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LINDSEY ARCHAEOLOGICAL SERVICES

**Proposed Extension of Welton Gathering Centre  
Reepham, Lincs.**

NGR: TF 0455 7500  
Site Code: RWGC 03  
LCNCC Museum Accn. No. 2003. 257

*pipeline*

**Archaeological Desk-Based Assessment**

**Report prepared for  
Lapwings Consultants  
(on behalf of Star Energy [East Midlands] Ltd)**

Conservation  
Services  
  
04 AUG 2003  
  
Highways & Planning  
Directorate

by  
**G. Tann**

**LAS Report No. 685**

**July 2003**

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# Proposed Extension of Welton Gathering Centre Reepham, Lincs. Archaeological Desk - Based Assessment

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## **Summary**

*Groundworks for the proposed extension of the Welton Gathering Centre will affect part of a block of medieval or later ridge and furrow. The only other features known to be affected are of post-medieval date. A complex of prehistoric and/or Romano-British occupation features is known from cropmarks 500m to the west of the application site, and there is some potential for similar remains within the site, masked by the ridge and furrow or by alluvium. Geophysical survey might be an appropriate means of recording the ridge and furrow prior to its destruction, and simultaneously confirming that the application site is clear of significant archaeological remains.*

## **Introduction**

Lindsey Archaeological Services (LAS) was commissioned in July 2003 by Lapwings Consultants (on behalf of Star Energy [Midlands] Ltd) to prepare an archaeological desk-based assessment of land north of the existing Welton Gathering Centre (Figs. 1 and 2).

The purpose of the desk-based assessment is to identify the archaeological potential of the application sites by collating available existing information.

## **The Site**

Star Energy proposes to extend its existing Welton Gathering Centre, currently used in connection with its oil drilling activities in the region, onto adjacent land to the north. Access to this site will continue to be from Barfields Lane. The main additional activity will be in on part of an arable field, separated by a small stream from the present operations area. Here a series of buildings will be used in association with gas from a proposed pipeline source.

During construction of the extension, the existing works area north of the stream beside the access road will be extended across an adjacent pasture field. This will entail topsoil removal and the laying of a stone surface.

## **Methods and Sources**

A desk-based assessment of the site, within a 0.5km surrounding area, was undertaken in order to identify and assess all archaeological constraints. Research for the assessment was conducted by G. Tann between July 16th and 23rd 2003. The following sources were consulted and available information researched:

- Lincolnshire County Council County Archaeology Office (Sites and Monuments Record, National Mapping Programme overlay of cropmarks, 1971 vertical air photographs, oblique air photographs, parish file, previous reports)
- Lincolnshire Archives Office (Manuscript maps, Ordnance Survey maps, other documentary and published sources)
- Lincoln Central Library Reference Department, Local Studies Collection (published sources, press cuttings, Ordnance Survey maps)

### **Topography and Geology**

The proposed site of the extension is slightly below 10m OD on the northern edge of a thin band of alluvium, (classified as 813c Fladbury 2 Association, pelo-alluvial gley soils. Immediately to the north is a small area of 512a Aswarby Series gleyic brown calcareous earths, extending to Wragby Road (Soil Survey 1983).

The southern boundary of the site is beside a small stream, which forms a tributary of the Barlings Eau. The topography south of the stream has been altered by the existing Welton Gathering Centre and the adjacent railway. North of the stream, the natural slope is evident in farmland, broken by former field boundaries. At the SE corner of the site, the ground forms a slight depression beside the stream.

### **Archaeological and Historical Background (Fig. 3)**

Previously recorded sites and findspots are listed in the Lincolnshire Sites and Monuments Record. These have been allocated Primary Record Numbers (PRNs) and these are used in the text. A summary list of entries in the vicinity is provided in Appendix 1.

#### ***Prehistoric and Roman***

A 1986 air photograph shows cropmarks of enclosures and associated pits (SMR 52962, 54174) in the fields SE of the junction of Barfields Lane and North Lane. Further cropmark features (SMR 54171, 54175) are recorded from the field to the north of Barfields Lane, but these are confused by medieval ridge and furrow. Cropmarks interpreted as hut circles (SMR 54170) have been recognised north of Reepham village, and an enclosure (SMR 54172) is recorded to the NW. All these sites might be of Iron Age date, but Romano-British features could also be present.

A Roman burial (SMR 50434) was found north of Wragby Road in 1961, east of Reepham Toft. Further Roman sites, including a possible villa, are known from Sudbrooke, and it seems that an extensive pattern of late Iron Age/Romano-British occupation may have extended across the area. The Roman road (SMR 50580, Margary ref. 27), to the coastal salt-making sites and a suspected contemporary port at Burgh le Marsh, passes along the line of the A158 Wragby

Road, 350m to the north (Margary 1973, 238-9). The settlement and *colonia* at Lincoln would have provided a nearby market.

### ***Saxon and Medieval***

Cropmarks have been photographed of a medieval or later ridge and furrow field system (SMR 54173) extending across fields east of North Lane and north of Barfields Lane. Earthwork remains of ridge and furrow are visible in the fields south of Barfields Lane where both structures may be sited. The cultivation remains may be contemporary with the name Barfields Lane. The name appears on 1838 and 1851 maps (alongside areas of pasture) and could denote a nearby toll bar, but in this location is more likely to reflect barley production (Field 1972, 12-14).

### ***Post-medieval***

The earliest available map including the application site is an 1838 map by W.H. Wright (Fig. 4; LAO TLE 43/2). It shows a similar field arrangement to that which exists, although a north-south field boundary has been removed in the centre of the large field north of the stream. A larger scale copy of that map, using the same field numbers, was used as the 1851 Reepham Tithe Map (LAO Tithe Award I/ 642). An estate map of 1884 shows the same arrangement, but marks small ponds at the corners of several fields, including within the application site (Fig. 5; LAO SIB 1/7). The Ordnance Survey map surveyed in 1886 omits the ponds but shows the railway line, installed in 1848 (Fig. 6; OS 1890). No additional features are marked on the Provisional edition (OS 1950).

A sewage works, accessed via a track from Barfields Lane, had been constructed before 1968 (OS 1969). The small field to the SE of the application site contained trees by 1974. The Welton Oil Gathering Centre, 100m east of the sewage works, was constructed prior to 1988, with sidings from the adjacent railway. An access road leads from Barfields Lane.

### **Site Visit (Fig. 2)**

The proposed site was visited on July 17th 2003, in bright conditions. The area of the intended development is an arable field, currently with a barley crop (Pl. 1). Virtually none of the field surface could be seen, and no indication could be gained as to whether any artefact scatters were present. The topsoil at the southern side of the site, close to the small stream, had the appearance of alluvium, and this could be masking early features across most of the area (Pl. 2). Slight undulations were seen in the field, but apart from a probable west-east removed field boundary bank, these were interpreted as naturally formed.

Between the arable field and the access road, alongside the stream, is an 100m x 50m area currently used as part of the Gathering Centre, with a mast and various sheds (Pl. 3). Topsoil and concrete rubble stripped from this land in the past forms a broad bund along its northern

edge. To the north of the bund is a pasture field, which may be stripped of topsoil as part of the development of the Gathering Centre extension. Earthwork remains of ridge and furrow, probably indicating medieval arable cultivation, cross the field from south to north (Pl. 4). A flattened strip alongside the western field hedge is not a plough headland, but the easement strip of an existing oil pipeline serving the Welton Gathering Centre. The existing west-east dividing hedge has been planted over earlier furrows, and the medieval division lay in a different position. Furrows extend as far as the Barfields Lane hedge to the north.

### **Planning Policies**

The Star Energy application will be considered by Lincolnshire County Council. The *Lincolnshire Structure Plan (Deposit Draft)* contains relevant county-wide policies (LCC 1998, 100-109). The *West Lindsey Local Plan* for the period to 2002 was placed on deposit in March 1994 (WLDC 1994). Extracts relevant to archaeological issues are appended (Appendix 2).

### ***Scheduled Ancient Monuments and Listed Buildings***

There are no scheduled ancient monuments or listed buildings within the study area.

### ***Hedgerows***

Development of this site will affect neighbouring hedgerows, although details of this are not available. All these are in the positions of field boundaries shown on the 1838 map. The relationship of the ridge and furrow to the existing hedges indicates that the hedgerow in the pasture field close to the existing access road is not of exceptional antiquity.

### **Archaeological Potential of the Application Sites**

The ridge and furrow in the pasture is the earliest archaeological feature identifiable from a site inspection. The ponds marked on the 1884 estate map may be of post-medieval date, as appear to be the field boundaries.

An extensive cropmark archaeological site 500m to the west is assumed to be an occupation and farming site of Iron Age or Romano-British date, and Wragby Road follows the alignment of a Roman road. As late prehistoric and Iron Age occupation is present in the close vicinity, there is some potential for further archaeological remains to be found on this south-facing site beside the stream. The presence of alluvium beside the stream indicates that sustained flood episodes have affected part of the site in the past; these will have prevented occupation of the site at intervals, but the deposited silt should have protected archaeological features, if present, from plough erosion.

The previously stripped land between the stream and the pasture field is not thought likely to retain any archaeological features.

### **Potential Archaeological Impact of the Proposed Development**

Full details of the proposed development were not available when this assessment was in preparation. It should be assumed that foundations and pipe trenches are likely to disturb any surviving archaeological deposits within the intended extension area.

LAS understands that the southern pasture field is to be stripped of topsoil and used for soil and plant storage during the construction of the extension. This will remove this part of the surviving ridge and furrow.

### ***Mitigation***

LAS suggests that the areas of proposed topsoil stripping should receive archaeological attention in advance of any groundworks for this scheme. A geophysical survey of both areas would record the ridge and furrow in the pasture field, and indicate if any earlier features are masked by it. In the arable field, it would show the potential presence of any significant archaeological features which have been masked by alluvium. Any identified features could then be assessed by evaluation trenching.

### **Conclusion**

The proposed extension of the Welton Gathering Centre is not prevented by any known archaeological issues. The ridge and furrow is probably medieval, and could be masking and protecting earlier remains, as is alluvium in the larger area to the SE. An appropriate mitigation strategy could be geophysical survey prior to any soil disturbance, possibly followed by an archaeological watching brief during groundworks. In the event that significant archaeological remains are encountered, the archaeological advisor to the planning authority should be consulted before groundworks continue, and a revised mitigation strategy be established.

### **Acknowledgements**

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Stewart Reast (Star Energy, East Midlands Ltd); Caroline Steel (Lapwings Consultants); archaeologists in the Built Environment Team, Lincolnshire County Council (Highways and Planning Directorate); staff at the Lincolnshire Archives Office, and staff at Lincoln Central Library Reference Collection.

The figures were prepared by Karen Dennis and Mark Williams. The report was collated and produced by Naomi Field.

Geoff Tann  
Lindsey Archaeological Services  
July 30th 2003



## References and Background Sources

- Cameron, K. 1998 *A Dictionary of Lincolnshire Place-Names*. English Place-Name Society Popular Series 1.
- Clay, C. 2001 *Archaeological Watching Brief Report: Scothern Area Water Main Rehabilitation Scheme*. Pre-Construct Archaeology report no. M1/17, September 2001.
- Everson, P.L., Taylor, C.C., and Dunn, C.J. 1991 *Change and Continuity: Rural Settlement in North-West Lincolnshire*.
- Everson, P.E. 1991 *Royal Commission on Historical Monuments: Reepham Archive Notes*. Lincs. SMR Reepham parish folder.
- Field, J. 1972 *English Field Names: A Dictionary*.
- Foster, C.W. and Longley, T. 1976 *Lincolnshire Domesday and the Lindsey Survey*. Lincoln Record Society 19 (1921), reprinted 1976.
- LAO Tithe Award I/642 *Reepham Tithe Award and Map, 1851*. Lincolnshire Archives.
- LAO TLE 43/2 *Plan of the Parish of Reepham, Lincs. 1838, surveyed by W.H. Wright*. Lincolnshire Archives.
- LCC 1998 *Lincolnshire Structure Plan, Deposit Draft 'Shaping the County's Future'*. Highways and Planning Directorate, Lincolnshire County Council.
- Macarthy 1984 *Report into Findings of Site Investigation at the Proposed Tank Farm Site at Sudbrook[e], Lincolnshire*. Macarthy, Hughes and Partners Ltd, January 1984.
- OS 1890 Ordnance Survey 1:10,560 map Sheet Lincs. 62 SW. Surveyed 1886.
- OS 1906 Ordnance Survey 1:2500 map, Lincs. Sheet 62.9. Surveyed 1886, revised 1904.
- OS 1907 Ordnance Survey 1:10,560 map Sheet Lincs. 62 SW. Surveyed 1885, revised 1904.
- OS 1950 Ordnance Survey 1:10,560 map Sheet Lincs. 62 SW. Surveyed 1885, revised 1904, 1946 and 1948.
- OS 1953 Ordnance Survey 1:25,000 map Sheet TF 07. Revised 1904-1938, with further revision 1946-53.
- OS 1956 Ordnance Survey 1:10,560 map Sheet TF 07 SW. Revised pre 1930.
- OS 1969 Ordnance Survey 1:2,500 map Sheet TF 0474 and TF 0574. Revised 1968.
- OS 1989 Ordnance Survey 1:50,000 Landranger map Sheet 121.
- RCHM(E) 1994 *National Mapping Programme: Lincolnshire*. Air photograph plot, 1:10,000 scale. Copy held at SMR.
- Soil Survey 1983 *Soils of Eastern England: Sheet 4*. Soil Survey of Great Britain,
- WLDC 1994 *West Lindsey Draft Local Plan*. March 1994, adopted 1998. West Lindsey District Council.

### **Air Photograph references:**

TF 040 748 SF 3205/27-29a CDC 17/7/1986  
Hunting Aerofilms: HSL UK 71 1185 21/9/1971 Run 05 691

### **Archive Summary**

Correspondence  
Developer's plans  
Photographs: colour prints, LAS film nos. 03/80/7-21

**APPENDIX 1**

## Reported Archaeological Sites and Findspots near the Proposed Welton Gathering Centre Extension

(Source: Lincolnshire County Sites and Monuments Record)

SMR PRN No.	NGR (all TF)	Period	Description
50580	0045 7329- 0715 7715	Roman	Roman road from Lincoln to Burgh le Marsh
52945	0380 7420	medieval	lead spindle whorl
52962	0389 7472	prehistoric	cropmark site of enclosures and pits, overlain by ridge and furrow
53066	0430 7620	medieval	possible location of settlement of Holme
54170	0376 7426	prehistoric	cropmark site of enclosure with two hut circles, overlain by ridge and furrow
54171	0383 7455	prehistoric	cropmark site of linear feature, overlain by ridge and furrow
54172	0359 7400	prehistoric	cropmark site of enclosure, overlain by ridge and furrow
54173	036 745	medieval	cropmark site of ridge and furrow, over prehistoric features
54174	0402 7459	prehistoric	cropmark site of enclosure
54175	0364 7489	undated, ?prehistoric	cropmark site of enclosure

**APPENDIX 2**

## Planning Policies

### *Lincolnshire County Council*

Relevant policy initiatives followed by Lincolnshire County Council are detailed in its *Lincolnshire Structure Plan, Deposit Draft 'Shaping the County's Future'* (LCC 1998).

#### ***Policy 63: Archaeological Heritage***

*Development adversely affecting an archaeological site of national importance (whether scheduled or not) or its setting, will not normally be permitted*

*Development affecting an archaeological site of regional or local importance will be considered having regard to its intrinsic importance and the need for the proposed development*

*Where development is permitted, satisfactory arrangements for the preservation in situ of archaeology within the development, or (where appropriate), the excavation and recording of the archaeological remains will be required*

### ***West Lindsey District Council***

Relevant policy initiatives followed by West Lindsey District Council are detailed in its *Draft Local Plan (Deposit Local Plan March 1994, Adopted 1998)*:

#### **Ancient Monuments and Sites of Archaeological Importance:**

##### *Policy SA9*

*The Local Planning Authority will seek to protect the District's archaeological heritage, including all known sites of archaeological importance.*

*Planning permission will not normally be granted for development which would adversely affect the archaeological remains on, or under, a site or affect the character or setting of a site. This is particularly so in the case of archaeological remains of national or great local importance.*

*Where development is proposed on a site where there is considered to be an archaeological interest and the information about the archaeology is insufficient to determine an application the applicant may be required to provide further information needed to determine the application; in the absence of this the local planning authority will consider the need to refuse permission for the proposals.*

*If planning permission is granted for a development which if carried out would adversely affect the archaeology of the site it will be subject to conditions, agreements or planning obligations as appropriate to:*

- i) Ensure preservation of the archaeology in situ and/or*
- ii) Ensure an adequate record of the site is made. Depending on the importance of the site, this may take the form of*

*a) excavation, adequate opportunity being provided by the developer for an archaeological body approved by the District Council to carry out such works*

*b) watching brief*

*c) field survey*

*Such excavation or recording shall normally be carried out before development commences. The publication of results of any excavation or survey will be required as part of any agreement or set of conditions.*

*Where the character setting or physical structure of an archaeological site is being or would be adversely affected by permitted development, the local authority will give consideration to the need for making an order under Article 4 of the Town and Country Planning General Development Order 1988.*

**THE FIGURES**

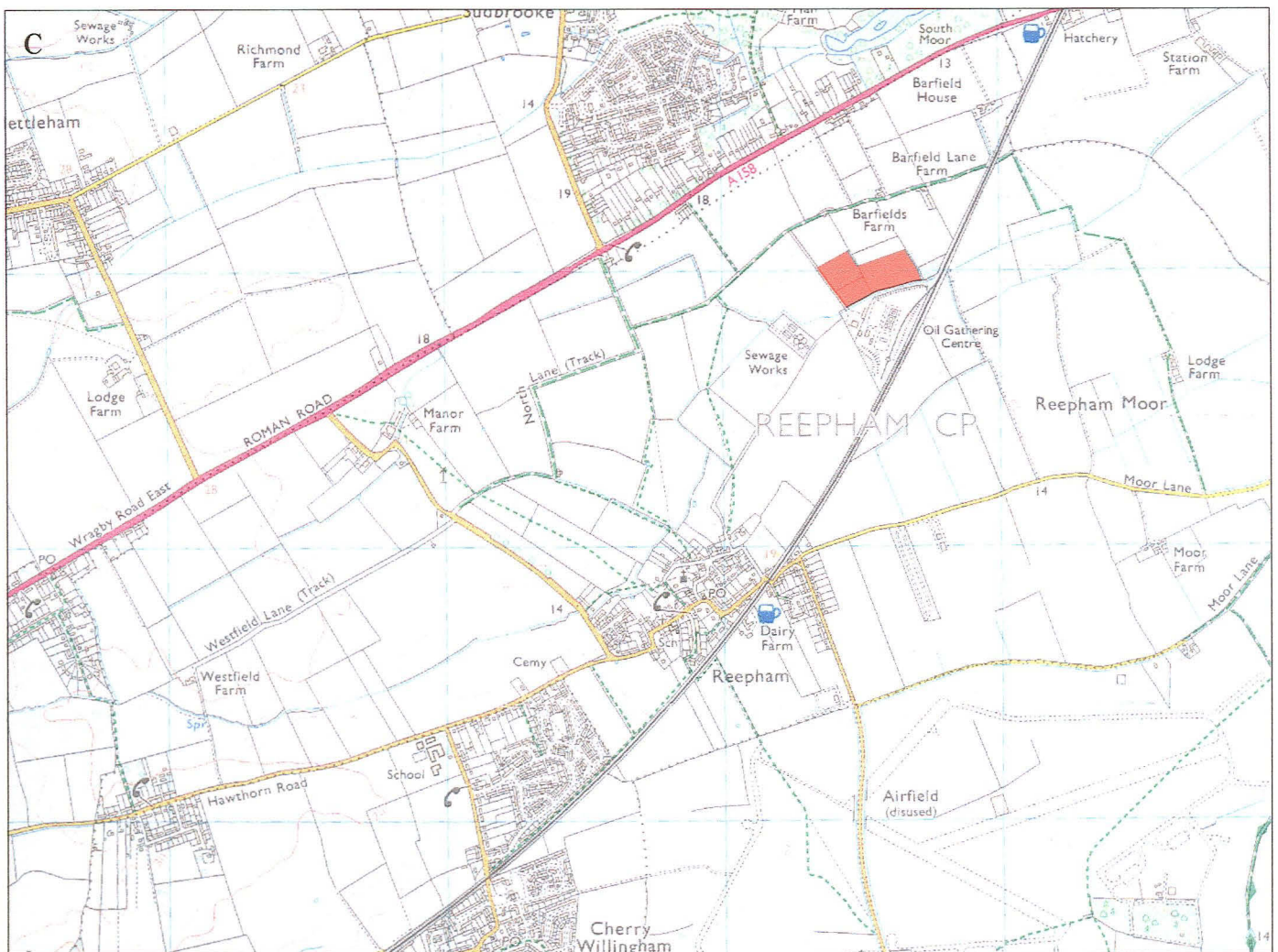
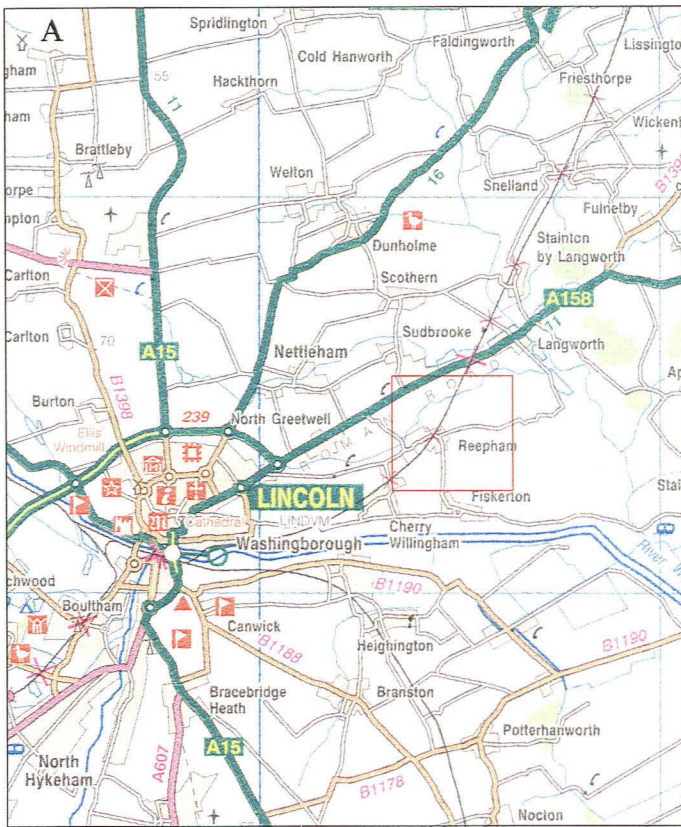


Fig. 1 Location of Reepham (C based on the 2000 1:25000 Ordnance Survey Explorer map Sheet 272. Crown Copyright, reproduced with the permission of the Controller of HMSO. LAS Licence No. AL 100002165).



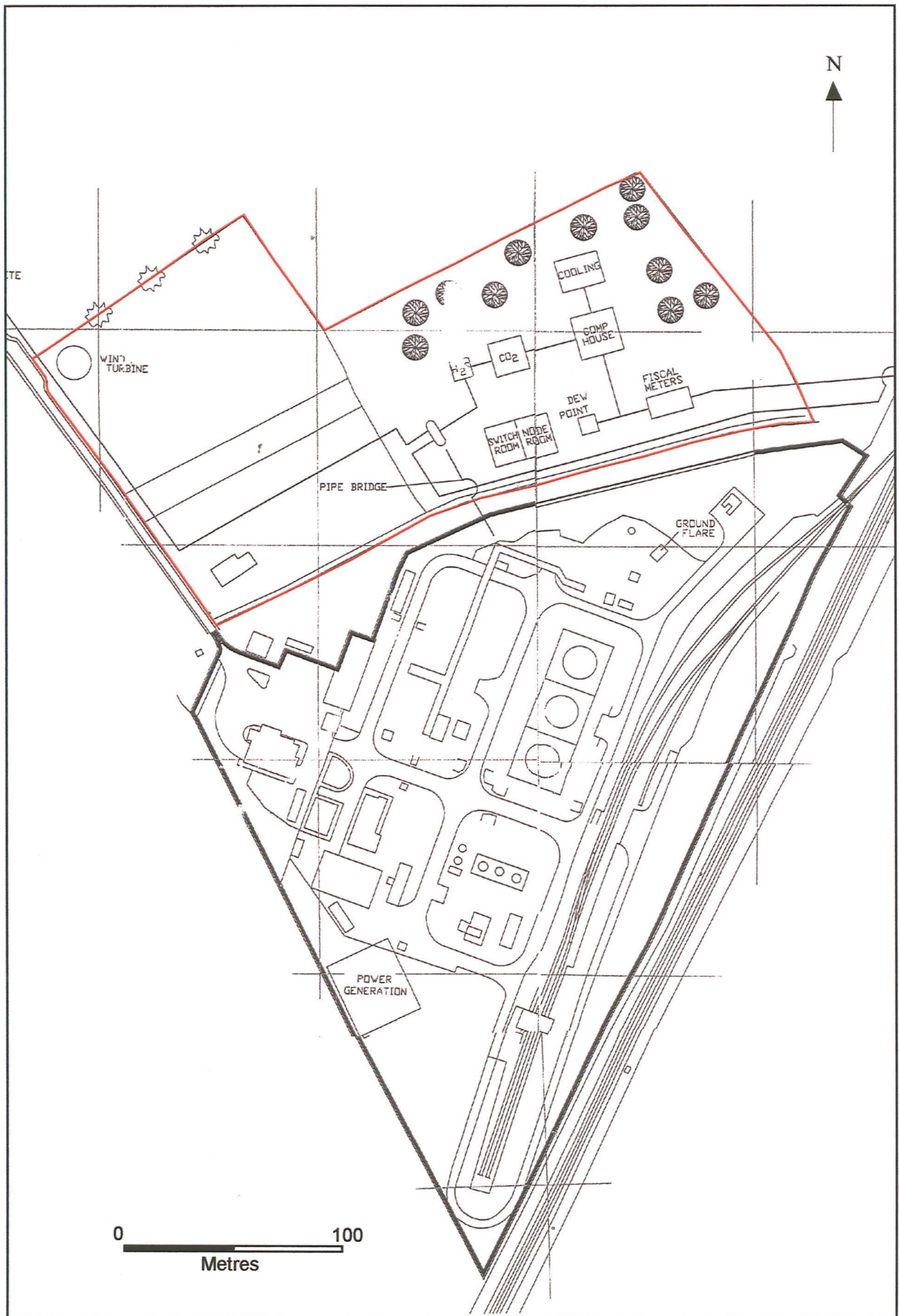


Fig. 2 Layout of the proposed extension, showing the existing Welton Gathering Centre. (Reproduced at reduced scale from a plan supplied by the client. © Crown Copyright, reproduced with the permission of the Controller of HMSO. LAS Licence No. AL 100002165).

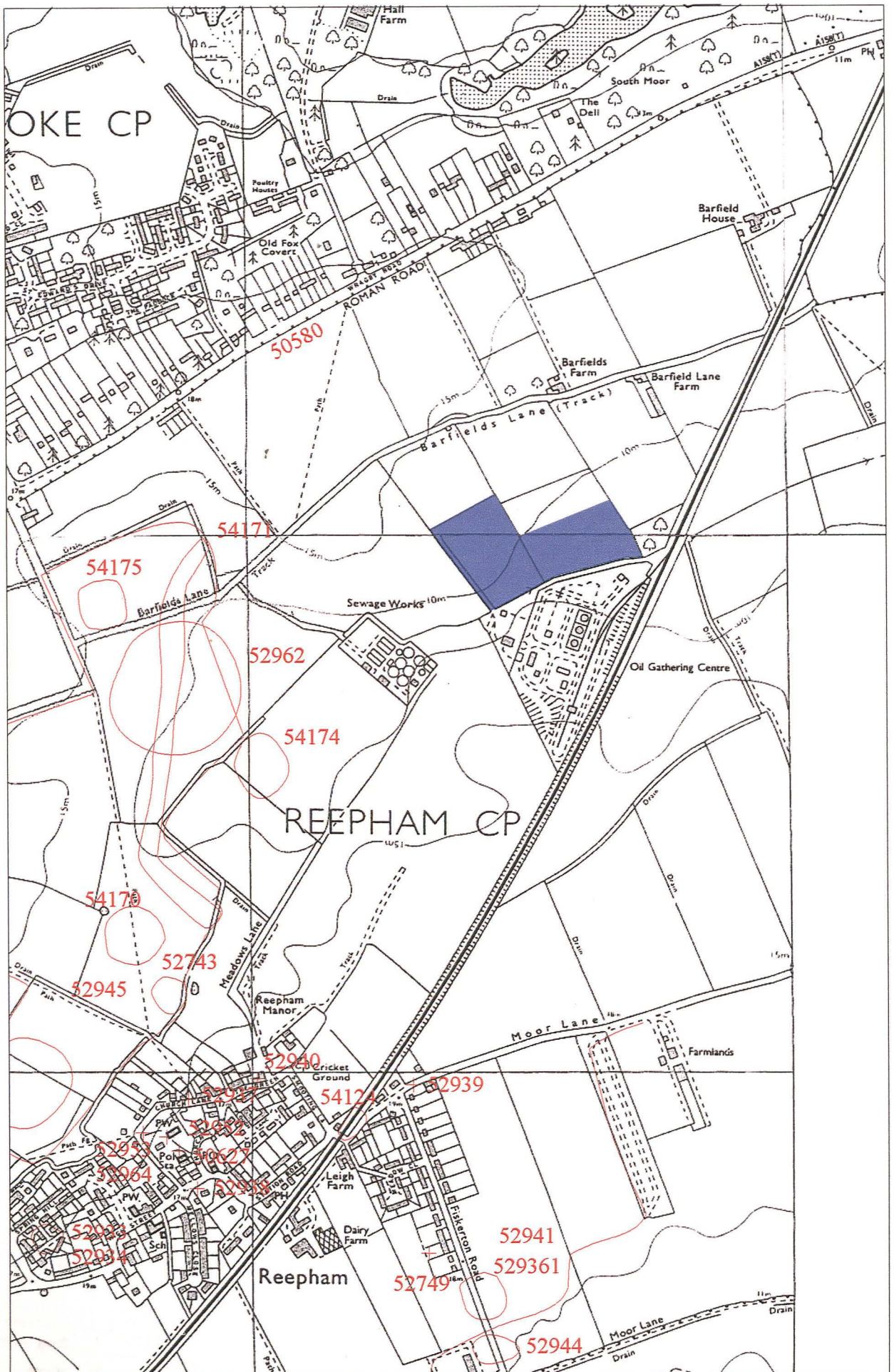


Fig. 3 Recorded archaeological sites and finds from the vicinity (information taken from Lincolnshire Sites and Monuments Record, based on the 1976 Ordnance Survey 1:10,000 map Sheet TF 07 SW. © Crown Copyright, reproduced with the permission of the Controller of HMSO. LAS Licence No. AL 100002165).



Fig. 4 Traced extract from the 1838 Estate Map (LAO TLE 43/2; Lincolnshire Archives).



Fig. 5 Position of ponds marked on the 1884 Estate Map (LAO SIB 1/7; Lincolnshire Archives).

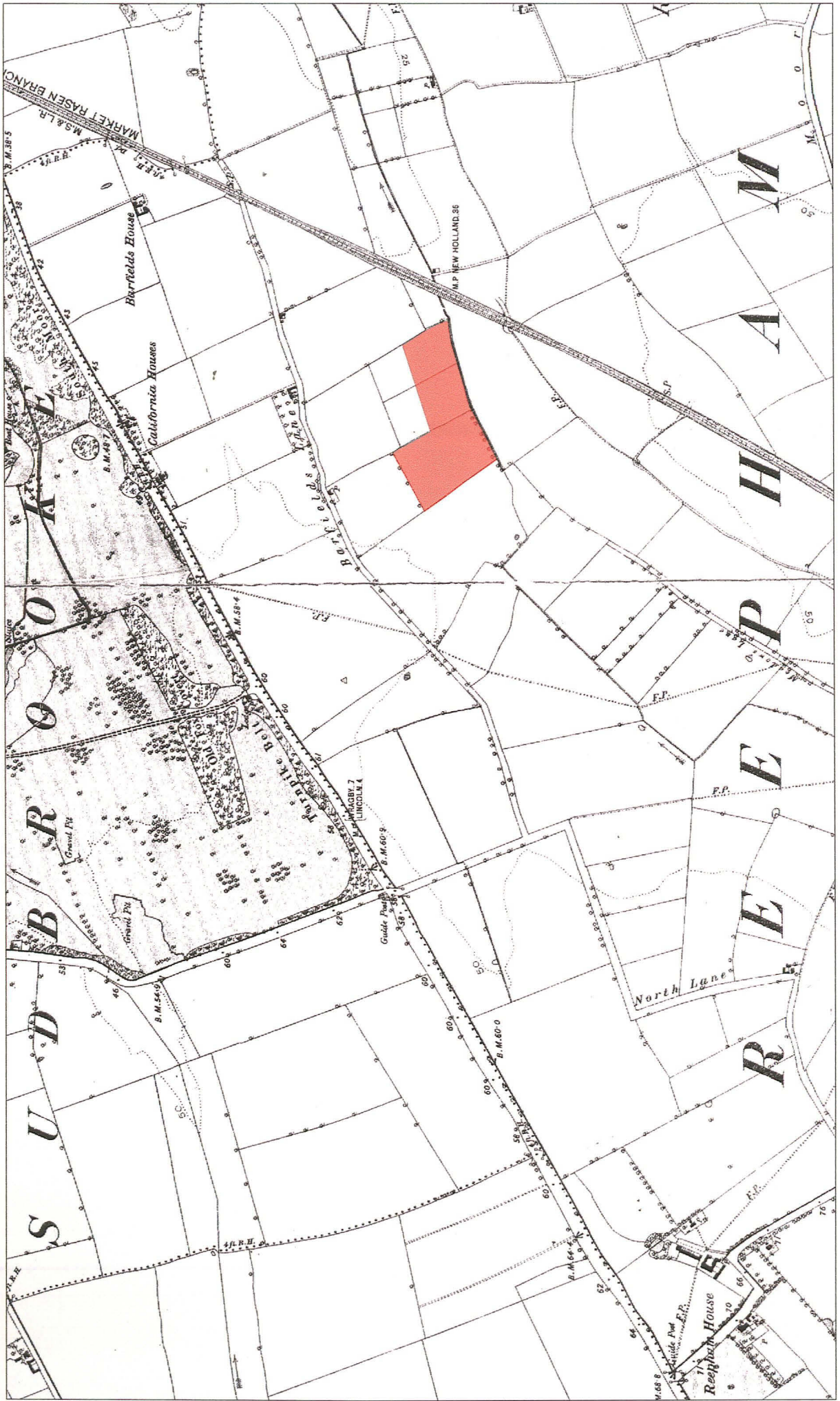


Fig. 6 The site in 1886 (based on the 1890 Ordnance Survey 1:10,560 map Sheet Lincs. 62 SW).

**THE PLATES**



Pl. 1 Barley crop on the application site (looking SE towards the tree belt alongside the Welton Gathering Centre and the railway embankment).



Pl. 2 Southern edge of the application site, with the stream to the left (looking west).



Pl. 3 Surfaced area to the north of the stream, with mast and sheds (looking west).





Pl. 4 Ridge and furrow on pasture field north of Welton Gathering Centre, expected to be used for soil and materials storage during construction of the extension (looking NW).