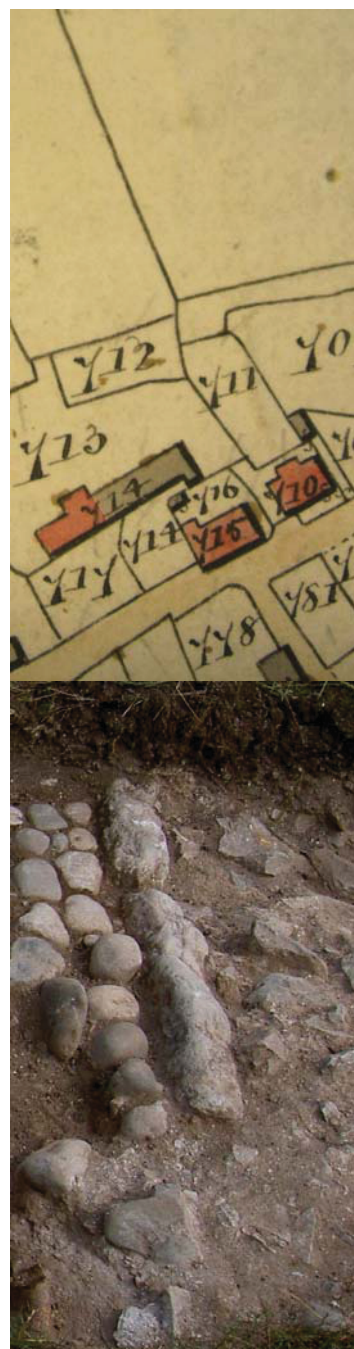


MILL ROAD, GLEASTON, CUMBRIA

Archaeological Evaluation



Client: Stephen Morrison
Planning Ap. Ref.: 5/06/0353
NGR: SD 25790 70825

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Non-Technical Summary

Following a planning application for the erection of two dwellings on land on Mill Road, Gleaston, Cumbria, a programme of archaeological evaluation was recommended by South Lakeland District Council after consultation with the Assistant Archaeologist at Cumbria County Council.

Gleaston is known to have an ancient history; it is recorded in the Domesday Book and there is considerable evidence for prehistoric activity from the general area. Gleaston Castle, a short distance to the north-east of the site, was the home of the Harrington family from the 14th to the 15th century and the mill immediately to the south is thought to date from the 12th or 13th century. The site on Mill Road is one of a row of narrow plots of characteristically medieval form, which originally ran between the road to the south and a back lane to the north, which linked them to the fields beyond. Early maps and documentary sources show that the plot was occupied by a farmhouse owned by the Kendall family from at least the early 19th century, and that this was subsequently replaced by a row of cottages in the late 19th century. These were pulled down in the 1970s, after which the plot remained unoccupied.

The evaluation revealed that there were no traces of the later cottages, but that well-preserved walls, cobbled surfaces and a drain relating to the earlier house were present beneath a shallow topsoil. Medieval remains including a linear feature, probably a boundary ditch or palisade trench, and a small pit were also recorded, sealed beneath a garden soil and deposits possibly left as a result of flooding.

A small assemblage of pottery dating to the 14th to 15th century was recovered, as well as considerably more material belonging to the post-medieval period. Environmental remains were also recovered from the pit and linear feature, including charred cereal grain, and well-preserved organic material including plum stones and hawthorn seeds was recovered from the post-medieval drain associated with the earlier house.

The site has provided a useful opportunity to examine the archaeology of the village of Gleaston, within the planned medieval plots, and has revealed important evidence relating to the earliest occupation of the site and its subsequent use in the post-medieval period.

Acknowledgements

Greenlane Archaeology would like to thank Stephen Morrison for commissioning and supporting the project, his architect Chris Bugler for providing 'as existing' plans of the site, and Edward Waddington for his excellent machine driving. Further thanks are also due to the staff of the Cumbria Record Office in Barrow-in-Furness and Ulverston Library, and to Jo Macintosh at Cumbria County Council Historic Environment Service (HES), for their help and additional information, and to Jeremy Parsons, Assistant Archaeologist at Cumbria County Council HES, for monitoring the fieldwork.

The desk-based assessment was carried out by Kelsang Malaya and Craig Appley under the supervision of Jo Dawson and the evaluation by was carried out by Daniel Elsworth with the assistance of Jo Dawson and Kelsang Malaya. Daniel Elsworth wrote the report and produced the illustrations, and the finds and environmental samples were processed by Kelsang Malaya and Craig Appley. The retents were assessed by Jo Dawson, and the flots were assessed by Scott Timpany of Headland Archaeology, with assistance from Stephen Carter for the land snails, and Sarah-Jane Haston for the bryophytes, both also of Headland Archaeology. The bones were examined by Steve Rowland, the medieval pottery was assessed by Ian Miller, both of Oxford Archaeology North (OA North), and the stamped clay tobacco pipe was assessed by Peter Davey of the University of Liverpool. The remaining finds were assessed by Craig Appley under the supervision of Jo Dawson. The project was managed by Jo Dawson, who also edited the report.

1. Introduction

1.1 Circumstances of the Project

1.1.1 An application (5/06/0353) was made by Stephen Morrison to construct two dwellings on plot of land on Mill Road, Gleaston, Cumbria (SD 25790 70825). After a recommendation by Cumbria County Council Historic Environment Service, South Lakeland District Council placed a condition on planning consent requiring a programme of archaeological assessment. After consultation with the Assistant Archaeologist at Cumbria County Council this was confirmed as an archaeological evaluation of 5% of the total site area (900m²). A brief was issued (*Appendix 1*), in response to which a project design was produced by Greenlane Archaeology (*Appendix 2*), and following the acceptance of this the evaluation was undertaken between the 16th and 18th August 2006.

1.2 Location, Geology and Topography

1.2.1 The site is situated on the north-east side of the village, within a plot thought to be of medieval origin (see *Section 3*; Fig 1). The plot comprises a small parcel of land divided into two halves by a revetted wall. The southern half (upon which it is proposed to build the two dwellings) is mainly level, with a slight slope down to the road along its southern edge, and is adjoined on the east and west side by neighbouring buildings. The northern half comprises a steep slope, and has some large trees on it, and in the north-east corner it allows access to the back lane running to the rear of the plots to the east (Fig 2). The site is situated at approximately 12m above sea level (Ordnance Survey 2002). Gleaston 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 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).

2. Methodology

2.1 Introduction

2.1.1 The evaluation comprised three separate elements intended to establish the extent, nature and, where possible, date of any buried deposits of archaeological interest present on the site. The first part of this was a rapid map regression intended to establish the development of the site over time, and the position of any features, particularly buildings, that were considered to be of archaeological interest. The second part was the excavation of evaluation trenches amounting to a 5% sample of the total site area (900m²), which would be positioned with regard to the results of the map regression and specifically in order to target areas of archaeological interest. The third part was an assessment of the results of the evaluation, an analysis of any artefacts or ecofacts recovered, and the consideration of the results in the light of the recorded history and development of the site and its environs. In addition a suitable archive was compiled to provide a permanent paper record of the project and its results in accordance with English Heritage and IFA guidelines (English Heritage 1991; Ferguson and Murray n.d.).

2.2 Desk-Based Assessment

2.2.1 Both Gleaston and the surrounding area were examined to provide information for the archaeological and historical background to the site. This was in order to determine not only what sites of archaeological interest were present within the proposed development area, but also what types of sites were in the general environs. This information could then be used to assess whether these might also be affected and provide a general background to the type of sites in the area. A list of previous archaeological work carried out in the immediate area was also produced. All aspects of the desk-based assessment were carried out according to the standards and guidance of the Institute of Field Archaeologists (IFA 2001a).

2.2.2 The desk-based assessment principally comprised a map regression, which was able to demonstrate the presence of any structures on the site, their development and a basic phasing of activity, as well as the arrangement of field patterns, roads and tracks. In addition, directories relating to the area were also consulted in order to establish who the owners and occupiers of premises within the study area had been, so that information about the use of the buildings could be gathered. Secondary sources relating to the general history of the local area were also examined to provide a historical context for the results of the investigation. A number of sources of information were used during the desk-based assessment:

- **Cumbria County Council Historic Environment Record (CCCHER):** this is a list of all the known sites of archaeological interest within the county, which is maintained by Cumbria County Council and is the primary source of information for an investigation of this kind. A selective list of the known sites of archaeological interest in and around Gleaston was acquired; each identified site comes with a grid reference, description and source and any additional information referenced was also examined as necessary.
- **Cumbria County Record Office, Barrow-in-Furness (CRO(B)):** this was visited in order to examine early maps and plans of the site, original documents relating to properties on the site, and local and regional histories and directories;

- **Ulverston Library:** secondary sources held in the local studies collection of Ulverston library were also consulted during the compilation of the site background;
- **Greenlane Archaeology:** additional secondary sources held by Greenlane Archaeology were also examined, in order to provide further information for the site background.

2.3 Archaeological Evaluation

2.3.1 Prior to the excavation of the evaluation trenches a brief site visit was carried out. This was intended to assess the area for any modern disturbance, in particular the presence of services and structures not shown on the maps of the site. In addition, it was assessed for areas of contamination and anything which would act as a constraint to the evaluation such as low-level overhead wires. Any exposed areas of ground were examined in order to identify the presence of any artefacts that might indicate the date of buried deposits.

2.3.2 A series of archaeological evaluation trenches were excavated across the site covering an area totalling 5% of the entire plot. These were positioned with regard to the results of the map regression and intended to target specific features of archaeological interest or answer specific questions. Each trench was excavated stratigraphically using a mix of machine and hand excavation techniques. It was proposed that trenches would be excavated, two approximately 6m long and 1.7m wide and one 12m long and 1.7m wide. During the excavation it was requested by the Assistant Archaeologist that the area against the road be examined, so one of the two 6m long trenches was reduced to 3m and an additional 3m long and 1.7m wide trench was excavated. In each case a number of recording techniques were used:

- **Written record:** descriptive records of all deposits and structures were made using Greenlane Archaeology *pro forma* record sheets. In addition, a general record of each trench and the days' events was also made;
- **Photographs:** photographs in both 35mm black and white print and colour digital format were taken of significant deposits or structures uncovered during the evaluation, general views of the evaluation trenches, the surrounding landscape and working shots. A selection of the colour digital photographs is included in this report, and the remainder are presented on the accompanying CD. A written record of all of the photographs was also made on Greenlane Archaeology *pro forma* record sheets;
- **Drawings:** drawings were produced for each trench. These comprised:
 - i. plans of the features within each trench, at 1:20;
 - ii. one long-section of each trench, at 1:20;
 - iii. sections of specific features of interest not included on the long section, at 1:10;

2.3.3 The location of each trench was recorded using a total station, and levels were added to all of the plans and sections in the same way. These were tied in to the nearest benchmark. All aspects of the desk-based assessment were carried out according to the standards and guidance of the Institute of Field Archaeologists (IFA 2001b).

2.4 Environmental samples

2.4.1 **On-site sampling:** bulk samples were taken from three contexts – linear feature fill **107**, drain fill **210**, and pit fill **105**. In total, three bucket samples, totalling approximately 23 litres in volume, were collected (see *Appendix 6 Table 1*).

2.4.2 **Processing:** all samples were processed using flotation techniques, with 250µm and 500µm sieves used for the flots, and a 1mm mesh used for the retents. The flots and retents were then naturally air dried, with the exception of the flots from waterlogged samples, which were kept wet.

2.4.3 **Retent sorting:** the retents were sorted systematically by eye, and artefacts and ecofacts were removed and bagged for retention (see *Appendix 6 Table 2*). The remaining portion of the retents was recorded on *pro forma* sheets, and it was then either retained, if significant quantities of artefacts and ecofacts remained, or discarded, if the sample was securely dated and all artefacts and ecofacts had been removed. The artefacts and ecofacts retrieved from the retents were recorded on the same *pro forma* sheets.

2.4.4 **Flot assessment:** all plant macrofossil samples were analysed using a stereomicroscope at magnifications of x10 and up to x100 where necessary to aid identification. Identifications were confirmed using modern reference material and seed atlases including Cappers et al (2006). Within the waterlogged sample 3 land snails and a high quantity of moss (bryophyte) fragments were observed and these have been identified separately.

2.4.5 **Assessment and recording:** the results of the assessment and sorting of the flots and residues were recorded in tabulated form (*Appendix 6*). In addition, the finds were incorporated under suitable headings (*Section 6*), and the environmental remains were also discussed in *Section 7*.

2.5 Finds

2.5.1 **Processing:** all of the artefacts were washed, with the exception of metal and glass, which were dry-brushed. They were then naturally air-dried and packaged appropriately in self-seal bags with white write-on panels.

2.5.2 **Assessment and recording:** the finds were assessed and identified by appropriate specialists (see *Acknowledgements*). Those finds that were assessed by Greenlane Archaeology were recorded on *pro forma* record sheets, and those that were assessed by external specialists were recorded through records made of verbal communications. A catalogue of the finds was produced (*Appendix 4*).

2.6 Animal Bone

2.6.1 The bone was rapidly sorted and recorded in terms of condition (the state of preservation, angularity and colour, the latter of which provide useful clues concerning the taphonomy of the bone assemblage), taxon and element, together with any evidence for butchery, carnivore gnawing or burning. Those elements with potential for ageing and sexing were also noted. Identifications were made using the OA North palaeoecology reference collection and recording followed the Environmental Archaeology Unit (EAU) protocol for recording animal bones (Dobney, Jaques and Johnstone 1999) which, to increase speed of analysis and to maximise the potential of the most informative elements, advocates the recording of a specific suite of 'A bones' using the bone zones of Dobney and Reilly (1988). The remaining elements were not identified to taxon, regardless of completeness. Instead, along with less complete elements, these were identified to anatomic element where possible, and recorded generally as bird, medium mammal 2 (dog-, cat- or rabbit-

sized), medium mammal 1 (caprovid-, pig- and small deer-sized), large mammal (cow-, horse- and large deer-sized) or unidentified.

2.6.2 Sheep and goats were distinguished on the basis of the deciduous fourth premolar, distal humerus and tibia, proximal and distal radius, astragalus, calcaneus and the third phalanx according to the criteria of Boessneck (1969), Payne (1985) and Prummel and Frisch (1986). The bone is tabulated in *Appendix 5* and is discussed in *Section 7*.

2.7 Archive

2.7.1 A comprehensive archive of the project has been produced in accordance with the project design (*Appendix 2*), and current IFA and English Heritage guidelines (Ferguson and Murray n.d.; English Heritage 1991). The paper and digital archive and a copy of this report will be deposited in the Cumbria Record Office in Barrow-in-Furness on completion of the project. Three copies of this report will be deposited with the Cumbria Historic Environment Record (HER), one with the client, one with the client's agent, and one will be retained by Greenlane Archaeology. In addition, a digital copy will be offered to the NMR and a record of the project will be made on the OASIS scheme.

2.7.2 It is envisaged that all of the artefacts and ecofacts recovered during the evaluation will be offered to the Dock Museum in Barrow-in-Furness.

3. Desk-Based Assessment

3.1 Introduction

3.1.1 A rapid desk-based assessment was carried out prior to the evaluation. This was intended to place the results of the evaluation in their local historical and archaeological context by providing information about the types of archaeological sites already recorded in the area and any previous archaeological work undertaken, as well as a detailed history of the site. This was important in determining the position of the evaluation trenches, so that they could be targeted on areas considered to be of archaeological interest, as well as identifying the types of site likely to be encountered based on the known resource in the local area.

3.2 Site History

3.2.1 **Gleaston:** there is considerable evidence for prehistoric activity from the general area around Gleaston in the form of casual finds such as stone and bronze axes and axe hammers dating from the Neolithic and Bronze Age (Gaythorpe 1898, 161-4; Spence 1935, 180; Fell 1971, 11). The extent of any associated settlement is, as yet, uncertain, however. Excavations carried out at Gleaston water mill between 1992 and 2001 claimed to have discovered a Mesolithic lake-side settlement (Salisbury and Coupe 1993; 1995), potentially pushing back the dating of the known occupation of the area, but the evidence supporting this suggestion is at best flawed. However, other remains of a similar date have been discovered close to this site (HER No. 40439) and scatters of flint artefacts have been found in the general vicinity (HER No 40435), and more specifically to the north of the site (Evans 2005, 27).

3.2.2 There is little evidence for Roman remains from the area, although a coin dating to AD 140-143 was discovered near Gleaston castle in c1985 (Shotter 1988, 241; 1989, 42; 1990, 281) and other coins have been found around Beacon Hill to the east (Elsworth forthcoming). While there have been numerous other finds of coins, pottery, and other remains from this period from across Furness dating to the entire Roman period (*ibid*), there has, as yet, been no conclusive evidence of Roman forts or military structures from the region. However, a new study of the evidence suggests that there was a road (or roads) across the peninsula during the Roman period, and that these are likely to have connected to forts or civilian settlements (*ibid*).

3.2.3 The settlement at Gleaston is certainly of medieval date and is mentioned in the Domesday Book (LUAU 1998, 8), although this in itself is not necessarily indicative of a village and may relate to a single farmstead (Taylor 1983, 126). However, the place-name demonstrates an earlier origin combining the native British word for a stream, '*glas*', and the Anglo-Saxon '*tun*' meaning farmstead or village (Gambles 1994, 59; Lee 1998, 36). Much of the village is Gleaston retains many other features of medieval date, typical of a village of this type including a castle, mill, cross and well. The castle is thought to have been built in the early to mid 14th century by John de Harrington, the Harringtons having inherited an estate including Gleaston in the late 13th century (LUAU 1998, 8). The Harringtons owned the manor and the castle until 1458, after which date it is possible that the castle was dismantled (*ibid*). The mill is thought to have its origins in the 12th or 13th century (Anon n.d.), which is supported by archaeological evidence due to the excavation of part of the mill leat (Salisbury and Coupe 1995, 4). However, the exact location of the early mill is not known (*ibid*), and a reference from 1523 refers to two mills, Hert Mill and New Mill, under the same roof, the reason for which is uncertain (Anon 1948,

12). The current mill building is thought to relate to the New Mill (*ibid*), although the majority of the structure is probably 18th century in date (Anon n.d.).

3.2.4 The cross formerly stood in the centre of the village, where the sign post now stands, the base of which comprised several large blocks of limestone (Tweddell 1870, 11). The well, known as St Michael's Well or Micklewell, is known to be of some antiquity, although it is considered more likely to have been named after Sir Michael le Fleming who owned much of the land in the area during the medieval period (Anon 1948, 13). It is also reputed to have been used during droughts in the 20th century because it never dried up, and it is claimed that it was where Oliver Cromwell took his last drink (McNichol c2000, 162). There are few other finds or features of medieval date recorded from the Gleaston area, although a lead *ampulla* dated to between 1200 and 1500 was discovered near to the mill and recorded as part of the Portable Antiquities Scheme (HER No. 19429), and medieval pottery has been discovered during field walking around Leece, to the south-west (HER Nos. 40435 and 40436).

3.2.5 During the post-medieval period Gleaston probably changed very little and by the beginning of the 20th century it was still described as comprising only a few houses (Bulmer c1910, 41). A congregational chapel and school, built in 1882 (*ibid*) was probably one of the major additions to the village at this time, although the village has grown a little during the later 20th century. The area has remained dominated by rural activities, and this is reflected by the type of sites recorded on the HER from this period, which include a smithy (HER No. 18071) and the mill (HER No. 2331), which continued in use into the 20th century (Anon n.d.).

3.2.6 **The Site:** the site is situated on the north-east edge of the village. The form of the plot with its long strip fields and back lane suggests that it is medieval in date, with the back lane providing access from the tofts to the fields beyond (Daniels 2002, 194). However, there is little documentary evidence relating to the early development of Gleaston that can add to this interpretation. It is perhaps likely that the original core of the village was further west, and that Mill Road represents a subsequent expansion. Many of the properties in the adjoining plots, and those elsewhere in Gleaston, appear to be 17th century in origin (for example No 5 Duke Street is dated 1686; English Heritage 2001), and Fernleigh, immediately to the east of the site, is dated 1697. While the earlier maps are unable to reveal any details about the arrangement of the site and any buildings that were situated within it (see below) it is likely that there was a building or buildings on the plot prior to the late 18th century. A brief examination of directories and other documents revealed a succession of owners and occupiers from the mid 19th century onwards (Tables 1 and 2 below), although the difficulty of identifying the location of the site precluded the use of the earlier census returns.

3.2.7 The documentary sources reveal that the earliest occupiers and owners of the site were the Kendalls. Thomas Kendall Jnr owned and occupied the property from at least 1848. A Thomas Kendall Snr (who died in 1848), perhaps his father, owned a number of other properties in Gleaston (CRO(B) BD HJ 189/1/66 1848), which may have included the development site. Members of the Kendall family, not all of whom are necessarily related, are common in Gleaston during this period, and a Christopher Kendall, perhaps Thomas Snr's father, is recorded as dying sometime before 13th August 1831 (CRO(B) BD HJ 189/1/65 1831). In the 1851 census Thomas Kendall Jnr is referred to as a farmer of 19 acres, living with his wife Margaret and two sons John and Thomas (HO 107/2275 Folio 54 1851). Curiously a directory of 1866 makes no mention of Thomas Kendall Jnr, although there are several other Kendalls living in Gleaston (Mannex and Co 1866). In 1869 several surrenders of land in Gleaston were made by John and Thomas Kendall, presumably

Thomas Kendall Jnr's children, who had presumably inherited the estate from their father by this date (CRO(B) BD HJ 192/ Bundle 5/88-92 1869). By the census of 1881 John and Thomas Kendall are both described as retired farmers living together in Gleaston, presumably in the house on the proposed development site (RG 11 4280/18, page 7 1881).

Date	Occupier	Property	Source
1848	Thomas Kendall Jnr	Homestead	CRO(B) BPR 21 1848
1869	Thomas and John Kendall	-	CRO(B) BD HJ 192/Bundle 588-92 1869
1881	Thomas and John Kendall	-	1881 Census (RG 11 4280/18, page 7)
1910	Richard Swaddle	Cottages (Plots 128-130)	CRO(B) BT/IR 1 1910, page 13
1910	JH Kneale	Cottage (Plot 131)	CRO(B) BT/IR 1 1910, page 13
1910	Lawson	Cottage (Plots 132-134)	CRO(B) BT/IR 1 1910, page 13
1948	JC Steele	4 Croft Terrace	CRO(B) BSRD/NL Ulverston RDC Building Plans 3/2278 1948

Table 1: Recorded occupiers of the site

Date	Owner	Property	Source
1848	Thomas Kendall Jnr	Homestead, Stackyards, Orchard and Garden (plots 712-714 and 717)	CRO(B) BPR 21 1848
1869	Thomas and John Kendall	-	CRO(B) BD HJ 192/Bundle 5/88-92 1869
1910	John Frankland	Cottages (Plots 128-134)	CRO(B) BT/IR 1 1910, page 13
1948	JC Steele	4 Croft Terrace	CRO(B) BSRD/NL Ulverston RDC Building Plans 3/2278 1948

Table 2: Recorded owners of the site

3.2.8 The map evidence shows that by 1890 the original house had been demolished and replaced with a row of cottages, so these are likely to have been built between 1881 and this date (see below). The Inland Revenue valuation of 1910 (CRO(B) BT/IR 1 1910, page 13, Plots 128-134) gives details of the majority of the occupiers, although not all of the properties seem to have been used at the time (see Table 1 above), and states that the entire block was owned by John Frankland (see Table 2 above). Curiously, three of the cottages (132-134) are occupied by someone called Lawson, and an Eliza Lawson, perhaps the same person, also owned the adjoining Fernleigh House at this time (*ibid*).

3.2.9 **Map Regression:** a number of early maps of the site were examined, ranging from county maps of the late 18th century, to the earliest plans of the town, dating to the early 19th century, and Ordnance Survey maps of the 20th. These were able to reveal a number of pieces of information:

- **Yates 1786:** this is the earliest map to depict Gleaston in any detail although it is only possible to discern the major roads, the position of the castle and the basic arrangement of the village. While there are a number of buildings in the vicinity of the site, the map is not accurate enough to show whether any of these are within the plot;

- **Hennet 1830:** like Yates' map this is not detailed enough to show any specific details of the site, although it does depict buildings in its general vicinity;
- **Tithe Map 1848:** the tithe map for Aldingham Parish is the first detailed map of the area (CRO(B) BPR 21 1848), surveyed in 1846, and shows various divisions within the plot as well as a large building divided into two halves, presumably representing the house end (coloured red) and an attached barn and/or byre (coloured grey; Plate 1). The accompanying schedule (CRO(B) BPR 21/I/20 1846) states that the plot is owned and occupied by Thomas Kendall Jnr and includes an orchard (No. 712), stackyards (No. 713) and homestead (No. 714). He also owns two long strip fields to the north of the plot;
- **Ordnance Survey 1851:** this is the earliest Ordnance Survey map of the area, and it shows much of the same detail as the tithe map (Plate 2). It was surveyed in 1847, one year after the tithe map, and it is evident that the site has been somewhat altered within this short period of time. The original large building is still present, although it has clearly been slightly enlarged with an additional small outshut added to the south side of the east end. A further large building has also been constructed to the south-west of this structure, against the road, and, assuming these maps are accurate, this must have been built between 1846 and 1847;
- **Ordnance Survey 1890:** this is a considerably more detailed map than the earlier Ordnance Survey plan, and it shows that the plot has been completely re-organised by this date. All of the earlier buildings have gone and they have been replaced by a row of seven cottages with associated attached and detached outbuildings. The boundaries within the plot have also been removed and a new east/west boundary to the north of the cottages has been constructed. Paths and trees have also been added to the south of the cottages;
- **1910 Valuation:** the Inland Revenue Valuation of 1910 (CRO(B) BT/IR 1 1910) makes use of a copy of the 1890 Ordnance Survey map (Plate 3) and lists a number of occupiers and the owner of the entire block (see Tables 1 and 2);
- **Ordnance Survey 1913:** the plot is essentially exactly the same by 1913, with the cottages and outbuildings still present (Plate 4). Even at this date the row of cottages is not named;
- **Greenhouse Building Plans 1948:** on 20th May 1948, Mr John Crosthwaite Steele, owner of No. 4 Croft Terrace, gained permission to erect a greenhouse in the land behind the cottages immediately behind his house (Plate 5; CRO(B) BSRD/NL Ulverston RDC Building Plans 3/2278 1948). This is the first date at which the row of cottages is named – Croft Terrace;
- **Ordnance Survey 1968:** the cottages and associated outbuildings are still present, although the greenhouse apparently built in 1948 (see above) is not shown. The row is still named Croft Terrace at this date and the properties numbered 1-7;
- **Ordnance Survey 2002:** this is the most recent map examined (Figure 1). It shows that the row of cottages forming Croft Terrace as still present, despite the fact that these were apparently demolished in the 1970s (Stephen Morrison pers comm.). Presumably the revisions carried out when producing this map concentrated only on major changes.

3.3 Previous Work

3.3.1 Details of any pieces of previous archaeological work carried out within the vicinity of the development area were also examined. These can help to determine the likely nature of any archaeological deposits in the local area, the presence or absence of any remains of particular periods, and add to the general background history of the site and its environs. No previous work has been undertaken within the village, but two projects have been carried out within the environs of Gleaston:

1. **Excavation at Gleaston Mill:** between 1992 and 2001 an excavation was intermittently carried out at land belonging to Gleaston Mill by Chris Salisbury and Joanne Coupe. This was initially aimed at investigating features relating to the mill, although features relating to a supposed Mesolithic lake-side settlement were also apparently identified (Anon n.d.). The few published accounts do not provide a great deal of evidence to support this claim, however (Salisbury and Coupe 1993; 1995). The excavation subsequently went on to examine the areas immediately adjacent to and associated with the mill itself, although this has never been published;
2. **Feasibility Study for Gleaston Castle:** in 1998 a feasibility study was carried out for Gleaston Castle looking at ways in which the long-term survival of the site could be guaranteed and work that was necessary to preserve and examine the structure (LUAU 1998). No further work has, as yet, resulted from this.

3.4 Discussion

3.4.1 Gleaston is named in the Domesday Book and there is evidence for even earlier settlement from the general area, particularly to the north and west. It would appear that Mill Road forms part of a planned street of medieval date, with a row of tofts, comprising buildings and associated gardens, connected via a back lane to large strip fields beyond. This is a common form found throughout the country (Taylor 1983), which has been surveyed in detail in several places in Cumbria where the outline of the original field system is preserved as earthworks (Roberts 1993; 1996; 2001). Accurately dating this type of settlement pattern is difficult, however, although it is thought in general to have developed in the centuries following the Norman Conquest (Roberts 1996, 48-49). Narrow strip fields like those to the rear (north) of the development area are also thought to represent early elements of the developed landholding, although perhaps forming part of a later phase of enclosure (Clare 1996, 174). In many cases, particularly as a result of plague and raids from Scotland during the 14th century, settlements like Gleaston suffered a considerable decline in population and were partially or totally abandoned, although this was preceded in many areas by a continuous population growth (Newman 1996, 117). There is, however, no documentary evidence relating to the site from before the 19th century, although it is likely, based on the adjoining plots, that there was a building present on it from at least the late 17th century. During the 19th century it was evidently home to a family of farmers, who were undoubtedly established in the village at a much earlier date, and continued to reside at the site until the late 19th century. After this date their house was demolished and replaced by a row of cottages, which remained until the 1970s when the site was cleared.

5. Archaeological Evaluation

5.1 Setting

5.1.1 **Site visit:** the site visit revealed that the plot is divided into two halves. The northern half, which is not being re-developed, forms a steep slope adjoining the fields at the north end, beyond a fence, and is covered in trees and scrub. Its southern boundary is formed by a drystone wall revetted into the slope. In the north-east corner the plot is open to a back lane running behind the plots to the east. The southern half of the site is generally level, and has recently been cleared of scrub and vegetation leaving the surface of the ground exposed in places. Some areas of more dense vegetation still remain, however, in particular in the south-west corner. The ground level in the north-east corner is at a considerably higher level than the rest of the site, with a steep bank providing access to a short lane to the east of the adjoining property. The south-east boundary of the plot is formed by the walls around the adjoining property (Fernleigh), while to the south west there is a low wall against the road with a wide entrance and a pedestrian gate. The eastern boundary of the plot is a stone wall, abutting a brick-built building to the south, and the western boundary is also a stone wall.

5.1.2 A small number of post-medieval artefacts, mainly fragments of pottery and glass dating from the late 18th to 20th century, were recovered from the surface of the southern half of the plot. A larger number of similar pieces were recovered from the northern half of the plot, as well as a single fragment of medieval pottery of 12th to 13th century date.

5.1.3 **Evaluation:** initially it was proposed to excavate three trenches within the plot, but following a site visit by Jeremy Parsons, it was agreed to reduce the length of one of these and open a fourth trench against the road to the south (Fig 3; Plates 16 and 17). Trench 1 was intended to examine the row of late 19th century cottages and the two buildings that pre-dated these depicted on the tithe map and early Ordnance Survey maps. Trench 2 was intended to examine a similar range of features. Trench 3 was intended to identify any structures that might be positioned against the side of the road to the south, and Trench 4 was intended to examine the area of raised ground on the eastern side of the site in order to establish whether this was the original ground level. All four trenches were orientated north/south. A summary context list is provided in *Appendix 3*.

5.2 Trench 1

5.2.1 Trench 1 was approximately 16m long by 1.6m wide (Figs 3-4). The uppermost deposit was a very shallow layer of mid orange-brown loose silty clay forming the topsoil/overburden (**100**). This contained a medium amount of small rounded stones and covered the entire trench to a thickness of approximately 0.1m. Beneath this was a layer of dark grey firm silty clay containing a considerable amount of small to medium and large rounded and sub-rounded stones, as well as some brick and slate fragments (**101**). This probably represents a deposit of demolition rubble and was no more than 0.2m thick. At the north end of the trench **100** lay on top of a mid orange-brown compacted clay containing 50% small rounded stones, considered to be the natural boulder clay (**102**). A sondage was taken through this deposit with the machine to a depth of approximately 0.75m below the surface, demonstrating that it was at least 0.6m thick. At the south end of the trench this was overlain by a mid to dark greyish brown loose silty clay containing approximately 20% small rounded stones up to 0.3m thick, which appeared to be a garden soil (**103**).

buried beneath layer **101**. The northern end of this layer overlay a linear feature, which was vertically sided on the north edge and shallower on the southern and up to 0.3m wide and 0.22m deep (**108**), probably forming a drain (Plates 7 and 8). This was filled with a mid-orange brown loose silty clay with up to 95% small sub-angular and rounded stones. Below the southern end of **103** was a mid orange firm silty clay with up to 10% small rounded stones, which was up to 0.25m thick (**104**; Plate 9). A sondage was taken through this with the machine, revealing a small sub-oval pit, 0.55m long by 0.3m wide and 0.1m deep, with a shallow U-shaped section (**106**) filled with a dark orangey pink firm clay containing 5% small stones (**105**; Plate 6). Pit **106** was cut into a firm mid orange-brown clay containing 1% small stones (**109**), considered to be a natural deposit.

5.3 Trench 2

5.3.1 Trench 2 was approximately 6m long and 1.6m wide (Figs 3 and 5). The uppermost deposit comprised a 0.1m thick layer of mid greyish brown loose silty clay containing 20% small angular and sub-angular stones (**200**). Beneath this at the north end of the trench was a compacted orange-brown clay comprising 30% small rounded stones considered to be the natural boulder clay (**214**). In the centre and south end of the trench was a complex sequence of deposits and structures. The uppermost deposit comprised a layer of rounded stones in a matrix of mid brown loose sandy silt forming a loose cobbled surface (**205**), and bedded in a thin layer of loose yellow sand (**206**; Plate 10). This cobbled surface covered an area of approximately 0.7m north/south by 1.4m east/west, and was laid on top of a layer of mottled mid brownish-orange firm clay containing 20% small angular and sub-angular stones and some slate (**201**), probably a re-deposited boulder clay. North of the centre of the trench this layer covered an L-shaped section of wall comprising an outer skin of large boulders and inner fill of loose rounded and sub-angular medium to large stones, forming walls 0.85m thick (**208**; Plate 11). The walls were sat in a shallow cut of similar dimensions and with vertical sides (**209**), which was not excavated. To the south of this, below **201** and butting **208**, was a further layer of cobbles extending across the entire trench (**207**). This was generally thicker than the cobble surface above (**205**), being up to 0.2m thick in places. A sondage taken through this surface revealed that it was bedded in a layer of mid purplish-brown loose sandy clay less than 0.05m thick (**212**), which lay on top of the natural **214**.

5.3.2 The south end of the lower cobble surface butted a large edge-set slab of limestone, which formed part of an edging continuing across much of the trench (**203**). This was positioned within a slot cut into the natural (**214**), with near vertical sides (**204**), although this could not be excavated. The edging slabs (**203**) continue some distance above the level of **207**, and were in fact butted by **205**, which suggests that they were visible when this surface was constructed. To the south of **203** a layer of pale buff-white loose sandy silt containing large quantities of mortar and 80% angular pieces of limestone and lenses of clay and pink gravel up to c0.3m thick (**202**) was deposited across the south end of the trench. Beneath this was a further cobbled surface comprising small angular and sub-angular stones in a mid-brown firm clay matrix (**213**). Beneath the north side of this, against the upright slabs (**203**), was a stone-lined drain in a vertical cut (**211**) into the natural **214** (Plate 12). This was filled with a waterlogged dark brown loose silty clay containing considerable amounts of plant matter (**210**).

5.4 Trench 3

5.4.1 Trench 3 was approximately 3m long by 1.6m wide (Figs 3 and 6; Plate 14). The upper deposit comprised a dark brown-black loose sandy clay containing 10%

small sub-angular stones extending across the entire trench but only 0.1m thick (**300**). Beneath this was a mid-orange brown firm clay containing 30% medium-small sub-angular stones and a large lens of mortar, again covering the entire trench to a thickness of 0.15m (**301**). Beneath this was a mid grey-brown loose silty clay containing 10% small rounded stones, probably a buried garden soil, extending across the entire trench and up to 0.45m thick (**302**). Beneath this was a pink and orange-yellow compacted sandy clay containing 1% small sub-angular stones and a lens of coarse loose yellow sand (**303**). This extended over only approximately 1.1m at the south end of the trench and was generally 0.05m thick. Below this was a cobbled surface comprising small sub-rounded and rounded stones in a mid-orange brown compacted sandy clay matrix, which extended across the entire trench (**304**; Plate 13). This was generally less than 0.05m thick and was laid on a mid-orange brown compacted clay containing 10% small rounded stones extending across the entire trench and probably representing the natural boulder clay (**305**).

5.5 Trench 4

5.5.1 Trench 4 was approximately 3m long by 1.6m wide (Figs 3 and 7; Plate 15). The uppermost deposits comprised a mid grey brown loose silty clay topsoil with 10% small sub-angular and rounded stones extending across the entire trench and between 0.4m and 0.5m thick (**400**). Below this was a mid orange-brown firm silty clay sub-soil containing 20% small rounded and sub-angular stones, again extending across the entire trench and up to 0.2m thick (**401**). This was deposited on top of a mid brownish orange firm clay containing 30% medium and small rounded and sub-angular stones extending across the entire trench, which was interpreted as being the natural boulder clay (**402**).

6. Finds

6.1 Introduction

6.1.1 Hand-retrieved: in total, 772 fragments of artefacts were hand-retrieved during the evaluation. More than half of the assemblage was pottery, of which only 17 fragments were medieval in date, with the rest being post-medieval. Just over an eighth of the assemblage was glass, with slightly more bottle and vessel glass than window glass being present. A considerable amount of iron was also present. The remainder consisted of small quantities of ceramic building material, clay tobacco pipe, copper alloy, lead, aluminium, industrial residue, coal, and plastic (see Table 3, below). The majority of the finds were recovered from the buried garden soil **103** in Trench 1, but similar quantities were also recovered from demolition layers and the topsoil/overburden. Considerably smaller amounts of finds were recovered from other deposits such as the re-deposited natural **201**, the subsoil **401**, and linear feature fill **107**.

	Buried garden soil 103, 302	Demolition 101, 202	Topsoil/ overburden 100, 200, 300, 400	Re-deposited natural 201	Subsoil 401	Linear feature 107	Total
Pottery (medieval)	5	2	1	0	0	9	17 *
Pottery (post-medieval)	199	128	159	21	27	0	534
Ceramic building material	2	13	4	0	0	0	19
Ceramic	3	0	0	0	0	0	3
Clay tobacco pipe	5	2	5	0	0	0	12
Glass	18	52	39	10	1	0	120
Iron	11	17	11	6	0	0	45
Copper alloy	0	1	1	1	0	0	3
Lead	0	0	2	0	0	0	2
Other metal	0	2	0	0	2	0	4
Plastic	1	0	1	0	0	0	2
Industrial residue	0	1	0	0	0	0	1
Coal	1	1	7	0	0	0	9
Antler	0	0	1	0	0	0	1
Total	245	219	231	38	30	9	772

Table 3: Type of finds from excavated contexts (hand-retrieved) (* = 1 unstratified fragment of medieval pottery retrieved during site visit)

6.1.2 Retents: bulk samples were taken from contexts **105** (the fill of pit **106** and **107** (the fill of linear feature **108**) in Trench 1, and context **210** (the fill of drain **211**) in Trench 2. All of these contexts were sealed by deposits above them and had produced few or no hand-retrieved finds. Much of the recovered material was very small in size - no more than 10mm in length. The finds recovered from the retents are

shown in Table 4, below, and are mentioned briefly in the relevant sections that follow.

	Pit fill (105)	Linear feature fill (107)	Drain fill (210)
Glass	+	+	++
Pottery (post-medieval)		+	++
Pottery (medieval)	+		
Ceramic (post-medieval?)	+	+	+++
Slag, prill and hammerscale		+	
Coal	++	+++	+++
Iron		+	+
Haematite	+		
Mortar		++	+++
Daub	+++		
Flint	+		

Table 4: Type of finds recovered from retents (Key: + = 1-5, ++ = 6-20, +++ = 21-100, ++++ = >100)

6.2 Medieval pottery

6.2.1 Hand-retrieved: in total, 18 fragments of pottery were dated to the medieval period (Plate 18), although of these nine comprised refitting fragments from an on-site break. During the site visit surface finds were collected, and these included a single fragment from the base of a lightly-gritted ware vessel, dated to the 12th to 13th century. Of those retrieved during the evaluation, the earliest were the nine refitting fragments referred to above, which were partially reduced ware, dated to the 14th to 15th century, and were recovered from the top of the fill of linear feature **108** in Trench 1 (**107**). A single fragment of the same material was also recovered from the topsoil of Trench 2 (**200**). Two fragments of reduced greenware dating from the late 14th century to the 15th century were recovered from demolition layer **101**, and a single fragment of sandy ware dating to the 15th century was recovered from the buried garden soil **103**. Four fragments of reduced greyware dating from the 15th to 16th century, comprising two refitting pairs, were also recovered from this layer.

6.2.2 Retents: a single splinter of medieval pottery was retrieved from the retent of pit fill **105**. Although extremely small, it appears to be reduced greyware, dating from the 15th to 16th century.

6.3 Post-medieval pottery

6.3.1 Hand-retrieved: the ceramic assemblage recovered from the site was dominated by post-medieval pottery. Most of this consisted of fragments of earthenware which could only be assigned a relatively broad date. Thirty percent could only be assigned a date of late 17th to early 20th century; 33% between the late 18th and 20th centuries, and 29% between the 19th and 20th century. This was mainly due to the fact that many of the fragments belonged to locally-made coarseware vessels whose form and fabric stayed similar for very long periods of time. The remaining 8% consisted of decorative tableware or sherds displaying particular types of decoration, and could therefore be more accurately dated. It is these pieces upon which most date interpretations are based.

6.3.2 The majority of post-medieval pottery (58%) was discovered in Trench 1 (**100**, **101**, **103**; see Table 5, below). The topsoil and demolition debris represented by contexts **100** and **101** contained mostly decorated and undecorated earthenware tableware, and a significant amount of coarse, red earthenware fragments. There was also a concentration of stoneware fragments present within context **101**. The

presence of large quantities of decorated tableware and glazed white earthenware suggests that these contexts date to anywhere between the 18th and early 20th centuries. There were two fragments of medieval pottery recovered from the demolition material (**101**), but these are considered to be residual.

	100	101	103	200	201	202	300	302	400	401	Total
Red earthenware (decorated and undecorated)	17	39	65	17	11	0	4	23	4	16	196
Undecorated white / buff-coloured earthenware	12	34	25	18	2	1	1	14	4	2	113
Decorated earthenware (excluding red earthenware)	20	25	15	20	7	1	-	8	7	9	112
Bone china	5	9	7	4	-	1	-	13	3	-	42
Stoneware	3	15	7	5	1	-	-	12	8	-	51
Pearlware	2	1	2	1	-	-	-	2	-	-	8
Factory-produced slip-ware	2	1	3	2	-	-	-	2	-	-	10
Other	-	1	1	-	-	-	-	-	-	-	2
Total	61	125	125	67	21	3	5	74	26	27	534

Table 5: The abundance of different pottery types in each context

6.3.3 The buried garden soil, represented by context **103**, contained significant amounts of coarse, glazed, red earthenware vessel fragments, which could date from the 17th to early 20th century, with comparatively small amounts of decorated tableware which could be dated to the 19th century. There was also a notable amount of yellowware, mottledware and tin-glazed earthenware, which date from the late 17th to 18th centuries. This suggests that context **103** is likely to be 18th century in origin. However it must be taken into account that five fragments of medieval pottery were recovered from this context, and the garden soil may therefore have built up over several centuries.

6.3.4 Seventeen percent of the assemblage was discovered in Trench 2 (**200, 201, 202**). Most of the pottery from all three contexts could be dated to between the 18th and 20th century, although there were three examples of late 17th – early 18th century pottery found in the topsoil (**200**). Based on the majority of sherds being post-1700 in origin, it can be assumed that all the contexts of Trench 2 could date to anywhere between the 18th and 20th centuries. There was one piece of medieval pottery recovered from the topsoil (**200**), but it was residual.

6.3.5 Fifteen percent of the assemblage was recovered from Trench 3 (**300, 302**). Just five fragments were recovered from the topsoil (**300**), and only one of these could be assigned a date to between the 19th and early 20th century. The buried garden soil represented by context **302** yielded significant quantities of post-1700 pottery, including two sherds of pearlware which can be dated to the late 18th or early 19th century. This context is therefore probably 18th to 19th century in origin.

6.3.6 Ten percent of the assemblage was discovered in Trench 4 (**400, 401**). None of the material in this trench could be assigned a specific date, but the majority of

material could date from the 18th to 20th century. Both contexts are likely to be 19th century in origin.

6.3.7 **Retents:** drain fill **210** contained a single fragment of tin-glazed earthenware with blue painted decoration, dated to the 18th century. It also contained a slightly larger fragment of slip-trailed red earthenware that was broadly dateable to the late 17th to 18th century, and several smaller splinters of 19th to 20th century white earthenware. Linear fill **107** contained a single splinter of black-glazed red earthenware, broadly dated to the late 17th to early 20th century.

6.4 Glass

6.4.1 **Hand-retrieved:** in total there were 120 fragments of glass recovered from the trenches (see Table 6, below). These included 67 fragments of vessel glass, 51 of window glass and two beads. The majority of glass was recovered from Trench 1 (**100**, **101**, **103**), particularly the demolition debris represented by context **101**. The other trenches contained much smaller amounts of glass.

Context	100	101	103	200	201	202	300	302	400	401	Total
Vessel Glass	7	22	6	11	4	1	2	5	8	1	67
Window Glass	7	25	5	3	6	3	0	2	0	0	51
Other	1	1	0	0	0	0	0	0	0	0	2

Table 6: The distribution of glass across the contexts

6.4.2 As would be expected, the majority of window glass was found in the demolition debris of context **101**. There were also small amounts in Trenches 2 and 3, but not in Trench 4.

6.4.3 The largest concentrations of vessel glass were discovered in Trenches 1 and 2, particularly in contexts **101** and **200**. There was comparatively little vessel glass recovered from Trenches 3 and 4. All of the vessel glass could date from anywhere between the 18th and 20th century.

6.4.4 From context **100** a small, green glass bead was recovered, and from context **101** a larger, hemispherical bead was recovered. Both can be broadly dated to the post-medieval period.

6.4.5 **Retents:** pit fill **105** and linear fill **107** both contained a single splinter of colourless glass. Drain fill **210** contained a single fragment of colourless glass, and many splinters of colourless and very light turquoise glass. None of the fragments were closely dateable.

6.5 Other Ceramic and Daub

6.5.1 **Hand-retrieved:** only 19 fragments of ceramic building material were recovered from the site. In the topsoil of Trench 1 (**100**), three fragments of red earthenware were discovered which could possibly be roof tile fragments. In the demolition layer **202**, 13 fragments of brick were recovered. From the buried garden soil in Trench 3 (**302**) two fragments of 19th century drainpipe were discovered, and in the topsoil of Trench 4 (**400**) one brick fragment was recovered.

6.5.2 Two pieces of nondescript rough red earthenware were recovered from context **302**. These could possibly be brick or tile fragments. There was also a small, spherical piece of ceramic discovered in context **103**. This could be a child's marble.

6.5.3 **Retents:** all three samples produced splinters of red earthenware, probably post-medieval in date, but with no identifying features. Numerous small fragments of daub were retrieved from pit fill **105**.

6.6 Iron

6.6.1 **Hand-retrieved:** various iron objects were discovered on site, though the majority were found in Trenches 1 and 2. Most of the items were badly corroded and therefore could not be accurately dated or identified. It is therefore not possible to date any contexts from this information. In Trench 1, 18 iron objects were found. The majority of these were found in the demolition rubble of context **101**. Nearly all were unidentifiable; however some are probably nails. In Trench 2, 18 iron objects were discovered; contexts **200**, **201** and **202** had six objects each. Again, most of these were unidentifiable, but some were probably large nails. In Trench 3 there were nine objects recovered; all from the buried garden soil (**302**). Two of these were nails, the others were amorphous lumps of corroded iron. Trench 4 yielded no iron objects whatsoever.

6.6.2 **Retents:** two possible highly corroded iron nail fragments were recovered, one from linear fill **107** and one from drain fill **210**.

6.7 Lead

6.7.1 **Hand-retrieved:** one unidentifiable piece of lead was found in the topsoil of Trench 4 (**400**). One small strip of window-kame was discovered in the topsoil of Trench 2 (**200**).

6.7.2 **Retents:** linear fill **107** contained a very small fragment of possible lead.

6.8 Copper Alloy

6.8.1 **Hand-retrieved:** only three copper alloy objects were recovered from the site. One unidentifiable fragment came from the topsoil of Trench 1 (**100**); a non-decorative ring, which could be an 'eye' for reinforcing holes in fabric, was found in the demolition debris of Trench 1 (**101**); and a small disk with a screw attachment on the reverse was recovered from the layer of redeposited natural in Trench 2 (**201**). None of these can be closely dated.

6.9 Other Metal

6.9.1 **Hand-retrieved:** four other metal objects were recovered. A small aluminium object and a small toy whistle (?) were recovered from the demolition layer of Trench 1 (**101**). Also, a 1.5v AA battery and an aluminium 'Dylon' tin were found in the topsoil of Trench 4 (**400**). These items all date to the 20th century.

6.10 Clay Tobacco Pipe

6.10.1 **Hand retrieved:** clay tobacco pipe fragments were found mainly in Trench 1. Two stem fragments with medium bore, dating between the mid 18th and mid 19th century were recovered from the topsoil (**100**); and two bowl fragments which are not closely datable were found in the demolition layer (**101**). In the buried garden soil (**103**), one bowl fragment was recovered along with five stem fragments of which, on the basis of bore width, one could be dated between the mid 18th and the mid 19th century, and four from the mid 19th century onwards. The earlier group included a marked example stamped Geo March (Plate 19; described more fully by Peter Davey in paragraphs 6.10.3 to 6.10.6, below). These dates concur with those provided by the pottery for these contexts.

6.10.2 In addition to this two badly damaged, and therefore not closely datable, stem fragments were discovered in the topsoil of Trench 2 (**200**). Also, one stem fragment, which initially would have had a metal or wooden mouthpiece, was recovered from the topsoil of Trench 4 (**400**). Based on bore width the latter dates from the mid 19th century onwards.

6.10.3 **Stamped fragment from context 103:** stem fragment in a dense off-white, highly fired body with few inclusions; compound and damaged roller-stamp consisting of an outer line of triangles and four rows of lines of tiny squares framing a name: GEO MARCH with a pair of rows of squares below before the break. Stem bore = 6/64".

6.10.4 The roller-stamp is typical of the products of Rainford in the period c1710-1740. It seems most likely that this example, which is the only one known with this mark, is that of the Rainford maker George Marsh recorded in Eccleston 1729-1740, despite the form of the ending of the name being different. The form of the stamp and spacing of the lines of ornament are very close indeed to those of published Rainford examples such as those made by James Farest, (Davey 1978, 4-5, fig 2, no 22) spelt Fairhurst in the registers and died 1724 (King 1982, 266), and Matthew Plvmly, (Higgins 1987, 14-18, fig 11, no 8) spelt Plumley in the registers and recorded 1718 to 1725, (King 1982, 277).

6.10.5 A Rainford roller-stamped stem by George March (Marsh) 1720-1740.

6.10.6 It is worth remembering that there are few published pipes from Cumbria and that at least one Rainford maker moved up to work on the Lowther estates at the end of the 17th century. A review of pipes in collections in Cumbria undertaken by Peter Davey with David Higgins some years ago noted that whilst in the north of the county the pipe industry was most closely related to the north-east of England, in the south Rainford forms and marking styles were predominant. A number of Rainford-type roller stamps are known from south Cumbria with names for which there is no record in Rainford. These may represent local production. If Geo March is not George Marsh he may just be such a Cumbrian maker.

6.11 Industrial Residue and Coal

6.11.1 One piece of nondescript burnt mineral material was recovered from the demolition layer of Trench 1 (**101**).

6.11.2 One fragment of coal was found in the topsoil (**100**), one in the demolition layer (**101**), and one in the buried garden soil (**103**) of Trench 1. Six fragments were recovered from the topsoil of Trench 2 (**200**). No coal was found in Trenches 3 and 4.

6.11.3 **Retents:** linear fill **107** produced a single globule of prill, a larger slag droplet, and a very small slag fragment.

6.11.4 None of the above material is closely datable; nor does it suggest any significant scale of industry on the site.

6.12 Plastic

6.12.1 **Hand-retrieved:** only two pieces of plastic were found on site, both in Trench 1. A 20th century tobacco packet was found in the topsoil (**100**), and a thin piece of plastic film was discovered in the buried garden soil (**103**). Judging by the length of the plastic film, and the colouring upon it, it is possible that it is associated with the tobacco packet found in the topsoil and has been displaced during excavation.

6.13 Graphite, Haematite, and Flint

6.13.1 **Hand-retrieved:** one fragment of graphite from a pencil was recovered from the demolition layer of Trench 1 (**101**). It must be noted that this could have been deposited during excavation.

6.13.2 **Retents:** a lump of haematite and a very small flint waste flake were recovered from pit fill **105**. The flint is a dark brown to black colour and, while not obviously worked is clearly derived from worked rather than natural flint. It's small size and lack of working makes it impossible to date.

6.14 Antler

6.14.1 **Hand retrieved:** From the topsoil of Trench 4 (**400**), a small antler knife-handle was discovered. This was 10cm in length and had evidence of corroded iron at both ends. This object is not closely datable, as antler-handled tools have been used for centuries, but its state of preservation would suggest that it is 18th to early 20th century in date.

6.15 Mortar

6.15.1 **Retents:** both linear fill **107** and drain fill **210** contained numerous small fragments of lime mortar.

7. Environmental Remains

7.1 Introduction

7.1.1 **Hand-retrieved:** in total, 107 ecofacts were hand-retrieved during the evaluation, and they are summarised in Table 7, below. The bone and marine shell are discussed in the sections that follow.

	Buried garden soil 103, 302	Demolition 101, 202	Topsoil/overburden 100, 200, 300, 400	Re-deposited natural 201	Subsoil 401	Total
Charcoal	0	0	1	0	0	1
Animal bone	12	16	11	2	1	42
Marine shell	16	26	19	1	2	64
Total	28	42	31	3	3	107

Table 7: Type of ecofacts from excavated contexts (hand-retrieved)

7.1.2 **Retents:** fragments of bone, charcoal, and terrestrial and marine shell were recovered from the retents, and are summarised in Table 8, below. They are discussed briefly in the sections that follow.

	Pit fill 105	Linear feature fill 107	Drain fill 210
Animal bone	++	+++	+
Marine shell	++	++++	++++
Terrestrial shell			++
Charcoal		+	

Table 8: Type of ecofacts recovered from retents (Key: + = 1-5, ++ = 6-20, +++ = 21-100, ++++ = >100)

7.2 Animal Bone

7.2.1 **Hand-retrieved:** approximately 36 bones were recorded, many of which had been freshly-broken into a greater number of fragments. Preservation was generally fair to good, with some loss of the organic component of the tissue, resulting in the observed brittleness. Most bones were generally spiky, suggesting that they had not been subject to a significant degree of post-depositional movement, with the exception of those from demolition deposits **101** and **202**, which were predictably battered. Where identifiable, and with the exception of a single fragment of bird long bone shaft, the assemblage appeared to entirely comprise the three main domesticates (sheep, cattle and pig). The bone assemblage was too small to characterise in terms of origin (i.e. primary butchery or industrial waste), but would not be out of place as a component of domestic refuse. Butchery marks, comprising knife cuts and saw marks (particularly affecting those from topsoil **400**, where almost all the bones had been sawn), were well-evidenced, and carnivore gnawing was also observed. No bones were measurable, and there were very few mandibles, loose teeth or unfused epiphyses that could be used for providing husbandry information.

7.2.2 The present assemblage has no potential for further analysis: it is too small, contains very few ageable or measurable elements and derives from deposits which are either secondary in character, or accumulated over a long period of time, rendering close-dating impossible. However, as a probable domestic assemblage from a Cumbrian rural site, the present assemblage is of value in indicating the preservation of bone material within the area, and as a means of helping to inform

future sampling strategies from the site. No further work should be undertaken on the present assemblage; it is instead recommended that the material should be disposed of.

7.2.3 **Retents:** pit fill **105** and linear fill **107** both produced many small fragments of burnt and unburnt bone, which were too small and fragmentary for identification. Linear fill **107** also contained five small fish vertebrae, and drain fill **210** contained two very small bone fragments.

7.3 Marine Shell

7.3.1 **Hand-retrieved:** in total 64 fragments of marine shell were recovered during the excavation (see Table 9, below). The vast majority of these were oyster shell, most of them badly fragmented and in very poor condition. There was also a notable abundance of cockle shells. Most of the marine shell discovered came from trench one, and a significant amount from Trench 2. Comparatively few were found in trenches 3 and 4. The largest concentration of marine shell was discovered within the demolition layer of trench 1 (**101**), suggesting that they may have been part of the building material.

	Oyster	Cockle	Winkle	Total
Trench 1	28	7	5	40
Trench 2	8	9	1	18
Trench 3	4	0	0	4
Trench 4	2	0	0	2
Total	42	16	6	64

Table 9: The abundance of different marine shell species in each trench

7.3.2 **Retents:** pit fill **105** contained very small quantities of mussel shell fragments. Linear fill **107** and drain fill **210** both contained numerous marine shell fragments, all of which were very small, and some of which may have originated from decaying lime mortar. Many of the fragments were too small to identify, but those from linear fill **107** included mussel and winkle, and those from drain fill **210** included mussel, winkle, cockle, and scallop.

7.4 Terrestrial Shell

7.4.1 **Hand-retrieved:** no snails were recovered amongst the hand-retrieved finds.

7.4.2 **Flots:** three species of snails are present within the waterlogged sample (3) *Oxychilus* sp. ++, *Discus rotundatus* + and *Vitrea contracta* +. This assemblage although having no particular environmental or ecological implications, is indicative of subterranean environments, such as in caves and within rubble (Kerney and Cameron 1979). These species are also highly tolerant of human habitation and will live in close vicinity to occupied areas.

7.4.3 **Retents:** two land snail shells and land snail shell fragments were present in the retent from drain fill **210**.

7.5 Charred Plant Remains

7.5.1 The non-waterlogged samples (1 and 2) were from a pit and a linear feature and were found to contain low quantities of charred cereal grain (rare or occasional). Many of the grains recovered were highly degraded, largely being broken and/or abraded making identification beyond cereal-type (Cereal indet.) not possible (see Appendix 6 Table 3).

7.5.2 Sample 1 from fill **105** of pit **106** contained a variety of cereal grains including oat (*Avena* sp.), club/bread wheat (*Triticum aestivo-compactum*), spelt wheat (*Triticum spelta*) and emmer wheat (*Triticum dicoccum*), together with possible rye (*Cerealia* cf. *Secale cereale*) grain. Culm node fragments were recovered in small amounts. This sample also contained high quantities of small charcoal fragments (less than 1cm³ in size), coal, cinder and pieces of daub (see *Appendix 6 Table 3*).

7.5.3 Sample 2 from fill **107** of linear feature **108** contained a small number of oat grains together with a small quantity of charred remains of sedge nutlets (*Carex* sp.), daisy family achene (*Asteraceae* sp.) and rush seeds (*Juncus* sp.). Within the sample there was also a large quantity of small charcoal fragments (less than 1cm³ in size), coal and a small (rare) quantity of pieces of daub (see *Appendix 6 Table 3*).

7.5.4 Both samples were found to contain a number of uncharred plant remains, which are highlighted in *Appendix 6 Table 3*. These are thought to be modern material as neither of these samples was waterlogged. Material included elder (*Sambucus nigra*) seeds, bramble (*Rubus* sp.) fruits and sun spurge (*Euphorbia helioscopia*) seeds.

7.6 Waterlogged Plant Remains

7.6.1 Sample 3 was taken from waterlogged fill **210** of a stone-lined drain feature **211** set into a cobbled surface. The sample contained a large amount of hawthorn (*Crataegus monogyna*) fruit stones and small (rare) quantities of *Betula pubescens* (downy birch) seeds, bramble (*Rubus fruticosus*) fruits, knapweed (*Centaurea* sp.) fruits and woundwort (*Stachys* sp.) fruits. The sample also contained a large quantity of moss stems and leaves (see below), leaf fragments and small wood fragments, which were not of a sufficient size to be able to identify (less than 1cm³). Smaller quantities of coal and unburnt bone were also recovered (see *Appendix 6 Table 4*).

7.6.2 **Bryophytes:** the waterlogged sample (3) contains a slender, light to dark green moss. The stem is dark brown, and irregularly branched. The stem leaves and branch leaves are light green, with an almost copper tinge. Concave in shape, the branch leaves are slightly smaller and narrower than the stem leaves. No capsules were present within the sample. The leaf shape suggests that it is a pleurocarpous moss of the genus *Hypnum*, and most likely that of *Hypnum cupressiforme* which is found common on rocks, walls, trunks and lower branches of trees, logs, tombstones in dry exposed or sheltered situations throughout the British Isles (Smith 2004).

7.7 Discussion of Plant and Shell Remains

7.7.1 The fills of pit **106** and the linear feature **108** are both suggestive of domestic refuse and could represent small midden deposits. The large quantities of charcoal and coal fragments in both samples (1 and 2), together with cinder in Sample 2, indicate these may be the remnants of material from domestic hearths, which has been swept or emptied into these features. The presence of daub fragments within the samples may also be evidence of the material having been swept out of the building, for example daub fallen from a wattle and daub interior becoming incorporated into the sweepings. A wattle and daub interior framework would not be out of place in a building such as a croft cottage (Holden 1998). The presence of charcoal together with coal suggests the occupants of the site were still collecting their own wood for fuel as well as purchasing coal, which may indicate a certain amount of self-reliance.

7.7.2 All of the charred grain found within these deposits is likely to have become incorporated accidentally from the drying of grain above the hearths (Holden 1997; Vandorpe 2002). Reasons for drying the grain include: domestic cooking (e.g.

baking), for storage or preventing spoilage (Hillman 1981). The charred grain from the two samples suggests they may represent two different periods with Sample 2 dominated by oats and Sample 1 containing a range of grain with no one species being particularly dominant (see *Appendix 6 Table 3*). The range of grain within Sample 1 may highlight the variety of cereal being grown, which was available to people during that period

7.7.3 The small number of other charred plant remains from Sample 1, such as sedges and rushes are suggestive of having come from damp environments (Stace 1997). However, the low quantity of such material makes it difficult to say for certain how it came to be incorporated within the deposit. Possible explanations include being gathered with the cereals during harvesting (e.g. sedges) and in the case of rushes being used as thatch, again in keeping with a croft building (Holden 1998).

7.7.4 The waterlogged drain fill **210** sample 3 is of a later date than the previous samples, thought to be *circa* 18th century. The sample is likely to represent material, which has been washed in from nearby and collected within the drain. The plant remains, such as woundworts, knapweeds and bramble are largely suggestive of waste ground (Stace 1997) and may have been growing within the cobbled area around the drain, possibly following the disuse of the site. High numbers of hawthorn fruits were recovered from the sample suggesting such trees were growing nearby and fruits frequently either falling or being washed into the drain. These trees may have been part of a nearby hedgerow or part of a waste ground vegetation community. The recovery of domestic plum stones from the sample could be evidence of fruit trees nearby, suggesting possible evidence for gardens or may represent food debris from the inhabitants of the area.

7.7.5 The large quantity of *Hypnum cupressiforme* moss leaves and stems found within the sample may also originate from this moss (favouring rock and stone surfaces) growing on the cobbled area and being frequently washed into the drain (e.g. following heavy rains). The snail assemblage is suggestive of species, which were all living within the subterranean environment of the drain itself.

7.8 Conclusions and Recommendations for Plant and Shell Remains

7.8.1 The samples represent two phases of activity at the site with probable domestic hearth material (14th to 15th century) being swept or deposited within pits around a possible croft building and a later (18th century) stone drain and cobbled area, which became disused and overgrown.

7.8.2 If needed the grain from Samples 1 and 2 could be dated to give further information on the period of occupation of the Croft tenement/area. No other further work is recommended.

8. Discussion

8.1 Introduction

8.1.1 The evaluation revealed a number of features, many of which probably relate to the known history of the site, and many of the features that were identified seem to relate to specific phases of activity that have taken place on the site prior to and during the 19th century (Fig 8). The well-preserved remains of a building with associated cobbled surfaces are undoubtedly the remains of the building shown on the site during the early to mid 19th century. A small amount of medieval pottery was also recovered, although this is largely thought to be of relatively late date (14th to 16th century), which probably represents some of the earliest occupation of the site. Only Trenches 1-3 revealed any features of interest, with Trench 4 containing a simple sequence of topsoil, subsoil and natural. The evidence from Trench 4 has therefore not been used in the discussion of the phases below but is presented in Figure 8.

8.2 Phasing

8.2.1 **Phase 1:** the earliest deposits on the site are undoubtedly natural in origin and comprise a series of sandy clays, typically very firm or compacted and orangey brown in colour (**102**, **109**, **214**, **305** and **402**). In Trench 1 there was some variation in these deposits between the north and south end of the trench. Deposit **102** is a very compacted clay, while **109** is a more silty, although still firm, deposit, with considerably less stone content. While the majority of these deposits are undoubtedly glacial in origin, this area, which is at approximately 12.4m OD, would have been close to sea level during the prehistoric period (Elsworth 1998; Appley forthcoming) and may have continued to be subject to flooding under exceptional circumstances for some time after this. It is possible, therefore, that the loose sand and clay at the south end of Trench 3 (**303**) was deposited as a result of marine activity. If this is the case, it might explain the subsequent positioning of the house in Phase 5 away from the road on slightly higher ground and the reason for the abandonment of the Phase 2 features (see below).

8.2.2 **Phase 2:** the earliest feature recorded during the excavation is the small pit from Trench 1 (**106**). While the only finds from this feature, which were recovered from the sample, were inconclusive in providing dating evidence (although they suggest a medieval date), its stratigraphic position suggests it is at least medieval in origin, and it appears to have contained domestic refuse such as household sweepings. The cobbled surface present in Trench 3 (**304**) may also belong to this phase, as it is at a similar height above Ordnance Datum, but there are no medieval finds from this trench with which to draw a comparative date.

8.2.3 **Phase 3:** pit **106** was subsequently buried by an apparently sterile silty clay (**104**), which was deposited across this part of the site. The nature of the deposition of this layer is uncertain, although it is possible that it was the result of flooding followed by reoccupation. The cobbled surface in Trench 3 (**304**) was also partially sealed by an apparently sterile clay mixed with coarse sand (**303**), which may also have derived from a flood episode.

8.2.4 **Phase 4:** a later phase of medieval activity is represented by linear feature **108**. The purpose of this is uncertain; it has the appearance of a drainage ditch, except that it is running along the contour, has a curious uneven V-shaped profile, and is respected and sealed by garden soil **103**. It is perhaps more likely, therefore, that this represents the remains of a palisade trench that perhaps formed part of a

property boundary of some description. The medieval pottery recovered from it and present within **103** suggests that it is likely to be 14th to 15th century in date.

8.2.5 Phase 5: garden soil **103** does not appear to relate to any other features present within Trench 1, but in Trench 2 it is likely to be contemporary with the wall (**208**) and associated cobbled surfaces (**207** and **213**) and drain (**211**). The dating evidence suggests that these features originated in at least the 18th century, and their position demonstrates that they are part of the building shown in plans of the site during the mid to late 19th century, prior to the construction of the row of cottages. Elements of this building appear to have survived relatively well, but it is clear that it has been damaged by the construction of the cottages and their subsequent demolition. The building belonging to this phase evidently had very shallow foundations, comprising little more than boulders laid directly onto the natural, and this has also contributed to the lack of surviving remains. It is likely that the garden soil in Trench 3 (**302**) also belongs to this period, although it contained fewer early finds.

8.2.6 Phase 6: there is very little evidence relating to the row of cottages that were present on the site from the end of the 19th century until the 1970s. However, some features identified during the evaluation undoubtedly relate to them. It is apparent that the original house was demolished and it is possible that layer **101** relates to this. In Trench 2 the sequence is visible in more detail, with demolition layer **202** probably representing the destruction of the original house. At the same time a layer of clay, probably re-deposited natural, was placed over the earlier cobbled surface (**207**). This was subsequently covered by another loose layer of cobbles (**205**) bedded in sand (**206**), which butts the edging slab (**203**), demonstrating that this was still visible at the time. In Trench 3 this phase is probably represented by the deposition of a layer of clay and mortar-rich rubble (**301**).

8.2.7 Phase 7: the demolition of the row of cottages that stood on the site between the late 19th century and the 1970s was clearly very thorough, as there is virtually no evidence for their existence left on the site. It is likely that layers **101** and **301** may partially represent rubble left after their destruction, but it is difficult to distinguish them from the demolition debris of the previous building. The construction of the cottages clearly had a severe impact on the earlier building, with the result that very little or none of it survives in the area where the cottages once stood. The shallow topsoil present in each trench (**100**, **200**, and **300**) is all that remains to represent this phase, and undoubtedly developed during the late 19th to 20th century.

8.2.8 Discussion: the archaeological features recorded at Mill Road, Gleaston represent an interesting insight into this very ancient settlement. The medieval features represent the only recorded archaeological deposits of that period from within the core of the village, and, although comprising small numbers of finds and only two or three deposits they are still important in understanding the history of the village and its local environs. The form of the village, with its linear plots running between the road and a back lane, suggests a planned medieval design, in this case apparently only comprising a single row (Roberts 1993, 132). This type of village plan is thought to have originated following the Norman Conquest, but is difficult to date and could belong to any point in the following 200 years (Roberts 1996, 48-49). The archaeological evidence suggests that the earliest dateable features belong to the 14th or 15th century, although a single piece of pottery belonging to the 12th to 13th century was also discovered on the surface during the site visit, and the pit from Trench 1 may also be earlier.

8.2.9 These discoveries demonstrate that the plot certainly has its origins in the medieval period, although exactly when is not clear. The back lane currently terminates at the north-east corner of the plot, which would contradict the typical plan

of such villages, however it evidently originally continued to the west as it is shown as a dotted line on the Ordnance Survey map of 1851 (Plate 2). The presence of a linear feature (**108**) running parallel to the road and back lane, perhaps forming a boundary within the property, has parallels at Norton in Cheshire (Greene *et al* 1977). The apparent drop in original ground level at the front of the plot against the road is also similar to Norton, where it was interpreted as representing the remains of a hollow way (*op cit*, 70). The lack of detailed stratigraphy and small number of finds at the Norton site hampered interpretation, however, and this has also been seen to be a problem at rural sites within Cumbria (e.g. Johnson 2005). The stratigraphic relationship between the two phases of medieval activity at Gleaston is, by comparison, quite well defined.

8.2.10 The possibility of an episode of flooding being responsible for Phase 2 is difficult to be certain of, and it may simply represent a period of abandonment, perhaps following the serious deprivations of the 14th century (see *Section 3.4.1*). Serious floods are recorded as having occurred in the past, however, and they were considered to have been responsible for the destruction of a large part of the village of Aldingham (West 1774, 218). Recent fieldwork at Aldingham has revealed medieval deposits eroding out of the cliff-face, which appear to represent a rapid period of abandonment (C Appley pers comm.), and may relate to this. Documentary sources also describe low-lying areas of moss land in Ulverston in the late 16th century as being '*with salt water oftentimes overflowed*' (Farrer 1923, 183).

8.2.11 The well-preserved, albeit partial, remains of an early post-medieval farmhouse are also of some interest, and have provided an unusual opportunity to archaeologically examine a building of this type. The village has several good standing examples of buildings belonging to this period, but further archaeological research of below-ground remains from this period would still be of use in understanding them in more detail and providing evidence about the daily life of their inhabitants, especially given the presence of some well-preserved organic remains. The subsequent activity on site has severely damaged these remains, however, so there is only a limited amount surviving in good condition.

9. Bibliography

9.1 Primary and Cartographic Sources

* = title only examined

*CRO(B) BD HJ 189/1/65, 1831 *Probate Will: Christopher Kendall, Gleaston, 13 August 1831, Proved 21 August 1861*

CRO(B) BD HJ 189/1/66, 1848 *Probate Will: Thomas Kendall, Gleaston, 29 August 1848, proved 1 March 1852*

CRO(B) BD HJ 192/Bundle 5/88-92, 1869 *Manor of Muchland Surrenders, J and T Kendall and Others*

CRO(B) BPR 21, 1848 *Plan of the Parish of Aldingham in the County of Lancashire*, surveyed 1846

CRO(B) BPR/21/I/20, 1846 *Apportionment of the Rent-Charge in Lieu of Tithes in the Parish of Aldingham in the County of Lancaster*

CRO(B) BSRD/NL Ulverston RDC Building Plans 3/2278, 1948 *Greenhouse Building Regulations, Gleaston, Croft Terrace*

CRO(B) BT/IR 1, 1910 *Duties on Land Values, Record of the Valuations made by the Commissioners, of Inland Revenue, in accordance with the Provisions of Part 1. of the Finance (1909/10) Act, 1910 County of Lancaster, Division of Lonsdale North, A Valuation book for the Parish or Place of Aldingham*

Hennet, G, 1830 *A Map of County Palatine of Lancaster Divided into Hundreds and Parishes from an accurate Survey*, London 1828-1829

HO 107/2275 Folio 54, 1851 *Census*

Ordnance Survey, 1851 *Lancashire Sheet 22*, 1:10560, surveyed 1847

Ordnance Survey, 1890 *Lancashire Sheet 22.6*, 1:2500, (valuation map)

Ordnance Survey, 1891 *Lancashire Sheet 22.6*, 1:2500, revised 1890

Ordnance Survey, 1913 *Lancashire Sheet 22.6*, 1: 2500, revised 1911

Ordnance Survey, 1968 **SD 2570**, revised 1967

Ordnance Survey, 2002 *The English Lakes South Western Area: Coniston, Ulverston and Barrow-in-Furness*, Explorer **OL6**, 1: 25000

RG 11 4280/18, 1881 *Census*, (from www.familysearch.org)

Yates, W, 1786 *The County Palatine of Lancaster*

9.2 Secondary Sources

Anon, n.d. *Archaeology at Gleaston Water Mill*,
http://www.gleastonmill.demon.co.uk/millsite/site_links/digs.htm

Anon, 1948 Discoveries and Re-Discoveries of the Geological and Antiquarian Section, 1945-47, *Proc Barrow Nats' Field Club*, new ser, **6**, 12-15

Appley, C, forthcoming *Placing the Prehistory of Furness in its Palaeoenvironment*, unpubl dissertation, University of Sheffield

- Boessneck, J. 1969 Osteological Differences Between Sheep (*Ovis aries* Linné) and Goat (*Capra hircus* Linné), in D Brothwell ES and Higgs (ed), *Science in Archaeology*, London, 331-358
- Bulmer, J (ed), c1910 *T Bulmer and Co's History, Topography, and Directory of Furness and Cartmel*, Preston
- Cappers, RTJ, Bekker, RM, and Jans, JEA, 2006 *Digital Seed Atlas of the Netherlands*, Groningen (Netherlands)
- Clare, T, 1996 Archaeology, Conservation and the Village Landscape, *Conservation Management Archaeol Sites*, **1: 3**, 169-188
- Countryside Commission, 1998 *Countryside Character, Volume 2: North West*, Cheltenham
- Daniels, R, 2002 Medieval Boroughs of Northern England, in C Brooks, R Daniels and A Harding, *Past Present and Future: The Archaeology of Northern England*, Architect Archaeol Soc Durham Northumberland, res rep, **5**, 184-196
- Davey, PJ, 1978 *Rainford Clay Pipes*, Archaeological Survey of Merseyside, Report 3, Liverpool: Institute of Extension Studies
- Davey, PJ, 1982 The Rainford clay pipe industry: some archaeological evidence, *The archaeology of the clay tobacco pipe VII: More pipes and kilns from England*, Oxford: British Archaeological Reports, British Series 100, 91-306
- Dobney, K, and Reilly, K, 1988 A Method for Recording Archaeological Animal Bones: the Use of Diagnostic Zones, *Circaea*, **5**, 79-96
- Dobney, K, Jaques, D, and Johnstone, C, 1999 Protocol for Recording Vertebrate Remains from Archaeological Sites, *Reports from the Environmental Archaeology Unit, York*, **99/15**
- Elsworth, DW, 1998 *The Mesolithic Around Morecambe Bay*, unpubl dissertation, University of Edinburgh
- Elsworth, DW, forthcoming *The 'Streetgate' at Conishead, the 'Castellum' at Dalton, and Roman Furness*
- English Heritage 1991 *Management of Archaeological Projects*, 2nd edn, London
- English Heritage, 2001 *Images of England*,
<http://www.imagesofengland.org.uk/search/details.aspx?pid=2&id=75784>
- Evans, IH, 2005 *Prehistoric Landscapes of Cumbria*, unpubl thesis, University of Sheffield
- Farrer, W, 1923 *Records Relating to the Barony of Kendale*, Cumberland Westmorland Antiq Archaeol Soc, rec ser, **4**, Kendal (1998 facsimile)
- Fell, C, 1971 Committee for Prehistoric Studies – Unpublished Records for Westmorland and Lancashire North of the Sands, *Trans Cumberland Westmorland Antiq Archaeol Soc*, 2nd ser, **71**, 1-11
- Ferguson, LM, and Murray, DM, n.d. *Archaeological Documentary Archives*, IFA Paper **1**, Reading
- Gambles, R, 1994 *Lake District Place Names*, Skipton
- Gaythorpe, H, 1898 Pre-Historic Implements in Furness, *Trans Cumberland Westmorland Antiq Archaeol Soc*, 1st ser, **15**, 161-171
- Greene, JP, Hough, PR, Davey, PJ, and Noake, B, 1977 Excavation in the Medieval Village of Norton 1974-1976, *J Chester Archaeol Soc*, **60**, 61-93

- Higgins, DA, 1987 *Some clay pipes from Cheshire and Merseyside*, Liverpool: North West Archaeological Trust, Report No 3
- Hillman, G, 1981 Reconstructing Crop Husbandry Practices from Charred Remains of Crops, in R Mercer (ed), *Farming Practice in British Prehistory*, Edinburgh, 123-162
- Holden, TG, 1997 The Carbonized Plant Remains, in D Alexander, A Medieval Grain-Drying Kiln and Earlier Mill-Lade at Lambryde, Moray, *Proc Soc Antiq Scotland*, **127**, 681-684
- Holden, TG, 1998 *The Archaeology of Scottish Thatch*, Historic Scotland Technical Advice Note **13**
- IFA, 2001a *Standard and Guidance for Archaeological Desk-Based Assessment*, revised edn, Reading
- IFA, 2001b *Standard and Guidance for Archaeological Field Evaluation*, revised edn, Reading
- Johnson, M, 2005 Medieval Finds at Hackthorpe, Penrith, *Trans Cumberland Westmorland Antiq Archaeol Soc*, 3rd ser, **5**, 239-241
- Kerney, MP, and Cameron, RAD, 1979 *A Field Guide to the Land Snails of Britain and North-West Europe*, London
- King, A, 1982 A list of Rainford pipemakers, in Davey, 252-291
- Lee, J, 1998 *The Place Names of Cumbria*, Carlisle
- Lancaster University Archaeological Unit (LUAU), 1998 *Gleaston Castle, Cumbria: Feasibility Study*, unpubl rep
- Mannex, P and Co, 1866 *Topography and History of North and South Lonsdale, Amounderness, Leyland and the Town of Southport*, Preston
- McNichol, I, c2000 The Holy Wells of Furness, in Barrow Civic and Local History Society (ed), *Cumbrian Miscellany*, Barrow-in-Furness, 158-163
- Moseley, F (ed), 1978 *The Geology of the Lake District*, Yorkshire Geol Soc, occ pap, **3**, Leeds
- Newman, R, 1996 Medieval Rural Settlement, in R Newman (ed), *The Archaeology of Lancashire: Present State and Future Priorities*, Lancaster, 109-124
- Payne, S, 1985 Morphological Distinctions Between the Mandibular Teeth of Young Sheep, Ovis and Goats, *Capra, J Archaeol Science*, **12**, 139-147
- Prummel, W, and Frisch, H, 1986 A Guide for the Distinction of Species, Sex and Body Size in Bones of Sheep and Goat, *J Archaeol Science*, **13**, 567-577
- Roberts, BK, 1993 Five Westmorland Settlements: A Comparative Study, *Trans Cumberland Westmorland Antiq Archaeol Soc*, 2nd ser, **93**, 131-143
- Roberts, BK, 1996 A Field Survey of Maulds Meaburn, Westmorland, *Trans Cumberland Westmorland Antiq Archaeol Soc*, 2nd ser, **95**, 45-50
- Roberts, BK, 2001 Earthworks Near Crosby Lodge, Westmorland, *Trans Cumberland Westmorland Antiq Archaeol Soc*, 3rd ser, **1**, 39-43
- Salisbury, CR, and Coupe, J, 1993 *Hart Mill Excavations: Report on an Archaeological Excavation Undertaken at Mill Dam Meadow, Gleaston, Cumbria, in November 1992*, pamphlet

- Salisbury, CR, and Coupe, J, 1995 The Mesolithic Occupation of Mill Dam Meadow, Gleaston, Cumbria, *Contrebis*, **20**, 4-9
- Shotter, DCA, 1988 Roman Coin Finds from Cumbria, *Trans Cumberland Westmorland Antiq Archaeol Soc*, **88**, 240-241
- Shotter, DCA, 1989 Roman Coin-Finds in Cumbria, *Trans Cumberland Westmorland Antiq Archaeol Soc*, **89**, 41-50
- Shotter, DCA, 1990 Roman Coins from Cumbria: Recent Finds, *Trans Cumberland Westmorland Antiq Archaeol Soc*, **90**, 281-283
- Smith, AJE, 2004 *The Moss Flora of Britain and Ireland*, Cambridge
- Spence, JE, 1935 Report of the Committee for Prehistoric Studies, 1933-1935, *Trans Cumberland Westmorland Antiq Archaeol Soc*, 2nd ser, **35**, 170-181
- Stace, C, 1997 *New Flora of the British Isles*, 2nd edn, Cambridge
- Taylor, C, 1983 *Village and Farmstead: A History of Rural Settlement in England*, London
- Tweddell, GM, 1870 *Furness Past and Present: It's History and Antiquities*, **2**, Barrow-in-Furness
- Vandorpe, P, 2002 The Plant Remains, in C Ellis, Excavation of Two Ditches and a Medieval Grain-Drying Kiln, Inverness, Highland, *Proc Soc Antiq Scotland*, **132**, 431-432
- West, T, 1774 *The Antiquities of Furness*, Ulverston

10. Illustrations

10.1 List of Figures

Figure 1a: Site location, showing Gleaston (indicated by arrow) in relation to Barrow-in-Furness

Figure 1b: Site location (indicated by arrow) in relation to the rest of Gleaston, also showing watermill and Gleaston Castle

Figure 2: Site location showing immediate environs

Figure 3: Trench location plan and location of features within Trenches 1-3

Figure 4: Plan and east-facing section of Trench 1

Figure 5: Plan and west-facing section of Trench 2

Figure 6: Plan and west-facing section of Trench 3

Figure 7: West-facing section of Trench 4

Figure 8: Site matrices and phases

10.2 List of Plates

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Plate 2: Part of the Ordnance Survey map of 1851 showing the plot, the original building with extension and a new building to the south-west

Plate 3: Part of the Ordnance Survey map of 1890 as used for the 1910 Inland Revenue valuation showing the row of cottages built on the plot and replacing the original house

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Plate 5: Plan of a proposed greenhouse to be built for No. 4 Croft Terrace (CRO(B) BSRD/NL Ulverston RDC Building Plans 3/2278 1948)

Plate 6: The small pit **106** in Trench 1 following excavation, facing west

Plate 7: Drain **108** in Trench 1 prior to excavation, facing east

Plate 8: Drain **108** in Trench 1 following excavation, facing west

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Plate 18: The hand-retrieved medieval pottery; all from buried garden soil **103** with the exception of the top left (overburden **200**), top second from left (unstratified), top right two (demolition deposit **101**), and middle right (linear fill **107**)

Plate 19: Clay tobacco pipe stem fragment with 'GEO:MARCH' (George March) maker's mark, from garden soil **103**

Appendix 1: Project Brief

**BRIEF FOR AN ARCHAEOLOGICAL EVALUATION
AT MILL ROAD, GLEASTON, ULVERSTON
CUMBRIA**

Issued by the

County Historic Environment Service

Environment Unit, Economy, Culture and Environment



Date of Brief: 11 July 2006

This Design Brief is only valid for 1 year after the above date. After this period the County Historic Environment Service should be contacted. Any specification resulting from this Brief will only be considered for the same period.

SITE DESCRIPTION AND SUMMARY

Site: Mill Road, Gleaston

Grid Reference: SD 25790 70825

Planning Application No.: 5/06/0353

Area of Development: 900 square metres

Detailed proposals and tenders are invited from appropriately resourced, qualified and experienced archaeological contractors to undertake the archaeological project outlined by this Brief and to produce a report on that work. The work should be under the direct management of either an Associate or Member of the Institute of Field Archaeologists, or equivalent. Any response to this Brief should follow IFA Standard and Guidance for Archaeological Field Evaluations, 1994. No fieldwork may commence until approval of a specification has been issued by the County Historic Environment Service.

PLANNING BACKGROUND

- 2.1 Cumbria County Council's Historic Environment Service (CCCHES) has been consulted by South Lakeland District Council regarding a planning application for the erection of 2 dwellings at Mill Road, Gleaston.
- 2.2 The scheme affects an area considered to have a high archaeological potential within the medieval village of Gleaston. Because of the high archaeological potential of the site, a condition has been placed on planning consent requiring a scheme of archaeological work to be undertaken at the site. The first phase of this work will be an archaeological evaluation to assess the nature and potential of the site. This Brief deals solely with this phase.
- 2.3 This advice is given in accordance with guidance given in Planning Policy Guidance note 16 (Archaeology and Planning) and with policy C19 of the South Lakeland Local Plan.

ARCHAEOLOGICAL BACKGROUND

- 3.1 Gleaston is a medieval village mentioned in the Domesday Book and elements of the present day street pattern and field systems survive from this period. The site lies close to St Michaels Well, a medieval holy well (Historic Environment Record no. 2332).

SCOPE OF THE PROJECT

4.1 Objectives

- 4.1.1 The evaluation should aim to determine the location, extent, date, character, condition, significance and quality of any surviving archaeological remains liable to be threatened by the proposed development. An adequate representative sample of all areas where archaeological remains are potentially threatened should be studied.

4.2 Work Required

- 4.2.1 A desk-based assessment of the existing resource, to be undertaken before any work commences on site. This should include an assessment of primary and secondary maps and documents relating to the site, to set the evaluation results in their geographical, topographical, archaeological and historical context. Records and aerial photographs held by the County Historic Environment Record in Kendal as well as records held by the County Records Office at Barrow should be consulted.

- 4.2.2 A visual inspection of the site. This should include a walkover of the site noting any surface features of potential archaeological interest, areas of potentially significant disturbance, and hazards and constraints to undertaking further archaeological work on site (including the siting of live services, Tree Preservation Orders and public footpaths).
- 4.2.3 The excavation of a series of linear trial trenches and/or test-pits to adequately sample the threatened available area, and the investigation and recording of deposits and features of archaeological interest identified within those trenches. All features must be investigated and recorded unless otherwise agreed with the County Historic Environment Service. Initial topsoil and demonstrably modern overburden can be removed by machine, but subsequent cleaning and investigation must be by hand. A minimum sample of 5% of the total site area should be investigated.
- 4.2.4 The evaluation should provide a predictive model of surviving archaeological remains detailing zones of relative importance against known development proposals. An impact assessment should also be provided, wherever possible.
- 4.2.5 The following analyses should form part of the evaluation, as appropriate. If any of these areas of analysis are not considered viable or appropriate, their exclusion should be justified in the subsequent report.
- A suitably qualified specialist should assess the environmental potential of the site through the examination of suitable deposits, including: (1) soil pollen analysis and the retrieval of charred plant macrofossils and land molluscs from former dry-land palaeosols and cut features, and; (2) the retrieval of plant macrofossils, insect, molluscs and pollen from waterlogged deposits.
 - Advice is to be sought from a suitably qualified specialist in faunal remains on the potential of sites for producing bones of fish and small mammals. If there is potential, a sieving programme should be undertaken. Faunal remains, collected by hand and sieved, are to be assessed and analysed, if appropriate.
 - The advice from a suitably qualified soil scientist should be sought on whether a soil micromorphological study or any other analytical techniques will enhance understanding site formation processes of the site, including the amount of truncation to buried deposits and the preservation of deposits within negative features. If so, analysis should be undertaken.

SPECIFICATION

- 5.1 Before the project commences a project proposal must be submitted to, and approved by, the County Historic Environment Service.
- 5.2 Proposals to meet this Brief should take the form of a detailed specification prepared in accordance with the recommendations of *The Management of Archaeological Projects*, 2nd ed. 1991, and must include:
- ❖ A description of the excavation sampling strategy and recording system to be used
 - ❖ A description of the finds and environmental sampling strategies to be used
 - ❖ A description of the post excavation and reporting work that will be undertaken
 - ❖ Details of key project staff, including the names of the project manager, site supervisor, finds and environmental specialists and any other specialist sub-contractors to be employed
 - ❖ Details of on site staffing, expressed in terms of person days
 - ❖ A projected timetable for all site work and post excavation work
- 5.3 The specification should identify the proposed locations of trial trenches. Final trench locations will however be determined following the desk-based assessment and must be agreed with the County Historic Environment Service.

- 5.4 Any significant variations to the proposal must be agreed by the County Historic Environment Service in advance.

REPORTING AND PUBLICATION

- 6.1 The archaeological work should result in a report, this should include as a minimum:
- ❖ A site location plan, related to the national grid
 - ❖ A front cover/frontispiece which includes the planning application number and the national grid reference of the site
 - ❖ The dates on which the fieldwork was undertaken
 - ❖ A concise, non-technical summary of the results
 - ❖ An explanation of any agreed variations to the brief, including justification for any analyses not undertaken (see 4.2.5)
 - ❖ A description of the methodology employed, work undertaken and the results obtained
 - ❖ Plans and sections at an appropriate scale showing the location and position of deposits and finds located
 - ❖ A list of, and dates for, any finds recovered and a description and interpretation of the deposits identified
 - ❖ A description of any environmental or other specialist work undertaken and the results obtained
- 6.2 Three copies of the report should be deposited with the County Historic Environment Record within two months of completion of fieldwork. This will be on the understanding that the report will be made available as a public document through the County Historic Environment Record.
- 6.3 Should further archaeological work result from the evaluation, the results of the evaluation will need to be made available for inclusion in a summary report to a suitable regional or national archaeological publication.
- 6.4 Recommendations concerning any subsequent mitigation strategies and/or further archaeological work following the results of the field evaluation should **not** be included in the report. Such recommendations are welcomed by the County Historic Environment Service, and may be outlined in a separate communication.
- 6.5 Cumbria HER is taking part in the pilot study for the Online Access to Index of Archaeological Investigations (OASIS) project. The online OASIS form at <http://ads.ahds.ac.uk/project/oasis> must therefore also be completed as part of the project. Information on projects undertaken in Cumbria will be made available through the above website, unless otherwise agreed.

THE ARCHIVE

- 7.1 An archive must be prepared in accordance with the recommendations of *The Management of Archaeological Projects*, 2nd ed. 1991, and arrangements made for its deposit with an appropriate repository. A copy shall also be offered to the National Monuments Record.
- 7.2 The landowner should be encouraged to transfer the ownership of finds to a local or relevant specialist museum. The museum's requirements for the transfer and storage of finds should be discussed before the project commences.
- 7.3 The County Historic Environment Service must be notified of the arrangements made.

PROJECT MONITORING

- 8.1 One weeks notice must be given to the County Historic Environment Service prior to the commencement of fieldwork.
- 8.2 Fieldwork will be monitored by the Assistant Archaeologist on behalf of the local planning authority.

FURTHER REQUIREMENTS

- 9.1 It is the archaeological contractor's responsibility to establish safe working practices in terms of current health and safety legislation, to ensure site access and to obtain notification of hazards (eg. services, contaminated ground, etc.). **The County Historic Environment Service bears no responsibility for the inclusion or exclusion of such information within this Brief or subsequent specification.**
- 9.2 All aspects of the evaluation shall be conducted in accordance with the Institute of Field Archaeologist's *Code of Conduct* and the IFA's *Standard and Guidance for Archaeological Field Evaluations*.
- 9.3 Human remains must be left *in situ*, covered and protected when discovered. No further investigation should normally be permitted beyond that necessary to establish the date and character of the burial, and the County Historic Environment Service and the local Coroner must be informed immediately. If removal is essential, it can only take place under appropriate Department for Constitutional Affairs and environmental health regulations.
- 9.4 The involvement of the County Historic Environment Service should be acknowledged in any report or publication generated by this project.

FURTHER INFORMATION

For further information regarding this brief, contact

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As part of our desire to provide a quality service to all our clients we would welcome any comments you may have on the content or presentation of this design brief. Please address them to the Assistant Archaeologist at the above address.

Appendix 2: Project Design

MILL ROAD, GLEASTON, ULVERSTON, CUMBRIA

Archaeological Evaluation Project Design



Client: Stephen Morrison

July 2006

Planning Application No. 5/06/0353

1. Introduction

1.1 Project Background

1.1.1 Following a proposal by Stephen Morrison (hereafter 'the client') to erect two dwellings on land at Mill Road, Gleaston, Cumbria (NGR SD 25790 70825), a programme of archaeological work was recommended by South Lakeland District Council. A brief for the archaeological works was then issued by the Assistant Archaeologist at Cumbria County Council (CHES 2006).

1.1.2 The archaeological evaluation is to include a desk-based assessment, which is intended to establish the location, extent, survival and significance of any known archaeological remains on the site, and assess the likelihood of additional, unknown remains being present, and, more particularly, identify areas to target for evaluation. The evaluation is intended to establish, where possible, whether any remains of archaeological significance are present on the site, their nature, degree of survival, extent, significance, and date.

1.1.3 The site lies close to St Michaels Well, a medieval holy well within Gleaston (CHES 2006, 2). Gleaston is a medieval village mentioned in the Domesday Book and elements of the present day street pattern and field systems survive from this period (*ibid*).

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). Although a new company, its directors, Jo Dawson and Daniel Elsworth, have a combined total of 13 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 of Field Archaeologists' (IFA) Code of Conduct. The desk-based assessment and evaluation will be carried out according to the Standards and Guidance of the Institute of Field Archaeologists (IFA 2001a; 2001b).

1.3 Project Staffing

1.3.1 The project will be managed by **Jo Dawson (MA (Hons), AIFA)**, who will also carry out the desk-based assessment. Since graduating from the University of Glasgow in 2000 with a joint honours degree in Archaeology and Mathematics, Jo has worked continuously in commercial archaeology. Her professional career started at Glasgow University Archaeological Research Division (GUARD), for whom she worked for six months, following which she worked for Headland Archaeology, in Edinburgh, for two years, and for Oxford Archaeology North, in Lancaster, for three years. During this time she has been involved in a range of different archaeological projects, and, over the past few years, has concentrated on desk-based assessments and environmental impact assessments, as well as finds reports. She has extensive experience of both planning and pre-planning projects, and has undertaken assessments of all sizes. She has managed projects in Cumbria, including two recent evaluations (Greenlane Archaeology forthcoming a and b), both of which included rapid desk-based assessments.

1.3.2 The evaluation will be supervised by **Daniel Elsworth (MA (Hons), AIFA)**, with assistance from a suitably experienced individual. Daniel graduated from the University of Edinburgh in 1998 with an honours degree in Archaeology, and began working for the Lancaster University Archaeological Unit in 1999, 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 supervised evaluations in Cumbria (Greenlane Archaeology forthcoming a and b).

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. Finds of earlier date will be assessed by specialist sub-contractors as appropriate, and in this case it is envisaged that these may include Ian Miller of Oxford Archaeology North for medieval pottery. CCCHES will be notified of any other specialists, other than those named,

who Greenlane Archaeology wishes to engage, before any specialist contracts are awarded, and the approval of CCCHES will be sought.

1.3.4 Environmental samples and faunal remains (with the exception of waterlogged deposits) will be processed by Greenlane Archaeology. It is envisaged that charred plant remains will be assessed by Elizabeth Huckerby or Denise Druce at Oxford Archaeology North, and faunal remains by Steve Rowland or Andy Bates, also at Oxford Archaeology North. Tim Holden of Headland Archaeology Ltd may assess the charred plant remains instead, depending on timetabling constraints. CCCHES will be informed and their approval will be sought for these arrangements.

2. Objectives

2.1 Desk-Based Assessment

2.1.1 To examine information held in the Cumbria Historic Environment Record (HER), early maps of the proposed development site, and any other relevant primary and secondary sources in order to better understand its development, set it in its historic context, and assess the significance of any existing and potential archaeological remains.

2.2 Visual Inspection

2.2.1 To carry out a brief visit and walkover survey of the site in order to provide additional information for the desk-based assessment, in particular regarding any factors likely to have impacted upon the archaeological resource and the likely extent of modern disturbance, as well as the degree of survival of standing remains. Any constraints to carrying out further work on the site, particularly regarding issues of health and safety, will also be identified.

2.3 Archaeological Evaluation

2.3.1 To excavate evaluation trenches totalling at least 28m in length, equivalent to 5% of the area to be evaluated. This will assess the presence or absence of features of archaeological interest within the area, their extent, date and significance.

2.4 Report

2.4.1 To produce a report detailing the results of the desk-based assessment and evaluation, that will outline the historic development of the site, list the known sites of archaeological interest, present the results of the evaluation, and assess the potential of the site and significance of the remains.

2.5 Archive

2.5.1 Produce a full archive of the results of the desk-based assessment and evaluation.

3. Methodology

3.1 Desk-based Assessment

3.1.1 An examination of both primary and secondary sources, particularly maps, but also published and unpublished local histories, pieces of research, articles and studies relating to the proposed development site and a suitable area around it (the 'study area') will be carried out. These sources will be consulted at the following locations:

- **Cumbria Historic Environment Record (HER):** this is a list of all of the recorded sites of archaeological interest recorded in the county, and is the primary source of information for a study of this kind. Each site is recorded with any relevant references, a brief description and location related to the National Grid. All of the references relating to sites identified in the HER will be examined in order to verify them and add any necessary background information. In addition, relevant secondary sources, particularly previous archaeological investigations in the immediate area, will also be examined;
- **Cumbria Record Office (Barrow-in-Furness):** the majority of original and secondary sources relating to the site are deposited in the Cumbria Record Office in Barrow-in-Furness. Of principal importance are early maps, especially those produced by the Ordnance Survey. These will be examined in order to trace the origin and

development of any buildings or other structures on the site, and, where possible, their function. In addition, information relating to the general history and archaeology will also be consulted, in order to establish the context of the sites identified within the study area, and the potential for further, as yet unknown, sites of archaeological interest;

- **Greenlane Archaeology:** a number of copies of maps, local histories, unpublished reports, and journals are held in Greenlane Archaeology's library. These will be consulted in order to provide further information about the development of the site, and any other elements of archaeological interest.

3.1.2 The results of this assessment will be used to establish the location, extent, date and development of any sites of archaeological interest demonstrated to be present within the study area. The extent of all of the sites identified will be shown on an appropriately scaled map. In addition, areas of archaeological interest or significance will be shown and the extent or level of their potential expressed.

3.1.3 Recommendations for areas to be targeted by evaluation trenching will be presented based on the results of the assessment. This will take into consideration the areas in which there is evidence for the presence of archaeological remains, the significance of known remains, or areas of high potential.

3.2 Visual Inspection

3.2.1 A brief site visit will be carried out in order to identify areas of modern activity that are likely to have adversely affected areas of archaeological interest. In addition, areas that might present hazards, particularly those relating to health and safety, will also be assessed. Areas that might constrain further work, such as the excavation of trial trenches, will also be identified. In addition, the presence of any standing remains of historic interest will also be recorded.

3.3 Archaeological Evaluation

3.3.1 A total of 45m² of evaluation trenching is required in order to examine 5% of the site area (c900m²). Depending on the results of the desk-based assessment it is envisaged that this will be covered by excavating four trenches approximately 7.5m long by 1.6m wide, until significant archaeological deposits or the natural geology are reached, or to a depth of 1.2m. These trenches will, depending on the constraints on site, target the areas identified during the desk-based assessment as having the greatest archaeological potential, following consultation with the Cumbria County Council Historic Environment Service (CCCHES). It is anticipated that the evaluation will take four days with two people on site.

3.3.2 The excavation methodology will be as follows:

- The site will be checked with a Cable Avoiding Tool (CAT) in order to establish the presence of live electrical services;
- The trenches will be excavated with regard to the position of any services, focussing on the areas of high archaeological interest or potential, and avoiding areas which are likely to have been severely damaged or truncated by later activity, unless they are considered to have a high potential;
- The overburden will be removed by machine under supervision by staff from Greenlane Archaeology, until the first deposit beneath it is reached;
- All deposits below the overburden will be examined by hand in a stratigraphic manner, using shovels, mattocks, or trowels as appropriate for the scale. Deposits will only be sampled, rather than completely removed, below the first identified level of archaeological interest, unless specified by the CCCHES, with the intention of preserving as much *in situ* as possible;
- 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. 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 hand-drawn plans and sections, typically at a scale of 1:20 and 1:10, respectively, and photographs in both 35mm black and white print and digital format;
- All deposits, trenches, drawings and photographs will be recorded on Greenlane Archaeology *pro forma* record sheets, which are based on systems commonly used during archaeological excavations and derived from MoLAS (1994);
- All finds will be recovered during the evaluation 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 excavation, 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 preserved environmental remains will be sampled. Bulk samples of between 10 and 40 litres in volume, depending on the size and potential of the deposit, will be collected from stratified undisturbed deposits and will particularly target negative features (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 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 human remains discovered during the evaluation will be left *in situ*, and, if possible, covered. The CCCHES 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 secured stored off-site, or covered and protected on site if immediate removal is not possible;
- Each evaluation trench will be backfilled by machine following excavation although it is not envisaged that any further reinstatement to its original condition will be carried out.

3.3.3 Should any significant archaeological deposits be encountered during the evaluation these will immediately be brought to the attention of the CCCHES so that the need for further work can be confirmed. Any additional work and ensuing costs will be agreed with the client and according to the requirements of the CCCHES, and subject to a variation to this project design.

3.3 Report

3.3.1 The results of the desk-based assessment and evaluation will be compiled into a report, which will include the following sections:

- 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 desk-based assessment including historical background, map regression and appropriate details relating to any sites of archaeological interest identified within the study area or areas of archaeological potential;
- Results of the evaluation including descriptions of any deposits identified, their extent, form and potential date, and an assessment of any finds or environmental remains recovered during the evaluation, and the potential for examination of the soil micromorphology;
- Discussion of the results including an assessment of the significance of any archaeological remains present within the study area, areas of further archaeological potential, areas in which further work is recommended, and appropriate types of further work;
- Bibliography, including both primary and secondary sources;
- Illustrations at appropriate scales including:
 - a site location plan related to the national grid;
 - a plan showing the location of the study area in relation to nearby structures and the local landscape;
 - copies of early maps, plans, drawings, photographs and other illustrations of elements of the site, annotated with the extent of the proposed development area where appropriate;
 - a plan showing the position of the evaluation trenches;
 - plans and sections of the evaluation trenches showing any features of archaeological interest;
 - photographs of the evaluation, including both detailed and general shots of features of archaeological interest and the trenches;
 - illustrations of individual artefacts as appropriate.

3.4 Archive

3.4.1 The archive, comprising the drawn, written, and photographic record of the desk-based assessment and evaluation, formed during the project, will be stored by Greenlane Archaeology until it is completed. Upon completion it will be deposited with the Cumbria Record Office in Barrow-in-Furness (CRO(B)). A copy will also be offered to the National Monuments Record (NMR). The archive will be compiled according to the standards and guidelines of the IFA (Ferguson and Murray n.d.), 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 deposited with the archive at the Cumbria Record Office in Barrow-in-Furness, one will be supplied to the client, and within two months of the completion of fieldwork, three copies will be provided for the Cumbria Historic Environment Record (HER). In addition, Greenlane Archaeology Ltd will retain one copy, and digital copies will be deposited with the NMR and OASIS scheme as required.

3.4.3 The client will be encouraged to transfer ownership of the finds to a suitable museum. Any finds recovered during the evaluation will be offered to the Dock Museum in Barrow-in-Furness. If no suitable repository can be found the finds may have to be discarded, and in this case as full a record as possible would be made of them beforehand.

4. Work timetable

4.1 Greenlane Archaeology will be available to commence the project on **24th July 2006**, or at another date convenient to the client. It is envisaged that the project will take 15 person days to complete (excluding all post-excavation time), spread over the following tasks and including any necessary management time:

- **Task 1:** desk-based assessment and visual inspection, including compilation of this element of the report – 2 person days;
- **Task 2:** submission of proposed evaluation trench location plan to Cumbria County Council Historic Environment Service for approval;
- **Task 3:** archaeological evaluation – 8 person days (2 people for 4 days);
- **Task 4:** post-excavation work on archaeological evaluation, including processing of finds and production of draft report and illustrations – 4 person days (excluding post-excavation finds and sample work as specified in costing document);
- **Task 5:** feedback, editing and production of final report, completion of archive - 1 person day.

5. Other matters

5.1 Access

5.1.1 Access to the site for the site visit 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 **£250,000**. 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.

6. Bibliography

CHES (County Historic Environment Service), 2006 *Brief for an Archaeological Evaluation at Mill Road, Gleaston, Ulverston, Cumbria*, 11th July 2006, unpubl doc

English Heritage, 1991 *The Management of Archaeological Projects*, 2nd edn, London

Ferguson, LM, and Murray, DM, n.d. *Archaeological Documentary Archives*, IFA Paper 1, Reading

Greenlane Archaeology, forthcoming a *Land adjacent to Shaw's Wiend and Boroughgate, Appleby, Cumbria: Archaeological Evaluation*, unpubl rep

Greenlane Archaeology, forthcoming b *Former Harrison's Garage site, Stanley Street, Ulverston: Archaeological Evaluation*, unpubl rep

HMSO, 1996 *Treasure Act*, <http://www.opsi.gov.uk/acts/acts1996/1996024.htm>

IFA, 2001a *Standard and Guidance for Archaeological Desk-Based Assessment*, revised edn, Reading

IFA, 2001b *Standard and Guidance for Archaeological Field Evaluation*, revised edn, Reading

Museum of London Archaeology Service (MoLAS), 1994 *Archaeological Site Manual*, 3rd edn, London

Appendix 3: Summary Context List

Context	Type	Trench	Description	Interpretation
100	Deposit	1	Mid orange brown silty clay	Overburden
101	Deposit	1	Dark get silty clay with numerous stones	Demolition
102	Deposit	1	Mid orange-brown clay	Natural
103	Deposit	1	Mid-dark greyish brown silty clay	Buried garden soil
104	Deposit	1	Mid orange silty clay	Subsoil
105	Deposit	1	Dark orangey pink clay	Fill of pit 106
106	Cut	1	Oval in plan, shallow u-shape section	Pit
107	Deposit	1	Mid orange brown silty clay, numerous stones	Fill of linear 108
108	Cut	1	Linear in plan, sloping south side, vertical north side, flat base	Linear feature
109	Deposit	1	Mid orange brown silty clay	Natural?
200	Deposit	2	Mid greyish-brown silty clay	Overburden
201	Deposit	2	Mottled mid orange brown clay	Re-deposited natural
202	Deposit	2	Pale buff-white sandy silt, numerous mortar and stone, lenses of gravel	Demolition
203	Structure	2	Large stones in mid orange brown clay	Edging slabs
204	Cut	2	Linear in plan, vertical sides	Cut for 203
205	Surface	2	Cobbles in mid brown sandy silt	Cobbled surface
206	Deposit	2	Yellow sand	Bedding for 205
207	Surface	2	Cobbles in mid orange brown clay	Cobbled surface
208	Structure	2	Large stones in mid brown-orange clay	Wall foundation
209	Cut	2	L-shaped plan, vertical sides	Cut for 208
210	Deposit	2	Dark brown silty clay	Fill of 211
211	Cut	2	Linear in plan, vertical sides	Drain
212	Deposit	2	Mid purplish-brown silty clay	Bedding for 207
213	Surface	2	Numerous small stones in mid-brown clay	Cobbled surface
214	Deposit	2	Orange-brown clay	Natural
300	Deposit	3	Dark brown black sandy clay	Topsoil
301	Deposit	3	Mid orange-brown clay and rubble	Demolition
302	Deposit	3	Mid grey-brown silty clay	Garden soil
303	Deposit	3	Pink and orange-yellow clay with coarse sand	Clay deposit
304	Surface	3	Mid orange-brown clay, numerous small stones	Cobbled surface
305	Deposit	3	Mid orange-brown clay	Natural
400	Deposit	4	Mid grey-brown silty clay	Topsoil
401	Deposit	4	Mid orange-brown silty clay	Subsoil
402	Deposit	4	Mid brownish-orange clay	Natural

Appendix 4: Finds Summary

OR	Cxt	Qty	Material	Description	Date range
1000	100	9	Pottery	Black-glazed red earthenware	Late 17 th – early 20 th century
1000	100	4	Pottery	Brown-glazed red earthenware	Late 17 th – early 20 th century
1000	100	3	Pottery	Unglazed red earthenware including one base fragment	Late 17 th – 20 th century
1000	100	3	Pottery	Bone china	19 th – 20 th century
1000	100	10	Pottery	White earthenware	Late 18 th – 20 th century
1000	100	1	Pottery	Pearlware fragment of a shallow bowl base	Late 18 th – early 19 th century
1000	100	1	Pottery	Pearlware fragment of a handle for a large vessel	Late 18 th – early 19 th century
1000	100	2	Pottery	Blue factory-produced slipware	Late 18 th – 20 th century
1000	100	1	Pottery	Blue-painted red earthenware	19 th – 20 th century
1000	100	3	Pottery	Stoneware fragments, two with 'ridged' surface	19 th – 20 th century
1000	100	4	Pottery	'Willow' transfer-printed white earthenware	19 th – early 20 th century
1000	100	1	Pottery	Pink-painted white earthenware	19 th – 20 th century
1000	100	1	Pottery	'Broseley' transfer-printed white earthenware	19 th – early 20 th century
1000	100	13	Pottery	'Asiatic Pheasants' transfer-printed white earthenware plate fragments including two rim fragments	Mid 19 th – early 20 th century
1000	100	2	Pottery	Blue-painted(?) bone china	19 th – 20 th century
1000	100	1	Pottery	Transfer-printed white earthenware	19 th – 20 th century
1000	100	2	Pottery	Black-glazed, red slip-coated, buff-coloured earthenware	Late 17 th – early 18 th century
1001	100	3	Ceramic building material	Red earthenware roof tile(?) fragments	Not closely datable
1002	100	7	Glass	Flat colourless window pane fragment	18 th – 20 th century
1003	100	3	Glass	Curved colourless fragment	18 th – 20 th century
1003	100	3	Glass	Curved light turquoise-blue fragment including one rim	18 th – early 20 th century
1003	100	1	Glass	Neck fragment of a screw-top colourless bottle	18 th – 20 th century
1004	100	2	Iron	Bent sheets of thin iron / steel	18 th – 20 th century

OR	Cxt	Qty	Material	Description	Date range
1004	100	1	Iron	Bent iron bar	18 th – 20 th century
1004	100	1	Iron	Unidentifiable iron fragment	18 th – 20 th century
1004	100	1	Iron	Folded mesh	20 th century
1005	100	1	Copper alloy	Unidentifiable flat object	18 th – 20 th century
1006	100	1	Glass	Green bead	Not closely datable
1007	100	2	Clay tobacco pipe	Stem fragments, medium bore	Mid 18 th – mid 19 th century
1008	100	1	Plastic	Tobacco packet (yellow packet with red and green features). Includes a health warning	20 th century
1009	100	1	Coal	Large lump of coal	Not closely datable
1011	100	4	Marine shell	Fragments of cockle, oyster and winkle shells	Not closely datable
1012	101	1	Pottery	'Lily' transfer-printed white earthenware	Early 19 th century
1012	101	1	Pottery	Green Majolica fragment	Mid 18 th – 20 th century
1012	101	1	Pottery	Pink and green decorated spongeware	19 th – 20 th century
1012	101	1	Pottery	Transfer-printed bone china	19 th – 20 th century
1012	101	1	Pottery	'Willow' transfer-printed white earthenware	19 th – early 20 th century
1012	101	2	Pottery	'Broseley' transfer-printed white earthenware	19 th – early 20 th century
1012	101	1	Pottery	'Fibre' transfer-printed white earthenware	19 th – early 20 th century
1012	101	5	Pottery	'Asiatic Pheasants' transfer-printed white earthenware including one burnt fragment	Mid-19 th – early 20 th century
1012	101	13	Pottery	Assorted transfer-printed white earthenware	19 th – 20 th century
1012	101	2	Pottery	Relief-moulded, gold-painted, bone china	19 th – 20 th century
1012	101	6	Pottery	Plain bone china	19 th – 20 th century
1012	101	1	Pottery	Blue factory-produced slipware	Late 18 th – early 20 th century
1012	101	1	Pottery	Mottledware	Late 17 th – early 18 th century
1012	101	1	Pottery	Beige-glazed white earthenware	Late 18 th – 20 th century
1012	101	1	Pottery	Brown-glazed white earthenware	Late 18 th – 20 th century
1012	101	1	Pottery	Large fragment of pearlware	Late 18 th – early 19 th century
1012	101	15	Pottery	Assorted fragments of stoneware jars including two with ridged decoration and three rim fragments	19 th – 20 th century

OR	Cxt	Qty	Material	Description	Date range
1012	101	4	Pottery	Yellow slip banded, brown-glazed red earthenware	Late 17 th – early 20 th century
1012	101	10	Pottery	Brown-glazed red earthenware	Late 17 th – early 20 th century
1012	101	24	Pottery	Black-glazed red earthenware	Late 17 th – early 20 th century
1012	101	32	Pottery	White earthenware including one base, and two rim, fragments	Late 18 th – 20 th century
1012	101	1	Pottery	Heavy-duty sanitary porcelain	20 th century
1013	101	24	Glass	Flat colourless fragments	18 th – 20 th century
1013	101	1	Glass	Flat light green fragment	18 th – 20 th century
1014	101	2	Glass	Splinters of white	19 th – 20 th century
1014	101	5	Glass	Curved colourless fragments	18 th – 20 th century
1014	101	1	Glass	Neck and rim fragment of a colourless small bottle	18 th – 20 th century
1014	101	1	Glass	Curved green fragment	18 th – 20 th century
1014	101	1	Glass	Curved olive-green fragment	17 th – 20 th century
1014	101	5	Glass	Light turquoise-blue bottle fragments	18 th – early 20 th century
1014	101	3	Glass	Turquoise-blue bottle fragments including one rim fragment from a medium-sized medicine(?) bottle	18 th – early 20 th century
1014	101	2	Glass	Light-blue bottle fragments	18 th – 20 th century
1014	101	1	Glass	Small piece of brown fragment	18 th – early 20 th century
1014	101	1	Glass	Small piece of blue fragment	18 th – 20 th century
1014	101	1	Glass	Hemispherical piece of green fragment	18 th – 20 th century
1015	101	1	Iron	Large piece of heavily corroded iron with a piece of red earthenware and white earthenware attached	18 th – 20 th century
1015	101	2	Iron	Corroded flat iron fragments	18 th – 20 th century
1015	101	3	Iron	Amorphous corroded lumps	Not closely datable
1015	101	1	Iron	Long, thin, corroded item	Not closely datable
1015	101	2	Iron	Corroded nails	18 th – 20 th century
1015	101	1	Iron	Corroded bolt	19 th – 20 th century
1015	101	1	Iron	Large, heavily corroded, square nail	Not closely datable
1016	101	1	Copper alloy	Half of a non-decorative ring- possibly an eye for reinforcing holes in fabric (?)	Late 18 th – 20 th century

OR	Cxt	Qty	Material	Description	Date range
1017	101	1	Aluminium?	Strip of thin flexible, lightweight metal with two holes in it	20 th century
1017	101	1	Aluminium?	Part of a small whistle (?)	19 th – 20 th century
1018	101	2	Clay tobacco pipe	Two bowl fragments. One has vertical raised ridges along the outside, the other has a 'weaved' pattern and a rope-work border embossed upon it	17 th – early 20 th century
1019	101	1	Coal	Small fragment	Not closely datable
1020	101	1	Industrial residue	Nondescript burnt mineral material	Not closely datable
1021	101	1	Graphite	Pencil-lead (Note: may have been deposited during excavation)	20 th century
1022	101	2	Pottery	Reduced greenware	Late 14 th – 15 th century
1024	101	24	Marine shell	Fragments, mainly oyster with some cockle and winkle	Not closely datable
1025	103	10	Pottery	Nondescript fragments of unglazed red earthenware	Not closely datable
1025	103	1	Pottery	Unglazed red earthenware with linear decoration	Late 17 th – 20 th century
1025	103	27	Pottery	Black-glazed red earthenware including one handle fragment, one base fragment and six rim fragments. Three have ridged decoration	Late 17 th – early 20 th century
1025	103	14	Pottery	Brown-glazed red earthenware including one handle fragment	Late 17 th – early 20 th century
1025	103	9	Pottery	Brown-glazed red earthenware with yellow slip-banded decoration	Late 17 th – early 20 th century
1025	103	3	Pottery	Yellow slip-coated red earthenware	18 th – early 20 th century
1025	103	1	Pottery	Tin-glazed earthenware	18 th century
1025	103	1	Pottery	'Asiatic Pheasants' transfer-printed white earthenware	Mid-19 th – early 20 th century
1025	103	5	Pottery	Yellowware	Late 17 th – early 18 th century
1025	103	1	Pottery	Factory-produced slipware with poor-quality 'mocha' decoration	Late 18 th – 20 th century
1025	103	2	Pottery	Factory-produced slipware	Late 18 th – 20 th century
1025	103	2	Pottery	Pearlware, including one base fragment from a large bowl	Late 18 th – early 19 th century
1025	103	3	Pottery	'Willow' transfer-printed white earthenware	19 th – early 20 th century
1025	103	7	Pottery	Assorted stoneware fragments including one rim and one with part of a stamp visible displaying the letters: '...S...OF...N'	19 th – 20 th century
1025	103	14	Pottery	White earthenware	Late 18 th – 20 th century
1025	103	7	Pottery	Bone china including two base fragments, one other base fragment from a plate and two relief-moulded fragments.	19 th – 20 th century

OR	Cxt	Qty	Material	Description	Date range
1025	103	2	Pottery	Very high-fired, partially reduced, brown-glazed, buff-coloured earthenware	18 th – 20 th century
1025	103	10	Pottery	Assorted transfer-printed white earthenware fragments	19 th – 20 th century
1025	103	1	Pottery	Partially reduced, brown-glazed red earthenware	17 th – 20 th century
1025	103	1	Pottery	Blue and red painted white earthenware	Late 18 th – 20 th century
1025	103	1	Pottery	Self-glazed buff-coloured earthenware	Late 18 th – 20 th century
1025	103	1	Pottery	Relief-moulded, self-glazed buff-coloured earthenware	19 th – 20 th century
1025	103	1	Pottery	Press-moulded creamware plate rim	Mid – late 18 th century
1025	103	1	Pottery	Black-glazed ceramic. Possible 'waster'. Bubbly surface, very highly vitrified fabric	17 th – 20 th century
1026	103	1	Ceramic	Spherical piece of ceramic. Marble (?)	Not closely datable
1027	103	5	Glass	Flat colourless fragments	18 th – 20 th century
1028	103	4	Glass	Curved, colourless fragments	18 th – 20 th century
1028	103	1	Glass	Curved, olive-green fragment	Late 17 th – 20 th century
1028	103	1	Glass	Curved, dark olive-green fragment	Late 17 th – 20 th century
1029	103	2	Iron	Corroded nails	18 th – 20 th century
1030	103	3	Clay tobacco pipe	Stem fragments, narrow bore	1850 onwards
1030	103	1	Clay tobacco pipe	Stem fragment, medium bore, imprinted dotted decoration and the maker's name 'GEO:MARCH' (George March) imprinted around the stem	1720-40
1030	103	1	Clay tobacco pipe	Bowl fragment with plant-like (grass?) decoration embossed	17 th – early 20 th century
1031	103	1	Plastic	Thin strip of plastic film	20 th century
1032	103	1	Coal	Small lump	Not closely datable
1033	103	4	Pottery	Reduced greyware	15 th – 16 th century
1033	103	1	Pottery	Sandy ware	15 th century
1036	103	12	Marine shell	Five fragments of cockle, seven of oyster	Not closely datable
1044	107	9	Pottery	Partially reduced ware (all refitting)	14 th -15 th century
1037	200	4	Pottery	Black-glazed red earthenware	Late 17 th – early 20 th century
1037	200	2	Pottery	Brown-glazed red earthenware	Late 17 th – early 20 th century
1037	200	2	Pottery	Factory-produced slipware	Late 18 th – early 20 th century

OR	Cxt	Qty	Material	Description	Date range
1037	200	3	Pottery	Relief-moulded white earthenware	19 th – 20 th century
1037	200	1	Pottery	Mottledware	Late 17 th – early 18 th century
1037	200	1	Pottery	Yellowware with red slip decoration	Late 17 th – early 18 th century
1037	200	2	Pottery	'Asiatic Pheasants' transfer-printed white earthenware	Mid-19 th – early 20 th century
1037	200	2	Pottery	Spongeware	19 th – 20 th century
1037	200	4	Pottery	Assorted stoneware fragments including one base fragment, one green-painted fragment and two ridged fragments	19 th – 20 th century
1037	200	4	Pottery	'Willow' transfer-printed white earthenware	19 th – early 20 th century
1037	200	1	Pottery	Bone china	19 th – 20 th century
1037	200	1	Pottery	Painted bone china	19 th – 20 th century
1037	200	8	Pottery	Assorted transfer patterns	19 th – 20 th century
1038	200	1	Glass	Flat colourless fragment	18 th – 20 th century
1039	200	2	Glass	Curved colourless fragments	18 th – 20 th century
1039	200	5	Glass	Curved light turquoise-blue fragments	18 th – early 20 th century
1040	200	2	Glass	Dark olive-green curved fragments	Late 17 th – 20 th century
1037	200	1	Pottery	Fragment of bone china plate from a child's tea-set	19 th – 20 th century
1037	200	7	Pottery	White earthenware	Late 18 th – 20 th century
1041	200	5	Coal	Large lumps, two partially burnt	Not closely datable
1042	200	1	Pottery	Partially reduced ware	14 th - 15 th century
1043	200	7	Marine shell	Four fragments of cockle, two of oyster and one of winkle	Not closely datable
1045	200	6	Pottery	Black-glazed red earthenware including one rim fragment	Late 17 th – early 20 th century
1045	200	2	Pottery	Brown-glazed red earthenware	Late 17 th – early 20 th century
1045	200	2	Pottery	Unglazed red earthenware	Not closely datable
1045	200	1	Pottery	Painted white earthenware	Late 18 th – 20 th century
1045	200	5	Pottery	White earthenware	Late 18 th – 20 th century
1045	200	1	Pottery	Bone china	19 th – 20 th century
1045	200	1	Pottery	'Willow' transfer-printed white earthenware	19 th – early 20 th century

OR	Cxt	Qty	Material	Description	Date range
1045	200	1	Pottery	'Asiatic Pheasants' transfer-printed white earthenware	Mid-19 th – early 20 th century
1045	200	1	Pottery	'Marble' transfer-printed white earthenware	19 th century
1045	200	1	Pottery	Mottledware	Late 17 th – early 18 th century
1045	200	1	Pottery	Self-glazed, buff-coloured earthenware tile	Late 18 th – 20 th century
1045	200	1	Pottery	Pearlware jar rim fragment	Late 18 th – early 19 th century
1045	200	1	Pottery	Brown-glazed stoneware	18 th – 20 th century
1046	200	2	Glass	Flat colourless fragment	18 th – 20 th century
1047	200	2	Glass	Light turquoise-blue curved fragment	18 th – early 20 th century
1048	200	4	Iron	Long, thin, heavily corroded objects	Not closely datable
1048	200	1	Iron	Flat, rectangular, heavily corroded object	18 th – 20 th century
1048	200	1	Iron	Amorphous corroded lump with stones attached	Not closely datable
1049	200	1	Lead	Thin strip of window-sealing lead	17 th – 20 th century
1050	200	2	Clay tobacco pipe	Stem fragments- damaged- narrow to medium bore	Mid 18 th – 20 th century
1051	200	1	Coal	Lump of coal	Not closely datable
1052	200	1	Charcoal	Small lump	Not closely datable
1054	200	8	Marine shell	Four fragments of cockle and four of oyster	Not closely datable
1055	201	4	Pottery	Black-glazed red earthenware	Late 17 th – early 20 th century
1055	201	2	Pottery	Brown-glazed red earthenware including one rim fragment	Late 17 th – early 20 th century
1055	201	3	Pottery	Unglazed red earthenware	Not closely datable
1055	201	1	Pottery	White earthenware	Late 18 th – 20 th century
1055	201	1	Pottery	Creamware	Late 18 th – 20 th century
1055	201	1	Pottery	Brown-glazed stoneware rim fragment	18 th – 20 th century
1055	201	2	Pottery	Unglazed red earthenware with white slip coating	Late 18 th – 20 th century
1055	201	1	Pottery	'Albion' transfer-printed white earthenware	Mid-19 th – early 20 th century
1055	201	1	Pottery	Spongeware	Mid-19 th – 20 th century

OR	Cxt	Qty	Material	Description	Date range
1055	201	1	Pottery	'Willow' transfer-printed white earthenware	19 th – early 20 th century
1055	201	4	Pottery	Assorted transfer printed earthenware. Two with blue pattern, two with green pattern	19 th – 20 th century
1056	201	6	Glass	Flat colourless fragments	18 th – 20 th century
1057	201	1	Glass	Colourless vessel base fragment with serial number embossed: '...K3 2-1'	19 th - 20 th century
1057	201	2	Glass	Light turquoise-blue bottle fragments from different cylindrical bottles	18 th – early 20 th century
1057	201	1	Glass	Green curved fragment	18 th – 20 th century
1058	201	6	Iron	Amorphous corroded lumps	Not closely datable
1059	201	1	Copper alloy	Small, round disc with a screw attachment on the reverse	19 th – 20 th century
1061	201	1	Marine shell	Fragment of oyster shell	Not closely datable
1062	202	13	Ceramic building material	Unglazed red earthenware brick fragments	17 th – 20 th century
1063	202	3	Glass	Flat colourless fragments	18 th – 20 th century
1064	202	1	Glass	Badly damaged and deteriorated dark olive-green bottle fragment	17 th – 20 th century
1065	202	1	Pottery	'Broseley' transfer-printed white earthenware	19 th – early 20 th century
1065	202	1	Pottery	White earthenware	Late 18 th – 20 th century
1065	202	1	Pottery	Bone china teacup(?) fragment	19 th – 20 th century
1066	202	2	Iron	Amorphous corroded lumps	Not closely datable
1066	202	3	Iron	Corroded long, thin objects of varying length. Possibly nails	17 th – 20 th century
1066	202	1	Iron	Heavily corroded table-spoon with handle missing	17 th – 20 th century
1068	202	2	Marine shell	One cockle and one oyster fragment, both with lime-mortar attached	Not closely datable
1069	300	4	Pottery	Fragments of a large, black-glazed red earthenware vessel, including three base fragments and one with horizontal 'ridges' running along it. Fragments all fit together	Late 17 th – early 20 th century
1069	300	1	Pottery	Self-glazed, relief-moulded, buff-coloured earthenware	19 th – 20 th century
1070	300	2	Glass	Fragments of a light turquoise-blue medicine-bottle neck. No rim present	18 th – early 20 th century
1071	302	1	Pottery	Pearlware	Late 18 th – early 19 th century
1071	302	1	Pottery	White earthenware	Late 18 th – 20 th century
1071	302	1	Pottery	Factory-produced slipware	Late 18 th – early 20 th century
1071	302	1	Pottery	Brown-glazed stoneware	18 th – 20 th century

OR	Cxt	Qty	Material	Description	Date range
1071	302	2	Pottery	Black-glazed red earthenware	Late 17 th – early 20 th century
1072	302	9	Pottery	Brown-glazed red earthenware from a large vessel	Late 17 th – early 20 th century
1072	302	2	Pottery	Brown-glazed red earthenware from a small vessel including one base fragment	Late 17 th – early 20 th century
1072	302	4	Pottery	Unglazed red earthenware	Not closely datable
1072	302	3	Pottery	Black-glazed red earthenware from a small vessel	Late 17 th – early 20 th century
1072	302	3	Pottery	Yellow slip-coated red earthenware	Late 18 th – early 20 th century
1072	302	1	Pottery	Self-glazed buff-coloured earthenware	18 th – 20 th century
1072	302	1	Pottery	Spongeware rim fragment	Mid-19 th – 20 th century
1072	302	1	Pottery	'Fibre' transfer-printed white earthenware	19 th – early 20 th century
1072	302	2	Pottery	'Broseley' transfer-printed white earthenware	19 th – early 20 th century
1072	302	1	Pottery	Pearlware handle fragment	Late 18 th – early 19 th century
1072	302	2	Pottery	'Asiatic Pheasants' transfer-printed white earthenware, both rim fragments, one from a plate	Mid-19 th – early 20 th century
1072	302	1	Pottery	Blue factory-produced slipware	Late 18 th – early 20 th century
1072	302	11	Pottery	Assorted stoneware, including four fragments with 'ridged' exterior and one rim	19 th – 20 th century
1072	302	2	Pottery	Green transfer-printed white earthenware	19 th – 20 th century
1072	302	13	Pottery	Bone china including three teacup(?) base fragments and two rim fragments	19 th – 20 th century
1072	302	12	Pottery	White earthenware including two plate-base fragments	Late 18 th – 20 th century
1073	302	2	Ceramic building material	Brown-glazed fireclay drainpipe fragments	Mid-19 th – early 20 th century
1074	302	2	Ceramic	Red earthenware- possibly brick or tile fragments (?)	Not closely datable
1075	302	2	Glass	Flat colourless window fragments	18 th – 20 th century
1076	302	2	Glass	Colourless vessel fragments	18 th – 20 th century
1076	302	2	Glass	Green vessel fragments	18 th – 20 th century
1076	302	1	Glass	Rim fragment from a light turquoise-blue mineral water(?) bottle	18 th – early 20 th century
1079	302	4	Marine shell	Oyster shell fragments	Not closely datable

OR	Cxt	Qty	Material	Description	Date range
1080	302	7	Iron	Amorphous corroded lumps	Not closely datable
1080	302	1	Iron	Long, thin, heavily corroded object- possible nail(?)	Not closely datable
1081	302	1	Iron	Heavily corroded nail	17 th – 20 th century
1082	400	3	Pottery	Black-glazed red earthenware	Late 17 th – early 20 th century
1082	400	1	Pottery	Brown-glazed red earthenware	Late 17 th – early 20 th century
1082	400	2	Pottery	'Willow' transfer-printed white earthenware	19 th – early 20 th century
1082	400	8	Pottery	Assorted stoneware including two with 'ridged' exterior and two jar-rim fragments	19 th – 20 th century
1082	400	4	Pottery	White earthenware including one rim and one base fragment	Late 18 th – 20 th century
1082	400	3	Pottery	Bone china including one base fragment of a bowl	19 th – 20 th century
1082	400	1	Pottery	'Broseley' transfer-printed white earthenware bowl-base fragment	19 th – early 20 th century
1082	400	1	Pottery	'Asiatic Pheasants' transfer-printed white earthenware	Mid-19 th – early 20 th century
1082	400	1	Pottery	'Albion' transfer-printed white earthenware	19 th – 20 th century
1082	400	1	Pottery	Painted white earthenware	Late 18 th – 20 th century
1082	400	1	Pottery	Green transfer-printed white earthenware	19 th – 20 th century
1083	400	1	Ceramic building material	Red earthenware brick fragment	17 th – 20 th century
1084	400	4	Glass	Light turquoise-blue bottle fragments including two neck fragments from a small medicine(?) bottle	18 th – early 20 th century
1084	400	1	Glass	Fragment of a square turquoise-blue bottle with the letters '...ATE...' embossed	19 th – early 20 th century
1084	400	1	Glass	Green bottle fragment	18 th – 20 th century
1084	400	1	Glass	Blue bottle fragment	18 th – 20 th century
1084	400	1	Glass	Fragment of a green, cylindrical bottle with the letters '[CA]STLE' embossed	19 th – 20 th century
1085	400	1	Lead	Bent piece of medium-thick lead with a hole near the middle	Not closely datable
1086	400	1	Other metal	Blue and red, AA, 1.5v battery with the writing: 'EVER READY HIGH POWER BATTERY' and 'MADE IN BRITAIN'	20 th century
1086	400	1	Aluminium	Small circular aluminium tin. On the lid there is a green star with 'DYLON 25' written on it. On the base there is the profile of a man's face and 'BRITISH MADE' indented	20 th century
1087	400	1	Clay tobacco pipe	Very thick stem and bowl-base fragment from a short-stemmed pipe. Narrow bore, originally would have had a wooden mouthpiece	Mid 19 th – early 20 th century

OR	Cxt	Qty	Material	Description	Date range
1088	400	1	Antler	Badly damaged knife-handle. Rusted iron still visible in the ends	Not closely datable
1090	401	3	Pottery	Black-glazed red earthenware, including one rim fragment	Late 17 th – early 20 th century
1090	401	5	Pottery	Brown-glazed red earthenware including one rim fragment	Late 17 th – early 20 th century
1090	401	1	Pottery	Brown-glazed red earthenware with yellow slip-banded decoration	Late 17 th – early 20 th century
1090	401	3	Pottery	'Willow' transfer-printed white earthenware	19 th – early 20 th century
1090	401	3	Pottery	'Broseley' transfer-printed white earthenware rim fragments	19 th – early 20 th century
1090	401	2	Pottery	Sheet-printed white earthenware jug fragments including one rim and one jug-lip fragment	Late 18 th – 20 th century
1090	401	1	Pottery	Transfer-printed white earthenware	19 th – 20 th century
1090	401	2	Pottery	White earthenware	Late 18 th – 20 th century
1090	401	3	Pottery	Fragments of a brown-glazed and yellow slip-coated red earthenware lidded jar. Fragments all fit together	19 th – 20 th century
1090	401	1	Pottery	Brown-glazed yellow slip-coated red earthenware with iron staining	19 th – 20 th century
1090	401	3	Pottery	Yellow slip-coated red earthenware	18 th – 20 th century
1091	401	1	Glass	Light turquoise-blue vessel fragment	18 th – early 20 th century
1093	401	2	Marine shell	Oyster shell fragments	Not closely datable
1094	u/s	1	Pottery	Lightly gritted ware (?) vessel base	12 th – 13 th century?

Appendix 5: Animal Bone

Key: OR No = Object Record Number; C = Context; Condition: the first coded letter refers to preservation (G = good; F = fair), the second to the angularity (S = spiky; B = battered; R = rounded), and the third to colour (F = fawn; V = variable; W = white, B = brown); Description: FB = freshly broken; Cal = calcined; PU = proximal epiphysis unfused; DU = distal epiphysis unfused; DFg = distal epiphysis fusing; CG = carnivore gnawed; sh/g = sheep/goat; mm1 = medium mammal 1; lm = large mammal; unid = unidentified.

OR No	C	Quantity	Material	Condition	Description
1010	100	1	Bone	G,S,F	1 caprovid maxillary molar (FB)
1023	101	4	Bone	F,B,F	Bone is generally battered and freshly broken. Includes 2 fragments of mm1 long bone shaft, one with knife cuts; 1 fragment of unid bone, sawn; 1 fragmented piece of lm scapula glenoid/proximal radius
1034	103	9	Bone	F,S,F	Includes pig tibia (PU, FB) and distal femur (DFg, CG), mm1 long bone shaft and rib, lm scapula and long bone shaft and also bird shaft. Evidence of dog gnawing, butchery (knife) marks on several bones. High incidence of fresh breakage
1035	103	4	Bone	G,S,F	Sh/g: 2 maxillary molars, 1 ageable mandibular molar; pig; 1 incisor
1053	200	1	Bone	G,S,F	1 lm shaft fragment
1060	201	1	Bone	G,S,F	1 sh/g ulna (FB)
1067	202	4	Bone	F,V,V	Mm1: 3 ribs (FB), 1 long bone shaft (CG); some battering of the bones
1077	302	2	Bone	F,R,F	Mm1 skull fragment; lm shaft fragment (FB)
1078	302	1	Bone	F,S,W	Lm shaft (Cal)
1089	400	6	Bone	F,S,F	Pig: 1 immature pelvis fragment (FB); rest is lm including rib and pelvis fragments, a number of which have saw-marks; some bones gnawed and all freshly-broken
1092	401	1	Bone	F,S,B	1 mm1 rib with chop-marks

Appendix 6: Environmental Samples

Sample	Context	Volume (litres)	Description
1	105	10	Fill of pit 106
2	107	10	Fill of linear 108
3	210	3	Waterlogged fill of stone-lined drain 211

Table 1: Environmental samples

Sample number	1	2	3
Volume (litres)	2	2	2
Bone	++	+++	+
Daub	+++		
Ceramic (post-medieval?)	+	+	+++
Charcoal		+	
Coal (burnt and unburnt)	++	+++	+++
Fe		+	+
Flint	+		
Glass	+	+	++
Haematite	+		
Land snails			++
Medieval pottery	+		
Marine shell	++	++++	++++
Mortar		++	+++
Post-medieval pottery		+	++
Slag		+	

Table 2: Volume and contents of retents (Key: + = 1-5, ++ = 6-20, +++ = 21-100, ++++ = >100)

Context	105	105	107
Sample	1	1	2
Sieve size (µm)	500	250	500
Flot volume (ml)	20	15	50
Cerealia cf. <i>Avena</i> sp.			+
<i>Avena</i> sp.	+		++
<i>Triticum</i> sp.	+		
<i>Triticum aestivo-compactum</i>	+		
<i>Triticum dicoccum</i>	+		
<i>Triticum spelta</i>	+		
Cerealia cf. <i>Secale cereale</i>	+		
Cereal indet.	+++		++
<i>Sambucus nigra</i> (uncharred)	+++		++++
<i>Galium</i> sp. (uncharred)	+		
<i>Carex</i> sp.			+
Asteraceae sp.			+
<i>Juncus</i> sp. (uncharred)			+
<i>Rubus</i> sp. (uncharred)			++
<i>Galeopsis</i> sp. (uncharred)			+
<i>Euphorbia helioscopia</i> (uncharred)			+
Charcoal	++++	+++	+++
Coal	++++		++++
Cinder	+++		
Daub	+++	+	+
Culm node fragments	+		

Table 3: Contents of non-waterlogged flots (Key: + = rare, ++ = occasional, +++ = common, and ++++ = abundant)

Context	210
Sample	3
Volume (ml)	300
<i>Betula</i> sp. indet.	+
<i>Betula pubescens</i>	+
<i>Prunus domestica</i>	+
<i>Crataegus monogyna</i> fruits	++++
<i>Rubus fruticosus</i>	+
<i>Stachys</i> sp.	+
<i>Centaurea</i> sp.	+
Sphagnum leaves and stems	++++
Leaf fragments	++++
Wood fragments	++++
Coal	++
Unburnt bone	+

Table 4: Contents of waterlogged flot (Key: + = rare, ++ = occasional, +++ = common, and ++++ = abundant)

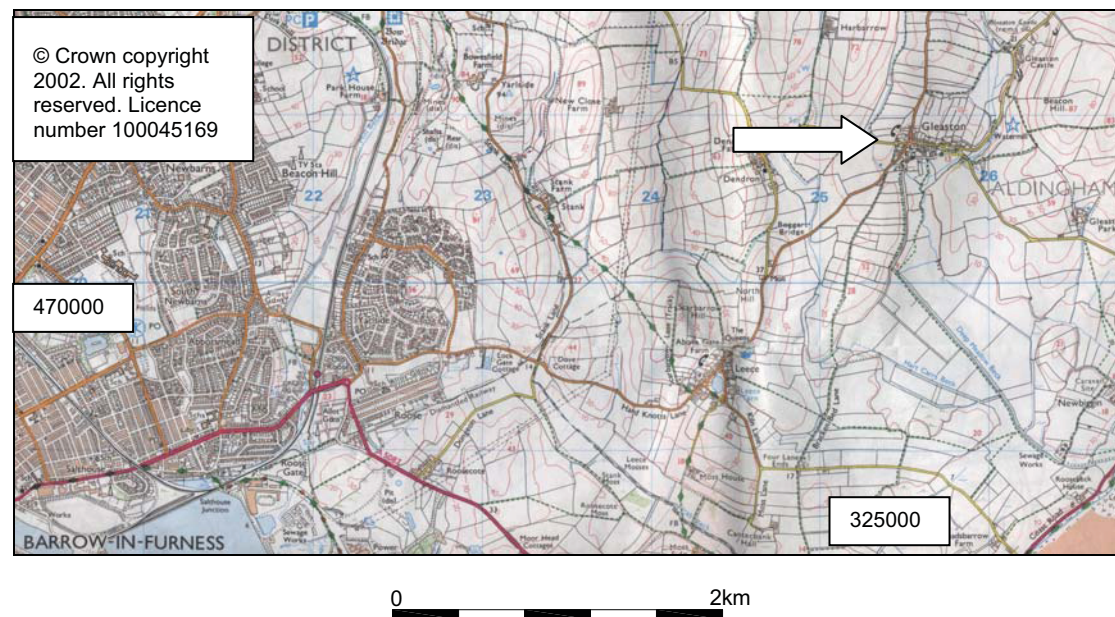


Figure 1a: Site location, showing Gleaston (indicated by arrow) in relation to Barrow-in-Furness

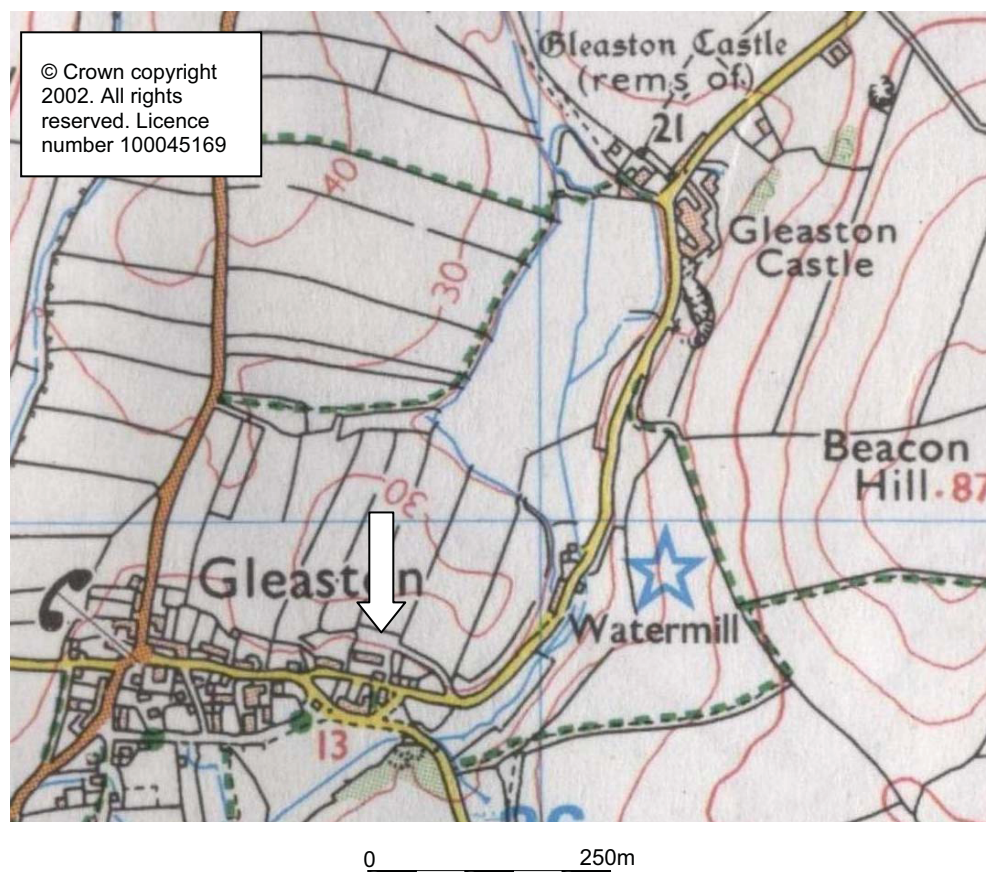
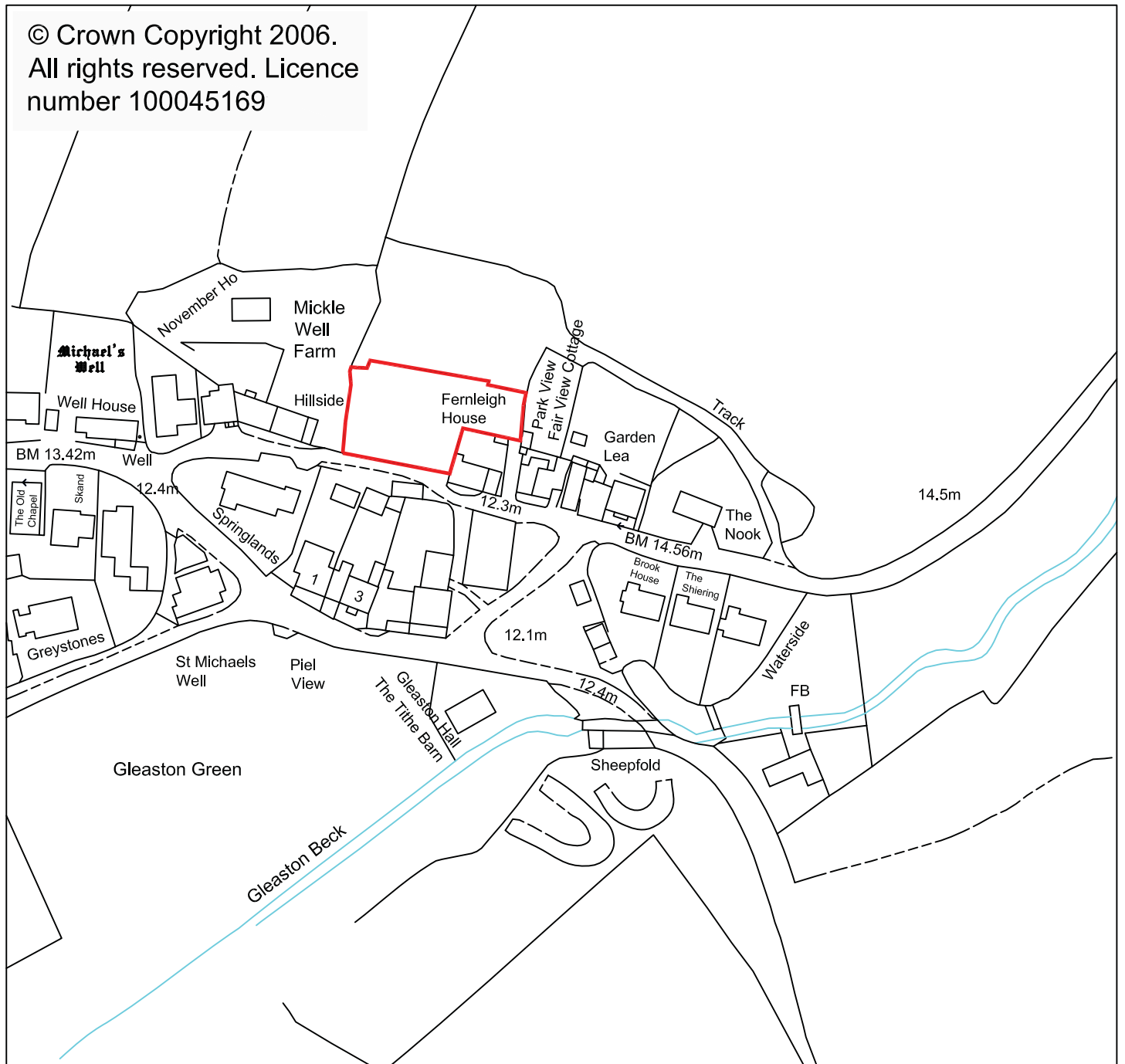
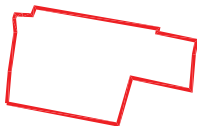


Figure 1b: Site location (indicated by arrow) in relation to the rest of Gleaston, also showing watermill and Gleaston Castle

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number 100045169



Key:



Proposed development site



0

150m



Figure 2: Site location showing immediate environs

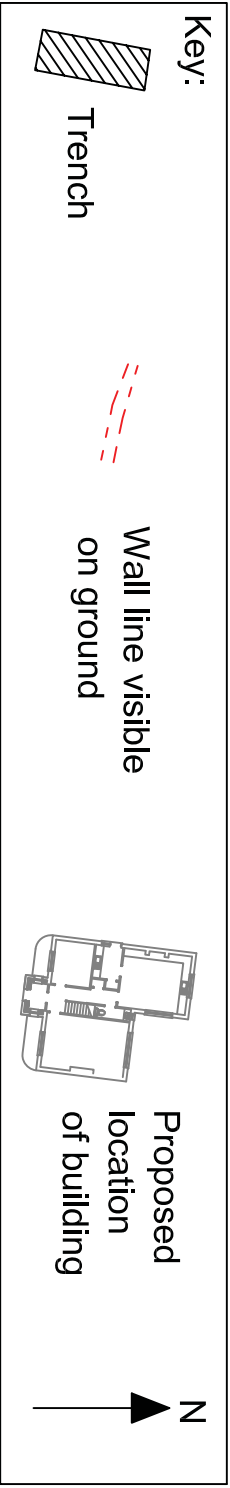
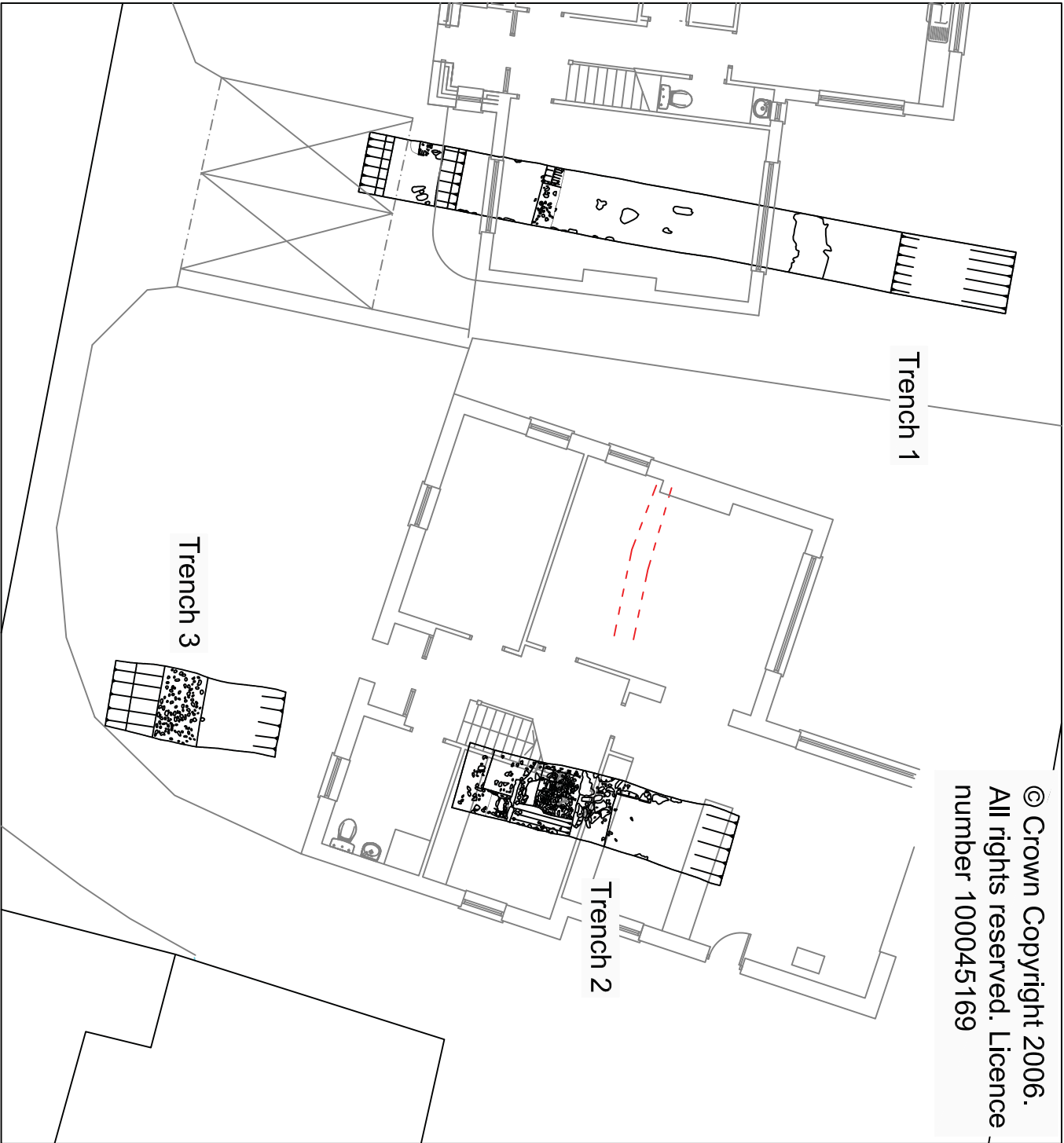
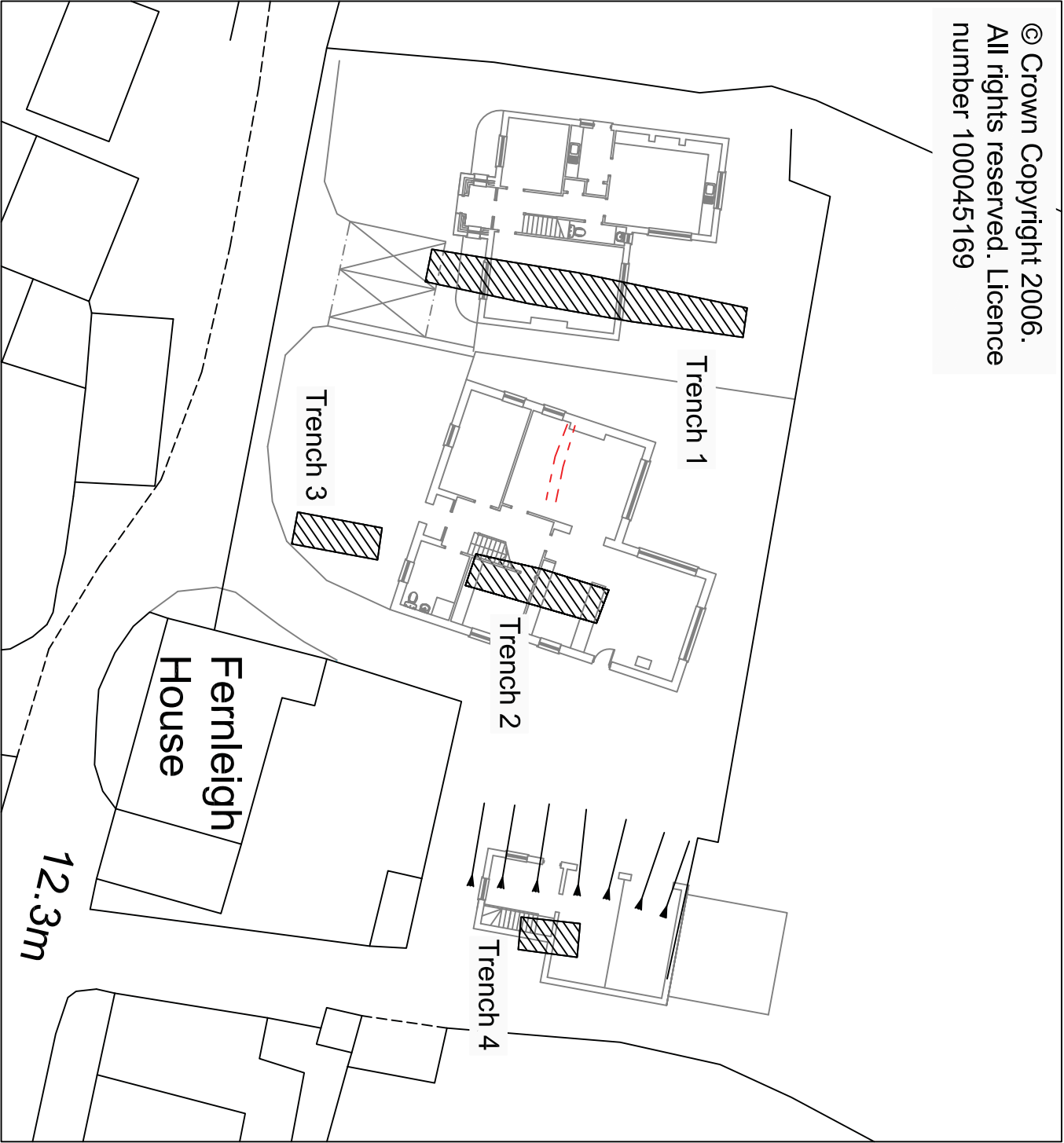


Figure 3: Trench location plan and location of features within Trenches 1-3

Project:

Mill Road, Gleaston

Project Code: G1032

Site Code: MR06

Key:

107

spot height

extent of excavation

projected line

context edge

depression caused
by machine

Spot heights:

1 = 13.2m OD

2 = 13.4m OD

$$3 = 13.31 \text{ m OD}$$

4 = 12.86m OD

$$5 = 13.01 \text{ m OD}$$

6 = 12.55m OD

7 = 12.43m OD

 $\delta = 13.96\text{m OD}$

0 2.5m

Date: October 2006

GREENLANE
ARCHAEOLOGY

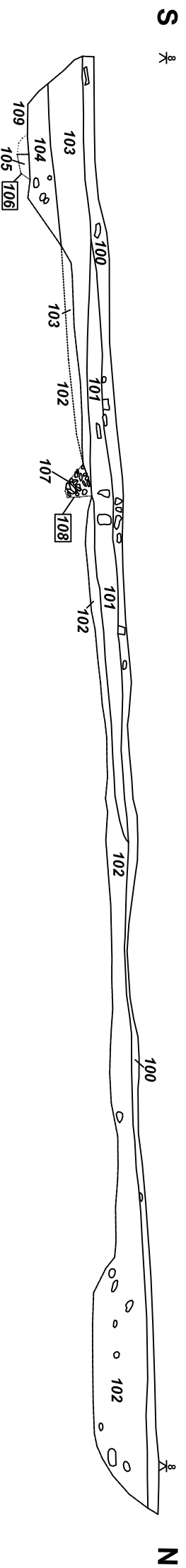
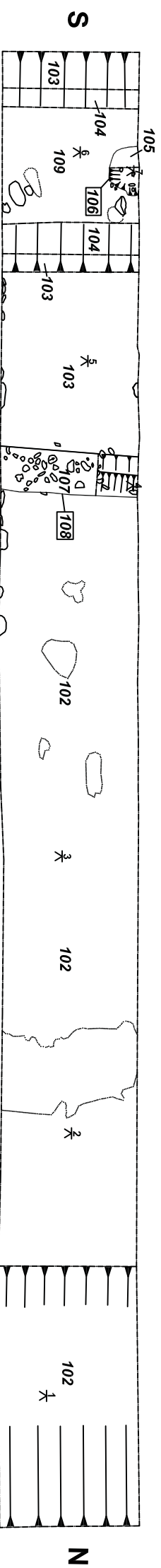


Figure 4: Plan and east-facing section of Trench 1

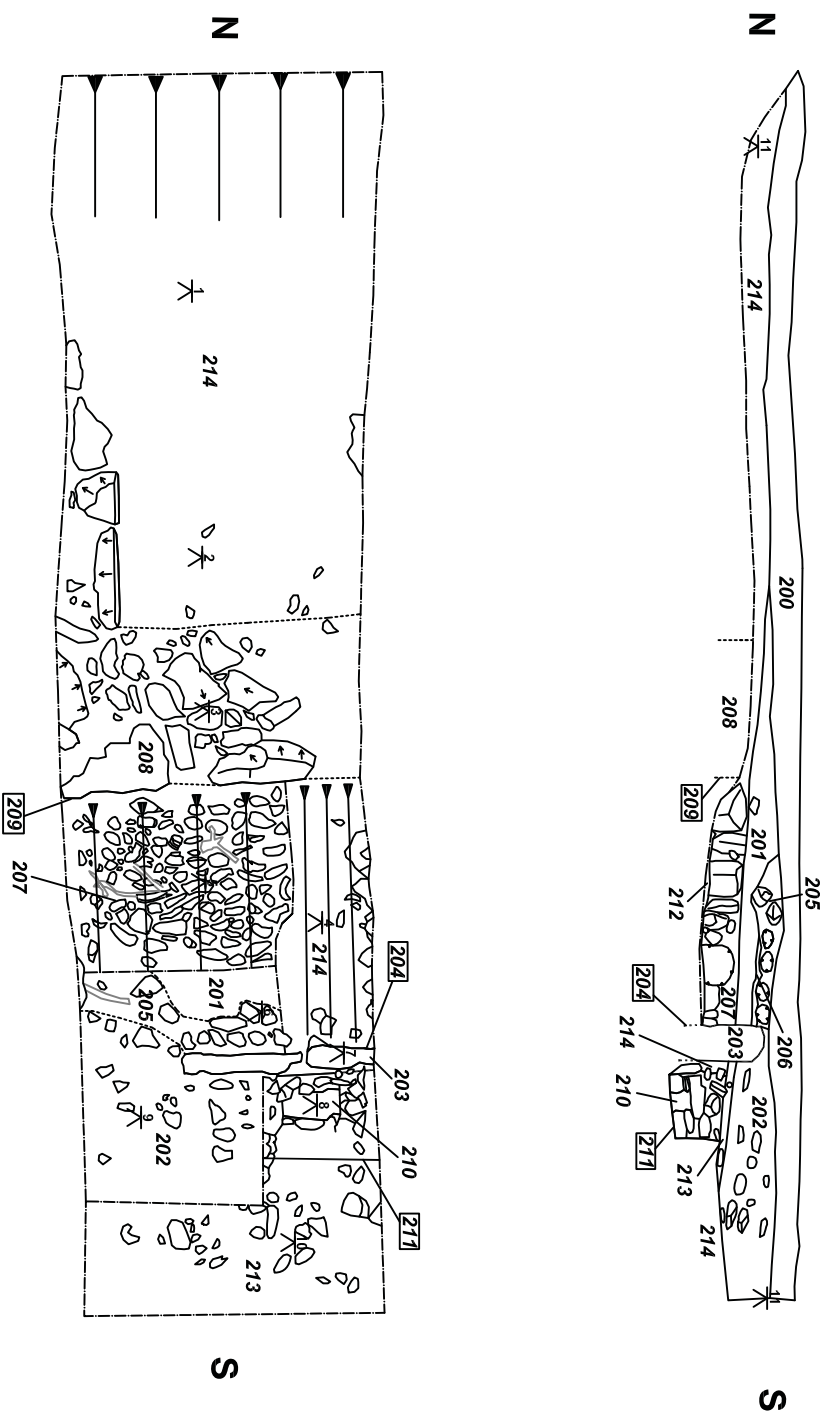
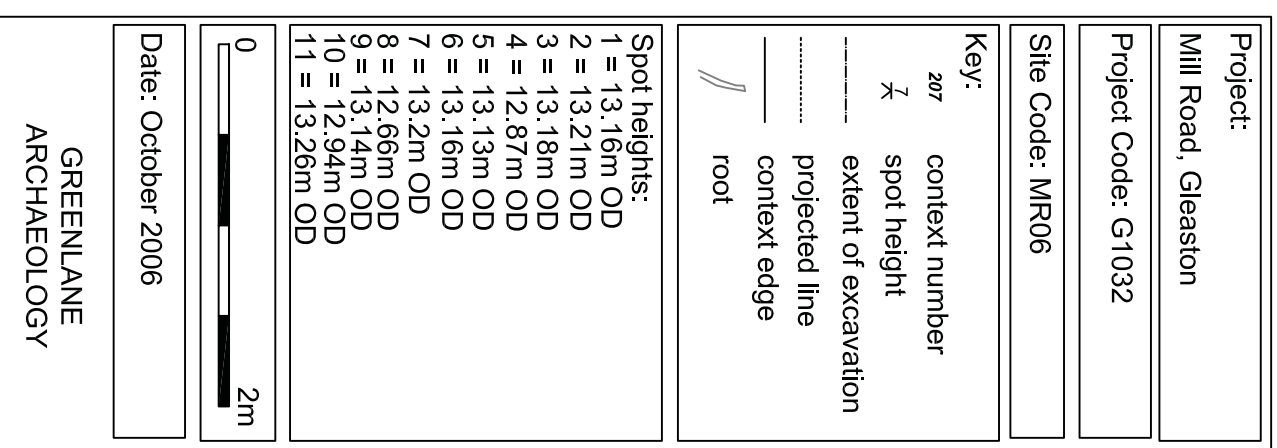


Figure 5: Plan and west-facing section of Trench 2



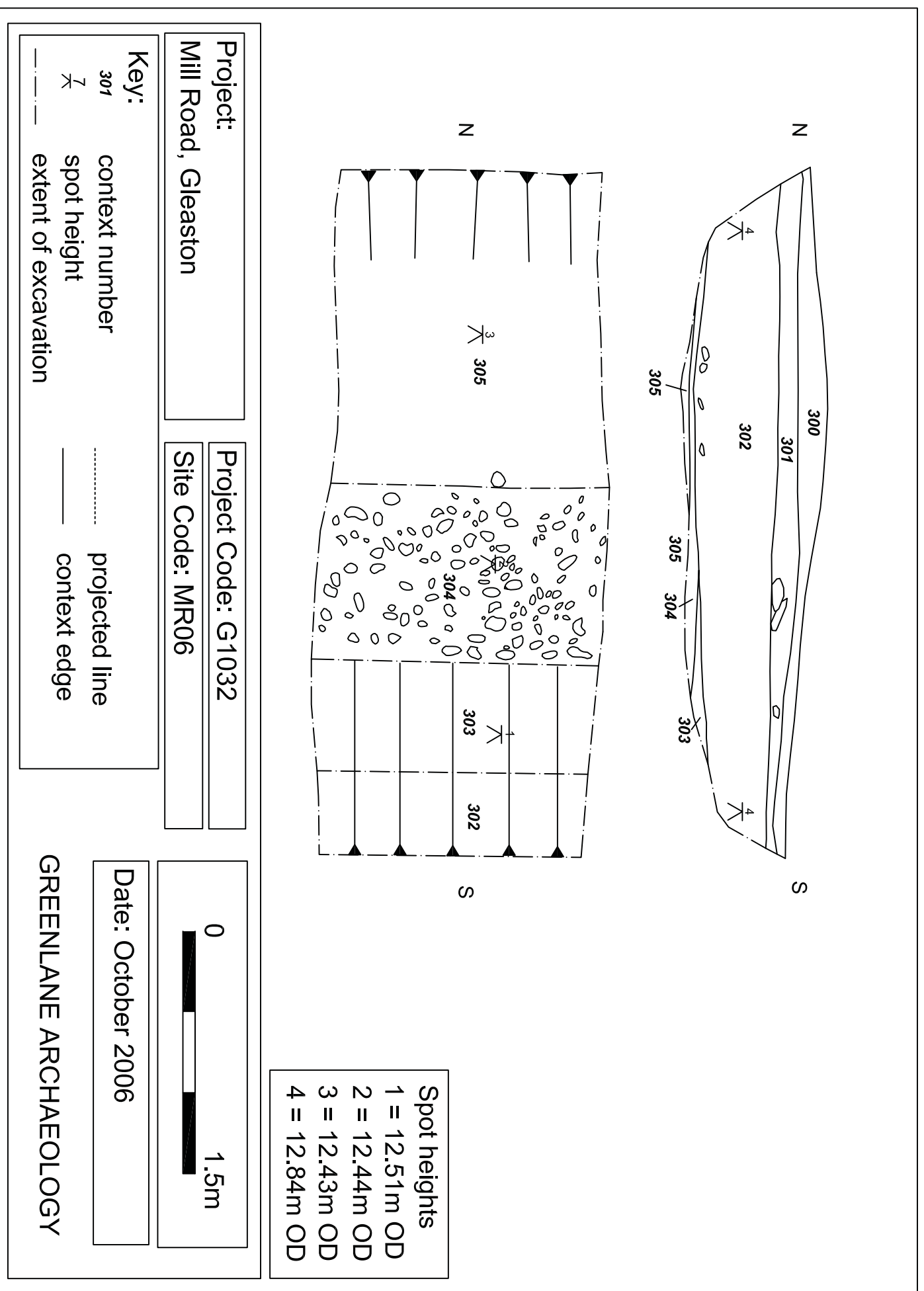
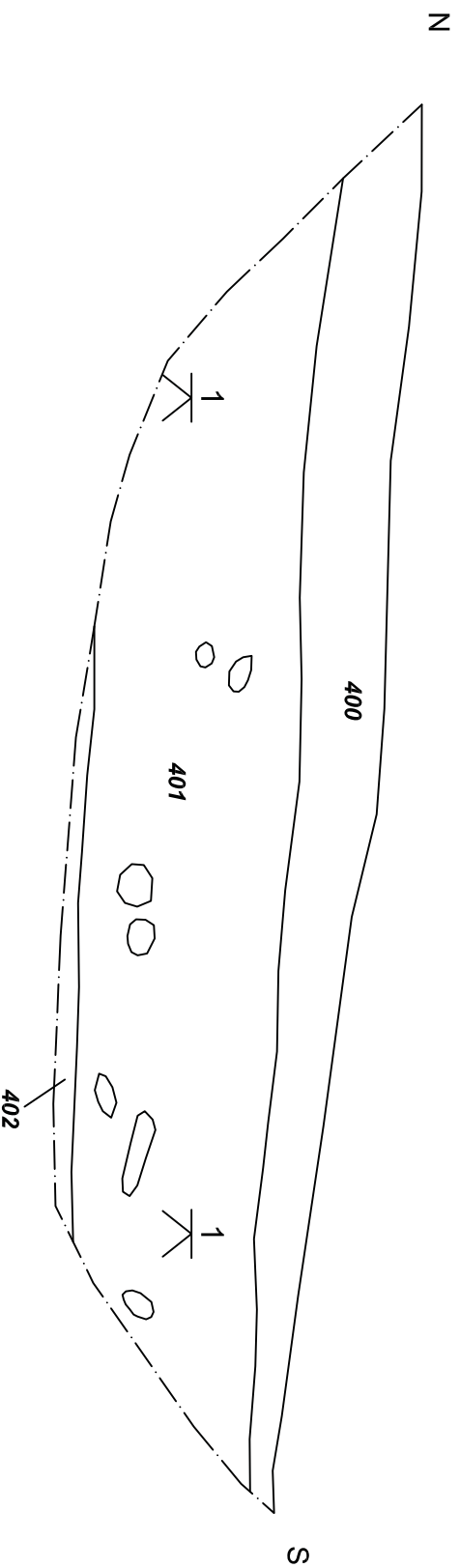


Figure 6: Plan and west-facing section of Trench 3



Spot heights
1 = 15.35m OD

Project:
Mill Road, Gleaston

Project Code: G1032

Site Code: MR06

Key:

401

context number

7

spot height

extent of excavation

projected line

context edge

Date: October 2006

0



1m

GREENLANE ARCHAEOLOGY

Figure 7: West-facing section of Trench 4

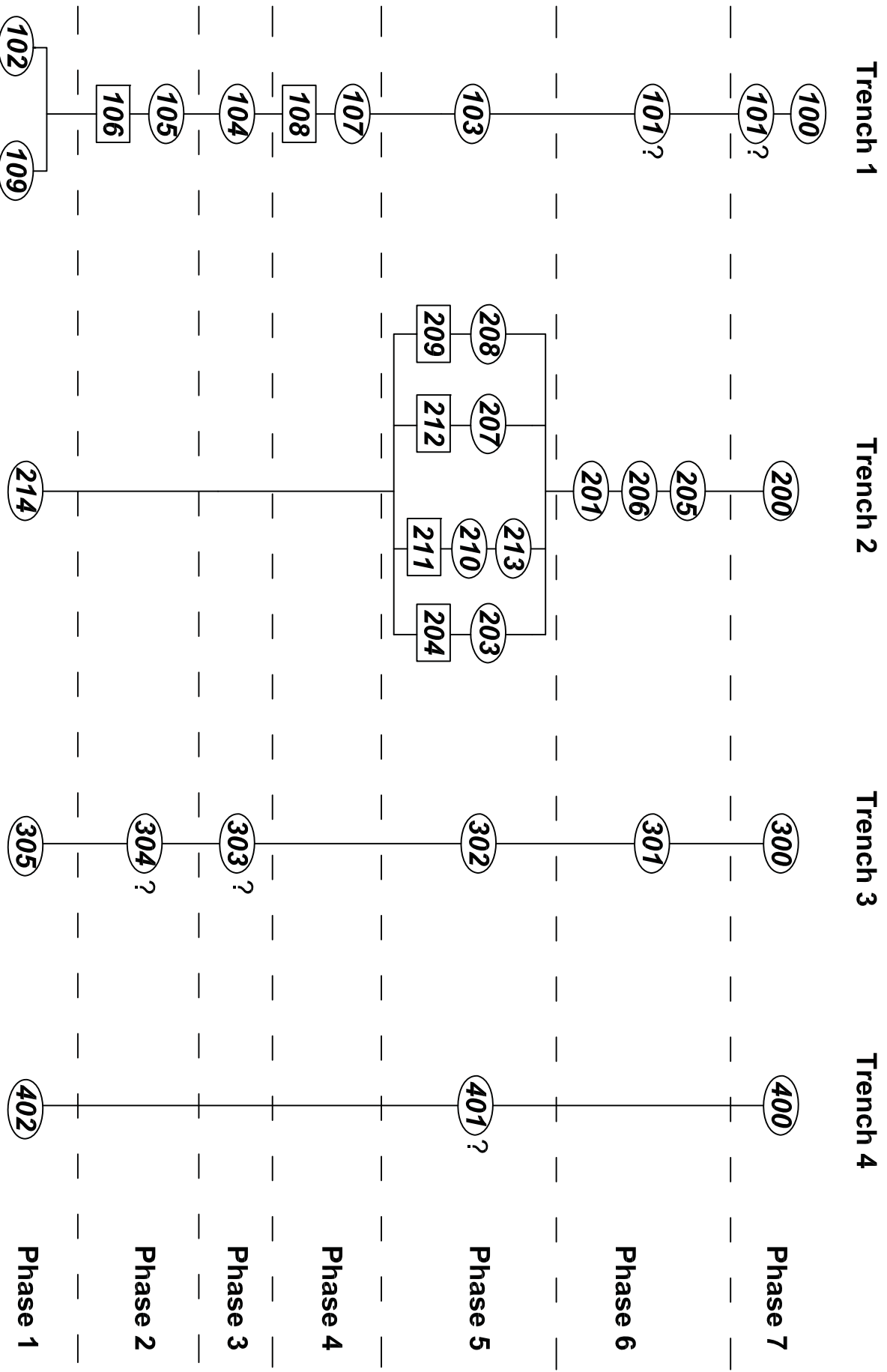


Figure 8: Site matrices and phases



Plate 1: Part of the Tithe Map showing the plot and the earliest building recorded on the site (CRO(B) BPR 21 1848)



Plate 2: Part of the Ordnance Survey map of 1851 showing the plot, the original building with extension and a new building to the south-west



Plate 3: Part of the Ordnance Survey map of 1890 as used for the 1910 Inland Revenue valuation showing the row of cottages built on the plot and replacing the original house



Plate 4: Part of the Ordnance Survey map of 1913 showing the cottages and adjoining plots and 'Michael's Well'

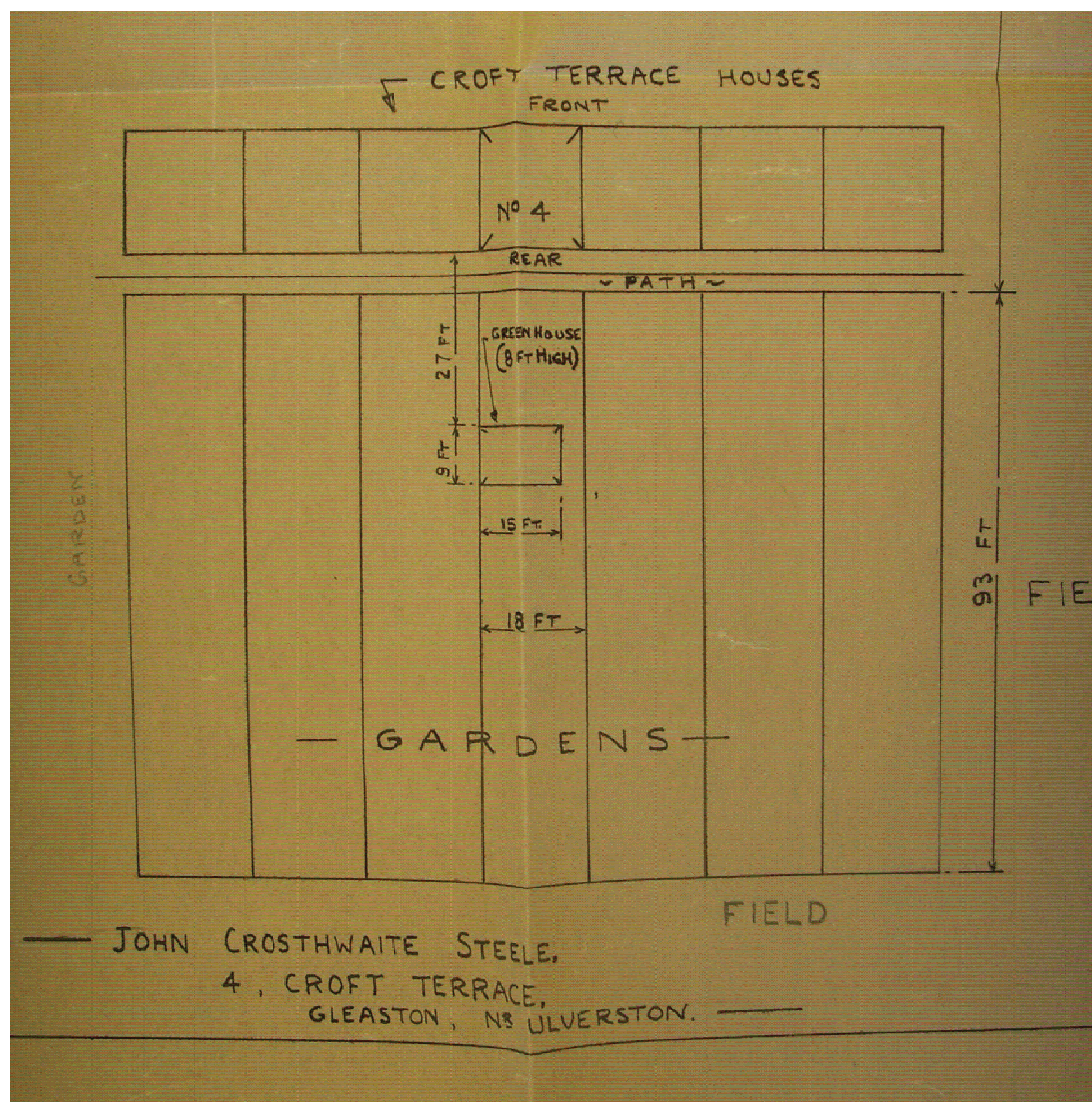


Plate 5: Plan of a proposed greenhouse to be built for No. 4 Croft Terrace (CRO(B) BSRD/NL Ulverston RDC Building Plans 3/2278 1948)



Plate 6: The small pit **106** in Trench 1 following excavation, facing west



Plate 7: Drain **108** in Trench 1 prior to excavation, facing east



Plate 8: Drain **108** in Trench 1 following excavation, facing west



Plate 9: General view of Trench 1 showing garden soil **103** and natural **104**, facing north



Plate 10: Upper cobble surface **205**, edging slabs **203** and rubble **202** in Trench 2 following removal of topsoil, facing east



Plate 11: Upper cobble surface **205**, edging slabs **203**, lower cobble surface **207**, and wall **208** in Trench 2 following excavation, facing east



Plate 12: Drain **211** in Trench 2 following excavation, looking east



Plate 13: Natural clay **305**, cobbled surface **304**, and pink-orange clay **303** in Trench 3, looking south



Plate 14: West-facing section of Trench 3, facing east



Plate 15: Trench 4 following excavation, facing north



Plate 16: General view of the site during excavation, looking east



Plate 17: General view of the site during excavation from the higher ground to the north, facing south-west



Plate 18: The hand-retrieved medieval pottery; all from buried garden soil **103** with the exception of the top left (overburden **200**), top second from left (unstratified), top right two (demolition deposit **101**), and middle right (linear fill **107**)



Plate 19: Clay tobacco pipe stem fragment with 'GEO:MARCH' (George March) maker's mark, from garden soil **103**