Design, Access, and Heritage Statement in Support of installation of new bracket fixings to the OLE to the Manchester South Junction and Altrincham Railway Viaduct

January 2025

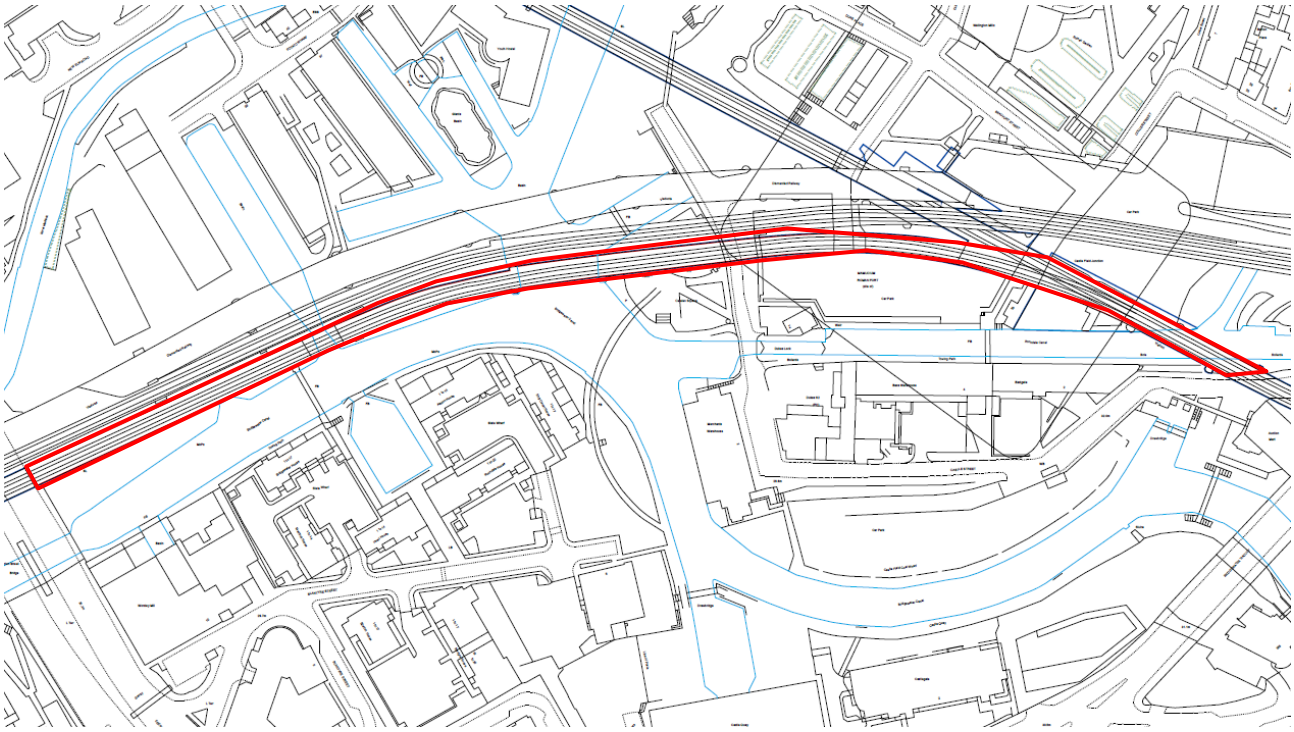


Section 1: Introduction

1. This Design, Access and Heritage Statement has been prepared in connection with an application for Listed Building Consent for the renewal of fixings works to the Manchester South Junction and Altrincham Railway Viaduct ("the Viaduct"). The Viaduct itself is Grade II Listed (ref 1200837), a map demonstrating the extent of the listing is included at Appendix 1. The Viaduct is located to the south of Manchester City Centre.

2. **Figure 1.1** below shows the broad location of the works subject to this application for Listed Building Consent. Further detail describing the proposed works is set out in Section 3 of this Statement and on the drawings plans with this application.

Figure 1.1: Overview of Broad Location of Works (indicated in red)



3. This Statement is structured as follows:

    - Section 1: Introduction – sets out the purpose and scope of the Design, Access, and Heritage Statement;

- Section 2: Site Location and Description – describes the site and the surrounding area and provides a summary of relevant planning history;
- Section 3: The Proposed Works – provides a description of the proposals and an explanation of their need and justification;
- Section 4: Legislative and Planning Policy Context – explains the relevant legislative, and national and local planning policy context and other guidance relevant to the proposed works;
- Section 5: Assessment of Heritage Significance and Impact; and
- Section 6: Summary and Conclusions.

4. A list of the various plans and drawings provided as part of this application for Listed Building Consent is included at **Appendix 2** of this Statement.

5. Given the nature of the proposals, which relate to predominantly to repair works, it is considered that the proposals do not constitute 'development'. The definition of development is defined under Section 55 of the Town and Country Planning Act 1990. Consequently, whilst Listed Building Consent is required for the works, planning permission or similar is not required in this instance.

Section 2: Site Location and Description

6. 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.

7. The viaduct is approximately 1 ¾ mile (2 ¾ km) long and incorporates 224 brick arches that average a span and height of approximately 30ft, and a width of 28ft.

8. Full details of the listing entry for the Viaduct (list reference: 1200837) are included at **Appendix 3**.

9. We have carried out a planning history search using Manchester City Council's online planning records. The search results demonstrate a history of minor listed building consent applications relating to the Viaduct's operational function as part of Network Rail's operations.

Section 3: The Proposed Works

The Proposed Works

10. The description of development is as follows:

    "Listed building consent for installation of new bracket fixings to 7no. overhead line railway masts at the Manchester South Junction and Altrincham Railway Viaduct.'

    More particularly, the following works are proposed:

    - Installation of new bracket fixings to 7no. railway overhead line masts at the following locations only, as shown on the site plan (ref: 161713-JMS-XX-MAJ-DRG-C-0001)
        - MA/00/24 UP and Down (Package A)
        - MA/00/23 UP (Package A)
        - MA/00/22 UP and DOWN (Package A)
        - MA/00/21 UP (Package A)
        - MAJ/00/17 UP Bolton (Package A)
    - The bracket fixings will be made of galvanized steel to match the existing brackets. They will not be powder coated in a specific colour.

11. For the avoidance of doubt, the existing bracket fixings will be retained in addition to the newly proposed as these provide a degree of stability. Consequently, their retention provides additional support and reliability to the newly proposed brackets.

12. Please note, as specified on the project drawings, all open joints in the brickwork within 1m of any proposed anchor location shall be raked out and repointed at point of installation. Note as these works are for repair only they are excluded from the description of development as they do not require listed building consent.

13. All works proposed to take place on site will be completed in accordance with relevant Historic England and Network Rail Best Practice Guidance.

Alternative Options

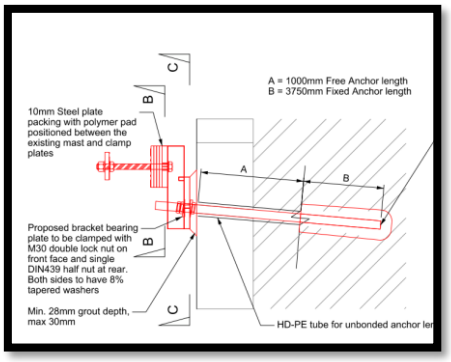
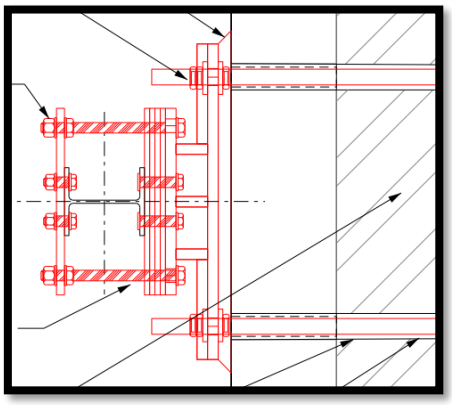
14. Alternative solutions were considered at the site, namely:

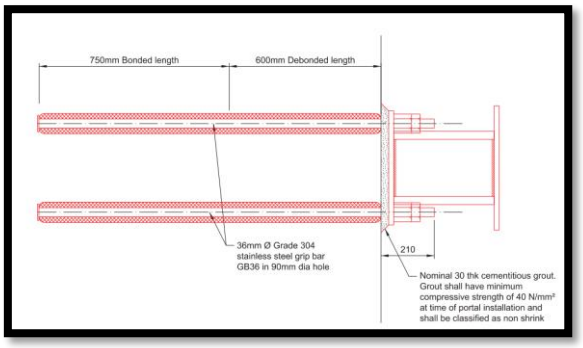
    i. Ischebeck TITAN grouted ground anchor; and

    ii. Masonry Anchor Solution

15. Table 3.1 provides an overview of these alternative options.

Table 3.1: Overview of Alternative Options

Option	Summary	Indicative Image
Ischebeck TITAN grouted ground anchor	Proposed Ischebeck TITAN grouted ground anchor. Requires circa 4m length embedment depth into masonry/backfill (viaduct piers are circa 8.5m wide). Assumes a relatively thin spandrel wall with structural backing for anchoring. Design requires bespoke prefabricated bracket for fixing the mast to the anchors.	 

Masonry Anchor Solution	Alternative solution. Similar bracket fixing arrangement as the ground anchor solution but with a long masonry anchor installed within a core in the wall. Design assumes a circa 1.5m width of spandrel wall is available for anchoring.	

16. The alternative options demonstrated in Table 3.1 were examined throughout the optioneering process for the proposed works. However, risks of voids within the structure were revealed which meant that the ground anchor solution would not be viable. Additionally, these options required significant supports and additional steelwork which not only would be over-engineered for the nature of the project but would result in additional harm to the listed structure by requiring additional fixings, deeper penetration and additional visible fixings.

17. The option proposed within this submission increases the ease of construction, increases tolerance reduce the risk of misalignment of brackets and reduces any harm on the asset by reducing the scale of the proposed works. The proposed option ensures a similar installation method to existing and reduces the depth required for installation when compared to alternative options. There are similar fixings in terms of size, scale and appearance already installed on the structure with the proposed matching these, visually these will be almost indistinguishable from other existing brackets of the same nature, a significant benefit of the proposed option over and above the alternatives shown in Table 3.1.

18. In summary, the chosen option is the most similar to fixings already in existence on the asset, additionally the chosen option reduces the impact on the listed asset in terms of drilling and other fixing impacts. It is the most sensitive of the proposed options, whilst also being the most effective from an engineering and construction perspective. As demonstrated in other sections of this Statement the proposals should be supported as they are for essential maintenance of the rail network and are complimentary to other existing brackets, the brackets are deminimis in their size and whilst all options would be considered to incur less than substantial harm (no harm) to the asset

due to the nature of the works it is considered that the proposed option is more sympathetic to the asset for the afore mentioned reasons.

Section 4: Legislative and Planning Policy Context

Overview

19. At the national level, the Planning (Listed Buildings and Conservation Areas) Act 1990 sets out the statutory duties to be followed by the local planning authority when assessing applications for planning permission and applications for listed building consent. Chapter 16 of the National Planning Policy Framework ("NPPF") sets out national planning policies relating to the conservation and enhancement of the historic environment.

20. At the local level, the site falls within the administrative area of Manchester City Council. The relevant adopted Development Plan for the area comprises:

- Places for Everyone Joint Development Plan for Bolton, Bury, Manchester, Oldham, Rochdale, Salford, Tameside, Trafford and Wigan 2022 to 2039
- Core Strategy (including Addendum to Core Strategy)

21. Historic England has also issued guidance on various topics, including in relation to railway infrastructure.

The Planning (Listed Buildings and Conservation Areas) Act 1990

22. This Act incorporates several 'statutory duties' for decision-makers, when assessing applications for planning permission and Listed Building Consent. These duties include:

> *"S. 16 (2): In considering whether to grant Listed Building Consent for any works the local planning authority or the Secretary of State shall have special regard to the desirability of preserving the building or its setting or any features of special architectural interest which it possesses."*
>
> *"S. 66: In considering whether to grant planning permission for development which affects a listed building or its setting, the local planning authority or, as the case may be, the Secretary of State shall have special regard to the desirability of preserving the building or its setting or any features of special architectural or historic interest which it possesses."*

"S. 72 (1) In the exercise, with respect to any buildings or other land in a conservation area, of any powers under any of the provisions mentioned in subsection (2), special attention shall be paid to the desirability of preserving or enhancing the character or appearance of that area."

23. Case law has determined that 'preserve' in the above context means 'to do no harm'. Case law has also clarified that:

    - There is a need to give considerable importance and weight to preserving listed buildings and their settings but the presumption 'to preserve' can be outweighed by material considerations where these are strong enough to do so; and
    - Where a decision maker has followed the process set out in the NPPF, in respect to weighing harm and benefits, they can reasonably be expected to have complied with the ['statutory duties'] of the Act.

National Planning Policy Framework

24. The current version of the NPPF was issued in December 2023.

25. NPPF Chapter 16 deals with conserving and enhancing the historic environment. It requires that the nature, extent, and importance of the significance of a heritage asset be assessed. In determining applications, paragraph 200 identifies that local planning authorities should require an applicant to describe the significance of any heritage assets affected, including any contribution made by their setting; and that the level of detail should be proportionate to the assets' importance and no more than is sufficient to understand the potential impact of the proposal on their significance.

26. Paragraph 201 goes on to state that local planning authorities should identify and assess the particular significance of any heritage asset that may be affected by a proposal (including by development affecting the setting of a heritage asset), taking account of the available evidence and any necessary expertise. They should take this into account when considering the impact of a proposal on a heritage asset, to avoid or minimise any conflict between the heritage asset's conservation and any aspect of the proposal.

27. In determining applications, Paragraph 203 requires LPAs to take account of:

    - the desirability of sustaining and enhancing the significance of heritage assets and putting them to viable uses consistent with their conservation;

- the positive contribution that conservation of heritage assets can make to sustainable communities including their economic vitality; and
- the desirability of new development making a positive contribution to local character and distinctiveness.

28. When considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset's conservation. This is irrespective of whether any potential harm amounts to substantial harm, total loss or less than substantial harm to its significance, although the more important the asset, the greater the weight should be (paragraph 205).

29. Where a proposed development will lead to substantial harm to (or total loss of significance of) a designated heritage asset, local planning authorities should refuse consent, unless it can be demonstrated that the substantial harm or total loss is necessary to achieve substantial public benefits that outweigh that harm or loss, or if the four circumstances listed in NPPF paragraph 207 apply.

30. Paragraph 208 requires that in circumstances that would lead to less than substantial harm to a designated heritage asset, the harm should be weighed against the public benefits of the proposal, including, where appropriate, securing its optimum viable use.

Places for Everyone Joint Development Plan for Bolton, Bury, Manchester, Oldham, Rochdale, Salford, Tameside, Trafford and Wigan 2022 to 2039 (2024)

Policy JP-P2: Heritage

31. Policy JP-P2 concerns heritage and states that opportunities will be pursued to aid the promotion, enjoyment, understanding and interpretation of heritage assets. Development affecting heritage assets will be required to have regard to national policy. The Policy outlines that the Council's will work with partners to positively conserve, sustain and enhance the historic environment.
32. This policy supports the conservation and enhancement of identified heritage assets within the authority area. This development is complaint with Policy JP-P2 as it will ensure the longevity of the existing onsite masts, reduces the likelihood of further future more invasive interventions and matches the existing onsite brackets.

Policy JP-Strat 14: A Sustainable and Integrated Transport Network

33. Policy JP-Strat 14 concerns sustainable transport networks. The Policy identifies that the public transport network will be improved so that half of all daily trips can be made via public transport, cycling and walking. The Policy identifies that a programme of investment into the transport network will facilitate this.
34. This Policy supports investment into sustainable modes of travel within the authority area. The proposed works will ensure the ongoing ability of Network Rail to operate trains in the area which will support the aims of Policy JP-Strat 14.

Core Strategy (originally published 2012, now including 2024 Addendum)

Policy T1: Sustainable Transport

35. Policy T1 supports the provision of sustainable high quality transport which encourages modal shift away from the car.
36. Policy T1 outlines the Council will support proposals that develop options alternate to the car, promote regeneration and economic vitality by relieving congestion and improving access to jobs and services.
37. The proposed works will ensure the ongoing ability of Network Rail to operate trains in the area which will support the aims of Policy T1.

Policy EN3: Heritage

38. Policy EN3 concerns heritage and outlines that development should support the Council in preserving or where possible enhancing the historic environment. This policy supports the conservation and enhancement of identified heritage assets within the authority area. This development is complaint with Policy EN3 as it will ensure the longevity of the existing onsite masts, reduces the likelihood of further future more invasive interventions and matches the existing onsite brackets.

Historic England- Conservation Principles, Policies and Guidance (2008)

39. This outlines the following Conservation Principles to provide a comprehensive framework for the sustainable management of the historic environment:

- Principle 1: The historic environment is a shared resource.
- Principle 2: Everyone should be able to participate in sustaining the historic environment.
- Principle 3: Understanding the significance of places is vital.
- Principle 4: Significant places should be managed to sustain their values.
- Principle 5: Decisions about change must be reasonable, transparent, and consistent.
- Principle 6: Documenting and learning from decisions is essential.

40. Conservation is defined as the process of managing change to a significant place in ways that will best sustain its heritage values, whilst recognising opportunities to reveal or reinforces those values for present and future generations.

41. Heritage values can be summarised as follows:

    - Evidential value – the potential of a place to yield evidence about past human activity (i.e., archaeological interest).
    - Historical value – the ways in which past people, events and aspects of life are connected through a place.
    - Aesthetic value – the ways in which people draw sensory and intellectual stimulation from a place (i.e., architectural, and artistic interest).
    - Communal value – the meanings of a place for the people that relate to it.

42. The guidance further outlines that new works or alterations to a significant place should normally be acceptable where:

    - there is sufficient information comprehensively to understand the impacts of the proposal on the significance of the place;
    - the proposal would not materially harm the values of the place, which, where appropriate, would be reinforced or further revealed;
    - the proposals aspire to a quality of design and execution which may be valued now and in the future; and
    - the long-term consequences of the proposals can, from experience, be demonstrated to be benign, or the proposals are designed not to prejudice alternative solutions in the future.

Historic England – Making changes to Heritage Assets. Advice Note 2. (2016)

43. The purpose of this Advice Note is to provide information on repair, restoration, addition, and alteration works to heritage assets to assist local authorities, owners, applicants, and other interested parties in implementing historic environment legislation, heritage policies in the National Planning Policy Framework ("NPPF") and the related guidance given in the Planning Practice Guidance ("PPG").

Historic England - Infrastructure: Transport Listing Selection Guide' (2017)

44. This Guide is of relevance when assessing the historic value associated with railway infrastructure. It sets out four 'ages' of railway construction which, in general descending importance, is as below:

- The pioneering first phase, 1825–41;
- The heroic age, 1841–50;
- The third phase 1850s–1870s, the consolidation of the network; and
- The fourth period, up to 1914, the completion of the network.

National Rail – Heritage: Care and Development (December 2020)

45. In 2020 National Rail published a practical guide to how best to maintain their historic and architecturally important operational infrastructure. This includes guidance on design considerations and ensuring the care and long-term maintenance of heritage assets.

Section 5: Heritage Significance and Impact

Significance of the Heritage Asset

46. To assess the heritage significance of the Grade II Listed Viaduct, in accordance with the provisions of the NPPF, it is important to make reference to heritage values as defined in the Historic England document Conservation Principles, Policies and Guidelines, which can be summarised as follows:

    - Evidential value – the potential of a place to yield evidence about past human activity (i.e., archaeological interest).
    - Historical value – the ways in which past people, events and aspects of life are connected through a place.
    - Aesthetic value – the ways in which people draw sensory and intellectual stimulation from a place (i.e., architectural, and artistic interest).
    - Communal value – the meanings of a place for the people that relate to it.

47. Having regard to the above, the Viaduct can be said to provide aesthetic value as a result of its scale as a 1 3/4 mile (2 3/4 km) long urban viaduct with highly decorative gothic style ironwork. Additionally, the viaduct is of historical value, it dates from the 'heroic age 'of railway development, 1841-50, often referred to as the era of 'railway mania' in which commercial speculation and competition for routes led to the rapid construction of lines and expansion of the railway network. More specially to the Viaduct's history itself it forms and important and integral component of the Manchester South Junction and Altrincham Railway, which was one of the country's earliest suburban railways and Manchester's first.

48. The Manchester South Junction & Altrincham Railway Act received Royal Assent on 21 July 1845. 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.

Proposals and Assessment of Impact upon Heritage Significance

The Proposed Works

49. As noted at Section 3 of this Statement, the following works are proposed:

- Installation of new bracket fixings to 7no. railway masts at the following locations only, as shown on the site plan (ref: 161713-JMS-XX-MAJ-DRG-C-0001)
    - MA/00/24 UP and Down (Package A)
    - MA/00/23 UP (Package A)
    - MA/00/22 UP and DOWN (Package A)
    - MA/00/21 UP (Package A)
    - MAJ/00/17 UP Bolton (Package A)
- The bracket fixings will be made of galvanized steel to match the existing brackets. They will not be powder coated in a specific colour.

Assessment of Impacts

50. As is outlined in Paragraph 205 of the NPPF, when considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset's conservation.

51. The proposals for the installation of new brackets at the Viaduct provide a solution to ensure the ongoing operation of the railway and the brackets chosen for use have been chosen specifically to match those already existing at the site to ensure that there is no impact on the listed structure. The works will ensure the retention of this heritage asset as a working railway and as an essential part of Manchester and the wider regions transport infrastructure.

52. In summary, the proposed works are considered to represent the optimum solution in terms of preserving the integrity of the structure with minimal impact on the historic fabric whilst still ensuring that the necessary works are completed.

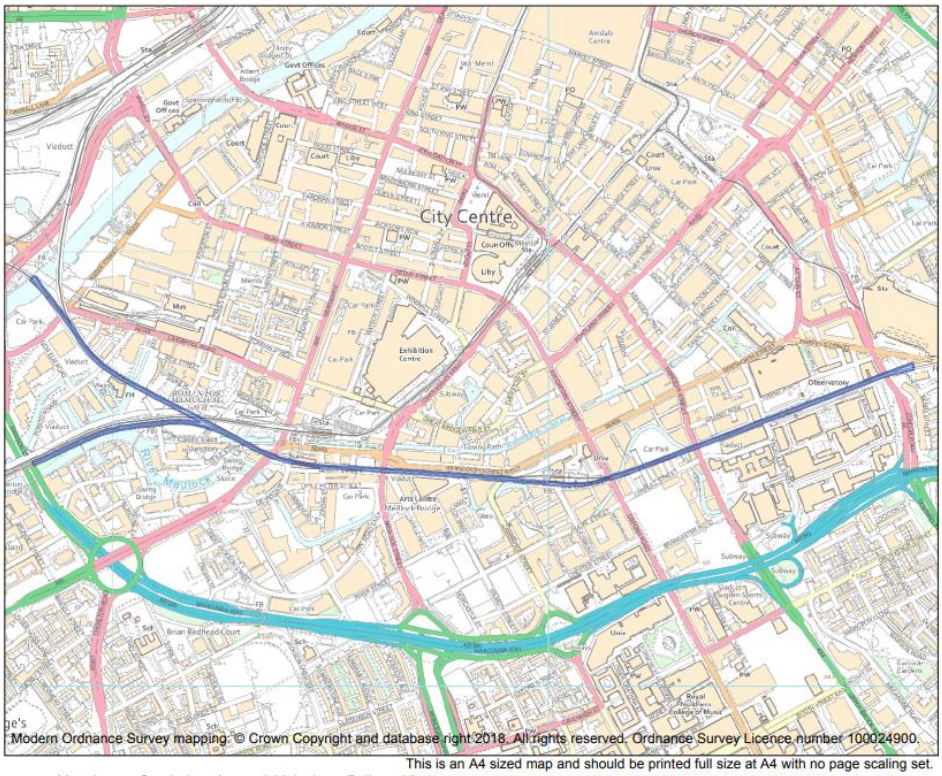
Section 6: Summary and Conclusions

53. The proposals align with National and Local Policy, in that they allow for the ongoing operation of the railway line and the works proposed are sympathetic to the existing heritage asset.

54. The proposed works will be carried out in a sympathetic manner and will ensure that the assets are safeguarded with the least amount of intervention whilst still ensuring that the necessary works can be completed. The proposed works will also support the attainment of other local policy objectives, including Local Planning Policy relating to the promotion of sustainable modes of transport.

55. In summary, the proposals are considered to be in accordance with relevant policy set out in the NPPF and Manchester City Council's Development Plan Documents. Regard has also been had to relevant guidance and advice, including that produced by Historic England and by Network Rail themselves. It is requested that Listed Building Consent be granted for the proposed development without delay.

APPENDIX 1: Map Demonstrating Extent of Listing (indicated in blue)



Modern Ordnance Survey mapping: © Crown Copyright and database right 2018. All rights reserved. Ordnance Survey Licence number 100024900.

This is an A4 sized map and should be printed full size at A4 with no page scaling set.

Name: Manchester South Junction and Altrincham Railway Viaduct

Heritage Category:	Listing
List Entry No :	1200837
Grade:	II

County:

District: Manchester, Salford

Parish: Non Civil Parish, Non Civil Parish

For all entries pre-dating 4 April 2011 maps and national grid references do not form part of the official record of a listed building. In such cases the map here and the national grid reference are generated from the list entry in the official record and added later to aid identification of the principal listed building or buildings.

For all list entries made on or after 4 April 2011 the map here and the national grid reference do form part of the official record. In such cases the map and the national grid reference are to aid identification of the principal listed building or buildings only and must be read in conjunction with other information in the record.

Any object or structure fixed to the principal building or buildings and any object or structure within the curtilage of the building, which, although not fixed to the building, forms part of the land and has done so since before 1st July, 1948 is by law to be treated as part of the listed building.

This map was delivered electronically and when printed may not be to scale and may be subject to distortions.

List Entry NGR:	SJ8382597704
Map Scale:	1:10000
Print Date:	25 November 2024

Historic England

HistoricEngland.org.uk

APPENDIX 2: List of Supporting Plans

Drawing No.	Revision	Description
161713-COL-DRG-ECV-000001	C02	Proposed Mast MA0017 Up Support and Lateral Strengthening
161713-COL-DRG-ECV-000002	C02	Proposed Mast MA0021 Up Support and Lateral Strengthening
161713-COL-DRG-ECV-000003	C02	Proposed Mast MA0022 DN Support and Lateral Strengthening
161713-COL-DRG-ECV-000004	C02	Proposed Mast MA0022 Up Support and Lateral Strengthening
161713-COL-DRG-ECV-000005	C02	Proposed Mast MA0023 Up Support and Lateral Strengthening
161713-COL-DRG-ECV-000006	C02	Proposed Mast MA0024 Up Support and Lateral Strengthening
161713-COL-DRG-ECV-000007	C02	Proposed Mast MA0024 DN Support and Lateral Strengthening
161713-JMS-XX-MJA_DRG-C-0001	P01	Cornbrook Viaduct OLE Structure Repairs
0579467	N/A	Location Plan
0579467	N/A	Site Plan

- APPENDIX 3: LIST DESCRIPTION

Official List Entry

- Heritage Category: Listed Building
- Grade: II
- List Entry Number: 1200837
- Date first listed: 6th June 1994

Location

- District: Manchester (Metropolitan Authority)
- Parish: Non Civil Parish
- District: Salford (Metropolitan Authority)
- National Grid Reference: SJ8382597704

Historic England Location Plan



Details

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 ¾ mile (2 ¾ 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 ¾ mile (2 ¾ 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.

NRIL
Waterloo General Office
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www.networkrail.co.uk