

BAMBURGH RESEARCH PROJECT

**LAND TO THE WEST OF NEW BEWICK,
NORTHUMBERLAND**



**REPORT OF ARCHAEOLOGICAL
TRIAL TRENCH EVALUATION**

Compiled for George F. White by The Bamburgh Research Project: Commercial Projects Section

BRP 11/06b

September 2011

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SUMMARY

This report has been compiled by The Bamburgh Research Project for George F. White, Architects, and sets out the results of an archaeological evaluation comprising a pair of trial trenches on the site of a proposed wind turbine on land to the west of New Bewick, Wooperton, Northumberland (NGR NU 05834 20516) (Figures 1 and 2).

This evaluation was conducted to inform the planning process regarding the potential for the groundworks associated with the turbine installation to impact on preserved archaeological remains. The excavation of the two conjoined trial trenches was undertaken on the 2nd September 2011. Each trial trench, measured 50m long and was arranged on north to south and east to west alignments to form a plus sign. The trenches were excavated under archaeological monitoring in spits down to the subsoil. No features of archaeological interest were encountered and no finds recovered. The sinuous cropmarks identified from the aerial photograph are likely to be derived, therefore, from natural variation rather than human activity.

Summary table of results

Context	Description	Artefact	No.
100	Topsoil	/	/
101	Layer - 'B' horizon	/	/
102	Subsoil	/	/

**LAND TO THE WEST OF NEW BEWICK,
WOOPERTON,
NORTHUMBERLAND**

ARCHAEOLOGICAL TRIAL TRENCH EVALUATION REPORT

1.0 INTRODUCTION

- 1.0.1 This report has been compiled by The Bamburgh Research Project, Commercial Section for George F. White, Architects, and sets out the results of the trial trench evaluation undertaken on land to the west of New Bewick, Wooperton, Northumberland during September 2011.
- 1.0.2 The work, which comprised the excavation of a pair of trial trenches, was undertaken in compliance with a Written Schedule of Investigation compiled by the Bamburgh Research Project in August 2011 in response to a brief issued by the Northumberland County Council Conservation Team. The planning Authority reference is: 11/01132/RENE and the Northumberland County Council Conservation Team reference number is: B7/1: 12852. The OASIS reference is bamburgh1- 110330.

2.0 THE SITE

2.1 Location

- 2.1.1 The development site is located within a field on the north side of the B6346 between the A197 and New Bewick, some 10km north west of Alnwick, Northumberland. The site lies within open farm land (NGR NU 05834 20516) (Figures 1 and 2).

2.2 Historical Background

- 2.2.1 A polished stone axe of Neolithic date was found some 1km to the south west of the site, near to Percy's Cross and Bronze Age burials are known from Old Bewick (HER 3615) some 2km to the north east. Iron age sites are present in the form of an enclosure at Randy Burn, 1km to the south of the site and the hill fort at Bewick Hill adjacent tot the Bronze Age burials. Such finds are suggestive of a landscape occupied since prehistoric times, though not necessarily densely so. The Devil's Causeway Roman Road passes the site a little more than 1km to the west of the site (HER 3667).
- 2.2.2 The medieval village of Old Bewick lies 1.5km to the north east of the site, across the River Breamish. The Bewick estate was towards the end of the 11th century held by one Archilmorell and by the time of Henry I, Old and New Bewick formed part of the Northumbrian Estates of the Earls of March and Dunbar, however the land tenure had been granted to St Albans Abbey by 1105/6 (HER 3646). Old Bewick had a market from 1253.
- 2.2.3 Extensive field walking has been undertaken in the area, though sadly not within the

field in which the present site is proposed. The field to the west produced flint of Mesolithic and Neolithic date together with medieval pottery (HER 23245) and further flint of Mesolithic date was recovered from the field to its north (HER 23246). The field to the east produced further lithics of Mesolithic and Neolithic/Bronze Age date (HER 23284) with a similar assemblage from the field to the north (HER 23285). Mesolithic, Neolithic and Early Bronze Age lithics were also recovered from the fields to the south of the road (HER 23290, 23291 and 23292) (Figure 4).

- 2.2.4 A number of cropmark and earthwork features have been identified in the vicinity of the site and are noted on the Historic Environment Record. A palisaded enclosure (HER 21199) lies 500m to the north west. A series of cropmark features have been identified from an aerial photograph in the Newcastle University collection (HER 3624). These extensive linears, which may be part of a field system, extend between the field with the proposed development and that to the east.

2.3 Impact of the development

- 2.3.1 The proposed scheme to erect a wind turbine will require the cutting of a foundation base for the turbine and the excavation of ducts together with the creation of an access road, crane pad and temporary storage area. (Figures 2 and 3). The foundation to be cut down to the bedrock to make a secure base, measures 13m square but will require ground disturbance in the region of twice this area to correctly set it. The present proposal is to micro-site the development within a 50m radius of the depicted location shown on Figure 2 (on which the radius is shown in yellow). The access road should have minimal impact according to the present proposal.
- 2.3.2 The proposed scheme of works had the potential to impact on undisturbed stratigraphy, providing the cropmarks indicated by the aerial photograph were representative of actual archaeological features. In addition the presence of Mesolithic, Neolithic and Bronze Age flint, found in some numbers during field walking in the adjacent fields also indicated the presence of prehistoric activity and the possible presence of settlement evidence, which is hard to quantify due to the often ephemeral nature of such sites rendering them difficult to identify by most techniques of archaeological prospection.

3.0 OBJECTIVES

- 3.0.1 In the light of the potential for the construction works to impact upon preserved archaeological remains it was proposed that a limited trial trench evaluation would be undertaken in advance of the construction phase to inform on the presence or absence of archaeological remains and to further quantify the extent, date and state of preservation of such remains should they be present. The trial trenches were 50m long by 2m wide and arranged in a cross shaped alignment. The location as set out in Figure 4 was sited to encounter cropmark linears in three of the four arms of the trenches, should they be present in the area indicated from their transcription from the aerial photograph.

4.0 METHODOLOGY

4.1 Archaeological evaluation

- 4.1.1 The excavation was to be carried out by suitably experienced archaeologists, familiar with the archaeological background to the site. All work was carried out in compliance with the codes of practice of the Institute for Archaeologists (IfA 2010) and followed the IfA Standards for Excavation (IfA 1996). The conformed to the following methodology.
- 4.1.2 A contingency of up to 20m of further trenching can be invoked following consultation with the Assistant County Archaeologist, the client and the monitoring archaeologist.

4.2 General standards

- 4.2.1 All archaeological features identified during the monitoring will be recorded and sample excavated according to their type and form. This will represent 50% of all discrete features, 25% of all linear features of non-uniform fill and 10% of linear features with a uniform fill. Machine excavation of the topsoil will be under constant archaeological supervision and be undertaken by a machine with a toothless ditching bucket.
- 4.2.2 A 40 litre bulk palaeoenvironmental sample will be taken from all features recognised as suitable for the preservation of palaeoenvironmental remains.
- 4.2.3 Secure contexts will be sampled for dating where appropriate, whether on site or as sub samples of bulk samples. Any concentrations of charcoal or other carbonised material recovered on site will usually be retained. Any fired features such as ovens, kilns and hearths suitable for archaeo-magnetic dating will be sampled by an appropriately qualified specialist following consultation with the NCCCT.
- 4.2.4 Pottery and Animal Bone will be collected as bulk samples whilst significant artefacts will be three-dimensionally recorded prior to processing. All finds will be recorded and processed according to the BRP system and submitted for post-excavation assessment. Finds recovery and storage strategies will be in accordance with published guidelines (English Heritage 1995 and IfA Guidelines for Finds Work). Finds are to be deemed a part of the archaeological archive and are to be deposited with the site record in the appropriate museum subsequent to the post excavational analysis. Should artefacts of gold or silver covered by the 1996 Treasure Act be recovered, appropriate procedures will be followed.
- 4.2.5 In the event of human burials being revealed they will be left *in situ* and treated in an appropriate manner. After consultation with the County Archaeological Officer, if excavation is required, work will comply with the relevant home Office regulations.
- 4.2.6 Any archaeological features encountered will be hand-cleaned, excavated and recorded:

- A photographic record will be taken using black and white print, colour slide film at 35mm format. In addition a digital photographic record will be compiled.
 - A written description of features will be recorded using the BRP *pro forma* context recording system.
 - All features will be drawn at an appropriate scale using pre-printed permatrace. Plans will normally be drawn at a scale of 1:20 and sections at a scale of 1:10.
- 4.2.7 All archaeological features and horizons will be accurately tied into the Ordnance Survey grid. All levels will be tied in to Ordnance Datum.
- 4.2.8 Arrangements will be made with the appropriate museum for the deposition of the site archive within 6 month of the completion of the post-excavation report.

6.0 RESULTS

- 6.0.1 The trial trenches were sited centrally to the proposed micro-siting area and measured 50m long by 2m wide, arranged in a plus sign. Subsoil (102), comprising a firm to loosely compacted red-brown/red-yellow gravel and coarse sand, was encountered at a depth of 0.35 to 0.45m below ground level. It lay at 93.08m OD at the southern end of the trenches and at 92.61m OD at the north end of the trench. The subsoil was overlain by a layer (101) of firmly compacted red-brown silt, sand and gravel which comprised a 'B' horizon-like altered subsoil. This underlay the topsoil (100), a firmly compacted dark red-grey silt with some sand with gravel inclusions, which varied in depth between 0.25 and 0.35m thick.
- 6.0.2 No features of archaeological interest were encountered within the two trenches and no finds were identified from the trenches or from the adjacent topsoil.

7.0 CONCLUSIONS

- 7.0.1 No features of archaeological interest were encountered within the trenches and no finds were recovered from the trenches or the surrounding topsoil. It is likely therefore that the sinuous features shown on the aerial photograph represent natural variation rather than human activity. The surrounding area is replete with sites and finds recovered during fieldwalking survey, such that the absence of archaeological material from the present trial trenching exercise is unlikely to be in anyway indicative of the wider landscape.

REFERENCES

- | | |
|------------------|---------------------------------------------------------------------------------------------------------------|
| BRP | Finds Manual, 2000 |
| BRP | Health and Safety Document 2009 |
| BRP 09/06b | Land at link House Farm, Blyth, Northumberland. Desk-Based Assessment and Standing Building Assessment. 2009. |
| English Heritage | Management of Archaeological Projects 2, 1991. |
| IfA | Standard and Guidance for Excavation.1996 |
| IfA | Code of Conduct. 2010 |

APPENDIX I

Context list

Trial Trench 1

- 100 Humic topsoil horizon
- 101 'B' horizon layer probably derived from subsoil
- 102 Sand and gravel subsoil

APPENDIX II

LAND WEST OF NEW BEWICK, WOOPERTON, NORTHUMBERLAND, ERECTION OF SINGLE WIND TURBINE.

ARCHAEOLOGICAL EVALUATION WRITTEN SCHEDULE OF INVESTIGATION

1.0 INTRODUCTION

- 1.0.1 This Written Schedule of Investigation has been compiled by The Bamburgh Research Project, Commercial Section for George F White, Architects. The document sets out the project design for an archaeological trial trench evaluation to be undertaken in advance of the construction a single wind turbine on land to the west of New Bewick, Wooperton, Northumberland. The Planning Authority reference number is: 11/01132/RENE and the Northumberland County Council Conservation Team reference number is: B7/1: 12852.
- 1.0.2 The Written Schedule of Investigation details the proposed scheme of works for the trial trench evaluation. The document has been prepared in order to fulfil a requirement for the planning application, as laid out in the brief issued by The Northumberland County Council Conservation Team.

2.0 THE SITE

2.1 Location

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4.0 METHODOLOGY

4.1 Watching brief and archaeological excavation

- 4.1.1 The excavation will be carried out by suitably experienced archaeologists, familiar with the archaeological background to the site. All work will be carried out in compliance with the codes of practice of the Institute for Archaeologists (IfA 2010) and should follow the IfA Standards for Excavation (IfA 1996) The work will conform to the following methodology.
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- 4.2.7 All archaeological features and horizons will be accurately tied into the Ordnance Survey grid. All levels will be tied in to Ordnance Datum.
- 4.2.8 Arrangements will be made with the appropriate museum for the deposition of the site archive within 6 month of the completion of the post-excavation report.

5.0 MONITORING

- 5.0.1 Access will be made available at all reasonable times to the archaeological representatives of the Northumberland County Council Conservation Team to inspect the excavation site.
- 5.0.2 Access to the site will be on the basis of prior notification and subject to any relevant health and safety considerations.

6.0 POST-EXCAVATION WORK, ARCHIVE AND REPORT COMPILATION

- 6.0.1 The present evaluation represents the first stage of a potentially multi-phase programme of archaeological mitigation. On completion of the excavation an assessment of the site records and finds will be undertaken in accordance with English Heritage (1991) guidelines. This will include:
- collation of all site records
 - compilation of a report
 - production of context, photographic, finds and illustration databases
 - analysis of the finds assemblage by relevant specialists
 - environmental assessment of selected bulk samples
- 6.0.2 The assessment report, with each page and paragraph numbered and with cross referenced illustrations, will include:
- summary of the project background

- site location
- methodology
- results of the watching brief
- site location plans and illustrations of results at appropriate scales
- interpretation of the results in an appropriate context
- post-excavation assessment of the site archive
- catalogue and assessment of the artefactual archive
- catalogue and assessment of the faunal remains
- catalogue and assessment of the palaeoenvironmental samples recovered
- appendix containing a list and summary of each recorded context

- 6.0.3 A copy of the report should be submitted by the archaeologist to the commissioning client, and the County SMR within 2 months of completion of the work. A summary will be prepared for 'Archaeology in Northumberland' and an article will be submitted to a local or national journal if appropriate.
- 6.0.4 The site archive will be prepared to the standard specified in the Management of Archaeological Projects, appendix 3 (HBMC 1991) and in accordance with the Guidelines for the Preparation of Excavation Archives for Long Term Storage (UKIC 1990). A summary account of the context record will be included and written by the supervising archaeologist. The archive will be deposited at the specified museum within 6 months of completion of the work on site.
- 6.0.5 An online OASIS form will be completed for the project as part of the post-excavation assessment process.

7.0 PERSONNEL

- 7.0.1 The designated project manager Graeme Young, is one of the five directors of the Bamburgh Research Project. A graduate of Newcastle University, with 22 years of experience in field archaeology including directing a number of excavations of urban medieval sites in Newcastle and Durham. He is an Associate Member of the Institute for Archaeologists.
- 7.0.2 Additional field staff, with appropriate archaeological experience, will be engaged as required.

8.0 SUB-CONTRACTED SPECIALISTS

- 8.0.1 Although it is not possible to predict the range of artefacts that may be recovered provision has been made for the analysis of the most common artefacts.

Material	Specialist
Medieval pottery	Jenny Vaughan
Post-medieval pottery	Jenny Vaughan
Prehistoric pottery	Blaise Vyner
Roman Pottery	Blaise Vyner
Animal bone	Durham University Archaeological Services
Palaeoenvironmental	Durham University Archaeological Services
Conservation	Karen Barker
Metalwork analysis	David Sim

9.0 HEALTH AND SAFETY

- 9.0.1 The Bamburgh Research Project complies with the 1974 Health and Safety Act and its subsequent amendments in all its operations. The SCAUM manual and the Bamburgh Research Project Health and Safety Policy Document is followed for all site works. A designated and appropriately trained first aider is present at all times during working hours. A First Aid kit, Accident Book and telephone are provided for each project. Safety footwear is mandatory on all excavation sites. Where required safety helmets and reflective jackets are provided. It is policy for a vehicle to be present at an excavation and staff must be appropriately equipped for bad weather.
- 9.0.2 All staff undergo a safety induction prior to commencing work on site. A written risk assessment is undertaken specific for each site. The safety assessment is reviewed on a daily basis and changes to the working conditions monitored continually during adverse weather conditions.



Figure 1 Location plan

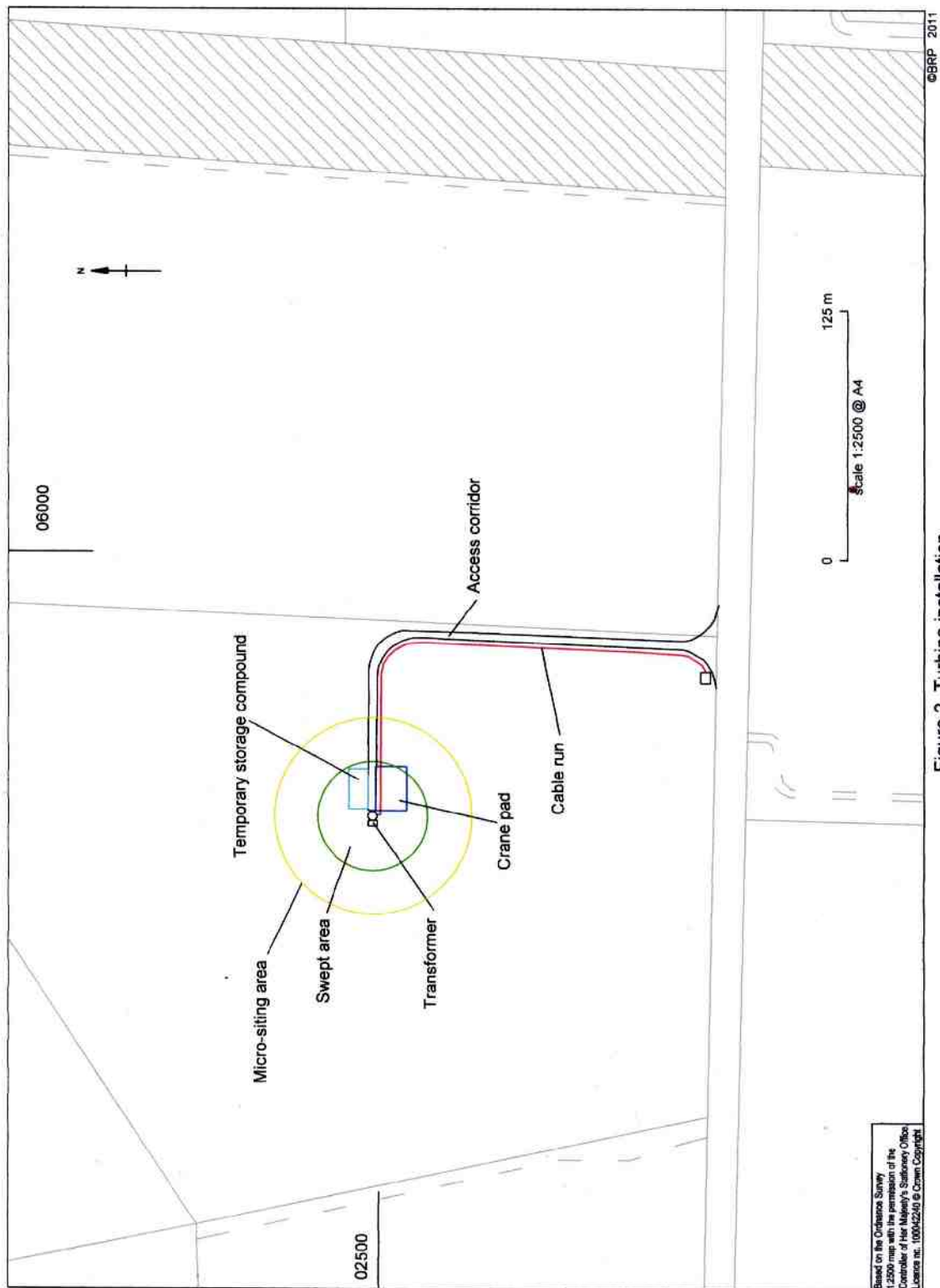
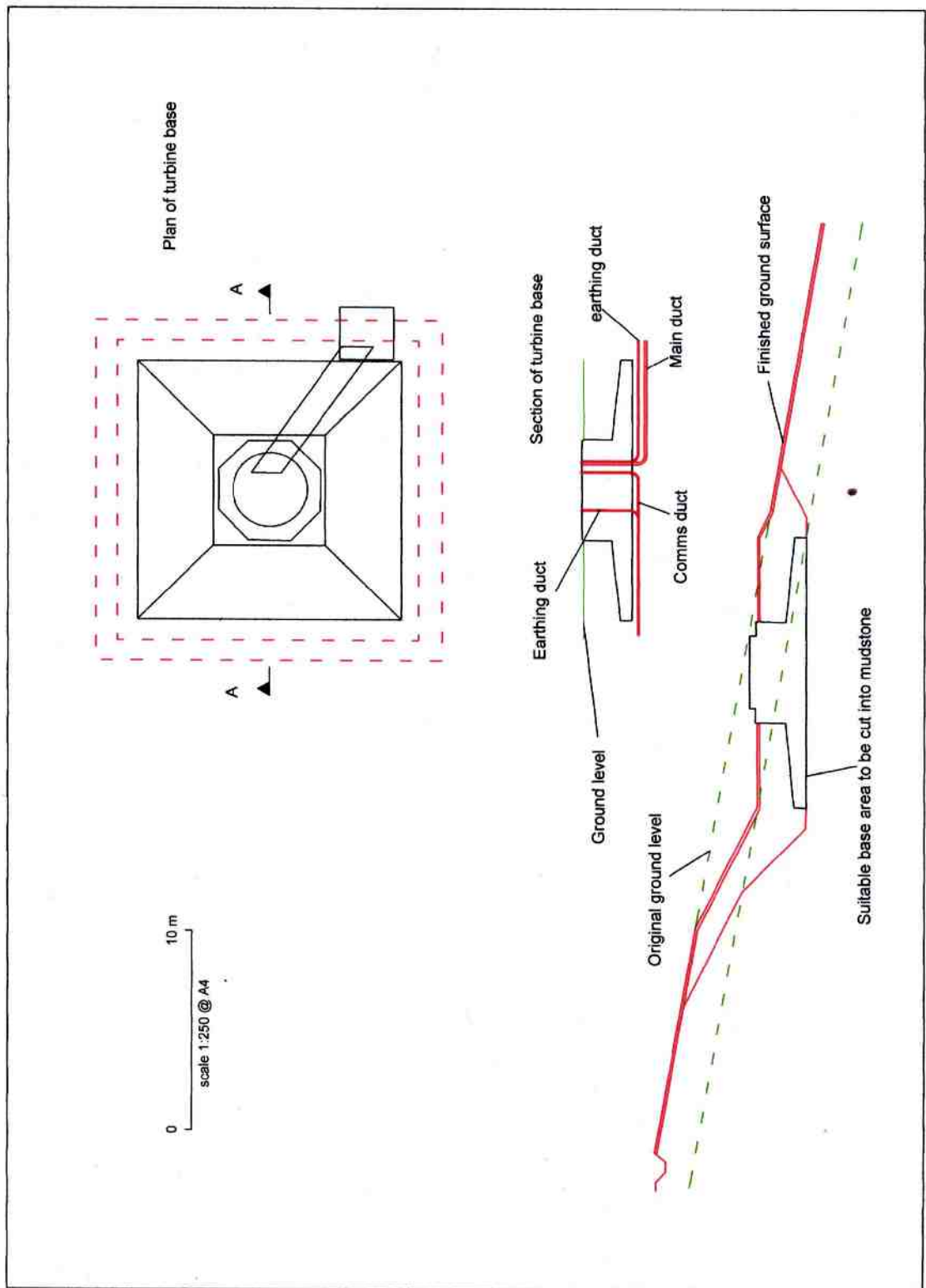


Figure 2 Turbine installation



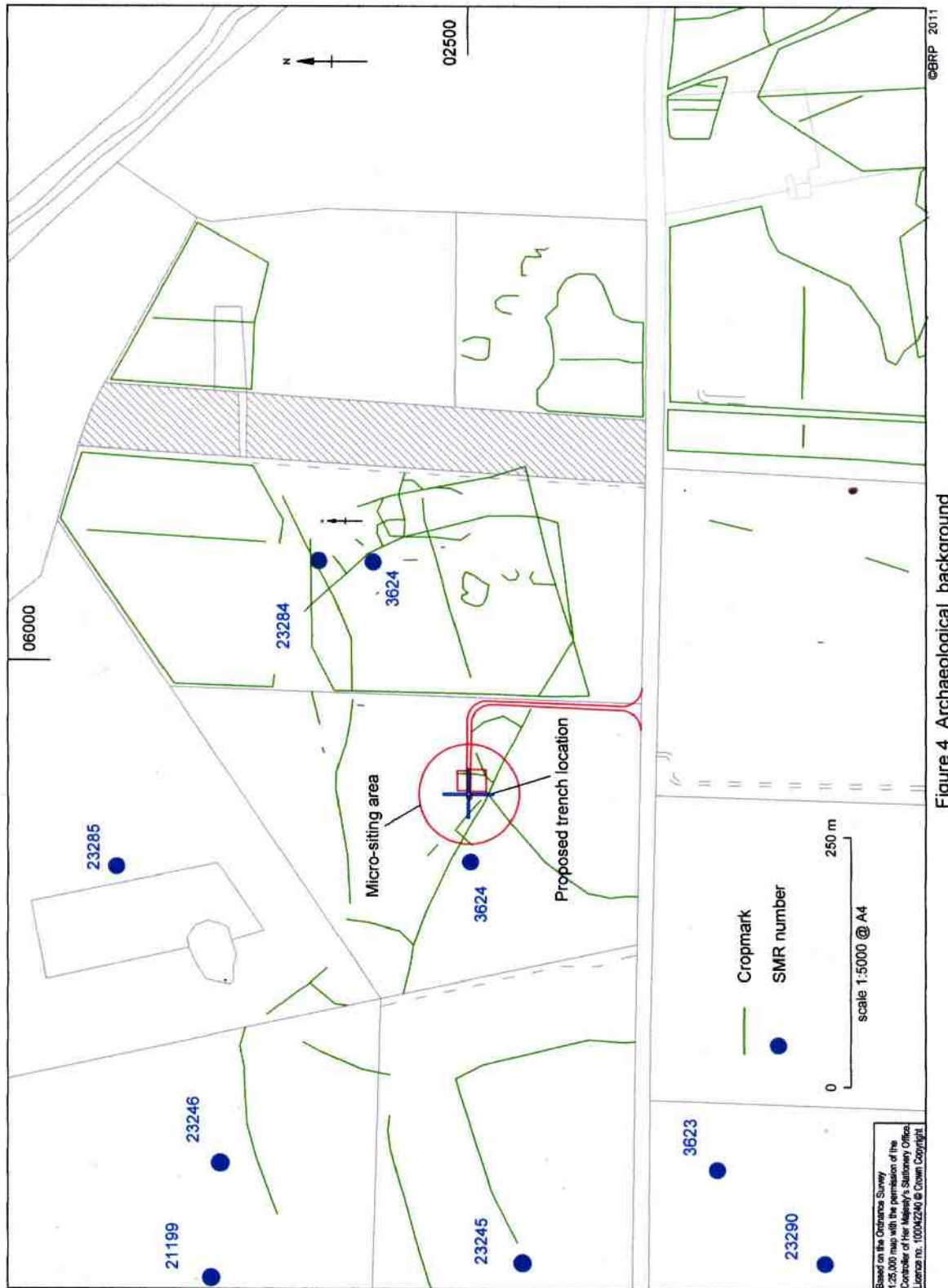


Figure 4 Archaeological background



Plate 1: Trial trench, facing north



Plate 2: Trial trench, facing west