



ELMBANK CARAVAN PARK, COW ROAD, SPITTAL, BERWICK ON TWEED, NORTHUMBERLAND

Archaeological Watching Brief Report



Oxford Archaeology North

December 2011

Richard Roberts and Rural and Urban
Planning Consultancy

Issue No: 2011-12/1238

OA North Job No: L10389

NGR: NU 0055 5101

Planning Application: B38/47: 4160

CONTENTS

PLATES	2
SUMMARY	3
ACKNOWLEDGEMENTS	4
1. INTRODUCTION	5
1.1 Circumstances of the Project.....	5
1.2 Location, Topography and Geology	6
1.3 Historical and Archaeological Background	6
2. METHODOLOGY	8
2.1 Project Design	8
2.2 Watching Brief	8
2.3 Archive	9
3. RESULTS	10
3.1 Introduction	10
3.2 Watching Brief Results	10
3.3 Finds	11
4. CONCLUSION	12
4.1 Discussion	12
5. BIBLIOGRAPHY	13
5.1 Cartographic Sources	13
5.2 Secondary Sources	13
6. FIGURES	14
6.1 Figures.....	14
APPENDIX 1: NCCCT BRIEF	15
APPENDIX 2: OA NORTH PROJECT DESIGN	17
APPENDIX 3: SUMMARY OF DEPOSITS	24

PLATES

Plate 1: Excavation of haul roads at the eastern end of the site. Pits **26** and **27** can be seen to the immediate right of the machine's bucket

Plate 2: Pits **05** and **08** on the easternmost road viewed toward the north-west (1m scale)

Plate 3: Pit **16**, which continued beyond the depth of development impact

Plate 4: Pit **21**, showing carpet within section

SUMMARY

Rural and Urban Planning Consultants, on behalf of Richard Roberts, submitted a planning application (reference B38/47: 4160) for the expansion of the Elmbank Caravan Park, Cow Road, Spittal, Northumberland (NGR NU 0055 5101). Following the results of an archaeological appraisal and a trial-trench evaluation undertaken at the site in 2008, Northumberland County Council Conservation Team (NCCCT) issued a brief for a programme of archaeological investigation to be undertaken in association with the development. These works were to comprise the maintenance of an archaeological watching brief during all ground disturbance, in order to record adequately any archaeological remains that might be revealed or disturbed by the development. Following compilation of a project design, OA North was commissioned by Rural and Urban Planning Consultants, on behalf of Richard Roberts, to undertake the watching brief between 12th and 28th September 2011.

During the watching brief, which monitored the removal by mechanical excavator of topsoil and subsoil for a series of haul roads, some 23 pits with coal-rich fills were revealed within the south-eastern part of the site. The recovery of a single rim fragment from nineteenth-century ceramic bottle and the observation of carpet fabric within one of the pits suggested that they dated to the industrial period. However, their function remains somewhat obscure and, although they may relate to nearby mining activity, they appear to derive from *ad hoc* disposal of coal-rich waste. A Neolithic/Bronze Age flint scraper recovered from one from of the pits was likely to have been residual, but did indicate that the site had witnessed some form of prehistoric activity.

ACKNOWLEDGEMENTS

Oxford Archaeology North (OA North) would like to thank Richard Roberts and also Ian Butter of Rural and Urban Planning Consultants for commissioning the project and their assistance, and also Nick Best and Karen Derham of Northumberland County Council Conservation Team (NCCCT) for their liaison during the project. OA North is also grateful to Matthew Butler, who supervised the programme of groundworks.

The watching brief was undertaken by Jon Onraet and Jeremy Bradley, who also compiled the report. The flint was identified by Anthony Dickson, and the report was illustrated by Mark Tidmarsh. The project was managed by Stephen Rowland, who also edited the report.

1. INTRODUCTION

1.1 CIRCUMSTANCES OF THE PROJECT

- 1.1.1 Rural and Urban Planning Consultants, on behalf of Richard Roberts, submitted a planning application (reference B38/47: 4160) for the expansion of the Elmbank Caravan Park, Cow Road, Spittal, Northumberland (NGR NU 0055 5101). The planning application covered two fields with a total area of 4.2ha, although only the central 1.7ha was to be developed under current proposals. The area was considered to lie within an area of archaeological potential and, accordingly, Northumberland County Council Conservation Team (NCCCT) recommended that a programme of archaeological works should be undertaken in association with the development.
- 1.1.2 The programme of archaeological works was undertaken in three stages. An initial appraisal by Oxford Archaeology North (OA North) of the development site, which included an examination of aerial photographs and a geophysical survey (OA North 2008a), identified putative archaeological remains, including a circular feature reminiscent of a prehistoric barrow or a ring ditch for a roundhouse. Together with several 'control' areas of the site, these putative features were tested by trial-trench evaluation, representing the second stage of works (OA North 2008b). The putative features identified during the appraisal could not be directly equated with archaeological remains revealed during the evaluation, although at times it was possible to see how the clustering of features may have produced more coherent geophysical anomalies. The evaluation revealed the presence of 23 archaeological features, mostly considered to be of relatively recent date and most of which had avoided detection by aerial photography or geophysical survey. Those features identified during the evaluation comprised a series of ditches, most of which followed alignments similar to local enclosure-period boundaries; several tree throws/boles, and a number of pits of varying dimensions. Many of these features contained fills that derived not from local deposits, but probably from the weathering of industrial waste (coal and shale) that appeared to have been periodically dumped on the area. As such, most features appeared to be post-medieval or industrial-period in date, as implied by an extremely sparse finds assemblage.
- 1.1.3 The possibility that significant archaeological remains lay within the proposed development boundary remained, and NCCCT issued a brief for the third stage of archaeological investigation (*Appendix 1*). These works were to comprise a watching brief, so that any archaeological remains revealed or disturbed by the development groundworks (which were to comprise soil stripping for a series of haul roads and deeper excavation for a network of drains) could be identified and recorded adequately. Following compilation of a project design (*Appendix 2*), OA North was commissioned by Rural and Urban Planning Consultants on behalf of Richard Roberts, to undertake the watching brief. This document reports on those works, which took place between 12th and 28th September 2011.

1.2 LOCATION, TOPOGRAPHY AND GEOLOGY

- 1.2.1 The development site at Elmbank Caravan Park, Spittal, lies on the Northumberland coast, close to the south bank of the River Tweed (Fig 1). The principal settlement and historically significant port of Berwick on Tweed lies *c* 1km to the north, on the opposite side of the river. The development area, of which *c* 20% has been developed for static caravans, otherwise comprises rough pasture bound along the southern and eastern sides by Cow Road, with the principal open areas separated by the Highcliffe Jubilee Centre. The site is located on land which slopes substantially eastwards towards the coast, from 75-50m AOD.
- 1.2.2 The solid underlying geology comprises rocks of Carboniferous Limestone (Countryside Commission 1998, 14). These repetitive sediments outcrop in the Tweed estuary area to form eroded soft limestone headlands and cliffs, with glacial deposits occurring inland (*op cit*, 13-15)

1.3 HISTORICAL AND ARCHAEOLOGICAL BACKGROUND

- 1.3.1 **Introduction:** the following section is intended only as a brief summary of the site's archaeological context rather than a comprehensive review of the archaeology and history of the region, examples of which can be readily consulted elsewhere.
- 1.3.2 **Prehistoric Period (c 8000 BC - AD 43):** little in the way of confirmed prehistoric settlement has been identified in this most northerly part of Northumberland, and the earliest definitive evidence close to the development site is a possible Bronze Age cist at Tweedmouth (LUAU 1996). However, this lack of investigation belies a much wider potential for prehistoric human activity and settlement, as indicated by the results of aerial surveys. These have revealed what appear to be settlement remains along the eastern coast south of the Tweed, alongside possible large field systems. A potential prehistoric settlement focus, in the form of a circular cropmark (SMR 4217) alongside smaller circular enclosures, has also been identified within the application area (Fig 2) (OA North 2008a).
- 1.3.3 **Romano-British Period (c AD 43 - AD 410):** the Scheduled Ancient Monument site at Springhills (SMR 4131; SM 341), some 250m to the south-west of the study area, was initially thought to be a Roman fort. The site has since been reassessed as a native settlement, although the alignment of a Roman Road (the Devil's Causeway) towards Tweedmouth may indicate some form of hitherto unidentified Roman military presence on the southern side of the river (Keys to the Past REF N13761, accessed 2008).
- 1.3.4 **Early Medieval (AD 410 - 1066):** little is known of the early medieval history of the immediate region and, in the centuries immediately following the end of Roman Britain, the area is likely to have fallen within various petty tribal polities until its subsumation into the Anglian kingdom of Northumbria, which stretched well into modern lowland Scotland. There is virtually no material evidence for such activity in the immediate area, although Berwick is believed

to be of Anglian origin, its name perhaps deriving from the Old English *berewic*, meaning barley farm, denoting a grange or outlying part of an estate (Hunter 1982).

- 1.3.5 **Medieval (AD 1066 - 1540):** Berwick is not mentioned in the Domesday book, but this should not be interpreted as a lack of settlement activity in the area; England's border with Scotland was under constant dispute. It is thus not surprising that the earliest documentary reference dates to 1097, when Fordun's Chronicle records the gift of lands in the 'village of Berwick' by the Scottish (but very Anglian-sounding) King Edgar to the monastery of Coldingham (LUAU 1996, 8).
- 1.3.6 Berwick was Scotland's most important port, with around 25% of the country's revenue passing through; the monastic wool trade with Europe was particularly important. From the twelfth century, the Scottish kings appear to have minted coins at Berwick (Gordon 1985, 44). The thirteenth century marked the peak of Berwick's importance and prosperity, with a population believed to number several thousand people, and the town frequently was used as a base by the Scottish kings. It was captured by Edward I of England, retaken by Robert the Bruce, and changed hands between English and Scots 14 times before the English successfully recovered and held the town in 1482 (LUAU 1996, 8; OA North 2007). By then, Berwick was little more than a garrison town and a shadow of its former self. The wool trade collapsed as connections with the wool-producing hinterland were severed and trading became impossible due to persistent warfare, and the town's Edwardian defences became seriously dilapidated until rebuilt by Elizabeth I (OA North 2007).
- 1.3.7 Medieval religious establishments were major landowners in the town of Berwick, and five religious hospitals were also located around the town. The thirteenth-century leper hospital (SMR 4135), located approximately 250m to the west of the study area, gives the town of Spittal its name.
- 1.3.8 **Post-medieval (AD 1540 - present):** whilst the town plan of Spittal appears to retain some medieval appearance, with burgage plots aligned perpendicular to the main street, concentrated settlement is more likely to have originated in the sixteenth or seventeenth centuries (Keys to the Past REF N13761, accessed 2008). Herring fishing is one possible reason for the growth of Spittal, with a fisherman's shiel located on Spittal Point and some of the older cottages in the town are thought to represent fisherman's cottages. The further growth of the village during the later post-medieval period is tied to the exploitation of coal, in keeping with much of the North East. A steam engine of some description was located within 100m of the study area to the south-west, associated with the 'Old Berwickhill Pit' (SMR 4155).

2. METHODOLOGY

2.1 PROJECT DESIGN

- 2.1.1 The OA North project design (*Appendix 2*) was adhered to in full and the work was consistent with the relevant standards and procedures of the Institute for Archaeologists (IfA 2008a; 2008b; 2010), and generally accepted best practice. In consultation with NCCCT there were two major variations from the programme of works outlined in the NCCCT brief and OA North project design (*Appendices 1 and 2*). Due to the nature of the findings, which were of limited significance, it was agreed to cease the watching brief following the monitoring of approximately two thirds of the soil strip associated with the new haul road. In addition, it was agreed that it would not be necessary to monitor excavations for the drainage runs, as it was considered firstly, that it would be difficult to identify and understand any archaeological remains revealed by these narrow and relatively shallow interventions, and secondly, that they would not traverse areas thought to contain possible significant remains.



Plate 1: Excavation of haul roads at the eastern end of the site. Pits 26 and 27 can be seen to the immediate right of the machine's bucket

2.2 WATCHING BRIEF

- 2.2.1 The configuration of the groundworks for the haul roads monitored during the watching brief is shown on Figure 2. Four stretches of road were stripped by a mechanical excavator, fitted with a wide toothless ditching bucket and operating under close archaeological scrutiny. The roads were some 6m wide by 0.65m deep, with the parallel north-west/south-east-aligned elements 97m

long and the roughly perpendicular elements measuring 50m long (Plate 1). Close liaison was maintained with the groundworks contractor at all times, and all works were monitored by an experienced archaeologist. The programme of field observation comprised the systematic examination, characterisation and recording of any subsoil horizons exposed during the course of the groundworks. Recording was by means of OA North's standard system, with *pro-forma* record sheets and supporting registers and indices. A fully indexed digital photographic record was maintained. A representative sample of the features was investigated to characterise them, but the bulk of the majority lay below impact depth and, as agreed with NCCCT, were planned and recorded as they were exposed by the groundworks.

2.3 ARCHIVE

- 2.3.1 A full and professional archive has been compiled in accordance with the project design (*Appendix 2*), and in accordance with current IFA and English Heritage guidelines (EH 1991). The primary paper and digital archive will be deposited with the Northumberland County Record Office, Morpeth and copies of this report will be lodged at the Northumberland Historic Environment record, Morpeth. Any finds that meet criteria for retention will be kept at the Great North Museum. An OASIS form has been completed as part of the works.

3. RESULTS

3.1 INTRODUCTION

- 3.1.1 The following section presents a synthesised summary of the results of the watching brief. For the sake of brevity and clarity, more detailed context descriptions are tabulated in *Appendix 3*.



Plate 2: Pits 05 and 08 viewed toward the north-west (1m scale)

3.2 WATCHING BRIEF RESULTS

- 3.2.1 Removal of 0.4-0.6m of topsoil and overburden within the footprints of the haul roads revealed some 23 coal-filled features cutting the natural geology (Fig 2; Plate 1). These ranged in size from 2-9m across and were approximately 0.6m deep, although some (such as pits **08** and **16**) were probably substantially deeper (Plate 2). Generally, the pits exhibited a similar make-up, with a dark silt basal layer, followed by grey coal-flecked clay fill. Occasionally, as with pit **19**, they were capped by a further layer of grey clay. Sample excavation revealed at least one of these to be of modern date, containing nineteenth-century pottery and modern carpet (pit **21**; Plate 3). Pit **16** contained a worked flint, but this was highly likely to have been residual in this context.



Plate 3: Pit 16, which continued well beyond development impact depth



Plate 4: Pit 21, showing carpet within section

3.3 FINDS

- 3.3.1 Pit 16 contained a single secondary flake, which had been retouched and utilised as a side scraper. Although little of the cortex could be seen, its smooth nature might suggest that it was derived from beach flint. The scraper was probably of Neolithic/Bronze Age date. Pit 21 produced a single rim fragment from a white salt glazed stoneware bottle of nineteenth-century date.

4. CONCLUSION

4.1 DISCUSSION

- 4.1.1 The watching brief demonstrated that archaeological features, in the form of a series of rather enigmatic and generally shallow pits, are widespread across the southern part of the development site. There was little uniformity to these features, and it was not clear what they represented. The coal-flecked deposits found within them were reminiscent of the deposits encountered during the evaluation (OA North 2008b) and could indicate that they may have had some connection with nearby coal mining activities, such as the 'Old Berwickhill Pit', which was located close to the site (*see section 1.3.8*). Rather than representing primary extraction in the pre-industrial era (such as bell pits, which would be expected to appear on aerial photographs), it seems that the pits were more likely to be associated with *ad hoc* waste disposal in recent centuries.
- 4.1.2 Although it was apparent from the presence of a Neolithic/Bronze Age scraper that the site had hosted some sort of prehistoric activity, no features were identified within the footprint of the haul roads that might represent settlement or other forms of concentrated activity. No groundworks were undertaken within the area of the circular feature identified by the appraisal (OA North 2008a). Moreover, the sequence of ditches identified during the evaluation of that putative feature were not observed extending into the monitored area (and, had they been present, would have been very distinctive with their coal-rich fills).

5. BIBLIOGRAPHY

5.1 CARTOGRAPHIC SOURCES

Ordnance Survey (OS), 1866 First edition 6": 1 mile (1:10560) map

5.2 SECONDARY SOURCES

Countryside Commission 1998, *Countryside Character Vol 1: North East*, Cheltenham

Department of the Environment (DoE), 1990 *Planning Policy Guidance Note 16*, London

Earle, J, and Plummer, C (eds), 1892, *Two of the Anglo-Saxon Chronicles*, Oxford

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

Gordon, L, 1985 *Berwick-upon-Tweed and the East March*, Chichester

Hodgson, J, and Brennand, M, 2006 Prehistoric Period Resource Assessment, in M Brennand (ed) *The Archaeology of North West England, an Archaeological Research Framework for North West England: vol 1, Resource Assessment*, 23–58

Hunter, JR, 1982 Medieval Berwick-upon-Tweed, *Archaeologica Aeliana*, 5 ser, **10**, 67-124

Institute for Archaeologists, 2008a *Standard and Guidance for an Archaeological Watching Brief*, Reading

Institute for Archaeologists, 2008b *Standard and Guidance for the Creation, Preparation, Transfer and Deposition of Archaeological Archives*, Reading

Institute for Archaeologists, 2010 *Code of Conduct*, Reading

LUAU, 1996 *Marygate, Berwick-upon-Tweed, Northumberland, Archaeological Evaluation*, unpubl rep

Northumberland County Council 2008
<http://communities.northumberland.gov.uk/Scremerston.htm> (accessed 31/07/2008)

OA North, 2007, *Blackburn and Price Garage, Silver Street, Berwick-upon Tweed, Northumberland: Archaeological Evaluation*, unpubl rep

OA North, 2008a *Elmbank Caravan Park, Spittal, Northumberland, Archaeological Appraisal*, unpubl rep

OA North, 2008b *Elmbank Caravan Park, Cow Road, Spittal, Northumberland: Archaeological Evaluation*, unpubl rep

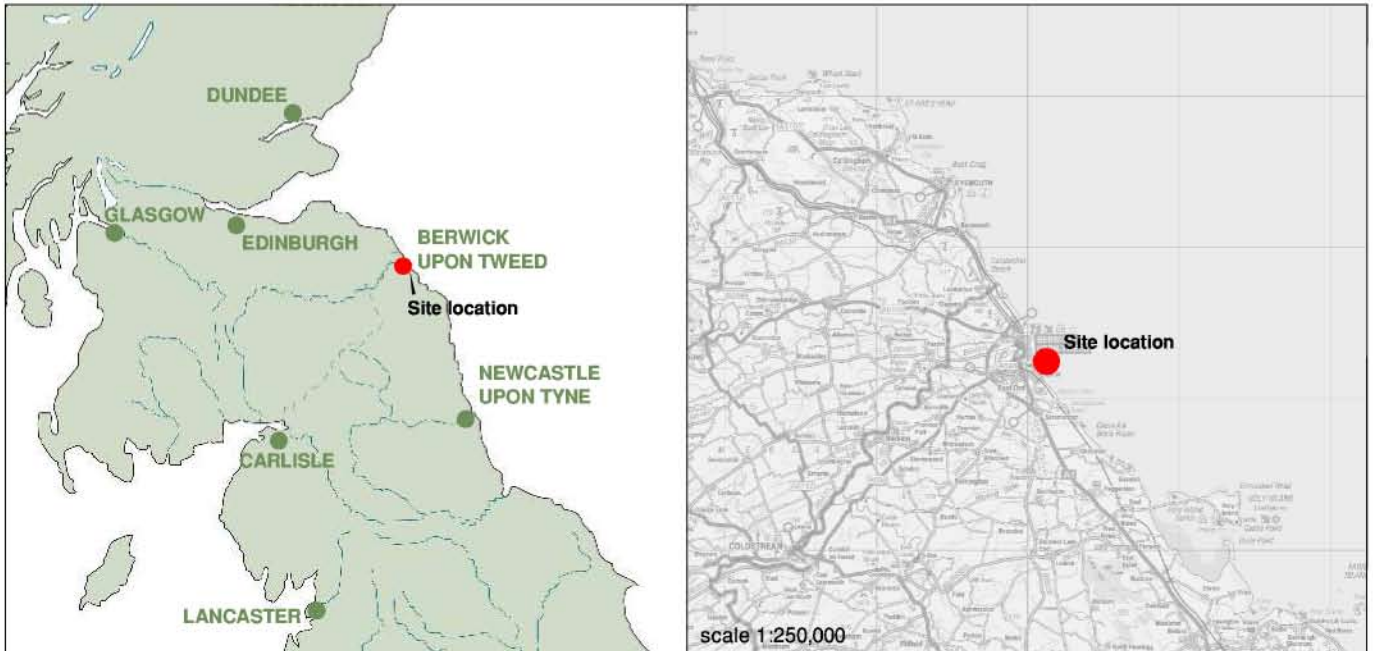
Stace, C, 2001 *New Flora of the British Isles*, Cambridge

6. FIGURES

6.1 FIGURES

Figure 1: Site location

Figure 2: Location of formal watching brief areas and features



Based upon the Ordnance Survey mapping with the permission of the Controller of Her Majesty's Stationery Office ©Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. Oxford Archaeology Licence No. AL 100005569 (Nov 2011).



SR*L10389*MAT*Nov 2011

Figure 1: Site location

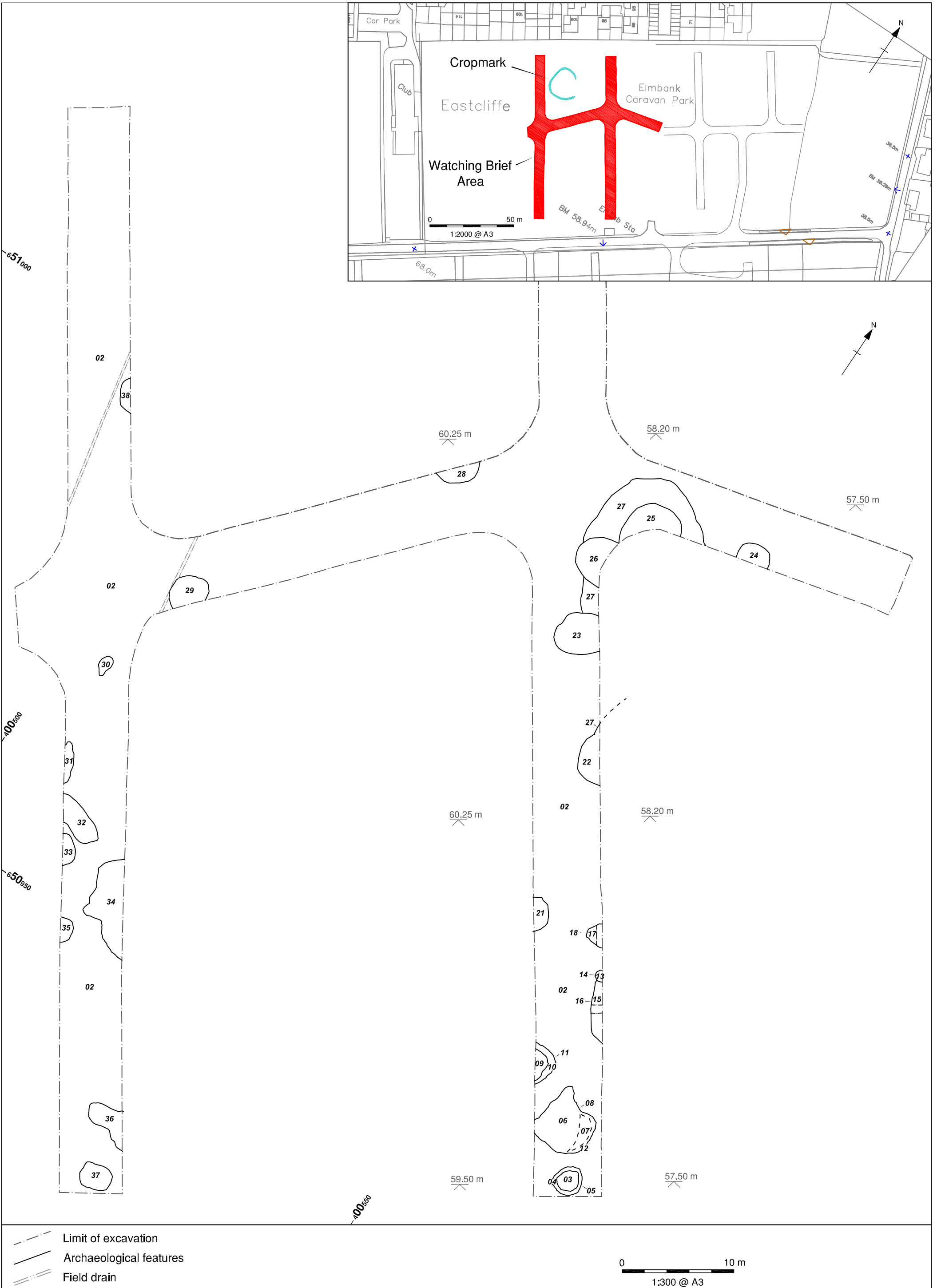


Figure 2: Location of formal watching brief areas and features

APPENDIX 1: NCCCT BRIEF

LAND AT THE COW ROAD, SPITTAL, BERWICK-UPON-TWEED

Brief for an Archaeological Watching Brief

1 Introduction

- 1.1 A planning application has been submitted for the change of use of land at Elmbank Coastal Retreat, Cow Road, Spittal, Berwick-upon-Tweed. The proposals relate to the extension of the existing caravan park on the adjacent site. This site has already been subject to a staged programme of archaeological assessment, including a desk-based assessment, geophysical survey and targeted trial trenching exercise.
- 1.2 The earlier phases of assessment identified several sub-surface features which were consistently visible on both aerial photographs and geophysical survey plots. These features were targeted by the trial trenching exercise but could not be positively identified. The evaluation identified only large areas of disturbed ground (perhaps associated with the post-medieval industrial use of the areas, or the use of the site as a compound during the construction of the adjacent housing estate) and traces of historic field boundaries. In particular, the evaluation exercise did not positively identify any physical trace of a curvilinear feature, the form and character of which was suggestive of a prehistoric settlement or monumental structure. The evaluation report suggested that the apparent invisibility of this feature may be as a consequence of it surviving to very shallow depths not cut into the natural clay geology (they depth to which the trenches were excavated).
- 1.3 Taking into account the results of all phases of assessment, it is clear that the archaeological potential of the site is lower than that originally suggested by the earlier stages of work. Nevertheless, there remains a possibility that the remains of a curvilinear prehistoric feature will survive within the site, albeit ephemerally. Given that this feature lies so close to the scheduled monument of Springhill Roman Camp (monument number ND341); provision should be made mitigate any impacts to this feature, and to further examine any potential relationship between this feature and the scheduled monument. Therefore, whilst no further archaeological work will be appropriate across much of the site, it will be appropriate to require an archaeological watching brief, targeted on the area of the curvilinear enclosure.
- 1.4 This brief constitutes NCC Conservation Team's justification for the investigation, its objectives and the strategy and procedures to apply to the programme of archaeological recording. **This brief does not constitute the required 'written scheme of investigation'.**
- 1.5 **The developer should discuss their intended scope of works with their archaeological contractor prior to work taking place in order that an appropriate programme of archaeological monitoring can be agreed.**
- 1.6 The brief is intended to establish the project parameters to enable an archaeological consultant or contractor to tender for the work and once commissioned to prepare and submit an appropriate Method Statement, Project Design or Specification to the Conservation Team for approval prior to work commencing. The project design should be based on a thorough study of all relevant background information, in particular any assessment or evaluation reports or, in their absence, data held or referenced in Northumberland Historic Environment Record (HER).

- 1.7 The archaeological consultant or contractor will need to confirm the extent of the development and the nature of the works with the developer as part of the specification.

2 Method of work

- 2.1 The purpose of this work is to ensure that important archaeological remains are not destroyed without first being adequately recorded.

- 2.2 The proposed development has the potential to disturb important archaeological remains. It is considered that in this case a watching brief is the appropriate archaeological response. The watching brief should cover the following groundworks for the development:

- All intrusive groundwork, including landscaping work within the area identified on the enclosed Figure 1

- 2.3 All initial groundwork within the area of the watching brief should be undertaken by a machine fitted with a toothless ditching bucket. Further groundwork or development should commence only once the nominated archaeologist has had the opportunity to monitor the excavations and has confirmed either that no archaeological remains area present, or that identified archaeological remains have been recorded in line with this brief.

- 2.4 **Should the groundwork not exceed modern disturbance or equally should they exceed the depth at which archaeological remains are present, NCC Conservation Team should be contacted in order to establish whether the watching brief need continue in these specific areas.**

2.5 General Standards

- i) All work should be carried out in compliance with the codes of practice of the Institute of Field Archaeologists (IFA) ¹ and should follow the IFA Standards for Watching Briefs. ²
- ii) All staff must be suitably qualified and experienced for their project roles.
- iii) All staff must familiarise themselves with the archaeological background of the site, and the results of any previous work in the area, prior to the start of work on site. All staff must be aware of the work required under the specification, and must understand the projects aims and methodologies.
- iv) **The archaeological contractor should note that the formulation of an appropriate environmental sampling strategy is a mandatory part of this project. Advice on such a strategy must be obtained from the English Heritage Scientific Advisor for North East England, Dr Jacqui Huntley, Department of Archaeology, University of Durham, Science Laboratories, South Road, Durham. Tel. 0191 334 1137**
- v) This observation shall involve the systematic examination and accurate recording of all archaeological features, horizons and artefacts identified.
- vi) **If archaeological remains are uncovered, the archaeologist should be given the opportunity of excavating and recording the remains before they are destroyed.**
- vii) A full and proper record (written, graphic and photographic as appropriate) should be made for all work, using pro forma record sheets and text

¹ Institute of Field Archaeologists, 2000, Code of Conduct

² Institute of Field Archaeologists, 2001, Standard and Guidance for an archaeological watching brief

descriptions appropriate to the work. Accurate scale plans and section drawings should be drawn at 1:50, 1:20 and 1:10 scales as appropriate. Where skeletons are encountered, they should be recorded by photography and the use of pro forma skeleton recording sheets.

- vii) The area watched by the archaeologist should be accurately tied into the National Grid and located on a 1:2500 or 1:1250 map of the area. All archaeological deposits and features and at the top and base of all groundworks must be recorded with an **above ordnance datum (aOD)** level.
- viii) A photographic record of all contexts should be taken in colour transparency and black and white print and should include a clearly visible, graduated metric scale. A register of all photographs should be kept.
- ix) In the event of human burials being discovered, the archaeologist will procure and comply with all statutory consents and licences under the Burial Act 1857.
- x) **Where any part of a human burial is disturbed, the whole burial must be archaeologically excavated.**
- xi) Appropriate procedures under the relevant legislation must be followed in the event of the discovery of artefacts covered by the provisions of the Treasure Act 1996.
- xii) During and after the excavation, all recovered artefacts must be stored in the appropriate materials and storage conditions to ensure minimal deterioration and loss of information (this should include controlled storage, correct packaging, regular monitoring of conditions, immediate selection for conservation of vulnerable material).

3 Contingency arrangements

- 3.1 In the event of the discovery of archaeological remains which are of a greater number or extent than anticipated, work will cease and NCC Conservation Team and a representative of the developer will be notified. An assessment will be made of the importance of the remains and any provision for their recording or preservation in situ as appropriate.
- 3.2 The contingency for this project has been set at **up to 10** person-days.

4 Post excavation work, archive, and report preparation

4.1 Finds

- 4.1.1 All finds processing, conservation work and storage of finds must be carried out in compliance with the IFA Guidelines for Finds Work and those set by UKIC.
- 4.1.2 The deposition and disposal of artefacts must be agreed with the legal owner and recipient museum **prior** to the work taking place. Where the landowner decides to retain artefacts adequate provision must be made for recording them. Details of land ownership should be provided by the developer.
- 4.1.3 All retained artefacts must be cleaned and packaged in accordance with the requirements of the recipient museum.

4.2 Site Archive

- 4.2.1 The archive and the finds must be deposited in the appropriate local museum, within **6 months** of completion of the post-excavation work and report.
- 4.2.2 Before the commencement of fieldwork, contact should be made with the landowners and with the appropriate local museum to make the relevant arrangements. Details of land ownership should be provided by the developer. Details of the appropriate museum can be provided by NCC Conservation Team.
- 4.2.3 NCC Conservation Team will require confirmation that the archive had been submitted in a satisfactory form to the relevant museum before recommending to the local planning authority that the condition should be fully discharged.**

4.3 Report

- 4.3.1 The archaeological consultant or contractor must submit a copy of the report to their client and NCC Conservation Team within 2 months of completion of the work.
- 4.3.2 NCC Conservation Team require two copies of the report (one bound and one unbound)
- 4.3.3 NCC Conservation Team will need to approve the report before discharging the condition on the planning permission
- 4.3.4 Each page and paragraph should be numbered within the report and illustrations cross-referenced within the text.
- 4.3.5 The report should include as a minimum the following:
 - i) Planning application number, NCC Conservation Team reference, OASIS reference number and an 8 figure grid reference
 - ii) A summary statement of the results
 - iii) A table summarising the deposits, features, classes and numbers of artefacts encountered and spot dating of significant finds
 - iv) Above Ordnance Datum levels and levels below current ground level in the text
 - v) A location plan of the site at an appropriate scale of at least 1:10 000
 - vi) A location plan of the extent of the watching brief within the site. This must be at a recognisable planning scale, and located with reference to the national grid, to allow the results to be accurately plotted on the Sites and Monuments Record
 - vii) Plans and sections of archaeology located at a recognisable planning scale (1:10, 1:20, 1:50 or 1:100, as appropriate)
 - viii) Above Ordnance Datum (aOD) levels included on plans and sections
 - ix) Both aOD levels and depth below current ground level to be included within the text
 - x) **Any variation to the above requirements should be approved by the planning authority prior to work being submitted**

4.4 OASIS

- 4.4.1 NCC Conservation Team and SMR support 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.
- 4.4.2 The archaeological consultant or contractor must therefore complete the online

OASIS form at <http://ads.ahds.ac.uk/project/oasis/>. If the contractors are unfamiliar with OASIS, they are advised to contact Northumberland HER prior to completing the form. Once a report has become a public document by submission to or incorporation into the HER, Northumberland HER will validate the OASIS form thus placing the information into the public domain on the OASIS website. **The archaeological consultant or contractor must indicate that they agree to this procedure within the specification/project design/written scheme of investigation submitted to NCC Conservation Team for approval**

4.5 Publication

- 4.5.1 A summary should be prepared for 'Archaeology in Northumberland' and submitted to Liz Williams, Northumberland HER Officer, by December of the year in which the work is completed.
- 4.5.2 A short report of the work should also be submitted to a local journal if appropriate and agreed with NCC Conservation Team. If publication is a requirement, the publication report will need to be approved by NCC Conservation Team before discharging the condition on the planning permission

5 Monitoring

- 5.1 The Assistant County Archaeologist dealing with this application must be informed on the start date and timetable for the watching brief **in advance** of work commencing.
- 5.2 Reasonable access to the site for the purposes of monitoring the archaeological scheme will be afforded to the Assistant County Archaeologist or his/her nominee at all times.
- 5.3 Regular communication between the archaeological contractor, the Assistant County Archaeologist and other interested parties must be maintained to ensure the project aims and objectives are achieved.

6 Further Guidance

- 6.1 Any further guidance or queries regarding the provision of a specification should be directed to:

Nick Best
Assistant County Archaeologist
Northumberland County Council
County Hall
Morpeth
Northumberland
NE61 2EF

Tel: 01670 534095
Fax: 01670 533409
e-mail: nbest@northumberland.gov.uk

12/10/10

FOR COPYRIGHT REASONS, ALL MAPS SUPPLIED BY NORTHUMBERLAND COUNTY COUNCIL MUST BE RETURNED TO THEM ON COMPLETION OF THE PROJECT

Archaeological Watching Brief Report Check List

Site name:

Archaeological Contractor:

Check List	Contractor	NCCCT
Copy of report checklist		
Planning ref.		
NCCCT ref.		
OASIS ref.		
Confirmation that all OASIS sections completed incl. submission of grey literature		
8 figure grid reference		
Results		
Summary statement of the results		
Table summarising the deposits, features, classes and numbers of artefacts encountered and spot dating of significant finds		
Plans and sections		
Location plan at scale of at least 1:10000		
Plans showing location of archaeological work at recognisable planning scale		
Plans showing location of archaeological work with reference to national grid		
Detailed plans and sections at recognisable planning scale		
Above Ordnance Datum levels and levels below current ground level in the text		
Above Ordnance Datum levels included on plans and sections		
Any variation approved by NCCCT prior to work commencing		

Contractor checked:

NCCCT Officer checked:

Date:

Date:

APPENDIX 2: OA NORTH PROJECT DESIGN

**ELMBANK
CARAVAN PARK,
COW ROAD,
SPITTAL, BERWICK
ON TWEED,
NORTHUMBERLAND**

**Archaeological Watching
Brief Project Design**



Oxford Archaeology North

May 2011

**Rural and Urban Planning
Consultancy**

OA North Reference No: t12418

NGR: NU 0055 5101

1. INTRODUCTION

1.1 PROJECT BACKGROUND

1.1.1 Rural and Urban Planning Consultants, on behalf of Richard Roberts, has submitted a planning application (reference B38/47: 4160) for the expansion of the Elmbank Caravan Park, Cow Road, Spittal, Northumberland (NGR NU 0055 5101). The planning application covers two fields with a total area of 4.2ha, although only the central 1.7ha will be developed under current proposals. An appraisal of the site, organised by OA North in January 2008, identified putative archaeological features through aerial photograph analysis and geophysical survey, several of which could have been affected by the proposed development. Together with several 'control' areas of the site, these putative features were tested by trial-trench evaluation by Oxford Archaeology North (OA North) in July 2008. The evaluation revealed the presence of 23 archaeological features, most of which had not been identified during the appraisal. In turn, those putative features identified during the appraisal could not be directly equated with archaeological remains revealed during the evaluation, although at times it was possible to see how the clustering of features may have produced more coherent geophysical anomalies. Alternatively, it is possible that the features are very shallow, and do not cut the natural geology.

1.1.2 Those features identified during the evaluation comprised a series of ditches, most of which followed alignments similar to local enclosure-period boundaries; several tree throws/boles, and a number of pits of varying dimensions. Many of these features contained fills that derived not from local deposits, but probably from the weathering of industrial waste (coal and shale) that appeared to have been periodically dumped on the area. As such, most features appeared to be post-medieval or industrial-period in date, as implied by the extremely sparse finds assemblage. The spreading of industrial material across the site may help to explain the level of background 'noise' encountered during the geophysical survey, whilst the incorporation of unburnt or non-biological material within the fills of many of the features would limit their susceptibility to magnetic detection. There were no remains associated with the most prominent curvilinear feature identified by the appraisal (Cropmark A/Geophysical Anomaly 1), and it may be possible that the boundaries and internal elements of this feature have been largely truncated.

1.1.3 The possibility that significant archaeological remains lie within the proposed development boundary remains, and, accordingly, Northumberland County Council Conservation Team (NCCCT) issued a brief for a programme of archaeological investigation to be undertaken in association with the development, in order to record adequately any archaeological remains that might be revealed or disturbed by the development. The following document represents a project design to carry out the above programme of work and has been prepared in accordance with the requirements of the NCCCT brief.

1.2 HISTORICAL AND ARCHAEOLOGICAL BACKGROUND

1.2.1 More complete backgrounds to the history and archaeology of the wider area, and of the investigations undertaken within the present development site can be found in the following documents, which should be read prior to undertaking the fieldwork:

OA North, 2008a *Elmbank Caravan Park, Spittal, Northumberland, Archaeological Appraisal*, unpubl rep

OA North, 2008b *Elmbank Caravan Park, Spittal, Northumberland, Archaeological Evaluation*, unpubl rep

1.3 OXFORD ARCHAEOLOGY NORTH

1.3.1 OA North has considerable experience of excavation of sites of all periods, having undertaken a great number of small and large scale projects throughout Northern England during the past 25 years. Evaluations, desk-based assessments, watching briefs and excavations have taken

place within the planning process, to fulfil the requirements of clients and planning authorities, to very rigorous timetables. OA North has the professional expertise and resources to undertake the project detailed below to a high level of quality and efficiency. OA North is an Institute for Archaeologists (IfA) registered organisation, registration number 17, and all its members of staff operate subject to the IFA Code of Conduct.

2 OBJECTIVES

2.1 The following programme has been designed to identify and record any archaeological deposits affected by the proposed development of the site, in order that they can be preserved by record. To this end, the following programme has been designed, in accordance with the NCCCT brief, to provide a watching brief. The required stages to achieve these ends are as follows:

2.2 *Archaeological Watching Brief*

To undertake a programme of observation and recording during any ground disturbance within the watching brief area specified by NCCCT, to determine the presence, quality, extent and importance of any archaeological remains on the site.

2.3 *Report and Archive*

A report will be produced for the Client within eight weeks of completion of the fieldwork. A site archive will be produced to English Heritage guidelines (1991) and in accordance with the *Guidelines for the Preparation of Excavation Archives for Long Term Storage* (UKIC 1990).

3 METHOD STATEMENT

3.1 WATCHING BRIEF

3.1.1 **Methodology:** a programme of field observation will accurately record the location, extent, and character of any surviving archaeological features and/or deposits during the ground disturbance of areas of archaeological potential, as defined by NCCCT. This work will comprise continuous observation during groundworks (including landscaping, local excavations, topsoil and subsoil stripping, the removal of any peat deposits and any other groundworks which would expose the natural drift geology), the systematic examination of any subsoil horizons exposed during the course of the groundworks, and the accurate recording of all archaeological features and horizons, and any artefacts, identified during observation. It is important that the archaeologist is given reasonable time to investigate and record archaeological remains, and that the archaeologist provides the groundworks contractor with information concerning the time required. OA North can provide additional archaeologists to speed up investigation of features, but NCCCT requires that any significant discoveries should lead to a reassessment of strategy (*Section 3.1.13*).

3.1.2 Please note that the NCCCT brief stipulates that all initial mechanical excavation must be undertaken using a toothless ditching bucket, with alternative equipment used only when the archaeologist is satisfied that no archaeological remains are present within an area. Should it be found that the groundworks do not exceed the depth of modern disturbance, or extend into natural deposits beyond the basal limit of archaeological features, then OA North will contact NCCCT to establish any requirement for, and the nature of, any continued watching brief.

3.1.3 Putative archaeological features and/or deposits identified during the observation of groundworks, together with the immediate vicinity of any such features, will be cleaned by hand, using either hoes, shovel scraping, and/or trowels depending on the subsoil conditions and, where appropriate, sections will be studied and drawn. 3.1.3 Any such features will be sample excavated (ie. selected pits and postholes will normally only be half-sectioned, linear features will be subject to no more than a 10% sample, and extensive layers will, where possible, be sampled by partial rather than complete removal).

3.1.4 During this phase of work, recording will comprise a full description and preliminary classification of features or materials revealed, and their accurate location (either on plan and/or

section, and as grid co-ordinates where appropriate). Features will be planned accurately at appropriate scales and annotated on to a large-scale plan provided by the Client (this should include current and development levels expressed as heights above Ordnance Datum (OD). An indexed photographic record utilising colour slide, monochrome print and digital imagery will be undertaken simultaneously.

- 3.1.5 A plan will be produced of the areas of groundworks showing the location and extent of the ground disturbance and one or more dimensioned sections will be produced.
- 3.1.6 **Treatment of finds:** all finds will be exposed, lifted, cleaned, conserved, marked, bagged and boxed in accordance with the United Kingdom Institute for Conservation (UKIC) *First Aid For Finds*, 1998 (new edition) and the recipient museum's guidelines.
- 3.1.7 **Treasure:** any gold and silver artefacts recovered during the course of the excavation will be removed to a safe place and reported to the local Coroner according to the procedures relating to the Treasure Act, 1996. Where removal cannot take place on the same working day as discovery, suitable security will be employed to protect the finds from theft.
- 3.1.8 All identified finds and artefacts will be retained, although certain classes of building material can sometimes be discarded after recording if an appropriate sample is retained on advice from the recipient museum's archive curator.
- 3.1.9 **Human Remains:** any human remains uncovered will be left *in situ*, covered and protected. No further investigation will continue beyond that required to establish the date and character of the burial. NCCCT and the local Coroner will be informed immediately. If removal is essential, the exhumation of any funerary remains will require the provision of a Home Office license, under section 25 of the Burial Act of 1857. The removal of human remains will be carried out with due care and sensitivity under the environmental health regulations.
- 3.1.10 **Environmental Sampling:** the following sampling strategy was established with Jacqui Huntley, the English Heritage North East Region Science Advisor, in advance of the trial-trench evaluation, and she will be consulted during the present stage of the project, as appropriate. Environmental samples (bulk samples of 40 litres volume, to be sub-sampled at a later stage) will be collected from stratified undisturbed deposits and will particularly target negative features (gullies, pits and ditches). Buried soil horizons would be sampled in section through the extraction of monolith samples. An assessment of the environmental potential of the site will be undertaken through the examination of suitable deposits by the in-house palaeoecological specialist, who will examine the potential for further analysis.
- 3.1.11 The assessment would include, where appropriate, soil pollen analysis and the retrieval of charred plant macrofossils and land molluscs from former dry-land palaeosols and cut features. In addition, samples from waterlogged deposits would be assessed for plant macrofossils, insects, molluscs and pollen. The costs for the palaeoecological assessment are defined as a contingency and will only be called into effect if suitable deposits are identified and will be subject to the agreement of NCCCT and the client.
- 3.1.12 **Faunal remains:** although it is presently thought that the soil conditions will not be particularly conducive to the preservation of bone, if there is found to be the potential for discovery of bones of fish and small mammals, it would be necessary to discuss a means of extracting a meaningful assemblage of such remains. Such works might include onsite sieving where arrangements can be made for water and for silt sumps, but might more practically be addressed through large-scale bulk sampling of suitable deposits followed by laboratory sieving. Faunal remains will be assessed as appropriate by OA North's specialist in faunal remains, and subject to the results, there may be a requirement for more detailed analysis. A contingency has been included for the assessment of such faunal remains for analysis.
- 3.1.13 **Contingency plan:** in the event of significant archaeological features being encountered during the watching brief, discussions will take place with NCCCT and a representative of the client, as to the extent of further works to be carried out. All further works to be undertaken in agreement with the client would be subject to a variation to this project design and to the

provided costs. In the event of environmental/organic deposits being present on site, it would be necessary to discuss and agree a programme of palaeoenvironmental sampling and or dating with NCCCT and the EH advisor.

3.2 REPORT AND ARCHIVE

3.2.1 **Report:** one bound and one unbound copy of a written synthetic report will be submitted to the Client and to NCCCT within two months of completion. Copies of the desk-based assessment, and interim statements on the results of the watching brief can be issued within three weeks of the completion of these elements. The report will include:

- a front cover to include the planning application number and the NGR;
- a site location plan, related to the national grid;
- the NCCCT reference, planning application number, and OASIS reference;
- the dates on which the fieldwork was undertaken;
- a concise, non-technical summary of the results;
- a description of the methodology employed, work undertaken and results obtained, including heights OD and relative to the current ground level;
- plans and sections at an appropriate scale, showing the location of features;
- other illustrations and photographic plates showing, as appropriate, features of interest or to demonstrate the absence of archaeological features;
- a description of any environmental, finds, or other specialist work undertaken, and the results obtained;
- the report will also include a complete bibliography of sources from which data has been derived;
- a copy of this project design in the appendices, and indications of any agreed departure from that design;

3.2.2 This report will be in the same basic format as this project design; a copy of the report can be provided on CD, if required.

3.2.3 **Archive:** the results of all archaeological work carried out will form the basis for a full archive to professional standards, in accordance with current English Heritage guidelines (Management of Archaeological Projects, 2nd edition, 1991). The project archive represents the collation and indexing of all the data and material gathered during the course of the project. It will include summary processing and analysis of all features, finds, or palaeoenvironmental data recovered during fieldwork, which will be catalogued by context. All artefacts will be processed to MAP2 standards and will be assessed by our in-house finds specialists.

3.2.4 The deposition of a properly ordered and indexed project archive in an appropriate repository is considered an essential and integral element of all archaeological projects by the IFA in that organisation's code of conduct. OA North conforms to best practice in the preparation of project archives for long-term storage. This archive will be provided in the English Heritage Centre for Archaeology format and a synthesis will be submitted to the Northumberland HER (the index to the archive and a copy of the report). OA North practice is to deposit the original record archive of projects with the County Record Office. The material archive (artefacts and ecofacts) will be deposited with an appropriate museum following agreement with the client.

3.2.4 **Collation of data:** the data generated will be collated and analysed in order to provide an assessment of the nature and significance of the known surface and subsurface remains within the designated area. It will also serve as a guide to the archaeological potential of the area to be investigated, and the basis for the formulation of any detailed field programme and associated sampling strategy, should these be required in the future.

3.2.6 The Arts and Humanities Data Service (AHDS) online database project Online Access to index of Archaeological Investigations (OASIS) will be completed as part of the archiving phase of the project.

3.2.7 **Confidentiality:** all internal reports to the client are designed as documents for the specific use of the client, for the particular purpose as defined in the project brief and project design, and should be treated as such. They are not suitable for publication as academic documents or otherwise without amendment or revision. Any requirement to revise or reorder the material for submission or presentation to third parties beyond the project brief and project design, or for any other explicit purpose, can be fulfilled, but will require separate discussion and funding.

3.2.8 **Publication:** a summary of the archaeological findings of the project will be prepared for 'Archaeology in Northumberland' and submitted to Liz Williams, Northumberland HER Officer, by December of the year in which the work is completed. If appropriate, and agreed with NCCCT, a publication text (submitted to and approved by NCCCT) will be prepared for inclusion within a local journal.

4. HEALTH AND SAFETY

4.1 OA North provides a Health and Safety Statement for all projects and maintains a Unit Safety policy. All site procedures are in accordance with the guidance set out in the Health and Safety Manual compiled by the Standing Conference of Archaeological Unit Managers (1997). A risk assessment will be completed in advance of any on-site works and copies will be made available on request to all interested parties.

5. WORK TIMETABLE

5.1 **Archaeological Watching Brief:** the duration of this element is dependant upon the duration of any ground disturbing activities on the site.

5.2 **Report and Archive:** an evaluation report will be submitted within eight weeks of the completion of the fieldwork. However, should an interim statement be required this can be issued within two weeks but instruction must be received from the client prior to completion of the fieldwork.

5.3 **Written Instruction:** OA North can execute projects at very short notice once written confirmation of commission has been received from the Client. NCCCT require two weeks notice in advance of the commencement of fieldwork, which is sufficient time for OA North to make all necessary arrangements for the task.

6. PROJECT MONITORING

6.1 **Access:** liaison for site access during the evaluation will be arranged with the client unless otherwise instructed prior to commencement of the archaeological investigation.

6.2 Whilst the work is undertaken for the client, the County Archaeologist will be kept fully informed of the work and its results, and will be notified a week in advance of the commencement of the fieldwork. Any proposed changes to the project design will be agreed with NCCCT in consultation with the Client.

7. STAFFING PROPOSALS

7.1 The project will be under the direct management of **Stephen Rowland** (OA North project manager) to whom all correspondence should be addressed.

7.2 All elements of the archaeological investigation will be supervised by either an OA North project officer or supervisor experienced in this type of project. Due to scheduling requirements it is not possible to provide these details at the present time. All OA North project officers and supervisors are experienced field archaeologists capable of carrying out projects of all sizes.

- 7.3 Assessment of the finds from the evaluation will be undertaken under the auspices of OA North's in-house finds specialist **Christine Howard-Davis BA MIFA** (OA North project officer). Christine has extensive knowledge of all finds of all periods from archaeological sites in northern England. However, she has specialist knowledge regarding glass, metalwork, and leather, the recording and management of waterlogged wood, and most aspects of wetland and environmental archaeology.
- 7.4 Assessment of any palaeoenvironmental samples which may be taken will be undertaken by **Elizabeth Huckerby MSc** (OA North project officer). Elizabeth has extensive knowledge of the palaeoecology of the North West through her work on the English Heritage-funded North West Wetlands Survey. Assessment of any faunal material will be undertaken by **Andrew Bates MSc** (OA North Supervisor).

8. BIBLIOGRAPHY

Institute of Field Archaeologists (IFA), 1992, *Guidelines for data collection and compilation*

SCAUM (Standing Conference of Archaeological Unit Managers), 1997, *Health and Safety Manual*, Poole

United Kingdom Institute for Conservation (UKIC), 1990, *Guidelines for the preparation of archives for long-term storage*, London

United Kingdom Institute for Conservation (UKIC), 1998, *First Aid for Finds*, London

APPENDIX 3: SUMMARY CONTEXT DESCRIPTIONS

Context	Category	Description
01	Deposit	Topsoil; dark grey/brown silt, 0.4m deep
02	Deposit	Natural geology; orange/brown sands and silty clay with moderate stone inclusions
03	Deposit	Fill of pit 05; grey/brown silt
04	Deposit	Fill of pit 05; grey silty clay with abundant coal and limestone fragments
05	Pit	Ovoid pit measuring 2.5m x 2.7m
06	Deposit	Fill of pit 08; grey/brown silt
07	Deposit	Fill of pit 08; grey silty clay with abundant coal and limestone fragments
08	Pit	Irregular-shaped pit measuring 5.9m x >5.5m
09	Deposit	Fill of pit 11; grey silty clay with abundant coal fragments
10	Deposit	Fill of pit 11; grey/brown silt
11	Pit	Oval pit measuring 3m x >1.8m
12	Deposit	Fill of pit 08; grey silty clay with abundant coal fragments
13	Deposit	Fill of pit 14; grey silty clay with abundant coal fragments
14	Pit	Small 1m-diameter pit cutting fill 15
15	Deposit	Fill of pit 16; very dark grey silt
16	Pit	Southern edge of a large pit >7m wide
17	Deposit	Fill of pit 18; fill composed of bands of silt clay, redeposited natural geology and coal-laden clay, capped by a further layer of clay
18	Pit	Pit; 1.5m wide
19	Pit	Pit; 2.2m wide and filled by grey silty clay with abundant coal fragments
20	Pit	Pit; seen in section only and filled with dark grey silty clay
21	Pit	Pit; 3m wide, and lay partially within section edge; contained brown silty sand and remnants of carpet; capped by grey clay
22	Pit	Pit; 4.5m across and contained dark, slightly organic silt
23	Pit	Oval pit; 4mx3.7m filled by dark brown slightly organic silt with limestone fragments
24	Pit	Oval pit; 3m wide and filled by dark grey clay
25	Pit	Oval pit; 3.9m wide and filled by grey silty clay with abundant coal fragments
26	Pit	Oval pit; 4.2m wide and filled by grey silty clay with abundant coal fragments. Cuts deposit 27
27	Deposit	Grey silt deposit cut by pits 26 and 27
28	Pit	Pit; seen in section only; 3.5m wide by 0.5m deep and filled by grey silty clay with abundant coal fragments
29	Pit	Oval pit; 3.6m across and filled by grey silty clay with abundant coal fragments
30	Pit	Ovoid pit; 1.8m across and filled by grey silty clay with abundant coal fragments
31	Pit	Irregular-shaped pit; 3.5m across and filled by grey silty clay with abundant coal fragments
32	Pit	Elongated pit; 4.5m across and filled by grey silty clay with abundant coal fragments
33	Pit	Oval pit; 2.9m across and filled by grey silty clay with abundant coal fragments
34	Pit?	Layer or large pit; large irregular-shaped deposit measuring 9m across and filled by grey silty clay with abundant coal fragments
35	Pit	Oval pit; 2.2m across and filled by grey silty clay with abundant coal fragments
36	Pit	Irregular-shaped pit; 3.5m across and filled by grey silty clay with abundant coal fragments
37	Pit	Oval pit; 2.9m across and filled by grey silty clay with abundant coal fragments
38	Pit	Oval pit; 3.1m across and filled by grey silty clay with abundant coal fragments