

Transpennine Route Upgrade West, Mirfield Viaduct (MVN2/192)

Mirfield, West Yorkshire

Historic Building Investigation and Recording

March 2025

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of TRU Alliance**

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Transpennine Route Upgrade West, Mirfield Viaduct (MVN2/192)

Historic Buildings Investigation and Recording

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with illustrations by Mark Tidmarsh

Contents

LIST OF FIGURES	4
LIST OF PLATES	4
SUMMARY	6
1 INTRODUCTION	7
1.1 PROJECT BACKGROUND	7
1.2 AIMS AND OBJECTIVES.....	7
1.3 LOCATION	7
2 METHODOLOGY	9
2.1 INTRODUCTION	9
2.2 SURVEY	9
3 BACKGROUND HISTORY	10
3.1 INTRODUCTION	10
3.2 MAP REGRESSION.....	10
4 PHOTOGRAPHIC SURVEY	12
4.1 INTRODUCTION	12
4.2 CONCLUSION.....	34
BIBLIOGRAPHY	35
APPENDIX A WRITTEN SCHEME OF INVESTIGATION.....	36
APPENDIX B OASIS FORM.....	37

List of Figures

- Figure 1 Site location
Figure 2 Listed assets plan
Figure 3 Photographic location plan

List of Plates

- Plate 1: Excerpt of the first edition six-inch OS (surveyed 1851, published 1855), arrow shows site location
- Plate 2: Excerpt of the 25-inch OS map of 1894, arrows show site location
- Plate 3: Northern elevation of Mirfield Viaduct (MVN2/192) (NHLE 1313676), showing spans 12 to 5
- Plate 4: Northern elevation of the viaduct, showing span 1
- Plate 5: Northern elevation, area next to span 1, showing shallow buttress and ashlar string course
- Plate 6: Northern elevation, span 1, displaying the rusticated ashlar quoins
- Plate 7: Mirfield Viaduct (MVN2/192) (NHLE 1313676), inside span 1, 1m scale
- Plate 8: Close-up of span 1 and its decorated string course, 1m scale
- Plate 9: Span 1, displaying mason's marks, 100mm scale
- Plate 10: Span 1, looking West, showing curved shallow pier and arch incline, 1m scale
- Plate 11: Northern elevation, spans 2 to 1 (west to east)
- Plate 12: Northern elevation, span 2, 1m scale
- Plate 13: Northern elevation, curved pier between spans 2 to 1, 1m scale
- Plate 14: Northern elevation, span 2, showing rusticated masonry, 2m scale
- Plate 15: Span 2, masonry marks, 100mm scale
- Plate 16: Span 2, shows extent of length of original viaduct, 2m scale
- Plate 17: Span 2 of the viaduct, masonry fittings, 100mm scale
- Plate 18: Northern elevation, spans 4 to 3 (west to east)
- Plate 19: Span 3 in Mirfield Viaduct (MVN2/192) (NHLE 1313676), construction joint from rusticated ashlar to 1930s red brick, looking east, 2m scale
- Plate 20: Span 3, masonry marks, 100mm scale
- Plate 21: Span 3, displaying decorated string course between horizontal rusticated ashlar and angled blocks, 2m scale
- Plate 22: Northern elevation of the viaduct, spans 4 to 1 (west to east)
- Plate 23: Northern elevation, span 4 of the viaducts, 2m scale
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- Plate 24: Northern elevation, curved pier between spans 4 to 3, 2m scale
- Plate 25: Span 4, showing extent of pier, looking north-west, 2m scale
- Plate 26: Span 4, displaying the curved pier and underside construction joint of ashlar and steel, 2m scale
- Plate 27: Northern elevation, spans 4 to 2 (west to east)
- Plate 28: Northern elevation, buttress' between spans 5 and 4 (west to east), 2m scale
- Plate 29: Northern elevation, buttress between spans 5 and 4 (west to east), displaying ashlar band below string course
- Plate 30: Northern elevation, span 5, 2m scale
- Plate 31: Span 5, shows original rusticated ashlar viaduct abutted by 1930s brick viaduct extension, 2m scale
- Plate 32: Northern elevation, span 5, showing rubble boundary wall against viaduct pier, 2m scale
- Plate 33: Span 5, looking north-east, showing rusticated ashlar arch abutted construction joint with brick extension, 2m scale
- Plate 34: Northern elevation, over river spans 9 to 6 (west to east)
- Plate 35: Northern elevation, spans 7 to 6 (west to east)
- Plate 36: Northern elevation, spans 8 to 7 (west to east)
- Plate 37: Northern elevation, spans 10 to 7 (west to east)
- Plate 38: Northern elevation, spans 12 to 8 (west to east)
- Plate 39: Northern elevation, span 12
- Plate 40: Northern elevation, area and buttress next to span 12, 2m scale
- Plate 41: Northern elevation, span 12, small, truncated pier, 2m scale
- Plate 42: Northern elevation, span 12 buttress, tooled margin
- Plate 43: Span 12, looking east, rivetted steel girders, 2m scale
- Plate 44: Northern elevation, spans 11 and 10 (west to east), to the east of span 1
- Plate 45: Northern elevation, spans 8 to 5 (west to east)
- Plate 46: Southern elevation, brick and steel 1930s extension, excluded from listing

SUMMARY

In April 2023, Oxford Archaeology (OA) was commissioned by BAM Nuttall to undertake an Historic Investigation and Building Recording of the Grade II-listed Mirfield Viaduct (MVN2/192) (NHLE 1313676), Mirfield, West Yorkshire. The work, which was stipulated by Kirklees Council (2021/65/91333/E) as a condition of Listed Building Consent, was undertaken ahead of the erection of overhead line structures on Mirfield Viaduct as part of a series of works along the Transpennine Route Upgrade (TRU). The survey was carried out on the 18th and 19th January 2024.

The viaduct was constructed between 1836 and 1839, and underwent a programme of enlargement in 1932, where it was widened to accommodate two extra tracks. Originally built of rock-faced sandstone, its later development saw a contrast in style, with the 1932 expansion, not included in the Grade-II listing, being constructed from a steel and brick structure abutting its southern elevation.

Mirfield Viaduct is an example of an original component of the Transpennine Route. It preserves within its fabric evidence of the railway's expansion during the late nineteenth century and reflects the social, technological and economic development of the period. Its large-scale marks it out as a significant landmark within Mirfield. Its survival and continued use provide context to Mirfield Station and contributes to the wider historic landscape of the area's industrial past.

1 INTRODUCTION

1.1 Project Background

1.1.1 In April 2023, Oxford Archaeology (OA) was commissioned by BAM Nuttall to undertake an Historic Investigation and Building Recording of the Grade II Listed Mirfield Viaduct (MVN2/192) (NHLE 1313676), Mirfield, West Yorkshire (NGR: SE 20064 19585; Fig 1).

1.1.2 Mirfield Viaduct, a 12-span viaduct constructed to carry the Manchester and Leeds Railway over the River Calder, was constructed between 1836 and 1839. The viaduct is subject to Listed Building Consent following the proposals for erection of overhead line electrification structures. This forms part of an agreed mitigation strategy with a programme of works along the Transpennine Route Upgrade (TRU) granted by the Conservation Officers at Kirklees Council, acting on advice of the Senior County Archaeologist at West Yorkshire Archaeological Advisory Service (2021/65/91333/E). The condition (defined in sections 5.2 and 5.3 of the Written Scheme of Investigation (WSI; *Appendix A*) stipulated that a Level 1 survey in accordance with the Historic England (2016) guidance, should take place prior to the commencement of works. The fieldwork was completed on the 19th January 2024.

1.2 Aims and Objectives

1.2.1 The principal aim of the survey was to document the current form and survival of Mirfield Viaduct (MVN2/192) (NHLE 1313676), prior to any alteration or removal of materials, to provide a lasting record of the structure's present state. To achieve these aims the following objectives were proposed:

- to record Mirfield Viaduct to a Level 1 standard as relevant for individual sections, as defined in Sections 5.2 and 5.3 of the WSI (*Appendix A*), in line with Historic England guidance (2016);
- to disseminate the results of the recording works through deposition of an ordered digital archive and detailed report with the West Yorkshire Historic Environment Record (HER); and West Yorkshire Archive Service, in accordance with the requirements of the West Yorkshire Archaeological Advisory Service (WYAAS); and
- to disseminate the results of the recording works through deposition of digital data and report the Archaeology Data Service (ADS) and submit details of the project to the Online Access to Index of Archaeological Investigations (OASIS) Project.

1.3 Location

1.3.1 Mirfield Viaduct (MVN2/192) (NHLE 1313676), Mirfield, West Yorkshire (NGR: SE 20064 19585; Fig 1) forms part of the Transpennine Route and is located respectively 6.5km north-east and 4.5km south-west of Huddersfield and Dewsbury stations. The viaduct crosses the River Calder 0.3km west of Mirfield Station and lies 100m south of the junction between the River Calder and the western end of the Calder and Hebble Navigation (Mirfield to Shepley Bridge cut).

- 1.3.2 The solid geology of the site is mapped as mudstone, siltstone and sandstone of the Pennine Lower Coal Measures Formation, formed in the Carboniferous Period (BGS 2024). The superficial geology is mapped as clay, sand, silt and gravel head deposits for the length of the viaduct (*ibid*). The soils are mapped as loamy and clayey soils with naturally high groundwater (Cranfield University 2024).

2 METHODOLOGY

2.1 Introduction

2.1.1 A Level 1 survey to Historic England (2016) standards is primarily a visual record, with basic contextual information. A full detailed methodology is contained within the Written Scheme of Investigation (WSI; *Appendix A*).

2.2 Survey

2.2.1 **Photographic Record:** a Canon EOS 2000D digital SLR (24 megapixel) camera, with a selection of lenses, was used for the photographic record. The record comprises landscape and detailed photography; the detailed photographs of archaeological features incorporated a scale bar where appropriate. Archive photographic locations are presented on the relevant plots (Fig 3). Archival images comprise jpgs and Canon RAW format files (cr2) saved as 8-bit TIFFs. The data is stored on two separate servers on different sites, with appropriate back-up and disaster plans in place.

2.2.2 **Drawings:** plans and elevations supplied by the client in PDF format were checked for accuracy and any pertinent detail was added. The final plans, created within an industry-standard CAD package (Autocad 2016), were annotated to create Figs 2 and 3.

2.2.3 **Archive:** a full professional archive has been compiled in accordance with current ClfA (2020b) and Historic England guidelines (2015). The paper and digital archive will be deposited with the West Yorkshire Historic Environment Record (HER) on completion of the project.

3 BACKGROUND HISTORY

3.1 Introduction

3.1.1 A detailed historical background of the Transpennine Route and the Mirfield Viaduct (MVN2/192) was produced for the Heritage Assessment (Network Rail 2021) and the WSI (Network Rail 2022; *Appendix A*), and, as such, is not reproduced fully here. What is presented is a summary and a historic map regression showing the development of the viaduct and the surrounding area to the south of Mirfield town centre.

3.1.2 Mirfield Viaduct (MVN2/192; NHLE 1313676, grade-II listed as *Railway Bridge Over River Calder (Mirfield Cooper Bridge Line)*) was constructed between 1836 and 1839 during the ‘pioneering age’ of railway construction (1825-41; Network Rail 2022). Like most of the structures along the Manchester and Leeds Railway, it was jointly engineered by George Stephenson and Thomas Gooch. The 12-span viaduct was constructed to carry the railway over the River Calder, just to the south of the Calder and Hebble Navigation (Mirfield cut). The structure forms one of a pair of Stephenson and Gooch-engineered viaducts in Mirfield; the other, Wheatley’s Viaduct (MVN2/196) (NHLE 1450703), is located approximately 1.3km to the east.

3.1.3 Mirfield viaduct was expanded and altered to the south in 1932 to accommodate two extra tracks (Fig 2). The easternmost span of the original structure also appears to have been altered at this time. In contrast to the 1836-39 viaduct, the expansion was constructed in steel on brick piers, which gives the structure a wholly different character depending from which side it is viewed. The expanded 1932 steel spans of the structure are excluded from its Grade II listing and were therefore not included in the historic building investigation (Network Rail 2022).

3.2 Map Regression

3.2.1 The earliest map to depict Mirfield Viaduct (MVN2/192) (NHLE 1313676) is the first edition Ordnance Survey (OS) map of 1855 (surveyed 1851; Plate 1). The viaduct is located to 0.3km west of Mirfield Station on its current alignment of north-east to south-west and is labelled as the ‘London and North-Western Railway (Huddersfield and Manchester Section)’. There are a series of mills in the vicinity; to the west is Butt End Mill, which produced cloth and Ledgard Mill to the east, which specialised in corn production. There are tenter-fields on the western bank of the river (HER 13996) and to the north of the viaduct is a weir, which lies to the south of the Calder and Hebble Navigation. The landscape around its southern section is shown to be mainly agricultural land with the mid-nineteenth century townscape set back from its edge.

3.2.2 Historic OS mapping surveyed during the late 1880s shows the locations of both Mirfield Viaduct (MVN2/192) (NHLE 1313676; Historic England 2024a) and Wheatley’s Viaduct (MVN2/196) (NHLE 1450703; Historic England 2024b) (Plate 2). There has been an expansion of mill buildings constructed in the vicinity, including over the former tenter-fields belonging to Butt End Mill. There have also been additional railway lines constructed, with Mirfield Station having been added to (Clickheaton Junction). A football ground has also been

constructed, to the south of Mirfield Station. Further to the west, along the Hebble and Calder Navigation the railway has also expanded, to include goods yards and lines and a goods shed serving Woodend and Victoria Malt Kilns. The railway lines crossing the viaduct remain unaltered. The 25-inch OS map of 1933 was surveyed in 1930, two years earlier than the documented expansion of the viaduct.



Plate 1: Excerpt of the first edition six-inch OS (surveyed 1851, published 1855), arrow shows site location

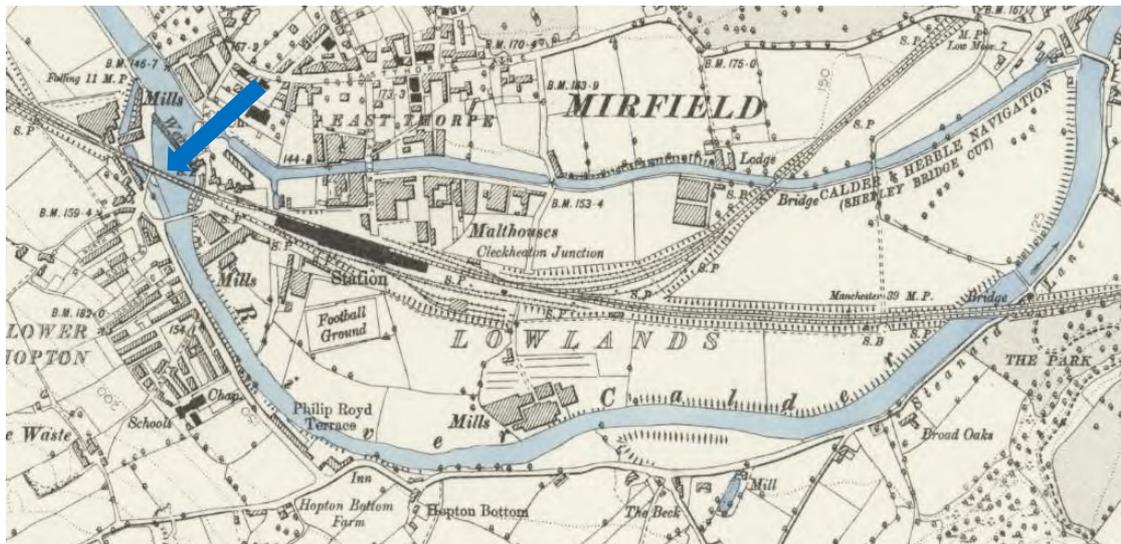


Plate 2: Excerpt of the 25-inch OS map of 1894, arrows show site location

4 PHOTOGRAPHIC SURVEY

4.1 Introduction

- 4.1.1 Mirfield Viaduct (MVN2/192) (NHLE 1313676), Mirfield, West Yorkshire (NGR: SE 20064 19585) is roughly aligned east to west. As its southern elevation is excluded from its Grade II listing, the northern elevation is the focus of the photographic record. The northern elevation of the viaduct, which is constructed primarily of rock-faced sandstone, has 12 spans of skew arches. Its twelfth (easternmost/westernmost) span, above Newgate, has riveted steel girders to stabilise the structure.



Plate 3: Northern elevation of Mirfield Viaduct (MVN2/192) (NHLE 1313676), showing spans 12 to 5



Plate 4: Northern elevation of the viaduct, showing span 1



Plate 5: Northern elevation, area next to span 1, showing shallow buttress and ashlar string course



Plate 6: Northern elevation, span 1, ashlar voussoir



Plate 7: Mirfield Viaduct (MVN2/192), inside span 1m scale



Plate 8: Close-up of span 1 and its string course, 1m scale



Plate 9: Span 1, displaying mason's marks, 100mm scale



Plate 10: Span 1, looking west, showing curved shallow pier and arch incline, 1m scale



Plate 11: Northern elevation, spans 2 to 1 (west to east)



Plate 12: Northern elevation, span 2, 1m scale



Plate 13: Northern elevation, curved pier between spans 2 to 1, 1m scale

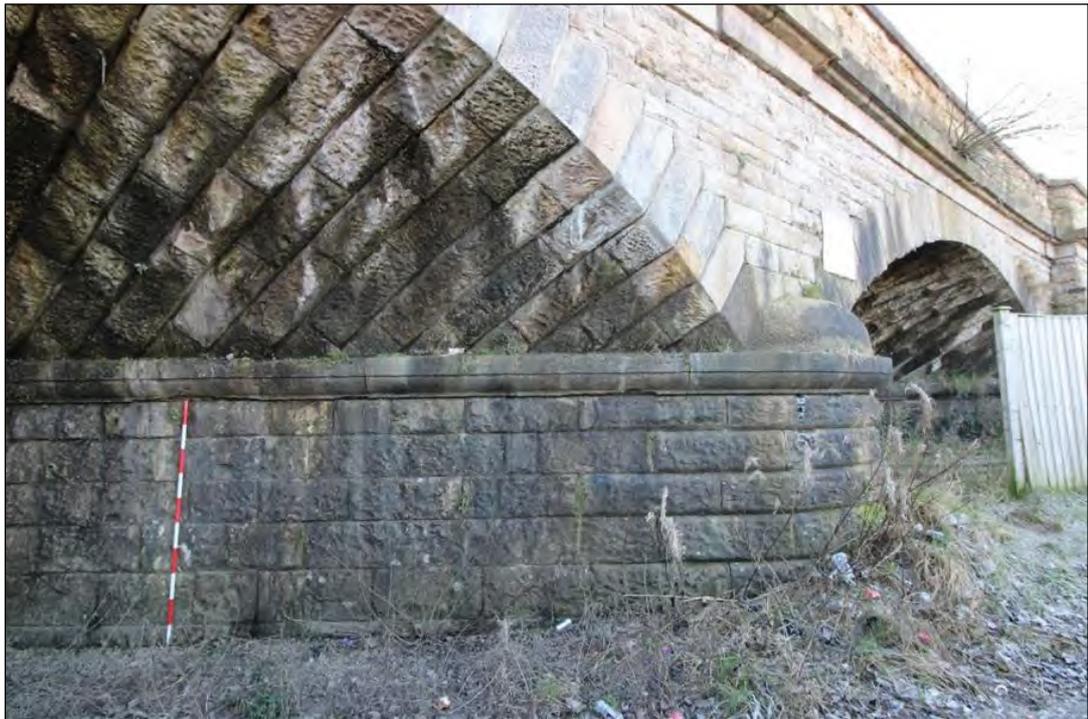


Plate 14: Northern elevation, span 2, showing rusticated masonry, 2m scale



Plate 15: Span 2, masonry marks, 100mm scale



Plate 16: Span 2, shows extent of length of original viaduct, 2m scale



Plate 17: Span 2 of the viaduct, masonry fixings, 100mm scale



Plate 18: Northern elevation, spans 4 to 3 (west to east), 2m scale



Plate 19: Span 3, construction joint from rusticated ashlar to 1930s red brick, looking east, 2m scale



Plate 20: Span 3, masonry marks, 100mm scale



Plate 21: Span 3, displaying decorated string course between horizontal rusticated ashlar and angled blocks, 2m scale



Plate 22: Northern elevation of the viaduct, spans 4 to 1 (west to east)



Plate 23: Northern elevation, span 4, 2m scale



Plate 24: Northern elevation, curved pier between spans 4 to 3, 2m scale



Plate 25: Span 4, showing extent of pier, looking north-west, 2m scale

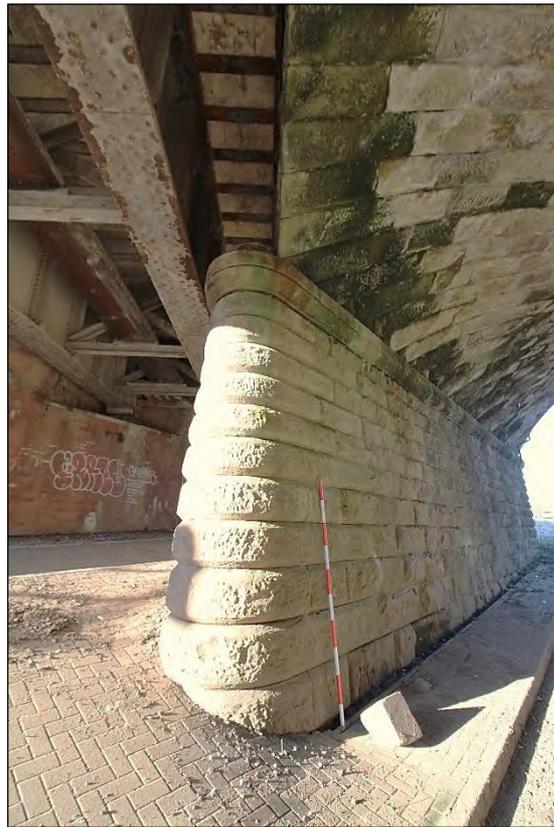


Plate 26: Span 4, displaying the curved pier and underside construction joint of ashlar and steel, 2m scale



Plate 27: Northern elevation, spans 4 to 2 (west to east)



Plate 28: Northern elevation, buttresses between spans 5 and 4 (west to east), 2m scale



Plate 29: Northern elevation, buttress between spans 5 and 4 (west to east), displaying ashlar band below string course, 2m scale



Plate 30: Northern elevation, span 5, 2m scale



Plate 31: Span 5, shows original rusticated ashlar viaduct abutted by 1930s brick viaduct extension, 2m scale

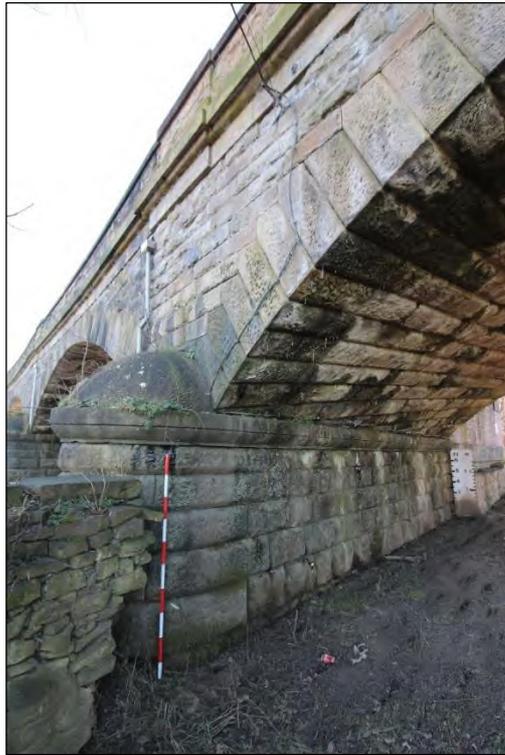


Plate 32: Northern elevation, span 5, showing rubble boundary wall against viaduct pier, 2m scale



Plate 33: Span 5, looking north-east, showing rusticated ashlar arch abutted construction joint with brick extension, 2m scale



Plate 34: Northern elevation, over river spans 9 to 6 (west to east)



Plate 35: Northern elevation, spans 7 to 6 (west to east)



Plate 36: Northern elevation, spans 8 to 7 (west to east)



Plate 37: Northern elevation, spans 10 to 7 (west to east)

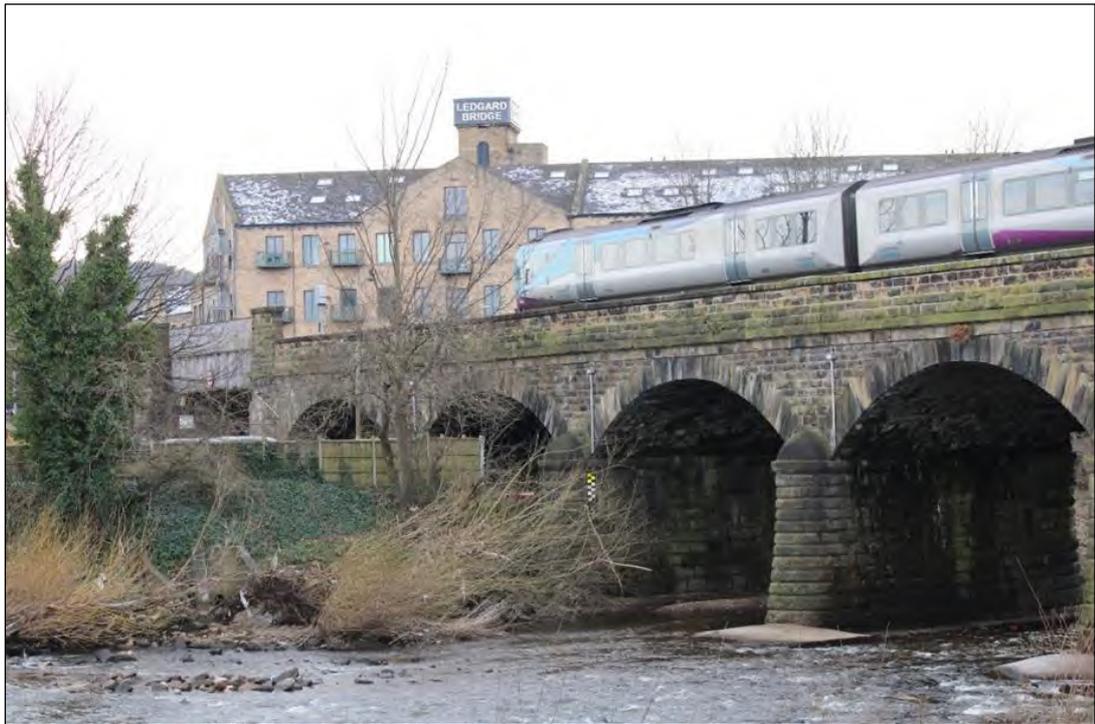


Plate 38: Northern elevation, spans 12 to 8 (west to east)



Plate 39: Northern elevation, span 12



Plate 40: Northern elevation, area and buttress next to span 12, 2m scale

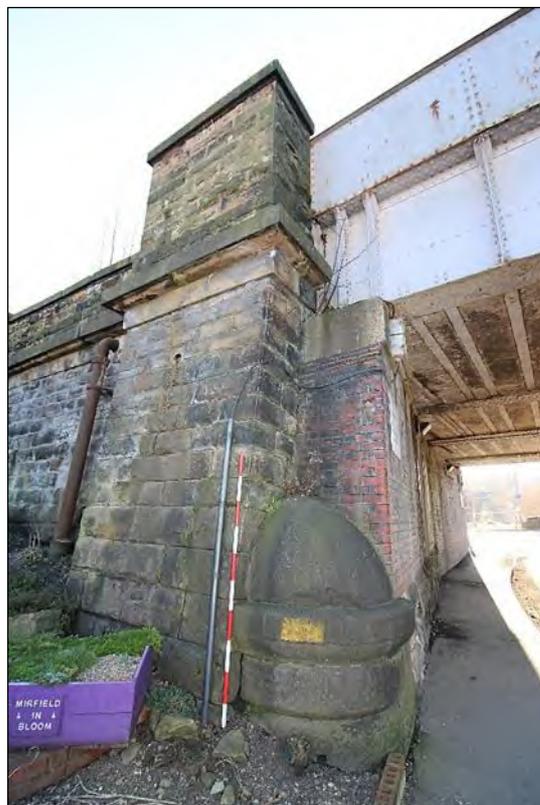


Plate 41: Northern elevation, span 12, small, truncated pier, 2m scale

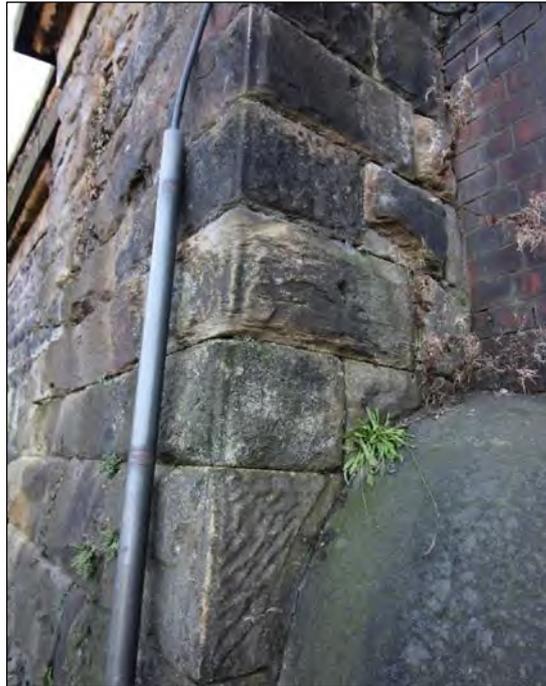


Plate 42: Northern elevation, span 12 buttress, tooled margin



Plate 43: Span 12, looking east, rivetted steel girders, 2m scale



Plate 44: Northern elevation, spans 11 and 10 (west to east), to the East of span 12



Plate 45: Northern elevation, spans 8 to 5 (west to east)



Plate 46: Southern elevation, brick and steel 1930s extension, excluded from listing

4.2 Conclusion

- 4.2.1 This report presents the results of the Level 1 historic building survey of Mirfield Viaduct (MVN2/192) (NHLE 1313676), with support from a historic map regression. Photographic recording has illustrated its stone-built form and classically derived styling as well as the 1930s brick and steel expansion. The expansion is not part of its Grade II-listing.
- 4.2.2 First depicted on the 6-inch OS map of 1851, the structure is an original architectural element of the Transpennine Route, built during the period of 'railway mania' during the 1840s and 1850s and reflecting the social, technological and economic development of the period. The historic mapping illustrates its proximity to the Calder and Hebble Navigation as well as the nearby mills and other industries that had formerly been reliant on water power and canal transport, with the western end of the viaduct carrying the railway over the tail leat of Butt End Mill to accommodate the earlier business. The exponential expansion of the railway network either side of the viaduct illustrates that it had become a bottleneck long before the 1930s when the bridge was extended.
- 4.2.3 Mirfield Viaduct is a significant landmark within its local area and it continues to carry out its original purpose. Its survival provides context to historic landscape, that contributes to Mirfield's industrial past and the development of the Transpennine Route.



Figure 1: Site location

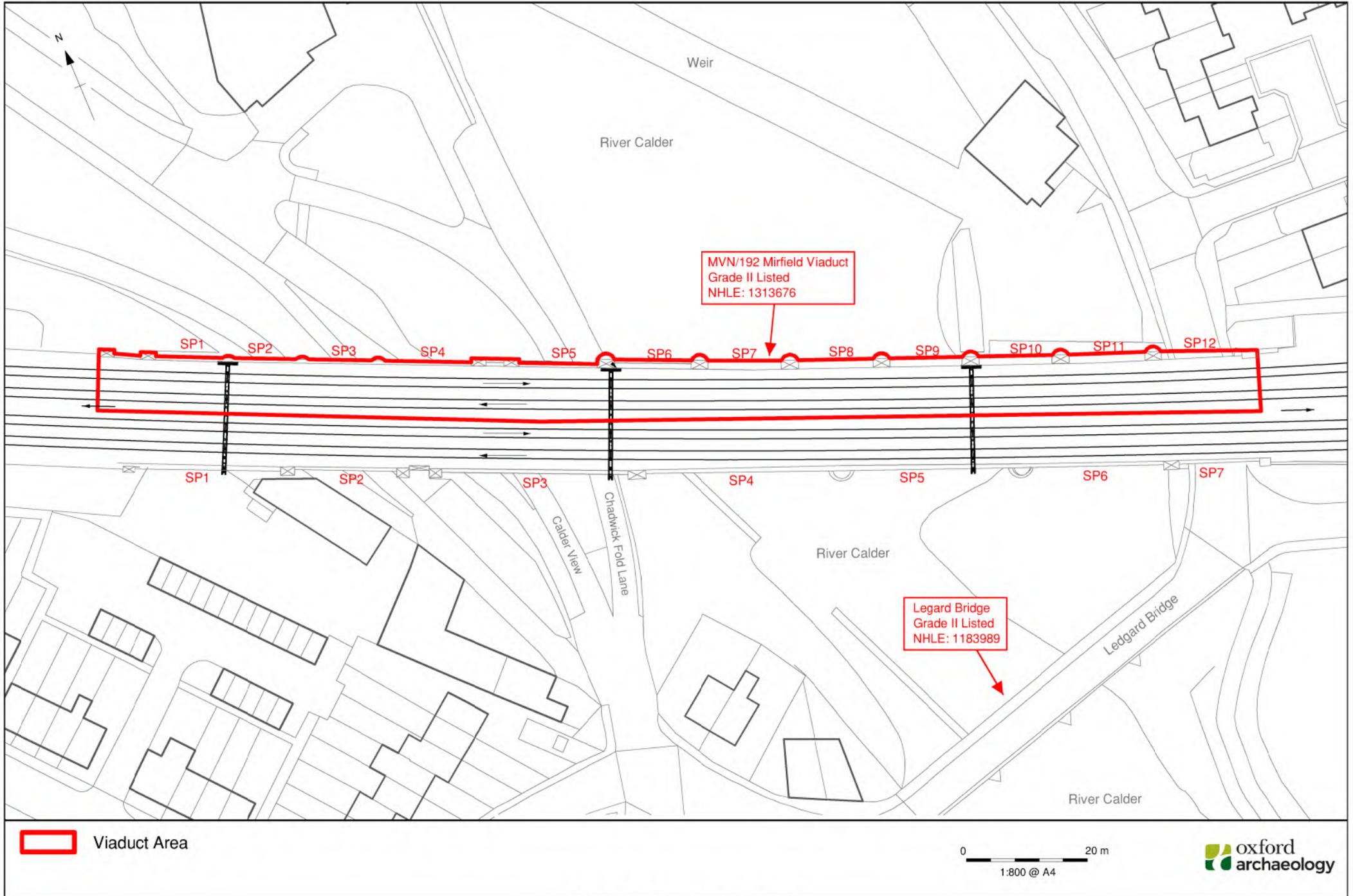
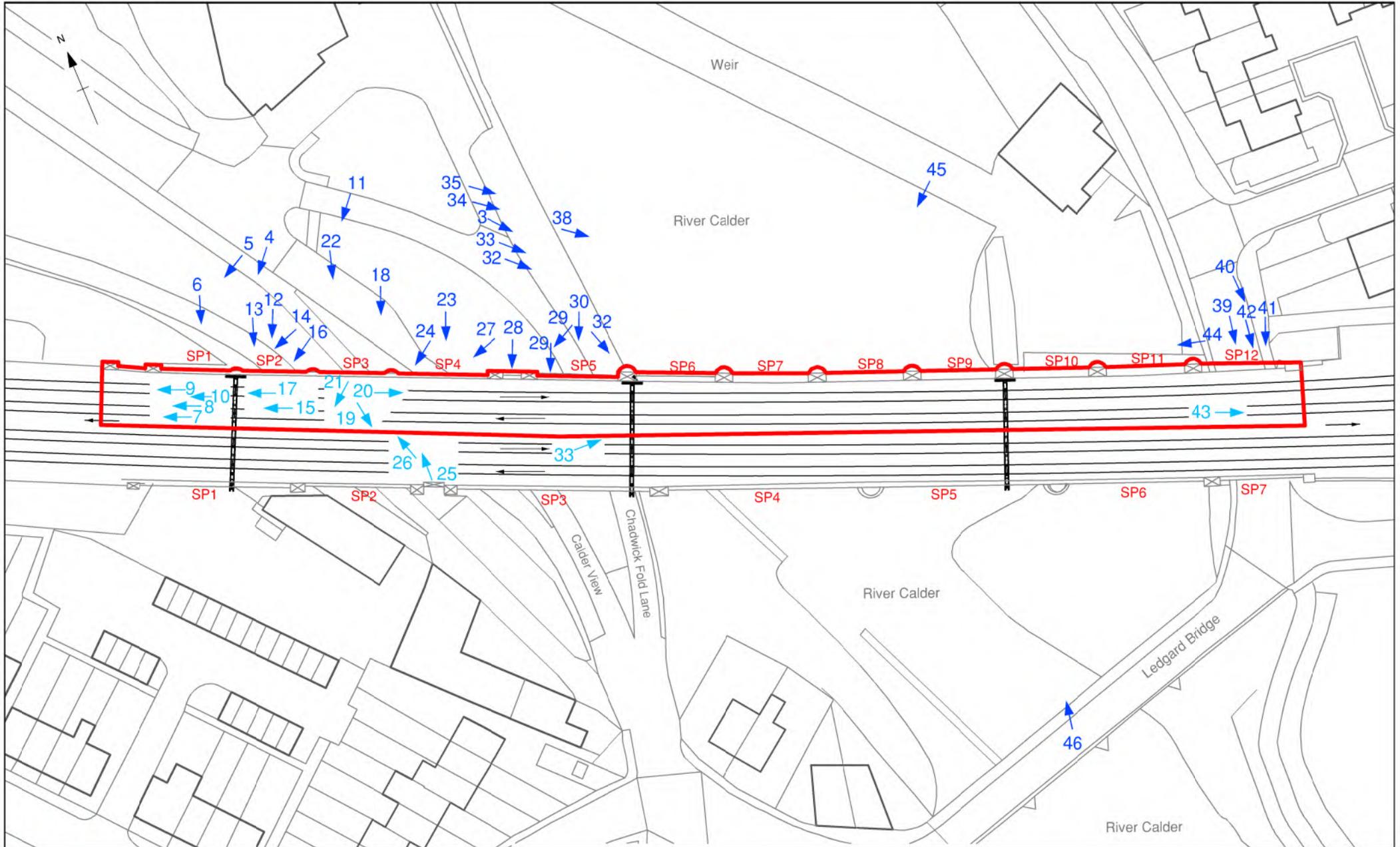


Figure 2: Listed assets plan



Viaduct Area



Photographic Location and Direction



Photographic Location and Direction (below viaduct)



Figure 3: Photographic plan

BIBLIOGRAPHY

Cartographic sources

Ordnance Survey, 1855 (surveyed 1850-51) Yorkshire Sheet CCXLVII, 6 inches to the mile, National Library of Scotland

Ordnance Survey, 1893 (surveyed 1888) Yorkshire Sheet CCXLVII.5, 25 inches to the mile, National Library of Scotland

Secondary sources

Baxter, A, 2019 Transpennine Route Upgrade Route-wide Statement of Significance: *Prepared for Network Rail*, London

British Geological Survey (BGS), 2024 *Geology Viewer* [Online] available at: <https://geologyviewer.bgs.ac.uk> (accessed 18th March 2024)

Chartered institute for Archaeologists (CIfA), 2020 *Standard and Guidance for the archaeological investigation and recording of standing buildings or structures*, Reading

CIfA 2020b *Standard and guidance for the creation, preparation, transfer and deposition of archaeological archives*, Reading

Cranfield University 2024 *Soilscapes Map* [Online] available at: <https://www.landis.org.uk/soilscapes/> Cranfield University (accessed 18th March 2024)

Historic England, 2015a *Management of Research Projects in the Historic Environment: the MoRPHE project managers guide*, London

Historic England, 2015b *Digital image capture and file storage: guidelines for best practice*, London

Historic England, 2016 *Understanding Historic Buildings: A Guide to Good Recording Practice*, London

Historic England 2024a, Mirfield Viaduct, [Online], available at: <https://historicengland.org.uk/listing/the-list/list-entry/1313676> (Accessed 19th March 2024)

Historic England 2024b, Wheatley Viaduct, [Online] available at: <https://historicengland.org.uk/listing/the-list/list-entry/1450703> (accessed 18th March 2024)

Network Rail 2021 *The Network Rail (Huddersfield to Westtown (Dewsbury) Improvements) Order, Mirfield Viaduct Underbridge (MVN2/192)– Heritage Assessment*, unpublished document

Network Rail 2022 *Transpennine Route Upgrade Written Scheme of Investigation – Mirfield Viaduct (MVN2/192)*, unpublished document

APPENDIX A WRITTEN SCHEME OF INVESTIGATION

NetworkRail

Transpennine Route Upgrade Written Scheme of Investigation – Mirfield Viaduct (MVN2/192)

Network Rail

September 2022



Contents

1. INTRODUCTION	4
1.1 The Scheme	4
1.2 Aims and Objectives	5
2. HISTORICAL BACKGROUND	7
3. STANDARDS AND GUIDANCE	9
4. SCOPE OF WORKS	10
5. METHODOLOGY	17
5.1 Documentary research	17
5.2 Historic building recording to Level 1 standard.....	17
5.3 Post-Fieldwork reporting	18
5.4 Submission of report	19
5.5 Copyright.....	20
5.6 Archiving	20
5.7 Programme	20
6. STANDARDS AND RESPONSIBILITIES	22
6.1 Project role definitions	22
6.2 Health and safety considerations	22
6.3 Monitoring	22
6.4 Communication and engagement	22
7. REFERENCES	24

Tables

Table 4-1 Structures to be recorded.....	10
Table 5-1 Programme for the historic building recording	20

Inserts

Insert 1-1 Route overview of the Huddersfield to Westtown (Dewsbury) section of the Transpennine Route Upgrade (TRU), showing Route Sections.....	4
Insert 4-1 Mirfield Viaduct (MVN2/192) Location Plan.....	11

Insert 4-2 Mirfield Viaduct (MVN2/192) Location Plan showing nearby heritage assets. 12

Insert 4-3 View of Mirfield Viaduct (MVN2/192), northern elevation, looking south..... 13

Insert 4-4 Close up view of Mirfield Viaduct (MVN2/192), showing northern elevations of spans to the west of the River Calder, looking south..... 13

Insert 4-5 Views of the southern metallic extension to Mirfield Viaduct (MVN2/192), looking north, excluded from the Grade II Listing. Note, this section need not be included in the historic building recording. 14

Insert 4-6 Parking and walking route for survey of Mirfield Viaduct (MVN2/192) (from the western side of the River Calder)..... 15

Insert 4-7 Parking and walking route for survey of Mirfield Viaduct (MVN2/192) (from the eastern side of the River Calder)..... 16

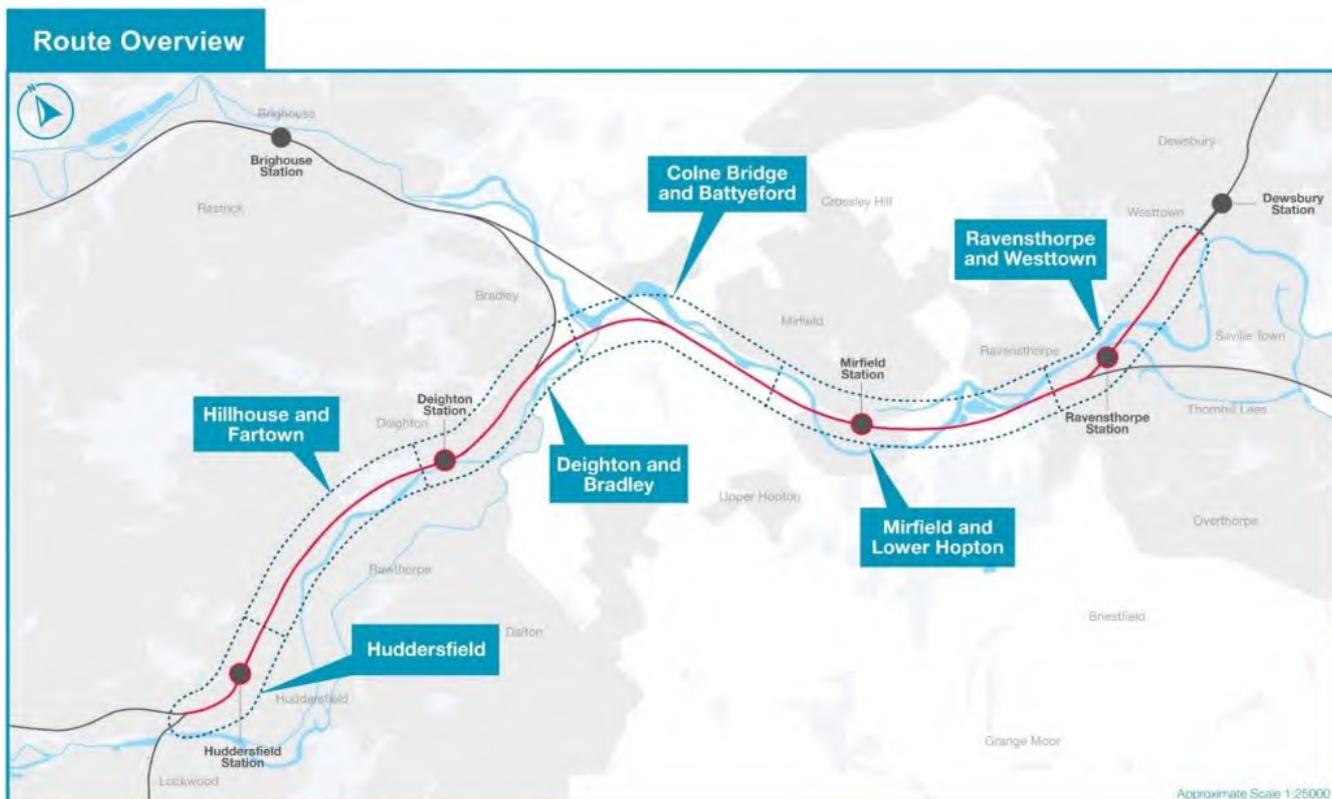
1. INTRODUCTION

1.1 The Scheme

1.1.1 The objective of the Transpennine Route Upgrade (TRU) is to improve the Transpennine railway between Manchester, Huddersfield, Leeds and York and improve connections between key towns and cities across the north of England. The works to which this document relate lie within the Network Rail (Huddersfield to Westtown (Dewsbury) Improvements) Order and will contribute to the overall TRU aims of increasing service capacity and offering journey time benefits. This will deliver four tracking and upgrading of the existing railway line including track realignment, electrification of the line, increase in line speeds and remodelling and replacement of stations, as well as various other engineering works necessary to realise the benefits of the scheme including alterations to, or replacement or demolition of, existing bridge structures.

1.1.2 For the purposes of engineering and construction, this section of TRU has been split into six sub-sections (“Route Sections”) as set out below and presented indicatively in Insert 1-1.

- Route Section 1 – Huddersfield;
- Route Section 2 – Hillhouse to Fartown;
- Route Section 3 – Deighton and Bradley;
- Route Section 4 – Colne Bridge and Battyeford;
- Route Section 5 – Mirfield and Lower Hopton; and
- Route Section 6 – Ravensthorpe and Westtown



Insert 1-1 Route overview of the Huddersfield to Westtown (Dewsbury) section of the Transpennine Route Upgrade (TRU), showing Route Sections.

1.1.3 Mirfield Viaduct (MVN2/192) is situated in Route Section 5 – Mirfield and Lower Hopton.

- 1.1.4 The Written Scheme of Investigation (WSI) covers historic building recording (HBR) taking place of the Grade II Listed Mirfield Viaduct (MVN 2/192). This document sets out the methodology for historic building recording to Level 1 standard.
- 1.1.5 The methodology for recording has been developed in accordance with the guidance set out in Historic England's *Understanding Historic Buildings: A Guide to Good Recording Practice*¹, which provides best practice guidance for historic building recording.
- 1.1.6 The requirement for historic building recording of these structure was identified in the Heritage Assessment² submitted in support of the Listed Building Consent application and forms part of the agreed mitigation under the Transport and Works Act Order (TWAO) and Listed Building Consents granting the scheme consent. Prior to being formally submitted to discharge the relevant listed building consent condition, a copy of this WSI has been sent for review to the Conservation Officers at Kirklees Council and the Senior County Archaeologist at West Yorkshire Archaeology Advisory Service.

1.2 Aims and Objectives

- 1.2.1 Historic building recording of bridges and railway stations proposed for alterations and removal was identified in the Environmental Statement³ for the scheme. The requirements for historic building recording of this structure was identified as a requirement to discharge Condition 3 attached to the granted Listed Building Consent for the structure. The wording of the condition is as follows:

3. (Historic Structures Recording) *No works shall take place until a methodology for full structure recording including the appropriate level of recording has been approved in writing with the local planning authority. Subsequent recording will take place prior to commencement of works and be deposited with the West Yorkshire Archive Service and West Yorkshire Historic Environment Record in accordance with the timescales agreed in the approved methodology.*

- 1.2.2 The aims of the historic building recording are:
- To document the current form and survival of historic railway structures proposed for alteration or removal on the Huddersfield to Westtown (Dewsbury) section of TRU; and
 - To provide an objective documentary record of the structures.
- 1.2.3 The objectives of the recording works are:
- To record Mirfield Viaduct (MVN 2/192), to a Level 1 standard, as defined in Section 5.2 of this WSI, in line with the Historic England guidance on recording within *Understanding Historic Buildings: A Guide to Good Recording Practice*⁴;
 - To disseminate the results of the recording works through deposition of an ordered digital archive and detailed report with the West Yorkshire Historic Environment

¹ Historic England, 2016. *Understanding Historic Buildings: A Guide to Good Recording Practice*

² Network Rail, 2021. *Network Rail (Huddersfield to Westtown (Dewsbury) Improvements) Order Mirfield Viaduct (MVN2/192) – Heritage Assessment*.

³ Network Rail, 2020. *Network Rail (Huddersfield to Westtown (Dewsbury) Improvements) Order application Environmental Statement, Volume 2i – Scheme-wide Assessment, Chapter 6 – Historic environment*

⁴ Historic England, 2016. *Understanding Historic Buildings: A Guide to Good Recording Practice*

Record (HER); and West Yorkshire Archive Service, in accordance with the requirements of the West Yorkshire Archaeological Advisory Service (WYAAS); and

- To disseminate the results of the recording works through deposition of digital data and report with the Archaeology Data Service (ADS) and submit details of the project to the Online Access to Index of Archaeological Investigations (OASIS) Project.

2. HISTORICAL BACKGROUND

Historical Background – Transpennine Route

- 2.1.1 The Transpennine Route between Huddersfield and Westtown was constructed and opened between 1836 and 1849. The route today comprises sections of rail line developed by different railway companies, characteristic of the wider Transpennine Route between York, Selby and Manchester. The complex chain of companies and projects is a typical product of the “Railway Mania” of the mid-1840s, the height of a period of commercial confidence and expansion in the railways⁵.
- 2.1.2 Between Huddersfield and Westtown, the Transpennine Route is made up of sections of:
- The Manchester & Leeds Railway, constructed 1836-39, between Ravensthorpe and Heaton Lodge;
 - The Leeds, Dewsbury & Manchester Railway, constructed 1845-47, between Westtown (Dewsbury) and Ravensthorpe; and
 - The Manchester & Huddersfield Railway, constructed 1846-49, between Heaton Lodge and Huddersfield.
- 2.1.3 The Transpennine Route through Mirfield was constructed and opened between 1839-41 as part of the George Stephenson’s Manchester and Leeds Railway. Construction of the railway was superintended by George Stephenson and principally engineered by Thomas Longbridge Gooch; as such, the detail and individual structures of the line were largely engineered by Gooch. It was the first railway to link Lancashire and Yorkshire as it connected Manchester to Leeds via Rochdale and Todmorden. The line was 52 miles long and took a meandering northerly route to minimise gradients and the need for tunnelling. However, despite the avoidance of obstacles the northerly route necessitated the engineering of many impressive structures to navigate the tough upland country.
- 2.1.4 Between 1846 and 1849 this section of line was incorporated into the new Transpennine Route, forming the connection between Leeds, Dewsbury & Manchester Railway to the east and the Manchester & Huddersfield Railway to the west. The new route, engineered by Thomas Grainger (in the case of the Leeds, Dewsbury & Manchester Railway) and Alfred Stanistreet (A.S.) Jee and Joseph Locke (in the case of the Manchester & Huddersfield Railway), formed a new, more direct route to the West Riding from Manchester. This was enabled partly through the advances in tunnel construction and large-scale engineering technology, improving travel times between Lancashire and Yorkshire; such examples of large scale and/or pioneering engineering structures, including tunnels, viaducts and both masonry and cast iron bridges. These lines were two of a number constructed through this period which together form a large proportion of the Transpennine route today; the complex chain of companies and projects is a typical product of the “Railway Mania” of the mid-1840s, the height of a period of commercial confidence and expansion in the railways.
- 2.1.5 The development and expansion of the railways and their associated infrastructure during the first half of the 19th century, was characterised by the considerable influence on those towns which experienced the development of this new mode of transport. The railways resulted in place-making and industrial growth, as towns benefited from the connections and influences which they brought with them. The Transpennine Route between Huddersfield and Westtown (Dewsbury) certainly had an influence on towns, forming an additional infrastructure element of the expansion of settlements such as Mirfield already underway as

⁵ Alan Baxter Associates, 2019. *TransPennine Route Upgrade Route-wide Statement of Significance*. 14.

a result of the growth of textile, mining and maltings industries.

- 2.1.6 With the continued growth of the network and expansion in volume of passenger and freight traffic during the second half of the 19th century, the London North Western Railway (LNWR) embarked on widening the Transpennine Route between Ravensthorpe and Stalybridge during the 1880s and 1890s. A number of the stations and structures along the Route were altered during this period to accommodate the widening of the line. The rail line within Mirfield was quadrupled and rail structures through the Route Section were widened to accommodate the additional two tracks.
- 2.1.7 Mirfield Viaduct (MVN2/192) is an important component of the supporting infrastructure which was constructed as part of this railway development. The bridges and viaducts comprise an integral part of the railway's development. Whilst supporting structures are often modest or functional, their significance results from their constituent role as part of the extensive infrastructure required for such railway lines constructed during the 19th century.

Historical Background – Mirfield Viaduct (MVN2/192)

- 2.1.8 Mirfield Viaduct (MVN2/192) was constructed by the Manchester and Leeds Railway between 1836 and 1839 during the Pioneering Age (1825-41) of railway construction. Like most of the structures along the Manchester and Leeds Railway, it was jointly engineered by George Stephenson and Thomas Gooch. The viaduct was constructed to carry the railway via 12 spans over the River Calder. The structure forms one of a pair of Stephenson and Gooch-engineered viaducts on the Manchester and Leeds Railway in Mirfield; the other, Wheatley's Underbridge (MVN2/196), is located approximately 1.2km to the east.
- 2.1.9 The structure was expanded and altered to the south in 1932 to accommodate two extra tracks, while the easternmost span of the original structure also appears to have been altered at this date. The expansion, constructed in metal, is in a very different style to the 1836-39 viaduct, which gives the structure a wholly different character depending on which side it is viewed. It should be noted that the expanded 1932 metallic spans of the structure are excluded from its Grade II Listing⁶.

⁶ Historic England List Description, 'Railway Bridge Over River Calder (Mirfield Cooper Bridge Line), Newgate'. <https://historicengland.org.uk/listing/the-list/list-entry/1313676>. Accessed 20 June 2022.

3. STANDARDS AND GUIDANCE

3.1.1 The archaeological buildings investigation, recording and reporting shall be undertaken in accordance with the following standards and guidance:

- Chartered Institute for Archaeologists, 2014a (Revised 2021). *Code of Conduct*;
- Chartered Institute for Archaeologists, 2014b. *Standard and Guidance for the archaeological investigation and recording of standing buildings or structures*;
- Chartered Institute for Archaeologists, 2014c. *Standard and Guidance for the creation, compilation, transfer and deposition of archaeological archives*;
- Department of Housing, Communities and Local Government, 2019 (Revised 2021). *National Planning Policy Framework*;
- English Heritage [now Historic England], 2008. *Conservation Principles Policies and Guidance: For the sustainable management of the historic environment*;
- Historic England, 2015a. *Historic Environment Good Practice Advice in Planning: Note 2 – Managing Significance in Decision-Taking*;
- Historic England, 2015b. *Digital Image Capture and File Storage Guidelines for Best Practice*;
- Historic England, 2016. *Understanding Historic Buildings: A guide to good recording practice*;
- Historic England, 2017 (Second Edition). *Historic Environment Good Practice Advice in Planning: Note 3 – The Setting of Heritage Assets*; and
- Institute of Historic Building Conservation (IHBC), 2007. *Code of Conduct*.

4. SCOPE OF WORKS

4.1.1 Historic building recording, as outlined in this WSI, is required to be undertaken of the Grade II Listed Mirfield Viaduct (MVN2/192) as set out in Table 4-1 below. This structure is shown on the following Drawings submitted as part of the Network Rail (Huddersfield to Westtown (Dewsbury) Improvements) Order submission and the associated Listed Building Consent application:

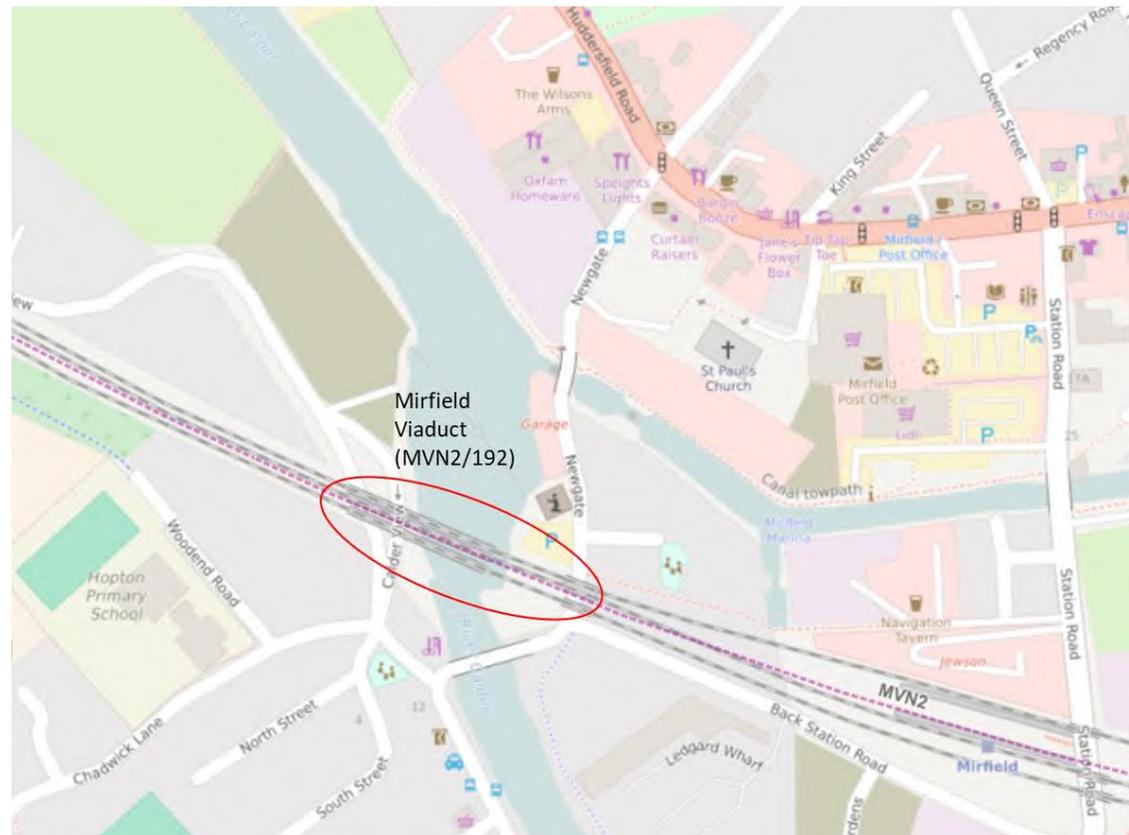
- Planning Drawings (151667-TSA-W3-000-DRG-T-LP-162943, 151667-TSA-W3-000-DRG-T-LP-162944)
- Existing and Proposed Plan (151667-TSA-34-MVN2-DRG-T-LP-163500)
- Existing and Proposed Elevations (151667-TSA-34-MVN2-DRG-T-LP-163501, 151667-TSA-34-MVN2-DRG-T-LP-163502, 151667-TSA-34-MVN2-DRG-T-LP-163503)
- Existing and Proposed Sections (151667-TSA-34-MVN2-DRG-T-LP-163507)

4.1.2 Engineering drawings showing the detailed design developed during the period following the approval of the Order will be provided to the building recorder where appropriate.

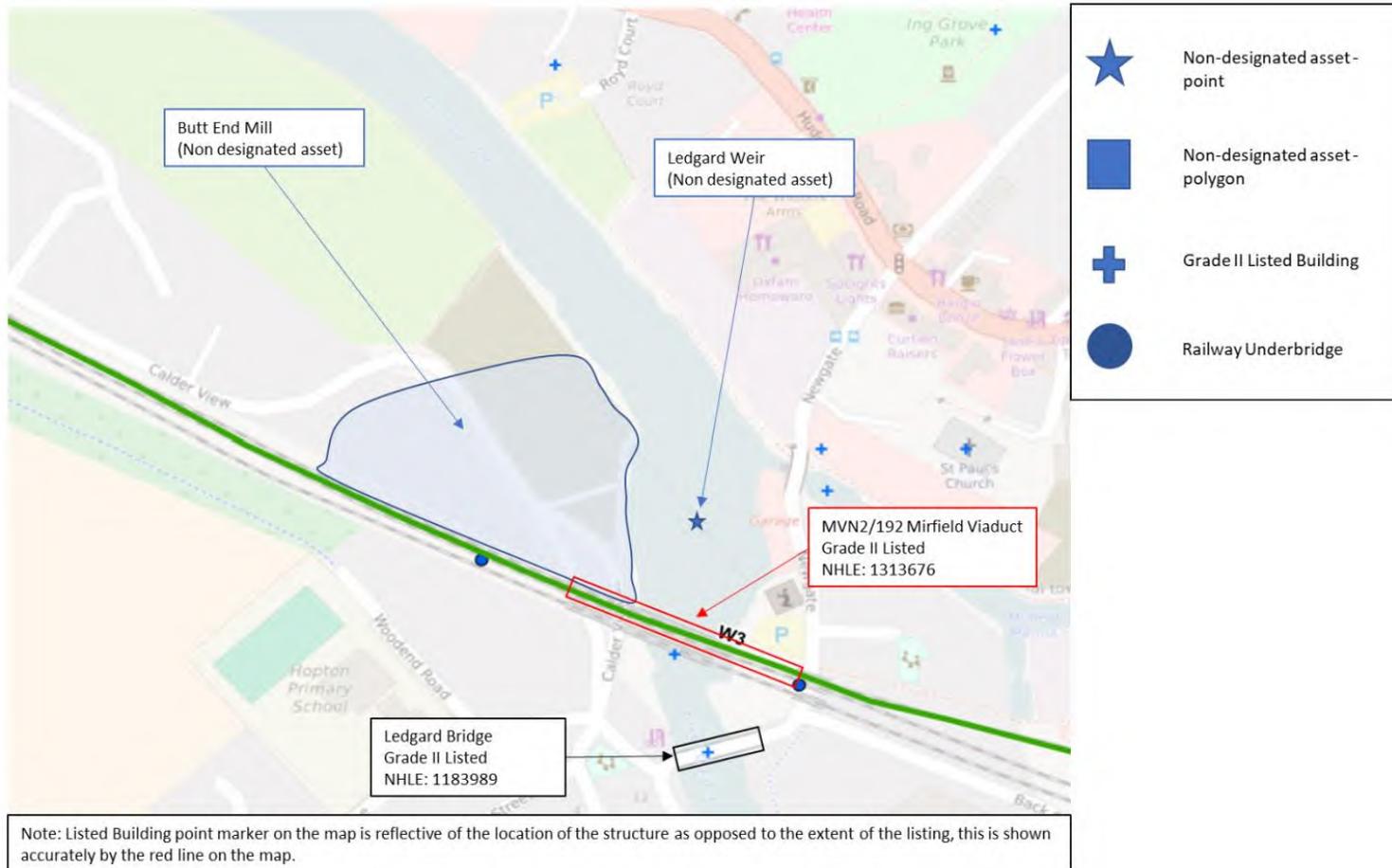
Table 4-1 Structures to be recorded

Asset Reference	Asset name	NGR	Route Section	Summary Description	Level
MVN2/192	Mirfield Viaduct	SE 20064 19585	Mirfield and Lower Hopton	<p>Description: Railway viaduct of 12 arches built circa 1840 by engineer George Stephenson and T. L. Gooch for the Manchester and Leeds Railway. Rock-faced stone with rusticated dressings.</p> <p>Setting: Set in a railway context crossing the River Calder. The immediate surroundings are residential and commercial in nature.</p> <p>Significance: Notable as a surviving example of a George Stephenson bridge from the 1830s, constructed during the Pioneering Age (1825-40) of railway development, forming a prominent structure carrying the railway over the River Calder. Appearance has been degraded by unsympathetic widening carried out in the 1930s on the south side (which is excluded from the listing).</p>	Level 1

- 4.1.3 As the southern metallic spans, comprising the later addition to the structure, are explicitly excluded from the Grade II Listing, the historic building recording does not need to record this section of the structure, instead focussing purely on the northern masonry side of the viaduct, dating to the 1830s.
- 4.1.4 The location of this structure is shown in the location plans in Inserts 4-1 and 4-2 below, with photographs of the structure included in Inserts 4-3 to 4-5.



Insert 4-1 Mirfield Viaduct (MVN2/192) Location Plan.



Insert 4-2 Mirfield Viaduct (MVN2/192) Location Plan showing nearby heritage assets.



Insert 4-3 View of Mirfield Viaduct (MVN2/192), northern elevation, looking south.



Insert 4-4 Close up view of Mirfield Viaduct (MVN2/192), showing northern elevations of spans to the west of the River Calder, looking south.

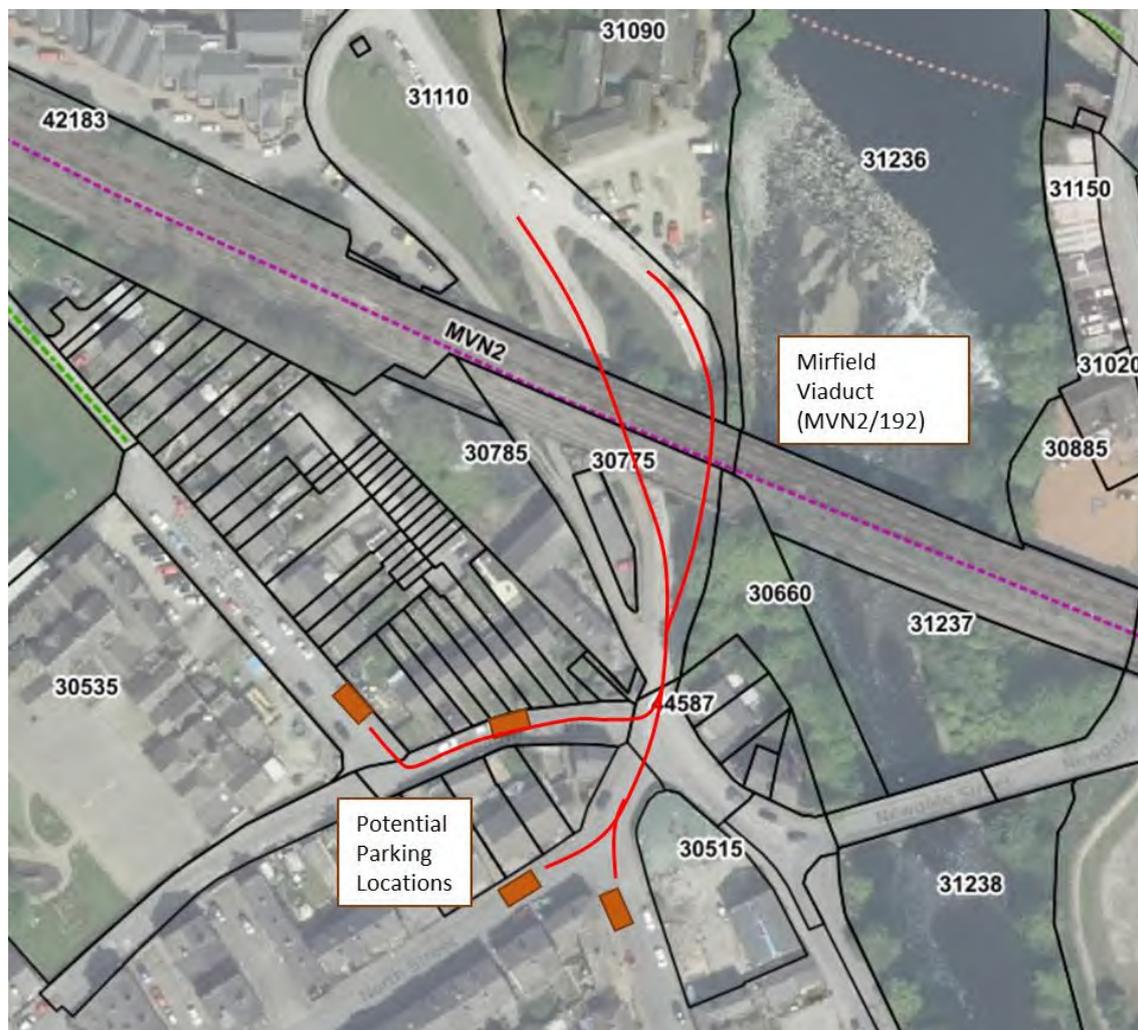


Insert 4-5 Views of the southern metallic extension to Mirfield Viaduct (MVN2/192), looking north, excluded from the Grade II Listing. Note, this section need not be included in the historic building recording.

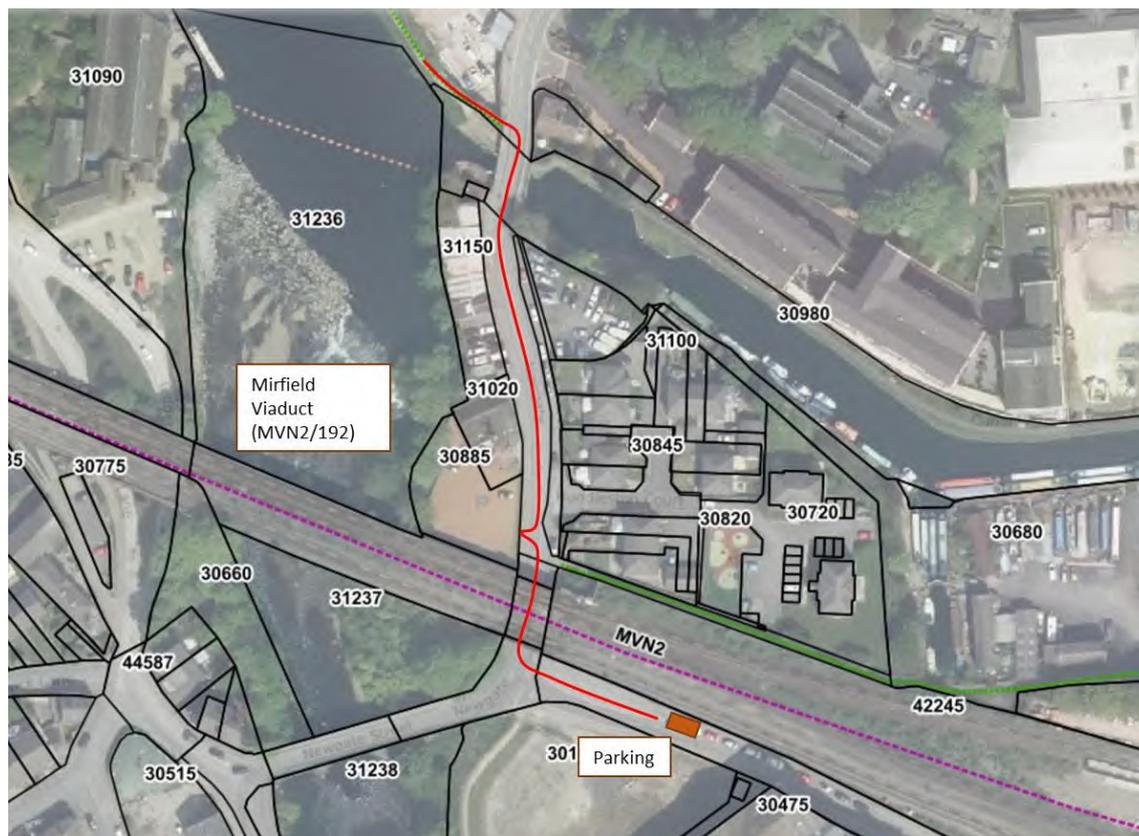
Access requirements

- 4.1.5 The asset covered in this WSI is accessible from the public highway or public footpaths. Where access may be required off public rights of way to view certain areas of the asset, the details of this are provided below.
- 4.1.1 Due to the access restrictions for some of the viaduct, liaison with the TRU Alliance, **must** be undertaken to arrange a suitable date to undertake the survey.
- 4.1.2 If the railway corridor is to be accessed, track access must be in place prior to undertaking the survey and will be arranged. **Track access should be considered as only to be utilised if absolutely essential to the survey.** Other approaches should be exhausted in planning before the need for track access is confirmed.
- 4.1.3 Mirfield Viaduct (MVN2/192) carries the railway over the Calder View, Chadwick Fold Lane, the River Calder and Newgate Street. The majority of the northern Grade II Listed side of the viaduct can be viewed from the public rights of way of Calder View and Chadwick Fold Lane (to the west of the River Calder) and from Newgate Street (to the east of the river); further views of the viaduct are also available from the riverside footpath off Newgate Street to the north, beyond the Calder and Hebble Navigation canal cut.
- 4.1.4 The surveys of the bridge will be able to be largely conducted from the publicly accessible land areas and public rights of way identified above. However, should closer views towards the viaduct from its north-eastern corner be required, these could be achieved by accessing third party land. Liaison to agree access arrangements with relevant third-party landowners will be undertaken by the TRU Alliance or its representatives. Full details of access arrangements will be provided in advance of the survey being undertaken, the building recorder will need to adhere to any access parameters agreed with these landowners who may have health and safety protocol in place.
- 4.1.5 Vehicle access will be via the public highway network, with on street parking available a short walk from either end of the structure, for example on Chadwick Lane, Woodend Road, North Street or South Street on the western side of the River Calder, or on Back Station Road on the eastern side of the river (see below, Inserts 4-6 to 4-7). The structure can then be accessed on foot via the footpaths along Calder View, Chadwick Fold Lane and Newgate Street. Longer distance views of the structure from the north are available via the riverside footpath accessed off Newgate Street to the north of the Calder and Hebble Navigation canal cut.

- 4.1.6 Specific requirements for access procedures will be included in the relevant Work Package Plans (WPPs) and Task Brief Sheets (TBSs) for the surveys (see below, Section 6.2).



Insert 4-6 Parking and walking route for survey of Mirfield Viaduct (MVN2/192) (from the western side of the River Calder).



Insert 4-7 Parking and walking route for survey of Mirfield Viaduct (MVN2/192) (from the eastern side of the River Calder).

5. METHODOLOGY

5.1 Documentary research

- 5.1.1 Documentary research shall be undertaken to supplement currently known information already contained within the Environmental Statement for the Order Scheme and the Heritage Assessment produced to accompany the Listed Building Consent application. This shall involve examination of available historic maps, photographs, plans and other records held by the local record office, Network Rail or other archives as required.
- 5.1.2 Some existing resources will be provided to the Contractor by Network Rail or the TRU Alliance. These are identified in the following sections of this WSI.

5.2 Historic building recording to Level 1 standard

- 5.2.1 A Level 1 record is defined in the Historic England guidance as: “*essentially a basic visual record, supplemented by the minimum of information needed to identify the building’s location, age and type*”.
- 5.2.2 The historic building recording shall comprise a photographic and written record. Considering that the Scheme will not result in any alterations to the historic fabric of Mirfield Viaduct (MVN2/192), it is considered that a photographic and written record is appropriate for recording the structure, with no drawn record required.

Photographic record

- 5.2.3 A photographic record of the structure will be made using a high resolution DSLR camera with a minimum of 10 megapixel resolution to capture colour images, using a tripod where necessary. Cameras with an FX sensor, which is close to equivalency with 35mm film, are preferable to DX sensor equipped cameras.
- 5.2.4 As a minimum the photographic record will include:
- General views of the structure in its wider setting and landscape, where these can be safely obtained from public rights of way or from third party land where access has been granted;
 - The overall appearance of the building, including oblique and parallel shots. Typically, a series of oblique views showing all external elevations of the building, to give an overall impression of its size and shape. Where an individual elevation embodies complex historical information, views at right angles to the plane of the elevation and detail shots will be required;
 - More detailed shots of individual elevations which may provide complex architectural or historical information; and
 - Where appropriate, more detailed shots of elements of historic fabric that would be particularly impacted by the works proposed.
- 5.2.5 Care should be taken to ensure sharply focused well composed photographs are taken and when appropriate the camera should be set up and levelled on a tripod, for example when recording facades and larger interior spaces. The use of perspective shift lenses or pan and tilt adaptors may be necessary in some situations to achieve an acceptable image. Alternatively, lens distortion may be removed post-capture by software but this must be recorded in the photographic catalogue and details of the software used given in the report. Original pre-correction images should be included in the site archive. Photographs should be taken with a low ISO setting and low shutter speed to reduce noise in the images

captured. All photographs will have a suitable scale (for example, 2m rather than 1m ranging pole, 10cm scales for detail) clearly visible in each photo.

- 5.2.6 Digital images shall be supplied in TIFF and JPG format and shall be taken using the highest resolution possible. All digital photography and subsequent data storage shall follow Historic England guidance provided in *Digital Image Capture and File Storage Guidelines for Best Practice*.⁷
- 5.2.7 A photographic register detailing (as a minimum) location, direction and subject of shot must accompany the photographic record. The position and direction of each photograph and slide should be noted on a plan of each structure. The contractor must include metadata embedded in the image file. This metadata must include the following: the commonly used name for the site being photographed, the relevant centred OS grid coordinates for the site to at least six figures, the relevant township name (**Huddersfield**) the date of photograph, the subject of the photograph, the direction of shot and the name of the organisation taking the photograph.

Written record

- 5.2.8 A written record of the structure will be made on site. This will include the following:
- The precise location of the building as an address and in the form of a National Grid reference (NGR);
 - A note of any statutory designation (i.e. Listing, Conservation Area);
 - The date when the record was made, the name(s) of the recorder(s) and the location of any archive material; and
 - A summary statement describing the building's type or purpose, historically and at present, its materials and possible date(s) so far as these are apparent from the inspection.
- 5.2.9 The written recording of the structures, historic surfaces and associated heritage assets shall be undertaken using pro forma record forms and should include examinations of the buildings' exterior and interior fabric.

5.3 Post-Fieldwork reporting

- 5.3.1 A single historic building report shall be provided presenting the results of the Level 1 Historic Building Recording. As a minimum this historic building recording report shall include:
- A non-technical summary of the results (an 'abstract');
 - A description of the background to and circumstances of the work. This shall include the dates on which the survey was undertaken;
 - The structures' location, parish and National Grid References (NGRs);
 - Aims and objectives of the historic building recording;
 - A description of the methodology used for the survey;
 - Historical background;
 - A summary statement describing the structures' type or purpose, historically and at present, its materials and possible date(s) so far as these are apparent from a superficial inspection

⁷ Historic England, 2015b. *Digital Image Capture and File Storage Guidelines for Best Practice*.

- Interpretation of the results and assessment of the significance of the findings of the historic building recording on a local, regional and national basis including some comparison with other significant viaducts in West Yorkshire;
- General and detailed location plans at appropriate scales, showing the location of the building. The general location plan shall be presented at not less than 1:10,000 scale, and detailed location plans shall be presented at not less than 1:100 scale;
- Reproduction of the complete photographic record produced at a high resolution and at sufficient size to make the detail in each photograph fully visible upon reproduction;
- A detailed selection of colour digital photographs to illustrate the written report;
- Fully referenced bibliography and cartographic sources;
- A glossary of architectural or other technical terms likely to be unfamiliar to readers;
- Photographic registers as an appendix in addition to drawn photographic plans detailing the position and direction of each shot at an appropriate scale;
- Index to and location of the archive;
- Copy of this WSI within an appendix; and
- OASIS form within an appendix.

5.3.2 In addition to the specific requirements identified above, the report shall include:

- A title page, which includes the name of the project, the title of the report, the name of the Sub-Consultant.
- The logo of the Client shall appear on the front cover of the report;
- A unique report number or reference;
- Report author(s) and company/organisation details where appropriate;
- Date when the report was completed;
- An accurate 6 figure NGR grid reference centred on the project location;
- Clear reference to the Listed Building Consent application, including the wording of the relevant conditions; and
- Primary Record Numbers (PRN) referenced for structures recorded in the West Yorkshire HER (where applicable).

5.3.3 A draft of the report shall be submitted to the Project Heritage Lead for comment no later than four weeks after the completion of the fieldwork. Any comments provided shall be addressed within 5 working days of receipt and a revised draft submitted for approval. This revised draft will subsequently be submitted to Kirklees Council and West Yorkshire Archaeology Advisory Service (WYAAS) for comment and any comments provided by the Council or WYAAS shall be addressed within 5 working days of receipt.

5.3.4 When submitted to Kirklees Council for comment, the draft report should be submitted to the appropriate Conservation Officer responding to all discharge of condition applications for this structure. Contact details will be provided to the building recorder in advance of submission of the draft report.

5.4 Submission of report

5.4.1 When complete the historic building recording report shall be submitted to the Project Heritage Lead for it to be sent to the following repositories:

- A digital and hard copy of the final report for Kirklees Council;
- A digital copy for West Yorkshire Historic Environment Record (HER), West Yorkshire Archive Service and the Archaeology Data Service (ADS) which will be accompanied by an archive of digital images and other digital outputs/data where available.

5.4.2 In light of the requirement for the completed historic building report to be submitted to West Yorkshire HER, the Contractor must complete the report in accordance with the archiving requirements set out in the building recording specifications of the West Yorkshire Archaeological Advisory Service (WYAAS) (see below, Section 5.6 for further details).

5.5 Copyright

5.5.1 This document and its contents have been prepared and are intended solely for Client Purpose.

5.5.2 Network Rail assumes no responsibility to any other party in respect of or arising out of or in connection with this document and/or its contents.

5.5.3 The report will be supplied on the understanding that it will be added to the West Yorkshire Historic Environment Record where it will be publicly accessible once deposited with the WYAAS unless confidentiality is explicitly requested, in which case it will become publicly accessible six months after deposition. Please note that by depositing this report, the contractor gives permission for the material presented within the document to be used by the WYAAS, in perpetuity, although The Contractor retains the right to be identified as the author of all project documentation and reports as specified in the Copyright, Designs and Patents Act 1988 (chapter IV, section 79). The permission will allow the WYAAS to reproduce material, including for commercial use by third parties, with the copyright owner suitably acknowledged.

5.6 Archiving

5.6.1 Post-fieldwork archiving shall be undertaken in accordance with the requirements of the *Standard and Guidance for the creation, compilation, transfer and deposition of archaeological archives* (ClfA 2014b), and the requirements of the building recording specification of WYAAS on behalf of West Yorkshire HER. Digital data generated during the recording works, including the full digital photographic archive shall be prepared in accordance with the requirements of the Archaeology Data Service (ADS). Photographs and reports should be archived used the ADS Easy online service.

5.6.2 Immediately upon completion of the finalised report, the report and any data or other documentation produced during the recording works shall be integrated into the site archive. The archive shall be stored in suitable conditions in a secure location until instructions are received from Project Heritage Lead for its transfer to the final repositories.

5.6.3 West Yorkshire HER support the Online Access to Index of Archaeological Investigations (OASIS) Project. The overall aim of the OASIS project is to provide an online index to the mass of archaeological grey literature that has been produced as a result of the advent of large-scale developer funded fieldwork. On completion of the report, the Contractor will make a copy accessible to the wider research community by submitting it to the OASIS Project.

5.7 Programme

5.7.1 An outline programme for the historic building recording is provided below:

Table 5-1 Programme for the historic building recording

Stage of Works		Timings
Site works / recording	Mirfield Viaduct (MVN2/192)	Winter 2022
Submission of draft report to Project Heritage Lead for comment		4 weeks after completion of fieldwork

Stage of Works	Timings
Project Heritage Lead review of draft report	2 weeks from submission of draft report
Submission of draft report to Kirklees Council for comment	1 week from receipt of Project Heritage Lead comments
Kirklees Council review of draft report	2 weeks from submission of draft report
Submission of final report to the Project Heritage Lead (which will deposit with Kirklees Council; digital copy with West Yorkshire Historic Environment Record (HER), West Yorkshire Archive Service and the Archaeology Data Service (ADS), OASIS)	1 week from receipt of Kirklees Council comments

6. STANDARDS AND RESPONSIBILITIES

6.1 Project role definitions

6.1.1 The following project roles are relevant to this document:

- The Employer means BAM Nuttall, who will appoint the Contractor.
- Project Heritage Lead means the individual appointed by the Employer to fulfil this role;
- Contractor means the archaeological organisation appointed by the Employer to carry out the works as defined in this Written Scheme of Investigation (WSI); and
- The Curator means West Yorkshire HER, West Yorkshire Archaeological Advisory Service (WYAAS) and Kirklees Council conservation officers, or their representatives on this project

6.2 Health and safety considerations

6.2.1 All works are to be carried out in accordance with the appropriate Chartered Institute for Archaeologists (CIfA) guidance standards, Health & Safety legislative requirements and TRU project procedures.

6.2.2 Staff undertaking the historic building recording shall undertake a project induction, which will be organised and led by the Employer, subject to the requirements of the TRU project.

6.2.3 The Contractor shall prepare project-specific Health and Safety Work Package Plans (WPPs) and Task Brief Sheets (TBSs), in line with the TRU project procedures for such WPPs and TBSs, and submit these to the Project Heritage Lead for approval via the TRU West Alliance prior to starting on site. No work shall be undertaken on site until these documents have been approved by the TRU West Alliance. If amendments are required to these documents during the works, the Project Heritage Lead and the Employer must be provided with the revised document at the earliest opportunity.

6.2.4 As detailed above, **track access should be considered as only to be utilised if absolutely essential to the survey.** Other approaches should be exhausted in planning before the need for track access is confirmed. Where required, for example at stations and for trackside surveys, work must be carried out under the direction and supervision of a Safe Work Leader (SWL), Separated Zone Working with Site Warden warning.

6.2.5 Any site supervision or accompaniment from the client team during the survey works will be outlined in the required WPP and TBS documents and must be adhered to.

6.3 Monitoring

6.3.1 The Curators have a statutory duty to monitor fieldwork. Fieldwork may be subject to monitoring visits by the Project Heritage Lead and the relevant Curator(s). The Project Heritage Lead and Curator(s) will have unrestricted access to the records or any other information. The work will be inspected to ensure that it is being carried out to the required standards and that it will achieve the stated objectives in line with the approved WSI.

6.4 Communication and engagement

6.4.1 All enquiries on the archaeological works from Stakeholders and interested parties (including the media) should be referred to the Project Heritage Lead.

6.4.2 If confronted by members of the public, ensure communication is polite and respectful. If staff are abused verbally by members of the public or there is clear intent to harm staff, the Contractor should take appropriate action by either disengaging in conversation or exiting

the site to seek safety. Any such incidents must be reported to the Project Heritage Lead immediately.

- 6.4.3 Any emergencies, near misses or close calls must be reported in accordance with the procedures set out within the relevant WPP and TBS for the survey works. This will include reporting both to the TRU West Alliance and any on call supervisors for the works.

7. REFERENCES

Chartered Institute for Archaeologists, 2014a. *Code of Conduct*. Available at:

<https://www.archaeologists.net/sites/default/files/CodesofConduct.pdf>

Chartered Institute for Archaeologists, 2014b. *Standard and Guidance for the archaeological investigation and recording of standing buildings or structures*. Available at:

https://www.archaeologists.net/sites/default/files/CIfAS&GBuildings_1.pdf

Chartered Institute for Archaeologists, 2014c. *Standard and Guidance for the creation, compilation, transfer and deposition of archaeological archives*. Available at:

https://www.archaeologists.net/sites/default/files/CIFAS&GArchives_2.pdf

Department for Communities and Local Government (DCLG), 2019. *National Planning Policy Framework*. Available at: <https://www.gov.uk/government/publications/national-planning-policy-framework--2>

English Heritage, 2008. *Conservation Principles Policies and Guidance: For the sustainable management of the historic environment*. Available at:

<https://historicengland.org.uk/advice/constructive-conservation/conservation-principles>

Historic England, 2015a. *Historic Environment Good Practice Advice in Planning: Note 2 – Managing Significance in Decision-Taking*. Available at: <https://historicengland.org.uk/images-books/publications/gpa2-managing-significance-in-decision-taking/>

Historic England, 2015b. *Historic Environment Good Practice Advice in Planning - Note 3: The Setting of Heritage Assets*. Available at: <https://historicengland.org.uk/images-books/publications/gpa3-setting-of-heritage-assets/>

Historic England, 2015c. *Digital Image Capture and File Storage Guidelines for Best Practice*.

Available at: <https://historicengland.org.uk/images-books/publications/digital-image-capture-and-file-storage/>

Historic England, 2016. *Understanding Historic Buildings: A guide to good recording practice*.

Available at: <https://historicengland.org.uk/images-books/publications/understanding-historic-buildings/>

Institute of Historic Building Conservation (IHBC), 2003. *Code of Conduct*. Available at:

<http://www.ihbc.org.uk/resources/A4-Code-of-Conduct.pdf>

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APPENDIX B OASIS FORM

OASIS Summary for oxfordar2-530751

OASIS ID (UID)	oxfordar2-530751
Project Name	Transpennine Route Upgrade West, Mirfield Viaduct (MVN2/192) Historic Building Investigation and Recording
Sitename	Transpennine Route Upgrade West, Mirfield Viaduct (MVN2/192)
Sitecode	MVTP24
Project Identifier(s)	L11502
Activity type	Buildings Recording And Investigation
Planning Id	2021/65/91344/E
Reason For Investigation	Planning: Listed Building Consent
Organisation Responsible for work	Oxford Archaeology (Lancaster)
Project Dates	19-Jan-2024 - 19-Jan-2024
Location	Transpennine Route Upgrade West, Mirfield Viaduct (MVN2/192) NGR : SE 20064 19585 LL : 53.672356491661716, -1.697775316544097 12 Fig : 420064,419585
Administrative Areas	Country : England County/Local Authority : Kirklees Local Authority District : Kirklees Parish : Mirfield
Project Methodology	The principal aim of the survey was to document the current form and survival of Mirfield Viaduct (MVN2/192) (NHLE 1313676), prior to any alteration or removal of materials, to provide a lasting record of the structure's present state by undertaking a Historic England Level 1 survey.
Project Results	<p>In April 2023, Oxford Archaeology (OA) was commissioned by BAM Nuttall to undertake an Historic Investigation and Building Recording of the Grade II-listed Mirfield Viaduct (MVN2/192) (NHLE 1313676), Mirfield, West Yorkshire. The work, which was stipulated by Kirklees Council (2021/65/91333/E) as a condition of Listed Building Consent, was undertaken ahead of the erection of overhead line structures on Mirfield Viaduct as part of a series of works along the Transpennine Route Upgrade (TRU). The survey was carried out on the 18th and 19th January 2024.</p> <p>The viaduct was constructed between 1836 and 1839, and underwent a programme of enlargement in 1932, where it was widened to accommodate two extra tracks. Originally built of rock-faced sandstone, its later development saw a contrast in style, with the 1932 expansion, not included in the Grade-II listing, being constructed from a steel and brick structure abutting its southern elevation.</p> <p>Mirfield Viaduct is an example of an original component of the Transpennine Route. It preserves within its fabric evidence of the railway's expansion during the late nineteenth century and reflects the social, technological and economic development of the period. Its large-scale marks it out as a significant landmark within Mirfield. Its survival and continued use provide context to Mirfield Station and contributes to the wider historic landscape of the area's industrial past.</p>
Keywords	Railway Viaduct - POST MEDIEVAL - FISH Thesaurus of Monument Types

Funder	Private or public corporation BAM Nuttall on behalf of TRU Alliance
HER	West Yorkshire HER - unRev - STANDARD
Person Responsible for work	Paul Dunn
HER Identifiers	
Archives	

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