CASTLEFIELD Viaduct URBAN PARK

DESIGN & ACCESS STATEMENT

Planning Revision A - 19/11/2021

National Trust

twelve
architects & masterplanners

ISSUE	DATE	REVISION	BY	CHECKED
PRE-PLANNING DRAFT	30/07/2021	DRAFT	RLO	IA
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1.0 INTRODUCTION

1 INTRODUCTION

This design statement has been prepared by Twelve Architects for the National Trust and forms part of a planning submission to Manchester City Council. It provides a summary of our site and context analysis, outlines our design inspiration and details our design response for a new urban park located on the disused Viaduct, in Castlefield.

The current revision addresses minor changes made following the physical survey results, and confirms changes agreed as part of the consultation process.

Project Team

Client	National Trust
Architect	Twelve Architects and Masterplanners
Heritage Consultants	Purcell
Structural Engineer	ARUP
MEP Consultant	ARUP
Transport Consultant	Vectos
Services & Drainage	Royal Haskoning DHV
Quantity Surveyors	Stace
Planning Advisor	National Trust
Fire Consultancy	National Trust
Landscape Architecture	National Trust
H&S, Operations	National Trust

Supporting Documentation

This Design and Access Statement should be read in conjunction with a number of documents that are submitted with the planning application, including:

- Architectural Drawings
- Statement of Heritage Significance
- Structural Report

1 INTRODUCTION

The Applicant

The National Trust was founded in 1895 and over the last 125 years has become one of the UK's largest charities, caring for historic places and areas of beautiful countryside.

As a charity The National Trust is committed to protecting and caring for places so people and nature can thrive. Many millions share the belief that nature, beauty and history are for everyone. Looking after the nation's coastline, historic sites, countryside and green spaces, ensuring everyone benefits.

From wild and precious places to the world outside your window the National Trust offers access, enjoyment and a chance for everyone to help out. Nature and the historic environment are under threat. They're essential to everyone, they enrich people's lives and are part of the fabric of society and they urgently need more care.

National Trust: Garden at Mount Stewart, County Down



National Trust : Visitors in the garden at Sizergh Cumbria



National Trust: Japanese Garden at Tatton Park



1 INTRODUCTION

The Site and Aspirations

The site is a Grade II Viaduct that is 330m long and sits in the oldest part of the city – Castlefield. It's an area steeped in rich history. Castlefield is the site of Manchester's Roman origins, the world's first passenger railway, and was the terminus for the Bridgewater Canal, the world's first industrial canal.

Built in 1892 and constructed by Heenan and Froude, the engineers who worked on the iconic Blackpool Tower, the Viaduct was used to carry heavy rail traffic in and out of Manchester Central railway station (now the Manchester Central Convention Complex). It stayed in use until 1969 when Central Station closed.

As the city of Manchester has continued to grow, the Viaduct has stood unused and unchanged with only the essential repairs and maintenance carried out. It's now time for the Viaduct to reclaim its place in this vibrant city, celebrating its part in Manchester's past, present and future.

The vision is to transform Castlefield Viaduct into a free-to-access park and meeting place for people and nature. A hidden oasis sitting above this busy city. It will be a space that respects the listed structure, celebrates the nature, beauty and history of the Viaduct, and fits in with existing plans for the city. As well as bringing people closer to nature in the city, it will be a stepping stone to other South Manchester green spaces and attractions on foot or bike.

The Viaduct will take its place in this vibrant area for cultural and heritage, sitting alongside iconic Manchester venues including the Science and Industry Museum and The Factory.



1 INTRODUCTION

Description of Proposed Works

The proposal is for the pilot scheme of a new urban green space located on the Castlefield Viaduct. The scheme proposes no changes to the existing structure and introduces a new pathway made of geo-cell retained gravel down the middle of the Viaduct, crossing the following 4 zones:

- A welcome area with a geo-cell retained gravel floor finish, containing a welcome kiosk, loose seating, two toilets, 3 cycle loops, and low level planting.

- 'The Viaduct as existing', a zone where the existing vegetation is retained at the sides, bordered by low level fencing, two benches and two sign boards, with free standing, high level guarding against the existing parapets

- A secret garden / partner plot area, with modular planters and timber platforms, as well as free standing safety guarding against the existing parapets

- An events space; a simple, temporary building, with an external canopy

This document details the design choices made and explains how the proposal is a suitable response to the site and its setting.



1 INTRODUCTION

Drivers and Objectives

Design Drivers:

- *NATURE*
- *DWELL*
- *HERITAGE*
- *COMMUNITY*
- *CONNECTED*
- *PRODUCTIVE*
- *PLAYFUL*

Delivery Principles:

- Partnership approach
- Community and stakeholder engagement
- Sustainable construction and operation
- Sustainable commercial model for operation
- Demountable and reusable construction materials

Main Objectives:

- A new urban greenspace providing local access to nature and supporting health and wellbeing, particularly for groups where need is greatest
- A place shaped by and activated by the local community through design and ongoing activities on site where everyone is welcomed
- An iconic project of regional/national significance seen as a destination attracting visitors to Manchester supporting tourism. A catalyst for further regeneration of the wider Castlefield area
- A place for cultural expression, learning and celebrating the heritage of the Viaduct and surrounding area

Physical Attributes:

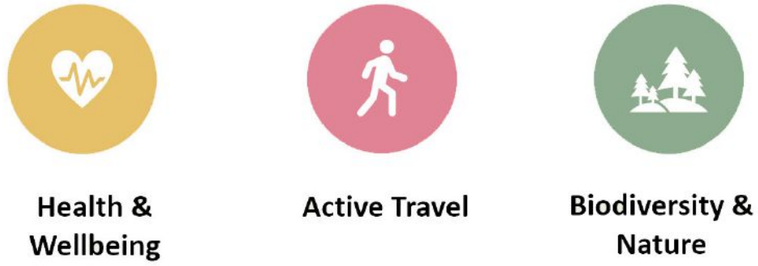
- Primary pedestrian exit/entrance from east via car park
- Respect heritage fabric and listed status –v. limited changes to material
- Horticulture - e.g. plants, grass, flowers, veg plot – in planters
- Removable and reusable structures – e.g. welcome kiosk, seating, compost toilets, bins
- Flexible space

Operation / Activation

- Open daytime, seven days a week June - September and testing seasonal opening throughout the year
- Gates closed restricting access during evening/night
- Bookable tours in advance 5 times a day for 20 people, approx. 50 minutes, for National Trust members and non-members
- Weekly ‘special event’ for up to 50 people, 5 - 9pm

“We need to give parks a reboot and start thinking about them as essential elements of our communities in the same way we think about housing or transport.”

- Hilary McGrady, Director General National Trust



1 INTRODUCTION

Proposed Zones

The proposal for the Pilot Scheme is to run a temporary park along half of the Viaduct. This will help us to explore what might be possible, test elements of design and operation and get input from the people of Manchester for the main design.

The pilot scheme will comprise of four programmed zones:

Entrance:

- The first section of the Viaduct will host a welcome space, including a visitor Welcome kiosk. People can wait here to access the Viaduct on their pre-booked guided tours and speak to staff about what's on offer.
- The vision is to do some light touch landscaping with minimal disturbance of the Viaduct surface to give an indication of what could be achieved in the longer term.

Viaduct as existing:

- Walking through the welcome area visitors will get their first view of the Viaduct. Guided groups will make their way along a designated and accessible central walkway. The surface of the Viaduct can be seen to be reclaimed by nature and self-seeded with buddleija and wild strawberries, in contrast to the live trams, trains and cityscape beyond.
- Along the route there will be a designated path to the structure's edge, providing a viewpoint and interpretation boards telling some of the Viaduct's impressive heritage story as a tour guide brings the history and structure's significance to life

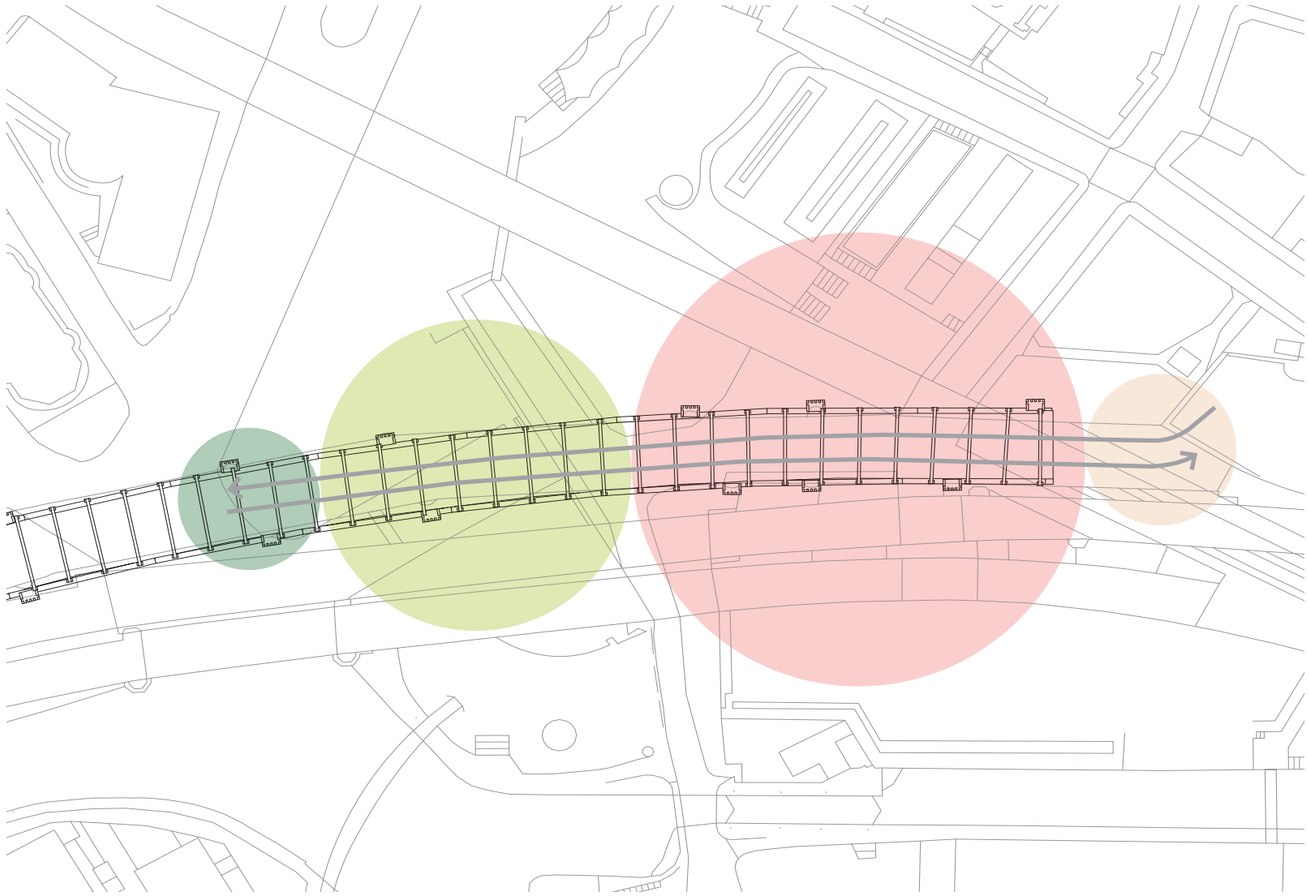
Secret Garden / Partner Plots:

- The garden will be maintained by a National Trust gardener, responsible for horticultural maintenance and managing a team of volunteers
- Along this route we propose to create six showcase plots where we can test content and engagement on the Viaduct. These will be used and activated by local organisations to showcase their work and to show what could be possible on the Viaduct, from community growing to installations and performances.

Event Space:

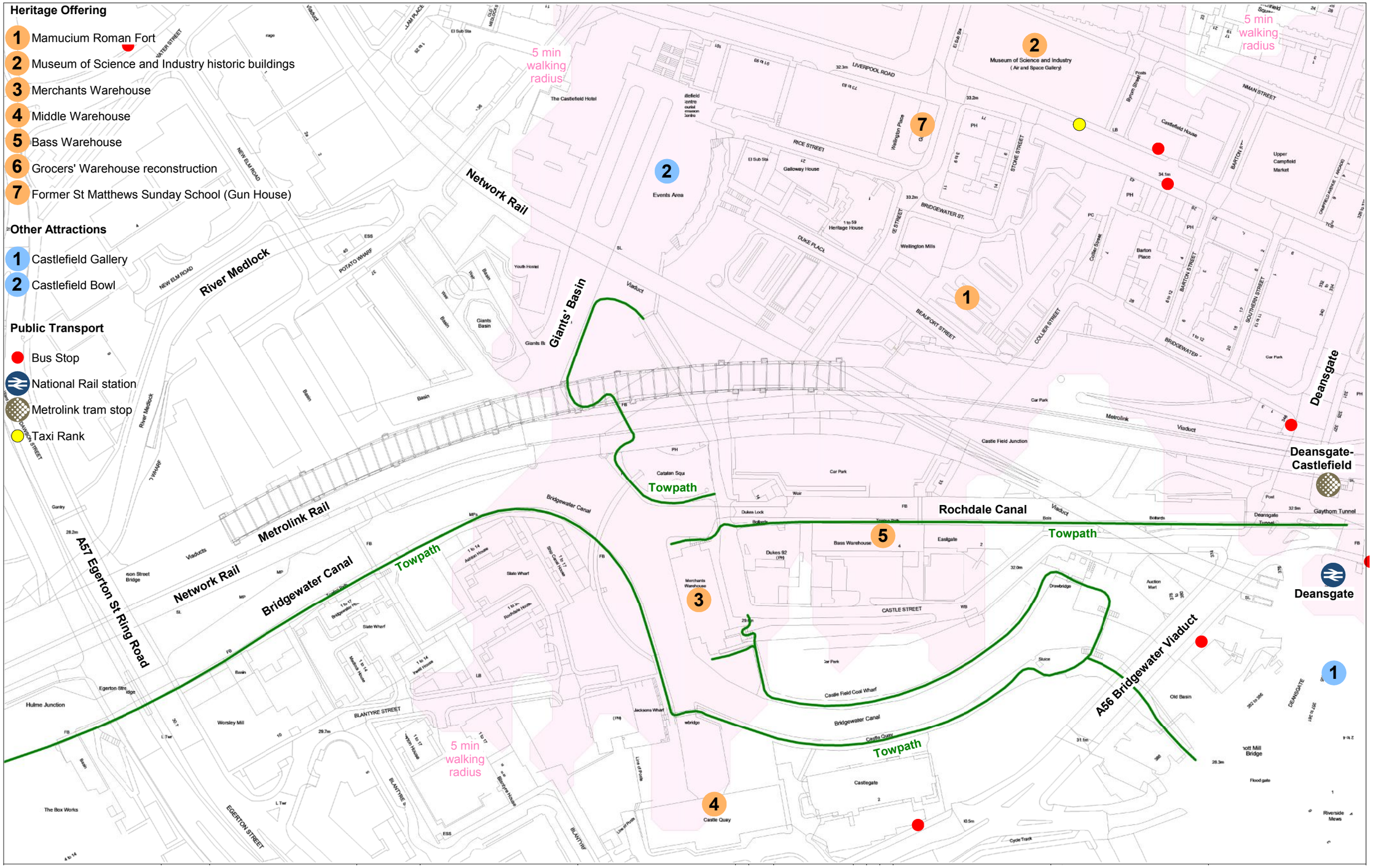
- At the end of the journey we propose a temporary, flexible space to be used for visitor engagement, to gather public feedback and to host limited events.

Main programmed zones



1 INTRODUCTION

Wider Site Plan



2.0 SITE APPRAISAL

2 SITE APPRAISAL

Wider Setting

Castlefield is located in the heart of Manchester and is well connected to airports, local public transport and major road networks. Below is a summary of distances from the site to major towns, cities and amenities:

Towns & Cities

- 3.2 miles from Stretford
- 6.8 miles from Stockport
- 8.1 miles from Oldham
- 11 miles from Bolton
- 12 miles from Rochdale

Public Transport Links

- 341 ft from Deansgate Tram stop
- 400 ft from Deansgate-Castlefield railway station
- 1.3 miles from Manchester Piccadilly
- 10 miles from Manchester Airport

Road Network

- 0.3 miles from the A56
- 0.9 miles from the A6



SITE PLAN © GOOGLE EARTH 2021

2 SITE APPRAISAL

Site Location

The Viaduct sits centrally in the Castlefield Conservation Area. Deansgate, one of the main routes through Manchester, lies approximately 100m from the eastern edge of the Viaduct with the secondary road Liverpool Road approximately 100m to the north.

Adjacent to the Viaduct to the north are the remains of the Roman Fort which was reconstructed in 1982.

At street level, next to the blue brick arch of the Viaduct, is a late 20th century stair and lift tower allowing access to the upper level.

Along Duke Street the cobbled road passes under an earlier brick-built rail Viaduct (1843) and the road follows the line of the 1892 Viaduct directly beneath it. Off Duke Street and north of the Viaduct is an open area of land bordered by the canal, known as the Castlefield Bowl which is a popular events and music venue.

At the junction between Castle Street and Duke Street, a second Viaduct (1873) runs within meters of the 1892 Viaduct, made of red brick with lattice metalwork at track level. Continuing along Castle Street the road crosses a stone bridge and lock over the Rochdale Canal leading to a series of former canal warehouses now converted to bars and restaurants. Views of the Viaduct are limited from this location due to the other Viaducts blocking the view.



SITE PLAN © GOOGLE EARTH 2021

2 SITE APPRAISAL

Historical Context

The maps and commentary on the following 3 pages were provided by Purcell as part of their research and study of the history of the site.

“At ground level the setting retains much of its historic industrial character with traditional stone, brick and iron structures criss-crossing the area at ground and high level. The density of structures gives a sense of industry and busyness, although today’s leisure uses of the bars and canals make it difficult to imagine the noise and grime that would have characterised the area in the 19th century. The immediate setting remains relatively quiet with little pedestrian or vehicle movement and due to the abundance of Viaducts overhead it becomes almost an enclosed space. There is a regular rumble of trains overhead on adjacent Viaducts creating a regular rhythm that can almost be felt as vibrations.”

REFERENCED FROM PURCELL’S STATEMENT OF HERITAGE SIGNIFICANCE REPORT.

PLEASE READ IN CONJUNCTION TO GAIN FURTHER DETAIL.



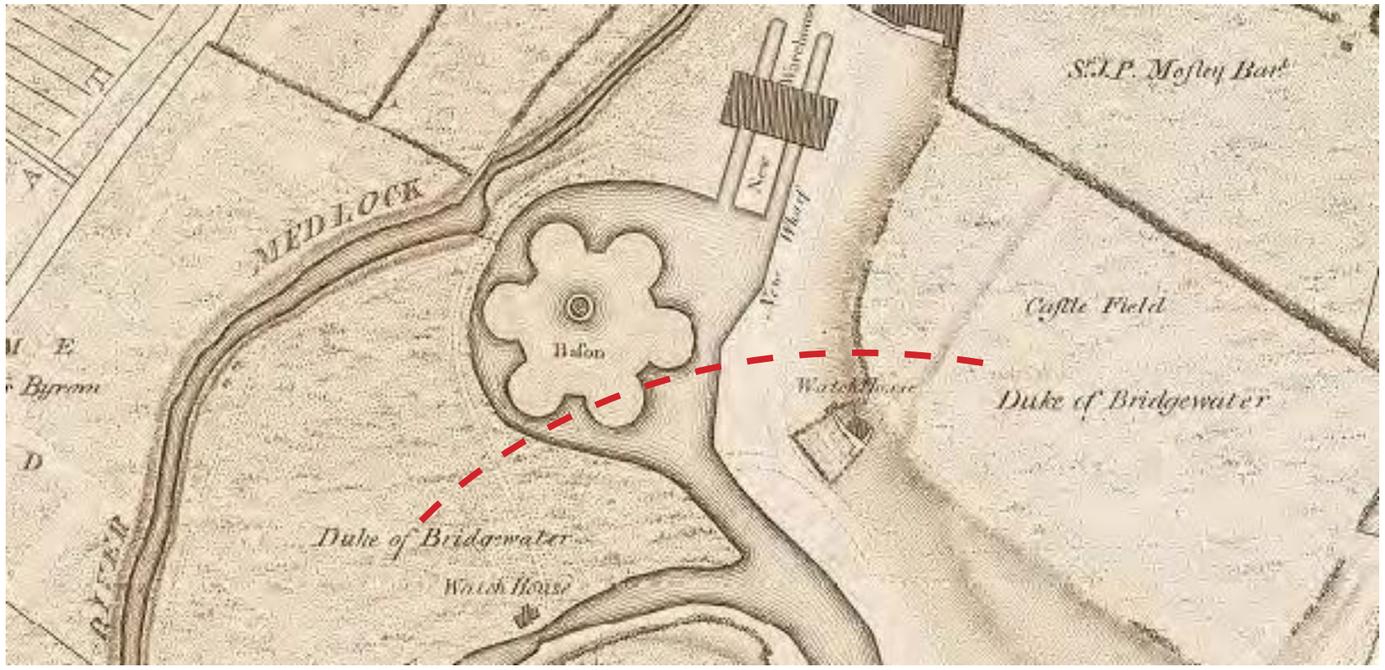
2 SITE APPRAISAL

Historic Maps - 18th Century

"Before the arrival of the Bridgewater Canal in 1761 the area was still on the outskirts of Manchester and relatively undeveloped. William Green's plan of Manchester and Salford (1787-1794) shows the Bridgewater Canal and Potato Wharf now in place with the large daisy-shaped weir by James Brindley in the centre. The surrounding field is known as 'Castle Field', clearly a reference to the Roman fort either through anecdotal history or visible physical remains.

By the 1845 survey (1848 OS map) the area has developed rapidly, with Deansgate Ward showing various canal warehouses around Potato Wharf and the Liverpool Road Station to the north opened in 1830, providing Manchester's (and the world's) first intercity rail link, connecting Manchester and Liverpool. The Rochdale Canal of 1804 is also shown joining the Bridgewater Canal just south of the Viaduct site. The site of the Roman fort is identified and is still undeveloped. None of the various rail Viaducts are yet constructed."

REFERENCED FROM PURCEL'S STATEMENT OF HERITAGE SIGNIFICANCE REPORT, PLEASE READ IN CONJUNCTION TO GAIN FURTHER DETAIL.



WILLIAM GREEN'S PLAN OF MANCHESTER AND SALFORD (1787-1794)



1848 OS PLAN OF MANCHESTER (SURVEYED IN 1845)

2 SITE APPRAISAL

Historic Maps - 19th Century

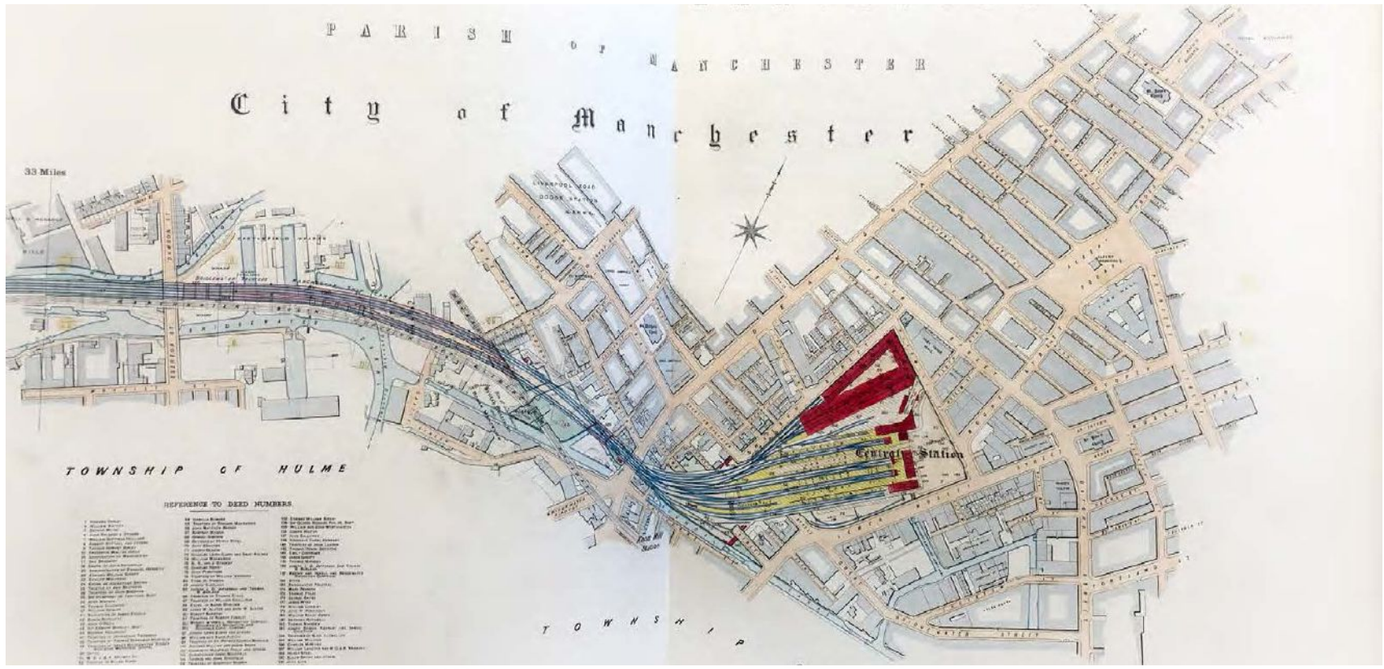
"By 1883, Slater's New Plan of Manchester shows the area has continued to develop with the Roman fort now occupied by terraced housing. Potato Wharf is now crossed by three railway lines all entering the city from the west. Central Station has been constructed to the east of the site with one of the lines shown approaching the city along the River Irwell to the south. The site of the 1892 Viaduct is now partially occupied by buildings that would be cleared for the line's construction. The 1891 OS Town Plan shows a similar situation to 1883.

By the 1845 survey (1848 OS map) the area has developed rapidly, with Deansgate Ward showing various canal warehouses around Potato Wharf and the Liverpool Road Station to the north opened in 1830, providing Manchester's (and the world's) first intercity rail link, connecting Manchester and Liverpool. The Rochdale Canal of 1804 is also shown joining the Bridgewater Canal just south of the Viaduct site. The site of the Roman fort is identified and is still undeveloped. None of the various rail Viaducts are yet constructed.

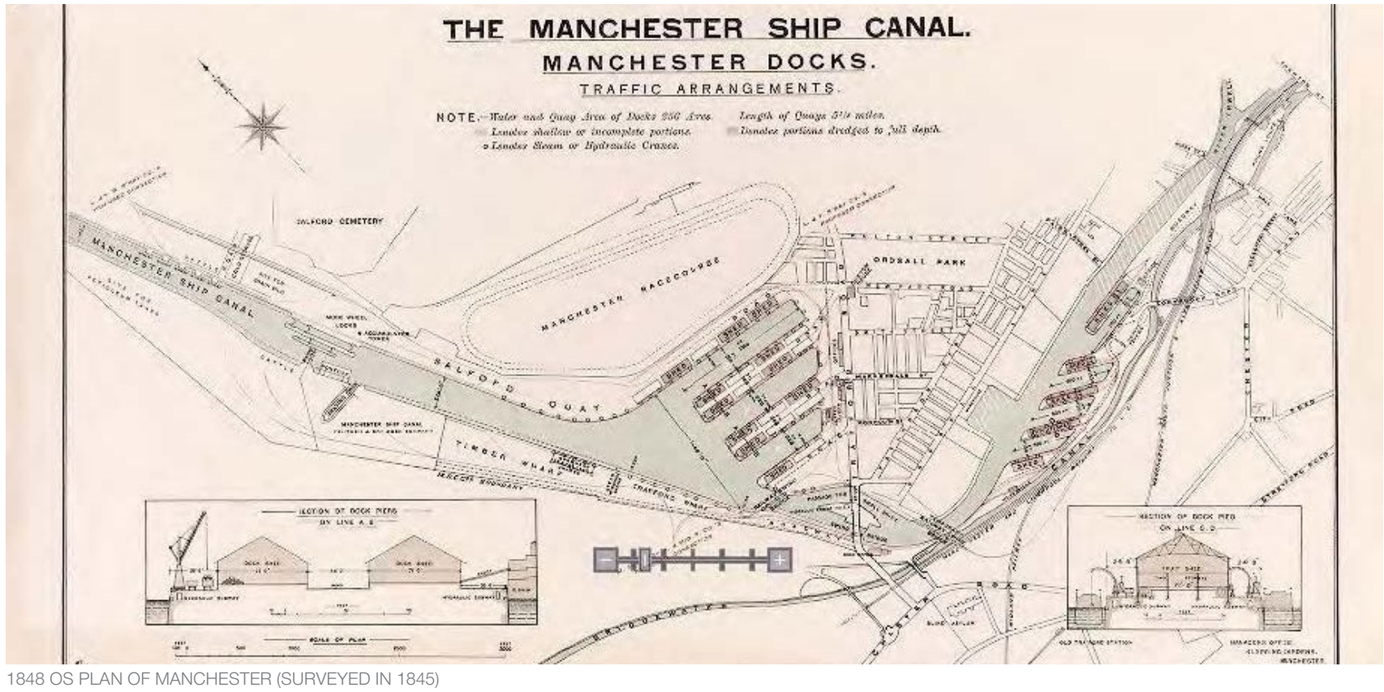
The 1894 survey (1896 OS Map) shows the 1892 Viaduct for the first time with its line running north along the River Irwell following the existing route before terminating into Central Station. The 1908 OS County Series shows a further development of the railway infrastructure around the site as additional lines now run to the goods station next to Central Station. The situation remains largely unchanged into the 20th century."

REFERENCED FROM PURCEL'S STATEMENT OF HERITAGE SIGNIFICANCE REPORT.

PLEASE READ IN CONJUNCTION TO GAIN FURTHER DETAIL.



WILLIAM GREEN'S PLAN OF MANCHESTER AND SALFORD (1787-1794)



1848 OS PLAN OF MANCHESTER (SURVEYED IN 1845)

2 SITE APPRAISAL

Historic Maps - 20th Century

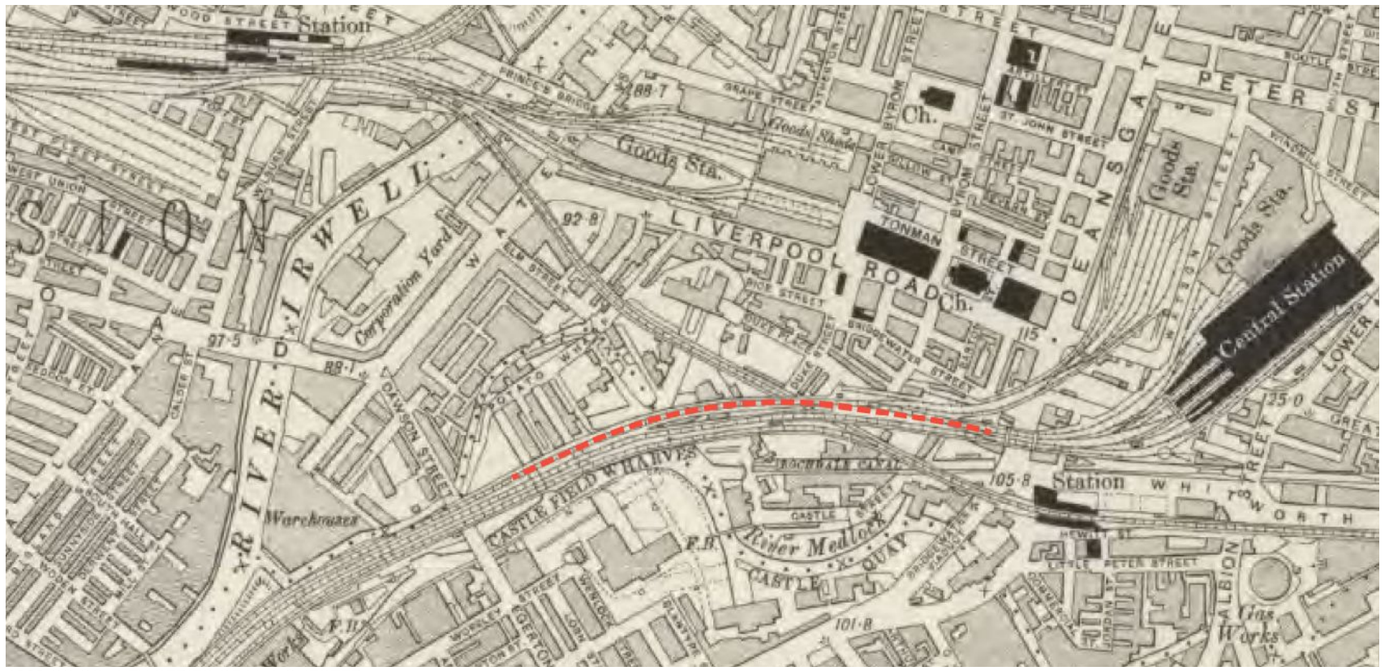
“Gradually both the railways and canals declined during the 20th century due to a fall in passenger numbers and freight. Manchester and Castlefield also suffered due to the loss of the industrial base of the area after the 1950s. Manchester’s industries were largely based on the cotton trade which plummeted after World War One as production ramped up in countries closer to where the raw material was grown.

Overall, Manchester employment declined by 22% between 1951 and 1981. Jobs in engineering and electrical goods almost halved and textile industry jobs fell by 86%. The rail network that carried these goods also declined and continued to suffer from competition from road and rail. The Bridgewater Canal remained open to traffic although the Rochdale Canal closed in 1952 (to be reopened in 2002).

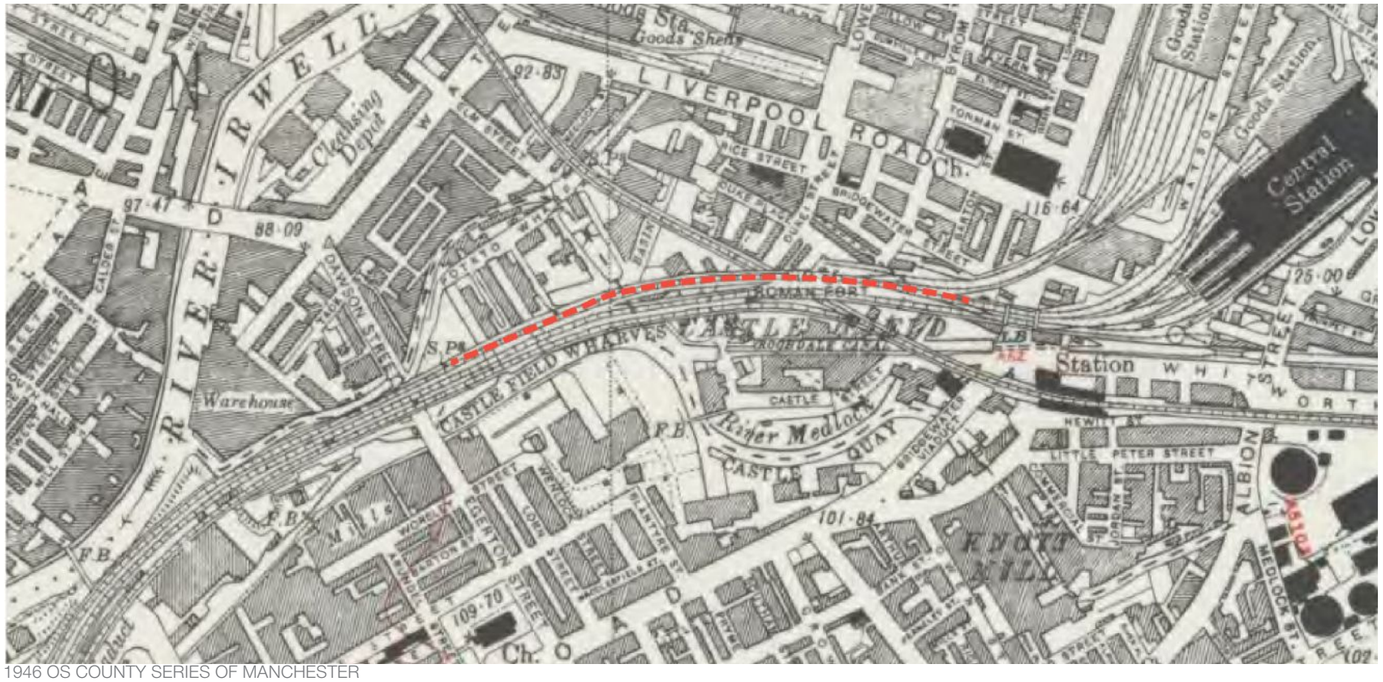
Castlefield was defined by dereliction until the 1980s when the Science and Industry Museum opened on the former Liverpool Road Station site which was long abandoned. Regeneration of the former station coupled with designation as a conservation area in 1979, the creation of an urban park and the recreated Roman fort in 1982 were all heritage-led catalysts for change that kick-started a revival of the area. Tourism and leisure are now growth industries which have transformed Castlefield from a neglected corner of the city to a popular area for visitors and tourists.”

REFERENCED FROM PURCEL’S STATEMENT OF HERITAGE SIGNIFICANCE REPORT.

PLEASE READ IN CONJUNCTION TO GAIN FURTHER DETAIL.



1909 OS COUNTY SERIES OF MANCHESTER



1946 OS COUNTY SERIES OF MANCHESTER

2 SITE APPRAISAL

Heritage Asset Plan

01. Castlefield Railway Viaduct from G-Mex to Dawson Street: Grade: II

02. The Giants Basin: Grade: II

03. Pair Of Culvert Arches Over River Medlock AndAssociated Overflow Channel: Grade: II

04. Rochdale Canal Lock Number 92 And Castle Street Bridge Grade: II

05. Merchants Warehouse: Grade II

06. Bridgewater Canal Basin At Potato Wharf: Grade: II

07. Remains Of Eastern Wall Of The Roman Fort: Scheduled

08. Manchester South Junction and Altrincham Railway Viaduct: Grade: II



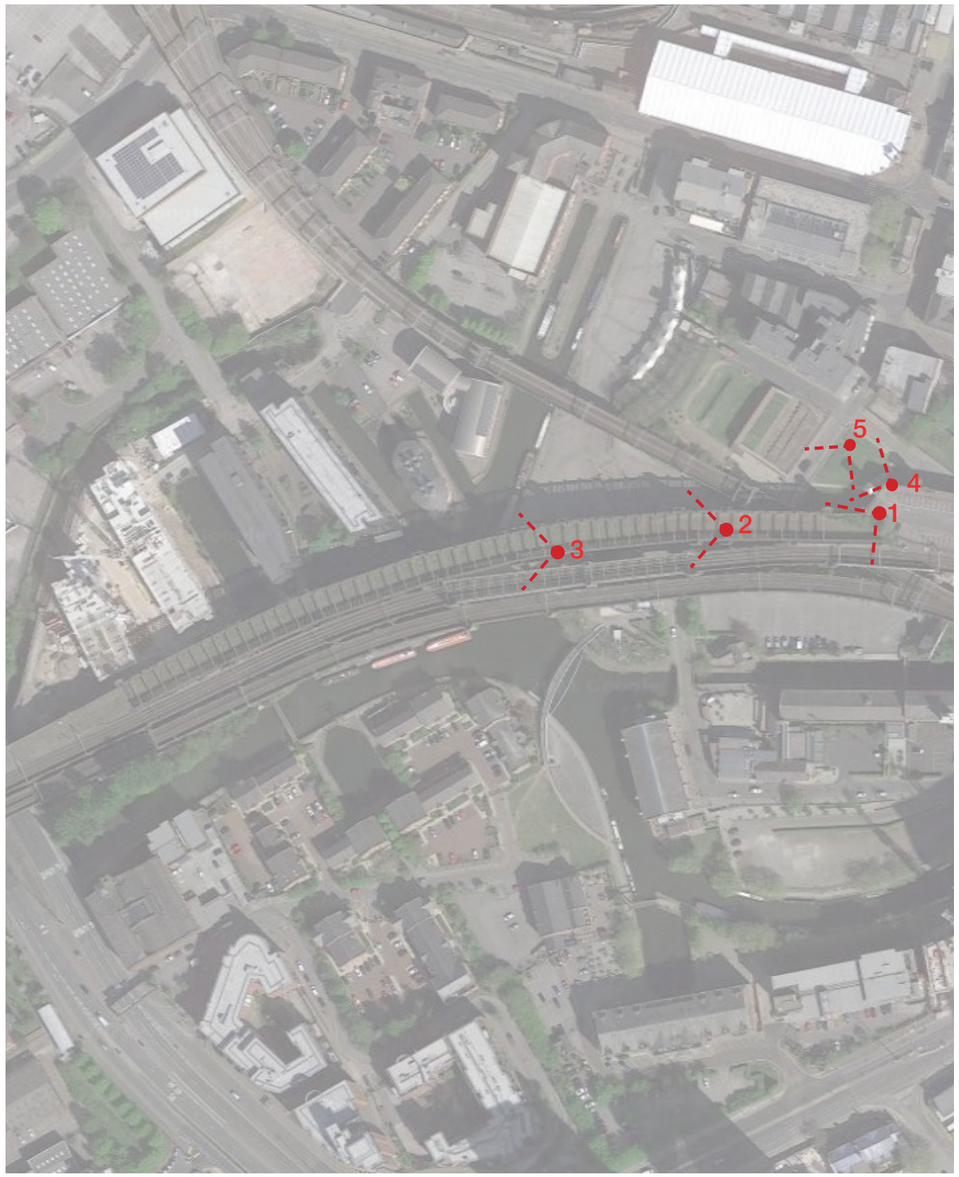
SITE PLAN © GOOGLE EARTH 2021

2 SITE APPRAISAL

Key Views

The views on this page show the current condition of the area proposed for the new urban park.

Key views plan

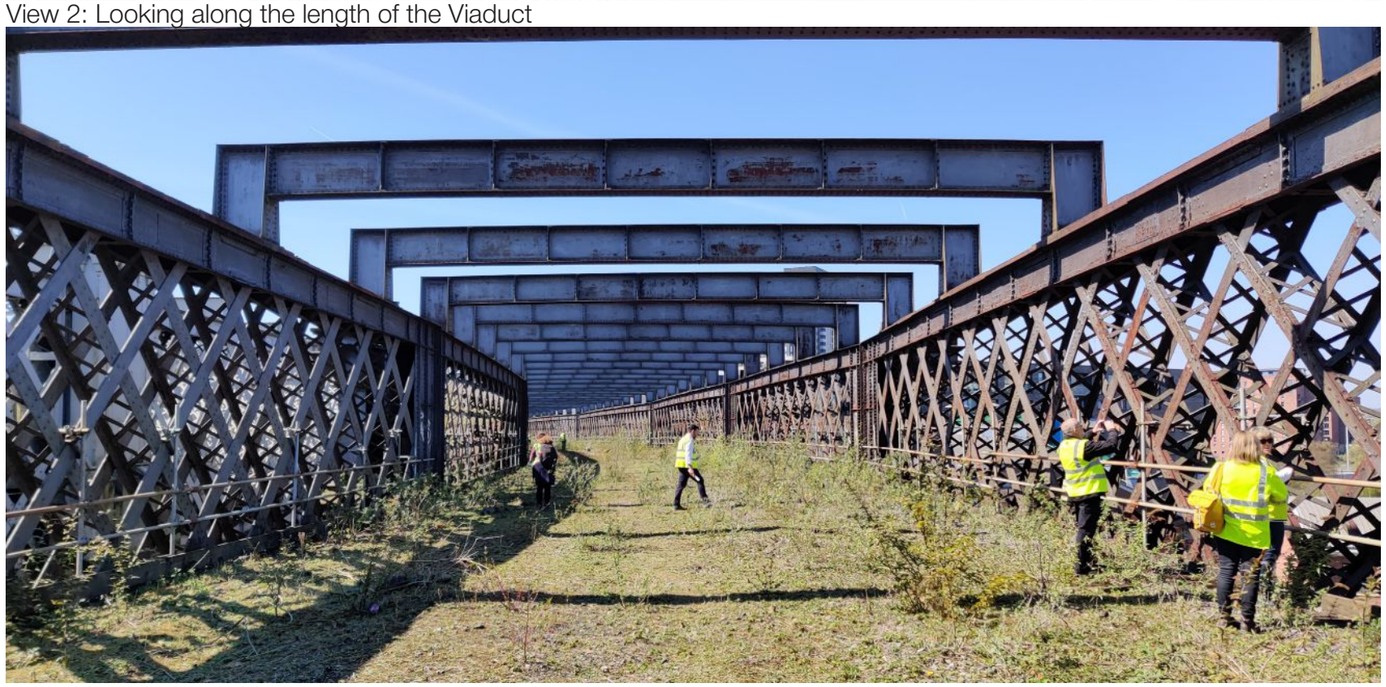


SITE PLAN © GOOGLE EARTH 2021

View 1: Upper level looking at the extent of the Viaduct



View 2: Looking along the length of the Viaduct



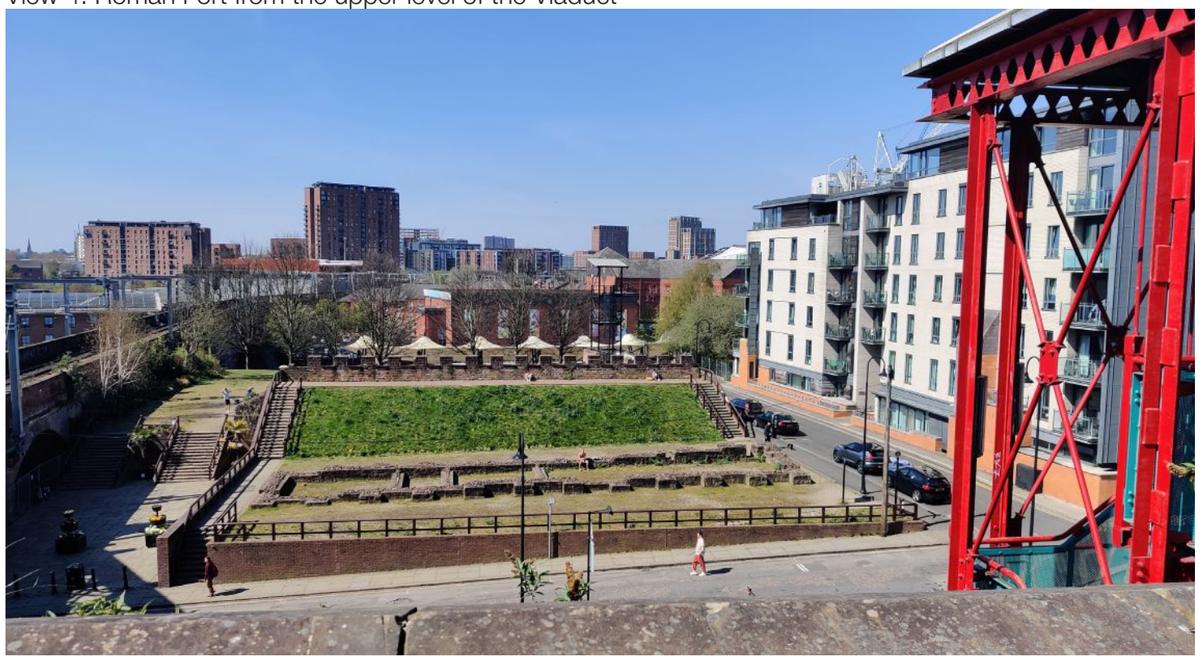
2 SITE APPRAISAL

Key Views Cont

View 3: Looking under the length of the Viaduct from Duke Street



View 4: Roman Fort from the upper level of the Viaduct



View 5: Viaduct from lower level



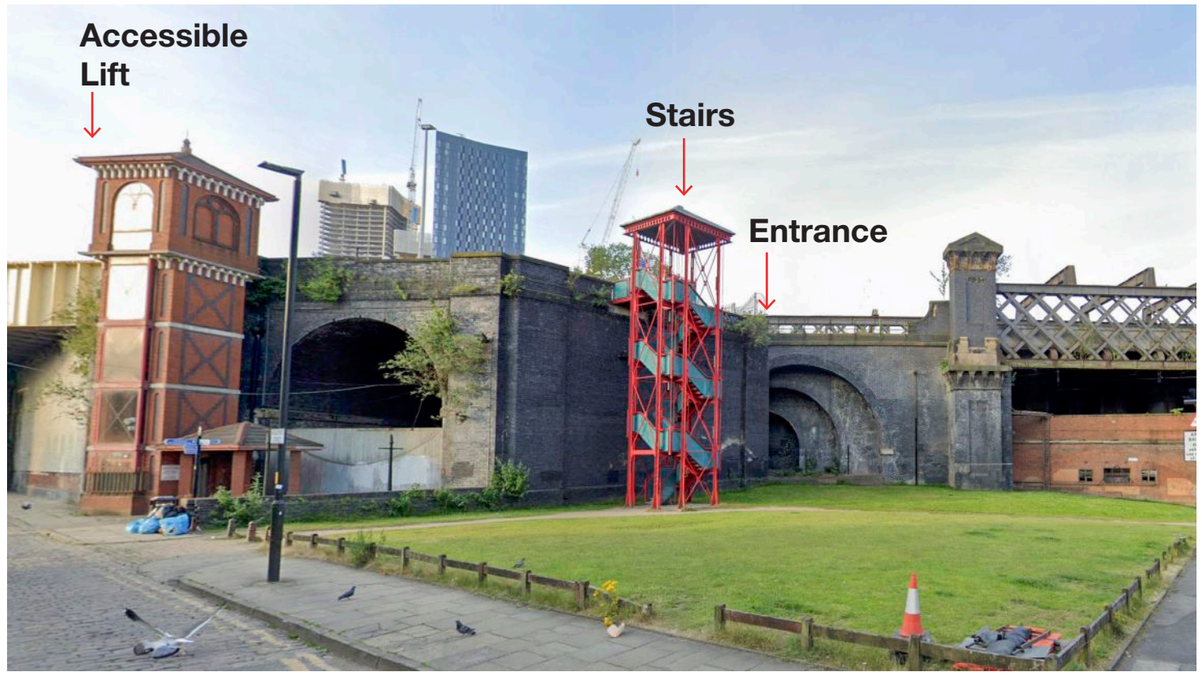
2 SITE APPRAISAL

Additional site visit pictures

Walking along the Viaduct grounds



Access to the entrance of the Viaduct



Entrance to the Viaduct

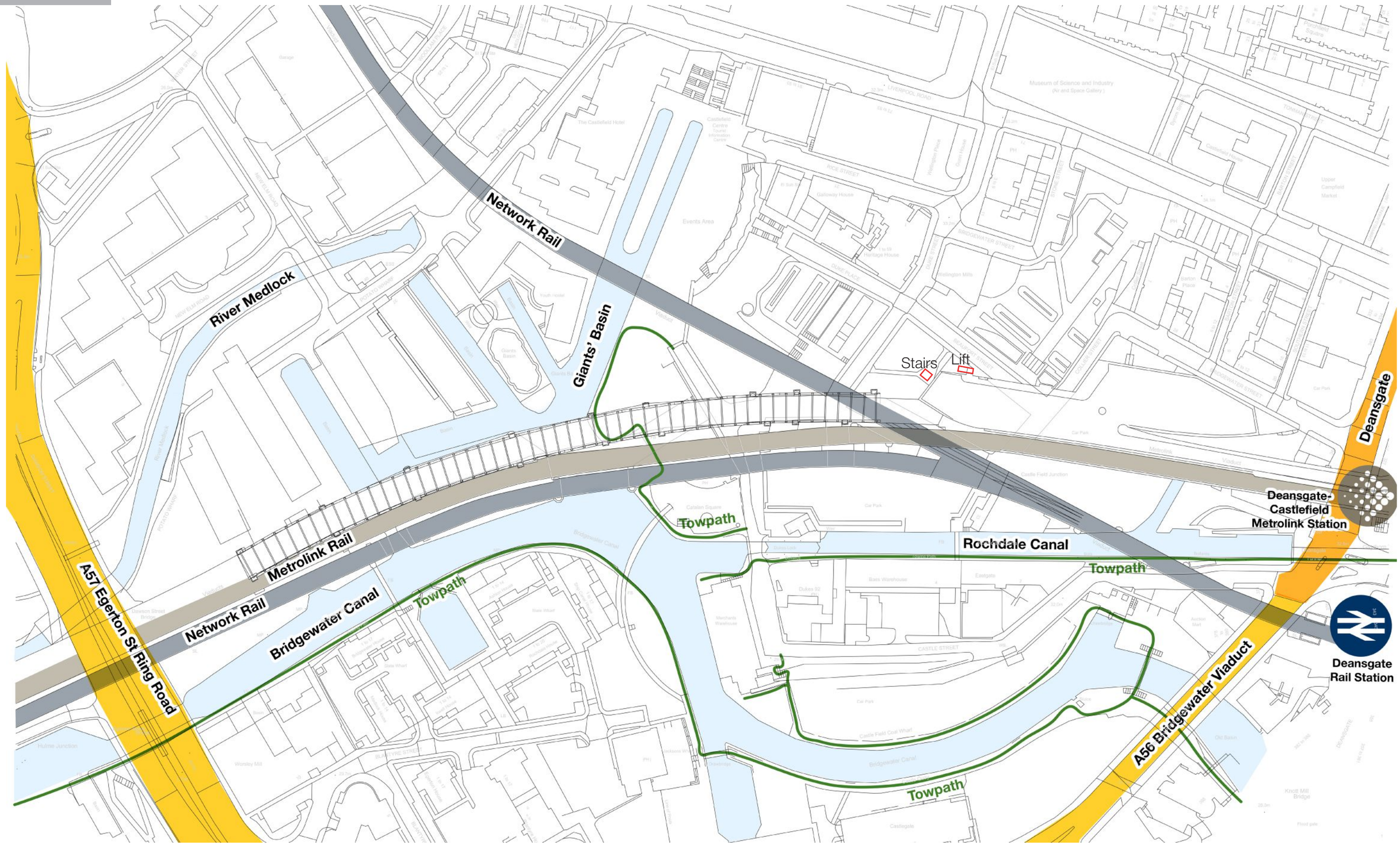


Existing self seeded shrubs and vegetation on the Viaduct

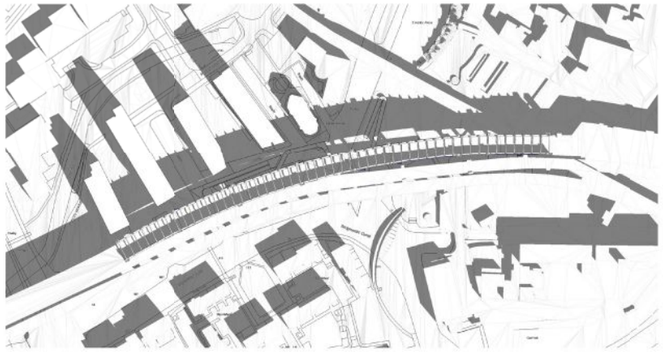


2 SITE APPRAISAL

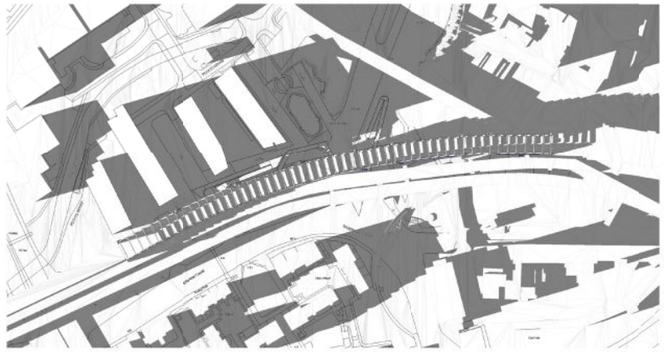
Transport Links And Access



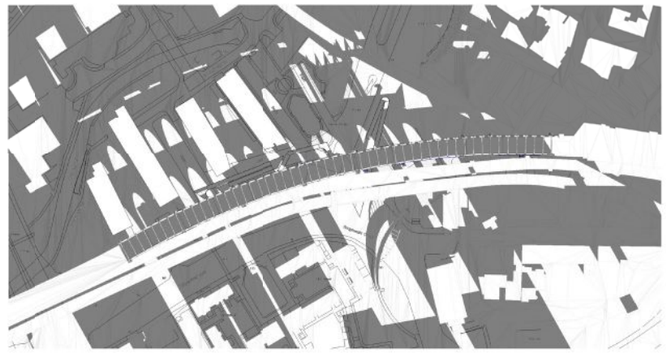
2 SITE APPRAISAL
Sun Path



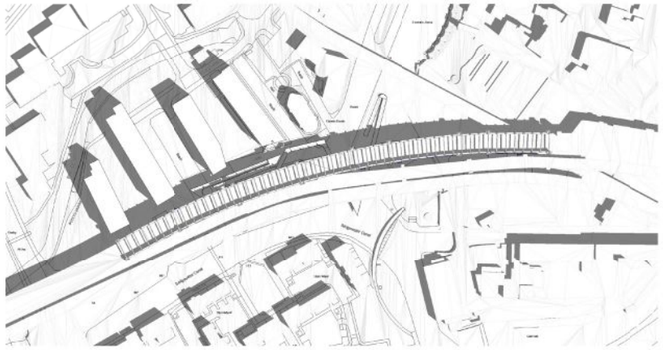
1 **March morning**
1 : 2000



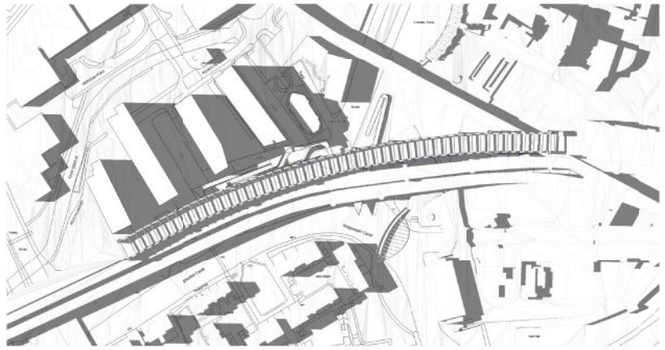
2 **March afternoon**
1 : 2000



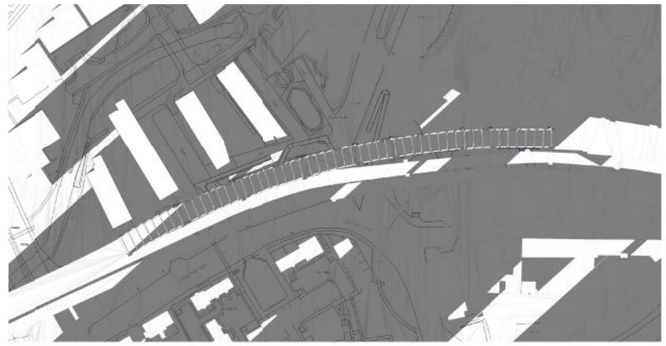
7 **December morning**
1 : 2000



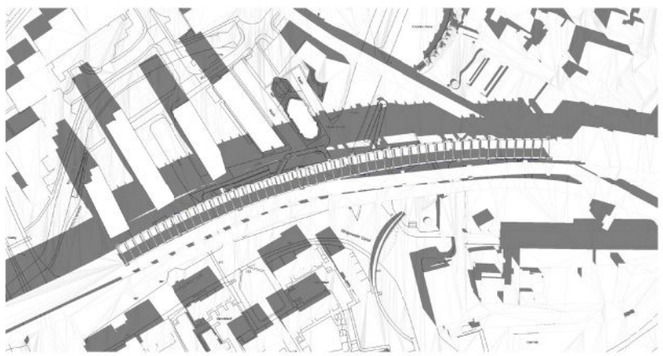
3 **June morning**
1 : 2000



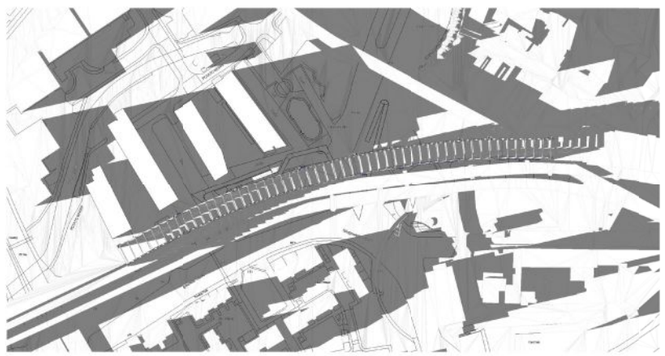
4 **June afternoon**
1 : 2000



8 **December afternoon**
1 : 2000



5 **September morning**
1 : 2000



6 **September afternoon**
1 : 2000

2 SITE APPRAISAL

Surrounding Building Heights

- 8 storeys
- 7 storeys
- 6 storeys
- 5 storeys
- 4 storeys
- 3 storeys
- 2 storeys
- 1 storeys



2 SITE APPRAISAL

Surrounding Building Functions

Building Functions:

- Residential
- F&B
- Offices
- Hotels
- Warehouses
- Retail
- School



2 SITE APPRAISAL

Surrounding Building Material Palette

Predominantly:
Red brick
Steel / Aluminium
Slate tiles

Also:
Blue brick
Sandstone
Glass
White Render



SITE AERIAL © GOOGLE EARTH 2021

2 SITE APPRAISAL

Local Plan Policies

Relevant Local Development Framework policies:

In accordance with the Core Strategy Vision, by 2027 Manchester will be:

"• A successful sustainable City in the front rank of cities in Europe and the world.

• A City with a growing economy driven by the strength of the Regional Centre and Manchester Airport which supports a successful City Region. The knowledge-based economy flourishes within an entrepreneurial community, characterised by a fully skilled, inclusive working population.

• Meeting the challenge of climate change at the forefront of environmental initiatives and improvements and continuing to deliver sustainable development and a more effective Green Infrastructure.

• A city with an increased and sustainable population and a community which both benefits from and drives the City's productivity upwards

• A city with neighbourhoods where people choose to live all their lives because they offer a wide range of quality housing and an attractive environment.

• A City with thriving district centres, which have a distinct local character and provide a good range of accessible public services, retail and local facilities

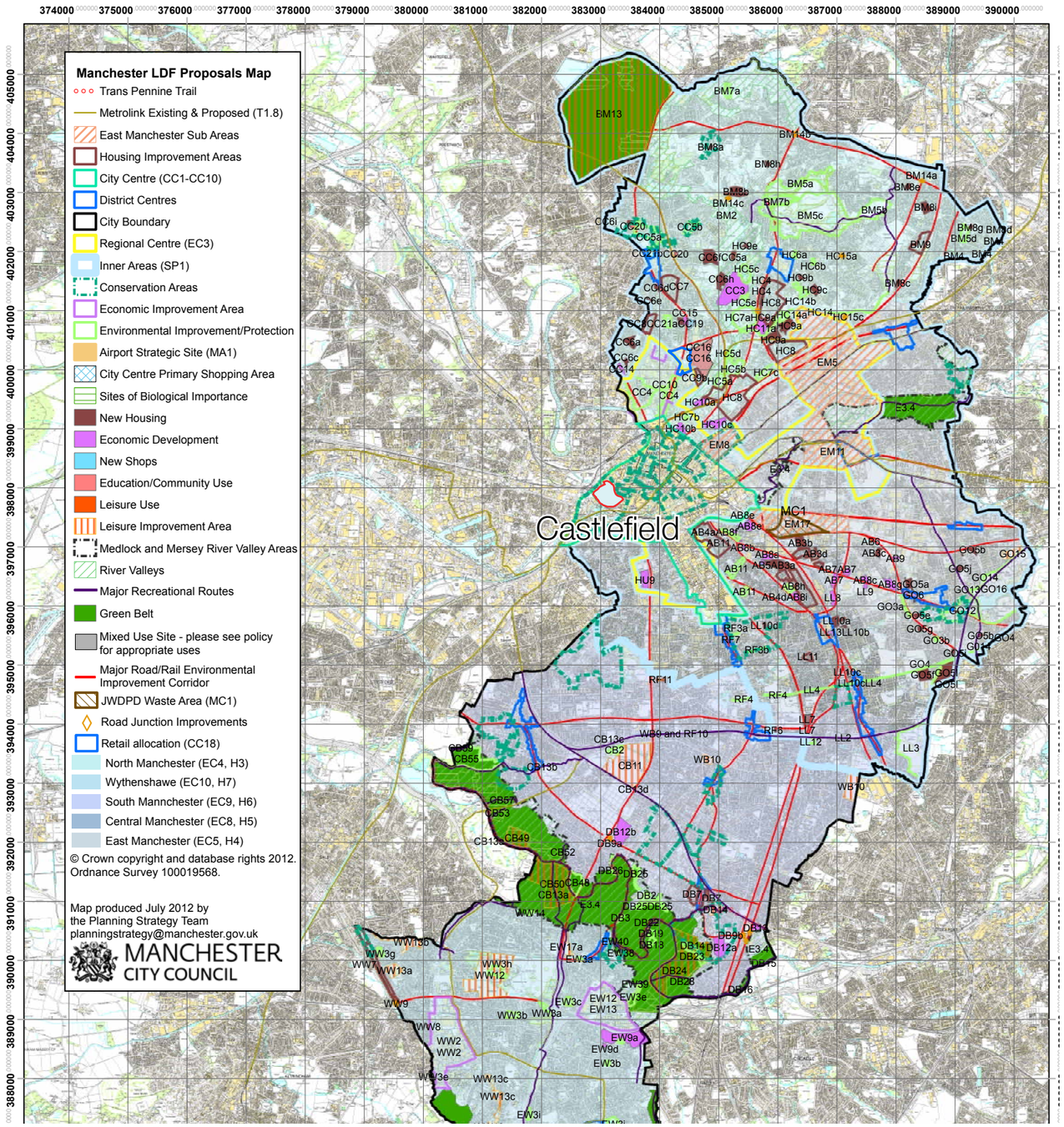
• A City which is supported by transport infrastructure which provides sustainable and efficient links locally, within the City, and more widely, between the Regional Centre and workers across the City Region. It will also have strong national and international connections made possible by its world class airport

• A City defined by excellence in urban design and environmental quality, where its distinctive historic environment is understood, valued, cared for and its potential fully realised

• A City where residents and visitors regularly enjoy a network of quality open spaces, parks and river valleys, enriched with biodiversity, which provide recreational routes and opportunities for sport across the City

• An international destination for tourism and culture with the Eastlands area of the Regional Centre a national attraction for sport, leisure and recreation."

REFERENCED FROM MANCHESTER CITY COUNCIL LOCAL DEVELOPMENT FRAMEWORK: CORE STRATEGY | SUSTAINABILITY APPRAISAL REPORT



MARKED CASTLEFIELD AREA FALLS INTO THE CONSERVATION AREAS OF MANCHESTER

2 SITE APPRAISAL

Local Environmental Policies

Policy EN9

"Green Infrastructure

- *New development will be expected to maintain existing green infrastructure in terms of its quantity, quality and multiple function. Where the opportunity arises and in accordance with current Green Infrastructure Strategies the Council will encourage developers to enhance the quality and quantity of green infrastructure, improve the performance of its functions and create and improve linkages to and between areas of green infrastructure.*

Key features of Manchester's green infrastructure will include:

- *The continued development of a network of green spaces, water bodies, canals, paths and cycle-ways, with priority given to those parts of the city where there is an identified existing lack of open space. The Council will seek to protect existing street trees and promote new planting, particularly where this can enhance green links in the urban area.*
- *The provision of new, and improvements to the quality and accessibility of existing green infrastructure assets, to mitigate for any loss of green infrastructure as a result of development such as the Metrolink extension programme.*
- *The encouragement of green roofs, green walls, tree planting and other forms of green infrastructure to allow for the adaption to climate change in heavily urbanised areas.*
- *New green infrastructure provision should be an exemplar of best practice and innovation in terms of both its design and management "*

REFERENCED FROM MANCHESTER CITY COUNCIL | MANCHESTER CORE STRATEGY 2012 TO 2027

Our Response:

- We are proposing to provide a new green space with great connections to various forms of transport within Manchester.
- Full accessibility regardless of physical ability is one of the key drivers for the project
- The proposal will showcase various plant species, all of which will be maintained by a National Trust gardener and team of volunteers.
- Rainwater harvesting will be a core part of the irrigation strategy on site.
- The intent is to create an example of how new urban green spaces can be introduced within growing cities, using the National Trust's long-standing experience of looking after the nation's coastline, historic sites, countryside and green spaces, ensuring everyone benefits.



3.0 HISTORICAL ASSET APPRAISAL

3 EXISTING VIADUCT

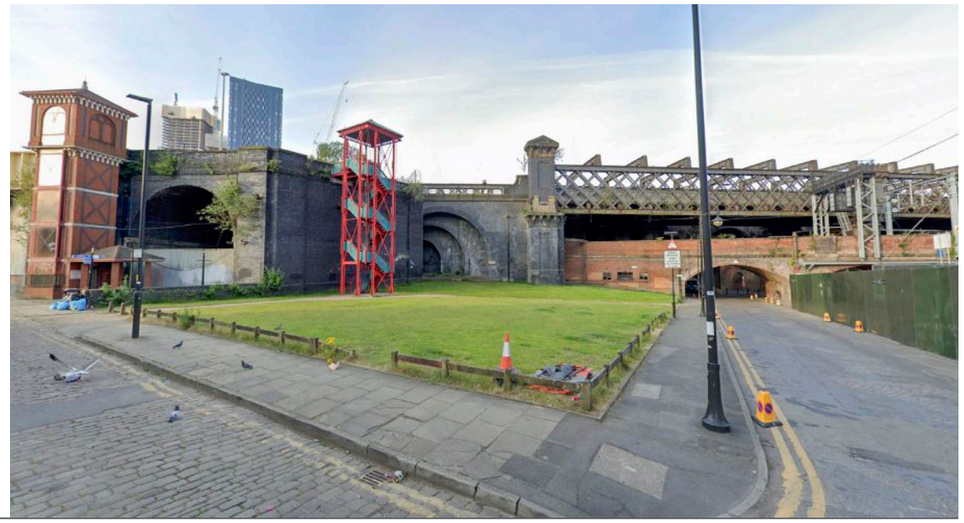
Viaduct Heritage Summary

Grade II Listed

- Cast iron and wrought iron, red brick to east of Duke Street.
- Runs south-west from former Central Station, then westwards, dividing into two over Castlefield and rejoining west of River Medlock. Cast iron drum piers rising to square castellated towers supporting metal lattice parapet.
- Castellated brick piers with stone dressings to Gothic style skew bridges over River Medlock and roadways.
- To east of Duke Street Viaduct is of brick with segmental arches and castellated brick piers.
- At western end a blue brick bridge over Dawson Street.
- Designed in 1888, Opened 1893, Closed to traffic 1963
- Designed by M.W.G. Scott, Chief Engineer of the Cheshire Lines Committee and the Midland Railway
- Contractors for masonry & brickwork: Mrs M. W. Walmsley and Co., of Manchester and Southport
- Contractors for steel & ironwork Heenan and Froude of Newton Heath
- Culvert for River Medlock is underneath the Viaduct somewhere.
- Lattice girder work - leading feature
- A copper rivet ceremoniously placed at the end (location unknown)
- Portrays the area's rich heritage and its prominence as the birthplace of the industrial revolution.
- The Viaducts dramatically transformed the scale and visibility of urban exchange of the area, without disrupting the natural landscape and long established built-in environments.
- Remarkable geometric shadows across arena and over Castlefield
- Most visible expression of the existence of the Central Manchester Development Corporation between 1987 and 1997
- The Castlefield Viaducts were the first of their type, and consequently are vital artefacts in the history of Manchester and the railways. They are noteworthy for both their design and size.







3 EXISTING VIADUCT

Current Condition Details

Newer Elements

- The existing, highlighted 1.5 meter tall graffiti barrier, as well as the scaffolding post guarding are required by Metrolink to prevent access and mitigate against thrown objects onto the live line
- Both barriers are to be retained for H&S purposes, and we propose to clean off the graffiti

Surface of the Viaduct

- As evident in the pictures; the Viaduct's surface can be seen reclaimed by nature and self-seeded with plants such as buddleia and wild strawberries. Large shrubs also occupy some of the zones within the Viaduct.

- The soil however is contaminated (therefore no planting is proposed within the existing bed and public access will be prevented).

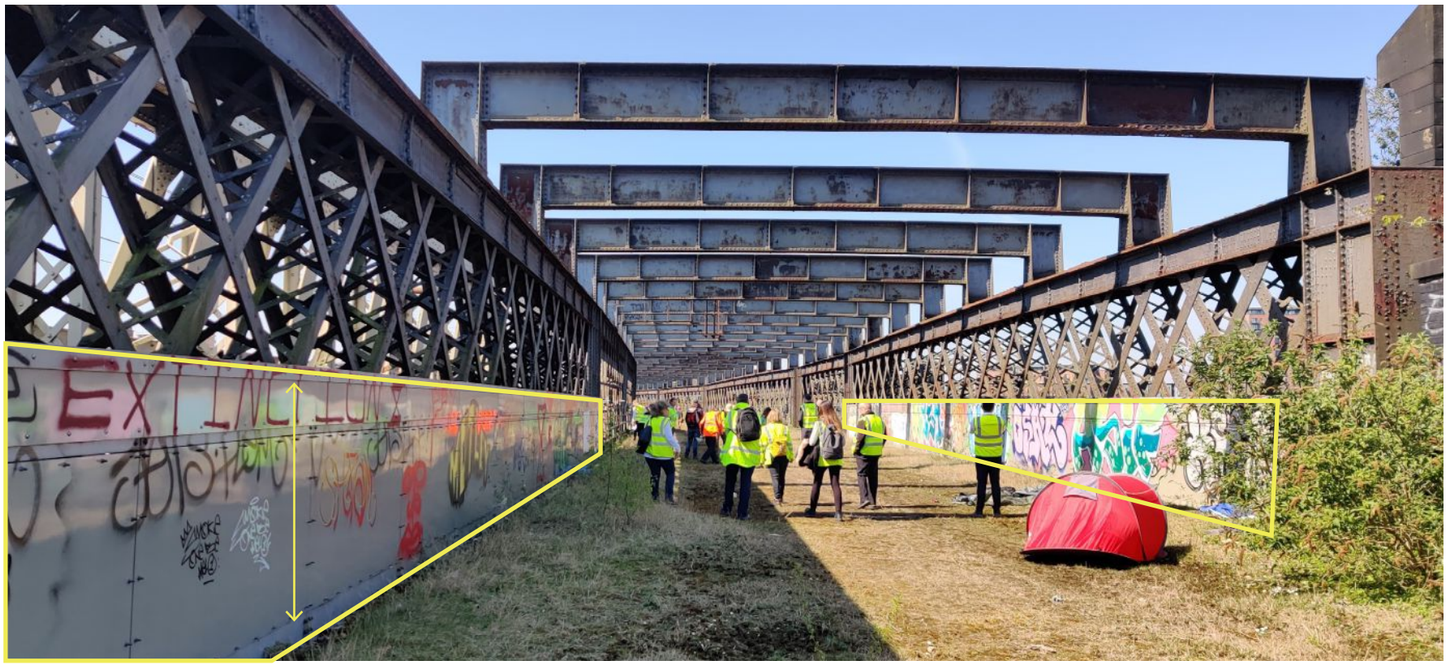
- Plant selection has been inspired by existing colonniser species.

- This surface is to remain untouched in the 'existing Viaduct' segment of the guided tour.

Condition of Structure

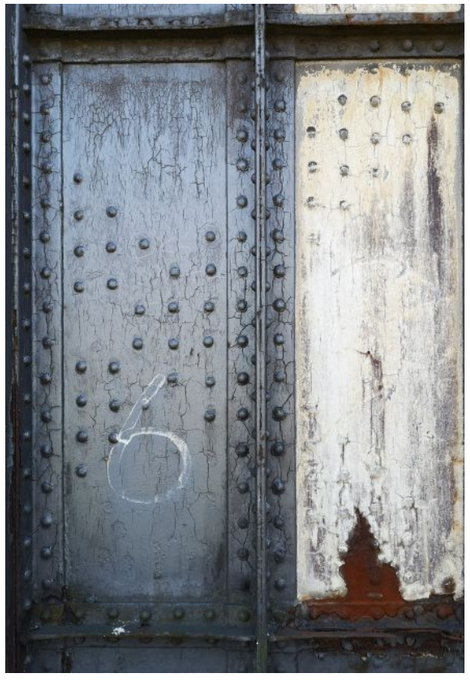
- The analysis of structural information confirmed that with load spreading interventions to the central path the structure itself is suitable to uphold the proposed capacity of the scheme.

Please refer to Arup documents for further details.







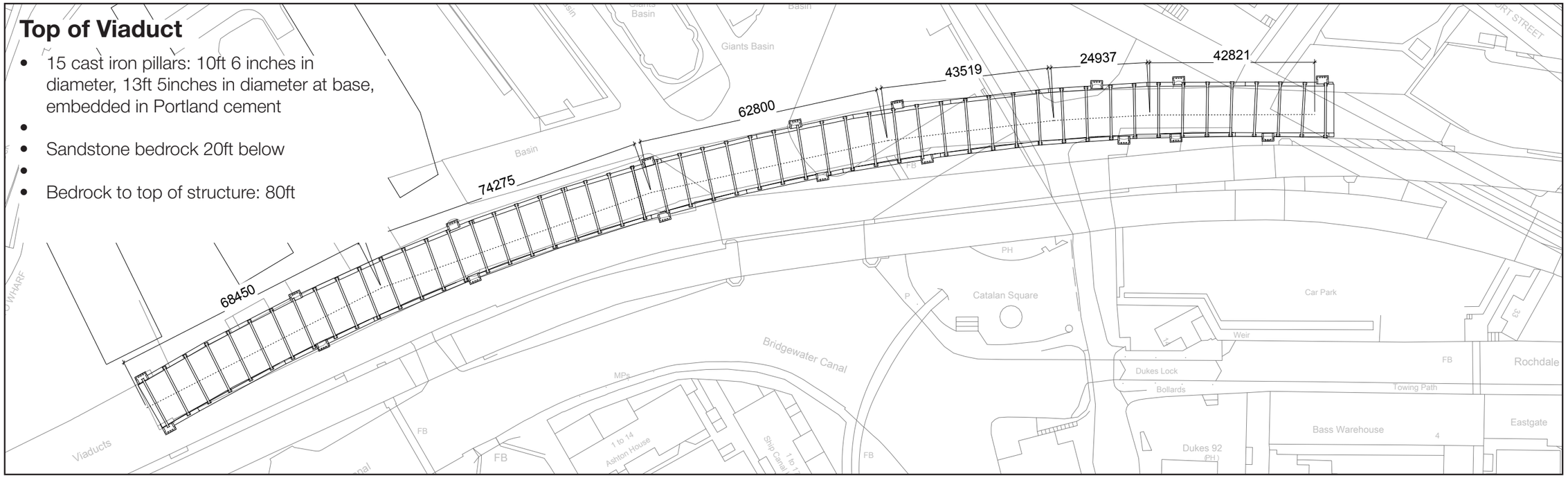


3 EXISTING VIADUCT

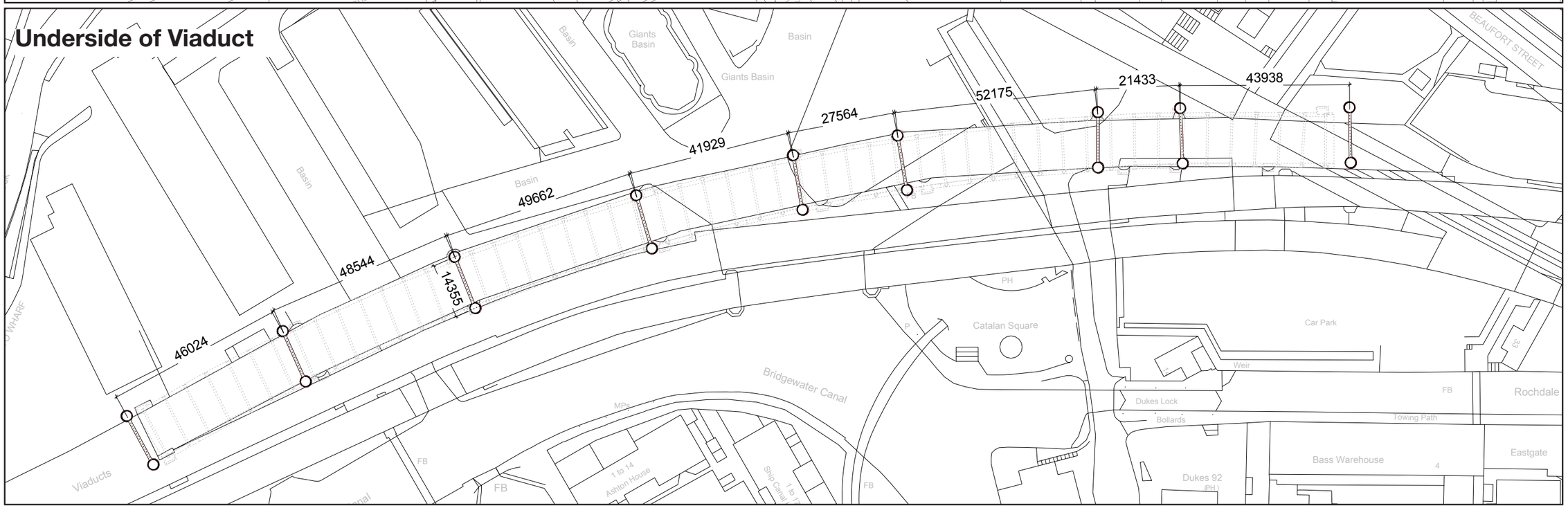
Dimensions

Top of Viaduct

- 15 cast iron pillars: 10ft 6 inches in diameter, 13ft 5inches in diameter at base, embedded in Portland cement
-
- Sandstone bedrock 20ft below
-
- Bedrock to top of structure: 80ft

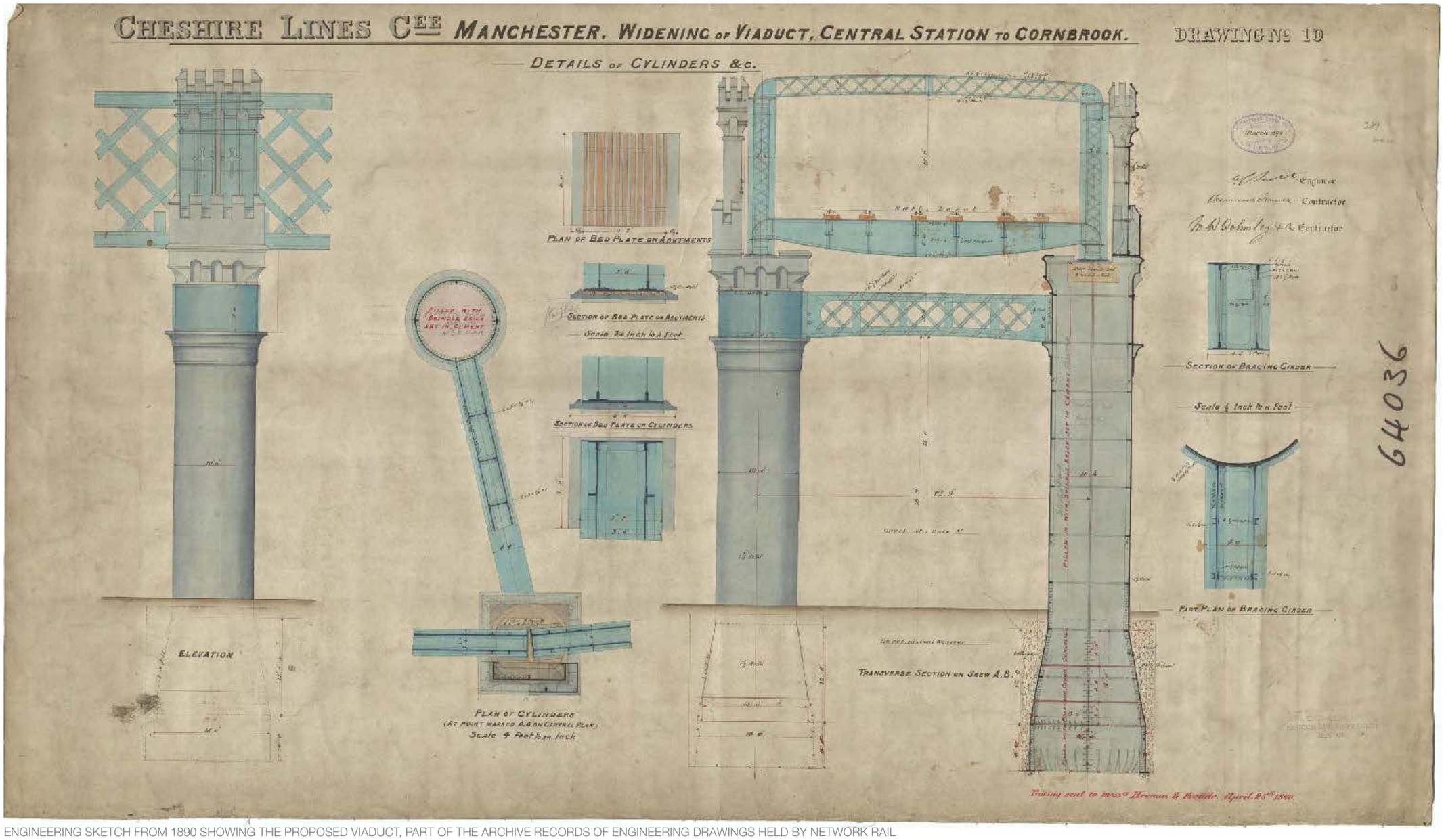


Underside of Viaduct



3 EXISTING VIADUCT

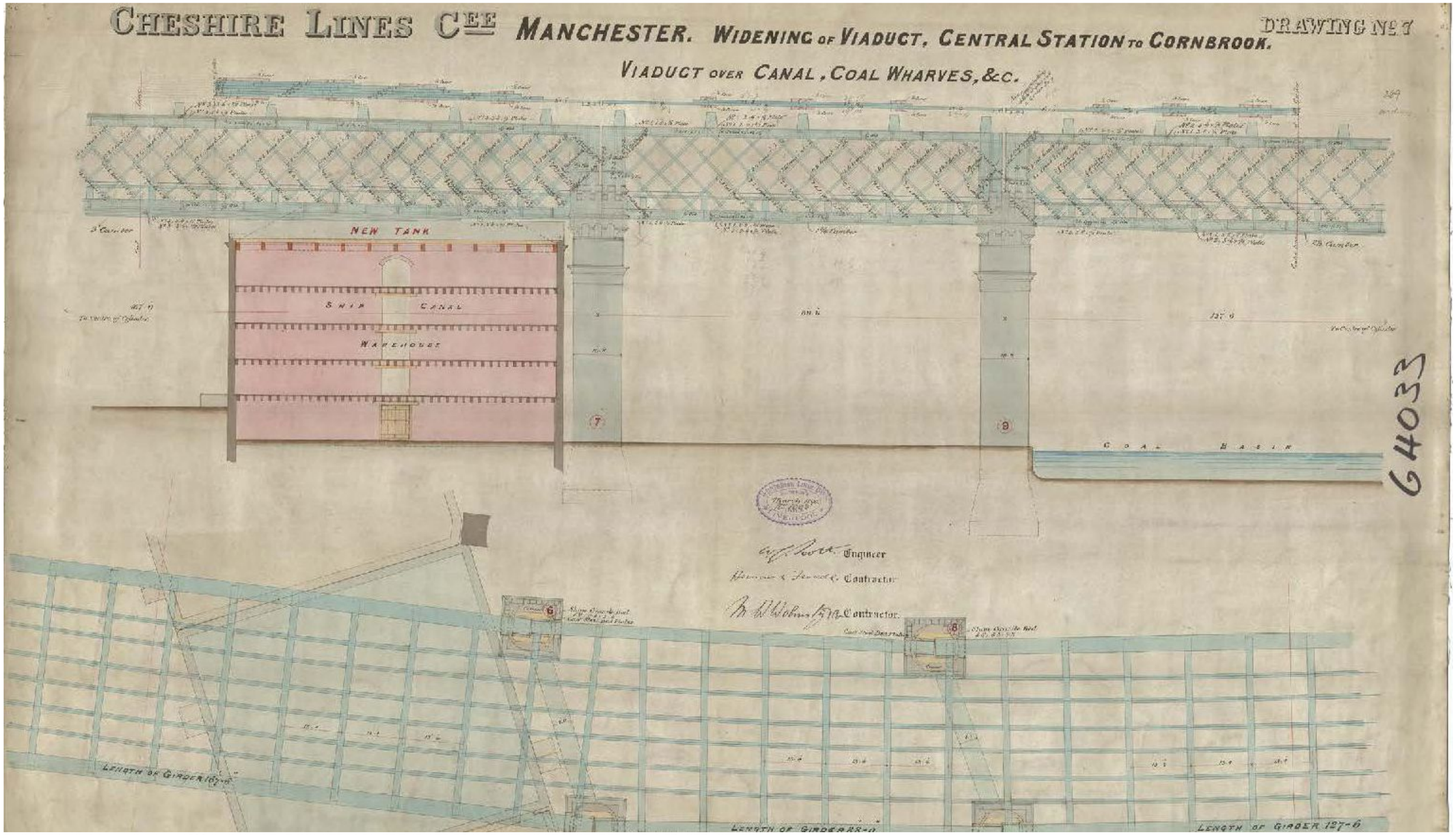
Original Historic Viaduct Drawings



ENGINEERING SKETCH FROM 1890 SHOWING THE PROPOSED VIADUCT, PART OF THE ARCHIVE RECORDS OF ENGINEERING DRAWINGS HELD BY NETWORK RAIL

3 EXISTING VIADUCT

Original Historic Viaduct Drawings



ENGINEERING DRAWING FROM 1890 SHOWING THE CONSTRAINTS OF THE SITE FROM EXISTING STRUCTURES AND INFRASTRUCTURE.

4.0 DESIGN RESPONSE

4 DESIGN RESPONSE

Pilot Scheme Design Concept Aspirations

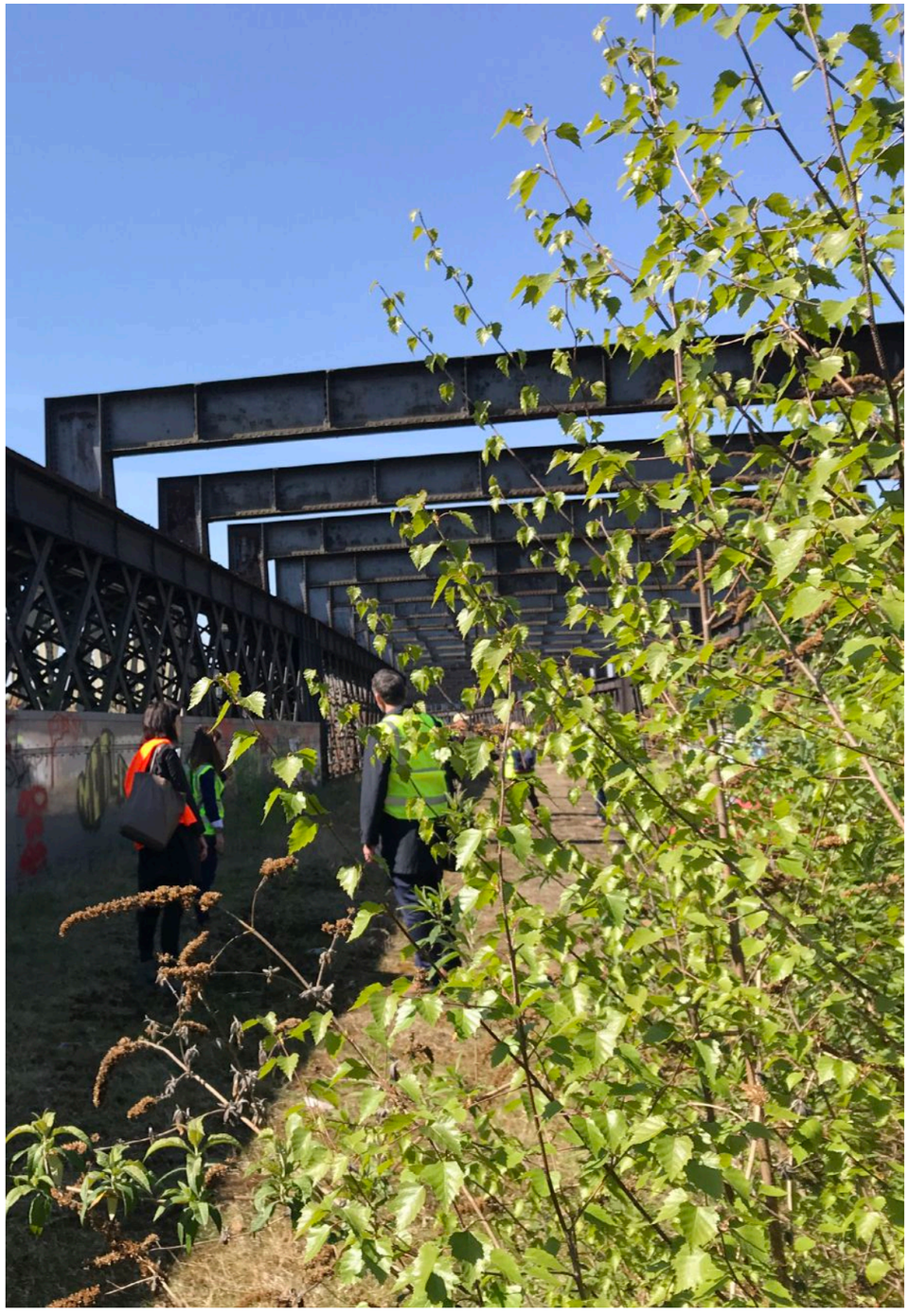
The concept for the pilot scheme takes direct inspiration from the Viaduct's heritage - the designed experience references the effect you gain when travelling on a train and objects rhythmically appear and disappear out of focus, allowing the eye to focus on close ups of the new planting, which is then broken up by long distance views of the Viaduct's surroundings.

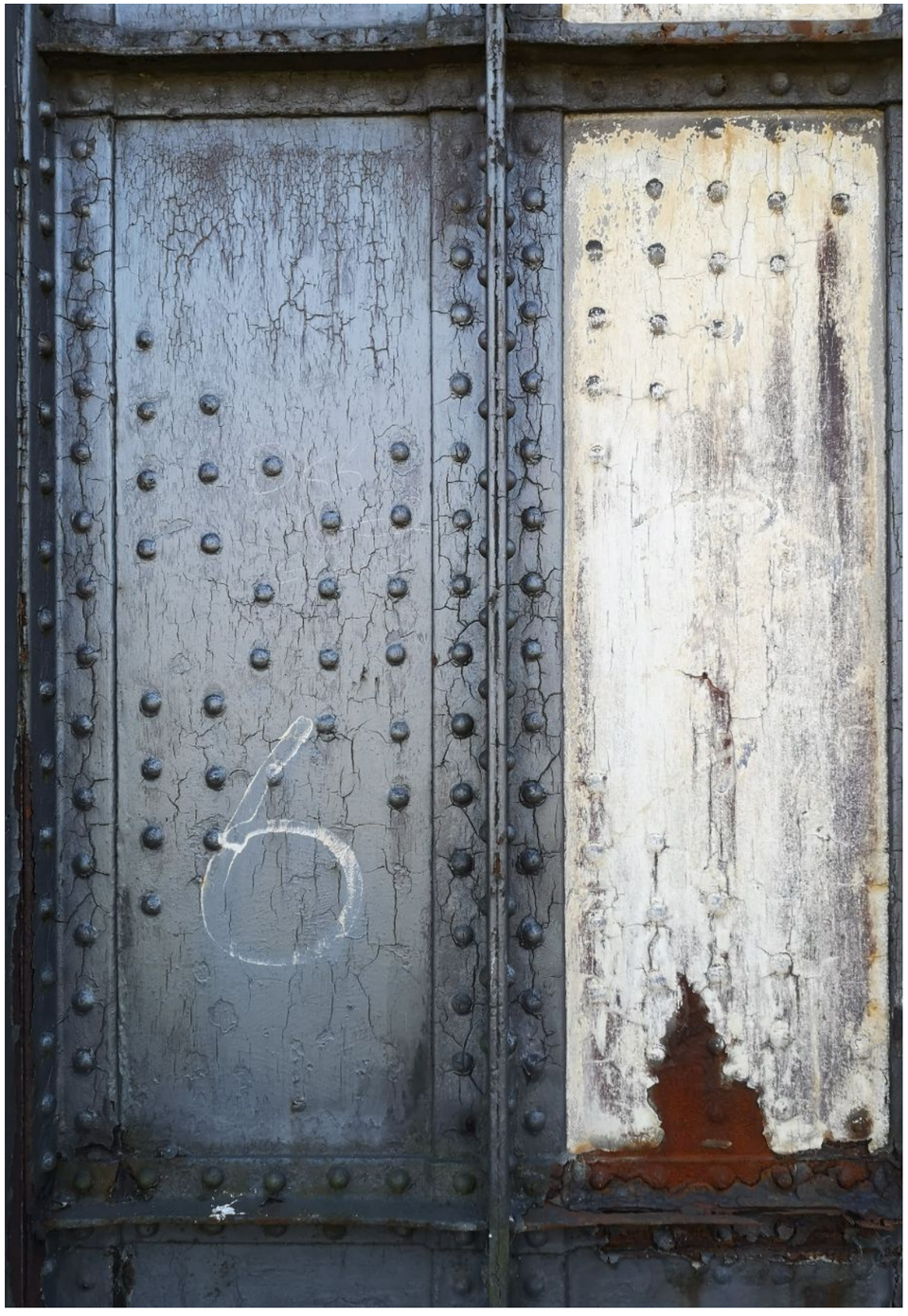
The aim is to familiarise visitors with the Viaduct's past and invites them to imagine its future.

The new design is inspired by the core characteristics of the existing Viaduct - the ageing of built structures and natural colonisation. This has informed the materiality of the proposed planters, furniture and central building.

Key characteristics:

OVERGROWTH
WEATHERING
PATTERNS





4 DESIGN RESPONSE

Phase 1 / Phase 2 Plan



4 DESIGN RESPONSE

Pilot Design Options

The following diagrams show the options that were explored for the extent of the pilot scheme.

Deciding factors:

- Fire escape distances
- Health and Safety (condition of existing Viaduct)
- Desired Future Phasing
- Desired Visitor Experience
- Desired community experience
- Cost

Option 1:

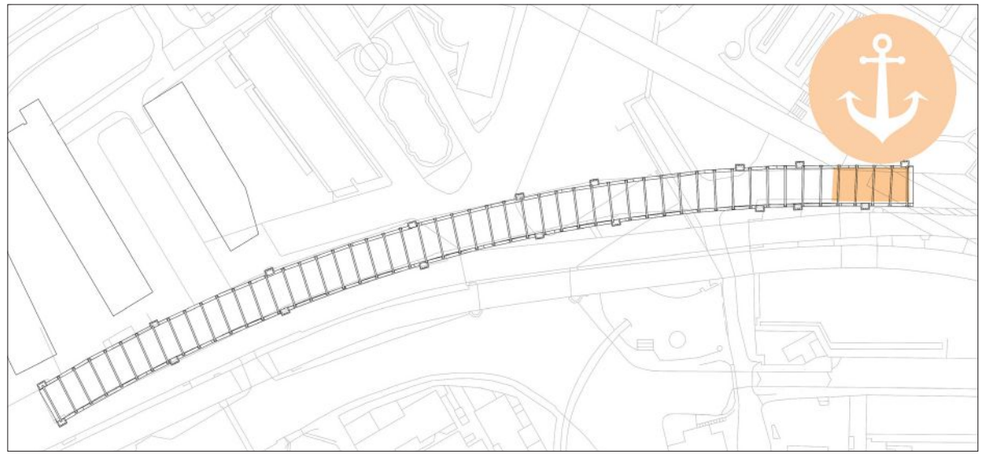
- Just offering Food & Beverage is quite limited for the pilot scheme and doesn't provide an experience of the structure itself.
- Lacking in visitor and community experience.
- Does not show the potential for future phases or enable testing.

Option 2:

- Great for journey and experience but could be costly for the pilot / test scheme as well as leaving very little to the imagination.

Option 3:

- Creating 3 main zones makes for a clear narrative in the journey : past, present, future.
- Allows visitors to experience the current condition of the Viaduct as well as a glimpse into its potential future.
- Shorter length to satisfy fire escape distance and proportionally appropriate for a testing phase.



Option 1
just F&B / Entrance 'anchor'



Option 2
Entrance through to Events Space



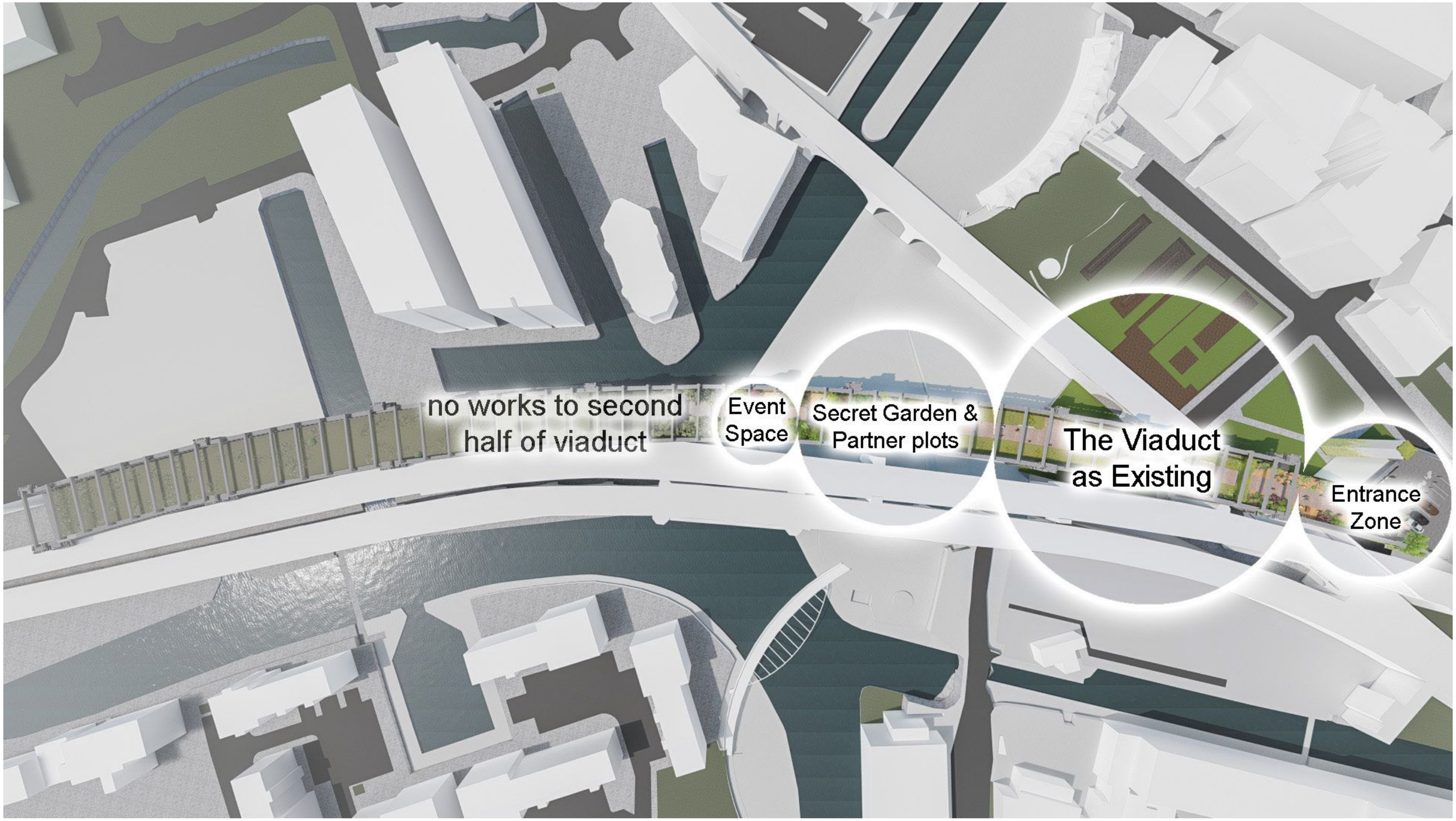
Option 3 - Preferred

Entrance and Events Spaces designed to test transformation opportunities.

Simple, untreated path in the rest of the Viaduct to allow visitors to explore the structure and engage with its future.

4 DESIGN RESPONSE

Final Proposed Zones



4 DESIGN RESPONSE

Circulation Options

In the early designs, two circulation route options were explored, with the linear route found to be preferable and necessary:

Circular Route Pros

- 2 Way Circulation creates a better flow for the Journey.
- Those entering wont cross paths with those leaving.

Circular Route Cons

- Considerably less space for installations.
- Perspective view down the Viaduct is lost.
- Operationally more difficult to manage visitors / more staff required.



Option 1

Linear Route Pros

- Allows a 4m clearance for construction vehicles.
- Linear path down the middle creates an engaging perspective view along the curve of the Viaduct.
- More space for installations
- Aligns with National Trust operations plans.
- Alternating interest points along the path makes for an interesting journey.

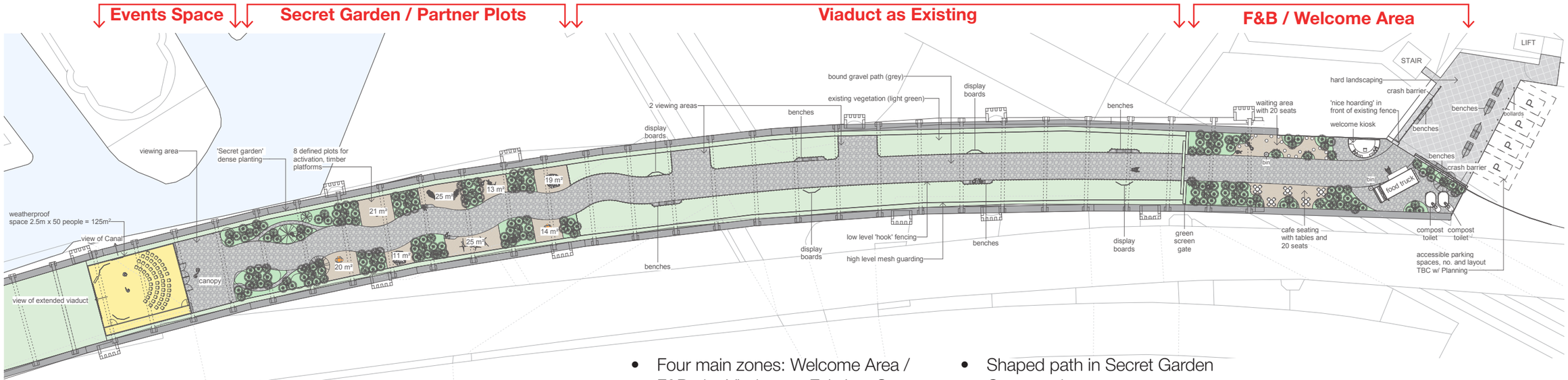


Option 2

4 DESIGN RESPONSE

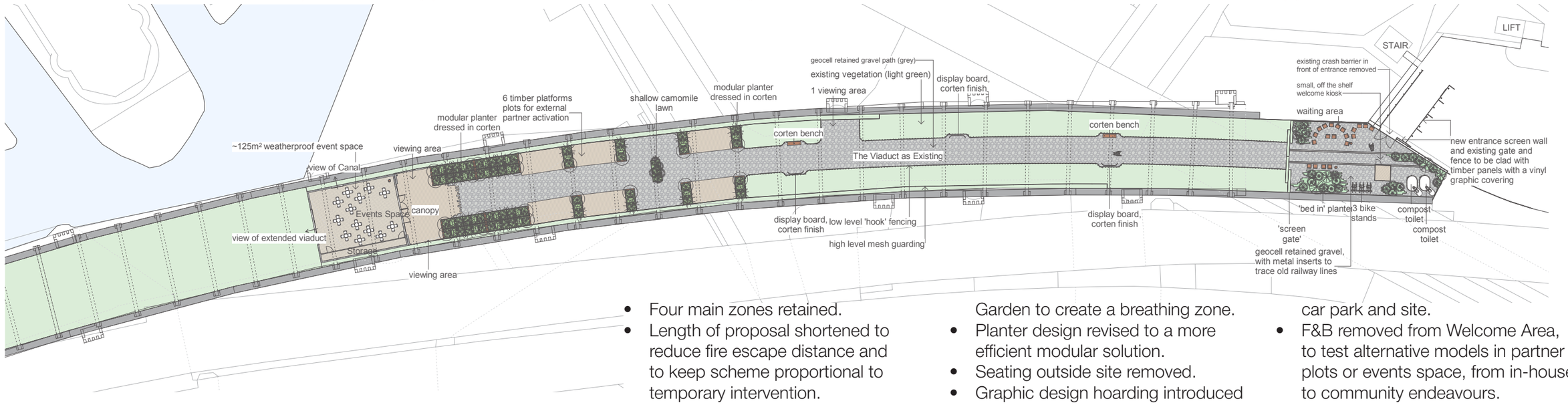
Development of Masterplan

Masterplan Shown in Pre-Application Meeting:



- Four main zones: Welcome Area / F&B, the Viaduct as Existing, Secret Garden / Partner Plots and Events space.
- Shaped path in Secret Garden
- Custom planters
- Seating outside site posed risk of misuse.

Masterplan Shown in previous Planning Issue:

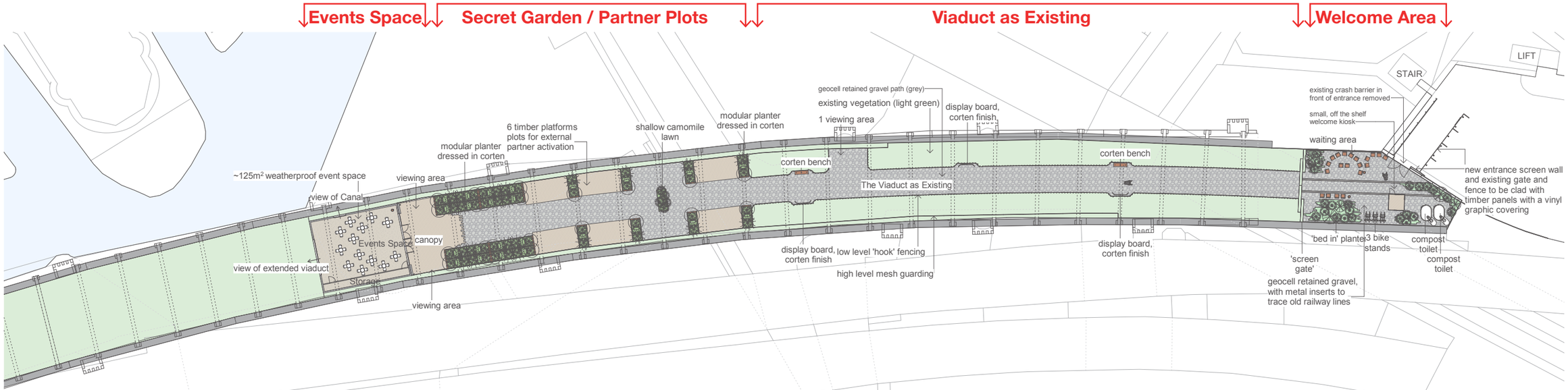


- Four main zones retained.
- Length of proposal shortened to reduce fire escape distance and to keep scheme proportional to temporary intervention.
- Break point added within Secret Garden to create a breathing zone.
- Planter design revised to a more efficient modular solution.
- Seating outside site removed.
- Graphic design hoarding introduced to serve as a boundary between busy car park and site.
- F&B removed from Welcome Area, to test alternative models in partner plots or events space, from in-house to community endeavours.

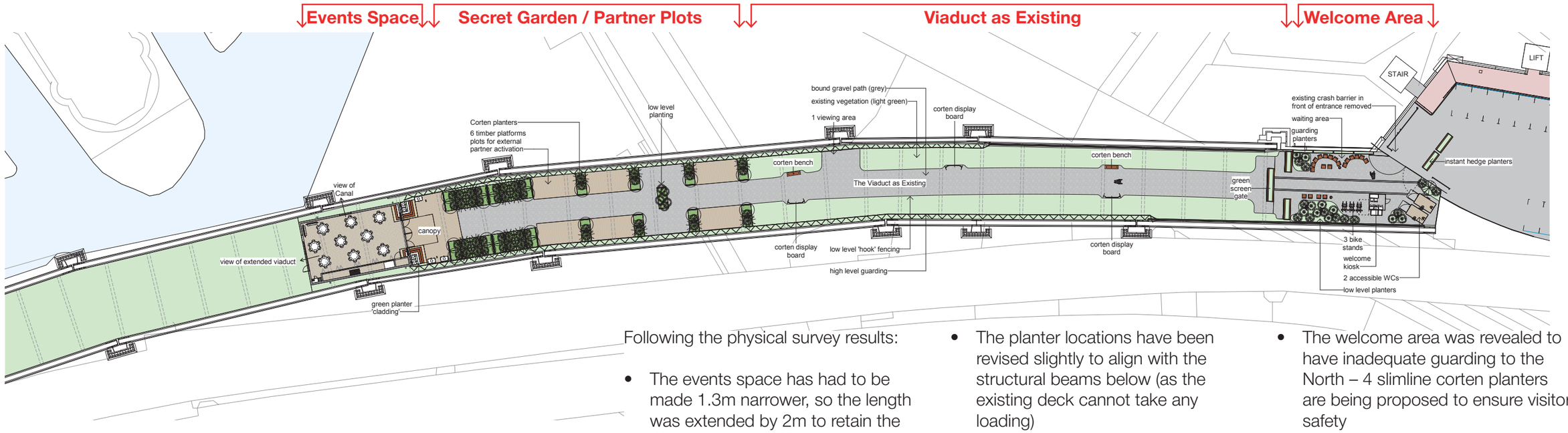
4 DESIGN RESPONSE

Development of Masterplan

Masterplan Shown in previous Planning Issue (same as on previous page, repeated here to allow for direct comparison):



Current Revised Masterplan:



Following the physical survey results:

- The events space has had to be made 1.3m narrower, so the length was extended by 2m to retain the same GIA
- The planter locations have been revised slightly to align with the structural beams below (as the existing deck cannot take any loading)
- The welcome area was revealed to have inadequate guarding to the North – 4 slimline corten planters are being proposed to ensure visitor safety

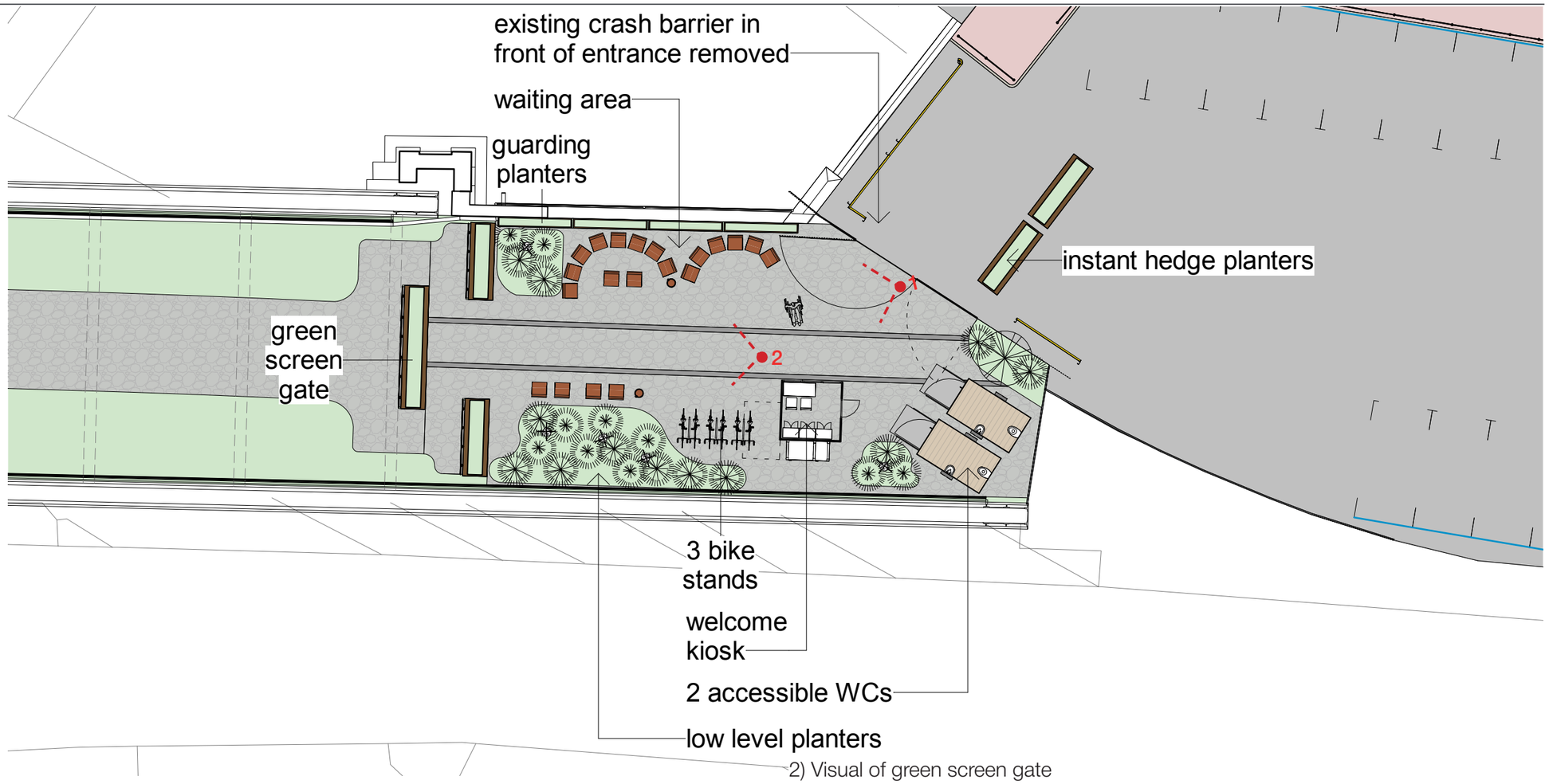
4 DESIGN RESPONSE

Welcome Area

The entrance is via the existing gates in the car park, which can be reached either on foot, or via the existing stairs or lift. We are proposing to clad the exsting fence and gate with graphics about the project.

Visitors would then be met by a member of staff at the welcome kiosk and a waiting area where they can sit while they wait for their tour to begin.

At the end of the welcome area, a fixed green screen ‘gate’ will transition visitors to the next stretch of the Viaduct - the intention is to create a moment of surprise and delight, letting visitors into the magic of the Viaduct behind the ‘theatre curtain’.



1) Visual of welcome area



2) Visual of green screen gate



4 DESIGN RESPONSE

The Viaduct as Existing

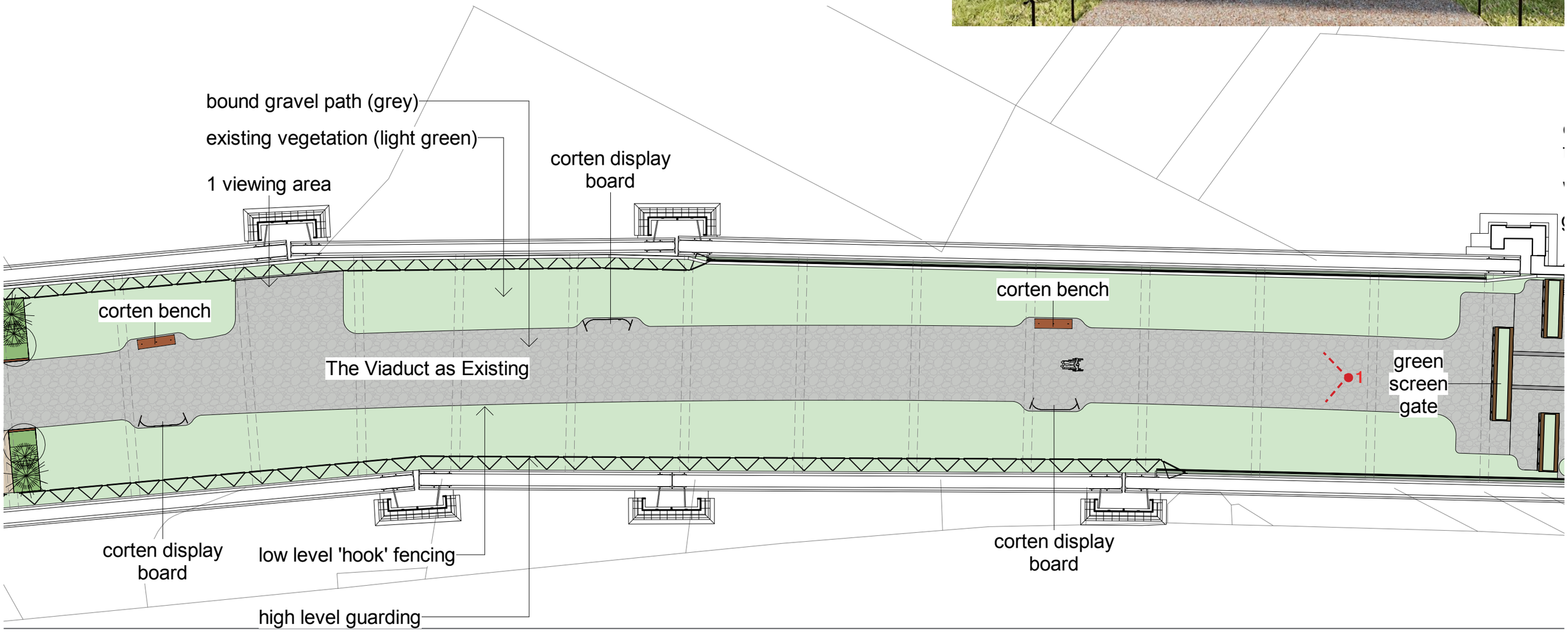
The intention for this next chapter of the journey is to allow visitors to experience the Viaduct in its existing condition, and to invite their imagination to consider how this space could be transformed.

Minor H&S interventions are proposed, such as a central path that allows safe and level access, a low level fence reminding visitors to stay on the path and off the existing vegetation which has contaminants carried in by trains in the past; and a high level guarding at the outer edges of the Viaduct to prevent falls.

There would be benches along the way for rest, and display boards to tell the Viaduct's history.

1) Visual of the Viaduct as Existing



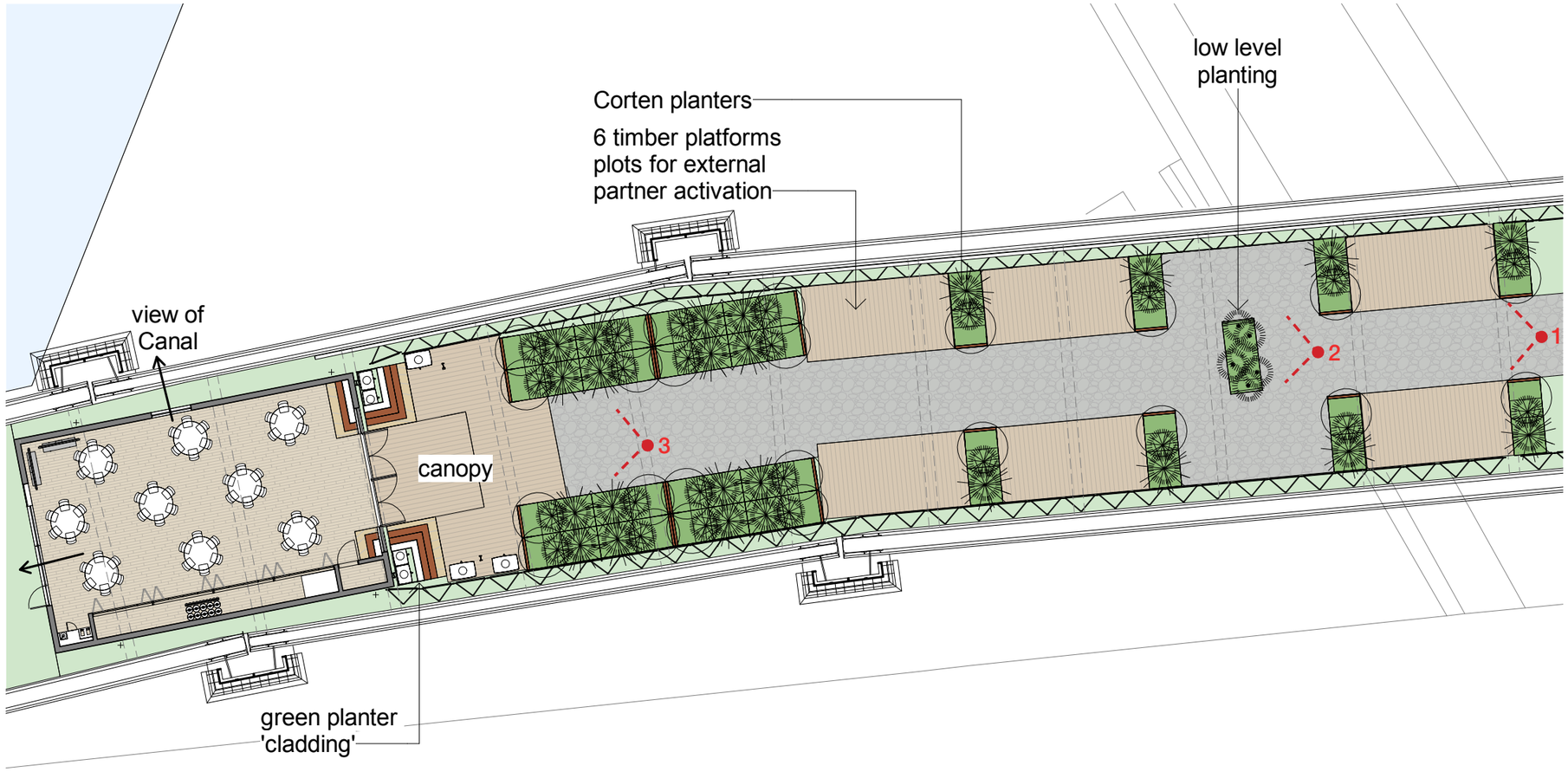


4 DESIGN RESPONSE

Secret Garden & Partner Plots

The next zone hosts a Secret Garden, created with a series of modular planters with vegetation under 4m.

This would be interspersed with the external partner plots - timber platforms that will be activated to showcase local initiatives, community installations, perhaps local artists and opportunities for visitors to get involved and leave feedback.



1) Visual of start of partner plot area



2) Visual of break point



3) Secret Garden / View towards Events Space



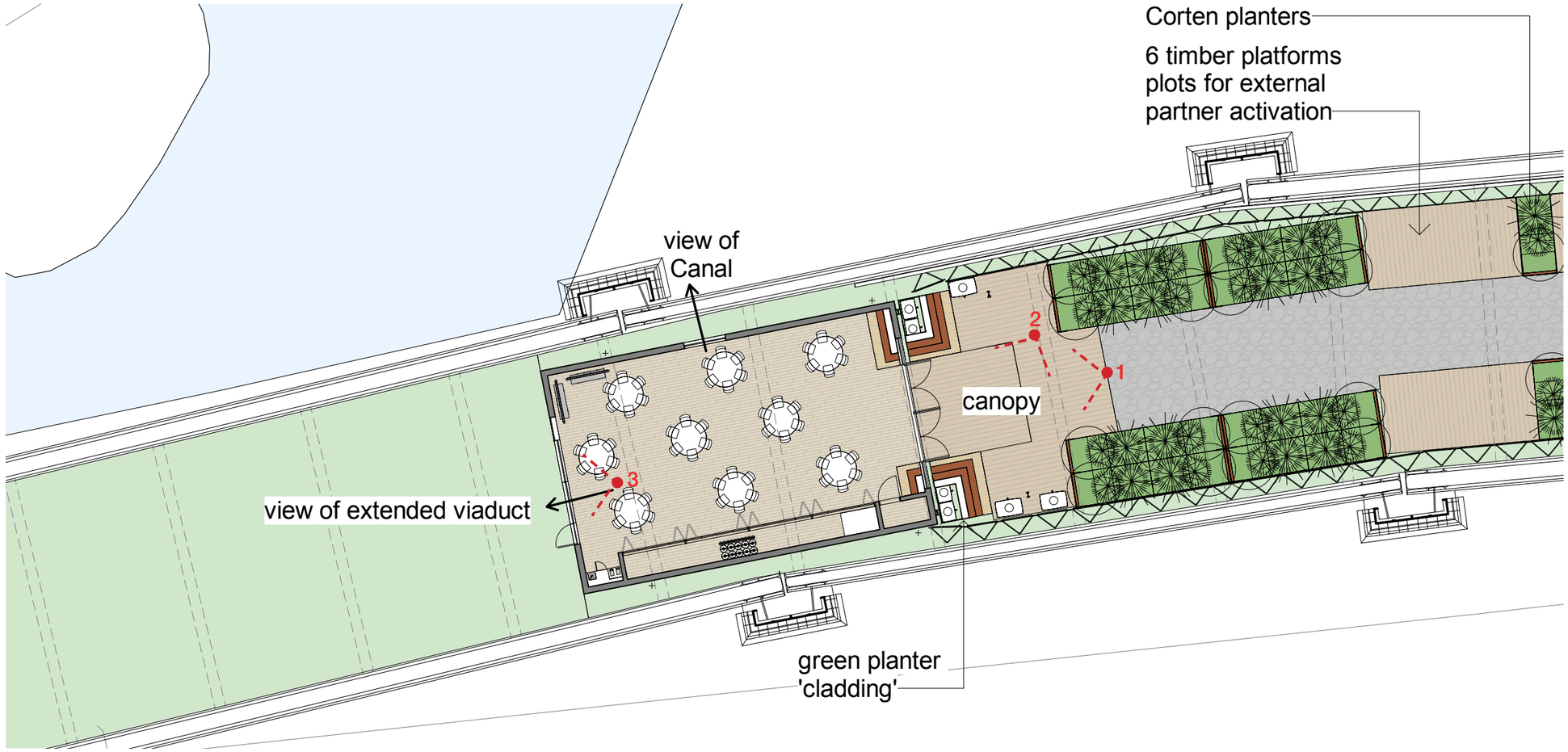
4 DESIGN RESPONSE

Events Space

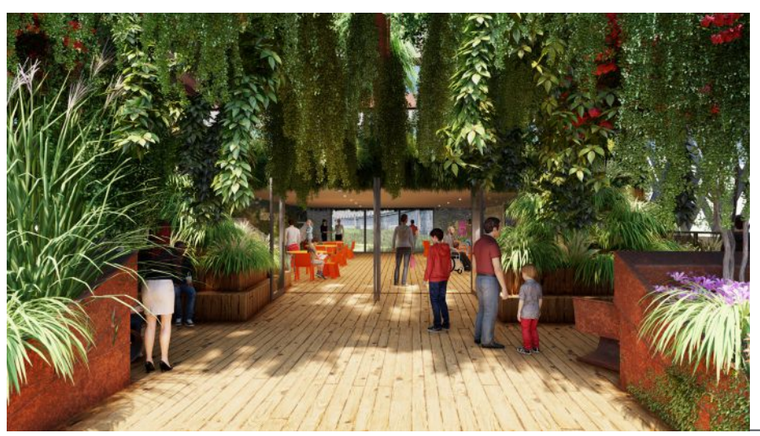
At the end of the journey, visitors are met by an open plan internal event space, to host talks, community events and gather further feedback from the public.

At the front there is a vegetated canopy to create a slightly sheltered outdoor space for these events, and to continue the rich planting of the secret garden right up to the boundary of the enclosed space.

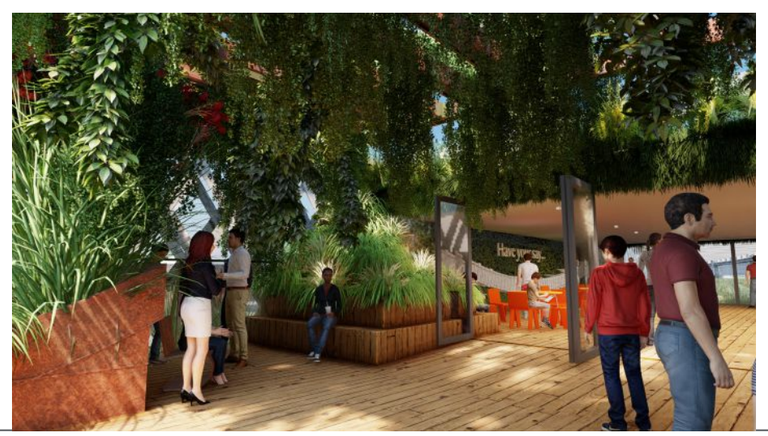
We are proposing a glazed front and rear to allow for a continuous view of the extended Viaduct and to invite visitors to imagine its future.



1) Front facade of building



2) Green planter ‘cladding’



3) View of the rest of the Viaduct



4 DESIGN RESPONSE

Design Options for Central Building

Several design options were considered for the Event Space building, ranging from a flat roof prefab space, a portal frame ‘warehouse style’ design and a quonset hut structure, reminiscent of railway maintenance shelters.

The deciding factors were:

- Required beam depth to allow for required span
- Cost of structure
- Ease of installation
- Availability of installers
- Ability to dress structure to blend into scheme

The analysis made it evident that the flat roof, simple building would be preferable, due to the cost and availability of this style of structure, as well as its height (restricted by the Viaduct overhead beams).

This design option was then further developed, as seen on the next page.



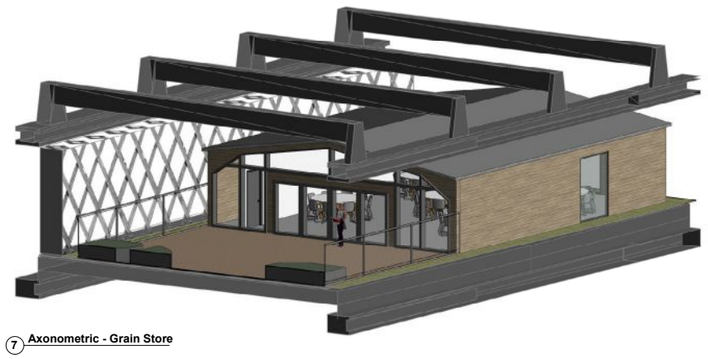
4 Perspective View - Green Wall



8 Axonometric - Green Box



5 Perspective View - Grain Store



7 Axonometric - Grain Store



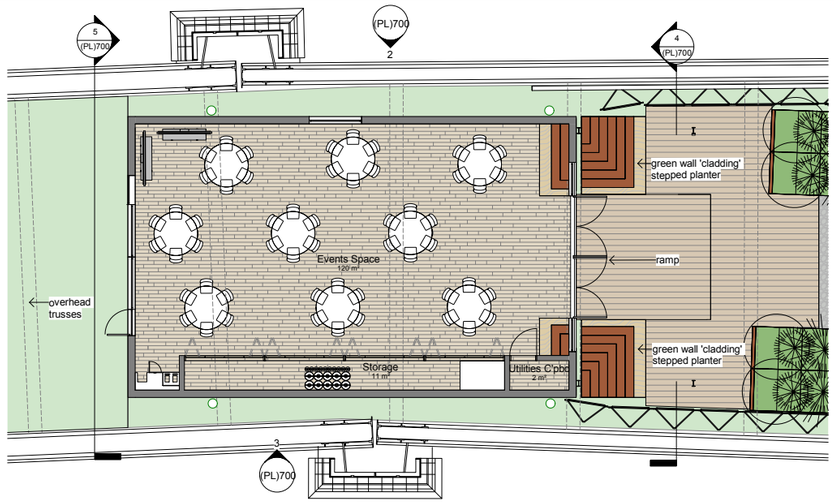
6 Perspective View - Quonset Hut



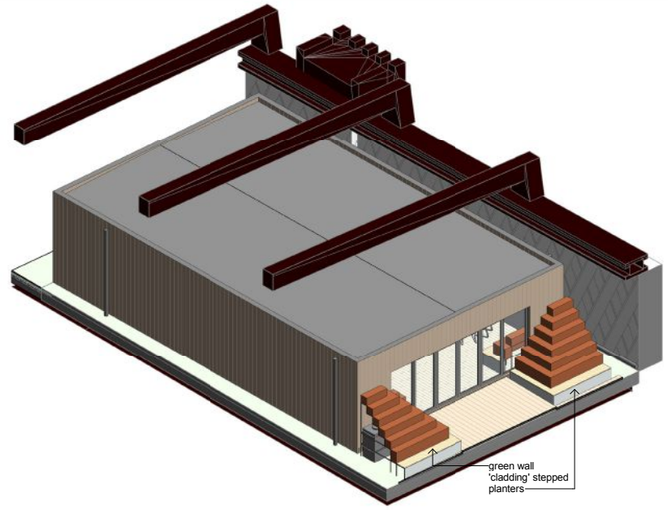
9 Axonometric - Quonset Hut

4 DESIGN RESPONSE

Final Central Building Design



1a (PL) Plan
1 : 100



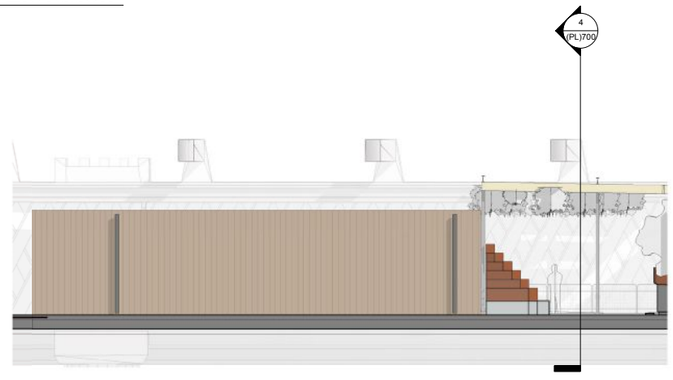
6 (PL) 3D View



2 (PL) North Elevation
1 : 100



4 (PL) East (Front) Elevation
1 : 100



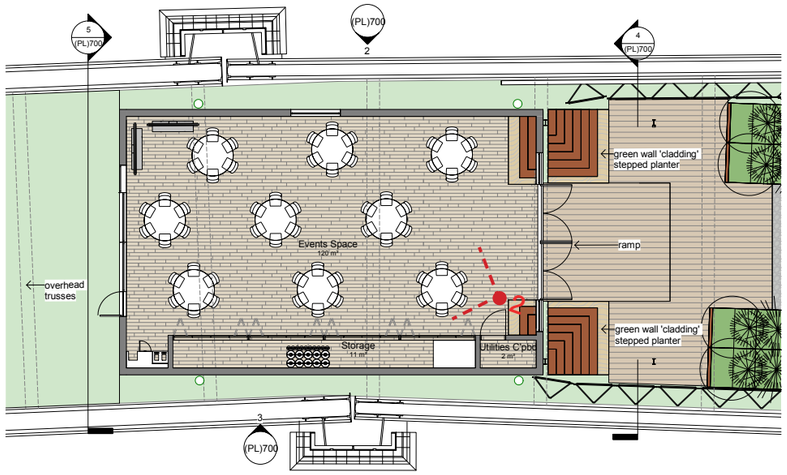
3 (PL) South Elevation
1 : 100



5 (PL) West (Rear) Elevation
1 : 100

4 DESIGN RESPONSE

Final Central Building Design

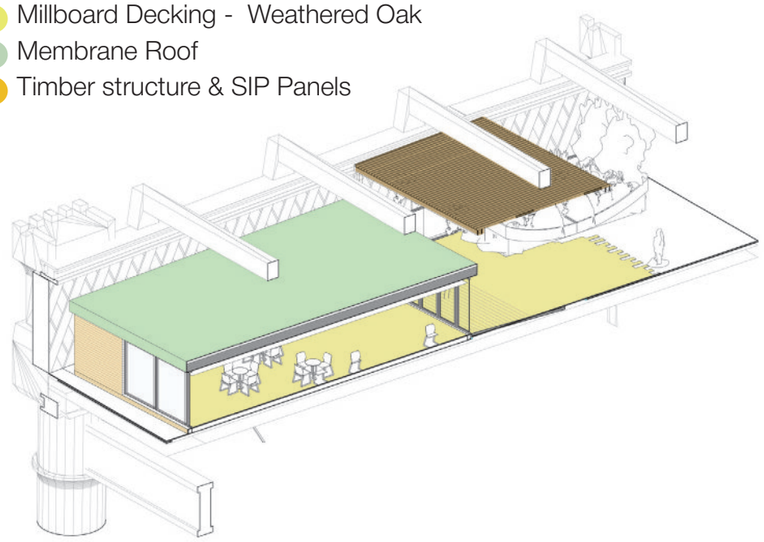






Materials:

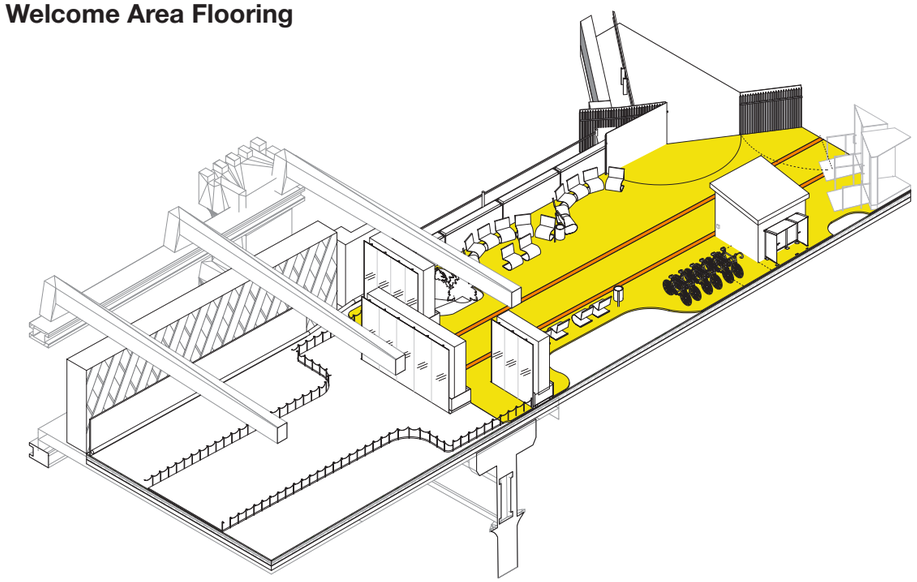
- Vegetated Canopy
- Millboard Decking - Weathered Oak
- Membrane Roof
- Timber structure & SIP Panels



4 DESIGN AND MATERIALITY

Welcome Area & Partner Plot Flooring

Welcome Area Flooring



Geocell Retained Gravel with Ballast around the Edges

- Part of original Viaduct track material palette (gravel and ballast on train tracks)

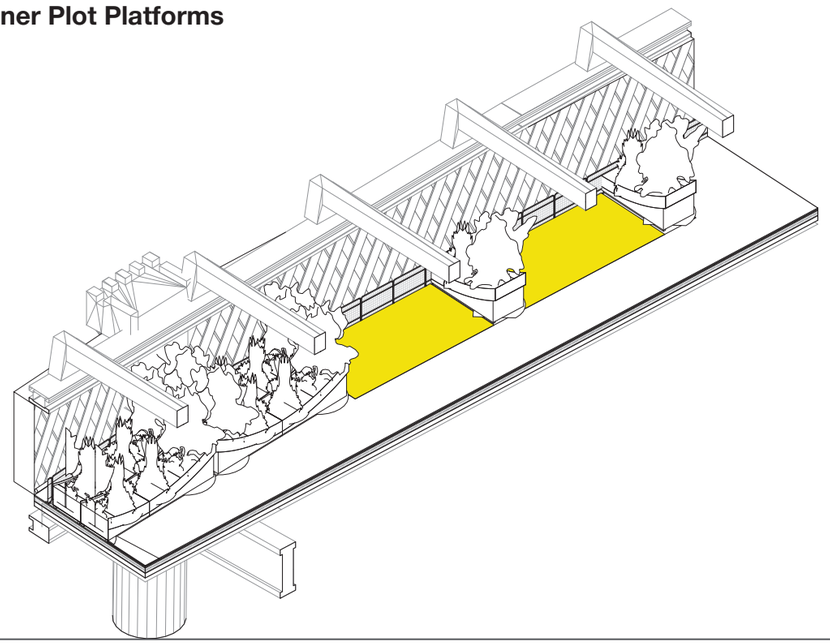


GEOCELL RETAINED GRAVEL



BALLAST

Partner Plot Platforms



Timber

- Part of original Viaduct track material palette (railway sleepers)



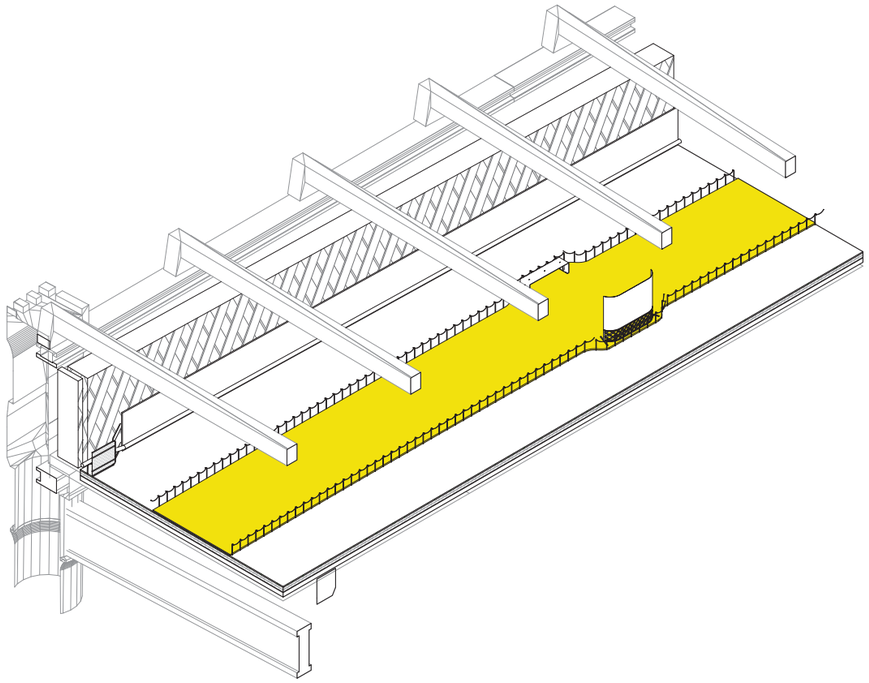
MILLBOARD DECKING - WEATHERED OAK



MILLBOARD DECKING - WEATHERED OAK GRAY

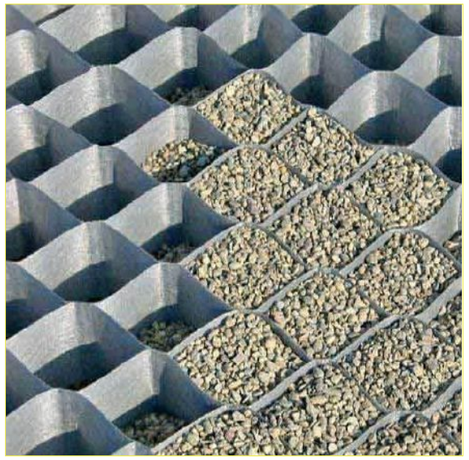
4 DESIGN AND MATERIALITY

Central Path Flooring



Geocell Retained Gravel with Ballast around the Edges

- Materials picked out from original Viaduct track material palette (gravel and ballast on train tracks)
- Ballast to provide natural transition strip between gravel and existing vegetation
- Non slippery, level, stable surface



GEOCELL RETAINED GRAVEL



BALLAST

STEEL GRATING

STEEL GRATING WITH WOODEN BORDERS

4 DESIGN AND MATERIALITY

Central Pathway

Edges of Footpath

We propose a ballast edging to the geocell retained gravel floor finish, to reference the ballast used within the railway tracks.

Floor Surface Inserts

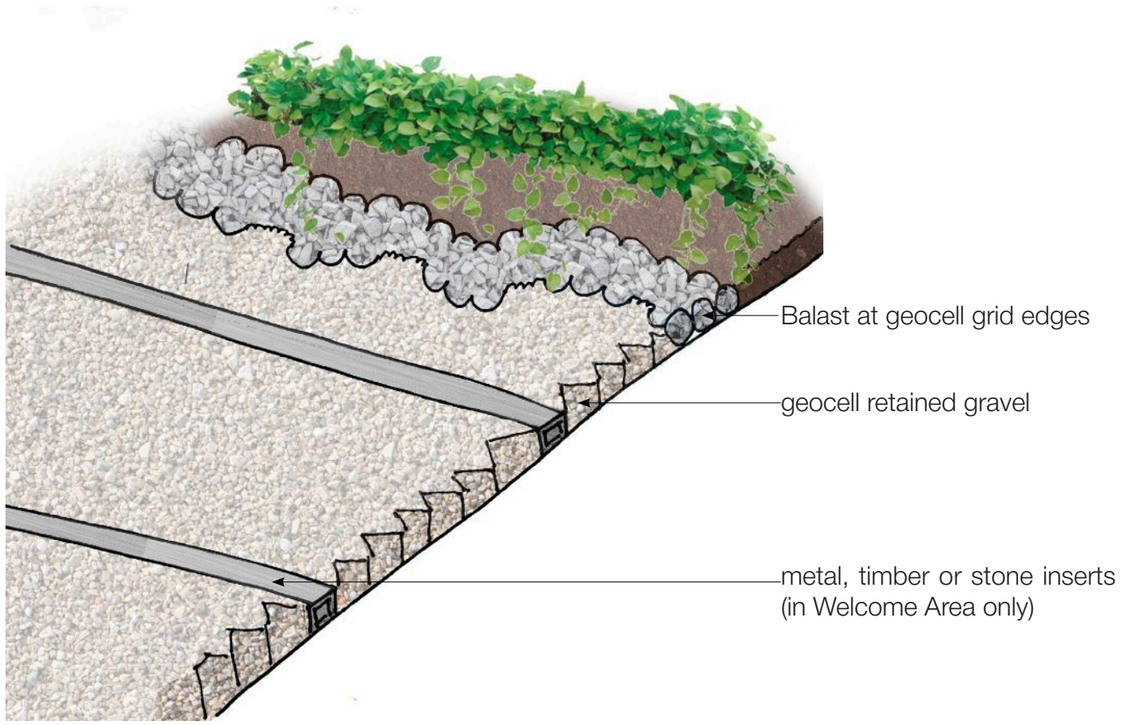
To trace the former railway tracks, we propose inserts within the geocell grid, in the form of metal sections, timber railway sleepers or stone tiles.

Please refer to the Structural Report for the design of the structural support underneath the path.









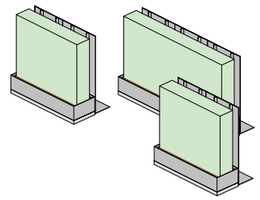
4 DESIGN AND MATERIALITY

‘Screen Gate’

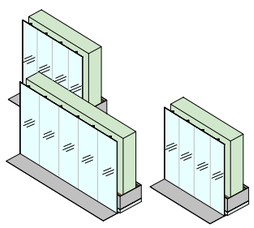
The vision for the ‘screen gate’ is that of a theatre curtain that lets visitors into the magic of the Viaduct.

The ‘gate’ consists of three fixed planters with mirrors to the ‘Viaduct as Existing’ side. The planters will have instant hedges to create the green screen.

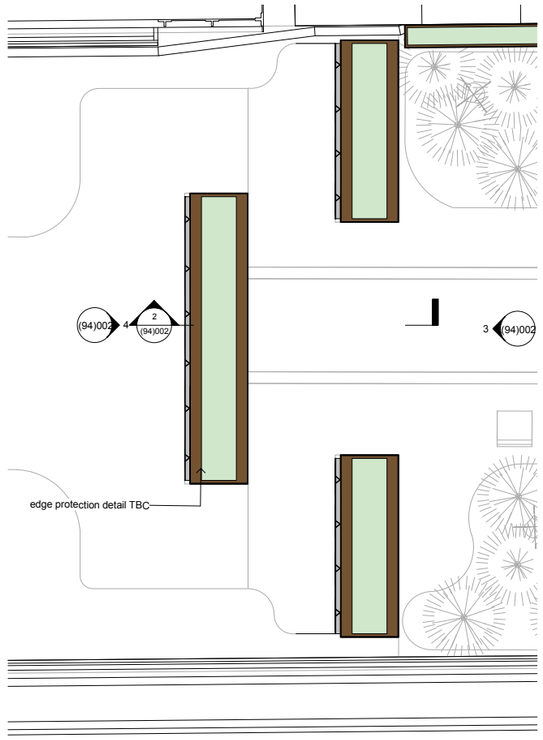
The proposed mirrored surface will include manifestation and edge protection.



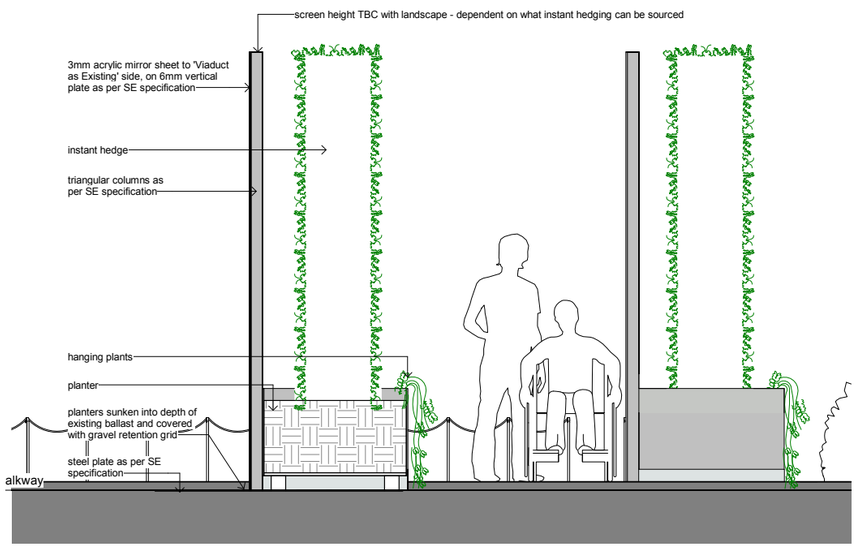
5 (94) 3D View - Front



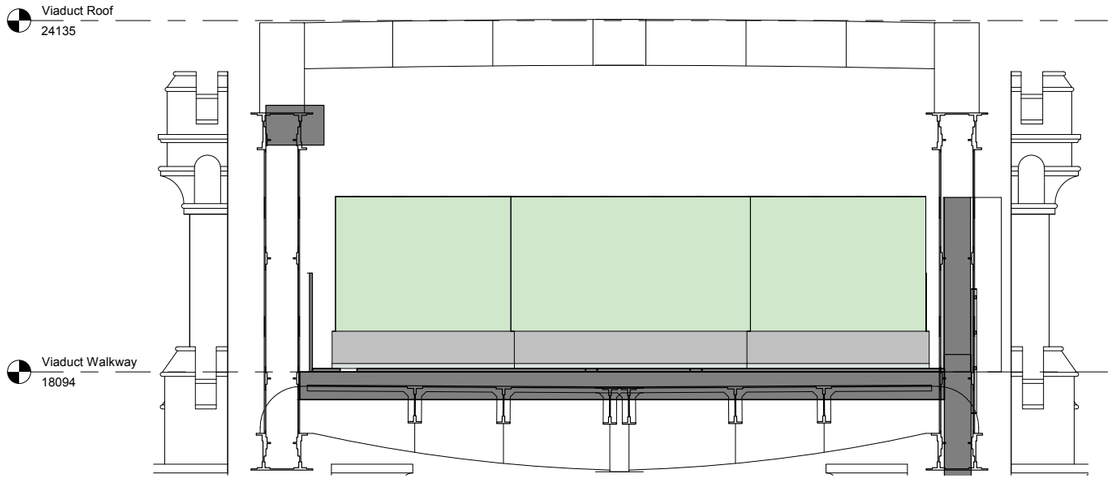
6 (94) 3D View - Back



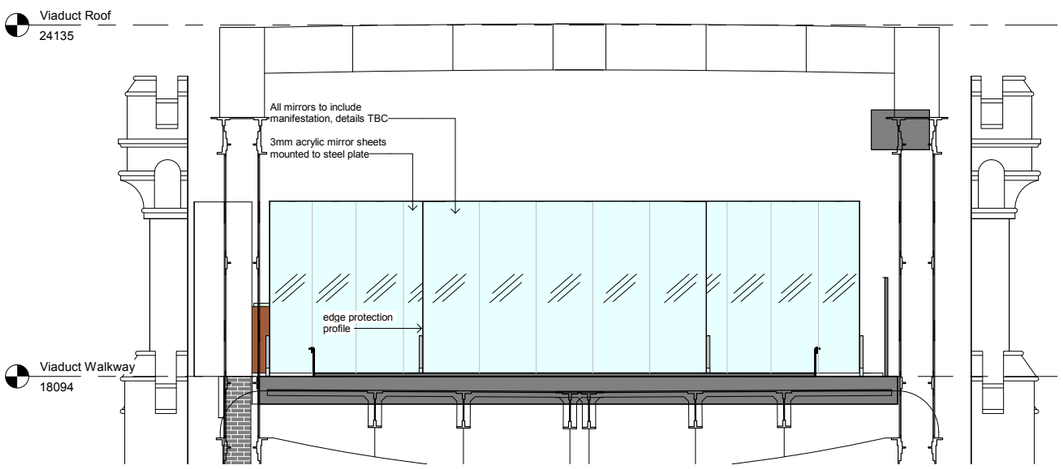
1 (94) Plan
1 : 50



2 (94) Section
1 : 20



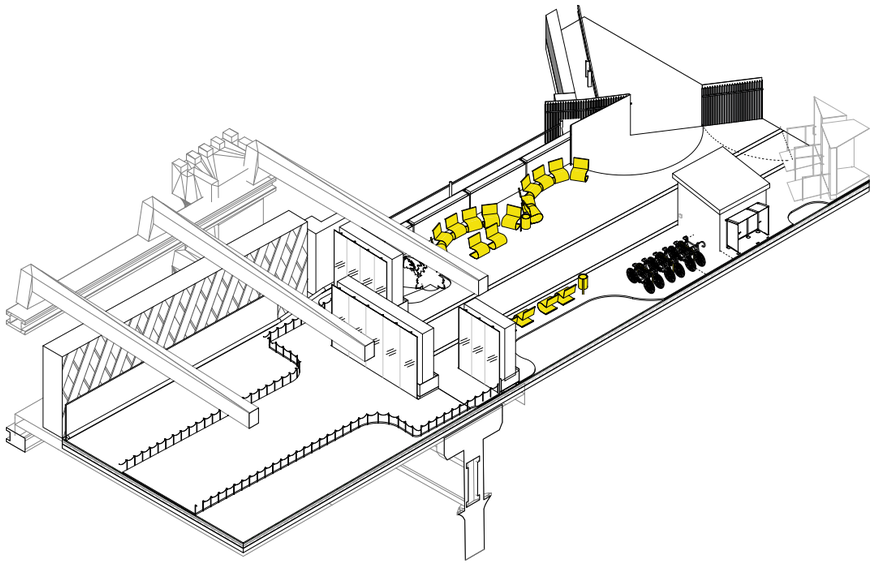
3 (94) East Elevation
1 : 50



4 (94) West Elevation
1 : 50

4 DESIGN AND MATERIALITY

Loose Furniture



Sealed Corten

- Unmistakably modern yet complementing the industrial character of the Viaduct
- Adds warmth and contrast to existing Viaduct steelwork
- References red brick in local material palette
- Corten sealed to prevent rust staining to clothes and surrounding substrate

Material:



ZINC-PLATED STEEL, CORTEN FINISH

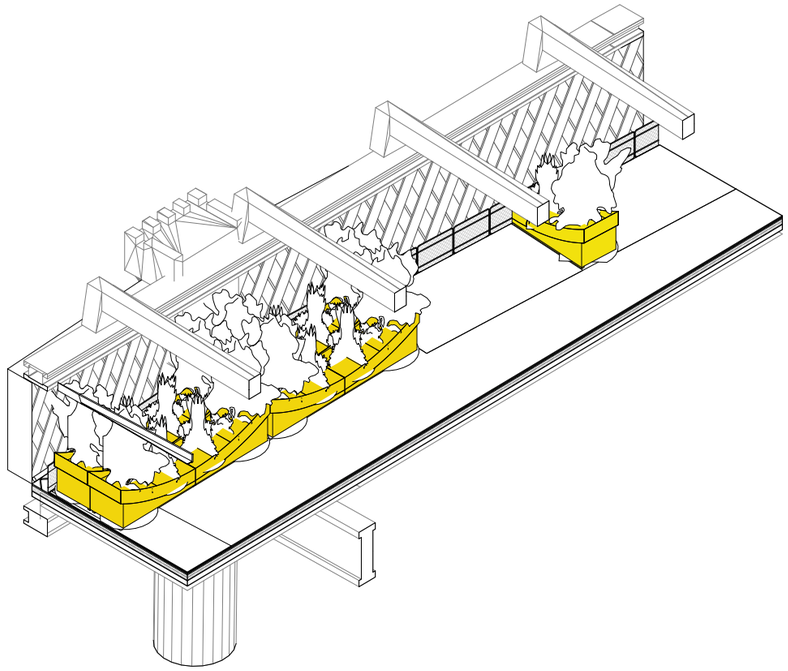
Precedent use:



ESCOFET FURNITURE

4 DESIGN AND MATERIALITY

Planters



Sealed Corten

- Unmistakably modern yet complementing the industrial character of the Viaduct
- Adds warmth and contrast to existing Viaduct steelwork
- References red brick in local material palette
- Corten can be treated - no rust

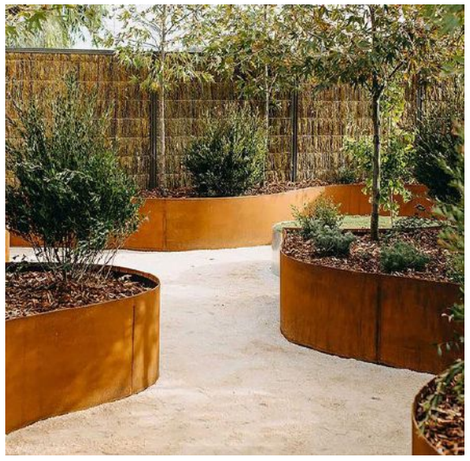
Material:



CORTEN STEEL

CAST IRON FORGE BLACK COATED

Precedent use:

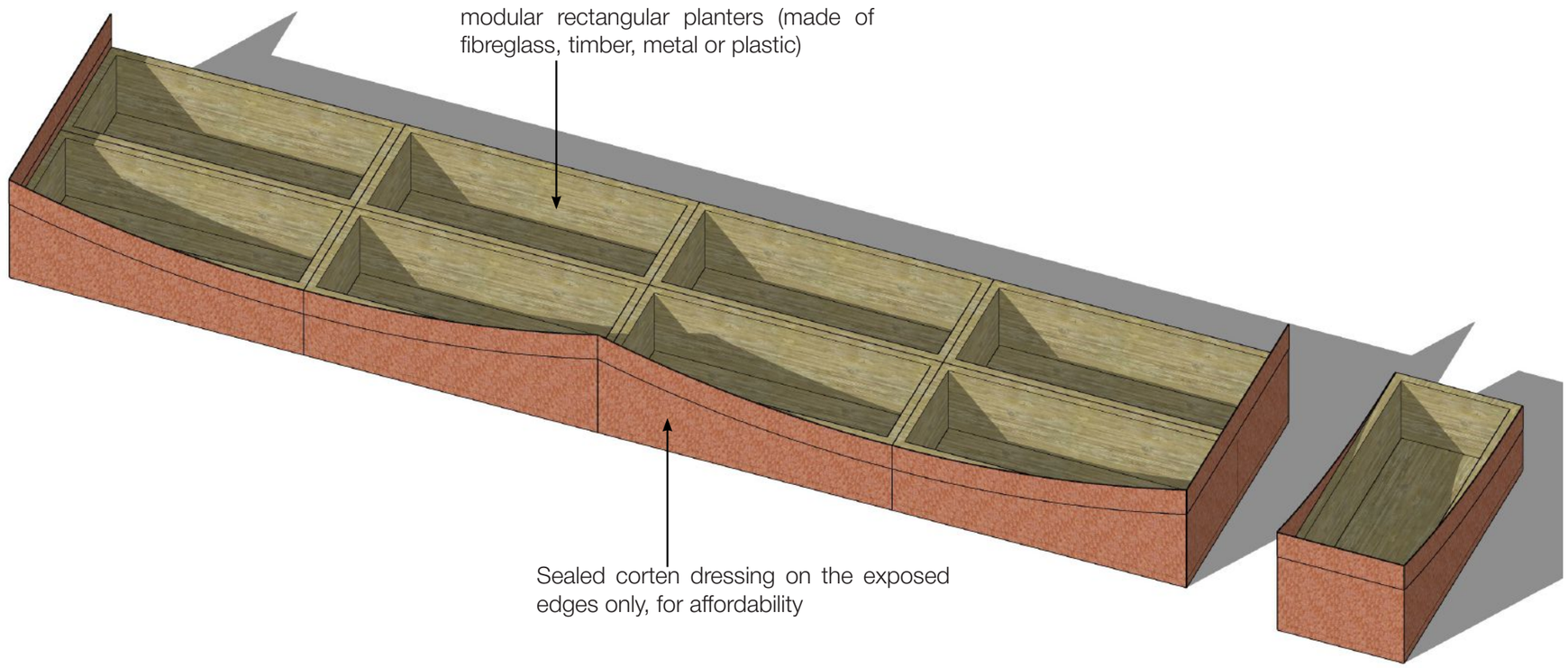


4 DESIGN AND MATERIALITY

Planter Design

Design Proposal:

- Modular rectangular planters (made of fibreglass, timber, metal or plastic)
- Sealed Corten dressing on the exposed edges only, for efficiency.
- Exposed top edges will be covered by the vegetation

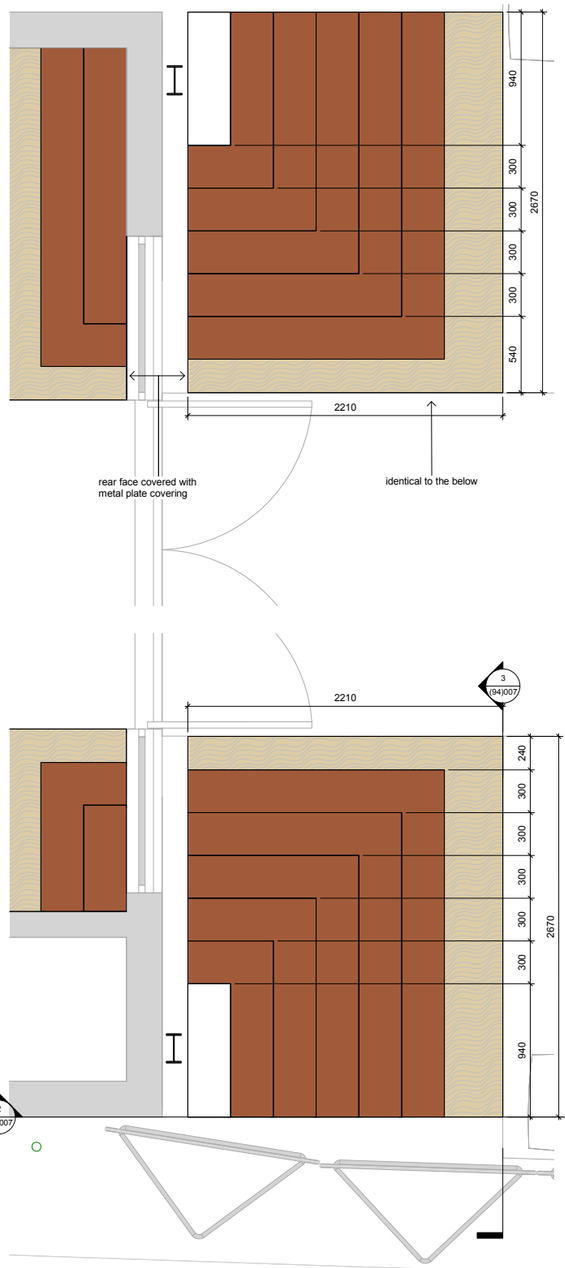


4 DESIGN AND MATERIALITY

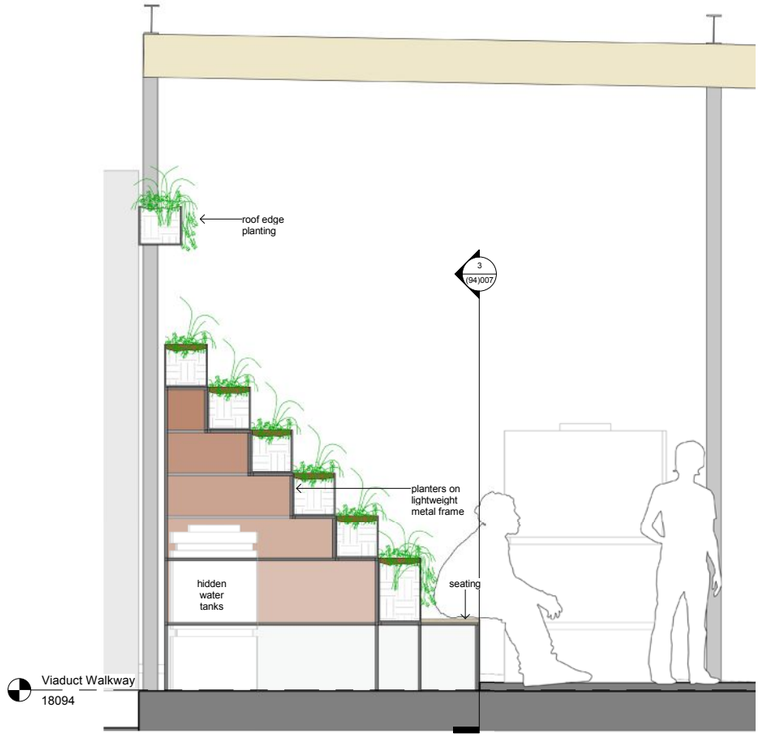
Green ‘Cladding’ to Events Space

We are proposing to cover the front facade of the event space with stepped planters that can create an effect of lush vegetation while using economical, shallow depth planting.

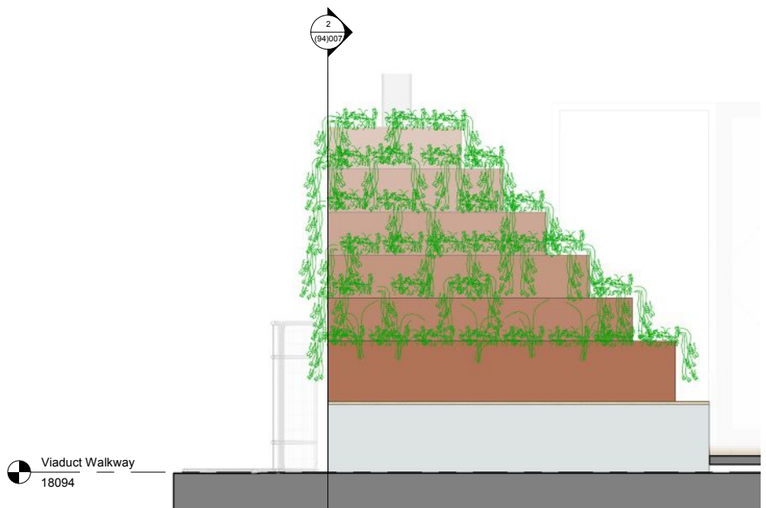
The planters are to incorporate a seating surface to increase rest spot options for visitors needing a rest.



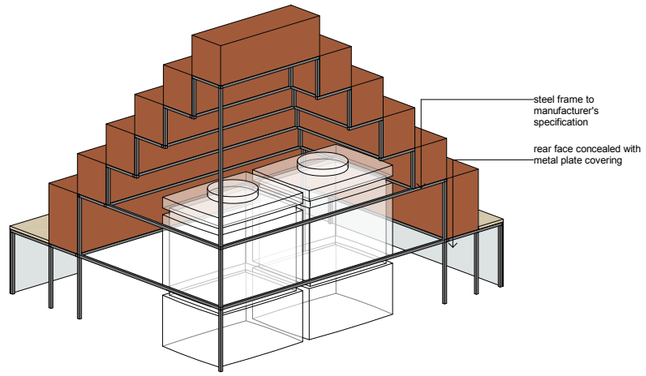
1 (21) LAN-01 External Cascade Planters Plan
1 : 20



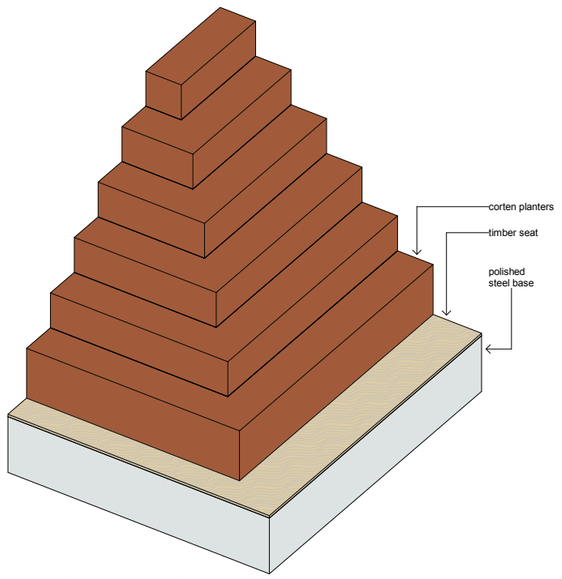
2 (21) Cascade Planter Short Section
1 : 20



3 (21) Cascade Planter Long Elevation
1 : 20



4 (21) Cascade Planters 3D View - Rear



5 (21) Cascade Planters 3D View - Front

4 DESIGN AND MATERIALITY

Guarding Design

The requirements for the guarding are as follows:

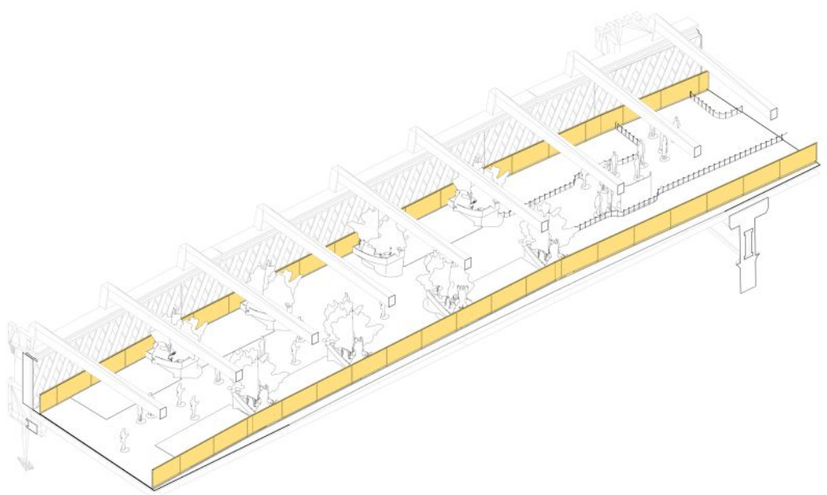
- Free standing, not connected to the existing Viaduct structure
- Able to resist the loads of visitors leaning over - advised by Structural Engineer to be Design Class 2, with Class B (Normal Duty) infill panels
- Removable at the end of the temporary pilot scheme

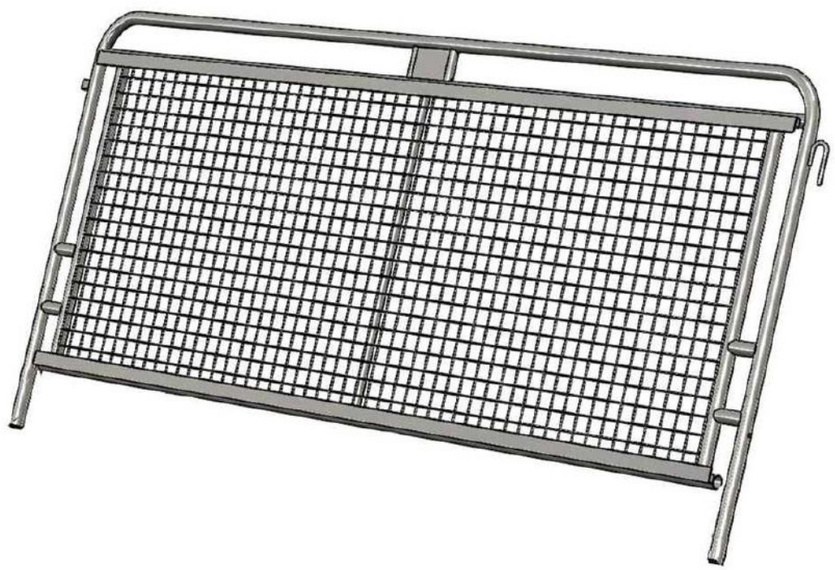
Given these restrictions and the current market shortages, several options are still being investigated.

The images opposite show the proposed potential products.





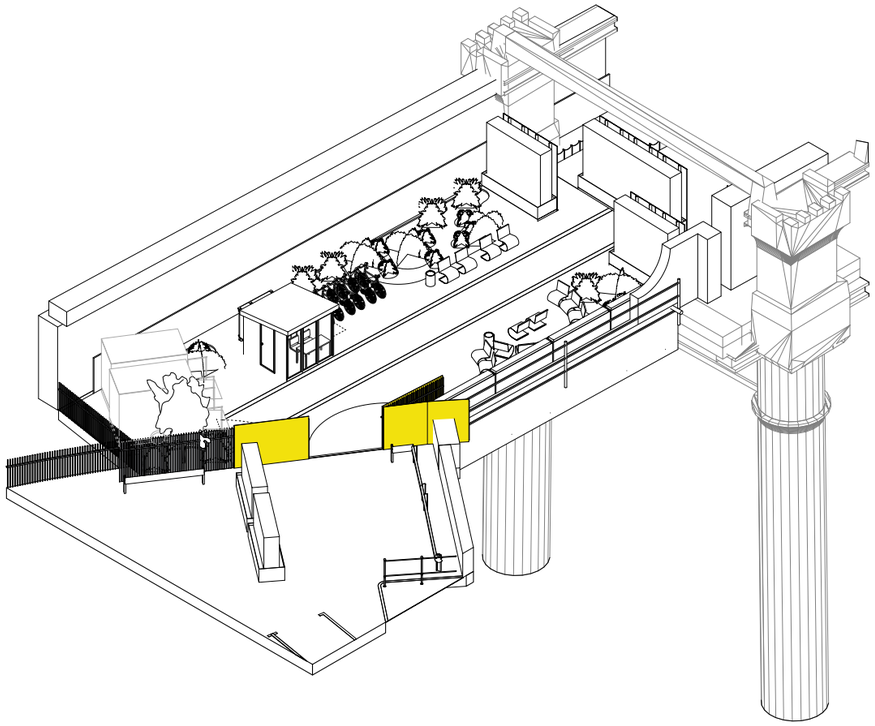






4 DESIGN RESPONSE

Fence Dressing



Option 1:
Community Installation

- One option is to involve the community in the decoration of the entrance screen wall with an installation such as yarn bombing.



COMMUNITY INSTALLATION



COMMUNITY INSTALLATION

Option 2:
Entrance Screen Wall

- Lightweight screen fixed to the existing gate and fence, with full vinyl cover, decorated with graphics about the project.



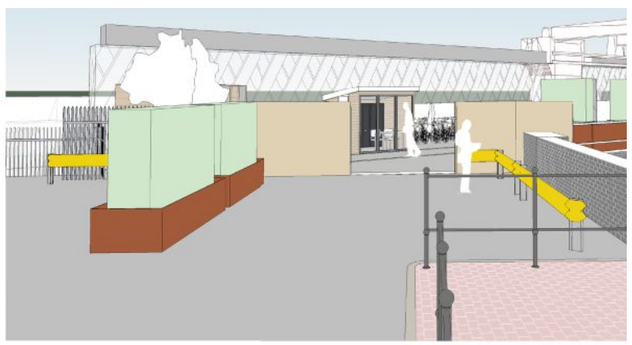
ENTRANCE SCREEN WALL



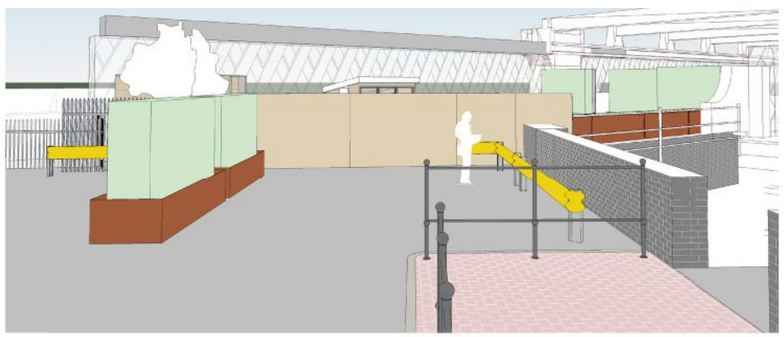
ENTRANCE SCREEN WALL



3 **(34) Hoarding Fixed to Fence Elevation (Gate Closed)**
1 : 50



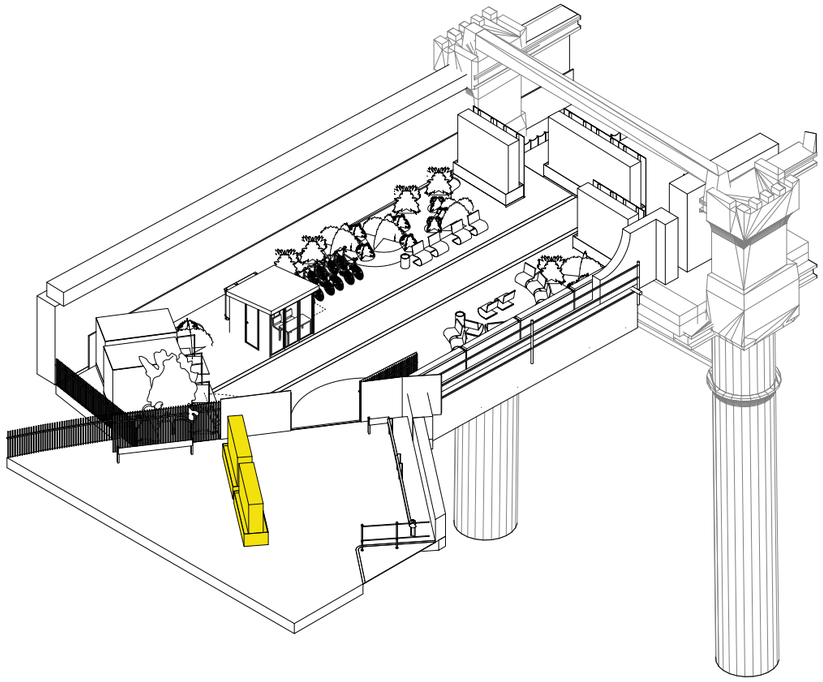
4 **(34) 3D View - Gate Open**



5 **(34) 3D View - Gate Closed**

4 DESIGN RESPONSE

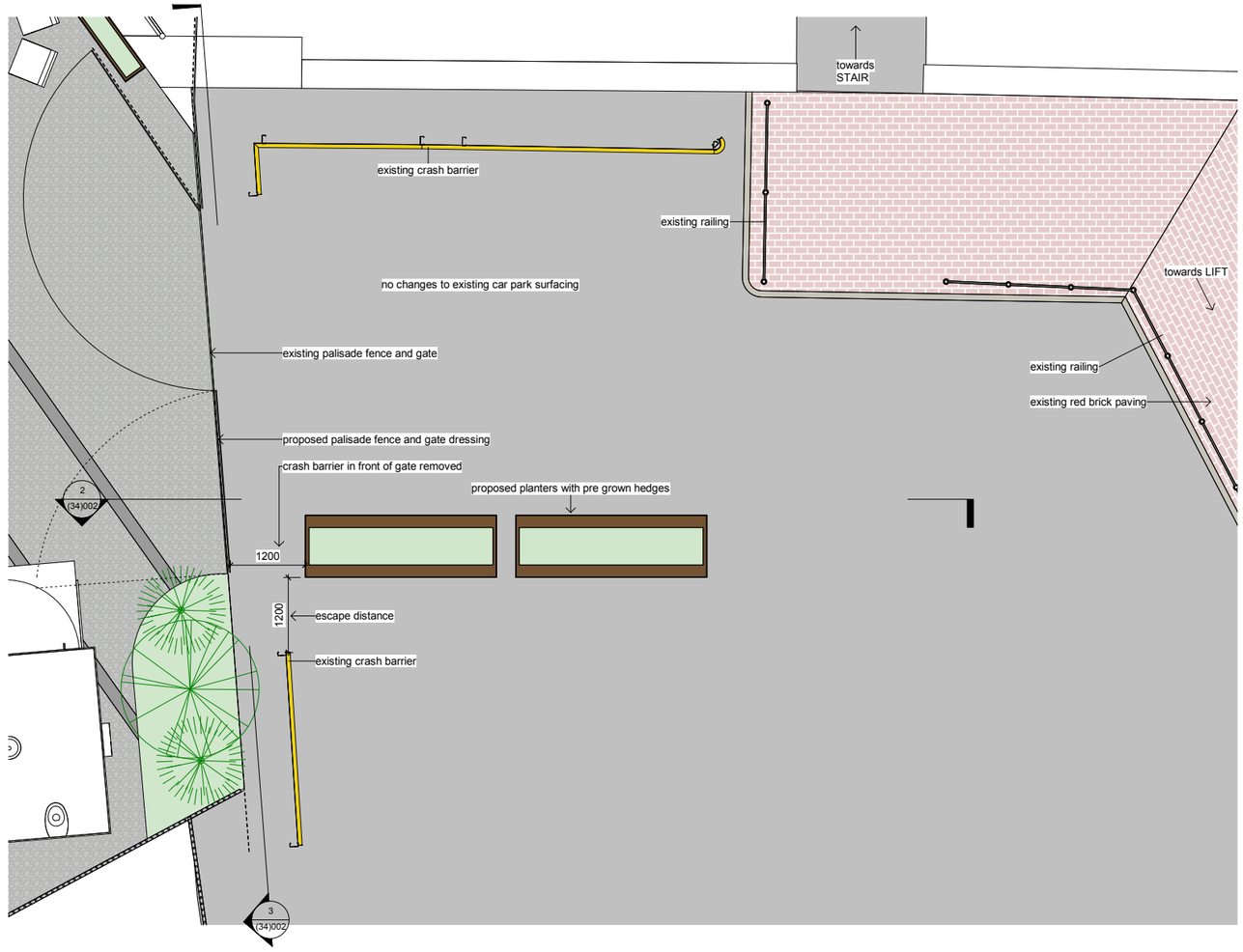
Entrance Screening



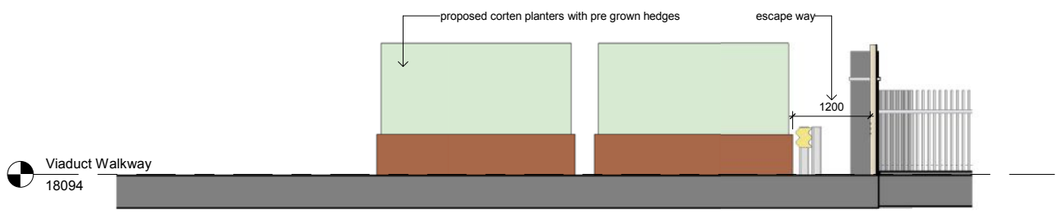
The car park will continue to be used as a logistics yard for Manchester Central and the need for the proposed new entrance screening comes from needing to create a visual separation to ensure a safe and pleasant visitor experience.

For maximum visibility into the screened off zone and to allow for safe escape from it, we propose a series of planters with pre-grown hedges reaching a total height of ~2m. The planters are to have gaps between them to allow for inter visibility, and the planter closest to the entrance fence is to be offset to allow for a 1200mm escape distance and prevent its use for climbing.

As requested by the council, the series of planters has been reduced to two.



1 (34) Car Park Entrance Plan
1 : 50

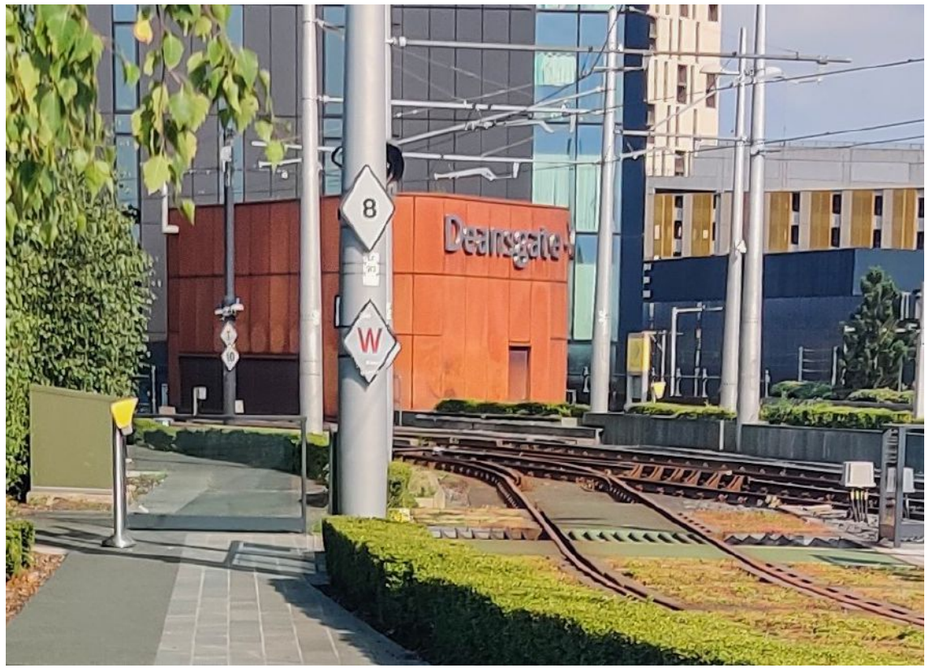


2 (34) Freestanding Hoarding Elevation
1 : 50

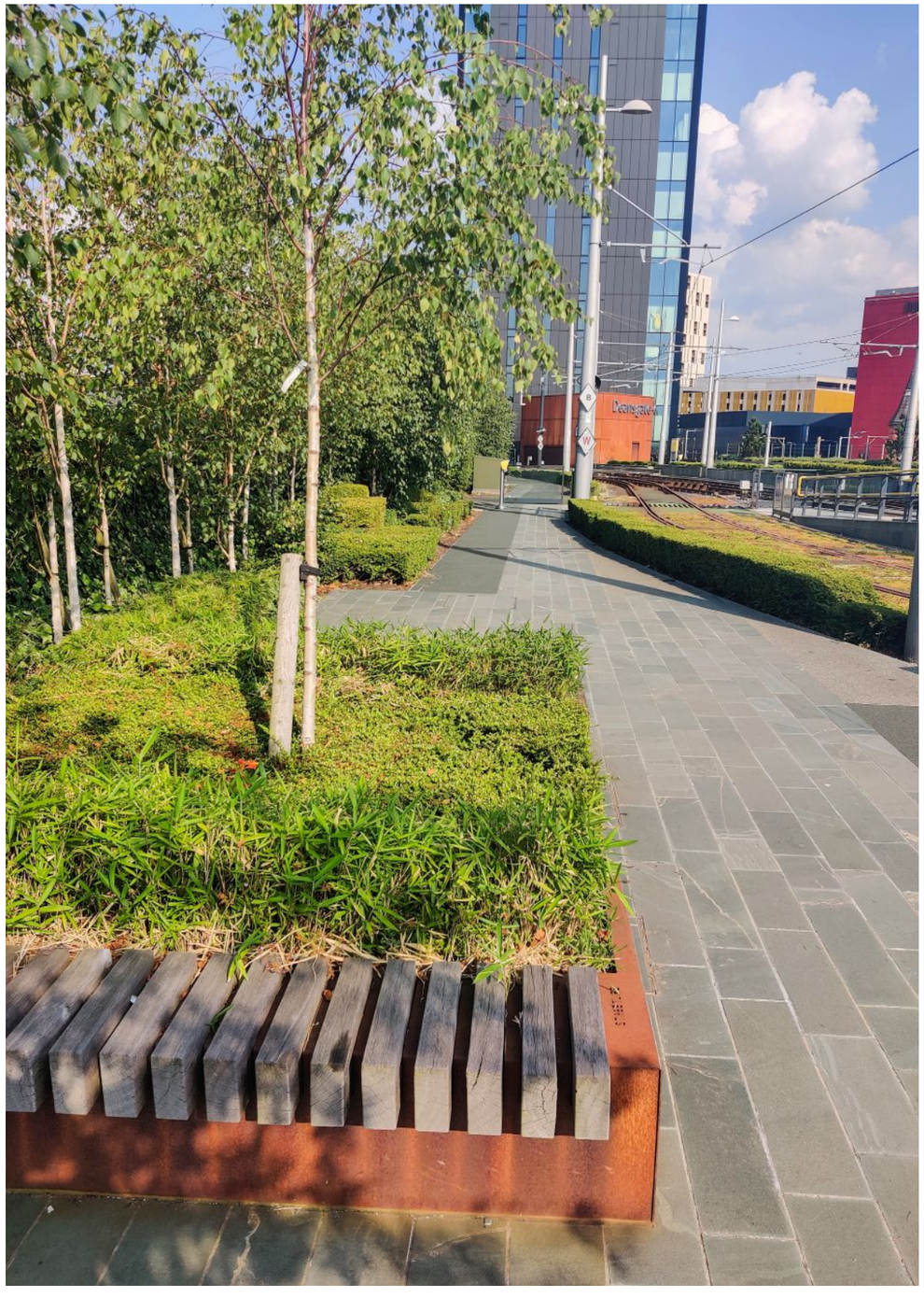
4 MATERIALITY

A Look at Local Use of Corten

The following recent photos taken at Deansgate tram stop show the successful use of corten steel within the context of Castlefield.







4 PROPOSED MATERIAL PALETTE

Final Preferred Materials

Material selection:

- Timber plank cladding for the central building
- Hedges are being considered to welcome visitors into ‘The Viaduct as Existing’ as well as to conceal the prefab central hub.
- Sealed Corten loose furniture and planters will reference the industrial character of the Viaduct as well as the red brick in the local material palette, and provide some warmth to the scheme, in contract to the cold colours of the existing Viaduct.
- A geo-cell gravel path will run through from the existing Viaduct area to the central building, bordered by ballast. The welcome space flooring to be of the same material, with ballast surrounding the planted areas.
- Timber decking - Weathered oak variations were chosen specifically to reference railway sleepers and provide a stable surface for the partner plots.

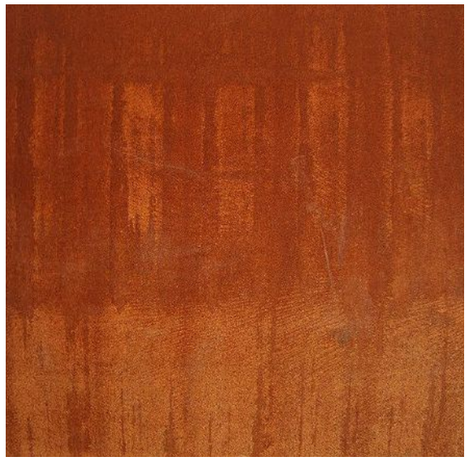
Timber Plank Cladding for Central Building



Screen Hedges



Sealed Corten for loose furniture and planters



Geo-cell retained Gravel for Entrance and Central Path



Ballast for gravel edging



Timber for Partner Plots



5.0 LANDSCAPE

5 LANDSCAPING

Planting Strategy

Plant species:
The planting concept for the 'Trial' area is to monitor and understand how different plant species acclimatise to their surroundings on the Viaduct. A selection of peat free sourced Trees, Shrubs, Annuals, Perennials, Sedges, Bulbs, Wildflower mixes and Herbaceous species have been chosen that we believe will thrive within the Viaduct context. The narrative behind the selection of these species is also important to understand as it is based on the growth habit seen within coloniser species, some of which are garden forms of native species.

The aim is not to create a manicured show garden, but a planting scheme that feels natural within its urban context. The scheme will showcase plants that reflect the habits and forms of coloniser species, that require minimal irrigation and maintenance input, but have striking seasonal change. The plant selection at the 'Trial' stage will allow us the opportunity of further study to help determine the plant selection for the final scheme. The National Trust will be working with various partners within the 'partner plots' and will share our rationale and experience of peat free plant sourcing and growing with community groups and partners.

Planting method:
- Planters will be brought to site and positioned by the main contractor.
- Planters will be filled with peat free medium from grab bags via fork lift by the main contractor.
- Once the planting medium has settled planters will be topped up by hand.
- Planting will be brought to site from the National Trust Plant Conservation Centre, with appropriate Plant Passport requirements, via truck to the main site entrance.
- Planting will be brought to each respective container for planting.
- Planting will be undertaken by National Trust Garden Staff & Apprentices, National Trust Volunteers and Community group partners.

Maintenance Strategy:
- A National Trust gardener will be employed for 2 days per week coordinating and maintaining planting generally. The role will also include managing the volunteer workforce and assessing maintenance requirements and plant success rates to inform planting within phase 2.
- Re-mulch all planters at the end of Year 1 to a depth of 75mm.
- Replace/straighten any defective guards/stakes/Ties and remove when they begin to constrict the plant growth.
- Failed plants gapping-up to take place monthly.
- Re-firm all plant material where necessary monthly.
- Application of slow-release fertiliser to be carried out in May.
- Re-firm roots in soil to ensure plants are secure during periods of high wind.
- Remove litter weekly.
- Prune and remove dead/dying plant growth weekly and remove from site.



5 LANDSCAPING

Initial Planting Ideas

Shrub Palette


Amelanchier laevis


Cornus sanguinea 'Midwinter Fire'


Lavandula angustifolia 'Munstead



Buddleja alternifolia


Buddleja globosa


Mahonia Bealei


Ceanothus 'Skylark'


Buddleja Davidii "Silver Anniversary" ("Morning Mist


Sambucus nigra ' Black Lace'


Pinus mugo


Cotinus Coggygria 'Royal Purple'


Rhus typhina


Phlomis russeliana


Phormium Tenax 'Purpureum'


Parahebe avalanche


Brachyglottis compacta 'sunshine'


Rosa moyesii


Rosa glauca


Rosa Lancashire


ficus carica

5 LANDSCAPING

Shrub Palette



Genista lydia



Cytisus Scoparius 'Lena'



rhododendron casablanca

5 LANDSCAPING

Herbaceous Perennials Palette


Perovskia 'Little Spire'


Potentilla Sterilis


Helleborus foetidus


Eryngium 'Neptune's Gold


Rudbeckia fulgida var. sullivantii 'Goldsturm'


Stachys byzantina 'Silver Carpet'


Stachys officinalis


Verbena bonariensis


Ajuga reptans


Helenium 'Sahin's Early Flowerer'


Eremurus spectabilis


Persicaria amplexicaulis 'Firetail


Verbena bonariensis


Centaurea cyanus 'Black Ball'


Eupatorium cannabinum


Foeniculum giant bronze


Thalictrum delavayi


Thalictrum aquilegifolium


Geranium maculatum


Euphorbia 'Fireglow'

5 LANDSCAPING

Herbaceous Perennials Palette


Anemone blanda


Anemone blanda 'White Splendour'


Lunaria rediviva


Sanguisorba Officinalis 'Tanna'


Perovskia 'Little Spire'


Rhodanthemum zagora orange


Sisyrinchium angustifolium


Salvia nemorosa 'May Night'


Salvia officinalis


Helleborus foetidus


Heuchera 'Plum Pudding'


Amsonia hubrichtii


Achillea 'Terracotta


Heuchera 'Tokyo'


Sedum spectabile


Heuchera 'Tokyo'


Sisyrinchium striatum


Aruncus aethusifolius


Eupatorium coelestinum 'Blue Hardy Ageratum'

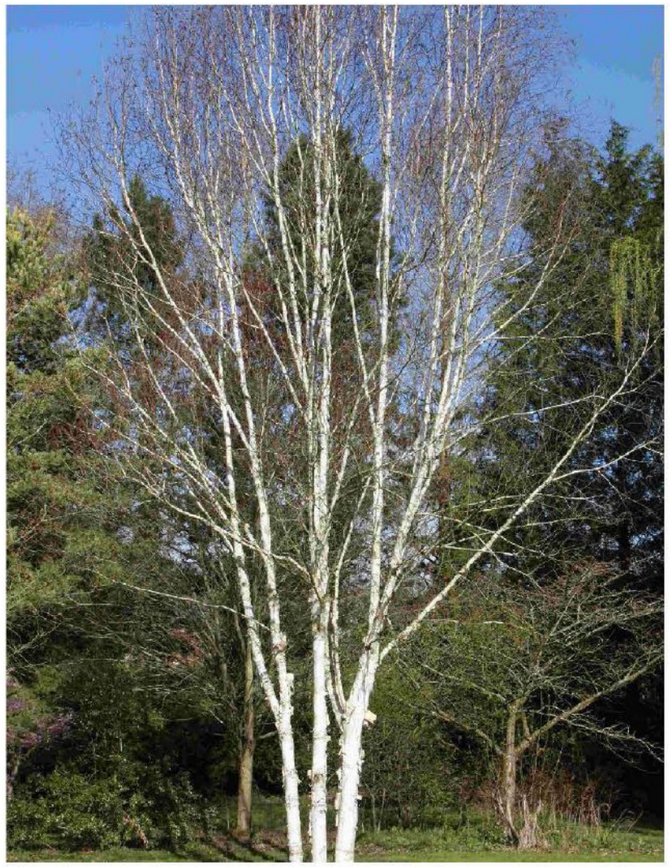

Foeniculum vulgare

5 LANDSCAPING

Trees & Climbers Palette



Betula utilis jacquemontii 'Snow Queen'



Sorbus aucuparia Tree



Pinus nigra



Magnolia stellata



Lonicera x tellmanniana



Clematis 'Polish Spirit'



Lonicera sempervirens 'Major Wheeler'

5 LANDSCAPING

Grass / Ferns Palette


Sesleria autumnalis


Cornus sanguinea 'Midwinter Fire' Sporobolus


Miscanthus sinensis Variegatus


Miscanthus Zebrinus


Stipa tenuissima 'pony tails'


Asplenium scolopendrium


Athyrium niponicum


Deschampsia cespitosa 'Goldtau'


Ophiopogan planiscarpus 'Nigrescens'


Eriophorum angustifolium


Calamagrostis brachytricha


Festuca glauca 'Beyond Blue'


Pennisetum xadvena Rubrum


Pennisetum Hameln


Pennisetum 'Blackjack'


Dryopteris erythrosora


Dryopteris wallichiana


Polystichum setiferum Proliferum


Anemanthele lessoniana


Molinia caerulea subsp. caerulea 'Variegata

5 LANDSCAPING

Bulbs Palette



Ilium caeruleum



Allium stipitatum Mount Everest



Allium Red Mohican



ucomis 'Sparkling Burgundy'



Eucomis autumnalis



Lilium Asiatic



eucojum Gravetye Giant



Allium cristophii



Iris sibirica Tropic Night



qapanthus africanus 'Twister'



Lilium Asiflorum vellow



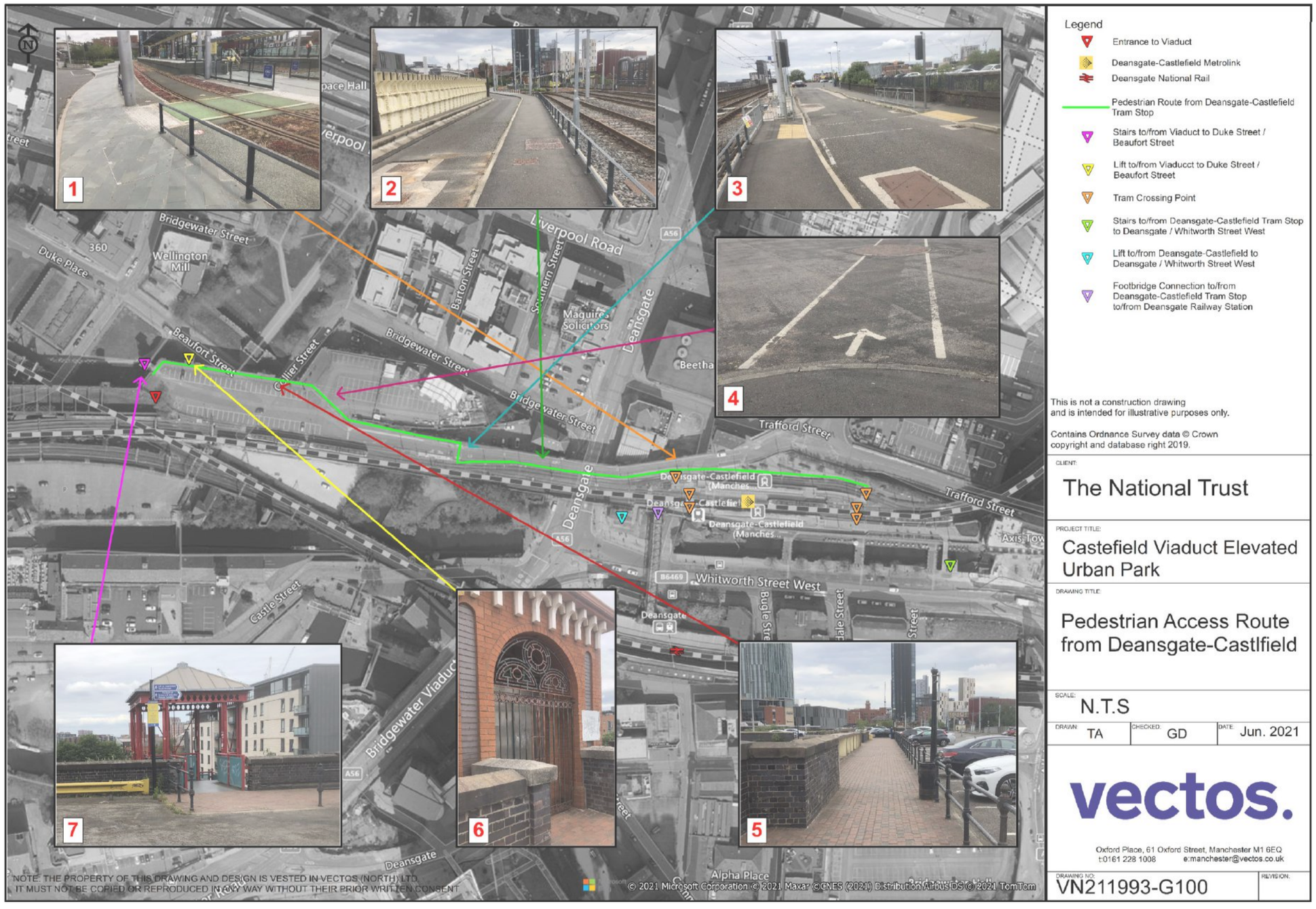
Lilium leichtlinii

6.0 SERVICES AND STRATEGIES

6 ACCESS

Pedestrian Access

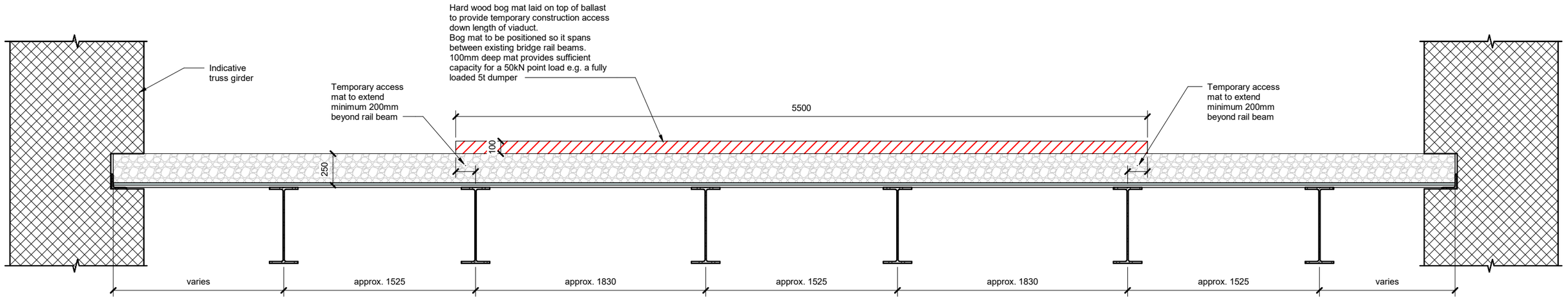
This diagram shows the pedestrian access route from Deansgate - Castlefield tram stop.



6 STRUCTURAL SUPPORT INTERVENTIONS

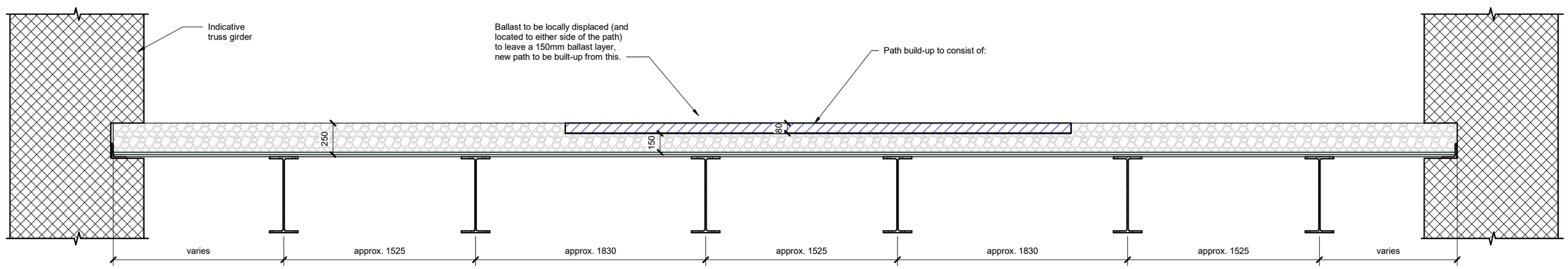
Structural Support for Central Path

Please refer to structural report for details



Temporary Path indicative detail (Contractor Design)

Scale 1 : 20



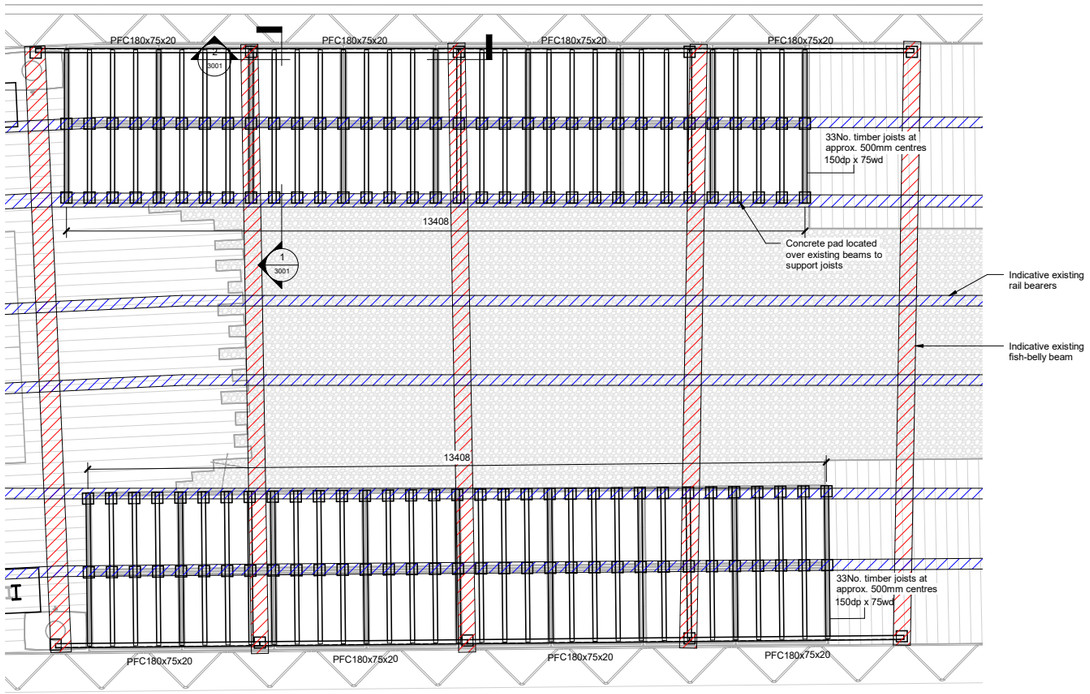
Semi-Permanent Path

Scale 1 : 20

6 STRUCTURAL SUPPORT INTERVENTIONS

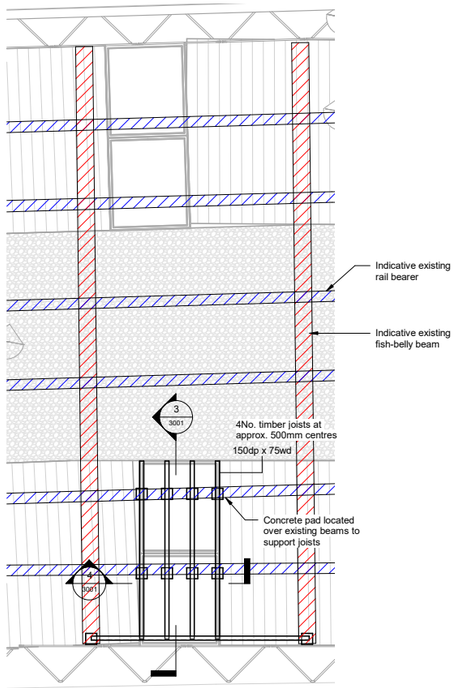
Structural Support for Planters and Central Building

Please refer to structural report for details



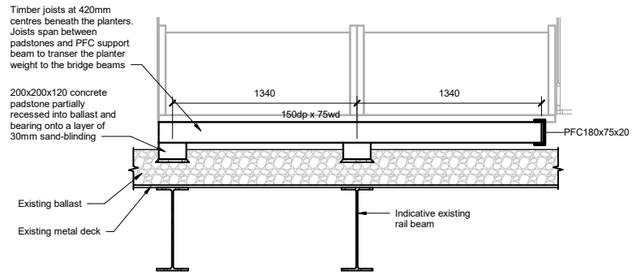
Large Planter

Scale 1 : 50



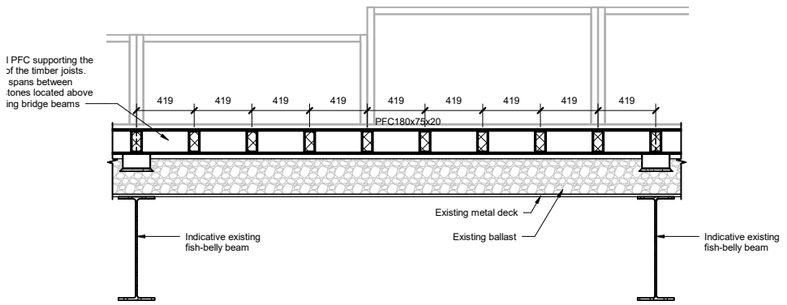
Small Planter

Scale 1 : 50



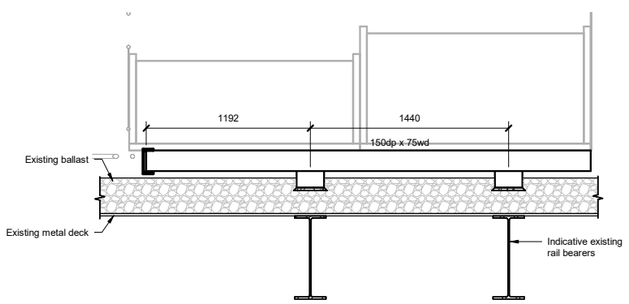
1 Large Planter Section 1

1 : 20



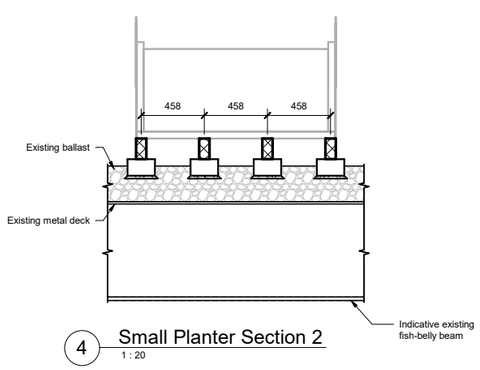
2 Large Planter Section 2

1 : 20



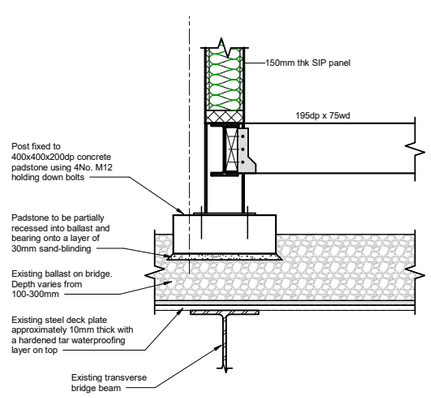
3 Small Planter Section 1

1 : 20



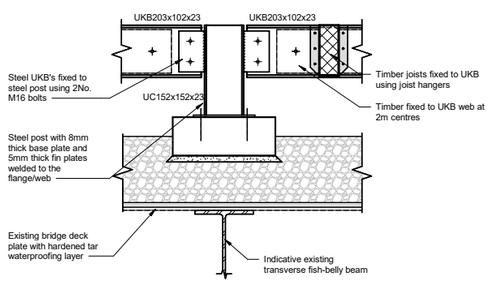
4 Small Planter Section 2

1 : 20



1 Floor Joist Edge Support

1 : 10



2 Internal Floor Joist Support

1 : 10

6 SECURITY STRATEGY

Secure by Design Strategy

Safety and security have been key driving factors for the design of the pilot scheme. Specific security measures have been introduced within each proramme zone.

The entrance will be via the existing, secure, lockable gate.

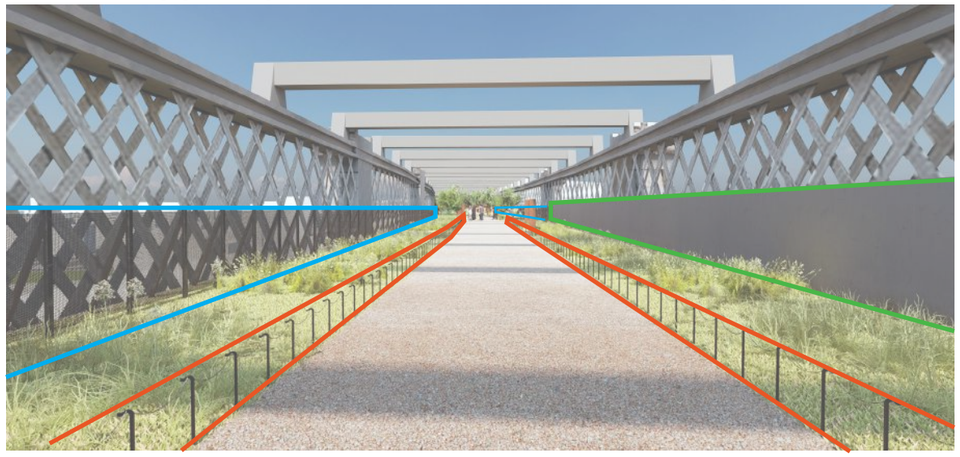
The welcome kiosk and the events building are both designed to be locked after hours.

To prevent contact with the potentially contaminated paint on the existing parapet structure, as well as to safeguard against falls from height, there will be guarding along the entire length of the visitor experience.

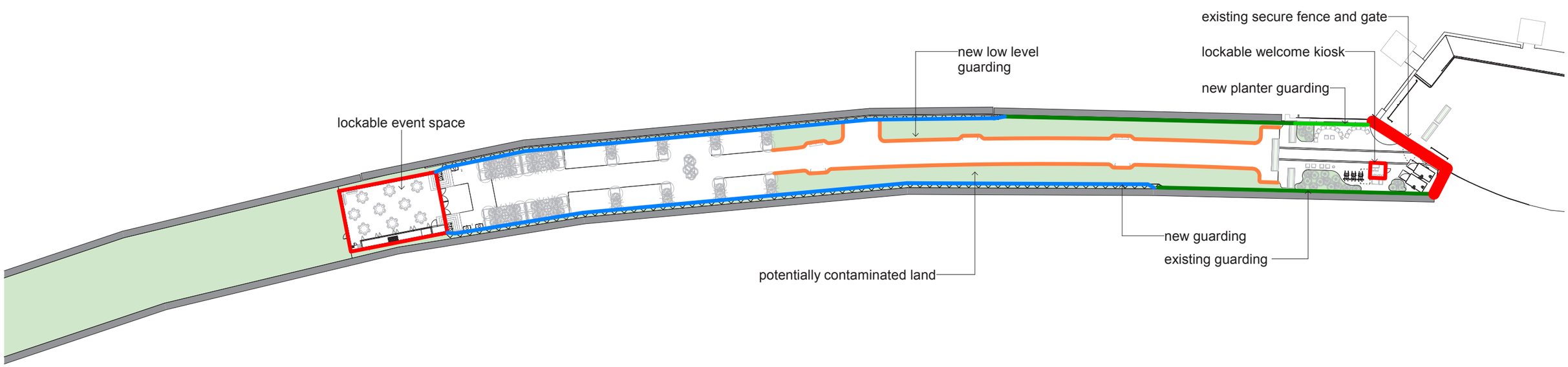
The existing parapet guarding at the East end will be retained, and new, free standing crowd control barriers will be introduced along the rest of the experience.

A low level fence is also proposed between the edges of the central path and the existing Viaduct vegetation, to protect the public from the potentially contaminated land.

Visual showing guarding measures within the 'Viaduct as Existing' zone



- Existing guarding
- High level guarding
- Low level guarding



6 SERVICES AND STRATEGIES

Waste Management Strategy

General

The design and operation of the pilot scheme has been designed with sustainability in mind. 80% of materials will be demountable and reused, either in the Phase Two scheme or elsewhere in the National Trust. Materials will be sourced to meet National Trust criteria for responsible procurement and commissioned as accurately as possible to avoid wastage.

Construction

There will be very little construction on site and as much of the build as possible will be preassembled, to improve accuracy and efficiency of operations. What is surplus to requirement on site will be recycled wherever possible as detailed in the construction management plan.

Sanitary waste

The toilets are to be supplied by Kazuba, a dry toilet system that works by separating the liquid from the solid waste. Using the sun and wind, it evaporates the liquids and dehydrates the solids. This results in a heavily reduced waste volume that means the toilets only need servicing twice a year. This can be done by hand, or by pumping.

Landscape/ planting

Garden waste in Phase One will be minimal and where possible we will compost and reuse on site. Any green waste we cannot use on site will be collected in a garden waste bin and taken off site via a service contract from the front entrance.

Operational

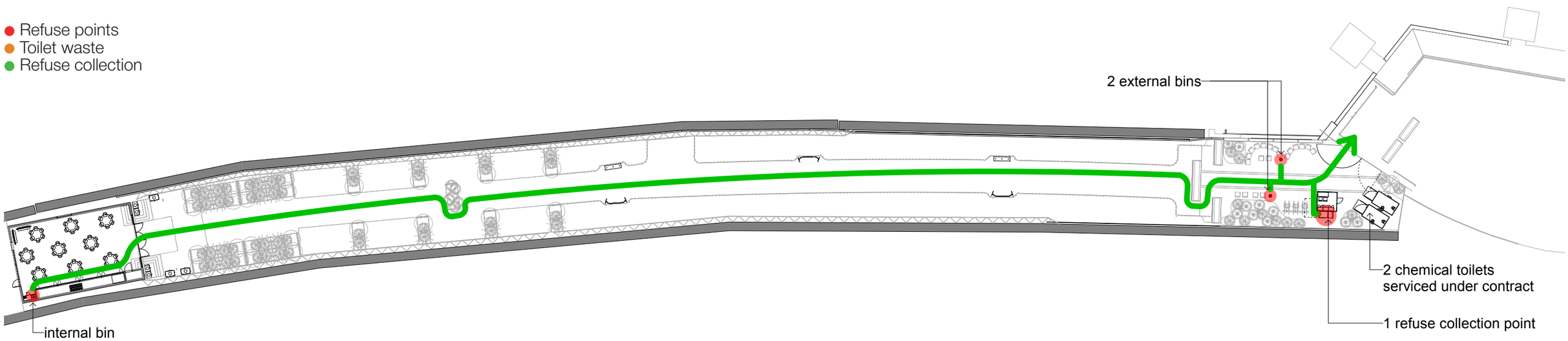
Sustainable waste management is integral at all of our National Trust sites and recyclable materials are used wherever possible. There will be very few public consumables available on site without a permanent Food & Beverage or retail offer, and our ticketing, feedback and surveys will all prioritise digital options to minimise use of paper and printing. Where the public may have waste materials brought onto site, such as coffee cups or plastic food waste, we will offer small-scale public recycling bins and litter bins.

Refuse storage on site

Placement and distribution of the refuse points have been closely considered based on the programme for each zone. Two mixed recycling / refuse bins are proposed in the welcome area, and one recycling / refuse bin proposed in the events space.

A member of staff is to collect the recycling and refuse waste from all bins at the end of each day into the collection point behind the welcome kiosk.

Sealed overflow bins can be located in the storage area of the Events space if required and taken off site via our waste collection providers.



6 SERVICES AND STRATEGIES

Ecological Strategy

Daylighting
The entire scheme will make full use of daylight, with all external spaces remaining uncovered, and the enclosed spaces (events building and welcome kiosk) having sufficient glazing.

Inclusive Design
The scheme will be fully accessible to visitors of all physical abilities.

Energy
- Toilets will be compostible, based on solar and air power.
- Minimal use of electricity proposed otherwise, in events space.
- Artificial lighting kept to a minimum, to reduce energy use as well as to not disturb wildlife.
- Electricity will be provided on site to the main central event space.
- Lighting strategy as outlined is a combination of fixed lighting and handheld apparatus for visitors as per Arup approach.

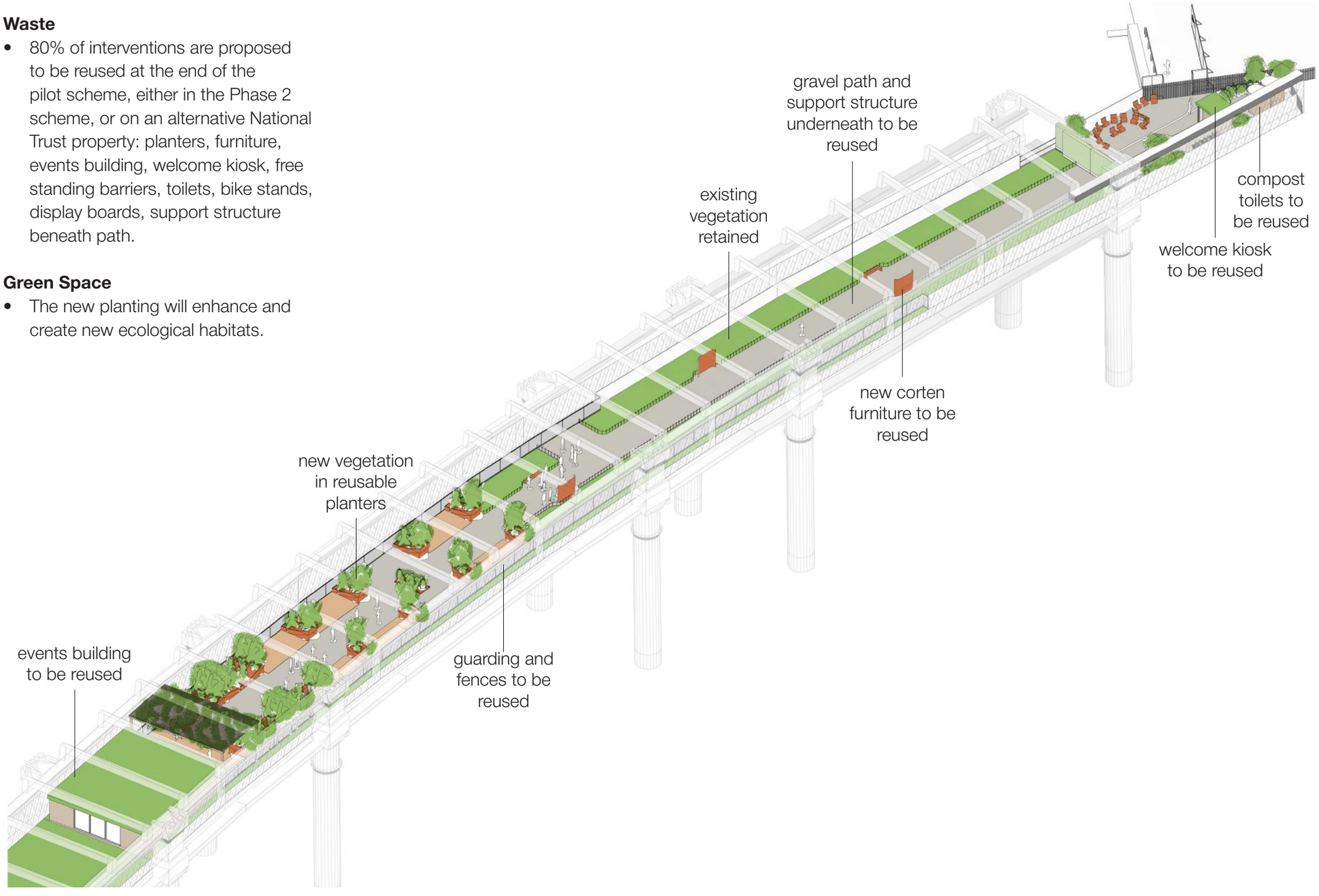
Cycle Storage
Sheffield stands provided for 6 bikes.

Water Use
Water will be provided to the east end of the site - bausers will be used.
- No foul water connection planned.
- Rainwater collection will be a core part of the irrigation strategy on site.

Materials
All proposed materials are either renewable or to be reused (gravel for the central path, timber for the entrance flooring and platforms, timber for the planters' structure).

Waste
- 80% of interventions are proposed to be reused at the end of the pilot scheme, either in the Phase 2 scheme, or on an alternative National Trust property: planters, furniture, events building, welcome kiosk, free standing barriers, toilets, bike stands, display boards, support structure beneath path.

Green Space
- The new planting will enhance and create new ecological habitats.



7.0 PUBLIC CONSULTATION

7 PUBLIC CONSULTATION

Public consultations - Online consultations

Virtual public consultations were held on:

30th of June, 1-2pm
1st of July, 6-7pm
6th of July, 7-8pm

A drop-in event was also held on the 22nd of July at 12-3pm at the Science and Industry Museum in Manchester.

Public Consultation Video: National Trust Website



A public survey has been active on the National Trust's website to invite people to leave feedback and suggestions.

Response overview:

- 319 questionnaire respondents
- Would you support this project- 99.68% Yes, 0.31% No
- Would you visit this scheme- 100% Yes, 0% No
- How would this proposal impact your day to day life- 87.15% Positive Impact, 12.85% No Impact, 0% Negative Impact

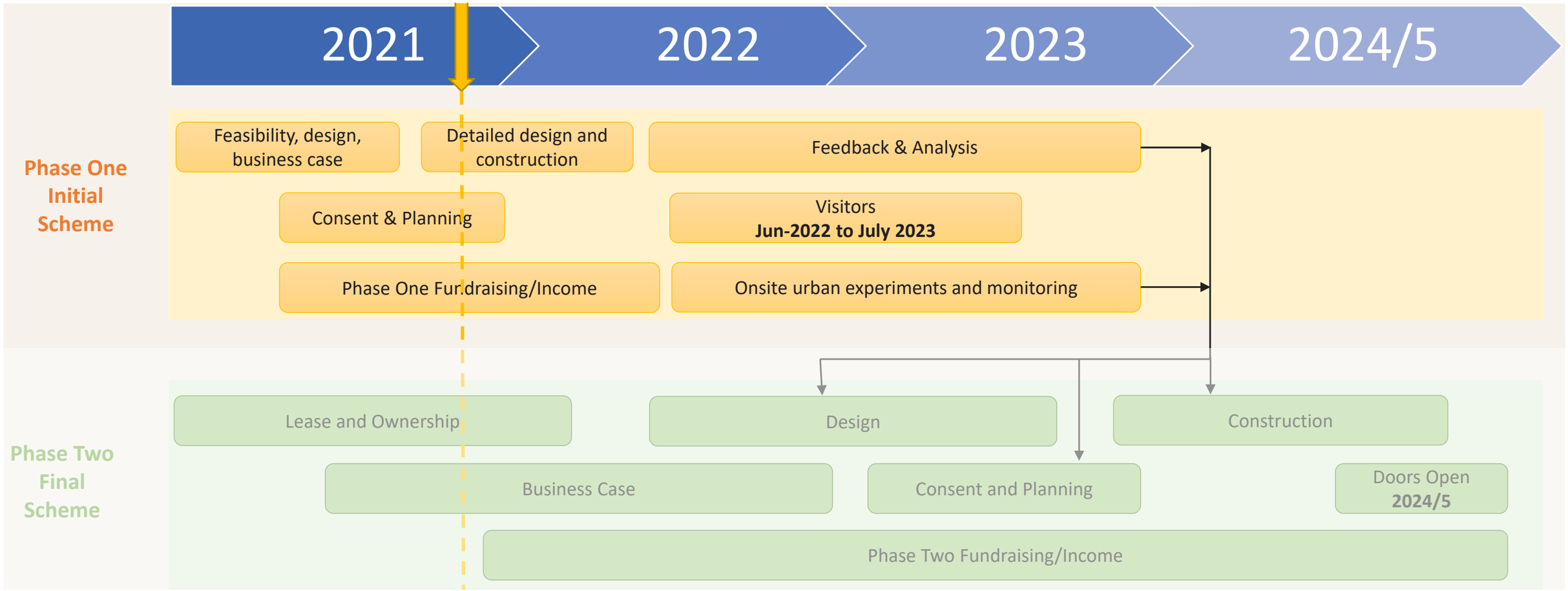
Public Consultation Survey: National Trust Website



8.0 DESIGN PROGRAMME

8 PROGRAMME

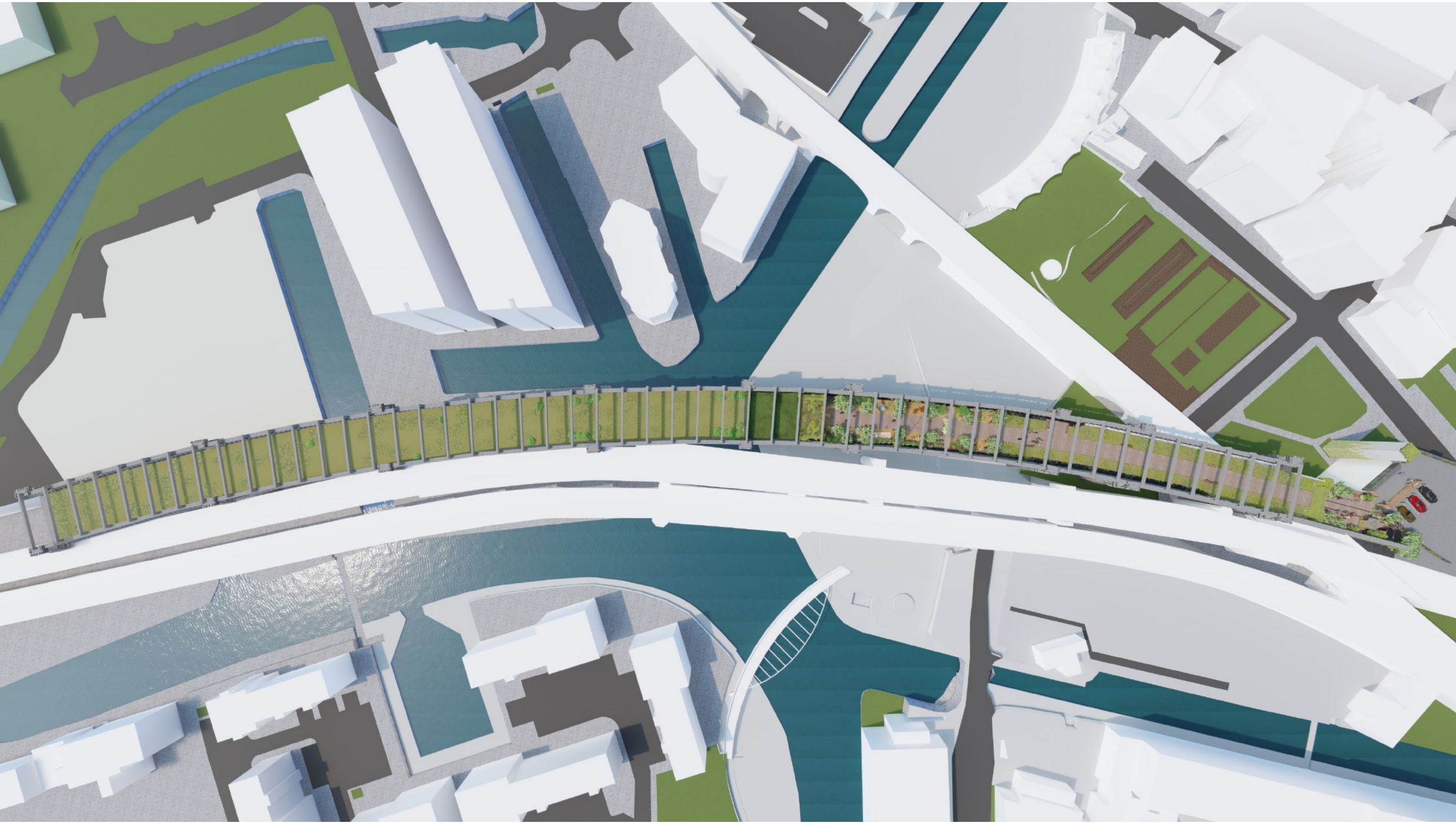
Project Timeline



Phase One:
This is the Pilot Scheme the current Planning Application is for, to open the Viaduct next summer as a temporary park, to test ideas and get some feedback.

Phase Two:
Following this first phase of the scheme, we will take feedback on board and develop a permanent design for the Viaduct. We will come back to consult on this final design and apply for planning permission in 2022/ 23. Subject to planning approval, we would hope to open Phase Two in summer 2024.

9.0 VISUALISATIONS




CASTLEFIELD
VIADUCT
PARK


Welcome
















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www.twelvearchitects.com