



Croasdale (Old) Bridge, Slaidburn, Lancashire

Fabric Survey Report



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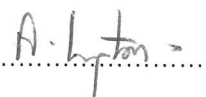
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SUMMARY

The Grade II Listed (LB 183171) Old Bridge in Slaidburn (NGR SD 71210 52485) stands opposite Beckside Cottages, where Church Street crosses the Croasdale Brook and becomes the Skaithe. Listed Building Consent (3/2010/1028) has been granted to take down and reconstruct the west wingwall up to the cutwater; replace existing fill with a lightweight concrete; and repoint cracks and missing mortar in the east and west parapets of the bridge. OA North were commissioned to undertake a fabric survey and documentary study of the bridge.

The desk-based research comprised a search of both published and unpublished records held by Slaidburn Archive, the Record Offices in Wakefield and Preston, and the archives and library held at OA North. A fabric survey of the western elevation of the bridge was undertaken on 28th June 2011.

The survey identified four phases of construction. The earliest was a rib-arched bridge of 2.33m width; slabs were set between the ribs to form the arch. The only surviving elements of this bridge are a section of the bridge facing on the northern end of the eastern side. Phase 2 was a widening of the bridge to the west giving it an additional 2.47m width, and entailed the construction of a masonry barrel arch. Phase 3 entailed the construction of a cutwater (starling) against the western side of the northern bridge pillar. Phase 4 entailed the loss of the original eastern rib-arch in 1930, and its replacement with a concrete arch. This entailed considerable alteration to the fabric of the eastern bridge face and much of the spandrels for the primary arch were rebuilt with squared rubble.

The bridge has the potential to be of greater antiquity than the eighteenth century date indicated by the listing building record and the earliest documented date (*Section 3.1.2*). The original arch, on the eastern side was constructed with arched masonry ribs and with slabs set between the ribs. This was an early style of bridge construction that was superseded by the stronger and more substantial barrel-arch design, the ribbed arch is a common feature of medieval bridges but is rare in later periods.

Had the bridge not been so altered, it would possibly have been one of the more significant extant historic bridges in the county, but instead its significance relies largely upon the evidence of an engineers description and some poor early twentieth century photographs.

ACKNOWLEDGEMENTS

Oxford Archaeology North (OA North) would like to David Griffiths at Lancashire County Council, for commissioning the survey and for providing considerable documentary resources; we would also like to thank Helen Wallbank at Slaidburn Archive, and the staff at the West Yorkshire Archive Service in Wakefield and the Lancashire Record Office in Preston.

The documentary research was undertaken by Kathryn Blythe, and the fabric survey was undertaken by Jamie Quartermaine, with the drawings produced by Anne Stewardson. The project was managed by Jamie Quartermaine, who also edited the report.

1. INTRODUCTION

1.1 CIRCUMSTANCES OF PROJECT

- 1.1.1 The Grade II Listed (LB 183171) Old Bridge in Slaidburn stands at NGR SD 71210 52485, opposite Becksides Cottages, where Church Street crosses the Croasdale Brook and becomes the Skaithe (Fig 1). Listed Building Consent (3/2010/1028) has been granted to take down and reconstruct the west wingwall up to the cutwater; replace the existing fill with a lightweight concrete; and repoint cracks and missing mortar in the east and west parapets of the bridge.
- 1.1.2 Oxford Archaeology North were commissioned by Lancashire County Council to undertake a documentary study and fabric survey of the bridge in advance of any works to the structure. The work was undertaken in accordance with a project brief by Douglas Moir, of Lancashire County Council (*Appendix I*).
- 1.1.3 The desk-based research comprised a search of both published and unpublished records held by Slaidburn Archive, the Record Offices in Wakefield and Preston, and the archives and library held at OA North. A fabric survey of the western elevation of the bridge was undertaken on 28th June 2011. The following report documents the results of the archaeological fabric survey, and discusses them in their historical and archaeological context.

1.2 LOCATION AND TOPOGRAPHY

- 1.2.1 The Old Bridge (NGR SD 71210 52485) is located at the north-eastern extent of Slaidburn, where Church Street crosses the Croasdale Brook and becomes the Skaithe (Fig 1). The bridge is located at approximately 140m AOD. Slaidburn lies in the Hodder Valley, and Croasdale Brook is a tributary of the river Hodder, which lies to the south-east of the village and is crossed by the New Bridge. Slaidburn parish and district is now in Lancashire but was historically part of West Yorkshire.

2. METHODOLOGY

2.1 PROJECT BRIEF

- 2.1.1 The work was undertaken in accordance with a project brief (*Appendix 1*) by Douglas Moir of Lancashire County Council. A variation to the brief was agreed with Douglas Moir, allowing for the use of the computerised rectification of digital images to create the rectified photographs that served as the basis for the elevation drawings. In all other respects the project design was adhered to in full, and the work was consistent with the relevant IfA and English Heritage guidelines (Institute for Archaeologists 2008a, 2008b, 2010; English Heritage 2006b).

2.2 DESK-BASED RESEARCH

- 2.2.1 The aim of the desk-based research is to put the site into its archaeological and historical context. The principal sources of information consulted were historical maps, historical documents, published and unpublished secondary sources and online sources.
- 2.2.2 **Slaidburn Archive:** the archive in Slaidburn was visited, and copies of maps, photographs and postcards of the bridge were made.
- 2.2.3 **Lancashire County Record Office, Preston (LRO):** the LRO in Preston was visited to consult historic maps of the study area, including the tithe map. A search was also made for any relevant historical documentation.
- 2.2.4 **West Yorkshire Archive Service, Wakefield (WYAS):** an online search was made of the documents held by WYAS. A copy of one document concerning repairs to the bridge in Slaidburn in 1677 was ordered, but was found to relate to the New Bridge.
- 2.2.5 **British Library:** a search was made of the newspaper catalogues available on line (<http://www.lancashire.gov.uk/libraries/>) through the Lancashire Libraries website. These comprise the Burney Collection of seventeenth and eighteenth century newspapers, and the nineteenth century newspapers. No mention of the bridge was found.
- 2.2.6 **Lancashire County Council (LCC):** the bridges folder for Croasdale Bridge, a collation of documents, correspondence, surveys, damage reports etc., held by the engineering department at LCC was made available to OA North for the purposes of this research.
- 2.2.7 **Oxford Archaeology North:** OA North has an extensive archive of secondary sources, as well as numerous unpublished client reports on work carried out both as OA North and in its former guise of Lancaster University Archaeological Unit (LUAU). These were consulted where necessary.

2.3 FABRIC SURVEY

- 2.3.1 **Descriptive Record:** written records were compiled to English Heritage Level 3 (2006b), and were made of all principal building elements, as well as any features of historical or architectural significance. Particular attention was paid to the

relationship between those areas of the structure where its development, and any alterations, could be observed. These records are essentially descriptive, although interpretation was carried out on site as required.

- 2.3.2 **Site drawings:** the drawings produced comprise the external elevations of the western face of the bridge, which was being rebuilt. A plan of the bridge was provided by Lancashire County Council (Fig 2).
- 2.3.3 **Elevations:** the elevations were created by a combination of instrument and photographic survey (Figs 3-6). The elevations were compiled by rectified photography using an 18 megapixel digital SLR camera. A reflectorless total station (Leica 805) was used to generate survey control. The multiple photographs were rectified, corrected and merged together using Photoplan software. This provided accurate imagery depicting all decorative and significant brickwork and masonry, such as quoins, tracery, window and door surrounds. The drawings were created within an industry standard CAD package (Autocad 2004) for the production of the drawings, which were then enhanced and annotated to show the form and location of all structural features of historic significance. The additional detail was created by means of manual survey and the annotation of paper copies.
- 2.3.4 **Photographs:** photographs were taken in both monochrome print and high-resolution digital. The photographic equipment comprised medium format film cameras both with fixed lenses, and 35mm SLR and 35mm high resolution DSLR cameras respectively. The digital images were produced in both JPEG and RAW formats (in .CR2 format). The photographic archive consists of general images of the building both internal and external, and detailed internal and external scaled coverage of architectural and decorative features and/or structural detail.

2.4 ARCHIVE

- 2.4.1 A full professional archive has been compiled in accordance with the project brief (*Appendix 1*), and in accordance with current IfA and English Heritage guidelines (English Heritage 2006a). The paper and digital archive will be deposited with the Lancashire Records Office on completion of the project.

3. HISTORICAL BACKGROUND

3.1 BACKGROUND

- 3.1.1 **Introduction:** the following section presents a summary of the desk-based research on the history of the bridge.
- 3.1.2 **Croasdale Bridge (Old Bridge):** the Old Bridge at Slaidburn is Grade II Listed (LB 183171) and is located on the edge of the Slaidburn Conservation Area (The Conservation Studio 2006, 17). The listing description of the Old Bridge is: *Bridge dated c 1800 and built of limestone rubble with sandstone dressings. It has two segmental arches, the north one narrow, with a triangular cutwater on the west side. Solid parapet with coping and string course.*
- 3.1.3 The bridge is located over the Croasdale Brook, to the north of the village, on the main route through from Clitheroe to Tosside, Wigglesworth and Long Preston, which follows Church Street and The Skaithe (Lancashire County Council and Egerton Lea Consultancy 2006, 17). Slaidburn appears to have once extended on the north side of the Croasdale Brook, but by the late eighteenth century, the settlement had shrunk so that only Beckside Cottages and The Mill House are now extant to the north of the Brook (The Conservation Studio 2006, 5).
- 3.1.4 The bridge may have been preceded by a ford; information provided by Slaidburn Archive included a personal recollection of a villager who said that a ford could be seen at the end of the Jubilee Gardens, through the brook, and coming out on the grass by Beckside House, upstream of the bridge.
- 3.1.5 A search for historic documents relating to the Old Bridge was made in order to attempt to ascertain the date of the bridge, and any other pertinent information about it. There is mention of ‘*Slaidburn Bridge*’ being in decay in the year 1642 (Jervoise 1931, 136); however, consultation of similar references at Slaidburn Archive would suggest that this is referring to the bridge over the river Hodder (the New Bridge). Two documents held by WYAS (QS1/16/4/8/1 and QS1/16/4/7/5) outline proposed repairs for Slaidburn Bridge in 1677. A copy of document QS1/16/4/7/5 was ordered which makes mention of the bridge being over the river Hodder, so again these documents refer to the New Bridge.
- 3.1.6 LCC has a folder of information concerning the bridge, collated from the late 1920s onwards, including correspondence, damage reports and details of surveys etc. A letter dated 10/02/1928 from a Thomas J Backhouse at Wakefield County Council, makes reference to some discussion regarding the date of the bridge. The letter refers to the 1765 plan of the land in Newton and Slaidburn by JB Lang belonging to Edward Parker, which shows that the bridge was in existence (Plate 1). The plan had been shown to Mr Backhouse by a Mr William King-Wilkinson, a relation of Edward Parker. A note with the copy of the map held by Slaidburn Archive states that it was produced to record the land holdings of James Wigglesworth esq, Mr Robert Parker of Dunna (Dunnow) and Mr William King. The map clearly shows both the Old Bridge and the New Bridge.



Plate 1: Lang's map of Slaidburn, 1765 (Slaidburn Archive)

- 3.1.7 Jeffreys map of Yorkshire from 1771 (Plate 2) shows the Croasdale Brook and a road over it, though the bridge is not labelled. A bridge in the location of the New Bridge, over the river Hodder is labelled.

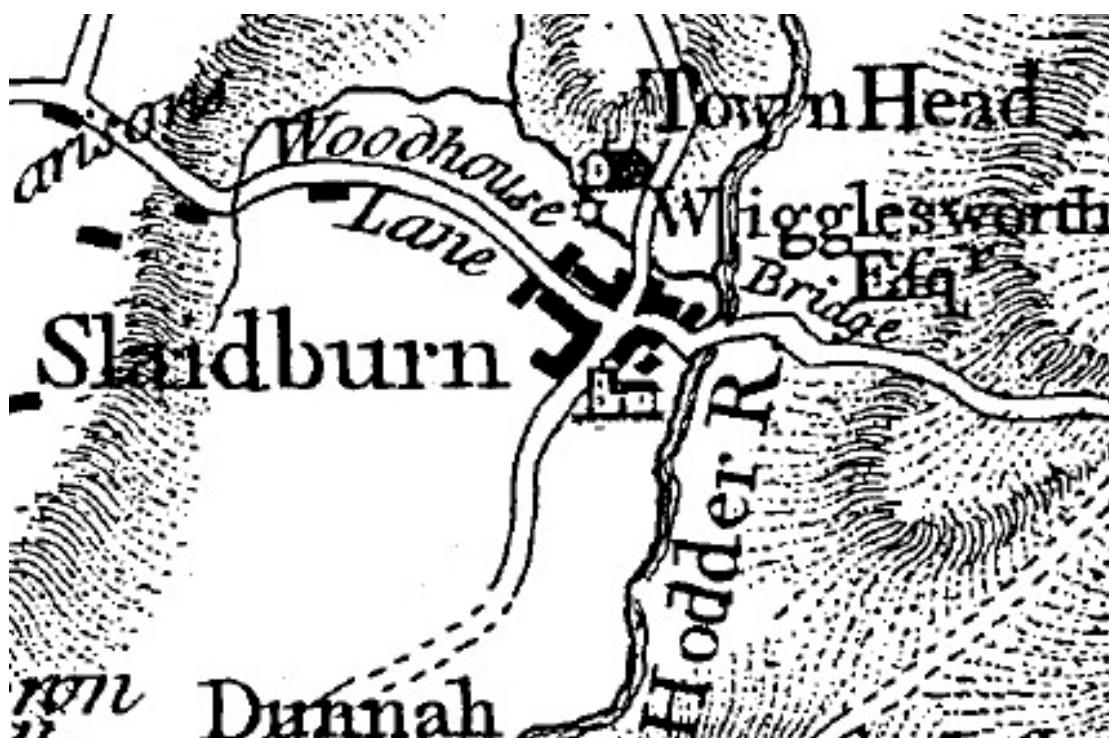


Plate 2: Jeffrey's map of Yorkshire, 1771

- 3.1.8 The bridge is clearly shown on the tithe map of 1843 (LRO PR 3035/4/1; Plate 3), over the 'river Croasdale'. In this area the river is labelled '199a', which in the tithe apportionment is listed as being owned by Sir Thomas Wigglesworth. No specific mention of the bridge is made. Plates 4 and 5 are the extracts from the nineteenth century OS maps (1850 and 1893), on which the bridge is clearly shown, and labelled 'Old Bridge'.



Plate 3: Slaidburn Tithe, 1843 (LRO PR 3035/4/1)



Plate 4: Ordnance Survey 1st edition map of 1850

- 3.1.9 A report dated 23/12/1929 from the West Riding Surveyor's Office, in the information held by LCC, states that shoring was put in place in April 1928, but was partially washed away in floods in the autumn/winter of 1929. A decision was then made to partially reconstruct the bridge, the report states: *'The bridge was originally built in two portions, the older or downstream portion, consisting of masonry arched ribs and slabs, is in a ruinous condition and requires entire reconstruction. The upstream portion is a masonry arch in moderate condition and provided minor repairs are carried out to this portion, I estimate that it would safely carry the load of a 9 ton axle, equivalent to the weight of the rear axle of a road roller or tractor, which would be the heaviest vehicles likely to use the bridge.'*
- 3.1.10 Information supplied by LCC documents several visits made to the bridge at this time and includes photos taken of the bridge in 1928 (Plate 9). In 1930 a request for tenders for the proposed reconstruction work was put out, The specification for the work summarises it as: *'the contract includes the taking down of portions of the existing masonry parapet, spandril walls and arch, the construction of a new reinforced concrete arched bridge and the re-building and backing with concrete of portions of the existing masonry spandril and approach walls, together with the necessary excavations and roadwork, etc., in exact accordance with the General Conditions, Specification and Contract Drawings.'*
- 3.1.11 Slaidburn Archive holds a number of postcards and old photos of the bridge starting in c 1900. A selection of these are reproduced in this report (Plates 6-8 and 10-16).
- Plate 6 is the earliest of the post cards, being dated to 1900 and shows the eastern side of the bridge, which has been widened, and shows what appear to be the arch ribs.
 - Plate 7 shows the western side of the bridge, largely in its present state, including the cutwater. It is purportedly of 1905 date, but there are no visible arch ribs, or they are obscured by the shadows.
 - Plate 8 is recorded as 1920s, but there are indications of shoring support on the eastern side, and this would suggest that it was of 1928 date. There are no visible arch ribs.
 - Plate 9 is a photograph taken to accompany the engineers report (1928) and seemingly shows the arch ribs, of which the first was slightly recessed from the face of the spandrel.
 - Plate 10 shows the bridge being supported by wooden shoring, and was a response to the strain put on it by the traffic resulting from the construction of the Stocks Reservoir in the late 1920s.
 - Plate 11 is purported to be of 1930s date, but it shows the arch ribs, which were removed and replaced with a concrete arch in 1929, and would suggest that the photograph was slightly earlier.
 - Plates 12 and 13 show the bridge following the 1929 renovation and includes the concrete, eastern arch.

- Plate 14 is undated, and was taken of the western face of the bridge, but it shows the arch ribs on the eastern arch, and would indicate that the date is prior to the 1929 renovation.
- Plate 15 is similarly undated, but shows the eastern recessed arch rib, and is therefore also earlier than the 1929 renovation.

3.1.12 Much of the information in the folder provided by LCC contained details of damage done to the bridge in traffic accidents. The latest of these, in December 2010, was photographed by Slaidburn Archive, and is included here as Plate 16.

4. FABRIC SURVEY RESULTS

4.1 BRIDGE DESCRIPTION

- 4.1.1 **Introduction:** this is a bridge across the Croasdale Beck, in Slaidburn, and is called the Old Bridge to distinguish it from the New Bridge which is across the River Hodder. It has two segmental arches, of which the southernmost is the primary arch over the beck, and the secondary, northern, arch is a narrow semi-circular vault, extending over a raised channel bed that only carries water during flood conditions.
- 4.1.2 **Western Bridge Face (Figs 3-6; Plate 17):** the western-facing spandrels are built of regular-sized, coarsely-dressed blocks of limestone, with ashlar sandstone dressings and voussoirs. An ashlar string course divides the bridge superstructure from the parapet, which is constructed of squared rubble, and is partly obscured by overlapping cement pointing; the parapet has a sandstone coping. The masonry of the parapet is distinct from that of the spandrels below the string course and is of generally varied and patchy construction, suggesting that it has been subject to many episodes of repair and construction (Plate 18). The depth of the road deck, from the crown of the primary arch to the top of the string course and the road surface, is 0.68m.
- 4.1.3 The bridge foundations, on the southern side, are constructed on top of irregular rock outcropping, and the lowest foundation courses are here constructed of dressed sandstone, and are in places up to four courses thick, although adjacent areas are only a single course thick. The irregular shape of the rock in this location has contributed to the somewhat irregular bridge foundation on the southern end of the bridge. Above the southern sandstone foundations the bridge face is recessed, by 100mm, and is constructed of coursed limestone rubble. A series of three, rectangular, probable putlog, holes are set within this face directly on top of the sandstone foundations.
- 4.1.4 Pilasters, constructed of sandstone ashlar, are set in the centre of the bridge piers, on either side of the primary arch of the western face; each has substantial sandstone copings on top. At the southern end of the bridge is a small, square plan, pillar terminal, constructed of coarsely-dressed limestone blocks, and which is topped by a single ashlar sandstone on top to define the terminal of the parapet. Foundations for a similar terminal pillar are evident on the northern side of the western parapet, but the top stone no longer survives (Plate 19). The northern pillar, of the eastern parapet, does, however, survive, and comprises a single block of sandstone ashlar.
- 4.1.5 A single, later, triangular cutwater (starling) has been added to the pier between the primary and secondary arches, and is constructed of dressed sandstone; it is constructed against the pilaster. No other cutwaters are represented on the bridge.
- 4.1.6 **Primary Arch:** the western part of the primary arch is constructed of ashlar sandstone voussoirs, but the eastern section is a 2.26m wide concrete arch (Plate 20). The interface between the two arch sections is a straight-lined butt-join and there is no indication of the concrete arch having been keyed into the masonry arch. The quoin voussoirs on the western side of the masonry arch, match, in length and form, those on the eastern side of the masonry arch, suggesting that both sides were

constructed at the same juncture either as a former face of the bridge, or against the straight face of an earlier arch. Both the concrete and masonry arches on the northern side of the bridge are built on top of an ashlar springer foundation set across the full width of the bridge; however, the form of the ashlar foundation stones is slightly different under the concrete arch from that under the masonry arch, on both the northern and southern sides. In particular, the ashlar springer voussoirs under the concrete arch, on the northern side, are slightly smaller than those under the masonry arch.

- 4.1.7 **Secondary Arch:** the intrados of the smaller, northern, arch is a mixture of dressed masonry, with a variety of sandstone types, including some red sandstone mixed with yellow sandstone, and also a variety of dressing techniques, and some stones are dressed better than others (Plate 21). Although all the voussoirs are dressed the lack of consistency argues against it being from a single quarry source, or from a single mason. It more likely reflects a reuse of mixed masonry from multiple sources, and is in contrast to the spandrels and pilasters on the western face which are of consistent masonry. It is therefore probable that this arch is a product of rebuilding and repair.
- 4.1.8 **Eastern Bridge Face (Plates 22 and 23):** the eastern face of the bridge has a very obvious concrete primary arch, and the spandrels on either side of it are of squared rubble with strap pointing. This contrasts with the coarsed rubble construction on the bridge elevation to the north of the small secondary arch, which has dressed sandstone voussoirs on its eastern face. The northern section of the bridge face, and the secondary arch, appear to be largely original, but the eastern section of the primary arch is evidently of relatively recent build, and includes the concrete arch, as well as the strap-pointed spandrels. The pilasters on the western face of the bridge are not evident on the eastern side and it is evident from the photograph of 1928, prior to the rebuild of the arch (Plate 9), that none were ever in existence on this eastern face. From the documentary and physical evidence it is apparent that this relatively recent concrete arch reflects a repair / partial rebuild, rather than an easterly extension. The southern string course stones are machine-cut, unworn ashlar and are evidently relatively recent. A small ashlar terminal column for the parapet has been set on top of the recent string course stones, but the column is worn and has greater antiquity than the string course indicating that it has been replaced in this location following relatively recent repairs to the parapet (Plate 24).

4.2 PHASING

- 4.2.1 From the extant remains, it is apparent that the bridge has been subject to a number of repairs, rebuilds and extensions, and it is difficult to discern with confidence the earliest form of the bridge.
- 4.2.2 **Phase 1:** although the eastern face of the bridge has been substantially altered and rebuilt, it is evident, from the early descriptions (*Section 3.1.9*) and extant photographs (Plates 6-11), taken prior to the rebuilding of the eastern part of the bridge in 1930, that the earliest bridge section was the eastern, downstream face. It was constructed with arched masonry ribs and had slabs in-between the ribs. It is a style of construction commonly practised in the medieval period and is exhibited on many examples, such as Devils Bridge at Kirkby Lonsdale (Harrison 2004, 125). Many bridges built between AD 1200 and 1600 had arch ribs, but these were

relatively rare in subsequent centuries (*op cit*, 97; Jervoise 1931), so while their use is not necessarily an indication of a medieval origin, it may suggest that parts of the bridge were older than the earliest documented date of 1765 (*Section 3.1.6*).

- 4.2.3 The earliest surviving elements are the foundations of the eastern arch on both sides, which are of squared rubble construction, although the northern side of these are topped with later ashlar springers. On the basis of the extant descriptions, the eastern arch would have had sandstone ashlar ribs, of which the easternmost rib was set slightly back from the face of the bridge, as evidenced by the 1928 photograph (Plate 9). Between the ribs would have been slabs, from the engineers description on 1929 (*Section 3.1.9*), but it is not known as to whether these were dressed.
- 4.2.4 The foundations, on both sides of the arch, change along the line of the eastern edge of the present masonry arch, and it is evident that this edge formerly butted against the historic masonry ribbed arch. In its earliest form, prior to the construction of the western extension, the bridge was relatively narrow, being only 2.33m wide and, allowing for possible parapets of potentially 0.3m width, would have had a road deck of only 1.73m width. It was essentially a pack horse bridge, and would have been able to accommodate only very narrow wheeled traffic.
- 4.2.5 In addition to the arch foundations, the only other extant fabric of the early bridge is a small section of bridge façade, on the eastern side, to the north of the secondary arch, which was constructed in coarsed rubble.
- 4.2.6 **Phase 2 Widening:** at a subsequent date the bridge was extended, with the addition of a further 2.47m wide masonry arch to the west, giving a total width of 4.81m and a road deck width of 4.14m, as such, it would have allowed the movement of wheeled traffic (Figs 3-6). There is no evidence of a break in the secondary arch, and, from the irregular form and stone type of its voussoirs, it is evident that the whole arch was rebuilt to allow for the full 4.8m width of the bridge. It is not evident, however, if this rebuild was undertaken when the bridge was widened or at a subsequent juncture, possibly when the concrete arch was inserted.
- 4.2.7 The northern pilaster is keyed into the face of the bridge, but was essentially decorative and is in keeping with the potentially eighteenth century date of the extension. The southern pilaster, is also keyed into the face of the coarsed rubble spandrels, and significantly the foundation stones extend out to the face of the pilaster, rather than the face of the bridge, suggesting that there was a pilaster, or extended façade, as part of the original build.
- 4.2.8 **Phase 3:** subsequent to the construction of the northern pilaster the cutwater (starling) was added. The parapet and string course on the western side of the bridge are seemingly contemporary with the pilaster, but there is evidence of patches of different build within the parapet, indicating that substantial parts of it have been rebuilt over the years, probably in response to damage as a result of road traffic accidents.
- 4.2.9 **Phase 4:** the original eastern rib-arch was removed in its entirety in 1930, and was replaced with a concrete arch. This entailed considerable alteration to the fabric of the eastern bridge face and much of the spandrels for the primary arch were rebuilt with squared rubble and were, subsequently, subject to strap pointing. The bridge façade to the north of the secondary arch was seemingly not affected by these works, but it is evident that the secondary arch was rebuilt at some stage, and there

is a possibility that this occurred at the same time as the building of the concrete arch.

5. CONCLUSION

5.1 DISCUSSION

- 5.1.1 The bridge has the potential to be of greater antiquity than the eighteenth century date indicated by the listing building record and the earliest documented date (*Section 3.1.6*). The original arch, on the eastern side was constructed with arched masonry ribs and with slabs set between the ribs. This was an early style of bridge construction that was superseded by the stronger and more substantial barrel arch design, the ribbed arch is a common feature of medieval bridges but is rare in later periods. The implication being that it is more likely to be of medieval, or certainly pre-eighteenth century, and would live up to its name of 'Old Bridge'.
- 5.1.2 While such a bridge was capable of taking the loading of conventional carts and pack animals, for which it had been designed, it was not up to the very much higher loading demanded of the heavy vehicles that were used for the construction of Stocks Reservoir. It is perhaps, therefore, not surprising that this early arch should have been demolished in favour of a stronger concrete arch. In so doing, much of the early structure was lost, and relatively little of the early bridge now survives, comprising the northern area of spandrel, on the eastern side, and the bridge arch foundations. The visible remains of early fabric are for the most part the later bridge extension on the western side, which is likely to be of eighteenth date as suggested by the listing description.
- 5.1.3 Had the bridge not been so altered, it would possibly have been one of the more significant extant historic bridges in the county, but instead its significance relies largely upon the evidence of an engineers description and some poor early twentieth century photographs.

5.2 IMPACT

- 5.2.1 The western face of the bridge, including the spandrels, has suffered as a result of increasing vehicle loads, and the masonry is cracked and much of the pointing has been dislodged. It is proposed to take down and reconstruct the western face of the bridge, up to the cutwater, and to replace the existing fill with a lightweight concrete. It is also proposed to repoint the masonry of the east and west parapets, as appropriate, although in some areas the pointing is in good condition.
- 5.2.2 This will result in the loss of much of the extant visible historic structure of the bridge, as much of the eastern façade was lost when the arch was rebuilt. Following these works the northern section of the bridge (north of the principal arch), on both sides, will, along with the western arch, represent the best surviving sections of the bridge.

5.3 RECOMMENDATIONS

- 5.3.1 The earliest fabric is an area of spandrel on the eastern side of the bridge, which was not the subject of the present study. If any alterations to the spandrel or adjacent parapet are required it is recommended that a similar building record is made of that elevation in advance of such works.

- 5.3.2 Once the bridge façade wall has been removed, there would be considerable benefit in maintaining a watching brief to provide a photographic record of the internal structure of the bridge in advance of the replacement with concrete. Any works to the road surface that may expose the bridge fabric should also be subject to a watching brief.

6. BIBLIOGRAPHY

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QS1/16/4/8/1; QS1/16/4/7/5; Documents outlining proposals for repairs to Slaidburn Bridge in 1677

Cartographic Sources

Jeffreys Map of Yorkshire, 1771

LRO PR 3035/4/1 - Slaidburn Tithe, 1843

Lang, JB, 1765 Map of Slaidburn

Ordnance Survey First Edition 6" to 1 mile, 1847-50, Lancashire Sheet 165

Ordnance Survey Second Edition 6" to 1 mile, 1893-96, Lancashire Sheet 165

6.2 SECONDARY SOURCES

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English Heritage, 2009a *Measured and Drawn, Techniques and practice for the metric survey of historic buildings (second edition)*, London

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Harrison, D, 2004 *The bridges of medieval England, transport and society 400-1800*, Oxford

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Institute for Archaeologists, 2010 *Code of Conduct*, Reading

Jervoise, E, 1931 *The Ancient Bridges of the North of England*, London

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APPENDIX 1: PROJECT BRIEF

BRIEF FOR ARCHAEOLOGICAL BUILDING RECORDING AT
CROASDALE BRIDGE, SLAIDBURN
(SD 71210 52485)

Prepared on behalf of Ribble Valley Borough Council for David Griffiths, Lancashire County Council, applicant

1. Summary

- 1.1 Listed Building Consent (3/2010/1028) has been granted to take down and reconstruct the west wingwall up to the cutwater; replace existing fill with a lightweight concrete; repoint cracks and missing mortar in east and west parapets at Croasdale Bridge, Slaidburn. It is a condition (no. 3) of the consent that:

"No work shall take place on the site until the applicant, or their agent or successors in title, has secured the making of a detailed record of the building to inform reconstruction. This must be carried out by a professionally qualified archaeological/building recording consultant or organisation in accordance with a written scheme of investigation which shall first have been submitted to and agreed in writing by the Local Planning Authority."

- 1.2 It is strongly recommended that any contractor wishing to tender for the work should visit the site so as to be well acquainted with site constraints.

2. Site Location and Description

- 2.1 The bridge (*Old Bridge*) stands at NGR SD 71210 52485, opposite Beckside Cottages where the road crosses Croasdale Brook and becomes The Skaithe (C159).

3. Planning Background

- 3.1 The proposed repairs will require the taking down and rebuilding of sections of the west wingwall up to the cutwater.

4. Archaeological Background

- 4.1 Croasdale Bridge is a known heritage asset, a grade II Listed Building (Lancashire Historic Environment Record PRN 18154), thought to date to c. 1800. The Statutory List description is:

"Bridge, c.1800. Limestone rubble with sandstone dressings. 2 segmental arches, the north one narrow, with a triangular cutwater on the west side. Solid parapet with coping and string course."

5. Requirement for Recording

- 5.1 Buildings are an important part of the historic environment, providing information on historical technology, social structure and lifestyles. Alterations to such buildings remove evidence for the past uses and make it more difficult for future historians to understand and interpret them. A drawn and photographic record of the building preserves 'by record' the information which is lost during alteration.
- 5.2 As the proposals are for the dismantling and re-erection of part of the bridge, it is considered that a Level 3 survey (English Heritage 2006, 14) should be undertaken.

6. Documentary research

- 6.1 Prior to the commencement of work on site, the archaeological contractor should undertake a rapid map-regression exercise. As a minimum, all historic Ordnance Survey maps, documents and photographs held in local libraries, archives and museums should be examined. If available, other historic cartographic sources should also be examined. This work is intended to inform the archaeological recording by providing background information with regard to the date of construction, original use and a discussion of the significance of the structure.
- .2 In this instance information held by the County Council may be sufficient to meet the requirements of section 6.1 above, and a copy of the information should be obtained from David Griffiths (see section 13.1 for contact details).

7. Photography

- 7.1 Only the west elevation of the bridge (that to be taken down and rebuilt) is to be recorded by means of rectified photography in accordance with the standards outlined in *Measured and Drawn, Techniques and practice for the metric survey of historic buildings (second edition)* [English Heritage 2009a) and *Metric Survey Specifications for Cultural Heritage* (English Heritage 2009b).
- 7.2 General photographs of the bridge are also required, along with photographs of its setting. These must be taken with a Medium or Large Format camera. All photographs are to be black and white. All detailed photographs must contain a graduated photographic scale (measuring tapes and surveying staffs are not considered to be acceptable scales in this context). A 2-metre ranging-rod, discretely positioned, should be included in a selection of general shots, sufficient to independently establish the scale of all elements of the building and its structure.
- 7.3 For the purposes of the report, high quality digital images are acceptable.
- 7.4 Archive photographs can be taken with a 35mm camera (a Medium or Large Format camera can also be used). All record photographs to be black and white, using conventional silver-based film only, such as Ilford FP4 or HP5, or Delta 400 Pro (a recent replacement for HP5 in certain film sizes such as 220). Dye-based (chromogenic) films such as Ilford XP2 and Kodak T40CN are unacceptable due to poor archiving qualities. Digital photography is unacceptable due to unproven archiving qualities. Record photographs should be printed at a minimum of 5" x 7". Bracketed shots of identical viewpoints need not be reproduced, but all viewpoints must be represented within the report.
- 7.5 *A photographic register listing all photographs (b/w prints, colour slide or digital images) taken shall be produced. For ease of use each set of photographs should be numbered sequentially 1, 2, 3, etc.*

8. Drawn Record

- 8.1 Drawings at a scale of 1:20 will be produced both as a record, and to be used in the numbering of dressed stones, to ensure that the elevation is accurately rebuilt.
- 8.2 Drawing conventions will conform to English Heritage guidelines as laid out in *Understanding Historic Buildings – A guide to good recording practice* (English Heritage 2006).

9. Adherence to specification

- 9.1 Prior to the commencement of *any work*, the archaeological contractor should confirm in writing adherence to this specification, or state (with reasons) any proposals to vary the specification. Should the contractor wish to vary the specification, then written confirmation of the agreement of Lancashire County Archaeology Service (LCAS) to any variations is required prior to work commencing. The archaeologist carrying out the building recording should be appropriately qualified and experienced. Any technical queries arising from the specification detailed below should be addressed to LCAS *without delay*.

10. Monitoring

- 10.1 LCAS will be responsible for monitoring the contractor's work. The contractor must give a minimum of one week's notice, in writing or by e-mail, of the commencement of fieldwork in order that arrangements for monitoring can be made.

11. Post-Recording Work and Report Preparation

A WRITTEN REPORT SHALL BE PRODUCED. THIS WILL INCLUDE:

- 11.1 The location of the bridge, including name or street name and number, town, civil parish, National Grid Reference and details of listing.
- 11.2 The date when the record was made and the names of the recorders and the organisation which employs them (e.g. Unit name) as well as the reason for the record (to meet the requirements of a Listed Building Consent condition) and quoting the relevant Listed Building Consent reference (see 1. Summary).
- 11.3 A detailed description of the bridge. This should describe the bridge's form, function, age and development sequence. The names of architects, builders, patrons and owners should be included if known. The purpose of this is to describe the building when no fuller record is required or to serve as an introduction to a more detailed record that may follow.
- 11.4 An account of the bridge's past and present use, and of the uses of its parts, with the evidence for these interpretations. An account of any fixtures, fittings, plant or machinery associated with the building.
- 11.5 Copies of other records of the bridge, or a note of their existence and location.
- 11.6 Relevant information from other readily available sources and from other people such as owners, building contractors or architects who may be familiar with the bridge. Sources of such information should be given.
- 11.7 A note of the bridge's past and present relationship to its setting, its visual importance as a landmark, etc.
- 11.8 A note of the significance of the bridge locally, regionally or nationally, in terms of its origin, purpose, form, construction, design, materials or status.
- 11.9 The report illustrations should include as a minimum: a location map at not less than 1:2500; a site plan at not less than 1:500 with the bridge clearly marked; photographs used to illustrate key points and a complete set of site drawings, at an appropriate scale (1:50), executed to publication standard. Extracts from all historic maps studied during the map analysis stage (section 6.) are also to be included within the report with the building of interest clearly visible. All copyright and Licence agreement numbers should be included where necessary. The photographic record plan and register must also be included.
- 11.10 A copy of this specification should be bound into the back of the report.
- 11.11 A fully indexed archive is to be compiled consisting of all primary written documents, plans, photographic negatives and a complete set of labelled photographic prints. Labelling should be in indelible ink on the back of the print and should include: film and frame number; date recorded and photographer's name; name and address of structure; national grid reference. Printed adhesive labels are also acceptable. Photographic prints should be mounted in appropriate archival stable sleeves.

12. Deposition of archive

- 12.1 The ARCHIVE resulting from the building recording will be deposited with the Lancashire Records Office, Bow Lane, Preston, PR1 2RE, tel: 01772 533039, e-mail: <mailto:record.office@ed.lancss.gov.uk>, in a format to be agreed with the County Records Officer, and within a timetable to be agreed with the Specialist Advisor (Archaeology) or Planning Officer (Archaeology). A summary record with appropriate illustrations will be deposited with the

Lancashire Historic Environment Record (HER) and with the National Monuments Record in Swindon.

- 12.2 The site archive shall be conserved and stored according to the UKIC *Guidelines for the preparation of excavation archives for long-term storage* (1990) and the Museum and Galleries Commission *Standards in the Museum Care of Archaeological collections* (1992) 'Standards for the preparation and transfer of archaeological archives'.
- 12.3 Copies of the report will be supplied to the Specialist Advisor (Archaeology) or Planning Officer (Archaeology) and to the Lancashire HER within 12 weeks of the completion of the fieldwork, and on the understanding that it will become a public document after an appropriate period [a maximum of 6 months after the completion of the fieldwork unless another date is agreed in writing with the Specialist Advisor (Archaeology) or Planning Officer (Archaeology)]. This should be provided as an Acrobat Adobe 'pdf' format file on CD-ROM. Paper copies should also be supplied to the relevant Planning Officer and Conservation Officer at Ribble Valley Borough Council.
- 12.4 Archaeological contractors must complete the online OASIS form at <http://ads.ahds.ac.uk/project/oasis/>. Contractors are advised to contact Lancashire HER prior to completing the form. Once a report has become a public document by submission to or incorporation into the HER, Lancashire HER may place the information on a web-site. Please ensure that you and your client agree to this procedure in writing as part of the process of submitting the report to the case officer (Ken Davies) at Lancashire HER. "

13. Further Details

- 13.1 Further information about the proposed development can be obtained from David Griffiths, Engineer (Bridges),
- 13.2 Any queries about the contents of the specification should be addressed to Lancashire County Archaeology Service, Development Management Group, Lancashire County Council Environment Directorate, PO Box 100, County Hall, Preston PR1 0TD, Tel: 01772 531734, Mob: 07557 030586.

Doug Moir

Planning Officer (Archaeology)

E-mail: Douglas.moir@lancashire.gov.uk

June 2011

Bibliography

English Heritage 2006, Understanding Historic Buildings: A guide to good recording practice, *English Heritage*.

English Heritage 2009a, Measured and Drawn, Techniques and practice for the metric survey of historic buildings (second edition)

English Heritage 2009b, Metric Survey Specifications for Cultural Heritage

This specification is valid for a period of one year from date of issue. After that time it may need to be revised to take into account new discoveries, changes in policy or the introduction of new working practices or techniques.

ILLUSTRATIONS

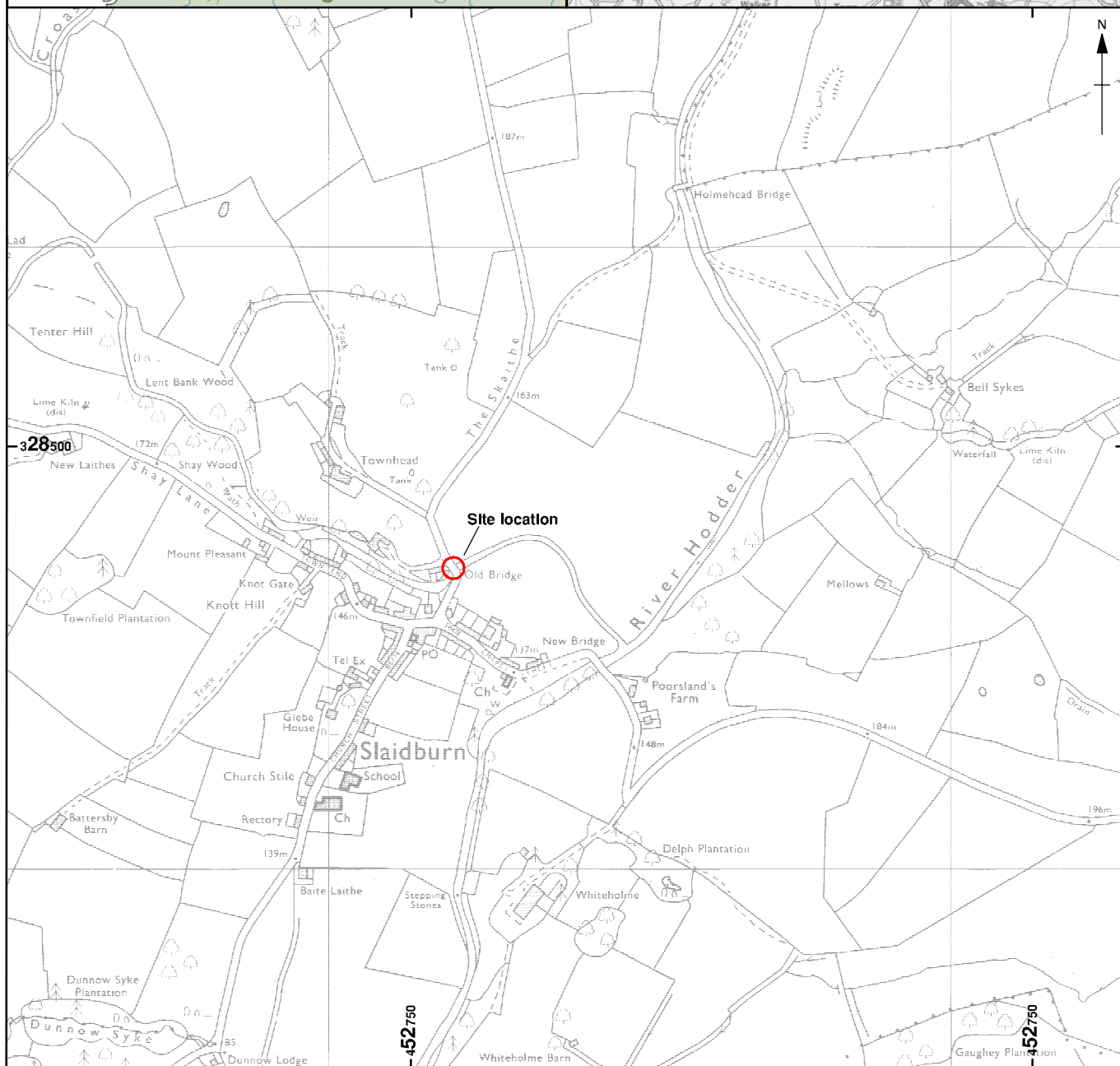
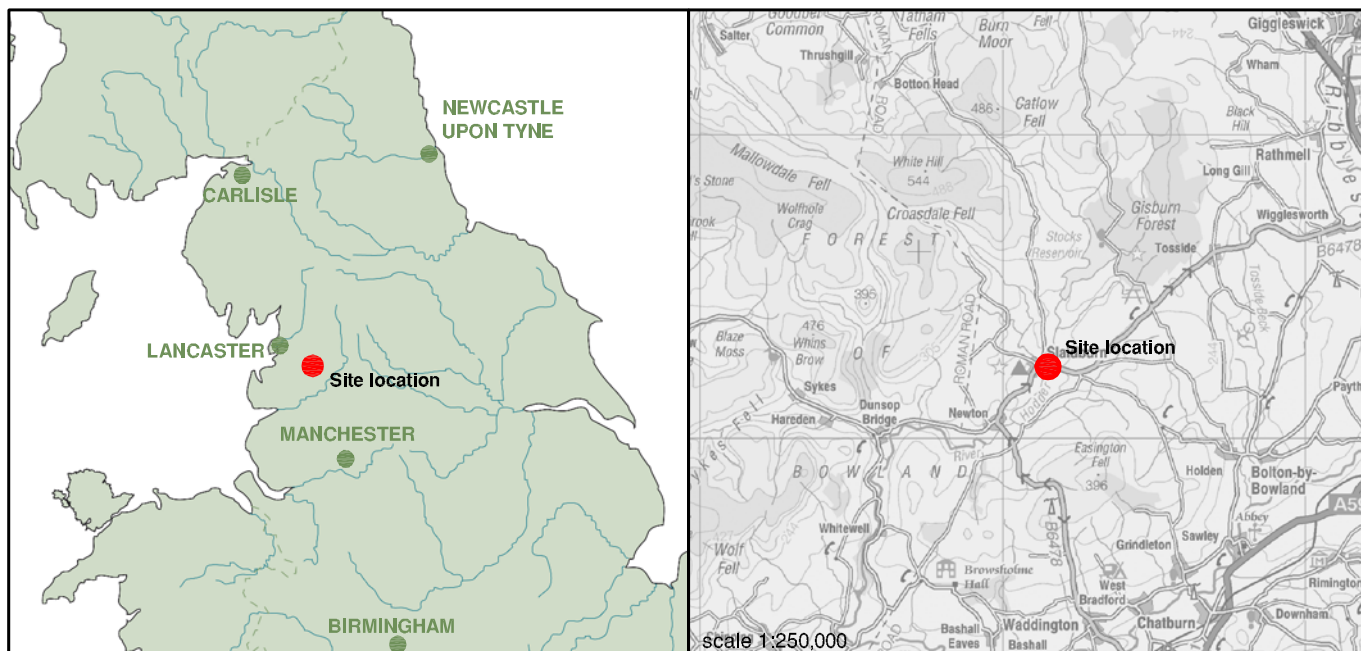
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0 250 m
1:10,000 @ A4



Figure 1: Site location

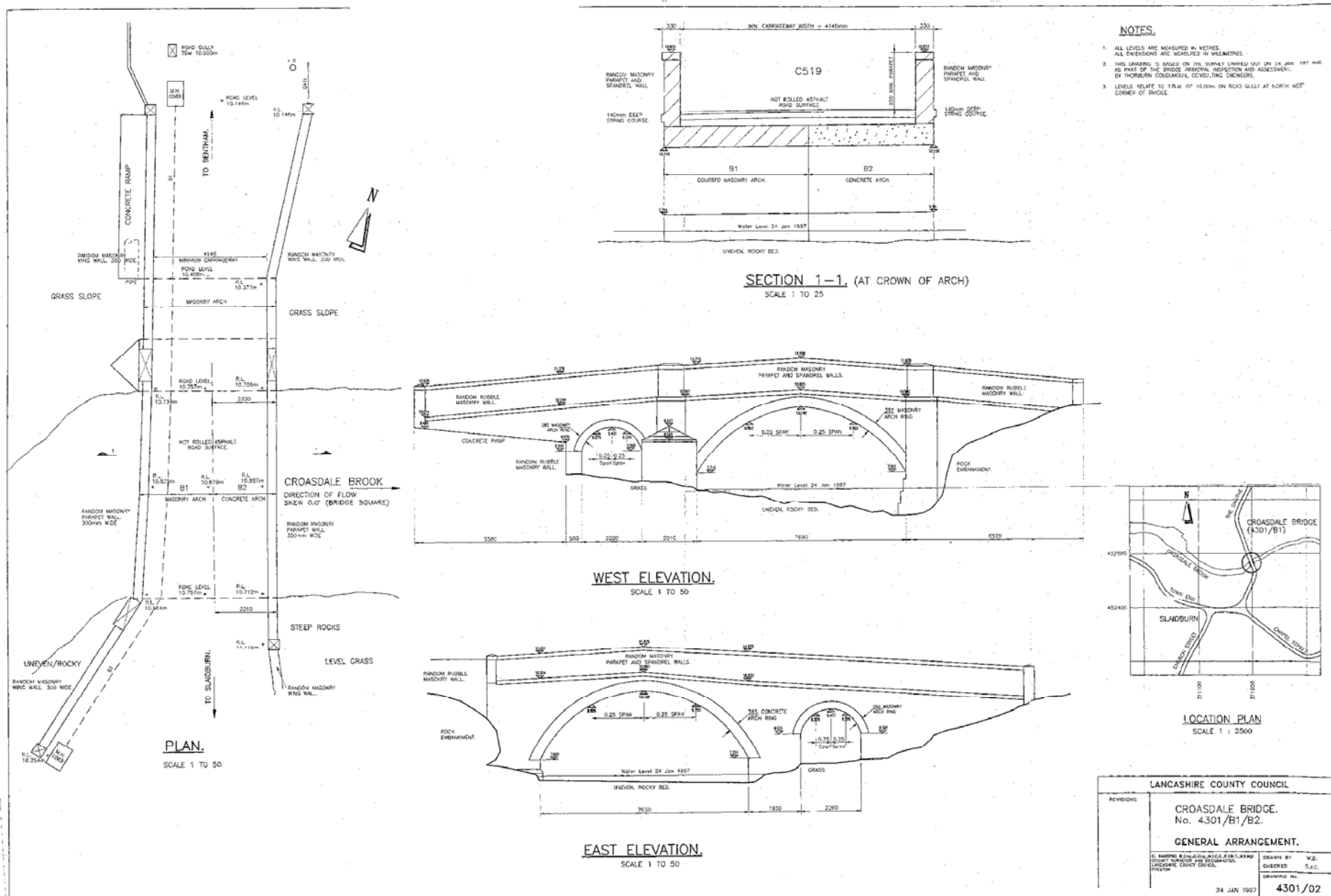


Fig 2 Plan, cross section and elevations of Croasdale Bridge (after Lancashire County Council)



Figure 3: South-facing elevation (including rectified base image)

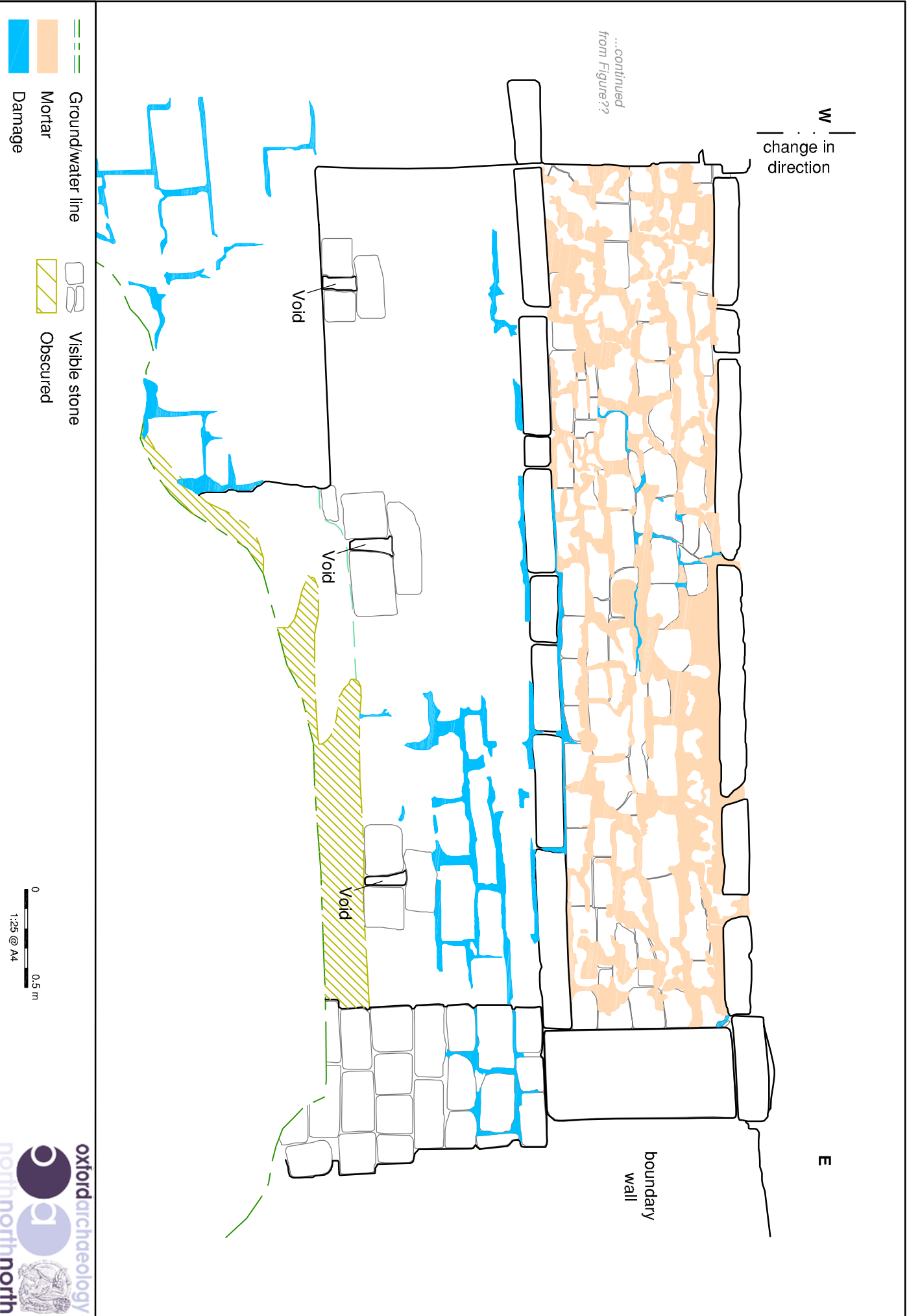


Figure 4: South-facing elevation (excluding rectified base image)

- Ground/water line
- Mortar
- Damage
- Repair
- Visible stone
- Obscured



NW

SE

change in direction

continued on
Figure??

0 1 m
1:50 @ A3

Figure 5: South-West-facing elevation (including rectified base image)

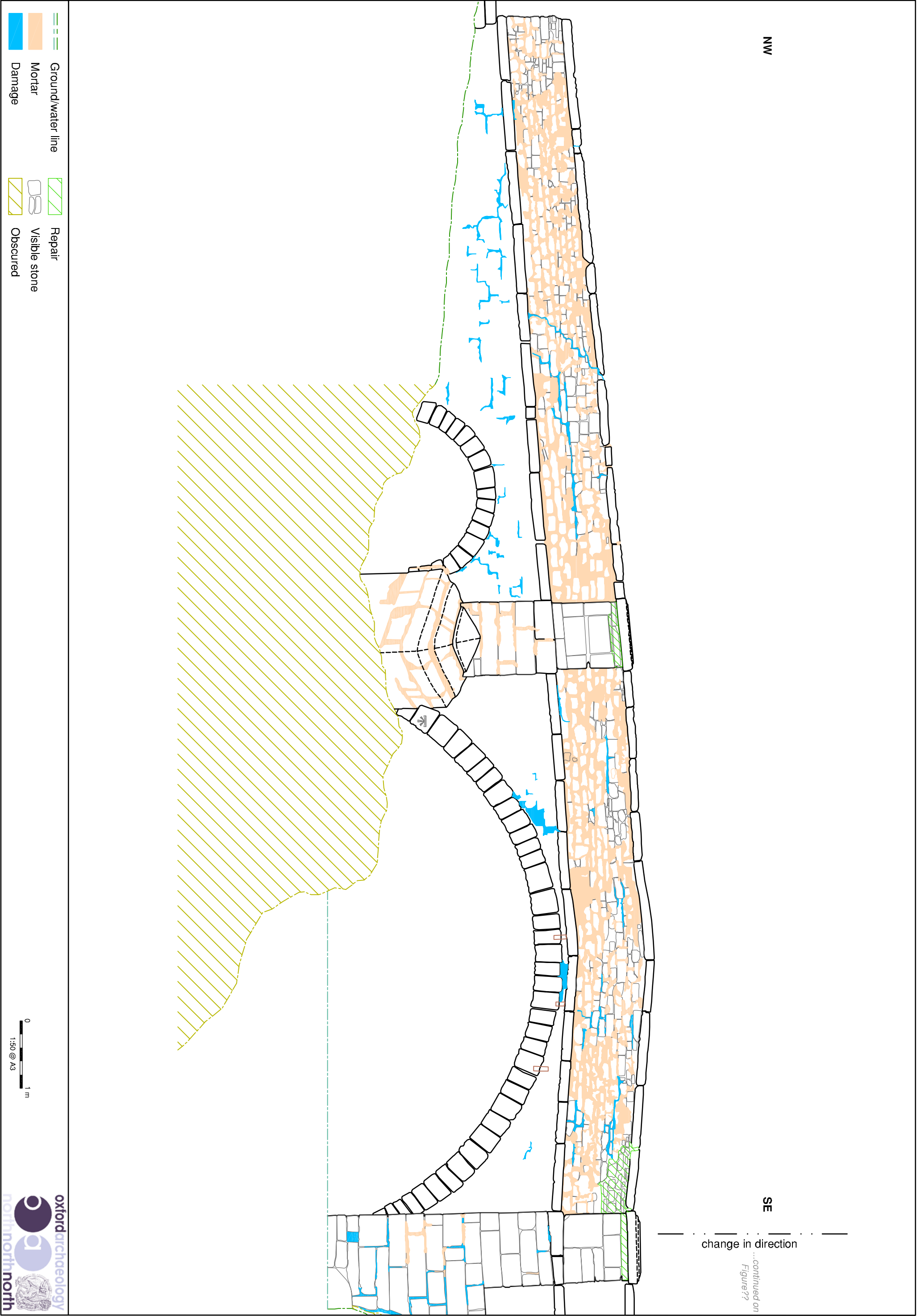


Figure 6: South-West-facing elevation (excluding rectified base image)

PLATES



Plate 5: Ordnance Survey map of 1892-3



Plate 6: Postcard held by Slaidburn Archive, c 1900



Plate 7: Postcard held by Slaidburn Archive, c 1905



Plate 8: Postcard held by Slaidburn Archive, c 1920



Plate 9: Slaidburn Old Bridge, eastern elevation, taken in 1928 (from Lancashire County Council)



Plate 10: Copy of postcard held by Slaidburn Archive, c 1928/29, showing the bridge being supported by shoring due to the strain put on it by heavy traffic during the construction of Stocks Reservoir



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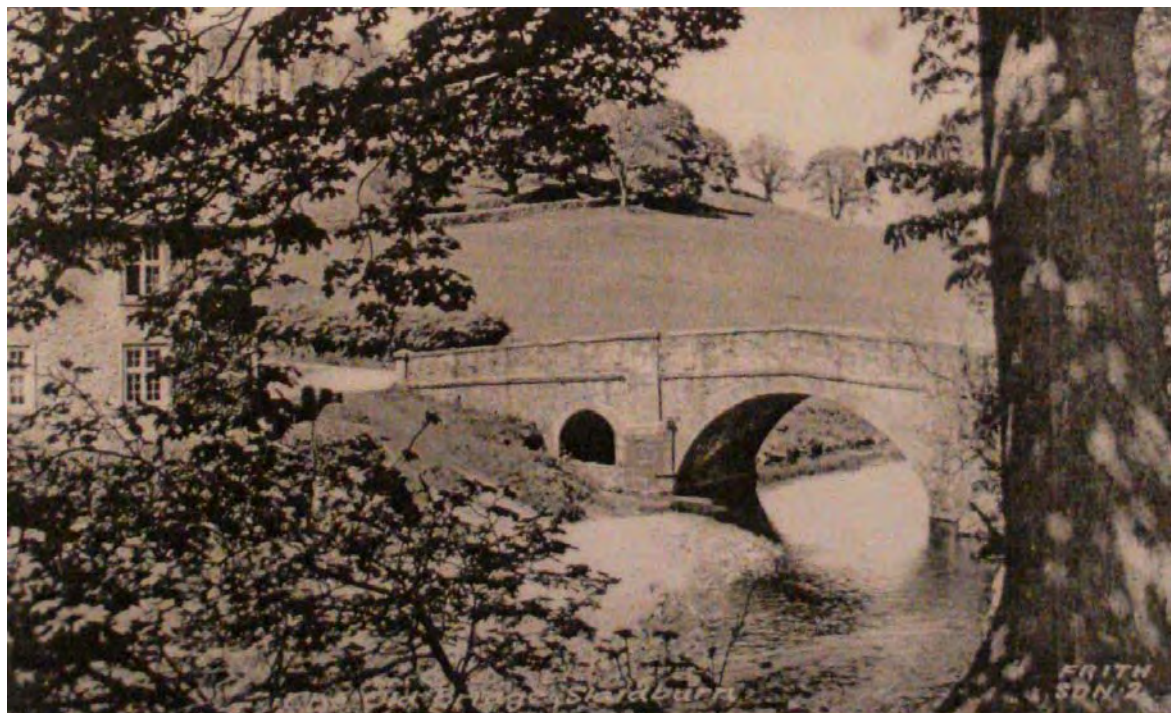


Plate 12: Postcard held by Slaidburn Archive, c 1930s



Plate 13: Postcard held by Slaidburn Archive, c 1930s/40s



Plate 14: Postcard held by Slaidburn Archive, undated

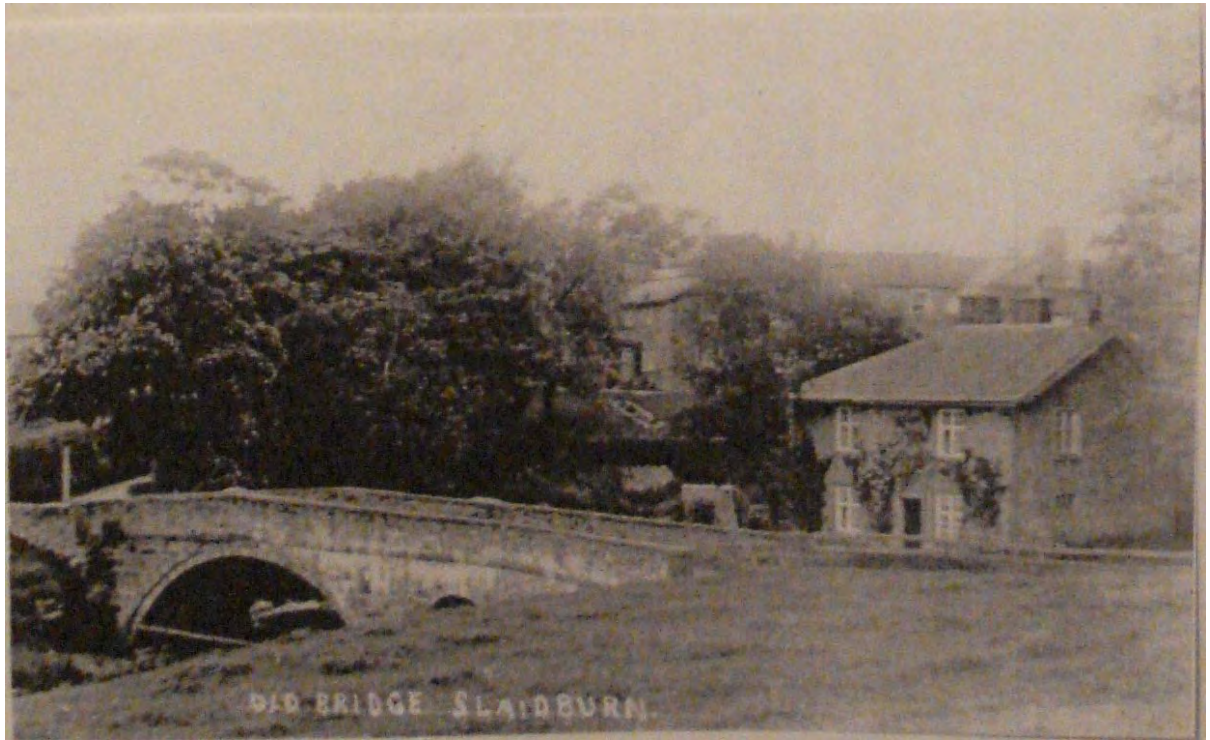


Plate 15: Copy of postcard held by Slaidburn Archive, undated



Plate 16: Damage to the bridge on 14/12/10 by a car in icy conditions (photo Slaidburn Archive)



Plate 17: General view of western face of bridge



Plate 18: Western parapet showing patchy repairs as a result of vehicle damage



Plate 19: Northern section of western parapet showing the loss of the northern terminal parapet pillar



Plate 20: Underside of the primary arch showing the 1930 concrete arch and western masonry arch



Plate 21: Underside of secondary arch, showing its patchy construction



Plate 22: Eastern elevation of bridge



Plate 23: Northern section of the eastern face



Plate 24: Southern terminal pillar of the eastern parapet, showing its placement on a modern section of string coursing following recent vehicle damage