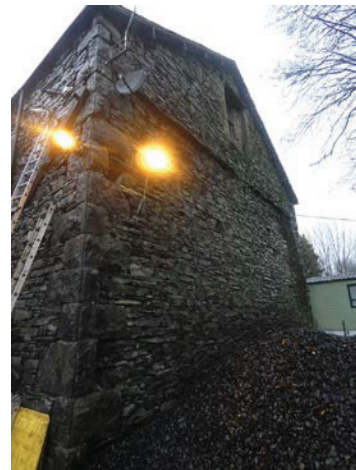


CHARCOAL BARN, NEWLAND, ULVERSTON, CUMBRIA

Heritage Statement



Client: Mr and Mrs McDermott

Planning Application Nos.:
SL/2019/0749 and
SL/2019/0750

NGR: 329959 479728

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December 2019



The Site	
Site Name	Charcoal Barn, Newland, Ulverston
County	Cumbria
NGR	329959 479728

Client	
Client Name	Mr and Mrs McDermott

Planning	
Pre-planning?	No
Planning Application Nos.	SL/2019/0749 and SL/2019/0750
Summary of plans	Conversion of barn to mixed use
Condition number	N/A – required to support planning applications
Local Planning Authority	South Lakeland District Council
Planning Archaeologist	Jeremy Parsons, Historic Environment Officer, Cumbria County Council

Archiving	
Relevant Record Office(s)/Archive Centre(s)	Barrow-in-Furness
Relevant HER	Cumbria

Staffing	
Desk-based assessment	Dan Elsworth
Site visit	Dan Elsworth
Report writing	Dan Elsworth
Report editing	Jo Dawson
Illustrations	Tom Mace
Date on site work carried out	10 th and 17 th December 2019

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Summary

Following the submission of planning applications for the redevelopment of the remainder of the former charcoal barn at Newland, near Ulverston, Cumbria, and following consultation with South Lakeland District Council, Greenlane Archaeology was commissioned to carry out a heritage statement for the site. This was intended to provide information about the development of the building and establish its significance and how this is likely to be affected by the proposals. The work for the project, including a site visit, was carried out in December 2019.

The building comprises a substantial former charcoal barn, part of which was converted for residential use in 2010, associated with the Newland blast furnace. The heritage statement comprised a desk-based assessment, which collated the available information relating to the former charcoal barn, in particular all the relevant maps of the site. The furnace was built in 1746-1747 by Richard Ford and his associates, who became known as the Newland Company. The earliest elements of the building, at the west end, were probably constructed shortly after the development of the furnace but the charcoal barn went through various alterations and extensions before the first detailed maps of it were made in the mid-19th century.

The proposed redevelopment would result in relatively minimal damage to the existing historic fabric, with the majority of the proposed openings utilising existing ones. It is also potentially beneficial in that it would see the removal of later additions in concrete block added inside the building. It is important, however, that the roof structure is retained as much as possible and ideally that the internal walls are finished in such a way that the original surfaces are protected. The removal of later additions would potentially also allow further archaeological recording of the structure to be carried out, which would provide an improved understanding of its development.

Acknowledgements

Greenlane Archaeology would like to thank Mr and Mrs McDermott for commissioning the project and for their help during the site visit.

1. Introduction

1.1 Circumstances of the Project

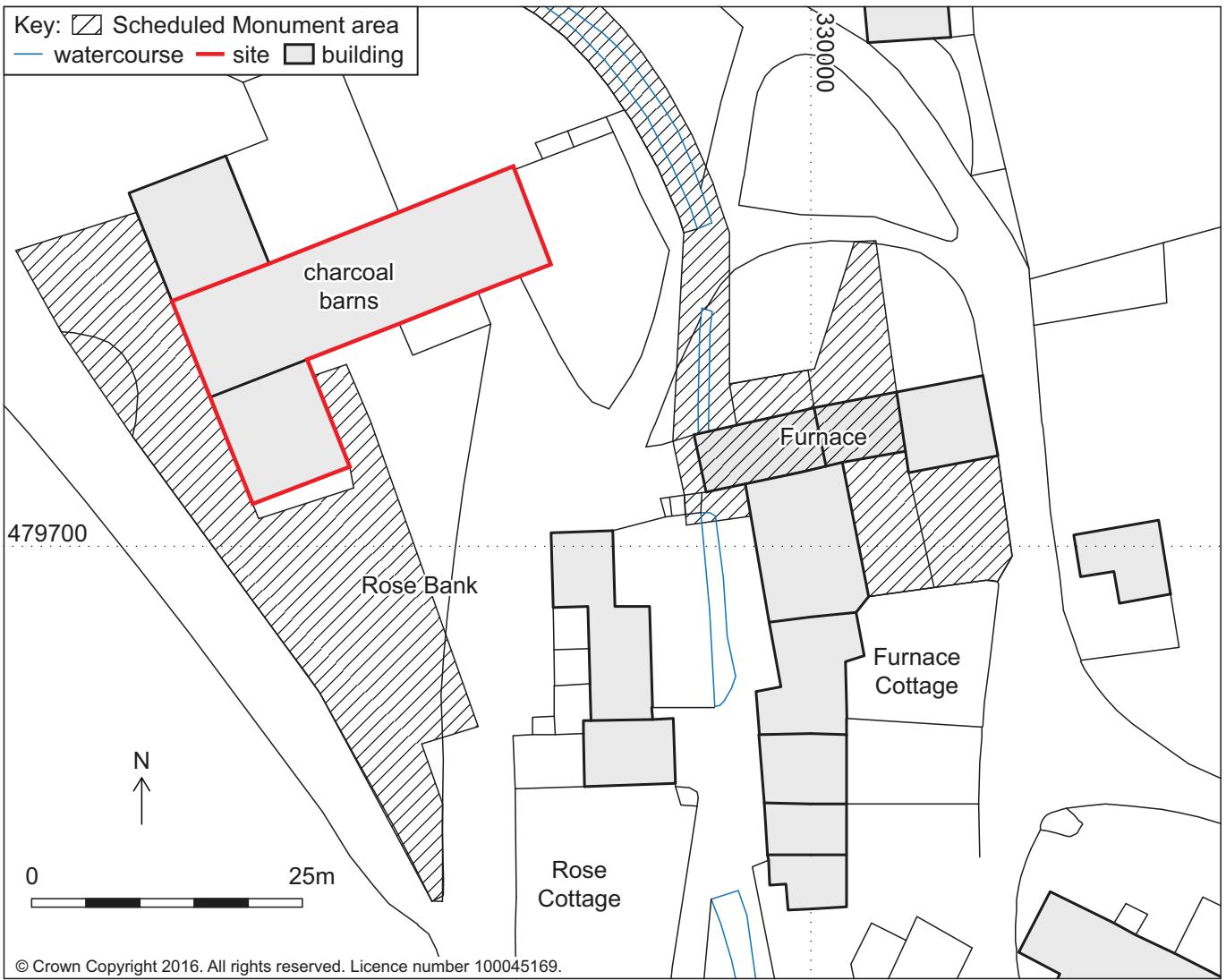
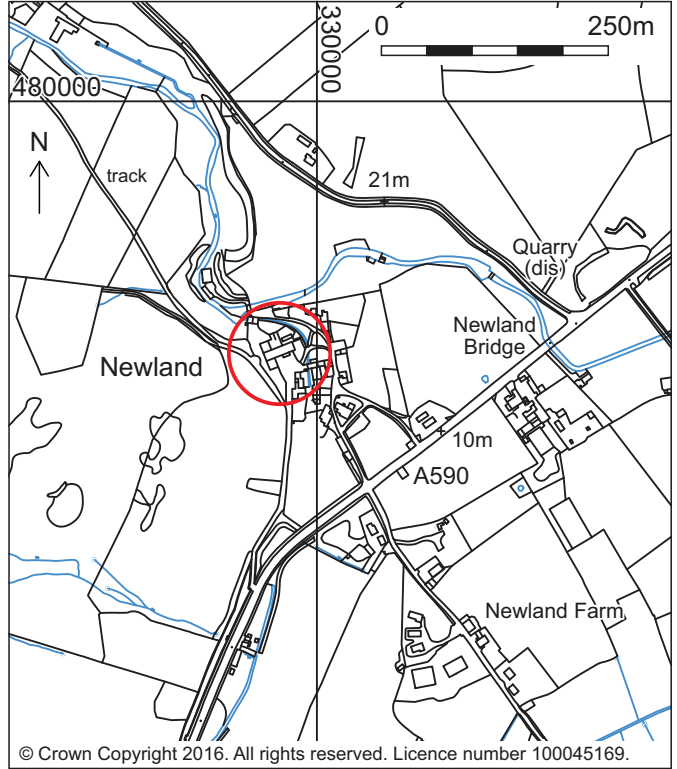
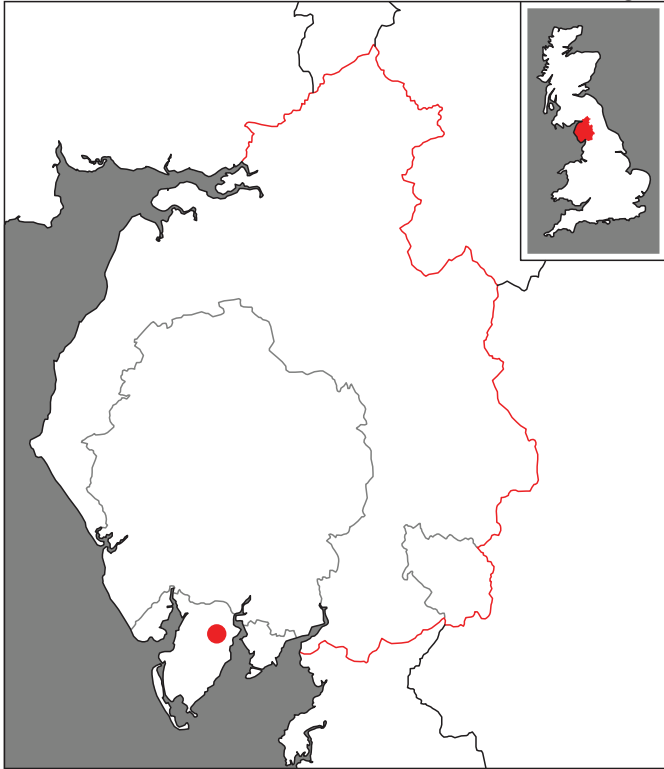
1.1.1 Following the submission of planning applications (Ref. SL/2019/0749 and 0750) for the redevelopment of the former charcoal barn at Newland, near Ulverston, Cumbria (NGR 329959 479728), and following consultation with South Lakeland District Council, it was recommended that a heritage statement be compiled for inclusion with the applications. In response to this Greenlane Archaeology were commissioned by Mr and Mrs McDermott (hereafter 'the client') to carry out the work, which was undertaken in December 2019.

1.1.2 The site comprises a large building that originally formed part of the complex associated with the Newland blast furnace but is situated outwith the Scheduled Monument area for the same (No. 34986); it is, however, a Grade II Listed building (see *Appendix 1*). The former charcoal barn at present is utilised partly by the client as a store, although part of it has already been converted into a dwelling.

1.2 Location, Geology, and Topography

1.2.1 The village of Newland is approximately 1.5km north-east of the centre of Ulverston, and situated at the end of the valley formed by Newland Beck (Figure 1). The former blacking mill is less than 50m north-west of the Newland blast furnace, which is located at the centre of Newland. The affected building primarily comprises a single large L-shaped structure orientated essentially east/west, but outshuts projecting to the south. The original building was T-shaped, however.

1.2.2 The site lies at approximately 30m above sea level (Ordnance Survey 2011). The main road into the area, the A590, is approximately 280m to the south-east. Newland is within the West Cumbria coastal plain, a landscape generally made up of pastoral land in an '*undulating or rolling topography*' (Countryside Commission 1998, 27). The solid geology is typically made up of Bannisdale slate and Carboniferous limestone (Moseley 1978, plate 1), and this is overlain by a drift geology made up of glacially-derived tills comprising boulder clay, sands and gravels (Countryside Commission 1998, 27).



Client: Mr and Mrs McDermott

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Figure 1: Site location

2. Methodology

2.1 Relevant Policies

2.1.1 The compilation of this heritage statement and recommendations for any further work arising from the findings, accords with National, Regional and Local Planning Policies which relate to the Historic Environment. National planning policies relevant to heritage asset management are contained within the *National Planning Policy Framework* (Ministry of Housing, Communities & Local Government 2019). This document highlights the essential need for applicants to assess the significance of heritage assets, use appropriate expertise, access historic environment records and recommend strategies for the recording and furthering of understanding of heritage assets as part of any proposal that might result in the loss or impact upon a heritage asset.

2.1.2 **National Planning Policy Framework (NPPF)**: chapter 16 of the NPPF relates to conserving and enhancing the historic environment. Paragraph 189 provides that: *'In determining applications, local planning authorities should require an applicant to describe the significance of any heritage assets affected, including any contribution made by their setting. The level of detail should be proportionate to the assets' importance and no more than is sufficient to understand the potential impact of the proposal on their significance'*. In paragraph 190 it goes on to state: *'Local planning authorities should identify and assess the particular significance of any heritage asset that may be affected by a proposal (including by development affecting the setting of a heritage asset) taking account of the available evidence and any necessary expertise. They should take this assessment into account when considering the impact of a proposal on a heritage asset, to avoid or minimise conflict between the heritage asset's conservation and any aspect of the proposal'*.

2.1.3 **Designated heritage assets**: with regards designated heritage assets there are three particularly relevant paragraphs in NPPF:

Paragraph 193 states that: *'great weight should be given to the asset's conservation (and the more important the asset, the greater the weight should be). This is irrespective of whether any potential harm amounts to substantial harm, total loss or less than substantial harm to its significance'*.

Paragraph 194 states that: *'Any harm to, or loss of, the significance of a designated heritage asset (from its alteration or destruction, or from development within its setting), should require clear and convincing justification. Substantial harm to or loss of: a) grade II listed buildings, or grade II registered parks or gardens, should be exceptional'*.

Paragraph 195 states that: *'Where a proposed development will lead to substantial harm to (or total loss of significance of) a designated heritage asset, local planning authorities should refuse consent, unless it can be demonstrated that the substantial harm or total loss is necessary to achieve substantial public benefits that outweigh that harm or loss, or all of the following apply: a) the nature of the heritage asset prevents all reasonable uses of the site; and b) no viable use of the heritage asset itself can be found in the medium term through appropriate marketing that will enable its conservation; and c) conservation by grant-funding or some form of not for profit, charitable or public ownership is demonstrably not possible; and d) the harm or loss is outweighed by the benefit of bringing the site back into use'*.

2.1.4 **Conservation Area**: the entire site falls within the Conservation Area for Newland Furnace (SLDC 2009), which is designated as an *'area of special architectural or historic interest, the character or appearance of which it is desirable to preserve or enhance'* (Planning (Listed Buildings & Conservation Areas) Act, 1990). The recent NPPF guidance states that *'Proposals that preserve those elements of the setting that make a positive contribution to the asset (or which better reveal its significance) should be treated favourably'* (Paragraph 200), while the *'Loss of a building (or other element) which makes a positive contribution to the significance of the Conservation Area... should be treated either as substantial harm under paragraph 195 or less than substantial harm under paragraph 196, as appropriate, taking into account the relative significance of the element affected as its contribution to the significance of the Conservation Area... as a whole'* (Paragraph 201).

2.2 Desk-Based Assessment

2.2.1 In order to compile the relevant information about the historical development of the site a desk-based assessment was carried out. The study area for this was restricted to just the former charcoal barn, which comprises a total area of approximately 430m². Information relating to the immediate vicinity was also taken into consideration, but the only other historic sites of interest within this area were those relating to or forming part of the Newland furnace complex. The desk-based assessment was carried out in accordance with the relevant guidelines of the Chartered Institute for Archaeologists (CIfA 2014a). 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 heritage assessment, although much of this information had already been acquired during previous phases of work carried out in Newland:

- **Record Office/Archive Centre:** the majority of original and secondary sources relating to the site are deposited in the relevant Record Office(s) or Archive Centre(s), as specified in the cover sheet of this report. Of principal importance are early maps of the site. These were examined in order to establish the development of the site, date of any structures present within it, and details of land use, in order to set the site in its historical, archaeological, and regional context. In addition, any details of the site's owners and occupiers were acquired where available;
- **Online Resources:** where available, mapping such as Ordnance Survey maps and tithe maps were consulted online;
- **Greenlane Archaeology:** Greenlane Archaeology's office library includes maps, local histories, and unpublished primary and secondary sources. These were consulted where relevant, in order to provide information about the history and archaeology of the site and the general area.

2.3 Site Visit

2.3.1 A brief site visit, equivalent to an English Heritage Level 1 survey (Historic England 2017), was carried out covering the proposed development area and other areas that might be affected. Particular attention was paid to the identification of features of historical or archaeological interest, but other relevant features were recorded such as later aspects of the site that may have impacted on the earlier remains or could constrain further investigation. Colour digital photographs showing the general arrangement of the site and any features of interest were taken.

2.4 Archive

2.4.1 The archive of the project will be deposited with the relevant Record Office or Archive Centre, as detailed on the cover sheet of this report, together with a copy of the report. The archive has been compiled according to the standards and guidelines of the CIfA guidelines (CIfA 2014b). In addition, details 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. A copy of the report will be provided to the client and a digital copy of the report will be provided for the relevant Historic Environment Record, as detailed on the cover sheet of this report.

3. Results

3.1 Introduction

3.1.1 The site comprises a single large building, which forms part of a much larger complex of buildings relating to the operation of the Newland iron furnace. The only other sites of archaeological interest within the immediate vicinity of it form part of the same complex.

3.2 Desk-Based Assessment

3.2.1 The results of the desk-based assessment have been used to produce two main elements. Firstly, all available maps of the area were compiled into a map regression, demonstrating how the site physically developed (*Section 3.3*). The second purpose of the desk-based assessment is to produce a background history of the site. This is intended to cover all periods, in part to provide information that can be used to assess the potential of the site, but more importantly to present the documented details of any sites that are known (see *Section 4*).

3.2.2 Once this information has been compiled the significance of those sites of archaeological interest within the study area, their potential, and the degree to which they are likely to be affected is considered (*Section 5*) and from this a discussion of the nature of mitigation works has been produced.

3.3 Map and Image Regression

3.3.1 **Introduction:** although there are early, typically county-wide, maps that include the area, they are generally very small scale and so the first useful maps of the area do not appear until the early 19th century. As a result, it is primarily maps from that date onwards that are discussed below.

3.3.2 **Estate plan of c1804:** this early and relatively detailed plan was examined as part of previous work at the former corn mill in Newland before it was misplaced in the archive (CAC(B) BD/BUC/49/Bundle 1/16 c1804). Although it is undated, it has a watermark of 1804 so cannot be earlier than this date. Nothing is shown in the location of the charcoal barn, but this is probably because it is located on the other side of the parish boundary between Egton cum Newland and Mansriggs (see also *Section 3.3.4* below), which is marked as running along the line of the Newland Beck and then the mill leat on later Ordnance Survey maps (see *Section 3.3.6* onward).

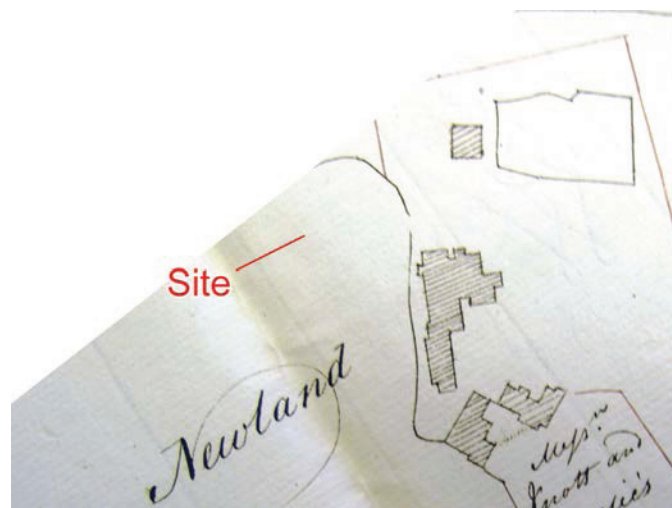


Plate 1: Extract from an estate plan of c1804

3.3.3 **Ulverston Commons Enclosure map of 1812:** this plan (Plate 2; Ulverston Local Board 1891), which was primarily intended to show the extent of the Ulverston commons enclosure, shows some elements of Newland, although it is not complete and seems to only show those structures that fall wholly or partially on the Ulverston side of the parish boundary and in a very simplified way. A large

rectangular block, which steps in twice on the south-west side and narrows towards its south end, is marked in the location of the charcoal barn.

3.3.4 Egton with Newland Commons Enclosure 1823: this plan (LRO AE/4/5 1823; Plate 3) is generally remarkably similar to that of c1804 (CAC(B) BD/BUC/49/Bundle 1/16 c1804) and it seems likely that one is based on the other (as the estate plan of c1804 is undated it is perhaps likely that it is copied from the enclosure map, especially as it seems more likely that the enclosure map would be based on an original survey, but this would mean that the paper used for the estate plan was almost 20 years old). Nothing is marked in the location of the charcoal barn, but this is probably misleading since a building is marked there on the earlier enclosure map (Plate 3; cf. Plate 2) and, as with the estate plan of c1804 this is likely to be because it is on the wrong side of the township boundary.

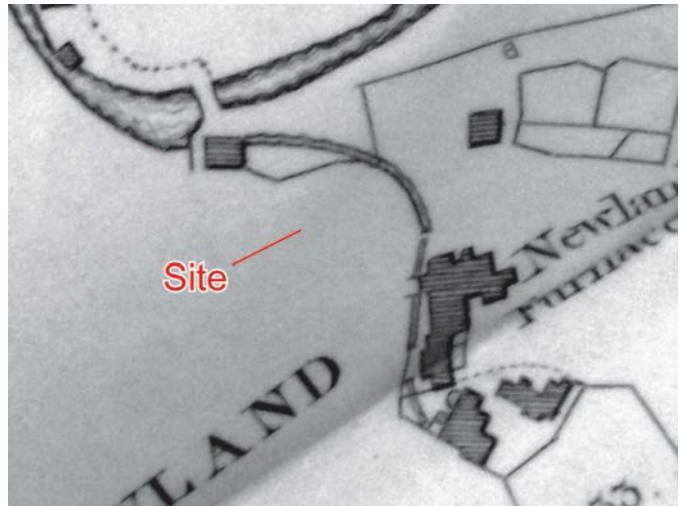
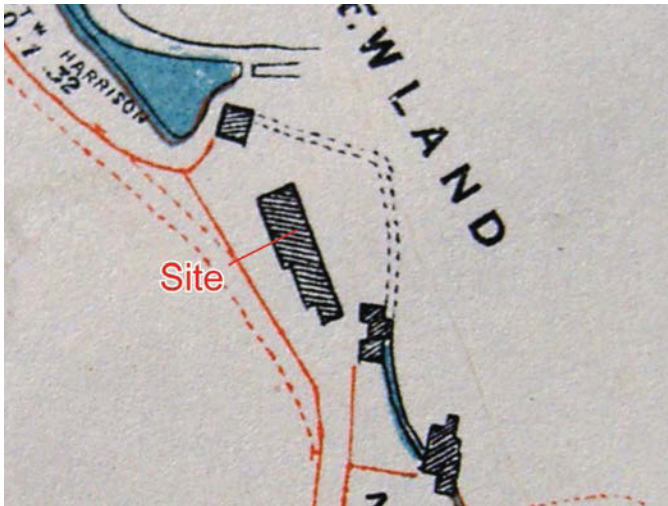


Plate 2: Extract from the Ulverston commons enclosure map of 1812 showing Newland

Plate 3: Extract from the Egton with Newland enclosure map of 1823

3.3.5 Undated estate plan (probably mid-19th century): this is a detailed plan of the site (Plate 4; CAC(B) BD/BUC/Box 40/Bundle 2/58 nd) and, although undated, is considered likely to be mid-19th century (see Goodall 2001, figure 2). It is particularly useful because it names various elements of the site, but it also shows the development of the site since the previous map. A large block of buildings is shown at the location of the charcoal barn, labelled 'charcoal shed'. No internal divisions are marked.



Plate 4: Extract from an undated estate map, probably mid-19th century, showing various elements associated with the furnace

3.3.6 Ordnance Survey 1851: a large block of buildings is shown at the charcoal barn site (Plate 5).

3.3.7 **Ordnance Survey 1890:** this more detailed map more accurately shows the layout of the buildings at the site of the charcoal barn and several internal divisions are shown, although these do not appear to be accurate (Plate 6).



Plate 5 (left): Extract from 1851 Ordnance Survey

Plate 6 (right): Extract from 1890 Ordnance Survey

3.3.8 **Plan 1904:** this plan (CAC(B) BDHJ/184/7/1 1904; Plate 7) has probably been hand drawn from the 1890 Ordnance Survey map and has been simplified slightly (cf. Plate 6). The internal divisions are apparently based on the earlier Ordnance Survey maps and do not correspond with the actual arrangement of the building.

3.3.9 **Ordnance Survey 1913:** the main buildings are apparently unchanged, but buildings to the south side of the charcoal barn have been removed (Plate 8). Again the internal divisions seem to be based on the earlier maps.



Plate 7 (left): Extract from 1904 indenture plan

Plate 8 (right): Extract from 1913 Ordnance Survey

3.3.10 **Survey report, 2001:** plans of the charcoal barns were produced as part of an English Heritage survey of the site, which was visited in 1997 (Goodall 2001, figure 3; Plate 9).

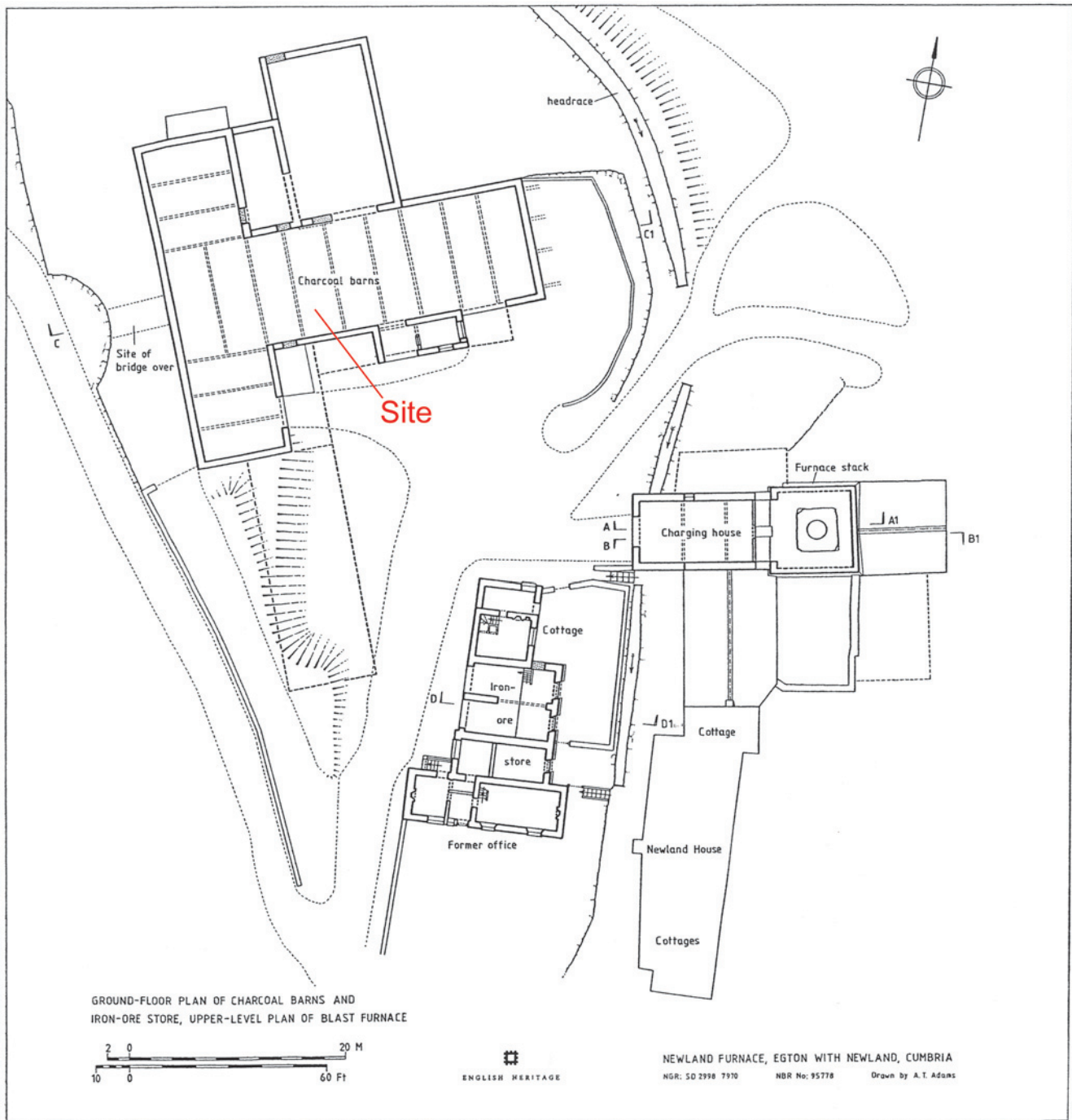


Plate 9: Newland Furnace blast furnace, iron ore store and charcoal barns (Goodall 2001, figure 3)

3.3.11 **Photographs, 2005:** at least two photographs were taken of the charcoal barns in 2005 when they were being reroofed. These show the slates stripped from the south-west end of the building with the original trusses exposed (CAC(K) WDMDS/PC/88/281 2005; CAC(K) WDMDS/PC/88/297 2005 – these cannot be reproduced for copyright reasons but small versions can be seen at <http://archiveweb.cumbria.gov.uk/calmview/Record.aspx?src=CalmView.Catalog&id=WDMDS%2fPC%2f88%2f297&pos=7> and <http://archiveweb.cumbria.gov.uk/calmview/GetImage.ashx?db=Catalog&type=default&fname=49%5ca6c790-0176-4fdc-ad57-c46fbc9f90cd.jpg>).

3.3.12 **Summary:** it is evident from the cartographic sources that the charcoal barn site had taken on much of its present form by the early 20th century, the large east/west section being added in the mid-to-late 19th century. A large block to the south side was removed at some point between 1904 and 1910.

Although the basic footprint of the buildings has remained largely unchanged since, the internal arrangement will be very different since the square block to the north was converted to residential accommodation in 2010.

3.4 Site Visit

3.4.1 *Site Arrangement and Character:* the building comprises the majority of the former charcoal barn, and which originally formed a large T-shaped structure, but now excludes the north end, which has already been converted into residential accommodation, and so is L-shaped. It is constructed from locally derived slate laid in rough courses with rough quoins on the earlier parts and more dressed ones on the later sections. The roof is finished with grey slate, graduated on the main part, with stone ridges (Plate 10). Most of the doorways have been modified in some way or other, typically either by having been raised (Plate 13) or through the addition of iron lintels, although the other openings appear more original (Plate 12) and that in the west elevation has actually been slightly reduced in size by being partially blocked at the base (Plate 16). There are numerous outshuts, or scars for former outshuts, on the south elevation, most of which are relatively late (Plate 11), while on the north side a substantial section of walling with a wide arched opening remains, which is evidently part of an original section of the building (Plate 14). The west elevation has a central gable continuing the line of the main east/west block, which is built into the slope (Plate 15 and Plate 16).



Plate 10 (left): The south external elevation of the building, viewed from the south-east

Plate 11 (right): Modern outshut attached to the south external elevation of the building, viewed from the east



Plate 12 (left): The east external elevation of the building, viewed from the south-east



Plate 13 (right): The west end of the north external elevation of the building, viewed from the north-east



Plate 14 (left): The wall projecting from the north external elevation of the building, viewed from the west



Plate 15 (right): The west external elevation of the building, viewed from the south-west



Plate 16: The central gable in the west external elevation of the building, viewed from the west

3.4.2 Internally the walls are unfinished stone or finished with the remains of limewash. The floors are typically concrete, while the roof is supported by tie beam trusses the majority of which are original and comprise just a tie beam and principal rafters although these are rougher in the south-west end (where one tie beam also been replaced with an iron I-beam), while in the main part of the building they are more obviously sawn and squared. In the north-east corner of the main part of the building an inserted concrete ramp has been added, apparently as part of a hopper system used by the current owner, and concrete blocks are supporting the adjoining truss (Plate 19). In addition, the converted section in the north end is now separated from the rest by a concrete block wall (Plate 20).



Plate 17 (left): Trusses in the south-west end of the building, viewed from the south



Plate 18 (right): Trusses in the main part of the building, viewed from the east



Plate 19 (left): Concrete ramp and associated block structure supporting the roof in the north-east corner, viewed from the south-west

Plate 20 (right): Concrete block wall dividing the already converted section from the rest of the building, viewed from the south-east

4. Site History

4.1 Background History

4.1.1 The background history to the site helps our understanding of the development and use of the site, where known, making use of the map evidence presented above (see *Section 3*) where relevant. The background to the site is intended to place the results of the project in its local context and in order to do so a brief discussion of the earlier history of its wider environs is also necessary.

4.1.2 **Early History:** while there is evidence for prehistoric activity from the area around Ulverston in the form of casual finds such as stone axes and axe hammers dating from the Neolithic and Bronze Age (CCC and EH 2002, map D), the extent of any associated settlement is, as yet, uncertain. More recently a large enclosure has been identified on Hoad Hill, immediately to the west of Newland, which is considered likely to be of Late Bronze Age or Iron Age origin (Elsworth 2005; Elsworth 2014).

4.1.3 Although there have been occasional finds of Roman coins, no evidence has yet been confirmed of settlement from that period in the immediate area. Some of these stray finds, such as a coin (Shotter 1989, 42), have been found in relatively close proximity to the site, however, and fragments of possible Romano-British pottery have been found during evaluations in Ulverston (OA North 2004; Greenlane Archaeology 2006). Recent work reappraising the evidence for Roman activity in the general area has suggested that a road may have passed close to or through Ulverston and that this could have had an associated settlement (Elsworth 2007).

4.1.4 **Medieval:** the hamlet of Newland is recorded as early as c1196 in the Coucher Books of Furness Abbey (Atkinson 1887, 385); the place-name might be taken to indicate land that had been relatively recently taken into cultivation. A mill is recorded at Newland from as early as 1331 (Farrer and Brownbill 1914, 359n) and by at least 1347 it is part of property held by William de Coucy and Robert de Coucy of Gynes (Farrer 1915, 154). Later, in 1535, it is recorded as having paid rent to Furness Abbey (Farrer and Brownbill 1914, 359n) The tenant at the time was a John Corker (Brownbill 1919, 614), and it was subsequently taken into the ownership of the crown before being sold in 1662 (Davies-Shiel 1978, 111).

4.1.5 **Newland Furnace:** the most significant historical development in Newland is the establishment of a blast furnace in the first half of the 18th century. In 1746 Newland Mill was acquired from John Benson of Mansrigg Hall by Agnes Bordley acting on behalf of Richard Ford, her brother, and his business partners (Michael Knott, James Backhouse, and William Ford), in order to control the valuable water system that existed in the valley (Fell 1908, 217; OA North 2003, 12). Using Agnes Bordley to acquire the estate allowed them to establish a new enterprise without breaking an agreement made in 1735 with Thomas Rigg in regard to the Nibthwaite Furnace, in which Ford was a partner, by which neither party could establish a furnace within 10 miles (Fell 1908, 212). A deed of partnership was executed in 1747 and so the furnace must have been erected shortly afterward (Goodall 2001, 3). By 1784 the increased involvement of Henry Ainslie, through his marriage to Richard Ford's daughter Agnes, led to the company becoming known as Knott, Ainslie and Co, and after George Knott's death in 1812, Harrison, Ainslie and Co (OA North 2003, 13).

4.1.6 The furnace was enlarged in the later 18th century with the addition of a forge in 1783 and a rolling mill in 1799; the latter subsequently became a blacking mill in the 19th century (Fell 1908, 218), while there is some evidence that the forge was contained within the old corn mill to the south of the furnace (Greenlane Archaeology 2009a). By 1818 Harrison, Ainslie and Co. seem to have been trading as the Newland Company (Goodall 2001, 4), and they continued to operate the furnace at Newland intermittently until 1891 (*op cit*, 7). According to Mannex's Directory of 1882 '*...from its commencement until 1874...considerable alterations and improvements were made, and coke and coal substituted for charcoal*' (Mannex and Co 1882, 249). These improvements are likely to have included the installation of a hot blast system whereby hot waste gases could be re-used in the smelting process (Goodall 2001, 7). The brick chimney and raised throat evident in the only early photograph of the site (Plate 21) is likely to relate to this, as is the presence of the brick flue in the 'garage' (*ibid*).

4.1.7 These alterations were not enough to save the struggling enterprise. By 1890 the price of pig iron had fallen and holding a stockpile of over 1,000 tons by January 1891 contributed to the furnace's eventual closure (Marshall *et al* 1996, 213). The Newland Company cancelled the lease of the property in 1903, which was taken up by James Athersmith, a joiner and wheelwright, who sublet part of the site to Thomas Thompson (Goodall 2001, 8). The property included the corn mill, Newland House and garden, five cottages with gardens, the joiner's shop and the iron furnace, which was by that time in ruins (CAC(B) BD/BUC/43/8/22 1904).



Plate 21: Newland Furnace c1897 shortly after its closure (Anon 1897)

4.1.8 In 1918 the dam that controlled the water to the furnace buildings burst during a heavy storm and much of Newland was flooded (Helme 2002, 68). This damage and the cost of repair and maintenance of the mill and other buildings forced the landowner, the Duke of Buccleuch, to put all the land and property at Newland up for sale in 1921 (*ibid*; CAC(B) BD/BUC/42/Bundle 6/50 1918-1919). It was finally bought by Thomas Thompson in the same year after a bidding war with James Athersmith, his former landlord (CAC(B) BD/BUC/17/42 1921-25). Elements of the furnace complex appear to have carried on in use as a joiner's workshop after the closure of the furnace (as is evident in Plate 21) and remained in reasonably good condition long after the furnace stack had become ruinous. Parts of the site were also used as a commercial garage after the Second World War (Helme 1994, 13).

4.1.9 **The Charcoal Barn:** it has to be assumed that the former charcoal barn was constructed shortly after the furnace, or at the same time, i.e. in 1747, although direct evidence is limited to what is available in early maps (see *Section 3.3* above). These show that the majority of the building was constructed by c1823 at least. A recording of the building carried out as part of the English Heritage investigation into the site at Newland (Goodall 2001, 13-15) determined it to have been constructed in several phases. The first of these comprised a large north/south orientated block on the west side of the current structure, built against the bank. This was subsequently enlarged with the addition of a smaller structure to the north-east of the original barn and a larger structure to the south, which no longer survives. A further addition was then made to the east of the north-east addition; all of these changes had been made by 1846. A further extension, to the east from the centre of the first barn, was made between 1846 and 1888 and involved opening out part of the east wall of the original barn. This created the broadly T-shaped structure that survives today.

4.2 Previous Archaeological Work

4.2.1 A number of recent small pieces of work have been carried out in Newland (Figure 2), all of which add to the understanding of the blast furnace and its associated buildings:

- A Conservation Plan was carried out in 2003 for the iron furnace, which looked at the known historical development of the site and considered issues about its future development, conservation, and public display and interpretation (OA North 2003);
- A desk-based assessment and building recording prior to the conversion of the former corn mill at Newland was carried out by Greenlane Archaeology in May 2008 and a watching brief was carried out during associated groundworks between May 2008 and January 2009 (Greenlane Archaeology 2009a). The mill comprised the main building, with a corn drying kiln to the north, and the remains of a small outshut to the south-east. There was also originally another outshut to the west, perhaps a peat store. It is uncertain whether the existing mill building was built following the acquisition of the site by the Newland Company in 1746 or whether they remodelled an existing mill. Certainly the building was substantially remodelled, most likely in the late 18th or early 19th century. The watching brief identified some areas of interest in the land around the mill, including evidence for the location of iron ore dumps on the west side of the site. It also enabled a section cut through the head race and the structure of the wheel pit to be recorded. A number of finds were made, including fragments of millstones, presumably incorporated as building material into the mill, a sandstone disc, perhaps part of one of the mill stones, and most significantly an iron tilt hammer head. The tilt hammer head recovered from the site and the documentary sources suggested that the mill did indeed incorporate the forge in some way (Davies-Shiel 2008);
- Greenlane Archaeology carried out a desk-based assessment and building recording of a garage attached to the former iron furnace at Newland in October 2008 and monitored the removal of its concrete floor and excavation of a new foundation trench in March 2009 (Greenlane Archaeology 2009b). The building was probably built sometime in the mid-19th century and is approximately square in plan. The watching brief revealed that the floor within the building comprised a make-up layer of slate rubble overlaid with concrete to the level of the ground on the north side of the building. The original floor was constructed from brick, and remains relating to a large flue connected to the furnace were also revealed. The building was perhaps most likely used as some type of workshop connected with the furnace, although there was no evidence to determine its function;
- Two phases of monitoring work were undertaken by Greenlane Archaeology as part of Scheduled Monument consent relating to the alteration of land adjoining the former charcoal barn at Newland and later the erection of a steel framed solid fuel store in this area. The first period of watching brief carried out in March 2013 monitored the removal of part of a bank set against the south end of the charcoal barn (Greenlane Archaeology 2015). This revealed that, although it had been subsequently utilised as a location to dump and bury rubbish, the bank, which was in an area known to have originally had an extension to the charcoal barn on it, originated in part as a dump of haematite (iron ore), presumably intended for use in the nearby furnace. Finds recovered during the watching brief were of primarily 19th century date, which fits with the documentary evidence, which shows that by the end of the 19th century, when the furnace was in its final years, it had amassed a considerable stockpile of ore. The further watching brief, which took place in October 2016, monitored the excavation of six pits located immediately to the south of the former charcoal barn, each of which was typically 1.3m by 1.3m in plan and between 0.5m and 1.1m in depth. In each pit a similar sequence of deposits was encountered: a surface layer of loose slate gravel, a layer of haematite-rich clay varying from 0.1m to 0.3m thick, and the natural clay geology. Only in the north-east corner was there any significant variation to this, where there was no haematite present but a thin layer of compacted gravel, perhaps bedding for a surface, and another thin deposit of dark grey clay instead. No finds were recovered, but based on the

results of the previous watching brief it is likely that the layer of haematite related to a store of iron ore of probably 19th century date (Greenlane Archaeology 2016b);

- In November 2016, Greenlane Archaeology (2016a) carried out a heritage assessment of the ruinous remains of a former blacking mill associated with the Newland blast furnace. The furnace was built in 1746-7 by Richard Ford and his associates, who became known as the Newland Company. Elements of the northern block of buildings to be redeveloped had already been built by 1812 and the southern block was built during the early-to-mid-19th century. The heritage assessment collated information relating to the former blacking mill buildings, which probably originated as a rolling mill associated with the furnace in 1799, and did not become a blacking mill until at least the mid-19th century. The history of the blacking mill is not well understood but the details of some of the occupiers are recorded as are details of a number of catastrophic fires that affected the site in the 1840s and later. It remained in use into the late 19th century before becoming a saw mill. It was subject to an extensive survey by English Heritage, published in 2001, having been previously photographed by Mike Davies-Shiel in 1979;
- An archaeological evaluation at Newland Furnace was carried out between November 2016 and June 2017 as part of a wider proposal to improve access to the interior (Greenlane Archaeology 2017b). The evaluation initially comprised six one metre square test pits, five within the blowing house, and one at the base of the furnace stack, and after agreement with Historic England three of the test pits were enlarged to further examine some of the features encountered. The evaluation revealed that across most of the blowing house there was a considerable amount of rubbish and dumped material overlying a large amount of slag. There was an initial accumulation of material on top on top of structural elements below that, perhaps resulting from partial demolition carried out after the closure of the furnace in 1891. The most substantial structural element was a surface, comprising dressed limestone blocks with iron holding-down bolts, which probably served as the bed for a blowing engine, thought to have been installed in the 1870s. On the east side of the blowing house the remains of a rough wall were clearly very late and post-date the operation of the furnace and below these only layers of rubble were present. In the furnace stack a small culvert built of fire brick was revealed below deposits containing coarse red sand;
- An archaeological building recording was carried out of a barn at Furnace Cottage in August 2017 (Greenlane Archaeology 2017a). Maps show that a roofed structure existed on the current footprint from at least c1804. The building was constructed in the space between the furnace, to the north, the cottage, to the south, and the casting house to the east. The lower part of the west wall is the earliest element and may be contemporary with the furnace. It was probably constructed in part to retain the mill leat by revetting the slope. After the furnace went out of use it is recorded that the building was used as a joiner's workshop and then garage and it is likely that some of the most recent alterations to the doorways as well as changes to the internal access relate to this period;
- An ongoing archaeological watching brief is currently taking place inside the furnace as part of a project to improve access by lowering the internal ground level, and in the barn adjoining Furnace Cottage as part of the development work there.

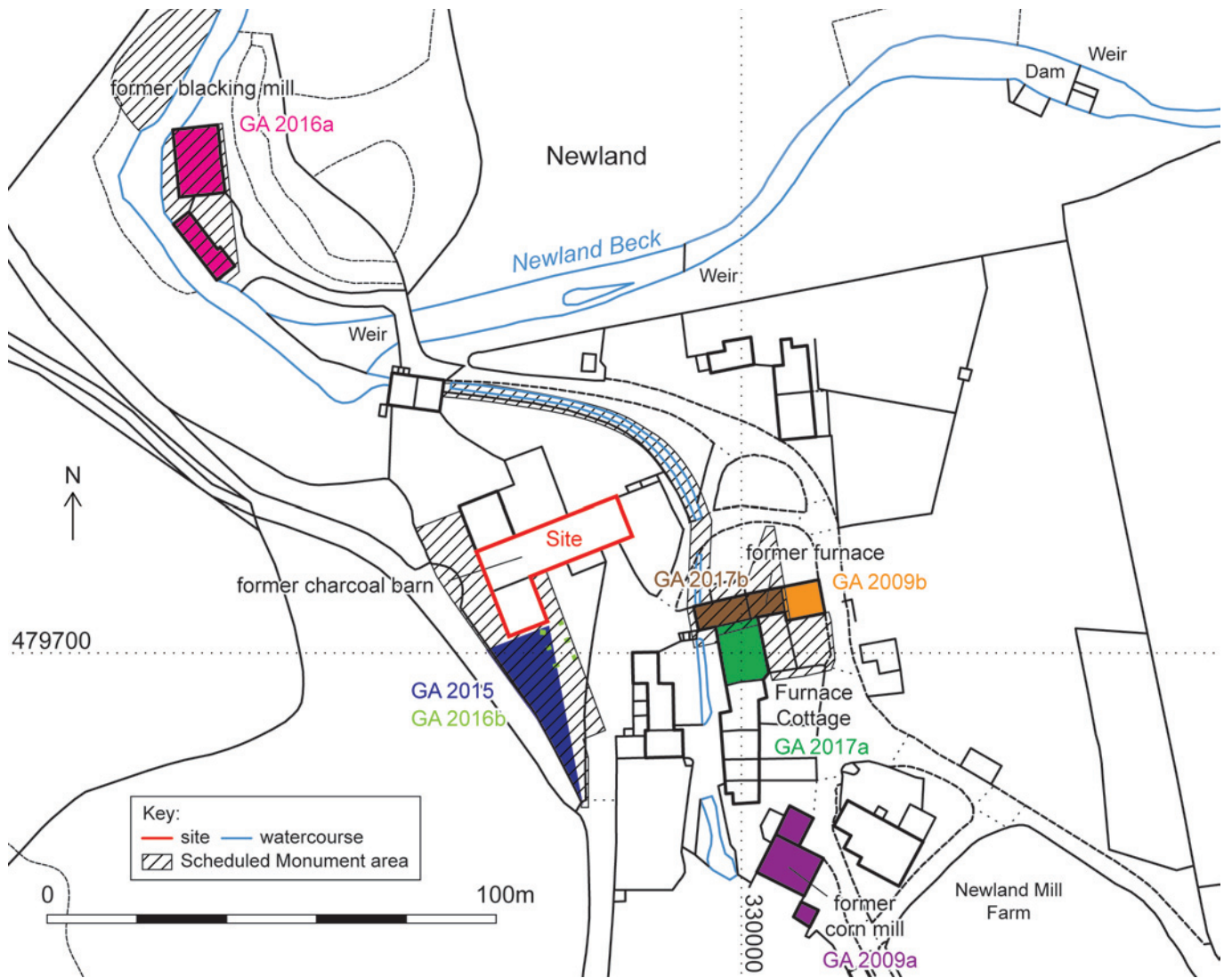


Figure 2: Location plan of previous archaeological work

5. Discussion

5.1 Introduction

5.1.1 The discussion of the results of the desk-based assessment and site visit is intended to determine the archaeological and historical significance and potential of the heritage asset and establish the extent of any impact of the proposed development on them. The assessment of the significance and impact is based on the principals laid out in NPPF (see *Section 2.1*).

5.2 Significance of the Heritage Assets and Impacts of Proposals

5.2.1 **Significance:** the former charcoal barn is a Grade II Listed building and so a statutorily protected heritage asset of at least local value. It is also located within a Conservation Area. The desk-based assessment shows that the building is of probable mid to late 18th century origin, although it was extended a number of times into the 19th century but has retained much of its original form since then. The site visit demonstrates that where there have been more recent alterations these are largely relatively minor and relate to changes to doorways and the addition of small outshuts.

5.2.2 **Impacts and Recommendations:** the present scheme's proposals do not result in any significant loss of historic fabric from the building. The largest areas of change are associated with the insertion of windows, in particular in the south elevation, although the majority of these make use of existing openings. It is important, however, that in areas where there is the risk of loss of historic fabric, such as within the roof structure, as much of this is retained as possible. In addition, any internal wall coverings should ideally be removable and attached to the existing surfaces so that these could be uncovered at a future date if considered necessary. The scheme might also be beneficial to the historic fabric as it would presumably lead to the removal of some modern alterations, such as the concrete structures in the north-east corner (Plate 19). The proposal also has the benefit of providing a long-term future for the building, ensuring its survival.

5.2.3 Although the building has already been subject to detailed archaeological recording (Goodall 2001) the proposed development scheme would potentially allow the opportunity for further recording to be carried out once it had been cleared and the modern additions to the removed. This could potentially further enhance the understanding of the development of the building. It is therefore recommended that archaeological building recording be carried out following the clearing of the contents of the building and the removal of modern additions.

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Appendix 1: Listed Building information

From: <https://historicengland.org.uk/listing/the-list/list-entry/1096783>

Grade: II

List Entry Number: 1096783

Date first listed: 14-Apr-1993

Statutory Address: OUTBUILDING FORMERLY CHARCOAL STORAGE BARN TO THE NORTH WEST OF NEWLAND BLAST FURNACE, NEWLAND, LA12 7QG

Charcoal barn. Now storage building. Late C18 or early C19 with later additions and C20 alterations and additions. Rubble Lakeland slatestone, brought to courses, with massive sandstone quoins and green Westmorland slate roof coverings, laid to diminishing courses. Irregular T-plan with principal range running east-west, and with smaller wings at right-angles to west end bay to north and south, second (roofless) wing to north, at centre of principal range. South-elevation; two-storey main range of approximated fire bays, with inserted full-height C20 double doorway to east end, and with C20 rendered brick outshot to front. Two-bay wing to west extends southwards, with C20 doorways. East gable to principal range, with opening to gable apex, now with 6 over 6-pane sash window. At level of sidewall head, drip course of horizontally set projecting roof slates. West elevation, set on rising ground, with advanced west gable, flanked by single-storey ranges, each with an inserted window. Tall opening to centre of gable, formerly a doorway, formerly served by access ramp from track to north. INTERIOR not inspected, but survey evidence confirms queen-strut roof trusses supporting quadruple purlin roof.

Charcoal barns were characteristic elements of charcoal iron-producing areas, and an essential part of a process dependent upon massive quantities of charcoal fuel.

Listing NGR: SD2995079720