

1892 CASTLEFIELD VIADUCT
HERITAGE IMPACT ASSESSMENT
ISSUE 01
AUGUST 2024



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On behalf of Purcell ®

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Issue 01

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The National Trust

1892 CASTLEFIELD VIADUCT: HERITAGE IMPACT ASSESSMENT

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SECTION 1.0

INTRODUCTION

1.1 AUTHORSHIP

This document has been prepared by Purcell, a firm of conservation architects and heritage consultants, specialising in the conservation of the historic environment. Specifically, it has been prepared by Olivia Morrill (BA (Hons), MA), Heritage Consultant.

1.2 AIM OF THIS REPORT

This document has been commissioned by the National Trust for the 1892 Castlefield Viaduct to assess the impact of the proposals to implement Phase 2 of the urban park at the Castlefield Viaduct.

The report draws on other best practice guidance documents from Historic England such as *Conservation Principles* (2008) and Historic Environment Good Practice Advice in *Planning Note 3 - The Setting of Heritage Assets* (2017) whilst complying with the tests and requirements of the *National Planning Policy Framework* (NPPF).

This document should be read in conjunction with the 1892 Castlefield Viaduct: Statement of Heritage Significance by Purcell, dated August 2024, which has a full historic background, statement of significance and archaeological gazetteer for the structure, not presented here in full.

This document, along with the accompanying statement of significance, follows the staged approach to decision-making set out within Historic England Advice Note 12 - *Statements of Heritage Significance: Analysing Significance in Heritage Assets* (2019):

- 01 Understand the form, materials and history of the affected heritage asset(s), and/or the nature and extent of archaeological deposits
- 02 Understand the significance of the asset(s)
- 03 Understand the impact of the proposal on that significance
- 04 Avoid, minimise and mitigate negative impact, in a way that meets the objectives of the NPPF
- 05 Look for opportunities to better reveal or enhance Significance

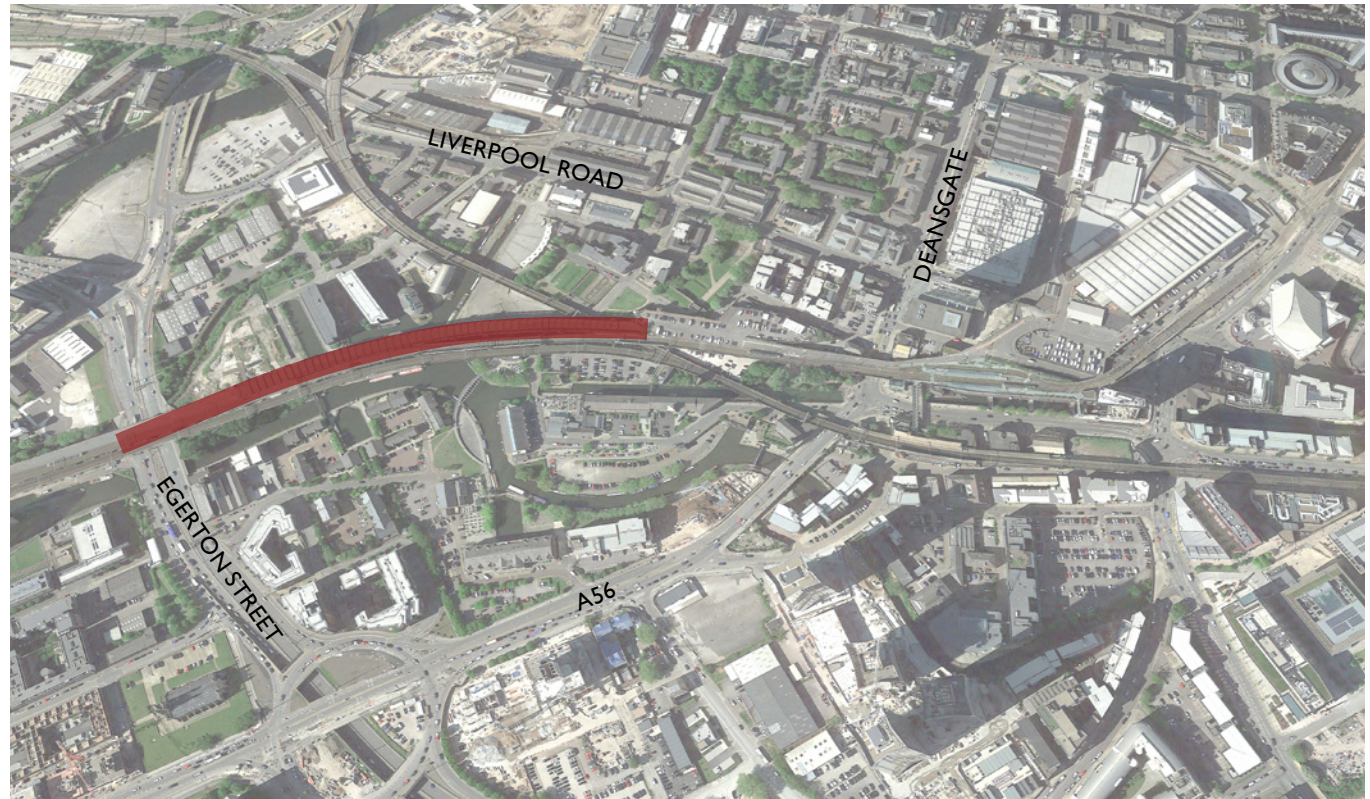
SECTION 2.0

UNDERSTANDING THE SITE



2.1 LOCATION

The 1892 Castlefield Viaduct⁰¹ sits across Castlefield Basin which is just to the south of Manchester City Centre. The structure meets the carpark of Deansgate Metrolink station to the east and runs linear to the Metrolink line running towards Cornbrook, it crosses over the canal and various other rail viaducts below. At lower level the viaduct is supported on a series of columns that both sit within the canal and around it. The extent of the listing (as defined by an email from John Whyard, Manchester City Council, Urban Design & Conservation Team) extends past Deansgate car park to the convention centre, however, no works are currently proposed along this section.



The location of the viaduct (© GoogleEarth 2021) [Click on the viaduct to find it on Google Maps.](#)



⁰¹ A date stone on the bridge over Egerton Street dates the line to 1892 and the viaduct is therefore referred to by this date, however, it was load tested and opened in 1893.

UNDERSTANDING THE SITE

2.2 DESIGNATIONS

The structure itself is grade II listed and sits within the Castlefield Conservation Area with the conservation area boundaries extending a further 200m south of the viaduct towards the ring road and a further 600m north past the Science and Industry Museum, the western boundary is defined by the River Irwell and to east the boundary runs along Deansgate. The viaduct is listed as CASTLEFIELD RAILWAY VIADUCT FROM G-MEX TO DAWSON STREET (see appendix B). There are several other designations in the immediate vicinity listed below and shown on the plan opposite.

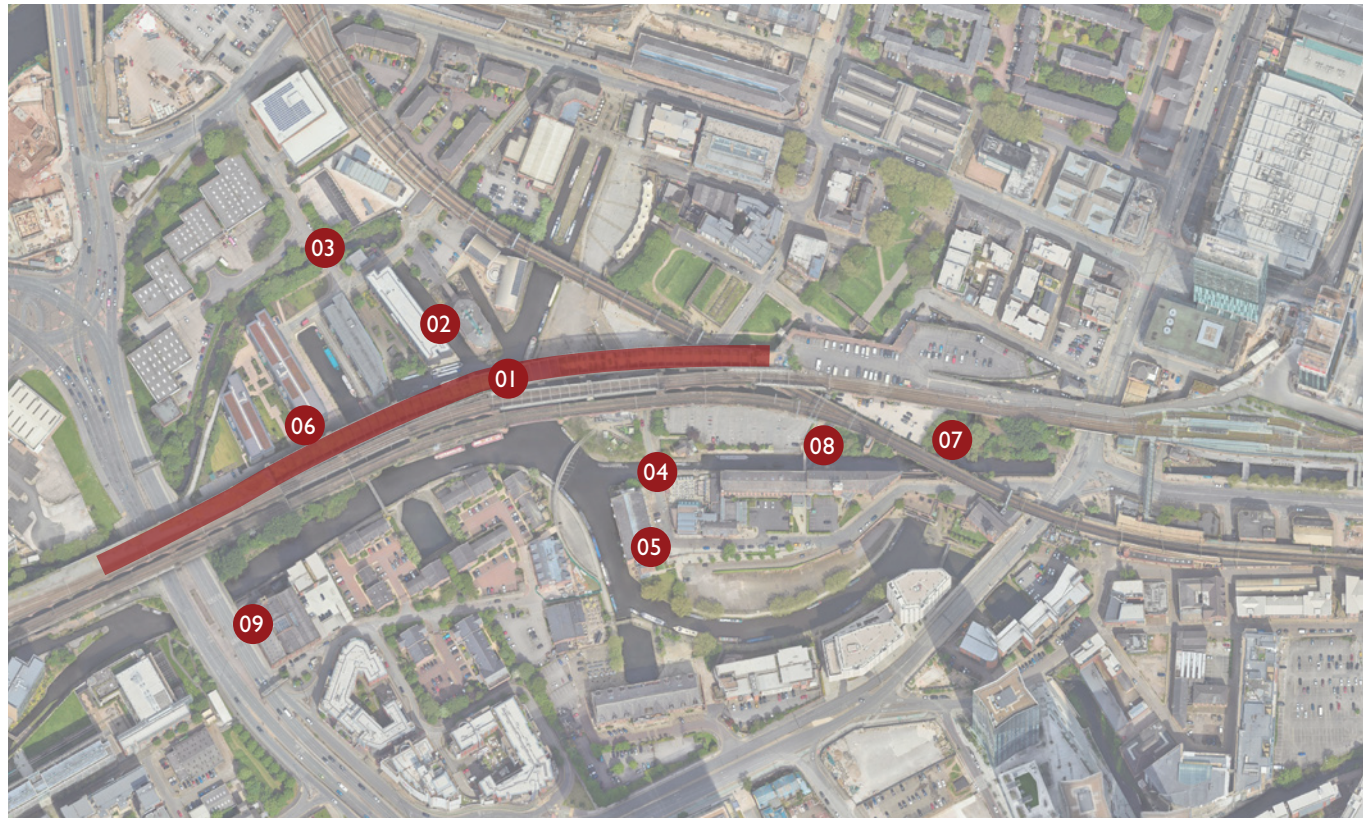
The listing description provides a basic description of key features:

*"Railway viaduct. c.1880. Cast iron and wrought iron (?);redbrick to east of Duke Street. Runs south-west from former Central Station, then westwards, dividing into two over Castlefield and re-joining 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 Dowson Street."*⁰²

The 1892 viaduct is within the Castlefield Conservation Area, designated on 13 October 1979. The Conservation Area Appraisal notes that there is great opportunity for improvement and enhancement, "as Castlefield has always been a centre of innovation, imaginative new proposals for development [and] are likely to receive a warm welcome."⁰³

⁰² <https://historicengland.org.uk/listing/the-list/list-entry/1292315>

⁰³ https://secure.manchester.gov.uk/info/5111/conservation_areas/972/castlefield_conservation_area/7



The location of nearby designated assets © GoogleEarth 2021

- | | |
|---|--|
| 01 Castlefield Railway Viaduct from G-Mex to Dawson Street: Grade: II | 05 Merchants Warehouse: Grade: II |
| 02 The Giants Basin: Grade: II | 06 Bridgewater Canal Basin At Potato Wharf: Grade: II |
| 03 Pair Of Culvert Arches Over River Medlock And Associated Overflow Channel: Grade: II | 07 Remains Of Eastern Wall Of The Roman Fort: Scheduled |
| 04 Rochdale Canal Lock Number 92 And Castle Street Bridge: Grade: II | 08 Manchester South Junction and Altrincham Railway Viaduct: Grade: II |
| | 09 Former Canal Flour Mills |

This plan is not to scale



SECTION 3.0

SUMMARY OF SIGNIFICANCE

3.1 STATEMENT OF SIGNIFICANCE

The 1892 viaduct is an impressive structure and symbolises the power, wealth and influence of Manchester in the 19th century. Today, it forms the backdrop to several views around Castlefield and much of its original industrial setting remains intact. Built by the Cheshire Lines Committee, it facilitated the movement of construction material for the Manchester Docks and improved the rail congestion entering Central Station. The structure was built by contractors of note Heenan and Froude partly using carbon steel, an early example of its use, alongside their work on Blackpool Tower at the same period (also of steel).

The significance of the viaduct is best understood as part of the group and context of wider assets. It crosses over the remains of the Roman fort with the nearby Roman road and the River Irwell both used for early transport. It passes over the Bridgewater Canal which kickstarted the canal age in 1763 and runs alongside the later Rochdale Canal of 1804. The 1892 viaduct is also 200m away from the Liverpool Road Station which was the world's first passenger railway station in 1830 and is surrounded by several railway lines and viaducts of different eras up the 20th century Manchester Metrolink station at Deansgate. The collective group value of the assets makes it one of the most significant collections of heritage assets of transport infrastructure in the country, demonstrating a range of transport modes dating back almost 2000 years to which the 1892 viaduct makes a significant contribution.

The Phase I temporary work to create an urban green space atop the viaduct has been successful and is a unique asset to Manchester and to the National Trust. There is currently nowhere like it in England but has set an aspirational mark of what can be achieved when thinking creatively about industrial heritage and the need for better access to green spaces in urban areas.

3.2 CAPACITY FOR CHANGE

The eastern section of the viaduct is currently already in use as a visitor attraction, with the gardens and community hub opened to the public. Phase I of the project has demonstrated that the structure can successfully welcome visitors and the new green space is appreciated by many. It has shown that there is capacity for change on the western section but may face many similar challenges as Phase I.

There is an opportunity to bring more of this structure back in to use in a way that enhances its significance to the people of Manchester. Overall, the Castlefield area has long represented the innovative, industrial heart of Manchester and is, if not unique in its individual components, certainly of the highest heritage interest for its significance as a group and the contribution it makes to our understanding of Manchester at the heart of global industrialisation. From the 1830s railway station to the 20th century Metrolink, each piece of infrastructure contributes to this story, as well as having its own story to tell. The CLC railway has national interest for connecting north-west industrial towns, and by extension, the wider British empire.

In 2024, the condition of the western section of the 1892 Viaduct has deteriorated, while the eastern section has flourished and is well maintained as a visitor attraction. There is great potential to extend the urban park and introduce a second access point at Egerton Street. The viaduct is of high significance as a structure of national and international historic value, high aesthetic interest due to its design and wider group value and considerable public and archaeological value.

Characteristics and features that define its significance

- The monumental scale of the structure.
- The large round columns and fish bellied deck when seen from below.
- The lattice steelwork by Heenan and Froude.
- The castellations.
- The demonstration of the power and wealth of Manchester and the railway industry in the 19th century.
- The wider setting and group value of industrial buildings and other transport infrastructure.

The Viaduct is of high significance for its special architectural and historic interest

SECTION 4.0

THE PROPOSALS

The proposal is to extend the urban garden westwards along the viaduct, past the existing Engagement Centre building, and terminating at a new egress to Egerton Street. The proposals introduce three new zones:

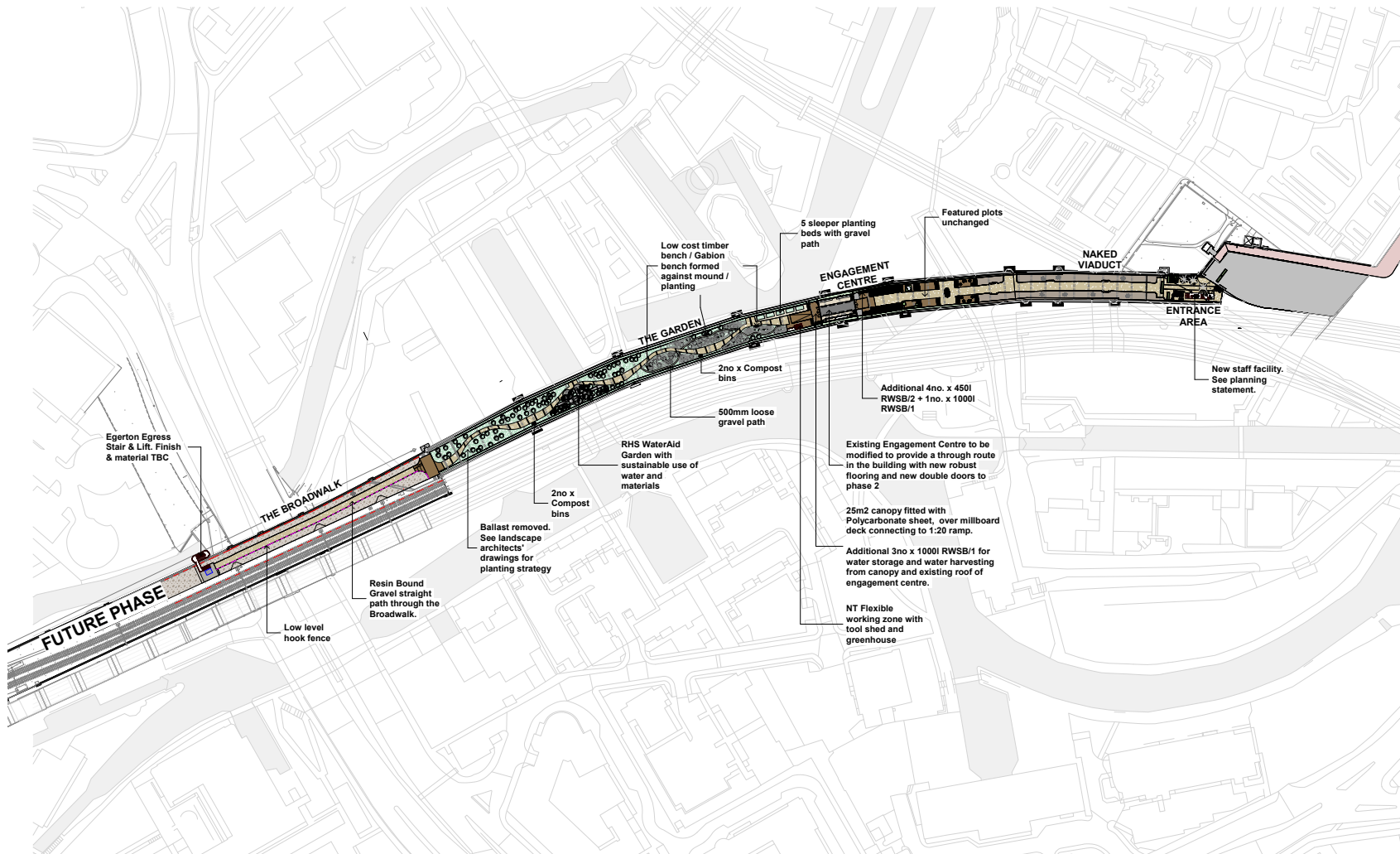
- A flexible working zone with tool shed and greenhouse for National Trust staff and an additional covered area for visitors.
- 'The Garden', with a winding gravel path, seating areas and low-level planting. This area will also feature the RHS award winning WaterAid Garden, designed by Tom Massey, which will highlight the sustainable use of water and materials.
- 'The Broadwalk', which features a resin bound gravel path, low-level hook fencing and edge protection, which culminates in a new stair and lift introduced to the viaduct deck. This will enable visitor access from Egerton Street to the viaduct and on to the city centre, without needing to traverse the busy inner ring road.

The existing Naked Viaduct and partner plots will remain unchanged.

This document is intended to support both planning permission and listed building consent applications. Full details of the proposals are included within the supporting documentation, primarily the design and access statement. The works can be summarised into the following broad categories:

- Structural remedial works
- Landscaping – including paths, new ballast, lighting, security
- Planting
- Stair and lift at Egerton Street
- New staff facilities at the Entrance Area
- Remodelling of the Engagement Centre.

THE PROPOSALS



The high level concept plan for the site

SECTION 5.0

IMPACT ASSESSMENT

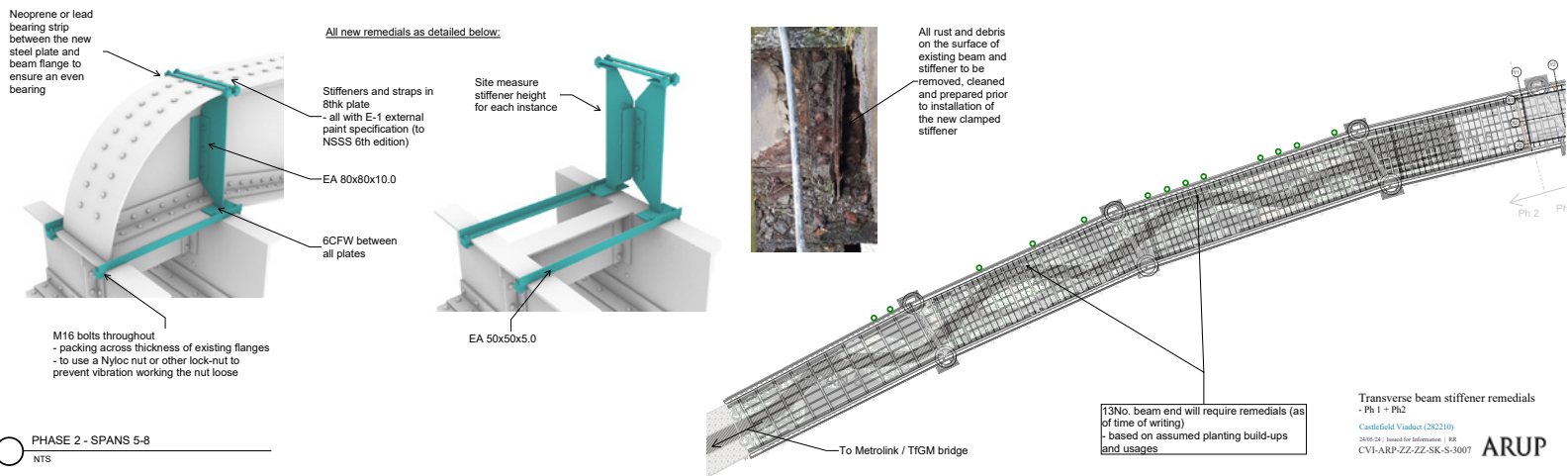
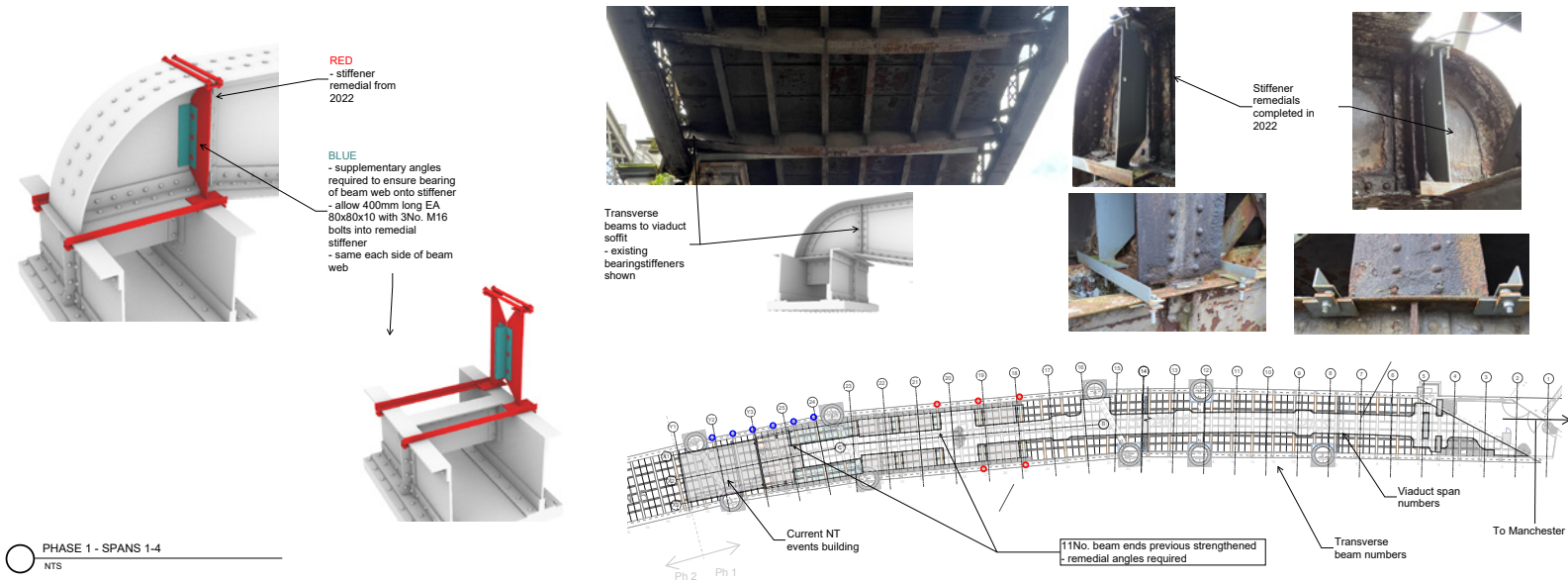


This Heritage Impact Assessment (HIA) sets out the ways in which the current proposals may affect the significance of the Grade II listed viaduct and the wider conservation area and will assess the overall impact of the proposed alterations across the site.

The level of impact will take into account the significance of the heritage asset in order to weigh this against the level of change. The impact will be assessed based on the following criteria:

MAGNITUDE OF IMPACT	DEFINITION
High Beneficial	The proposed changes will dramatically improve the overall setting and character of heritage assets and historic environment, revealing and/or enhancing important characteristics which were previously inaccessible. There would be a substantial improvement to important elements of the building. Any change resulting in a positive impact should be encouraged.
Moderate Beneficial	The proposed changes will considerably improve the setting or overall character of the heritage asset and surrounding streetscape. There may be an improvement in key uses and beneficial change (e.g. the creation of coherency) to the visual characteristics of the interior of the building. Any change resulting in a positive impact should be encouraged.
Minor Beneficial	The proposed changes may cause minimal improvement to the setting or overall character of a heritage asset or area. Any change resulting in a positive impact should be encouraged.
Neutral	The proposed changes will have no impact on the heritage asset.
Minor Adverse	The proposed changes will have minimal impact on the setting or overall character of a heritage asset. Change of this magnitude may be acceptable if suitable mitigation is carried out.
Moderate Adverse	The proposed changes will negatively alter the setting or overall character of the heritage asset or area. It will likely disturb key features and detract from the overall heritage significance. Change of this magnitude should be avoided where possible, but can be neutralised through positive mitigation.
High Adverse	The proposed changes will seriously damage the overall setting and character of heritage assets. They will cause a notable disruption to or in some cases complete destruction of important features. Change of this magnitude should be avoided

PROPOSAL	AREA AFFECTED	SIGNIFICANCE	ASSESSMENT / COMMENTARY	IMPACT
Remedial structural repairs	The viaduct deck	The deck – High	Remedial works to repair the structure have been highlighted by ARUP engineers through a series of surveys. This will principally involve transverse beam stiffener remedials to 11no. beam ends at the Phase 1 section of viaduct and 13no. beam ends to the Phase 2 viaduct. This is intended to assist with the additional loading on the structure from new planting and visitors. The remedial works will be visible as modern interventions, however are in keeping with the industrial character of the structure, and will sustain its overall architectural interest.	Minor Adverse
The additional loading and redistributed loads/stresses	The entire structure	High	ARUP structural engineers have been involved throughout the project and the additional structural interventions outlined in the structural engineers' report, will ensure there is no further harmful loading to the structure.	Neutral



PROPOSAL	AREA AFFECTED	SIGNIFICANCE	ASSESSMENT / COMMENTARY	IMPACT
Rainwater management	The viaduct deck and ballast	The deck – High Ballast – Low	The existing drainage system appears to have been configured utilising a combination of transverse channel shaped carriers beneath the bridge deck that align with downspouts fixed to the supporting columns. Gullies within the deck are provided along the length of these transverse channels but are currently buried under ballast. This strategy will require existing viaduct gulley outlets/spitters to remain active. For this reason, repair works to existing rainwater pipework and outlets that are currently leaking will be required. The proposed arrangement continues the previous rainwater management and discharge and will have a negligible impact.	Neutral
Modifications to existing Engagement Centre building	Engagement Centre	Low	It is proposed to alter the existing Engagement Centre building to provide a through route in the building with new flooring and double doors inserted into the large glazed rear wall. A new canopy attached to the west of the engagement centre is also proposed, which provide additional shelter for visitors and will assist with rainwater harvesting. This will enable visitor circulation from the Phase 1 garden into Phase 2.	Neutral
Improved Staff Facilities	Viaduct Entrance Area	High	To facilitate future operations, a new 40-foot container will be installed, providing workspace for three National Trust staff and serving as a kiosk if needed. The existing WCs will be replaced with three new WC facilities (one fully accessible and two standard WCs with additional baby changing facilities). This upgrade will cater to a wider group of visitors in phase 02 and future phases. The container also offers clarity of wayfinding and branding to allow visitors to identify the site while not imposing on the existing girder structure. The new facilities will not exceed the height of the lattice girder sides of the viaduct and will not physically impact on any historic fabric.	Neutral

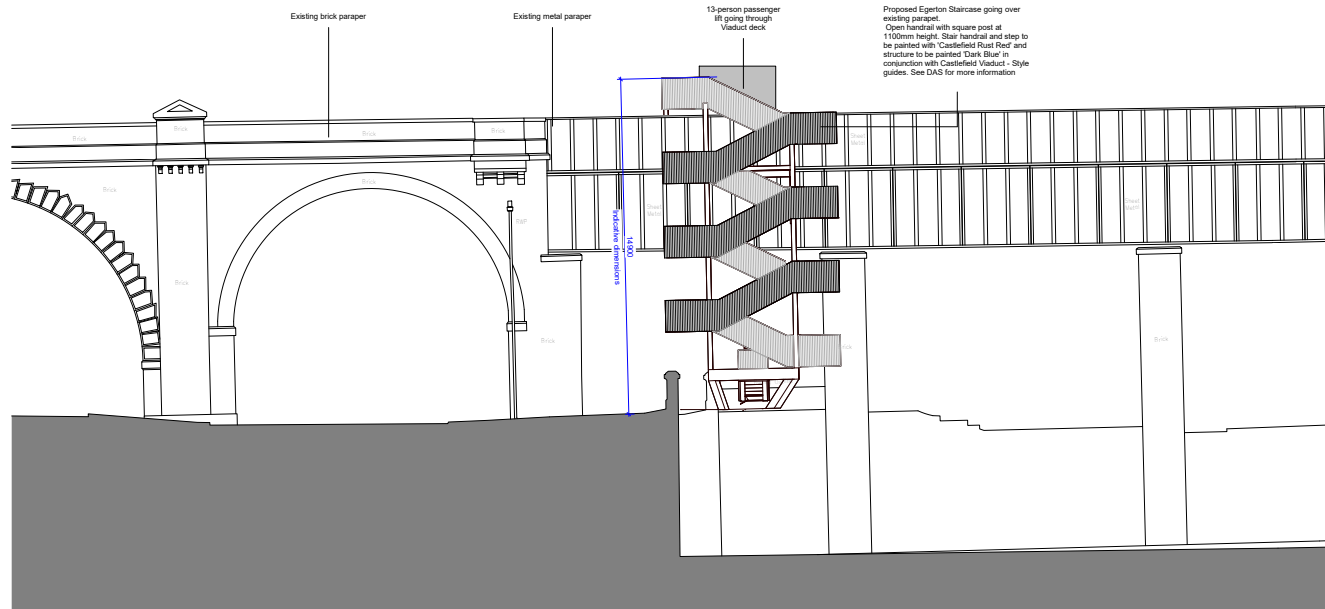
PROPOSAL	AREA AFFECTED	SIGNIFICANCE	ASSESSMENT / COMMENTARY	IMPACT
Landscaping: paths	The viaduct deck and ballast	The deck - high Ballast - low	A meandering resin bound gravel paths will run from the existing engagement centre the The Garden, to the start of The Broadwalk, where it becomes a straight path. The Garden will also feature a limited number of geocell retained gravel paths to increase dwell time and visitor interest. The material will match the existing in the Phase I garden, which was chosen to harmonise with the existing ballast surface and a nod to the historic surface of the structure. Decorative metal cappings are also proposed along the path to reveal the location of the viaduct underbeams. There will be some loss of the extant ballast and potential archaeological material.	Minor adverse
Edge protection barriers and low-level hook fence	Viaduct latticework and masonry bridge	High	The guard rails proposed to The Garden will match those used in the Phase I garden, which were chosen as they are freestanding barriers used at music concerts, which negates the need for any fixings into historic fabric. The existing key clamp scaffold poles can be removed. These barriers are reversible but will inevitably create a visual barrier when viewing both into and out of the structure, however the current scaffold bars are not appropriate for public use of the structure. It is proposed to introduce a low-level hook fence along the Broadwalk path as an additional barrier between the public and the Metrolink track. Additional mesh fencing is also required to ensure compliance with the TfGM exclusion zone from the train track. The Metrolink track will remain in use along the masonry section of viaduct, allowing visitors a unique experience of the structure in its intended use. However, this does necessitate an increased level of edge protection for public safety.	Minor adverse

PROPOSAL	AREA AFFECTED	SIGNIFICANCE	ASSESSMENT / COMMENTARY	IMPACT
Planting	The entire structure	High overall Ballast - low	Planting in The Garden will be in beds and railway sleeper planters which will not be fixed to the structure. It is proposed to remove the extant ballast to enable the new landscaping. There will be a change in character from a former industrial space to a more landscaped and formal green park although this is not considered harmful. The overall appearance of the structure will be enhanced from its currently neglected state where weeds and buddleia are growing from the ballast. To ensure the structural load capacity for the new project, the existing ballast of the currently unused viaduct will be carefull removed. Extra care will be taken to ensure the existing deck and structures are not damaged. The viaduct landscape planting will be selected to minimise regular watering or irrigation. Irrigation for the planting will be at optimum levels to ensure there is no residual water discharge and so there is a net neutral effect. Where irrigation is required, this will be achieved via the use of watering cans filled from a mobile water tank rather than via a piped irrigation system. The WaterAid Garden, designed by Tom Massey, and gold medal winner at the 2024 RHS Chelsea Flower Show, has been given to the National Trust for incorporation at the Castlefield Viaduct. The garden aims to highlight the challenges of sustainable water management and features an innovative rainwater-harvesting pavillion made of reclaimed materials. The WaterAid Garden's four supporting structural columns will sit on a steel grillage and lined up over the existing transverse and longitundinal beams. The pavillion will be visible in close range views through the latticework sides of the viaduct, but the latticework will largely shield it from longer range views. It may somewhat disrupt the view along the Phase 2 viaduct, but also provides a point of interest along an otherwise uninterrupted path.	Minor Beneficial

PROPOSAL	AREA AFFECTED	SIGNIFICANCE	ASSESSMENT / COMMENTARY	IMPACT
Services: lighting and cabling, water supplies	The entire structure	High	As part of the Phase 1 garden, a new electrical system was introduced, with a small pillar at the entrance. It is proposed that the cabling system beneath the ballast and pathways will be extended into Phase 2 and will avoid any intrusive cables. Lighting concepts suggest a variety of light touch approaches and no fixings to historic fabric on the viaduct track. Subject to design, the Egerton Street access area will include lighting to the blue brick arch and surroundings. This may include a limited number of luminaires fixed to the masonry. However, lighting the surrounds of the stair and lift is essential to increase the actual and perceived safety of the access point beneath the arch. Improving the lighting in the area will help discourage anti-social behaviour in the area, safely illuminate the stairs and enable way-finding in hours of darkness. Additional water storage is proposed for the Phase 2 garden, as the quantity of planting increases. Although the use of a mobile water tank and watering cans will be retained as the watering method. However, an irrigation system may be incorporated at a later date. It is also proposed to include new compostable toilets in the entrance area to improve the visitor and staff facilities.	Neutral overall

PROPOSAL	AREA AFFECTED	SIGNIFICANCE	ASSESSMENT / COMMENTARY	IMPACT
Stair and lift access to Egerton Street	The Broadwalk - plate girder bridge and conservation area	High	It is proposed to introduce a staircase to the northern elevation of the plate girder bridge on Egerton Street. Due to extant TfGM services along the track bed, it is necessary for the stair to over sail the parapet and land on the deck and ballast of the Broadwalk. This will necessitate a self-stable structure to take the stair over the parapet, set on columns supported on pads buried in the ballast. The columns will also be set out to ensure that they are supported on the beam lines. This will require some disturbance and limited removal to the existing ballast, as well as fixing to the deck. The proposal to introduce a lift to the underside of the plate girder bridge will involve the removal of a section of the steel deck plate. The design process considered ways to limit the impact on structure's heritage significance, resulting in a design solution where the lift shaft can slot within a square space between the extant grid-like beam configuration to the underside of the deck. This will necessitate the removal of a section of the late 19th century steel deck and corresponding portions of the affected beams. The proposed staircase and lift are located on the western section of the viaduct which is considered to be outside of the boundary of the grade II listed structure, but remains curtilage listed. The area is also within the Castlefield Conservation Area. A new external staircase will appear in what is considered to be a key view of the blue brick bridge when viewed from the north. The immediate setting of the viaduct in this area has already been subject to extensive clearance and development, with modern high-rise apartments constructed and the inner ring road immediately adjacent. As such, a staircase tower of high-quality design and materiality in this location would have a limited impact on the ability to appreciate the character and appearance of the conservation area in this location, and the overall heritage significance of the viaduct. The lift breaking through the deck of the structure is a less harmful visual addition, with the structure intended to appear lightweight. The proposed location of the Egerton Street access is not considered to be within an archaeologically sensitive area. Introducing another point of access to the viaduct at Egerton Street will fulfil a series of needs required to enhance the visitor experience and improve connectivity from west of Castlefield into the Deansgate the city centre:	Minor adverse

PROPOSAL	AREA AFFECTED	SIGNIFICANCE	ASSESSMENT / COMMENTARY	IMPACT
Stair and lift access to Egerton Street (continued)			- Secondary access is an important stepping stone for the National Trust to realise their wider vision scheme for a thoroughfare across Manchester. - A second access point will enable a greater number of guests to visit the viaduct over a larger area and so emergency egress is required at the western extent. - It was heavily preferred by the local planning authority that there is an accessible transport solution to any secondary access, as well as a staircase. - During opening hours, the viaduct will provide better movement from the western side of the inner ring road (A57) to Deansgate and more direct access to the city centre. It would eliminate the need to cross the busy A57 via a series of staggered puffin crossings to the north of Dawson Street. - It will enable better access to the viaduct garden for visitors arriving on foot or by bicycle from the west. - Visitors will be able to access the viaduct garden from a new point, adding interest for repeat visitors. The high quality materiality reflects the industrial nature of the viaduct and wider Castlefield area, which will stand as a landmark structure complementing the viaduct. The colour palette draws from the Castlefield Viaduct Visual Scheme, which was previously agreed and implemented in Phase 1. The dark blue of the lift and stair structure reflect the blue engineering brick of this section of the viaduct, while the rust red echoes the corten steel of the planters and interpretation within Phase 1. The distinctive design of the proposed staircase will enable easy wayfinding for visitors to the viaduct, and those wishing to access the city centre. While the lift and staircase are clear modern additions, it will provide direct public benefit. It will enhance access to, and improve understanding of, the Castlefield Viaduct and in doing so, enhance its significance.	
Proposal on wider setting	The viaduct setting and conservation area	High	The impact of the Egerton Street access is discussed above. The broader proposals are contained on the viaduct itself with little wider impact. Remedial works and opening up more of the viaduct to the public are considered beneficial. The Phase 2 works will largely not be visible from the wider setting beyond the partial views of the new planting and rainwater-harvesting pavillion, which will not detract from the overall setting or conservation area.	Minor beneficial



② (PL) Egerton Egress - Propose elevation
1:100



SUMMARY OF HERITAGE IMPACT

The proposals for Phase 2 of the garden at the viaduct will have a negligible impact on the heritage significance of the structure. The principal instances of harm are the proposed lift and staircase at the western section of the viaduct at Egerton Street. They will involve the alteration and some limited removal of historic fabric, as well as introducing a modern element to a key view of the bridge. However, high-quality design of the stairs will mitigate this, as well as the considerable public benefit and other beneficial works across the rest of the viaduct.

The planting and the overall scheme itself will improve the appearance of the structure included in Phase 2, which is currently neglected and will enhance its significance. The project overall will result in an enhanced understanding of the structure's significance to the public. Investigative work will also improve understanding. Phase 1 demonstrated that a new use is feasible for the structure long term, which will sustain the structure and further invigorate the conservation area.

The new edge protection to Phase 2 partially disrupts views from the structure and into it, although due to the low height, for most users the eye level will not be disrupted. The current scaffold bars are less intrusive as they have a lower visual impact, however, they form little protective barrier against the edge and their replacement is a necessity to allow wider public access. Again, the edge protection is not fixed to the structure and is entirely reversible.

The wider setting and conservation area will remain largely unaltered with the majority of the new additions screened by the historic latticework of the viaduct. However, it is acknowledged that the secondary access point will have an impact on specific views within the conservation area.

Beyond the physical impacts outlined above, by increasing access and furthering the knowledge and understanding of the structure, this in itself increases the communal value of the viaduct and enhances significance.

The proposals include the potential for significant public benefits and will have a negligible impact on the overall heritage significance of the structure.

APPENDIX A

LIST DESCRIPTION OF THE 1892 VIADUCT

CASTLEFIELD RAILWAY VIADUCT FROM G-MEX TO
DAWSON STREET

Heritage Category: Listing

Grade: II

List Entry Number: 1292315

Date first listed: 14-Feb-1988

Date of most recent amendment: 06-Jun-1994

SJ8297NW 698-1/18/115 04/02/88

MANCHESTER DEANS GATE

Castlefield Railway Viaduct from G-Mex to Dawson Street
(Formerly Listed as: DEANS GATE Castlefield Railway Viaduct
from Central Station, dividing into 2, rejoining an) II

GV

Railway viaduct. c.1880. 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.

Listing NGR: SJ 83220 97620

[Read it online here >>](#)

APPENDIX B

LIST DESCRIPTIONS

THE GIANTS BASIN

Heritage Category: Listed Building

Grade: II

List Entry Number: 1247068

Date first listed: 06-Jun-1994

MANCHESTER

SJ8297 POTATO WHARF 698-1/18/319 (East side) The Giant's Basin

GV II

Circular weir. Probably 1765, by James Brindley, for Duke of Bridgewater, altered in C19. Coursed squared sandstone. Circular structure approx. 10m in diameter, with 2-course sloped lip. Part of hydraulic system by which the Bridgewater Canal terminus basin exploited the course of the River Medlock, which was diverted through a culvert running from east of Deansgate at Knott Mill to Potato Wharf, and the canal overflow was returned to the river via this weir. Simple structure of national historical importance. Forms group with canal basin at Potato Wharf (q.v.), and with Castelfield Railway Viaduct (q.v.), and Culvert arches, New Elm Road (q.v.); associated with Floodgate, Deansgate (q.v.).

Listing NGR: SJ8298097679

[Read it online here >>](#)

PAIR OF CULVERT ARCHES OVER RIVER MEDLOCK AND ASSOCIATED OVERFLOW CHANNEL

Heritage Category: Listed Building

Grade: II

List Entry Number: 1283003

Date first listed: 06-Jun-1994

SJ8297 NEW ELM ROAD 698-1/18/245 (East side) Pair of culvert arches over River Medlock and associated overflow channel

GV II

Pair of culvert arches. Probably 1765, by James Brindley, for Duke of Bridgewater. Coursed squared sandstone. Two low segmental spans at an angle, over the outflows from the River Medlock culvert and the overflow culvert from the Giant's Basin, that on the right lower and with a plain arch-band. Part of hydraulic system by which the Bridgewater Canal terminus basin exploited the course of the River Medlock, which was diverted through a culvert running from east of Deansgate at Knott Mill to this position, and the canal overflow was returned to the river via a circular weir at Potato Wharf known as the Giant's Basin. Simple structure of national historical importance. See also Giant's Basin, Potato Wharf, and Floodgate, Deansgate.

Listing NGR: SJ8294997716

[Read it online here >>](#)

ROCHDALE CANAL LOCK NUMBER 92 AND CASTLE STREET BRIDGE

Heritage Category: Listed Building

Grade: II

List Entry Number: 1270858

Date first listed: 20-Jun-1988

Date of most recent amendment: 06-Jun-1994

SJ8397NW ROCHDALE CANAL 698-1/30/364 Lock No.92 and Castle Street Bridge 20/06/88 (Formerly Listed as: CASTLE STREET, CASTLEFIELD "Canal Bridge and over Rochdale Canal adjoining lock walls with 2 pairs.gates")

GV II

Canal bridge with attached ramp on west side and lock on east side. c.1804, altered. Coursed squared millstone grit, wooden gates. The bridge has a single segmental arch with rusticated voussoirs, keystone and arch-band, a plain band above, slab-wall parapets curved round at the outer ends, and a ramp at right-angles to the north-west corner. Lock of 14-foot width, with pairs of gates at both ends; overflow tunnel with circular brick-lined shaft to south side of Castle Street. The lock is the last in a series of 9 on the extension linking the Rochdale and Bridgewater Canals.

Listing NGR: SJ8311797566

[Read it online here >>](#)

MERCHANTS WAREHOUSE

Heritage Category: Listed Building

Grade: II

List Entry Number: 1197778

Date first listed: 20-Jun-1988

MANCHESTER, CASTLE STREET (West side), Merchants Warehouse

20.06.88

GV II

Former canal warehouse serving Bridgewater Canal terminus, offices from early C21. Dated 1823 on pier between shipping holes; altered, fire-damaged and derelict when surveyed: Brown brick in English garden-wall bond, with some sandstone dressings, slate roof (damaged). Rectangular plan of 6 structural bays occupying whole of west end of north quay. West facade (to the canal) 4 storeys and 1:2:6:2:1 windows separated by former loading slots. The centre has two semi-circular arched shipping holes rising into the 1st floor, with a cylindrical sandstone pier and responds which have concave caps brought to a square, that in the centre inscribed "1823", timber lintels and wooden screens in the arches above; the loading slots have doorways at ground floor but are otherwise bricked-up, and those to the right have wooden gabled hoist-canopies; small round-headed windows with glazing bars and tilting casement openings in the lower half, all damaged. Moulded stone cornice with blocking course. The east facade is 3-storeyed, with similar windows and 4 surviving 3-stage loading slots (only partly bricked up) but the top floor of the northern half and its roof are

missing. INTERIOR: not inspected, but reported to have timber beams, and remains of winding gear in roof. Distinctive feature of Bridgewater Canal terminus site, of considerable historical interest.

Listing NGR: SJ8309997526

[Read it online here >>](#)

BRIDGEWATER CANAL BASIN AT POTATO WHARF

Heritage Category: Listed Building

Grade: II

List Entry Number: 1246959

Date first listed: 06-Jun-1994

POTATO WHARF (East side), Bridgewater Canal basin at Potato Wharf

GVII

Canal basin. Probably c.1760-5, by James Brindley, for Duke of Bridgewater. Branches off north side of Bridgewater canal near Castlefield terminus. Lined with stone blocks. Forms group with the circular overflow basin slightly to the east (known as Giant's Basin) and with Castlefield Railway Viaduct.

Listing NGR: SJ8290497624

[Read it online here >>](#)

REMAINS OF EASTERN WALL OF THE ROMAN FORT

Heritage Category: Scheduled Monument

List Entry Number: 1001953

Reasons for Designation

Not currently available for this entry.

History

Not currently available for this entry.

Details

This record has been generated from an "old county number" (OCN) scheduling record. These are monuments that were not reviewed under the Monuments Protection Programme and are some of our oldest designation records. As such they do not yet have the full descriptions of their modernised counterparts available. Please contact us if you would like further information.

[Read it online here >>](#)

MANCHESTER SOUTH JUNCTION AND ALTRINCHAM RAILWAY VIADUCT

Heritage Category: Listed Building

Grade: II

List Entry Number: 1200837

Date first listed: 06-Jun-1994

Date of most recent amendment: 26-Feb-2013

Summary

Railway viaduct for the Manchester South Junction & Altrincham Railway Company, 1846-9, constructed by David Bellhouse Jnr. Red brick with some small sections of blue brick, sandstone dressings and cast-iron bridges.

Reasons for Designation

The Manchester South Junction & Altrincham Viaduct is designated at Grade II for the following principal reasons:

* Design interest: it is an impressive 1 3/4 mile long urban viaduct incorporating a series of well-detailed bridges; some with highly decorative Gothic-style ironwork;

* Date: it is an early example of a railway viaduct dating from the second phase of railway development - the period from 1841-50 often referred to as 'railway mania' - in which commercial speculation and competition for routes led to the rapid construction of lines and expansion of the railway network;

* Historic interest: the viaduct forms an important and integral component of the Manchester South Junction & Altrincham Railway, which was one of the country's earliest suburban railways, and Manchester's first; helping to bring this form of transport to the hinterlands;

* Group value: the viaduct has strong group value with neighbouring railway structures (both contemporary and later), including two other railway bridges crossing the River Irwell (the 1830 Grade I listed stone bridge and the 1869 Grade II listed girder bridge) and their associated viaducts, the Grade II listed Castlefield Viaduct (c1880), the Grade II listed stations of Manchester Oxford Road (1958-60) and Deansgate (1896), and the Grade II listed former goods offices (c1850-60) and train shed (c1881) at Manchester Piccadilly Station.

History

The Manchester South Junction & Altrincham Railway viaduct was constructed in 1846-9 by David Bellhouse junior for the Manchester South Junction & Altrincham Railway (MSJ&AR) Company; Bellhouse was also responsible for laying the track. Several of the cast-iron bridges situated along the viaduct were built by his son, the engineer and iron-founder, Edward Taylor Bellhouse, along with others by the line's Chief Engineer, William Baker, and William Cubitt.

The MSJ&AR line is one of the country's earliest suburban railways and was the first in Manchester. It was started as a joint venture between the Manchester & Birmingham Railway (later the London & North Western Railway, LNWR) and the Sheffield, Ashton-under-Lyne & Manchester Railway (later the Manchester, Sheffield & Lincolnshire Railway, MS&LR) which operated London Road Station (known as Manchester Piccadilly Station since 1960). The aim was to create an extension of their lines, known as the South

Junction line, that would be carried along the southern boundary of the city centre on a viaduct and then join the Liverpool and Manchester Railway at Ordsall Lane in Salford, providing access to the lucrative port and city of Liverpool. A branch line, leaving the South Junction line at Castlefield, would also follow the Bridgewater Canal to Altrincham. The Manchester South Junction & Altrincham Railway Act received Royal Assent on 21 July 1845.

300,000 cubic feet of stone (91,440 cubic metres), 50 million bricks and 3000 tons (3048 tonnes) of cast iron were used in the viaduct's construction. The MSJ&AR line opened on 20 July 1849, although sections of the viaduct were not opened until 1 August 1849. The line ran for 8 1/2 miles from London Road Station via Oxford Road and Deansgate Stations to Altrincham, with the viaduct forming a 1 3/4 mile (2 3/4 km) long stretch: the northern branch terminating at the north-west bank of the River Irwell, and the southern branch terminating at the east side of Dawson Street.

Details

LOCATION: The viaduct runs from Manchester Piccadilly Station via Oxford Road and Deansgate, following approximately the route of the River Medlock (crossing it at a number of points), and then branches into two at Castlefield, with the northern branch terminating on the north-west side of the River Irwell, and the southern branch terminating at the east side of Dawson Street.

ARCHITECTURE: The viaduct is approximately 1 3/4 mile (2 3/4 km) long and incorporates 224 brick arches that average a span and height of approximately 30ft, and a width of 28ft; many of the arches, particularly those near to Manchester Oxford Road Station and Deansgate Station, have been in-filled and converted into commercial premises. The tallest arches can be found in the section between Manchester Piccadilly and Oxford Road stations where the ground level is lower. A brick parapet has been altered

and rebuilt in places and later repairs have been carried out to some of the arches.

The viaduct incorporates a series of predominantly arched, cast-iron bridges by Edward Taylor Bellhouse, William Baker and William Cubitt that cross various streets, the Rochdale Canal, and the Bridgewater Canal. The bridges have an average span of 70ft, although one of Baker's bridges, which spans the Rochdale Canal has a span of 105ft. A number of the bridges incorporate highly decorative Gothic-style ironwork and detailing and castellated towers (referencing the location of a Roman fort at Castlefield), whilst others, such as a bridge over Gloucester Street are more classically detailed. A bridge over Egerton Street by William Baker was replaced in steel in 1976. Some of the viaduct's brick arches and bridges are skewed. The Irwell Bridge at the north-west end of the viaduct is of brick with two segmental arches, each of approximately 65ft span, with a central pier and cut-water. Rusticated stone voussoirs and pilaster strips exist to the central pier and abutments, and the parapet above the western arch incorporates cast-iron panelling.

Following electrification of the line in the C20 the viaduct now incorporates a series of C20 and early-C21 gantries along its course. Also along the viaduct's course are a number of attached or abutting buildings, most of which are later in date and are un-related to the viaduct's use; all are excluded from the listing, which relates solely to the viaduct. Manchester Piccadilly Station, Deansgate Station and Manchester Oxford Road Station (the two latter stations being constructed on top of and to the side of the viaduct) are all separately listed at Grade II.

[Read it online here >>](#)

