

CONSERVATION FABRIC REPAIRS (PHASE 2),  
BUTTERTON BRIDGE, PICKING GILL,  
SAWLEY, NORTH YORKSHIRE

ARCHAEOLOGICAL AND ARCHITECTURAL  
OBSERVATION, INVESTIGATION AND RECORDING



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On behalf of

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c/o Mr Blair Wallace  
The Land Management Partnership  
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**ARCHAEOLOGICAL OBSERVATION, INVESTIGATION AND RECORDING,  
CONSERVATION FABRIC REPAIRS (PHASE 2), BUTTERTON BRIDGE,  
PICKING GILL, SAWLEY, NORTH YORKSHIRE**

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## **EXECUTIVE SUMMARY**

*In April 2021, Ed Dennison Archaeological Services Ltd (EDAS) were commissioned by the Sawley Estate to undertake a programme of archaeological and architectural observation, investigation and recording (a watching brief) prior to and during Phase 2 of various repair and conservation works at Butterton Bridge on the Sawley Estate, Sawley, Harrogate, North Yorkshire (NGR SE 23838 66468). The bridge and the abutments to either side are a Scheduled Monument, and the repairs were made a condition of Scheduled Monument Consent, with an EDAS 'Written Scheme of Investigation' defining the extent of the archaeological recording. The Phase 2 works concentrated on the bridge abutments, and followed on from a previous phase of repairs undertaken in 2020-21 to the main bridge structure.*

*The Phase 2 archaeological fieldwork was carried out at intervals between August 2021 and November 2021, and was totally funded by the Sawley Estate, who also funded the repairs. In the event, the watching brief uncovered no significant new structural information, over and above that previously reported after the Phase 1 works, and no structural or artefactual evidence was recorded which might suggest any definite dates for the construction or phasing of the bridge's abutments.*

# 1 INTRODUCTION

## Reasons and Circumstances of the Project

- 1.1 In April 2021, Ed Dennison Archaeological Services Ltd (EDAS) were commissioned by the Sawley Estate to undertake a programme of archaeological and architectural observation, investigation and recording (a watching brief) prior to and during Phase 2 of various repair and conservation works at Butterton Bridge, Picking Gill, Sawley, North Yorkshire (NGR SE 23838 66468) (see figures 1 and 2). The bridge and part of the abutments to either side are a Scheduled Monument (National Heritage List for England 1004202). The Phase 2 works concentrated on the bridge abutments, and followed on from a previous phase of repairs undertaken in 2020-21 to the main bridge structure.
- 1.2 The scope of the archaeological and architectural survey and recording work was defined by an EDAS 'Written Scheme of Investigation' (WSI) (see Appendix 2). In summary, this involved the enhancement of existing 2004 and 2020 survey data and the creation of new photographic, and written records. The work equates to a Level 2/3 descriptive and analytical record as defined by Historic England (2016, 26-27). It should be noted that the archaeological work was a recording exercise, and EDAS were not required to monitor or comment on the actual repair and conservation work itself.
- 1.3 Scheduled Monument Consent (SMC) for the Phase 2 works was approved on 25th February 2021, and the work, as well as the archaeological recording, was wholly funded by the owners, the Sawley Estate.

## Site Location and Summary Description

- 1.4 Butterton Bridge is located within Picking Gill, c.1.6km south-west of the village of Sawley, and some 4km south-west of Fountains Abbey, in North Yorkshire (NGR SE 23838 66468) (see figures 1 and 2). It lies in the modern civil parish of Sawley at an elevation of c.175m AOD. The bridge lies within the privately-owned Sawley Estate, but is accessible via a public footpath which runs across it. Vehicle access is also possible along a forest track which has a junction with Fountains Abbey Road to the south-east; estate vehicles can also pass over the bridge itself.
- 1.5 The bridge spans the beck, named on historic maps as Hebden Wood Beck, in the base of Picking Gill, and it has approach abutments to either side (the longest on the west side) which cross the wooded slopes of the valley. The bridge and surrounding area was overgrown with vegetation (principally grass, brambles, ivy and bracken), but this was largely removed prior to the start of the Phase 2 repairs. Some clearance of scrub and trees to the north and south of the bridge was also undertaken by the Sawley Estate, allowing the structure to be more clearly visible within its immediate landscape setting.
- 1.6 The bridge is variously ascribed a 12th, 13th or 14th century date (Historic England Research Record 51947; Proctor 2003, 2). It once formed part of the extensive network of medieval routeways connecting the estates of Fountains Abbey, and carried one of the principal routes from the abbey's mid-Nidderdale and Craven properties to the main abbey complex; it is suggested to have become redundant after 1539 (Moorhouse 2003, 196 & 198). There is also some evidence that the visual appearance of the valley in which the bridge is located was enhanced by ornamental tree planting during the 19th century, and it is possible that the bridge itself underwent some renovation in either the 18th or 19th centuries as part of this

scheme (English Heritage Field Monument Warden report 2nd March 1994). However, it is not believed that the bridge has undergone any repairs in its more recent history, before the current 2020-21 phases of work.

- 1.7 Butterton Bridge and part of the abutments to either side are a Scheduled Monument (NY 335; National Heritage List for England 1004202). The bridge is included in Historic England's Research Records (HERR site 51947; NMR SE 26 NW 4) and the North Yorkshire Historic Environment Record (site MNY7306). The condition of the monument meant that it was included in Historic England's 'Heritage at Risk Registers', the latest (for 2020) stating it was in a 'poor' condition in danger of structural collapse, with a priority grade of 'F(D)', meaning that 'a repair scheme was in progress and (where applicable) end use or user identified, or functionally redundant buildings with new use agreed but not yet implemented; slow decay; solution agreed but not yet implemented' (Historic England 2020, 64). This entry stimulated the 2020-21 Phase 1 repairs. The bridge and its landscape setting lie within the Nidderdale Area of Outstanding Natural Beauty.

### **Summary of Previous Survey Work**

- 1.8 The bridge was subject to an initial archaeological and ecological survey in 2004 (Richardson & Dennison 2015). In terms of the archaeological recording, an accurate plan of the bridge and its abutments, at ground level, was produced at 1:100 scale, together with a similar plan of the base of the stream bed beneath the tunnel or vault of the bridge. Stone-by-stone elevation drawings, at 1:50 scale, were also produced of the north elevation, and both sides of the internal vault. It had been proposed to similarly survey the south side of the bridge, but this was heavily obscured by vegetation at the time, and so it was planned to record this once it had been cleared at a later date. However, the proposed repair and conservation project did not progress, and so no additional survey work was done. The cancellation of the project also meant that the resulting archaeological and ecological report, detailing the pre-intervention recording work that had been undertaken, was not produced until 2015.
- 1.9 The repair and conservation project was re-started in 2018, when the project architect's earlier specification was revised and reissued (Pace 2018 & 2020). Work started on these works in August 2020, and a programme of archaeological and architectural recording was undertaken by EDAS between August 2020 and February 2021. These Phase 1 works involved repairs and consolidation to the main structure of the bridge and its associated buttresses, and a report on the findings was produced in May 2021 (Richardson & Dennison 2021). This report concluded that there was a clear difference in the quality of the masonry between the central part of the bridge and that of the abutments to either side, the junction between the two being staggered and rather crude. The central part, comprising the main bridge structure, appeared to have remained relatively unaltered throughout its history, with the abutments seemingly going through several different phases of repair and rebuilding, some perhaps associated with the incorporation of the bridge into a 19th century ornamental landscape which was created in the valley. Limited evidence for possible internal features such as a relieving arch and crude drystone facing to the rubble core was also recorded, as well as some potential phasing to the projections (either buttresses or former returns) flanking the bridge arch. No evidence for a paved, cobbled or otherwise strengthened surface to the causeway over the bridge was exposed by the repair works. No dating evidence, in terms of artefacts or diagnostic architectural features, was recovered.

## **Summary of Current Phase 2 Repair Programme**

- 1.10 As noted above, the completed Phase 1 repair and consolidation works concentrated on the main structure of the bridge and its associated buttresses. The Phase 2 works dealt with the bridge abutments which span the valley, the abutments on the west side being between 20m-30m long compared to 9m long on the eastern side; no repairs were undertaken to the north side of the eastern abutment, as this had already been largely dealt with by the Phase 1 works (see figures 4 and 5).
- 1.11 The Phase 2 repair and conservation works were detailed in a specification produced by the building contractor, Gary Payne (GMP Ripon Ltd) (Payne 2021).
- 1.12 The works initially involved removing the vegetation from the north and south sides of the longer western abutment, and the shorter south side of the eastern abutment, apart from ecologically-significant and sensitive plants; the roots of a number of well-established trees were removed from within the existing stonework. The surface of the trackway running along the top of both abutments was excavated to a depth of c.300mm, to allow for subsequent infilling with hardcore crushed stone, compacting, and reseeding with grass.
- 1.13 Once scaffolded, the existing battered face to the abutments, generally comprising irregularly coursed and poorly mortared rubble, was taken down and rebuilt, using those elements which remained as a guide, so that any internal core could be stabilised. On average, the existing faces were cut back to a depth of c.1m from the wall face and reduced by 1.30m in height below the reduced ground surface of the trackway. The rebuilt stonework comprised irregular coursed rubble stone, with regular through stones inserted for structural stability, and the existing batter to the wall faces was retained. New pointing was mostly deeply tamped and recessed to match the original, to retain the impression of a drystone structure.

## **Scheduled Monument Consent**

- 1.14 Scheduled Monument Consent (SMC) for the Phase 2 consolidation and repair work was given by the Secretary of State for Digital, Culture, Media and Sport, advised by Historic England, on 25th February 2021 (ref S00240998).
- 1.15 A number of conditions were attached to the consent, some of which were relevant to the archaeological recording, as follows:
- (i) The works to which this consent relates shall be carried out to the satisfaction of the Secretary of State, who will be advised by Historic England. At least 2 weeks notice (or such shorter period as may be mutually agreed) in writing of the commencement of work shall be given to Dr Keith Emerick, Inspector of Ancient Monuments, Historic England, 37 Tanner Row, York, YO1 6WP; 01904 601988; keith.emerick@historicengland.co.uk in order that an Historic England representative can inspect and advise on the works and their affect in compliance with this consent.
  - (x) equipment and machinery shall not be used or operated in the scheduled area in conditions or in a manner likely to result in damage to the monument or to ground disturbance other than that which is expressly authorised in this consent;

- (xi) any works to which this consent relates shall be carried out under the archaeological supervision of Mr Ed Dennison (EDAS Ltd), 18 Springdale Way, Beverley, East Riding of Yorkshire HU17 8NU who shall be given at least 2 weeks notice (or such shorter period as may be agreed) in writing of the commencement of work. No works shall commence until the named archaeological contractor has confirmed in writing to Historic England that he is willing and able to undertake the agreed supervision;
- (xii) a report on the archaeological recording shall be sent to:  
Peter Rowe, Principal Archaeologist, NYCC, Northallerton, N. Yorks, DL7 8AH (the County Historic Environment Record) and to  
Dr Keith Emerick, Inspector of Ancient Monuments at Historic England  
within 3 months of the completion of the works (or such other period as may be mutually agreed);
- (xiii) the archaeological contractor shall complete and submit an entry on OASIS (On-line Access to the Index of Archaeological Investigations - <http://oasis.ac.uk/england/>) prior to completion, and shall deposit any digital project report with the Archaeology Data Service, via the OASIS form, upon completion.

## **2 SURVEY METHODOLOGY**

- 2.1 The scale and scope of the archaeological and architectural recording was defined by an EDAS WSI (see Appendix 2); this document was agreed with Historic England in early July 2021. The work equates to a Level 2/3 descriptive and analytical record as defined by Historic England (2016, 26-27). Additional standards and guidance published by the Chartered Institute for Archaeologists, relating to the investigation and recording of standing buildings or structures, and to archaeological watching briefs (ClfA 2019; 2020a), were also followed.
- 2.2 In accordance with the WSI, the aims of the recording were to:
- record and recover any new information relating to the nature, date, depth, and significance of any archaeological or architectural features and deposits which might be affected or exposed by the proposed conservation, repair and drainage works, in relation to the existing survey reports (Richardson & Dennison 2015; 2021);
  - to analyse and interpret the recorded information in terms of its specialist function, and to place that analysis and interpretation into its wider context;
  - to produce an ordered archive and report, and to place this in the public domain; the archive will be deposited with the North Yorkshire Record Office in Northallerton, and copies of the report will be deposited with the Sawley Estate, Historic England, the North Yorkshire Historic Environment Record, the Archaeology Data Service (via OASIS), and other interested parties.

### **Documentary Research and Collation**

- 2.3 No additional documentary and historical research was undertaken for this report, although that previously used in the earlier survey reports (Richardson & Dennison 2015; 2021) was re-examined, utilised and repeated as necessary.



## **Archaeological and Architectural Survey**

### *Measured and Drawn Survey*

- 2.4 Given the results of the monitoring work (see below), it was not considered necessary to undertake any new measured or drawn survey as part of the structural watching brief. However, the existing EDAS 1:100 scale overall site plan was used to indicate the extent of the conservation works.

### *Photographic Survey*

- 2.5 An initial site visit was made on the 30th June 2021 to photograph the existing structure prior to the proposed works as part of a pre-intervention record. Subsequent watching brief visits during the conservation works were made on 29th July, 17th August, 14th September and 21st October, all in 2021. Liaison with the contractor ensured that the watching brief visits were timed so as to view the maximum amount of each abutment following the dismantling of the facing stone. A final site visit was made on 12th November 2021, once the works had been completed and the scaffolding removed, to create an 'as-completed' photographic record.
- 2.6 Photographs were taken with a SLR digital camera which had a minimum of 12 megapixel resolution. Artificial lighting was used where necessary and all photographs contain a photographic scale, subject to practicalities and access. A total of 94 colour photographs were taken, in jpeg format. All photographs were clearly numbered and labelled with the subject, orientation, date taken and photographer's name, and were cross referenced to film and frame numbers, in accordance with standard procedure (Historic England 2015). A photographic register detailing the location and direction of each shot was completed.

### *Written Accounts*

- 2.7 Sufficient written notes were taken on site in order to allow a detailed description of the bridge to be prepared, illustrated with the drawn and photographic records.

## **Reporting and Archive**

- 2.8 This report forms a basic written record of the archaeological and architectural recording undertaken at Butterton Bridge during the Phase 2 2021 repairs, prepared from the sources of information set out above, analyses the results and places them within their historical, archaeological and landscape contexts, as far as is possible given the limited results. Copies of the final report were produced as an electronic document in pdf format for the Sawley Estate, Historic England, the North Yorkshire Historic Environment Record, and other interested parties; a hard copy has also been included with the site archive. A further electronic copy has been uploaded to Historic England's Online Access to the Index of Archaeological Investigations (OASIS) database, along with other relevant project information.
- 2.9 The archive relating to the project has been ordered and indexed according to the standards set by Historic England and the ClfA (Brown 2011; ClfA 2020b) (EDAS site code BBS 21). It was combined with the archives from the 2004 and 2020-21 survey work, and was deposited with the North Yorkshire County Record Office in Northallerton at the end of the project.

### 3 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

#### Introduction

- 3.1 Details relating to the archaeological and historical background to the bridge, and the site in general, were contained in the previous 2021 report (Richardson & Dennison 2021, 7-10). This is not repeated here, although some elements are summarised, to provide a context for the most recent repairs.

#### The Medieval Period

- 3.2 Butterton Bridge is variously ascribed a 12th, 13th or 14th century date (HERR 51947; Proctor 2003, 2). Although currently isolated within the valley of Picking Gill, it formed part of the once extensive network of medieval routeways connecting the estates of Fountains Abbey; it carried one of the principal routes from the abbey's extensive mid-Nidderdale and Craven properties, including Warsill grange to the immediate south-west, to the abbey precinct (Moorhouse 2003, 196 & 198; Jennings 1983, 37-38; <http://cistercians.shef.ac.uk/fountains/lands/lands20.php>).
- 3.3 The name 'Butterton' is thought to stem from the 'Butterdene', which is mentioned in a 12th century charter of Fountains Abbey (Wood 1946, 27). It is possible that a valley crossing here developed quickly as the abbey acquired land, and that the bridge was built soon afterwards, perhaps in the 13th century. William de la Gressuner held land in Sawley at the turn of the 13th/14th centuries, and he granted the abbot of Fountains and his successors the rights to pasture sheep and to obtain building stone and millstones from his land for their abbey (Bond 2004, 144 & 344). In 1502 John Norton, then Lord of Sawley, also granted the abbot free entry and exit over all his land, and an easement in all his quarries to obtain stone (Chandler 2005, 3). It therefore seems quite possible that the bridge, in addition to being an important communications route, was also connected with the movement of stone to the abbey. The bridge is suggested to have become redundant after the Dissolution in 1539 (Moorhouse 2003, 196), although the route remained in use on a more localised basis, and foot and horse traffic must have continued to pass over it.

#### The Post-Medieval Period

- 3.4 Once out of monastic hands, maintenance of the bridge would have passed to the local parish or township authorities, in this case Sawley and Warsill, but there appears to be no documentary evidence to suggest that repairs or maintenance were ever carried out (Jennings 1983, 184).
- 3.5 Sawley remained with the Norton family of Norton Conyers until they lost their estates through their involvement in the 1569 'Rising of the North', although Edmund Norton of Cloubeck was allowed to settle at Sawley and he started the Sawley branch of the family (Chandler 2005, 3-4). The existing Sawley Hall dates to the late 18th century with mid to late 19th century alterations, and was apparently built by the Nortons of Grantley, although it is not known if it replaced an earlier house on the same site. It appears that the last members of the Nortons of Sawley were occupying the hall in the early 19th century, and a deed of 1820 mentions 'Grace Eliza Norton of Sawley Hall, the widow and relict of Edward Norton late of the same place, and Conyers Norton of Sawley Hall' (<https://www.hpg-nidderdale.co.uk/>). Grace Eliza Norton died in 1823, followed by her only son and heir Conyers Norton in 1827. He appears to have left substantial

debts, and immediately after his death the entire 1,549 acre estate was put up for sale.

- 3.6 The manor and estate was bought in October 1828 by Henry Wormald (1801-1871). He had a considerable interest in horticulture, greenhouses and gardens in general, and the gardens at the Hall, which were opened from the 1860s, were highly regarded. He may well have been responsible for planting considerable numbers of trees, rhododendrons and azaleas in Picking Gill before his death in 1871. By 1919 the hall and estate had passed to the Barran family - both Sir John Barran (1821-1905), who was created a baronet in 1895, and his grandson, Sir John Nicholson Barran (1872-1952), were prominent Liberal politicians, and by 1936 the estate comprised some 3,000 acres (Chandler 2005, 12).
- 3.7 The 1854 Ordnance Survey 6" to 1 mile map (sheet 136) depicts 'Butterton Bridge' with a number of tracks running east and west from it, reflecting its importance as a valley-crossing point (see figure 3 top). This map also shows a number of ornamental lakes or ponds in the gill, upstream from the bridge, which form part of a deliberately created ornamental scheme. The 1891 Ordnance Survey 25" to 1 mile map (sheet 136/3) again names the bridge as 'Butterton Bridge' (see figure 3 bottom), and depicts a structure with two sides or faces, which extend further to the west of the beck than they do to the east.
- 3.8 There is also some surviving evidence that the visual appearance of the valley in which Butterton Bridge stands was enhanced by ornamental tree planting during the 19th century. For example, a number of impressive examples of specimen trees, especially *Sequoia Wellingtonia*, survive to the south-east of the bridge, closer to Fountains Abbey Road. These may well represent the creation or enhancement of the valley as an ornamental landscape by Henry Wormald or later owners of the estate, such as the Barran family. It is also possible that the bridge itself underwent some renovation in the 19th century as part of this work (English Heritage Field Monument Warden report 2nd March 1994).

## 4 INFORMATION RECORDED DURING THE PHASE 2 WATCHING BRIEF

### Introduction

- 4.1 The bridge and associated abutments are aligned slightly north-east to south-west. However, for the purposes of the following description, and to maintain consistency with the previous survey reports (Richardson & Dennison 2015; 2021), the long axis of the bridge is considered to have an east-west alignment across the beck and valley. The areas of the Phase 2 works are shown on figures 4 and 5.
- 4.2 The digital photographic record taken during the site recording is referenced in the text below using italics and square brackets, the number before the stroke representing the date on which the photograph was taken and the number after indicating the image number, e.g. [2/032]. A full catalogue of the photographs taken as part of the project appears as Appendix 1. Finally, in the following text, 'modern' is used to denote features or phasing dating to after c.1945.

### Pre-Intervention Survey

- 4.3 The pre-intervention photographic record of the abutments was made on the 30th June 2021, just after some of the vegetation had been strimmed and those trees impacting on the structure had been felled. Taken as a whole, both abutments and the bridge have a total length of 48.0m, although the north side of the western

abutment only accounts for almost 32.0m of this; the abutments give the appearance of a raised causeway. At the start of the 2021 watching brief, the bridge section was covered with a compacted surface laid down as part of the Phase 1 works [1/823-1/825] (see plate 1).

#### *The Western Abutment*

- 4.4 The grass-covered western abutment appeared to have been constructed by dumping earth as a linear bank out from the west side of the valley towards the beck, and then facing the slightly battered north and south sides with stone. The top of the grassed causeway, between the stone facings, had an average width of 7.70m, although this increased to c.8.50m at the base due to the batter of the facings. The top of the abutment was relatively level, sloping slightly down towards the bridge; there was no visible evidence of paving or any other surface, although there were two well-defined modern vehicle ruts. The junction between the masonry of the bridge and that of the abutments to either side was staggered and rather crude, perhaps suggesting several different phases of repair and rebuilding.
- 4.5 The facing to both sides of the western abutment stood to a maximum height of 3.20m immediately adjacent to the bridge, but was generally less than 2.20m high. The south face of the western abutment was built of roughly coursed and squared stone rubble, largely without mortar, but partly collapsed [1/826, 1/827] (see plate 2). Generally, the stones were better coursed to the west of a large tree stump, whilst further to the west again there were some large stones up to 0.80m long incorporated into the abutment facing [1/828-1/832] (see plate 3). The north face was of a similar construction, faced with rubble, sometimes squared and roughly brought to courses, again incorporating pieces of stone up to 0.80m long [1/833-1/849] (see plates 4 and 5).

#### *The Eastern Abutment*

- 4.6 The grass-covered eastern abutment, although much shorter than that to the west, was of a similar form. At the top, it had an average width between the stone facings of 6.70m, although this probably increased at the base due to the batter of the facings. The facing stone stood to a maximum height of 3.30m immediately adjacent to the bridge, but was again generally less than 2.20m high. The top of the abutment was relatively level, sloping very slightly down towards the bridge; again, there was no visible evidence of paving or any other surface, although there were two well-defined modern vehicle ruts.
- 4.7 As noted above, no works were undertaken to the north side of the eastern abutment, as this had been covered by the previous Phase 1 works. The south elevation, immediately to the east of the bridge arch, was relatively well coursed and squared for a short distance only, and was rebuilt as part of the Phase 1 works. To the east of this, the well-vegetated facing was in very poor condition, partly collapsed and largely formed by un-mortared rubble with no obvious coursing visible [1/850-1/852] (see plate 6).

#### **Watching Brief**

- 4.8 On 29th July 2021, a visit was made to view the ground reduction works to the surface of the abutments. An area measuring c.8m long by c.2.5m wide had been stripped to a depth of 0.30m below existing ground level (BGL), adjacent to the south side of the western abutment [2/331-2/334] (see plate 7). The same uppermost deposit was exposed as had been observed during the Phase 1 works,

a clean, compacted mid-brown/orange sandy silt, with no traces of any artificial metalling or other surfaces.

- 4.9 On 17th August 2021, a second visit was made to view the south side of the western abutment after the facing stone had been removed. The facing stone was cut back on average 1.0m from the original alignment, and to an average depth of 1.2m below the reduced ground level of the abutment's surface. This revealed the same un-mortared drystone rubble core as had been observed further to the east during the Phase 1 works. There was a possible 'levelling course' of larger stones, up to 0.50m long, set at between 0.75m and 1m BGL, although this was only visible between areas of collapse [3/461-3/463] (see plate 8).
- 4.10 A further visit was made on 14th September 2021, to view the north side of the western abutment after the facing stone had been removed. The face was cut back on average 1.40m from the original line, and to an average depth of 1.30m below the reduced ground level of the abutment's surface. The removal of the facing stone revealed the same un-mortared drystone rubble core as was noted further to the east during the Phase 1 works [4/634-4/638], although some area of rubble appeared more regularly 'laid' towards the western part of the exposed section [4/639-4/641] (see plates 9 and 10).
- 4.11 A final watching brief visit was made on 21st October 2021, to view the south elevation of the eastern abutment after the facing stone and soil had been removed. The facing stone was cut back on average 1.2m from the original line, and to an average depth of 1.3m below the reduced ground level of the abutment's surface. This revealed the same un-mortared drystone rubble core as was observed during the Phase 1 works [5/769-5/771]. The top surface of the abutment had also been partly restored by the same date [5/772] (see plate 11).

*'As-completed' Records*

- 4.12 A final site visit was made on 12th November 2021, once the works had been completed and the contractor's scaffolding and other equipment removed, to create an 'as-completed' record. On the south side of the bridge, photographs were taken of the elevation as a whole [6/006, 6/007, 6/011, 6/013] (see plate 12), the south side of the western abutment [6/008, 6/021-6/025] (see plate 13), and the south side of the eastern abutment [6/010, 6/015-6/020] (see plate 14); other more general shots of the main bridge structure following the Phase 1 works were taken to show how it was weathering-in [6/009, 6/012, 6/014] (see plate 15). On the north side of the bridge, general photographs were taken of the whole elevation where possible (views being constrained by the trees) [6/026, 6/028-6/030, 6/049, 6/050] (see plate 16) and of the north side of the western abutment [6/027, 6/031-6/041] (see plate 17). Other photographs were taken of the completed surface dressing [6/042-6/048] (see plate 18).

## **5 DISCUSSION AND CONCLUSIONS**

- 5.1 The watching brief uncovered no significant new structural information, over and above that previously reported following the Phase 1 works (Richardson & Dennison 2021, 17-21), and no structural or artefactual evidence was recorded which might suggest any definite dates for the construction or phasing of the bridge's abutments.
- 5.2 The previous report noted the difference in the quality of the masonry between the central part of the bridge and that of the abutments to either side, and this remains,

the junction between the two being staggered and rather crude. It appeared that the main central part of the bridge structure remained relatively unaltered throughout its history, while the abutments are likely to have been through several different phases of repair and rebuilding, some perhaps associated with the incorporation of the bridge into the valley's 19th century ornamental landscape. Further detail might have been recorded if stone-by-stone elevation drawings had been produced of both sides of the longer western abutment, for example, but this would have been an expensive and time-consuming exercise, and may not necessarily have produced positive results; such work would also have been difficult to justify given that it would have significantly reduced the funds available for the repair works. What was clear, however, was that the drystone walling of the battered stone faces of the abutments was much less regular and haphazard in construction, and it is likely that repeated and periodic repair of individual sections was needed over time. The depth of excavation on the tops of the abutments was limited, but this revealed no evidence for any paved, cobbled or otherwise strengthened road surface. No dating evidence, in terms of artefacts or diagnostic architectural features, was recovered.

- 5.3 As a result of the Phase 1 (2020-21) and Phase 2 (2021) works, the bridge was removed from Historic England's 'Heritage at Risk Register' (Giles Proctor, Historic England, *pers. comm.*).

## 6 REFERENCES

1854 Ordnance Survey 6" to 1 mile map, Yorkshire sheet 136 (surveyed 1848-49)

1891 Ordnance Survey 25" to 1 mile map, Yorkshire sheet 136/3 (surveyed 1889-90)

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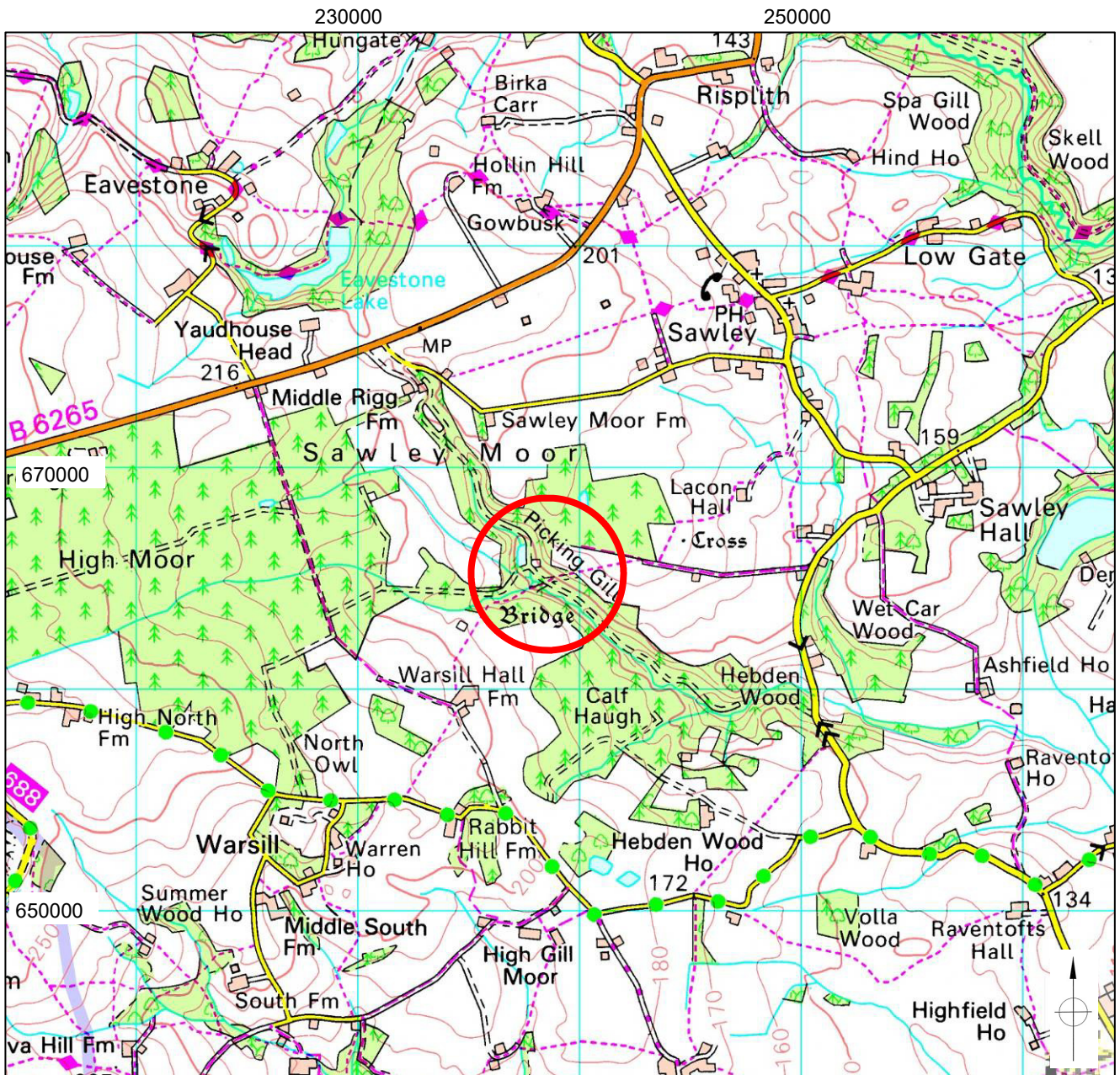
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<https://www.hpg-nidderdale.co.uk> = Historic Parks and Gardens in Nidderdale AONB

## 7 ACKNOWLEDGEMENTS

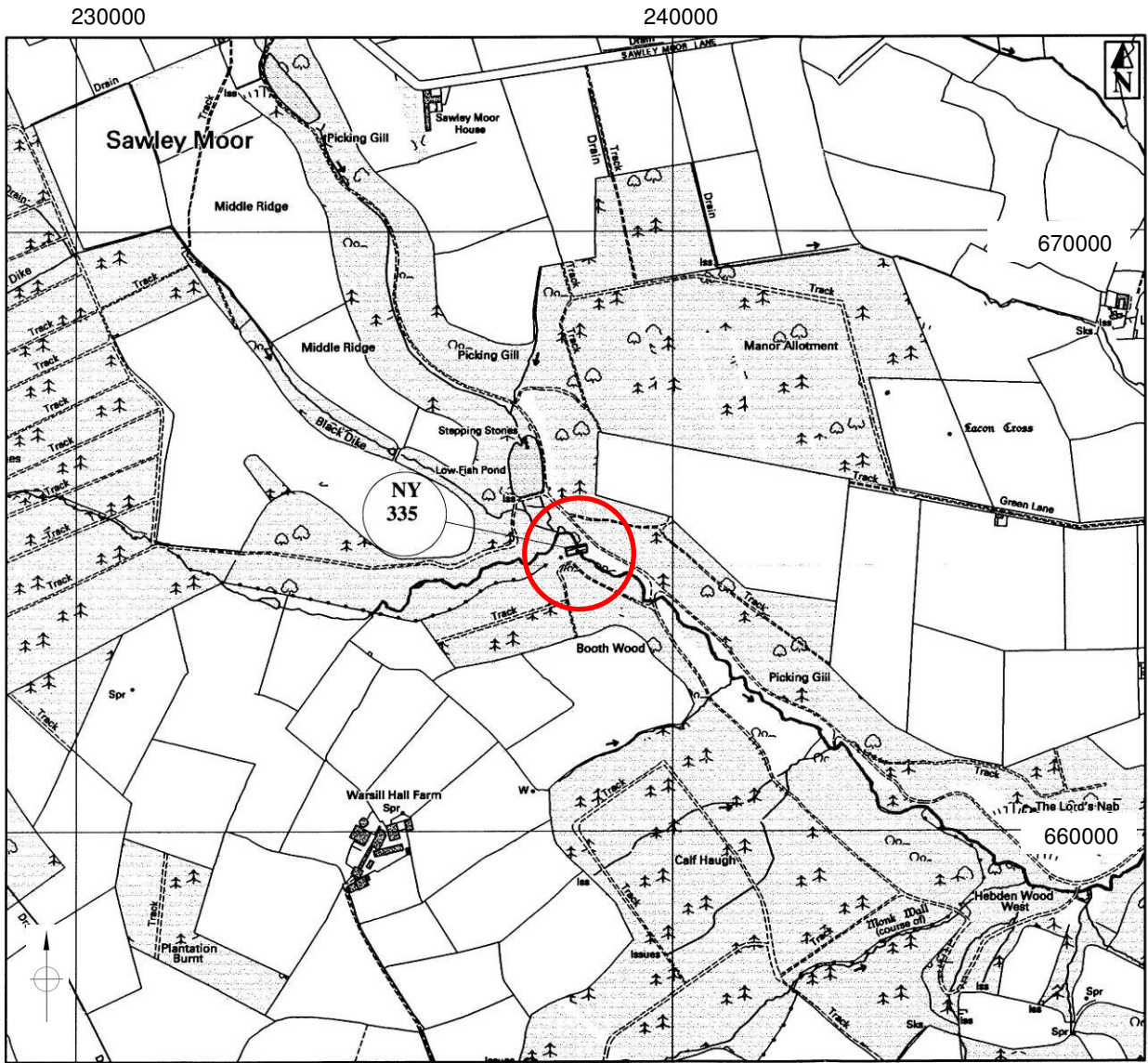
7.1 The archaeological watching brief was commissioned by the Sawley Estate, in accordance with the Scheduled Monument Consent. EDAS would like to thank all individuals and organisations for their help and co-operation in carrying out the work, particularly the owner Mr Steven Fenby, Mr Steven Fieldsend and Mr Blair Wallace of The Land Management Partnership (successive estate managers), and Mr Gary Payne of G P M (Ripon) Ltd (contractor). The archaeological recording was undertaken by Shaun Richardson of EDAS, and the final report and other drawings were produced by Ed Dennison, who retains responsibility for any errors or inconsistencies.



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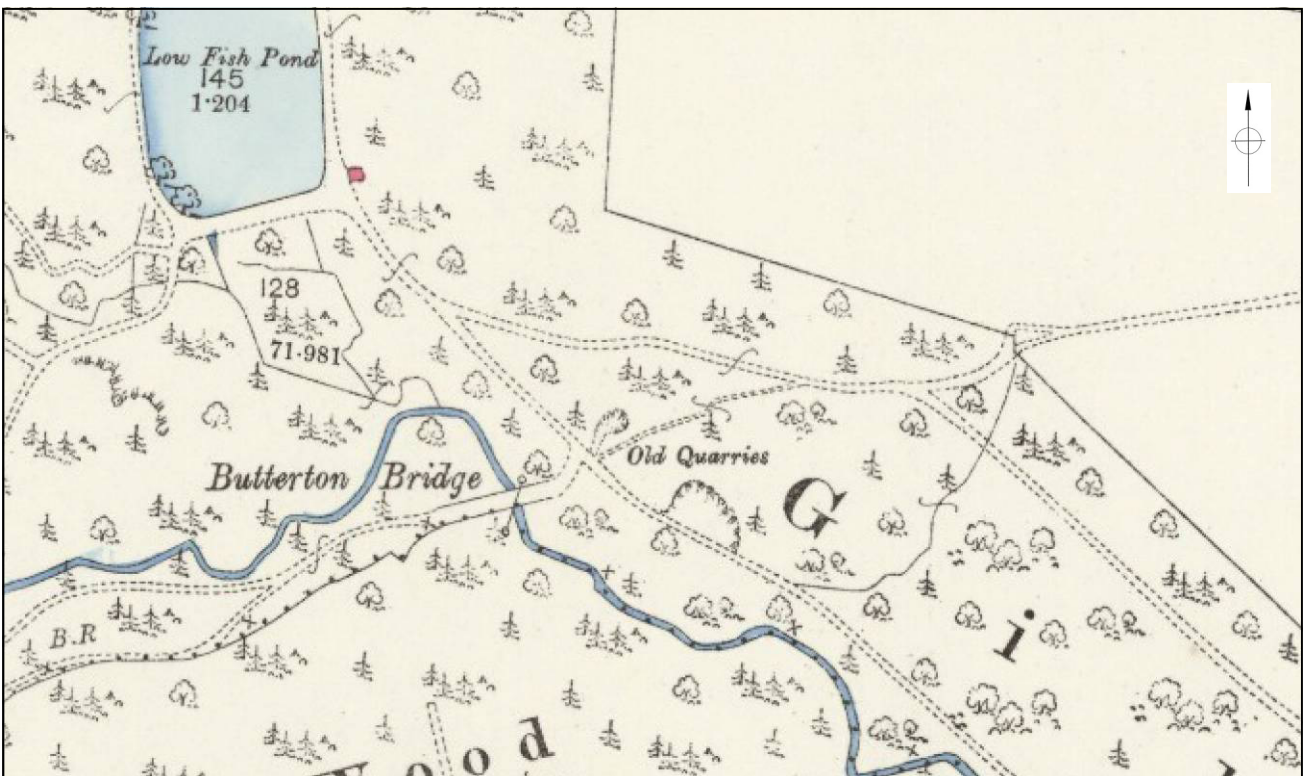
PROJECT BUTTERTON BRIDGE, SAWLEY	
TITLE GENERAL LOCATION	
SCALE AS SHOWN	DATE NOV 2021
EDAS	FIGURE 1





Map extract taken from Historic England's Scheduled Monument description (NHLE 1004202).

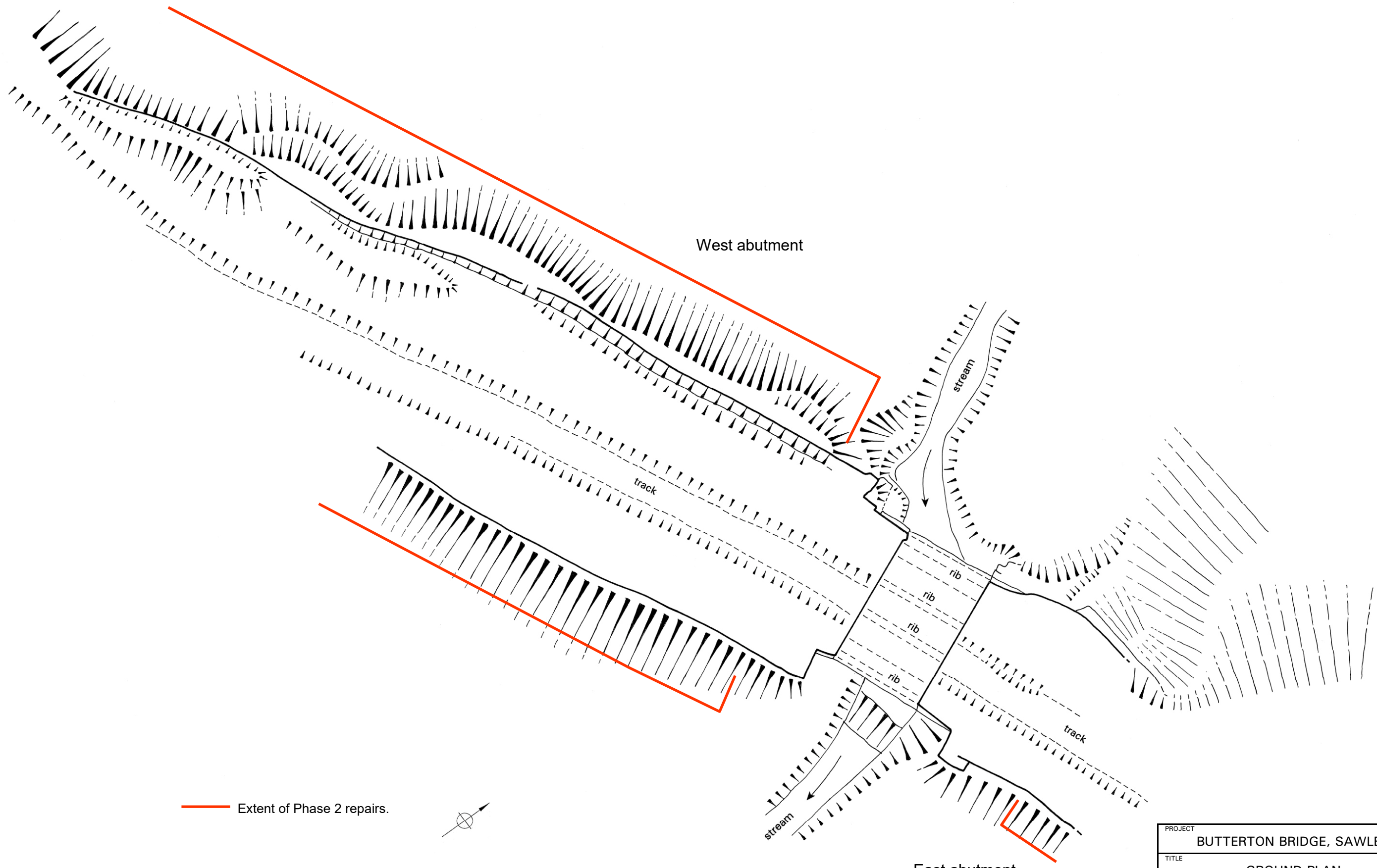
PROJECT		BUTTERTON BRIDGE, SAWLEY	
TITLE		DETAILED LOCATION	
SCALE	AS SHOWN	DATE	NOV 2021
	EDAS	FIGURE	2



Top: Section of 1854 Ordnance Survey 6" to 1 mile map, Yorkshire sheet 136 (surveyed 1848-49).

Bottom: Section of 1891 Ordnance Survey 25" to 1 mile map, Yorkshire sheet 136/3 (surveyed 1889-90).

PROJECT		BUTTERTON BRIDGE, SAWLEY	
TITLE			
HISTORIC ORDNANCE SURVEY MAPS			
SCALE	NTS	DATE	NOV 2021
EDAS		FIGURE	3

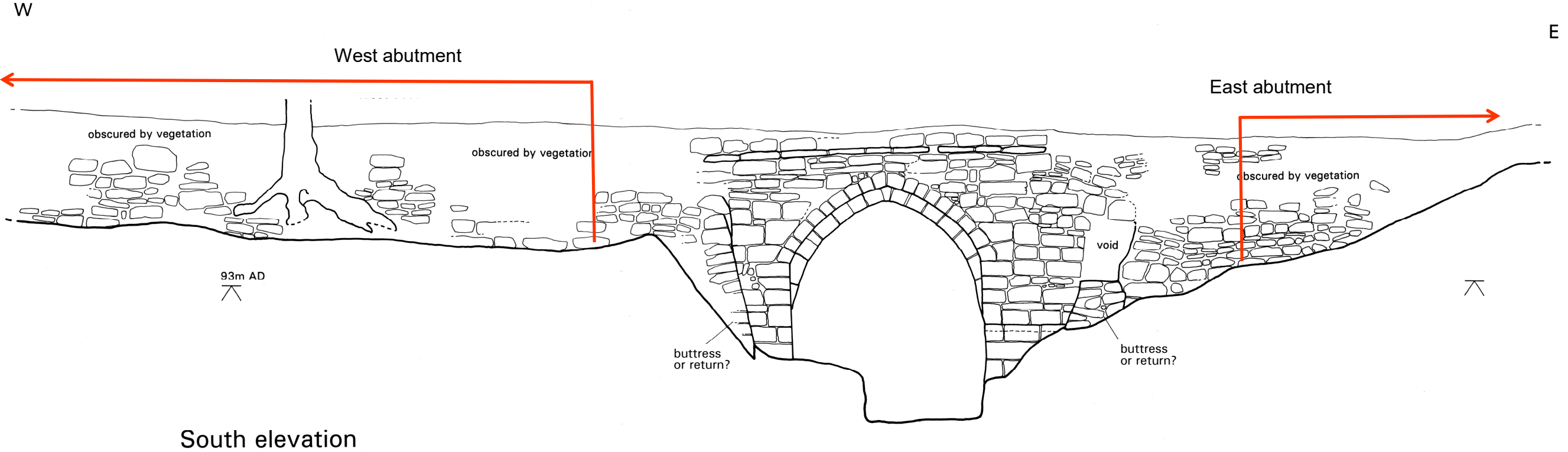
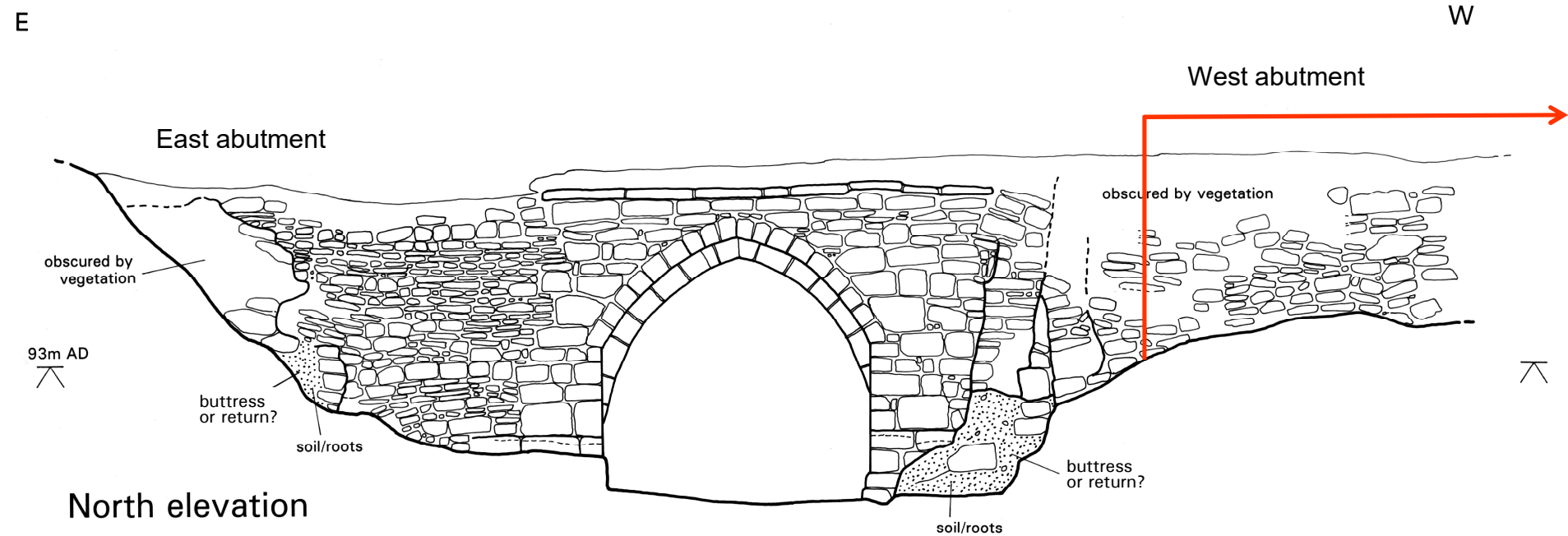


— Extent of Phase 2 repairs.



Survey data September 2004.

PROJECT		BUTTERTON BRIDGE, SAWLEY	
TITLE		GROUND PLAN	
SCALE	AS SHOWN	DATE	NOV 2021
EDAS		FIGURE	4



— Extent of Phase 2 repairs.



PROJECT		BUTERTON BRIDGE, SAWLEY	
TITLE		PRE-INTERVENTION ELEVATIONS	
SCALE	AS SHOWN	DATE	NOV 2021
EDAS		FIGURE	5



Plate 1: Bridge and abutment surfaces before start of Phase 2 works, looking SW (photo 1/823).



Plate 2: West abutment, south elevation, before start of Phase 2 works, looking N (photo 1/826).



Plate 3: West abutment, south elevation, central section, before start of Phase 2 works, looking NW (photo 1/830).



Plate 4: West abutment, north elevation, before start of Phase 2 works, looking SW (photo 1/834).



Plate 5: West abutment, north elevation, central section, before start of Phase 2 works, looking SE (photo 1/838).



Plate 6: East abutment, south elevation, before start of Phase 2 works, looking N (photo 1/850).



Plate 7: West abutment surface, reduction in ground level, looking SW (photo 2/331).



Plate 8: West abutment, south elevation, during repair, looking NE (photo 3/461).





Plate 9: West abutment, north elevation, during repair, looking E (photo 4/634).



Plate 10: West abutment, north elevation, west section, during repair, looking SW (photo 4/639).



Plate 11: Abutments and bridge top surface after repair, looking SW (photo 5/772).



Plate 12: South elevation after repair, looking N (photo 6/007).



Plate 13: West abutment, south elevation, west section, after repair, looking NW (photo 6/025).



Plate 14: East abutment, south elevation after repair, looking NW (photo 6/019).



Plate 15: South elevation of main bridge structure, after initial Phase 1 repairs, looking N (photo 6/009).



Plate 16: West abutment, north elevation after repair, looking S (photo 6/028).



Plate 17: West abutment, north elevation after repair, looking SW (photo 6/032).



Plate 18: Bridge and abutment surfaces after resurfacing, looking SW (photo 6/044).

APPENDIX 1  
EDAS PHOTOGRAPHIC CATALOGUE

## BUTTERTON BRIDGE PHASE 2 ABUTMENT REPAIRS: PHOTOGRAPHIC CATALOGUE

Film 1: Colour digital photographs taken 30th June 2021

Film 2: Colour digital photographs taken 29th July 2021

Film 3: Colour digital photographs taken 17th August 2021

Film 4: Colour digital photographs taken 14th September 2021

Film 5: Colour digital photographs taken 21st October 2021

Film 6: Colour digital photographs taken 12th November 2021

<i>Film</i>	<i>Frame</i>	<i>Subject</i>	<i>Scale</i>
1	823	Bridge and abutment surfaces before start of Phase 2 works, looking SW	2 x 1m
1	824	Bridge and abutment surfaces before start of Phase 2 works, looking NE	2 x 1m
1	825	Bridge and abutment surfaces before start of Phase 2 works, looking SW	2 x 1m
1	826	W abutment, S elevation, before start of Phase 2 works, looking N	2 x 1m
1	827	W abutment, S elevation, before start of Phase 2 works, looking N	2 x 1m
1	828	W abutment, S elevation, E section, before start of Phase 2 works, looking NW	2 x 1m
1	829	W abutment, S elevation, central section, before start of Phase 2 works, looking NW	2 x 1m
1	830	W abutment, S elevation, central section, before start of Phase 2 works, looking NW	2 x 1m
1	831	W abutment, S elevation, W section, before start of Phase 2 works, looking NW	2 x 1m
1	832	W abutment, S elevation, W section, before start of Phase 2 works, looking NW	2 x 1m
1	833	W abutment, N elevation, E section, before start of Phase 2 works, looking SE	2 x 1m
1	834	W abutment, N elevation, before start of Phase 2 works, looking SW	2 x 1m
1	835	W abutment, N elevation, central section, before start of Phase 2 works, looking SE	2 x 1m
1	836	W abutment, N elevation, central section, before start of Phase 2 works, central section, looking E	2 x 1m
1	837	W abutment, N elevation, central section, before start of Phase 2 works, looking SE	1m
1	838	W abutment, N elevation, central section, before start of Phase 2 works, looking SE	2 x 1m
1	839	W abutment, N elevation, W section, before start of Phase 2 works, looking SE	2 x 1m
1	840	W abutment, N elevation, W section, before start of Phase 2 works, looking SE	2 x 1m
1	841	W abutment, N elevation, W section, before start of Phase 2 works, looking SE	2 x 1m
1	842	W abutment, N elevation, W section, before start of Phase 2 works, looking SE	2 x 1m
1	843	W abutment, N elevation, W section, before start of Phase 2 works, looking SE	2 x 1m
1	844	W abutment, N elevation, W section, before start of Phase 2 works, looking SE	1m
1	845	W abutment, N elevation, before start of Phase 2 works, looking E	2 x 1m
1	846	W abutment, N elevation, W section, before start of Phase 2 works, looking SE	2 x 1m
1	847	W abutment, N elevation, central & W sections, before start of Phase 2 works, looking SE	2 x 1m
1	848	W abutment, N elevation, central & E sections, before start of Phase 2 works, looking SE	2 x 1m
1	849	W abutment, N elevation, previous repairs (Phase 1), looking SE	1m
1	850	E abutment, S elevation, looking N	2 x 1m
1	851	E abutment, S elevation, looking N	1m
1	852	E abutment, S elevation, looking N	1m
2	331	W abutment surface, reduction in ground level, looking SW	2 x 1m
2	332	W abutment surface, reduction in ground level, looking SW	2 x 1m
2	333	W abutment surface, reduction in ground level, looking SW	2 x 1m
2	334	W abutment surface, reduction in ground level, looking NE	2 x 1m
3	461	W abutment, S elevation, during repair, looking NE	2 x 1m
3	462	W abutment, S elevation, during repair, looking NW	2 x 1m
3	463	W abutment, S elevation, during repair, looking NE	1m
4	634	W abutment, N elevation, during repair, looking E	1m
4	635	W abutment, N elevation, during repair, looking E	1m
4	636	W abutment, N elevation, during repair, looking E	-
4	637	W abutment, N elevation, during repair, looking W	1m
4	638	W abutment, N elevation, during repair, looking E	1m
4	639	W abutment, N elevation, W section, during repair, looking SW	1m
4	640	W abutment, N elevation, W section, during repair, looking SW	1m
4	641	W abutment, N elevation, W section, during repair, looking SW	1m

5	769	E abutment, S elevation, during repair, looking W	1m
5	770	E abutment, S elevation, during repair, looking W	1m
5	771	E abutment, S elevation, during repair looking W	1m
5	772	Abutments and bridge surfaces after repair, looking SW	1m
6	006	S elevation after repair, looking N	2 x 1m
6	007	S elevation after repair, looking N	2 x 1m
6	008	W abutment, S elevation after repair, looking N	2 x 1m
6	009	S elevation of main bridge structure, after previous repairs (Phase 1), looking N	2 x 1m
6	010	E abutment, S elevation after repair, looking N	1m
6	011	S elevation after repairs, looking W	2 x 1m
6	012	S elevation of main bridge structure, after previous repairs (Phase 1), looking W	2 x 1m
6	013	S elevation after repair, looking NW	2 x 1m
6	014	S elevation of main bridge structure, after previous repairs (Phase 1), looking NW	2 x 1m
6	015	E abutment, S elevation after previous repairs (Phase 1), looking NW	2 x 1m
6	016	E abutment, S elevation after previous repairs (Phase 1), looking NW	2 x 1m
6	017	E abutment, S elevation after previous repairs (Phase 1), looking NW	2 x 1m
6	018	E abutment, S elevation after repair, looking NW	2 x 1m
6	019	E abutment, S elevation after repair, looking NW	2 x 1m
6	020	E abutment, S elevation after repair, looking NW	2 x 1m
6	021	W abutment, S elevation after previous repairs (Phase 1), looking NW	2 x 1m
6	022	W abutment, S elevation, E section, after repair, looking NW	2 x 1m
6	023	W abutment, S elevation, E section, after repair, looking NW	2 x 1m
6	024	W abutment, S elevation, central section, after repair, looking NW	2 x 1m
6	025	W abutment, S elevation, W section, after repair, looking NW	2 x 1m
6	026	W abutment, N elevation after repair, looking S	2 x 1m
6	027	W abutment, N elevation after repair, looking S	2 x 1m
6	028	W abutment, N elevation after repair, looking S	2 x 1m
6	029	N elevation and E abutment surface, after repair, looking SW	1m
6	030	N elevation and E abutment surface, after repair, looking SW	1m
6	031	W abutment, N elevation, E section, after previous repairs (Phase 1), looking SE	2 x 1m
6	032	W abutment, N elevation after repair, looking SW	2 x 1m
6	033	W abutment, N elevation, E section, after repair, looking E	2 x 1m
6	034	W abutment, N elevation after repair, looking SE	2 x 1m
6	035	W abutment, N elevation, central section, after repair, looking SE	2 x 1m
6	036	W abutment, N elevation after repair, looking SE	2 x 1m
6	037	W abutment, N elevation, central section, after repair, looking SE	2 x 1m
6	038	W abutment, N elevation after repair, looking SE	2 x 1m
6	039	W abutment, N elevation, W section, after repair, looking SE	2 x 1m
6	040	W abutment, N elevation, W section, after repair, looking SE	2 x 1m
6	041	W abutment, N elevation, W section, after repair, looking SE	2 x 1m
6	042	Bridge and abutment surfaces after resurfacing, looking NE	2 x 1m
6	043	Bridge and abutment surfaces after resurfacing, looking NE	2 x 1m
6	044	Bridge and abutment surfaces after resurfacing, looking SW	2 x 1m
6	045	Bridge and abutment surfaces after resurfacing, looking SW	2 x 1m
6	046	Bridge and abutment surfaces after resurfacing, looking SW	2 x 1m
6	047	Bridge and abutment surfaces after resurfacing, looking SW	2 x 1m
6	048	Bridge and abutment surfaces after resurfacing, looking SW	2 x 1m
6	049	General view of N elevation in valley, looking S	-
6	050	General view of N elevation in valley, looking S	-



APPENDIX 2  
EDAS WRITTEN SCHEME OF INVESTIGATION

# CONSERVATION FABRIC REPAIRS (PHASE 2), BUTTERTON BRIDGE, SAWLEY ESTATE, SAWLEY, HARROGATE, NORTH YORKSHIRE: WRITTEN SCHEME OF INVESTIGATION FOR A PROGRAMME OF ARCHAEOLOGICAL AND ARCHITECTURAL OBSERVATION, INVESTIGATION AND RECORDING

## 1 INTRODUCTION

- 1.1 This Written Scheme of Investigation (WSI) details a programme of archaeological and architectural observation, investigation and recording (a watching brief) that will be carried out during Phase 2 of various repair and conservation works at Butterton Bridge on the Sawley Estate, Sawley, Harrogate, North Yorkshire (NGR SE 23838 66468). The bridge and part of the abutments to either side are a Scheduled Monument (NY 335; National Heritage List for England 1004202). This WSI has been produced by Ed Dennison Archaeological Services Ltd (EDAS), on behalf of the site owners, the Sawley Estate.
- 1.2 This phase of the repair and conservation works are being funded by the owners, and Scheduled Monument Consent (SMC) for the works was given on 25th February 2021 (see below).

## 2 SITE LOCATION

- 2.1 Butterton Bridge is located within Picking Gill, c.1.6km south-west of the village of Sawley, and some 4km south-west of Fountains Abbey, in North Yorkshire (NGR SE 23838 66468) (see figures 1 and 2); the stream through the gill is named on historic maps as Hebden Wood Beck. It lies in the modern civil parish of Sawley, at an elevation of c.175m AOD.
- 2.2 The bridge lies within the privately-owned Sawley Estate, but is accessible via a public footpath which runs across it. Vehicle access is also possible along a forest track which has a junction with Fountains Abbey Road to the south-east; estate vehicles can also pass over the bridge itself. The bridge spans the beck in the base of Picking Gill, but has long approach abutments to either side, which cross the densely wooded slopes of the valley.

## 3 ARCHAEOLOGICAL INTEREST

- 3.1 The bridge is variously ascribed a 12th, 13th or 14th century date ([http://www.pastscape.org.uk/hob.aspx?hob\\_id=51947](http://www.pastscape.org.uk/hob.aspx?hob_id=51947); Proctor 2003, 2). It once formed part of the extensive network of medieval routeways connecting the estates of Fountains Abbey, and carried one of the principal routes from the mid Nidderdale and Craven properties of the abbey to Fountains Abbey itself; it is suggested to have become redundant after 1539 (Moorhouse 2003, 196 & 198). There is also some evidence that the visual appearance of the valley in which the bridge stands was enhanced by ornamental tree planting during the 19th century, and it is possible that the bridge itself underwent some renovation in either the 18th or 19th centuries as part of this scheme (Historic England SM Description). However, it is not believed that the bridge has undergone any repairs in recent times.
- 3.2 The structure was subject to an initial archaeological and ecological survey in 2004 (Richardson & Dennison 2015). In terms of the archaeology, an accurate plan of the bridge and its abutments, at ground level, was produced at 1:100 scale, together with a similar plan of the base of the stream bed beneath the bridge. Stone-by-stone elevation drawings, at 1:50 scale, were also produced of the north

elevation, and both sides of the internal tunnel or vault. It had been proposed to similarly survey the south side of the bridge, but this was heavily obscured by vegetation, and so it was planned to record this once it had been cleared at a later date. However, this was unable to be done as the proposed repair and conservation project did not progress. The ecological elements comprised a Phase 1 habitat survey, a bat survey, and a survey of the flora. The cessation of the repair project meant that the resulting archaeological and ecological report, detailing the recording work that had been done, was not produced until 2015.

- 3.3 The repair project was re-started in 2020, and a programme of archaeological and architectural observation, investigation and recording was undertaken by EDAS between August 2020 and February 2021. These Phase 1 works involved repairs and consolidation to the main structure of the bridge and its associated buttresses, and a report on the findings was produced in May 2021 (Richardson & Dennison 2021). This report concluded that there was a clear difference in the quality of the masonry between the central part of the bridge and that of the abutments to either side, the junction between the two being staggered and rather crude. The central part appeared to have remained relatively unaltered throughout its history, with the abutments seemingly going through several different phases of repair and rebuilding, some perhaps associated with the incorporation of the bridge into a 19th century ornamental landscape which was created in the valley. Evidence for possible internal features such as a relieving arch and crude dry stone facing to the rubble core were also recorded, as well as potential phasing to the projections (either buttresses or former returns) flanking the bridge arch. No evidence for a paved, cobbled or otherwise strengthened surface to the causeway over the bridge was exposed by the repair works. No dating evidence, in terms of artefacts or diagnostic architectural features, was recovered.

#### **4 SCHEDULED ANCIENT MONUMENT CONSENT**

- 4.1 As noted above, Butterton Bridge is a Scheduled Monument, and Scheduled Monument Consent for the repair and conservation works was given by the Secretary of State for Digital, Culture, Media and Sport, advised by Historic England, on 25th February 2021 (ref. S00240998).
- 4.2 A number of conditions were attached to the consent; those most relevant to the archaeological recording and this WSI are as follows:
- (i) The works to which this consent relates shall be carried out to the satisfaction of the Secretary of State, who will be advised by Historic England. At least 2 weeks' notice (or such shorter period as may be mutually agreed) in writing of the commencement of work shall be given to Dr Keith Emerick, Inspector of Ancient Monuments, Historic England, 37 Tanner Row, York, YO1 6WP; 01904 601988; keith.emerick@historicengland.org.uk in order that an Historic England representative can inspect and advise on the works and their affect in compliance with this consent;
  - (ix) All those involved in the implementation of the works granted by this consent must be informed by the owner that the land is designated as a scheduled monument under the Ancient Monuments and Archaeological Areas Act 1979 (as amended); the extent of the scheduled monument as set out in both the scheduled monument description and map; and that the implications of this designation include the requirement to obtain Scheduled

Monument Consent for any works to a scheduled monument from the Secretary of State prior to them being undertaken.

- (x) Equipment and machinery shall not be used or operated in the scheduled area in conditions or in a manner likely to result in damage to the monument or to ground disturbance other than that which is expressly authorised in this consent;
- (xi) Any works to which this consent relates shall be carried out under the archaeological supervision of Mr Ed Dennison (EDAS Ltd), 18, Springdale Way, Beverley, East Riding of Yorkshire, HU17 8NU who shall be given at least 2 weeks' notice (or such shorter period as may be agreed) in writing of the commencement of work. No works shall commence until Mr Dennison has confirmed in writing to Historic England that they are willing and able to undertake the agreed supervision;
- (xii) A report on the archaeological recording shall be sent to:  
Peter Rowe, Principal Archaeologist, NYCC, Northallerton, N. Yorks., DL7 8AH (the County Historic Environment Record) and to  
Dr Keith Emerick, Inspector of Ancient Monuments at Historic England  
within 3 months of the completion of the works (or such other period as may be mutually agreed);
- (xiii) The archaeological contractor shall complete and submit an entry on OASIS (On-line Access to the Index of Archaeological Investigations - <http://oasis.ac.uk/england/>) prior to project completion, and shall deposit any digital project report with the Archaeology Data Service, via the OASIS form, upon completion.

## **5 NATURE OF THE REPAIR AND CONSERVATION WORKS**

- 5.1 The proposed repair and conservation works are detailed in a specification produced by the building contractor (GMP Ripon Ltd) and dated February 2021 (Payne 2021).
- 5.2 As noted above, the completed Phase 1 repair and consolidation works concentrated on the main bridge structure and its associated buttresses. The current Phase 2 works deal with the bridge abutments which span the valley, the abutments on the west side being between 20m-30m long compared to 9m long on the eastern side; no repairs will be undertaken to the north side of the eastern abutment, as this was largely dealt with by the Phase 1 works. The proposed works are summarised below.
- 5.3 The proposed works initially involve removing the vegetation from the north and south sides of the western abutment, and the south side of the eastern abutment (apart from ecologically-significant and sensitive plants); the roots of a number of well-established trees will need to be removed from within the existing stonework. Once scaffolded, the existing battered face to the abutments, generally seemingly to comprise irregularly coursed and mortared rubble, will be taken down and rebuilt, using those elements which remain as a guide, so that any internal core can be stabilised. The new stonework is to be irregular coursed rubble stone, with regular through stones, and a batter to the wall faces. New pointing will be deeply tamped and recessed to match the original, to retain the impression of a drystone structure.

- 5.4 The surface of the trackway running along the top of the abutments will be excavated to a depth of c.300mm, to allow for subsequent infilling with hardcore crushed stone, compacting, and reseeding with grass. This work may also require some dismantling of any parapets or similar stonework surviving at the top of the batter retaining walls.

## **6 FIELDWORK METHODOLOGIES**

### **General Comments**

- 6.1 The scale and scope of the archaeological and architectural recording will be determined by this WSI. The architectural elements will correspond to a Level 2/3 record, defined as a descriptive/analytical record by Historic England (2016, 27). Additional standards and guidance published by the Chartered Institute for Archaeologists, in relation to historic building recording and archaeological watching briefs, will also be followed (ClfA 2019a & 2019b)
- 6.2 The archaeological and architectural recording work should not unduly delay the overall programme of site works, although there will need to be effective liaison and co-operation with the building contractor/developer. All parties will need to ensure that EDAS have sufficient time and resources to ensure compliance with all elements of this WSI. It is likely that the survey work will be accomplished through a limited number of separate site visits, and so access to the site will therefore need to be afforded to EDAS at all reasonable times.

### **Aims of the Project**

- 6.3 The aims of the recording are as follows:
- to record and recover any new information relating to the nature, date, depth, and significance of any archaeological or architectural features and deposits which might be affected or exposed by the proposed conservation, repair and drainage works, in relation to the existing survey reports (Richardson & Dennison 2015 & 2021).
  - to analyse and interpret the recorded information in terms of its specialist function, and to place that analysis and interpretation into its wider context;
  - to produce an ordered archive and report, and to place this in the public domain; the archive will be deposited with the North Yorkshire Record Office in Northallerton (together with archives from the previous phases of repair), and the pdf copies of the report will be deposited with Natural England, the Sawley Estate, Historic England, the North Yorkshire Historic Environment Record, the Archaeology Data Service (via OASIS), and other interested parties.

### **Structural Watching Brief**

#### *Documentary and Historical Research*

- 6.4 No additional documentary or historical research will be undertaken, although that already available in the existing survey reports (Richardson & Dennison 2015 & 2021) will be examined, utilised and repeated as necessary.

### *Measured and Drawn Survey*

- 6.5 It is envisaged that only a limited number of new survey drawings will be produced as part of the project, given the nature of the existing abutments and the proposed repairs. However, the existing EDAS 1:100 scale overall site plan, and the 1:50 scale elevation drawings, will be utilised and enhanced as necessary to record any new archaeological information revealed by the works. For example, 1:50 scale elevation drawings will be produced of any particularly significant or representative sections of stonework forming the battered revetment walls of the abutments, either stone-by-stone or in outline. Additionally, a 1:50 scale plan will be produced if structural information is revealed during the excavation of the track along the top of the abutments (either the whole length of the track or a representative area); more detailed (e.g. at 1:20 scale) sections through any stratified deposits will also be produced.
- 6.6 The drawings will be produced by hand measurement, and will show all significant architectural detail such as openings (blocked or unblocked), differences/phases in build, fixtures and fittings, and other constructional detail etc. All drawings would be produced according to the guidelines established by Historic England (2016, 13-17).

### *Photographic survey*

- 6.7 The bulk of the archaeological and architectural recording will be achieved through photography. General photographic recording of the site and its significant parts, together with close-up photography of significant details, will be undertaken. The guidelines produced by Historic England (2015; 2016, 17-21) will be followed. The photographic survey will record the existing structure prior to the proposed works as part of the pre-intervention record, and these will be added to during the repair and conservation works as part of the archaeological watching brief. A further set of site photographs will be taken once the works are complete, once scaffolding has been removed, to create an 'as-built' record.
- 6.8 Photographs will be taken with a SLR digital camera which has a minimum of 12 megapixel resolution. Both general shots and details of specific structural elements or features will be taken. Artificial lighting will be used where necessary and all photographs will contain a photographic scale, subject to practicalities and access. The photographs will be taken in jpeg format. All photographs will be clearly numbered and labelled with the subject, orientation, date taken and photographer's name, and will be cross referenced to film and frame numbers. A photographic register detailing (as a minimum) the location and direction of each shot will be completed.

### *Written Accounts*

- 6.9 Sufficient notes will be taken on site in order for detailed descriptions and accounts to be prepared, both in terms of the pre-intervention work and during the programme of repair, in combination with the drawn and photographic records.

## **Reporting**

### *Project archive*

- 6.10 On completion of the archaeological and architectural fieldwork, a fully indexed and ordered field archive will be prepared, following the guidelines produced by Historic

England. The archive will comprise primary written documents, plans, sections and photographs, and an index to the archive will also be prepared. Subject to the agreement of the landowner, the site archive will be deposited with the North Yorkshire Record Office (where the archives from the previous 2004 and 2020-21 surveys will be deposited). A copy of the Archive Index will also be sent to the North Yorkshire Historic Environment Record.

### *Reporting*

- 6.11 Within six weeks of the completion of the site work, an archive report detailing the results from the site recording will be produced. This report will include the following (as appropriate):
- A non-technical summary;
  - Site code/project number;
  - Dates of fieldwork visits;
  - National grid reference;
  - A brief account of the project plan, research objectives, survey methodology, procedures and equipment used;
  - A summary of the historical and archaeological background to the site;
  - The results of the architectural and archaeological recording work, and an account of the overall form and development of the structure and of the evidence supporting any interpretation;
  - Conclusions, including an assessment of the importance of the findings in relation to the other remains on the site and in the region as a whole;
  - A bibliography and list of sources consulted;
  - A location plan, with scale;
  - Survey plans and section drawings at appropriate scales (e.g. 1:500, 1:50, 1:20 and/or 1:10) and tied into published Ordnance Survey boundaries;
  - Selected illustrative material, including general site photographs and photographs;
  - Destination of the site archive and timetable for deposition;
  - Appendices containing a copy of this WSI, together with the details of any departures from that design, survey data and photographic registers and catalogues.
- 6.12 Appropriate drawn records of the structures and the complex as a whole would be produced as reduced A4 or A3 size paper copies within the body of the report; full scale drawings would be included within the site archive.
- 6.13 An electronic copy (pdf format) of the final report will be supplied, for distribution to the Sawley Estate, Natural England, Historic England, the North Yorkshire Historic Environment Record, and other interested parties. A copy of the final report will also be included within the site archive.
- 6.14 EDAS also subscribe to the Archaeology Data Service's OASIS (Online Access to Index of Archaeological Investigations) project, and all EDAS projects are fully OASIS compliant. Prior to the start of the fieldwork, an OASIS online record will be initiated and key fields completed on Details, Location and Creators forms. All parts of the OASIS online form will be subsequently completed for submission to Historic England and the North Yorkshire HER. This will include an uploaded pdf version of the entire report.

## Other Considerations

### *Health and Safety*

- 6.15 EDAS and any sub-contractors will comply with the Health and Safety at Work Act of 1974 while undertaking the work. A full copy of their Health and Safety Policy will be made available on request. All archaeological work on site will be carried out with due regard for all Health and Safety considerations, and Health and Safety will take priority over archaeological matters, and a risk assessment would be produced prior to any work on site. Due regard will be made for any constraints or restrictions imposed by the building contractor.
- 6.16 The archaeologists undertaking the investigations will be equipped with a mobile phone that will be switched on at all times during fieldwork operations to enable contact to be made between the site and other interested bodies.

### *Insurance*

- 6.17 The site is privately owned and EDAS would indemnify the landowner in respect of their legal liability for physical injury to persons or damage to property arising on site in connection with the recording brief, to the extent of their Public Liability Insurance Cover (£5,000,000).

### *Modifications*

- 6.18 The programme of recording work outlined above may be modified in accordance with the professional judgement of the staff undertaking the work, insofar as the overall provisions and objectives of this WSI would not be changed. Any variations in the project would be discussed and agreed in advance with the project architect and Historic England.

## 7 REFERENCES

ClfA (Chartered Institute for Archaeologists) 2019b *Standard and Guidance for an Archaeological Watching Brief*

ClfA (Chartered Institute for Archaeologists) 2019a *Standard and Guidance for the Archaeological Investigation and Recording of Standing Buildings or Structures*

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Moorhouse, S 2003 'Medieval Yorkshire: a Rural Landscape for the Future'. In Manby, T G, Moorhouse, S & Ottaway, P (eds) *The Archaeology of Yorkshire: An Assessment at the Beginning of the 21st Century*, 181-214

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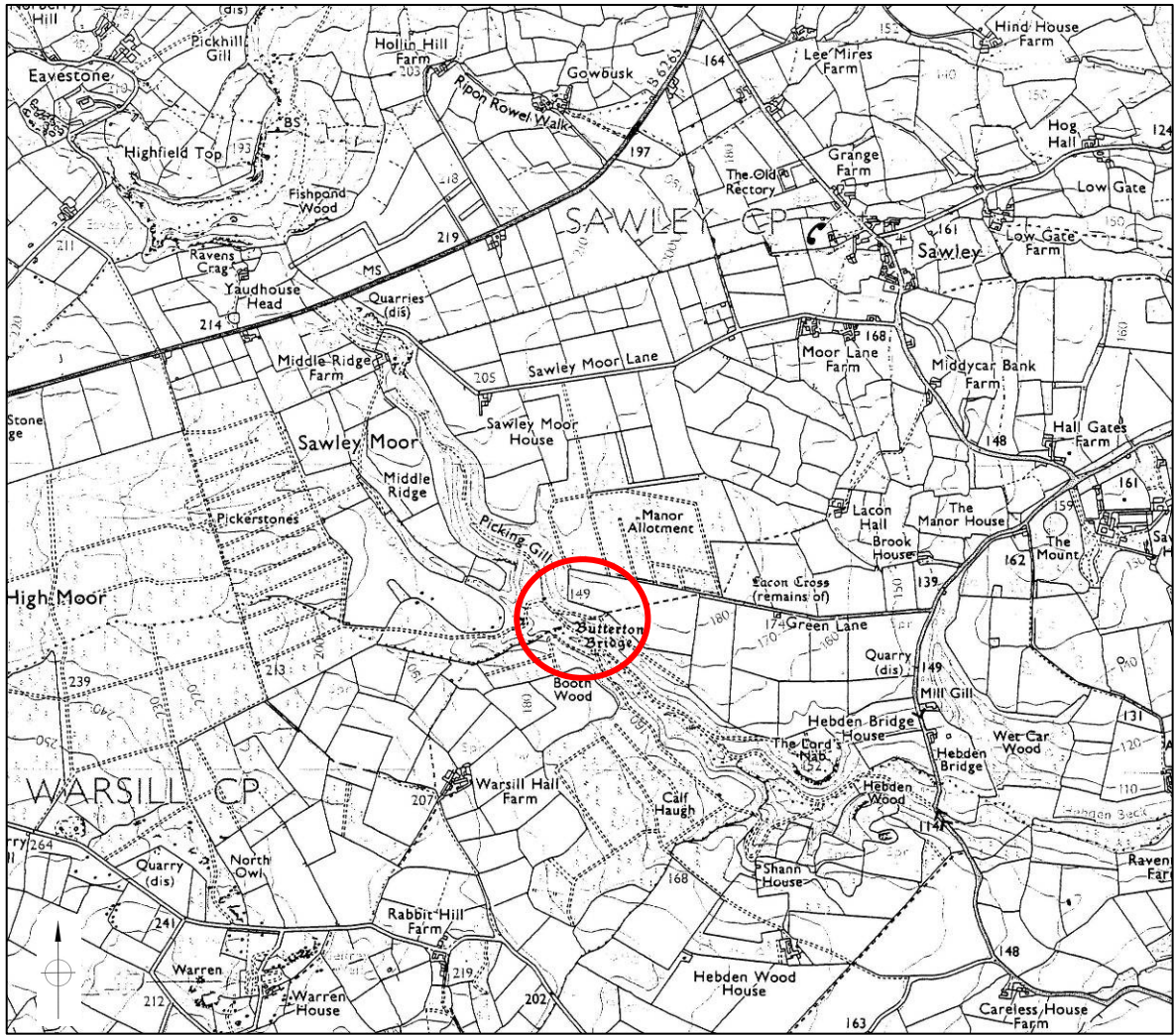
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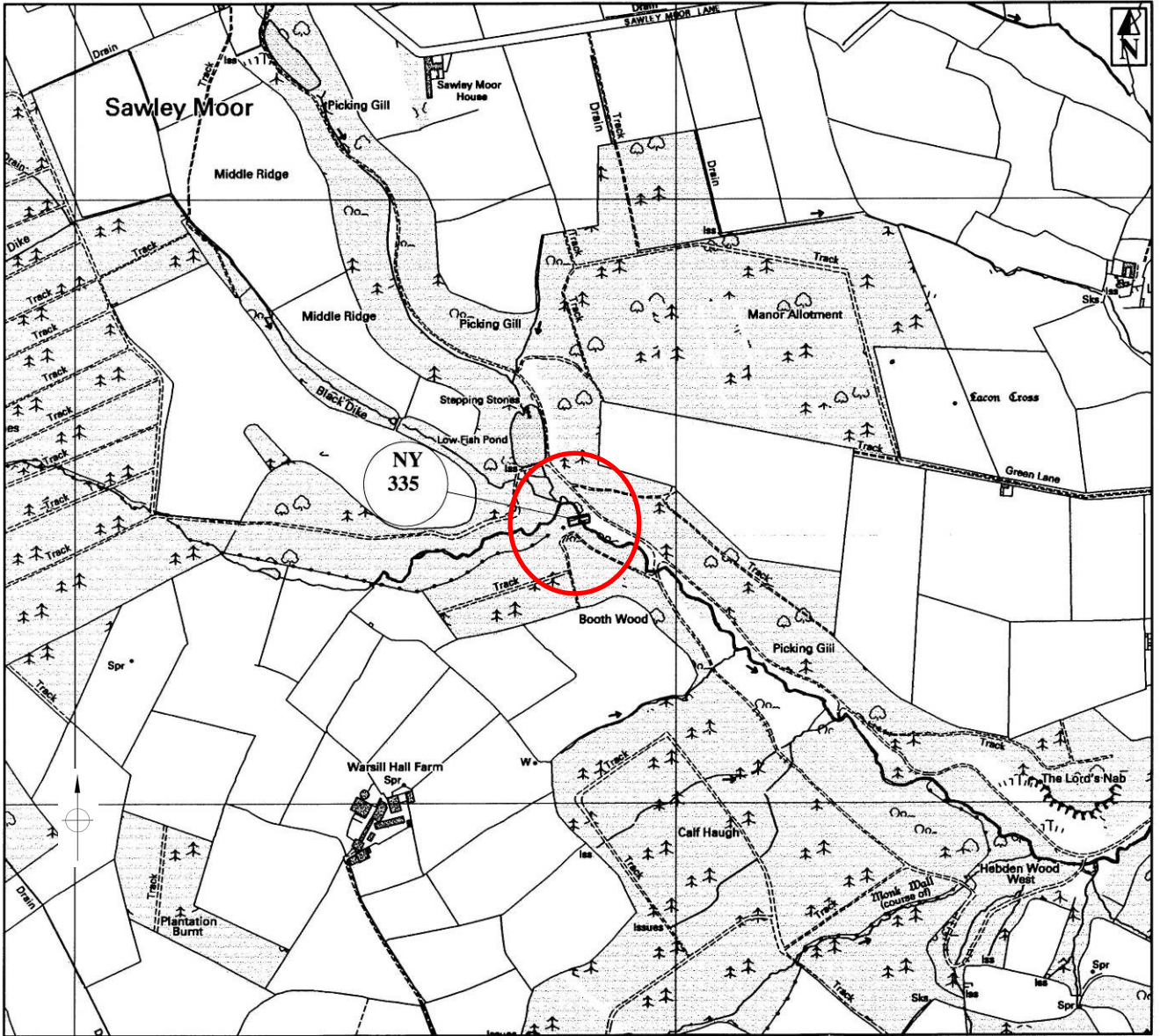
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Ed Dennison, EDAS  
8th July 2021



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PROJECT		BUTTERSON BRIDGE, SAWLEY	
TITLE		GENERAL LOCATION	
SCALE	NTS	DATE	JUL 2021
EDAS		FIGURE	1



Map extract taken from Historic England's Scheduled Monument description (NHLE 1004202).

PROJECT		BUTTERTON BRIDGE, SAWLEY	
TITLE		DETAILED LOCATION	
SCALE	NTS	DATE	JUL 2021
EDAS		FIGURE	2