

AD064

**LTCP Extension,  
Newcastle International Airport,  
Newcastle upon Tyne**

**Archaeological Evaluation**



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## EXECUTIVE SUMMARY

*AD Archaeology Ltd was commissioned by Newcastle International Airport to undertake an archaeological trenching evaluation in advance of a proposed development of the site as an extension of the existing long term car park.*

*Other than sub-surface remains of ridge and furrow, no features of archaeological significance were identified within any of the trenches and it is therefore recommended that no further archaeological mitigation is required prior to any proposed development within the site.*

*It was suggested in the geophysical survey report (AD Archaeology 2014b) that an earlier wider system of ridge and furrow, characterised as broad rigg (commonly of medieval origin) has been subsumed at least in the western portion of the field by latter narrow rigg of likely post-medieval date. The evaluation has demonstrated that the spacing or wavelength between furrows within the eastern end of the field was up to 9.5m (trench 6) and of the broad rigg type. In contrast, the furrows in the central and western portion of the field mainly measured between 4.5-5.4m (trenches 8, 10 and 14); although some wider spaced furrows in the central area (trench 11) may represent a remnant of an underlying earlier broad rigg system.*

*Trench 4 formed a transect across the two types of furrows. A gully (405) which ran along the base of a furrow in the eastern end of the trench perhaps marked a boundary along the edge of a broad rigg system. To the east of this line in trench 4, the furrows were more narrowly spaced.*

## **1 INTRODUCTION**

### **1.1 The Project**

1.1.1 AD Archaeology Limited was commissioned by Newcastle International Airport to carry out an archaeological evaluation in advance of a proposed development of the site as an extension of the existing long term car park. This evaluation follows an earlier Desk-Based Archaeological Assessment (AD Archaeology 2014a) and Geophysical Survey (AD Archaeology 2014b).

1.1.2 The evaluation, consisting of 14 trenches, was carried out in June 2014.

### **1.2 Location, Land-use and Geology (Figs 1, 2)**

1.2.1 The site, centred at NGR NZ 182 717, consists of one field that as defined on figures 1 and 2 occupies a total area of 4.05ha.

1.2.2 The bedrock geology of the site comprises Pennine Lower Coal Measures Formation mudstone, siltstone and sandstone. Sedimentary bedrock formed approximately 312 to 313 million years ago in the Carboniferous Period. Overlain by superficial deposits of Devensian glacial till formed up to 2 million years ago in the Quaternary Period (BGS 2014)

1.2.3 The site lies to the east of the A696, north-east of the main terminal and buildings of the Newcastle International Airport and immediately west of the existing long term car park.

## **2 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND (Fig 1)**

2.1 Widespread archaeological evidence of later prehistoric settlement across the Northumberland Coastal plain is indicative of a relatively high density of occupation during this period (Hodgson, McKelvey and Muncaster 2013). Many of these sites are characterised by enclosed settlements, rectilinear in plan, that were typically established in the period around 200 BC (Hodgson et al. 2013, 189). These form a vital component of a settlement pattern with a long and complex development prior to this period with evidence of occupation at some sites from as early as the late Bronze Age.

2.2 There is no direct evidence for prehistoric activity on the site, with the nearest site being a cropmark of an enclosure at Prestwick 940m north of the site and a double-ditched enclosure at Prestwick Whins 1.3km north-east of the site.

2.3 During the medieval period the site formed part of the township of Woosington. The exact location of the deserted medieval village of Woosington is unknown, although Woosington Hall which dates to the late 17th century (1.7km south-east of the development area) may occupy its site. Tyne and Wear HER

records numerous areas of medieval broad rigg earthworks (ridge and furrow) in the local area, associated with Woolsington village (AD Archaeology 2014a). Anomalies associated with possibly two systems of ridge and furrow (fig 2) was identified during the earlier geophysical survey of the site (AD Archaeology 2014b).

2.4 The 1858 first edition Ordnance Survey map shows the site as undeveloped land comprising part of a large agricultural field, as do succeeding OS maps of 1897, 1920 and 1960. The existing southern boundary of the site was formed with the construction of a hotel in the 1970s, and more recently the eastern boundary by the construction of airport car parking.

### **3 AIMS AND OBJECTIVES**

3.1 The objective of the evaluation trenching was to establish the presence or absence of archaeological remains across the site and record the ridge and furrow identified by the geophysical survey of the site (AD Archaeology 2014b). If archaeological remains were identified the objective was to determine their nature, depth, importance and level of preservation.

### **4 METHODOLOGY**

4.1 The evaluation was carried out in compliance with all the relevant codes of practice by suitably qualified and experienced staff. The evaluation was conducted in accordance with the Written Scheme of Investigation (appendix 2) produced by AD Archaeology and approved by Northumberland County Council Conservation Team (NCCCT).

### **5 RESULTS OF THE EVALUATION**

#### **5.1 Trench 1 (Fig. 3, Plate 1)**

5.1.1 Trench 1 measured 50m in length and was oriented east southeast-west northwest. The trench was sited at the northern edge of the site alongside an area of hard standing.

5.1.2 Yellow clay (100) natural subsoil lay at a minimum depth of 0.25m below ground level, 74.11mAOD.

5.1.3 Six furrows aligned north northeast - south southwest extended across the trench. The three central furrows were smaller and closer spaced in wavelength than the others, measuring between 5m and 4.5m apart and up to 0.17m in depth. The other furrows were spaced 7m - 7.5m apart and measured up to 0.29m in depth.

5.1.4 Several field drains were recorded within the trench laid along the line of the furrows. A series of layers in the eastern end of the trench were associated with an area of hard standing to the north of the trench. A compacted buried topsoil layer of

black/ dark brown silty loam (103) overlay the furrows and field drains. The eastern end of layer (103) was sealed by a compacted mixed layer of clay topsoil and rubble (102).

5.1.5 The trench was sealed by greyish brown, clayey loam topsoil (101) which at the eastern end of the trench contained a quantity of road stone associated with the neighbouring hard standing.

## **5.2 Trench 2**

5.2.1 Trench 2, measured 25m in length and was oriented north northeast-south southwest. The north end of the trench was positioned over a dipolar anomaly recorded by the geophysical survey (AD Archaeology 2014b), for which no evidence related to it was identified.

5.2.2 Yellow clay (200) natural subsoil lay at a minimum depth of 0.28m below ground level, 74.34mAOD. The trench was sealed by greyish brown, clayey loam topsoil (201).

## **5.3 Trench 3**

5.3.1 Trench 3, measured 25m in length and was oriented north northeast-south southwest.

5.3.2 Yellow clay (300) natural subsoil lay at a minimum depth of 0.27m below ground level, 75.17mAOD. The western edge of a furrow was recorded along the length of the trench which was sealed by greyish brown, clayey loam topsoil (301).

## **5.4 Trench 4 (Fig. 4; Plates 2 and 3)**

5.4.1 Trench 4, sited along the eastern edge of the site, measured 50m in length and was oriented east southeast-west northwest.

5.4.2 The natural subsoil consisted of yellow clay with orange sandy lenses (400) and lay at a minimum depth of 0.26m below ground level, 75.94mAOD. There was a slight hollow in the mid-portion of the trench that coincided with an area of sandy subsoil.

5.4.3 A series of up to ten furrows aligned north northeast - south southwest extended across the trench. Within the area of the hollow at the centre of the trench the furrow was ill-defined. At the base of the hollow the furrow contained a grey sandy fill (402) overlain by the same orangey brown sandy silt (401) that was characteristic of furrow fill throughout the site. The furrows were spaced with a greater wavelength of between 7.3m – 8.5m in the eastern end of the trench. A wide furrow at the eastern end of the trench contained a deeper cut (405) along its length, which in profile was u-shaped, steeper on the western side, and measured

0.86m by 0.20m in depth. The cut (405) was filled with the same fill (401) as the remainder of the furrow.

5.4.4 The furrows at the western end of the trench were smaller and closer in wavelength, measuring between 5m and 3.5m apart, and up to 0.16m in depth.

5.4.5 Several field drains were recorded along the line of the furrows. The trench was sealed by greyish brown, clayey loam topsoil (401).

## **5.5 Trench 5**

5.5.1 Trench 5, measured 25m in length and was oriented north northeast-south southwest. The trench was sited over a large dipolar anomaly recorded by the geophysical survey (AD Archaeology 2014b), for which no evidence related to it was identified within the trench.

5.5.2 Yellow clay (500) natural subsoil lay at a minimum depth of 0.28m below ground level, 75.76mAOD. A furrow was recorded along the length of the trench which at its southern end was cut by a large field drain orientated approximately east –west. The trench was sealed by greyish brown, clayey loam topsoil (501).

## **5.6 Trench 6 (Fig. 5; Plate 4)**

5.6.1 Trench 6, sited along the eastern edge of the site, measured 25m in length and was oriented east southeast-west northwest.

5.6.2 The natural subsoil consisted of yellow clay with orange sandy lenses (600) and lay at a minimum depth of 0.24m below ground level, 77.35mAOD.

5.6.3 Three widely spaced furrows aligned north northeast - south southwest extended across the trench with a wavelength of between 9m – 9.5m, and up to 0.16m in depth. The trench was sealed by greyish brown, clayey loam topsoil (601).

## **5.7 Trench 7**

5.7.1 Trench 7, measured 25m in length and was oriented north northeast-south southwest.

5.7.2 Yellow clay (700) natural subsoil lay at a minimum depth of 0.27m below ground level, 76.77mAOD. A furrow was recorded along the length of the trench which was sealed by greyish brown, clayey loam topsoil (701).

## **5.8 Trench 8**

5.8.1 Trench 8, sited along the southern edge of the site, measured 25m in length and was oriented east southeast-west northwest.

5.8.2 The natural subsoil consisted of yellow clay (800) and lay at a minimum depth of 0.28m below ground level, 77.19mAOD.

5.8.3 Five furrows aligned north northeast - south southwest extended across the trench with a wavelength of between 6.8m at the west end of the trench, and 3m at the east end. The furrows measured up to 0.16m in depth. The trench was sealed by greyish brown, clayey loam topsoil (801).

## **5.9 Trench 9**

5.9.1 Trench 9, measured 25m in length and was oriented north northeast-south southwest.

5.9.2 Yellow clay (900) natural subsoil lay at a minimum depth of 0.28m, 77.19mAOD, below ground level. The western edge of a furrow was recorded along the length of the trench. The trench was sealed by greyish brown, clayey loam topsoil (901).

## **5.10 Trench 10 (Fig. 6)**

5.10.1 Trench 10, positioned along the southern edge of the site, measured 25m in length and was oriented east southeast-west northwest. The east end of the trench was sited over a dipolar anomaly recorded by the geophysical survey (AD Archaeology 2014b), for which no evidence related to it was identified.

5.10.2 The natural subsoil consisted of yellow clay (1000) and lay at a minimum depth of 0.27m below ground level, 76.83mAOD.

5.10.3 Five furrows aligned north northeast - south southwest extended across the trench with an average wavelength of 4.9m, and a depth of up to 0.12m. The trench was sealed by greyish brown, clayey loam topsoil (1001).

## **5.11 Trench 11 (Fig. 6)**

5.11.1 Trench 11, sited near the centre of the site, measured 25m in length and was oriented east southeast-west northwest.

5.11.2 The natural subsoil consisted of yellow clay (1100) and lay at a minimum depth of 0.23 below ground level, 76.35mAOD.

5.11.3 Three furrows of varying wavelength, aligned north northeast - south southwest extended across the trench. To the east they measured a wavelength of 7.6m and to the west 10.6m with a depth of up to 0.14m. The trench was sealed by greyish brown, clayey loam topsoil (1101).

## 5.12 Trench 12

5.12.1 Trench 12, measured 25m in length and was oriented north northeast-south southwest. No features of archaeological interest were identified within the trench.

5.12.2 Yellow clay (1200) natural subsoil lay at a minimum depth of 0.28m below ground level, 76.27mAOD. A field drain ran east-west across the centre of the trench which was sealed by greyish brown, clayey loam topsoil (1201).

## 5.13 Trench 13

5.13.1 Trench 13, measured 25m in length and was oriented north northeast-south southwest.

5.13.2 Yellow clay (1300) natural subsoil lay at a minimum depth of 0.30m below ground level, 75.65mAOD. A furrow ran along the western side of the length of the trench. The trench was sealed by greyish brown, clayey loam topsoil (1301).

## 5.14 Trench 14 (Fig. 6; Plate 5)

5.14.1 Trench 14, sited near the centre of the site, measured 25m in length and was oriented east southeast-west northwest.

5.14.2 The natural subsoil consisted of yellow clay (1400) and lay at a minimum depth of 0.23 below ground level, 76.35mAOD.

5.14.3 Five furrows aligned north northeast - south southwest extended across the trench with a wavelength of between 5.3 - 4.7m, and depth of up to 0.08m. The trench was sealed by greyish brown, clayey loam topsoil (1401).

## 6 DISCUSSION

6.1 The evaluation trenches have confirmed that the system of linear anomalies identified by the earlier geophysical survey of the site (AD Archaeology 2014b) represent furrows associated with a ridge and furrow agricultural system.

6.2 It was suggested in the geophysical survey report (AD Archaeology 2014b) that an earlier wider system of ridge and furrow, characterised as broad rigg (commonly of medieval origin) has been subsumed at least in the western portion of the field by latter narrow rigg of likely post-medieval date (Foster & Smout 1994 pp.36-41). The evaluation has demonstrated that the spacing or wavelength between furrows within the eastern end of the field was up to 9.5m (trench 6) and of the broad rigg type. In contrast, the furrows in the central and western portion of the field mainly measured between 4.5-5.4m (trenches 8, 10 and 14), although some wider spaced furrows in the central area (trench 11) may represent a remnant of an earlier broad rigg system. Trench 4 formed a transect across the two types of

furrows. The gully (405) which ran along the base of a furrow in the eastern end of the trench perhaps marked a boundary along the edge of a broad rigg system. To the east of this line in trench 4, the furrows were more narrowly spaced with a wavelength measuring between 5m and 3.5m apart.

6.3 No features of archaeological significance were recorded within any of the trenches and it is therefore recommended that no further archaeological mitigation is required prior to any proposed development within the site.

## **7 BIBLIOGRAPHY**

AD Archaeology 2014a, *LTCP Extension, Newcastle International Airport, Woolsington, Newcastle upon Tyne, Archaeological Desk-based Assessment* (unpublished report)

AD Archaeology 2014b, *LTCP Extension, Newcastle International Airport, Woolsington, Newcastle upon Tyne, Archaeological Geophysical Survey* (unpublished report)

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**APPENDIX 1: LIST OF CONTEXTS**

<b>Context</b>	<b>Trench</b>	<b>Description</b>
100	1	Natural subsoil
101	1	Topsoil
102	1	Modern make-up layer
103	1	Compacted layer
104	1	Fill of furrows
105	1	Cut of furrows
200	2	Natural subsoil
201	2	Topsoil
300	3	Natural subsoil
301	3	Topsoil
302	3	Fill of furrow
303	3	Cut of furrow
400	4	Natural subsoil
401	4	Topsoil
402	4	Fill of furrows
403	4	Lower fill of furrow
404	4	hollow
405	4	Gully at base of furrow
406	4	Cut of furrows
500	5	Natural subsoil
501	5	Topsoil
502	5	Fill of furrow
503	5	Cut of furrow
504	5	Field drain
600	6	Natural subsoil
601	6	Topsoil
602	6	Fill of furrows
603	6	Cut of furrows
700	7	Natural subsoil
702	7	Topsoil
703	7	Fill of furrow
704	7	Cut of furrow
800	8	Natural subsoil
802	8	Topsoil
803	8	Fill of furrows
804	8	Cut of furrows
900	9	Natural subsoil
901	9	Topsoil
902	9	Fill of furrow
903	9	Cut of furrow

Context	Trench	Description
1000	10	Natural subsoil
1001	10	Topsoil
1002	10	Fill of furrows
1003	10	Cut of furrows
1100	11	Natural subsoil
1101	11	Topsoil
1102	11	Fill of furrows
1103	11	Cut of furrows
1200	12	Natural subsoil
1201	12	Topsoil
1300	13	Natural subsoil
1301	13	Topsoil
1302	13	Fill of furrow
1303	13	Cut of furrow
1400	14	Natural subsoil
1401	14	Topsoil
1402	14	Fill of furrows
1403	14	Cut of furrows

**APPENDIX 2: WRITTEN SCHEME OF INVESTIGATION**

# WRITTEN SCHEME OF INVESTIGATION FOR ARCHAEOLOGICAL EVALUATION AT NEWCASTLE INTERNATIONAL AIRPORT, WOOLSINGTON, NORTHUMBERLAND

## 1 Introduction

1.1 This written scheme of investigation represents a methods statement for undertaking an archaeological evaluation in advance of a proposed extension of the existing long term car park adjacent to Newcastle International Airport. The site, centred at NGR NZ 287 836, consists of one field that occupies a total area of 4.05ha.

1.2 A Desk-Top-Assessment (AD Archaeology 2014a) and a geophysical survey (AD Archaeology 2014b) have been undertaken in advance of the proposed development.

1.3 Policy relating to the assessment and mitigation of impacts to the heritage resource within the planning system is set out in the National Planning Policy Framework. The Framework identifies that the planning system should perform 'an environmental role', contributing to and protecting the built and historic environment (NPPF 2012) and that the pursuit of 'sustainable development' includes seeking improvements to the built, natural and historic environment.

1.4 The Framework further clarifies that, in circumstances where heritage assets will be damaged or lost as a result of development, Local Planning Authorities should require developers to record and advance the understanding of the asset to be lost in a manner appropriate to the significance of the asset. The evidence (and any archive) generated as part of the plan making process should be made publically accessible; copies of the evidence generated should be deposited with the relevant Historic Environment Record and archives with the relevant museum.

1.5 The National Planning Policy Framework states that "Where a site on which a development proposal includes or has the potential to include heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate assessment and, where necessary, a field evaluation" NPPF page 128. This Written Scheme of Investigation relates to the field evaluation stage of the project.

## 2 Archaeological and Historical Background

2.1 A detailed outline of the archaeological and historical background is contained in an archaeological desk-based assessment (AD Archaeology 2014a). This reported that there are no known archaeological remains within the site boundary itself but collated information on archaeological features in the immediate vicinity.

2.2 Widespread archaeological evidence of later prehistoric settlement across the Northumberland Coastal plain is indicative of a relatively high density of occupation during this period (Hodgson, McKelvey and Muncaster 2013). Many of these sites are characterised by enclosed settlements, rectilinear in plan, that were typically established in the period around 200 BC (Hodgson *et al.* 2013, 189). These form a vital component of a settlement

pattern with a long and complex development prior to this period with evidence of occupation at some sites from as early as the late Bronze Age.

2.3 There is no direct evidence for prehistoric activity on the site, with the nearest site being a cropmark of an enclosure at Prestwick 940m north of the site and a double-ditched enclosure at Prestwick Whins 1.3km north-east of the site.

2.4 During the medieval period the site formed part of the township of Woosington. The exact location of the deserted medieval village of Woosington is unknown, although Woosington Hall which dates to the late 17th century (1.7km south-east of the development area) may occupy its site. Tyne and Wear HER records numerous areas of medieval broad rigg earthworks (ridge and furrow) in the local area, associated with Woosington village (AD Archaeology 2014a).

2.5 The 1858 first edition Ordnance Survey map shows the site as undeveloped land comprising part of a large agricultural field, as do succeeding OS maps of 1897, 1920 and 1960. The existing southern boundary of the site was formed with the construction of a hotel in the 1970s, and more recently the eastern boundary by the construction of airport car parking.

2.6 A geophysical survey (AD Archaeology 2014b) was undertaken which did not identify any anomalies of archaeological interest other than those associated with ridge and furrow. Although no ridge and furrow earthworks survive within the field its presence as a sub-surface feature is clearly shown by the linear magnetic anomalies detected by the geophysical survey. The disparity in spacing between these furrows suggests that an earlier wider system of ridge and furrow, characterised as broad rigg (commonly of medieval origin) has been subsumed at least in the western portion of the field by latter narrow rigg of likely post-medieval date.

### **3 Required Course of Action**

3.1 The Northumberland County Council Conservation Team (NCCCT) has defined a trenching sample strategy of 2% of the development area (4.05ha ), representing 800 sq metres of trenching. Fourteen trenches (two of 50m by 2m and twelve of 25m by 2m) will be excavated across the site. The trenches evaluate the whole development area but with trenches 1 and 3 focused on the line of the proposed drainage and access roads which are the greatest depth of groundworks.

3.2 Any variation or alteration to this scheme would require approval by NCCCT. Contingency trenching of up to a further 1% sample (400 sq metres) has been defined. The contingency would only be drawn upon, following discussions and agreement between the client and NCCCT. However, minor expansions to trenches to clarify features can be undertaken in advance of a meeting so long as the client is kept informed. Any variation or alteration to this scheme would require approval by NCCCT.

3.3 During the course of the trenching it may become apparent that variation is required, dependent on the nature, extent and importance of archaeological remains uncovered. It

also may become apparent during the course of the operation that some areas where trenches have been sited are inappropriate for potential archaeological activity (for instance lying entirely within the line of a furrow) or due to logistical or practical reasons. Trenches can only be moved with the approval of NCCCT.

#### **4 General Standards**

4.1 All work will be carried out in compliance with the codes of practice of the Institute of Field Archaeologists (IfA)<sup>1</sup> and will follow the IfA Standard and Guidance for Archaeological Field Evaluation<sup>2</sup>. All work will be in compliance with the Regional Statement of Good Practice (Yorkshire, The Humber and the North-East (25 November 2009).

#### **5 Pre-site work preparation**

5.1 All staff will 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 will be briefed in the work required under the specification and the project aims and methodologies.

5.2 The Great North Museum will be contacted to discuss archiving, prior to work commencing.

5.3 An environmental sampling strategy in accordance with the previous advice of the English Heritage North East Regional Science Advisor (see 8 below) will be followed.

#### **6 Fieldwork**

6.1 Each evaluation trench will be accurately surveyed and related to the National Grid, using a Total Station Theodolite or GPS system, and located on a map of the area at an appropriate scale.

6.2 Topsoil and unstratified modern material will be removed mechanically by a machine using a wide toothless ditching blade. This machine stripping will be carried out under continuous archaeological supervision

6.3 The topsoil or recent overburden will be removed in successive level spits down to the first significant archaeological horizon or the natural subsoil, whichever is encountered first.

6.4 All faces of the trenches that require examination or recording will be cleaned sufficiently to establish the presence or absence of archaeological remains, particularly the top of the first significant archaeological horizon or the natural subsoil. All subsequent deposits will be hand-excavated.

<sup>1</sup> Institute of Field Archaeologists, 2000, Code of Conduct

<sup>2</sup> Institute of Field Archaeologists, 2001, Standards and Guidance for Archaeological Field Evaluation

6.5 In the event that small discrete archaeological features are revealed including but not limited to postholes and pits, during machining or subsequent cleaning of the trench, the trench will be expanded either side of the feature by a machine bucket width as standard. If further additional trench expansion is required this should be carried out following discussions with the Assistant County Archaeologist and the client.

6.6 The archaeology will be investigated sufficiently to establish its nature, extent and date, unless it is deemed of sufficient importance to require total preservation in situ. This will be achieved by excavation of the following samples of all exposed features.

50% of every discrete feature (e.g. pits, post-holes)

25% of the area of linear/curvilinear features (e.g. ditches, gullies) with a non-uniform fill

10% of the area of linear/curvilinear features (e.g. ditches, gullies) with a uniform fill

6.7 Within the constraints of the site, the excavations will be maintained in a manner that allows quick and easy inspection without any requirement for additional cleaning.

6.8 Deposits will be assessed for their potential for providing environmental or dating evidence. Sampling will be in line with the strategy agreed with English Heritage Regional Science Advisor and NCCCT.

6.9 In the event of human burials being discovered, they will be left *in situ*, covered and protected and the coroners' office will be informed. If removal is essential, work will comply with relevant Home Office regulations.

6.10 Appropriate procedures under the relevant legislation will be followed in the event of the discovery of artefacts covered by the provisions of the Treasure Act 1996.

6.11 The drawn record from the site will include a representative selection of long sections from the excavations that clearly allow the nature and depth and any significant changes in the deposits recorded to be demonstrated. If there is any uncertainty, advice will be sought from the Assistant County Archaeologist as to which sections may be appropriate for inclusion within the site record.

6.12 During and after the excavation, all recovered artefacts will be stored in the appropriate materials and storage conditions to ensure minimal deterioration and loss of information (this will include controlled storage, correct packaging, and regular monitoring of conditions, immediate selection for conservation of vulnerable material).

## **7 Archaeological Recording**

7.1 A full and proper record (written, graphic and photographic as appropriate) will be made for all work, using pro forma record sheets and text descriptions appropriate to the work. Accurate scale plans and section drawings will be drawn at 1:50, 1:20 and 1:10 scales as appropriate.

7.2 The stratigraphy of all trenches will be recorded even where no archaeological deposits have been identified.

7.3 All archaeological deposits and features, the current ground level and base of each trench will be recorded with an above ordnance datum (AOD) level.

7.4 A photographic record of all archaeological features will be taken, both in detail and in a wider context. These will be in colour transparency and black and white print and will include a clearly visible, graduated metric scale. A register of all photographs will be kept. The photographic record will be sent to ADS York in an approved format to be stored as part of their electronic archive or a colour and black and white print record to be stored in the GNM.

7.5 Where stratified deposits are encountered, a 'Harris' matrix will be compiled

## **8 Environmental Sampling and Scientific Dating Strategy**

8.1 This sampling strategy is intended to provide sufficient data to characterise the nature and informative potential of deposits and features identified during the works. Because this is the first stage of intrusive works and there is a possibility that a wide range of features may be encountered, this strategy is best set out as a series of principles.

These are:

- 30l samples will be taken from structural, occupational and industrial features, as well as pits and ditch fills. Other features should be sampled to help to characterise the deposits on the site. Priority should be given to processing samples from identifiable, dated features, or to those undated features which have potential for other forms of dating (e.g. radiocarbon dating).
- Bulk sample residues should be checked for the presence of industrial waste (e.g. slags, hammerscale) and small faunal remains (e.g. fishbones, small mammal/avian bones) as well as for plant material.
- The potential of buried soils and ditch fills to provide dated (using radio-carbon dating) pollen cores or Optically Stimulated Luminescence (OSL) dating of sediments should be considered, although this type of sampling will be undertaken in consultation with the English Heritage Regional Scientific Advisor.

8.2 In the event that hearths, kilns or ovens are identified, provision will be made to collect at least one archaeo-magnetic date to be calculated from each individual hearth surface (or in the case of domestic dwellings a minimum of one per building identified). Where applicable, samples to be collected from the site and processed by a suitably trained specialist for dating purposes.

8.3 The selection of suitable deposits for sampling will be confirmed at site meetings with the NCCAO. In principle palaeo-environmental samples will be taken from deposits which have clear stratigraphic relationships. Particular attention will be paid to the recovery of samples from any waterlogged samples that may be present.

## **9 Monitoring**

9.1 The County Archaeologist will be informed on the start date and timetable for the evaluation in advance of work commencing.

9.2 Reasonable access to the site will be afforded to the County Archaeologists or his/her nominee at all times, for the purposes of monitoring the archaeological evaluation.

9.3 Regular communication between AD Archaeology, the County Archaeologist and other interested parties will be maintained to ensure the project aims and objectives are achieved.

9.4 If appropriate, specialists will be contacted and allowed access to the site to help inform any detailed study / information retrieval depending upon the nature of the archaeological features being revealed.

## **10 Post excavation work, archive, and report preparation**

### **10.1 Finds**

10.1.1 All finds processing, conservation work and storage of finds will be carried out in compliance with the IfA Guidelines for Finds Work<sup>3</sup> and those set by UKIC.

10.1.2 The deposition and disposal of artefacts will be agreed with the legal owner and recipient museum prior to the work taking place. Where the landowner decides to retain artefacts, adequate provision will be made for recording them. Details of land ownership will be provided by the developer.

10.1.3 All retained artefacts will be cleaned and packaged in accordance with the requirements of the recipient museum.

### **10.2 Site Archive**

10.2.1 The archive and the finds will be deposited in the appropriate local museum, within 6 months of completion of the post-excavation work and report.

10.2.2 Archiving work will be carried out compliance with the IfA Guidelines for Archiving<sup>4</sup>.

10.2.3 Before fieldwork, contact will be made with the landowners and with the appropriate local museum to make the relevant arrangements. Details of land ownership will be provided by the developer.

10.2.4 NCCCT will require confirmation that the archive had been submitted in a satisfactory form to the relevant museum.

### 10.3 Report

10.3.1 NCCCT require one bound paper copy and one digital copy (in Word or PDF format) of the report.

10.3.2 The report will include the following as a minimum:

Each page and paragraph will be numbered within the report and illustrations cross referenced within the text.

The report will include the following as a minimum:

- Planning application numbers, NCCCT reference, OASIS reference numbers and an 8 figure grid reference
- The nature and extent of the proposed development and client information
- A location plan of the site at an appropriate scale of at least 1:10 000
- A location plan showing trench locations within the site. This will 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
- Plans and sections of main trench axes and excavated features located at a recognisable planning scale (1:10, 1:20, 1:50 or 1:100, as appropriate)
- Period based discussion of the known and potential archaeological sites within the proposed development area
- A summary statement of the results
- A table summarising the deposits, features, classes and numbers of artefacts encountered and spot dating of significant finds
- A description of the geology on the site
- Discussion of the physical impact of the proposed development on known and potential archaeological sites

10.3.4 Any variation to the above requirements will be approved by the planning authority prior to work being submitted

### 10.4 OASIS

10.4.1 NCCCT 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.

<sup>3</sup> Institute for Archaeologists, 2008, *Standard and Guidance for the collection, documentation, conservation and research of archaeological materials* (October 2008)

<sup>4</sup> Institute for Archaeologists, 2008. *Standard and Guidance for the creation, compilation, transfer and deposition of archaeological archives* (October 2008)

10.4.2 AD Archaeology will therefore complete the online OASIS form at <http://ads.ahds.ac.uk/project/oasis/>. 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 will indicate that they agree to this procedure within the specification/project design/written scheme of investigation submitted to NCCCT for approval

## 10.5 Publication

10.5.1 A summary 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.

10.5.2 A short report of the work will also be submitted to a local journal if appropriate.

## **Bibliography**

AD Archaeology 2014a, LTCP Extension, Newcastle International Airport, Woolsington, Newcastle upon Tyne, Archaeological Desk-based Assessment (unpublished report)

AD Archaeology 2014b, LTCP Extension, Newcastle International Airport, Woolsington, Newcastle upon Tyne, Geophysical Survey (unpublished report)

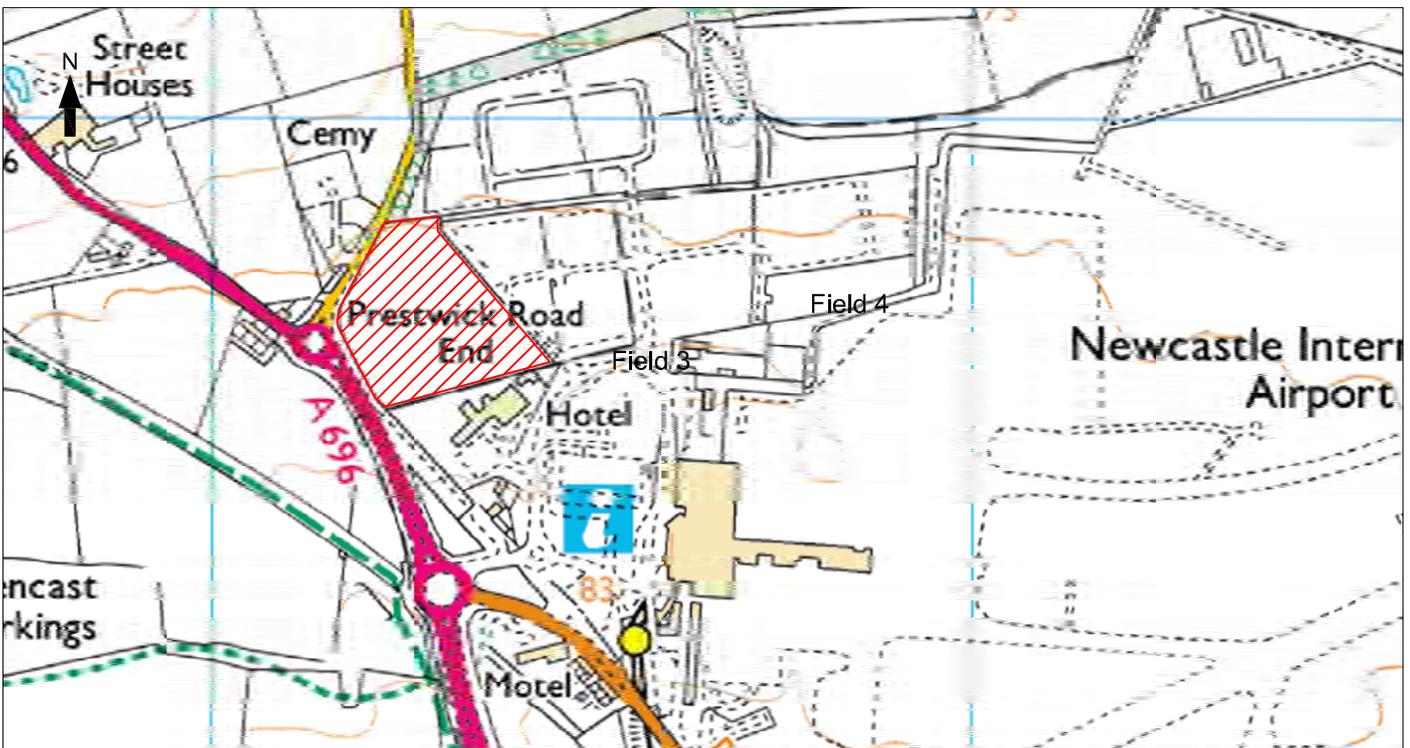
Hodgson N. McKelvey J. and Muncaster W. 2013 The Iron Age on the Northumberland Coastal Plain: Excavations in advance of development 2002-2010, Tyne and Wear Museums

National Planning Policy Framework 2012



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1:50000



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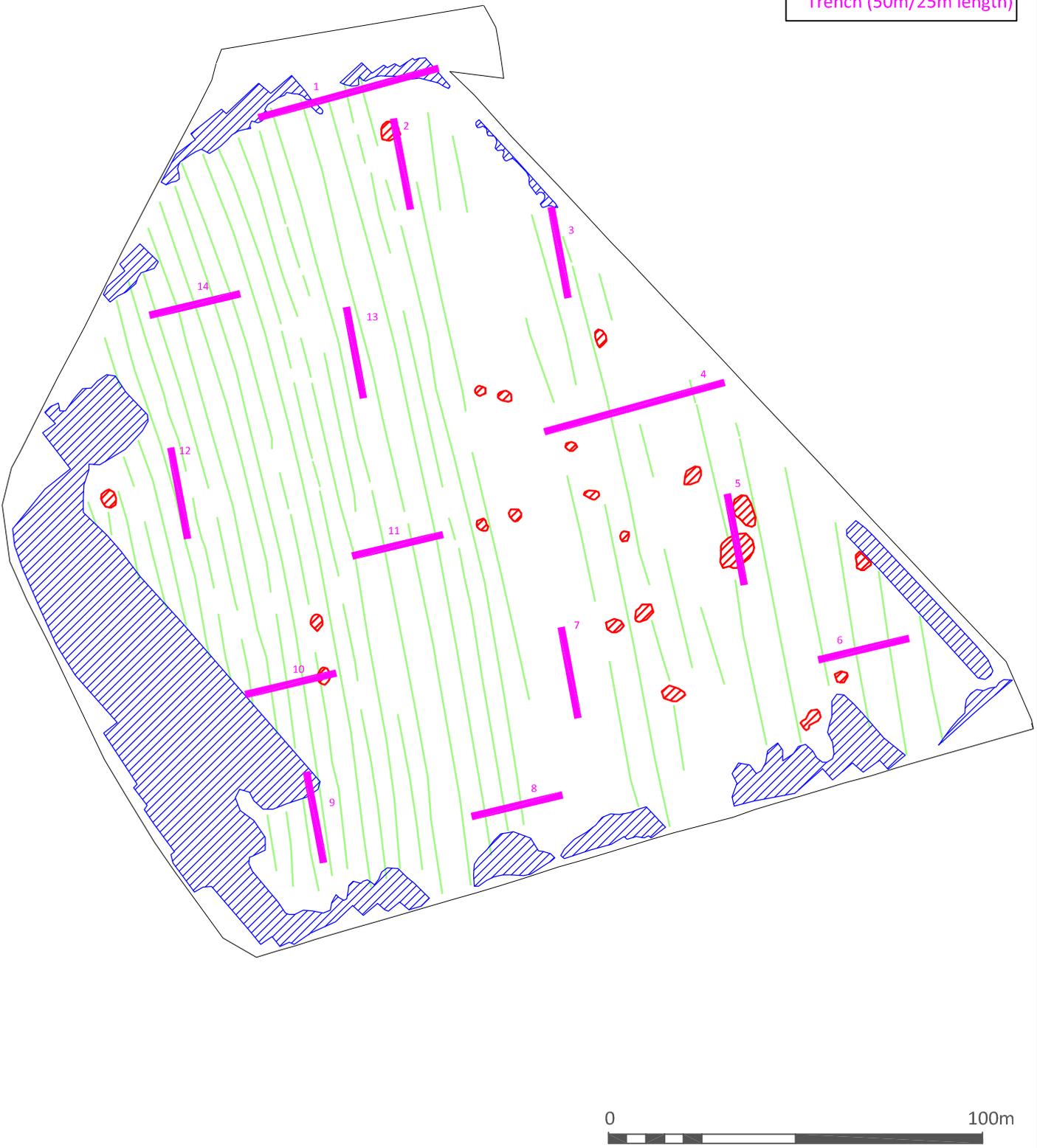
1:10000



Figure 1: Location of site



KEY:  
 Dipolar anomalies  
 modern  
 other anomalies  
 Linear positive anomalies  
 furrows  
 Trench (50m/25m length)



1:1500  
 N  
 ↑

figure 2: Trench locations also showing Interpretative plan of earlier geophysical survey



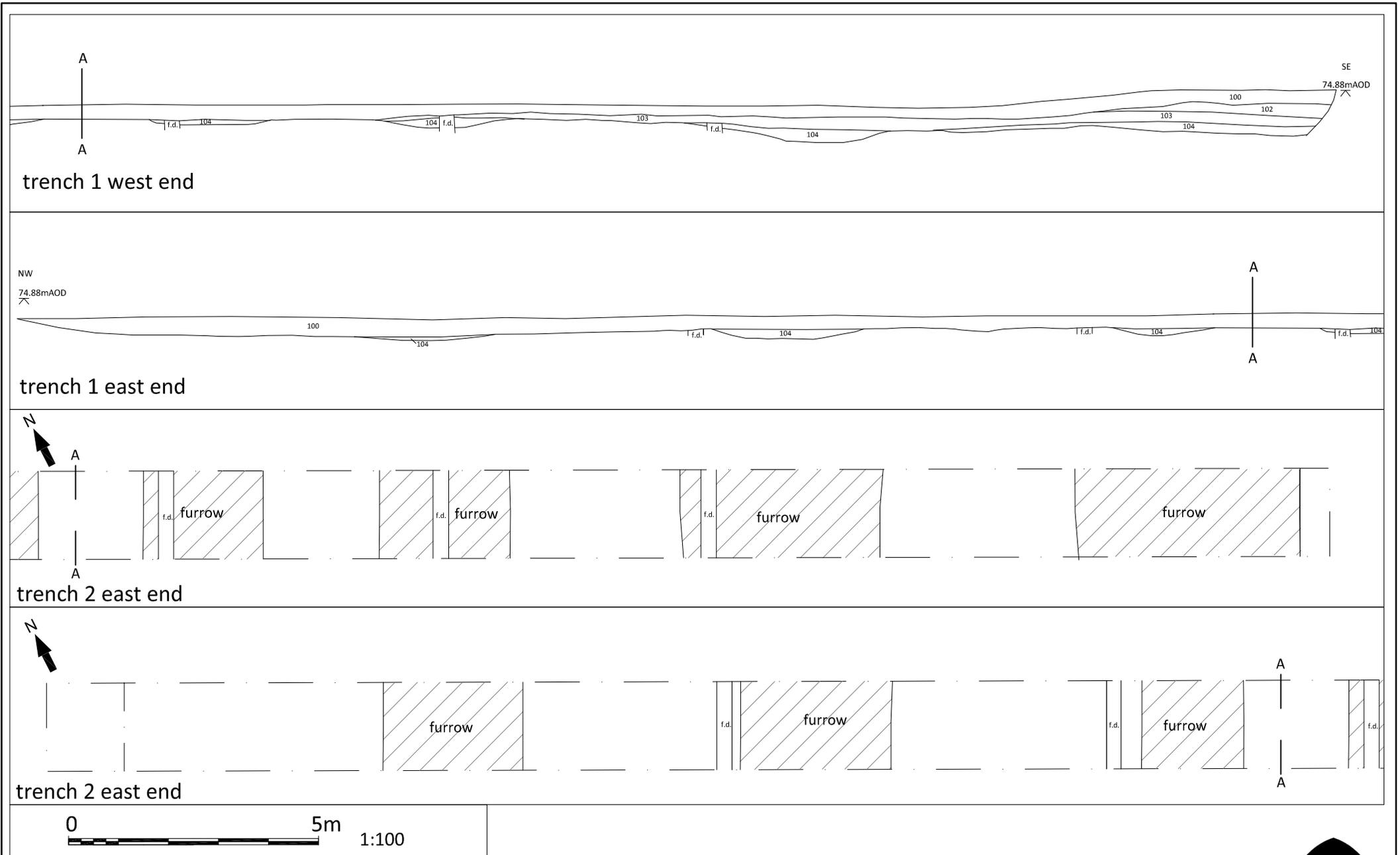


Figure 3: Southwest facing section and plan of trench 1

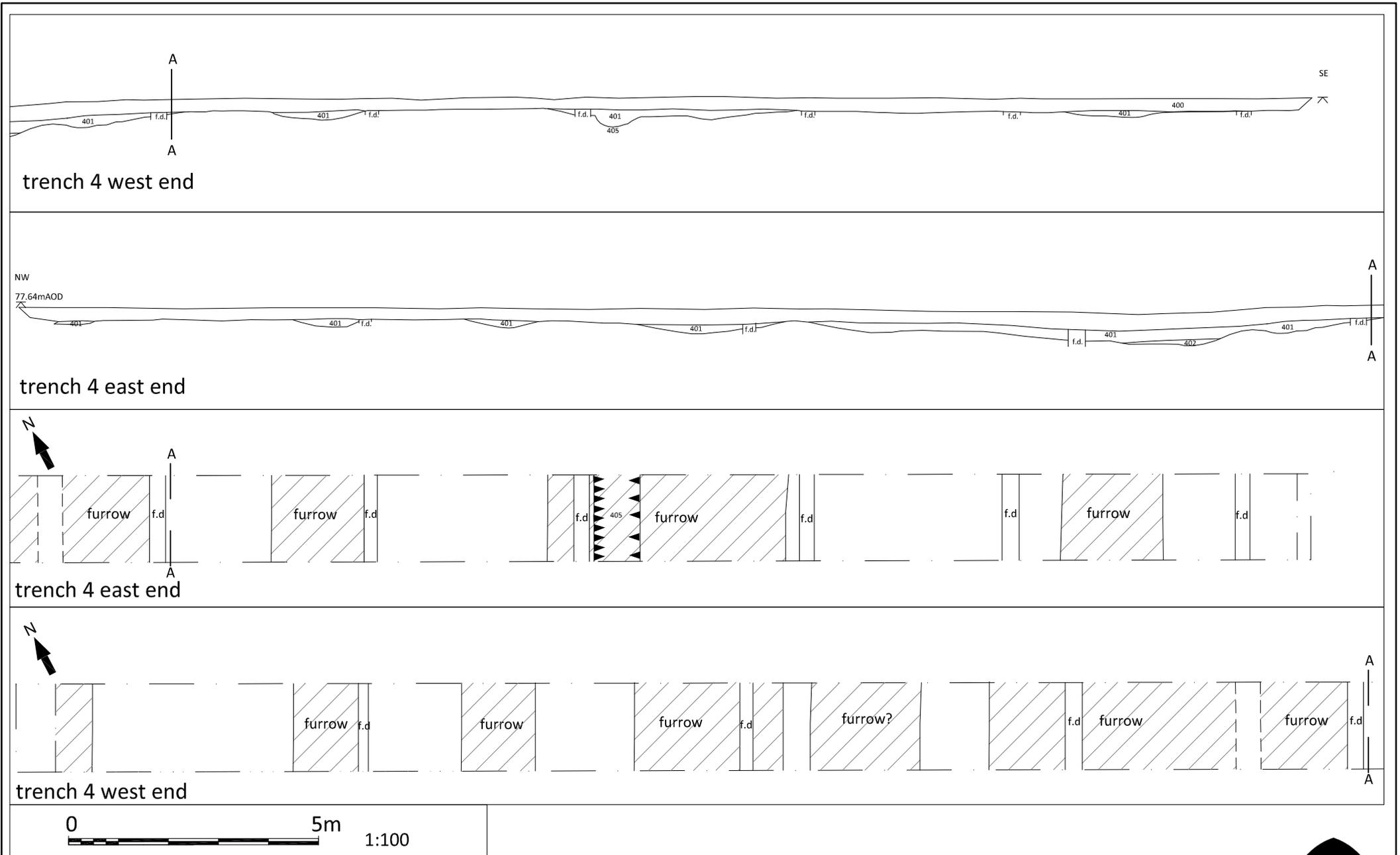


Figure 4: Southwest facing section and plan of trench 4

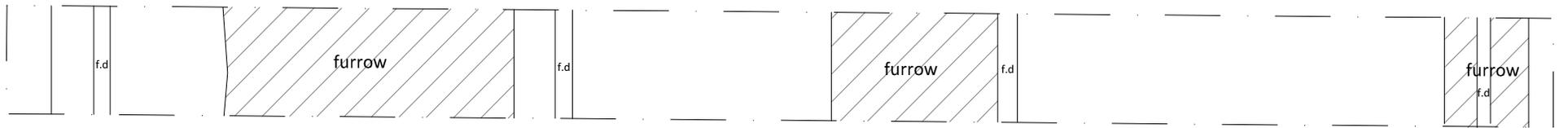
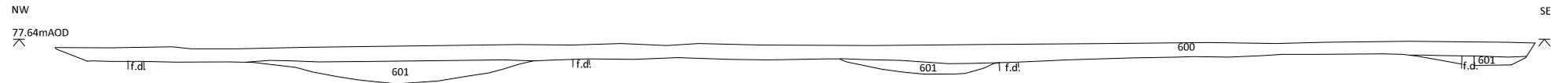
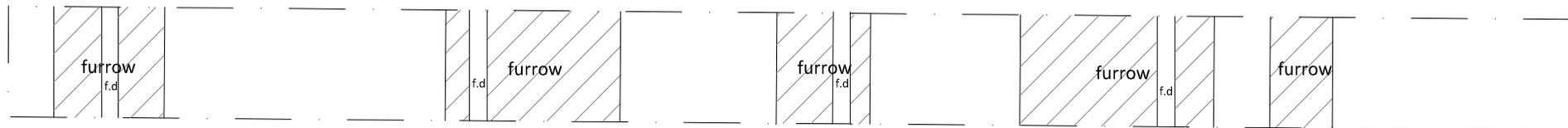
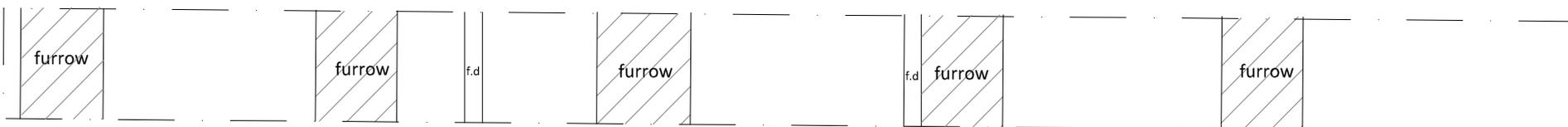


Figure 5: Southwest facing section and plan of trench 6

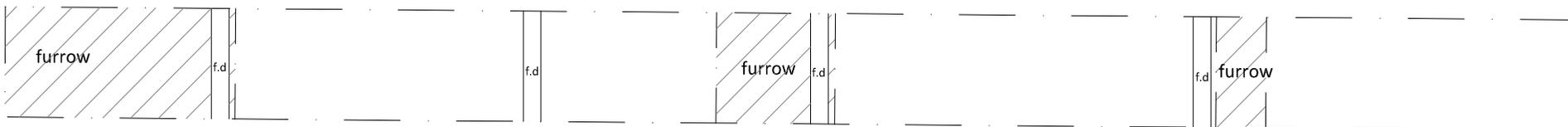




Trench 8



Trench 10



Trench 11



Trench 14



Figure 6: Plan of trenches 8, 10, 11, 14





Plate 1: View of Trench 1, facing northwest



Plate 2: View of Trench 4, gully 405 facing northwest



Plate 3: Overall view of Trench 4 facing east



Plate 4: View of Trench 6, facing west



Plate 5: View of Trench 14, facing northwest



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