

---

**ARCHAEOLOGICAL MONITORING AND  
RECORDING AT  
HILL FARM,  
NORDELPH,  
NORFOLK  
(ENF 129747)**

---

**Work Undertaken For  
Green Power Solutions UK Limited**

November 2012

Report Compiled by  
John Percival

National Grid Reference: TL 5438 9956  
Planning Application No: 12/00473/F  
OASIS Record No: archaeo11-137940



APS Report No. **100/12**

**ARCHAEOLOGICAL  
PROJECT  
SERVICES**



**Quality Control**  
Hill Farm, Silt Road,  
Nordelph  
ENF 129747

Project Coordinator	Dale Trimble
Supervisor	John Percival
Illustration	John Percival, Paul Cope-Faulkner
Photographic Reproduction	John Percival
Post-excavation Analyst	John Percival

Checked by Project Manager	Approved by Senior Archaeologist
 Dale Trimble	 Tom Lane
Date: 28-11-12	Date: 28-11-12

## Table of Contents

### List of Figures

### List of Plates

1.	SUMMARY .....	1
2.	INTRODUCTION.....	1
2.1	PLANNING BACKGROUND.....	1
2.2	TOPOGRAPHY AND GEOLOGY .....	1
2.3	ARCHAEOLOGICAL SETTING .....	1
3.	AIMS .....	2
4.	METHODS .....	2
5.	RESULTS .....	3
6.	DISCUSSION .....	3
7.	CONCLUSION .....	3
8.	ACKNOWLEDGEMENTS .....	4
9.	PERSONNEL .....	4
10.	BIBLIOGRAPHY .....	4
11.	ABBREVIATIONS .....	4

### Appendices

1. Context descriptions
2. Glossary
3. The Archive

## **List of Figures**

- Figure 1      General location plan
- Figure 2      Site location plan
- Figure 3      Turbine bases and cable route
- Figure 4      Sections 1 and 2

## **List of Plates**

- Plate 1      Turbine Base A under excavation
- Plate 2      Looking northwest at the excavation of the cable trench close to the farmyard
- Plate 3      Looking southwest at Turbine Base A
- Plate 4      Looking southeast at northwest section of Turbine Base B

## 1. SUMMARY

*A programme of archaeological monitoring and recording was undertaken at Hill Farm, Silt Road, Nordelph, Norfolk. The investigations monitored the excavation of two wind turbine bases and an associated cable trench.*

*Hill Farm is bisected by part of the Fen Causeway, a major east-west aligned communication route during the Roman period (AD 43-410) connecting northern East Anglia to the Ermine Street and King Street. In the environs of Nordelph, the Fen Causeway consisted of three elements, two roads with a canal in between. The line of the southern road runs through the farmyard north of the older farmhouse. The canal probably lay immediately north of the southern Road. The northern road was situated approximately 200m north of the buildings at Hill Farm. Cropmarks indicative of Roman settlement are visible on aerial photographs of the area west and southwest of the farm buildings.*

*The investigations revealed natural clays and silts overlain by the current topsoil. No archaeological features were encountered and no artefacts were retrieved.*

## 2. INTRODUCTION

### 2.1 Planning Background

Archaeological Project Services was commissioned by Green Power Solutions UK Limited to undertake a programme of archaeological monitoring and recording during groundworks associated with the installation of two new wind turbines at Hill Farm, Silt Road, Nordelph, Norfolk. Approval for the development was sought through the submission of planning application 12/00473/F. The investigations were undertaken on the 20<sup>th</sup> September 2012 in accordance with a brief prepared by the Historic Environment Service,

Norfolk County Council (Albone 2012).

### 2.2 Topography and Geology

Nordelph is located 6km southwest of Downham Market and 20km south of King's Lynn in the administrative district of King's Lynn and West Norfolk, Norfolk (Fig. 1).

Hill Farm is situated 2km southwest of the centre of Nordelph at National Grid Reference TL 5438 9956 (Fig. 2). The site lies to the northeast of the farm and south of Silt Road at a height of c. 1m OD on generally level ground of the Norfolk fens.

Local soils are either of the Wisbech Association, typically coarse silty calcareous soils, or the pelo-alluvial gley soils of the Fladbury 1 Association (Hodge *et al.* 1984, 361, 195). These soils are developed upon a drift geology of complex marine alluvium (silts and peats) overlying clay which in turn seals a solid geology of Jurassic Amphill Clay (BGS 1995).

### 2.3 Archaeological Setting

The Fen Causeway is a communications route of Roman date which ran from Denver on the eastern edge of the Norfolk Fens passing south of Peterborough and terminating in the environs of the Roman settlement of *Durobrivae*, Water Newton. There it links into the north-to-south aligned Roman roads King Street and Ermine Street (Silvester 1991, Wallis 2002). Somewhat confusingly the Norfolk Historic Environment Record (NHER) also uses the term 'Fen Causeway' (NHER 2796) to apply to the Roman Road which ran eastwards from Denver to *Venta Icenorum*, (Caistor St Edmund, just south of Norwich), the regional capital of Norfolk and north Suffolk in the Roman period.

Close to Hill Farm the Fen Causeway consists of three distinct elements, two roads with a canal in between. A northern

east-to-west aligned road was located c 200m north of the buildings at Hill Farm, between them and Silt Road. A distinct linear ridge was visible in the landscape running east or northeastwards from the northeast side of the farmyard. This ridge is either the levee or roddon formed on the southern bank of the canal or by an earlier natural watercourse. At Hill Farm the southern road ran along the top of this ridge. Little or no gravel was visible in the vicinity of the farmyard indicating that the road surface had probably been robbed out long ago.

Nearby, at London Lode Hall, Nordelph, c. 2km west of Hill Farm and at Straw Hall Farm, Downham West, 3.5km to the east, the canal post-dated the initial construction of the southern road though both remained in use side by side in the later Roman period (Wallis 2002).

No significant fieldwork has been undertaken on the Norfolk section of the Fen Causeway west of Denver since the early 1990s (NHER 2796).

Cropmarks of early Roman peat workings to the south and southwest of Hill Farm and settlement and agricultural activity of later Roman date to the west and northwest are visible on aerial photographs of the fields south and southwest of Hill Farm (Silvester 1991, 109).

### 3. AIMS

The aim of the archaeological investigation was to ensure that any archaeological features exposed during the groundworks should be recorded and, if present, to determine their date, function and origin.

### 4. METHODS

Two foundation trenches, being the turbine bases, were excavated and both measured

4m by 4m (Fig. 3). They were excavated using a small 360° tracked excavator fitted with a toothless bucket (Plate 1) under constant archaeological supervision. Topsoil was stripped across the whole surface of the trenches. Mechanical excavation to a depth of c. 1.2m continued in spits approximately 0.2m thick. Spoil heaps were inspected for the presence of artefacts.

The cable connection trenches were 0.4m wide and c. 1.4m deep and were also excavated using a small 360° tracked excavator (Plate 2). A total of c. 330m of cable trenches was excavated. As the cable trenches were dug at the same time as excavation of the turbine bases they were monitored sporadically during their excavation. The full length of the cable trenches and their spoil heaps were inspected for the presence of archaeological finds and features.

The northernmost c. 20m of the cable trench, the section closest to the southern Fen Causeway road, ran through the surfaced parts of the farmyard. This section was tunnel excavated using a 'moling' machine. Archaeological monitoring of this section of the cable trench was not possible.

In general, conditions for observations were good, with reasonable weather and light conditions. The depth and narrowness of cable trenches along with the somewhat smeared nature of their sides made effective archaeological observation difficult.

The turbine bases and cable trenches were located using a combination of taped measurement to field boundaries and hand-held GPS readings.

Each deposit was allocated a unique reference number (context number) with an individual written description. A list of all contexts and their descriptions appears as Appendix 1. A photographic record was

compiled and sections were drawn at a scale of 1:20. Recording was undertaken according to standard Archaeological Project Services' practice.

Following excavation the records were checked and a stratigraphic matrix produced. Phasing was assigned based on the nature of the deposits and recognisable relationships between them.

## 5. RESULTS

Archaeological contexts are listed below and described. The numbers in brackets are the context numbers assigned in the field.

No archaeological features were present and no artefacts were recovered. The sequence of deposits observed was the same in both turbine bases (Fig. 4, Sections 1 and 2, Plates 3 and 4).

Rich, dark silty topsoil 0.3m deep overlay a 0.4m thick layer of dense darkish-yellow silt. The upper layers of silt (001 and 004) were lightly iron mottled. Three distinct, if somewhat intermittent bands or laminations of mixed dark grey silt were also visible. It is likely that these deposits were the 'Roman silts' as defined by Silvester (1991).

Below silt layers (001 and 004) a second layer 0.3m thick of laminated silts (002 and 005) was present. The silts in this layer were somewhat lighter in colour and heavily mottled with iron or manganese nodules. In Turbine Base A, two laminated bands of mixed dark-grey silts were recorded. A single such band was recorded at Turbine Base B. These layers were probably the 'Iron Age' silts and earlier deposits (Silvester 1991).

At a depth of c.1.0 to 1.2m in the turbine bases dense grey silty clay was present (003 and 006). This material was heavily iron mottled.

A very similar sequence was visible in the cable trenches.

## 6. DISCUSSION

No features or artefacts were revealed. The upper layer of laminated silts visible in the turbine bases were probably the 'Roman' silts described by Silvester (1991). It would be expected therefore, that any archaeological features of late Roman date would cut into these silts and any earlier Roman features to be sealed by them.

Roman settlement in the Nordelph area, south of the southern Fen Causeway road, is evidenced by cropmarks and soil-marks visible on aerial photographs taken in the mid-20<sup>th</sup> century (Silvester 1991). Plough erosion of archaeological features occurs throughout the arable areas of East Anglia. Wind erosion of silts and shrinkage of peats in the Fenland basin serves to exacerbate plough-attrition of buried archaeology. It is therefore possible that any features which may have existed have been ploughed away.

Environmental evidence gathered during the early 1990s excavations (Wallis 2002) indicated that the Roman settlements lay within a brackish or saline wet-marsh landscape, settlement taking advantage of marginally higher patches of silt. While settlement existed less than 200m west and southwest of the turbine bases it may never have extended into their immediate vicinity.

## 7. CONCLUSION

Archaeological investigations were undertaken at Hill Farm, Nordelph, as the site lay close to the line of the Roman Fen Causeway.

However, no remains relating to the Fen Causeway were revealed. Instead a sequence of marine alluvium overlain by

the current topsoil was recorded. No archaeological features were identified and no artefacts were retrieved.

## 8. ACKNOWLEDGEMENTS

Archaeological Project Services wishes to acknowledge the assistance of Mr M Peukert of Green Power Solutions UK Limited for commissioning the fieldwork and post-excavation analysis. The work was coordinated by Dale Trimble who edited this report along with Tom Lane.

## 9. PERSONNEL

Project Coordinator: Dale Trimble  
 Site Supervisor: John Percival  
 Photographic reproduction: John Percival  
 Illustration: John Percival, Paul Cope-Faulkner  
 Post-excavation analysis: John Percival

## 10. BIBLIOGRAPHY

Albone, J, 2012 *Brief for the Monitoring of Works under Archaeological Supervision and Control* Norfolk Historic Environment Record, unpublished document, HES Reference CNF44234

BGS, 1995 *Wisbech: Solid and drift edition*, 1:50 000 map sheet **159**

Hodge, CAH, Burton, RGO, Corbett, WM, Evans, R and Seale, RS, 1984 *Soils and their use in Eastern England*, Soil Survey of England and Wales **13**

Silvester, RJ, 1991 *The Fenland Project Number 4: The Wissey Embayment and the Fen Causeway*, Norfolk East Anglian Archaeology **52**

Wallis, H, 2002 *Roman Routeways Across the Fens: Excavations at Morton, Tilney St Lawrence, Nordelph and Downham West* East Anglian Archaeology Occasional

Paper **10**

## 11. ABBREVIATIONS

APS Archaeological Project Services

BGS British Geological Survey



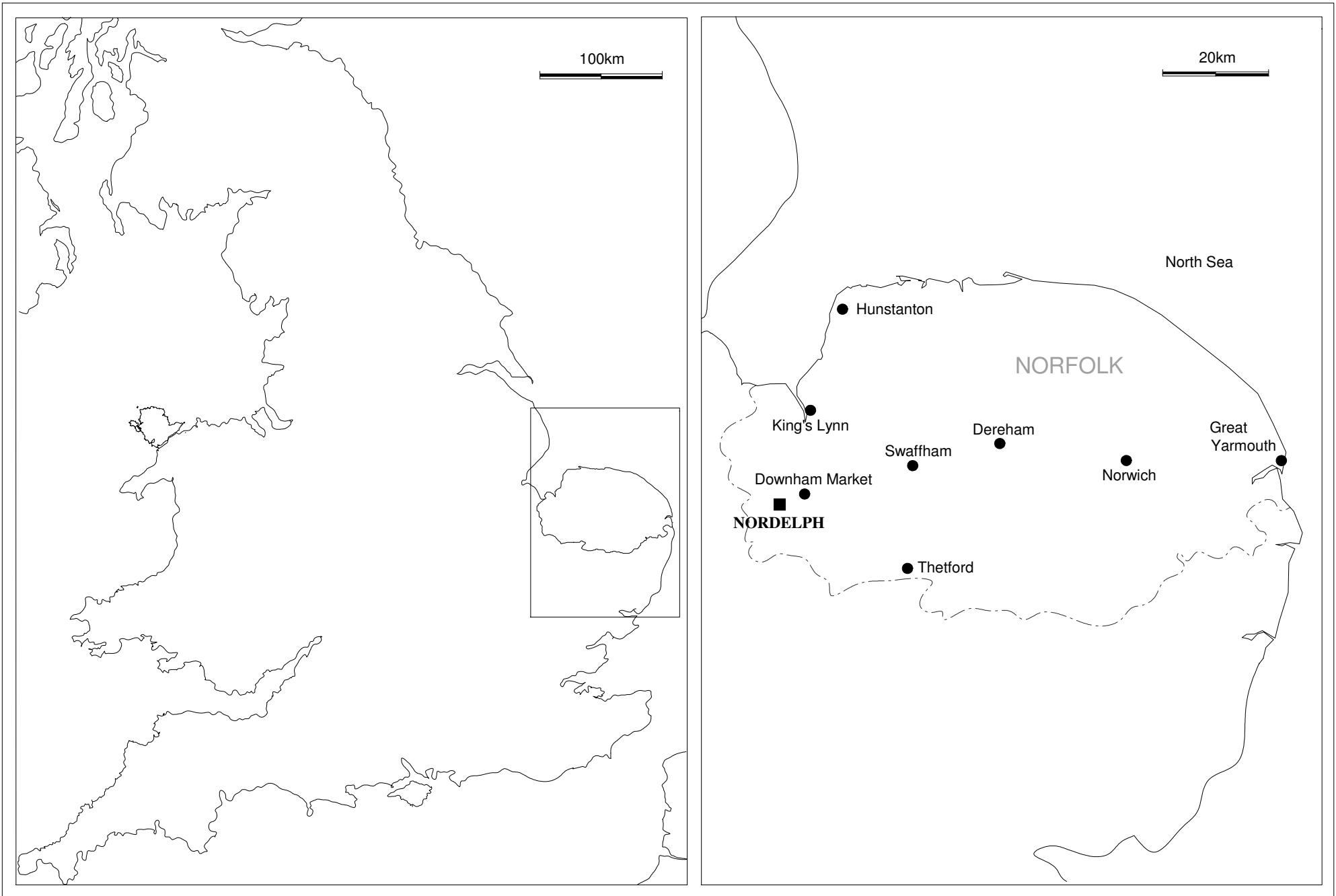


Figure 1 - General location plan

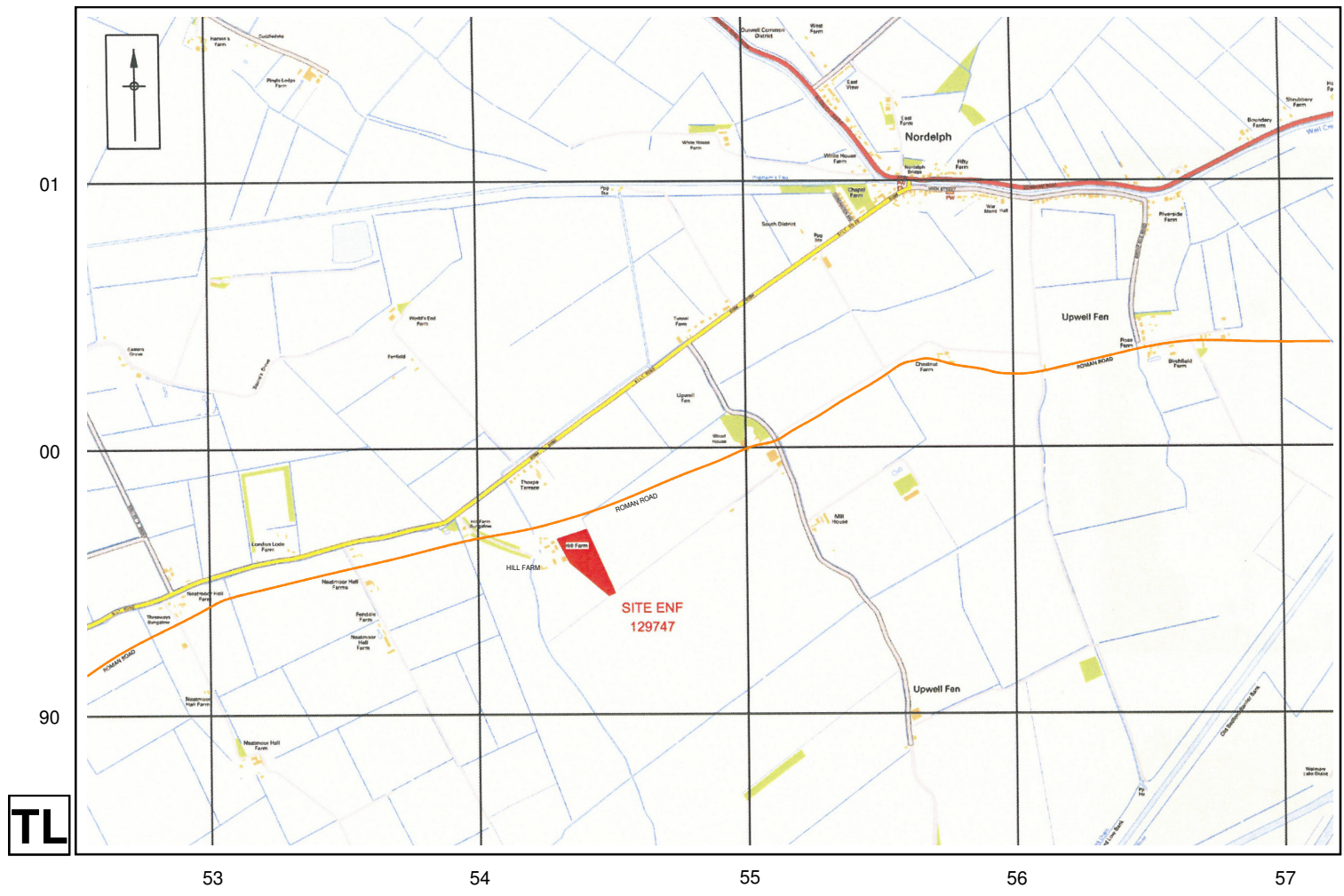
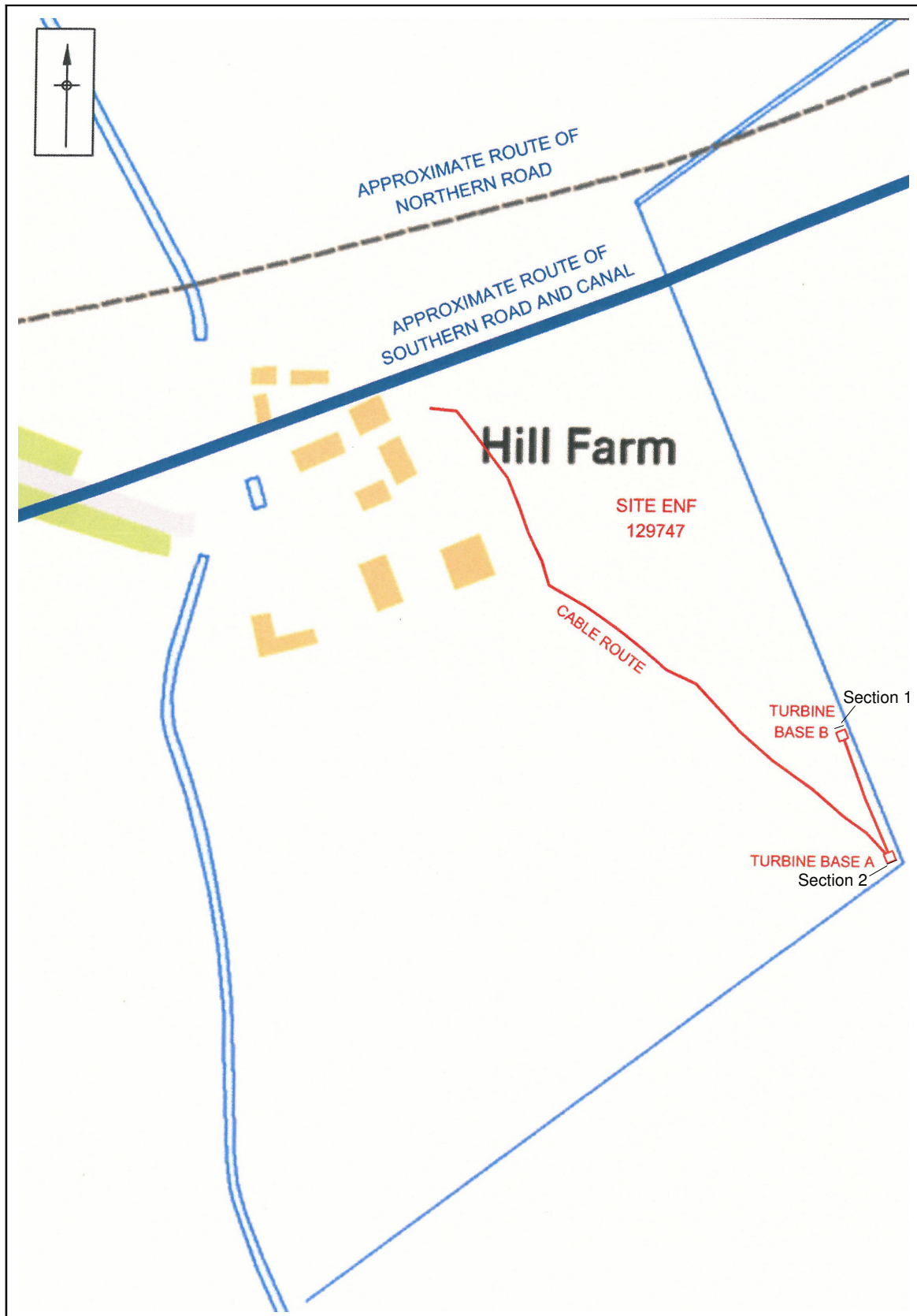


Figure 2 - Site location plan




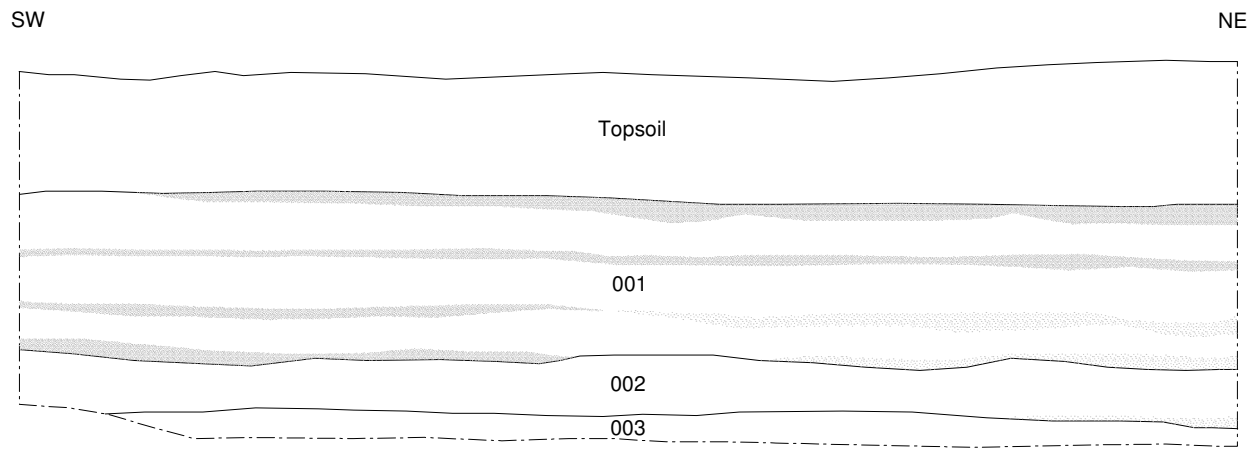
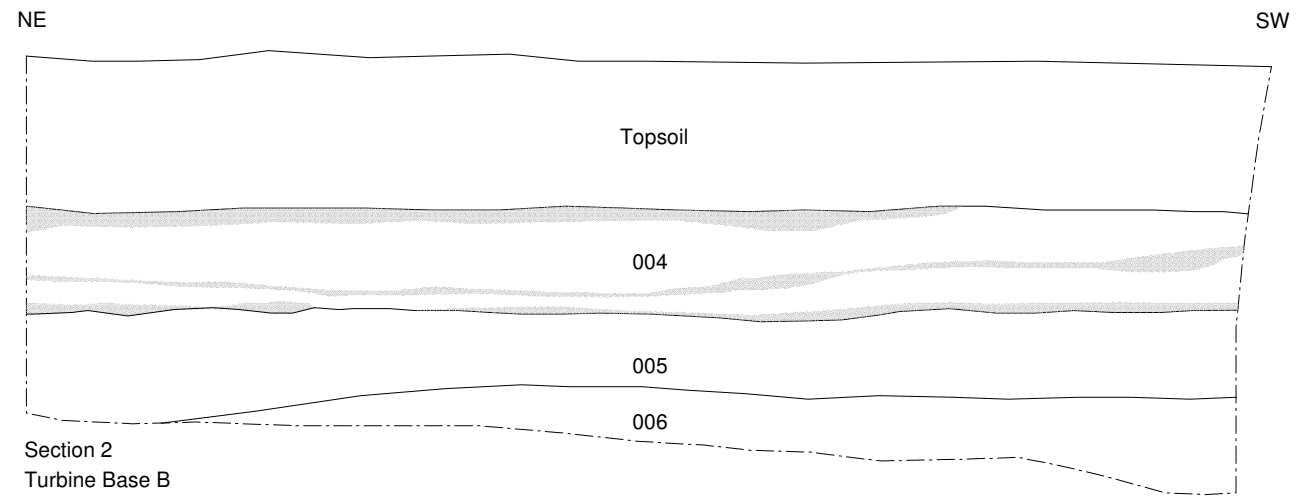
 <b>Archaeological Project Services</b>		
Project Name: Hill Farm, Nordelph ENF129747		
Scale 1:2500	Drawn by: JP	Report No: 100/12

Figure 3 - Turbine bases and cable route




Section 1  
Turbine Base A



Section 2  
Turbine Base B



 Grey silt lenses


 Archaeological Project Services		
Project Name: Hill Farm, Nordelph ENF129747		
Scale 1:25	Drawn by: PCF	Report No: 100/12

Figure 4 - Sections 1 and 2





Plate 1 - Turbine Base A under excavation, looking east



Plate 2 - Looking northwest at the excavation of the cable trench close to the farmyard





Plate 3 - Looking southwest at Turbine Base A, one 1m scale, one 2m scale



Plate 4 - Looking southeast at northwest facing section of Turbine Base B, One 1m scale, one 2m scale

## Appendix 1

### CONTEXT DESCRIPTIONS

No.	Description	Interpretation
001	Firm dark yellow silt, 0.46m thick	Natural deposit
002	Firm light yellow silt with iron mottling, 0.36m thick	Natural deposit
003	Plastic mid grey silty clay	Natural deposit
004	Firm dark yellow silt, 0.35m thick	Natural deposit
005	Firm light yellow silt, 0.38m thick	Natural deposit
006	Plastic mid grey silty clay	Natural deposit

## Appendix 2

### GLOSSARY

<b>Alluvium</b>	A deposit (usually clay, silts or sands) laid down in water. Marine alluvium is deposited by the sea and freshwater alluvium by streams, rivers or within lakes.
<b>Context</b>	An archaeological context represents a distinct archaeological event or process. For example, the action of digging a pit creates a context (the cut) as does the process of its subsequent backfill (the fill). Each context encountered during an archaeological investigation is allocated a unique number by the archaeologist and a record sheet detailing the description and interpretations of the context (the context sheet) is created and placed in the site archive. Context numbers are identified within the report text by brackets, <i>e.g.</i> (004).
<b>Cropmark</b>	A mark that is produced by the effect of underlying archaeological features influencing the growth of a particular crop.
<b>Iron Age</b>	A period characterised by the introduction of Iron into the country for tools, between 800 BC and AD 50.
<b>Layer</b>	A layer is a term to describe an accumulation of soil or other material that is not contained within a cut.
<b>Natural</b>	Undisturbed deposit(s) of soil or rock which have accumulated without the influence of human activity.
<b>Prehistoric</b>	The period of human history prior to the introduction of writing. In Britain the prehistoric period lasts from the first evidence of human occupation about 500,000 BC, until the Roman invasion in the middle of the 1 <sup>st</sup> century AD.
<b>Romano-British</b>	Pertaining to the period dating from AD 43-410 when the Romans occupied Britain.



## Appendix 3

### THE ARCHIVE

The archive consists of:

- |   |                            |
|---|----------------------------|
| 1 | Daily record sheet         |
| 6 | Context record sheets      |
| 3 | Sheets of scale drawings   |
| 2 | Photographic record sheets |

All primary records are currently kept at:

Archaeological Project Services  
The Old School  
Cameron Street  
Heckington  
Sleaford  
Lincolnshire  
NG34 9RW

The ultimate destination of the project archive is:

Norfolk Museums Service  
Union House  
Gressenhall  
Dereham  
Norfolk  
NR20 4DR

Norfolk Historic Environment Service Site Code:

ENF 129747

The discussion and comments provided in this report are based on the archaeology revealed during the site investigations. Other archaeological finds and features may exist on the development site but away from the areas exposed during the course of this fieldwork. *Archaeological Project Services* cannot confirm that those areas unexposed are free from archaeology nor that any archaeology present there is of a similar character to that revealed during the current investigation.

Archaeological Project Services shall retain full copyright of any commissioned reports under the *Copyright, Designs and Patents Act 1988* with all rights reserved; excepting that it hereby provides an exclusive licence to the client for the use of such documents by the client in all matters directly relating to the project as described in the Project Specification.