

LAND ADJACENT TO TEMPLE COTTAGE, OVER BURROW, LANCASHIRE

Archaeological Watching Brief



Client: Allan Livesey

Planning ref.: 09/00069/FUL

NGR: 361534 476010

© Greenlane Archaeology Ltd
February 2011



Greenlane Archaeology Ltd,
2 Albrights Yard, Theatre Street,
Ulverston, Cumbria, LA12 7AQ

Tel: 01229 588 500
Email: info@greenlancearchaeology.co.uk
Web: www.greenlancearchaeology.co.uk

Contents

Illustrations.....	1
Non-Technical Summary	2
Acknowledgements.....	2
1. Introduction	3
2. Methodology	5
3. Desk-Based Assessment.....	7
4. Fieldwork Results.....	8
5. Discussion.....	10
6. Bibliography	11
Appendix 1: Project Design	12
Appendix 2: Summary Context List	18
Appendix 3: Summary Finds List.....	18
Appendix 4: Samian Pottery Index	20
Appendix 5: Archive Index.....	21

Illustrations

Figures

Figure 1: Site location and trench plan	4
---	---

Plates

Plate 1: Working shot of the watching brief area, viewed from the north	5
Plate 2 (left): South-facing trench section, near to the north-west corner of the cottage	8
Plate 3 (right): General view of the watching brief area post-excavation	8

Non-Technical Summary

Following the submission of a planning application for the addition of an extension to Temple Cottage at Over Burrow, Lancashire, a programme of archaeological investigation was requested by English Heritage. An initial phase of work, comprising a desk-based assessment of the site, was undertaken by Greenlane Archaeology in 2009. Since the site is situated within the Scheduled Monument area for the Roman fort and *vicus* at Over Burrow, it is considered to be of high archaeological interest and potential. Prior to the excavation of the footings being carried out Scheduled Monument consent was acquired for the work.

The watching brief revealed a layer of topsoil and subsoil above the underlying geological deposits. The topsoil contained various post-medieval finds, as well as a residual fragment of samian ware. The underlying subsoil contained several fragments of Roman pottery, including mortarium and samian ware and this is indicative of Roman activity in the area possibly dating from the 1st to 4th century AD, which is to be expected given the proximity of the site to the Roman fort. Unfortunately, the area had been disturbed by various drainage pipes and water services associated with the cottage, and this may account for the absence of significant archaeological features within the area.

It is recommended that the Roman period finds be deposited in the Lancaster City Museum, although further cleaning of an iron object of possible Roman date would be necessary in order to identify it, which would be advisable prior to deposition.

Acknowledgements

Greenlane Archaeology would like to thank Allan Livesey for commissioning the project and his agent, Digby Harris at Francis Johnson and Partners, for his help. Additional thanks are due to Douglas Moir, Planning Officer (Archaeology) at Lancashire County Archaeology Service, for comments on the requirements for the work, and Jennie Stopford at English Heritage for approving the project design. Thanks are also due to Dennis and Allan for their camaraderie on site.

The watching brief was carried out by Tom Mace, who also compiled this report. The Roman pottery was examined by Ruth Leary and Gwladys Monteil, the iron object was assessed by Ian Panter and Nicky Rogers (York Archaeological Trust (YAT)), and the post-medieval finds were examined by Jo Dawson. The project was managed by Dan Elsworth, and the report was edited by Dan Elsworth and Jo Dawson.

1. Introduction

1.1 Circumstances of the Project

1.1.1 A planning application (09/00069/FUL) was made by Allan Livesey for the addition of an extension to the west side of Temple Cottage, Over Burrow, Lancashire (NGR 361534 476010), and a new build garage and store with improved access on land to the east is intended. As the site is situated within the Scheduled Monument area for the Roman fort and *vicus* at Over Burrow, a programme of archaeological work was requested by English Heritage. A desk-based assessment was completed by Greenlane Archaeology in 2009 (Greenlane Archaeology 2009), which identified that the proposed new extension and new building are likely to be situated within the area of the *vicus* or civilian settlement attached to the fort. The watching brief covered the area of the extension to the west of the cottage and was to establish, where possible, whether any remains of archaeological significance were present on the site, their nature, and level of survival, extent, significance, and date.

1.1.2 A project brief had been previously been issued by Douglas Moir, Planning Officer (Archaeology) at Lancashire County Archaeology Service, in response to a previous application, and following consultation with Jennie Stopford at English Heritage, Greenlane Archaeology produced a project design regarding the requirements for the work (Greenlane Archaeology 2009; *Appendix 1*).

1.1.3 Prior to any work taking place on site Scheduled Monument consent for the construction of the extension was obtained (Ref. S00006045) and a Section 42 agreement was also obtained for the use of a metal detector on spoil removed during excavation. Scheduled Monument Consent was granted by English Heritage on 11th August 2010 and an S42 licence was issued on the 22nd December 2010, which covered the period from the 1st January to the 1st April 2011. Following this, Greenlane Archaeology carried out the watching brief on the 11th January 2011.

1.2 Location, Geology, and Topography

1.2.1 Temple Cottage is situated in Over Burrow, approximately 1km south of Kirkby Lonsdale between Cowan Bridge and Whittington. Over Burrow lies in what is largely the level country bordering on the Lune, which forms its western boundary. The country soon becomes hilly to the east, and attains 275m above sea level in the north-east corner on the side of Barbon Fell. Leck Beck runs near the south-east border till the more level ground is reached, passing under Cowan Bridge. It then heads south-west to join the Lune, thus dividing Over Burrow on the north from Nether Burrow on the south (Ordnance Survey 2002).

1.2.2 Over Burrow is situated on the edge of an area of Bannisdale Slates, with a large area of Carboniferous limestone to the south (Moseley 1978, plate 1). The overlying drift deposits comprise glacial material, such as boulder clay, which forms undulating low fells and ridges (Countryside Commission 1998, 64-66).

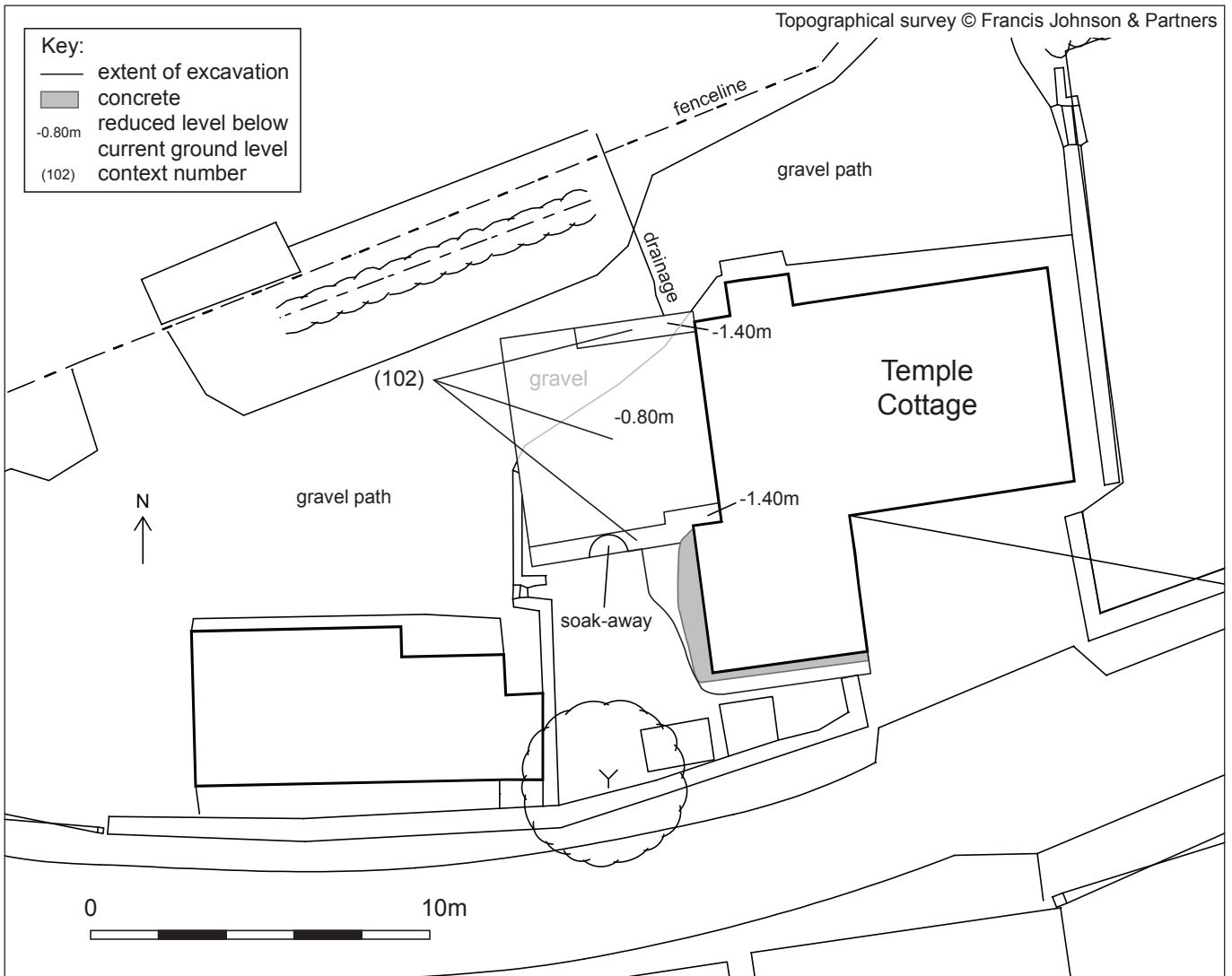
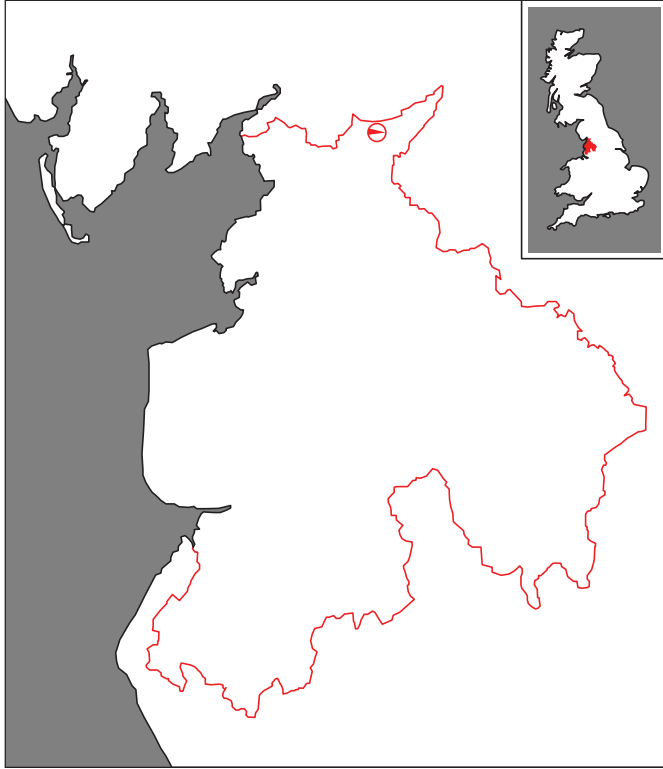


Figure 1: Site location and trench plan

Client: Allan Livesey

© Greenlane Archaeology Ltd, February 2011

2. Methodology

2.1 Desk-Based Assessment

2.1.1 A desk-based assessment was carried out ahead of the fieldwork as a previous phase of work (Greenlane Archaeology 2009). This principally comprised an examination of early maps of the site, and published secondary sources.

2.2 Archaeological Watching Brief

2.2.1 The watching brief area was located immediately adjacent to the west side of the cottage and comprised a rectangle that extended approximately 5.8m from the north-west corner of the cottage by 6.8m along its western edge. The area was partially covered to the north and west side by a gravel driveway and gravel path that ran along the north and west side of the cottage. The east side of the area was slightly terraced and slightly higher towards the cottage and gently sloped towards the driveway to the west. This area had probably been used for a lawn, but a thin layer of turf had apparently been stripped ahead of the arrival of an archaeologist on site. A trench less than 0.65m wide had also been excavated (without the presence of an archaeologist on site) around the south-west corner of the cottage, where the cottage had apparently been underpinned with a concrete footing. Some underpinning of the gable had also been necessary along the western elevation of the cottage to prevent the structure from being undermined during the course of the ground works (see Plate 1).



Plate 1: Working shot of the watching brief area, viewed from the north

2.2.2 All aspects of the archaeological recording were carried out according to the standards and guidance of the Institute for Archaeologists (IfA 2008). A compact excavator was used to strip the watching brief area in shallow spits, using a toothless ditching bucket. Use of the metal detector was limited due to the spoil being immediately removed some distance from site in a dumper. The footings for the planned extension were then dug into the underlying natural geological deposits that had been exposed across the area. The watching brief involved the excavation and recording of approximately 40m², which was recorded in the following manner:

- **Written record:** descriptive records of all deposits and features (see *Appendix 2*) were made using Greenlane Archaeology *pro forma* record sheets. In addition, a general record was made of the day's events;
- **Photographs:** photographs in colour digital format were taken of the site as well as general working shots. A selection of the colour digital photographs is included in this report. A written

record of all of the photographs was also made using Greenlane Archaeology *pro forma* record sheets;

- **Drawings:** drawings were produced on site as follows:
 - i. A trench location plan was produced at a scale of 1:100 relative to the known location of nearby buildings;
 - ii. Additional measured sketches were produced on the watching brief record sheet.

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

2.3 Finds

2.3.1 **Processing:** all of the artefacts recovered during the course of the watching brief 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.

2.3.2 **Assessment and recording:** the post-medieval pottery finds and clay tobacco pipe were recorded on *pro forma* record sheets. The Roman samian ware pottery was examined, after taking a small fresh break, under a x 20 binocular microscope in order to identify the fabric. An archive catalogue was compiled for all the Roman pottery (*Appendix 4*) according to the standard laid down by the *Study Group for Romano-British Pottery* (Darling 2004; national fabric collection codes (after Tomber and Dore 1998) are included where possible). A summary catalogue of all of the finds was also produced (*Appendix 3*). The iron find was visually assessed and x-rayed in order to identify it and assess its condition.

2.4 Archive

2.4.1 A comprehensive archive of the project has been produced in accordance with the project design (*Appendix 1*), and current IfA and English Heritage guidelines (Brown 2007; English Heritage 1991). A digital copy of this report will be deposited with the Lancashire County Council Historic Environment Record (HER) and English Heritage. A paper copy will be sent to the client and a copy will be retained by Greenlane Archaeology. A record of the project, together with a digital copy of the report, will be added to the *Online Access to the Index of Archaeological Investigations* (OASIS) scheme.

2.4.2 It is anticipated that the finds will be deposited in the Lancaster City Museum, following discussions with the Lancashire County Service, together with a copy of the report.

3. Desk-Based Assessment

3.1 Background History

3.1.1 This background history is intended to place the site in its local and regional context by providing a brief summary of what is already known about the site. The following summary is taken from the desk-based assessment that formed the first part of the archaeological work at Temple Cottage (Greenlane Archaeology 2009):

- An examination of the results of previous excavations and available published sources revealed that although the fort had been identified at an early date its extent and actual location was not established until the early 20th century. Excavations in the 1940s and 1950s revealed that it was established in the late 1st century AD, with considerable activity in the 3rd and 4th centuries AD, with some evidently late reorganisation. Temple Cottage and its associated grounds are probably situated within the civilian settlement, or *vicus*, which is thought likely to have been situated to the north and west of the fort. More recent excavations to the north-east have found no significant archaeological remains, suggesting the *vicus* is located further to the west. Aerial photographs also showed earthworks to the north-east of the site that might be related to the extent of the *vicus*.
- An image regression analysis revealed that Temple Cottage was constructed prior to 1844 but that there has been relatively little change to the building following that date.
- The potential of there being remains related to the Roman fort or, more likely, *vicus* necessitated further mitigation work on site ahead of the proposed development.

4. Fieldwork Results

4.1 Watching Brief

4.1.1 Excavation within the watching brief area revealed a straightforward sequence of deposits beneath the uppermost gravel surface (Plate 2), which formed the path and driveway to the north and west side of the cottage. The gravel deposit overlay the topsoil (**100**) to the northern edge of the area, but this was less apparent further to the south where the topsoil had already been exposed (see Plate 1), perhaps where a thin layer of turf had been removed prior to the arrival of an archaeologist on site. This topsoil layer was above a slightly lighter subsoil (**101**), below which was a variable clay 'natural' (**102**), which comprised the underlying geological deposits. The topsoil and subsoil were cut by later drainage pipes and services, including a plastic water pipe. The larger drainage pipes were thought to be asbestos and appeared to flow towards a stone-filled 'soak-away' at the south end of the site. The whole area was stripped to a depth of approximately 0.8m beneath the current ground level, exposing the underlying geological deposits (**102**) (Plate 3) before the east/west aligned footings of the proposed extension were excavated a further 0.5m to 0.6m deep into the underlying geological deposits, at which point the watching brief was discontinued. This sequence of deposits continued across the area and beyond the limits of excavation in all directions.



Plate 2 (left): South-facing trench section, near to the north-west corner of the cottage

Plate 3 (right): General view of the watching brief area post-excavation

4.2 Finds

4.2.1 There were two unstratified finds, comprising a fragment of a black-glazed red earthenware crock and the bowl of a ceramic clay pipe, both of which are thought likely to have come from the topsoil (**100**). This was the uppermost deposit on site and contained 14 other fragments of post-medieval pottery, two fragments of clay tobacco pipe stem, and a fragment of window pane glass, as well as two iron nails (see *Appendix 3*). These finds possibly range in date from the 17th to the 20th century. This deposit also contained a much abraded fragment of samian ware, although this was likely to be residual and was unfortunately too abraded and small to permit further comment (see *Section 4.2.3* below).

4.2.2 The underlying deposit (**101**) contained fragments of mortarium and samian ware, one of which was extremely abraded, and a corroded iron object. The majority of these objects were found towards the base of this deposit at the interface with the underlying clay layer (**102**). A scrap of fired clay was

also recovered from this context, but it was not diagnostic and although it may be Roman this cannot be certain. It was not possible to identify or date the single iron object recovered from **102** despite x-ray, although its associations might suggest that it is Roman; it is apparently not a nail and, although it has a tapering edge, does not seem to be a knife. Further cleaning would be necessary to identify it, but the success of this could not be guaranteed (see *Section 5.2*).

4.2.3 In total, five sherds of plain samian ware were recovered, including three joining fragments of a South Gaulish dish (form Dr18/31), which is most likely Flavian (late 1st century AD) in date. The other two sherds of samian ware, including the fragment from the topsoil (**100**), are extremely abraded, but the fabric suggests the Central Gaulish industry of Lezoux (AD 120-200). The mortarium rim, with a pale almost white fabric, came from the rim and upper body of a multi-reeded, hammerhead mortarium from the potteries at Mancetter-Hartshill and is typical of these potteries in the 3rd and 4th century; it compares with examples from Catterick from this pottery dating to cAD230/50 to 320/350 (Hartley 2002, fig. 188 nos 98 and 105).

5. Discussion

5.1 Watching Brief Results

5.1.1 The sequence of deposits was uniform across the area, with a layer of topsoil (**100**) on top of subsoil (**101**), which was in turn above the underlying clay natural (**102**). The uppermost layer contained various post-medieval finds as well as a much abraded, residual fragment of samian ware. The subsoil layer contained a few Roman finds, which is to be expected given the proximity of the site to the Roman fort, which is located a short distance to the south. The Roman finds potentially range in date from the late 1st to 4th century AD and relate to domestic activity, which is potentially significant given that the site is considered to be within the confines of the civilian settlement associated with the fort. No significant archaeological features were observed, but the presence of the pottery might be taken to indicate that they might be located nearby.

5.1.2 The fact that the area had been disturbed by various cross-cutting drainage pipes and services may account for the lack of archaeological features within the watching brief area but this does not preclude the possibility of as yet undisturbed features being encountered during the course of groundworks undertaken elsewhere within the development area.

5.2 Recommendations

5.2.1 All of the Roman period finds should be deposited in a suitable museum, in this case the Lancaster City Museum. The identification and dating of the iron object from context **102** is uncertain, and only further cleaning of it could ascertain this, although even then this would be uncertain. It is recommended that this be carried out, however, in order to establish whether it should be deposited in the museum with the other finds; this will also help stabilise the object prior to deposition.

6. Bibliography

6.1 Primary and Cartographic Sources

Ordnance Survey, 2002 **OL 2**, *The Yorkshire Dales Southern and Western Areas*, 1:25,000

6.2 Secondary Sources

Brown, DH, 2007 *Archaeological Archives: A Guide to Best Practice in Creation, Compilation, Transfer, and Curation*, IfA, Reading

Countryside Commission, 1998 *Countryside Character, Volume 2: North West*, Cheltenham

Darling, MJ, 2004 Guidelines for the Archiving of Roman Pottery, *J Roman Pottery Studies*, **11**, 67-75

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

Greenlane Archaeology, 2009 *Land Adjacent to Temple Cottage, Over Burrow, Lancashire: Archaeological Desk-Based Assessment*, unpubl rep

Hartley, KF, 2002 Mortaria, in PR Wilson (ed) *Cataractonium Roman Catterick and its Hinterland Excavations and Research, 1958-1997. Part II*, CBA Research Report, **128**, York, 383-94

Institute for Archaeologists (IfA), 2008 *Standard and Guidance for Archaeological Field Evaluation*, revised edn, Reading

Moseley, F (ed), 1978 *The Geology of the Lake District*, Yorkshire Geological Society, occ publ **3**, Leeds

Tomber, R, and Dore, J, 1998 *The National Roman Fabric Reference Collection: A Handbook*, MoLAS Monograph **2**, London

Appendix 1: Project Design

LAND ADJACENT TO TEMPLE COTTAGE, OVER BURROW, LANCASHIRE

Archaeological Watching Brief Project Design

Client: Mr Allan Livesey

December 2010



Client: Allan Livesey

© Greenlane Archaeology Ltd, February 2011

1. Introduction

1.1 Project Background

1.1.1 Following the submission of a planning application (09/00069/FUL) for the addition of an extension to the west side of Temple Cottage, Over Burrow, Lancashire (NGR 361534 476010) and the construction of a new garage and store with improved access on land to the east, a programme of archaeological work was requested by English Heritage. The site is situated within the Scheduled Monument area defining the Roman fort at Over Burrow, and the archaeological work was therefore required in order to satisfy the granting of Scheduled Monument consent, prior to building work taking place. A desk-based assessment for this work was completed by Greenlane Archaeology in 2009 (Greenlane Archaeology 2009a), which identified that the proposed new extension and new building are likely to be situated within the area of the *vicus* or civilian settlement attached to the fort. Further work was therefore required to investigate the site in advance of or to mitigate the groundworks associated with this work. This project design covers the completion of an archaeological watching brief, to be carried out during the excavation of footings for the new extension to Temple Cottage.

1.1.2 The Roman fort at Over Burrow has been excavated on a number of occasions, most extensively in 1952-3 when all the fort walls and the north and south gate were located (Hildyard 1954). These excavations revealed that the area of the fort was roughly 5 acres, which was somewhat larger than normal, and could perhaps hold 500 cavalry or 1,000 infantry (Shotton and White 1995, 40). Much of the structural evidence suggested that the fort was 3rd or 4th century in date; however, features revealed in the trenches suggested an earlier fort or defences on a slightly different alignment. Work carried out to the north of the fort has revealed road surfaces and finds associated with the *vicus*, although the extent of this is uncertain, in particular on account of the work carried out by Anthony Moorhouse in 1905 never having been published (*op cit*, 39). However, limited excavation carried out in 1974 to the north-east of the fort revealed no archaeological deposits (*op cit*, 41). On the basis of these results in combination with the lie of the land it would seem that the *vicus* would have been located to the north and west of the fort. This means that that Temple Cottage is in a prime location for the discovery of Roman civil settlement.

1.1.3 The desk-based assessment revealed that the site of the proposed new garage and store was indeed likely to be situated within the area of the *vicus*, and that earthworks identified in aerial photographs to the north might relate to this (Greenlane Archaeology 2009a). In addition, there was no apparent evidence for any substantial disturbance of the site, although a short-lived building, perhaps a shed, was apparently present on the site in the 20th century. The location of the excavations carried out in 1905, which are thought to have been within the *vicus* is unknown, however, and these could have affected the proposed development site.

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 watching brief will be carried out according to the Standards and Guidance of the Institute for Archaeologists (IfA 2008). Since its creation Greenlane Archaeology has also maintained an impressive rate of publication of results, with several short notes already produced and larger articles now published (Elsworth and Whitehead 2010) and submitted (Elsworth *et al* forthcoming; Whitehead forthcoming; Williams *et al* forthcoming).

1.3 Project Staffing

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

1.3.2 The watching brief will be carried out by **Tom Mace (BA (Hons), MA)**, depending on scheduling constraints. Tom has extensive experience of working on a variety of archaeological projects, especially watching

briefs, but also excavations, evaluations, and building recordings, as well as report writing and illustration production. He joined Greenlane Archaeology in 2008 having worked for several previous companies including Archaeological Solutions and Oxford Archaeology North.

1.3.3 All artefacts will be processed by Greenlane Archaeology, and it is envisaged that they will initially be assessed by Jo Dawson, who will fully assess any of post-medieval date. Finds of earlier date will be assessed by specialist sub-contractors as appropriate, and in this case it is envisaged that these may include Ruth Leary for Roman pottery, and Professor David Shotton for Roman coins. English Heritage will be notified of any other specialists, other than those named, whom Greenlane Archaeology wishes to engage, and approval will be sought.

1.3.4 Environmental samples and faunal remains, should significant deposits of these be recovered, will be processed by Greenlane Archaeology. It is envisaged that charred plant remains will be assessed by Scott Timpany of Headland Archaeology Ltd, and faunal remains by Auli Tourunen, also at Headland Archaeology. Should any human remains be recovered it is envisaged that these will be assessed by Malin Horst at York Osteoarchaeology, following appropriate advice on initial processing. English Heritage will be informed and their approval will be sought for any changes to these arrangements should they be necessary.

2. Objectives

2.1 Watching Brief

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

2.2 Report

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

2.3 Archive

2.3.1 Produce a full archive of the results of the watching brief.

3. Methodology

3.1 Watching Brief

3.1.1 The groundworks are to be monitored, with one archaeologist on site. If there are multiple machines operating on site it may be considered necessary to have more than one archaeologist on site, in which case the cost will be multiplied to reflect this.

3.1.2 The watching brief methodology will be as follows:

- Foundation trenches and/or trenches for services and any areas of ground reduction will be excavated under supervision by staff from Greenlane Archaeology;
- All deposits of archaeological significance will be examined by hand if possible in a stratigraphic manner, using shovels, mattocks, or trowels as appropriate for the scale;
- The position of any features, such as ditches, pits, or walls, will be recorded and where necessary these will be investigated in order to establish their full extent, date, and relationship to any other features. If possible, negative features such as ditches or pits will be examined by sample excavation, typically half of a pit or similar feature and approximately 10% of a linear feature;
- All recording of features will include detailed plans and sections at a scale of 1:20 or 1:10 where practicable or sketches where it is not, and photographs in both colour print and colour digital format;
- All deposits, drawings and photographs will be recorded on Greenlane Archaeology *pro forma* record sheets;
- All finds will be recovered during the watching brief for further assessment as far as is practically and safely possible. Should significant amounts of finds be encountered an appropriate sampling strategy will be devised;
- All faunal remains will also be recovered by hand during the watching brief as far as is practically and safely possible, but where it is considered likely that there is potential for the bones of fish or small mammals to be present appropriate volumes of samples will be taken for sieving;

- Deposits that are considered likely to have, for example, preserved environmental remains, industrial residues, and/or material suitable for scientific dating will be sampled. Bulk samples of between 20 and 60 litres in volume (or 100% of smaller features), depending on the size and potential of the deposit, will be collected from stratified undisturbed deposits and will particularly target negative features (e.g. gullies, pits and ditches) and occupation deposits such as hearths and floors. An assessment of the environmental potential of the site will be undertaken through the examination of samples of suitable deposits by specialist sub-contractors (see *Section 1.3.4* above), who will examine the potential for further analysis. All samples will be processed using methods appropriate to the preservation conditions and the remains present;
- Any human remains discovered during the watching brief will be left *in situ*, and, if possible, covered. English Heritage 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;
- Where practicable spoil removed using the machine will be visually checked for finds and scanned with a metal detector in order to recover metal finds;
- Should any significant archaeological deposits be encountered during the watching brief these will immediately be brought to the attention of English Heritage and the Lancashire County Archaeology Service and ground works in that area halted so that the need for further work can be determined. Any additional work and ensuing costs will be agreed with the client and according to the requirements of English Heritage, and subject to a variation to this project design.

3.2 Report

3.2.1 The results of the watching brief will be compiled into a report, which will incorporate any relevant information collected during the desk-based assessment. The report will contain 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 rapid desk-based assessment;
- Results of the watching brief including descriptions of any deposits identified, their extent, form and potential date, and an assessment of any finds or environmental remains recovered during the watching brief;
- Discussion of the results, with specific reference to their relationship with previous discoveries at the site;
- Illustrations at appropriate scales including:
 - a plan showing the location of the ground works;
 - plans and sections of the watching brief ground works, as appropriate, showing any features of archaeological interest;
 - photographs of the watching brief, including both detailed and general shots of features of archaeological interest and the trenches;
 - photographs of individual artefacts as appropriate.

3.3 Archive

3.3.1 The archive, comprising the drawn, written, and photographic record of the watching brief, formed during the project, will be stored by Greenlane Archaeology until it is completed. Upon completion it will be deposited with the Lancashire Record Office in Preston. 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.

3.3.2 A copy of the report will be supplied to the client, and within six months of the completion of fieldwork, a digital copy will be provided for English Heritage. In addition, Greenlane Archaeology Ltd will retain one copy, and digital copies will be provided to the OASIS scheme and the Lancashire HER as required.

3.3.3 The client will be encouraged to transfer ownership of the finds to a suitable museum. Any finds recovered during the watching brief will be offered to an appropriate museum, in this case anticipated to be the Lancaster City Museum. If no suitable repository can be found the finds may have to be discarded, and in this case as full a record as possible would be made of them beforehand.

4. Work timetable

4.1 Greenlane Archaeology will be available to commence the project on **6th December 2010**, or at another date convenient to the client. It is envisaged that the project will involve tasks in the following order:

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

5. Other matters

5.1 Access

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

5.2 Health and Safety

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

5.3 Insurance

5.3.1 Greenlane Archaeology has professional indemnity insurance to the value of **£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

Brown, DH, 2007 *Archaeological Archives: A Guide to Best Practice in Creation, Compilation, Transfer, and Curation*, Institute of Field Archaeologists (IFA), Reading

Elsworth, DW, and Whitehead, S, 2010 The Barrow Steam Corn Mill, 1870-1972, *Trans Cumberland Westmorland Antiq Archaeol Soc*, 3rd ser, **10**, 55-75

Elsworth, DW, Whitehead, S, and Dawson, J, forthcoming The Archaeology of Wildman Street, Kendal: Its Development and an Assemblage of Medieval and Post-Medieval Artefacts, submitted to *Trans Cumberland Westmorland Antiq Archaeol Soc*

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

Greenlane Archaeology, 2009a *Land Adjacent to Temple Cottage, Over Burrow, Lancashire: Archaeological Desk-Based Assessment*, unpubl rep

- Greenlane Archaeology, 2009b *130-136 Stricklandgate, Kendal, Cumbria: Archaeological Post-Excavation Assessment*, unpubl rep
- Greenlane Archaeology, 2009c *Land Adjacent to Fox Street and 52-62 Corporation Street, Preston, Lancashire: Archaeological Watching Brief*, unpubl rep
- Greenlane Archaeology, 2010a *YWCA, 95 Stricklandgate, Kendal, Cumbria: Archaeological Evaluation*, unpubl rep
- Greenlane Archaeology, 2010b *Land Adjacent to 4 St George's Crescent, Stanwix, Carlisle, Cumbria: Archaeological Evaluation*, unpubl rep
- Greenlane Archaeology, 2010c *Lowwood Gunpowder Works, Haverthwaite, Cumbria: Archaeological Evaluation*, unpubl rep
- Greenlane Archaeology, 2010d *152 Corporation Street, Preston, Lancashire: Archaeological Watching Brief*, unpubl rep
- Hildyard, EJW, 1954 Excavations at Burrow in Lonsdale, 1952-53, *Trans Cumberland Westmorland Antiq Archaeol Soc*, 2nd ser, **54**, 66-101
- HMSO, 1996 *Treasure Act*, <http://www.opsi.gov.uk/acts/acts1996/1996024.htm>
- IfA, 2008 *Standard and Guidance for Archaeological Watching Brief*, revised edn, Reading
- Shotter, D and White, A, 1995 *The Romans in Lunesdale*, Lancaster
- Whitehead, S, forthcoming Excavation of Medieval Burgage Plots to the Rear of 130-136 Stricklandgate, Kendal, submitted to *Trans Cumberland Westmorland Antiq Archaeol Soc*
- Williams, D, Whitehead, S, and Mace, T, forthcoming Medieval Pottery from the Excavation of Burgage Plots to the Rear of 130-136 Stricklandgate, Kendal, Cumbria, submitted to *Medieval Ceramics*

Appendix 2: Summary Context List

Context	Type	Description	Interpretation
100	Deposit	Friable, dark, blackish-brown, (slightly sandy) silt layer, less than 0.25m thick, with sparse small sub-rounded stone inclusions (<0.04m). Contained mostly post-medieval pottery.	Topsoil, beneath the gravel path and extending beyond the limits of excavation in all directions.
101	Deposit	Loosely compacted, mid to dark (greyish) brown (sandy) silt, with infrequent small sub-rounded pebbles (<0.04m). Contained Roman pottery at its lowest extent.	Subsoil layer beneath the topsoil (100) and interface with 'natural' (102).
102	Deposit	Compact, variable, mid to light greyish-brown (varying to a mid greyish-yellow) clay, with moderate to frequent large sub-rounded (<0.20m) cobbles and infrequent, larger boulder sized sandstone inclusions (up to 0.50m).	Underlying grey-brown/grey boulder clay ('natural').

Appendix 3: Summary Finds List

Context	Quantity	Type	Description	Date (AD)
U/S	1	Pottery	Black-glazed red earthenware crock rim fragment	Late 17 th to early 20 th century
U/S	1	Clay tobacco pipe	Bowl with square rouletted decoration around the rim	17 th century
100	5	Pottery	White earthenware: plate rim, basin rim with navy blue transfer-printed pattern, plate base x 2, and green-lined hollow-ware fragment	19 th to 20 th century
100	5	Pottery	Bone china: red-lined plate rim, green-lined saucer rim, saucer base, blue Chinoiserie transfer-printed hollow-ware fragment, hollow-ware rim with polychrome over-glaze floral transfer print	Late 19 th to 20 th century
100	1	Pottery	Blue painted porcelain plate base	18 th century?
100	1	Pottery	Brown-glazed red earthenware dish rim fragment with unglazed white slip around the outer edge	Late 17 th to early 20 th century
100	1	Pottery	Black-glazed red earthenware crock body fragment	Late 17 th to early 20 th century
100	1	Pottery	Buff-coloured earthenware body fragment	Mid 18 th to 20 th century

Context	Quantity	Type	Description	Date (AD)
100	1	Pottery	Samian ware. This fragment was extremely abraded but the fabric suggests the Central Gaulish industry of Lezoux. Unfortunately, this fragment is too abraded and small to permit further comment	AD 120-200
100	2	Clay tobacco pipe	Stem fragments with a narrow bore	Mid 18 th to early 20 th century
100	1	Fe	Corroded wire nail	18 th to 20 th century
100	1	Fe	Heavily corroded nail	Not closely dateable
100	1	Glass	Colourless window pane	19 th to 20 th century
101	1	Animal bone	Medium mammal rib fragment	Not closely dateable
101	1	Fe	Corroded finger-sized rod. X-ray suggests that the object is not a nail but identification is unclear. The object is stable but very corroded, having undergone complete mineralisation of the metal core. The broken edges suggest a slight tapering but insufficient to be a knife blade	Not closely dateable
101	3	Pottery	Samian ware. Three joining fragments of a South Gaulish dish form Dr18/31	Late 1 st century
101	1	Ceramic	Scrap of fired clay	Not closely dateable
101	1	Pottery	Fragment of samian ware, extremely abraded but the fabric suggests the Central Gaulish industry of Lezoux. Unfortunately, too abraded and small to permit further comment	AD 120-200
101	1	Ceramic building material	Tile, orange-brown in colour with few inclusions but sanded on one side	Not closely dateable (possibly Roman)
101	1	Pottery	Mortarium rim, with a pale almost white fabric and with fresh breaks; this fragment came from the rim and upper body of a multi-reeded, hammerhead mortarium from the potteries at Mancetter-Hartshill. The vessel is in the fabric typical of these potteries in the 3 rd and 4 th century with fine white clay and red-brown triturations grits made up of refired pottery. The rim is faintly reeded forming six reeds and the lower end turns out slightly but is blunt. The top is slightly thicker than the bottom and the rim is formed by a thumb impression. The trituration grits are worn flat. The form compares with examples from Catterick dating to cAD230/50 to 320/350 (Hartley 2002 fig. 188 nos 98 and 105)	3 rd to 4 th century AD

Appendix 4: Samian Pottery Index

Location	site	site type	SF	feature	feature description	vessel part	fabric	form	decoration	condition	wear
Over Burrow, Lancashire	TC10		100			flake	SAMCG				
Over Burrow, Lancashire	TC10		101			body sherd	SAMCG				abr
Over Burrow, Lancashire	TC10		101			base	SAMLG	DR18/31			
SF	no of vessels	sherd count	weight	Rim Eve	rim Diam	Base Eve	base Diam	Edate	Ldate	comments	
100	1	1	2					120	200		
101	1	1	5					120	200	ext abraded, no slip left and worn surfaces	
101	1	3	55	0.12		80		70	100	3=1 base	

Appendix 5: Archive Index

Project name:	Land adjacent to Temple Cottage, Over Burrow, Lancashire		
Project Code:	G1113	Site Code:	TC11
Description	Material	Size	Quantity
Report	Paper	A4, Comb-bound	12 sheets , double-sided
Record sheets	Paper	A4	4 sheets, double-sided
Photo record sheets	Paper	A4	1 sheet, double-sided
Trench plans	Drafting film	Non-format	1 sheet
Digital archive index	Paper	A4	1 sheet, Single-sided
Digital archive	CD	-	1