

LAND AT MCIVER LANE, (WANLASS HOWE), AMBLESIDE, CUMBRIA

Archaeological Evaluation



Client: Thomas Armstrong
(Construction) Limited

NGR: NY 3759 0351

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Non-Technical Summary

Following a pre-planning enquiry for the construction of a proposed housing estate on land at Mclver Lane, (Wanlass Howe), Ambleside, Greenlane Archaeology was commissioned to carry out an archaeological evaluation to determine the nature and survival of any archaeological remains at the site. The site is close to the Roman fort and *vicus* at Waterhead and prehistoric remains are also known from the general area so it was considered to be of high archaeological potential.

The evaluation involved the initial completion of a desk-based assessment, which included an examination of early maps and sources relating to the site and a site visit. The earliest maps of the site are from the 19th century, but extensive accounts relating to finds and archaeological work carried out in and around the Roman fort are available. Amongst these were results from work carried out in advance of a proposed road scheme, which included the excavation of two evaluation trenches within the proposed development area. Neither of these revealed any remains of archaeological interest and so, in agreement with the Historic Environment Service at the Lake District National Park, it was decided to reduce the area to be examined and thus the extent of the evaluation by approximately half.

Two evaluation trenches were therefore excavated, both targeting earthworks evident on site and revealed during the site visit, and one the position of a field boundary shown on the early mapping. In the event no features or deposits of archaeological interest were encountered. The westernmost earthwork appeared to be the result of outcropping bedrock present below the soil, while the easternmost was represented only by a deeper deposit of subsoil, and presumably therefore produced as a result of ploughing. Finds were only recovered from the topsoil in both trenches, the majority of which was of post-medieval date, although a single piece of late medieval pottery was also found.

The evaluation demonstrates that, although close to the Roman *vicus* and fort, there is no evidence for any related activity within the proposed development area. It is likely that this is in part due to the local topography, with the site being on a raised area of outcropping bedrock relative to the lower ground around it.

Acknowledgements

Greenlane Archaeology would like to thank Thomas Armstrong (Construction) Ltd for commissioning the project and in particular Barry Denham for his help and information about the site. Further thanks are due to Holly Beavitt-Pike, Archaeology and Heritage Assistant, Lake District National Park Authority (LDNPA), for issuing the project brief and for approving the project design, and to John Hodgson, Senior Archaeologist at the LDNPA, for his additional comments. Thanks are also due to the staff of the Cumbria Record Office (Kendal) for assistance with accessing the relevant archive information, and Jo Macintosh, Historic Environment Record Officer at Cumbria County Council, for enabling access to reports relating to previous archaeological work on and near the site.

The desk-based assessment was carried out by Dan Elsworth, the evaluation by Dan Elsworth and Tom Mace, who also co-wrote the report, and the illustrations were produced by Tom Mace. The finds were assessed by Tom Mace and Jo Dawson, and Jo Dawson also edited the report. The project was managed by Dan Elsworth.

1. Introduction

1.1 Circumstances of the Project

1.1.1 Following a pre-planning enquiry made by Thomas Armstrong (Construction) Ltd (hereafter 'the client') for the construction of a proposed housing estate on land at Mclver Lane, (Wanlass Howe), Ambleside, Cumbria (NGR NY 3759 0351), a request was made by the Lake District National Park Authority (LDNPA) for a programme of archaeological evaluation. A brief for this work was provided (LDNPA 2012; *Appendix 1*) requiring a desk-based assessment followed by the excavation of evaluation trenches, covering 1% of the proposed development site, totalling 48m linear in order to assess the presence or absence of features of archaeological interest within the area, their extent, date, nature, and significance. In response to this Greenlane Archaeology produced a project design for this work (*Appendix 2*). During the desk-based assessment it was revealed that the proposed development area had already had two archaeological evaluation trenches excavated within it during an assessment carried out in advance of a proposed by-pass scheme in 1990 (LUAU 1990). As a result the original proposal was modified and a smaller area subject to evaluation. The archaeological evaluation was carried out on 31st June 2012.

1.1.2 The proposed development site is within 250m of the Roman fort at Waterhead, which is a scheduled monument, and is within the area where the associated *vicus* is thought to have extended. Previous work at the fort suggests that it was occupied from the late 1st century into the 4th century, with several phases of rebuilding. The exact extent of the *vicus* is uncertain, but it appears to have been certainly present to the north and east of the fort.

1.2 Location, Geology, and Topography

1.2.1 The proposed development site is situated at Waterhead at the north end of Lake Windermere, less than 1km south of the centre of the town of Ambleside (Ordnance Survey 2008; Figure 1). The trenches were excavated on a rise on the west side of the proposed development site, which sloped steeply up from east to west, at a height of approximately 60m above sea level (see Figure 3). The entire site area was essentially rough grazing, although currently disused, with a wet and boggy area on the east side and bedrock outcropping to the south and west.

1.2.2 The underlying geology of the area comprises Borrowdale volcanic slate (Moseley 1978, plate 1), typically covered by glacially derived boulder clay, although this is more commonly a feature of valley bottoms (Countryside Commission 1998, 33). The landscape is on the southern edge of the high Lakeland fells, and characterised largely by grasslands and small patches of woodland (*op cit*, 35).

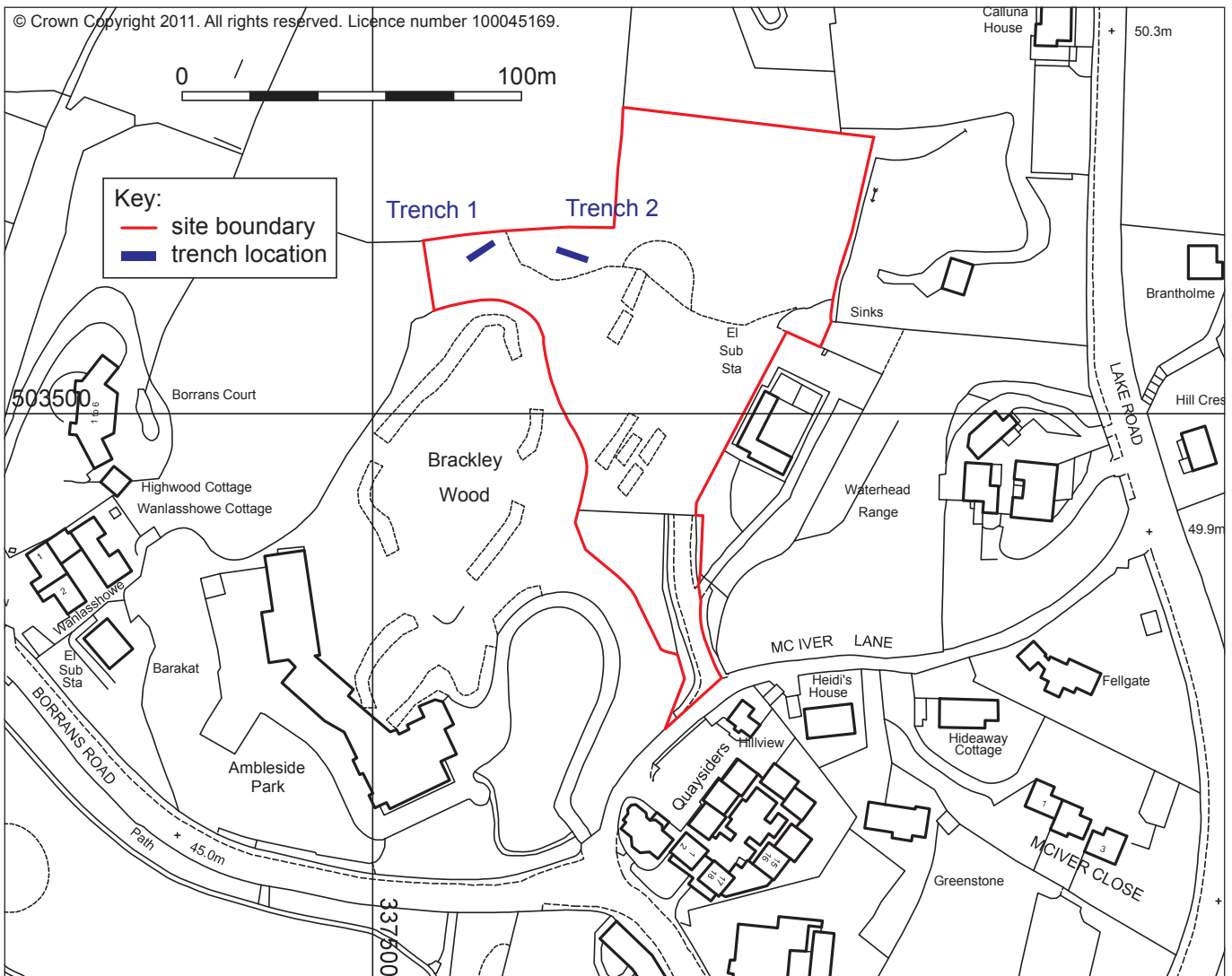
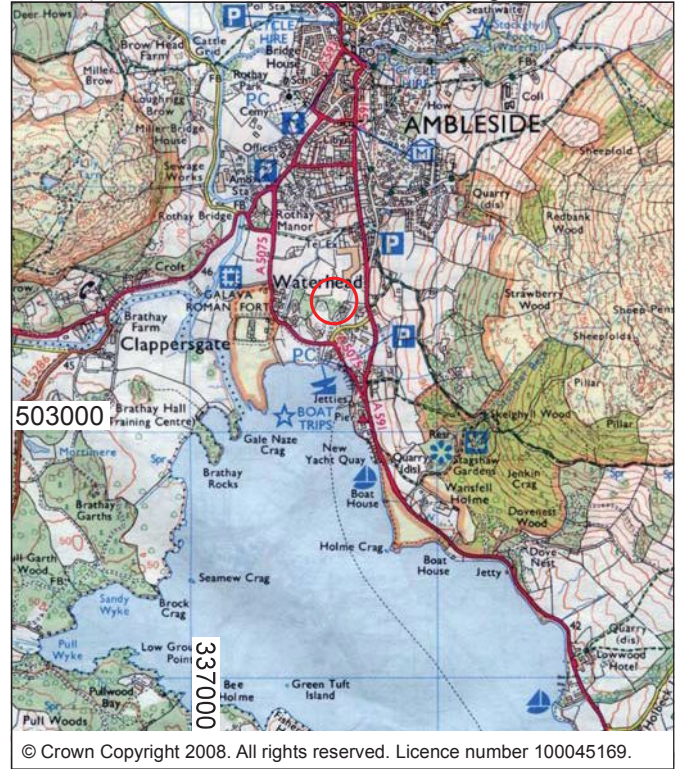
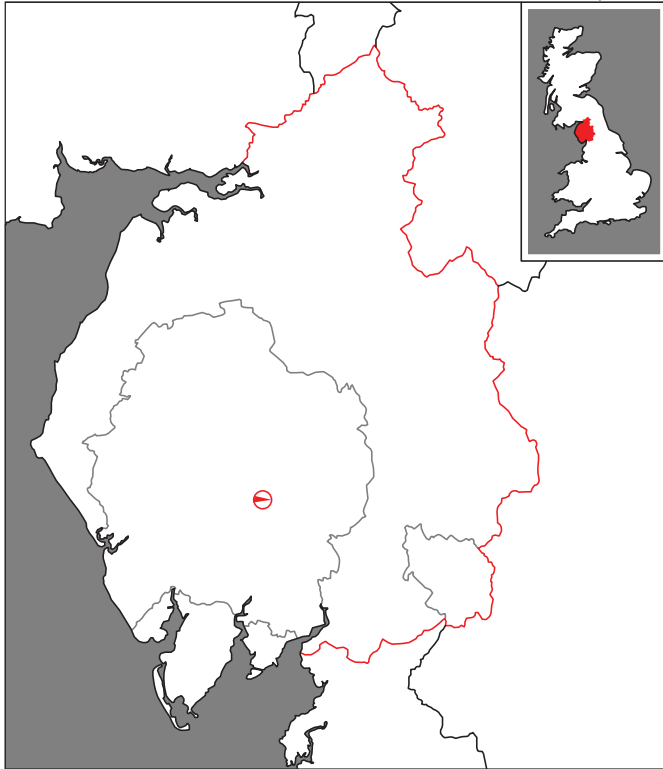


Figure 1: Site location

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2. Methodology

2.1 Introduction

2.1.1 A desk-based assessment was carried out in accordance with IfA guidelines (IfA 2008a) ahead of the archaeological evaluation. The evaluation phase was initially intended to comprise the excavation of 48m linear of trial trenching, the intention of which was to establish, where possible, whether any remains of archaeological significance are present on the site and their nature, degree of survival, extent, significance, and date. However, the discovery during the desk-based assessment that the site had already been subject to limited archaeological evaluation in 1990 led to an approximately 50% reduction in the area to be evaluated and a concentration of the trenches on the west side of the site, following discussion with the HES at the LDNPA.

2.1.2 All aspects of the evaluation were carried out according to the standards and guidance of the Institute for Archaeologists (IfA 2008b) and according to Greenlane Archaeology's own excavation manual (Greenlane Archaeology 2007).

2.2 Desk-Based Assessment

2.2.1 The intention of this element of the project was to identify the known remains of historical and archaeological interest present on the site, assess the potential for as yet unknown remains by examining the wider area, and thus identify what deposits and features were likely to be encountered during the course of the evaluation. This principally comprised an examination of early maps of the site, information from the Lake District Historic Environment Record (LDHER), and published secondary sources. The following sources of information were used during the desk-based assessment:

- **Lake District Historic Environment Record (HER):** this is a list of all the known sites of archaeological interest within the county, which is maintained by the Lake District National Park Authority and is the primary source of information for an investigation of this kind. Details of all the known sites of archaeological interest and previous pieces of archaeological work carried out within 500m of the centre of the proposed development area (the 'study area') were examined. Each identified site comes with a grid reference, description, and source, and any additional information which was referenced was also examined as necessary. In addition, unpublished reports of archaeological investigations in the vicinity of the site were examined;
- **Cumbria County Record Office, Kendal (CRO(K)):** this was visited in order to examine early maps and plans of the site and local and regional histories and directories as well as other sources of information pertinent to the site;
- **Cumbria County Council Historic Environment Record (CCCHER):** due to the split in the management of historic environment records that occurred in the early 1990s some copies of relevant reports on previous work carried out within the study area are still held by the CCCHER. Copies of relevant reports were therefore accessed at the CCCHER;
- **Greenlane Archaeology Library:** additional secondary sources were examined to provide information for the site background.

2.3 Site visit

2.3.1 A brief site visit was carried out in order to ascertain the presence of any features of archaeological interest or constraints to the evaluation. The whole of the proposed development site area was walked over and features of interest noted on a plan of the site. In addition colour digital photographs were taken of these features and of the site in general.

2.4 Archaeological Evaluation

2.4.1 Two evaluation trenches were excavated following the revision to the original brief required as a result of the information revealed during the desk-based assessment (see *Section 2.1.1* above), and based on the evidence of the site visit and the presence of trees protected by Tree Preservation Orders along the southern boundary of the site. Trench 1 was excavated on the western side of the site, across an evident earthwork near the top of the slope and potentially across the line of a former field boundary shown on the early maps. Trench 2 was to the east of Trench 1, and positioned across an evident earthwork, revealed during the site visit, which did not appear to correspond to anything marked on the early maps.

2.4.2 The topsoil and subsoil were removed using a tracked mechanical excavator with a toothless bucket approximately 0.9m wide. Deposits below this were subsequently cleaned by hand and recorded and the location of the trench was recorded relative to nearby field boundaries and other structures that were evident on the site plans and Ordnance Survey mapping. All finds were collected from all deposits, as far as was practical, and the spoil was scanned with a metal detector in order to locate small metal finds. The following recording techniques were used during the evaluation:

- **Written record:** descriptive records of all deposits and features (see *Appendix 3*) were made using Greenlane Archaeology *pro forma* record sheets. In addition, a general record was made of the day's events;
- **Photographs:** photographs in both 35mm colour print and colour digital format were taken of all archaeological features uncovered during the evaluation, as well as general views of the site, the surrounding landscape, and working shots. A selection of the colour digital photographs is included in this report and the remainder are included in the archive. A written record of all of the photographs was also made using Greenlane Archaeology *pro forma* record sheets (Greenlane Archaeology 2007);
- **Instrument survey:** the trenches were surveyed using a Leica reflectorless total station coupled to a portable computer running AutoCAD 2006 LT and TheoLT, which captures the survey data in AutoCAD in real-time at a scale of 1:1. This enabled the location and form of each trench to be positioned but also allowed levels above Ordnance Datum to be provided through reference to a nearby bench mark;
- **Drawings:** drawings were produced as follows:
 - i. trench plans were produced digitally during the instrument survey at a scale of 1:1.

2.5 Finds

2.5.1 **Processing:** artefacts were washed (or dried and dry brushed in the case of glass), 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, identified where possible, and a list of them was compiled (see *Appendix 4*).

2.5.3 The clay pipe was examined by eye and recorded through comparison with known examples.

2.6 Environmental samples

2.6.1 No samples were taken during the evaluation as no suitable deposits were encountered.

2.7 Archive

2.7.1 A comprehensive archive of the project has been produced in accordance with the project design (*Appendix 1*) and current IfA and English Heritage guidelines (English Heritage 1991; Brown 2007). The archive, which comprises the drawn, written, and photographic record, will be deposited with the Cumbria Record Office in Kendal (CRO(K)). A copy of the report will also be provided to the client,

Greenlane Archaeology will retain a copy, two copies will be provided for the Lake District National Park Historic Environment Record (HER), and a digital copy will form part of the OASIS scheme.

2.7.2 The client will ultimately be encouraged to transfer ownership of any significant finds to a suitable museum, which in this case is the Armit Museum in Ambleside. 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.

3. Historical and Archaeological Background

3.1 Map Regression

3.1.1 **Introduction:** the earliest detailed map of the area is the tithe or corn rent map of 1843 (CRO(K) WDRC/8/289 1843), but the site area is not shown on this, which suggests that it was not subject to tithe. The general area of the site is labelled as the property of either the Reverend John Dawes or John Benchley Esquire; if it belonged to the former this would indicate it belonged to the church, which would be the reason it was not subject to tithes.

3.1.2 **Ordnance Survey, 1863:** the first detailed plans of the site are therefore the first edition Ordnance Survey maps, the earliest dated being the 1: 10,560 plan published in 1863 (Plate 1). This shows the area to be arranged, much as it presently is, part of an area of open ground situated between the north end of Windermere and Waterhead to the south and the town of Ambleside to the north. It was evidently broken into a number of smaller fields at this time, with a field boundary cutting off the north end and the west end, as well as a probable field boundary to the south forming a separate field extending into what may be a garden to the south-east. There are also evidently many trees across the site at this time.

3.1.3 **Ordnance Survey c1863:** this map is more detailed (Plate 2), as it is at a scale of 1: 2,500, and is undated but was probably surveyed at the same time as the 1: 10,560 (1859). It shows much the same information, although in more detail, with a track evident leading into the possible garden to the south-east leading from the road to the south.

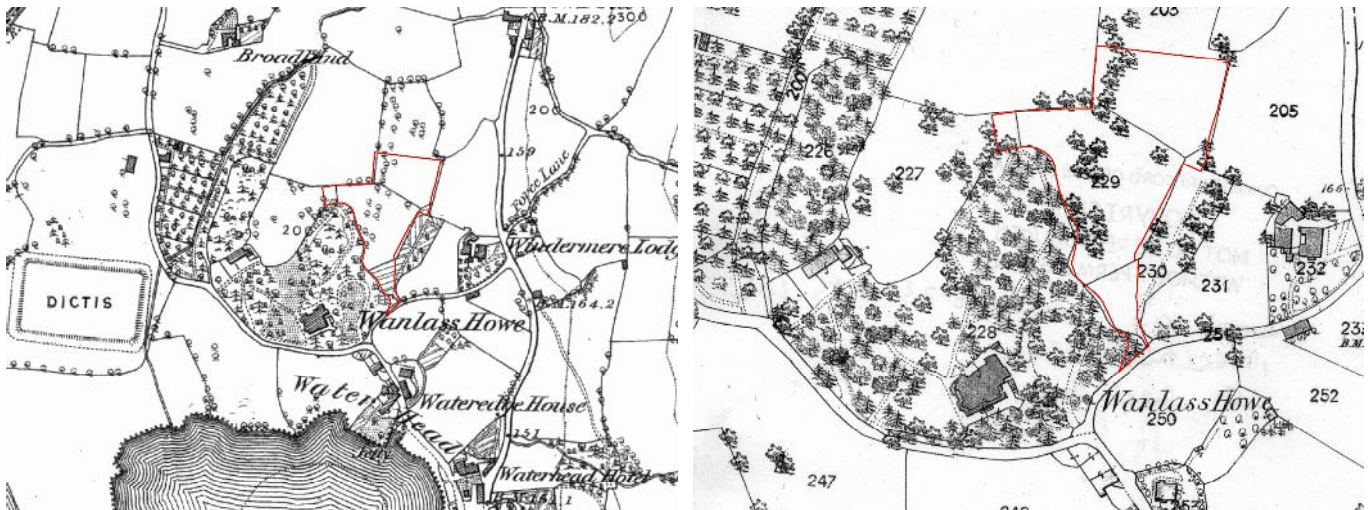


Plate 1 (left): Extract from the Ordnance Survey map of 1863

Plate 2 (right): Extract from the Ordnance Survey map of c1863

3.1.4 **Ordnance Survey, 1898:** by this date the area has evidently changed relatively little, although it appears that many of the trees have been felled since 1863 (Plate 3). The field boundary in the north-west corner has apparently been moved to its present location by this time and the possible garden to the south-east has had a small building with a glass house added within it. This plan has also been annotated for use with the 1910 valuation. The site falls within two plots: 807, which comprises Wanlass Howe and its associated land, and 808, which comprises the northern end of the site and further fields to the north. The full details contained within the valuation are presented in Table 1 below.

Plot	Occupier	Owner	Name	Description
807	Edith Maclver	Maclver's executors for Mrs Maclver	Wanlass Howe	House
808	Edith Maclver	Maclver's executors for Mrs Maclver	Wanlass Howe	Land

Table 1: Details from the 1910 Valuation (CRO(K) WTDV/2/19 1910)

3.1.5 **Ordnance Survey, 1913:** this shows essentially the same details as the previous plan (Plate 4), although for the first time the outcropping bedrock running up the west side of the centre of the site is depicted.

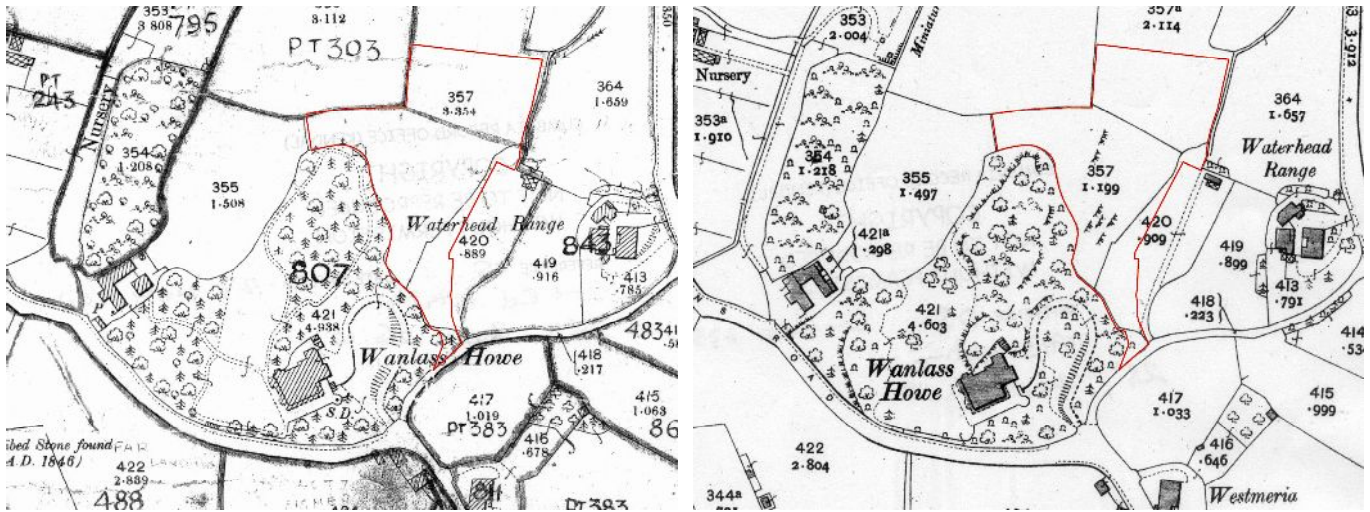


Plate 3 (left): Extract from the Ordnance Survey map of 1898

Plate 4 (right): Extract from the Ordnance Survey map of 1913

3.2 Site History

3.2.1 **Introduction:** the site history is intended to place the results of the evaluation in their local context, incorporating information from the map regression (*Section 3.1*) and acquired from the Historic Environment Record (HER) as appropriate. The location of the HER sites referred to is shown in Figure 2.

3.2.2 **Prehistoric Period (c11,000 BC – 1st century AD):** while there is some limited evidence for activity in the county in the period immediately following the last Ice Age, this is typically found in the southernmost part on the north side of Morecambe Bay. Excavations of a small number of cave sites have found the remains of animal species common at the time but now extinct in this country and artefacts of Late Upper Palaeolithic type (Young 2002). Again, the county was also clearly inhabited during the following period, the Mesolithic (c8,000 – 4,000 BC), as large numbers of artefacts of this date have been discovered during field walking, but these are typically concentrated in the west coast area and on the uplands around the Eden Valley (Cherry and Cherry 2002). These discoveries demonstrate that further remains of similar date are likely to exist in the local area, and conform to the notion that river valleys, lakesides, and coastal areas are a common place for such remains to be discovered (Middleton *et al* 1995, 202; Hodgkinson *et al* 2000, 151-152). Mesolithic remains are relatively uncommon in the central part of Cumbria, but the area north of Lake Windermere seems to be something of an exception, with flint artefacts of Mesolithic date having been discovered at a number of locations during excavations within the area of the Roman *vicus* immediately to the north of the fort (Burkett 1977, 179 – corrected by Fell 1979 (HER No. 4435); Mann and Dunwell 1995, 82; OA North 2003; Finlayson 2004). The quantity and regularity of their discovery suggests that a relatively large amount of activity was taking place in the area during the Mesolithic period, but no settlement remains have yet been discovered.

3.2.3 In the following period, the Neolithic (c4,000 – 2,500 BC), large scale monuments such as burial mounds and stone circles begin to appear in the region and one of the most recognisable tool types of this period, the polished stone axe, is found in large numbers across the county, having been manufactured at Langdale to the north of the site (Hodgson and Brennand 2006, 45). During the Bronze Age (c2,500 – 600 BC) monuments, particularly those thought to be ceremonial in nature, become more common still, and it is likely that settlement sites thought to belong to the Iron Age have their origins in this period. These are not well represented in the area around the site, although an enclosure on Hoad hill near Ulverston perhaps has its origins in this period (Elsworth 2005), as might another one at Skelmore Heads near Urswick, although evidence for activity in the Neolithic was also associated with

this (Powell *et al* 1963). Stray finds of Bronze Age date are found throughout the county; although none are known with any certainty within the study area three stone objects found in the vicinity of the Roman fort, which were recorded in 1852 and variously described as ‘hammer stones’ and ‘net sinkers’ (Birley 1961) may well belong to this period (HER No. 1881). In addition, an important hoard of Bronze Age metal work comprising swords and a spear was found at Ambleside in the 18th century (Fell and Coles 1965; Needham 1982) although the exact location is not known. An axe or palstave head of Bronze Age date is also recorded as having been found at Millans Park Ambleside some time before 1905 (Cowper 1905, 183). Sites that can be specifically dated to the Iron Age (c600 BC – 1st century AD) are very rare; the enclosures at Ulverston and Urswick may represent hillforts, a typical site of this period, but they have not been dated. At Levens, burials radiocarbon dated to the Iron Age have been discovered (OA North 2004), but these remain a rarity both regionally and nationally. There is, however, likely to have been a considerable overlap between the end of the Iron Age and the beginning of the Romano-British period; it is evident that in this part of the country, initially at least, the Roman invasion had a minimal impact on the native population in rural areas (Philpott 2006, 73-74).

3.2.4 Romano-British to Early Medieval Period (1st century AD – 11th century AD): it is the Roman period that is most significant in relation to the site, a fort having been identified at Waterhead as early as 16th century (Drury and Dunwell 2004, 71; represented by HER Nos. 1339 and 1877 and Scheduled Monument No. 13567) and described in some detail by the local antiquarian Thomas Machell in the late 17th century, who recorded numerous finds and an inscription built into a hoghouse at Brownsrig (Ewbank 1963, 128-131; HER Nos. 1887 and 4059). It was, however, not until the beginning of the 20th century that detailed observations began to be made; excavation for a new sewage works revealed numerous features to the north of the fort including a well preserved timber corduroy road, walls and timber piles and numerous finds including evidence of metal working (Cowper 1902); further discoveries of Roman pottery from the area were also reported by the same author (Cowper 1905, 186-187; HER No. 1885). Subsequently, an extensive programme of excavation and investigation was carried out within the fort itself (Haverfield and Collingwood 1914; Collingwood 1915; 1916; 1921). Work carried out in the 1960s was largely restricted to small areas of excavation (Charlesworth 1966), and the limited observation of foundation trenches during building work (Burkett 1965; 1977), but these further established the extent of the *vicus* and also the probable presence of a cemetery immediately to the north-east of the fort. In addition, a possible temporary camp was identified as a crop mark to the north of the fort proper (Blake 1955; HER no. 1850), but this has never been tested archaeologically.

3.2.5 Later interpretation of the whole site has, inevitably, relied heavily on these early pieces of investigation. Recent discussions (eg Drury and Dunwell 2004) have concluded that the fort can be identified with the *Gallava* named in the *Antonine Itinerary* and *Ravenna Cosmography* and that it was established quite early in the Roman conquest of the region, in the late 1st century, the first fort probably having been of timber and turf construction. A period of reconstruction in stone appears to have then occurred in the early 2nd century and the fort may have continued in use as late as the 4th century, although the evidence for this is uncertain (*op cit*, 73). More recent work, carried out since the 1980s, has continued to provide further evidence relating to the *vicus*, which has been demonstrated to extend some distance to the north of the fort along the extant Borrans Road (A593) (Godbert 1993; Leech 1993; Mann and Dunwell 1995; Drury and Dunwell 2004). Further evidence for industrial activity was also revealed as well as features perhaps defining the extent of the *vicus* area. Part of the investigations carried out in the 1990s, in advance of the proposed link road, involved the excavation of two archaeological evaluation trenches within the proposed development site (Drury and Dunwell 2004, 72). No remains of archaeological interest were encountered within these (*op cit*, 81) although stone field drains of various types were revealed (LUAU 1990, 5-6). Some of the most recent research has included a detailed survey of the earthworks of fort and surrounding area (RCHME 1998) and a reconsideration of a tombstone found during building work at Wanlass Howe in 1962 (Burkett 1965, 86-87; HER No. 1886) was published in 2002 (Thorley 2002).

3.2.6 The period following the end of effective Roman administration in Britain in the 5th century is not well represented in the archaeological record of the area, which is a common situation throughout the county. Fragments of Anglian cross-shaft found at church sites are often the only physical evidence of activity in the area, the example at Kendal is perhaps the closest (Collingwood 1904). There is also

evidence for early Christian activity in the area found in documentary sources and place-names. An early monastery is recorded at Heversham in the 10th century, when the Abbot Tildred is said to have been fleeing eastwards in advance of the approaching Vikings (Sawyer 1978), and several *eccles* place-names are recorded in the area around Windermere, which again are indicative of post-Roman Christian activity (Elsworth 2011). Closer to the site place-name evidence is typically all the information that is available. In this case, the place-name evidence suggests that the nearest settlement, at Ambleside, potentially has its origins in the Norse period as it means 'sheiling by the river-sandbank' (Smith 1967a, 182), although the Norse personal name Hamal is also a possibility (Carnie 2002, 35). An explanation for the nearest place-name to the site, Wanlass Howe, is not forthcoming, although the first reference to it is as Wanlass yeat (Smith 1967a, 184), which is perhaps a reference to what is now Mclver Lane. It seems likely to comprise the Old English *wann* and *laes*, therefore meaning 'dark pasture', to which has been added the Norse *haugr* meaning 'hill' (Smith 1967b, 269, 298 and 259).

3.2.7 Medieval period (11th century AD to 16th century AD): information relating to Ambleside in the medieval period is relatively limited. An early focus for settlement has been suggested at the How Head area of Ambleside, north of Stock Ghyll (Carnie 2002, 41-43) but evidence for this has not yet been forthcoming. However, there are certainly buildings in that area, in particular elements of Ambleside Hall, which do suggest an early date of occupation in this area (*op cit*, 45; see also Carnie 1997). Ambleside is first recorded by name in the late 11th century (Smith 1967a, 182), but does not regularly appear in documentary sources until the 13th century. In 1275 it is recorded when Roger de Lancaster was granted the forest of Rydal, but at this time it is referred to as the 'park of Amelsate' (Armitt 1906, 3). This perhaps suggests that there was little in the way of a settlement at this time, especially as it is not mentioned at all in some slightly later grants (*ibid*). However, by the early 14th century it is said to have at least one mill and 11 tenants are recorded (*op cit*, 4). Subsequently more mills appear in the records, in particular fulling mills, and the woollen industry soon came to dominate the production of the town (*op cit*, 19).

3.2.8 There are no known sites of specifically medieval date within the study area, although remains of medieval date were revealed during archaeological work at the Wateredge Inn (see *Section 3.2.10* below).

3.2.9 Post-medieval Period (16th century AD – present): Ambleside only began to grow as a town in the post-medieval period, its growth having 'outstripped the villages round' and become larger than the more ancient parish centre at Grasmere (*op cit*, 61-62). A chapel of ease, St Ann's, had been constructed by the end of the 16th century (*op cit*, 36-37; the rounded shape of its church yard and position within How Head have been taken to suggest that it has earlier origins (Carnie 2002, 92), although this has yet to be proven) and the town was granted a market charter and the right to hold two fairs in 1650 (Armitt 1906, 61). Until this date little information is available for the area around the Roman fort, although Waterhead is first recorded in the late 17th century (*op cit*, 94). The Braithwaite family of Ambleside Hall owned land at Waterhead, including the area containing the Roman fort, which was known as 'the Borrans', and they were evidently collecting antiquities from the site from the early 17th century as family heirlooms including 'ancient coyness of gold, silver, and brasse' and 'ancient medals and Roman Antiquities' are recorded in a bequest of 1653 (*op cit*, 24-25). The town's industries continued to expand, with tanneries certainly present by the 17th century and a later one present within the study area (HER No. 30733). Other remains of post-medieval date within the study include a bank barn to the north of the Roman fort (HER No. 33660) and Wanlass Howe itself, originally a private house built in 1841 (Burkett 1965, 87), but has subsequently been massively enlarged, with a series of tunnels created within a former quarry in the 1860s, and is now a hotel (HER No. 60321). In the 20th century it, and much of the land around it clearly belonged to the Mclver (or Maclver) family (see *Section 3.1.4* above; CRO(K) WDB 32/39 1940; CRO(K) WDB 133/2/292 1930; CRO(K) WDB 133/2/318 1929), after whom Mclver Lane is no doubt named.

3.2.10 Previous archaeological work: as outlined above, the area has seen a considerable amount of archaeological investigation, mostly carried out in the 20th century and focussed on the Roman fort and *vicus* (represented by HER Nos. 1339, 1877 and 5318). While the existence fort was recorded at an early date, the first archaeological investigation of any consequence was in the area of the *vicus* to the north, when Roman remains were observed during the installation of water pipes in 1900 (Cowper 1902;

Plate 5). Subsequent to that work was carried out within the fort (Haverfield and Collingwood 1914; Collingwood 1915; 1916; 1921), but in the 1960s investigations were concentrated again on the *vicus* to the north and north-east (Burkett 1965; Charlesworth 1966; see Plate 6). During the 1980s and 1990s several pieces of work were again carried out by the Lancaster University Archaeological Unit (LUAU) and Centre for Field Archaeology (CFA) in association with water pipe improvements, sewerage schemes, and a proposed road scheme (published as Leech 1993; Mann and Dunwell 1995; Drury and Dunwell 2004). Some work relating to the latter was carried out within the current proposed development site (LUAU 1990; Plate 7). The most recent piece of archaeological work carried out within the study area was an evaluation at Wateredge Inn (HER No. 32728), although this only revealed a sequence of waterlogged deposits and a timber peg radiocarbon dated to AD 1300-1450 (Tyne and Wear Museums 2006).

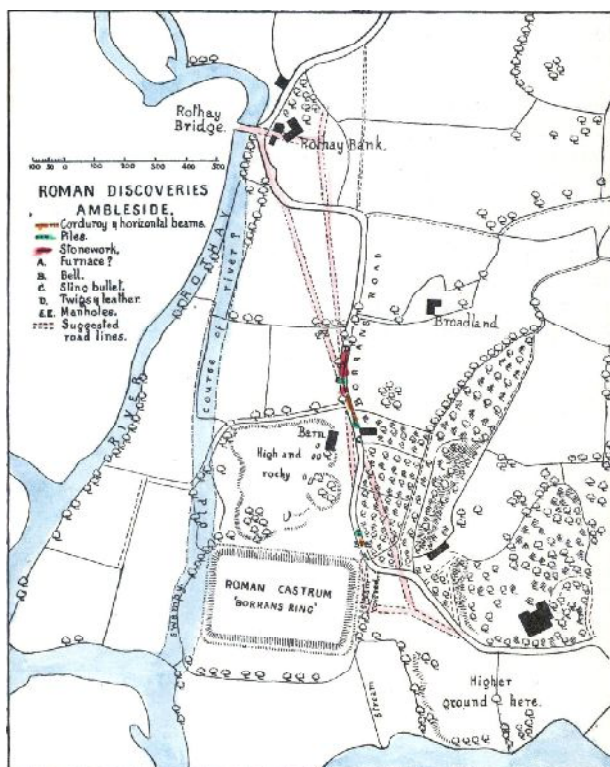


Plate 5: Plan showing remains revealed in 1900 (Cowper 1902, 30)

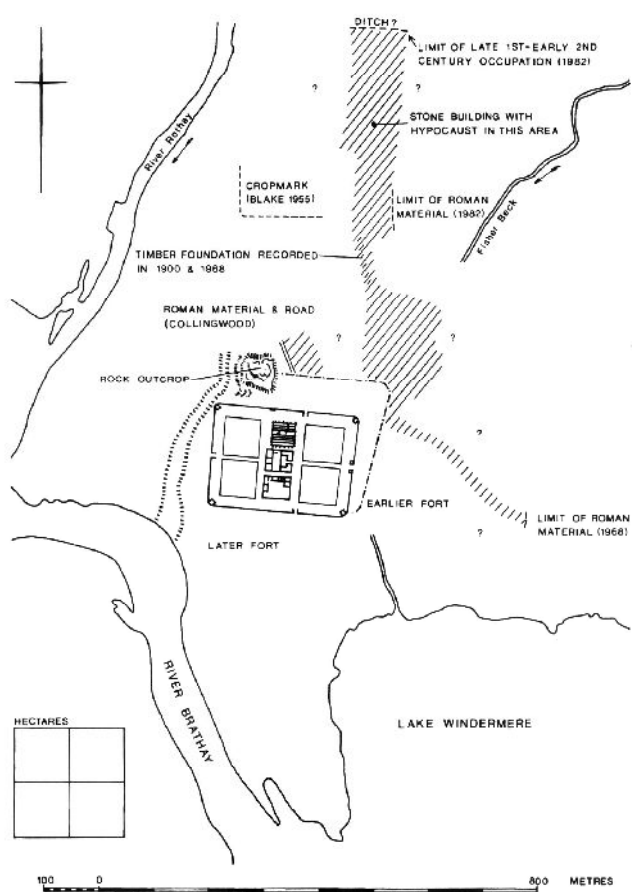


Plate 6 (left): Plan showing remains revealed up to 1982 (Leech 1993, 52)

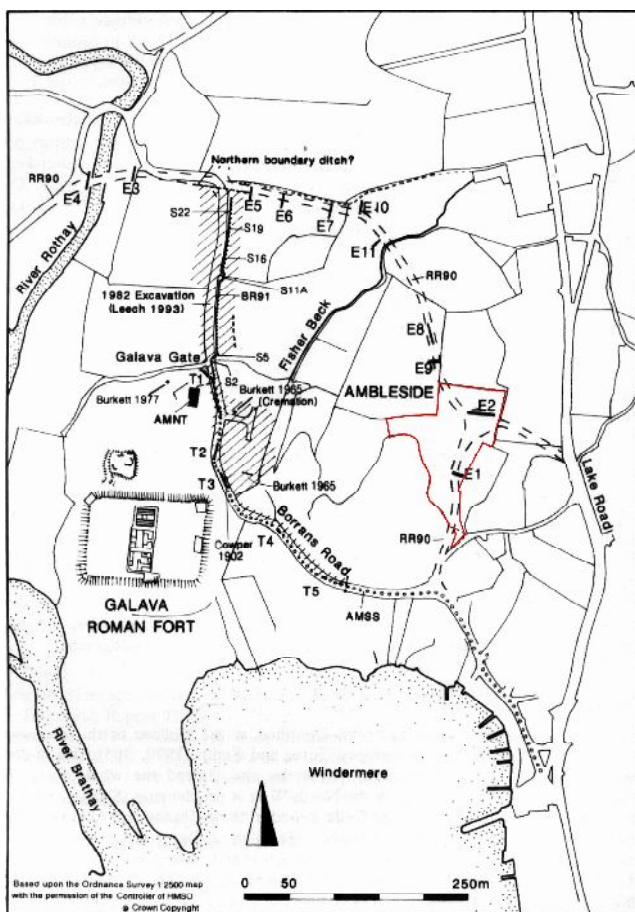
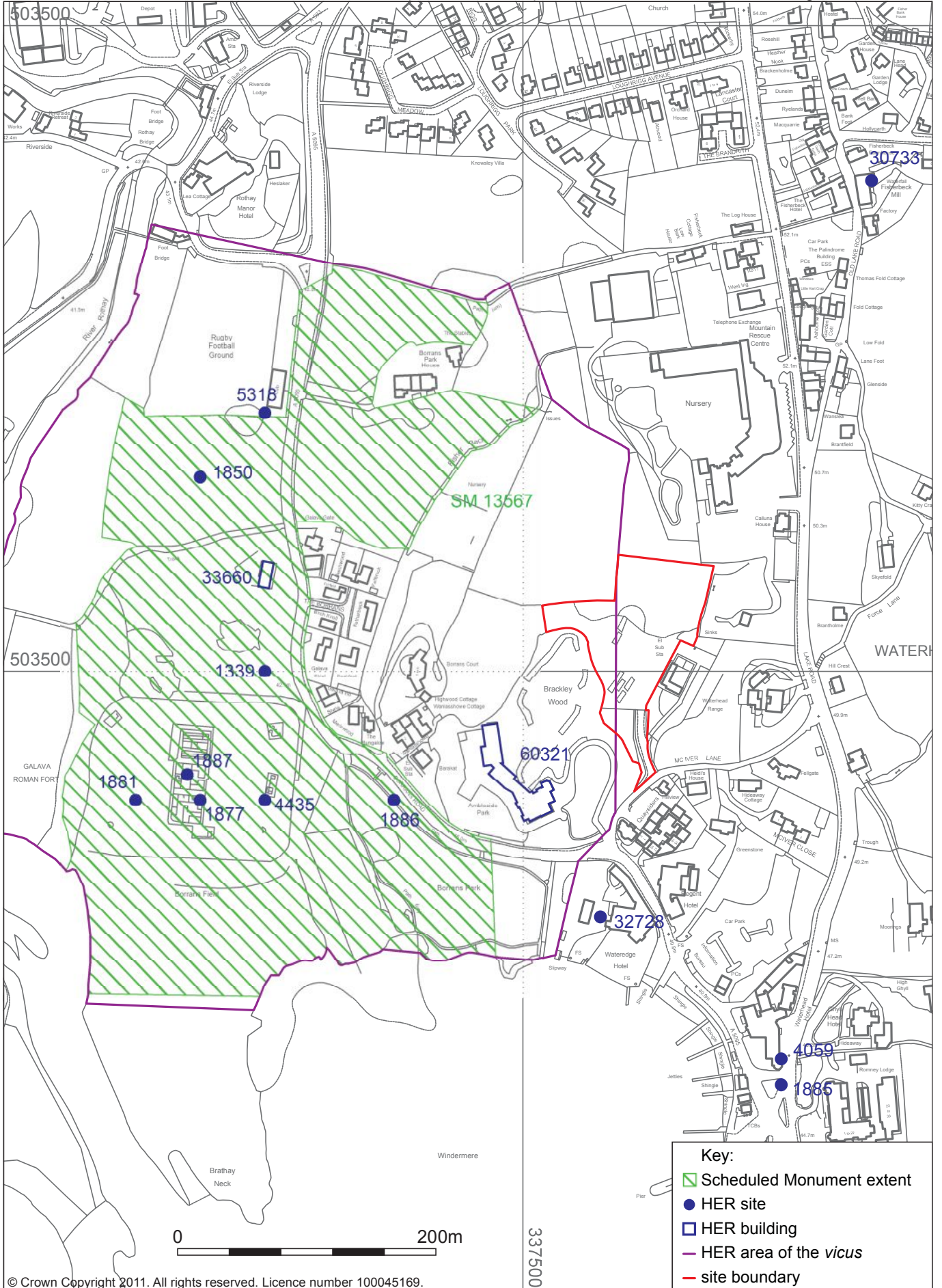


Plate 7 (right): Plan showing remains revealed up to 1993 (Drury and Dunwell 2004, 72) with the proposed development site marked in red

3.3 Conclusion

3.3.1 The earliest map and other evidence relating to the proposed development area does not show any features of specific archaeological interest, although it is evident that the field boundaries of the plot in which it is situated have changed. Previous archaeological investigation within the same plot revealed no remains of archaeological interest, but the area in general is rich in archaeological remains, primarily of Prehistoric and Roman date, although these are largely restricted to the area around the fort and vicus, which is situated to the west of the proposed development area.



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Figure 2: Sites recorded in the HER and extent of the Scheduled Monument for the Roman fort and vicus

Client: Thomas Armstrong (Construction) Ltd

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4. Fieldwork Results

4.1 Site visit

4.1.1 Prior to the evaluation a rapid site visit was carried out. This revealed that the site sloped steeply down from the west side, where there was extensive outcropping bedrock visible, although the far west end formed a relatively flat area of pasture at the top of the highest point of the site. The lowest part of the site, which was situated along the east boundary, was evidently quite waterlogged in places, while the north end formed another distinct area of pasture. Two features of interest were also identified, both apparently former field boundaries evident as low banks, one orientated approximately east/west and defining the southern edge of the northern part of the site (Plate 8), the other orientated approximately north-east/south-west and defining the east end of the western part of the site (Plate 9).



Plate 8 (left): Earthwork along the north edge of the site

Plate 9 (right): Earthwork along the west edge of the site

4.2 Trench 1

4.2.1 Trench 1 was located at the west end of the proposed development site and was approximately 10m long by 2m wide and orientated approximately north-east/south-west. It was positioned across a slight break of slope running north-west/south-east along the top of the hill (Figure 3). Beneath the turf a layer of mid greyish-brown soft sandy silt topsoil with a small amount of rounded gravel and occasional coal fragments was encountered (**100**). This was typically 0.15m thick, and beneath it was an orangey-brown layer of sandy/silty clay, again with a small amount of angular gravel and typically less than 0.1m thick (**101**). This was presumably the subsoil, and beneath it was a firm layer of sandy clay natural, varying from a pinkish orange at the north-east end to a more orange colour at the south-west (**102**). This was a minimum of 0.1m thick but extended beyond the maximum depth of the trench (c0.3m) and contained a considerable amount of angular gravel and in places the angular slate bedrock projected through it as boulder-sized pieces.



Plate 10 (left): Trench 1 from the north-east following excavation, showing natural (102)

Plate 11 (right): Trench 1 from the south-west following excavation, showing natural (102)

4.3 Trench 2

4.3.1 Trench 2 was positioned across the earthwork identified during the site visit (Plate 9) and was orientated approximately north-west/south-east. It was again approximately 10m long and 2m wide. Beneath the turf a soft mid grey brown sandy silt topsoil containing a small amount of sub-angular gravel was encountered (**200**), which was between 0.1m thick at the north-west end and 0.2m thick at the south-east. Beneath this was a firmer mid pinkish-orange sandy clay subsoil, containing a large amount of sub-angular gravel (**201**). This was typically quite thin, little more than 0.05m, but across the earthwork bank it thickened to 0.4m, although there was no additional structure evident to it at this point. Beneath this was a pinkish orange sandy clay natural (**202**), with 25% sub-angular cobbles and gravels, which extended beyond the base of the excavation.



Plate 12 (left): Trench 2 from the south-east following excavation, showing natural (202)

Plate 13 (right): Trench 2 from the north-west following excavation, showing natural (202)

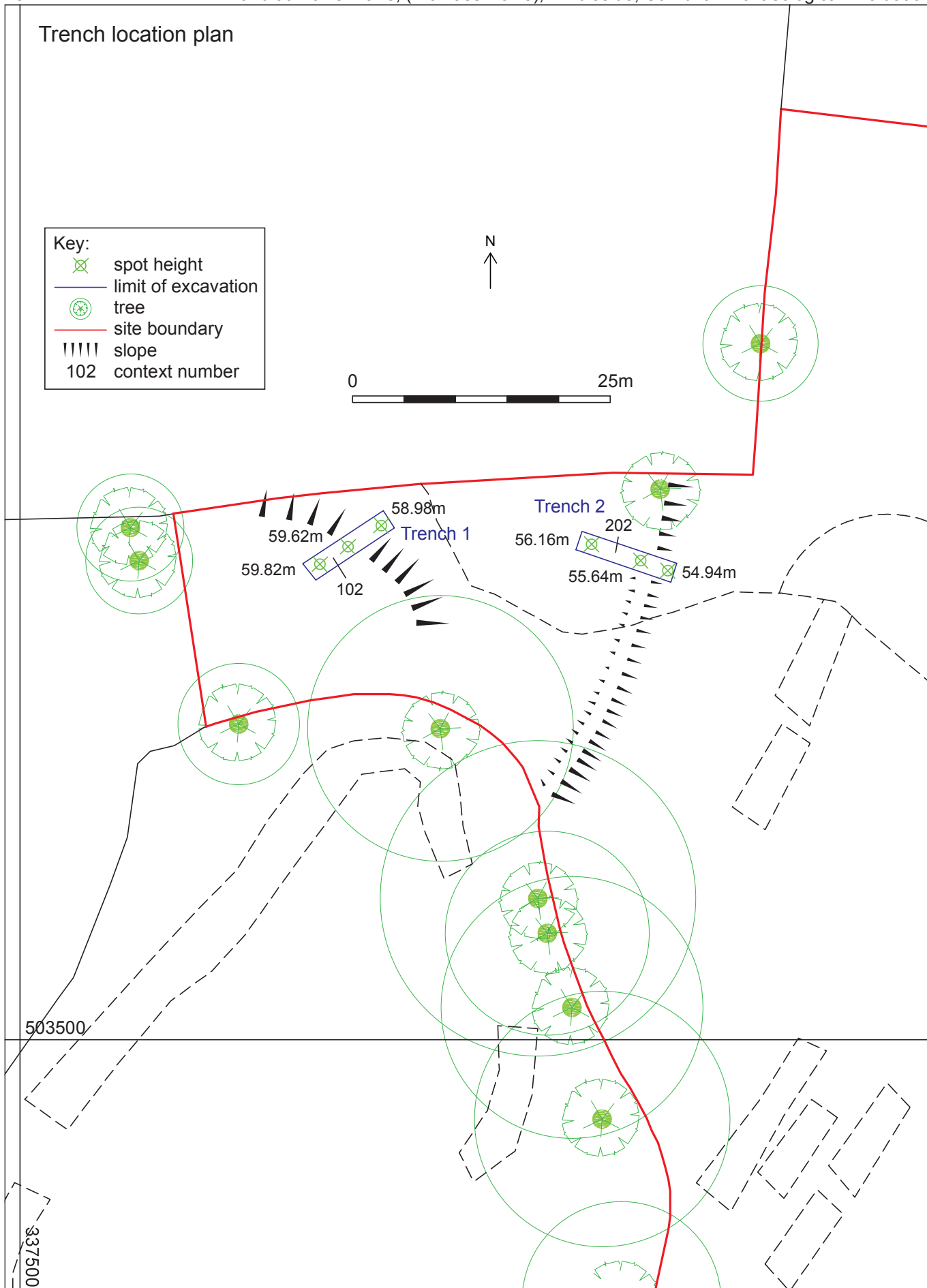


Figure 3: Trench plans

4.4 Finds

4.4.1 In total, 53 artefacts were recovered during the evaluation all from the topsoil (contexts **100** and **200**), the majority comprising fragments of pottery, but glass and fragments of clay tobacco pipe were also present in smaller quantities. A full catalogue is presented in *Appendix 4*. The pottery ranges in date from the late medieval to the post-medieval periods.

4.4.2 **Medieval:** a single fragment of Late Medieval Reduced Greyware was recovered from context **200**. It is possibly a later variant of the Reduced Grey ware tradition, ranging from the 15th to 16th century, although a broad date range for the tradition ranges from the late 13th to the early 17th century (Brooks 2000, 140).

4.4.3 **Post-medieval pottery:** a total of 45 fragments of pottery were recovered, representing domestic waste, both tableware and kitchenware. Of the finewares, which are more diagnostic in terms of dating than the coarsewares, the earliest ware present was white salt-glazed stoneware, dating to the 18th century. Two refitting fragments of a pearlware hollow-ware vessel (**200**) are of interest due to their painted pattern, as the study of these patterns is still at an early stage, and no direct parallel was found (Roberts 2006).



Plate 14: Inner and outer surfaces of blue painted pearlware from context **200**

5. Discussion

5.1 Results

5.1.1 No features of specific archaeological interest were encountered in either trench, which is consistent with the results of the previous evaluation carried out in 1990 (LUAU 1990). It is apparent that the earliest deposits comprise layers of firm sandy clay natural of varying character lain over outcropping bedrock at the top of the hill. On top of this a very shallow subsoil was evident across the site, with an equally shallow topsoil above this.

5.1.2 The possible earthwork examined by Trench 1 seems likely to have resulted from outcropping bedrock, which was very extensive on the other side of the field boundary to the south. The earthwork examined by Trench 2, which is clearly artificial, was only apparent as a thickened subsoil deposit and appeared to have no structural element. This was presumably produced through agricultural activity such as ploughing producing a lynchet along the break of slope, although the thinness of the topsoil would suggest that whatever ploughing took place must have been very limited. The finds recovered from the topsoil indicate that rubbish was being added to the land, presumably as a result of the use of nightsoil as a fertiliser, from at least the 18th century and into the 19th century.

5.1.2 The single piece of late medieval pottery from the topsoil in Trench 2 perhaps derives from similar activity or could simply be a stray find. The lack of any material of Roman date, despite the proximity of the site to the fort and *vicus* certainly indicates that this area is outside of the latter, no doubt on account of the relatively steep topography compared with the land to the west.

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Appendix 1: Project Brief



BRIEF FOR ARCHAEOLOGICAL EVALUATION

AT

**LAND AT McIVER LANE,(WANLASS HOWE),
WATERHEAD, AMBLESIDE
CUMBRIA,
LA22 0DU**

2 May 2012

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Brief for Archaeological Evaluation

Location: Land at Mclver Lane, (Wanlass Howe), Waterhead, Ambleside.
Proposed: Housing Development of 23 dwellings

Summary

A pre-application planning enquiry has been submitted to the Lake District National Park Authority for a proposed housing development at Land at Mclver Lane, (Wanlass Howe), Waterhead, Ambleside. The site of the proposed development is situated directly within a possible area of Roman settlement (HER No. 1877) and is within 250m of the Scheduled Roman Fort at Ambleside (Scheduled Monument No. 13567). It is possible that the development may affect remains from the Roman period.

There is reason to believe that archaeological remains may exist on the site but little is known as to their extent and state of preservation. The National Park Archaeology and Heritage Assistant has advised that the archaeological implications of the proposal cannot be adequately assessed on the basis of the available information. The applicant has therefore been advised that an archaeological evaluation should be carried out at this stage, before a planning application is submitted, in order to obtain and supply to the Lake District National Park Authority further information.

This recommendation is in line with government advice as set out in the National Planning Policy Framework (NPPF) Para. 128 and Policy NE 16 of the Lake District National Park Local Plan.

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 Archaeologists, or equivalent. No fieldwork may commence until approval of a specification has been issued by the Lake District National Park Authority.

1. Location

1.1 The site is centred around national grid reference NY 3759 0351, in Lakes Parish. The total area of the current proposal affects some 0.95 hectares, which is presently pasture land.

1.2 The underlying geology of the site is Borrowdale Volcanics.

2. Archaeological Background

2.1 The site of the proposed development is within 250m of the Scheduled Roman Fort at Ambleside (SM No. 13567 and HER No. 1877) and is in an area identified as the surrounding civilian settlement (vicus) (see Appendix One).

2.2 Archaeological investigations in 1962 at Wanlass Howe revealed evidence for Roman occupation (HER No. 1886). This included several pieces of leather, Roman pottery and the previously excavated gravestone of Flavius Fuscinus and Flavius Romanus (Burkett 1965, Thorley 2002). Given the nature of these finds and their location to the proposed development, it is likely that additional features may be affected by the proposed development.

There are a number of other sites or finds in the immediate area include:

LDHER No:	Name of site:	NGR:
1399	Ambleside Vicus Site, Lakes	NY 37300 03500
1850	Ambleside Temporary Camp	NY 37250 03650
1877	Ambleside (Galava) Roman Fort, Ambleside	NY 37250 03400
1881	Borrans Net Sinker Find	NY 37200 03400
1886	Ambleside Tombstone/Cemetery	NY 37400 03400
1887	Inscribed Stone, Ambleside, Lakes	NY 37240 03420
4435	Ambleside Flint Find	NY 37300 03400
5318	Ambleside Roman Remains	NY 37300 03700
32728	Organic Deposits at Wateredge Inn, Ambleside	NY 37560 03310
33660	Borrans Barn, Ambleside	NY 37305 03576
60321	Ambleside Park Hotel, Waterhead, Lakes	NY 37491 03415
EH LB No: 1244785	Borran's Field (Galava Roman Fort)	NY 37182 03423
EH LB No: 1272219	Wateredge Hotel	NY 37595 03313

Further details of these sites can be obtained from the Lake District National Park Authority, Murley Moss, Oxenholme Road, Kendal, LA9 7RL. Tel. 01539 792615/Fax. 01539 740822/Email archaeology@lake-district.gov.uk

3. Requirement for an Evaluation

3.1 The proposed development would severely damage or destroy any archaeological remains which may be present on the site. It has therefore been recommended that an archaeological evaluation should take place to obtain further information on the presence and preservation of any archaeological deposits before any decision is reached as to whether planning consent should be granted.

3.2 The objectives of the evaluation should be to gather sufficient information to establish presence/absence, character, extent, state of preservation, date, condition and significance of any archaeological deposits within the areas of proposed development.

3.3 An adequate representative sample of all areas where archaeological remains are potentially threatened should be studied.

3.4 The preferred option is the preservation *in situ*, wherever possible, of significant archaeological features and deposits, whether through design modification or other mitigation measures. Only where preservation *in situ* proves impracticable should the option of full excavation be considered.

4. Evaluation Techniques

Land use at the time fieldwork is carried out will influence the methods used. The techniques chosen should be selected to cause the minimum amount of destruction and should comply with all relevant health and safety regulations. It is envisaged that the following work would be required:

Stage One

4.1 A rapid review of the published and unpublished information relevant to the site and its immediate surroundings will be undertaken. This will aim to review the currently available archaeological information for the site and its locality, with particular reference to recent archaeological work in the vicinity. It will also investigate the past use of the site through an examination of the historic mapping of the area. Sources consulted should include: data held by the Lake District Historic Environment Record; maps (printed and manuscript); aerial photographs and other illustrative evidence; place and field name evidence; published and unpublished documentary sources and other relevant background material.

4.2 Visual inspection of the entire site. This should include examination of any available exposures (eg. recently-cut field ditches and geological test pits).

Stage Two

4.3 A programme of trial trenching to establish the extent, date, nature and preservation of archaeological deposits.

- Due to the topography of parts of the site, this programme should begin with trenches totalling c. 1% of the 0.8 ha site directed specifically at the flatter areas at the highest point on the west side and at the northern end of the site. This will amount to a cumulative trench length of approximately 48m using a 1.7 m wide ditching bucket. If no significant archaeological finds or deposits are located then trenching should cease at this stage.
- If significant archaeological finds or deposits are identified then the trenching sample should be extended to 2% of the site.

The locations and proportions of trenches should be established upon completion of the desk based work and may need to take into account any live services on site, but should not neglect areas of no known archaeology. The strategy for the positioning of trenches must be agreed with the National Park Archaeology and Heritage Assistant prior to the start of work. Initial topsoil removal can be undertaken by machine, but subsequent cleaning and investigation must be by hand.

4.4 A sufficient sample of features and deposits should be investigated to understand the full stratigraphic sequence in each trench, down to natural deposits. All deposits should be fully recorded on appropriate context sheets, photographs, scale plans and sections.

4.5 An assessment of the artefact content of the topsoil. Techniques might include measured surface artefact collection, a series of topsoil test pits, or sampling of the topsoil from trial trenching. The proposed strategy should be agreed with the National Park Archaeology and Heritage Assistant and will be expected to take account of the prevailing ground conditions on the site.

4.6 The evaluation should include a programme of sampling of appropriate materials for environmental and/or other scientific analysis and a basic analysis of suitable deposits (restricted at this stage to establishing the presence or absence of significant material). Special attention should be paid to sampling securely dated deposits and features and specifically any waterlogged and/or burnt deposits encountered.

4.7 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 geophysical specialist should be consulted, to assess the viability of using survey techniques on the site. All geophysical work must be undertaken by a suitably qualified organisation and/or individuals. All geophysical work must be preceded by a sample scan to assess the effectiveness of the technique in relation to the site specific geological/topographical conditions. Any subsequent

survey work must be recommended by the specialist and approved by the National Park Authority's Archaeology and Heritage Assistant.

- 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.
- 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.

5. Evaluation Proposal

A **detailed** evaluation proposal, including the following, should be prepared by potential contractors in accordance with the recommendations of MoRPHE (<http://www.english-heritage.org.uk/professional/training-and-skills/training-schemes/short-courses/project-management-using-morphe>) and submitted to the National Park Archaeology and Heritage Assistant:

- 5.1 A consideration of the whole range of investigative techniques and a statement justifying the proposed omission of any technique.
- 5.2 An explanation of the sampling strategies to be used.
- 5.3 A description of the proposed methods of survey and excavation, and recording system.
- 5.4 A projected timetable for work on site, including machine hire time and staff structure and numbers.
- 5.5 A projected timetable for all post excavation work, including staff numbers and specialist sub-contractors.
- 5.6 The names of the project director, supervisors, specialists and any sub-contractors to be employed on the project (including details of qualifications and experience of the key project personnel).
- 5.7 A separate itemised estimate of costs (core/project staff, specialist fees, travel/subsistence, site works, equipment/materials, archive preparation and copying, report preparation, finds storage fees, overheads, contingency, specified other costs).
- 5.8 Any significant variations to the proposal must be agreed by the National Park Archaeology and Heritage Assistant in advance.

6. Site Monitoring

- 6.1 The National Park Archaeology and Heritage Assistant will be responsible for monitoring the evaluation. A minimum of one week's notice of the commencement of fieldwork must be given by the archaeological contractor to the Lake District National Park Authority so that arrangements for monitoring can be made.
- 6.2 Site inspections will be arranged so that the general site stratigraphy can be assessed in the initial stages of trial trenching, and/or so that the site can be inspected when fieldwork is near to completion but before any trenches have been backfilled.

7. Reporting Requirements

- 7.1 The evaluation should result in a report including:
 - a concise non-technical summary of the results;
 - a description of the methodology employed;
 - a location plan at an appropriate scale;

- a summary of the historical and archaeological background;
- excavation plan(s) and section(s) at an appropriate scale showing location and position of trenches dug and features located;
- section drawings should include heights OD;
- excavation plan(s) should include OD spot heights for all principal strata and features;
- a list of and date for any significant finds recovered;
- photographs where appropriate;
- a description of archaeological features and deposits identified;
- an interpretation of the results and of their potential archaeological significance;
- a statement of the likely archaeological implications of the proposed development;
- a full bibliography of sources consulted and a list of any further sources identified but not consulted;
- an index to the project archive;
- a copy of the brief and agreed project design and an indication of any variations.

7.2 The objective account of the archaeological evidence recovered should be clearly distinguished from the interpretation of those features. The methodology used should be critically reviewed.

7.3 Any recommendations for mitigating measures should be presented in the form of a separate annexe to the main report.

7.4 Two hard copies of the evaluation report and a full digital version should be deposited with the National Park Authority, on the understanding that it will be made available as a public document after an appropriate period (not exceeding 6 months from the completion of fieldwork).

7.5 The results of the work should be published in an appropriate journal or other publication and should include an account of any structures located and full details of significant finds, illustrated as appropriate. Details of the place and date of publication must be notified to the National Park Authority. **Developers and archaeological contractors should be aware that fulfilment of this part of the brief is mandatory and that the Lake District National Park Authority will not issue approval for a specification that does not include details for its implementation.**

7.6 The Lake District Historic Environment Record (LDHER) supports the Online Access to Index of Archaeological Investigations (OASIS) project. The overall aim of the OASIS project is to provide an online index to the mass of archaeological grey literature that has been produced as a result of the advent of large-scale developer funded fieldwork. The archaeological contractor must therefore complete the online OASIS form at <http://ads.ahds.ac.uk/project/oasis/>. Contractors are advised to contact the LDHER prior to completing the form. Once a report has become a public document by submission to or incorporation into the HER, the LDHER may place the information on a web-site. Please ensure that you and your client agree to this procedure in writing as part of the process of submitting the report to the archaeological officer at the LDHER.

8. Deposition of Archive and Finds

8.1 The archive must be prepared in accordance with the recommendations of MoRPHE (<http://www.english-heritage.org.uk/professional/training-and-skills/training-schemes/short-courses/project-management-using-morphe>) and should be deposited in an appropriate local institution, in a format to be agreed with that institution. The National Park Authority must be notified of the arrangements made. Any finds of archaeological interest should be appropriately conserved and deposited in an appropriate institution: any finds which cannot be so deposited should be fully analysed and published.

9. Further Requirements

9.1 The Code of Conduct of the Institute of Archaeologists must be followed.

9.2 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).

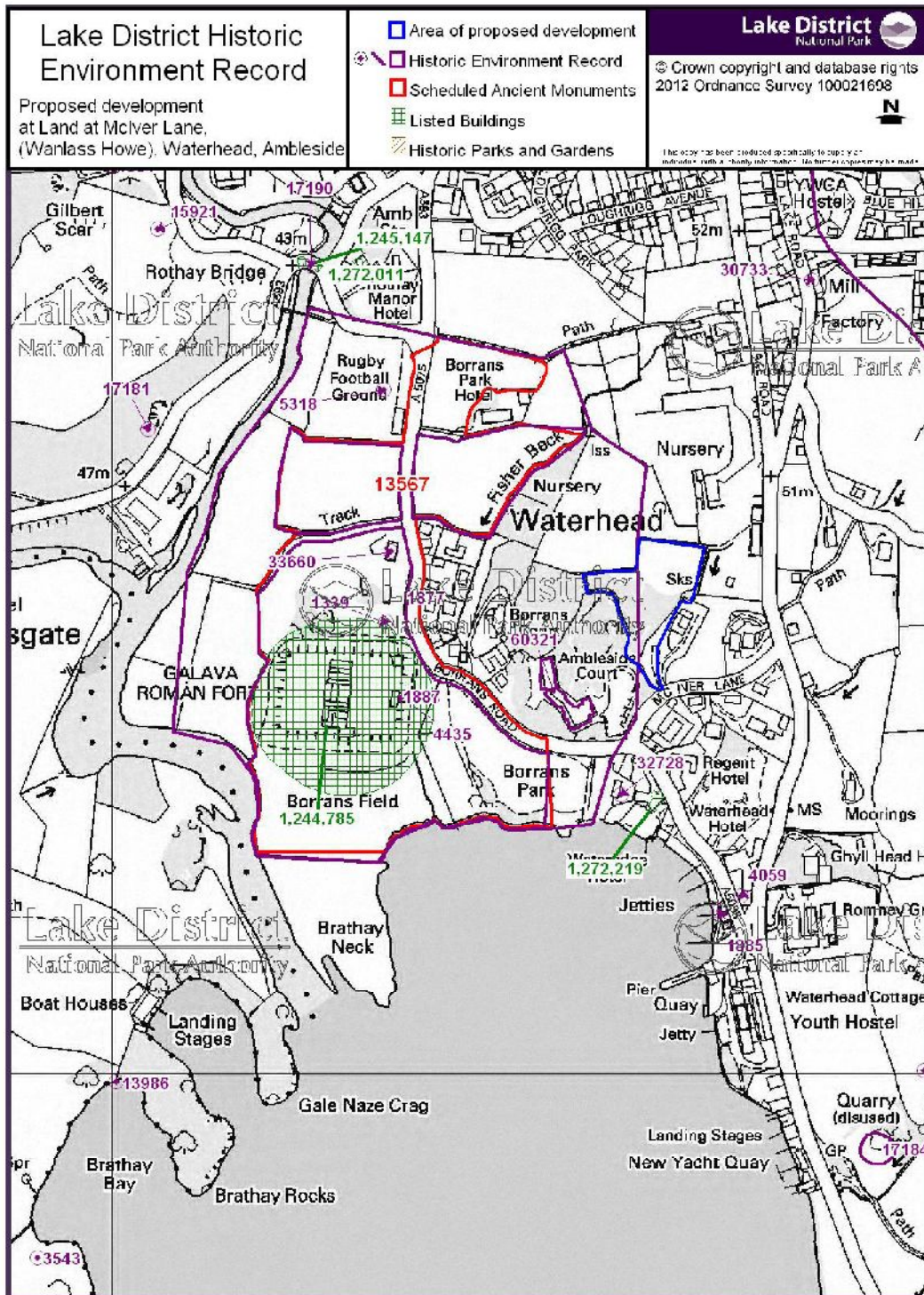
9.3 The involvement of the Lake District National Park Authority should be acknowledged in any report or publication generated by this project.

10. References

Burkett, M. 1965. Recent discoveries at Ambleside. Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society, 1965, 87- 101

Thorley, J. 2002. The Ambleside Roman Gravestone. Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society 2, 2002, 51 – 58.

Appendix one: Location map for proposed development at Land at Mclver Lane.



Appendix 2: Project Design

LAND AT MCIVER LANE, (WANLASS HOWE), AMBLESIDE, CUMBRIA

Archaeological Evaluation Project Design



Client: Thomas Armstrong (Construction) Ltd

NGR: NY 3759 0351

May 2012

1. Introduction

1.1 Project Background

1.1.1 Following a pre-planning enquiry submitted to the Lake District National Park (LDNPA) by Thomas Armstrong (Construction) Ltd (hereafter 'the client') for a proposed housing estate on Land at Mclver Lane, (Wanlass Howe), Ambleside, Cumbria (NGR NY 3759 0351), a request was made by the LDNPA Archaeology and Heritage Assistant for a programme of archaeological evaluation. A brief for this work was provided (LDNPA 2011), in response to which Greenlane Archaeology produced this project design.

1.1.2 The proposed development site is within 250m of the Roman fort at Waterhead, Ambleside, which is a Scheduled Monument, and the site is also within the area thought to comprise the civilian settlement or *vicus*. Investigations immediately to the west of Wanlass Howe in the 1960s revealed extensive Roman remains, including preserved leather artefacts and timber, structural remains and evidence of burials (Burkett 1965). These investigations were sparked by the discovery of a Roman memorial inscription that was being used to cover a drain at Wanlass Howe, although this appears in fact to be the re-discovery of this slab, which is thought to have been originally found in the 19th century somewhat nearer to the fort (*op cit*, 87). The slab is dedicated to Flavius Fuscinus, a retired centurion, and Flavius Romanus, a clerk said to have been 'killed in the camp by the enemy' (Thorley 2002). It is thought to date to the late 2nd or early 3rd century, the context of their deaths perhaps being a period of political instability in the period between 196 and 207 AD (*op cit*, 56-57).

1.2 Greenlane Archaeology

1.2.1 Greenlane Archaeology is a private limited company based in Ulverston, Cumbria, and was established in 2005 (Company No. 05580819). Its directors, Jo Dawson and Daniel Elsworth, have a combined total of over 18 years continuous professional experience working in commercial archaeology, principally in the north of England and Scotland. Greenlane Archaeology is committed to a high standard of work, and abides by the Institute for Archaeologists' (IfA) Code of Conduct. The desk-based assessment and evaluation will be carried out according to the Standards and Guidance of the Institute for Archaeologists (IfA 2008a; 2008b).

1.3 Project Staffing

1.3.1 The project will be managed and supervised by **Dan Elsworth (MA (Hons), AIfA)** with suitably qualified assistance. Daniel graduated from the University of Edinburgh in 1998 with an honours degree in Archaeology, and began working for the Lancaster University Archaeological Unit, which became Oxford Archaeology North (OA North) in 2001. Daniel ultimately became a project officer, and for over six and a half years worked on excavations and surveys, building investigations, desk-based assessments, and conservation and management plans. These have principally taken place in the North West, and Daniel has a particular interest in the archaeology of the area. He has recently managed a number of similar archaeological excavation projects in the region including evaluation and excavation at the former Lowwood Gunpowder Works in Haverthwaite (Greenlane Archaeology 2010; 2011a), evaluation at Salthouse Farm, Millom (Greenlane Archaeology 2011b), and evaluation in Cartmel (Greenlane Archaeology 2011c), as well as several more projects over the last six years ranging from large excavations, to building recordings, surveys and desk-based assessments.

1.3.2 All artefacts will be processed by Greenlane Archaeology, and it is envisaged that they will initially be assessed by Jo Dawson, who will fully assess any of post-medieval date; medieval pottery will be assessed by Tom Mace. Finds of earlier date will be assessed by specialist sub-contractors as appropriate. The LDNPA 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 the LDNPA will be sought.

1.3.3 Environmental samples, and faunal or human remains will be processed by Greenlane Archaeology. It is envisaged that any environmental samples would be assessed by Scott Timpany at Headland Archaeology, human remains by Malin Holst at York Osteoarchaeology, and animal bones by

Jane Richardson at ASWYAS. Other remains, such as industrial material, will be assessed by specialist sub-contractors as appropriate and the LDNPA 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 Lake District National Park 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 visit the site in order to examine the local topography and any areas of exposed ground in order to identify areas of archaeological interest, as well as any constraints to the evaluation.

2.3 Archaeological Evaluation

2.3.1 To excavate evaluation trenches totalling 48m in length and 1.7m wide; it is anticipated that this will comprise four trenches 12m long, but this will depend on the results of the desk-based assessment and any onsite constraints. This will assess the presence or absence of features of archaeological interest within the area, their extent, date, nature, and significance.

2.4 Report

2.4.1 To produce a report detailing the results of the desk-based assessment and evaluation, that will present the results, 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 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:

- **Lake District National Park Historic Environment Record (HER):** this is a list of all of the recorded sites of archaeological interest recorded in the LDNP, 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, as will aerial photographs;
- **Cumbria Record Office (Kendal):** the majority of original and secondary sources relating to the site are deposited in the Cumbria Record Office in Kendal. 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.

3.2 Visual Inspection

3.2.1 A site visit will be carried out prior to the evaluation, comprising a rapid walk-over of the entire area. Particular attention will be paid to areas of disturbed ground such as test pits and excavations relating to the proposed development of the site, as well as identifying any topographic features of archaeological interest. In addition, features that would constrain the evaluation, such as aspects of the topography or the presence of overhead or other services will be identified. Brief notes and a photographic record in colour digital format of any areas of interest will be made as considered necessary.

3.3 Archaeological Evaluation

3.3.1 Evaluation trenching totalling 1% of the entire site area of 0.8 ha, amounting to 48m linear at a width of 1.7m (81.6m²) is required, and it is envisaged that this will comprise four trenches 12m in length. These are to be excavated on the flatter areas on the west and north sides of the site, and will be excavated until significant archaeological deposits or the natural geology are reached, or to a depth of 1.2m. Where possible, the trenches will target areas identified during the desk-based assessment and site visit as having the greatest archaeological potential and the least likelihood of constraints, and following consultation with the LDNPA – a plan showing the proposed location will be submitted. It is anticipated that the evaluation will take two days on site with two archaeologists (totalling four person days). Should significant archaeological remains be encountered a further 1% sample of the remainder of the site will be evaluated, as specified in the brief.

3.3.2 The evaluation methodology, which is based on Greenlane Archaeology's excavation manual (Greenlane Archaeology 2007c), will be as follows:

- Trenches will be positioned so as to avoid known services, as shown on plans provided by the client;
- Each trench 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 (which is likely to largely comprise topsoil) will be removed by machine under the supervision of an archaeologist 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 LDNPA, with the intension 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 colour print and colour digital format;
- All deposits, trenches, drawings and photographs will be recorded on Greenlane Archaeology *pro forma* record sheets;
- All finds will be recovered during the evaluation for further assessment as far as is practically and safely possible. Should significant quantities of finds be encountered an appropriate sampling strategy will be devised;

- All faunal remains will also be recovered by hand during the evaluation, but where it is considered likely that there is potential for the bones of fish or small mammals to be present appropriate volumes of samples will be taken for sieving;
- Deposits that are considered likely to have, for example, preserved environmental remains, industrial residues, and/or material suitable for scientific dating will be sampled. Bulk samples of between 20 and 60 litres in volume (or 100% of smaller features), depending on the size and potential of the deposit, will be collected from stratified undisturbed deposits and will particularly target negative features (e.g. gullies, pits and ditches) and occupation deposits such as hearths and floors. An assessment of the environmental potential of the site will be undertaken through the examination of samples of suitable deposits by specialist sub-contractors (see *Section 1.3.3* 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 LDNPA will be immediately informed as will the local coroner. Should it be considered necessary to remove the remains this will require a Home Office licence, under Section 25 of the Burial Act of 1857, which will be applied for should the need arise;
- Any objects defined as 'treasure' by the Treasure Act of 1996 (HMSO 1996) will be immediately reported to the local coroner and securely stored off-site, or covered and protected on site if immediate removal is not possible;
- Each evaluation trench will be backfilled 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 LDNPA 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 LDNPA, and subject to a variation to this project design.

3.4 Report

3.4.1 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) and planning application number;
- 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;
- 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;
- Discussion of the results including an assessment of the significance of any archaeological remains present within the study area, and areas of further archaeological potential. Any recommendations for further work, and appropriate types of further work, will be provided separately;
- 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 evaluation trenches in relation to nearby structures and the local landscape;
- copies of early maps, plans, drawings, photographs and other illustrations of elements of the site as appropriate to aid the understanding of the results of the evaluation;
- 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 trench;
- illustrations of individual artefacts as appropriate.

3.5 Archive

3.5.1 The archive, comprising the drawn, written, and photographic record of the 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 Kendal (CRO(K)). The archive will be compiled according to the standards and guidelines of the IfA (Brown 2007), 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.

3.5.2 A copy of the report will be deposited with the archive at the Cumbria Record Office in Kendal, one will be supplied to the client, and within two months of the completion of fieldwork, two copies will be provided for the Lake District National Park Historic Environment Record (HER). In addition, Greenlane Archaeology will retain one copy, and a digital copy will be deposited with the OASIS scheme as required.

3.5.3 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 an appropriate museum, most likely Kendal Museum, however this is currently close to full capacity, so this may not be possible. 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 **17th May 2012**, or at another date convenient to the client. The project will comprise the following tasks:

- **Task 1:** archaeological desk-based assessment, and compilation of that element of the report;
- **Task 2:** site visit;
- **Task 3:** submission of proposed evaluation trench location plan to LDNPA Archaeology and Heritage Assistant for approval;
- **Task 4:** archaeological evaluation;
- **Task 5:** post-excavation work on archaeological evaluation, including processing of finds and production of draft report and illustrations;
- **Task 6:** feedback, editing and production of final report and archive.

5. Other matters

5.1 Access

5.1.1 Access to the site for the evaluation 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 **£500,000**. 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

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Appendix 3: Summary Context List

Context	Type	Description	Interpretation
100	Deposit	Mid grey-brown soft sandy silt with small amounts of gravel and coal fragments, typically 0.15m thick.	Topsoil
101	Deposit	Orangey-brown firm sandy-silty clay with 2% angular gravel inclusions, typically less than 0.1m thick.	Subsoil
102	Deposit	Firm sandy clay varying from mid pinkish-orange to orange, 50% angular and sub-angular gravel and occasional pieces of bedrock occurring as angular boulders. Extending beyond base of trench.	Natural
200	Deposit	Mid grey-brown soft sandy silt with small amounts of gravel, typically 0.1m-0.2m thick.	Topsoil
201	Deposit	Mid pinkish-orange firm sandy clay, 50% sub-angular gravel, typically 0.06m thick, but up to 0.4m thick at bank.	Subsoil
202	Deposit	Firm pinkish-orange sandy clay, 25% sub-angular cobbles and gravels. Extending beyond base of trench.	Natural

Appendix 4: Summary Finds List

Context	Type	Qty	Description	Date range
100	Glass	1	Clear, colourless, flat window pane(?) fragment	Post-medieval, not closely dateable
100	Clay tobacco pipe	4	Unstamped stem fragments; 2x 5/64" and 2x 6/64" borehole diameter	18 th to 19 th century
100	Pottery	4	White salt-glazed stoneware	18 th century
100	Pottery	1	Pearlware	Mid 18 th to early 19 th century
100	Pottery	3	Bone China	19 th to 20 th century
100	Pottery	1	Buff-coloured earthenware: factory-produced slipware	Mid 18 th to early 20 th century
100	Pottery	10	White earthenware: blue transfer printed 'Willow' and 'Asiatic Pheasants', dabbed, factory-produced slipware, and burnt transfer-printed	19 th to early 20 th century
100	Pottery	8	Red earthenware: brown-glazed red earthenware (one with slip stripes), black-glazed red earthenware, unglazed	Late 17 th to early 20 th century
100	Pottery	1	Speckled-glazed red earthenware	17 th to 19 th century
100	Pottery	1	Red slip-coated buff-coloured earthenware	17 th to 19 th century
200	Glass	1	Brown bottle; body fragment	Late 19 th to 20 th century
200	Pottery	2	Pearlware: refitting, with blue-painted pattern	Mid 18 th to 19 th century
200	Pottery	1	Buff-coloured earthenware: factory-produced slipware	Mid 18 th to early 20 th century
200	Pottery	2	Bone china	19 th to 20 th century
200	Pottery	6	White earthenware: factory-produced slipware and plain	19 th to 20 th century
200	Pottery	5	Red earthenware: brown-glazed red earthenware (including one with white slip stripes), and unglazed	Late 17 th to early 20 th century
200	Pottery	1	Late Medieval Reduced Grey ware: a soft, smooth, sandy fabric (it will mark paper) with a dense clay matrix and very sparse, very fine inclusions. Reduced dark grey fabric with a flaky, drab light green to olive brown glaze applied externally; possibly a later variant of the Reduced Grey ware tradition, ranging from the 15 th to 16 th century, although a broad date range for the tradition ranges from the late 13 th to the early 17 th century (Brooks 2000, 140)	15 th to 16 th century
200	Ceramic building material	1	Brick fragment?	Not closely dateable