

Victoria Mill
Stainland Road, West Vale, West Yorkshire:
Record of the Engine House and Boiler House



February 2022

STEPHEN HAIGH
Buildings Archaeologist

11 Browcliff Silsden Keighley West Yorkshire BD20 9PN
www.stephenhaigh.co.uk
07986 612548

OASIS ID: stephenh1-422981

*This report is formatted for printing on both sides of the paper
and contains some blank pages*

Some drawings are at A3 size

Victoria Mill

Stainland Road, West Vale, West Yorkshire:

Record of the Engine House and Boiler House

Contents

| | |
|--------------------------------------|----|
| 1 Introduction..... | 7 |
| 2 Location..... | 7 |
| 3 Current uses..... | 8 |
| 4 Planning context..... | 9 |
| 5 Previous investigative work..... | 10 |
| 6 Historical background..... | 10 |
| 7 Recording methodology..... | 15 |
| 8 Observations made..... | 16 |
| 9 Conclusion..... | 19 |
| Appendix 1: WYAAS Specification..... | 20 |
| Figures 14 to 18 Photographs | |

SUMMARY

Victoria Mill (NGR: SE 09594 21204) was built as a steam-powered woollen mill, probably in the 1850s, but burned down in 1893 and was rebuilt the following year, after which it became used for cotton production. The engine house and boiler house are attached at one end, and parts of them appear to have survived the fire, though their historic internal arrangements are now only partly visible. In the rebuilt mill, power was transmitted from the engine to the upper floors of the mill via an external rope race. The structures were recorded for the developer, Rosemount Estates Ltd, to fulfil a condition of planning consent for a major programme of works at the site.

February 2022

STEPHEN HAIGH
Buildings Archaeologist

11 Browcliff Silsden Keighley West Yorkshire BD20 9PN
www.stephenhaigh.co.uk
07986 612548

List of figures

| | |
|---|----|
| Figure 1: Location map (1:200,000)..... | 8 |
| Figure 2: Location map (1:10,000)..... | 8 |
| Figure 3: Site plan (1:500)..... | 9 |
| Figure 4: OS 1:10560 map, 1854..... | 11 |
| Figure 5: OS 1:2500 map, 1893..... | 11 |
| Figure 6: Block plan for rebuilding of mill, 1894..... | 12 |
| Figure 7: Ground floor plan for rebuilding of mill, 1894..... | 13 |
| Figure 8: First floor plan for rebuilding of mill, 1894..... | 13 |
| Figure 9: OS 1:2500 map, 1907..... | 14 |
| Figure 10: OS 1:2500 map, 1919..... | 14 |
| Figure 11: OS 1:2500 map, 1933..... | 14 |
| Figure 12: Undated photograph, taken from the west, with rope race visible above engine house..... | 15 |
| Figure 13: Sketch section (not to scale), showing those parts of the buildings which were recorded..... | 16 |

After text:

| | |
|---|--|
| Figure 14: Ground floor plan of engine house and boiler house | |
| Figure 15: Plan of engine house at tie-beam level | |
| Figure 16: Site plan with photograph locations | |
| Figure 17: Ground floor plan of engine house and boiler house with photograph locations | |
| Figure 18: Plan of engine house at tie-beam level with photograph locations | |

LIST OF PHOTOGRAPHS

| Photo | Subject |
|--------------|---|
| 1 | General view of the mill, from the south |
| 2 | General view of the mill, from the west |
| 3 | Engine house (left) and boiler house (right), from the north-west |
| 4 | Engine house (left) and boiler house (right), from the north |
| 5 | Engine house (left) and boiler house (right), from the west |
| 6 | Detail of entrance to boiler house |
| 7 | Detail of lintel over entrance to boiler house |
| 8 | South-east side of engine house, with blocked window |
| 9 | South-east side of engine house, with blocked window |
| 10 | South-west side of boiler house with engine house and mill behind |
| 11 | South-west side of boiler house |
| 12 | South-west side of boiler house (left-hand end) |
| 13 | South-west side of boiler house: central part, with two bearing boxes |
| 14 | South-west side of boiler house: detail of bearing box |
| 15 | South-west side of boiler house: detail of bearing box |
| 16 | South-west side of boiler house, at junction with retaining wall |
| 17 | Flue to south-west of boiler house, beneath modern gantry |
| 18 | Yard to south-west of boiler house, where flue runs to former chimney |
| 19 | Engine and boiler houses with end of mill behind, with outline of former rope race, from the south-west |
| 20 | Engine house with end wall of mill behind, with outline of former rope race, from the south-west |
| 21 | Engine house with end wall of mill behind, with outline of former rope race, from the south |
| 22 | End wall of mill with outline of former rope race, from the south |
| 23 | Bearings for shafts from rope race, in end wall of mill, from the south-west |
| 24 | Upper bearing for shafts from rope race, and ring, in end wall of mill, from the south-west |
| 25 | Interior of boiler house, from the south-east |
| 26 | Interior of boiler house doorway, from the south-east |
| 27 | Interior of boiler house, from the north-west |
| 28 | Remains of flue in south-east end of boiler house, with modern steps, from the north |
| 29 | Remains of flue in south-east end of boiler house, from the north-east |
| 30 | Remains of flue in south-east end of boiler house, from the north |
| 31 | Remains of flue in south-east end of boiler house, from the east |
| 32 | Interior of boiler house: south-west side, from the north |
| 33 | Interior of boiler house: south-west side, from the east |
| 34 | Blocked opening in south-west side of boiler house, from the north-east |
| 35 | Interior of boiler house: north-east side, from the south |
| 36 | Interior of boiler house: north-east side, from the south (during demolition) |
| 37 | Interior of boiler house: north-east side, from the west |
| 38 | Interior of boiler house: east corner, from the west |
| 39 | Blocked upper level doorway, north-east side of boiler house, from the south-west |
| 40 | Blocked upper level doorway, north-east side of boiler house, from the south-west |
| 41 | Blocked low opening, north-east side of boiler house, from the south-west |
| 42 | Roof truss over boiler house, from the north-west |
| 43 | Roof trusses over boiler house, from the south-east |
| 44 | Ground floor of engine house, from the north-west |
| 45 | Ground floor of engine house, from the south-east |

- 46 Large bearing box (slighted by modern upper floor), over massive blocks of stone, north corner of engine house, from the south
- 47 Large bearing box (slighted by modern upper floor), over massive blocks of stone, north corner of engine house, from the west
- 48 Large bearing box (slighted by modern upper floor), over massive blocks of stone, with bolting holes to right, north corner of engine house, from the south-west
- 49 Bolting holes in stone blocks, north corner of engine house, from the south-west
- 50 Bolting holes in stone blocks, north corner of engine house, from the south-west
- 51 Massive stone blocks in wall with engine house, within main mill, from the north. Bearing box at right
- 52 Massive stone blocks in wall with engine house, within main mill, from the north-east
- 53 Large bearing box in wall with engine house, within main mill, from the north-east
- 54 Large bearing box in wall with engine house, within main mill, from the north-east
- 55 Vertical fastening bolts beneath large bearing box in wall with engine house, within main mill, from the north-east
- 56 Ground floor of engine house, north-east side (hidden by electrical equipment), from the west
- 57 Ground floor of engine house, north-east side (hidden by electrical equipment), from the south-west
- 58 Ground floor of engine house, south-west side, from the north
- 59 Ground floor of engine house, south-west side, from the north
- 60 Ground floor of engine house, south-west side, from the east
- 61 Base of blocked upper level doorway in south-west side of engine house, from the north-east
- 62 Low blocked opening in south-west side of engine house, from the north-east
- 63 Window lintel in north-west side of engine house roof space, from the south
- 64 Window lintel in south-east side of engine house roof space, from the north-west
- 65 Roof trusses over engine house, from the south-east
- 66 Roof trusses over engine house, from the south-east
- 67 Large post on tie beam over engine house (part of rope race enclosure?), from the north
- 68 Cantilevered iron beam in roof space over engine house, from the north-west
- 69 Cantilevered iron beam in roof space over engine house, from the north-west
- 70 Cantilevered iron beam in roof space over engine house, from the west
- 71 Inserted doorway to mill, and bearing box for horizontal shaft, in roof space over engine house, from the west
- 72 Bearing box for horizontal shaft into mill, in roof space over engine house, from the south

VICTORIA MILL, STAINLAND ROAD, WEST VALE, WEST YORKSHIRE:

RECORD OF THE ENGINE HOUSE AND BOILER HOUSE

1 Introduction

- 1.1 This report presents the results of the recording of the engine house and boiler house at Victoria Mill, situated in West Vale, near Elland, West Yorkshire¹. The work was carried out between April 2021 and January 2022 for the developer, Rosemount Estates Ltd, to fulfil a condition of planning consent from Calderdale Council for various works at the site (planning application reference: 20/00840/FUL).
- 1.2 Victoria Mill was built in the mid nineteenth century as a large, multi-storeyed, steam-powered woollen mill, but was rebuilt after extensive fire damage in 1893, and appears subsequently to have gone over to cotton spinning. The present work concerns a boiler house and engine house attached to the south-west end, parts of which may pre-date the fire.
- 1.3 The recording work was carried out in accordance with a specification issued on behalf of the local planning authority by the West Yorkshire Archaeology Advisory Service (WYAAS) (see Appendix 1), and involved visits before and during demolition. This report will be submitted to the client, the local planning authority, the West Yorkshire Historic Environment Record, as well as the OASIS project for online publication².

2 Location

- 2.1 The site lies within West Vale, 1km to the north-west of Elland town centre and 5km south of Halifax, on the north-west side of Stainland Road (the B6112). Victoria Mill stands parallel to the road, mid-way between it and the Black Brook (figures 1 & 2), and the boiler and engine houses form the south-west end of the building (NGR: SE 09594 21204) (figure 3). The site lies at about 71m above Ordnance Datum.
- 2.2 The boiler and engine houses are less tall than the main mill building, and form a pair of lean-tos against it, of different heights. Both face north-west onto a rear car park, considered to be the ground floor level, for the purposes of this report. The car park to the front of the building was occupied by a second mill building, known as Low Mill, until its demolition in about 2013.

¹Greetland historic township

²[Online Access to the Index of Archaeological Investigations](#)

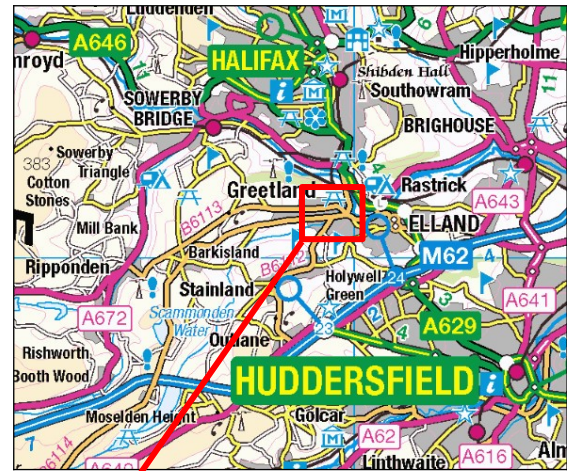


Figure 1: Location map (1:200,000)



Figure 2: Location map (1:10,000)

3 Current uses

- 3.1 The building as a whole has been in various uses recently, principally retail, with a large antiques business being the main occupier. As a result of modern alterations, the engine house is now divided into three floor levels, of which the ground and second floors formed part of the antiques showroom, and the first floor between them part of a convenience store. The boiler house remains open to the roof, and also formed part of the antiques showroom.

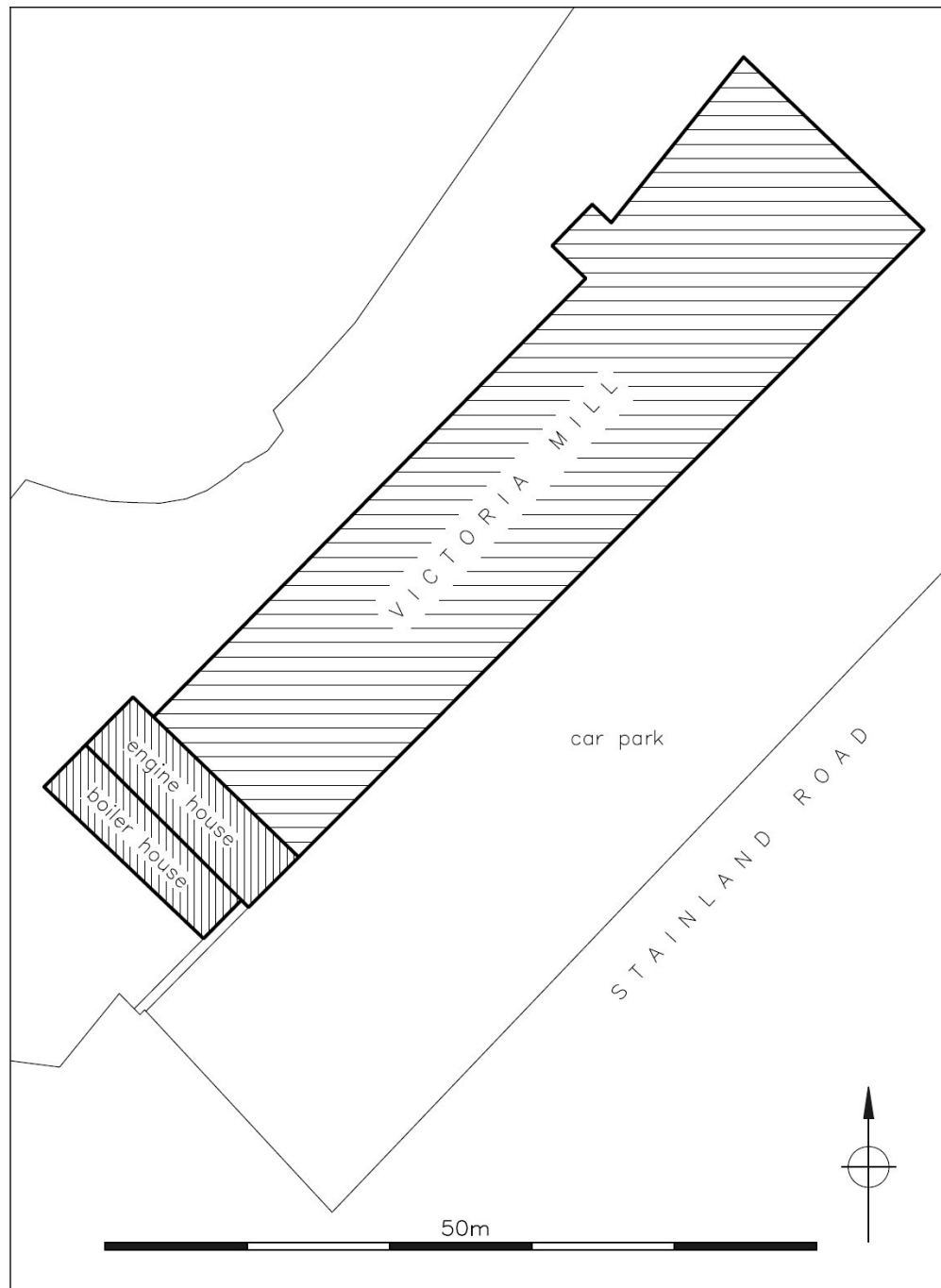


Figure 3: Site plan (1:500)

4 Planning context

- 4.1 Planning permission for "Change of use, subdivision and merging of Unit's 3, 4, 6, 7, 8 & 9 to include A1, A2, A3, A4, B1, B8, D1 & D2 uses. Demolition of lean to building on south-west elevation and construction of elevated parking deck, three storey extension, fire escape to rear relocation of electricity substation. Internal and external alterations and landscaping to the building and site" was granted by Calderdale Council on 2 March 2021 (application ref: 20/00840/FUL).

- 4.2 In their consultation response to the application (dated 13 November 2020), the local planning authority's consultee, the West Yorkshire Archaeology Advisory Service (WYAAS), observed that the proposed change of use and demolition would result in the loss of evidence for the mill's steam engine, and that details of power transmission from it are not fully understood. They therefore recommended that any consent should be conditional upon an appropriate level of architectural and archaeological recording being carried out during development.
- 4.3 As a consequence, condition 11 of the consent requires that: *"No demolition or development to take place on the lean to structure until the applicant, or their agents or successors in title, has secured the implementation of a programme of archaeological & architectural recording. This recording must be carried out by an appropriately qualified and experienced archaeological consultant or organisation, in accordance with a written scheme of investigation which has been submitted by the applicant and approved in writing by the Local Planning Authority."*
- 4.4 The written scheme of investigation was provided by WYAAS, in the form of a specification (see appendix 1). It is anticipated that deposition of this report and the photographic archive will allow the condition to be discharged.

5 Previous investigative work

- 5.1 There has been archaeological work carried out at the Victoria Mill site on a number of previous occasions. According to the West Yorkshire Historic Environment Record (PRN 3716), notes on the site were made during the study of West Yorkshire textile mills carried out by RCHME in the 1980s, and in 2013 recording of the weaving shed and engineman's cottage at Low Mill was undertaken, before demolition.

6 Historical background

- 6.1 Victoria Mill is thought to have been established in the 1850s, on what was previously an undeveloped site, according to the first edition Ordnance Survey 1:10560 map, surveyed 1848-50 (figure 4)³. The first edition 1:2500 map, surveyed 1888-92, shows it as a woollen mill, with a long, essentially rectangular form, and with a second parallel range alongside to the south-west, close to the road (figure 5)⁴. The latter was a single storey building known as Low Mill.

³ Yorkshire, sheet 246, published 1854 (not at original scale)

⁴ Yorkshire, sheet 246.1, published 1893 (not at original scale)



Figure 4: OS 1:10560 map, 1854

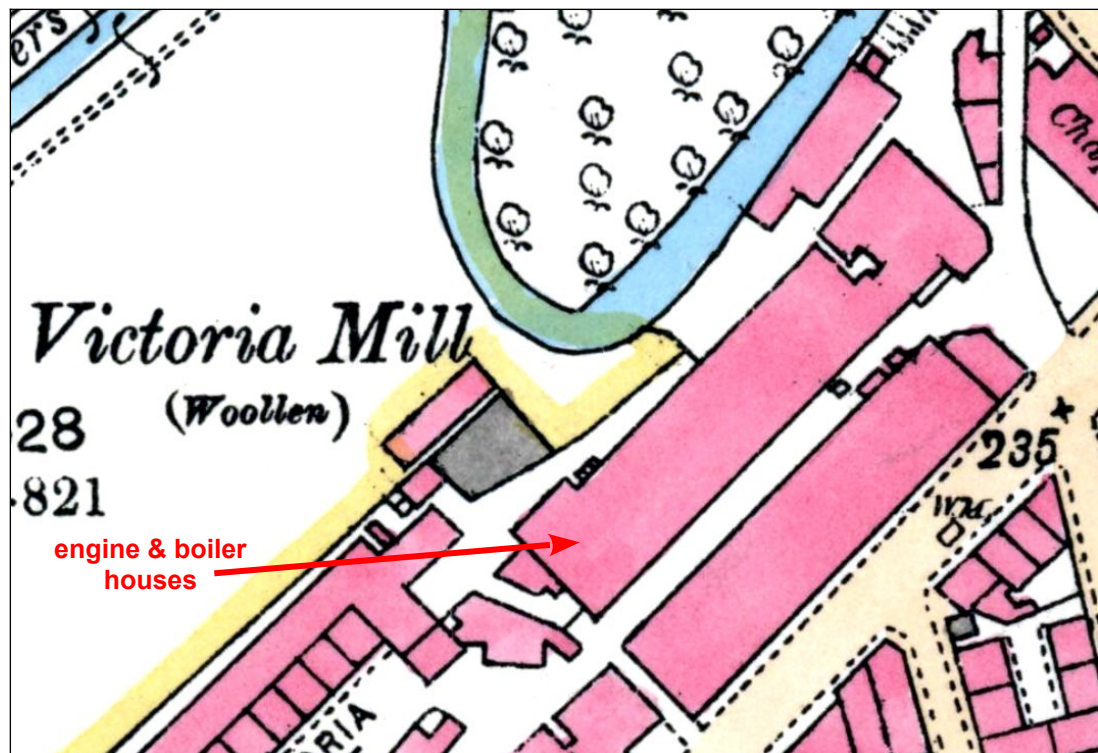


Figure 5: OS 1:2500 map, 1893

6.2 Figure 5 above shows the site a year or two before a major fire in 1893, following which the mill was rebuilt, incorporating some remains of the original structure. The outline at the south-west end of the building prior to that corresponds approximately to the present plan, and there is little doubt that the boiler and engine houses were located here from the outset, but it is not known to what extent their structures survived the fire and rebuilding.

6.3 The plans for the rebuilding of the mill, owned by James Sutcliffe & Sons, were approved by the Greetland Local Board on 7 August 1894⁵. They include a block

⁵ Horsfall and Williams *Rebuilding of Victoria Mills, West Vale, for Messrs Jas Sutcliffe & Sons* West Yorkshire Archive Service, Calderdale CMT5/BIP/G:408

plan, showing “site of mill”, though it is not clear whether this represents the remains or the proposed structure (figure 6).

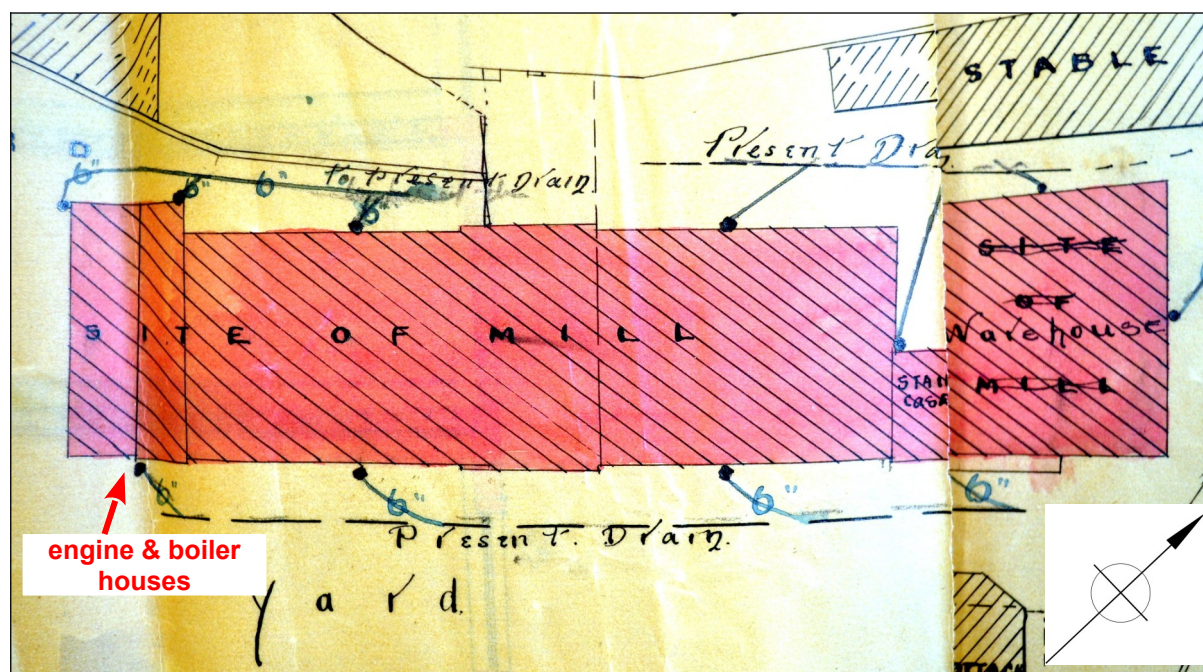


Figure 6: Block plan for rebuilding of mill, 1894

- 6.4 The slightly more detailed floor plans of 1894 (figures 7 & 8)⁶ show the outlines of both rooms, with their entrances to the north-west side, and a single connecting doorway between them on both ground and first floors. The first floor plan also shows a doorway from the engine house into the main mill building, and a window in its south-east side at that level, while two bearing boxes in the north-east side of the engine house show where line shafts would have transmitted power into the mill.
- 6.5 The rebuilt mill is shown on the OS 1:2500 maps of 1907, 1919, and 1933 (figures 9 to 11)⁷. On all three editions the outlines of the boiler and engine houses remain unchanged, but on the latest of these a small extension or lean-to has been added at the south-west side. It is also worth noting that these twentieth century maps show it as a cotton mill, rather than a woollen mill.
- 6.6 Another source of some interest is an undated, anonymous photograph in the possession of the owners, which shows a rope race enclosed by timber, above the roof of the engine house (figure 12). This image is thought to have been taken in the early or mid twentieth century.

⁶NB: originals refer to “basement” and “ground floor”

⁷ Yorkshire, sheet 246.1, revised 1905, 1914, and 1930 (not at original scale)

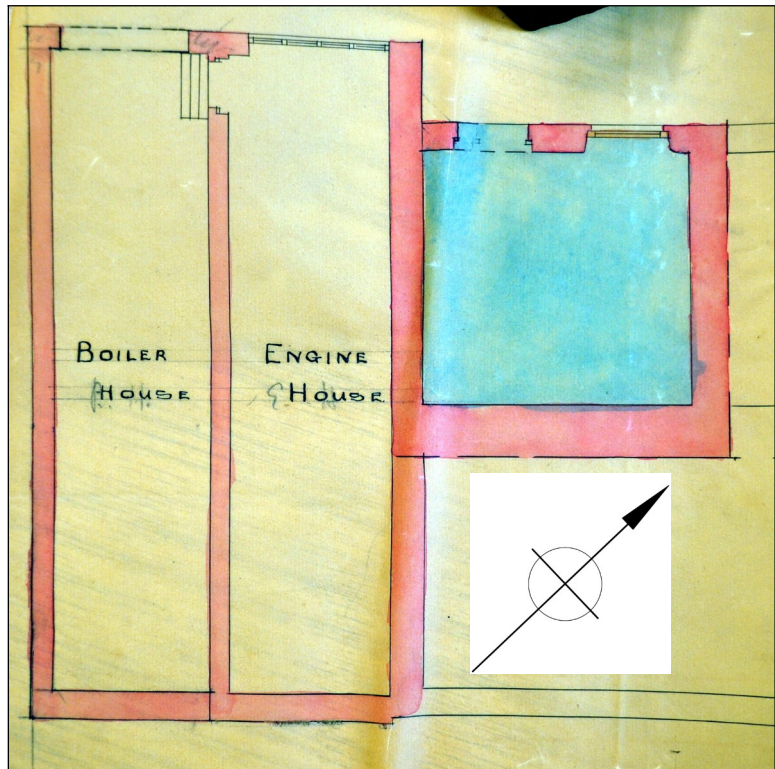


Figure 7: Ground floor plan for rebuilding of mill, 1894

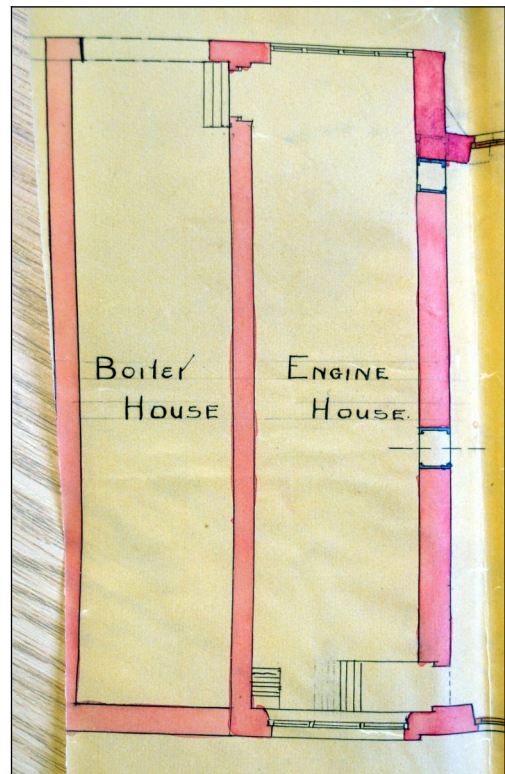


Figure 8: First floor plan for rebuilding of mill, 1894

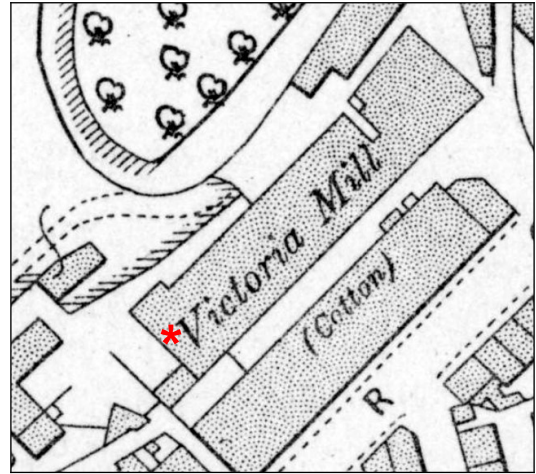


Figure 9: OS 1:2500 map, 1907

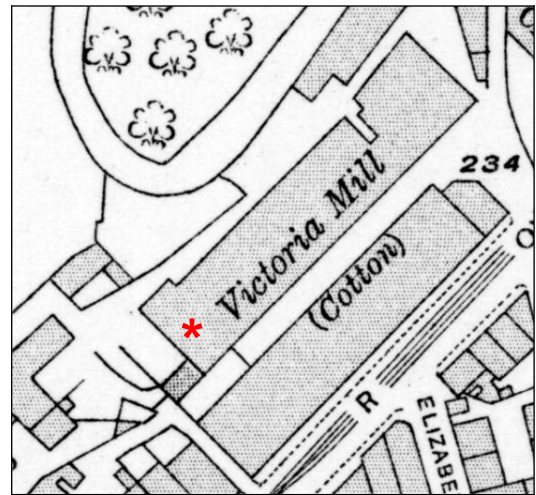


Figure 10: OS 1:2500 map, 1919

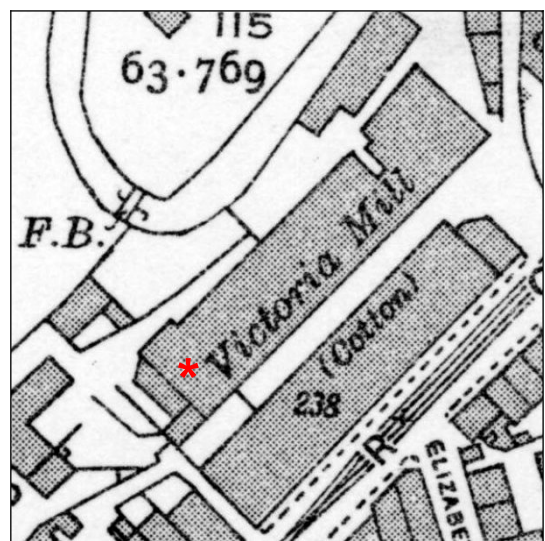


Figure 11: OS 1:2500 map, 1933

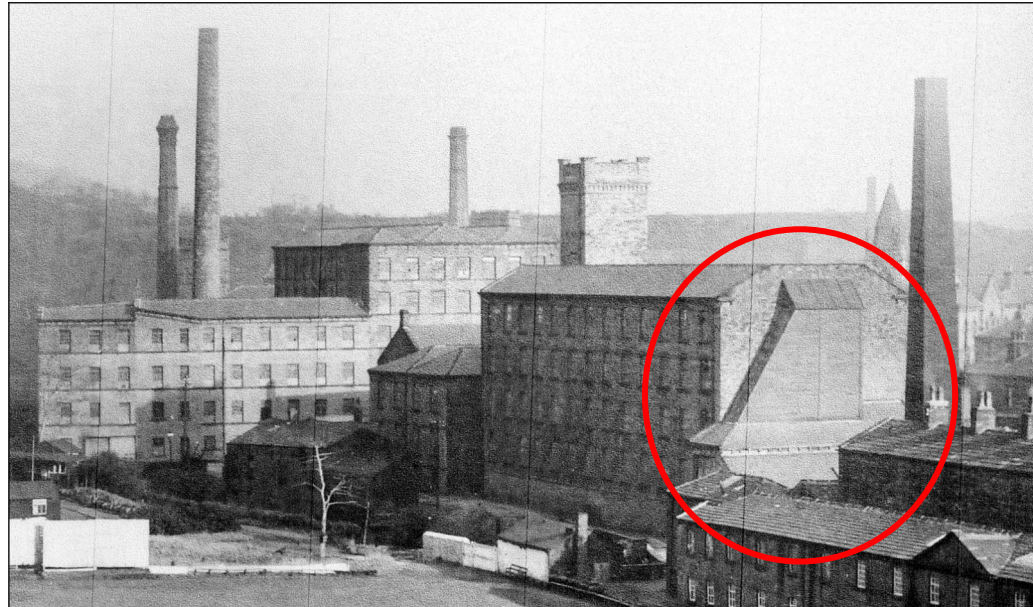


Figure 12: Undated photograph, taken from the west, with rope race visible above engine house

7 Recording methodology

- 7.1 Recording was carried out during site visits between 28 April 2021 and 14 January 2022, and involved detailed inspection of all accessible parts of the boiler and engine houses, which are to be affected by the proposed alterations and demolition.
- 7.2 The extent of demolition works actually undertaken was less than that for which planning permission was given, and related only to the boiler house. No demolition or other works were carried out within the engine house.
- 7.3 Floor plans of the boiler house and engine house at ground floor level, and of the engine house at roof space level, have been produced at 1:100 (figures 14 and 15).
- 7.4 External and internal photography was carried out using a digital SLR camera. The photographs include a scale, in the form of a 2m/1m ranging pole marked with 0.5m graduations, or a 0.5m baton marked with 0.1m graduations, and all are copied in this report, where they are referred to, in the text, by numbers in **bold**. Locations of all photographs taken are marked on copies of the site and floor plans (figures 16 to 18). All photographs will be deposited with the Archaeology Data Service.

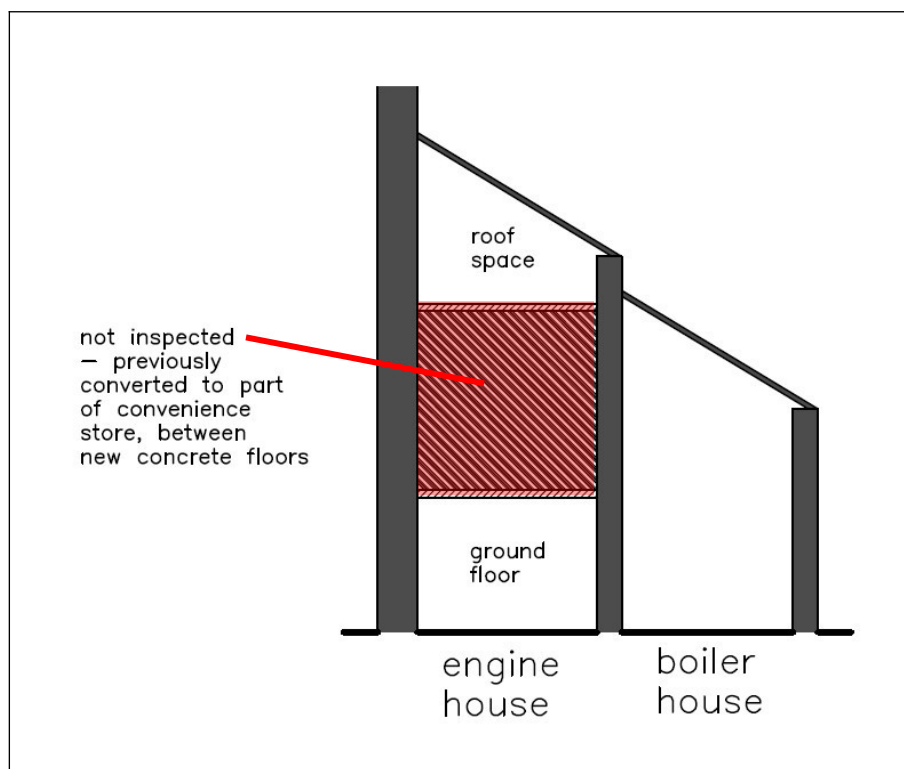


Figure 13: Sketch section (not to scale), showing those parts of the buildings which were recorded

8 Observations made

Exterior

- 8.1 Despite changes to their openings, the engine house and boiler house appear in external form to be essentially unaltered by modern changes, and stand at the south-west end of the multi-storeyed mill building (1,2). They are built from coursed sandstone, with sandstone dressings, and are distinct from the main mill in their lack of brick detailing. A few of the stones in the outer walls are reddened, suggesting that they were rebuilt after the 1892 fire, but this is far from conclusive.
- 8.2 The north-west front stands forward from the mill by some 2m (3,4) and contains what was formerly a tall window to the engine house. This opening has been reduced to a first floor window, and below it a slightly narrower ground floor doorway has been inserted, its lintel approximately level with the former sill (5). In contrast, the doorway to the boiler house appears original, and has a cast iron lintel, though the doors themselves are modern (6,7). The present appearance here is very plain, though the engine house window may have been more elaborate than is now apparent. At the opposite, south-east end of the engine house is a former first floor window, now blocked and also very plain, while the adjacent boiler house is hidden behind a detached electrical sub-station (8,9).

From the stonework, it does appear that the main mill, and engine house and boiler house date from the same phase, ie the present structures formed part of the 1894 rebuilding.

- 8.3 The south-west side of the boiler house has some inserted bearing boxes within it, as well as a modern doorway at the right-hand end (**10-16**); these are likely to have related to a lean-to erected here between 1914 and 1930, according to the historic maps above. The flue formerly from the boilers exits the building below this doorway, and parts of it survive along the edge of the yard, where it ran to the base of the chimney (**17,18**), located some 20m away to the south-west (see figure 12 above), but it is not now readily discernible.
- 8.4 Both boiler house and engine house have had their roofs re-slatted since use of the buildings changed, and there is nothing within their coverings to indicate exactly where the rope race was situated. However, the outline of its casing is quite clear within the mill's gable, because of the lack of blackening to the stonework which was formerly protected by it (**19-22**). Two large cast iron bearings located within the area of the rope race, sandwiched between substantial stone blocks above and below, would have held the horizontal shafts and pulleys for the two upper floors of the mill, driven by the rope from below (**23**). Above the upper one is a large iron ring (**24**), its precise function uncertain, but no doubt it had some role within the rope drive or race.

Boiler house interior

- 8.5 The boiler house forms a single, narrow space on a single storey, measuring 15.0m long by 3.4m wide, from which all historic fixtures and fittings have been removed, and in which a modern concrete floor has been laid; the north-west doorway is well preserved, and suggests that the present floor level is close to the historic one (**25-27**). The most significant feature is formed by the remains of the brick flue at the south-east end, over which there is a concrete walkway (**28-31**).
- 8.6 There are also a number of minor features contained within the long walls, such as blocked openings of various sizes and bearing boxes, although their intended functions are not always certain, particularly in the south-west wall (**32-34**). The north-east wall, shared with the engine house, has three doorways in the middle and close to the south-east end, two of them blocked (**35-38**). The thresholds of two are about 1.8m above present floor level, and these relate to a former raised timber floor within the engine house, although there is no evidence for there being such an upper floor within the boiler house (**39,40**). The present access into the building from the engine house, at ground floor level, appears to have been inserted following removal of boiler plant. A very low former opening, of

unknown function, is located at the north-west end of this dividing wall (**41**). It seems too low to be the doorway shown on the 1894 plans (figures 7 & 8), although it may in fact be that opening, if floor level here was formerly about 1.2m lower, which seems unlikely however.

- 8.7 The four original raking roof trusses over the boiler house survive, and are of sturdy construction typical for the late nineteenth century (**42,43**). The roof-lights are not thought to be original.
- 8.8 The former internal arrangements of boilers etc are not now discernible from the surviving appearance of the building. It is likely that the space accommodated one or more Lancashire boilers, with the furnace or furnaces located at the south-east end.

Engine house interior

- 8.9 The recent insertion of two new floors within the engine house, below and above a modern shop, means that recording excluded the middle part of it (see figure 13). As a consequence, a full picture of the internal arrangements is elusive, and so it remains unknown what type of steam engine it was intended (and perhaps adapted) to accommodate, but the most likely is that it was a vertical engine.
- 8.10 The present ground floor space has modern concrete floors below and above (**44,45**). The main area of interest is in the north-east wall (shared with the main mill building), where massive stone blocks are incorporated (the largest more than 3m in length), as this would have been where the bearing for the engine's flywheel and rope drum were attached (**46-48**). Three circular recesses, 300mm in diameter and drilled through with holes passing through the wall thickness, are also set within the stone blocks (**49,50**). More detail can be seen on the other face of the wall (some of the stonework here is scorched, suggesting it survived from the 1850s engine house) (**51,52**). A large cast iron bearing box is also located in close proximity to this massive stonework, very similar to those located in the same wall above the engine house roof, but slighted by modern floors (**53,54**); it appears to have held the bearing for the main rope drum. The bearing box is positioned over two large blocks and is fastened to them by two vertical bolts, the feet of which can be seen within a recess in the north-east side of the wall (**55**).
- 8.11 Very little else of interest was observed within the north-east side of the engine house ground floor, in part because of the electrical equipment built against it, but much of this side is built from coursed stone of standard size, rather than the massive blocks at the north-west end (**56,57**). There is however a row of joist

sockets, about 1.8m above present floor level, which represents a former timber floor which would have given access to working parts of the engine.

- 8.12 The south-west side of the ground floor of the engine house is of standard walling stone throughout, and contains a set-back for the same upper timber floor, as well as evidence for its joists (**58-60**). This coincides with the threshold for one of the blocked doorways observed on the other side, within the boiler house (**61**). Also visible is the enigmatic, low blocked opening close to the north-west end of the dividing wall (**62**), possibly a former doorway, although similarly there is no evidence for the floor having been raised substantially to its present level on this side of the wall.
- 8.13 The top part of the engine house, above the modern concrete floor and now accessible from the main mill building via a recently inserted doorway, also has some features of interest. They include the cast iron lintels over the infilled windows in the north-west and south-east walls (**63,64**), and original raking roof trusses and purlins (**65,66**), but the rafters have all been replaced following the removal of the rope race. Two of the trusses carry vertical posts, very likely to have supported the rope race structure (**67**). A substantial, cantilevered cast iron beam projecting into the roof space was no doubt also associated with the rope race in some way (**68-70**). Close to it is a bearing box within the wall, evidently to hold the horizontal shaft taking power into this floor of the mill (**71,72**).

9 Conclusion

- 9.1 The limited recording of the target buildings which their present forms permit, in conjunction with some documentary and pictorial evidence, allows only partial interpretation and understanding of the power generation and transmission at Victoria Mill. The general form of the engine house implies it housed a vertical steam engine, but almost nothing further can be said about that aspect of it, and the degree to which the engine house was altered by and after the 1893 fire remains largely unknown. The substantial cast iron box bolted down to massive blocks of masonry within the wall shared with the mill appears to have held the bearing for the rope drum, which transmitted rotative power to all floors of the spinning mill, and perhaps to the nearby Low Mill. Further evidence for the form of the engine and the distribution of power may have existed higher up in the wall, before the recent conversion of part of the building. There are a few isolated features of interest, associated with the rope race, within the engine house roof space. Within the boiler house, the only feature of more than minor interest are the remains of the flue.

Appendix 1: WYAAS Specification

SPECIFICATION FOR A STRUCTURAL WATCHING BRIEF AT VICTORIA MILL, STAINLAND ROAD, WEST VALE, WEST YORKSHIRE

SE 09276 19252

This specification is prepared on the request of James Thornton of Rosemount Estates and on behalf of Calderdale Council. It details the requirements for an archaeological structural watching brief (targeted archaeological and architectural photographic and drawn recording) prior to and during demolition and alterations to Victoria Mill (planning consent 20/00840/FUL).

1. Summary

1.1 This specification covers the requirements for targeted photographic building recording and structural watching brief (drawn and photographic record) at Victoria Mill prior to partial demolition, alteration and redevelopment.

1.2 This specification has been prepared by the West Yorkshire Archaeology Advisory Service (WYAAS), the holders of the West Yorkshire Historic Environment Record

1.3 Failure to fully comply with the terms of this specification will be treated as a breach of planning consent by WYAAS.

1.4 Please note the WYAAS require a hard copy of the final report to be submitted to the West Yorkshire Historic Environment Record to enable the results of fieldwork to be made publically accessible as required by the National Planning Policy Framework. The WYAAS will only recommend discharge of any archaeological planning condition once a report been received and found to be satisfactory.

NOTE: The requirements detailed in paragraphs 8.1, 8.2 and 8.3 are to be met by the archaeological contractor prior to the commencement of fieldwork by supplying confirmation details in writing to the WY Archaeology Advisory Service.

2 Background

2.1 In response to the proposed selective demolition, a record of the likely boiler house and former engine room attached to the western gable of Victoria Mill has been recommended by the West Yorkshire Archaeology Advisory Service.

2.2 This specification has been prepared by the WYAAS at the request of Mr James Thornton of Rosemount Estates (Throstle Nest, Warley Wood Lane, Halifax HX2 6BW Tel.: 07585 950271) to detail what is required and to allow an archaeological contractor to provide a quotation.

3 Archaeological / Architectural Interest

3.1 Victoria Mill is identified in the West Yorkshire Historic Environment Record as a non-designated heritage asset (PRN 3176) due to its archaeological interest. The mill building is believed to post-date a fire in the early 1890s with only small fragments of an earlier mid-19th century structure incorporated. The mill was employed in cotton spinning until 1987 and has subsequently been employed as workshops and showrooms associated with Andy Thornton's.

- 3.2 A former flat roofed “weaving shed” and cottage, known as Low Mill, lay in front of the mill. This building was recorded prior to being demolished in 2013. The cottage was identified as the oldest surviving element of the Victoria Mill complex.
- 3.3 Demolition of structures associated with what is thought to be the mill’s engine and boiler houses at the western end of the mill will result in the loss of important archaeological evidence of its prime mover and the means of power transmission to the remainder of the building.
- 3.4 Scarring above the engine house is indicative of a rope race for transferring power from the mill’s steam engine to each floor of the building. This argument is strengthened by the engine house projecting slightly in front (north) of the main mill, again a common indication of a rope drive. The modern ground plan differs considerably from that of the Ordnance Survey’s Six-Inch to the Mile map of 1894.
- 3.5 Previous recording suggested that power was also transferred to the demolished Low Mill. The details of these arrangements are not currently understood.
- 3.6 A programme of targeted archaeological building recording should be carried out in conjunction with any structural alterations to this portion of the building. This record should include:
- Photographs of the mill in its setting
 - A record of the presumed engine house before and during alterations
 - A record of the boiler house, and
 - Any evidence of power transmission to the spinning mill and evidence of changes to this system such as rope or electrical drive

Aims

3.1 The aim of the proposed work is to identify and objectively record by means of photographs and selected drawings select significant archaeological and architectural features and evidence for the original and subsequent historical form and functions of Victoria Mill, and to place this record in the public domain by depositing it with the West Yorkshire Historic Environment Record (West Yorkshire Archaeology Advisory Service , West Yorkshire Joint Service, Nephshaw Lane South, Morley, Leeds LS27 7JQ; email wyher@wyjs.org.uk).

4 General Instructions

4.1 Health and Safety

4.1.1 The building recorder on site will naturally operate with due regard for Health and Safety regulations. Prior to the commencement of any work on site the building recorder may wish to carry out a Risk Assessment on the building / structure in accordance with the Health and Safety at Work Regulations. The building recorder should identify any contaminants which constitute potential Health and Safety hazards and make arrangements with the owner / developer for decontamination/making safe as necessary and appropriate. The WY Archaeology Advisory Service and its officers cannot be held responsible for any accidents or injuries which may occur to outside contractors engaged to undertake this survey while attempting to conform to

this specification.

4.2 Confirmation of Adherence to Specification

4.2.1 The contractor should confirm in writing to WYAAS in advance of commencement of work, their adherence to the issued specification. Unauthorised variations are made at the sole risk of the building recorder. Proposed modifications presented in the form of a re-written specification/project design will not be considered. For technical queries see para. 12.

4.3 Confirmation of Timetable and Contractors' Qualifications

4.3.1 Prior to the commencement of any work, the building recorder must provide the local planning authority and WYAAS in writing with:

- a projected timetable for the site work
- details of the staff structure and numbers
- names and CVs of key project members (the project manager, site supervisor, any proposed specialists, sub-contractors *etc.*)

4.3.2 All project staff provided by the building recorder must be suitably qualified and experienced for their roles. In particular, staff involved in building recording should have proven expertise in the recording and analysis of industrial buildings.

4.3.3 The timetable should be adequate to allow the work to be undertaken to the appropriate professional standard.

4.4 Notification and Monitoring

4.4.1 WYAAS should receive at least one week's notice in writing of the intention to start fieldwork.

5. Unexpectedly Significant or Complex Discoveries

5.1. Should there be, in the professional judgement of the archaeologist on site, unexpectedly significant or complex discoveries made that warrant more detailed recording than possible within the terms of this specification, then the archaeological contractor is to urgently contact WYAAS with the relevant information to enable the matter to be resolved with the developer.

6 Recording Methodology

6.1 Site preparation

6.1.1 Prior to the commencement of work on site the building recorder should identify all removable modern material which may significantly obscure areas requiring a photographic record, and should contact the developer in order to make arrangements for its removal. It is not the intention of this specification that large-scale removal of material of this type should take place with the building recorder's manpower or at that contractor's expense.

6.2 Documentary research

6.2.1. Prior to the commencement of fieldwork, the HER should be visited by either the project manager or the site supervisor, in order to gain an overview of the archaeological/historical background of the site and information previously gathered during earlier recording at Victoria Mill (PRN 3716). This information should be used to inform the interpretation made during the current alterations to the mill. The Calderdale office of the West Yorkshire Archive Service should be consulted to determine if any historic information has been deposited in the public domain (WYAS Calderdale Central Library and Archives Square Road Halifax HX1 1QG [sic]+44 (0)113 535 0151).

6.2.2 At the time of writing, the HER is shut to external visitors due to the Covid-19 situation (March 2021). The contractor should check with David Hunter (contact details at the end of this document) if the HER is open, if not any available information will be provided digitally.

6.2.3 Please note that the HER makes a charge for consultations of a commercial nature.

6.3 Site/building plans

5.3.1 If appropriate, plans & elevations that have been produced for the current application may be used for any annotation relative to the photographic record (permission of the copyright holder must be sought).

7 Photographic Record

7.1 An external photographic record should be made of Victoria Mill, from vantage points including all external elevations using medium format monochrome film (see a fully digital option described in section 7.7 below). These photographs should be as nearly parallel to the elevation being photographed as is possible within the constraints of the site; this may require photographs from a number of vantage points.

7.2 A general external photographic record should also be made which includes a number of oblique general views of the elevations from all sides, showing the mill building as a whole in its setting. In addition, a 35mm general colour-slide or good quality digital survey of the building complex should also be provided (using a variety of wide-angle, medium and long-distance lenses). While it is not necessary to duplicate every black-and-white shot, the colour record should be sufficiently comprehensive to provide a good picture of the form and general appearance of the Mill.

7.3 A general internal photographic record should be made of the engine and boiler house. General views should be taken of each room or discrete internal space from a sufficient number of vantage points to adequately record the form, general appearance and manner of construction of each area photographed prior to demolition. In areas which are wholly modern in appearance, character and materials, a single shot to record current appearance will suffice.

7.4 Detailed photographs should be taken of the following features:

- All original structural elements, roof structures / trusses and method of construction
- Use of materials, e.g. cast iron or steel reinforcement
- Any inscriptions, dedications or date stones

- Any graffiti, tally marks, instructional signage
- Any original doors and window frames
- Evidence of original staircases, walkways and other access arrangements
- Evidence for the routing and generation of steam, mechanical and electrical power
- Evidence of the transmission of mechanical power to the spinning mill
- Any evidence for the former location of engine and engine bases (e.g. lifting eyes above, tie down bolts, wall bearings etc.)
- Evidence for heating and lighting arrangements, particularly any evidence of early use of electricity
- The interior adjoining rooms of the mill should also be inspected for evidence of power transmission

But this list should not be treated as exhaustive. The building recorder on site should also identify and note:

- any significant changes in construction material – this is intended to include significant changes in stone/brick type and size
- any blocked, altered or introduced openings
- evidence for phasing, and for historical additions or alterations to the building.

7.5 Elements for which multiple examples exist (e.g. each type of roof truss, column or window frame) may be recorded by means of a single representative illustration. N.B. Detail photographs must be taken at medium-to-close range and be framed in such a way as to ensure that the element being photographed clearly constitutes the principal feature of the photograph.

7.6 Equipment

7.6.1 General photographs should be taken with a Large Format monorail camera (5" x 4" or 10" x 8"), or with a Medium Format camera that has perspective control, using a tripod. The contractor must have proven expertise in this type of work. Any detail photographs of structural elements should if possible be taken with a camera with perspective control. Other detail photographs may be taken with either a Medium Format or a 35mm camera. All detail photographs must contain a graduated photographic scale of appropriate dimensions (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 structure.

7.7 Digital photography as an Alternative to Colour Transparency Film

7.7.1. Digital photography: as an alternative for colour slide photography, good quality digital photography may be supplied, using cameras with a minimum resolution of 10 megapixels. Digital photography should follow the guidance given by Historic England in Digital Image Capture and File Storage: Guidelines for Best Practice, July 2015. Note that conventional black and white print photography is still required and constitutes the permanent record. Digital images will only be acceptable as an alternative to colour slide photography if each image is supplied as both a JPEG and a TIFF versions. The latter as an uncompressed 8-bits per channel TIFF version 6 file of not less than 25Mbs (See section 2.3 of the Historic England guidance). The contractor must include metadata embedded in the TIFF file. The metadata must include the following: the commonly used name for the site being photographed, the relevant centred OS grid coordinates for the site to at least six figures, the relevant township name (Elland cum Greetland), the date of photograph,

the subject of the photograph, the direction of shot and the name of the organisation taking the photograph. Any digital images are to be supplied to WYAAS on gold "archive quality" CDs by the archaeological contractor accompanying the hard copy of the report.

7.8 Film stock

7.8.1 If traditional methods are employed then all record photographs to be black and white, using conventional (not chromogenic) silver-based film only, such as Ilford FP4 or HP5, or Delta 400 Pro that is replacing HP5 in certain film sizes (such as 220). Dye-based films such as Ilford XP2 and Kodak T40CN are unacceptable due to poor archiving qualities.

7.9 Use of Digital Archiving in Place of Monochrome Film

7.9.1. In response to the mounting costs and decreasing numbers of practitioners offering professional photographic building recording on large and medium format chemical film the WYAAS have investigated other means to secure the long term preservation of photographic images. The WYAAS are satisfied that it is now feasible to substitute digital photography for this aspect of building recording in some projects as an alternative to monochrome photography as specified above.

7.9.2. The long-term archiving and curation of image captured during building recording will be carried out by the Archaeological Data Service (ADS). For smaller sites it may be possible to archive photographs and drawings via OASIS Images.

7.9.3. Alternatively an estimate of the cost of archiving digital images and reports using the ADS Easy service can be obtained from the ADS website:

<http://archaeologydataservice.ac.uk/easy/costing>

7.9.4. Larger, long running projects may need bespoke costing from the ADS Collections Development Manager (collections@ADS.ac.uk).

7.9.5. The buildings archaeologist should follow the ADS' policies and requirements for metadata accompanying digital files. Comprehensive guidance can be found on the ADS website dealing with planning for the creation of a digital archive, collecting data, selection and discard policies, file structures, licencing and the transfer of material to the ADS.

7.10 Equipment

7.10.1. A digital SLR with a resolution of at least 10 megapixel should be employed. Cameras with an FX sensor, which is close to equivalency with 35mm film, are preferable to DX sensor equipped cameras. A variety of lenses should be used to best capture the subject and its setting

7.10.2. Care should be taken to ensure sharply focused well composed photographs are taken and when appropriate the camera should be set up and levelled on a tripod, e.g. when recording facades and larger interior spaces. The use of perspective shift lenses or pan and tilt adaptors may be necessary in some situations to achieve an acceptable image. Alternatively lens distortion may be removed post-capture by software but this must be recorded in the photographic catalogue and details of the software used given in the report. Original pre-correction images should be included in the site archive.

7.10.3. Photographs should be taken with a low ISO setting to reduce noise in the images captured and RAW format used before archiving in tiff format.

7.10.4. The camera should also be Exchange Image File (EXIF) compliant and accurate time, date and, where applicable, GPS information and other metadata set up prior to commencing recording work on site. Further requirements relating to metadata are described below.

7.11. Archiving Digital Photographs

7.11.1. Photographs and reports should be archived with using the ADS. Smaller projects (fewer than 300 files and of less than 10MB each) may be submitted online using the ADS-e Easy online service. (<http://archaeologydataservice.ac.uk/easy/home>). Larger project will require 'traditional' submission using either CD/DVD/USB device or a drop-off service. An estimate of the cost to archive digital images and reports using the ADS Easy service can be obtained from the ADS website:

<http://archaeologydataservice.ac.uk/easy/costing>

7.11.2. Grey Literature reports may be archived using the OASIS System free of charge, reports and oasis records can later be linked to an ADS-easy photography submission.

<http://archaeologydataservice.ac.uk/easy/costing>

7.11.3. The buildings archaeologist should follow the ADS' policies and requirements for metadata accompanying digital files. Comprehensive guidance can be found on the ADS website dealing with planning for the creation of a digital archive, collecting data, selection and discard policies, file structures and naming conventions, licencing and the transfer of material to the ADS

<http://archaeologydataservice.ac.uk/advice/guidelinesForDepositors.xhtml>

7.11.4. Meta data: The contractor should create Project-level meta data, this is used to populate the ADS systems (enables users to search for collections, and populates the ADS webpage for the project. The 'coverage@' field in this document or online submission should include the historic township, site name and grid reference of the site:

([http://archaeologydataservice.ac.uk/advice/DatasetlevelMetadata.xhtml#Collection-level Metadata Requirements](http://archaeologydataservice.ac.uk/advice/DatasetlevelMetadata.xhtml#Collection-level-Metadata-Requirements)).

7.11.5. A raster data meta data file, cataloguing the digital photographs, should also be prepared. A template for this spreadsheet is available to download from the ADS (a template & examples of the latter are available from the ADS at:

<http://archaeologydataservice.ac.uk/advice/FilelevelMetadata.xhtml>

7.11.6. The contractor is responsible for notifying WYAAS of the release of the collection on the ADS website. The forwarding of an email containing the collection Digital Object Identifier (DOI) to wyher@wyjs.org.uk will suffice.

7.11.7. The WYAAS will only recommend the discharge of planning conditions upon receipt of the digital object identifier (DOI) allocated by the ADS.

7.11.8. Please note the WYAAS still require hard copy of the report accompanied by laser prints (cross referenced plates) of the photographs on archivally stable paper and a facsimile copy of the report in PDF (ISO 1005-1 compliant (PDF/A) format and the images on a “gold” archive quality CD.

7.12. Rectified Digital Photography

7.12.1. As an adjunct to hand drawn elevations and plans the recording of significant and complex built structures, machine and engine bases, stone and brick surfaces may be carried out using digital rectified photography to provide orthophotographic images at the scales given in section 5.2.2 above. Photographs must be taken at a resolution adequate to allow the creation of images at these scales. The collection and archiving of digital photographs used to create orthophotographs must follow and comply with Historic England’s guidance contained in “Measured and Drawn: Techniques and practice for the metric survey of historic buildings (2nd edition)”, English Heritage 2009” and Photogrammetric Applications for Cultural Heritage, Guidance for Good Practice, Historic England 2017.

7.12.2. In general photographs must be taken parallel or near parallel to the subject’s main surface, sufficient photographs must be taken from additional viewpoints to capture any changes in level or concealed areas; photographs must have sufficient overlap (60%-80%) to ensure good interpolation by the software used; targets or scales must be used and the resulting image must be checked against the subject/archaeological features before their destruction. Ortho-photographs or copies should be annotated with relevant context numbers (and feature boundaries when not obvious) and be cross referenced in the descriptive and interpretive text in the site report.

7.13. Printing

7.13.1. Record photographs should be printed at a minimum of 5” x 7” .In addition a small selection of photographs (the best of the exterior setting shots and interior shots with important detail) should be printed at 10” x 8”. Bracketed shots of identical viewpoints need not be reproduced, but all viewpoints must be represented within the report.

7.13.2. Prints may be executed digitally from scanned versions of the film negatives, and may be manipulated to improve print quality (but not in a manner which alters detail or perspective). All digital prints must be made on paper and with inks which are certified against fading or other deterioration for a period of 75 years or more when used in combination. If digital printing is employed, the contractor must supply details of the paper/inks used in writing to the local authority with supporting documentation indicating their archival stability/durability.

7.14. Documentation

7.14.1.A photographic register and photo location plan are required. The photographic register should (as a minimum) include location, direction and subject of shot must accompany the photographic record; a separate photographic register should be supplied for any colour slides and digital photographs. Position and direction of each photograph and slide should be noted on a scaled copy of the building plan (minimum acceptable scale 1:100), which should also be marked with a north pointer. Separate plans should be annotated for each floor of the building/ structure. (See also para. 5.3 above.).

7.15. Drawn Record

7.15.1. Drawings should be made at an appropriate scale (not smaller than 1:50 for plans; not smaller than 1:20 for sections).

7.16. Dimensional accuracy

7.16.1. Dimensional accuracy should accord with the normal requirements of the English Heritage Architecture and Survey Branch (at 1:20, measurements should be accurate to at least 10mm; at 1:50, to at least 20mm; at 1:100, to at least 50mm).

7.17. Drawing method

7.17.1. The survey may be executed either by hand or by means of reflectorless EDM as appropriate. In accordance with national guidelines¹, drawings executed on site should be made either on polyester-based film (minimum thickness 150 microns) with polymer-bonded leads of an appropriate thickness and density, or on acid-free or rag paper. If finished drawings are generated by means of CAD or a similar proven graphics package, recorders should ensure that the software employed is sufficiently advanced to provide different line-weight (point-size); this feature should then be used to articulate the depth of the drawings. CAD repeats or cloning of features should not be used. What is required as an end product of the survey is a well-modelled and clear drawing; ambiguous flat-line drawings should be avoided. Drawing conventions should conform to English Heritage guidelines as laid out in English Heritage 2006, *Understanding Historic Buildings – a guide to good recording practice*, and the WYAAS would recommend that the CAD layering protocol detailed in the same volume (8.3, Table 2) should be adhered to.

7.17.2. See 7.11 above for the possible use of rectified digital photography.

8. The Structural Watching Brief

8.1. During demolition, as safe opportunity and access allows, the archaeologist should examine any exposed elements of the building's structure to record means of construction, evidence of the building's development, the engine and the transmission of power to the adjacent weaving mill.

9. Post-Recording Work and Report Preparation

9.1. Report Preparation, Report format and content

A written report should be produced. This should include:

- an executive summary including dates of fieldwork, name of commissioning body, planning application reference and condition number and a brief summary of the results including details of any significant findings
- an introduction outlining the reasons for the building recording & structural watching brief
- a brief architectural description of the building presented in a logical manner, starting with setting, then progressing to the affected areas of the structure in sequence
- a discussion placing the mill and engine house and distribution of power in its local and historical contexts.

Architectural and technical and analytical description and discussion should be fully cross-referenced to the photographic record, sufficient to illustrate the major features of the mill and the major points raised.

9.2. Report Illustrations

Illustrations should include:

- a location map at a scale sufficient to allow clear identification of the building(s)/structure in relation to other buildings in the immediate area
- A phase plan
- a complete set of site drawings at a legible scale, on which position and direction of each photograph has been noted
- a complete set of good-quality laser copies of selected photographs. All photographs should be accompanied by detailed captions clearly locating and identifying any pertinent features.
- Any drawings arising from the structural watching brief showing detail of the engine house and power transmission at the appropriate scales given above.

The latter should be bound into the report, appropriately labelled (numbered, and captioned in full) and fully referenced within the report. When captioning, contractors should identify the individual photographs by means of a running sequence of numbers (e.g. Plate no. 1; Plate no. 2), and it is this numbering system which should be used in cross-referencing throughout the report and on the photographic plans. However, the relevant original film and frame number should be included in brackets at the end of each caption.

9.3 Report deposition

A hard copy of the full report (plus a digital copy on an “archive” quality gold disk in ISO 10005-1 compliant (PDF/A) format) will be submitted directly to the WY Archaeology Advisory Service within twelve weeks of completion of the fieldwork. The report will then be assessed by WYAAS to establish whether or not it is suitable for accession into the WY Historic Environment Record. A copy of the final report (in .pdf format) shall also be supplied to Historic England’s Science Advisor (Dr Andy Hammon (Andy.Hammon@HistoricEngland.org.uk)). Any comments made by WYAAS in response to the submission of an unsatisfactory report will be taken into account and will result in the reissue of a suitably edited report to all parties, within a timescale which has been agreed with WYAAS. Completion of this project and a recommendation from WYAAS for the full discharge of the archaeological condition is dependent upon receipt by WYAAS of a satisfactory full report. The report will become publicly accessible once deposited with the West Yorkshire Historic Environment Record, unless confidentiality is explicitly requested, in which case it will become publicly accessible six months after deposit.

9.4 The West Yorkshire HER supports the Online Access to Index of Archaeological Investigations (OASIS) project. The overall aim of the OASIS project is to provide an online index to the mass of archaeological grey literature that has been produced as a result of the advent of large-scale developer funded fieldwork. The building recorder must therefore complete the online OASIS form at <http://ads.ahds.ac.uk/project/oasis/>. Contractors are advised to contact the West

Yorkshire HER officer prior to completing the form. Once a report has become a public document by submission to or incorporation into the HER, the West Yorkshire 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 at the West Yorkshire HER.

- 9.5 A note or longer article should also be supplied to the Council for British Archaeology's Yorkshire Forum publication (please contact the editor or CBA's website for more information forum-editor@cba-yorkshire.org.uk).

10. Deposition of Building Recording Archive with WYAAS (as holders of the West Yorkshire Historic Environment Record)

10.1. The report copy supplied to the WY Archaeology Advisory Service (see address at the base of this document) should also be accompanied by both the photographic negatives and a complete set of labelled photographic prints (mounted in KENRO display pockets or similar, and arranged in such a way that labelling is readily visible) bound in a form which will fit readily into a standard filing cabinet suspension file (not using hard-backed ring-binders). Labelling should be on the back of the print in pencil giving film and frame number only (taking care not to damage the print) and on applied printed labels stuck on the front of the relevant photographic sleeve and which should include:

- film and frame number
- date recorded and photographer's name
- name and address of building
- national grid reference
- specific subject of photograph.

10.2 Negatives should be supplied in archivally stable mounts (KENRO display pockets or similar), and each page of negatives should be clearly labelled with the following:

- national grid reference
- Site name and address
- Date of photographs (month/year)
- Name of archaeological contractor
- Film number

- 10.3 Colour slides should be mounted, and the mounts suitably marked with the 'Victoria Mill' at the top of the slide; grid reference at the bottom; date of photograph at the right hand side of the mount; subject of photograph at the left hand side of the mount. Subject labelling may take the form of a numbered reference to the relevant photographic register. The slides should be supplied to the WY Archaeology Advisory Service in an appropriate, archivally stable slide hanger (for storage in a filing cabinet). In all other respects, standards for archive compilation and transfer should conform to those outlined in *Archaeological Archives – a guide to best practice in creation, compilation, transfer and curation* (Archaeological Archives Forum, 2011).

11 Copyright

11.1 Please note that by depositing this report, the contractor gives permission for the material presented within the document to be used by the WYAAS, in perpetuity, although The Contractor retains the right to be identified as the author of all project documentation and reports as specified in the Copyright, Designs and Patents Act 1988 (chapter IV, section 79). The permission will allow the WYAAS to reproduce

material, including for use by third parties, with the copyright owner suitably acknowledged.

12 Technical Queries

12.1 Any technical queries arising from the specification detailed above, should be addressed to WYAAS without delay.

13 Valid Period of Specification

13.1 This specification is valid for a period of one year and may need to be reviewed to comply with current best practice, knowledge and changes in techniques.

**West Yorkshire Archaeology Advisory Service
West Yorkshire Joint Service,
Nepshaw Lane South,
Morley,
Leeds
LS27 7JQ**

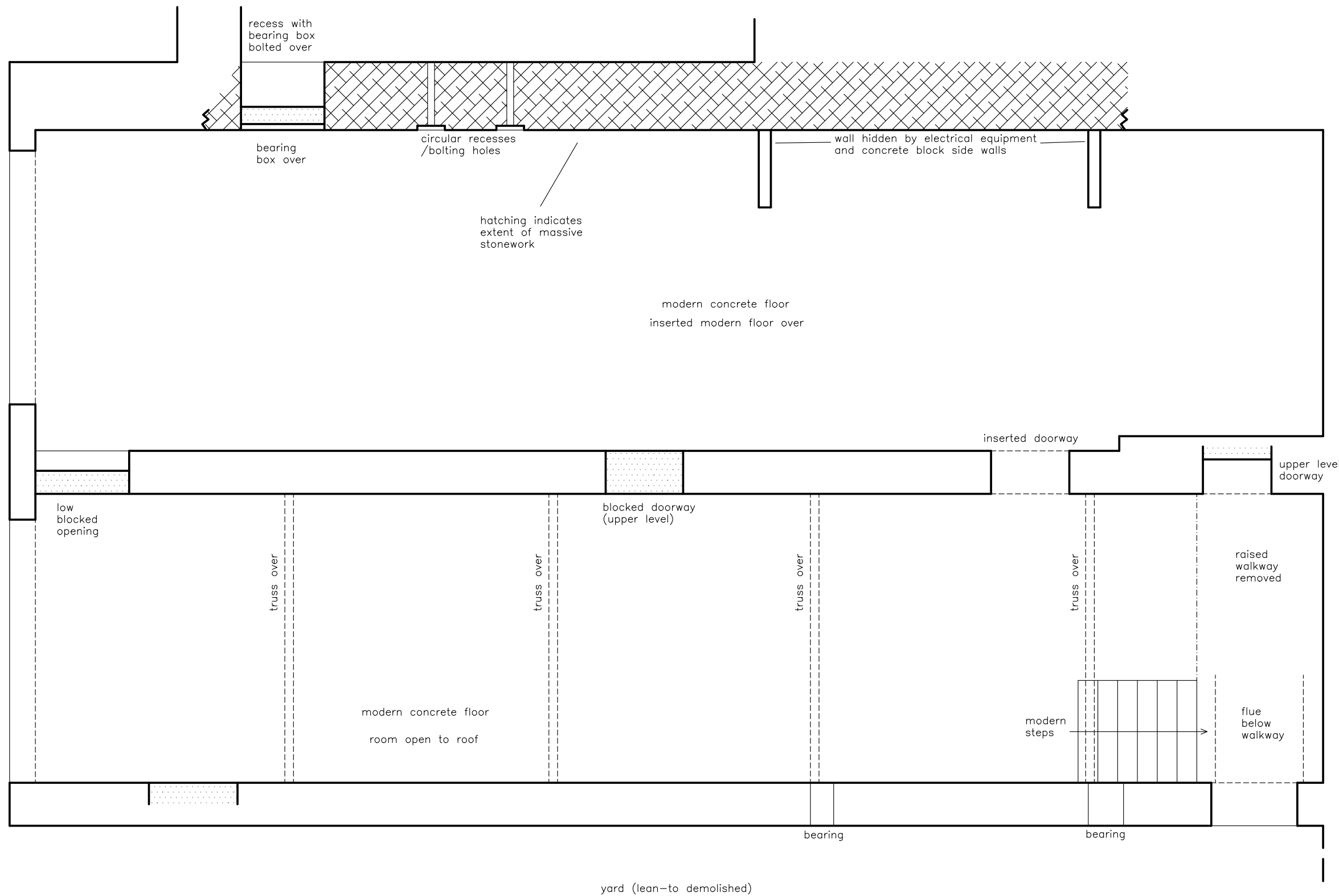
March 2021

**Telephone: 0113 5350 0300
E-mail: david.hunter@wyjs.org.uk**

engine house

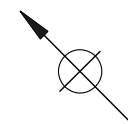
boiler house

mill



KEY

 blocking or infill



10m



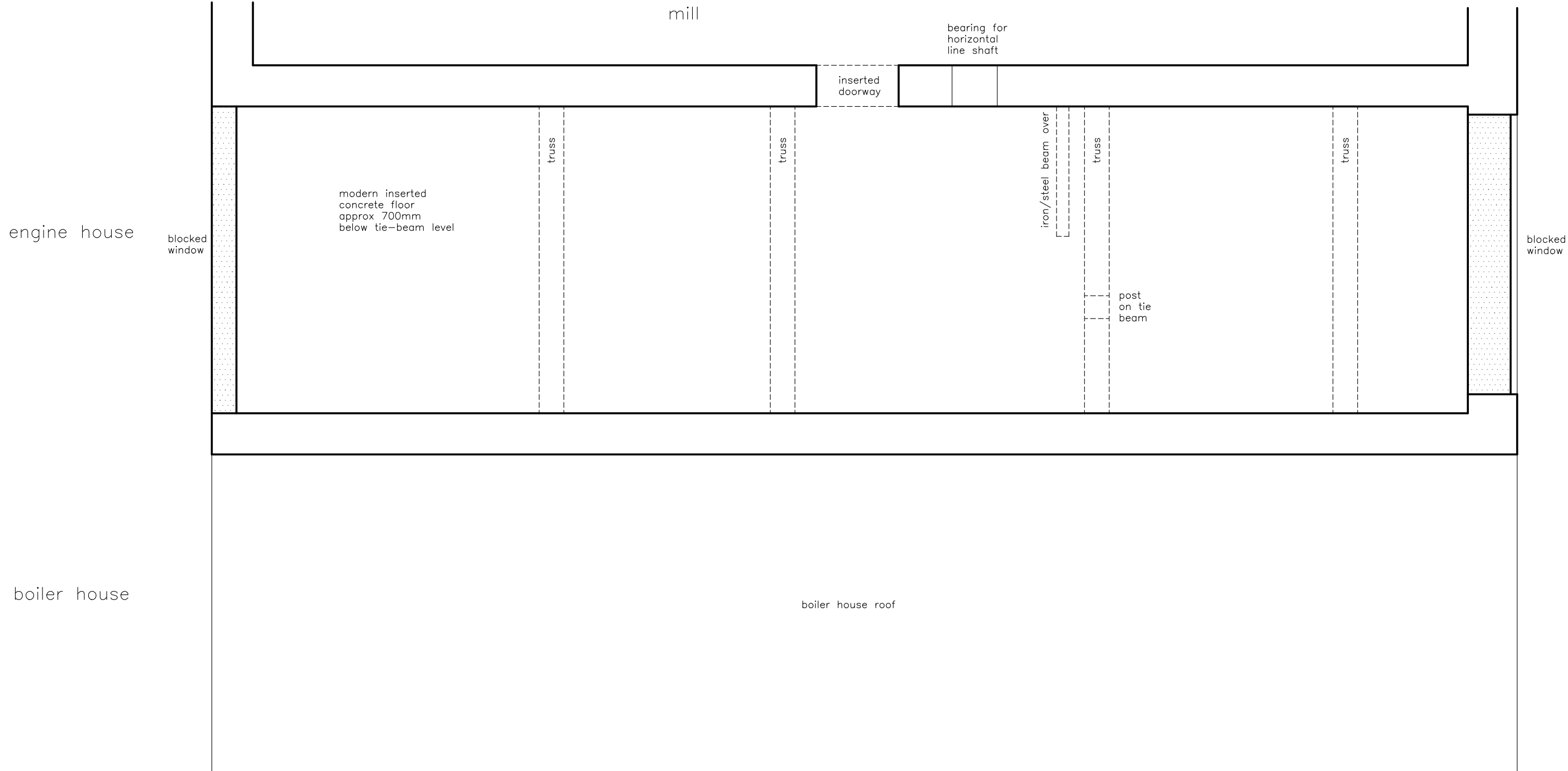
VICTORIA MILL, STAINLAND ROAD
 WEST VALE, WEST YORKSHIRE
 (NGR: SE 09594 21204):
 RECORD OF THE ENGINE HOUSE
 AND BOILER HOUSE

FIGURE 14:
 GROUND FLOOR PLAN
 OF ENGINE HOUSE AND BOILER HOUSE

SCALE: 1:50 (at A3)

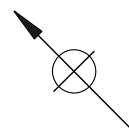
DATE OF SURVEY: APRIL 2021 – JAN 2022

STEPHEN HAIGH
 Buildings Archaeologist



KEY

 blocking or infill



10m



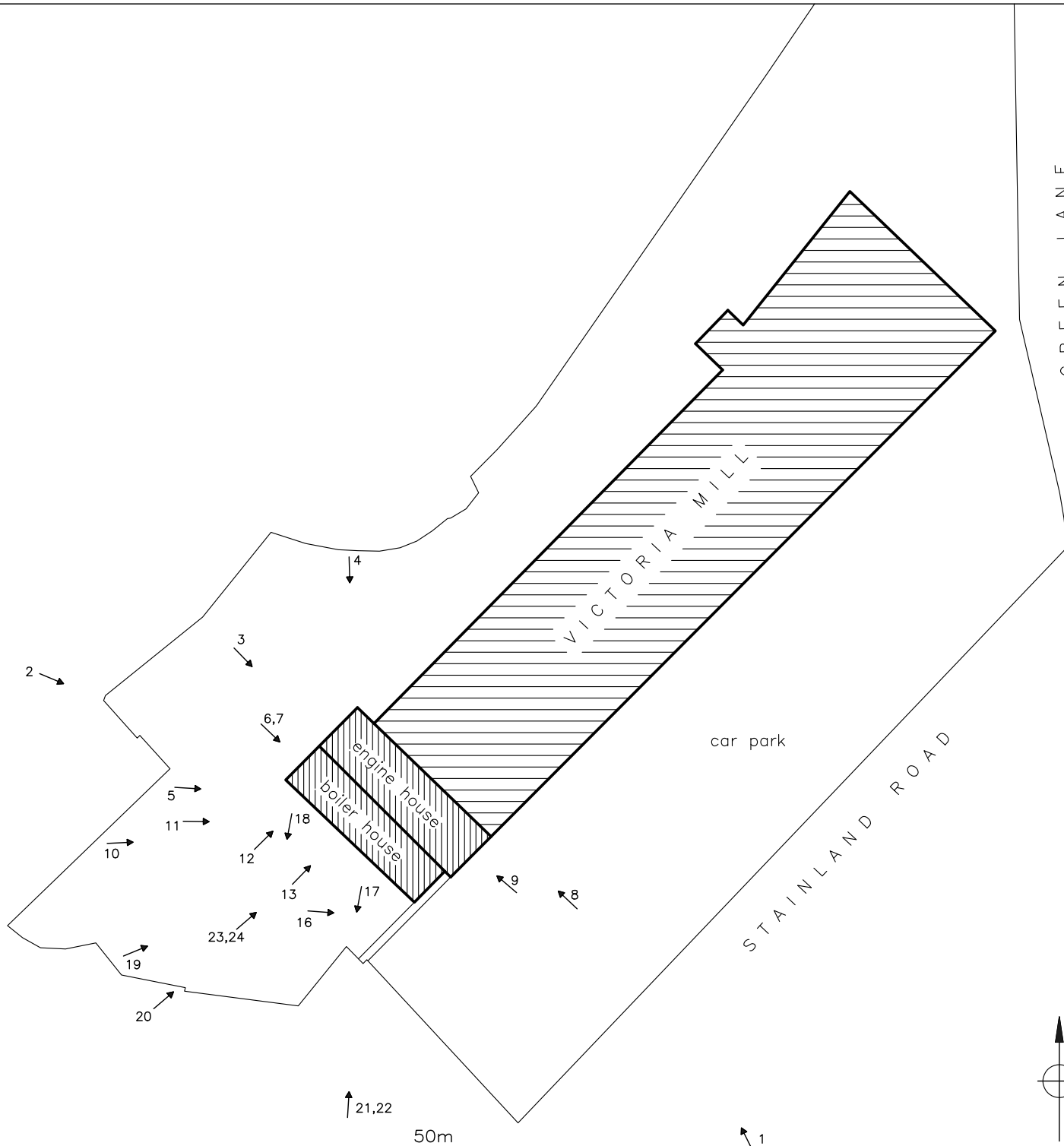
VICTORIA MILL, STAINLAND ROAD
WEST VALE, WEST YORKSHIRE
(NGR: SE 09594 21204):
RECORD OF THE ENGINE HOUSE
AND BOILER HOUSE

FIGURE 15:
PLAN OF ENGINE HOUSE
AT TIE-BEAM LEVEL

SCALE: 1:50 (at A3)

DATE OF SURVEY: APRIL 2021 – JAN 2022

STEPHEN HAIGH
Buildings Archaeologist



↗ 1: photograph direction and number

VICTORIA MILL, STAINLAND ROAD
 WEST VALE, WEST YORKSHIRE
 (NGR: SE 09594 21204):
 RECORD OF THE ENGINE HOUSE
 AND BOILER HOUSE

FIGURE 16:
 SITE PLAN
 WITH PHOTOGRAPH LOCATIONS

SCALE: 1:500 (at A4)

DATE OF SURVEY: APRIL 2021 – JANUARY 2022

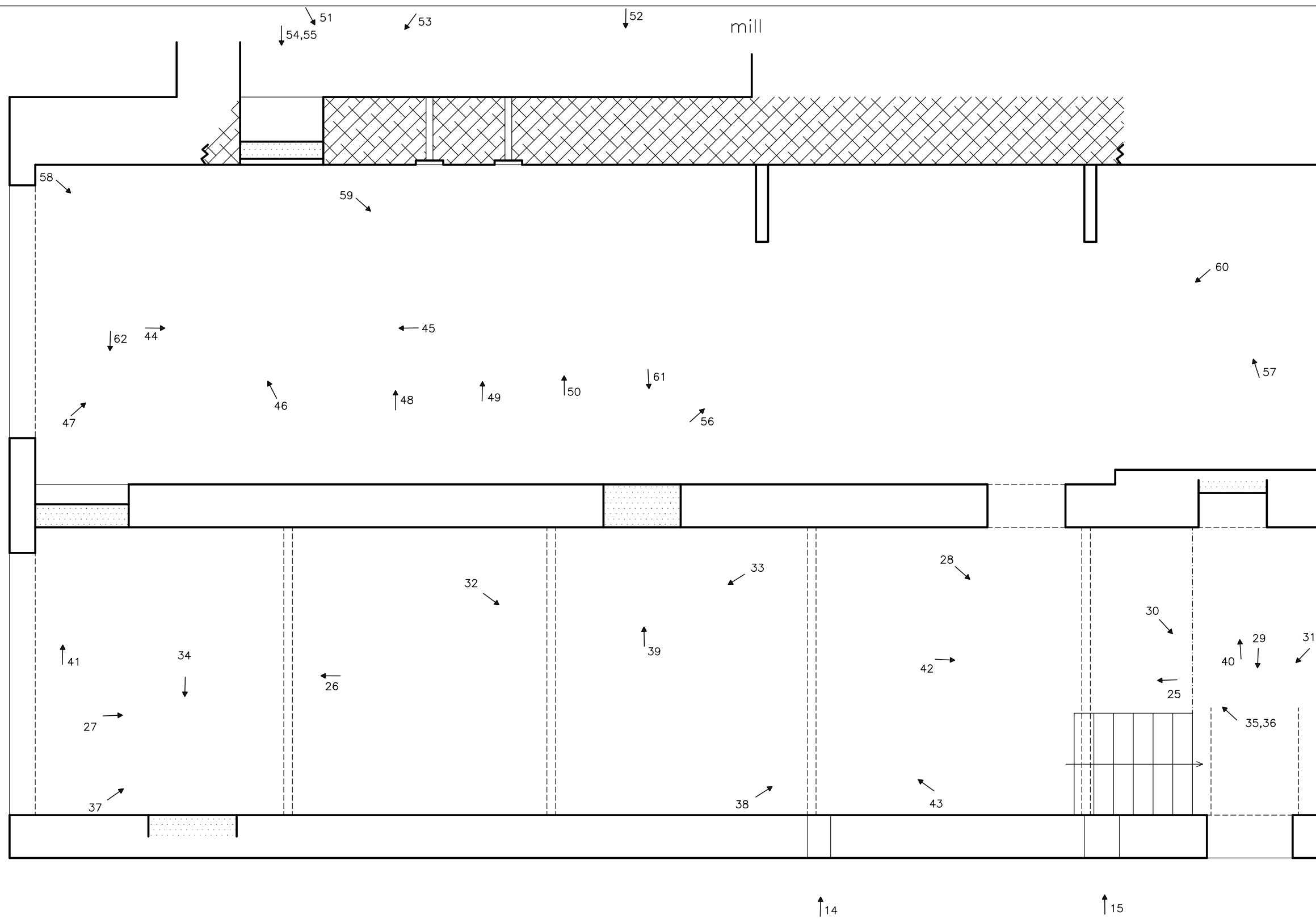
STEPHEN HAIGH
 Buildings Archaeologist



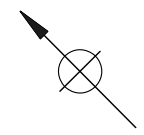
engine house

boiler house

mill



KEY
 ↗ 1: photograph direction and number



10m



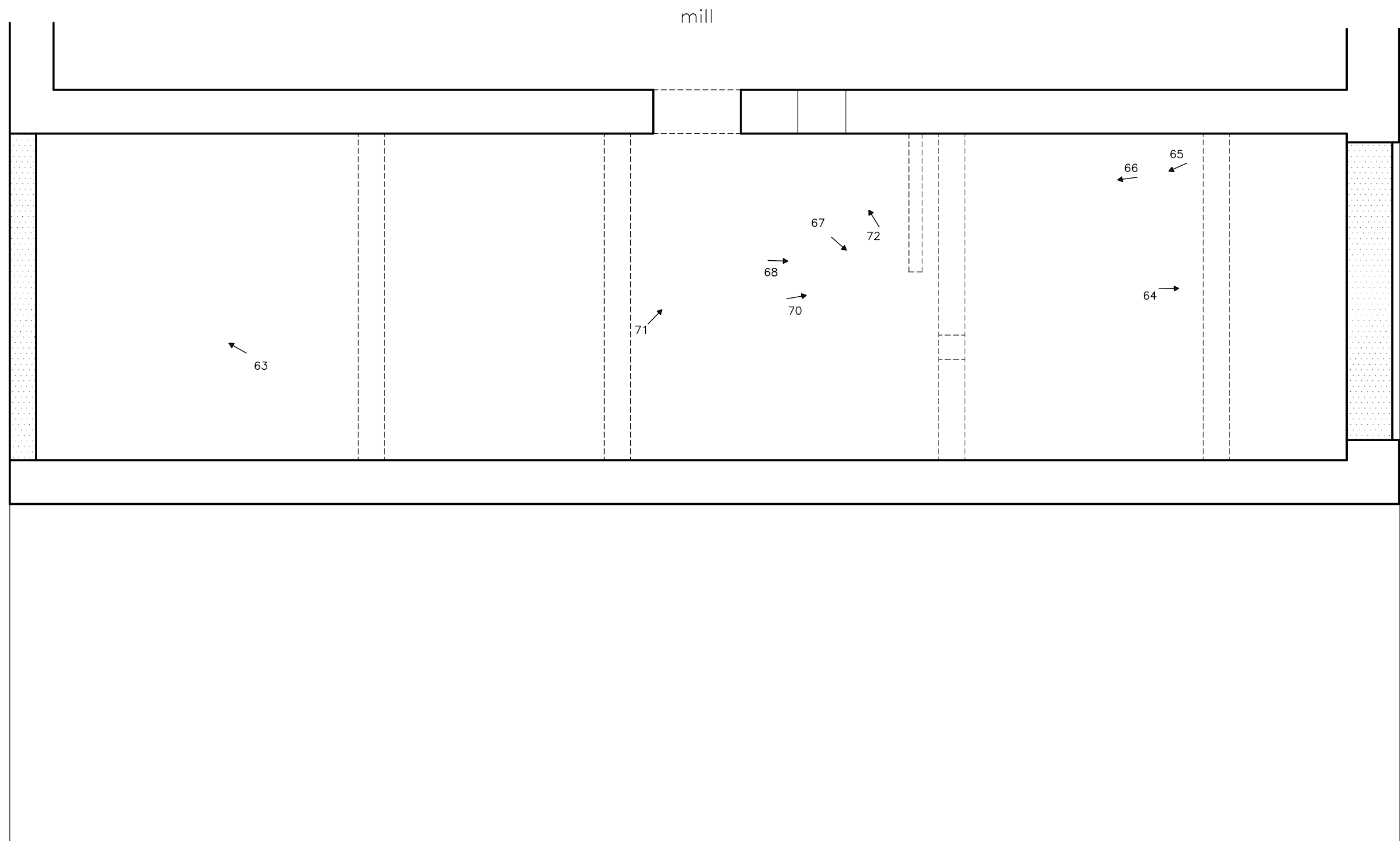
VICTORIA MILL, STAINLAND ROAD
 WEST VALE, WEST YORKSHIRE
 (NGR: SE 09594 21204):
 RECORD OF THE ENGINE HOUSE
 AND BOILER HOUSE

FIGURE 17:
 GROUND FLOOR PLAN
 OF ENGINE HOUSE AND BOILER HOUSE
 WITH PHOTOGRAPH LOCATIONS

SCALE: 1:50 (at A3)

DATE OF SURVEY: APRIL 2021 – JAN 2022

STEPHEN HAIGH
 Buildings Archaeologist



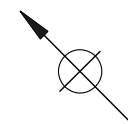
engine house

boiler house

mill

KEY

↗ 1: photograph direction and number



10m



VICTORIA MILL, STAINLAND ROAD
WEST VALE, WEST YORKSHIRE
(NGR: SE 09594 21204):
RECORD OF THE ENGINE HOUSE
AND BOILER HOUSE

FIGURE 18:
PLAN OF ENGINE HOUSE
AT TIE-BEAM LEVEL
WITH PHOTOGRAPH LOCATIONS

SCALE: 1:50 (at A3)

DATE OF SURVEY: APRIL 2021 – JAN 2022

STEPHEN HAIGH
Buildings Archaeologist



Photo 1: General view of the mill, from the south



Photo 2: General view of the mill, from the west



Photo 3: Engine house (left) and boiler house (right), from the north-west

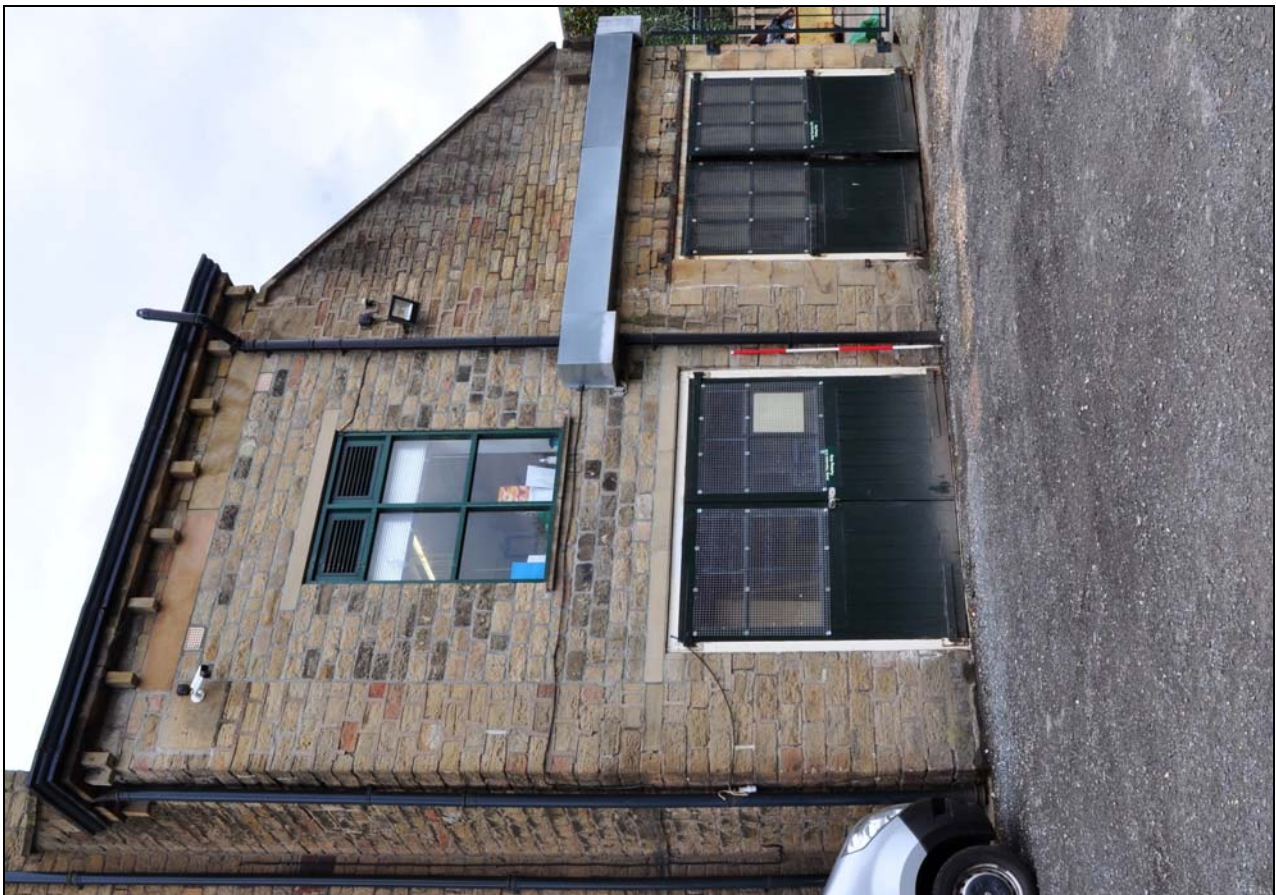


Photo 4: Engine house (left) and boiler house (right), from the north



Photo 5: Engine house (left) and boiler house (right), from the west



Photo 6: Detail of entrance to boiler house



Photo 7: Detail of lintel over entrance to boiler house



Photo 8: South-east side of engine house, with blocked window

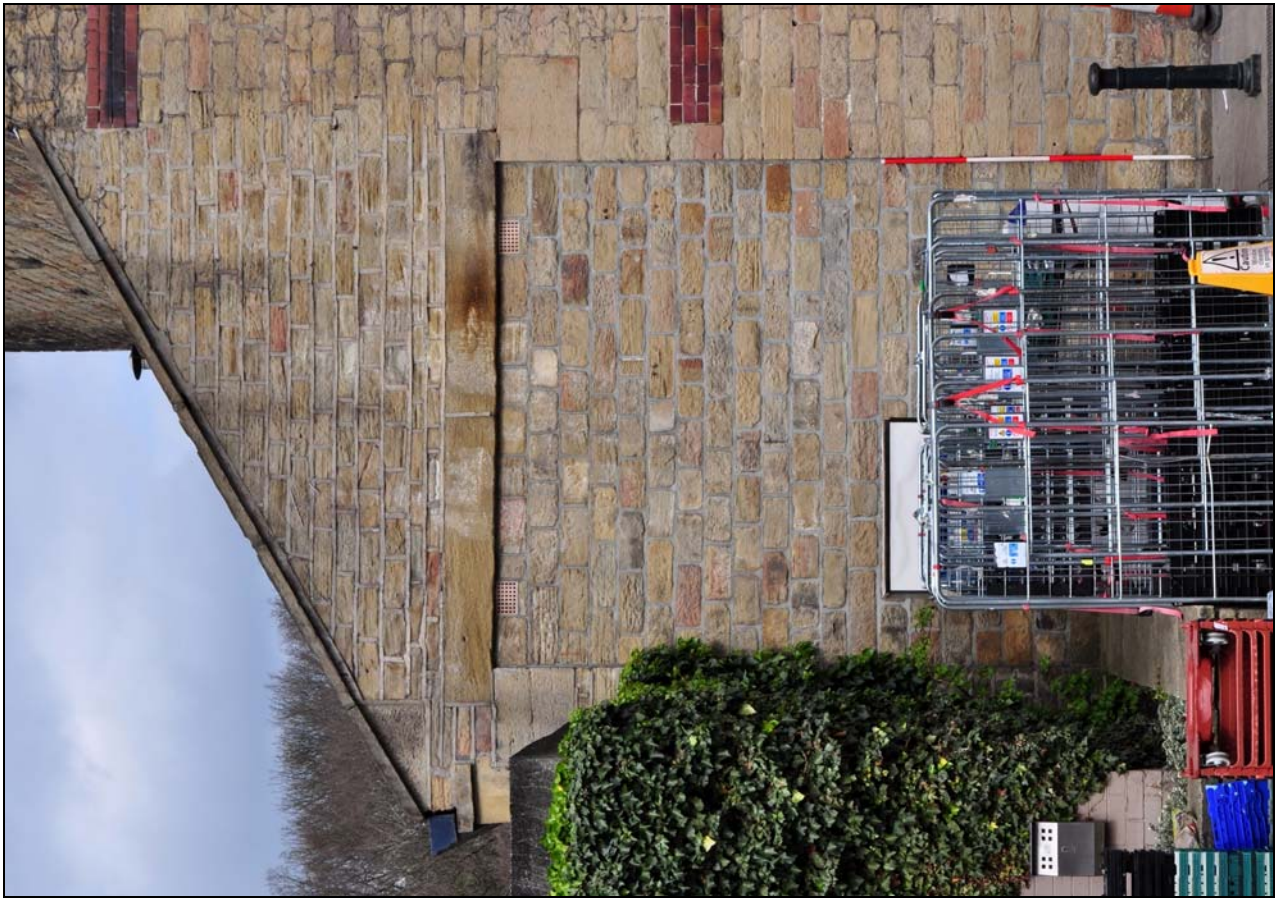


Photo 9: South-east side of engine house, with blocked window



Photo 10: South-west side of boiler house with engine house and mill behind



Photo 11: South-west side of boiler house

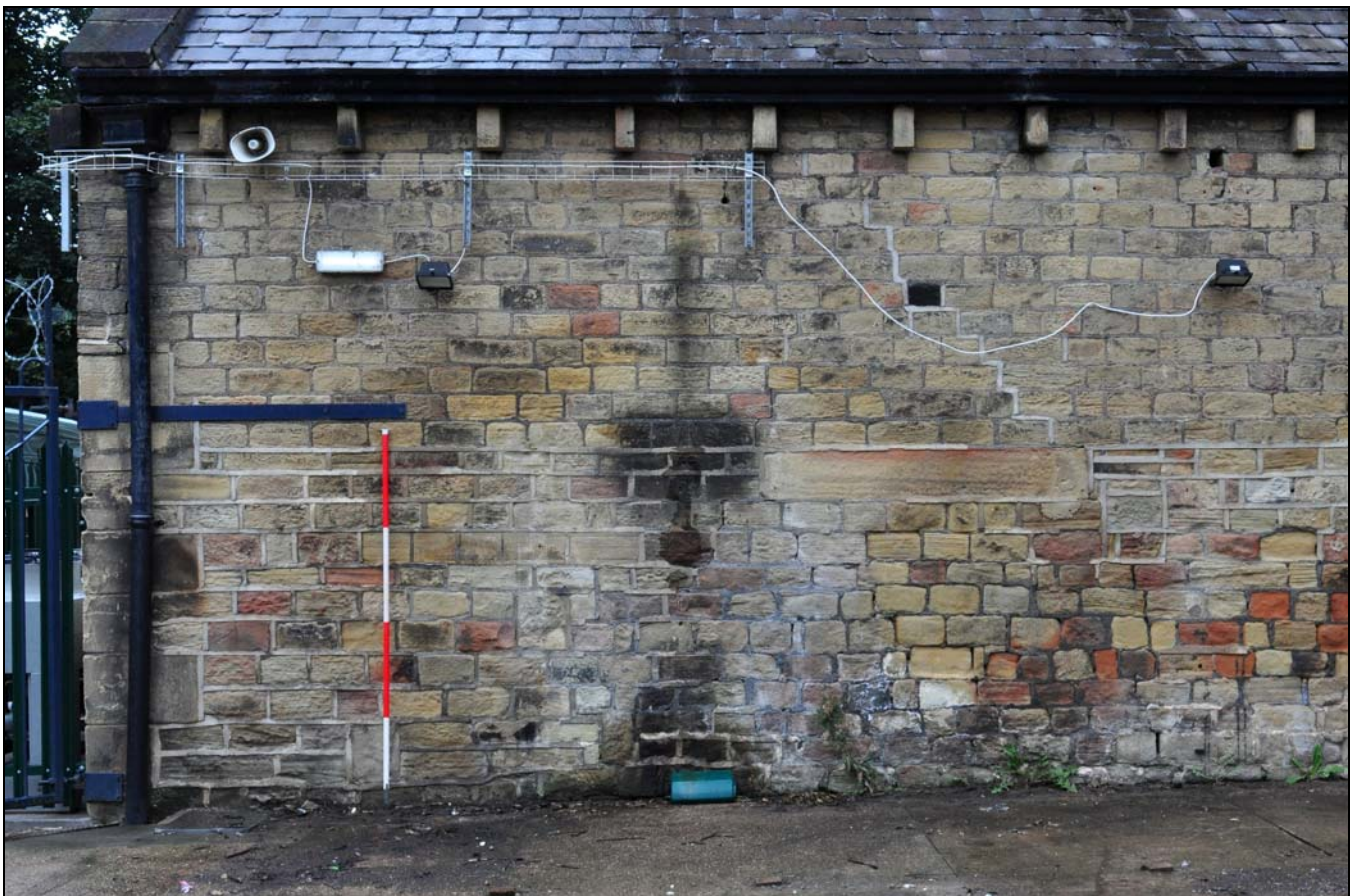


Photo 12: South-west side of boiler house (left-hand end)



Photo 13: South-west side of boiler house: central part, with two bearing boxes



Photo 14: South-west side of boiler house: detail of bearing box



Photo 15: South-west side of boiler house: detail of bearing box



Photo 16: South-west side of boiler house, at junction with retaining wall



Photo 17: Flue to south-west of boiler house, beneath modern gantry



Photo 18: Yard to south-west of boiler house, where flue runs to former chimney



Photo 19: Engine and boiler houses with end of mill behind, with outline of former rope race, from the south-west

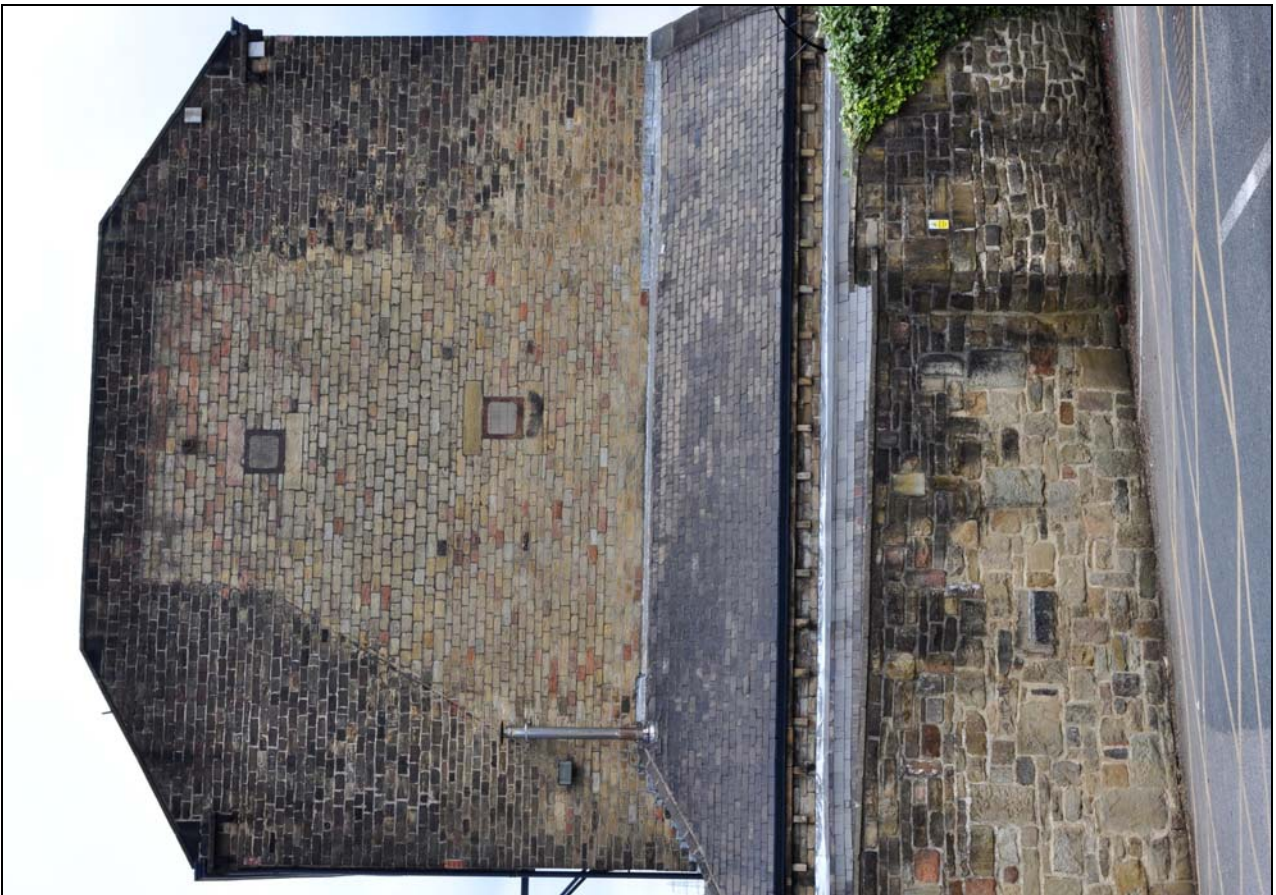


Photo 20: Engine house with end wall of mill behind, with outline of former rope race, from the south-west



Photo 21: Engine house with end wall of mill behind, with outline of former rope race, from the south



Photo 22: End wall of mill with outline of former rope race, from the south



Photo 23: Bearings for shafts from rope race, in end wall of mill, from the south-west



Photo 24: Upper bearing for shafts from rope race, and ring, in end wall of mill, from the south-west



Photo 25: Interior of boiler house, from the south-east

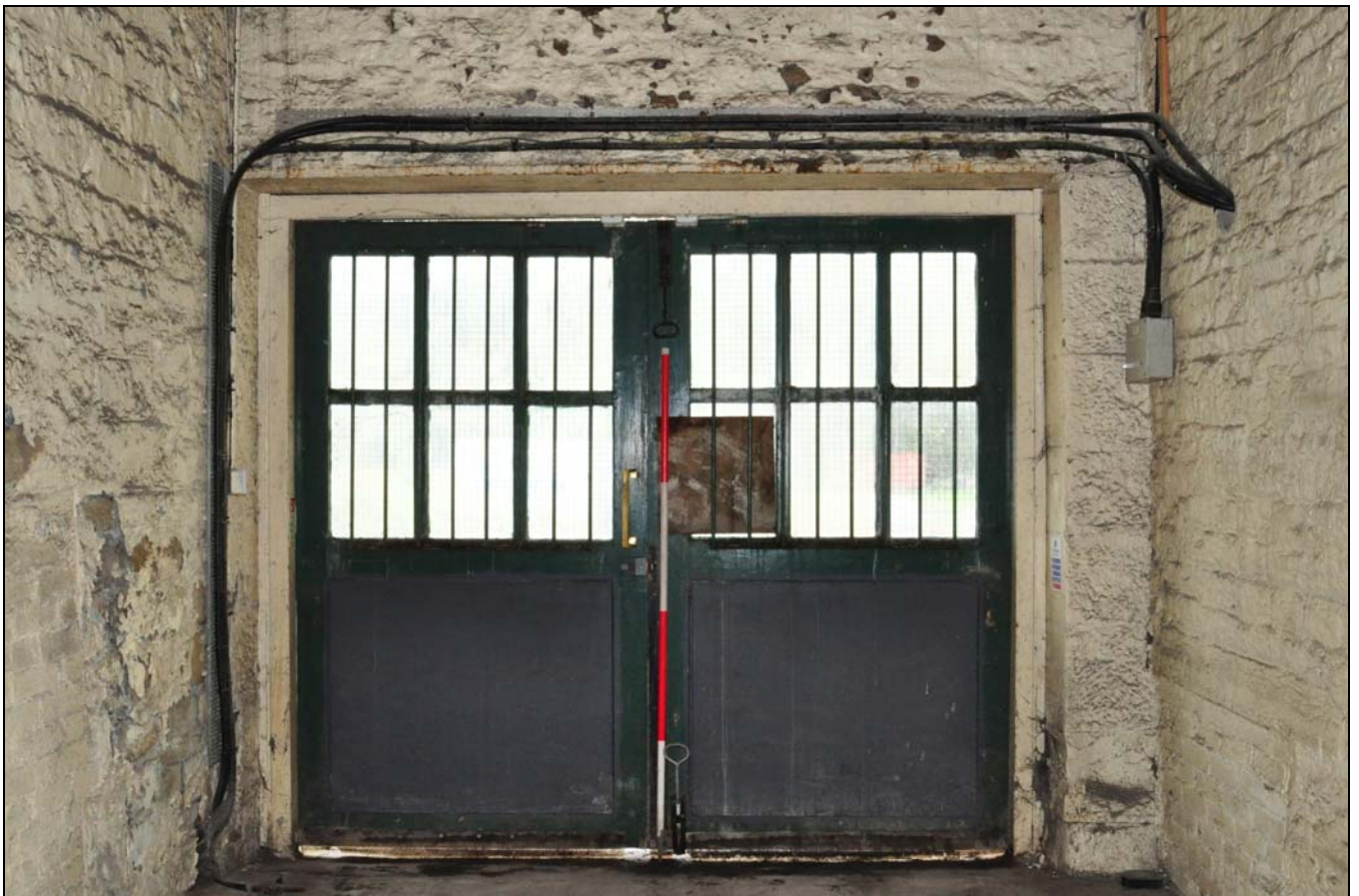


Photo 26: Interior of boiler house doorway, from the south-east



Photo 27: Interior of boiler house, from the north-west



Photo 28: Remains of flue in south-east end of boiler house, with modern steps, from the north



Photo 29: Remains of flue in south-east end of boiler house, from the north-east



Photo 30: Remains of flue in south-east end of boiler house, from the north



Photo 31: Remains of flue in south-east end of boiler house, from the east



Photo 32: Interior of boiler house: south-west side, from the north



Photo 33: Interior of boiler house: south-west side, from the east

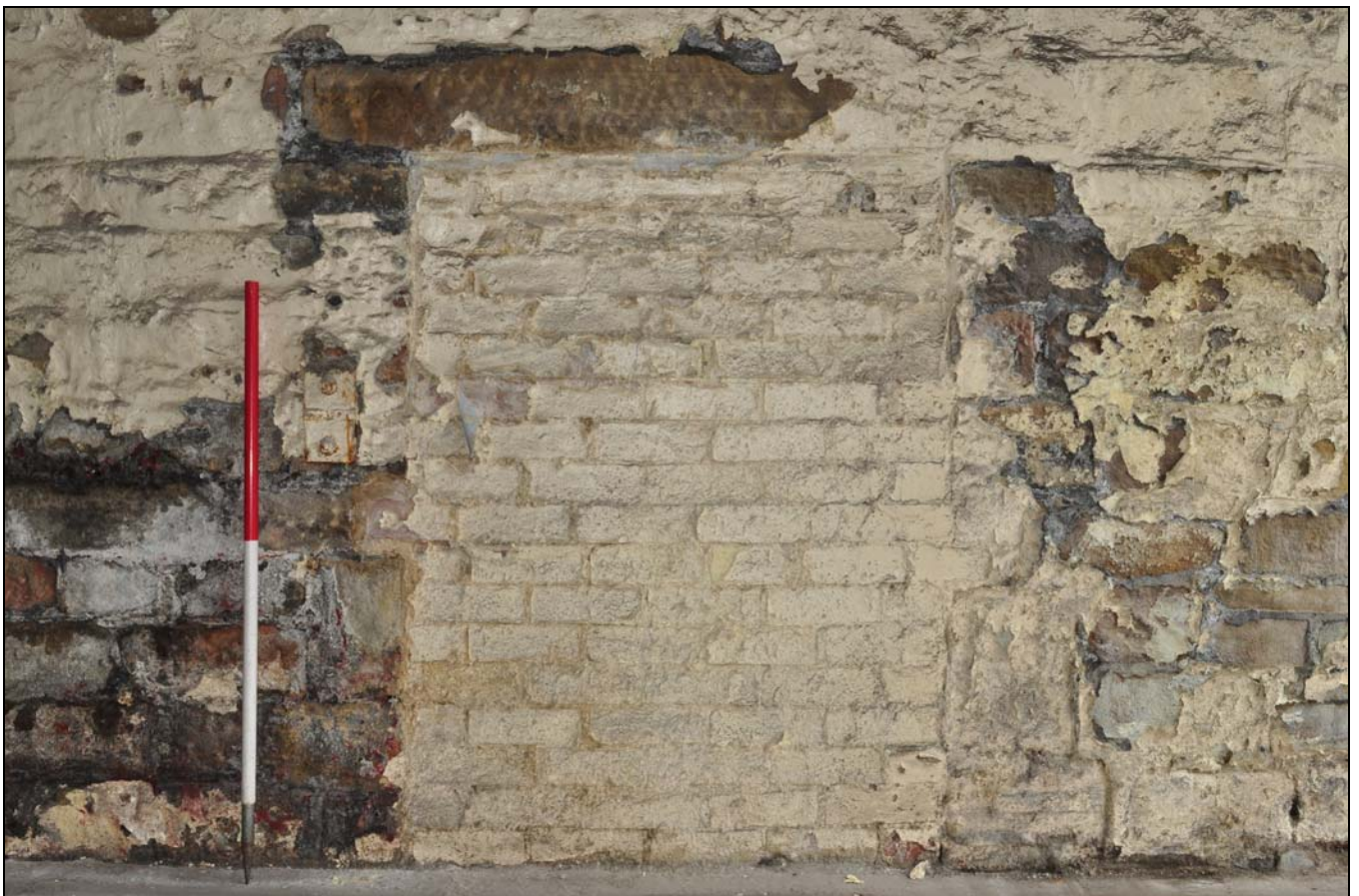


Photo 34: Blocked opening in south-west side of boiler house, from the north-east



Photo 35: Interior of boiler house: north-east side, from the south



Photo 36: Interior of boiler house: north-east side, from the south (during demolition)



Photo 37: Interior of boiler house: north-east side, from the west

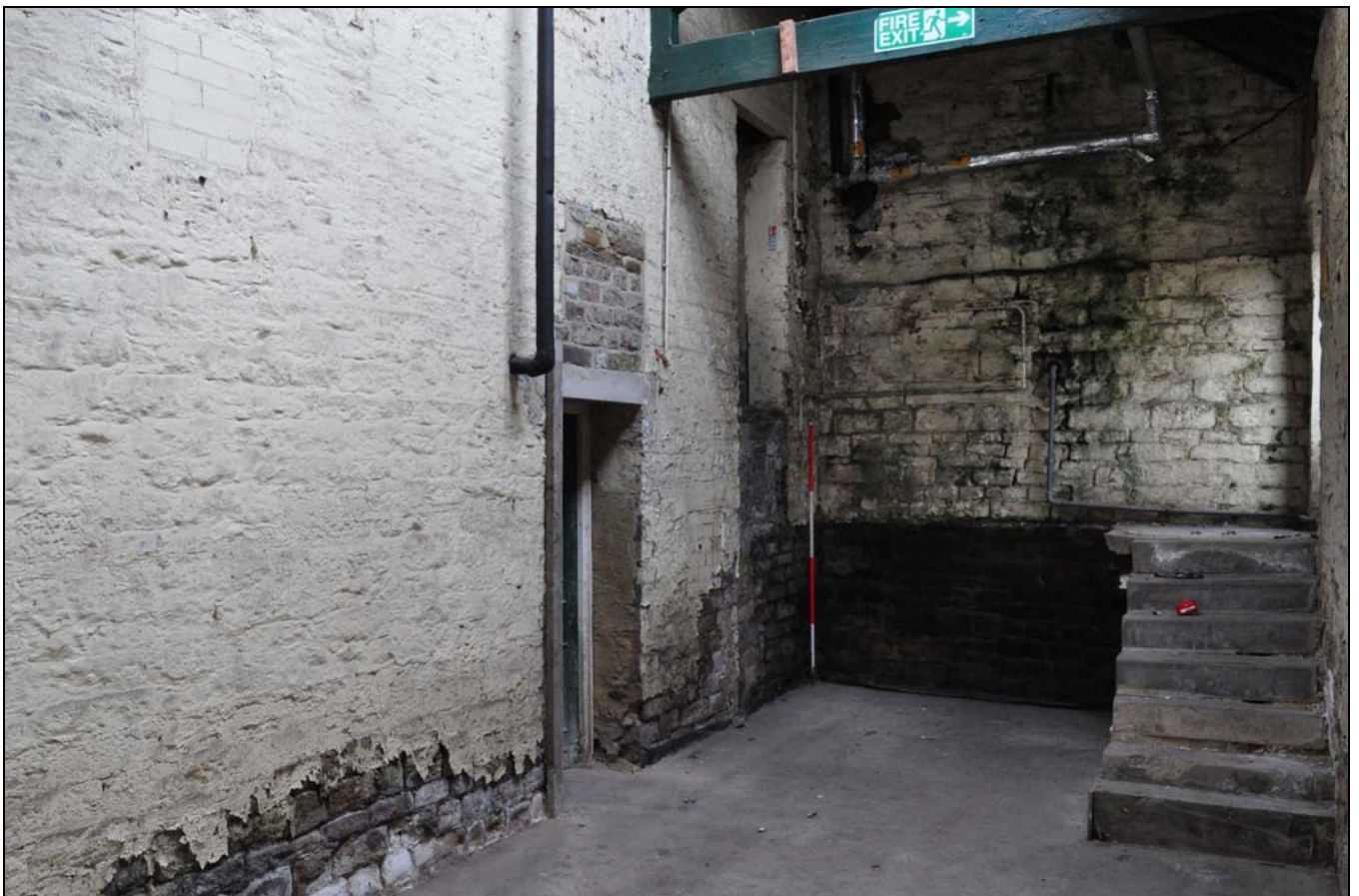


Photo 38: Interior of boiler house: east corner, from the west



Photo 39: Blocked upper level doorway, north-east side of boiler house, from the south-west



Photo 40: Blocked upper level doorway, north-east side of boiler house, from the south-west



Photo 41: Blocked low opening, north-east side of boiler house, from the south-west



Photo 42: Roof truss over boiler house, from the north-west



Photo 43: Roof trusses over boiler house, from the south-east



Photo 44: Ground floor of engine house, from the north-west



Photo 45: Ground floor of engine house, from the south-east



Photo 46: Large bearing box (slighted by modern upper floor), over massive blocks of stone, north corner of engine house, from the south



Photo 47: Large bearing box (slighted by modern upper floor), over massive blocks of stone, north corner of engine house, from the west



Photo 48: Large bearing box (slighted by modern upper floor), over massive blocks of stone, with bolting holes to right, north corner of engine house, from the south-west



Photo 49: Bolting holes in stone blocks, north corner of engine house, from the south-west



Photo 50: Bolting holes in stone blocks, north corner of engine house, from the south-west



Photo 51: Massive stone blocks in wall with engine house, within main mill, from the north. Bearing box at right



Photo 52: Massive stone blocks in wall with engine house, within main mill, from the north-east

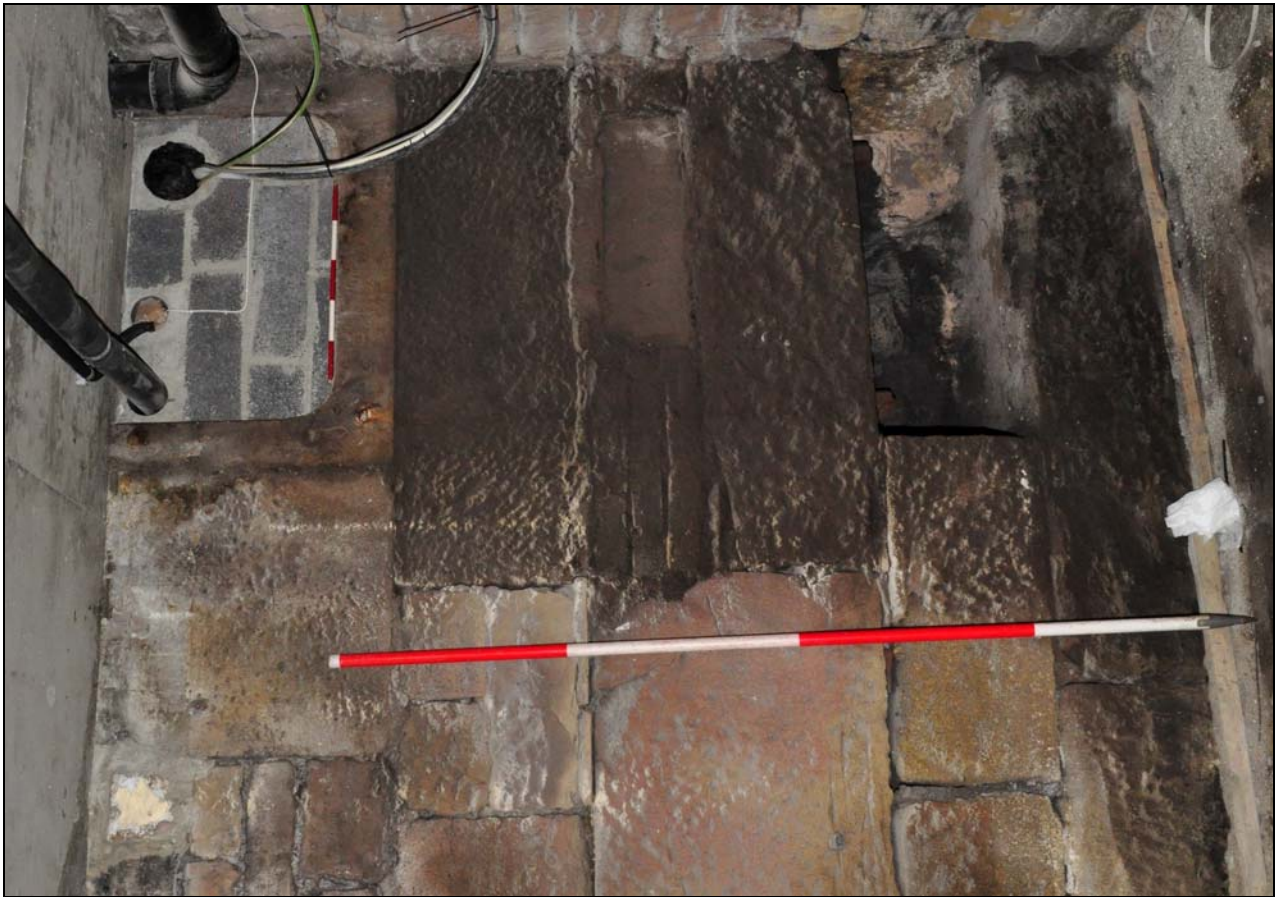


Photo 53: Large bearing box in wall with engine house, within main mill, from the north-east



Photo 54: Large bearing box in wall with engine house, within main mill, from the north-east



Photo 55: Vertical fastening bolts beneath large bearing box in wall with engine house, within main mill, from the north-east



Photo 56: Ground floor of engine house, north-east side (hidden by electrical equipment), from the west



Photo 57: Ground floor of engine house, north-east side (hidden by electrical equipment), from the south-west



Photo 58: Ground floor of engine house, south-west side, from the north



Photo 59: Ground floor of engine house, south-west side, from the north



Photo 60: Ground floor of engine house, south-west side, from the east



Photo 61: Base of blocked upper level doorway in south-west side of engine house, from the north-east

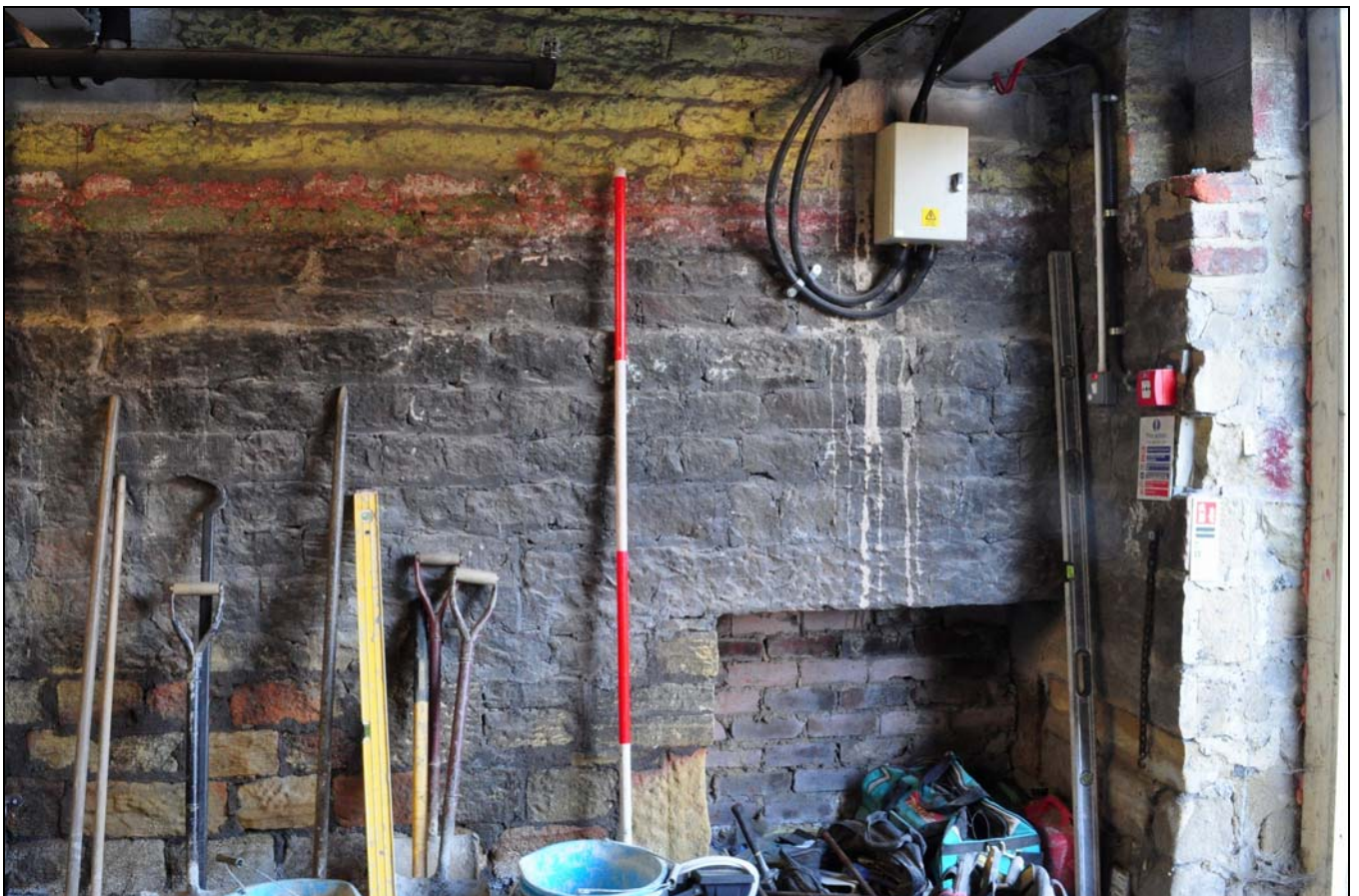


Photo 62: Low blocked opening in south-west side of engine house, from the north-east



Photo 63: Window lintel in north-west side of engine house roof space, from the south



Photo 64: Window lintel in south-east side of engine house roof space, from the north-west



Photo 65: Roof trusses over engine house, from the south-east



Photo 66: Roof trusses over engine house, from the south-east



Photo 67: Large post on tie beam over engine house (part of rope race enclosure?), from the north

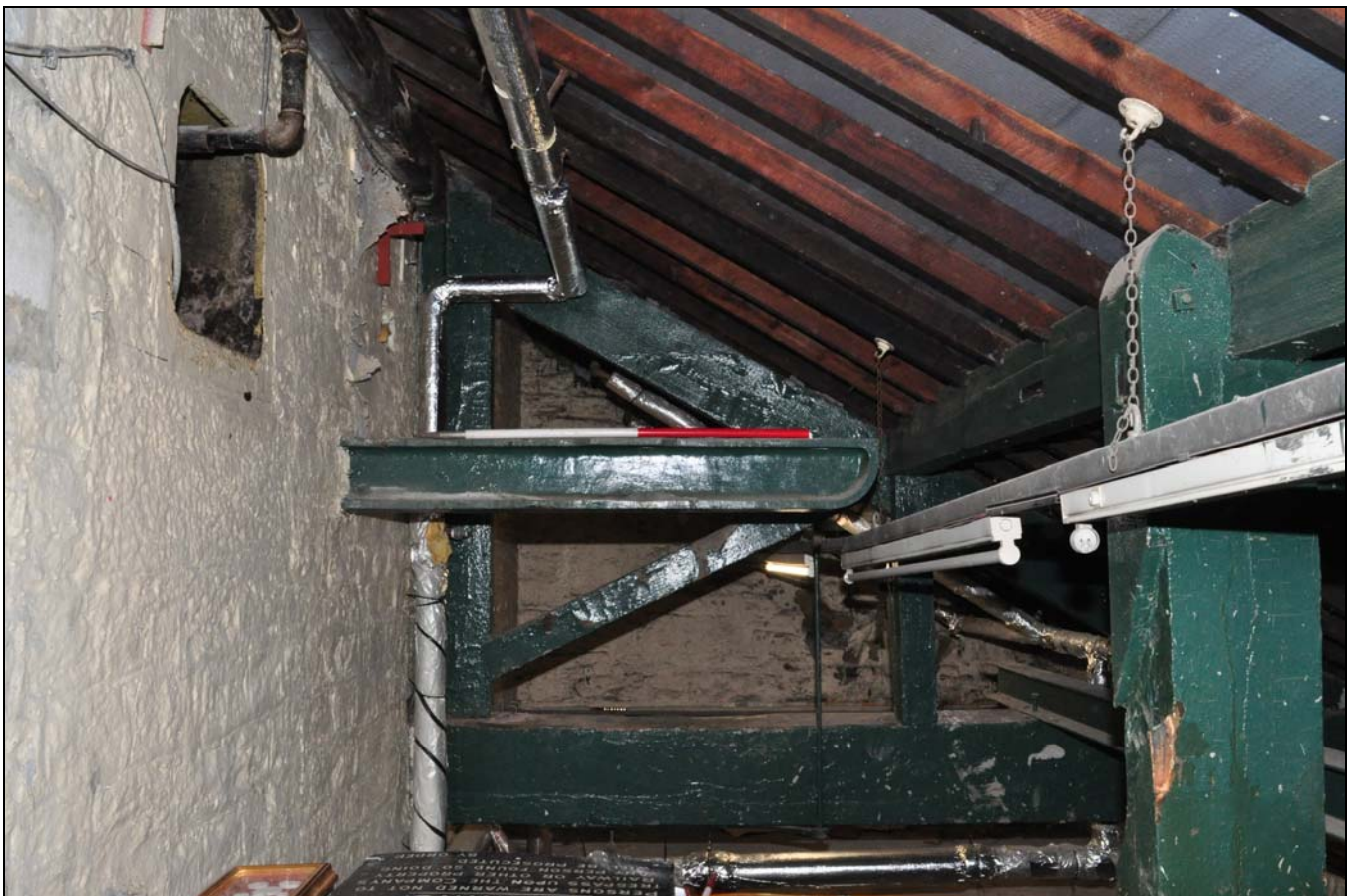


Photo 68: Cantilevered iron beam in roof space over engine house, from the north-west



Photo 69: Cantilevered iron beam in roof space over engine house, from the north-west



Photo 70: Cantilevered iron beam in roof space over engine house, from the west



Photo 71: Inserted doorway to mill, and bearing box for horizontal shaft, in roof space over engine house, from the west



Photo 72: Bearing box for horizontal shaft into mill, in roof space over engine house, from the south