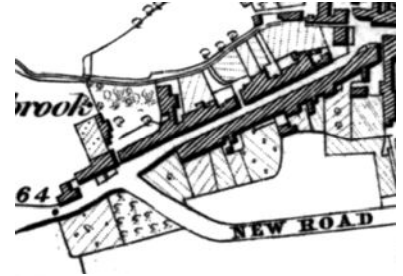


LAND TO THE REAR OF 41 MITCHELGATE, KIRKBY LONSDALE, CUMBRIA

Archaeological Building Recording and Watching Brief



Client:
Graham Braithwaite

Planning Application Reference:
5/16/0126

NGR: 360937 478723

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May 2018



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Contents

Non-Technical Summary	3
Acknowledgements	3
1. Introduction	4
2. Methodology	6
3. Desk-Based Assessment.....	8
4. Building Recording.....	14
5. Watching Brief.....	21
6. Discussion.....	33
6. Bibliography	34
Appendix 1: Project Design	36
Appendix 2: Context List.....	42
Appendix 3: Finds Summary.....	43

Illustrations and Tables

List of Figures

Figure 1: Site location	5
Figure 2: Plan of the building, showing the location of the slag heap to the east.....	20
Figure 3: Plan of the west end of the watching brief area	23
Figure 4: Plan of the east end of the watching brief area.....	32

List of Plates

Plate 1: Extract from the plan of c1790.....	8
Plate 2: Extract from the tithe map of 1849	9
Plate 3: Extract from the Ordnance Survey map of 1862.....	9
Plate 4: Extract from the Ordnance Survey map of c1857	10
Plate 5: Extract from the Ordnance Survey map of 1912.....	10
Plate 6: Extract from the Ordnance Survey map of 1914.....	11
Plate 7: Extract from the Ordnance Survey map of 1945.....	11
Plate 8 (left): General view of the site showing the position of the building relative to the slope and building to the south, viewed from the north	14
Plate 9 (right): The four storey building to the south of the site, viewed from the north-east.....	14
Plate 10 (left): The mill race to the north of the building, viewed from the north	15
Plate 11 (right): The swage block loose on site, viewed from the north-east.....	15
Plate 12: Stone tank or trough on site, viewed from the north-east.....	15
Plate 13: North external elevation.....	16
Plate 14: East external elevation	16
Plate 15: West external elevation	17
Plate 16: North internal elevation of the room on the first floor	18

Plate 17: East internal elevation of the room on the first floor	18
Plate 18: South-west corner of the room on the first floor	19
Plate 19: East internal elevation of the room on the first floor	19
Plate 20: Terraced area to the west of the site, viewed from the east	21
Plate 21: Terraced area to the west of the site, viewed from the north	22
Plate 22: Slag heap at the east side of the site, viewed from on top.....	24
Plate 23: Slag heap at the east side of the site, viewed from in front.....	24
Plate 24: Ceramic drain below the slag heap close to the steps	25
Plate 25 (left): Area stripped to the west side of the site	26
Plate 26 (right): Working shot	26
Plate 27: Demolition of the standing building underway	27
Plate 28: East wall in section and timbers exposed in the backfill of the standing building	27
Plate 29: Timber in the backfill of the standing building	28
Plate 30 (left): View of the site from the north after the partial demolition of the standing building.....	29
Plate 31 (right): The east side and back wall of the standing building following excavation	29
Plate 32: The back wall of the standing building in detail with the bedrock more fully exposed	30

List of Tables

Table 1: Details of the plots recorded in the tithe apportionment of 1849 (CAC(K) WDRC/8/231 1849).....	8
Table 2: Industries recorded on Mitchelgate in the 19 th and early 20 th centuries	12

Non-Technical Summary

Following the submission of a planning application for the erection of a single dwelling on land to the rear of 41 Mitchelgate, Kirkby Lonsdale, Cumbria County Council Historic Environment Service stipulated that the ruinous building on site was recorded beforehand and that a watching brief be carried out during the groundworks. Following the provision of a project design by Greenlane Archaeology the onsite work was carried out in October and November 2017.

The map evidence for the site showed that while there were buildings facing onto Mitchelgate from the late 18th century onwards the building being investigated was built between 1849 and 1857. Documentary sources relating to its early history are unknown, but it is clear from correlating the information contained in the 1910 valuation that it was occupied during the late 19th and early 20th century by members of the Dean family, who manufactured clog irons.

The building recording revealed that the structure on site had originally been built into the slope but that the upper floor had then had its roof removed and the remains modified to form a garden feature, while the lower part had been infilled and the doorways blocked. The upper level still retained elements associated with a fireplace on the west side, including a projecting hearth and supports for a canopy, which suggest it formed a forge.

Bedrock was exposed along the south side of the site during the ground works and much of the dark silt which had mounded up against it had presumably been dumped over the ridge from the late 18th to early 20th century. The earliest finds from the site potentially date from the late 17th century but there was a definite concentration of late 18th/19th to early 20th century material. Demolition of the building revealed that the back wall was built directly onto the limestone bedrock and more material accumulated against its east and west sides after it was built. A ceramic drain, perhaps originally of late 18th/19th century date, was exposed along the east side of the site and a slag heap to the east side of the building spread over a wide area down slope from the steps to the south side of the site. Clear 'tip lines' indicate that it had been added to on a number of occasions over an extended period.

The building recording and watching brief revealed that relatively extensive remains relating to a late 19th and early 20th century clog iron forge were present on site, which could be identified in the documentary sources as being operated by members of the Dean family. However, prior to this it is clear that material including large amounts of rubbish had been tipped down the slope. No evidence for medieval, or earlier, activity was revealed, but this is perhaps due to the relatively distant location from the street frontage.

Acknowledgements

Greenlane Archaeology would like to thank Graham Braithwaite for commissioning the project, for his information about the site, and for providing the base plan of the site, which was produced by the Wright Design Partnership.

The building recording was carried out by Dan Elsworth and the watching brief by Tom Mace, who co-wrote this report, and the latter of whom also produced the illustrations. The finds were processed by Dan Elsworth and assessed by Jo Dawson. The report was edited by Jo Dawson. Dan Elsworth managed the project.

1. Introduction

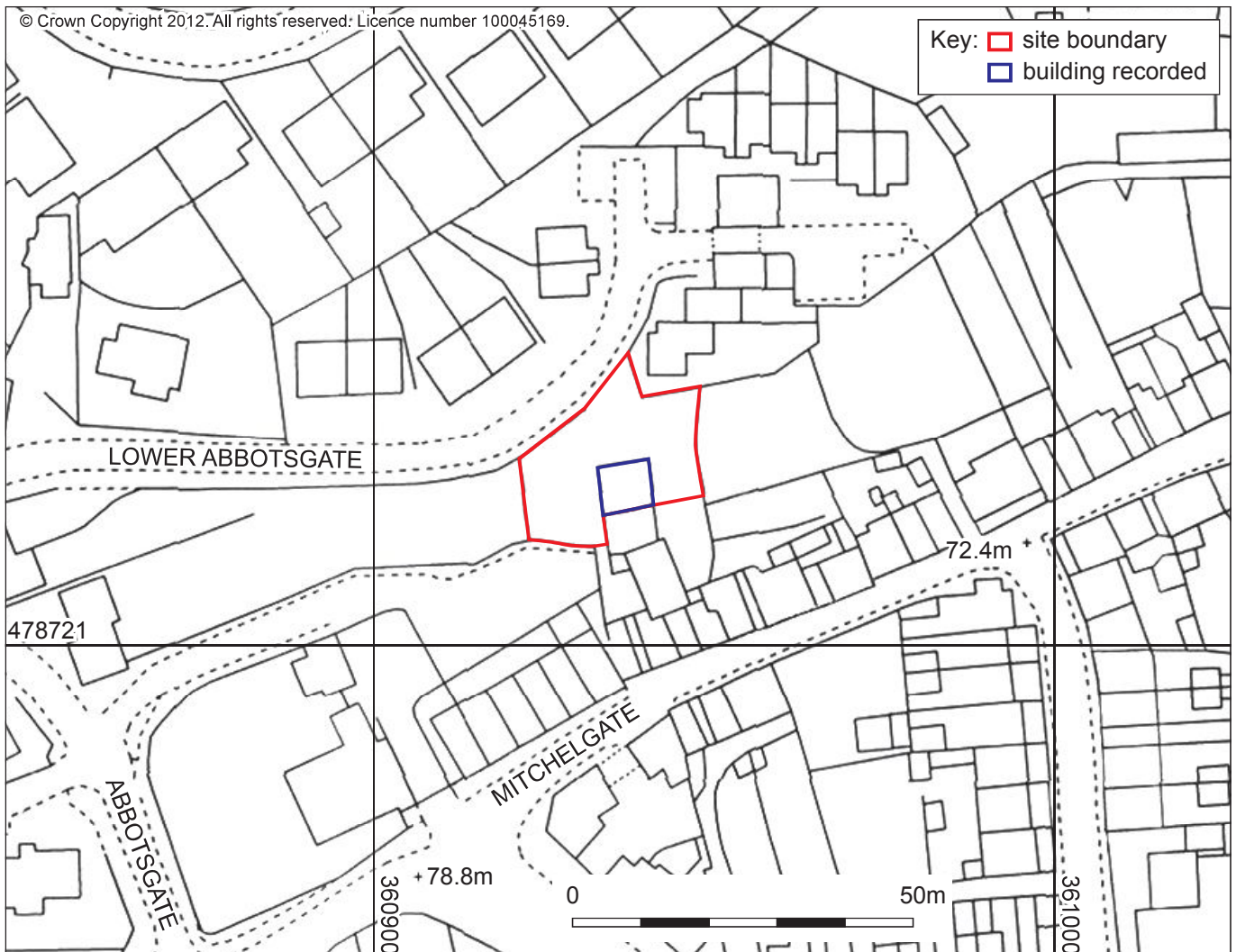
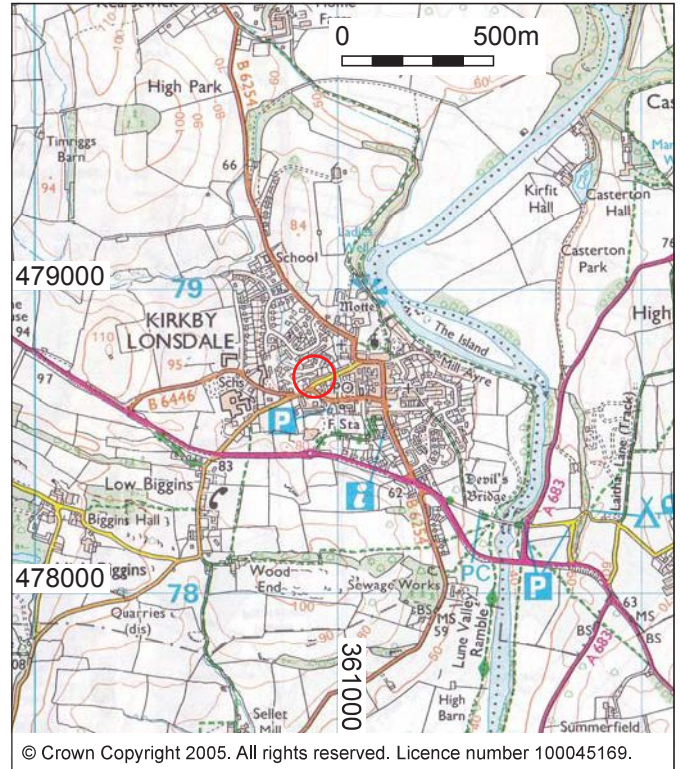
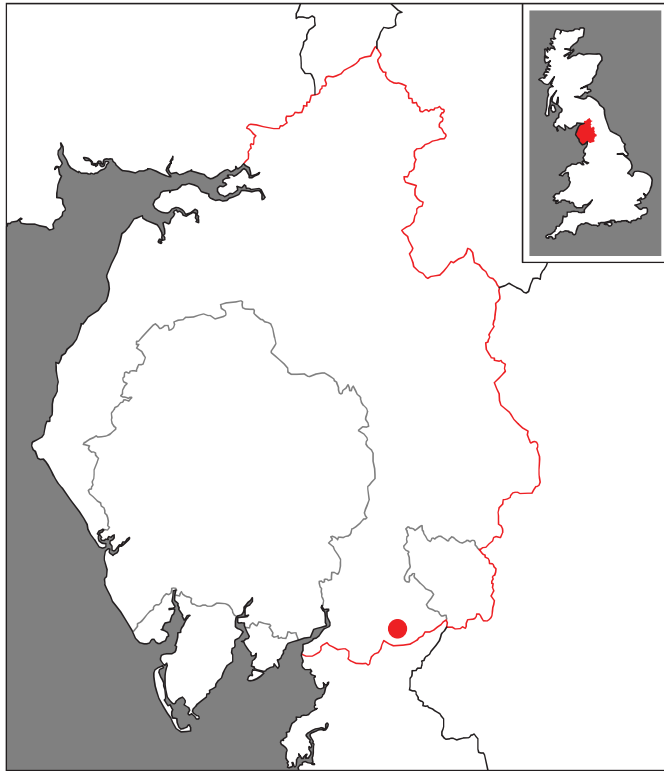
1.1 Circumstances of the Project

1.1.1 Following the submission of a planning application (Ref. 5/16/0126) for the erection of a single dwelling on land to the rear of 41 Mitchelgate, Kirkby Lonsdale, Cumbria (NGR 360937 478723) a condition (No. 7) was placed requiring a programme of archaeological evaluation. This was refined by the issuing of a brief by the Cumbria County Council Historic Environment Service (CCCHES 2016) as a Level 1 building recording of a ruinous structure on the site and a watching brief during the groundworks. In response to this Greenlane Archaeology produced a project design for the work (*Appendix 1*). The building recording was carried out on the 4th October 2017 and the watching brief on the 9th and 10th November 2017. Due to the discovery of bedrock close to the base of the footings level there was a period of consultation with a structural engineer over the most suitable manner in which to continue, which it was determined would not involve any further extensive excavation. This led to a delay in the production of the final report while this was resolved and the need for any further archaeological monitoring ascertained. The excavation of footings for a garage associated with the new development was not monitored as these were relatively shallow and in an area already disturbed by the creation of a concrete floor on which a previous garage stood.

1.1.2 41 Mitchelgate is located on the west side of Kirkby Lonsdale, but still within the medieval core of the town (CCC and EH c2002). The ruinous building is considered to be of some historic interest although its function is not known (CCCHES 2016).

1.2 Location, Geology, and Topography

1.2.1 The site is situated close to the heart of Kirkby Lonsdale, in the South Lakeland district of Cumbria, at approximately 80m above sea level (Figure 1). The area is on the north-east edge of the Morecambe Bay limestone region, the landscape of which typically comprises undulating pastoral farmland divided by drystone walls, with outcrops of limestone occurring as limestone pavement in places (Countryside Commission 1998, 69). The solid geology is dominated by Lower Carboniferous Limestone (op cit, 71) and the overlying drift geology is composed of thick glacially-derived boulder clay (op cit, 72).



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Figure 1: Site location

2. Methodology

2.1 Introduction

2.1.1 The project comprised two main elements; a building investigation intended to provide a suitable record of the structure prior to demolition, and a watching brief during the construction of the new dwelling. Prior to any fieldwork being carried out, a desk-based assessment was completed and an archive for the project has been compiled to provide a permanent paper record of its results.

2.2 Desk-Based Assessment

2.2.1 A desk-based assessment was carried out in accordance with the guidelines of the Chartered Institute for Archaeologists (CIfA 2017). This principally comprised an examination of early maps of the site and published secondary sources. A number of sources of information were used during the compilation of the desk-based assessment:

- **Cumbria Archive Centre (Kendal):** this was visited principally in order to examine early maps and plans of the site, but other documentary sources and published records were also consulted in order to gather information about the historical development of the site and its environs;
- **Greenlane Archaeology library:** additional secondary sources, used to provide information for the site background, were examined.

2.3 Building Recording

2.3.1 The building recording was carried out to Historic England Level 1 standards (Historic England 2016) and according to the standards and guidance of the Chartered Institute for Archaeologists (CIfA 2014a), which provides a brief record of the building and discusses its development in terms of its historical context to only a limited extent. The recording comprised the following elements:

- **Written record:** brief descriptive records of all parts of the building were made using Greenlane Archaeology *pro forma* record sheets;
- **Photographs:** photographs in both 35mm colour print and digital format were taken of the main features of the building, its general surroundings, and any features of architectural or archaeological interest. A selection of the colour digital photographs is included in this report, and the remaining photographs are in the project archive;
- **Drawings:** no drawings were produced during the building recording, the only figure being to locate the building in its local context (Figure 1).

2.4 Archaeological Watching Brief

2.4.1 The watching brief monitored the demolition of the east end of the standing structure, removal of deposits to the east side of the structure, and exposure of bedrock along the south side of the site. The terraced area to the west side of the site was examined only after it had been stripped and partially excavated by machine. The stripping and excavation of the area to the east side of the site was undertaken using a mid-sized tracked mechanical excavator, using a toothed bucket, and underlying deposits were examined by hand. The standing structure, which was recorded as part of the work, was demolished as work progressed from east to west with the machine perched on top of the structure and 'excavating' into the building from the side. The stonework of the building was salvaged using a riddling bucket and then placed back on top of the stripped area to the east. Given the constraints of working within such a small and steeply sloping site, this section of the work was monitored from the edge of the site in order to adhere to safe working practices. The terraced area excavated to the west side of the site covered approximately 90m²; the area excavated to the east of the standing building totalled approximately 60m²; and demolition and removal of approximately 15m² of the total 50m² footprint of the

standing building was monitored as the methodology necessary for its demolition precluded monitoring of the whole area.

2.4.2 The groundworks were halted after the structure had been demolished and bedrock was exposed beneath it on the south side, awaiting consultation from a building surveyor. The natural was not exposed to the north side of site; however, the internal floors of the proposed new build were anticipated to be set above the level of excavation reached and the groundworks had been monitored up to this point so the watching brief was discontinued.

2.4.3 All aspects of the archaeological recording were carried out according to the standards and guidance of the Chartered Institute for Archaeologists (CIfA 2014b) and Greenlane Archaeology's own excavation manual (2007). The deposits encountered were recorded in the following manner:

- **Written record:** descriptive records of all deposits were made using Greenlane Archaeology *pro forma* record sheets;
- **Photographs:** photographs in colour print and colour digital format were taken of the site as well as general working shots, including photographs taken prior to any work taking place and of areas that were not otherwise being monitored. A selection of the colour digital photographs is included in this report. A written record of all of the photographs was also made using Greenlane Archaeology *pro forma* record sheets;
- **Drawings:** plans of the watching brief area were produced at a scale of 1:100 based on a site plan supplied by the client.

2.4.3 No environmental samples were taken because no suitable deposits were encountered.

2.5 Finds

2.5.1 All finds recovered during the watching brief were placed in sealable bags with write on panels. They were subsequently washed and air-dried prior to assessment and recording, as summarised in *Appendix 3*. The animal bone was identified using Schmid's *Atlas of Animal Bones* (1972).

2.6 Archive

2.6.1 The archive, comprising the drawn, written, and photographic record of the building, will be deposited with the Cumbria Archive Centre (Kendal). The archive has been compiled according to the standards and guidelines of the Chartered Institute for Archaeologists guidelines (CIfA 2014c). A copy of this report will be supplied to the client, a digital copy will be supplied to the Cumbria County Council Historic Environment Service for the Historic Environment Record, and one will be retained by Greenlane Archaeology. In addition, a digital record of the project will be made on the *Online Access to the Index of Archaeological Investigations* (OASIS) scheme.

3. Desk-Based Assessment

3.1 Map and Image Regression

3.1.1 **Introduction:** early maps of the area tend to be relatively lacking in detail and are not detailed enough to be useful in understanding the development of the property. The most useful maps for understanding the development of the site date from the late 18th century onwards.

3.1.2 **Map of c1790:** this is the earliest detailed plan of the town (CAC(K) WDY/183 c1790). The site occupies part of at least three or possibly four large fields to the north side of what would become Mitchelgate, but it is otherwise undeveloped (Plate 1). The plots are labelled 38, 39, 40 and 44, which presumably relate to a schedule of some kind but it was not available with the plan.



Plate 1: Extract from the plan of c1790

3.1.3 **Tithe Map of 1849:** this map (CAC(K) WDRC/8/231 1849) shows a beck or stream along the top side of the site (Plate 2). It is still undeveloped at this point. The site occupies parts of plots 308 and 309, details for which are recorded in the accompanying schedule (CAC(K) WDRC/8/231 1849; summarised in Table 1).

Number	Owner	Occupier	Name	Description
308	James Coates	James Coates	Croft	Meadow
309	Robert Abbot	Robert Abbot	Barn Rookery and Yards	Meadow

Table 1: Details of the plots recorded in the tithe apportionment of 1849 (CAC(K) WDRC/8/231 1849)

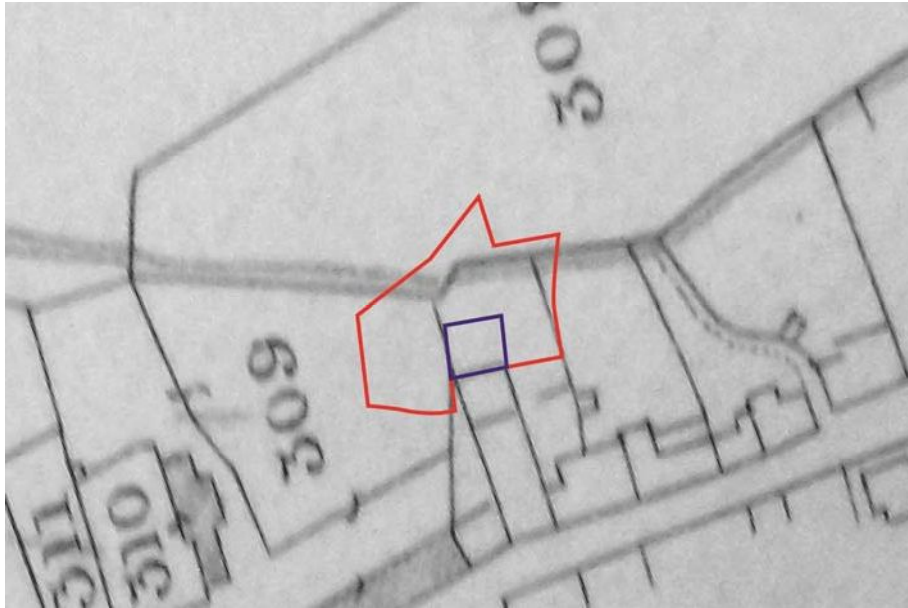


Plate 2: Extract from the tithe map of 1849

3.1.4 **Ordnance Survey, 1862:** the 1862 edition of the Ordnance Survey mapping at a scale of 1: 10,560 shows much the same information as the 1: 2,500 plan, albeit slightly simplified (Plate 3; cf. Plate 4).

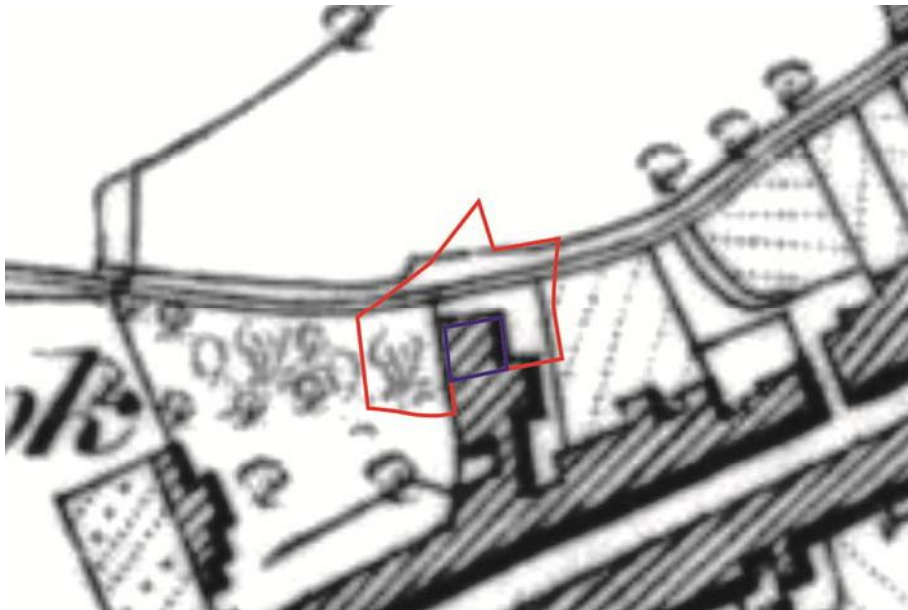


Plate 3: Extract from the Ordnance Survey map of 1862

3.1.5 **Ordnance Survey, c1857:** this 1: 2,500 plan of Kirkby Lonsdale, produced by the Ordnance Survey, was surveyed in 1857 (Plate 4). It does not have a publication date but was probably published after the 1: 10,560 map of 1862 (Plate 3). The square building near the centre of the site has clearly been built to the south of the beck. The field to the west is shown as wooded and trees are also marked in the fields to the east and north of the beck.

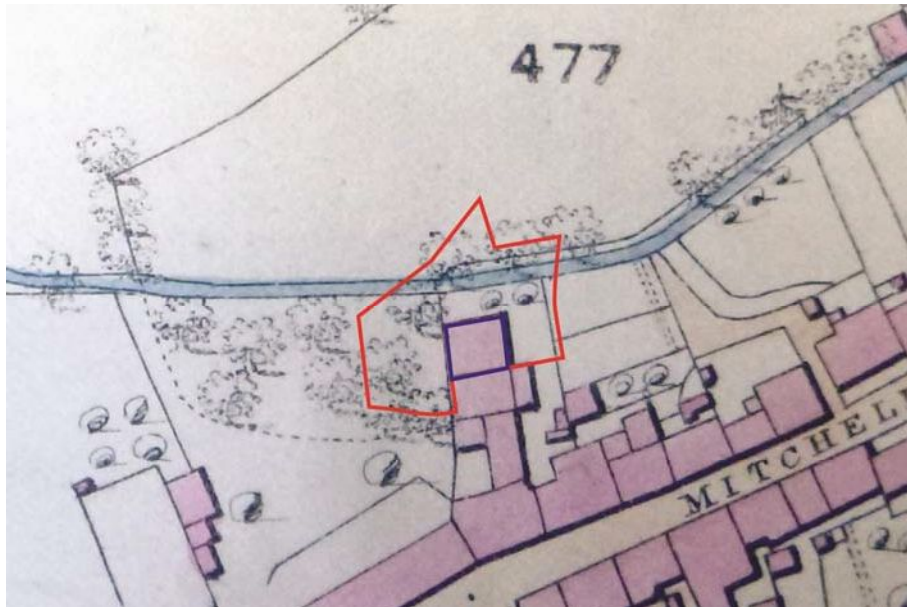


Plate 4: Extract from the Ordnance Survey map of c1857

3.1.6 **Ordnance Survey, 1912:** this is the edition of the Ordnance Survey map that was used for the *Record of valuations made by the Commissioners of Inland Revenue c1910* (CAC(K) WT/DV/2/52 1910). The beck has been partially covered or infilled at the east end by this point (Plate 5). The site occupies parts of plots 199 to the north, 221 to the east, and 347 to the west, while the building is part of plot 222, which is described as a workshop, occupied by Matthew Dean.

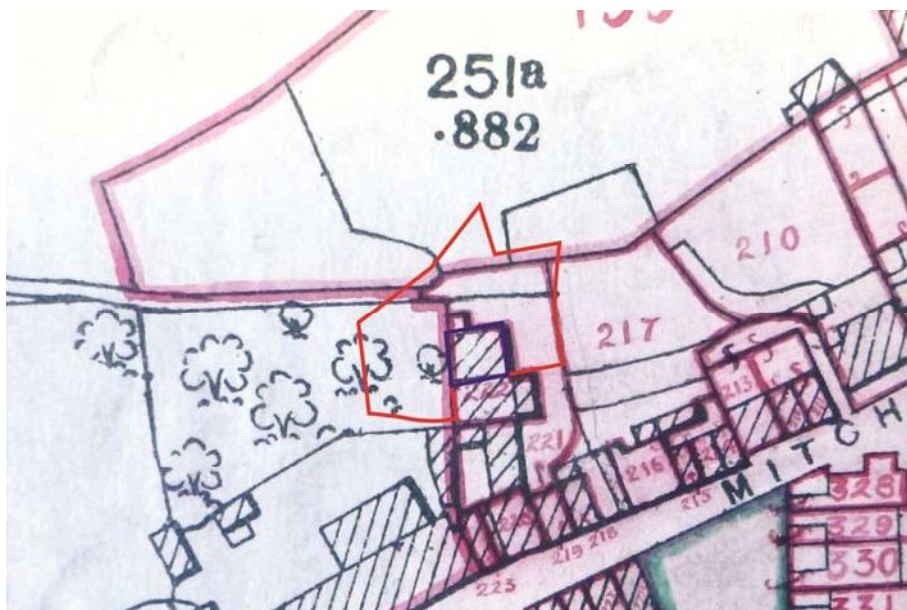


Plate 5: Extract from the Ordnance Survey map of 1912

3.1.7 **Ordnance Survey, 1914:** the same information is shown on Westmorland sheet XLVII.8, printed in 1914, as the earlier Lancashire map for the area (Plate 6; cf. Plate 5); both the 1913 and 1914 maps of the area show revisions from 1910.



Plate 6: Extract from the Ordnance Survey map of 1914

3.1.8 **Ordnance Survey, 1945:** the site is relatively unchanged between 1914 and 1945 (Plate 7; cf. Plate 6).

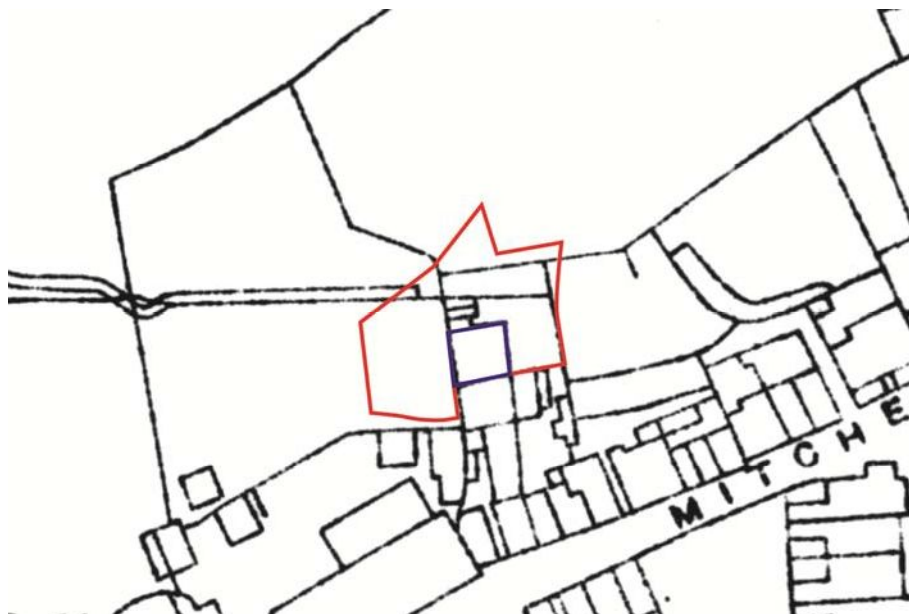


Plate 7: Extract from the Ordnance Survey map of 1945

3.1.9 **Summary:** the site occupied parts of open fields on the earliest available map of the area, dated c1790 (Plate 1). The road to the south, which would later be known as Mitchelgate, was already established with some properties shown along it. A beck is shown to cut across the north end of the site on the tithe map (Plate 2), dated 1849, but the square building near the centre of the site was not built until between 1849 and 1857, which is when the first 1:2,500 edition Ordnance Survey map was surveyed (see Plate 4). The beck was covered or infilled to the east after that and before c1910 and a small building was added to the north side of the older square one (Plate 5). The site then remained unchanged until at least 1938, which is the date of revisions shown on the 1945 edition (Plate 7). The small building to the north has evidently been removed since and the square building has become ruinous (Plate 7; cf. Figure 1).

3.2 Site History

3.2.1 Kirkby Lonsdale: the town of Kirkby Lonsdale has an ancient history, and primarily dates to the medieval period. There is limited evidence for prehistoric activity within the immediate vicinity of the town and only slight evidence for a Roman presence, although this does include an altar recorded at Abbot's Brow in the late 17th century (CCC and EH 2002, 4-5). The place-name indicates that the town was certainly in existence by the early medieval period and that it had a church (*op cit*, 6). It was recorded in the Domesday survey of 1086 and shortly afterwards the church and associated lands in Kirkby Lonsdale were granted to the Abbey of St Mary in York by the lord of the manor, Ivo de Taillebois, which held it until the dissolution (*ibid*). The town obtained a charter for a fair and market in 1227 via the parson of the church, John de Kirkby, which ultimately led the town to acquire many of the trappings of a local urban centre (*op cit*, 7). The Dissolution in the 16th century did little to stop the town's growth, with parts becoming increasingly urbanised and new buildings being constructed on many of the main streets (*op cit*, 9).

3.2.2 41 Mitchelgate: the history of the site, beyond that revealed in the historic maps (see Section 3.1 above) is unclear. It is evident from the valuation map of 1910 that the site formed part of a larger property described as a 'workshop' but is not stated what it was used for. The relevant directories do not typically have enough information to accurately locate specific properties, but a list of manufacturing industries operating on Mitchelgate in the 19th to early 20th century is present in Table 2 below. This demonstrates that at the beginning of the 19th century there were a wide range of manufacturers operating from Mitchelgate and that it is perhaps most logical that the site that became No. 41 was occupied by Adam and Agnes Grundy, the former of whom made shoes and the latter blankets and carpets; the large building immediately to the south of the site perhaps a workshop for the latter. By 1851 a John Dean, nail maker, is listed, and he is likely to be an ancestor of the Matthew Dean recorded on the site in 1910. John Dean is subsequently recorded as a 'cawker maker', cawker being a Yorkshire dialect term for clog iron or shoe plate (Harland 1873, 9), which is what Matthew Dean is described as making.

Date	Industry	Address	Source
1829	Dennis Grundy, blacksmith Adam Grundy, boot and shoe maker Agnes Grundy and Sons, blanket and carpet manufacturers Elizabeth Huck, milliner and dress maker William Willan, chair maker	Mitchellgate	Parson and White 1829, 694-695
1851	William Barrow, rope and twine maker William Barrow, wheelwright Miles Bland, boot and shoemaker James Coulstone, nail maker John Dean, nail maker Robert Dixon, joiner James Kidd, blacksmith John Mason, boot and shoemaker Robert Mason, plumber, glazier and tin plate worker	Mitchel gate	Mannex and Co 1851, 358-359
1873	Miles Bland, shoemaker John Dean, cawker maker Thomas Law, shoe maker John Stout, butter factor	Mitchelgate	Kelly 1873, 930-931
1894	Matthew Dean and son, shoe plate manufacturers	Mitchelgate	Kelly's Directories Ltd 1894, 92
1897	Matthew Dean and son, shoe plate manufacturers	41 Mitchegate	Kelly's Directories Ltd 1897, 86
1906	Matthew Dean and son, shoe plate manufacturers	41 Mitchelgate	Kelly's Directories Ltd 1906, 89
1910	Matthew Dean and son, shoe plate manufacturers	41 Mitchelgate	Kelly's Directories Ltd 1910, 92
1912	M Dean and son, boot tip and clog iron makers	41 Mitchelgate	Bulmer 1912, 472
1914	Matthew Dean and son, shoe plate manufacturers	41 Mitchelgate	Kelly's Directories Ltd 1914, 92

Table 2: Industries recorded on Mitchelgate in the 19th and early 20th centuries

3.3 Conclusion

3.3.1 While the site is located within the core of the medieval town of Kirkby Lonsdale it is apparent that it saw some substantial development in the mid to late 19th century, with the structure under investigation built between 1849 and 1857, probably as an adjunct to a larger range of buildings to the south running up to Mitchelgate. The purpose of these is unclear, but by 1910 they were occupied by a clog iron manufacturer named Matthew Dean, whose ancestor may have been a nail maker listed on Mitchelgate in 1851.

4. Building Recording

4.1 Arrangement and Fabric

4.1.1 At the time of the building recording the structure comprised only a complete single storey but clearly originally extended to at least two storeys (Plate 8; Figure 2). It is square in plan and built into the slope with the south side essentially a retaining wall, but with a further retaining wall behind this, set below a four storey building at the top of the slope to the south (Plate 9). The former mill race runs essentially east/west a short distance to the north of the building close to the edge of the development site (Plate 10). The whole structure is constructed from the local dark yellow gritstone laid in rough courses with large quoins at the corners. At first floor level, which was accessible via a flight of more recent steps up the east side, the floor is finished with stone flags and there was an iron swage block lying loose on the ground (Plate 11) and a carved stone water tank or trough (Plate 12).



Plate 8 (left): General view of the site showing the position of the building relative to the slope and building to the south, viewed from the north

Plate 9 (right): The four storey building to the south of the site, viewed from the north-east



Plate 10 (left): The mill race to the north of the building, viewed from the north



Plate 11 (right): The swage block loose on site, viewed from the north-east



Plate 12: Stone tank or trough on site, viewed from the north-east

4.2 External Detail

4.2.1 **North elevation:** there is a pair of doorways at ground floor level with heavy stone lintels, which are blocked internally, and a row of three putlog holes above. There are modern retaining walls to the east and in front to the north.



Plate 13: North external elevation

4.2.2 **East elevation:** the east elevation has collapsed much more than the north side of the building. There is an opening visible with a large lintel but this is mostly now covered by the retaining wall to the east. At the south end there is part of a jamb for a doorway before a large gap extending to the south to the rear wall.



Plate 14: East external elevation

4.2.3 **West elevation:** the west elevation is plain, apart from some possible blocked putlog holes and the quoins are visible at the north end.



Plate 15: West external elevation

4.3 Internal Detail

4.3.1 **First floor:** there are low walls inserted around each of the north, south and west walls of the room at first floor level, forming flower beds, although with a wider block on the east side that perhaps represents the base of a hearth and is butted by the other walls. There are also recesses created on the top of the north wall acting as flowerbeds (Plate 16). The wall tops have also been tidied up with flags to the north and south and along part of the east wall (Plate 17 and Plate 18). There are small apertures at ground level along the north elevation, perhaps matching the 'putlog holes' seen externally. The west wall is rougher but more survives and there is as a central aperture with a dressed lintel above and a projecting hearth (Plate 19). There are two pairs of projecting corbels above that presumably supported some form of canopy over the hearth below, one (the lower one to the north) with an L-shaped iron bar above and possible opening between. The west elevation clearly butts the south wall, which is otherwise plain. The east elevation is mostly missing but presumably comprised a large doorway on the south side between the remains of the jamb to the north and the south elevation.



Plate 16: North internal elevation of the room on the first floor



Plate 17: East internal elevation of the room on the first floor



Plate 18: South-west corner of the room on the first floor



Plate 19: East internal elevation of the room on the first floor

4.3.2 **Ground floor:** the rear wall of the building was exposed during the course of the watching brief. It was constructed from the same local gritstone, with a white lime mortar, and built directly onto the limestone bedrock (see *Section 5.1* below).

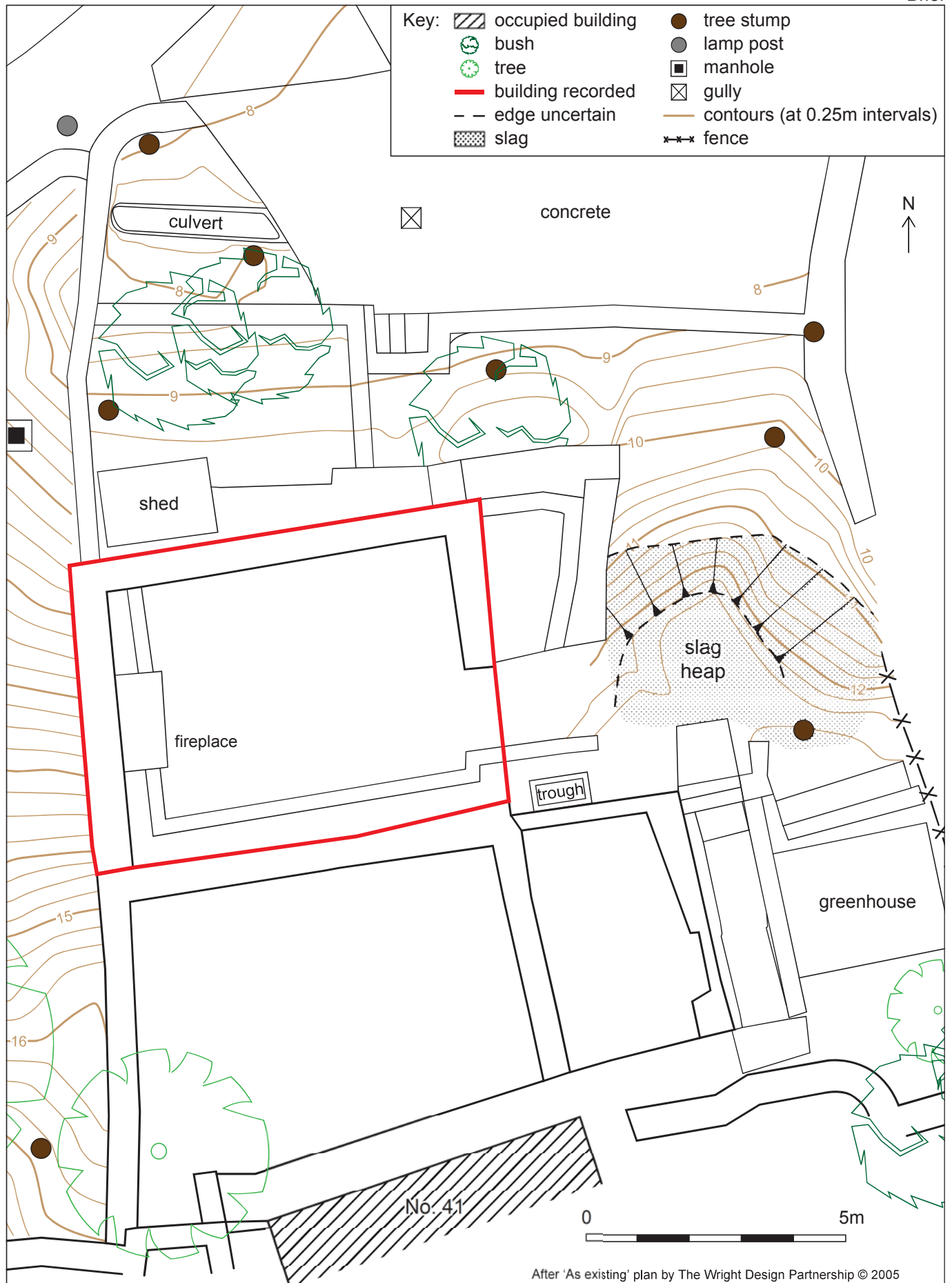


Figure 2: Plan of the building, showing the location of the slag heap to the east

5. Watching Brief

5.1 Fieldwork Results

5.1.1 The site to the north side of No. 41 Mitchelgate is extremely steep. To the west side of the area the hillside drops approximately 5m in height from the south side of the existing building to the top of the boundary wall along Lower Abbotsgate, which equates to approximately 10m from south to north as the crow flies, and a similar drop is noted over the east side (Figure 3 and Figure 4). Preparation of the site for the excavation of footings for the new build was logistically complex and it was necessary to excavate an area to the west to form terraces to facilitate the storage of material during demolition of the standing building. The terraced area cut into a grey-brown silt (**100**; Plate 20 and Plate 21; Figure 3), which was fairly soft and contained loose rubble and pipework, including plastic pipes.

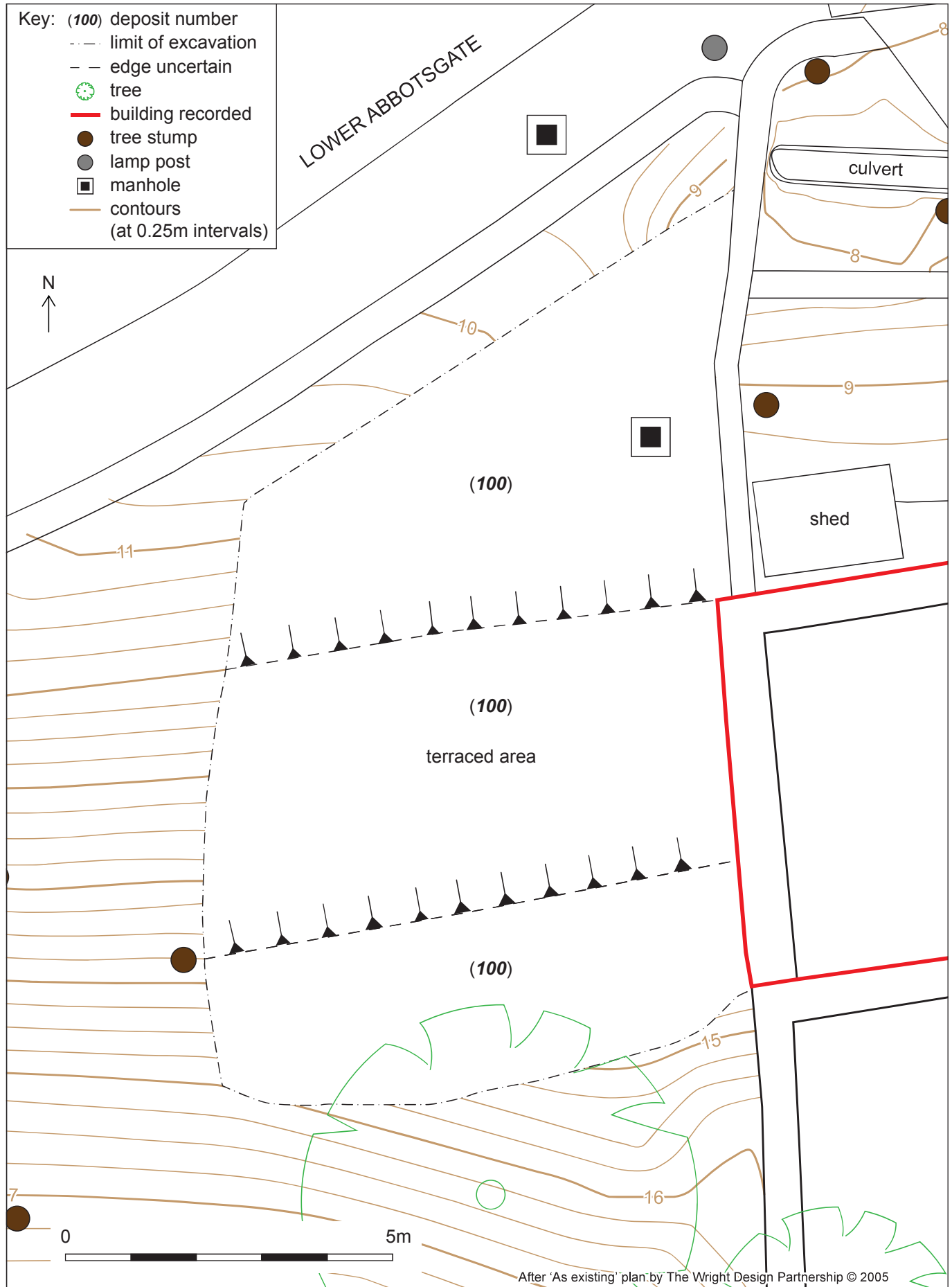


Plate 20: Terraced area to the west of the site, viewed from the east



Plate 21: Terraced area to the west of the site, viewed from the north

5.1.2 Immediately to the east of the standing structure, at the base of the steps to the back of No. 41, was a slag heap (**101**) (Figure 2; Plate 22). The slag, presumably the waste by-product derived from a furnace or foundry, was iron-rich, and had compacted and set to be very firm. It was at least 0.4m to 0.5m thick and had tipped downhill and spread over a wide area. It was spread over a height of at least 1m from below the steps to the south to its base (Plate 23) and required 'peckering out' by machine. The slag heap was striated with impurities and had fairly clear 'tip lines'. It was clearly above a ceramic drain in the south-east corner (Plate 24) and some post-medieval pot was noted and 'tap slag' was recovered from immediately below it (see *Section 5.2* below).



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Figure 3: Plan of the west end of the watching brief area



Plate 22: Slag heap at the east side of the site, viewed from on top



Plate 23: Slag heap at the east side of the site, viewed from in front



Plate 24: Ceramic drain below the slag heap close to the steps

5.1.3 Below the steps and below the slag heap in the south-east corner at the east end of the site were various stony deposits, which were grouped as a single context, **102** (to the right of the ranging rod in Plate 24). Together these were up to 0.7m thick below the concrete steps, the concrete of which was up to 0.25m thick. Below that was a possible buried soil (**103**), which was a dark blackish friable silt. This overlay the whole area to the east side of the site and continued from the base of the wall to the south of No. 41 to the back of the low garden wall at the edge of the concrete area (Plate 25; Figure 4). It may have been cut by a ceramic drain in the south-east corner, but there was no discernible difference in this deposit and the backfill of the cut for the drain, which continues along the east side of the area (visible to the left in Plate 25). Post-medieval pottery was recovered from across the area, some of which may have been 'intrusive' with the cut for the drain, and there was a noted concentration immediately behind the low garden wall to the north side of the area (see *Appendix 3*). This dark silt deposit in turn was above another slightly lighter dark grey silt (**104**), although the distinction between the two was slightly arbitrary in places. There will inevitably have been some undermining and mixing of the deposits due to the use of a toothed bucket and the fact that excavation was carried out essentially from above and from the side as opposed to stratigraphically (Plate 26); however, this was the only pragmatic approach to the excavation given the constraints of working within a relatively confined and steeply sloping site.



Plate 25 (left): Area stripped to the west side of the site

Plate 26 (right): Working shot

5.1.4 Excavation had to be stepped at various points along the south-east edge. The blackish silt deposit was against the limestone bedrock to the south side of the site, which was encountered at the base of one of the 'steps', approximately 2m north of the wall at the south side of the site (Figure 4). The bedrock had fractured to form a deposit of looser, large angular fragments, mixed with the silt above, but was solid below that. Post-medieval finds, including a clay tobacco pipe stem, were retrieved from right up against the bedrock at this the lowest point, c2m to 2.5m below the steps to the south of No. 41 (see Section 5.2 below).

5.1.5 As noted in the methodology, the standing structure was dug out from east to west with the machine sat on top (Plate 27 and Plate 28). Health and safety considerations prevented close examination of the structure as it was demolished and it was not possible to examine in detail the north wall of the structure fronting onto Lower Abbotsgate. A small quantity of 'Claughton' frogged brick was noted, perhaps incorporated into the structure for repairs, and there were some heavy timber beams, possibly joists and/or lintels, noted within the backfill of the structure (Plate 28 and Plate 29), the back wall of which was partially exposed whilst demolition was underway. The wall of the structure at the east side was 0.68m thick where it was cut through in section (Plate 30 and Plate 31). The inside of the back wall was c1.4m to 1.6m to the north of the tall wall behind (to the north of No. 41; Figure 4; Plate 31),

although it was difficult to accurately measure the distance of the back wall from the tall wall behind due to the difference in heights between the two at this point. The back wall comprised large angular stones within a white lime mortar and was built directly on top of the bedrock (Plate 32), which seemed to form an east/west band across the site.



Plate 27: Demolition of the standing building underway



Plate 28: East wall in section and timbers exposed in the backfill of the standing building



Plate 29: Timber in the backfill of the standing building



Plate 30 (left): View of the site from the north after the partial demolition of the standing building

Plate 31 (right): The east side and back wall of the standing building following excavation



Plate 32: The back wall of the standing building in detail with the bedrock more fully exposed

5.2 Finds

5.2.1 **Introduction:** in total 150 finds were recovered by hand during the watching brief, the bulk of which comprises fragments of post-medieval pottery. Fragments of glass, building material, industrial residue, animal bone, and plastic were also recovered, all of which are probably of post-medieval date. Each type is discussed in the following sections, which are organised in chronological order where possible, and a summary of all of the finds is present in *Appendix 3*.

5.2.2 **Post-medieval pottery:** in total, 138 fragments of pottery were recovered during the watching brief, including red earthenware, stoneware, white earthenware, pearlware, creamware, Rockingham ware, and bone china. Some of the red earthenware could be as early as the late 17th century, however, the potential date range for this ware is very broad due to the persistence of the styles and fabrics, with a potential date range of between the late 17th and early 20th century. Of the more closely dateable wares represented here, there is a clear concentration of late 18th/19th to early 20th century material within the assemblage. Generally, these ware types are probably better indicators of dating for the other fabrics within each context:

- Most of the post-medieval pottery came from context **103** and broadly dates from the late 18th to early 20th century;
- Material recovered from near the drain cut (**Probably 103**) and immediately below the slag heap (**Probably 103**), which was thought at the time of recovery may have been intrusive to **103**, has a similar date range, so the relationship between this bulky deposit and possible cutting features, the extent of which could not be identified at the time of excavation, cannot be refined further from analysis of the pottery. The best that can be said is that the drain along the east side of the site was perhaps laid at around the same time and potentially not much later than much of the rest of the material which came to comprise context **103** built up;
- The concentration of pottery noted at the bottom of the slope immediately behind the low garden wall (**103**, North end / east side; bottom of slope) has a fairly coherent 19th to early 20th century date, however, there is potentially some overlap with the suggested 19th to early 20th century date range for the possible date of deposition of the material recovered from elsewhere within **103**;

- The material from **102** has a similar late 18th to early 20th century date range to the material from **103**;
- The material from the terraced area (**100**) was 19th to 20th century in date.

5.2.3 **Post-medieval glass:** a complete bottle, with 'ALEXANDERS / KENDAL' embossed on the side, was recovered from the terraced area (**100**) and two fragments of dark green bottle glass were from an uncertain context (**U/S probably 103**). The embossed bottle dates from 1913 onwards, based on the bottle mark, and the fragments from **U/S probably 103** are probably 19th to early 20th century in date.

5.2.4 **Clay tobacco pipe:** two fragments of plain clay tobacco pipe stems were recovered from context **104**. One of these was against the bedrock to the south side of the site. No bowl fragments or stamp marks were present and it is difficult to make chronological judgments with any degree of confidence in terms of stem-bore analysis; however, a late 17th to 18th century date is suggested for these fragments (following Davey 2013).

5.2.5 **Industrial residue:** three fragments of undiagnostic iron smithing waste were recovered from immediately below the slag heap (**probably 103**).

5.2.6 **Building material:** a fireclay brick fragment of probable 19th to early 20th century date was recovered from **103** and some mortar from an uncertain context was recovered from **U/S probably 103**.

5.2.7 **Animal bone:** three fragments of animal bone were recovered altogether from contexts **102** and **104**. None of the bone had been burnt and there was no evidence of gnawing. The fragments from **104** represented cow and sheep, both presumably being exploited for their meat, since butchery marks were apparent (sawing), but the small fragment from **102** could not be identified.

5.2.8 **Plastic:** a white plastic button, probably a shirt button, was recovered (**U/S probably 103**).

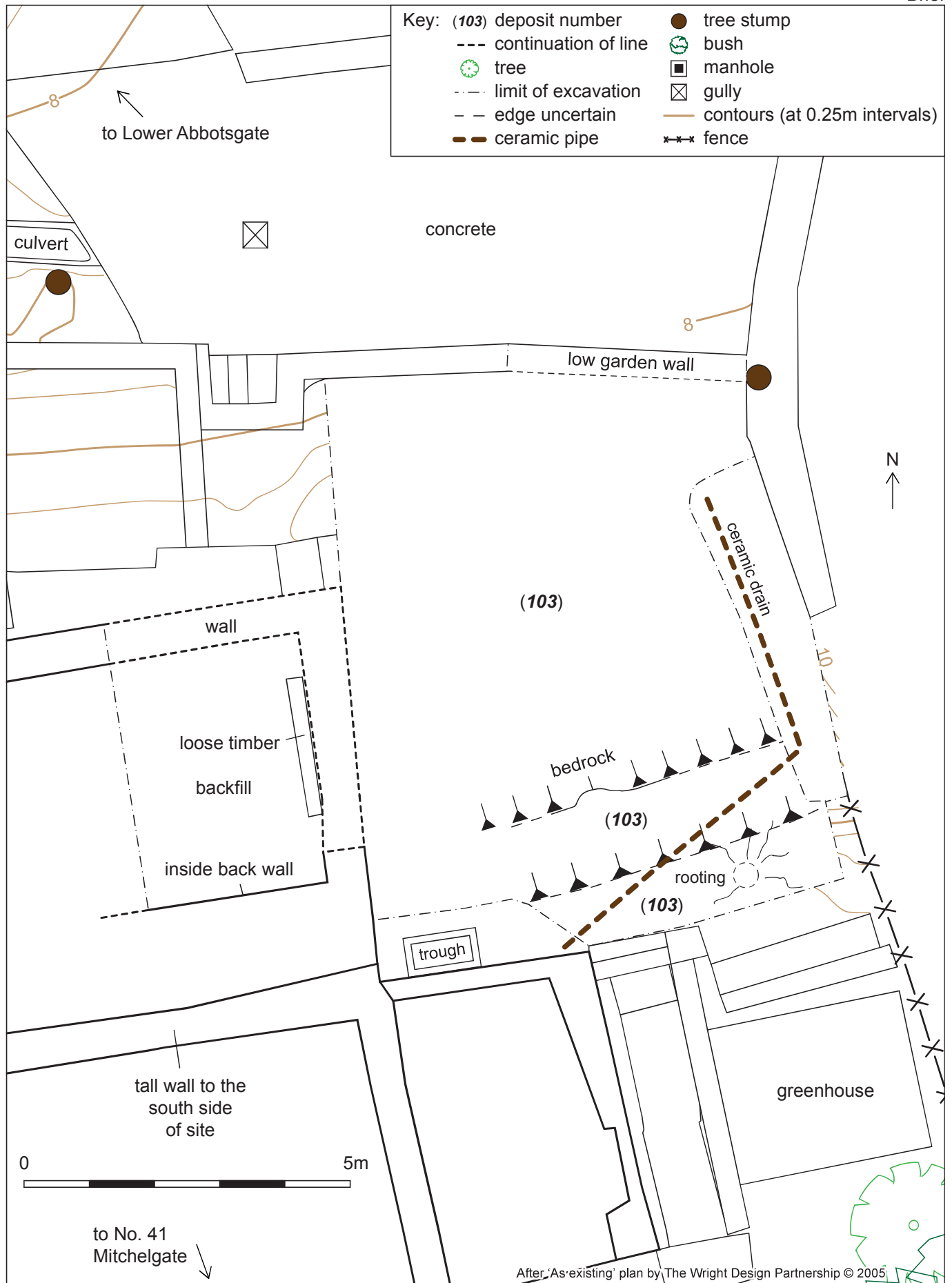


Figure 4: Plan of the east end of the watching brief area

6. Discussion

6.1 Building Recoding

6.1.1 **Introduction:** despite its condition the remains of the building clearly retained a large amount of original fabric but this had also undergone a number of alterations and modifications. Some aspects of its developed can be tied into the known history of the site, although this is very uncertain.

6.1.2 **Discussion:** the map evidence shows that it was constructed between the production of the tithe map in 1849 and the surveying of the first edition maps in 1857. It is clear from the documentary sources that the site was occupied by a clog iron maker in the late 19th century to early 20th century, who may have been proceeded by a nail maker. The presence of what is clearly a hearth with a projecting structure (presumably a canopy of some form) above, the large pile of slag deposited outside, and the swage block and trough (presumably for a quenching), demonstrate that it was connected to metal working. Unusually, this appears to have been carried out on the upper floor, the building having been built into the slope in the same way as a bank barn. The purpose of the lower floor is less clear but the multiple doors are suggestive of animal housing of some form, perhaps a small stable, although it was not possible to examine the interior in any detail as part of the project. The upper floor was clearly mostly removed at a later date and the roofless building modified to form a garden feature.

6.2 Watching Brief

6.2.1 Clearance of the buildings on site revealed that the back wall of the standing structure to the rear of 41 Mitchelgate was built directly on top of the limestone bedrock. The bedrock formed an east/west band across much of the south side of the site and a blackish silt deposit (**103**) had built up against the bedrock and come to engulf the sides of the standing structure. Much of this material had presumably been dumped over the ridge from the late 18th to early 20th century date as post-medieval finds, including a clay tobacco pipe stem, were retrieved from right up against the bedrock even at the lowest level of excavation. It is unclear whether some of this material was cleared before the ruinous building on site was constructed. Some of the later material which comprised a fairly coherent 19th to 20th century group accumulated behind the low garden wall where it would have gathered as the dumped deposit progressively formed a slope down to the north away from Mitchelgate. The drain to the east side of the site cut through some of this material (**103**), but its edges could not be discerned, and finds, which were thought at the time of excavation to have come from within a possible cut for it, had a similar date to the material from elsewhere in **103**. The drain was perhaps originally of late 18th/19th century date (although it had clearly been modified, certainly towards the north end, by the insertion of modern plastic piping). The slag heap (**101**) to the east side of the standing structure at the south side of the site had clearly built up over **103** and above the drain, so the slag deposit must have formed later. The slag tipped down to the south and east following the lie of the underlying silt deposit (**103**) and was noted to be striated, presumably indicating impurities within it and probably 'tip lines'. It had clearly been added to on a number of occasions over an unknown period of time and spread over a wide downslope area.

6.3 Conclusions

6.3.1 Despite its condition, the building and associated remains represent an interesting remnant of a local industry operating on the site over several decades. Its investigation, combined with the results of the watching brief, indicate that it was connected to metal working with the documentary sources demonstrating that it was used for the manufacture of clog irons. No evidence for medieval activity or earlier activity was revealed during the watching brief, perhaps due to disturbance caused by later building but also the distance of the site from the street frontage.

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Appendix 1: Project Design

LAND TO THE REAR OF 41 MITCHELGATE, KIRKBY LONSDALE, CUMBRIA

Archaeological Building Recording and Watching Brief Project Design



Client: Graham Braithwaite

September 2017

1. Introduction

1.1 Project Background

1.1.1 Following the submission of a planning application (Ref. 5/16/0126) for the erection of a single dwelling on land to the rear of 41 Mitchelgate, Kirkby Lonsdale, Cumbria (NGR 360937 478723) a condition was placed requiring a programme of archaeological evaluation. This was corrected by the issuing of a brief by the Cumbria County Council Historic Environment Service (CCCHES 2017) as a Level 1 building recording of a ruinous structure on the site and a watching brief during the ground works. This project design has been produced in response, and is intended to outline the methodology that would be used during the archaeological work.

1.1.2 41 Mitchelgate is located on the west side of Kirkby Lonsdale, but still within the medieval core of the town (CCC and EH c2002). The ruinous building is considered to be of some historic interest although its function is not known (CCCHES 2017).

1.2 Greenlane Archaeology

1.2.1 Greenlane Archaeology is a private limited company based in Ulverston, Cumbria, and was established in 2005 (Company No. 05580819). Its directors, Jo Dawson and Daniel Elsworth, have a combined total of over 18 years continuous professional experience working in commercial archaeology, principally in the north of England and Scotland. Greenlane Archaeology is committed to a high standard of work, and abides by the Institute for Archaeologists' (IfA) Code of Conduct. The building recording and watching brief will be carried out according to the Standards and Guidance of the Chartered Institute for Archaeologists (CIfA 2014a; 2014b).

1.3 Project Staffing

1.3.1 The project will be managed by **Dan Elsworth (MA (Hons), AIfA)**. Daniel graduated from the University of Edinburgh in 1998 with an honours degree in Archaeology, and began working for the Lancaster University Archaeological Unit, which became Oxford Archaeology North (OA North) in 2001. Daniel ultimately became a project officer, and for over six and a half years worked on excavations and surveys, building investigations, desk-based assessments, and conservation and management plans. These have principally taken place in the North West, and Daniel has a particular interest in the archaeology of the area. He has recently managed a wide variety of projects including building recordings of various sizes, watching briefs, and excavations in the region, including an excavation and evaluation in the centre of medieval Kendal (Greenlane Archaeology 2009a; 2010a), evaluation in the Roman *vicus* at Stanwix (Greenlane Archaeology 2010b), evaluation of a Scheduled post-medieval gunpowder works (Greenlane Archaeology 2010c), and watching briefs in Preston (Greenlane Archaeology 2009b; 2010d).

1.3.2 The watching brief will be carried out by **Tom Mace (BA (Hons), MA, MIfA)** or another suitably qualified member of staff, depending on scheduling constraints. Tom has extensive experience of working on a variety of archaeological projects, especially watching briefs, but also excavations, evaluations, and building recordings, as well as report writing and illustration production. He joined Greenlane Archaeology in 2008 having worked for several previous companies including Archaeological Solutions and Oxford Archaeology North.

1.3.3 All artefacts will be processed by Greenlane Archaeology, and it is envisaged that they will initially be assessed by Jo Dawson, who will fully assess any of post-medieval date. Medieval pottery will be assessed by Tom Mace, and other finds will be assessed by specialist sub-contractors as appropriate. Historic England will be notified of any other specialists, other than those named, whom Greenlane Archaeology wishes to engage.

1.3.4 Environmental samples and faunal remains, should significant deposits of these be recovered, will be processed by Greenlane Archaeology. It is envisaged that charred plant remains will be assessed by staff at Headland Archaeology Ltd, and faunal remains by Jane Richardson at ASWYAS. Should any human remains be recovered for assessment it is envisaged that these will be examined by Malin Horst at York Osteoarchaeology, following appropriate advice on initial processing.

2. Objectives

2.1 Rapid Desk-Based Assessment

2.1.1 Information outlining the development of the site will be collected, in order to place the results of the building recording and watching brief in context.

2.2 Building recording

2.2.1 to carry out a Level 1 recording of the ruined structure on site, as define by Historic England guidance.

2.3 Watching Brief

2.3.1 To identify any surviving archaeological remains and to investigate and record any revealed archaeological remains or deposits.

2.4 Report

2.4.1 To produce a report detailing the results of the building recording and watching brief, which will outline the nature, form, extent, and date of any archaeological remains discovered.

2.5 Archive

2.5.1 Produce a full archive of the results of the project.

3. Methodology

3.1 Rapid Desk-Based Assessment

3.1.1 Information about the site, intended to place the results of the watching brief in context, will be obtained from the Cumbria Archive Centre in Kendal (CAC(K)) and will comprise primarily the examination of early maps in order to investigate the manner in which the site has developed. Secondary sources relating to the history of Kirkby Lonsdale will also be consulted where these are relevant.

3.2 Building Recording

3.2.1 A programme of archaeological building recording to Historic England Level 1-type standards is required (Historic England 2016). This is a relatively low level of investigation intended to rapidly record the basic details of the building, without incorporating the results of the desk-based assessment. It will comprise three types of recording:

- **Drawn Record:** a plan showing the location of the building in relation to other nearby buildings, structures and landscape features will be produced;
- **Written Record:** a brief descriptive record of all elements of the building will be made on Greenlane Archaeology standard *pro forma* record sheets. These records will describe the basic details of the building, identifying form, function, age, and construction materials where possible. In addition, the landscape and historic setting of the building will be described, in particular its relationship with other nearby buildings, streets, settlements and other structures;
- **Photographic Record:** photographs in colour digital format and 35mm colour print will be taken. These will cover both general and detailed shots of the structure. In addition, a record of the associated landscape and nearby buildings will also be made. Digital photographs will also be used for illustrative purposes within the report.

3.3 Watching Brief

3.3.1 Where the groundworks involve excavation of a depth of more than six inches (15cm) below the surface these will be monitored, with one archaeologist on site. If there are several areas being excavated concurrently it may be considered necessary to have more than one archaeologist on site.

3.3.2 The watching brief methodology will be as follows:

- All excavation will be carried out under supervision by staff from Greenlane Archaeology;
- All deposits of archaeological significance will be examined by hand if possible in a stratigraphic manner, using shovels, mattocks, or trowels as appropriate for the scale;
- The position of any features, such as ditches, pits, or walls, will be recorded and where necessary these will be investigated in order to establish their full extent, date, and relationship to any other features. If possible,

negative features such as ditches or pits will be examined by sample excavation, typically half of a pit or similar feature and approximately 10% of a linear feature;

- All recording of features will include detailed plans and sections at a scale of 1:20 or 1:10 where practicable or sketches where it is not, and photographs in both colour print and colour digital format. In addition, photographs will also be taken of the site before work begins and after completion;
- All deposits, drawings and photographs will be recorded on Greenlane Archaeology *pro forma* record sheets;
- All finds will be recovered during the watching brief for further assessment as far as is practically and safely possible. Should significant amounts of finds be encountered an appropriate sampling strategy will be devised;
- All faunal remains will also be recovered by hand during the watching brief as far as is practically and safely possible, but where it is considered likely that there is potential for the bones of fish or small mammals to be present appropriate volumes of samples will be taken for sieving;
- Deposits that are considered likely to have, for example, preserved environmental remains, industrial residues, and/or material suitable for scientific dating will be sampled. Bulk samples of between 20 and 60 litres in volume (or 100% of smaller features) where possible, depending on the size and potential of the deposit, will be collected from stratified undisturbed deposits and will particularly target negative features (e.g. gullies, pits and ditches) and occupation deposits such as hearths and floors. An assessment of the environmental potential of the site will be undertaken through the examination of samples of suitable deposits by specialist sub-contractors (see *Section 1.3.4* above), who will examine the potential for further analysis. All samples will be processed using methods appropriate to the preservation conditions and the remains present;
- Any articulated human remains discovered during the watching brief will be left *in situ*, and, if possible, covered. The client will be immediately informed as will the local coroner. Should it be considered necessary to remove the remains this will require a Home Office licence, under Section 25 of the Burial Act of 1857, which will be applied for should the need arise;
- Any objects defined as 'treasure' by the Treasure Act of 1996 (HMSO 1996) will be immediately reported to the local coroner and securely stored off-site, or covered and protected on site if immediate removal is not possible;
- Should any significant archaeological deposits be encountered during the watching brief these will immediately be brought to the attention of historic and ground works in that area halted so that the need for further work can be determined. Any additional work (which would result in additional costs) will be agreed with Historic England, and subject to a variation to this project design.

3.3 Report

3.3.1 The results of the watching brief will be compiled into a report, which will contain the following sections as necessary:

- A front cover including the appropriate national grid reference (NGR);
- A concise non-technical summary of results, including the date the project was undertaken and by whom;
- Acknowledgements;
- Project Background;
- Methodology, including a description of the work undertaken;
- Results of the watching brief including descriptions of any deposits identified, their extent, form and potential date, and an assessment of any finds or environmental remains recovered during the watching brief;
- Discussion of the results;
- Illustrations at appropriate scales including:
 - a plan showing the location of the ground works;

- plans and sections of the watching brief ground works, as appropriate, showing any features of archaeological interest;
- photographs of the watching brief, including both detailed and general shots of features of archaeological interest and the trenches;
- photographs of individual artefacts as appropriate.

3.4 Archive

3.4.1 The archive, comprising the drawn, written, and photographic record of the watching brief, formed during the project, will be stored by Greenlane Archaeology until it is completed. Upon completion it will be deposited with the Cumbria Archive Centre in Kendal. The archive will be compiled according to the standards and guidelines of the ClfA (ClfA 2014b), and in accordance with English Heritage guidelines (English Heritage 1991). In addition details of the project will be submitted to the Online Access to the Index of archaeological investigations (OASIS) scheme. This is an internet-based project intended to improve the flow of information between contractors, local authority heritage managers and the general public.

3.4.2 A copy of the report will be supplied to the client, and within three months of the completion of fieldwork a digital copy will be provided to the Cumbria Historic Environment Record (HER). In addition, Greenlane Archaeology Ltd will retain one copy, and a digital copy will be deposited with the OASIS scheme.

3.4.3 The client will be encouraged to transfer ownership of the finds to a suitable museum. If no suitable repository can be found the finds may have to be discarded, and in this case as full a record as possible and necessary would be made of them beforehand.

4. Work timetable

4.1 Greenlane Archaeology will be available to commence the project from the **18th September 2017**, or at another date convenient to the client. It is envisaged that the project will involve tasks in the following order:

- **Task 1:** rapid desk-based assessment;
- **Task 2:** building recording;
- **Task 3:** watching brief;
- **Task 3:** post-excavation work on archaeological watching brief, including processing of finds and production of draft report and illustrations;
- **Task 3:** feedback, editing and production of final report, completion of archive.

5. Other matters

5.1 Access

5.1.1 Access to the site will be organised through co-ordination with the client and/or their agent(s).

5.2 Health and Safety

5.2.1 Greenlane Archaeology carries out risk assessments for all of its projects and abides by its internal health and safety policy and relevant legislation. Health and safety is always the foremost consideration in any decision-making process.

5.3 Insurance

5.3.1 Greenlane Archaeology has professional indemnity insurance to the value of **£1,000,000**. Details of this can be supplied if requested.

5.4 Environmental and Ethical Policy

5.4.1 Greenlane Archaeology has a strong commitment to environmentally- and ethically-sound working practices. Its office is supplied with 100% renewable energy by Good Energy, uses ethical telephone and internet services supplied by the Phone Co-op, is even decorated with organic paint, and has floors finished with recycled vinyl tiles. In addition, the company uses the services of The Co-operative Bank for ethical banking, Naturesave for environmentally-conscious insurance, and utilises public transport wherever possible. Greenlane Archaeology is

also committed to using local businesses for services and materials, thus benefiting the local economy, reducing unnecessary transportation, and improving the sustainability of small and rural businesses.

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Appendix 2: Context List

Context	Type	Description	Interpretation
100	Deposit	Fairly soft, grey-brown silt; contained rubble and pipework, including plastic pipe	Topsoil and mixed dumped deposit in the terraced area to the west side of the site
101	Deposit	Firm, iron-rich deposit, striated with impurities, showing 'tip lines'	Iron-rich waste material
102	Deposit	Group of rubble and stony deposits, comprising small, angular stones in an orangey-brown and grey silt matrix, up to 0.7m thick overall below the steps in the south-east corner	Various hard core deposits below the concrete steps to the south of No. 41
103	Deposit	Friable, dark blackish silt	Possible buried soil
104	Deposit	Slightly lighter dark grey silt layer beneath 103	Possible lower level buried soil horizon

Appendix 3: Finds Summary

Context	Location	Material type	Qty	Description	Date range
<i>U/S probably 103</i>		Pottery	5 + chip	Brown-glazed red earthenware: 2 pancheon bases and 1 pancheon rim; 2 crock bases; plus small chip	Late 17 th – early 20 th century
<i>U/S probably 103</i>		Pottery	2	Brown-glazed red earthenware with white slip-coated interior: pancheon rim, and pancheon body with darker glaze over the white slip	19 th – early 20 th century
<i>U/S probably 103</i>		Pottery	3	Greenish buff-glazed grey to buff-bodied stoneware: hollow-ware body fragments x 2, and highly decorative relief-moulded base fragment, from water filter or similar object	19 th – early 20 th century
<i>U/S probably 103</i>		Pottery	2	Refitting brown-glazed red earthenware fluted and beaded teapot base and body with lower part of handle	19 th – 20 th century
<i>U/S probably 103</i>		Pottery	1	Pearlware hollow-ware body fragment with blue painted pattern	Late 18 th – early 19 th century
<i>U/S probably 103</i>		Pottery	6	Transfer-printed white earthenware: Willow plate rim, Broseley teacup handle, purple butterflies and grasses pattern jug rim including pouring lip, Asiatic Pheasants plate rim-to-base, black foliage and feathers (?) pattern cup rim, blue landscape pattern bowl/jug base	19 th century
<i>U/S probably 103</i>		Pottery	3	Other white earthenware: : blue early sponge-printed pattern bowl rim, factory-produced slipware rim fragment, and plain hollow-ware base fragment	19 th century
<i>U/S probably 103</i>		Pottery	3	Bone china: plain teacup base with lower handle terminal, plain teacup body with part of ring handle, and carinated teacup/teabowl with painted pink lustre foliage and stripes	19 th century
<i>U/S probably 103</i>		Glass	2	Dark green bottle base with high kick, and mouth and neck	19 th – early 20 th century
<i>U/S probably 103</i>		Plastic	1	Pearly white flat circular button with four holes	Late 19 th – 20 th century?
<i>U/S probably 103</i>		Building material	1	Mortar fragment	Not closely dateable
100	Terraced area	Pottery	2	Blue transfer-printed white earthenware: Albion plate rim, and plate body with unidentified pattern	19 th century
100	Terraced area	Pottery	2	Bone china: saucer rim with 3 gilded stripes, and plain body fragment	19 th – 20 th century
100	Terraced area	Glass	1	Complete very light turquoise bottle with embossed text on side 'ALEXANDERS / KENDAL' and punt mark on base 'A644 / S 1944 2 / UGB' (1913 onwards from United Glass Bottles mark (Toulouse 1971, 510))	1913 onwards
102		Pottery	1	Relief-moulded Rockinghamware teapot rim	Late 18 th – early 20 th century
102		Animal bone	1	1x small unidentified fragment	Uncertain

103	North end / east side; bottom of slope	Pottery	21	Transfer-printed white earthenware, including some late pearlware: Willow x 7 (refitting plate rim and base; 2 refitting base and rim-to-base from same meat dish; rim and base from same plate); Albion x 3 (plate rims); Broseley x 4 (refitting saucer base and rim-to-base with edge of 'Semi-China' mark; cup body; mug (?) handle); purple butterflies and grasses pattern x 3 (2 cup (?) rims and handle all refitting); brown tiger pattern x 1 (mug rim); purple floral pattern x 1 (mug/jug base with lower handle terminal and edge of printed pattern mark); blue lacustrine (?) landscape pattern x 1 (base fragment); green commemorative pattern 'HRH PRIN[CESS ELIZABETH] / BORN DECE[MBER 1820]' x 1 (base)	Early – mid 19 th century (with single date of 1820 as part of assemblage)
103	North end / east side; bottom of slope	Pottery	17	Other decorated white earthenware: blue early sponge-printed pattern x 3 (mug/jug base and body x 2 all from same vessel); painted and sponge-printed pattern x 2 (refitting mug rim and base, painted in blue and teal green and printed in raspberry pink); late blue shell edge x 1 (plate rim – blue painted with no relief moulding); factory-produced slipware x 11 (carinated bowl rim and base; bowl rim; hollow-ware rims x 5 and body fragments x 3 (of which 2 refitting))	Early – mid 19 th century
103	North end / east side; bottom of slope	Pottery	5	Plain white earthenware: bowl base; pot/jar rim with groove below rim; plate body; handle fragment; hollow-ware body	19 th century
103	North end / east side; bottom of slope	Pottery	4	Glazed buff-coloured earthenware: hollow-ware base x 2 from same vessel with relief-moulded animal pulling cart; plate rim; carinated bowl body	19 th century
103	North end / east side; bottom of slope	Pottery	3	Bone china: Broseley saucer rim; tea cup/bowl bases x 2	19 th century
103	North end / east side; bottom of slope	Pottery	11	Brown-glazed red earthenware with white slip-coated interior: pancheon base fragments x 3, body fragments x 3, and rim fragments x 2; darker glazed pancheon base fragment x 1 and body fragments x 2	19 th – early 20 th century
103	North end / east side; bottom of slope	Pottery	2	Black-glazed red earthenware pancheon rim with lug handle, and pancheon body x 1	19 th – early 20 th century
103	North end / east side; bottom of slope	Pottery	4	Brown-glazed red earthenware crock body fragments	19 th – early 20 th century

103	North end / east side; bottom of slope	Pottery	2	Greenish buff-glazed grey to buff-bodied stoneware: hollow-ware body fragment, and highly decorative relief-moulded base fragment, from water filter or similar object	19 th – early 20 th century
103	North end / east side; bottom of slope	Pottery	1	Brown-glazed grey-bodied stoneware hollow-ware fragment with rouletted decoration	19 th – early 20 th century
103	North end / east side; bottom of slope	Pottery	1	Brown-glazed red earthenware crock base	Late 17 th – early 20 th century
103	North end / east side; bottom of slope	Pottery	1	Lustrous brown-glazed red earthenware jar rim	19 th – early 20 th century
103		Pottery	1	Glazed buff-bodied earthenware hollow-ware fragment with applied red slip decoration	Late 17 th – early 18 th century
103		Pottery	1	Creamware base fragment with blue painted pattern	Mid – late 18 th century
103		Pottery	11	Transfer-printed white earthenware: Willow x 7 (plate rim, plate base, and refitting plate base and body fragments with part of printed maker's mark 'STO[NEWARE] / B & D' (same mark as illustrated for Beardmore and Dawson, 1843 or 1863 (internal inconsistency in book) (Rogers 2004, 38); another source suggests 1863 (Ruby Lane 1998-2008)), refitting base fragments with blue landscape pattern, Broseley saucer rim, and basin (?) body with purple ribbon and rose garland pattern	19 th century (including 1863)
103		Pottery	1	Blue transfer-printed white earthenware landscape pattern cup base with part of mark '18(?)57 / [EN]GLAND'	1891+
103		Pottery	6	White earthenware factory-produced slipware: 3 refitting jug (?) rim and body fragments, carinated bowl body fragment, hollow-ware rim fragment, and hollow-ware body fragment	19 th – early 20 th century
103		Pottery	2	White earthenware striped vessels: gilded saucer rim, and blue striped mug rim	19 th – early 20 th century
103		Pottery	3	Plain white earthenware: mug/jug handle fragment, base fragment, and ribbed/fluted jug (?) body with edge of lower handle terminal	19 th – early 20 th century
103		Pottery	1	White earthenware/pearlware mug base	Late 18 th – 19 th century
103		Pottery	1	Glazed buff-coloured factory-produced earthenware with white slip and blue mocha pattern	Late 18 th – early 20 th century
103		Pottery	1	Brown-glazed red earthenware teapot (?) body fragment	Late 18 th – 20 th century
103		Pottery	2	Bone china blue floral transfer-printed plate rim, and plain saucer (?) base	19 th – early 20 th century

103		Pottery	1	Pale khaki green-glazed buff-bodied stoneware jar/flagon base	Late 18 th – early 20 th century
103		Pottery	1	Brown-glazed grey-bodied stoneware hollow-ware base	Late 18 th – early 20 th century
103		Pottery	2	Brown-glazed red earthenware with white slip-coated interior: pancheon rim and base	19 th – early 20 th century
103		Pottery	1	Brown-glazed red earthenware hollow-ware body fragment with white slip stripe	Late 17 th – early 20 th century
103		Ceramic building material	1	Blue-glazed cream-bodied fireclay brick fragment with hole on unglazed side	19 th – early 20 th century
Probably 103	Below slag heap	Industrial residue	3	Undiagnostic iron smithing waste	Post-medieval?
Probably 103	Below slag heap	Pottery	1	Brown-glazed red earthenware with darker glazed white slip coating – pancheon rim	Late 18 th – early 20 th century
Probably 103	Near drain cut	Pottery	1	Brown-glazed red earthenware with white slip coating – pancheon rim	19 th – early 20 th century
Probably 103	Near drain cut	Pottery	1	Factory-produced brown-glazed red earthenware jug (?) body with partially white slip-coated interior, and blue slip band and rouletted (?) beading	Late 18 th – early 20 th century
Probably 103	Near drain cut	Pottery	1	Brown-glazed red earthenware jug (?) body with partial dark-glazed white slip coating on exterior and dark-glazed trails over the top	Late 18 th – early 20 th century
104		Pottery	2	Brown-glazed red earthenware crock rim and hollow-ware body fragment	Late 17 th – early 20 th century
104		Animal bone	2	1x almost complete cow metatarsal (left); 1x proximal end of a sheep tibia (left), both clearly butchered (probably sawn) to extract marrow	Post-medieval?
104		Clay tobacco pipe	2	1x plain stem fragment, 50.5mm long, with long oval-shaped section (6-7mm wide) and 7/64" diameter wide borehole; 1x plain stem fragment, 28mm long, with 8mm diameter section and 6/64" diameter borehole	Late 17 th – 18 th century