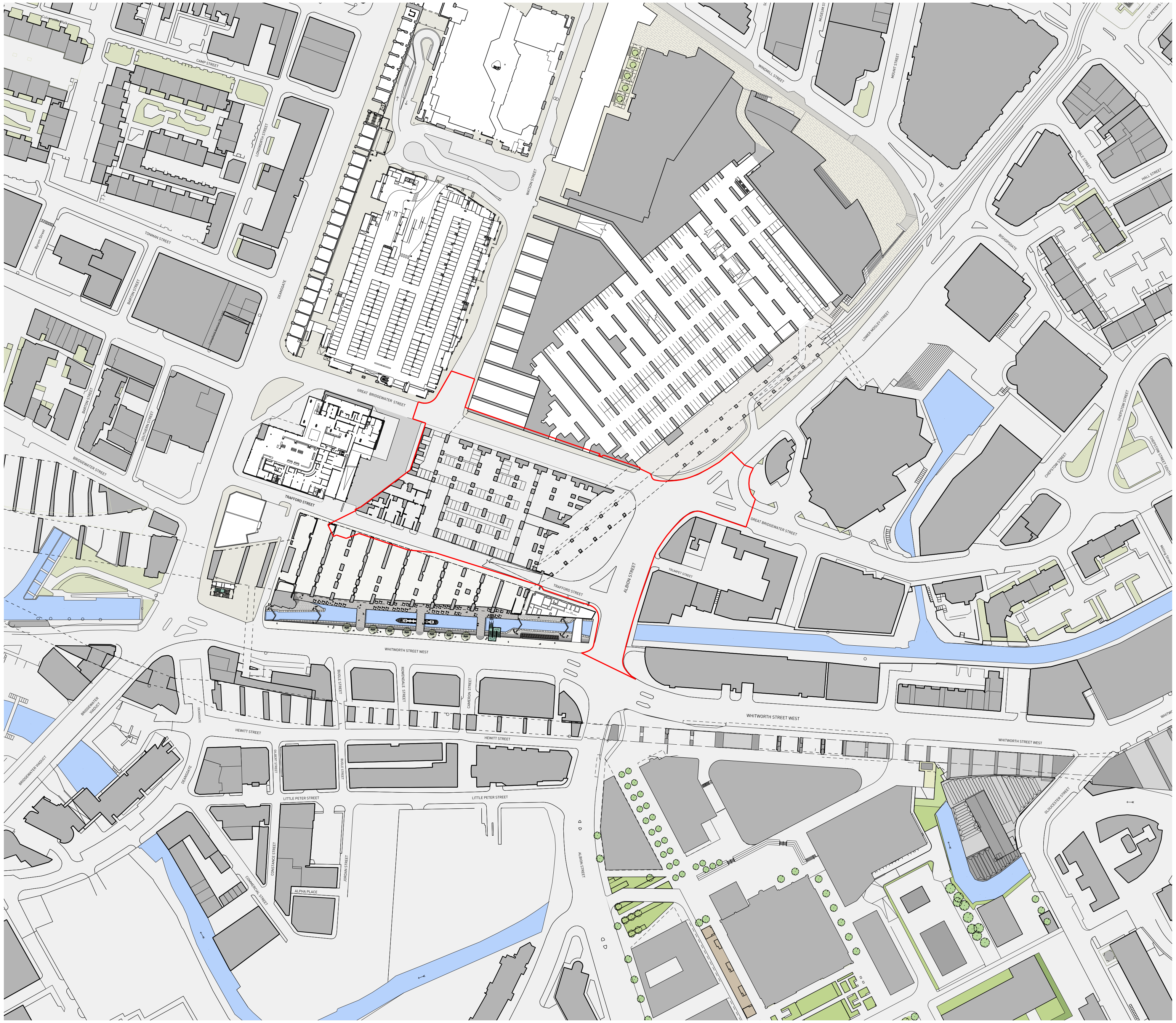
The Site comprises the eastern-most section of the Castelfield Viaduct. At street level it comprises railway arches underneath the viaduct accommodating the former Bauer Millet car showroom and forecourt fronting onto Albion Street, now in temporary use as a multi-arts venue, and public car parking accessed via Trafford Street.   On top of the viaduct is a car park and service deck serving the adjacent Manchester Central conference centre and vehicular and pedestrian access routes across the site.

Vehicular access to the site is via Trafford Street, which incorporates a ramp up to the deck on top of the viaduct, and via the car showroom forecourt on Albion Street. Pedestrian access to the viaduct deck is taken via the Metrolink Station or Great Northern Warehouse.

2.1.2 Connectivity

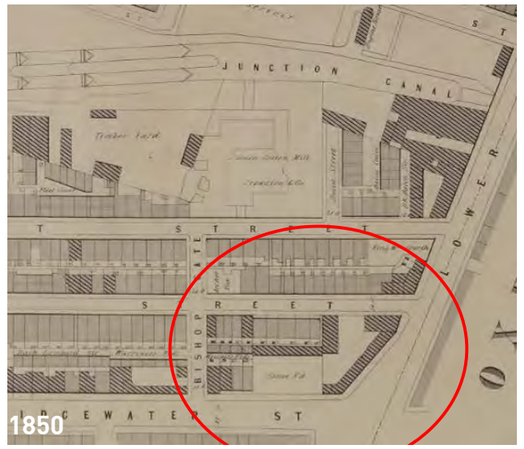
Whilst there are pedestrian links between the Manchester Central Conference Centre and the Deansgate-Castlefield (DCF) Metrolink Stop, there is a lack of permeability across the site as a whole, which has been exacerbated by poor way-finding signage and poor pedestrian routes. Connectivity to the south 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 is currently 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. The route then splits; with the option to bridge over Watson Street in to the lobby of the Great Northern Warehouse / Leisure box or continue down a snaking step and ramp arrangement squeezed down the side of the Great Northern Tower, terminating on Windmill Street.





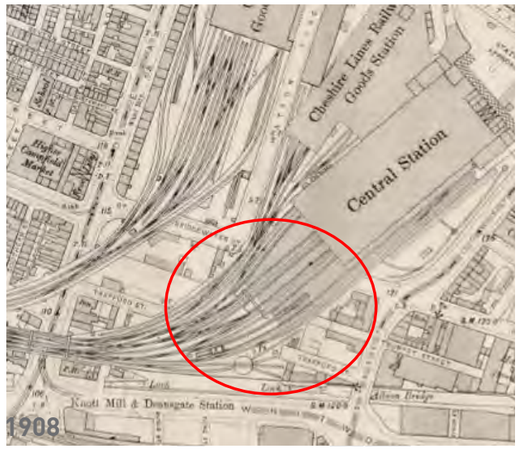


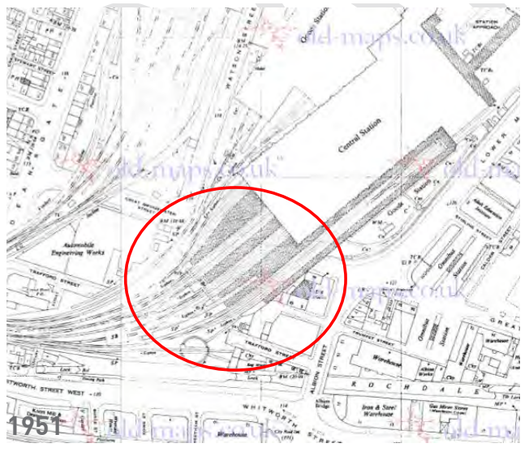


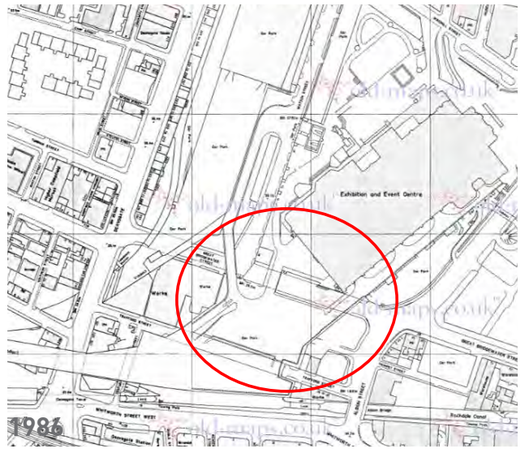












2.2 History

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) 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 conference centre since this date.

Formerly vehicular access was provided via a ramp over Watson Street from the site the Leisure Box at the rear the Great Northern Warehouse now occupies. 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.

2.3 Existing buildings

2.3.1 Castlefield Viaduct

The Grade II brick vaulted undercroft is currently, predominantly used for car parking - accessed from Albion Street. The eastern section of the viaduct arches were until recently in use as a car showroom (Bauer Millett). Following cessation of that use, the premises is currently in temporary use as a multi-arts venue. A live primary substation is located in the south west corner of the undercroft. At the upper level the viaduct has a tarmac covering and is used as the service yard for Manchester Central Conference Centre.

2.3.2 Great Bridgewater Street Bridge

This cast iron bridge structure spans across Great Bridgewater Street from the application site over to the main island site of the Conference Centre. Part of which offers servicing access from the service yard in to the exhibition halls. A significant portion of the bridge is in a poor state of repair - structurally, and cannot take heavy loading from HGV's.

The bridge carrying 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 it is believed later additions.

A supplementary significance appraisal has been carried out on the bridge structure by Dr Ron Fitzgerald, included within the appendix of the Heritage Appraisal - Significance.

2.3.3 Miscellaneous Structures

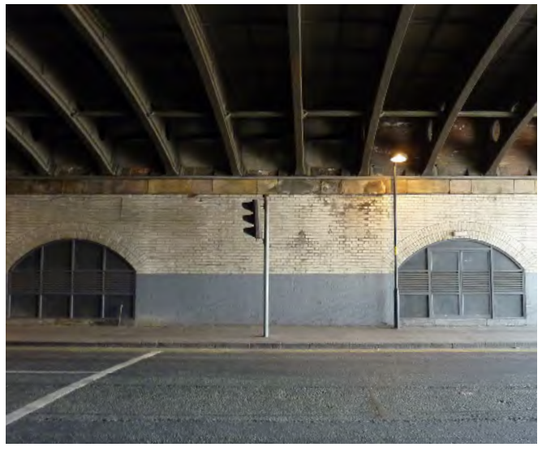
There are a number of permanent and temporary structures located at the service yard level eg. storage marquee, security gatehouse etc. It is envisaged that these separate structures will be consolidated and housed within the service yard as part of the developed design, removing some of the visual clutter from in front of the former station building.

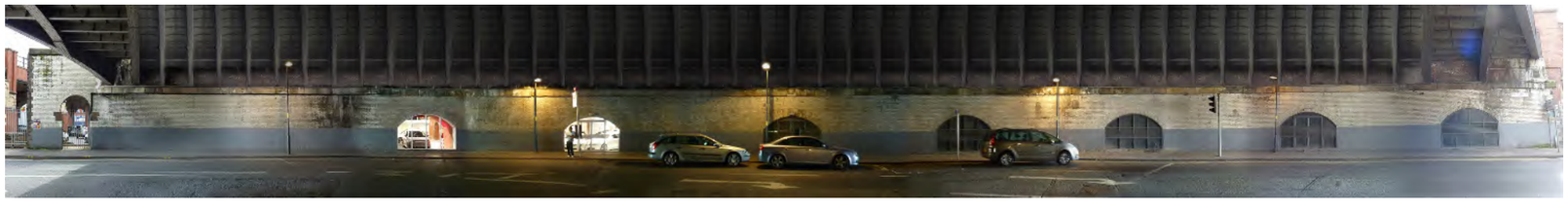
























2.4 Surrounding Streets

2.4.1 Environment

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

2.4.2 Watson Street

Watson Street connects Great Bridgewater Street to Peter Street running Parallel with Deansgate. The street is currently little more than a back street - there is a lack of active frontage once past Great Northern Square 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 would be required, together with activated uses in the arches and a new vertical connection linking directly onto the top of the viaduct structure

2.4.3 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.

2.4.4 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 a peculiar forecourt of residual space against the street, there is little definition to the street edge.

2.4.5 Trafford Street

The introduction of the ramp up to the Manchester Central Service Yard has effectively split this street in two. The first half from Albion street up to the service yard, 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 Hilton Tower and premises on Deansgate Locks.

2.5 Heritage Context

2.5.1 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, is submitted in support of the application.

2.5.2 Conservation Areas

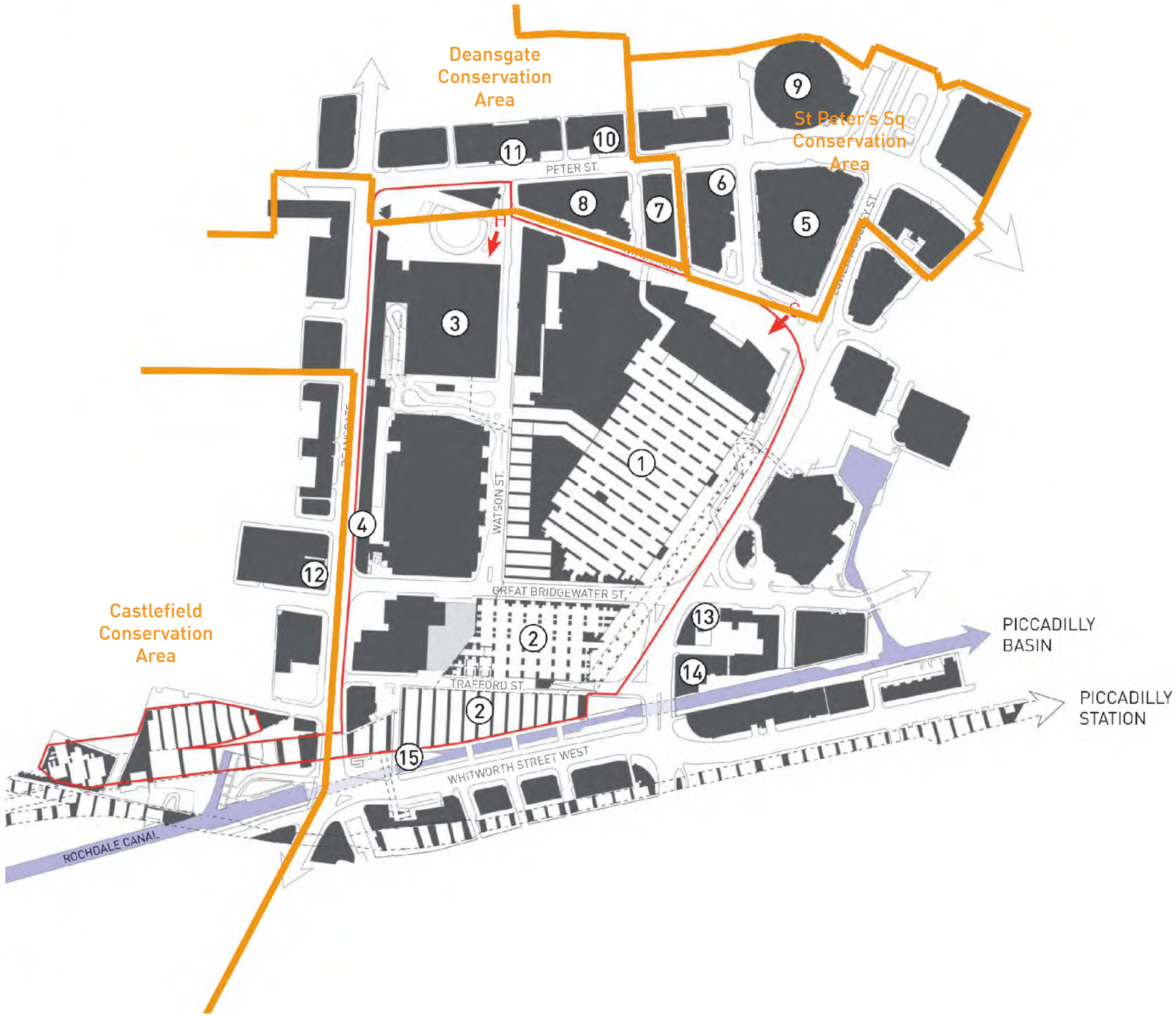
The site is not in a Conservation area, however there is potential for development on the site to impact on the character and appearance of surrounding Conservation Areas to the north and west:

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

2.5.3 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 a number of 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





01



02


03


04

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

2.6.1 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 Executive Committee in February 2017.

2.6.2 Hilton Office Planning Approvals 2003 & 2005

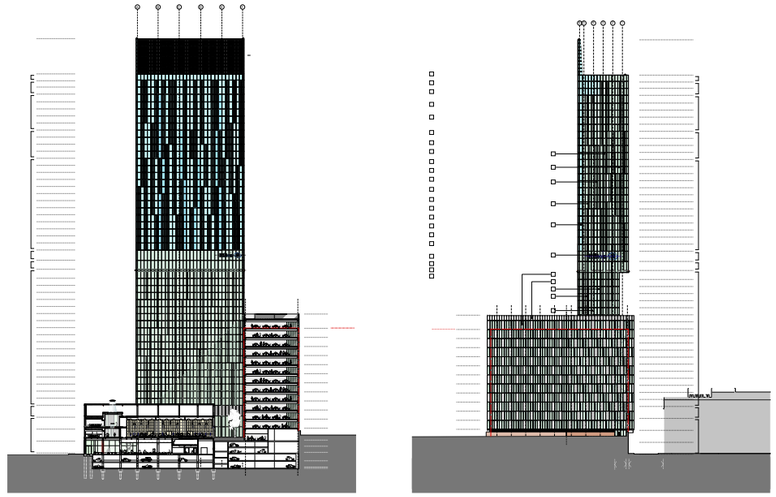
The planning consent for the Hilton Tower included the erection of a 14 storey office building on the site in between the Hilton Tower and the application site. A revised application was consented in 2005 which included alterations to the Hilton tower and an increase in footprint and height of the office building. The consent for this scheme is still live due to the construction of the tower. The consented scheme has been used to test cumulative impacts of the development, in both environmental and townscape terms.

2.6.3 Manchester Central Masterplan 2009

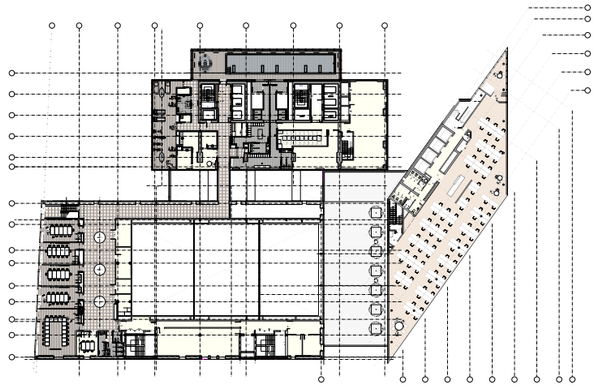
Simpsonhaugh and Partners were appointed by TfGM to prepare a masterplan for the subject site and Deansgate-Castelfield Metrolink Stop in 2009. The original masterplan proposed a roof deck over the entire site area, extending out across Trafford Street and the Metrolink stop area with an open aspect 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,

2.6.4 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 Hilton Tower.

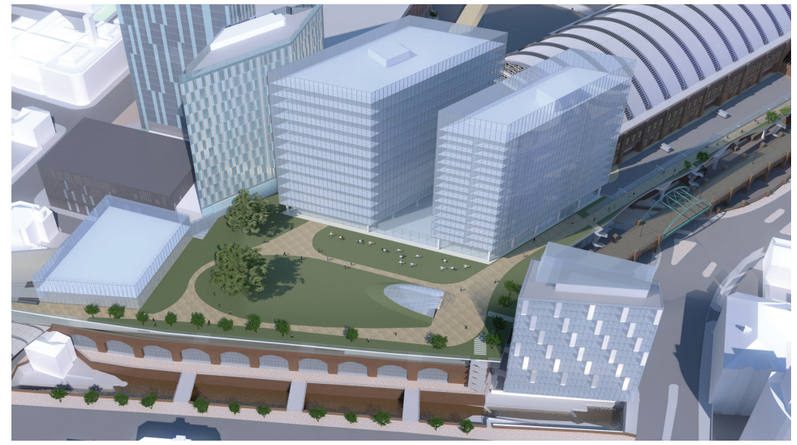


2005 - Hilton Office Planning Approval





2009 - Manchester Central Masterplan







DCF Metrolink Stop - New Vertical Circulation



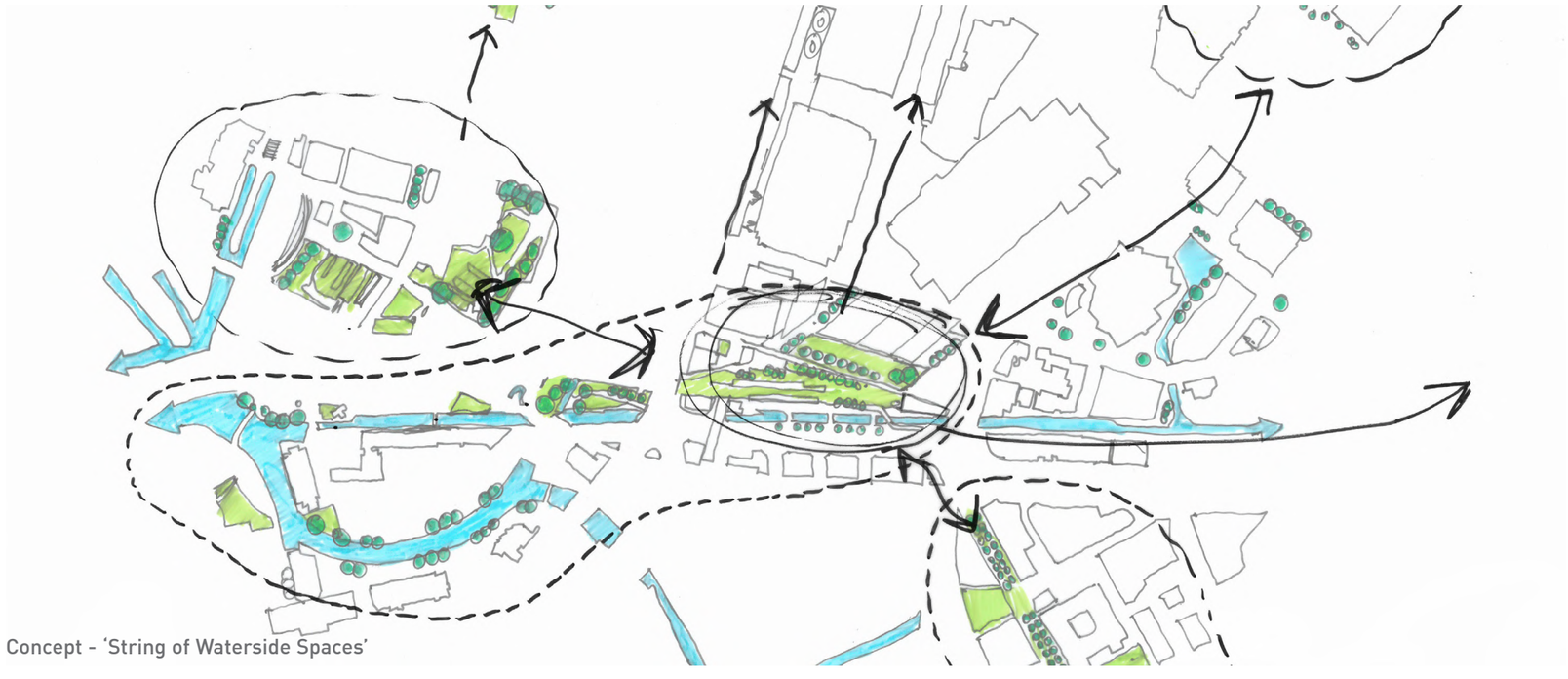
DCF Metrolink Stop - New Stop Arrangement

2.6.5 Deansgate Castlefield Metrolink Stop
SimpsonHaugh and Partners 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 ultimately 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 created an oasis in the city, including a new green wall, stair and lift at the Deansgate end of the stop and a new stair and bridge arrangement at the First Street end of the stop. New quality hard and soft landscaping has been introduced leading towards the site.



Concept - 'String of Waterside Spaces'

2.6.6 Great Northern, Manchester Central, Castlefield Quay SRF

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, sitting within 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 looks 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:

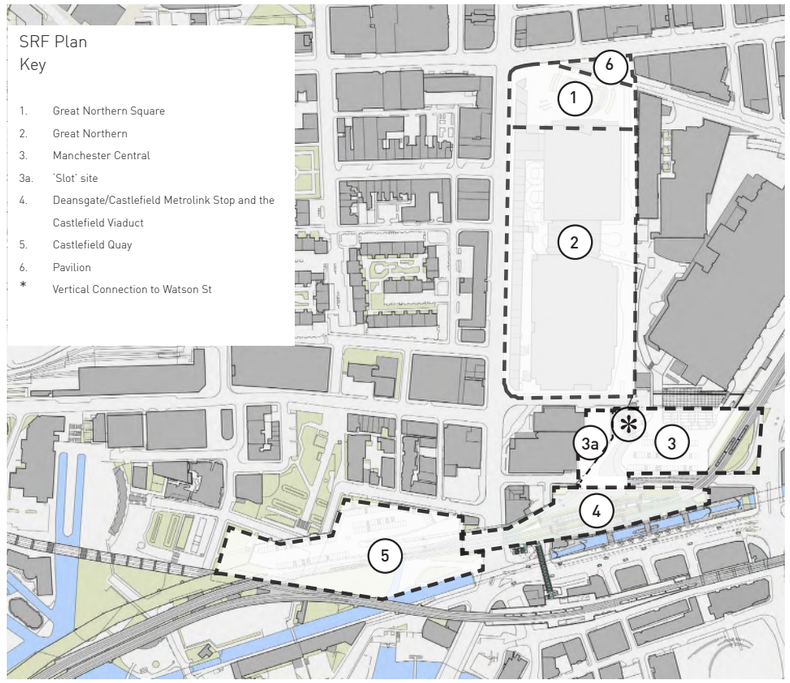
- To deliver a critical mass and mix of high quality city centre uses that will combine in order to create a distinctive sense of place as well as life and vitality on weekdays, in the evenings and at the weekend.

- 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.

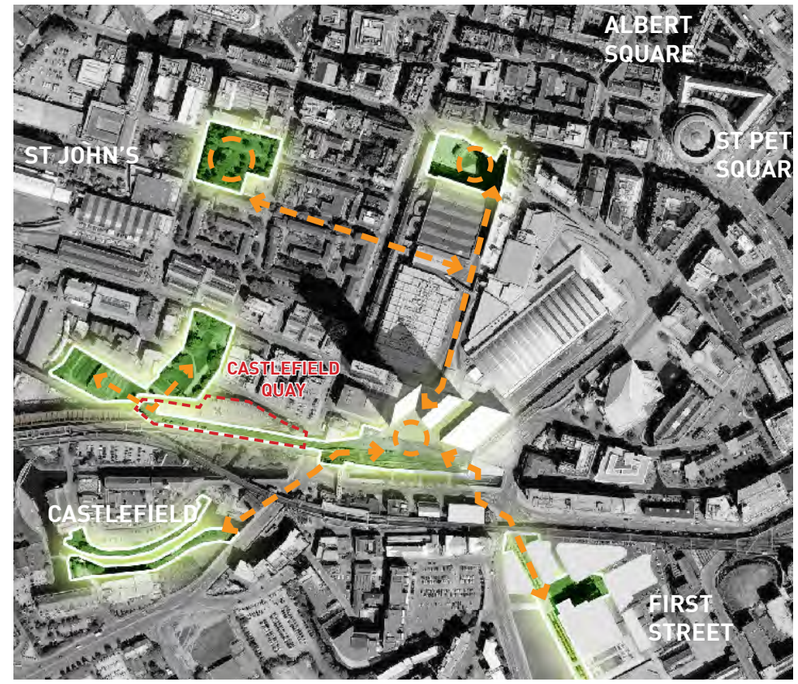
- To enhance the setting of listed buildings and structures, and to promote as well as celebrate the site's history through the use and arrangement of the built environment and through encouraging significantly uplifted levels of pedestrian flows through the area.

- To create better 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 and 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.

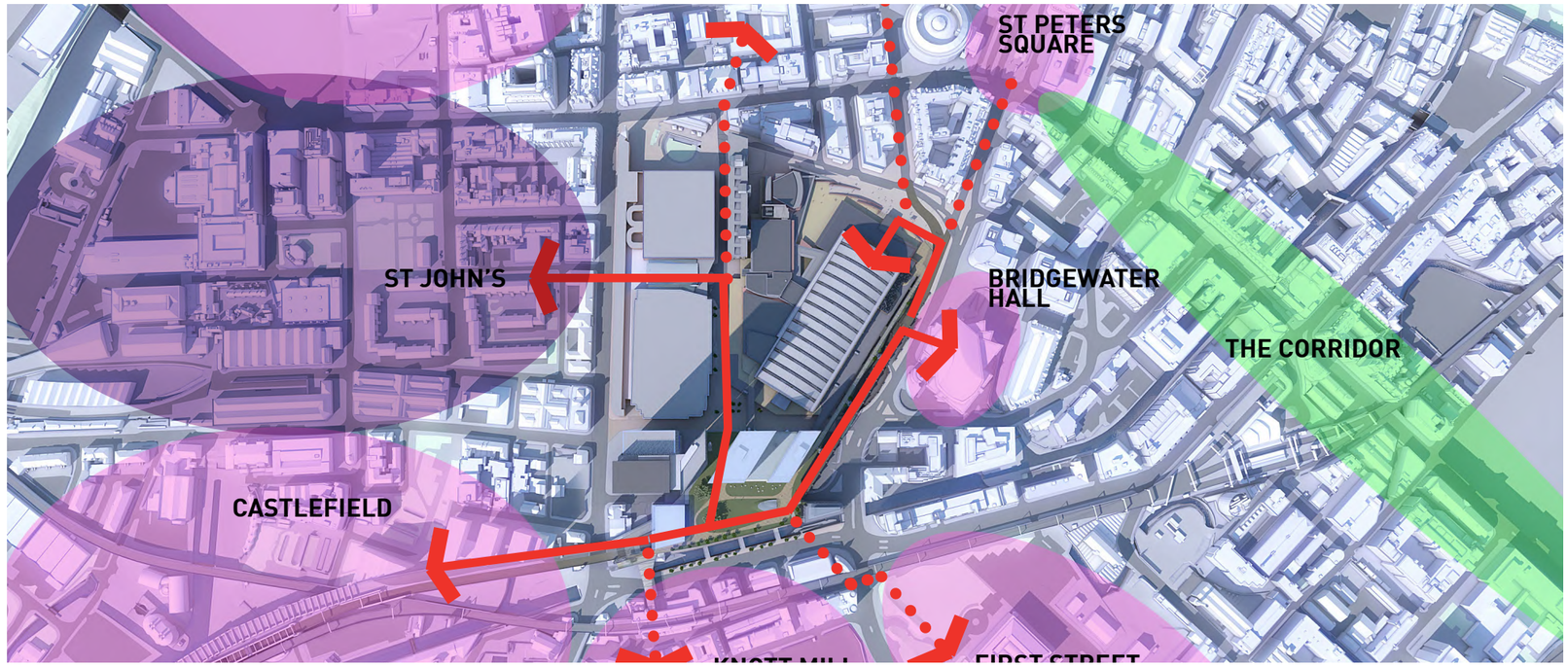
- The SRF area can and should accommodate buildings of scale which complement the existing (Beetham Tower) and emerging context of tall buildings in the area. This will assist in connecting the site back to the core of the city centre and will continue the process of expanding that core southwards.



2017 SRF - Development Sites



2017 SRF - Linked Spaces



2.7 Emerging Context

The immediate area surrounding the site has a number of schemes consented and under construction including, but not limited to the following:

- First Street (office + residential)
- 10-12 Whitworth Street (residential)
- Axis (residential)
- 2 St Peter's Square (office)
- Owen Street (residential)

These schemes and others will change the immediate context and scale of the site area. The area will be transformed from a tight knit urban grain of low/mid rise buildings to that of a cluster of tall buildings emerging around the Hilton Tower, firstly with Axis at 27 storeys and 10-12 Whitworth Street at 37 storeys.

Owen street (currently under construction) will, once complete see the construction of the tallest building in Manchester (and tallest in the UK outside London) with a cluster of residential towers from 38 - 65 storeys. The development will show a new benchmark in building tall within the city.



First Street


Owen Street


10-12 Whitworth Street


Axis

2.8 Socio-Economic

2.8.1 Public Benefits

This section is to be read with the accompanying Public Benefits document which provides a detailed assessment of the economic, social and environmental benefits associated with the proposals.

The proposals have been carefully considered and developed with reference to the heritage assets in and adjacent to the Site. From the outset, the proposals have sought to deliver public benefits to the Site, surrounding area and the wider city whilst preserving the historic context of the area. The proposed design has evolved through an exhaustive options appraisal.

In summary, the key elements of the scheme that will deliver significant economic, social and environmental benefits can be summarised as follows:

- Regeneration of a key priority site within the Manchester City Centre, which has been earmarked for redevelopment for almost ten years, and has the potential to deliver significant strategic economic and regeneration benefits to the City Centre.

- Delivery of high quality employment and residential accommodation to Manchester City Centre, meeting the strategic objectives of Manchester City Council, the Association of Greater Manchester Authorities and the UK Government by supporting Manchester's growth trajectory.

- Delivery of new and enhanced connections through the Site, including:

o A new vertical connection from Great Bridgewater Street onto the top of the viaduct, leading directly via enhanced public realm to Deansgate Interchange, incorporating Deansgate Castlefield Metrolink Station and Deansgate Railway Station. This will complete the regeneration of the site building on the investment made by TFGM and Manchester City Council to create a new transport hub at this location, which opened in 2016. The cost of this intervention, borne by the developer, is estimated at £3.5 million.

o Transformational change of the east-west connection along Great Bridgewater Street between Deansgate and Albion Street, repairing the currently severed connection between this historically key route and enhancing permeability through the City Centre.

o Reinstatement a strong frontage onto Albion Street and implementing changes to the existing hierarchy between footpath and highways at this location, which is currently dominated by cars and presents a perceptual barrier to pedestrian movement.

- Creation of new and enhanced public realm and soft landscaping on top of the viaduct structure, contributing to the greening of the city and its biodiversity.

- Re-activation of the existing heritage assets on-Site, drawing people into them for the first time to understand and appreciate their heritage context, and creating a viable use for their continued retention and maintenance.

- Delivery of high-quality, distinctive architecture that will contribute to defining Manchester as a modern and evolving world city.

These benefits will contribute to the economic, social and environmental well-being of the city, which is considered in detail in the Planning Supporting Statement.

2.9 Planning Policy

This section is to be read with the accompanying Planning and Tall Building Statement which provides further details and analysis of planning policy.

Relevant adopted planning policy which has been considered as part of the preparation of the planning application covers national and local planning policies as well as other relevant guidance (including sub-regional policies), where appropriate.

The Local Development Framework (LDF) is a collection of statutory Development Plan Documents (DPDs) that together set out the vision and spatial strategy for the future development of Manchester. To-date only the Core Strategy DPD has been adopted by Manchester City Council. Within this context, the Development Plan comprises:

- Manchester Core Strategy 2012.
- Manchester Unitary Development Plan Saved Policies.

Manchester Local Development Framework

Core Strategy

The Manchester Core Strategy was adopted in July 2012 and is the key, overarching DPD within the LDF. The Core Strategy has replaced significant elements of the Manchester UDP as the document that sets out the long term strategic policies for Manchester's future development and forms the framework that planning applications will be assessed against.

The document covers a period of 15 years and outlines the Council's vision for Manchester to 2027 along with the planning policies which will be used to deliver that vision. The Proposed Development has been considered against the relevant policies in the DPD and highlighted in the Planning and Tall Building Statement. The commentary within the Statement and supporting technical documents demonstrates that the proposals are in full compliance with these policies.

Material Considerations

In addition to the Development Plan, documents which have been considered which comprise material considerations in the determination of the application include:

National Planning Policy and Guidance

- National Planning Policy Framework (NPPF) 2012
- National Planning Policy and Guidance (NPPG)

Draft Regional Policy

- Draft Greater Manchester Spatial Framework 2016

Local Guidance and Frameworks

- 2009 Manchester Civic Quarter Framework
- 2017 Great Northern, Manchester Central and Castlefield Quay Strategic

Regeneration Framework

- 2007 Guide to Development in Manchester Supplementary Planning

Document and Planning Guidance

- Providing for Housing Choice Supplementary Planning Document and

Planning Guidance

- 2016 Manchester City Council Residential Quality Guidance

National Planning Policy and Guidance

The application proposals accord fully with the key tenets of relevant National Planning Policy. The proposals will provide a high quality mixed use development in an accessible city centre location that will integrate with and support existing surrounding uses.

The proposals are of the highest design quality and will create a dynamic and interesting building whilst complementing the surrounding area, and help to revitalise this underutilised area of the City Centre.

The scheme has excellent sustainability credentials and accords fully with Government's objective of encouraging sustainable development and furthermore, conserving and enhancing the historic environment. The Application Site is located on previously developed land within the City Centre and is easily accessible by a range of modes of public transport.

With specific reference to Section12 of the NPPF regarding heritage policy, the adverse impacts of the proposed development should be considered as resulting in 'less than substantial harm'. The NPFF stresses that 'great weight' should be given to the objective of conserving listed building, emphasising the need to avoid substantial harm to such designated heritage assets. In this instance the development will result in no loss of historic fabric, or impact on significant archaeological remains. The proposals will make a positive contribution to the vitality of this part of the city centre and therefore enhances the character and distinctiveness of the setting of the identified heritage asset surrounding the site. Consequently, the proposed development is demonstrably consistent with the desirability of new development making a positive contribution to local character and distinctiveness and therefore accords with the requirements of the NPPF.

Draft Regional Policy

The Proposed Developments is in compliance with the Draft Framework providing development on a brownfield site, opening up the existing arches for retail use, and providing high quality residential units comprising a range of sizes which are complementary to the surrounding uses. Furthermore, the proposed office use in line with the strategy of supporting continued growth of the city centre within close proximity to the Deansgate-Castlefield Interchange.

Local Frameworks and Guidance

The Proposed Development is located within the heart of the Civic Quarter and will transform the area through the delivery of a high quality mixed use development, assisting in the economic growth of the city centre through the development of high quality residential units and provision of Grade A office space, located at a key gateway to the city and adjacent to the new Deansgate-Castlefield Interchange.
The Planning and Tall Building Statement provides an assessment of the various Local Frameworks and Guidance of relevance to the site and how the proposals meet the objectives set out with the documents.

2.10 Brief Development

2.10.1 Constraints

The design development of the scheme has been a complex process and a variety of options have been generated to analyse key issues associated with the site and its surroundings; the scale, massing and permeability of the proposed development and its relationship to the current surrounding context.

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

2.10.2 Grade II Listed Arches
The elevated nature of the site effectively separates any development above from its front door at street level. This separation must be carefully considered through the design process. The arches - whilst used to supporting the weight of freight trains have limitations to the extent of development than can be founded on top - without independent structure. Any independent structure will have to be carefully positioned to avoid existing brick piers.

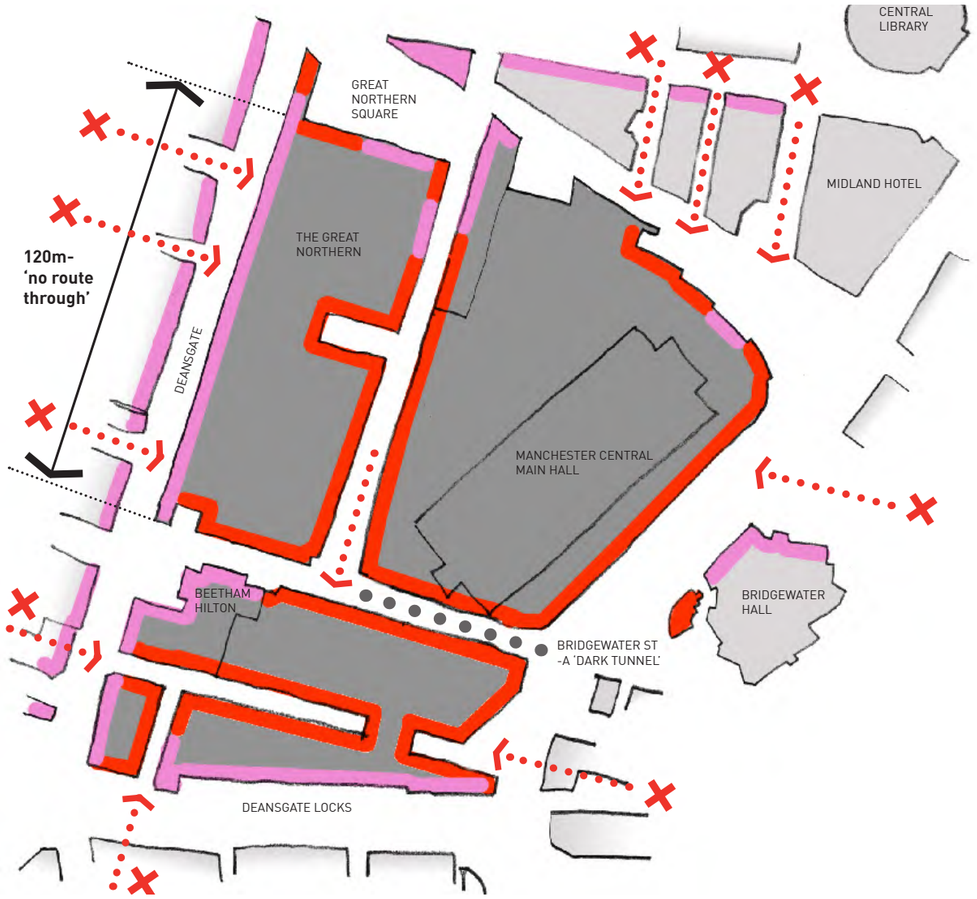
2.10.3 Manchester Central Service yard
The service yard for Manchester Central Conference Centre provides a unique challenge for the development of the site, both during construction of the development and post completion.

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 Conference Centre. The introduction of columns and core elements to support development above, will have to be carefully considered in their impact on the usability of the space.

2.10.4 Metrolink Tram Line
The line from Deansgate Castlefield to St Peter's Square cuts across the south eastern corner of the site. Consultation with Transport for Greater Manchester established a series of design parameters and no build zones horizontally and vertically from the line.

2.10.5 Electricity North West Primary Substation & Easement
A live primary substation is located at ground level within the arches to the south western corner of the site. Through consultation with ENW it was established that no development could take place that would located structure or a building over or through the zone of the primary substation.

In addition to this no build zone, the sub station is fed by a series of High Voltage cables running within the arch directly north in line with Watson Street, it is also not possible to found any structure within this zone due to the location of the cables.



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

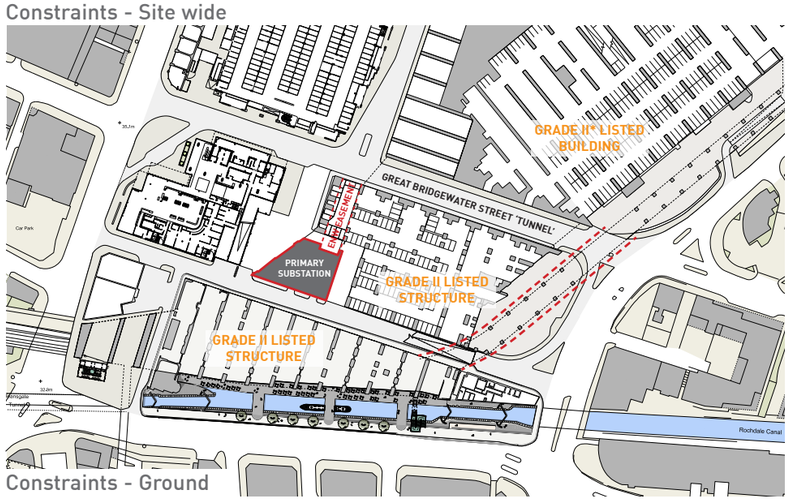
The study area represents the largest area of impermeable built fabric in the city centre

KEY

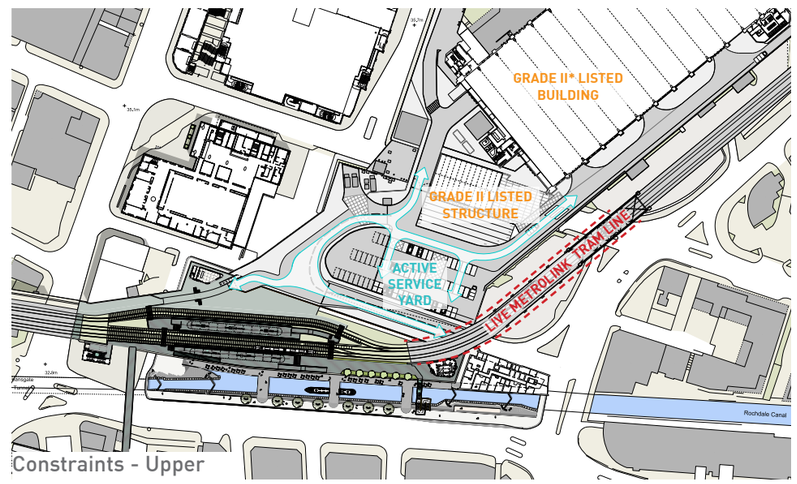
'DEAD' frontage

ACTIVE frontage

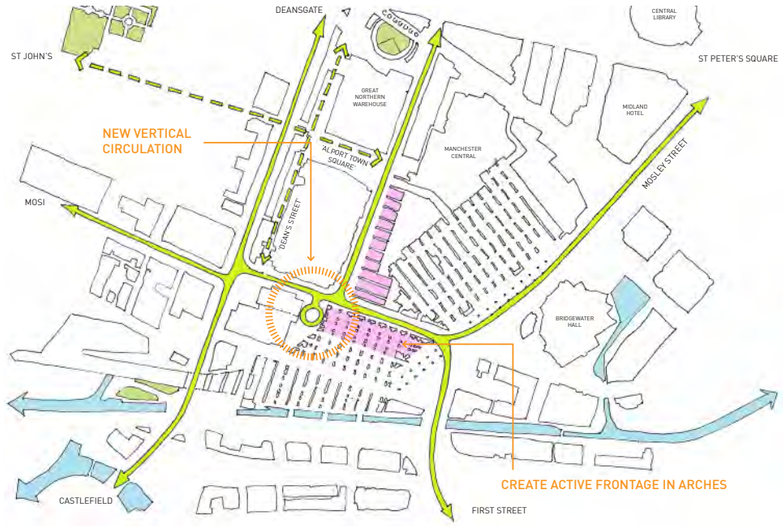
IMPERMEABLE built form



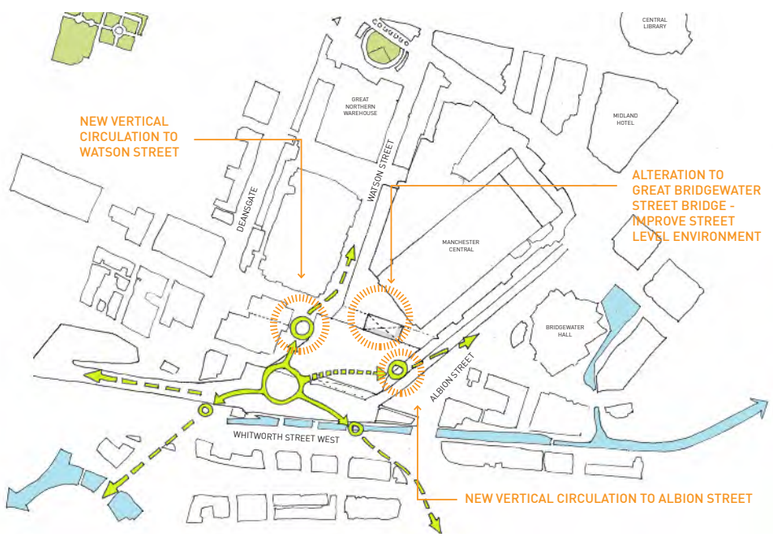
Constraints - Ground



Constraints - Upper



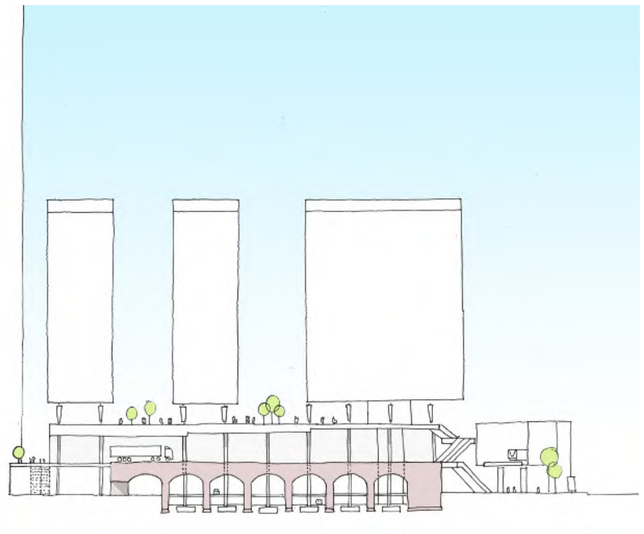
Opportunities - Street level



Opportunities - Upper level



Opportunities - Programmatic use



Opportunities - Concept sketch section

2.10.6 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.

2.10.7 Quantum of Development

The size of the available site area provides one of the few remaining opportunities to create much needed residential and office accommodation on an undeveloped plot within the city centre. The site sits at a pivotal location between the city centre's civic and commercial core and key regeneration areas such as First Street and St John's.

2.10.8 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 in to the city would in effect create a new front door to the city for tram and rail passengers. 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.

2.10.9 Listed Assets

The exiting brick vaulted arches beneath the viaduct comprise a striking heritage asset that is currently underutilised and largely unknown to the general public. There is a fantastic opportunity to bring active uses back into these arches to re-engage people with them. There is also an opportunity to draw the Grade II* Listed Manchester Central building back into the city core, resolving the poor quality and fractured public realm around it and creating new vantage points from which to appreciate its built form.

2.10.10 Street Level Environment

The environment at street level currently suffers from a lack of any form of active frontage - the creation of building entrances at street level and potential for retail 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 in to this area whilst activating a number or arches at street level will help to repair this important east/west connection.

2.10.11 Programmatic use

The site offers the opportunities to bridge the gap in Grade A office accommodation between the city centre core of St Peter's Square / Barbirolli Square and the office developments of First Street. Residential use would work well with the existing neighbourhoods and compliment the Hilton Tower / Great Northern Tower. The arched undercroft offers significant potential for retail and leisure usage.

3.0 Design

3.1 Options Appraisal i

Purpose
Having defined the key principles underpinning the development, the heritage baseline and the parameters of developable land within the Site; an exhaustive options appraisal was undertaken to define the optimum solution for the Site. This utilised a staged approach illustrated in the adjacent process diagram.

Outline Client Brief
An outline brief was developed which included the following key 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

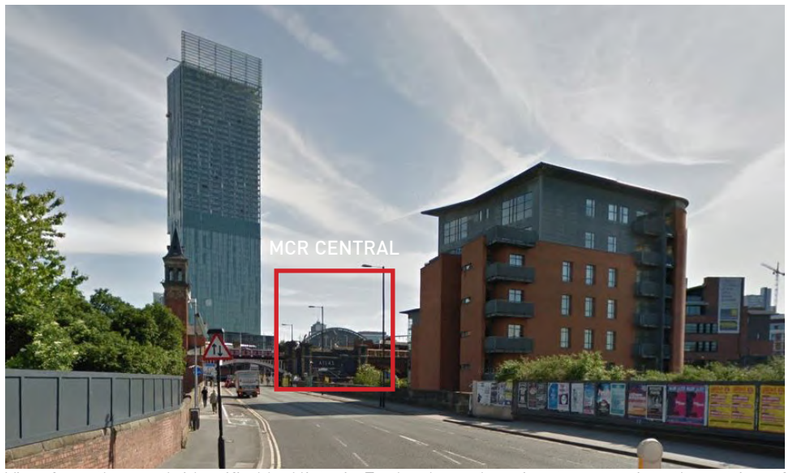
Through testing these themes and from specialist heritage input / consultation a detailed client brief was established later in the design process.

Process	Input	Outcome
1 **Brief**	**Outline Client Brief** **SLHA - Significance Appraisal** **Historic England Consultation** **Strategic Regeneration Framework**	Established a detailed understanding of the significance of the heritage assets on and adjacent to the site. Also established the need to minimise impact of development on heritage assets' setting and fabric from the outset of the design process. SRF and client brief set out required development potential for the site.
2 **Structural Options**	**Specialist Structural Engineering** **SLHA - Significance Appraisal** **Historic England Consultation**	Series of structural options produced following input from specialist structural engineers with a proven track record in working with listed assets of this nature; concentrating on limiting the impact on the listed fabric. Further consultation with HE to discuss range of structural approaches available. Identified the appropriate structural solution for the site that minimises harm to the fabric, whilst supporting a viable density of development.
3 **Development Options**	**Detailed Client Brief** **Architectural Design Options**	Defined detailed Client Brief drawing on stages 1 and 2. Tested series of development options against the detailed client brief requirements, in order to assess which could deliver the necessary quantum of accommodation whilst minimising harm to the listed assets.
4 **Refined Design Options**	**Historic England Consultation** **Detailed Cost Analysis** **Construction Viability Appraisals**	Three suitable options were identified from in excess of 30 different massing arrangements. Number of residential units within defined massing envelope optimised & floorplate efficiency improved.
5 **Chosen Option**	**Historic England Consultation**	Option chosen that minimises harm to listed fabric and massing, whilst delivering on the objectives of the SRF and client brief.

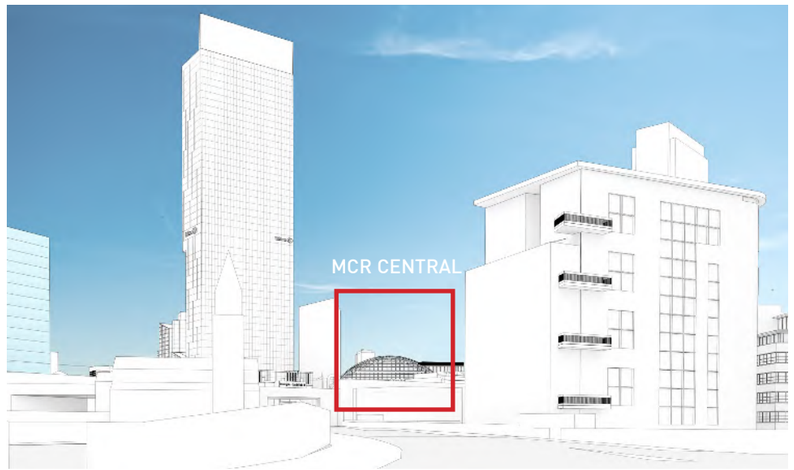
Setting of Listed Assets



The Heritage Significance Appraisal underpinning the design process identified views within the building and from the north of it as being the key views by which this important heritage asset can be appreciated.

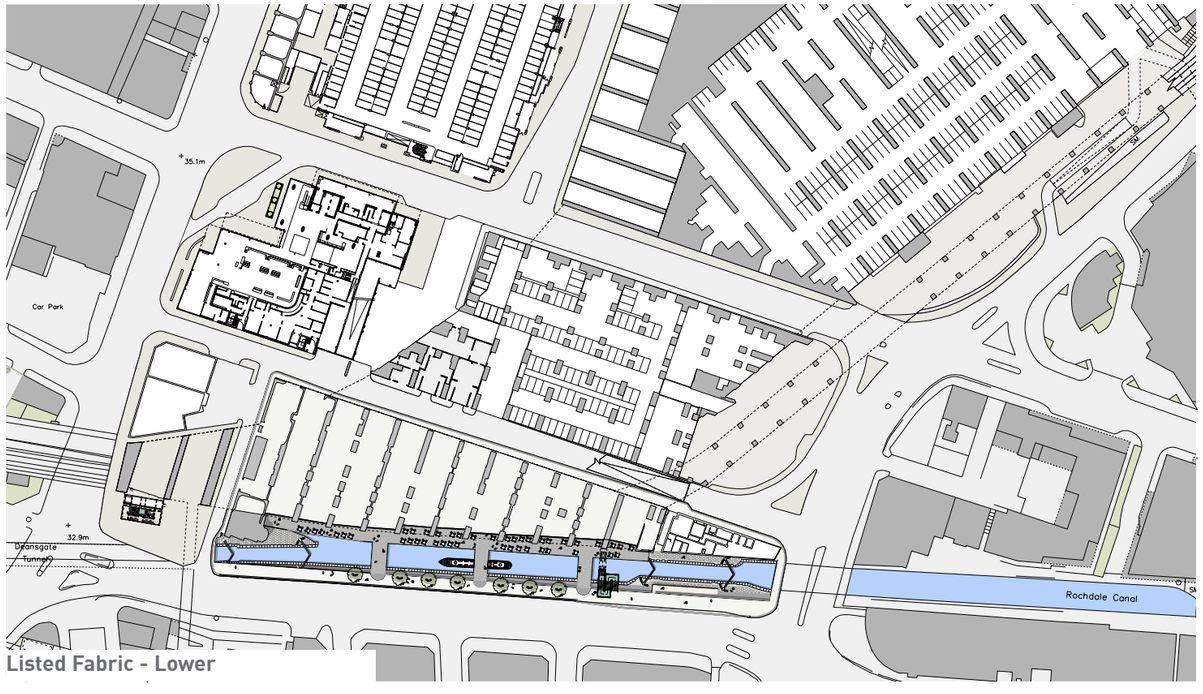


View from the south identified by Historic England as a key view to appreciate the setting of the listed building.

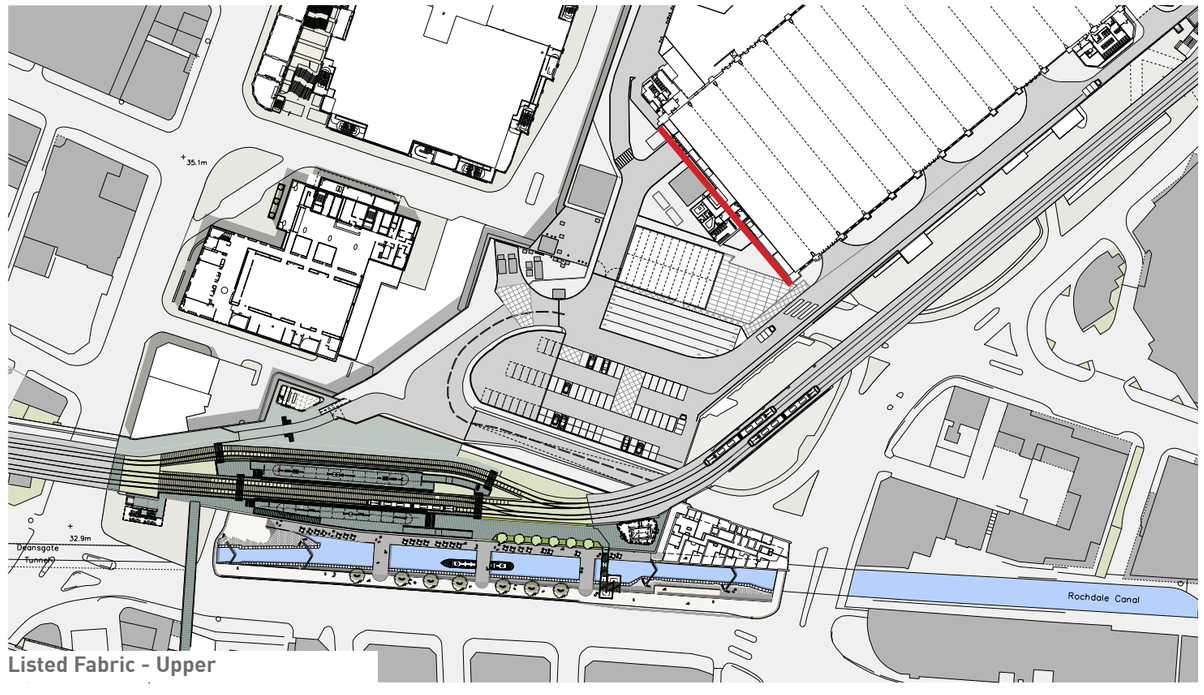


3D representation of the view from the south, used to test impact of massing options against.

Fabric of Listed Assets



Listed Fabric - Lower



Listed Fabric - Upper

3.1.2 Structural options

Purpose
An exhaustive options appraisal has been carried out by the design team with specialist engineering input from Curtins structural engineers addressing structural options for developing the site. These options range from no intervention in to the listed fabric to complete demolition.

The options appraisal has been used to define optimum solution or solutions to deliver the client brief for redevelopment of the site and the framework to develop the appropriate architectural solution to the site. Appraisal comprises a sequential assessment of interventions, considered against key criteria including physical harm to the heritage assets on-site and harm to setting of adjacent listed asset. Heritage Impact to consider physical impact of each option and significance of asset affected or lost.

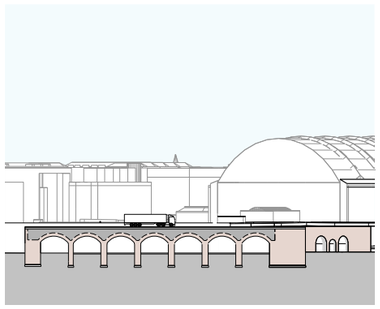
The appraisal covers the following options, the impacts of which are summarised overleaf:

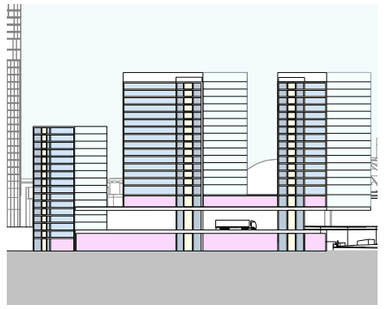
01 Do nothing
02 Full demolition of the arches
03 No physical intervention
04 Piling through existing piers
05 Piling through apex of arch - suspend core
06 Pile through apex of arch - core to ground

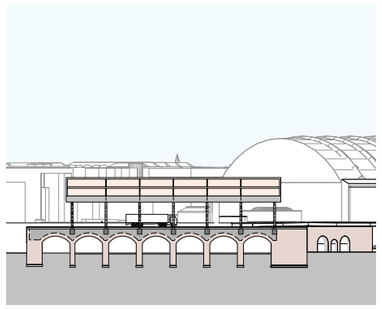


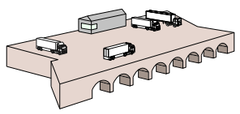






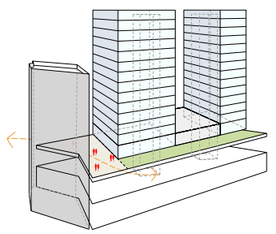






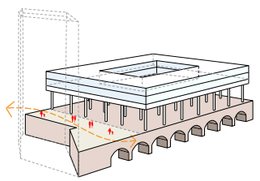
Option 01 Do nothing

Retail Arches	16,400 sq ft
Car Park	72 spaces



Option 02 Full demolition

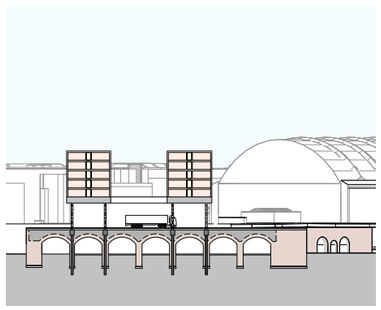
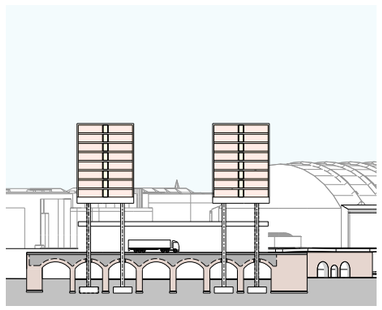
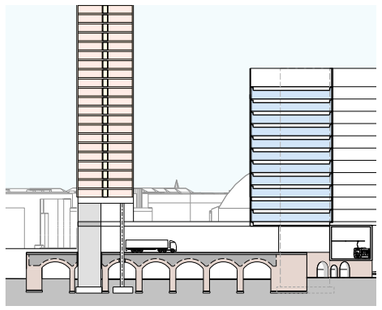
Hotel	252 rooms 5*Hotel
Office	220,000 sq ft
Retail unit	17,554 sq ft
Retail Ground	17,317 sq ft
Car Park	403 spaces

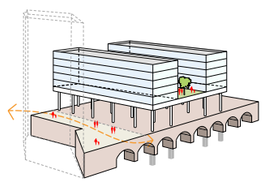


Option 03 No physical intervention

Residential	61,268 sq ft 80 apts.
Retail Arches	14,300 sq ft
Car Park	72 spaces

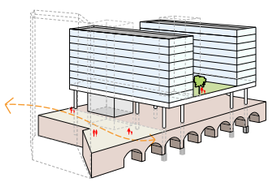




Option 04 **Pile through piers**

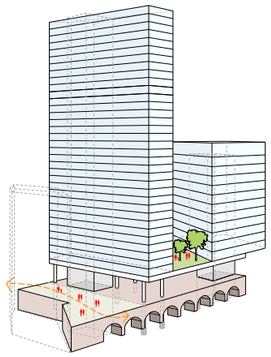
Residential	95,000 sq ft 100 apts.
Retail Arches	14,300 sq ft
Car Park	72 spaces



Option 05 **Pile through arch apex**

Residential	152,000 sq ft 160 apts
Retail Arches	14,300 sq ft
Car Park	72 spaces

Chosen Option



Option 06 **Pile through arch apex**

Residential	350,000 sq ft 350 apts
Office	240,000 sq ft NIA
Retail Arches	14,300 sq ft
Car Park	72 spaces

Conclusion

All options with the exception of the "do nothing" option led to a significant impact upon views of the Grade II* Listed Manchester Central building when viewed from the south (shown in the adjacent 3D images). Whilst the importance of this view was understood by the project team – and informed the massing options considered, the Heritage Significance Appraisal underpinning the design process identified views within the building and from the north of it as being the key views by which this important heritage asset can be appreciated.

Option 01

Will not deliver any development to support delivery of the 2017 SRF objectives. Risk to existing fabric through lack of upkeep; water penetration could cause future damage, no environmental or public benefits.

Option 02

Would potentially deliver an appropriate density of development within a high quality development; however, as this would lead to wholesale obliteration of the Grade II Listed viaduct, this option was discounted first.

Option 03

Will not deliver sufficient development to support delivery of the 2017 SRF objectives. No 'front door' at street level for the development.

Option 04

Will not deliver sufficient development to support delivery of the 2017 SRF objectives.

Piling through structural piers carries a significant degree of risk of the listed fabric through settlement of existing structure.

Option 05

Piling through the apex of the arches and suspending the core at viaduct level will deliver more development but not enough support delivery of the 2017 SRF objectives.

Option 06 - Chosen Option

Through bringing the core to solid foundations at ground level it is possible to construct a taller building and therefore greater accommodation. This was considered to provide the optimum structural solution for the Site, which had the potential to deliver an appropriate density of development to meet SRF objectives and deliver public benefits whilst minimising impacts on the heritage assets.

3.1.3 Detailed Client Brief

Having defined the optimum structural solution, the Client Brief was refined through consultation with agents, potential development partners and the city council to define the optimum mix and density of uses across the Site. The Client Brief has been driven by the SRF principles and wider policy objectives, together with expert advice from Arcadis and Carillion on construction viability and JLL on market demand and development viability.

Listed Assets

- Retain as much listed viaduct as possible.
- 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

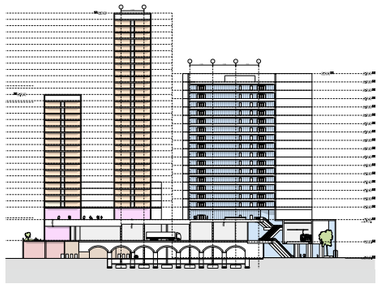
Landscaping

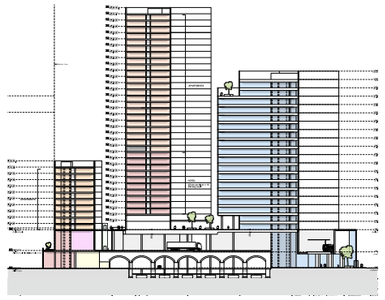
- Create new high quality public route from Metrolink Tram Stop to Watson Street
- Create high quality private amenity space for the residential + office developments
- Repair the street scene along Great Bridgewater Street and Albion Street.

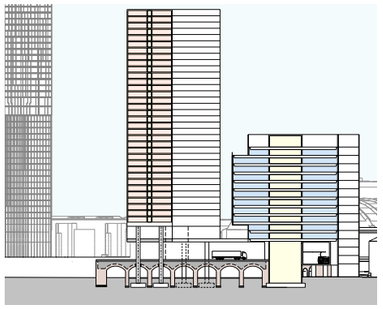




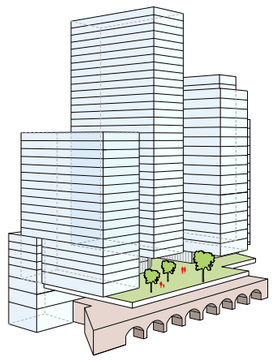






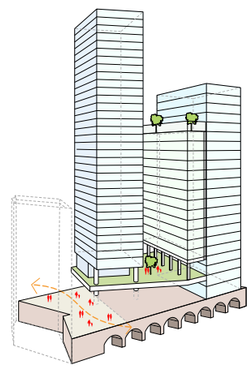


Approach 01



Development Option A

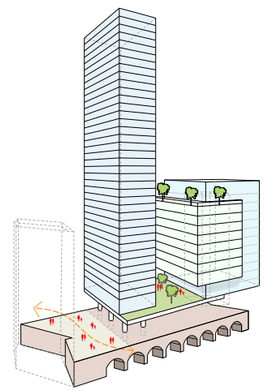
Residential	417 units
Grade A office	336,000 sq ft
Hotel	200 bed
Retail Arches	14,300 sq ft



Development Option B

Residential	308,000 sq ft 350 apts.
Grade A office	336,000 sq ft
Retail Arches	14,300 sq ft
Car Park	72 spaces

Approach 02



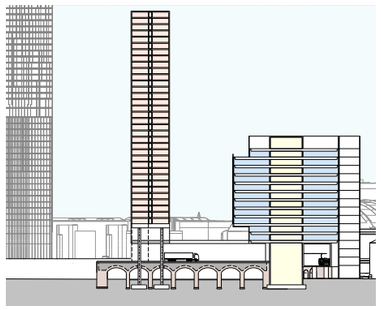
Development Option C

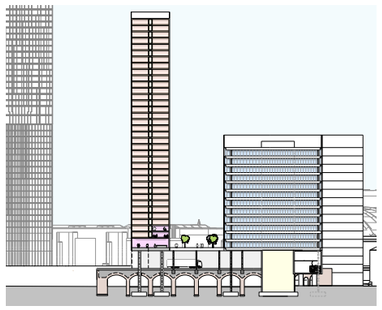
Residential	354,000 sq ft 350 apts
Office	240,000 sq ft
Retail Arches	12,900 sq ft GIA
Car Park	72 spaces

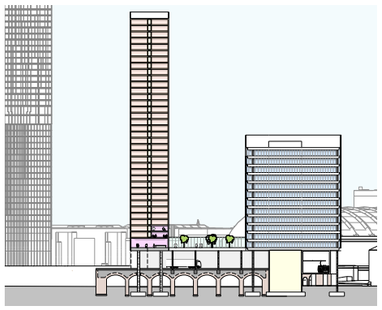


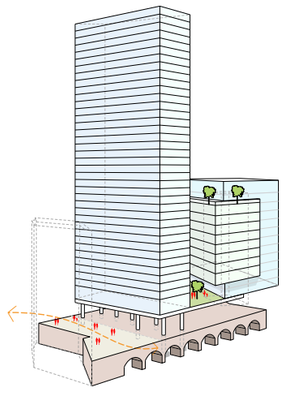






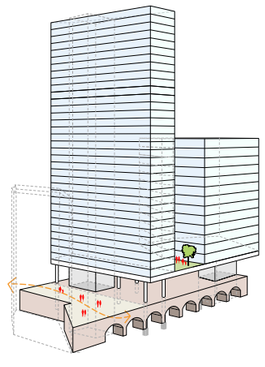






Development Option D

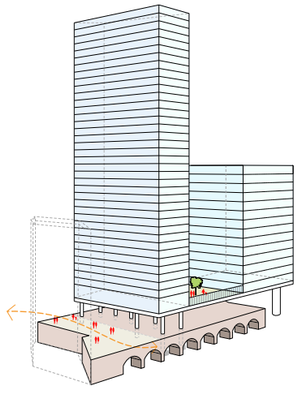
Residential	354,000 sq ft 350 apts.
Grade A office	240,000 sq ft NIA
Retail Arches	12,900 sq ft
Car Park	72 spaces



Development Option E (i)

Residential	354,000 sq ft 350 apts
Office	240,000 sq ft
Retail Arches	12,900 sq ft GIA
Car Park	72 spaces

Approach 03



Development Option E (ii)

Residential	354,755 sq ft 350 apts.
Office	240,000 sq ft NIA
Retail Arches	12,900 sq ft GIA
Car Park	72 spaces

3.1.4 Development options

Overview
Having defined the appropriate structural solution for the site and the client brief for its redevelopment, a range of massing options were considered in order to define the optimum design solution for the site's redevelopment. Over thirty options and sub options were explored by the design team to assess development massing against the listed setting and fabric.

Option A (Approach 01)
This approach aligned the buildings with the grid of the listed structure below. It was chosen for further design development as the positioning of the buildings allowed for the structure to have a relatively low impact to the listed fabric below, and formed a base case for further options.

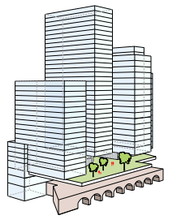
Option B
The buildings were orientated on axis with Manchester Central allowing glimpsed views through to the former station building when approached from the south. This option was not taken further but developed in to a further iteration; option C (below).

Option C (Approach 02)
In a similar manner to option B - the buildings were aligned to Manchester Central, glimpsed views were increased by making a taller more slender residential building and crucially by building out over the Metrolink line with a lower office building with more generous floorplates. This option was explored further due to the sensitive approach to the setting of the listed assets.

Option D
This option created a hybrid; the residential building was positioned to minimise impact on the fabric to the listed asset, the office was positioned out over the Metrolink line to maintain glimpsed views. Ultimately this option compromised both the setting and fabric of the listed assets and it was not explored further.

Option E (i)
A variation of option D, the shape of the office floorplate was adjusted to allow for greater separation between the two buildings. This however created a massing that was difficult to deal with proportionally and was not progressed.

Option E (ii) (Approach 03)
This approach created the most elegant formal response, with two rectilinear blocks, separated by the greatest distance (28m) of all development options. the orientation and positioning of the building worked with the grid of the listed fabric and minimised structural intervention.



3.1.5 Approach 01

Concept

The client brief established the need to retain as much of the Grade II listed viaduct as possible and to exhaust all options to mitigate impacts upon the setting of the southern elevation of Manchester Central. Having previously determined the quantum of accommodation required the only suitable structural approach would be to penetrate through the head of the arches with an independent structure.

The initial response was to create a simple and efficient structural grid, with columns penetrating through the head of the arches at 11m centres. On to which a deck could be created with accommodation arranged above.

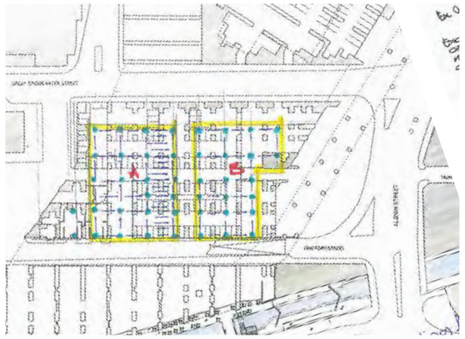
The deck would be a landscaped space with a southerly aspect, bridging over Trafford Street and connecting down to the Metrolink Stop. This ambition was in line with aspirations from the Manchester Central Masterplan in 2009. A further pedestrian connection would be created via a series of escalators from the Metrolink level directly down on to Great Bridgewater street, positioned between the Hilton Tower and the first residential building.

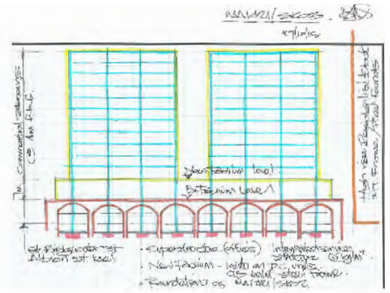
The accommodation in this option comprises two mid scale residential buildings a large scale office building with an address on Albion Street and a hotel building which links the two residential buildings at the lower level.

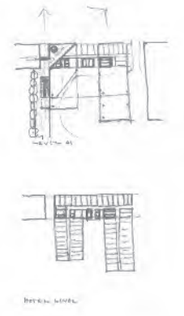
Conclusion

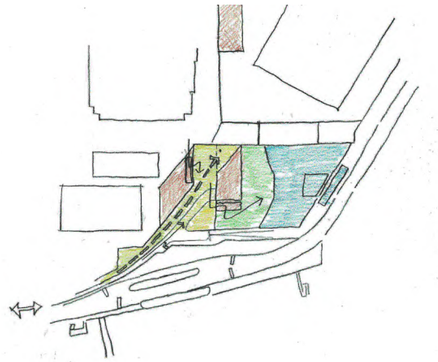
The scheme centred around the need to retain as much of the listed fabric as possible, which governed the setting out of the buildings and their north-south orientation.

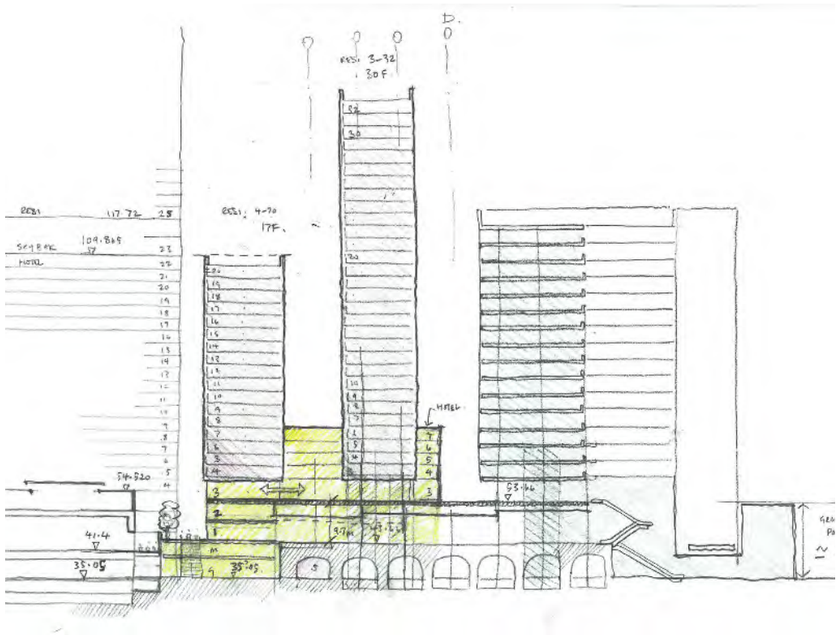
Early consultation with Historic England indicated that more of a balance should be sought between retention of listed fabric vs. the setting of the Grade II* listed former Central Station building. It was also felt that the proposed new public route down to Great Bridgewater Street was not of adequate scale. Consequently this option was not developed further.



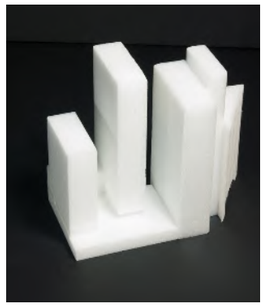




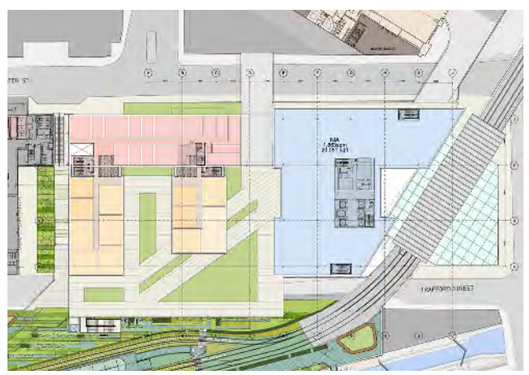


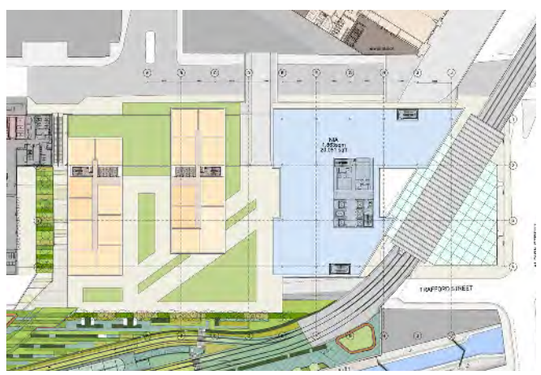


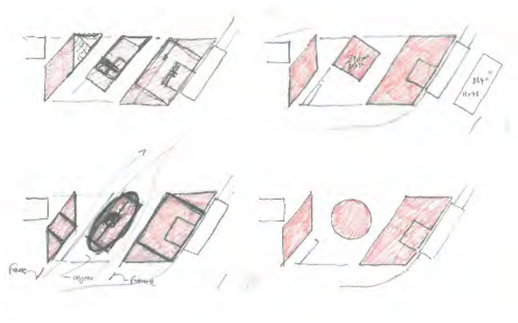


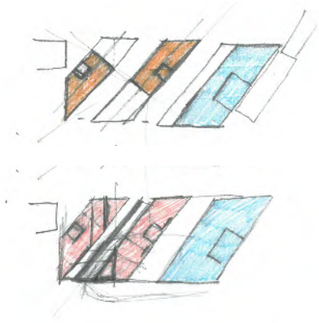


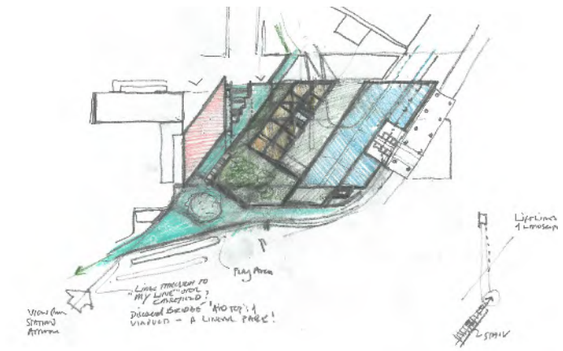


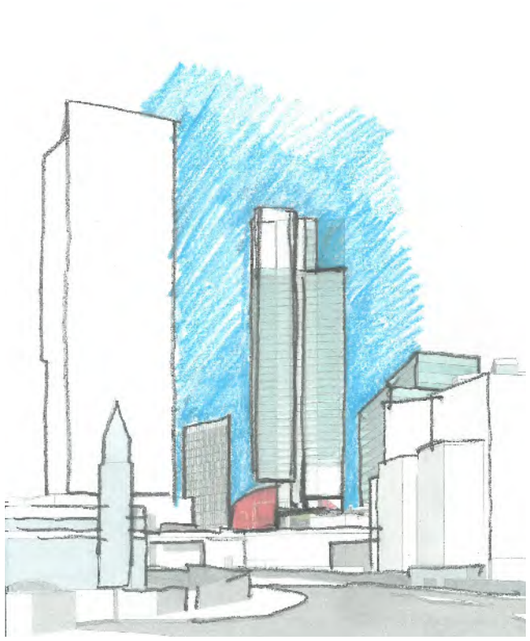


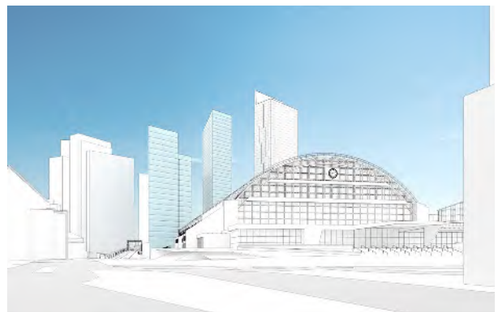


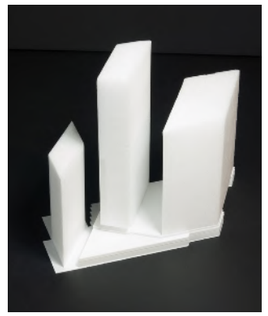






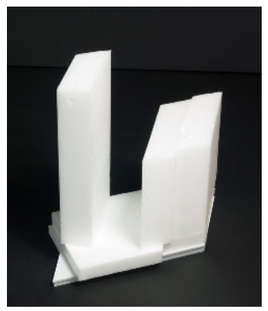


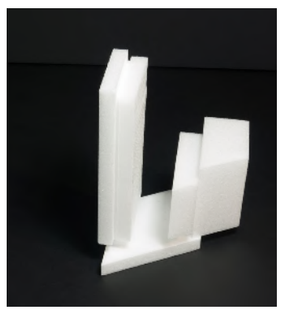


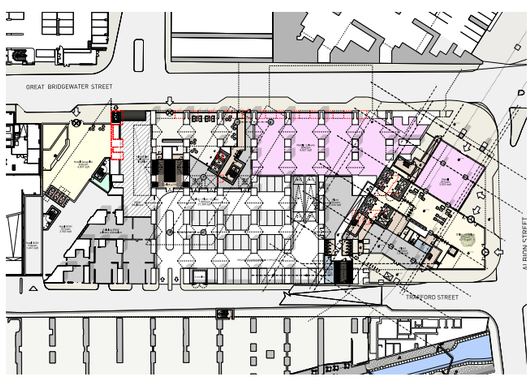


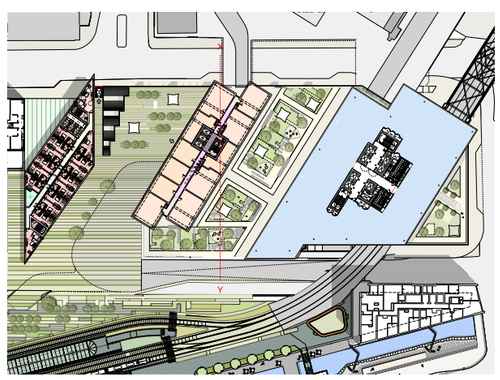






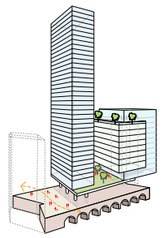












3.1.6 Approach 02

Concept

This approach orientated all the buildings on axis with the former Manchester Central Station building. In doing so the position of the buildings allowed glimpsed views through to the gable of the train shed, when approached from the south and kinetic views from the Metrolink and Heavy rail lines running east-west.

The proposal contained a taller residential building, consolidating the accommodation from the two mid scale residential buildings in to a taller residential tower aligned on axis with the former station building. The hotel building was positioned in the 'slot' site in between the Hilton Tower and the development site - within the massing of the 2005 consented office scheme. The office building takes on a parallelogram plan form running alongside the Metrolink line.

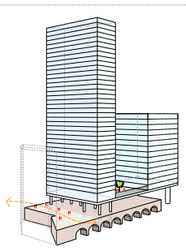
This arrangement allowed for greater separation between the buildings and a more generous landscaped route down to Watson Street, with the service yard cut back to allow views to the gable of Manchester Central.

Conclusion

The approach was successful in partially mitigating the impacts upon views of the Grade II* Listed Manchester Central building and maintaining a perceptual linkage to the former railway use of the viaduct, following the route of the former railway tracks.

In orientating the buildings in this manner to form a strong relationship with Manchester Central, a compromise has to be made in regard to the listed fabric of the arches below. Cores from the buildings penetrate through the arches at almost 45 degrees, which would result in more extensive alteration.

The opportunities to found structure through the apex of the arches is also limited due to the angle of the building, resulting in only five suitable column positions for the residential tower. This creates an incredibly complex transfer level that must re apportion the load from 29 columns down to just five 2m diameter columns. Due to the complexities surrounding this option, the impact on the listed fabric and only a partial mitigation on the impact to the setting this idea was not developed further.



3.1.7 Approach 03

Concept

Due to the complexities of the second approach and the amount of alteration required to the arch structure, a simpler more elegant composition of buildings was proposed.

In this arrangement the residential tower is locked in to the immediate city context aligned to Watson Street, and perpendicular to the Hilton Tower. The tower is carefully positioned to allow core and structure to create the minimal possible intervention to the listed fabric, sitting between existing brick piers. In the cityscape the tower forms a marker at the end of Watson Street and frames a new grand staircase and lift.

The office building is pushed out over the Metrolink line allowing for greater separation between the office and residential elements and an increased presence on Albion Street. Through pushing the office out over the metrolink line and effectively beyond the site limits there is less of a requirement to penetrate through the arches with columns as these can be founded on clear ground.

The podium shrouds the service yard with a green wall - linking the office and residential buildings to create a clear diagram. Above this podium a south facing landscaped deck links the office and the residential building and provides amenity to both buildings throughout the day.

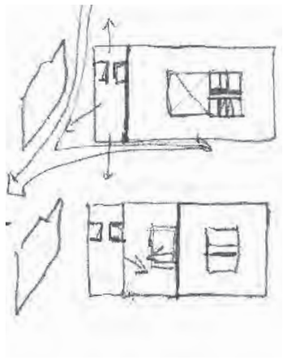
Refinement

As the concept proposals were developed it was necessary for the design team to undertake a detailed cost analysis and series of construction viability appraisals to ensure the viability and deliverability of the scheme. Through this quantitative testing it became necessary to improve the efficiency of the building in order to offset the significant structural challenges and costs of such a unique residential building proposition. As such the number of units were increased to 375 within the same 40 storey massing envelope that had been tested at concept stage. This increase was facilitated through the development of an efficient, single floorplate apartment mix which repeats up the building and the incorporation of a fourth passenger lift.

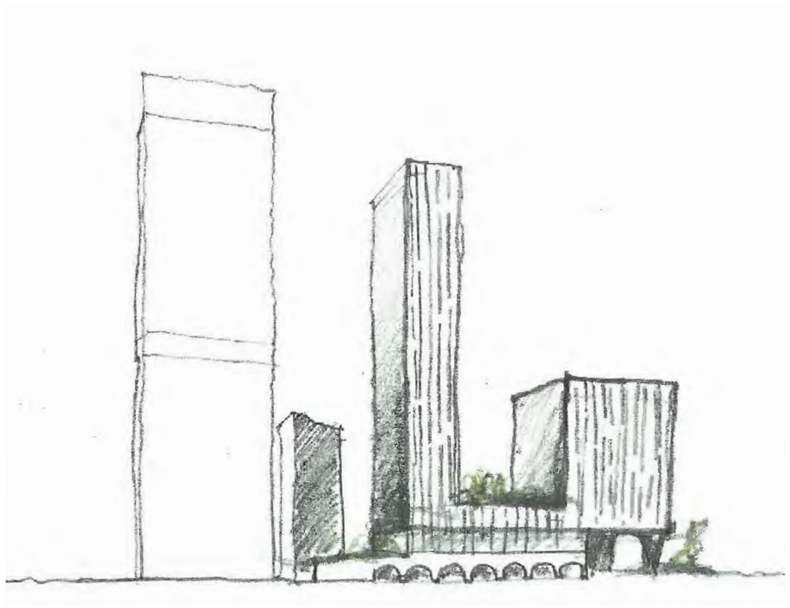
Conclusion

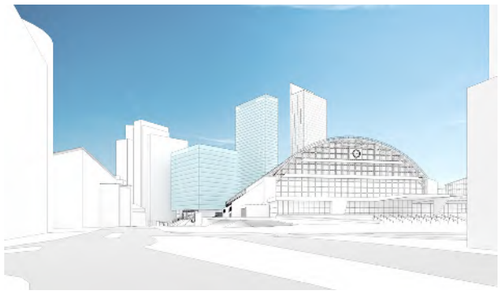
This approach was selected as the optimum solution, in terms of the simplicity of its structure, deliverability and architectural form. Critically, it was considered the optimum solution to deliver on the Client Brief (and by extension the objectives of the 2017 SRF), whilst minimising the impact upon the heritage assets on and adjacent to the Site. The positioning of the buildings allows for the fewest structural penetrations through the listed fabric of all the approaches.







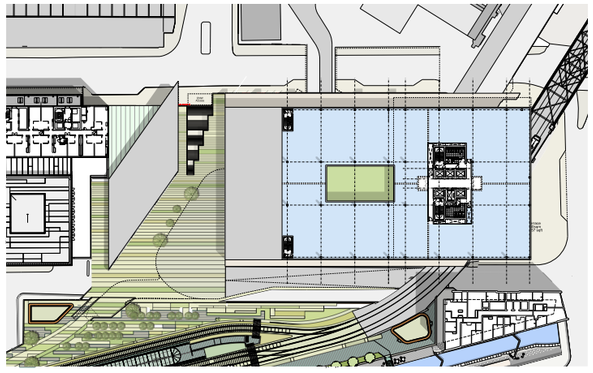


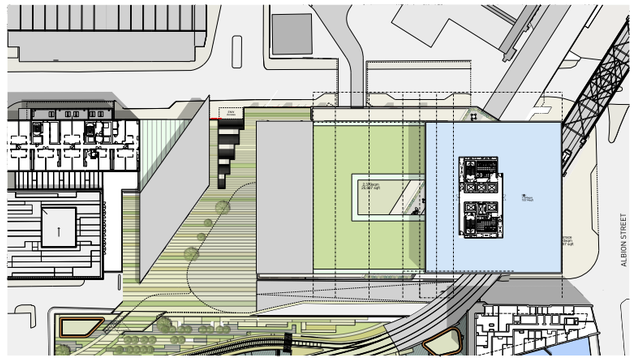


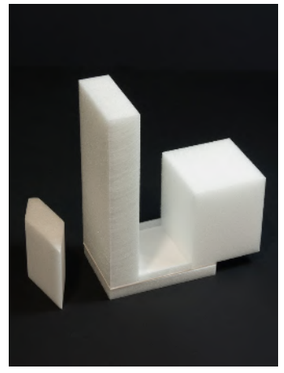


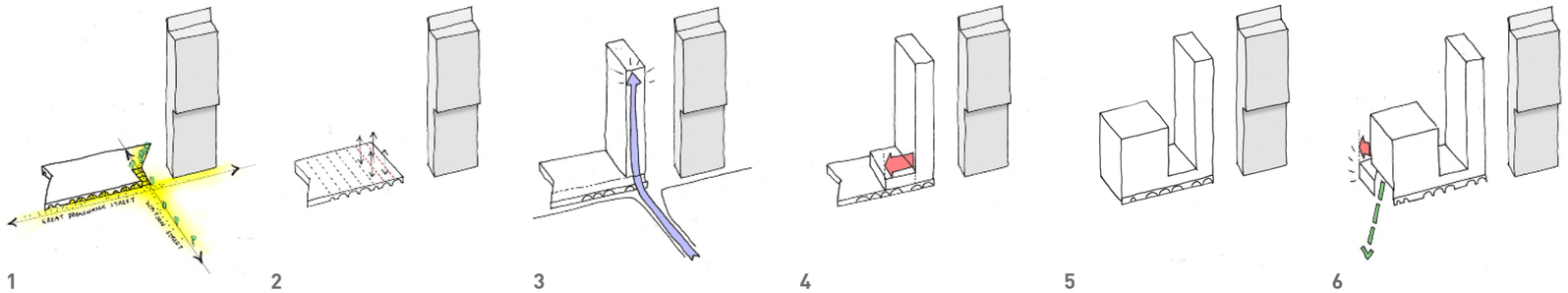




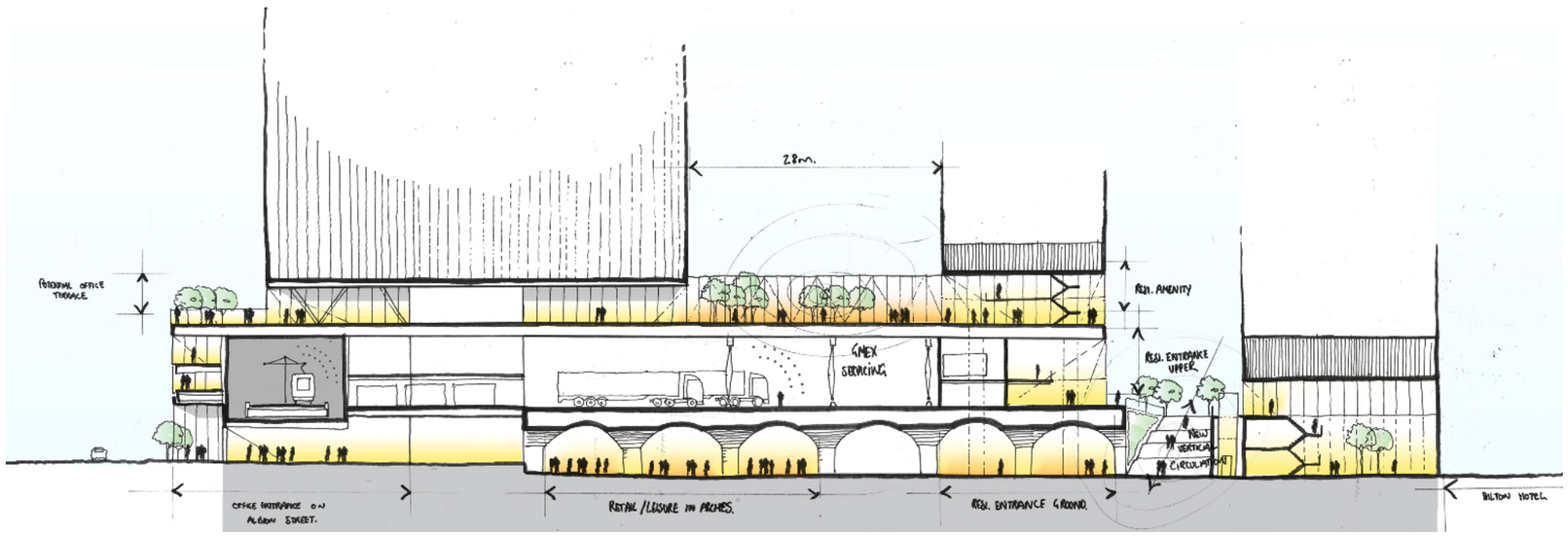




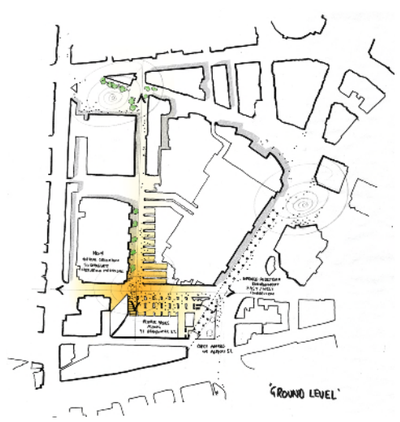




1 2 3 4 5 6



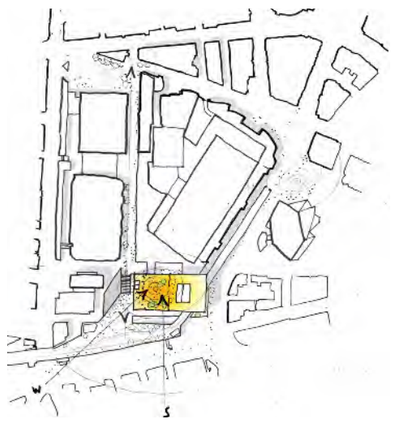
Concept Section - Layers of Activity



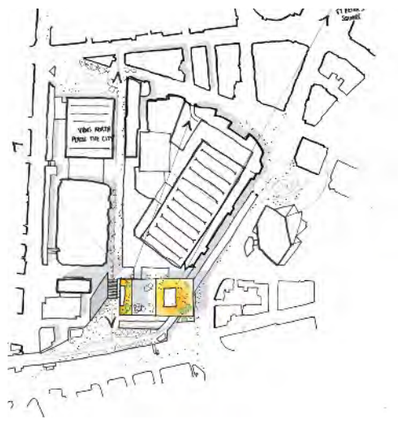
Concept - Ground Level



Concept - Tram Stop Level



Concept - Amenity Level



Concept - Rooftop Level

Massing development

A series of key moves were established in order to create a clear and legible development 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

3.2 Options Appraisal ii

Purpose

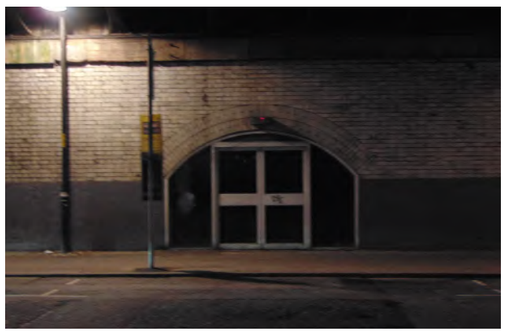
Having defined the preferred massing option for development, further consideration was given to the pedestrian experience within and around the Site, and the functional requirements of the development. This necessitated further consideration of the appropriate design solution to enhance the pedestrian experience along Great Bridgewater Street, a key objective of the 2017 SRF. As defined in the SRF, the key objective was to bring light and activity into this currently dark and unwelcoming underpass.

Conclusion

Option 'v' was chosen as the most suitable to deliver the necessary public realm improvements and activity along the street, thereby repairing this key route, it was considered necessary to introduce some form of natural daylight to the street. This necessitates removal of sections the bridge.

Structural advice from Curtins 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 considered the most appropriate, which retains 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. These sections will be appropriately treated and restored to show them in their best light.



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 reactiviating 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 aches 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 has been explored, but in reality due to the depth of the rib sections even with the deck removed, little natural light penetrates down to street level in 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 Consultation

3.3.1 Third Parties

The scheme has been developed in consultation with the Local Planning Authority, Statutory Consultees, key stakeholders and adjoining owners and occupiers. As part of the consultation process, the following key stakeholders have been engaged:

- Manchester City Council
- Historic England
- Manchester Central
- Transport for Greater Manchester
- Greater Manchester Police
- Counter Terrorism Unit
- Local Ward Councillors
- Local businesses and residents
- PlacesMatter! Design Review

Historic England

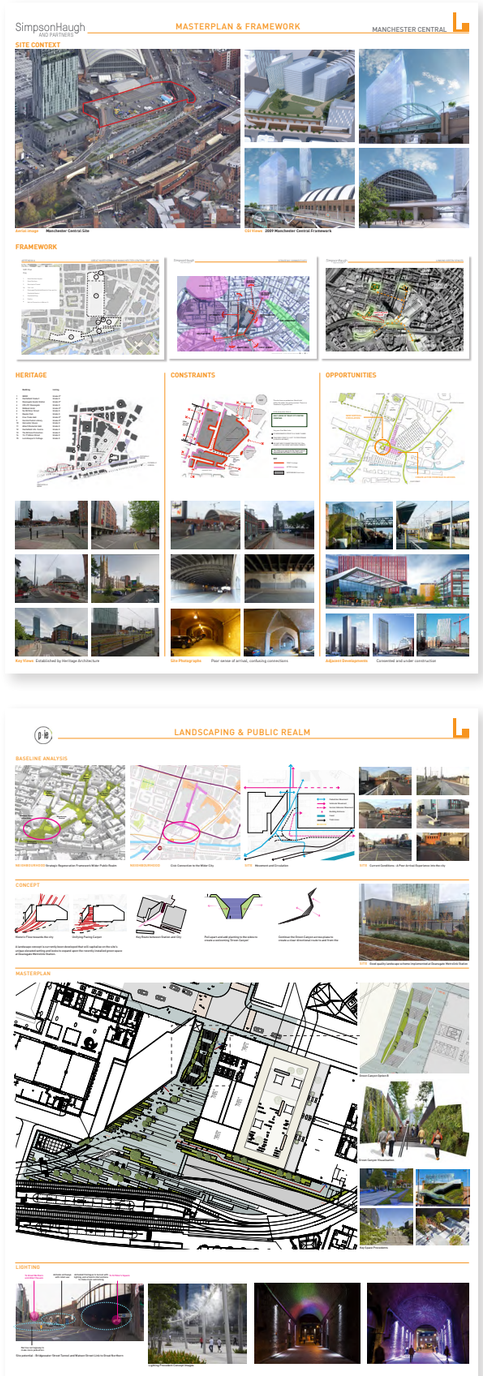
Due to the significance of heritage assets on the site, Historic England were consulted from the outset of the project.

Historic England were first consulted in May 2016. Due to the complex multi layered nature of the site, a site visit followed the next month. A further 4 meetings have been held with Historic England (six in total).

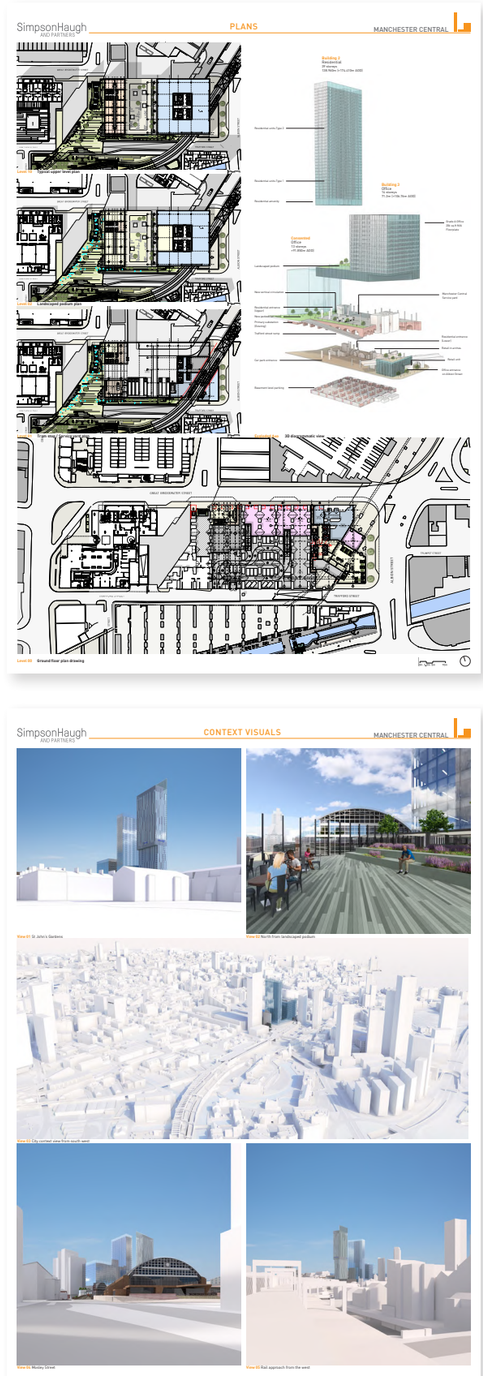
A final meeting took place on 1 March 2017, at which the plans as submitted were tabled. HE's formal written advice received following the meeting can be summarised as follows:

"The former Manchester Central (Grade II*) and the Castlefield Viaduct (Grade II) which links it to the wider railway network are highly significant, representing the extensive development of railways around later Victorian Manchester and the rapid industrial growth of the city. The station is one of the most distinctive landmarks in the city centre. The proposed mixed use development consists of an office building and a residential tower set on a podium. While we acknowledge that the site would benefit from enhancements and we agree that the development offers some minor heritage and public benefits, the proposals would cause harm to the listed viaduct and the setting of the Grade II* Listed station. The harm would be less than substantial but still requires clear and convincing justification. As such, if the application was submitted in the current form, we would not be able to support it on heritage grounds and it would be for the local authority to weigh the identified harm to the historic environment against any public benefits identified in the application."

HE's comments are discussed in detail in the submitted Planning Supporting Statement and Heritage Impact Assessment.

















Places Matter!

The scheme was subject to the Places Matter Design Review early enough in the design phase to allow comments and feedback to help improve the scheme. The PM! Panel were very supportive of the scheme highlighting the following points:

"This is an opportunity to celebrate some of the widespread industrial heritage of the city while creating a much welcome new public realm space and growth for the city."

"The size and the orientation of the new office building and the new residential building make a strong contribution to the grouping of tall buildings in this area as they sit beside the Hilton Hotel tower."

The detailed feedback and responses to the points raised are included in the following pages.

3.3.2 Public Consultation

ASK Central Ltd held two consultation events, with invites being sent out to local residents and key stakeholders over for the following dates:

Thursday 5th January 2017
Monday 9th January 2017

The exhibition was attended by members of the client and design teams, and was visited by 27 local residents and stakeholders over the course of the two events. The presentation boards were also hosted online.

Of the feedback received via forms or by email, 85% of respondents support the regeneration of the site and the addition of the development on the Manchester skyline.

Photographs from the two 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.

3.3.3 Evaluation

Throughout the process of developing the vision across Manchester Central the team has taken on feedback and been available to clarify and queries.

PlacesMatter! Comment

"The overriding impression of the panel was while looking at the 3D model of the scheme it appeared that there was a natural and strong desire line that stretched from St. Peter's Square along Lower Mosley Street rising up to the elevated public realm along the side of the tramline. Even if it weren't affordable in the first instance to create a walkway along the side of the tramline, it would be worth considering a way to anticipate this and prepare a way to meet the future desire to achieve this connectivity."

"The panel discussion then widened out to speculate on the possibilities of creating a link through the listed arches at grade to give connectivity from Watson Street directly to Whitworth Street West at street level rather than having to rise up to the upper deck of the arches. This would be valuable for those who are travelling across town while those using the tramline would more readily use the upper level."

"Another option would be to open up the arches along the existing vehicle ramp up to Manchester Central in order to provide more space for pedestrians and allow the architecture of the arches to be exposed. This would help to reveal this elegant historical feature of the city. There is something very enticing in creating a 21st century building on top of a 19th century structure and giving each importance in its new role. Particular care will need to be taken as to how the piles penetrate the arches and land at grade."

Design Team Response

The design team had explored the possibility of a direct linkage along the side of the Metrolink line in the 2009 Manchester Central Masterplan. Provision has been made within the space arrangement for and alternative arrangement at ground floor to future proof the design should an additional vertical connection be viable in the future.

The potential to create a street level link was considered but ultimately the site is too physically constrained at street level. The desirable location to create such a link would be at the end of Watson Street, this arch however contains the Electricity Northwest primary substation and associated High Voltage cables which are buried within the arch. As such it is not possible to impact upon these currently as it would involve the relocation of a major primary sub station. The proposed stair arrangement is acceptable as it does not impact upon these at ground level. Additionally the link would require the acquisition of tenanted space within the Deansgate locks development

Following the PM! review a series of sketch options were produced to explore the potential of either ramping or stepping down along side the Trafford Street ramp. The most achievable arrangement looked to maintain a high level linkage above the arches along the south elevation of the service yard, terminating in a lift and stair arrangement down through one of the arches. The design has made provision for this linkage should it be viable in the future.

PlacesMatter! Comment

"The panel would highly recommend that consideration should be given to removing the roof extending over Great Bridgewater Street. The structural ribs could be left as a memory of what was there but this is seen as a barrier in the city centre creating a dark underpass along the street below. Two transport links could be retained in order to service Manchester Central but by removing the remainder of this structure, exposing the street below will help to ensure that the retail opportunities are successful and more likely to be occupied and also open up views to the Grade II* listed building and allow the buildings above to be more clearly grounded."

"The office building cube should celebrate as a pure form perhaps by allowing it to cantilever over the podium reinforcing its clarity within the overall composition. The corner where it cantilevers over the tram track draws the eye up to the tram track and the new elevated public realm. It will allows it to terminate the vista."

Design Team Response

Following the PM! review a comprehensive options study of alterations to the Great Bridgewater Street Bridge has been fully considered, from wholesale removal of the structure and bridge deck - to a light touch refurbishment and lighting strategy. The chosen option looks to remove a central section and the western end of the bridge, leaving two bridgelinks for the continued operation of the Manchester Central complex. Through creating these two openings, a significant improvement to the pedestrian environment at street level will be made creating opportunities for retail and leisure units within the arches, whilst retaining a significant proportion of the historic bridge.

The pure form of the office cube has been retained. The top corner of the building has been expressed with a roof terrace.

3.4 Use

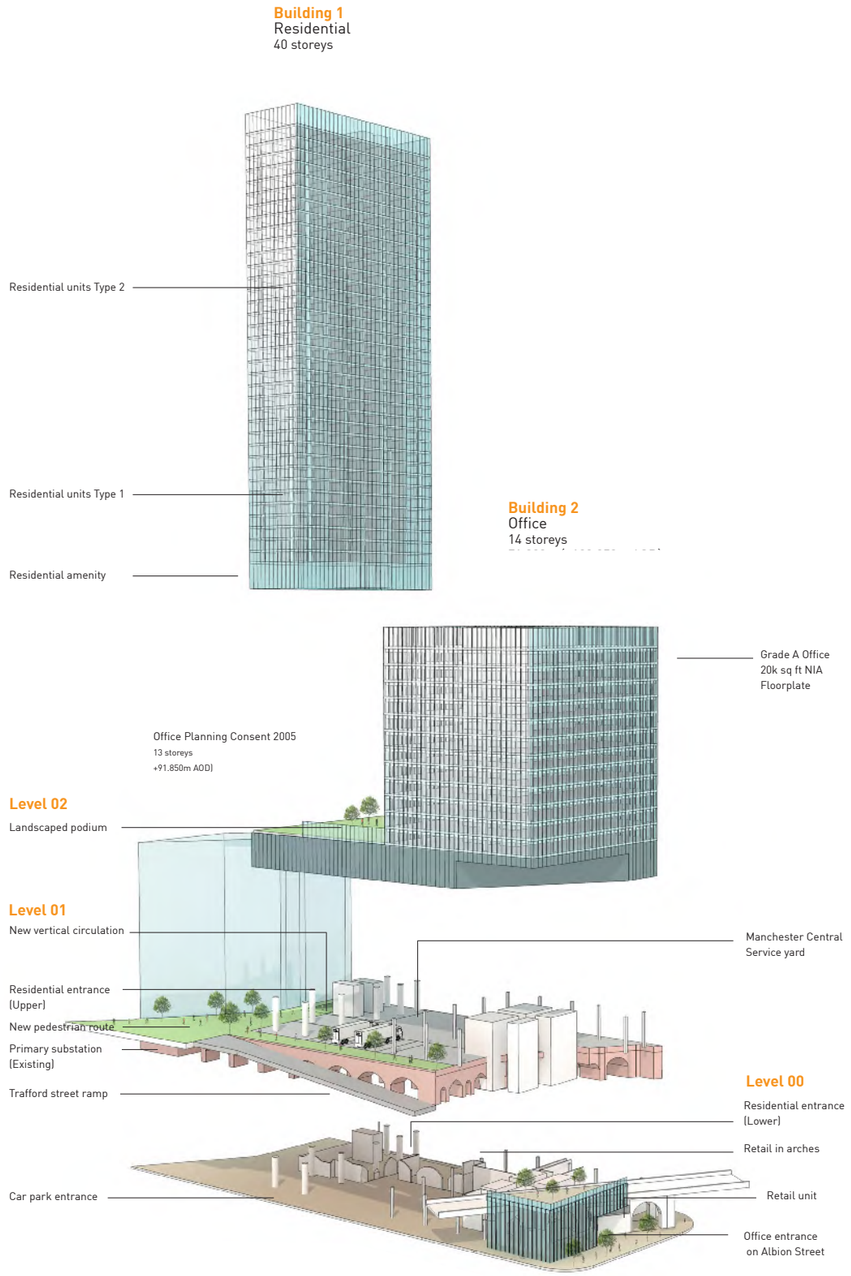
Response
The development seeks to provide a vibrant mix of accommodation befitting a core city centre location, recognising the opportunity for the site to deliver a critical mass of high quality uses to support the economic growth of Manchester. The proposed uses meet the objectives of the 2017 SRF.

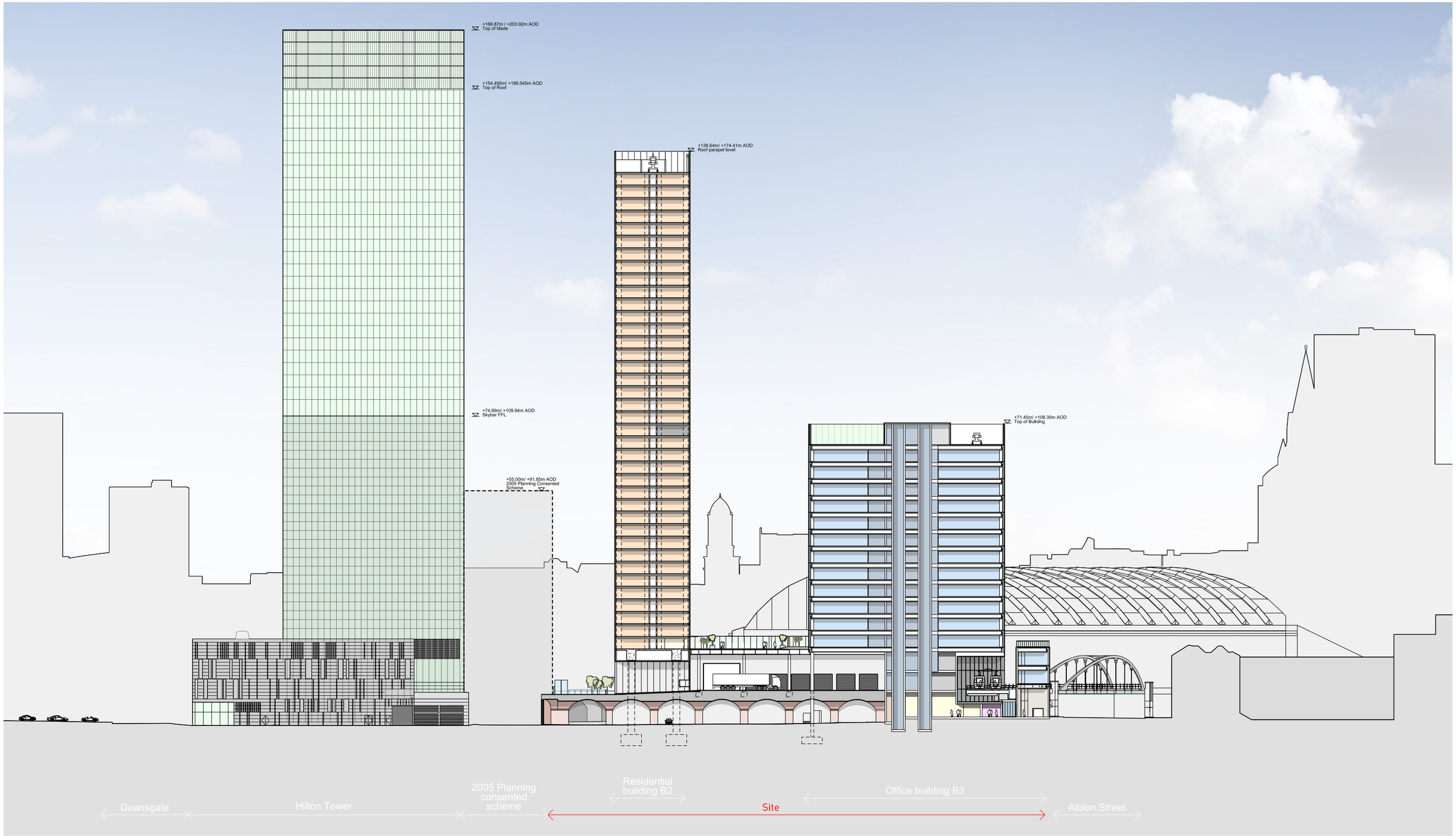
Residential
The SRF identifies the site as being both in an existing and an emerging residential location that forms part of a series of connected neighborhoods. The connected central location and the opportunity for scale both suit a residential usage.

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

Office
Discussions held with MCC have concluded that the need for high quality Grade A office space in the city is at almost capacity. This is in line with the SRF that office accommodation remains in high demand in the city. It identifies office development with suitably sized floorplates to meet identified demand that could create a new address on Albion Street, providing a key connector between the Central Business District, St Peter's Square, Barbirolli Square and First Street.

Leisure / Retail
Opportunities for characterful retail / leisure usage within the existing arches is well suited and will help to re-animate Great Bridgewater Street and the corner of Albion Street.




+168.87m / +203.92m AOD
Top of blade
+154.495m/ +189.545m AOD
Top of Roof
+138.64m/ +174.41m AOD
Roof parapet level
+74.89m/ +109.94m AOD
Skybar FFL
+55.00m/ +91.85m AOD
2005 Planning Consented Scheme
+71.45m/ +108.30m AOD
Top of Building
Deansgate
Hilton Tower
2005 Planning consented scheme
Residential building B2
Site
Office building B3
Albion Street

3.5 Layout

3.5.1 Masterplan

Ground Floor

A key objective of the SRF is to improve the east-west connection along Great Bridgewater Street (GBS) and in particular to address the quality of the environment underneath the existing bridge. The main residential building entrance is located within one of the vaulted brick arches off Great Bridgewater Street. The entrance benefits from visibility on the approach down Watson Street, and helps to animate the listed facade.

The office entrance is located on Albion Street and is orientated to the approach from St Peter's Square. A dramatic 10m pointed 'prow' announces the entrance to the building and provides a natural canopy. The reception is a generous 6.8m high volume, from which users will transition through a portal type space under the existing Metrolink bridge through to the main circulation core.

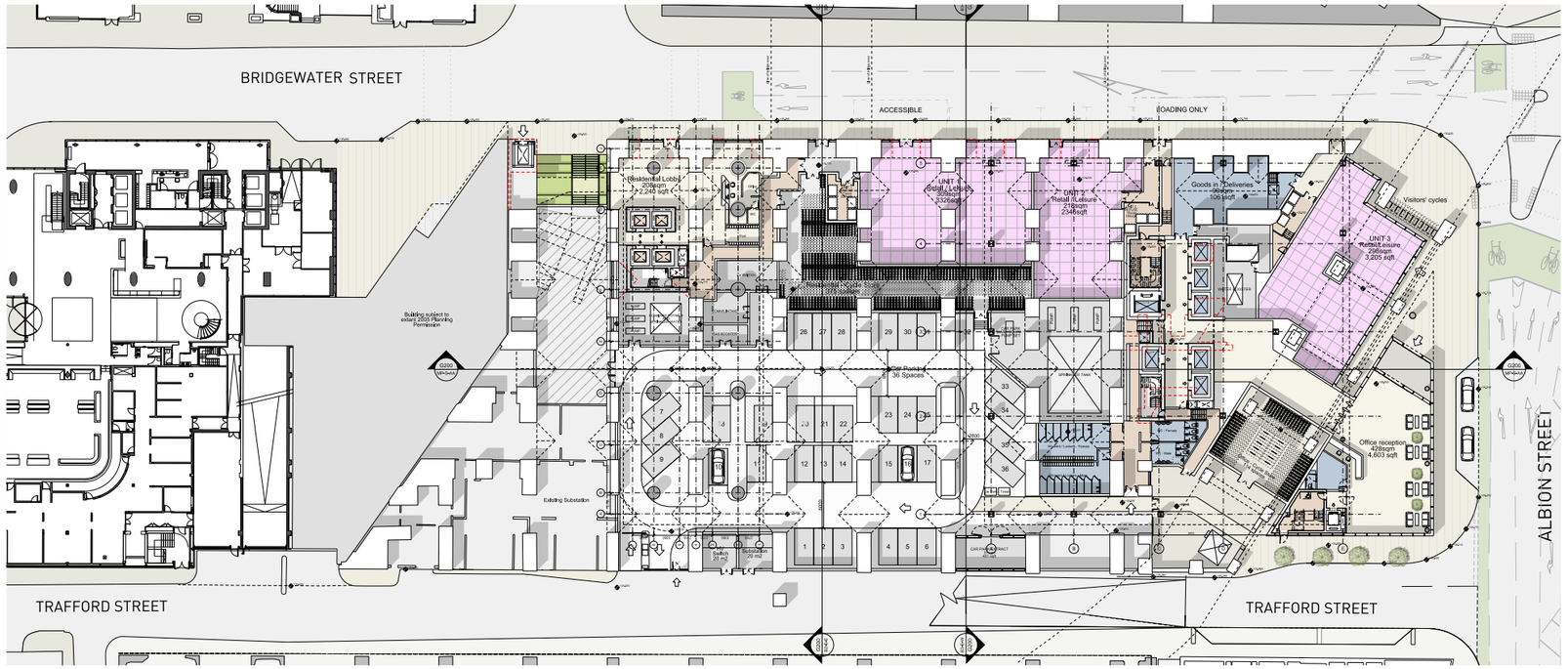
The removal of a section of the Great Bridgewater Street bridge allows potential for creating active frontage on to the street. The scale of the brick arches will lend themselves well to leisure / bar / restaurant uses, and bring the street to life - in line with the ambitions of the SRF. The removal of the western end of the GBS bridge allows for a residential entrance to be made which will again benefit from the vaulted arch structure. Parking and plant complete the ground floor arrangement - accessed from the Trafford Street service road.

First Floor

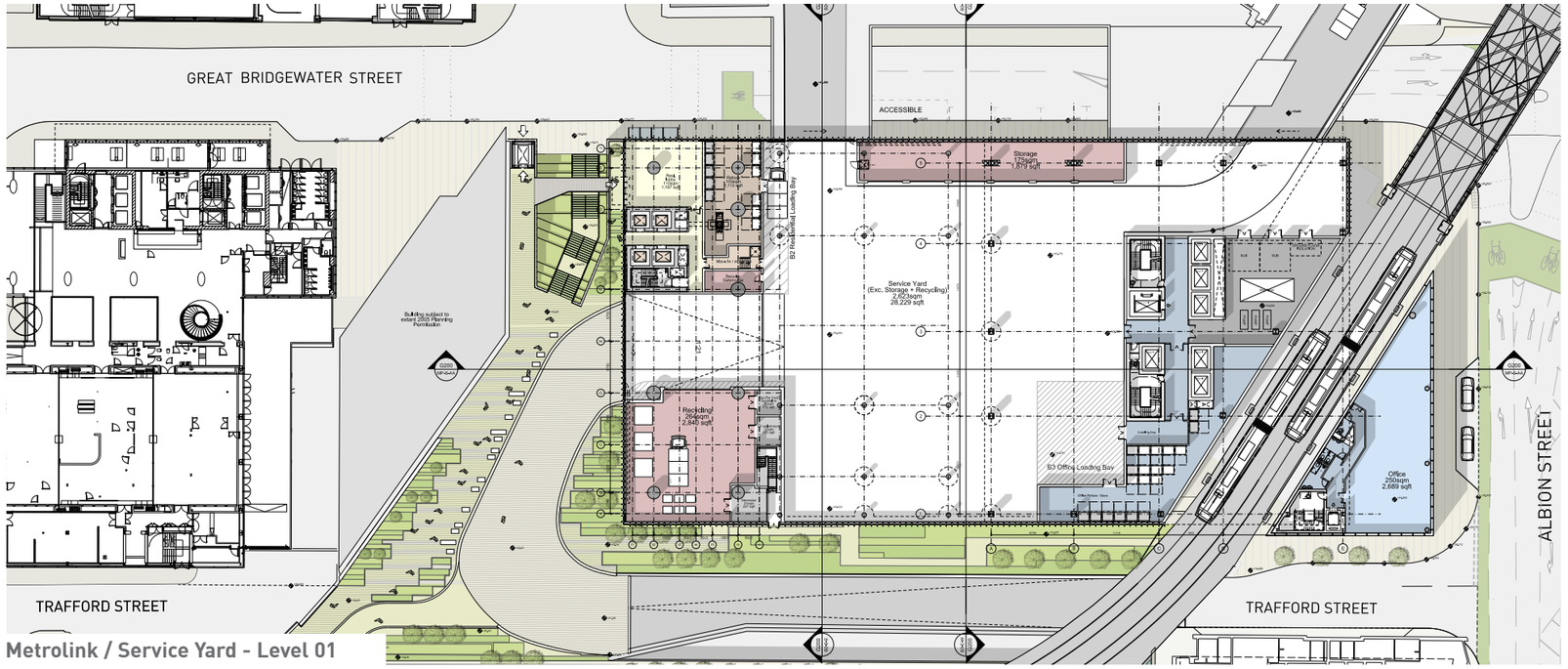
At tram stop / service yard level a secondary residential entrance is located at the north west corner of the site creating active frontage alongside the new pedestrian route down to Great Bridgewater Street and providing level access from Deansgate-Castlefield Metrolink Stop. A lightweight pedestrian bridge spans the new staircase providing access to this entrance.

The existing Manchester Central service yard is rationalised and modernised, with its associated storage and recycling zones consolidated. Vertical circulation cores and structural columns have been carefully positioned to allow the operation of Manchester Central to continue unimpeded. Servicing for the two buildings will use this shared service yard. The service yard activities are screened with a green living wall - extending the landscaping themes from DCF, across the southern and northern elevations.

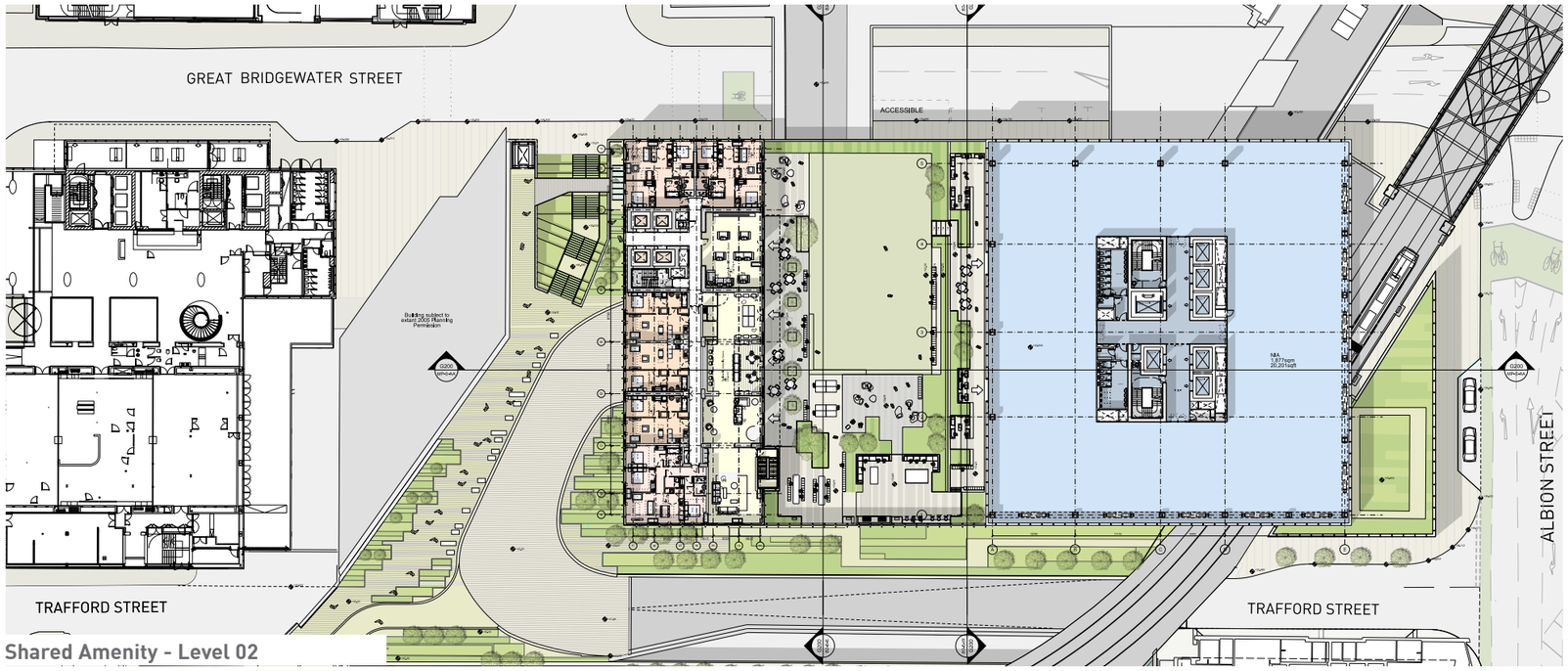
Above the office entrance a triangular office floorplate rises above for a further two storeys. It is anticipated the tenancy for this office space would operate independently to the main office building whilst utilising the same entrance and reception.



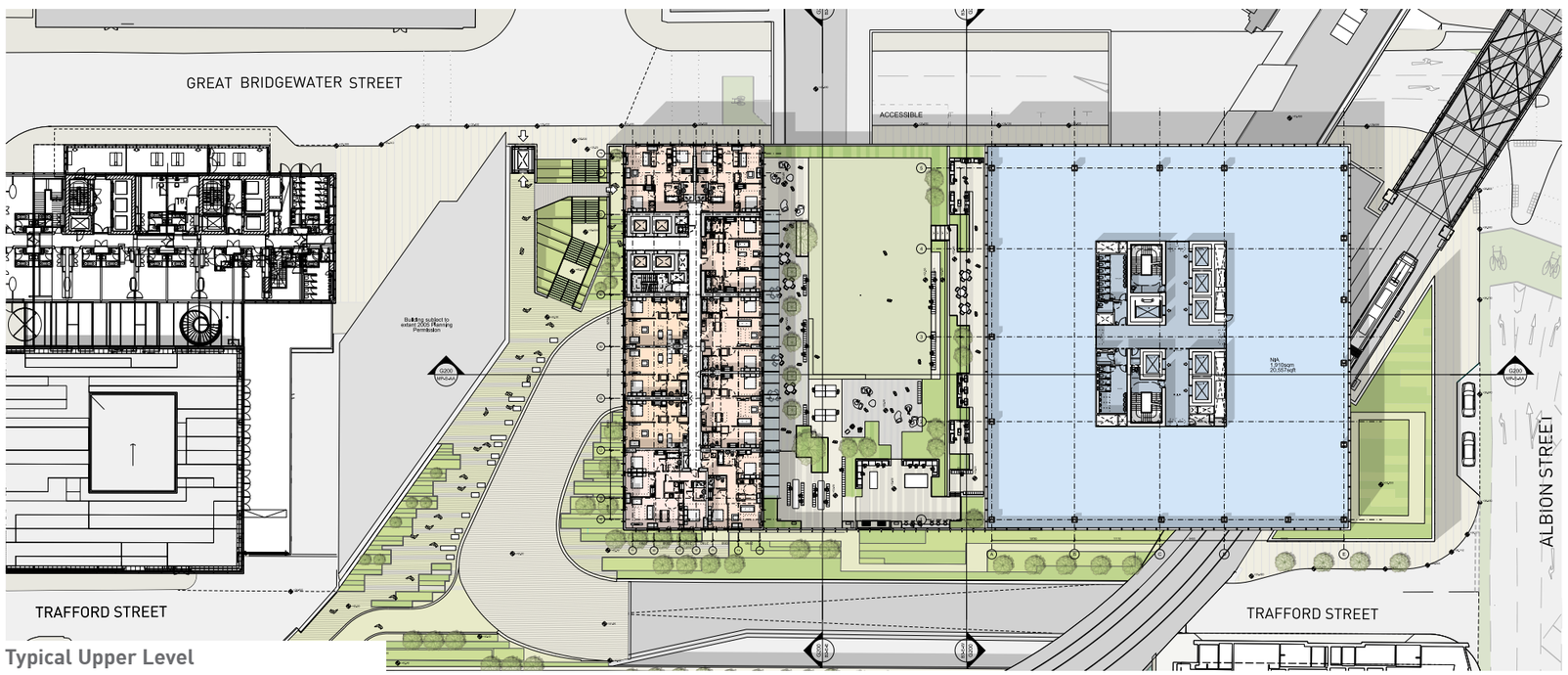
Ground Floor - Level 00



Metrolink / Service Yard - Level 01



Shared Amenity - Level 02



Typical Upper Level

Second Floor

At this level the residential building has a mix of residential apartments with a westerly aspect and an amenity space spilling out on to the podium deck to the east. The amenity space has been designed as a flexible zone and could accommodate a range of uses for shared or private use by residents including some of the following; residents' lounge, cinema room and bookable meeting rooms. The office building also has access out on to the podium deck at this level.

The office building traverses the Metrolink line at and is founded on the triangular entrance building below. The podium level incorporates a high quality landscaped space with a southerly aspect shared by the office and residential buildings. The podium benefits from an elevated position some 18m above the street level and will benefit from views north across the city and the emerging skyline of Castlefield and beyond to the south.

Typical Upper Levels

From level four upwards both buildings revert to an efficient floorplan type which repeats up each of the buildings. The specifics of each of these is covered in further detail in the following pages.

Roof Levels

The office takes advantage of its elevated position and uninterrupted views north over the city, with a discreet roof terrace in the north east corner of the roof accessed by a single lift from the main core.

3.5.2 Residential

Floorplate Design

The residential building has been developed to provide high quality, desirable spaces to live, with exceptional city views, well proportioned and laid out apartments with adequate storage provision.

The orientation of the building north / south on the site ensure there are no solely north facing apartments and has allowed for generous separation distances between buildings with a minimum distance of 28m between the office and residential tower and over 36m to the Hilton Tower.

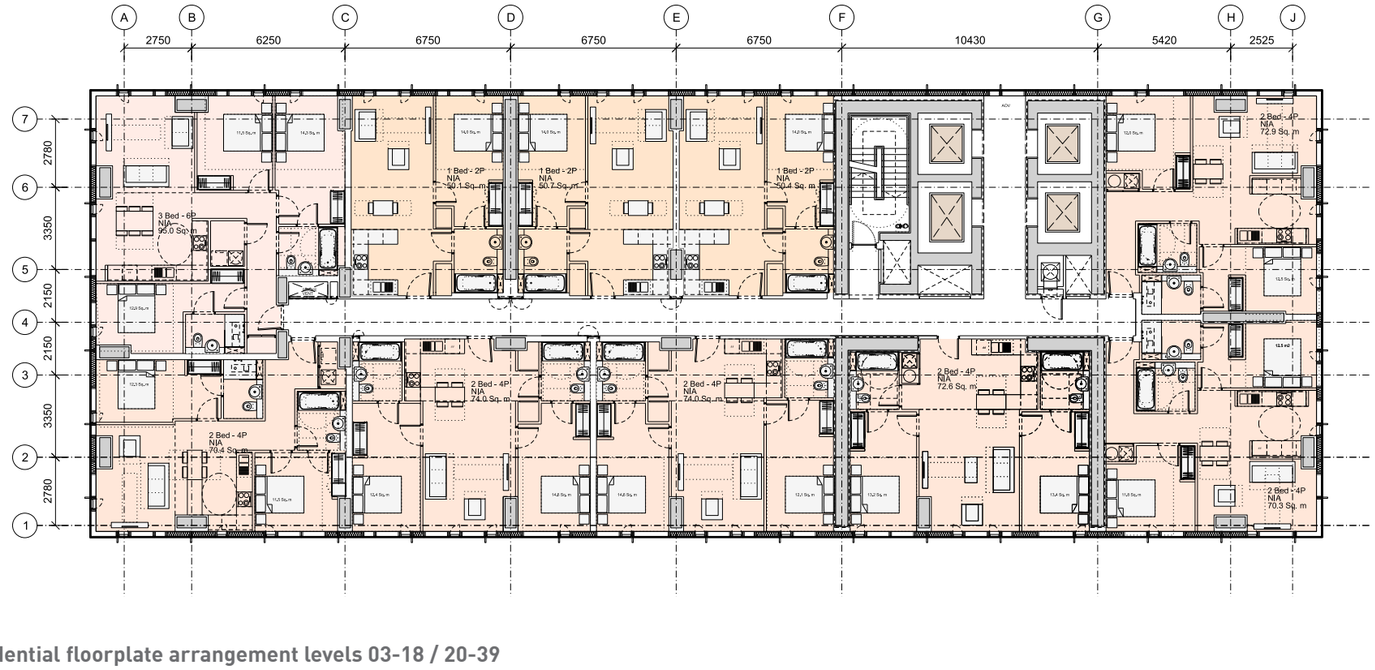
An efficient structural grid arrangement was established which would relate to the apartments on the typical upper floors and then transfer out to eight columns at level 02. Opportunities to allow natural light in to the ends of the corridors were explored but ultimately had too great an impact on the floorplate efficiency, a design solution however has been sought that allows natural light in to the corridor through the core.

The position of the core has been the subject of a series of option studies but ultimately the available positions are constrained by the listed structure and the operational service yard below. In order to access the building from Great Bridgewater Street and avoid the main route in to the service yard the need for an asymmetrical plan arrangement was established.

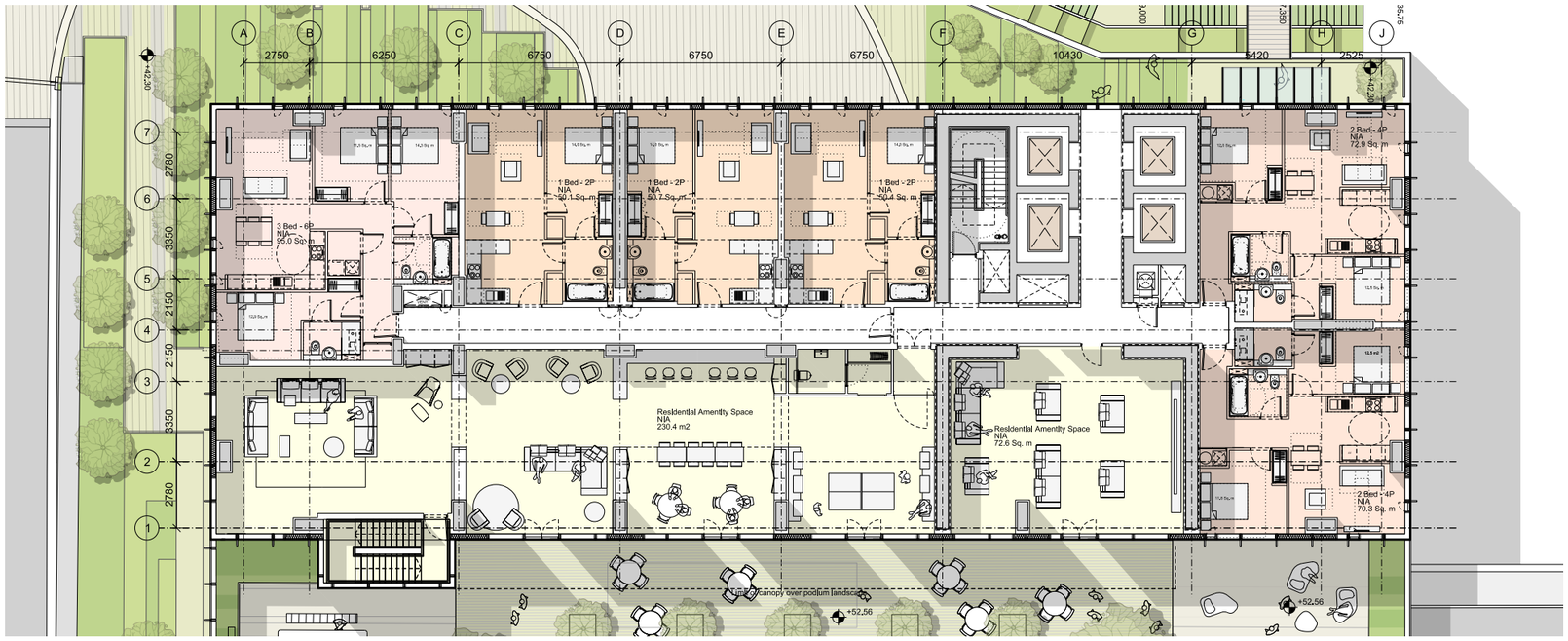
The main internal corridor is 1500mm wide and has been kept as short as possible. There are ten apartments on a typical floorplate which is the same on all levels (excluding intermediate plant and amenity). Care has been taken not to position doors to apartments directly opposite each other wherever possible.

Core Design

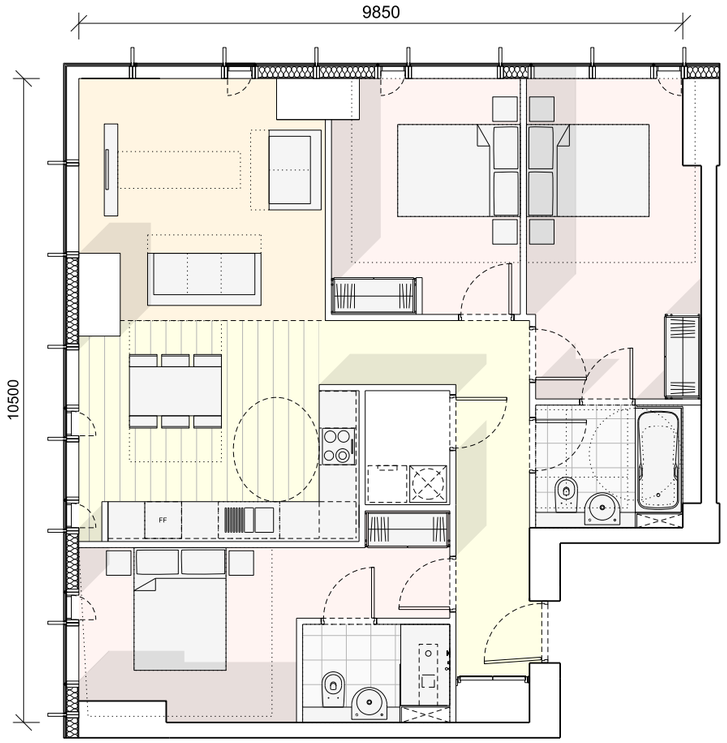
The core comprises 3no. 13 person passenger lifts and 1no. 17 person passenger / goods lift. The four lift arrangement offers acceptable passenger waiting times when tested against CIBSE guidance. The core also contains a refuse chute lobbied from the corridor which serves a refuse store at level 01. The orientation of the lift shafts allows natural light in to the core and circulation corridor at every level.



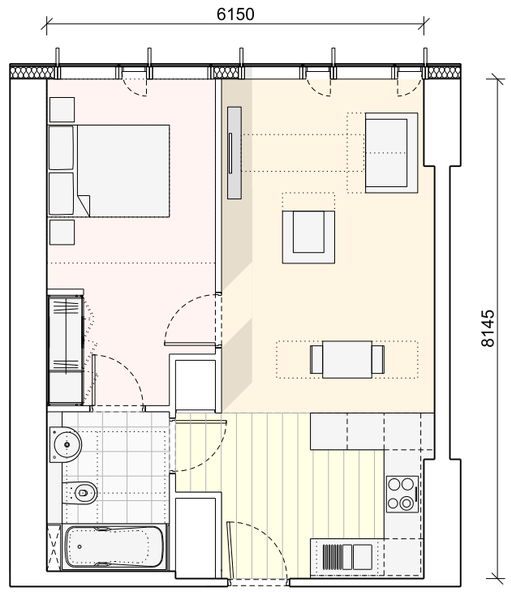
Typical residential floorplate arrangement levels 03-18 / 20-39



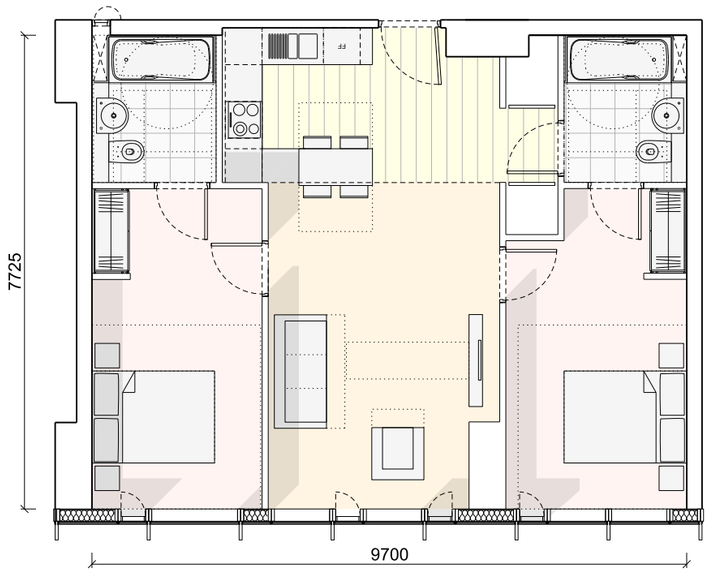
Residential / amenity floorplate arrangement level 02



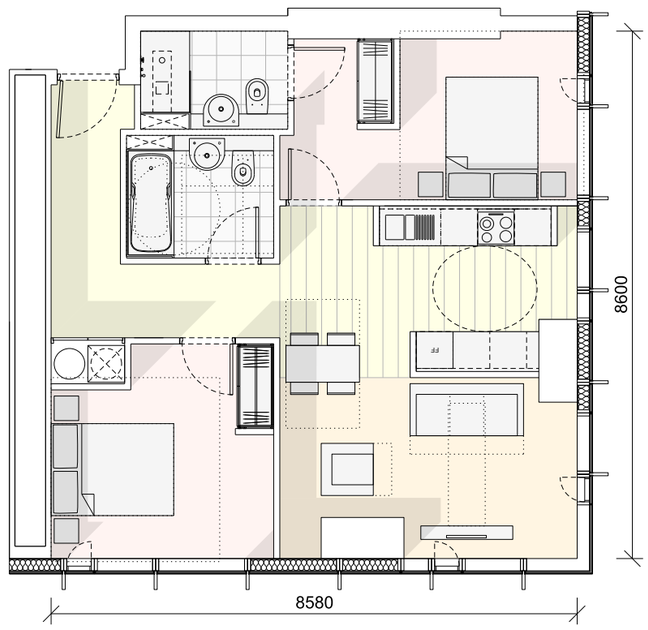
3 Bed - 6 Person (95 sqm)



1 Bed - 2 Person (50 sqm)



2 Bed - 4 Person (72 sqm) TYP D



2 Bed - 4 Person (70 sqm) TYP B

4.7.3 Compliance

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 (RQG). The layouts shown demonstrate a range of the well planned and generously proportioned apartment layouts in the scheme. The GIA of the apartments are outlined below.

In order to maximise daylight in the apartments and create desirable spaces to live the floor to ceiling height has been set at 2500mm within living spaces in accordance with the aspirations of the RQG. Units have been designed for future adaption to accessible units wherever possible - further details of this are included in the section on 'inclusive access'.

Proposed Sizes		National Space Standards	
3B - 6P		**3B - 6P**	
Gross Internal Area:	95 sqm	Gross Internal Area:	95 sqm
Built in storage:	5.8 sqm	Built in storage:	4.0 sqm
2B - 4P - TYP A		**2B - 4P**	
Gross Internal Area:	74 sqm	Gross Internal Area:	70 sqm
Storage	3.2 sqm	Storage	2.0 sqm
2B - 4P - TYP B (Corner)			
Gross Internal Area:	70 sqm		
Storage	2.5 sqm		
2B - 4P - TYP C			
Gross Internal Area:	70 sqm		
Storage	3.5 sqm		
2B - 4P - TYP D			
Gross Internal Area:	72 sqm		
Storage	2.8 sqm		
1B - 2P		**1B - 2P**	
Gross Internal Area:	50 sqm	Gross Internal Area:	50 sqm
Storage	2.5 sqm	Built in storage:	1.5 sqm

3.5.3 Office

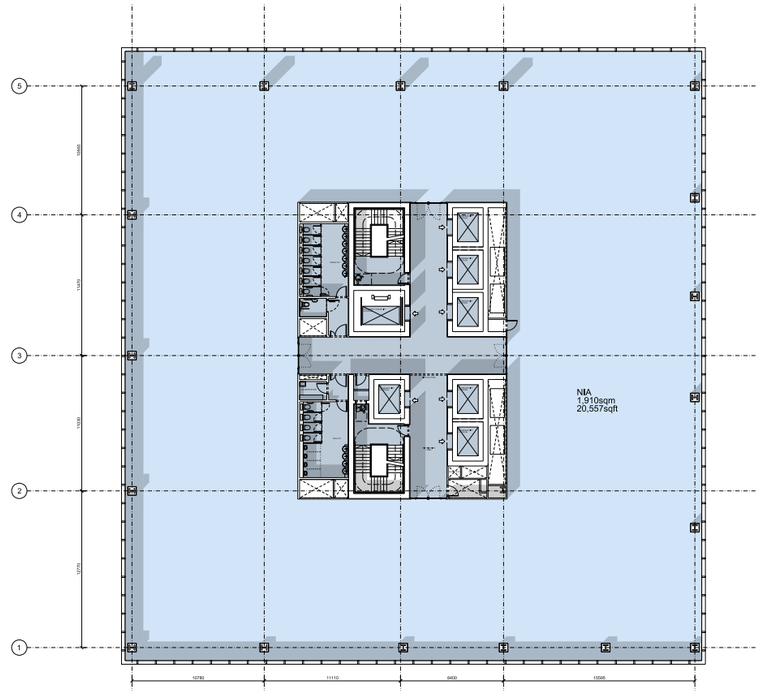
The office building has been designed to provide exemplar Grade A office accommodation in a truly connected city centre location. The office has been designed to meet or exceed standards set out in BCO Guide to Specification 2014.

After numerous studies into the position and proportion of the core, the scheme as designed allows optimum open plan office space to be located about all sides, whilst maximising views in and out of the building, and minimising intervention in to the listed Castlefield Viaduct.

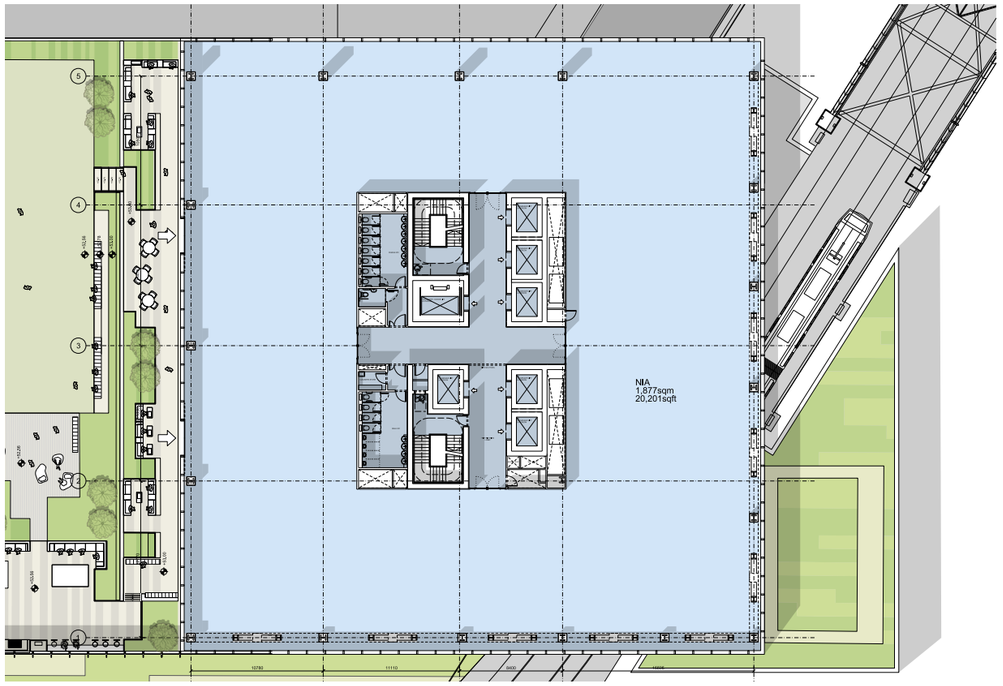
The typical floorplate offers 20,557 sq ft NIA and has been driven by occupier demand. The cruciform core layout allows for a single floor plate into up to three separate tenancies if required with minimal requirements for additional lobbies and corridors.

Columns have wherever possible been positioned along the perimeter of the floorplate, to maximise the open flexible floorplate. Along the northern edge a line of five columns have been brought in board in order to minimise interventions in the facade of the listed fabric on Great Bridgewater Street below.

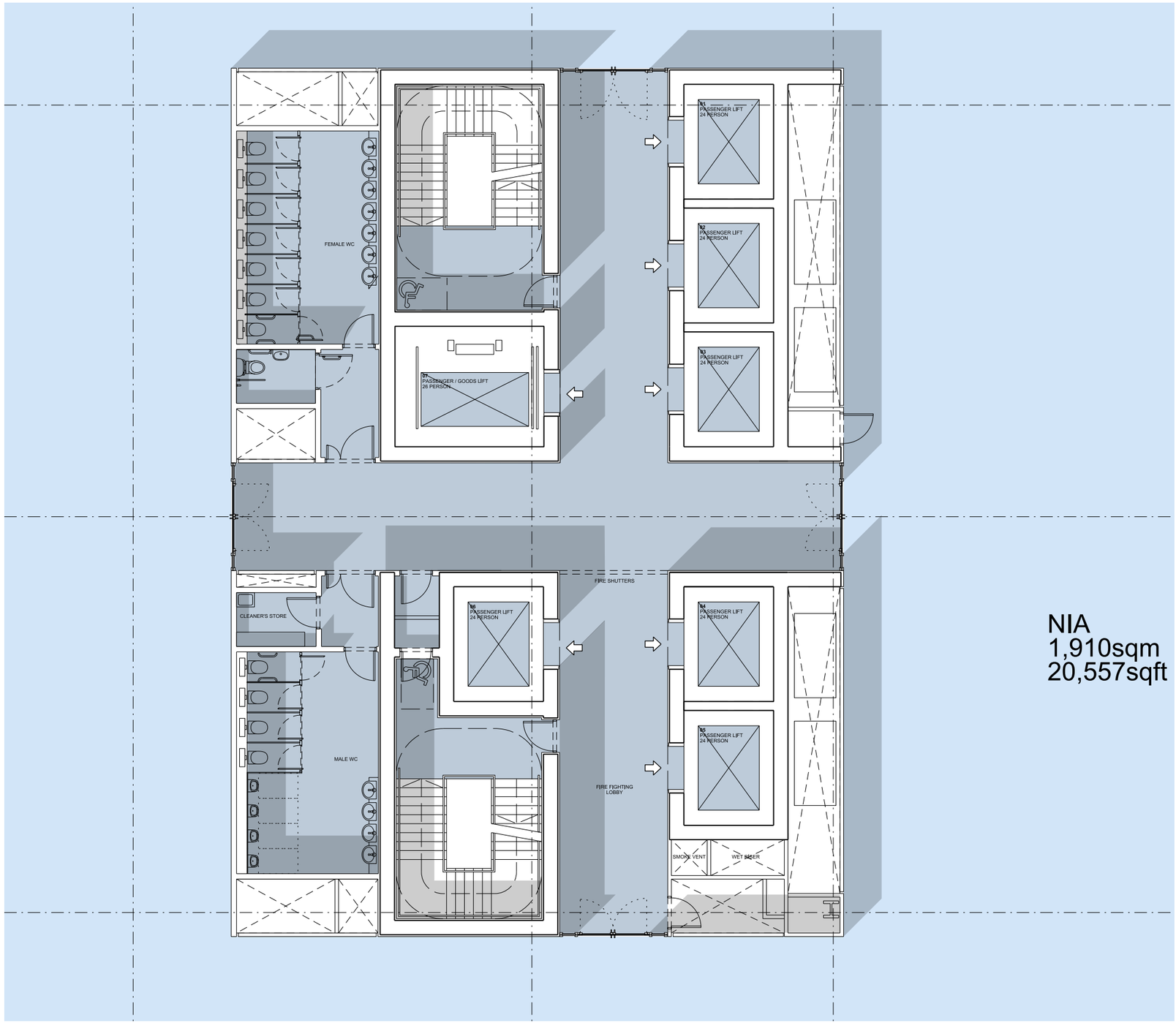
At levels two and three a diagrid transfer structure runs along the south and west edges of the building, designed to bridge over the Metrolink Line below. This has been necessitated by the lack of opportunities to found columns due to both the Metrolink line itself and the extent of easement required either side of it. Above these levels columns return to more regular centres to provide a more cost effective structural arrangement.



Typical office floorplate



Podium level office floorplate



NIA
1,910sqm
20,557sqft

4.7.1 Core Design

A single core has been designed to accommodate an occupancy level of up to 1 person / 8 m2. The core is designed to be fully accessible and to be used as a fire fighting lobby if required. The position of the major structural elements - core and shear walls have been carefully positioned to minimise their impact on the listed structure at ground level.

The floors are served by 6 no. 24 person passenger lifts and a single 26 person passenger lift also doubling up as goods lift when required; these are split into two opposing banks lifts. All lifts will utilise full destination selection control and will provide a good performance in accordance with relevant CIBSE Guidance. The shared goods / passenger lift serves the roof level including the terrace.

A symmetrical core layout allows future flexibility for unisex / male and female WC facilities as required by each tenant. A fully accessible unisex toilet facility and cleaner's store are provided at each floor level.

3.6 Amount

3.5.1 Response

The overall quantum of accommodation contained within the development has been derived as a product of the composition and massing of building elements in response to location, orientation and programme.

3.5.2 Compliance

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.

3.5.3 Quantum

- 378,026 sqft gross residential total
- 341,818 sqft gross workspace total
- 10,871 sqft gross retail total

3.5.4 Residential Mix

- 375 total residential apartments, comprising;
- 114 One bedroom residential apartments
- 223 Two bedroom residential apartments
- 38 Three bedroom residential apartments

3.5.5 Parking

- 36 private parking spaces for office workers, located at grade accessed from Trafford Street.

3.5.6 Cycles

- 114 secure cycle spaces are available at ground for workspace users accessed from Albion Street,
- 375 secure cycle spaces are available at ground level for residential users, accessed from Great Bridgewater Street.

Height (m)	AOD (m)	Level	Program	GIA (sq ft)	GIA (sq m)	GEA (sq ft)	GEA (sq m)	NIA (sqft)	NIA (m2)	1B		2B		3B		TOTAL
				Total		Total		Total								
0	35.77	0	Ent. - lower	8,706	809	9,924	922									
7.23	43	1	Ent. - upper	3,757	349	4,101	381									
10.54	46.31	1-M	Plant	2,960	275	4,101	381									
17.64	53.41	2	Resi. / Amenity	9,620	894	9,999	929	4,187	389		3		2		1	6
20.69	56.46	3	Residential	9,505	883	9,871	917	7,319	680		3		6		1	10
23.74	59.51	4	Residential	9,505	883	9,871	917	7,319	680		3		6		1	10
26.79	62.56	5	Residential	9,505	883	9,871	917	7,319	680		3		6		1	10
29.84	65.61	6	Residential	9,505	883	9,871	917	7,319	680		3		6		1	10
32.89	68.66	7	Residential	9,505	883	9,871	917	7,319	680		3		6		1	10
35.94	71.71	8	Residential	9,505	883	9,871	917	7,319	680		3		6		1	10
38.99	74.76	9	Residential	9,505	883	9,871	917	7,319	680		3		6		1	10
42.04	77.81	10	Residential	9,505	883	9,871	917	7,319	680		3		6		1	10
45.09	80.86	11	Residential	9,505	883	9,871	917	7,319	680		3		6		1	10
48.14	83.91	12	Residential	9,505	883	9,871	917	7,319	680		3		6		1	10
51.19	86.96	13	Residential	9,505	883	9,871	917	7,319	680		3		6		1	10
54.24	90.01	14	Residential	9,505	883	9,871	917	7,319	680		3		6		1	10
57.29	93.06	15	Residential	9,505	883	9,871	917	7,319	680		3		6		1	10
60.34	96.11	16	Residential	9,505	883	9,871	917	7,319	680		3		6		1	10
63.39	99.16	17	Residential	9,505	883	9,871	917	7,319	680		3		6		1	10
66.44	102.21	18	Residential	9,505	883	9,871	917	7,319	680		3		6		1	10
69.49	105.26	19	Resi / Plant	9,505	883	9,871	917	6,543	608		3		5		1	9
72.54	108.31	20	Residential	9,505	883	9,871	917	7,319	680		3		6		1	10
75.59	111.36	21	Residential	9,505	883	9,871	917	7,319	680		3		6		1	10
78.64	114.41	22	Residential	9,505	883	9,871	917	7,319	680		3		6		1	10
81.69	117.46	23	Residential	9,505	883	9,871	917	7,319	680		3		6		1	10
84.74	120.51	24	Residential	9,505	883	9,871	917	7,319	680		3		6		1	10
87.79	123.56	25	Residential	9,505	883	9,871	917	7,319	680		3		6		1	10
90.84	126.61	26	Residential	9,505	883	9,871	917	7,319	680		3		6		1	10
93.89	129.66	27	Residential	9,505	883	9,871	917	7,319	680		3		6		1	10
96.94	132.71	28	Residential	9,505	883	9,871	917	7,319	680		3		6		1	10
99.99	135.76	29	Residential	9,505	883	9,871	917	7,319	680		3		6		1	10
103.04	138.81	30	Residential	9,505	883	9,871	917	7,319	680		3		6		1	10
106.09	141.86	31	Residential	9,505	883	9,871	917	7,319	680		3		6		1	10
109.14	144.91	32	Residential	9,505	883	9,871	917	7,319	680		3		6		1	10
112.19	147.96	33	Residential	9,505	883	9,871	917	7,319	680		3		6		1	10
115.24	151.01	34	Residential	9,505	883	9,871	917	7,319	680		3		6		1	10
118.29	154.06	35	Residential	9,505	883	9,871	917	7,319	680		3		6		1	10
121.34	157.11	36	Residential	9,505	883	9,871	917	7,319	680		3		6		1	10
124.39	160.16	37	Residential	9,505	883	9,871	917	7,319	680		3		6		1	10
127.44	163.21	38	Residential	9,505	883	9,871	917	7,319	680		3		6		1	10
130.49	166.26	39	Residential	9,505	883	9,871	917	7,319	680		3		6		1	10
133.54	169.31	Roof		1,316	122	1,437	134									
138.64	174.41	Parapet														
		40		378,026	35,120	394,771	36,675	274,231	25,477	0	114	0	223	0	38	375
										114		223		38		
										30.4%		59%		10%		

Residential Cycle Store - 375 spaces

B2 - Residential Building Accommodation Schedule

Height (m)	AOD (m)	Level	Program	GIA (sq ft)	GIA (sq m)	GEA (sq ft)	GEA (sq m)	NIA (sq ft)	NIA (sq m)
				Total		Total		Total	
0	36.85	0	Office reception	14,467	1,344	16,391	1523		
6.15	43.00	1	Plant (extg. service yard)	7,040	654	7,403	688		
11.95	48.50	1m	Plant (Mezz. Service yard)	6,491	603	7,403	688		
8.10	44.95	1	Entrance Bldg. - Office	3,710	345	4,069	378	2,691	250
12.55	49.40	1m	Entrance Bldg. - Office	3,710	345	4,069	378	2,691	250
		2	**Overall Totals**	**7,421**	**689**	**8,138**	**756**	**5,382**	**500**
17.0	53.85	2	Office (Transfer)	25,112	2,333	25,746	2,392	20,204	1,877
21.1	57.95	3	Office (Transfer)	25,112	2,333	25,746	2,392	20,215	1,878
25.2	62.05	4	Office	25,112	2,333	25,746	2,392	20,559	1,910
29.3	66.15	5	Office	25,112	2,333	25,746	2,392	20,559	1,910
33.4	70.25	6	Office	25,112	2,333	25,746	2,392	20,559	1,910
37.5	74.35	7	Office	25,112	2,333	25,746	2,392	20,559	1,910
41.6	78.45	8	Office	25,112	2,333	25,746	2,392	20,559	1,910
45.7	82.55	9	Office	25,112	2,333	25,746	2,392	20,559	1,910
49.8	86.65	10	Office	25,112	2,333	25,746	2,392	20,559	1,910
53.9	90.75	11	Office	25,112	2,333	25,746	2,392	20,559	1,910
58.0	94.85	12	Office	25,112	2,333	25,746	2,392	20,559	1,910
62.1	98.95	13	Office	25,112	2,333	25,746	2,392	20,559	1,910
			Office Levels Total	**301,346**	**27,996**	**308,954**	**28,703**	**246,009**	**22,855**
66.2	103.05	Roof / Terrace	Plant (internal plant room)	5,054	470	5,353	497		
71.45	108.3	Parapet							
		14	**Overall Totals**	**341,818**	**31,756**	**353,642**	**32,854**	**251,391**	**23,355**

0	35.59	0	Cycle Store (external)	1,335	124
			114 spaces		

B3 - Office Building Accommodation Schedule

Level	Program	GIA (sqft)	GIA (m2)	NIA (sqft)	NIA (m2)
0	Parking and servicing (excl. B2+B3 reception)	17,791	1,653		
	Retail - Unit 1	4,066	378	3326	309
	Retail - Unit 2	2,928	272	2,346	218
	Retail - Unit 3	3,878	360	3,205	298
	Total Retail	10,871	1010	8,877	825
1	Service Yard (including Storage + Recycling)	34,069	3,165		
1m	Plant	1,851	172		

GEA (sqft)	GEA (m2)
19,868	1846
4,671	434
3,320	308
4,119	383
12,110	1,125
34,912	3243
2,142	199

Level	Program	Spaces
0	Car Parking	36

B4 - Podium / Arches Accommodation Schedule

3.7 Scale & Massing

Response

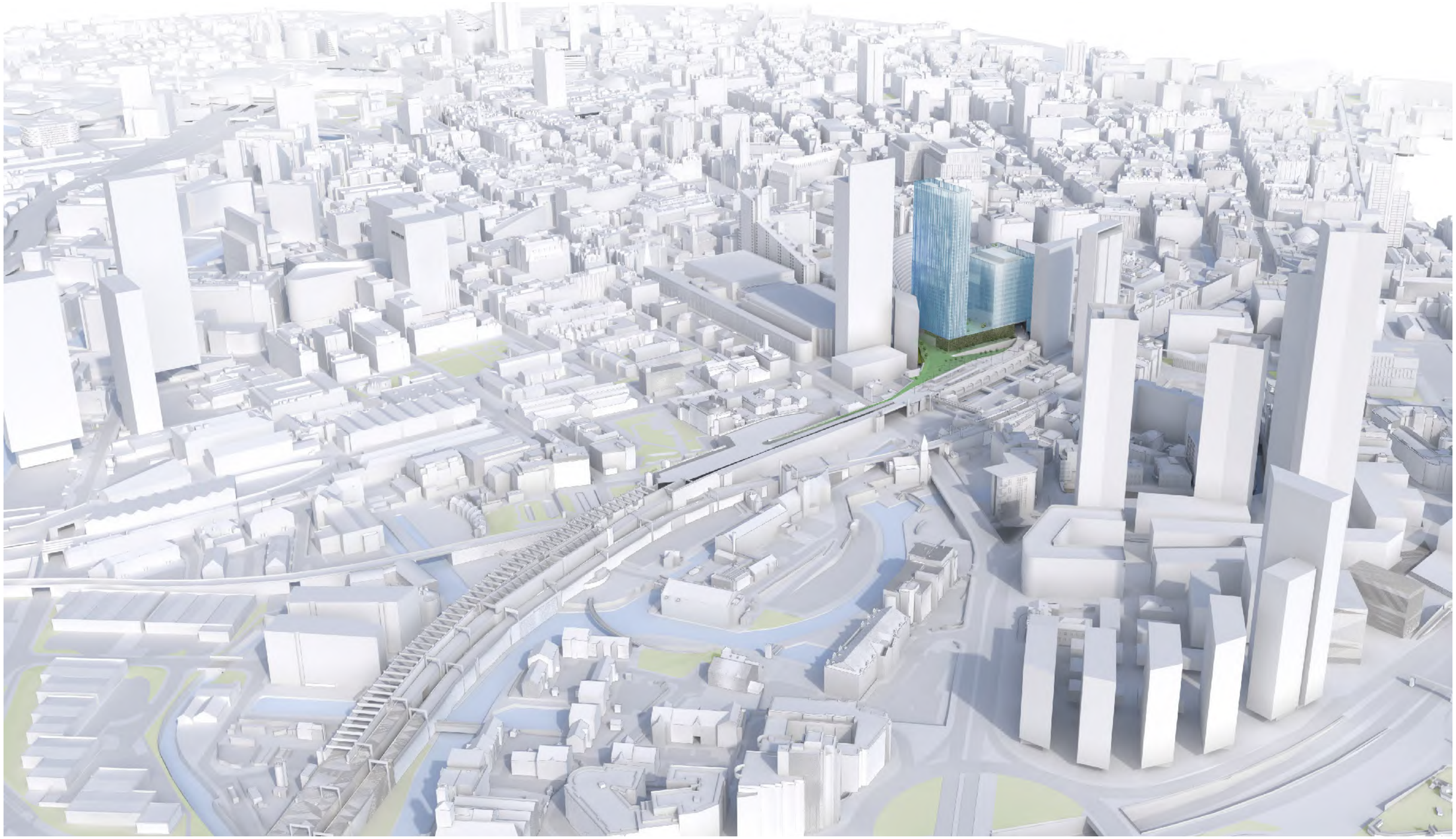
Scale has been used in a very specific and direct response to context and orientation which gives the development a clear identity and provides a significant number of high quality dwellings and office accommodation. To deliver the required quantum of accommodation for such a challenging site and to minimise the level of alteration to the listed structure - a single tall residential building was considered the most appropriate solution.

The residential tower is 40 storeys tall and 138.640m from ground level set down below the level of the Hilton Tower. The development steps down towards Albion Street; the main office building is 14 storeys (71.200m) set down below the level of the Axis development, with a smaller entrance building at 3 storeys defining the street edge.

Strategic Regeneration Framework

As identified in the 2010 Civic Quarter Framework, the 2017 SRF identifies that there is an opportunity to create taller buildings to complement the adjacent Hilton Tower – together with the emerging Axis, 10-12 Whitworth Street West and Owen Street proposals.



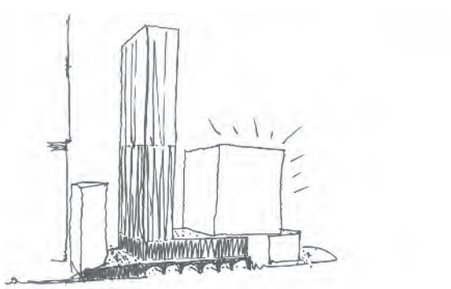


3.8 Appearance

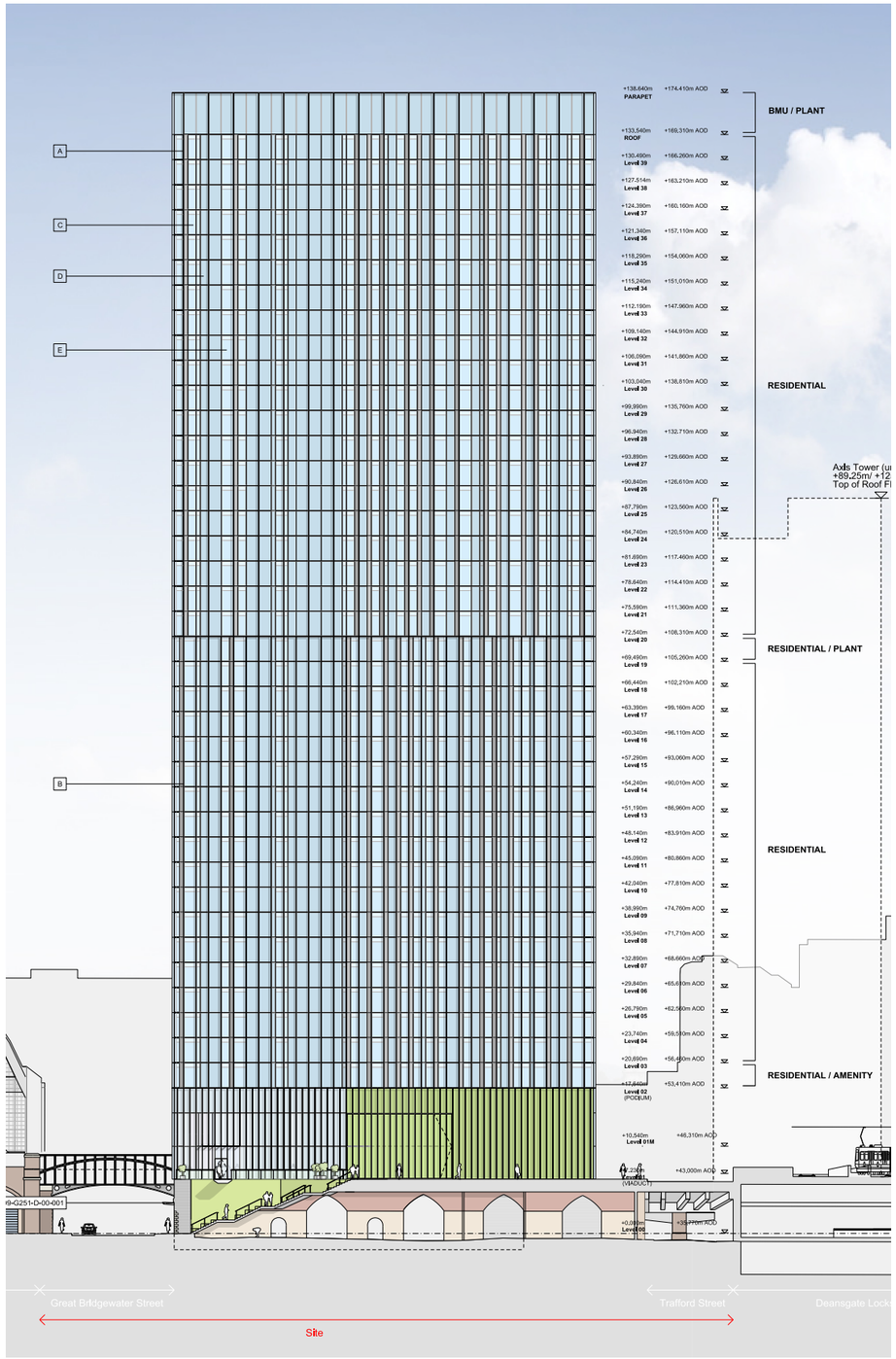
3.8.1 Strategy

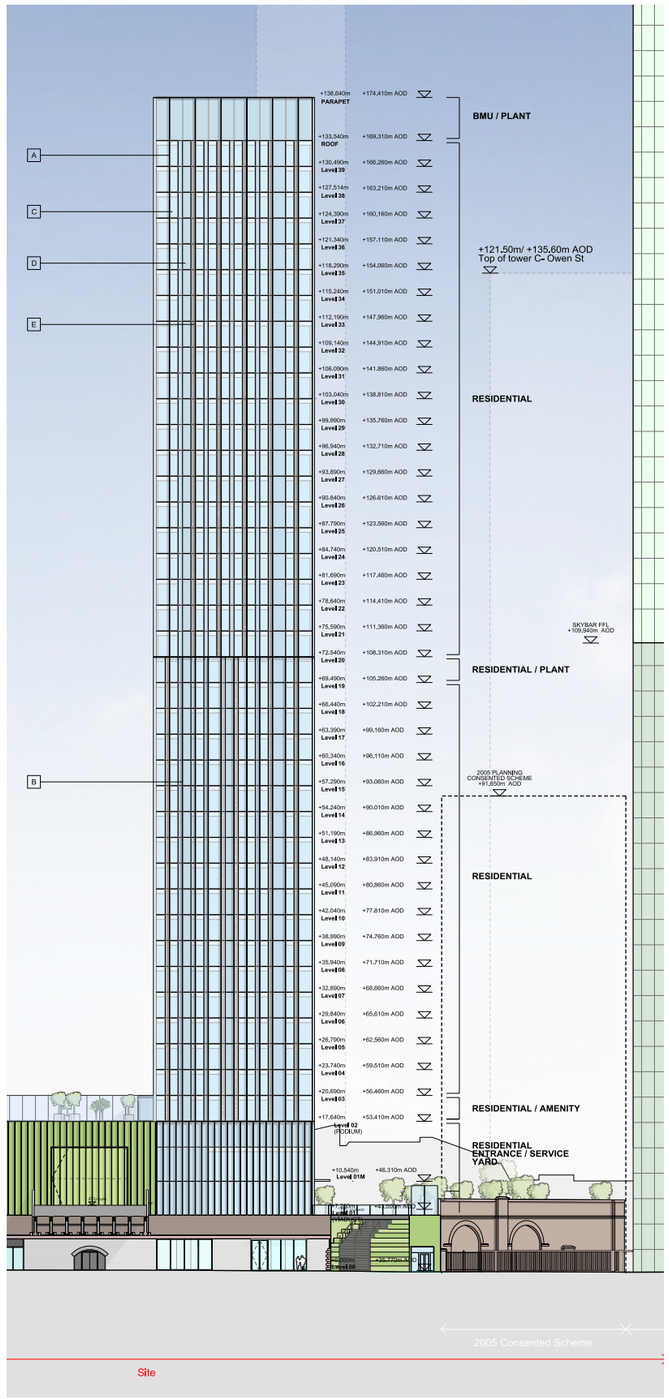
The treatment of the elevations has been carefully considered throughout the design development process to ensure the proposals are robust and deliverable. The material strategy has been developed to respond to the established and emerging context of the area. The response for each element is covered in detail in this section.

The development benefits from a simple, uniform design that has been developed across the buildings ensuring each block has a strong relationship with the other, with the Hilton Tower, and with the urban surroundings. The strong, simple silhouette of the development and regular geometric composition has 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 form a strong composition within the city from a variety of perspectives and distances.









3.8.2 Residential

The building utilises a simple palette of materials, clear glass, opaque (enamel fritted) glass, aluminium panel vents and aluminum fins to articulate the facade within a unitised curtain wall system. Visually the glazing is bonded to an aluminum frame giving an almost seamless appearance.

A regular series of fins have been arranged across each elevation - enforcing the slenderness and verticality of the tower. The expression of these fins also gives the opportunity to create shadow, depth and texture across the facades of the tower.
At the base of the tower and linking to the podium element these fins are arranged at 750mm centres with an emphasis on 'screening'. In the lower levels of the tower up to level 20, the fins are arranged at 1500mm centres to offer a degree of privacy from the adjacent office building. As the building rises the fins open out and are centred at 3000mm offering almost uninterrupted views across the city.

3.8.2 Residential

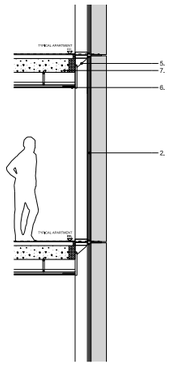
Precedent
A thorough analysis of precedent has been explored and informed the design process.

Detail
The elevations of the residential building have been carefully considered so that each responds to orientation and is read as an integral part of the wider development, unified by a common underlying geometry, materiality and colour palette.

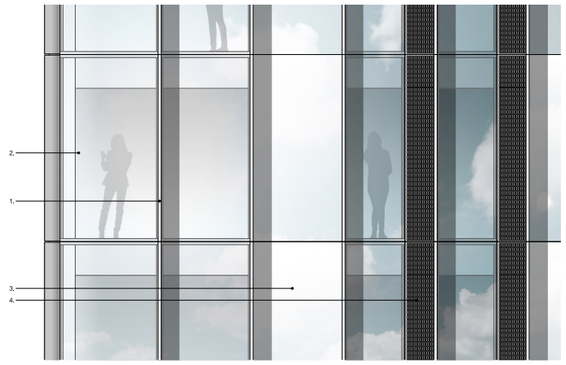
The highest quality materials are proposed that are appropriate to their purpose and location, and an attention to detailing will be maintained to ensure an exemplar of good design. The materiality of the building is summarised on the following drawings submitted as part of the planning application:

10053-B2-A-B5D9-G200-E-N-001 - Building 2 - North Elevation
10053-B2-A-B5D9-G200-E-S-001- Building 2 - South Elevation
10053-B2-A-B5D9-G200-E-E-001 - Building 2 - East Elevation
10053-B2-A-B5D9-G200-E-W-001 - Building 2 - West Elevation

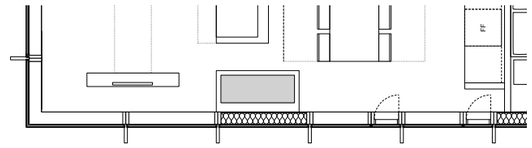
10053-B2-A-B5D9-G251-D-02-001 - External wall detail - Amenity level
10053-B2-A-B5D9-G251-D-19-001 - External wall detail - Plant level
10053-B2-A-B5D9-G251-D-40-001 - External wall detail - Parapet
10053-B2-A-B5D9-G251-D-TY1-001 - External wall detail - Typical Lower Level
10053-B2-A-B5D9-G251-D-TY2-001 - External wall detail - Typical Upper Level



Detail Section | 1:20



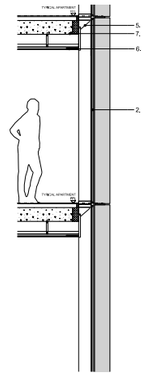
Detail Elevation | 1:20



Detail Plan | 1:20

Key

1. Projecting curtain wall vertical mullion. Colour - Grey.
2. Full height clear double glazed units (unitised). Silicone jointing between glass to glass interfaces.
3. Glass fronted insulated solid panel. 100% Enamelled frit spandrel glass
4. Perforated metal screen in plane of facade to conceal pivoting solid ventilator
5. Aluminium profile
6. Ceiling
7. Concrete slab



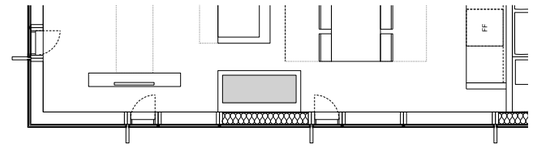
Detail Section | 1:20

Key

1. Projecting curtain wall vertical mullion. Colour - Grey.
2. Full height clear double glazed units (unitised). Silicone jointing between glass to glass interfaces.
3. Glass fronted insulated solid panel. 100% Enamelled frit spandrel glass
4. Perforated metal screen in plane of facade to conceal pivoting solid ventilator
5. Aluminium profile
6. Ceiling
7. Concrete slab

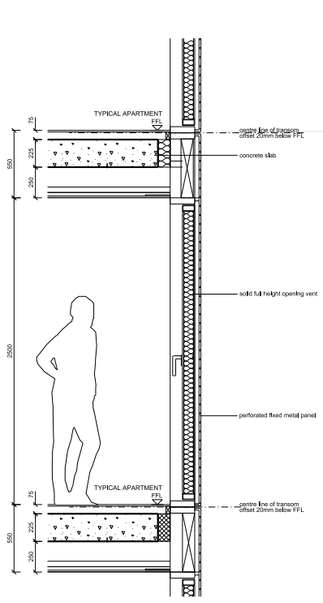


Detail Elevation | 1:20



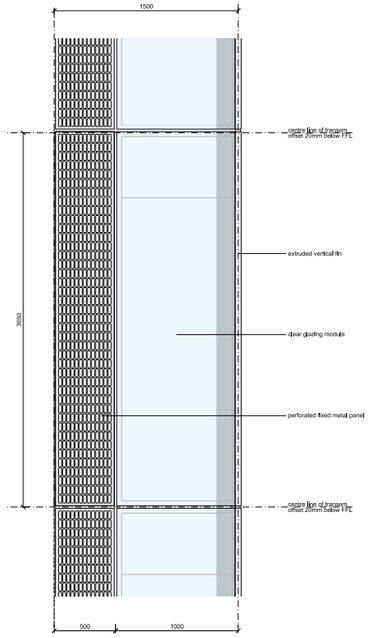
Detail Plan | 1:20

Typical lower level elevation

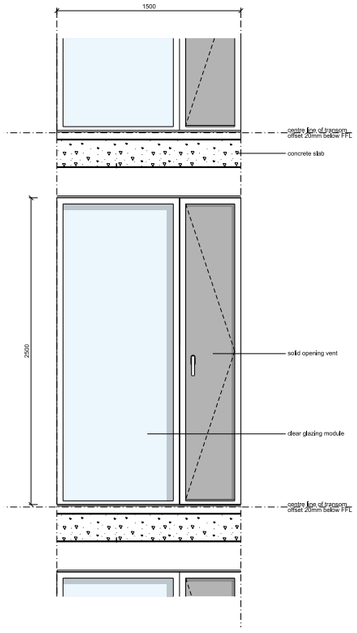


DETAIL SECTION
PANEL VENT

Typical upper level elevation

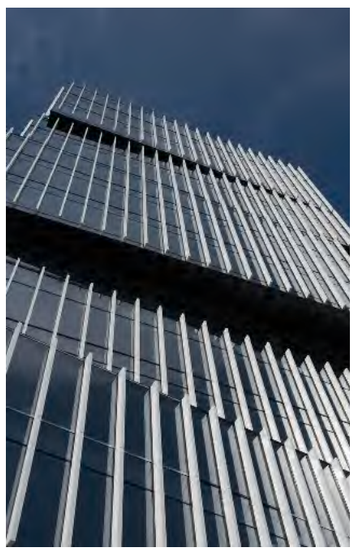
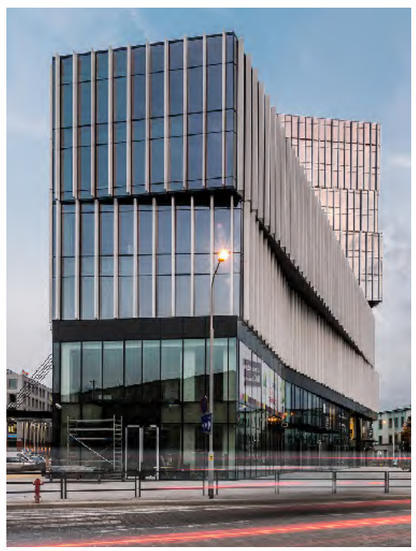
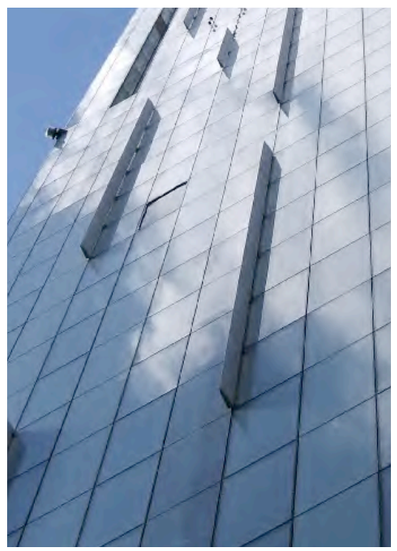
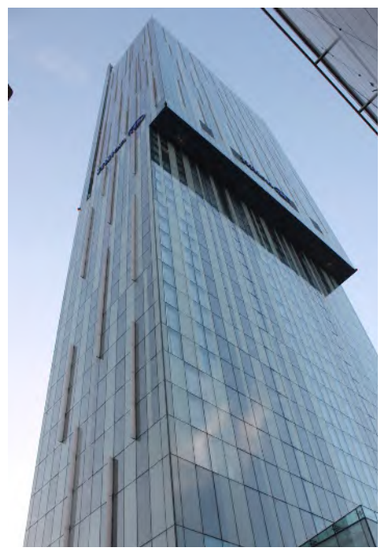
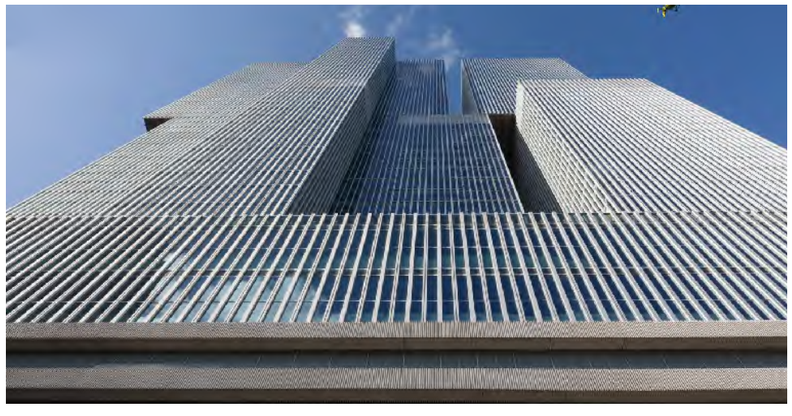


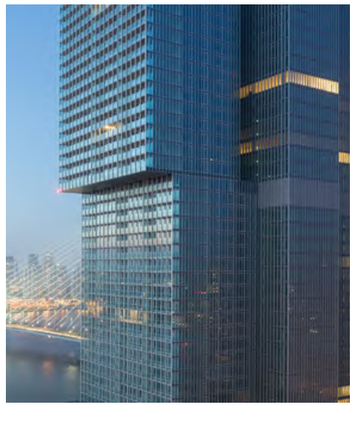
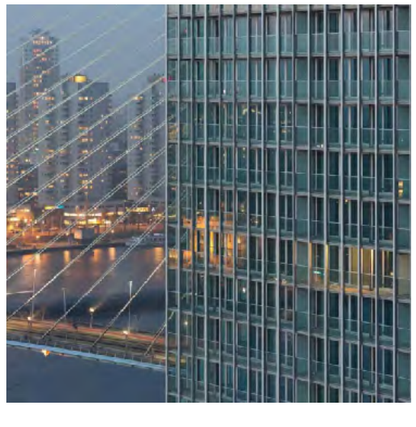
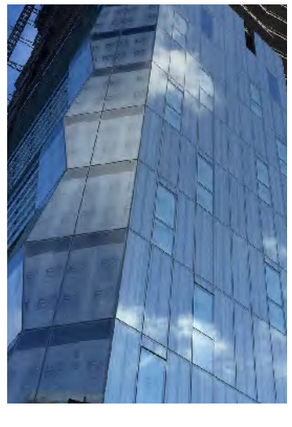
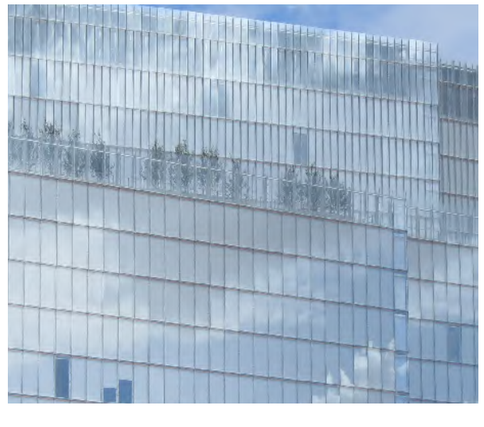
EXTERNAL DETAIL ELEVATION
PANEL VENT



INTERNAL DETAIL ELEVATION
PANEL VENT

Purge vent detail

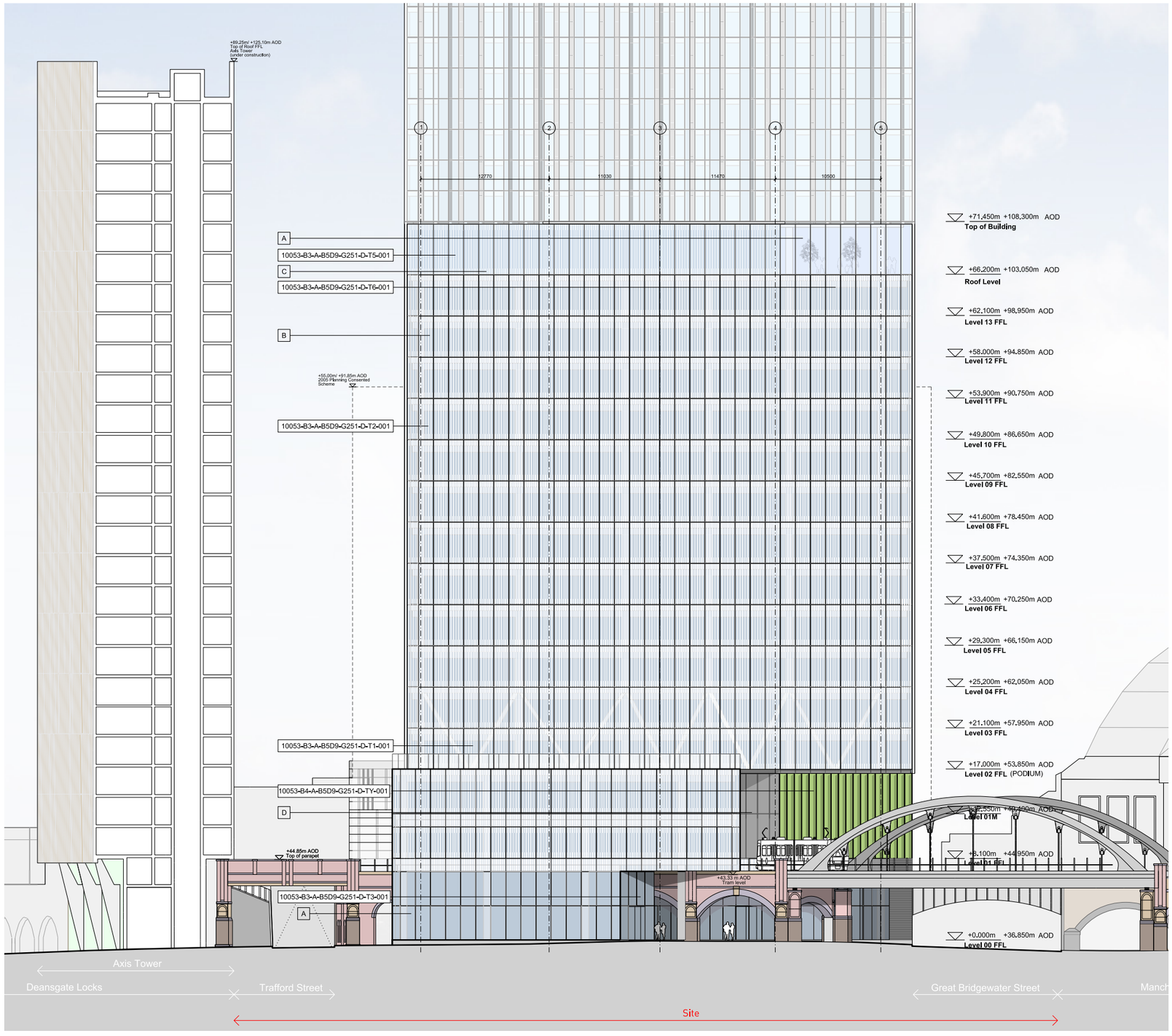
3.8.3 Office

The office has been treated as a simple glazed cube articulated over a green base element. The building has a predominately glazed skin to achieve the high interior light levels required of an office building and reduce the reliance on artificial lighting. The glass is treated with ceramic fritting which reduces overheating, cooling costs and saves heating energy.

The office floor accommodation utilises a unitised double glazed construction to achieve a low u value. Visually, the outer sheet of glass is bonded to an aluminium frame and will not be expressed as prominently as in traditional framed curtain walling, it will, however, be visible through certain areas of the glazing.

The 4.1m high floor to floor glazing panels correspond and follow a 1.5m planning module width to the office floorplates. The only departure from the 1.5m module is at the corners where the panels are increased or decreased to maintain the alignment with the centre line of the building.





SimpsonHaugh
AND PARTNERS

3.8.3 Office

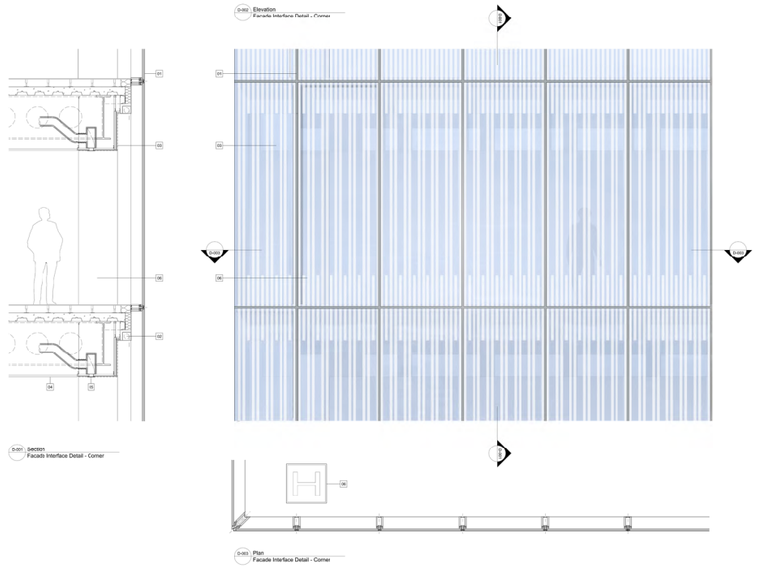
Ceramic Fritting

The building also requires shading and privacy. The technique chosen to achieve this is through 'fritting' the glass to create a degree of opacity on certain panels dependant on their orientation.

This is a ceramic paint which can be applied in a variety of patterns and densities is then baked onto the glass. The paint is applied by silkscreen print, digital printer or roller/curtain. After the paint is applied, the glass is then tempered or heat strengthened which fuses the paint to the glass to create an integral and durable coating.

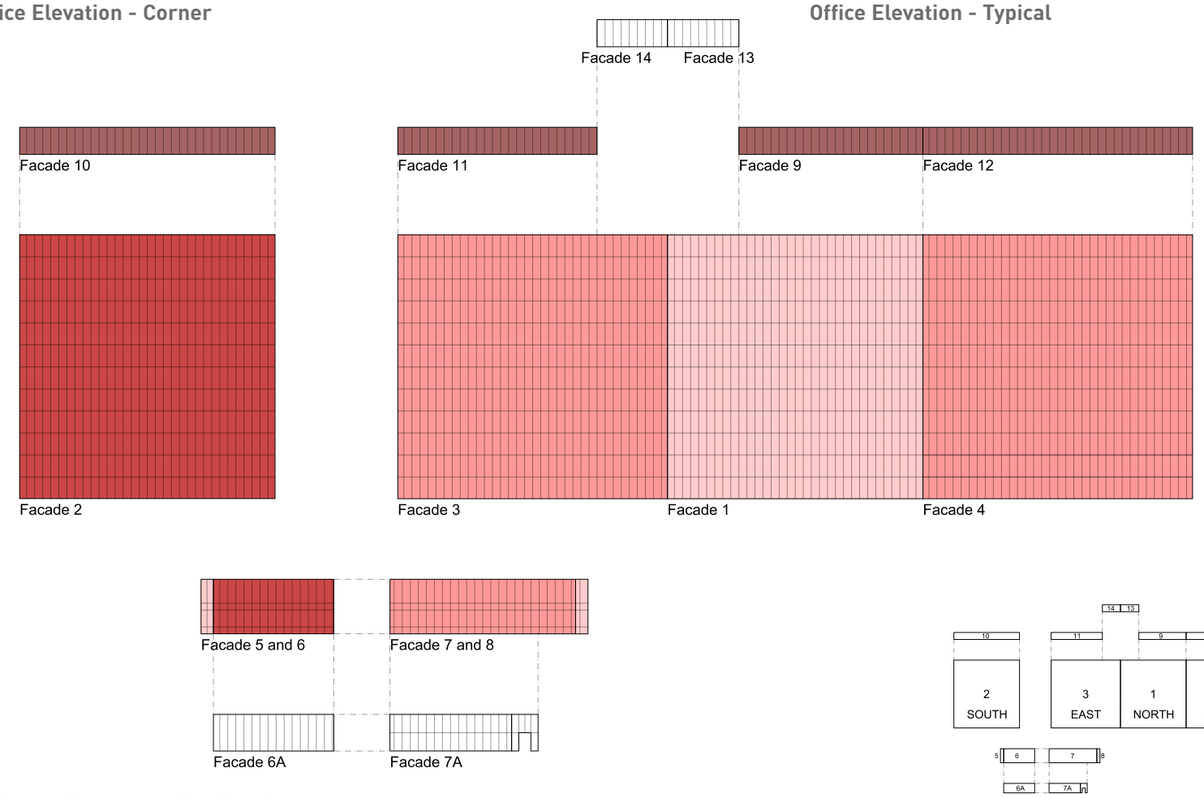
The degree of opacity created is dependent upon the percentage of frit applied which in turn controls the level of shading and reduction in heat gain. The level of opacity created by the fritting responds to orientation.

Hence the south elevation employs the greatest frit density , the east & west have a moderate density and the north will have the least density. The denser frit to the south elevation offers privacy to and from the adjacent proposed Axis development.



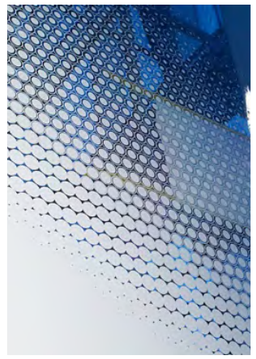
Office Elevation - Corner

Office Elevation - Typical



Unfolded Elevation - Frit Density

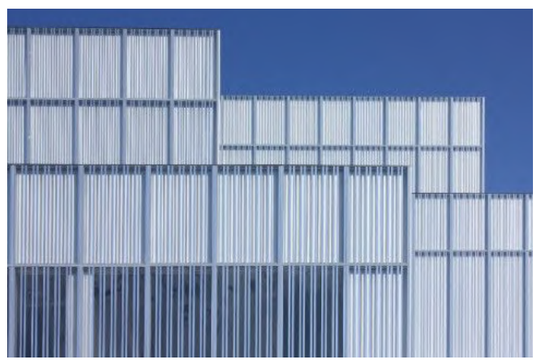












3.8.3 Office

Precedent
A thorough analysis of precedent has been explored and informed the design process.

Detail
To conclude, the elevations of the building have been carefully considered so that each responds to orientation and is read as an integral part of the wider development, unified by a common underlying geometry, materiality and colour palette.

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:

10053-B3-A-B5D9-G200-E-N-001 - Building 3 - North Elevation
10053-B3-A-B5D9-G200-E-S-001- Building 3 - South Elevation
10053-B3-A-B5D9-G200-E-E-001 - Building 3 - East Elevation
10053-B3-A-B5D9-G200-E-W-001 - Building 3 - West Elevation

10053-B3-A-B5D9-G251-D-T1-001 - Façade interface detail - Typical
10053-B3-A-B5D9-G251-D-T2-001 - Façade interface detail - Typical
10053-B3-A-B5D9-G251-D-T3-001 - Façade interface detail - Entrance
10053-B3-A-B5D9-G251-D-T4-001 - Façade interface detail - Amenity level
10053-B3-A-B5D9-G251-D-T5-001 - Façade interface detail - Parapet
10053-B3-A-B5D9-G251-D-T6-001 - Façade interface detail - Terrace parapet

3.8.4 Arches / Podium

Arches
The currently neglected elevations of the listed Castlefield Viaduct structure will be carefully brought back to life and re-animated. The existing glazed brick frontage to Great Bridgewater Street will be sensitively restored and openings within the arches will be increased in size (covered in the following pages) and in filled with a clear glass curtain walling system, making the arches suitable for a retail or residential reception.

Podium
The podium has been treated as the linking element between the two buildings and as such has been considered with a three main material elements:

Living Wall
The podium is predominantly covered with a living wall trellis system, screening the service yard. The system will allow the required cross ventilation and provides a green linking element for the two buildings.

Glazing
The residential entrance at tram stop level is wrapped in clear and opaque glazed panels, providing active frontage and passive surveillance to the new pedestrian link from Great Bridgewater Street.

Aluminium Panels
There is a requirement for a low maintenance and robust material finish facing the Metrolink line due to the access limitations to this zone. Access during construction will also be limited, as such a simple composite metal panel system is proposed that will maintain the rhythm of the glazing modules above whilst providing the necessary acoustic properties required for the adjacent office and reception spaces. The panels will be fixed in place without the need for complex construction sequencing over and above that of which is to be agreed with TfGM.





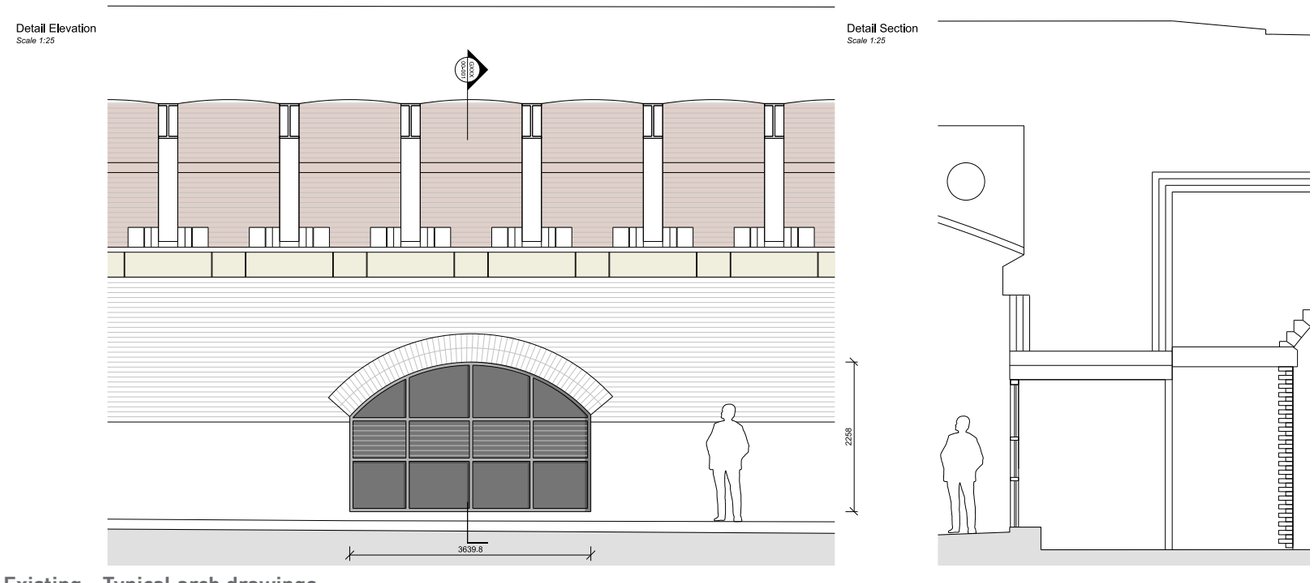
3.8.4 Arches / Podium

Arches

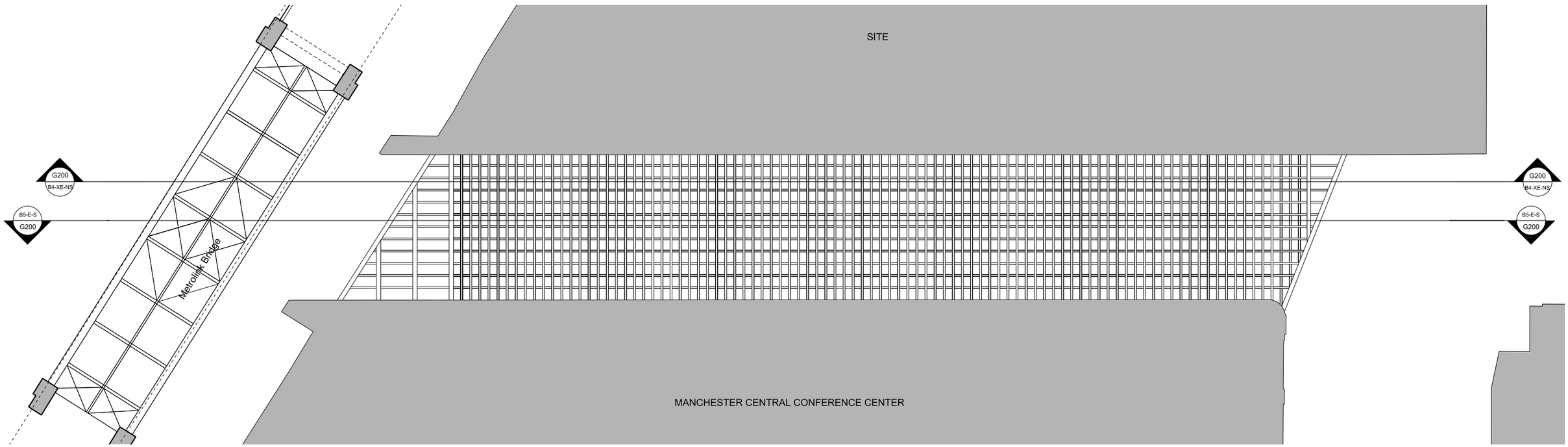
These drawings / images reflect the current arrangement of the arches.



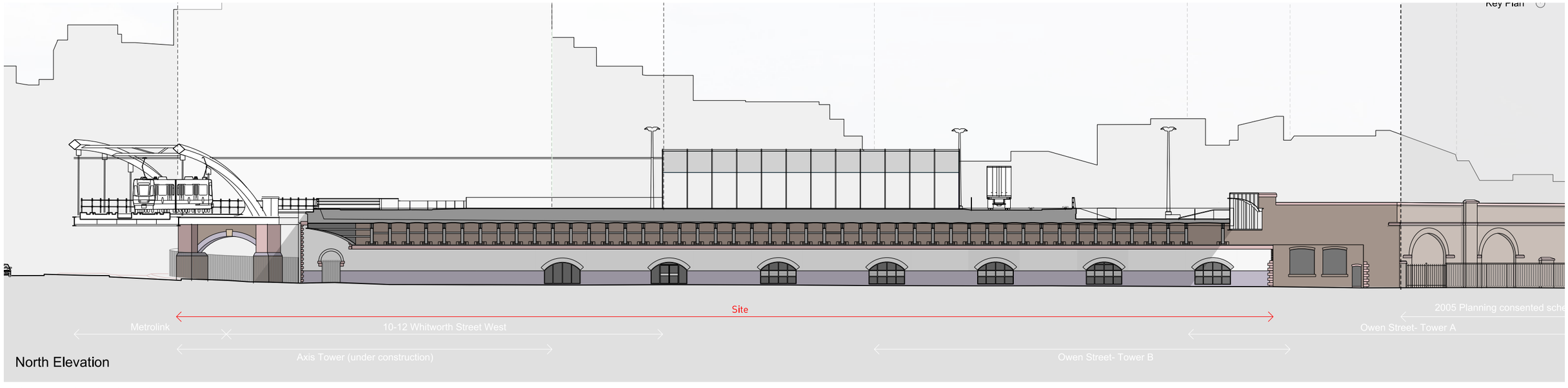
Existing - Photograph of the Great Bridgewater Street (south) elevation



Existing - Typical arch drawings



Existing - Reflected bridge plan



Existing - North Elevation

3.8.4 Arches / Podium

Arches

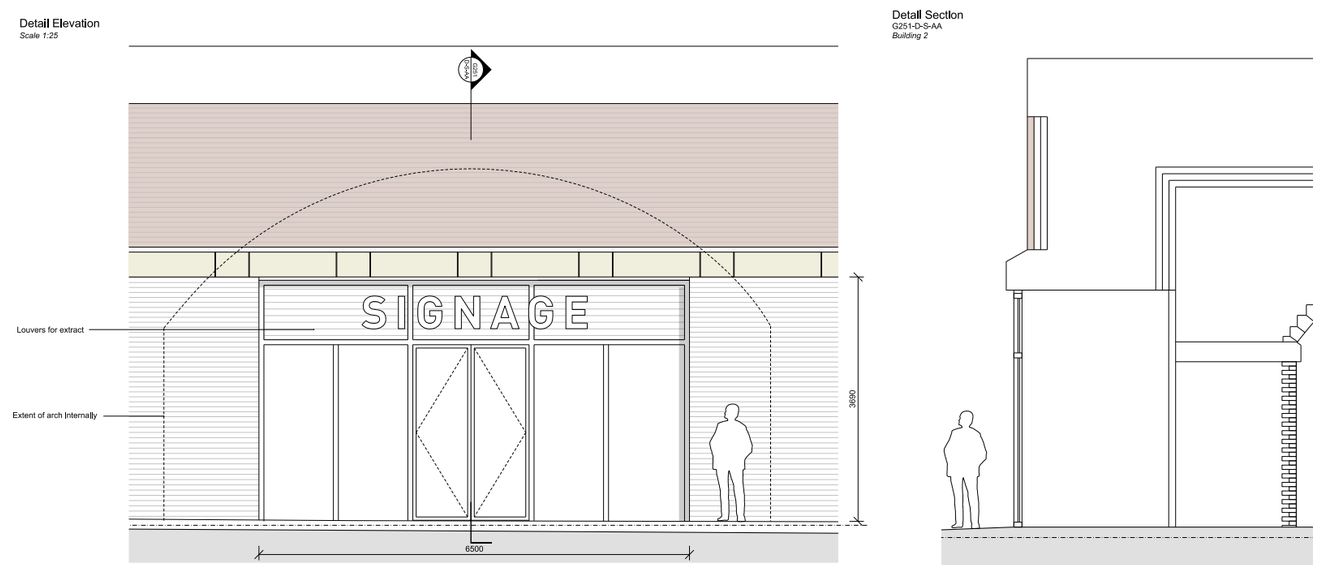
The rationale and alternative options considered for opening up the existing arches and the bridge are covered in further detail in the GBS options appraisal. The opportunity to further open up the facade was welcomed by Historic England in order to reveal the arched undercroft beyond. Numerous options were considered in the development of this element of the design. Ultimately it was felt 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.

The stone course that runs horizontally across the image (right) was used to spread the load of the cast iron ribs of the bridge that were founded upon it. It was considered an important feature in the understanding and appreciation of the evolution of the bridge structure over Great Bridgewater Street. The design team felt that any intervention that broke the line of this course ie an arch that followed the line of the arches inside would result in the understanding of these historic elements to be lost.

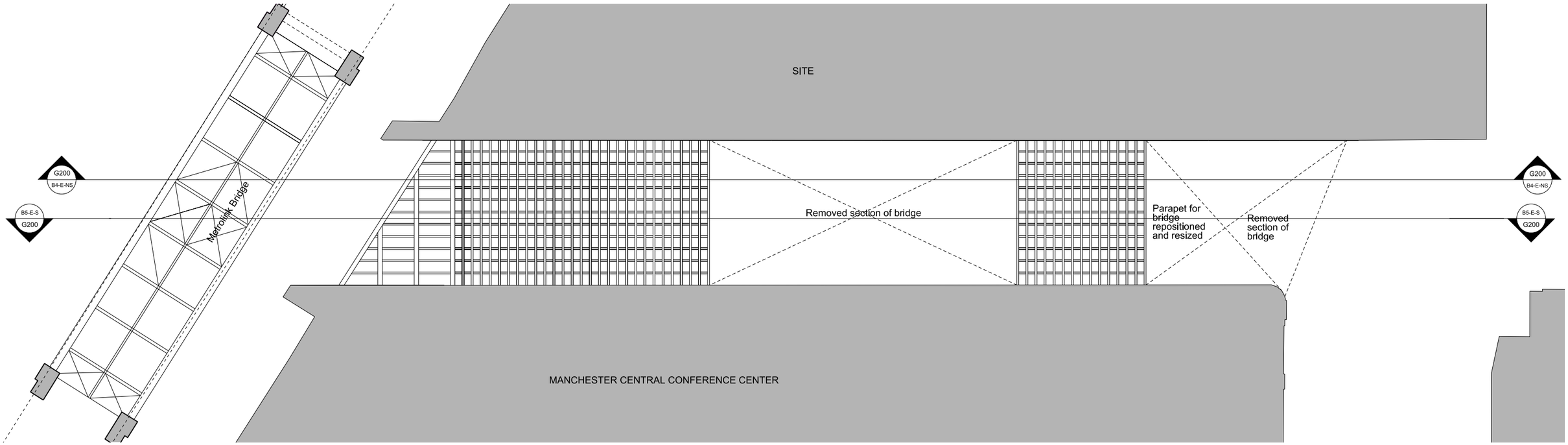
A large format curtain wall glazing system will be used to in fill the new openings, maximising natural light in to the units and creating a discernible contrast between old and new. Where necessary intake louvers will be housed within this framing system.



Proposed - Indicative view of treatment to Great Bridgewater Street (south) elevation



Proposed - Indicative typical drawings of enlarged openings



Proposed - Reflected bridge plan illustrating extent of proposed alteration



Proposed - Indicative North Elevation illustrating enlarged opening and extent of bridge alteration

3.9 Interventions

3.9.1 Historic Fabric

Approach

A supplementary alteration report supports this application in Appendix 6.1, which schedules out any works to the listed structure, the location of all interventions have been photographed wherever possible. In addition to this a structural report ref: 049266-CTS-01-XX-RP-S-001 covering the structural methodology is also submitted.

It was established early in the design process through consultation with HE that it would not be possible to develop 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.

The limitation of alterations to the listed structure has however been a fundamental driver of the chosen design approach (As covered in Approach 03).

Columns

In the residential building columns have been consolidated at a transfer level resulting in only eight penetrating through the castlefield viaduct as opposed to up to 24no. in the upper levels of the building.

The position of the office building has been pushed as far east as possible within the site boundary to allow columns to be positioned away from the listed structure. Where unavoidable 9no. columns penetrate through the apex of the arches.

The positioning and number of columns required to support the landscaped deck over the service yard have been considered to ensure that these can be founded without the need to penetrate through the listed fabric. Instead a pad foundation will be created through the removal of infill material at the service yard above the brick undercroft.

Cores

Due to the size of the buildings the circulation cores must come down to ground level for structurally stability, as such a degree of alteration will be required. The residential core has been positioned between two lines of the existing piers limiting the amount alteration required.

10053-MP-A-JC20-SC-AL
Manchester Central

Schedule of Works

	Works Number	Description of works	Original Fabric	Photographed
Ground	00-DEM-01	Removal of brick pillar for new public staircase	Y	Y
	00-DEM-02	Removal of brick wall containing two blocked up windows and a redundant door	Y	Y
	00-DEM-03	Removal of original brick arch and part of the associated wall. Removal of none original infill louvered panel	Y/N	Y
	00-DEM-04	Removal of original brick arch and part of the associated wall. Removal of none original infill louvered door	Y/N	Y
	00-DEM-05	Removal of infill louvered panel	N	Y
	00-DEM-06	Removal of original brick arch and part of the associated wall. Removal of none original infill louvered panel	Y/N	Y
	00-DEM-07	Removal of part of original brick arch and part of the associated wall. Removal of none original infill glazed panel	Y/N	Y
	00-DEM-08	Removal of part of original brick arch and part of the associated wall. Removal of none original infill glazed panel	Y/N	Y
	00-DEM-09	Removal of 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	N
	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-18	Removal of brick pillar and associated arch	Y	N
	00-DEM-19	Removal of external glazed panel	N	Y
	00-DEM-20	Removal of external glazed panel	N	N
	00-DEM-21	Removal of brick arch and entrance to previous car showroom	Y	Y
	00-DEM-22	Removal of brick arch and entrance to previous car showroom	N	Y
	00-DEM-23	Removal of internal wall	N	Y
	00-DEM-24	Removal of external glazed panel	N	Y
	00-DEM-25	Removal of internal wall	N	N
	00-DEM-26	Removal of internal wall	N	Y
	00-DEM-27	Removal of internal wall	N	N
	00-DEM-28	Removal of external glazed panel	N	Y
	00-DEM-29	Removal of internal wall	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-32	Removal of external glazed and brick wall	N	Y
	00-DEM-33	Removal of external glazed and brick wall	N	Y
	00-DEM-34	Removal of external glazed and brick wall	N	Y
	00-DEM-35	Removal of brick arch	Y	N
	00-DEM-36	Removal of brick arch	Y	N

	Works Number	Description of works	Is Original Fabric Affected	Photographed
Ground	00-ALT-01	Introduction of new slab for retail, lobby and back of house use	Y	Y
	00-ALT-02	Introduction of pad foundation for steel column	Y	N
	00-ALT-03	Introduction of pad foundation for steel column	Y	N
	00-ALT-04	Introduction of pad foundation for steel column	Y	N
	00-ALT-05	Introduction of pad foundation for steel column	Y	N
	00-ALT-06	Introduction of pad foundation for steel column	Y	Y
	00-ALT-07	Introduction of pad foundation for steel column	Y	Y
	00-ALT-08	Introduction of pad foundation for steel column	Y	Y
	00-ALT-09	Introduction of pad foundation for steel column	Y	N
	00-ALT-10	Introduction of foundation for lifts and steel column	Y	N
	00-ALT-11	Introduction of raft foundation for residential building (B2)	Y	Y

10053-MP-A-JC20-SC-AL
Manchester Central

Schedule of Works

	Works Number	Description of works	Original Fabric	Photographed
First	01-DEM-01	Removal of brick arch for public elevator	Y	Y
	01-DEM-02	Removal of section of brick arch for public stair case	Y	Y
	01-DEM-03	Removal of section of brick arch for concrete column	Y	Y
	01-DEM-04	Removal of section of brick arch for concrete column	Y	Y
	01-DEM-05	Removal of brick arch for elevator shaft	Y	Y
	01-DEM-06	Removal of section of brick arch for concrete column	Y	Y
	01-DEM-07	Removal of section of brick arch for concrete column	Y	Y
	01-DEM-08	Removal of section of bridge	Y	Y
	01-DEM-09	Removal of section of bridge	Y	Y
	01-DEM-10	Removal of section of brick arch for steel column	Y	Y
	01-DEM-11	Removal of section of brick arch for steel column	Y	Y
	01-DEM-12	Removal of section of brick arch for steel column	Y	N
	01-DEM-13	Removal of section of brick arch for steel column	Y	N
	01-DEM-14	Removal of section of brick arch for steel column	Y	N
	01-DEM-15	Removal of brick arch for new office elevator shaft	Y	N
	01-DEM-16	Removal of section of brick arch for steel column	Y	Y
	01-DEM-17	Removal of section of brick arch for steel column	Y	Y
	01-DEM-18	Removal of section of brick arch for steel column	Y	N
	01-DEM-19	Removal of section of brick arch for steel column	Y	Y
	01-DEM-20	Removal of section of brick arch for concrete column	Y	Y
	01-DEM-21	Removal of section of brick arch for concrete column	Y	Y
	01-DEM-22	Removal of section of brick arch for concrete column	Y	Y
	01-DEM-23	Removal of section of brick arch for concrete column	Y	Y

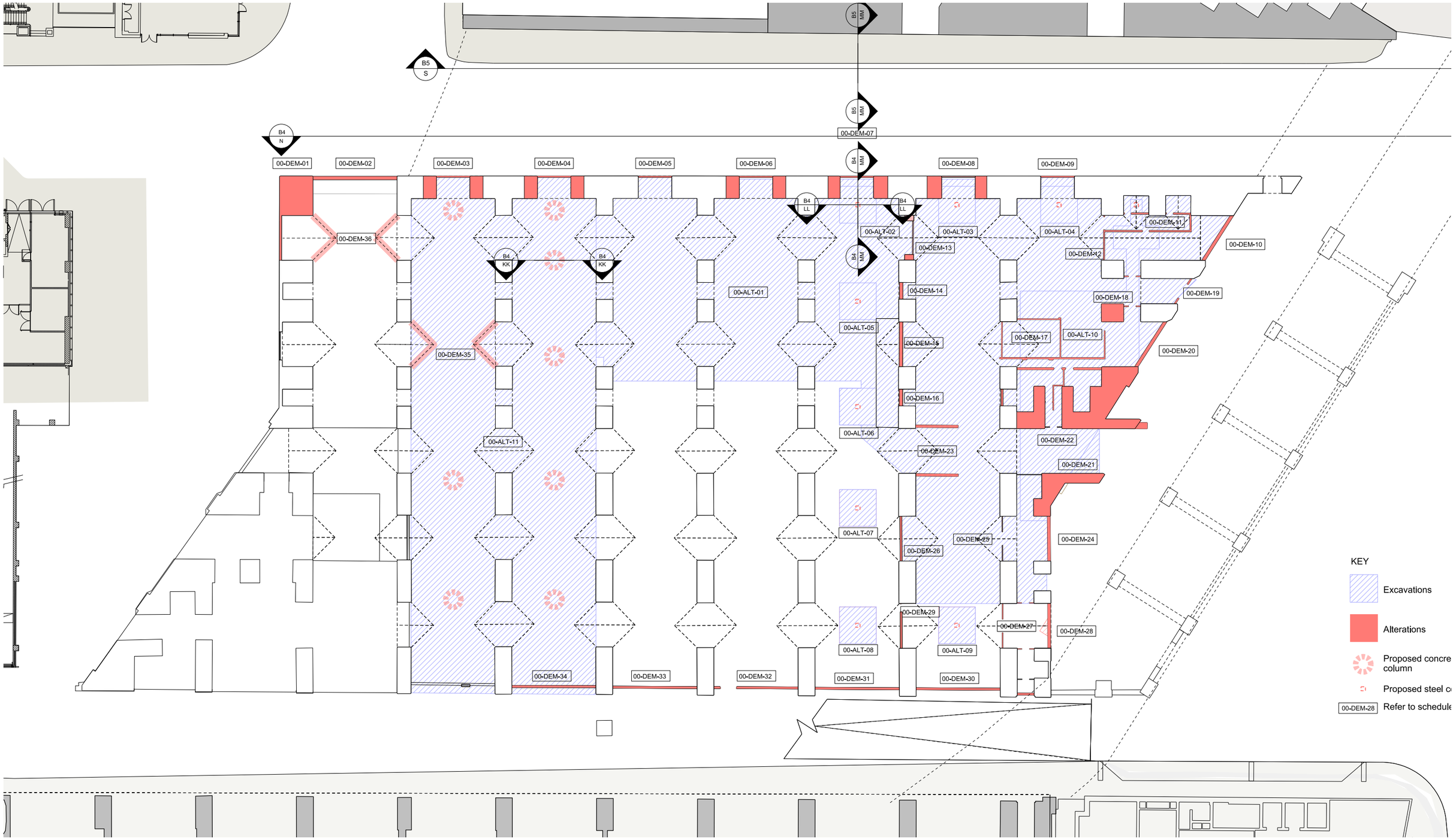
	Works Number	Description of works	Is Original Fabric Affected	Photographed
First	01-ALT-01	New slab for residential lobby	N	Y
	01-ALT-02	New pad foundation for podium structure	Y	N
	01-ALT-03	New pad foundation for podium structure	Y	N
	01-ALT-04	New pad foundation for podium structure	Y	N
	01-ALT-05	New pad foundation for podium structure	Y	N
	01-ALT-06	New pad foundation for podium structure	Y	N
	01-ALT-07	New pad foundation for podium structure	Y	N
	01-ALT-08	New slab for refuse space	N	N
	01-ALT-09	New pad foundation for podium structure	Y	N
	01-ALT-10	New pad foundation for podium structure	Y	N
	01-ALT-11	New pad foundation for podium structure	Y	N
	01-ALT-12	New pad foundation for podium structure	Y	N
	01-ALT-13	New pad foundation for podium structure	Y	N
	01-ALT-14	New pad foundation for podium structure	Y	N
	01-ALT-15	New slab for refuse space	N	N
	01-ALT-16	Regrading of slab for landscape	Y	Y
	01-ALT-17	New ramp	N	N

Openings
Interventions within the Great Bridgewater Street elevation are necessary to create viable retail / leisure units. A number of options were considered and are discussed in further detail in the options appraisal.

Stairs
The new public stair from the Metrolink stop down to Great Bridgewater Street has been carefully positioned in between the line of the listed brick piers. It is of course necessary for intervention for the vertical circulation in order to create transition down to street level.

Ventilation / Extract
Extract for the retail units fronting Great Bridgewater Street will be consolidated within the structural openings created for the office columns. Larger openings will allow ductwork to travel vertically up to the mezzanine plant level above the service yard and exhaust out at a high level.

Great Bridgewater Street Bridge
Alterations to the Great Bridgewater Street Bridge have been covered in the options appraisal. These include 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.


B5 MM
B5 S
B4 N
B4 MM
B4 LL
B4 KK
00-DEM-01
00-DEM-02
00-DEM-03
00-DEM-04
00-DEM-05
00-DEM-06
00-DEM-07
00-DEM-08
00-DEM-09
00-DEM-10
00-DEM-11
00-DEM-12
00-DEM-13
00-DEM-14
00-DEM-15
00-DEM-16
00-DEM-17
00-DEM-18
00-DEM-19
00-DEM-20
00-DEM-21
00-DEM-22
00-DEM-23
00-DEM-24
00-DEM-25
00-DEM-26
00-DEM-27
00-DEM-28
00-DEM-29
00-DEM-30
00-DEM-31
00-DEM-32
00-DEM-33
00-DEM-34
00-DEM-35
00-DEM-36
00-ALT-01
00-ALT-02
00-ALT-03
00-ALT-04
00-ALT-05
00-ALT-06
00-ALT-07
00-ALT-08
00-ALT-09
00-ALT-10
00-ALT-11
KEY
Excavations
Alterations
Proposed concre column
Proposed steel c
00-DEM-28
Refer to schedule


B5
S
B4
N
B5
MM
B5
MM
B4
MM
MM
B4
KK
B4
KK
B4
LL
B5
LL
01-DEM-01
01-DEM-02
01-DEM-03
01-DEM-04
01-DEM-05
01-DEM-06
01-DEM-07
01-DEM-08
01-DEM-09
01-DEM-11
01-DEM-12
01-DEM-13
01-DEM-14
01-DEM-15
01-DEM-16
01-DEM-17
01-DEM-18
01-DEM-19
01-DEM-20
01-DEM-21
01-DEM-22
01-DEM-23
01-ALT-01
01-ALT-02
01-ALT-03
01-ALT-04
01-ALT-05
01-ALT-06
01-ALT-07
01-ALT-08
01-ALT-09
01-ALT-10
01-ALT-11
01-ALT-12
01-ALT-13
01-ALT-14
01-ALT-15
01-ALT-16
01-ALT-17
1
2
3
4
5
KEY
Excavations
Alterations
XX-XXX-XX
Refer to schedule

3.10 Landscaping

Approach

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

The landscape masterplan will capitalise on the site's unique elevated setting and will expand upon the recently installed and highly successful green space at Deansgate-Castlefield Metrolink Stop.

A key route will lead people to and from Deansgate and the city. The main circulation will flow across the new green public space between the Hilton Hotel and the residential tower, down the green steps and onto a newly configured pedestrian friendly crossing of Great Bridgewater Street, onwards towards Great Northern Square and the city centre.

The Green Steps will form an impressive gateway into Manchester. Vertical greening will cover the wall elevations and lighting and trees will create a welcoming passage for pedestrians. The landscaping proposals comprises the following key character areas:

Public

- Major new pedestrian route from DCF Metrolink Stop down to Watson Street
- Street level public realm improvements including at the office entrance on Albion Street

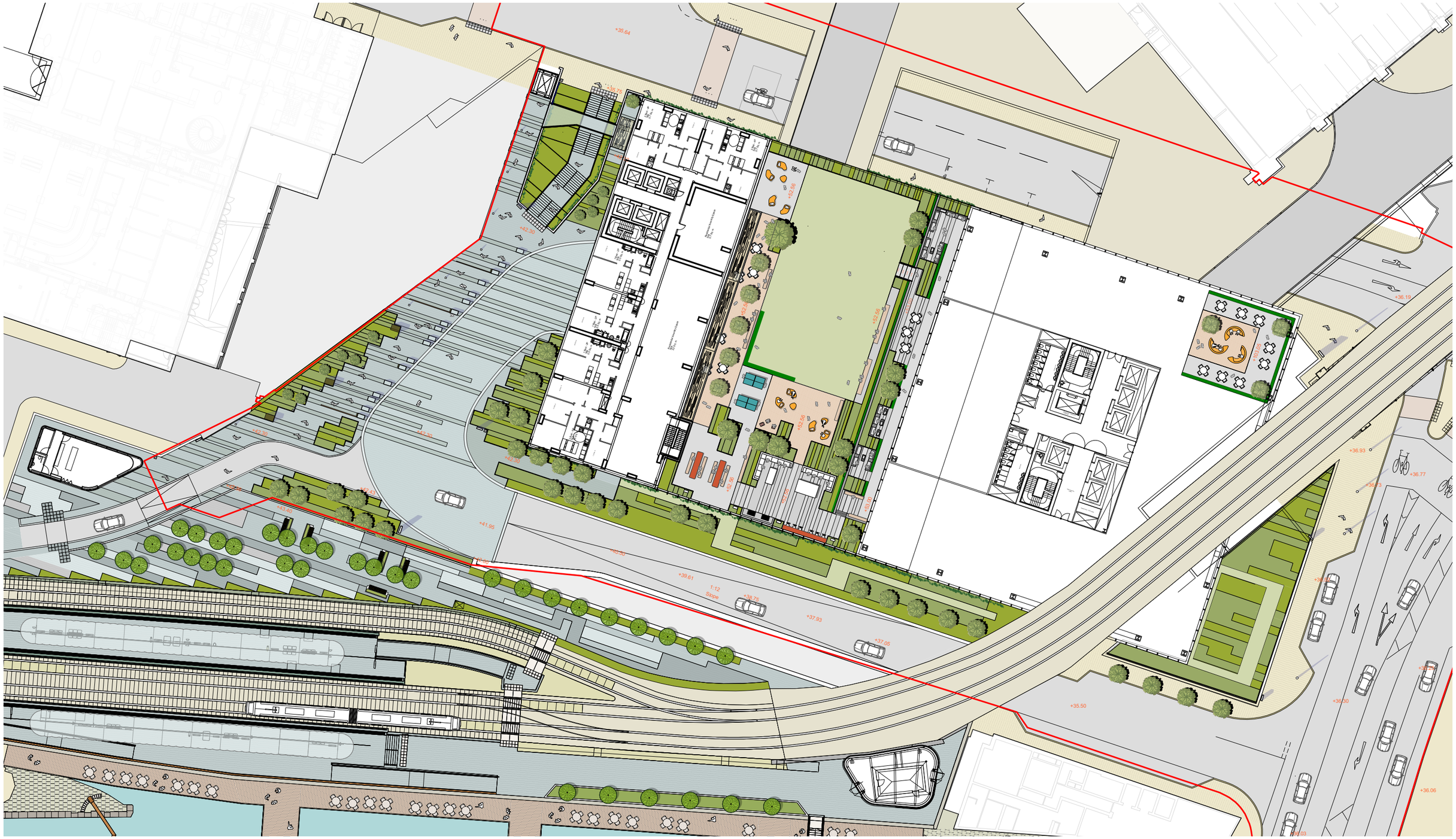
Private

- Shared landscaped amenity deck between office and residential
- Office roof terrace








+35.64
+43.38
+43.30
+42.30
+41.45
+41.95
+39.61
1:12
Slope
+38.75
+37.93
+37.05
+35.50
+52.56
+52.56
+52.56
+52.56
+52.56
+53.00
+36.19
+36.93
+36.77
+36.06
+36.06
+36.06

3.11 Environmental

3.11.1 Wind Tunnel Study

A wind tunnel study has been carried out by BMT Fluid Mechanics Ltd. (BMT) 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.

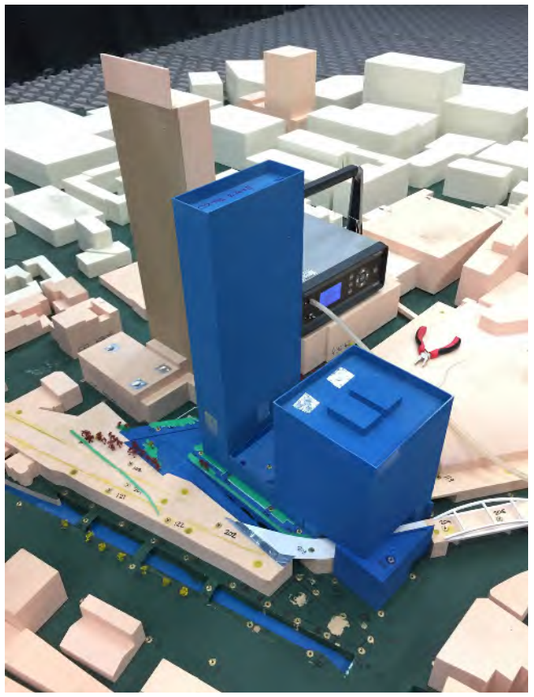
Several iterations of the design have been developed and tested in the wind tunnel within the context of both existing and future surrounds, and, where appropriate, mitigation measures have been developed to ensure that conditions are comfortable for existing and planned uses within the site and surrounding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

The findings of the wind tunnel study 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.













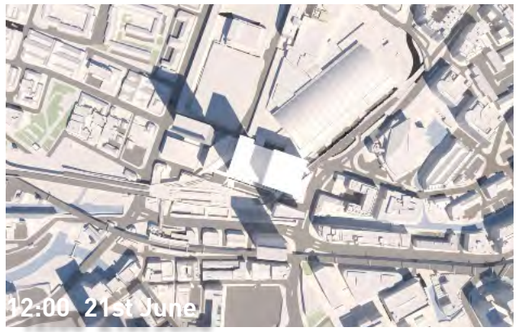














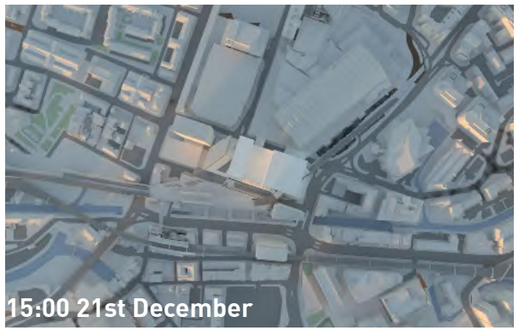












3.11.2 Daylight Study

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.

The layout of the buildings has been developed to provide generous space between them - through pushing the office building out over the Metrolink Tram Line this has been maximised. The north / south orientation of the residential building ensures there are no solely north facing apartments.

A detailed daylight and sunlight assessment is included within the Environmental Impact Assessment that accompanies this application.

3.12 Townscape Impact

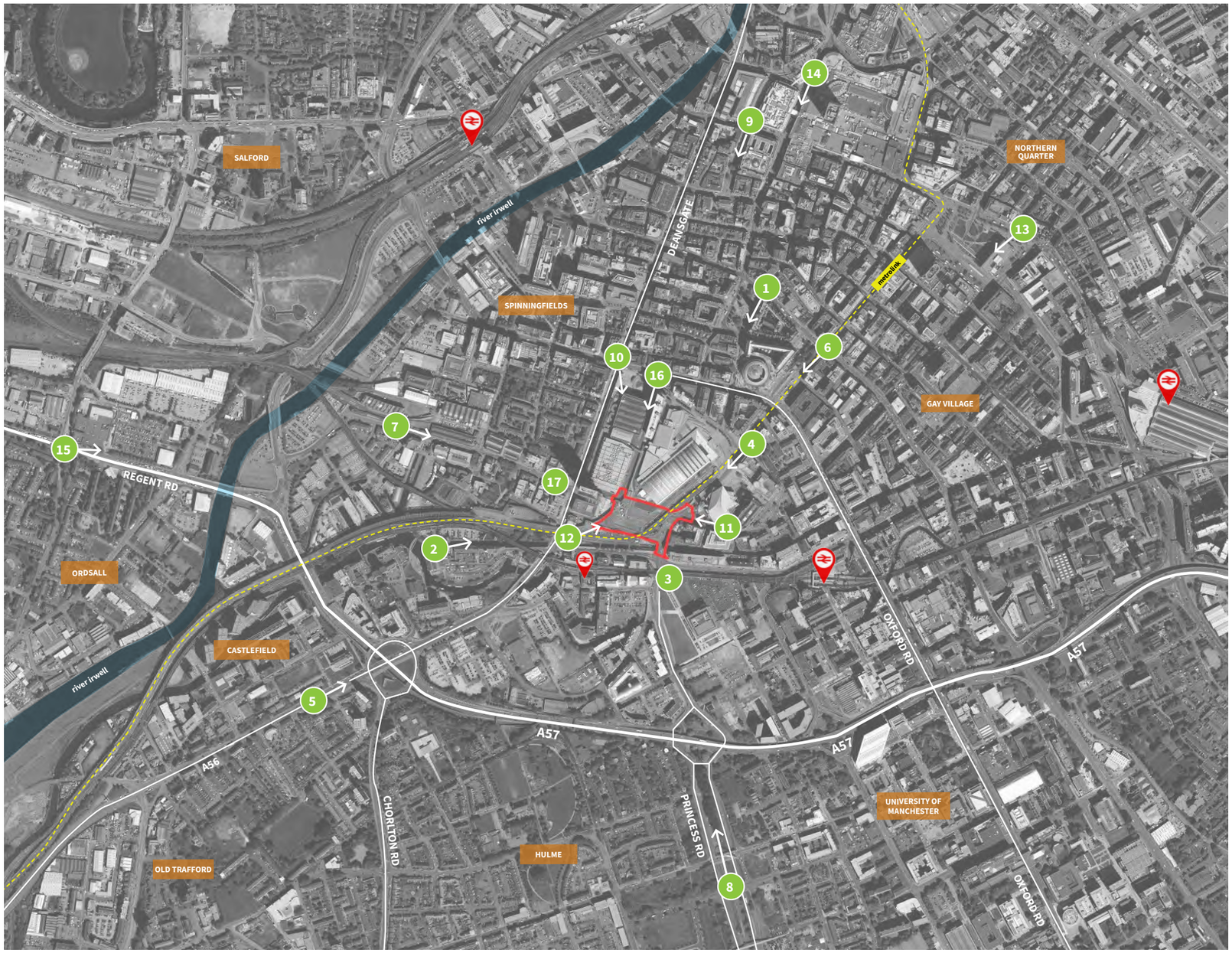
3.12.1 Townscape Visual Impact Assessment

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.



APPLICATION BOUNDARY

VIEWPOINTS

1 | View from Albert Square

2 | View from Castle Street

3 | View from Albion St/Whitworth St

4 | View from Moseley St

5 | View from Manchester Road

6 | View from Princess St/Mosley St

7 | View from Liverpool Road

8 | View from Hulme Arch

9 | View from St Anns Square/St Mary's Gate

10 | View from Deansgate/Quay Street

11 | View from Great Bridgewater Street

12 | View from Deansgate/Castlefield Metrolink

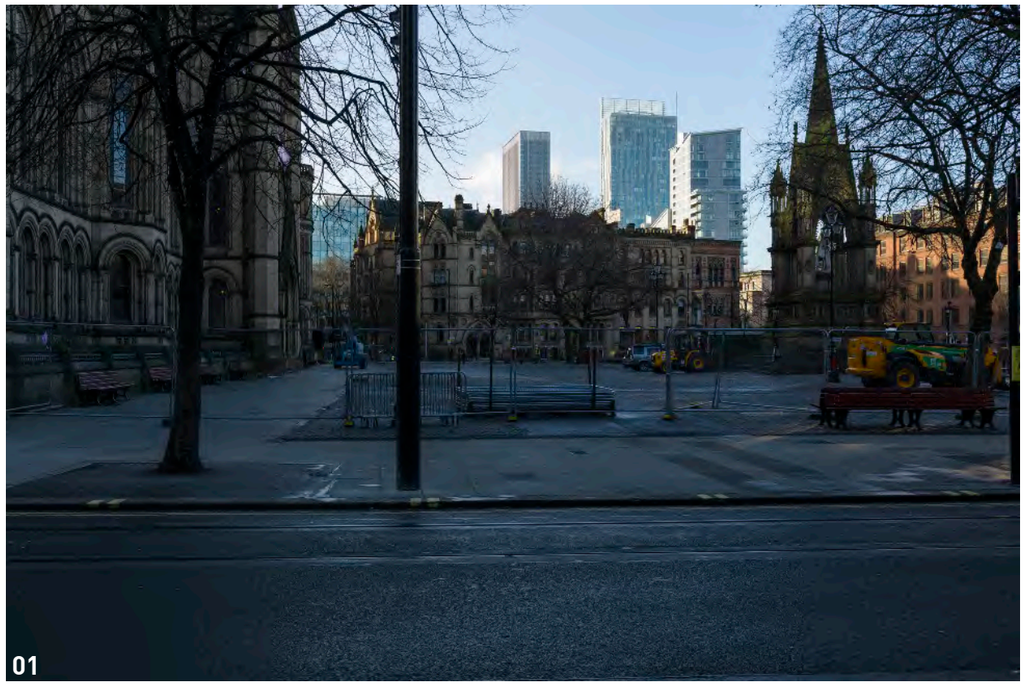
13 | View from Piccadilly Gardens

14 | View from Corporation St Metrolink

15 | View from Regent Road

16 | View from Watson Street

17 | View from Deansgate/Liverpool Rd

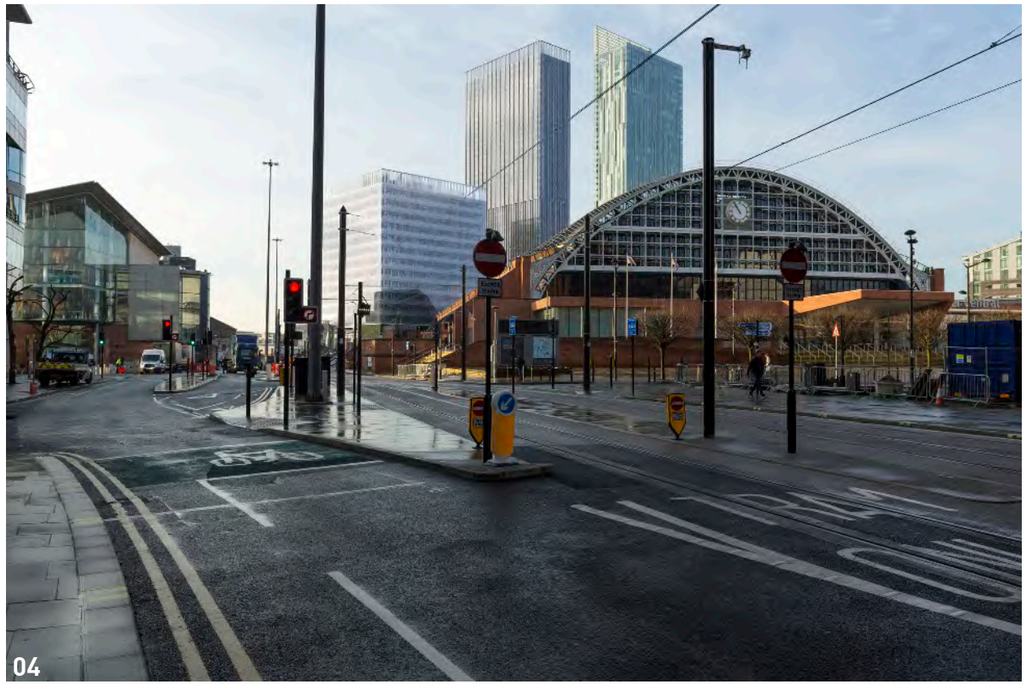

01



02



03


04



05



06



07



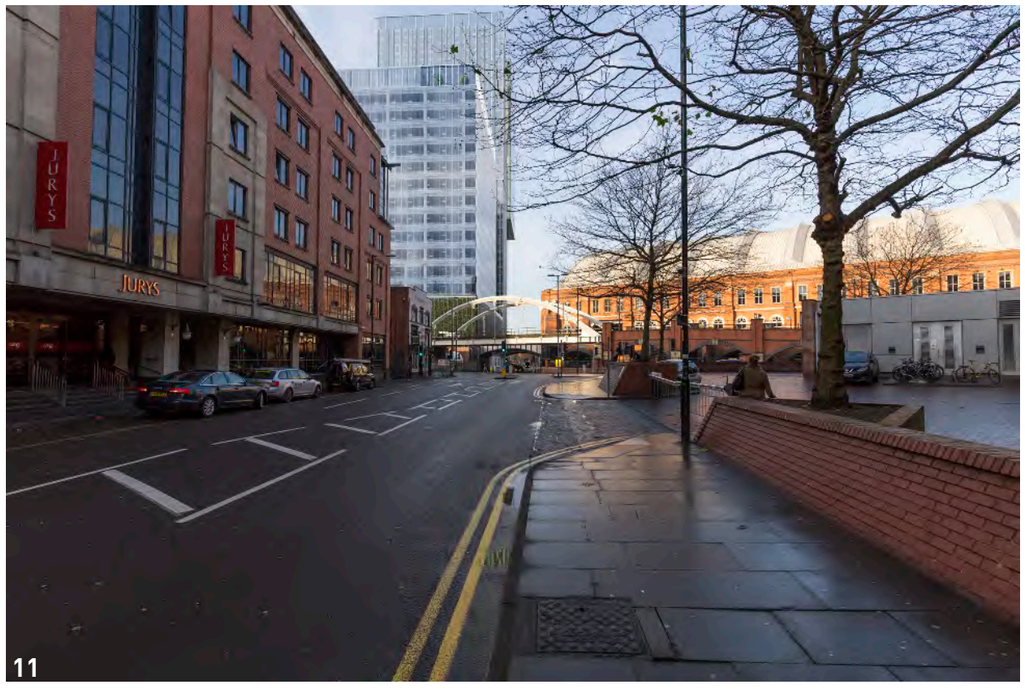
08


BRO

09


jordan fishwick
jordan fishwick
CPUK
CPUK

10


JURYS
JURYS
JURYS

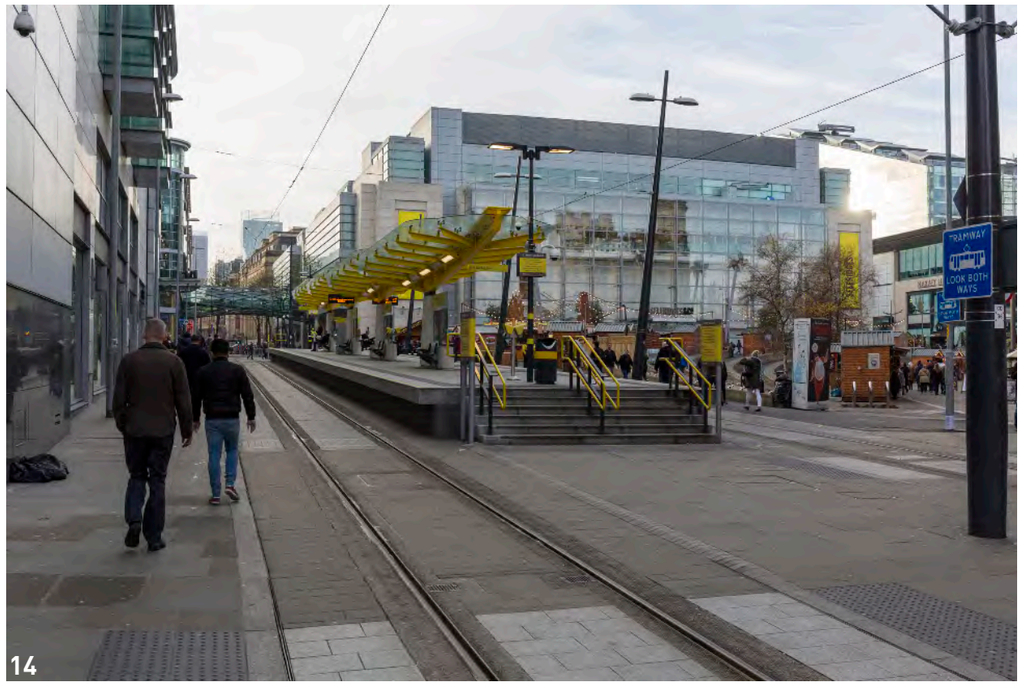
11



12



13



14



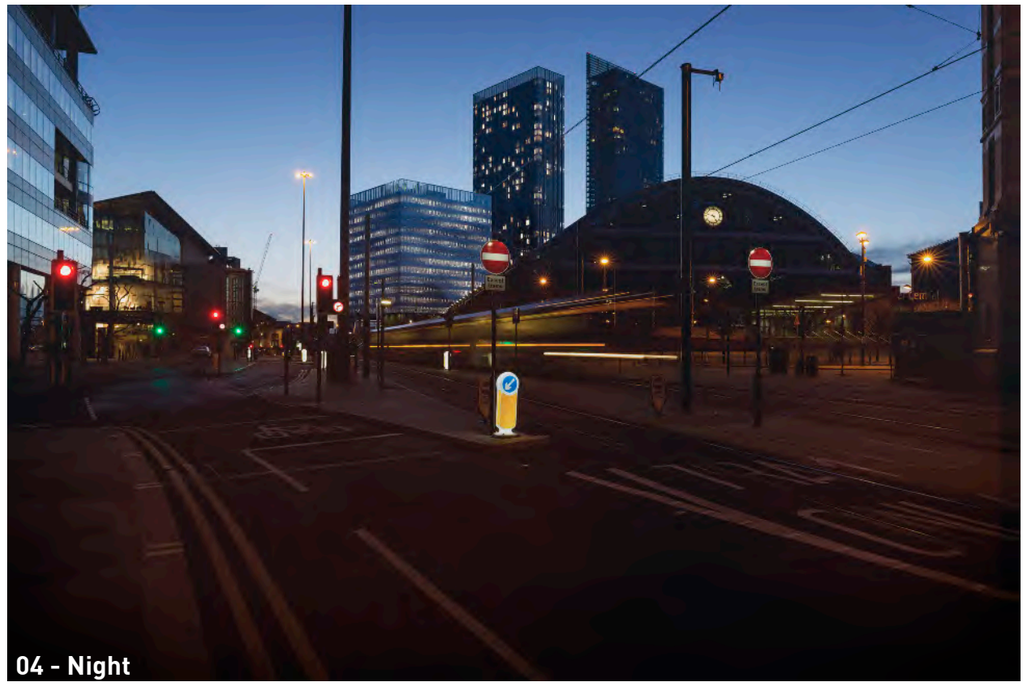
15



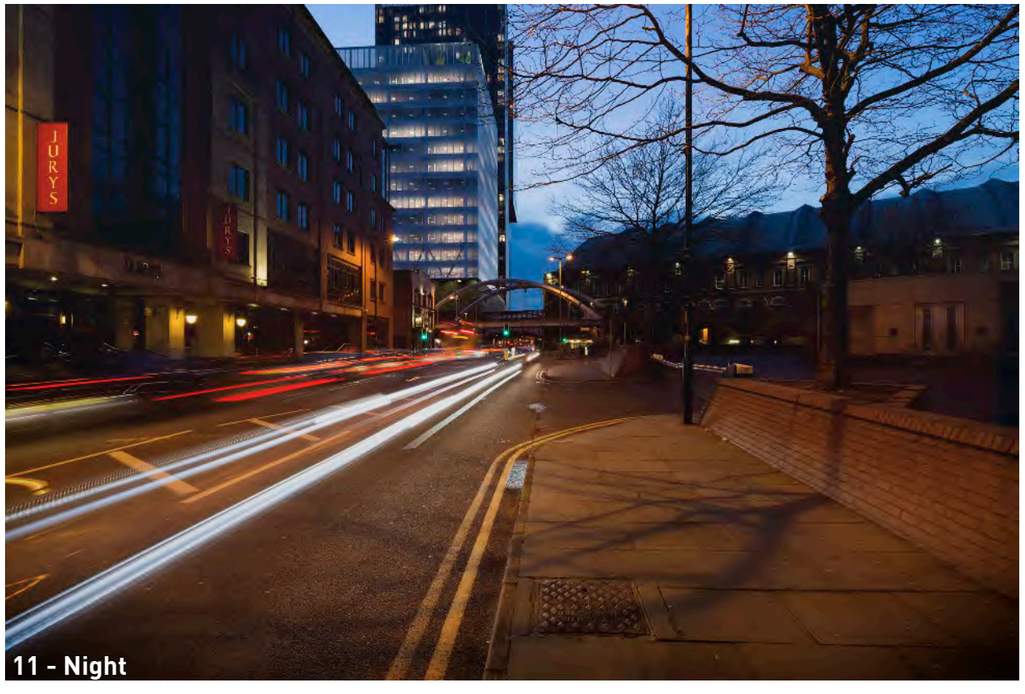
16



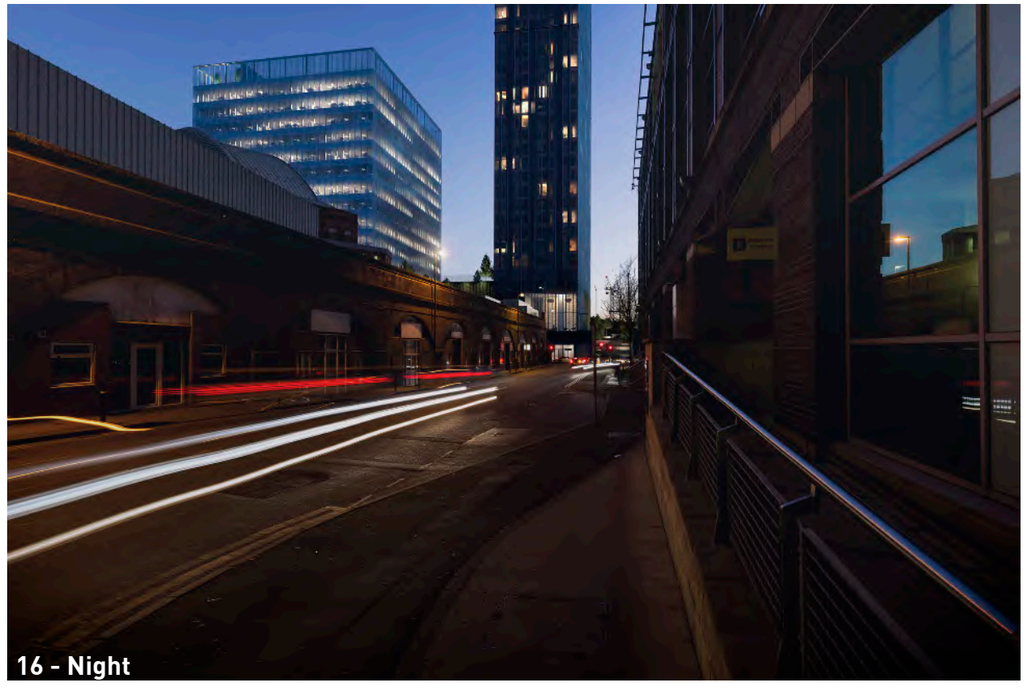
17



04 - Night



11 - Night



16 - Night

4.0 Access

4.1 Inclusive Access

4.1.1 Overview

This section of the report sets out details of the measures that have been employed to ensure inclusive access throughout the proposed development. The design team have adopted an approach that will ensure that measures are taken to facilitate access and use by all people who occupy or move around the buildings including those with mobility, sensory or cognitive impairments.

- Potential users and visitors, regardless of age, gender or any disabilities are able to access and navigate unimpeded through all appropriate areas of each building and surrounding public realm.
- The external building environment, including location and orientation of entrances, will be legible and not act as an impediment to any potential users.
- Every opportunity will be taken to utilise colour, textures, materials and treatment of space to assist with the overall legibility and aesthetic value of the building.

The design has been developed in full consideration of national legislation. This includes the provisions of BS8300: 2001 and The Building Regulations Part M (2015 Edition). The design also reflects the importance that the applicant places on complying with the requirements of the Equality Act 2010 and emerging Equality Act 2010 (Amendment) Bill 2015-16. The considerations seek to ensure that people are not discriminated against regardless of disability, age or gender. These extend from accessing the new buildings and the public realm within the application site through to moving around the internal parts of the buildings and accessing information (signage, contact details etc).

4.1.2 Access at Site Boundary

The setting out of the building levels has been dictated by the existing pavement levels. Taking into account these constraints, the design ensures that all primary entrances (either to retail units, residential, office and car parking entrance lobbies) can be accessed from flat and level approaches.

4.1.3 Circulation and Access to Primary Entrances

The clear width of all access routes from pavement to main entrances are at least 1500mm wide; and comply with or exceed statutory guidance. Similarly the gradient of access routes are either 'flat' (cross falls introduced for drainage only) will be set at no more than 1 in 40.

Access routes will be finished in hard landscaping with an appropriate slip resistance and textured surfaces to thresholds as required. In addition, access to primary entrances will include the following;

- High Contrast hardscape to clearly define the pedestrian route to main entrance.
- High visibility signs to identify building and entrances.

4.1.4 Reception Desk / Waiting Area / Entrance Lobbies

Main reception areas and concierge facilities are located at ground floor in all buildings. The residential building has an additional entrance at level 01 providing level access from the Metrolink Stop.

Further detailed design will be undertaken with the end users to determine a suitable fit out and interior design for these spaces. Reception desks will include a low level desk area for wheelchair users. Any seating or waiting areas will be spaced to enable suitable clear circulation and passing places in line with statutory guidance. In addition, waiting areas and entrance lobbies will include some of the following;

- Materials selected to reduce surface glare.
- Upon entrance the interior layout will be clearly signposted .
- The use of lighting and a clear high contrast signs to aid way finding. .
- Solid floor surfaces to facilitate ease of wheel chair movement.

4.1.5 Communal stairs and lifts including lobbies

Communal stairs to all cores will be designed to comply with all appropriate Building Regulations. All buildings will be provided with fully accessible lifts which are equipped to act as evacuation lifts.

4.1.6 Width of Internal Circulation Routes

All primary circulation corridors are minimum 1500mm wide. The layout of the apartments has been carefully considered to avoid facing front door apartment entrances wherever possible.

4.1.7 Internal Layout of Apartments

All spaces are designed to enable minimum turning circles to be accommodated and minimum clearances beyond fixed furniture such as beds. Bathroom walls will be capable of taking adaptations such as handrails. Full height glazing will provide clear views, and solid opening vent panels will be easy to operate. Switches, sockets and controls will be fitted at a height which is usable by all (i.e. between 450mm and 1200mm from the floor). In addition, the internal layout of apartments will include where possible the following;

- At least one bathroom per apartment sized to allow for conversion into a wet-room which incorporates space for a 1500mm turning circle.
- At least one bathroom per apartment to incorporate a WC approach zone extending at least 350mm from the WC's centre line towards the adjacent wall and at least 1000mm from the WC's centre line on the other side.
- At least one bathroom per apartment to incorporate a wash basin frontal approach zone 700mm wide, extending 1100mm from any obstruction under the basin's bowl such as pedestal, trap, duct or cabinet furniture.

4.1.8 Emergency Egress

Evacuation of disabled people will be a liaison between building managers and occupants; driven by a combination of physical fire safety measures and management procedures. This will be developed in conjunction with the fire strategy and management policies with reference to statutory guidance. A fire strategy report will be prepared to include egress of people with disabilities, children and elderly people. Alarm systems will provide visual as well as audible signals in an emergency. In addition, Emergency Egress provision will include the following;

- Visual fire alarms especially where people may be alone
- Improvements in legibility of evacuation procedure signs
- Direction and location signs to circulation cores

4.1.9 Fire Fighting Access

The detailed design will adopt a fire engineered solution utilising references from BS9991 and Part B where relevant.

4.1.10 Lighting Strategy

A detailed lighting strategy will be prepared as part of the detailed design proposals. It will provide a strategy to integrate with the existing lit environment incorporating current performance requirements and materials specifications. The strategy will set out the design to be considered in the external areas of the development and illustrates the consideration given to fulfilling Manchester City Council development requirement of amenity, crime reduction and the personal safety of those using the development in order to comply with the requirements of policies SP1 and DM1 of the Core Strategy.

- Throughout the scheme lighting is integral to the overall way finding and accessibility strategy.
- Entry floor guide path lighting
- Visual fire alarms
- Reflected and diffused light to escape stairs
- Lighting to defining lift landings and doors
- Highlighting for columns
- Lighting to wash walls

4.1.11 Accessible parking spaces

Accessible parking spaces will be located at ground level within the undercroft and will be clearly denoted accessed from Trafford Street. Additionally there is provision for an accessible space on Great Bridgewater Street.

4.2 Vehicular & Transport

4.2.1 Supplementary Report

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.

4.2.2 Transport Connections

The site is within easy walking distance of the central retail and commercial districts of Manchester city centre. The site benefits from being directly linked to the elevated Deansgate Castlefield Metrolink Stop; and just a short walk over the bridge to heavy rail connections as Deansgate Railway Station.

Bus stops are located close by on Great Bridgewater Street immediately to the north of the site and Whitworth Street West to the south.

4.3 Management

4.3.1 Management Appraisal

A supplementary Management Evaluation has been prepared by Zenith Property Management; ARMA accredited Management Agents specialising in large city centre residential schemes and is included within the Appendices.

The report identifies the scheme has been designed such that an effective management structure is in place from day-one and is able to provide a high-quality resident experience, meeting the expectations and challenges that are common to large residential developments.

The appraisal concludes that the proposed scheme and its management facilities will be well placed to deliver a comprehensive service to future residents and visitors. The design anticipates and accounts for the operational needs of the management team and will ensure that a robust service is delivered to the resident as the ultimate end user.

4.4 Security

4.4.1 Greater Manchester Police

Greater Manchester Police liaison were consulted during the design process in order to review the scheme design in relation to security issues. This generated a useful discussion and a positive response to the proposed design. It was suggested due to the use of Manchester Central Conference Centre for political conferences it may need reviewing with the Counter Terrorism unit.

4.4.2 Counter Terrorism Unit & Manchester Central Operations Protection

The Counter Terrorism unit and Manchester Central Operations were consulted in December 2016. The unit were supportive of the proposals and agreed that any issues arising would be dealt with though careful management, and further consultation through the detailed design stages.

4.5 Refuse Strategy

4.5.1 Strategy

Across the site main refuse stores have been located at level 01 - service yard. This allows servicing to be consolidated within this zone rather than at street level, minimising the need for refuse chutes to penetrate through the listed arch structure. The existing refuse store for Manchester Central is located at this level and the layout will be rationalised and consolidated as part of the design.

4.5.2 Residential

The tower contains a refuse chute that can be accessed from each residential level (02-39). The chute is lobbied off the corridor and will be monitored by CCTV and alarmed to alert of an opening greater than one minute.

A Tri-separating refuse chute has been selected, this will connect to a separating hopper in the refuse store controlled by a switch on each apartment floor level. This enables residents to choose the appropriate recycling bin for the waste by pressing a button at the chute entrance. This will select the appropriate recycling container at basement levels. A purpose built refuse store is located at service yard level 01. The Eurobins will be collected directly from this level

Refuse and recycling collections will take place using the shared service bays within the Manchester Central Service Yard. The process of refuse collection will be carefully coordinated by the 24 hour on site management staff. Refuse collections will be scheduled so as not to interfere with the operations of the service yard - ie not during breakdown of an exhibition event. Infrequent collections for large items will be coordinated by the management company.

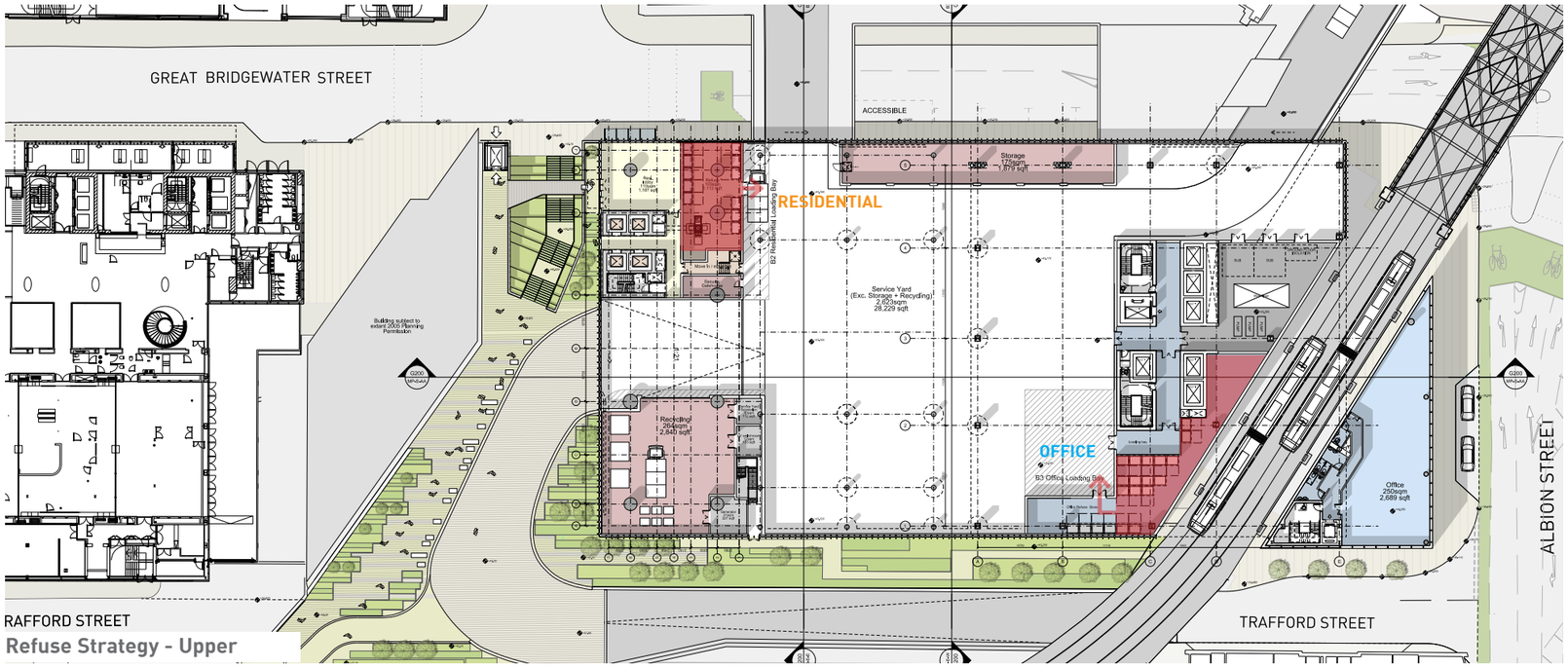
4.5.3 Office

Waste from the office floorplates will be collected by the building management company and brought down to the service yard via the goods lift - out of office working hours.

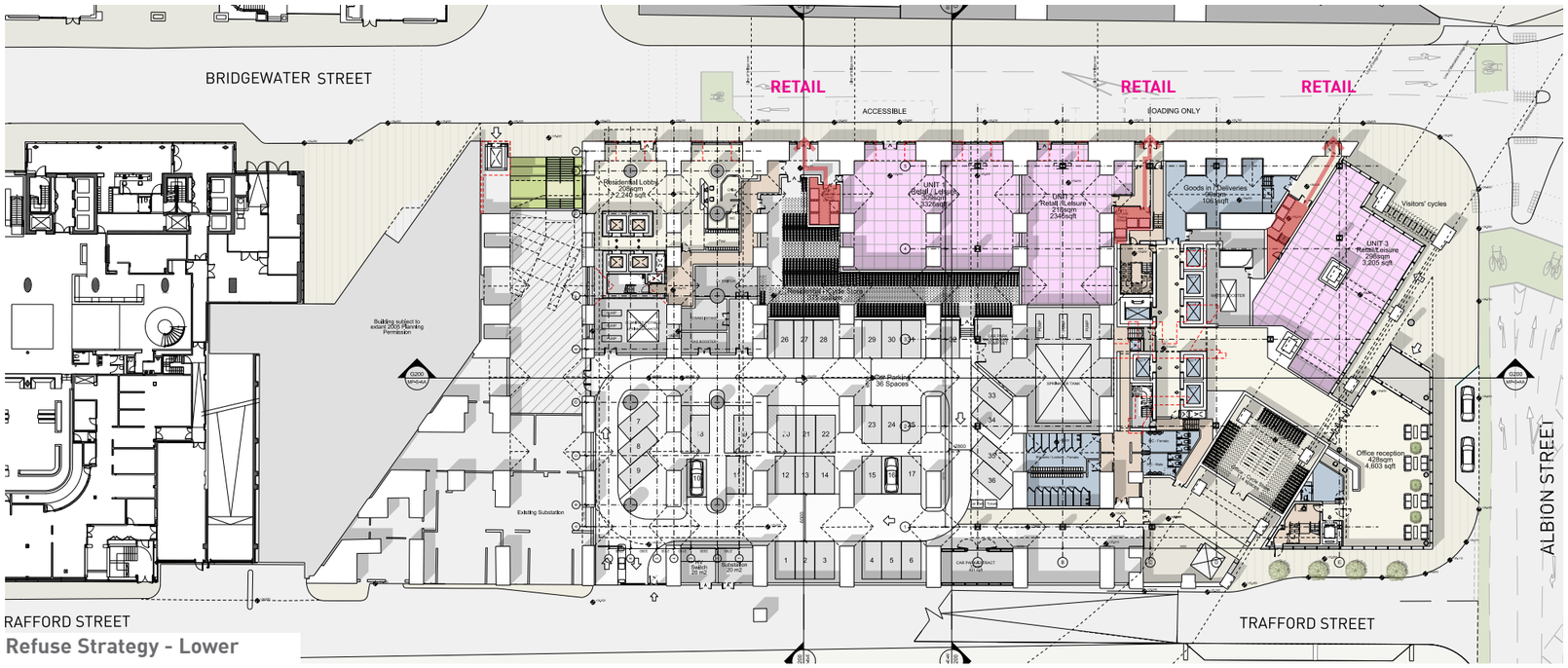
There is a central refuse store located at service yard level 01. Again refuse collections will be scheduled to work around the operations of the service yard. There is a shared loading bay for use whilst loading the refuse vehicle.

4.5.4 Retail

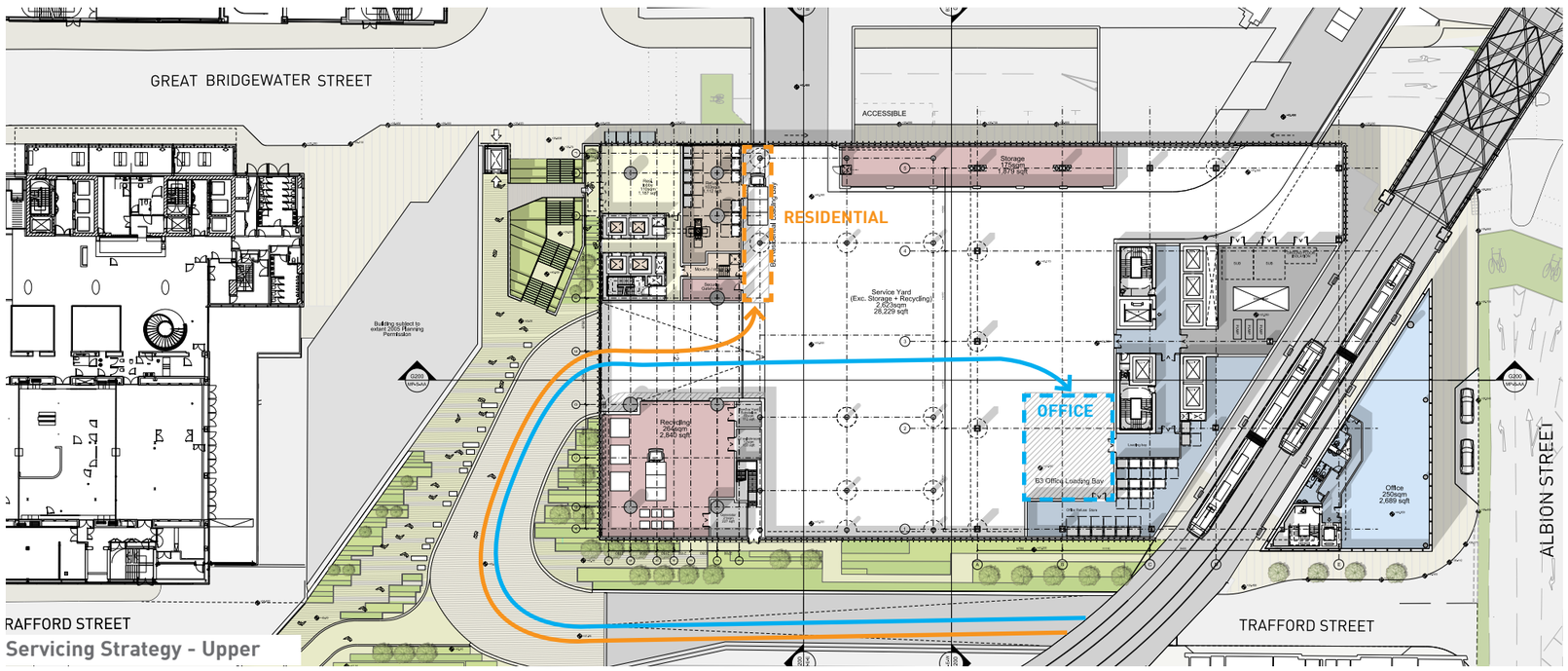
Units each contain their own individual refuse store. Refuse will be loaded from the Loading bay on Great Bridgewater Street.



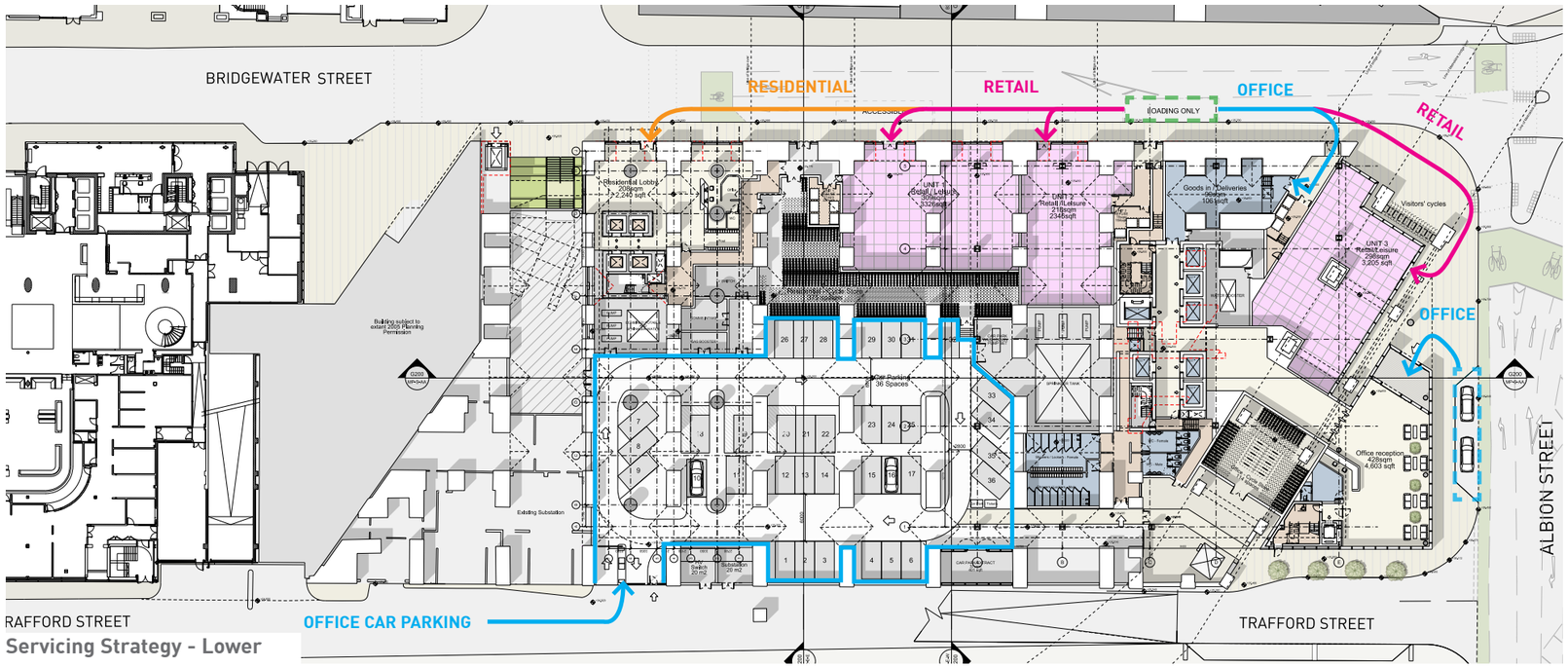
Refuse Strategy - Upper



Refuse Strategy - Lower



Servicing Strategy - Upper



Servicing Strategy - Lower

4.6 Parking & Servicing

4.6.1 Overview

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.

4.6.2 Car Parking

The site is within walking distance to 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 some 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.

There are 36 spaces for the office including 3 accessible. The parking is located at grade and accessed from Trafford Street via access control.

4.6.3 Cycle Facilities

For residents cycle spaces will be provided in line with Manchester City Council guidance that requires one space per apartment, equating in this instance to 375 spaces. Spaces will be provided at ground floor within a secure store - accessed from Great Bridgewater Street. Due to the large number of cycle spaces required, cycles will be stored on a two tier rack system.

A secure cycle store for the office is located adjacent to the office entrance building, providing 114 spaces, in a mixture of two tier racks and Sheffield cycle stands. Shower and locker provision are provided within the existing arches, with direct access for office users straight through to the circulation core.

There is provision for up to 18 visitor cycle bays arranged across 9 Sheffield stands located on the north eastern corner of the site.

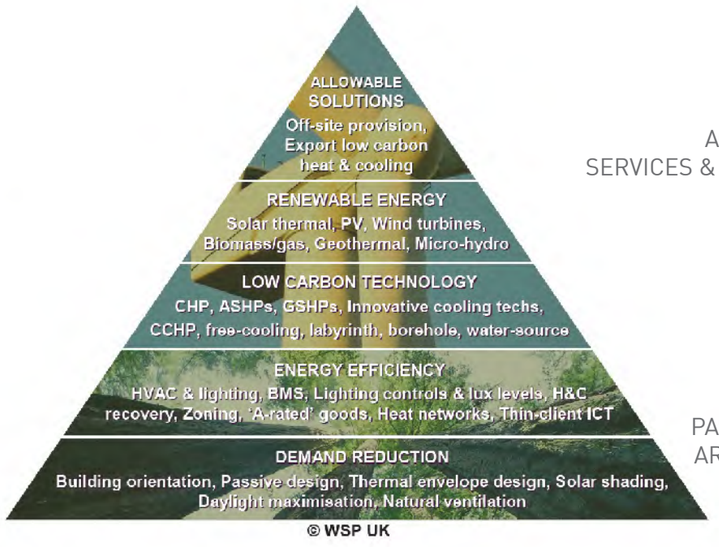
4.6.4 Servicing

Servicing is split between ground level 00 and service yard level 01. Frequent deliveries such as post / stationary etc. will be delivered from off street loading/ drop off bays. Retail is serviced from loading bays on Great Bridgewater Street.

For more substantial deliveries to the office such as large pieces of equipment or if a new occupier is moving in to the office, these will be dealt with from the shared loading bay at service yard level 01.

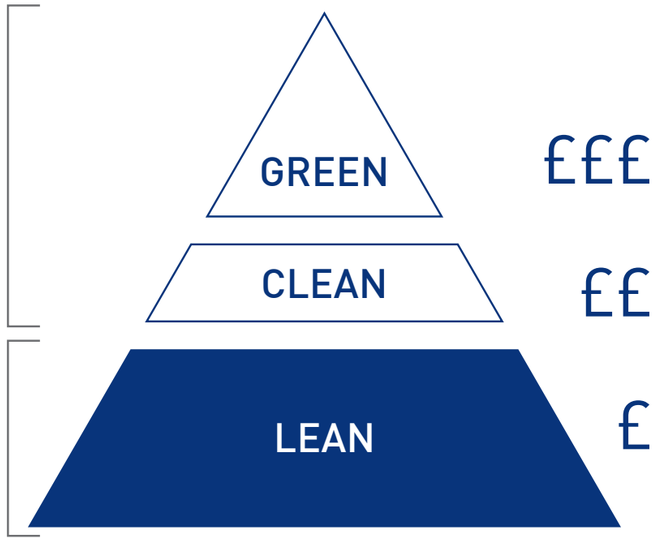
Similarly major residential servicing such as move in / move out will occur at service yard level 01 and be carefully managed to not interfere with the operations of Manchester Central.

5.0 Sustainability



ACTIVE DESIGN:
SERVICES & ENGINEERING

PASSIVE DESIGN:
ARCHITECTURAL



- GREEN – USE RENEWABLE OR LOW/ZERO CARBON ENERGY

Use energy from renewable sources:

1. Biomass Boilers
2. Geothermal sources
3. Solar Thermal Power & Photovoltaic Cells

- CLEAN – SUPPLY & USE ENERGY EFFICIENTLY

Use energy from clean sources:

1. District Heating Schemes
2. Waste-to-Heat & Power plants
3. Combined Heat & Power (CHP)

- LEAN – USE LESS ENERGY

Eliminate or reduce energy loads through Passive Design:

1. Maximise Daylighting
2. Minimise Heating
3. Minimise Cooling

- Our aim is to investigate the passive design principles identified in the LEAN approach through good design, to make significant savings in both energy and carbon emissions.

5.1 Energy & Sustainability

5.1.1 Supplementary Report

The application is supported by an Energy Strategy Report, Environmental Standards Statement and BREEM Pre-Assessment. The Energy Strategy demonstrates that the energy hierarchy has been applied and summarises the low and zero carbon technologies utilised within the development and that the development will achieve a 15% improvement on 2010 Part L compliance (9% improvement on 2014 Part L). The BREEAM Pre-Assessment confirms a target "Excellent" rating.

5.1.2 Low or Zero Carbon Technologies

The development has been provided with energy savings through the use of low and zero carbon technologies. Other improvement measures such as improved energy efficiency will complement the integrated approach to the sustainable energy objectives of Manchester City Council's policies and reflects the aspirations of the regional and national policies.

5.1.3 Orientation

The orientation of the buildings have been set out to make due consideration of the effects of the solar gain and where possible exploit the use of passive solar heat gain (to offset the water heating loads) but at the same time keep out the unwanted heat gain in the summer. This design approach is reflected in the type of glazing specifications for the windows and the extract opening panels/windows on the residential block.

The buildings have been set out to maximize natural daylight and to ensure that good views and line of sight are achieved for the occupants. Due to the different nature of the buildings different approaches have been required. With the office block more emphasis has been paid on keeping out solar gain and heat losses to reduce the building cooling load but at the same time providing good levels of natural

5.1.4 District Heating

Mixed use developments offer the opportunity to consider the different types of energy use and subsequent carbon emissions. The office by nature will have a predominantly high level of heat rejection throughout the year with the cooling load demand and the residential building will have conversely high heating and hot water demand. This provides a potential opportunity to utilise the rejected heat from the offices to be adopted/utilised in the residential building. The detail of the scheme is yet to be finalised and cannot be committed to as yet however, the scheme design considered the entry points for the district heating pipework from Great Bridgewater Street.

5.1.5 Biodiversity

The incorporation of landscaping elements such as green roof and living wall elements of the scheme will increase bio-diversity of this location, through the creation of habitats for plants and invertebrates and the planting of native species of plants, such as Ivy within the Living Wall System.

Copyright © 2015 SimpsonHaugh & Partners. All rights reserved.

The copyright in the designs or other information contained in this medium is vested in SHP. A licence is hereby granted to the user to use the said designs only for the purposes connected with its contractual obligations on the project to which those designs relate. No other use is permitted. Breach of the terms of the licence will terminate forthwith whereupon this medium and any copies thereof must be returned to us. SHP accepts no responsibility for errors caused by its own hardware or software or that of third parties in the production of this medium or the designs or other information contained in it. Further, the transmission or transfer of all designs or other information contained in this medium to the users own software or hardware by whatever means is carried out entirely at the users risk and SHP will have no liability for any errors or inaccuracies arising therefrom. The production of amended augmented or updated information from the said designs or other information by the user is entirely the responsibility of the user and SHP shall have no responsibility in respect thereof whatsoever.

SimpsonHaugh
AND PARTNERS