CASTLE MEWS, COACH ROAD, WHITEHAVEN
Cumbria

Archaeological Excavation Report

Oxford Archaeology North

February 2005

Thomas Armstrong (Construction) Ltd

Issue No: 2004-05/347
OA North Job No: L9484
NGR: NX 9770 1775
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SUMMARY

Oxford Archaeology North (OA North) was commissioned by Thomas Armstrong (Construction) Ltd to undertake an archaeological excavation between 27th and 31st January 2005 at Castle Mews, Coach Road, Whitehaven, Cumbria (centred NX 9770 1775). The excavation was undertaken at the request of Cumbria County Council Archaeology Service as a condition of the planning consent (Planning Application No 4/04/2413) imposed by Copeland Borough Council. The proposed development area, comprising a triangular plot of land to the south of Whitehaven Castle, covers a total area of *c*2600m².

The work followed on from an archaeological evaluation of the site comprising a desk-based assessment and evaluation trenching undertaken by OA North in November and December 2004 (OA North 2004). The results of the evaluation showed evidence of structures in the form of the remains of walls and cobbled surfaces. Within the area of impact of the proposed development was the remains of a nineteenth century riding school. Consequently, an open-area excavation was required to record the remains prior to development. It measured 10m by 10m and was positioned in the north-east of the proposed development area, and to the north of the evaluation trenches wherein the remains were uncovered.

The excavation revealed five features cut into the top of the natural subsoil comprising a shallow pit, possibly a natural hollow; two pits containing the remains of the skeletons of a cow and a pig, thought to be the deliberate depositions of farm animals during the post-medieval period; and two other small pits, one of which was possibly a posthole dated to the late nineteenth-early twentieth century. However, there was a complete absence of *in situ* structural remains pertaining to the nineteenth century riding school. This is likely to be due to truncation by a relatively recent demolished modern building which covered a large proportion of the development area in the north of the site. This was in contrast to relatively well preserved nineteenth century walls and cobbled surfaces recorded in the evaluation trenches located to the west and south of the footprint of the demolished building, but outwith the area of impact from the proposed development.

The impact on any surviving archaeological remains is considered to be low, as it appears that they have been truncated in recent years. Consequently, no further work is required. However, should there be any future proposals to develop elsewhere on the site, outside of the footprint of the recent building, where there would be a direct impact on known surviving remains seen in the evaluation, it is recommended that archaeological work would be required.

ACKNOWLEDGEMENTS

Oxford Archaeology North (OA North) would like to thank Barry Denham of Thomas Armstrong (Construction) Ltd for commissioning the project, and to Bobby Bell for his excavating skills. Thanks are also due to Jeremy Parsons, Assistant Archaeologist at Cumbria County Council Archaeology Service for his assistance with this project.

The excavation was undertaken by Mark Bagwell with the assistance of Caroline Bulcock and Nicola Gaskell. The report was written by Mark Bagwell, with the finds report produced by Jo Dawson and Andrew Bates, and the drawings produced by Mark Tidmarsh. The project was managed by Emily Mercer, who also edited the report together with Alan Lupton.

1. INTRODUCTION

1.1 CIRCUMSTANCES OF THE PROJECT

1.1.1 Cumbria County Council Archaeology Service (CCCAS) were consulted by Copeland Borough Council regarding a planning application (Planning Application Number 4/04/2413) for a residential development at Castle Mews, Coach Road, Whitehaven, Cumbria (centred NX 9770 1775; Fig 1) by Thomas Armstrong (Construction) Ltd. In response to this, CCCAS requested a desk-based assessment and evaluation trenching as the first phase of work. The results identified structural remains belonging to the nineteenth century riding school and possibly to earlier buildings shown on late eighteenth century maps. The evaluation highlighted the lack of wide-scale truncation within areas in which the trial trenches were situated, with the structures relating to those on the cartographic sources surviving relatively well.

1.1.2 Consequently, as part of the planning condition, CCCAS issued a brief for an open-area excavation to be situated within the area to be directly impacted by the development (Fig 2), in order that the effects of the development be mitigated and any archaeological remains be preserved by record. A project design was prepared by OA North in accordance with the CCCAS brief (*Appendix 2*). Following its acceptance by CCCAS and the client, OA North was commissioned to undertake the work in January 2005. This report sets out, in the form of a short document, the results of the excavation and examines the archaeological potential and significance of the excavation area.

2. BACKGROUND

2.1 LOCATION, TOPOGRAPHY AND GEOLOGY

2.1.1 The site is located within the parish of St Bees, centred on NX 9770 1775, and located *c* 200m to the south-east of the main urban centre of Whitehaven (Fig 1). It lies within a triangle formed by Flat Walks to the south-west, the access road to Castle Mews to the north, and a boundary wall to the east. The site has a total area of *c*2600m² and measures a maximum of *c*78m east/west by *c*66m north/south. The land is currently laid down to soft landscaping, with areas of brambles and undergrowth. The site is generally level at about 15m aOD.

2.1.2 The site lies within the area defined by the Countryside Commission (1998) as the West Cumbria Coastal Plain. This area is typified by its varied open coastline with localised sections of dunes, sandy beaches and sandstone cliffs (*op cit*, 25). The solid geology around Whitehaven consists of an outcrop of coal measures, but it is mainly sandstone with some shale (*op cit*, 27). The drift geology in this area comprises predominantly of boulder clay (*ibid*).

2.2 ARCHAEOLOGICAL POTENTIAL

2.2.1 A comprehensive historical and archaeological background was presented within the archaeological desk-based assessment and evaluation report (OA North 2004). The desk-based assessment showed that activity within the area around the outlined development site, as it is for the majority of Whitehaven, dates to the post-medieval period. The first written reference to Whitehaven was as a harbour in 1172 (Armstrong *et al*, 1971), suggesting earlier medieval activity. Around 1250, Robert of Hothwaite gave six acres of land, in the township of Holthwaite, to his son Gilbert. Later Gilbert and his wife Christian gave the land to St Bees priory, referring to it as 'our whole land in the flat of Holthwaite'. The reference to 'flat' is taken to indicate that this is the site on which Whitehaven Castle was later built and that this is the oldest inhabited site in the vicinity (Hay 1987, 15). However, Whitehaven was seen to be relatively insignificant during the medieval period, with a 1566 survey recording only six fisherman's cottages and a single boat (Cook 1993, 6). No remains of this date have yet been recognised within vicinity of the proposed development site (OA North 2004).

2.2.2 Following the Dissolution of the Monasteries much of St Bees' monastic land had been mortgaged to George Lowther by 1600. The Lowther family continued to accumulate land and property in Whitehaven, including the area immediately to the north of the proposed development area. This had originally been owned by Sir George Fletcher. He had built a mansion known as the Flatt on the site of the later Whitehaven Castle. The Flatt was bought by Sir John Lowther, Earl of Lonsdale, in 1675 (Pevsner 1967), but it was later destroyed following a fire. As a replacement Sir James Lowther built Whitehaven Castle, which appeared in its present form by 1769. Cartographic sources showed the castle developed, with a number of buildings built in the

mid eighteenth century. These were altered in various forms and demolished and rebuilt through the next two centuries (OA North 2004).

2.2.3 By the nineteenth century, the powerful and influential Lowther family had ensued a deliberate policy of industrialisation for Whitehaven. This led to the development of several industrial sites, including a copperas works, a glass factory, a bone and manure works, a brewery, a steam mill, a pottery, a thread factory, and three sawmills (*ibid*). These sites were developed, probably deliberately, away from Whitehaven Castle. More than 200 years after the Lowthers had initially purchased the castle, the large wall around the castle and grounds was removed, finally opening up the park to the people of Whitehaven (Anon n.d.). In 1924, the Earl of Lonsdale sold the Castle and funded its conversion into an infirmary. The castle infirmary and the West Cumberland Hospital, which opened in 1964, co-existed until 1986, when the infirmary finally closed to its patients. Today, following extensive renovation, the castle in Whitehaven has been converted into private accommodation (*ibid*).

2.2.4 The evaluation trenches (Fig 2) investigated the structures identified from cartographic sources associated with the castle; all revealed the remains of cobbled surfaces, whilst two of them (Trenches 1 and 3) also revealed evidence of walls (OA North 2004). Most of the cobbled surfaces exposed appear to be paths running alongside yellow sandstone walls, although a substantial courtyard was identified within Trench 2. Although this surface was undated, it is thought to be part of the riding school exercise area (*ibid*). Trench 1 revealed evidence of the buildings shown along the northern edge of the development area on the Ordnance Survey (OS) 1st edition map (1865). Trench 3 showed walls that are likely to be part of the building situated immediately to the south of the riding school as seen on the OS 1st edition (1865). Although there is a possibility that they may belong to a previous building demolished between 1815 and 1830 (OA North 2004; Cadell and Davies 1815; Wood 1830).

3. METHODOLOGY

3.1 PROJECT DESIGN

3.1.1 A project design (*Appendix 2*) was submitted by OA North in response to a request from Thomas Armstrong (Construction) Ltd for an archaeological excavation. This was in response to a project brief issued by CCCAS (*Appendix 1*) following the results of an archaeological evaluation undertaken in 2004 (OA North 2004). Following the acceptance of the project design by CCCAS, OA North was commissioned to undertake the work.

3.1.2 The excavation followed the method statement detailed in the project design and complied in full with current legislation and accepted best practice, including the Code of Conduct and the relevant professional standards of the Institute of Field Archaeologists. However, due to the lack of archaeological features and deposits recovered a post-excavation assessment was not required as detailed in the proposals (*Appendix 2*) and in agreement with CCCAS.

3.2 OPEN AREA EXCAVATION

3.2.1 An area measuring 10m x 10m was required by CCCAS within the area of impact by the development (Fig 2). The topsoil and overburden was reduced in successive level spits by a machine fitted with a toothless ditching bucket, working under constant archaeological supervision. This proceeded to the surface of the first significant archaeological deposit, or upper surface of the natural subsoil, depending on the deposits that were revealed. Deposits were cleaned by hand and inspected for archaeological features. All features of archaeological interest were investigated and recorded. The excavation was in a stratigraphical manner, whether by machine or by hand. The excavation area was located by use of manual survey techniques

3.2.2 All investigation of intact archaeological deposits was exclusively manual. Selected pits and postholes were half-sectioned and recorded prior to being completely excavated for finds retrieval. Linear features were subject to no more than a 20% by volume controlled stratigraphic excavation, and extensive layers were, where possible, sampled by partial rather than complete removal. In terms of the vertical stratigraphy, maximum information retrieval was achieved through the examination of sections of cut features.

3.2.3 All information identified in the course of the site works was recorded stratigraphically by means of OA North's standard context recording system, based on that used by the Centre for Archaeology Service of English Heritage. Context record, photographic record and object record *pro-forma* sheets and supporting registers and indices were utilised. A photographic record in colour transparency (slides), colour print and monochrome formats was compiled. All features were planned by hand at a scale of 1:20 and sections of individual features were drawn separately at a scale of 1:10. The levels of all features and deposits were established from a bench mark with a value of 14.86m OD.

3.3 ARCHIVE

3.3.1 A full professional archive has been compiled in accordance with the project design (*Appendix 2*), and in accordance with current IFA and English Heritage guidelines (English Heritage 1991). The paper and digital archive will be deposited in Whitehaven Record Office on completion of the project.

4. EXCAVATION RESULTS

4.1 INTRODUCTION

4.1.1 The evaluation trenches (Fig 2), positioned towards the west and south of the site, had revealed significant post-medieval remains comprising sandstone walls and associated cobbled surfaces of former yards and paths, possibly belonging to the nineteenth century riding school (OA North 2004).

4.1.2 The results of the evaluation led to the need to mitigate these archaeological remains. This was undertaken by open-area excavation which was positioned towards the north-east corner of the site (Fig 2) situated within the footprint of the proposed development. It comprised a square area measuring 10m east/west by 10m north/south, excavated to a depth below-ground level of between 0.53m in the east of the area and 0.78m in the west of the area. The summary results of the excavation are presented below with the context list reproduced in *Appendix 3*.

4.2 RESULTS OF OPEN-AREA EXCAVATION

4.2.1 Natural subsoil deposits were revealed in the base of the excavation area. These comprised a deposit of light grey clay, ***116***, with *c*10% shale fragments, overlaid by a deposit of mid-brownish orange sandy-clay subsoil, ***115***, with *c*5% shale fragments, sloping east/west with a depth of 0.3m. These were cut by a possible natural feature, ***110***, and four features of probable post-medieval date, ***104***, ***106***, ***108***, and ***112*** (Fig 3).

4.2.2 A shallow oval-shaped east/west aligned feature, ***110***, was revealed in the south-west of the area. It measured 1.60m in length by 1m wide surviving to a depth of 0.12m, with gently sloping sides and a gently rounded undulating base. The feature was filled with brownish-orange silty-clay, ***109***, which, in contrast to other features, was very similar in appearance to the surrounding natural subsoil suggesting it may have been filled with naturally eroded subsoil deposits from the sides of the feature. No dating evidence was recovered during its excavation.

4.2.3 To the east of feature ***110***, was a small sub-oval pit, ***106***, with a rounded profile. It measured 0.40m north-east by 0.30m in width by 0.10m in depth, and filled with dark grey friable silty-clay, ***105***, with up to *c*50% small shale fragments.

4.2.4 Situated along the southern limits of the area was Pit ***104*** (Figs 3 and 4). Only the northern part of the feature was visible within the excavation area suggesting a north/south orientation, with a width of 1.30m by 0.45m deep. The pit had vertical edges with a flat base and was filled with brown-grey sandy-clay, ***103***, with *c*10% shale fragments. Excavation revealed several cattle teeth and fragments of fairly well-preserved jaw bones. To its west, a

smaller oval pit, ***108***, measuring 0.60m north-east/south-west by 0.38m, was excavated to a depth of 0.10m. At the base of its fill, ***107***, comprising brown sandy-clay, the faint remains of poorly preserved bones were revealed, with only a small number in a recoverable condition. The animal bone assemblages from the two pits suggests deliberate deposition. However, no datable finds were recovered from either of the features.

4.2.5 A sub-square cut, ***112***, with vertical sides and a flat base, measuring 0.71m by 0.60m with a depth of 0.14m, was recorded in the north of the excavation area. Its shape and profile suggested it was either a small pit or possibly the base of a posthole. Its fill, ***111***, comprising grey silty-clay with *c*30% shale fragments, produced late nineteenth-late twentieth century finds including a piece of pavier, a fragment of floor tile and a piece of window glass.

4.2.6 The features were sealed by a 0.40m thick layer of modern made-ground, ***101***, covering the whole excavation area (Fig 4), comprising greyish dark brown sandy-clay and crushed concrete. The deposit contained a large amount of *ex situ* broken concrete slabs and occasional large rounded cobble stones.

4.2.7 The concrete footings, ***102***, of a modern building was laid upon make-up deposit ***101***. This structure comprised an east/west concrete ground beam with a width of 1.2m and a depth of 0.20m, which ran across the centre of the excavation area (Fig 3). Two brick-built manholes with concrete capping slabs were situated along its external southern edge at its east and west ends. To its north, a north-west/south-east aligned ceramic drain, ***113***, within a vertical-sided linear trench, ***114***, cut through deposit ***101***.

4.2.8 The modern concrete structure and made-ground were sealed by 0.30m thick dark grey-black topsoil, ***100***.

4.3 THE FINDS

4.3.1 ***Introduction:*** in total, 93 ecofacts and artefacts were recovered from the excavation, the majority of which was fragments of animal bone, with window glass and ceramic building material present in much smaller quantities. The animal bones were recovered from pit fills ***103*** and ***107*** and the building rubble from pit or post-hole fill ***111***. The finds are summarised in Table 1, below, and listed in *Appendix 4*.

	103	***107***	***111***	***Total***
Animal bone	77	13	0	*90*
Ceramic building material	0	0	2	*2*
Window glass	0	0	1	*1*
Total	*77*	*13*	*3*	***93***

Table 1: Type of finds from different contexts

4.3.2 ***Animal bone:*** analysis of the animal bone from pit fill ***103*** has shown it to contain the bones of cattle from more than one individual. There appears to be no evidence to suggest that this was a burial rather than a waste pit for butchery debris. In addition, in the absence of any artefacts, it is not possible to date the feature.

4.3.3 The bone from pit fill ***107*** was identified as originating from both medium and large sized animals, but was not identifiable to species. As with pit fill ***103***, this is not obviously a burial and remains undated.

4.3.4 ***Building material:*** the tile was dated to the nineteenth to twentieth century, and the textured glass window pane fragment to the twentieth century. The block pavior was dated to the mid-late twentieth century.

4.3.5 ***Conclusion:*** the total lack of artefacts means that pit fills ***103*** and ***107*** remain completely undated, and it is therefore not possible to assess the significance of the features. Pit fill ***111*** can be dated to the twentieth century from the building material it contained, and is of little archaeological value.

5. CONCLUSION

5.1 DISCUSSION OF RESULTS

5.1.1 The main aim of the excavation was the recovery of evidence of the nineteenth century riding school identified in the previous evaluation (OA North 2004). The excavation area was positioned within the footprint of the proposed building where there would be direct impact on potential archaeological remains associated with the eastern end of the riding school.

5.1.2 Natural subsoil was revealed in the base of the excavation area, cut by a total of five features, only one of which produced datable finds. Feature ***110*** was very ephemeral and filled with redeposited natural subsoil with an absence of anthropogenic material, suggesting it may have been a natural feature such as a tree throw or a natural hollow. Two undated features contained animal bones; cattle jaw fragments and teeth recovered from the northern end of a pit, ***104***, that continued south beyond the excavation area, and the decayed remains of an unidentified animal in the base of Pit ***108***. Although it is difficult to suggest any origin or function where there is a lack of any accompanying finds, one interpretation of these features is a deliberate deposition of waste material within the pits.

5.1.3 Pit ***112*** contained datable nineteenth-twentieth century finds, one of which was a late twentieth century pavier suggesting it is likely to be associated with the recently demolished building. However, the nineteenth century glass fragment may relate to the remains of the riding school. The profile of Pit ***112*** was suggestive of a posthole, but there were no other structural features identified within the excavation area.

5.1.4 The modern made-ground, ***101***, sealing the features was probably a make-up deposit for the concrete footings of the relatively recent demolished building, ***102***, shown on the 2002 electricity service plan (OA North 2004) as an east/west rectangular structure. Several large residual water worn cobbles were retrieved from ***101***, similar to those that were used in the construction of nineteenth century riding school surfaces found in the evaluation trenches, suggests there may have been similar cobbled surfaces in the vicinity of the excavation area. However, the total absence of any *in situ* structural remains pertaining to the riding school within the limits of the excavation area, suggests that it was obliterated as a consequence of the construction of the modern building and its subsequent demolition. Where *in situ* structures were revealed within the evaluation trenches, these were sufficiently outwith the impact of the previous building not to have been affected.

6. IMPACT AND RECOMMENDATIONS

6.1 IMPACT

6.1.1 The excavation revealed that any structures relating to the riding school that may have been located within the vicinity of the modern building have already been extensively disturbed. It is unlikely that anything like the level of preservation of structures revealed in the evaluation trenches, mainly located outside the proposed development area, would have survived. Since much of the area of the development is taken up by the footprint of the recently demolished modern building, the excavation suggests much of the development area may have little potential for the recovery of further information pertaining to the nineteenth century riding school or earlier buildings.

6.2 RECOMMENDATIONS

6.2.1 The features revealed in the base of the excavation area were not considered significant enough to merit further fieldwork. Any additional work, therefore, within the development area is likely to produce negligible results. However, if further development expands into areas outside the present building footprint and, similarly, the recently demolished building footprint, the archaeological resource revealed in the evaluation trenches less than 1m below ground level may be severely impacted upon. This is likely to necessitate further investigation.

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8. ILLUSTRATIONS

8.1 FIGURES

Figure 1: Location Map

Figure 2: Location plan of the open-area excavation in relation to the evaluation trenches

Figure 3: Plan of open-area excavation

Figure 4: North-facing section of the excavation area

8.2 PLATES

Plate 1: North-facing view across site, with fenced excavation area in the north-east

Plate 2: Southern half of excavation area looking east, with concrete ground beam structure, ***102***, to the north

Plate 3: Northern half of excavation area, looking east

Plate 4: Plate 4: Feature ***110***, looking west

Plate 5: Plate 5: Northern end of pit ***104***, looking south

Plate 6: Plate 6: Feature ***112***, looking west

APPENDIX 1: PROJECT BRIEF

APPENDIX 2: PROJECT DESIGN

1 INTRODUCTION

1.1 PROJECT BACKGROUND

1.1.1 Thomas Armstrong (Construction) Ltd (hereafter the 'client') has requested that Oxford Archaeology North (OA North) submit proposals for an archaeological excavation at Castle Mews, Coach Road, Whitehaven (NX 9770 1775) prior to residential development commencing (planning application ref: 4/04/2413). This is in response to the issue of a brief for an archaeological excavation by Cumbria County Council Archaeology Service (CCCAS) following the results of a desk-based assessment and evaluation undertaken in November and December 2004 (OA North 2004). Structural remains probably belonging to the nineteenth century riding school were revealed during the evaluation, which will be directly impacted by the development.

1.1.2 Consequently, as part of the planning condition, an open area excavation is required to mitigate the effects of the development by preserving the archaeological remains by record. This project design has been prepared to this effect in accordance with the CCCAS brief.

1.2 OXFORD ARCHAEOLOGY NORTH (OA NORTH)

1.2.1 OA North has the professional expertise and resources to undertake the excavation to a high level of quality and efficiency. OA North is an Institute of Field Archaeologists **(IFA) registered organisation, registration number 17**, and all its members of staff operate subject to the IFA Code of Conduct.

1.3 ARCHIVE DEPOSITION

1.3.1 The results of the excavation will form the basis of a full archive to professional standards, in accordance with current English Heritage guidelines (*The Management of Archaeological Projects, 2nd edition, 1991*) and the *Guidelines for the Preparation of Excavation Archives for Long Term Storage* (UKIC 1990). The project archive represents the collation and indexing of all the data and material gathered during the course of the project. 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.

1.3.2 The paper archive for the archaeological work undertaken at the site should be deposited with the County Record Office and the finds with an appropriate museum.

1.3.3 A synthesis (in the form of the index to the archive and a copy of the publication report) will be deposited with the County Sites and Monuments Record, and a copy will also be offered to the NMR.

2 AIMS AND OBJECTIVES

2.1 ACADEMIC AIMS

2.1.1 The main research aim of the excavation, given the commercial nature of the development, will be to characterise and preserve by record the archaeological remains on the site to be impacted upon by the development. This can be used to inform wider research frameworks.

2.1.2 The information will be used to reconstruct a history of the site and its use, in addition to that identified from desk-based research (OA North 2004). It can also contribute to an understanding of nineteenth century recreational activities, in this case horse riding, of which there is usually little historical record.

2.2 OBJECTIVE

2.2.1 The following programme has been designed to provide for accurate recording of any archaeological deposits that may be encountered.

2.2.2 ***Open Area Excavation:*** an excavation of an area 10m x 10m will be undertaken in an area of archaeological potential to be directly impacted by the development to investigate the building remains located and reveal the extent of the known archaeological remains identified during the evaluation.

2.2.3 ***Post-Excavation (MAP2) Assessment:*** the site records, finds and any samples from the excavation programme outlined below will form a checked and ordered site archive as outlined in the English Heritage guideline document *Management of Archaeological Projects* (2nd edition, 1991b) (hereafter MAP 2). Following compilation of the project archive a report will be produced assessing the potential of the archive (including the paper archive, the finds archive and any palaeoenvironmental samples that are taken) for further analysis as defined in MAP 2 Appendix 4. This post-excavation assessment report will make recommendations for further analysis and publication of the results, as appropriate.

3 METHODS STATEMENT

3.1 The following work programme is submitted in line with the aims and objectives summarised above.

3.2 OPEN AREA EXCAVATION

3.2.1 An area measuring 10m x 10m has been outlined by CCCAS for open area excavation. This corresponds with an area of archaeological potential identified during the desk-based assessment and evaluation (OA North 2004) to be directly impacted by the development.

3.2.2 However, any discrete features uncovered during the excavation that extend outside of the area outlined may be recommended for further investigation by CCCAS during monitoring of the fieldwork. Should this be necessary a variation cost will be agreed with the client. Cut features identified against the edges of the excavation will not be excavated below the safe working limit of 1.2m unless it is confirmed by CCCAS in consultation with the Client that they are of exceptional importance. In such cases, if shoring is required then this will be provided by the Client.

3.2.3 Excavation of the uppermost levels of modern (twentieth century) overburden will be undertaken in successive, level spits, by a machine fitted with a toothless ditching under the supervision of a suitably experienced archaeologist.

3.2.4 The whole 10m x 10m area will then be hand cleaned to define the archaeological features and a base plan produced. Any features identified will then be manually excavated through to natural deposits.

3.2.5 Pits and postholes will initially be subject to a 50% by volume controlled stratigraphic excavation, with the remainder of the feature to be removed in entirety if further information can be gained. The sampling percentage will not be limited to resource availability.

3.2.6 Linear cut features, such as ditches and gullies, will initially be subject to a 20% by volume controlled stratigraphic excavation, with the excavation concentrating on any terminals and intersections with other features which would provide important stratigraphic information. As with pits and postholes, should it prove necessary to remove the remainder of the feature to expose underlying features and/or deposits, it will be excavated rapidly keeping only that dating evidence which is securely derived from the feature in question.

3.2.7 If features/deposits are revealed which need to be removed and which are suitable for machine excavation, such as large scale dump deposits or substantial linear cut features, then they would be sample excavated to confirm their homogeneity before being removed by machine.

3.2.8 Structural remains will be excavated manually to define their extent, nature, form and, where possible, date. Any hearths and/or internal features will be 100% sample excavated to provide information on their date and function, and the extent of any associated floor surfaces will be determined.

3.2.9 Should any particularly deep-cut feature, such as a well pit, be revealed this will be manually excavated to 1.2m. Thereafter, if CCCAS wishes to see the further excavation of any such feature, this could be achieved by reducing the general area of the feature (ie. a 1m 'cordon' around the feature) using a machine to allow further safe manual excavation. It should be noted, however, that recourse to such a methodology would incur additional costs which would be derived from the contingency sum outlined at the end of this document.

3.2.10 All information identified in the course of the site works will be recorded stratigraphically, using a system adapted from that used by the Centre for Archaeology Service of English Heritage and in accordance with IFA guidelines. From this a complete stratigraphic sequence can be compiled.

3.2.11 A complete pictorial record, including plans and sections (at an appropriate scale of 1:20 and 1:10), and both monochrome contacts and colour slides, will be maintained to identify and illustrate individual features. The results will be recorded on *pro forma* context sheets. Primary records will be available for inspection at all times.

3.2.12 All artefacts and ecofacts will be recorded using the same system, and, following on-site processing, will be handled and stored according to standard practice (following current Institute of Field Archaeologists guidelines) in order to minimise deterioration.

3.2.13 The position of the excavation will be recorded using a Total Station. The information will be tied in to OD.

3.2.14 ***Environmental Sampling:*** environmental samples (bulk samples of 30 litres volume, to be sub-sampled at a later stage) will be collected from suitable deposits (i.e. the deposits are reasonably well dated and are from contexts the derivation of which can be understood with a degree of confidence). Where such deposits are encountered, an appropriate sampling strategy in accordance with English Heritage Guidelines for Environmental Archaeology (2002) will be agreed with CCCAS and the English Heritage Regional Science Advisor. It may also be necessary for the OA North palaeoenvironmentalist to attend site to advise on appropriate sampling of specific features. This will be costed as a contingency.

3.2.15 Samples will also be collected for technological, pedological and chronological analysis as appropriate. If necessary, access to conservation advice and facilities can be made available. OA North maintains close relationships with Ancient Monuments Laboratory staff at the Universities of Durham and York and, in addition, employs artefact and palaeoecology specialists with considerable expertise in the investigation, excavation and finds management of sites of all periods and types, who are readily available for consultation.

3.2.16 ***Human remains:*** the results of the recent evaluation did not locate any evidence of human remains on the site. However, should evidence of burials be identified, the 1857 Burial Act would apply and a Home Office Licence would be sought. This would involve all work ceasing until the proper authorities were satisfied before the burials are able to be removed. In normal circumstances, field recording will also include a continual process of analysis, evaluation, and interpretation of the data, in order to establish the necessity for any further more detailed recording that may prove essential. The grave cut and/or coffin and contents will be recorded in plan at 1:20. Significant details of any grave goods, should they be discovered, will be planned at 1:10. Photography will be used to provide a further detailed record of the skeleton. The removal of such remains will be carried out with due care and sensitivity.

3.2.17 ***Treasure Act:*** 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.

3.3 POST-EXCAVATION ASSESSMENT

3.3.1 Following completion of the fieldwork, the results will be collated and the site archive completed in accordance with English Heritage MAP 2, Appendix 3. A post-excavation assessment of the archive and the resource implications of the potential further analysis will be undertaken. The stratigraphic data and the finds assemblage will be quantified and assessed, and the environmental samples processed and a brief assessment of their potential for further analysis made.

3.3.2 The assessment results will be presented within a post-excavation assessment report which will make recommendations for a schedule, timescale and programme of analysis in accordance with MAP2 Appendix 4.

3.4 ANALYSIS

3.4.1 A provisional programme of post-excavation analysis is anticipated. The extent of the programme, however, can only be reliably established on completion of the post-excavation-assessment report (see *Section 3.3* above). The costings document, below, covers the estimated costs of the analysis. The proposed programme anticipates both analysis of the site stratigraphy and the artefactual/ecofactual evidence leading to the production of a final report. This will be completed within two years of the fieldwork.

3.5 PUBLICATION

3.5.1 It is anticipated that the results of the excavation will be worthy of publication. If possible, the publication text will be prepared in a suitable form for inclusion either as a journal article in the *Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society* or as part of a larger monograph on the recent excavations in Kendal, for which OA North are currently seeking funding from English Heritage.

3.6 OTHER MATTERS

3.6.1 ***Access:*** access to the site will be arranged by the client.

3.6.2 The excavation area must be protected from public access by hoarding/fencing (provided by the client).

3.6.3 ***Reinstatement:*** the areas excavated will be backfilled with the spoil for practical and health and safety reasons but no reinstatement of the area will be undertaken. Removal of any excess spoil from the site on completion of the excavation will be the responsibility of the client.

3.6.4 On-site accommodation, in the form of an office space/messing facility, a tool store, and a portable toilet with hand washing facilities will be provided and located adjacent to the excavation.

3.7 HEALTH AND SAFETY

3.7.1 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 (1991). A risk assessment will be completed in advance of any on-site works.

3.7.2 Prior to the fieldwork commencing the client is asked to provide plans or information relating to the position of live underground utilities or cables on the site. OA North will also use a Cable Avoidance Tool (CAT) in advance of any machine excavation. It is assumed that the client will also supply any information regarding areas of contamination or other health and safety issues prior to commencement of the site work.

4 PROJECT MONITORING

4.1 CCCAS requires at least one week's notice prior to commencement of the excavation and will monitor the project on behalf of the local planning authority.

4.2 OA North will ensure that any significant results are brought to the attention of the client and CCCAS as soon as is practically possible.

5 RESOURCES AND PROGRAMMING

5.1 STAFF PROPOSALS

5.1.1 The project will be under the direct management of **Emily Mercer BA (Hons) MSc AIFA** (OA North Senior Project Manager) to whom all correspondence should be addressed.

5.1.2 The excavation will be directed by **Mark Bagwell** (OA North project officer). Mark is an experienced field archaeologist who has undertaken supervision of numerous small- and large-scale evaluation and excavation projects.

5.1.3 Mark will be assisted by a team of two archaeological assistants.

5.1.4 The processing and analysis of any palaeoenvironmental samples will be carried out under the auspices of **Elizabeth Huckerby BA, MSc** (OA North project officer), who has extensive experience of the palaeoecology of the North West, having been one of the principal palaeoenvironmentalists in the English Heritage-funded North West Wetlands Survey.

5.1.5 Assessment of the finds from the evaluation will be undertaken under the auspices of OA North's in-house finds specialist **Chris Howard-Davis** (OA North project officer). Chris acts as OA North's in-house finds specialist and has extensive knowledge of all finds of all periods from archaeological sites in northern England.

5.2 PROGRAMMING

5.2.1 ***Excavation:*** initially a ten day period is required to carry out the excavation. However, any discrete features extending beyond the area agreed for excavation may require investigation, which may extend the duration required for the fieldwork. This will occur in consultation with the client and CCCAS, and will be costed as a variation.

5.2.2 ***Interim report document:*** an interim report on the findings from the excavation can be made available to the client and CCCAS in order to ensure that the required fieldwork is fulfilled and being completed in accordance with the planning conditions. This will be forwarded to CCCAS and the client within one working week.

5.2.3 ***Post Excavation Assessment:*** in accordance with the CCCAS brief, a post-excavation assessment will be undertaken within six months of completion of the fieldwork. This will present the scope of the post-excavation analysis required, a timetable and cost.

5.2.4 A revised project design will also be submitted for the post-excavation detailed analysis which will be implemented through to archive report and publication within two years of the completion of the fieldwork.

6 INSURANCE

6.1 OA North has a professional indemnity cover to a value of £2,000,000; proof of which can be supplied as required.

BIBLIOGRAPHY

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

English Heritage 2002 *Environmental Archaeology. A guide to the theory and practice of methods, from sampling and recovery to post-excavation,* London

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

OA North, 2004 *Castle Mews, Coach Road, Whitehaven, Cumbria; Archaeological Desk-based Assessment and Evaluation* unpubl client rep

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

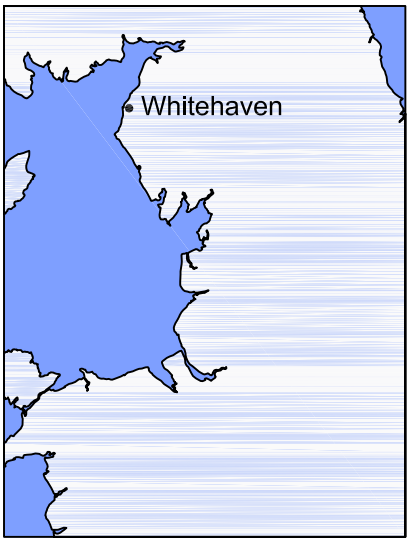
APPENDIX 3: CONTEXT LIST

Context Number	**Trench/ Area**	**Description**
100	Excavation	Topsoil
101	Excavation	Modern made-ground
102	Excavation	Concrete footings for modern building
103	Excavation	Fill of ***104***
104	Excavation	Pit cut
105	Excavation	Fill of ***106***
106	Excavation	Pit cut
107	Excavation	Fill of ***108***
108	Excavation	Pit cut
109	Excavation	Fill of ***110***
110	Excavation	Pit/natural hollow
111	Excavation	Fill of ***112***
112	Excavation	Post-medieval pit or posthole
113	Excavation	Drain pipe and backfill within ***114***
114	Excavation	Cut of linear drainage trench
115	Excavation	Natural subsoil
116	Excavation	Natural subsoil

APPENDIX 4: FINDS SUMMARY

Context	Quantity	Category	Description	Date range
103	2	Animal bone	Cow mandibles of same adult individual	Not closely dateable
103	2	Animal bone	Cow maxillary tooth rows of one individual	Not closely dateable
103	1	Animal bone	Cow maxillary molar	Not closely dateable
103	1	Animal bone	Cow mandible, probably from one of the above	Not closely dateable
103	7	Animal bone	Large mammal mandible fragments, probably from above	Not closely dateable
103	1	Animal bone	Cow axis	Not closely dateable
103	3	Animal bone	Cow maxillary premolars	Not closely dateable
103	4	Animal bone	Cow manibular premolars	Not closely dateable
103	2	Animal bone	Cow incisors	Not closely dateable
103	1	Animal bone	Cow/red deer occipital condyle (skull fragment)	Not closely dateable
103	4	Animal bone	Large mammal skull fragments	Not closely dateable
103	17	Animal bone	Large mammal fragments	Not closely dateable
103	32	Animal bone	Unidentified fragments	Not closely dateable
107	1	Animal bone	Medium mammal humerus fragment	Not closely dateable
107	7	Animal bone	Medium mammal indeterminate fragments	Not closely dateable
107	2	Animal bone	Large mammal indeterminate	Not closely dateable
107	2	Animal bone	Large mammal sternum fragments	Not closely dateable

107	1	Animal bone	Medium mammal distal vertebra epiphisis fragment	Not closely dateable
111	1	Glass	Textured window pane fragment	Twentieth century
111	1	Ceramic building material	Tile with mortar attached	Nineteenth - twentieth century
111	1	Ceramic building material	Block pavior with mortar attached	Mid-late twentieth century



Site

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based upon the Ordnance Survey 1:10000
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Figure 1: Location Map

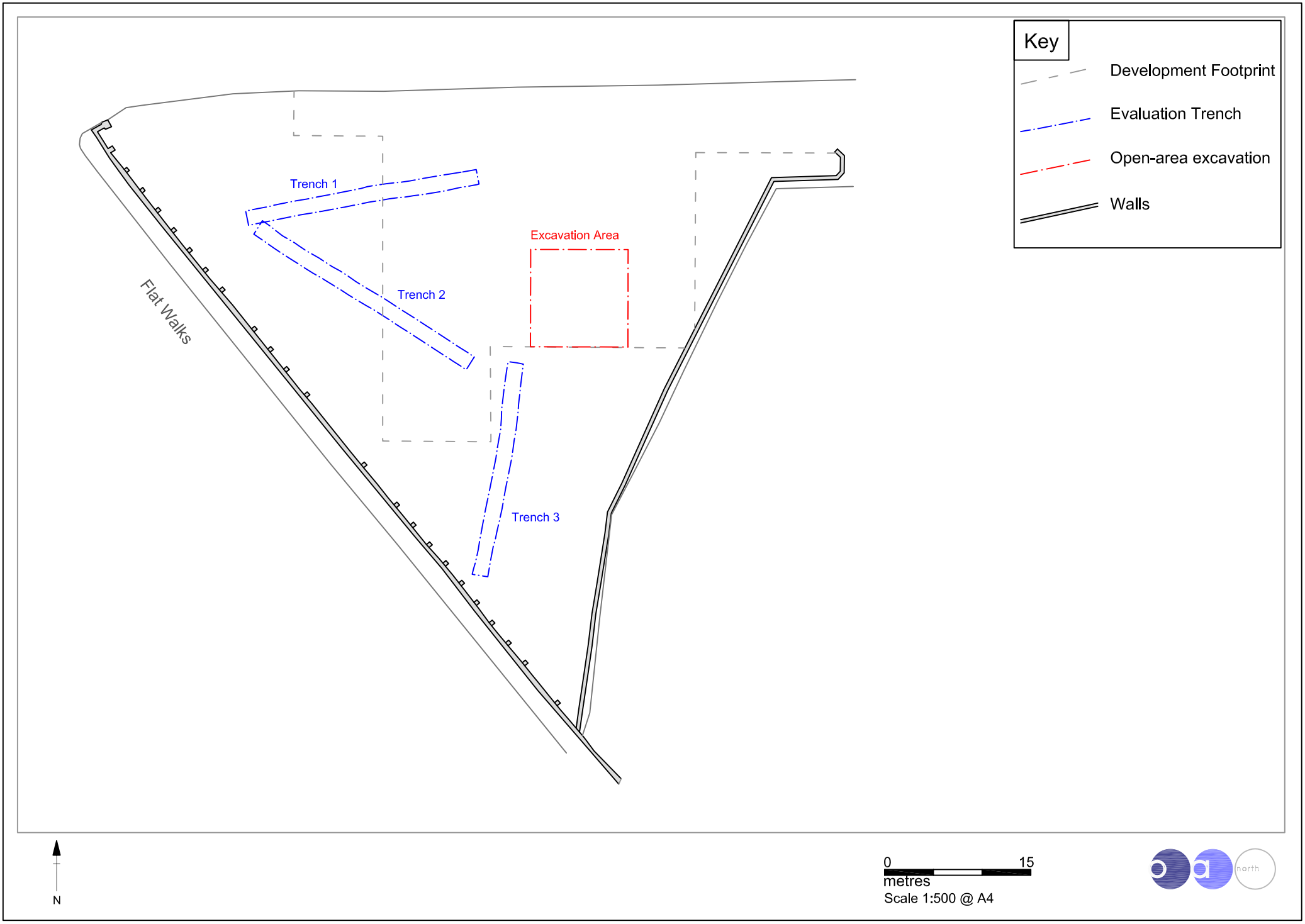

Figure 2: Location plan of open-area excavation in relation to evaluation trenches

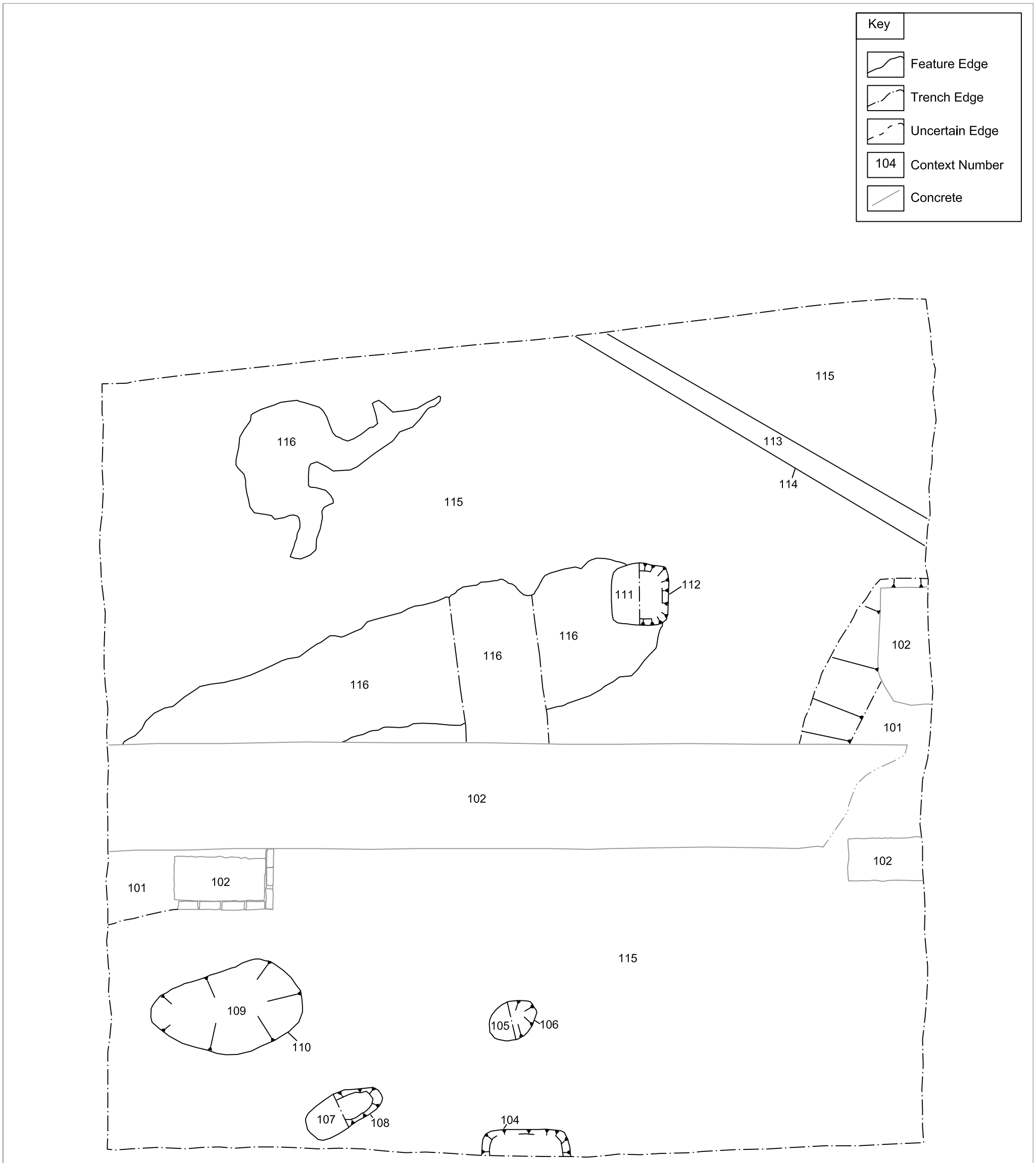

Figure 3: Plan of the open-area excavation

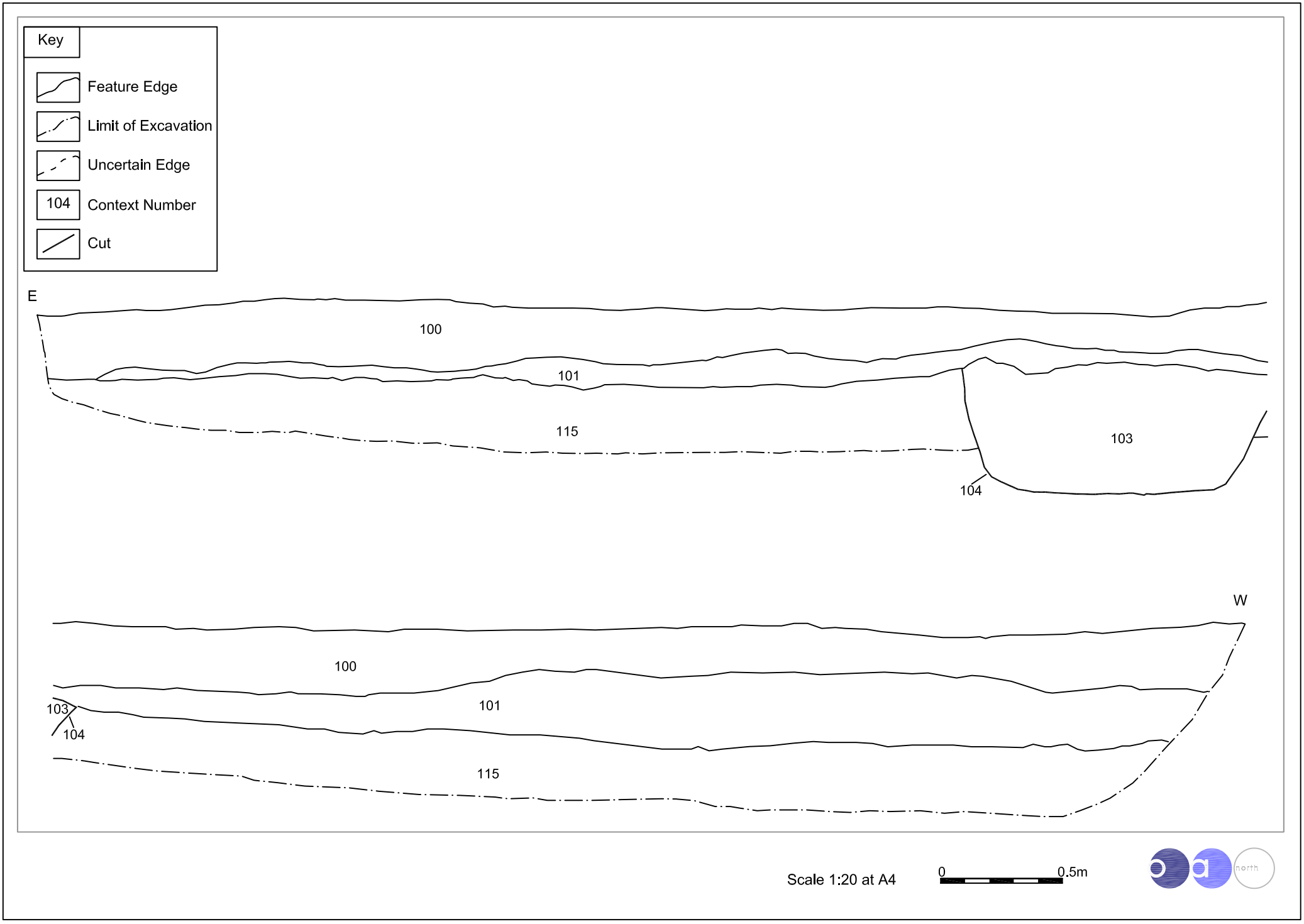

Figure 4: North-facing section of the excavation area

Plate 1: North-facing view across site, with fenced excavation area in the north-east

Plate 2: Southern half of excavation area looking east, with concrete ground beam structure, ***102***, to the north

Plate 3: Northern half of excavation area, looking east

Plate 4: Feature ***110***, looking west

Plate 5: Northern end of pit ***104***, looking south

Plate 6: Feature ***112***, looking west