

**ARCHAEOLOGICAL
DESK BASED ASSESSMENT OF LAND
AT SALTBOX FARM, WHITECROSS LANE,
BURTON PEDWARDINE,
LINCOLNSHIRE
(BPWL07)**



A P S
ARCHAEOLOGICAL
PROJECT
SERVICES

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LINCOLNSHIRE
(BPWL07)**

Work Undertaken For
Hanbeck Properties Ltd

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Report Compiled by
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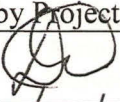

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1. SUMMARY

A desk-based assessment was undertaken to determine the archaeological implications of proposed mineral extraction on land at Saltbox Farm, Whitecross Lane, Burton Pedwardine, Lincolnshire. This revealed the presence of thirteen archaeological sites and find spots within a 1000m radius of the proposed development.

The scheduled remains of a medieval monastic grange, Mareham Grange, are located 15m west of the northwest corner of the application area. Scheduled Ancient Monuments are protected by statute and consultation with English Heritage is required regarding any development proposal which may, either directly or indirectly, impact upon them.

The close proximity of the proposed extraction site to Mareham Grange means that a visual impact upon this Scheduled Ancient Monument is inevitable, unless mitigation works are undertaken beforehand. Mineral extraction close to the monument may also cause the desiccation (decay) of any waterlogged organic remains which may be present within the scheduled area, although the presence, nature and extent of any such deposits is unknown. It is therefore recommended that the applicant seek the advice of English Heritage.

Overall the assessment has identified a low to moderate potential for prehistoric remains being impacted, whilst the potential for Romano-British remains is moderate to high within the western side of the application area and low to moderate to the east. The potential for buried remains of medieval date being present is similarly high for the northwest corner of the application area; moderate to high for the southeast corner; and low to moderate elsewhere. There is a low potential for remains of post-medieval

date being present.

2. INTRODUCTION

2.1 Definition of a Desk-Based Assessment

An archaeological desk-based assessment is defined by the Institute of Field Archaeologists (IFA) as an 'assessment of the known or potential archaeological resource within a specified area or site on land, inter-tidal zone or underwater. It consists of a collation of existing written, graphic, photographic and electronic information in order to identify the likely character, extent, quality and worth of the known or potential archaeological resource in a local, regional, national or international context as appropriate' (IFA 1999).

2.2 Planning Background

Archaeological Project Services was commissioned by Hanbeck Properties Ltd to undertake a desk-based assessment of land at Saltbox Farm, Whitecross Lane, Burton Pedwardine, Lincolnshire. The assessment is required in support of a planning application for mineral extraction.

The work was undertaken in accordance with IFA standards and guidelines.

2.3 Site Location

The Application Area lies west of the village of Burton Pedwardine, towards the eastern end of its parish, within the administrative district of North Kesteven, c.3.5km southeast of the market town of Sleaford (Fig. 1). This 20 hectare area is bounded by the Cliff Beck watercourse to the north, the course of the former Sleaford-Bourne railway to the west, Whitecross Lane to the south and the Burton Gorse plantation to the east. The

parish boundary with Kirkby La Thorpe runs along the course of Cliff Beck.

Centred on National Grid Reference TF 09000 42900, the site lies at approximately 8m OD. It is currently occupied by three fields.

In the following text, the terms *Application Area* and *Proposed Site* refer to the limits of the site that is the subject of this *Desk-Based Assessment*, whilst the *Assessment Area* comprises an area of approximately 1000m beyond the centre of the application area, included so that the archaeological, cultural heritage setting and context of the proposed site can be assessed. For ease of reference the three fields which currently form the application area are referred to as Fields 1-3 (Fig. 7).

3. AIMS

The purpose of the desk-based assessment is to obtain information about the known and potential archaeological resource of the assessment area. In addition to the above, statutory and advisory heritage constraints are identified.

4. METHODS

All available sources relevant to the proposed site at Burton Pedwardine and the surrounding Application Area were consulted. These comprised:

- Historical documents, held by the Lincolnshire Archives.
- Historic maps and plans, held by the Lincolnshire Archives and the Heritage Trust of Lincolnshire (HTL).
- Recent and early edition Ordnance Survey (O.S.) maps held by Lincolnshire Archives, Lincoln Central Library and the Heritage Trust of Lincolnshire.

- The Lincolnshire Historic Environment Record (HER), held by Lincolnshire County Council
- Parish files and other archaeological records held by the Heritage Trust of Lincolnshire
- Aerial Photographic sources held by the Lincolnshire HER
- Other published sources and unpublished documents held by the Heritage Trust of Lincolnshire.

A full list of the sources is contained within the bibliography.

This research was supplemented by a walk-over survey of the application site, undertaken to assess the current ground conditions, land-use patterns and to ascertain the presence of any surface finds of an archaeological character, and of features that might indicate the presence of archaeological remains.

Geotechnical data pertaining to the application area have been made available by the client and is considered in this assessment (See 5.5).

5. RESULTS

5.1 Historical and Archaeological Data

Records of archaeological sites and finds within the assessment area are held by the Lincolnshire Historic Environment Record (HER) and by the Heritage Trust of Lincolnshire. A search of these records revealed the presence of 13 sites or findspots within a 1000m radius of the application area. Details of these monuments area are collated on Table 1, located on Figure 2 and discussed below. All distances given are measured from the approximate centre of the proposed site.

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Undated Evidence

Direct evidence for archaeological activity within the proposed site is provided by cropmarks, known from aerial photographs to extend across the northern half of Field 1 (Fig. 2 Map Ref. 11). Cropmarks of this type result from differential moisture in the soil and are likely to indicate the presence of infilled ditches. Cropmarks are by their very nature undated.

Two separate cropmarks are shown within Field 1. The first forms a large trapezoid enclosure adjacent and parallel to the medieval Mareham Grange. Although the possibility that it is a settlement enclosure cannot be discounted it could also be a component of a relict field system as it is orientated on the same axis as the eastern boundary of Field 1 and another field boundary to the south. A second linear cropmark extending southeast of the cropmark enclosure is also likely to represent a former field boundary.

Neither of the cropmarks in Field 1 are shown as field boundaries on the earliest detailed map of the site, an estate plan of 1864, and they are consequently unlikely to be post-medieval in origin (Fig. 5).

A series of cropmarks was observed 380m east of the proposed development on the opposite side of Cliff Beck in 1975 (Fig. 2 Map Ref. 13). Although possibly indicating enclosures and field systems the true nature and origin of these cropmarks is uncertain, as cropmarks shown on another aerial photograph centred on this grid reference have been interpreted as 'possible tractor marks' (See 5.3).

Further cropmarks are reported on the HER, to the north of the site at Kirkby Mount (Fig. 2 Map Ref. 7). Although undated these cropmarks are believed to represent a multiple linear boundary and a possible hillfort. If this is the case then they are likely to be of prehistoric date. It

is not known whether the cropmarks extend into the assessment area although the southern edge of Kirkby Mount is within 1km of the proposed site.

An undated pit was recorded on a watching brief undertaken during the construction of poultry sheds 50m west of the proposed site (Palmer-Brown 1995, 8) (Fig. 2, Map Ref. 6).

Prehistoric evidence

No prehistoric remains are known within the assessment area although as noted above, the undated crop marks on Kirkby Mount may be prehistoric (Fig. 2 Map Ref. 7), and the Roman Road known as Mareham Lane, which crosses the western side of the assessment area, is believed to have prehistoric antecedents (May 1976, 9).

Sherds of 'Iron Age type' pottery recovered from the fill of a late Romano-British ditch, recorded during a watching brief 50m west of the proposed site in 1995, may represent late prehistoric activity within close proximity to Field 1, although it is possible that this pottery is Roman and was made in a traditional style (Palmer-Brown 1995, 8) (Fig. 2, Map Ref. 6).

Romano British Evidence

Romano-British remains and find-spots are known from six locations within the Assessment area.

Located 320m west of the proposed site, Mareham Lane follows the course of the Roman Road from Peterborough to Lincoln, which passes through the Romano-British small towns of Bourne and Old Sleaford and the settlement of Ruskington (Fig. 2, Map Ref. 8). Referred to variously as King Street and Mareham Lane, the road is believed to follow an earlier prehistoric route. The course of the road from Threethingham to Old Sleaford is very straight and is raised above the low

lying ground by an agger of between 1 and 2 feet.

A stretch of Roman road was recorded during a watching brief approximately 650m northwest of the proposed site within the vicinity of Map Ref. 1 (Fig. 2) (FAS 2001, 53).

A north-south aligned ditch measuring c.2m across and c.0.5m deep recording during the construction of poultry sheds 50m west of the application area (Map Ref. 6), dates to the late Romano-British period on the basis of pottery recovered from its fill, although sherds of possible earlier Iron Age pot were also recovered (see above) (Palmer-Brown 1995, 1-6).

Romano-British remains and artefacts were recovered from two locations northeast of the application area during investigations associated with a high-pressure gas main (Fig. 2, Map Refs. 1 and 3). A pit containing a single adult cremation was found during a watching brief (Map Ref. 1). Over 100 nails, possibly relating to a bier or coffin were recovered from the fill of the cremation pit, which also contained third century Romano-British pottery. A sherd of mid-third century or later greyware was recovered during field walking (Map Ref. 3).

Saxon Evidence

No archaeological evidence for Saxon activity is known within the search area, although documentary evidence suggests activity at Kirkby Mount, located 1000m north of the proposed site. This is listed on the HER as probably being the likely site of the 'Thinghou', which is referred to on the Medieval Sempringham Abbey charter as the moot place for the Wapentake of Aswardhurn (Fig. 2 Map Ref. 7).

Medieval

Medieval remains and artefacts are known from five locations within the assessment

area.

Although noted in Domesday, no archaeological evidence for the site of the likely deserted medieval settlement of Cold Mareham survives. The Lincolnshire HER locates the settlement on the site of Mareham Grange (Fig. 2, Map Ref. 9), which Cope-Faulkner suggests may have succeeded it (*pers comm*). However an alternative location for the settlement south of Kirkby Mount has also been suggested (Healey *pers comm*).

Owned by Athelstan at the time of the conquest, the 'Marram' estate had passed to Guy de Craon by the Domesday survey of 1086 (Healey and Roffe, *unpublished*). One of his descendants, Maurice de Craon, granted land within the manor to Sempringham Priory in the mid-twelfth century. The grange, 'Mareham Grange', established on this land by Sempringham, continued to grow as further grants of land were made by neighbouring lords, although at least one independent landowner, John de Langtoft, held land at Mareham as late as 1202, suggesting that a settlement may have survived until this time (Healey and Roffe, *unpublished*).

Occupying an exposed clayland site, the history of Sempringham's grange at Cold Mareham, is poorly documented although it is known that the 'Parc', a ditched enclosure, suitable for arable, pasture or meadow, was granted to the priory by Ralph Salvein during the twelfth century. (Healey and Roffe, *unpublished*).

A Scheduled Ancient Monument (SAM No. 31605), the site of Mareham Grange lies adjacent to the Application Area, between 15 and 95m west of Field 1 (Fig. 1, Map Ref. 4). The Scheduled Ancient Monument Description for the grange states:

'Situating on flat land...the buried remains cover an area measuring approximately 230m by 180m. Appearing as a

parallelogram in plan, the buried remains of the moat enclose an area measuring 210m by 170m. The moat arms have been infilled but survive as buried features up to 15m in width, visible on aerial photographs. The northeastern corner of the moat was cut by the construction of a railway line in the 19th century.

A slightly raised area at the southwest corner of the moated island, where fragments of stonework are evident in the ploughsoil, indicates the location of buried building remains thought to include domestic and agricultural buildings. Internal divisions of the moated island, such as yards, paddocks and gardens, are shown on aerial photographs. Pottery fragments dating from the 14th to 16th centuries and buried stone walls have been formerly noted within the area of the moated island' (English Heritage 1999).

Additional earthworks were observed east of the former railway line when the grange site was examined by the former Trust for Lincolnshire Archaeology (TLA) in the late 1970's. Excluded from the Trust's survey, these surface remains were of limited extent, being restricted to the extreme northwest corner of Field 1, within an area excluded from the application Area (Healey *pers comm*) (Fig. 7). The TLA survey also recorded a spread of loose stone on the eastern side of the moated 'island', which may suggest the presence of a building within this part of the grange. Fragments of medieval tile, quern and slate have been recovered from the site (Fig. 2 Map Ref.10).

Extensive evidence of ridge and furrow cultivation has been identified from cropmarks shown on aerial photographs. Evident within Field 1 and distributed across the assessment area, the orientation of this ridge and furrow suggests that the area's present system of field boundaries may have been based upon internal subdivisions within the former open fields

(Fig. 2 Map Ref. RF).

The scheduled remains of a 15th century wayside cross are located 735m southwest of the application area (SAM No. 22641) (Fig. 2 Map Ref. 5).

The only other evidence of medieval activity within the search area is a single sherd of Medieval Lincoln ware pottery found west of Mount Farm (Fig. 2, Map Ref. 2).

Post-Medieval Evidence

The Mareham Grange estate was acquired at the dissolution by Sir Thomas Horsman, who united it with the manor of Burton Pedwardine in 1552. Owned by Thomas Orby by 1635 (LA Craggs 3/56), the Manor of Burton Pedwardine was later owned by the Handley family before being sold at auction in 1864 (LA Padley III/317).

A brick making industry was developed on the western edge of the parish adjacent to Mareham Lane during the 19th century. A map of 1828 refer to 'Brick Kiln Field', on the southern side of Whitecross Lane, at its junction with Mareham Lane, whilst the 'Burton Brick and Tile Works' is recorded on the 1903 Ordnance Survey (Fig. 2 Map Ref. 12)

5.2 Cartographic Data

The proposed site is located towards the western end of Burton Pedwardine parish. Historical maps for this parish are held by the Lincolnshire Archives (LA), Lincoln Central Library and Archaeological Project Services (APS). Large scale historic map coverage for Burton Pedwardine parish is however comparatively poor and the application area is not shown in detail prior to an estate auction map of 1864 (Fig. 5). - no scale noted.

The earliest small scale maps of the area; Armstrong's 'Map of Lincolnshire' (1778)

where
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75"
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1880-1900

(Fig.3), Bryant's 'Map of the County of Lincoln' (1828) (Fig.4) and Greenwood's 'Map of the county of Lincoln from an actual survey' (1823, 1831 edition), are stylised but show the area of the proposed site as open ground, although a possible plantation of trees is shown by Bryant within the area currently occupied by Field 3.

The application area is first shown in detail on an estate auction map of 1864 (LA PSJ 16/5/36) (Fig. 5). Drawn up prior to the construction of the Sleaford to Bourne Railway, the proposed course of which is shown slightly to the west of the built route, the site is shown as open fields, Field 1 being divided into three fields (213, 214 and 215), Field 2 as 188 and Field 3 as 187. The northern end of Field 3 is shown as a separate enclosure occupied by a plantation of trees. No buildings are shown on the site, whilst a second proposed railway line, from Lincoln to Peterborough was never built.

Historic Ordnance Survey coverage for the area was obtained from the 6 inch to 1 mile maps of 1891 and 1905 (Fig. 6). These show the situation as being largely unchanged since the map of 1864, the only change being the removal of the plantation to the north of Field 3.

5.3 Aerial photographic Data

Aerial photographs held at the Lincolnshire HER were examined as well as aerial photographic plots mapped onto Ordnance Survey overlays by the Royal Commission for Historic Monuments England (RCHME) and the former Trust for Lincolnshire Archaeology (TLA) and held by the Lincolnshire HER and the Heritage Trust of Lincolnshire (HTL). All the aerial photographic sources examined pertained to the assessment area.

Two photographs (both referenced 113/085431), taken in 1951 cover the

application site and the adjacent Mareham Grange are held by the Lincolnshire HER. These show the remains of the grange, the cropmark field system within Field 1 (Fig. 2 Map Ref. 11) and the brickworks to the southeast of the proposed site in operation. The Lincolnshire HER also holds aerial photographic coverage of the neighbouring parishes of Sleaford, Kirkby La Thorpe, Screddington and Silk Willoughby although none of these photographs pertain to the assessment area.

Two Ordnance Survey overlays, prepared by the RCHME and the TLA, showing plotted aerial photographic data were also examined and are reproduced on Fig. 2 (in green). Shown on the TLA overlay, the medieval ridge furrow crop marks were taken from four photos; Lincs E BLK 11 Nos. 115, 116, 193 and 4+5 taken in June 1975, which also show crop marks to the west of Burton Gorse Plantation (Fig. 2 Map Ref. 13). The latter crop marks are uncertain as HTL records interpret crop marks shown at or close to this location on a 1976 photo (Ref. AP 10-7-76 (SF1196-35) TF0942/1) as possible tractor marks. Neither the 1975 nor the 1976 photographs could be examined as their present location is unknown.

5.4 Walkover Survey

The site was visited on the 4th of January 2007 in order to assess ground conditions, identify any visible archaeological features, and to note constraints (Plates 1 to 9).

The application area is currently open farmland which is approximately level (Fig. 7). Presently divided into three fields, although previously four, the site was formerly arable although only one field (Field 2) is presently ploughed. Field 1 is now covered by low rough scrub whilst Field 3 is fallow. A number of plantations and a wetland habitat have been placed on the field margins.

*None of the photos
to the north
intersects
notes*

The ploughed surface of Field 2 was examined and found to comprise a medium brown slightly silty clay. Fragments of ceramic building material and iron slag were recovered from the surface of Field. These date generally to the post-medieval period, although it is possible that a single fragment of abraded tile may be medieval (Boyle and Taylor - *pers comm*)

Vehicular access to the site is obtainable via field gates at two locations along Whitecross Lane. The application area is bounded by the open Cliff Beck to the north, a former railway line to the west and numerous drainage ditches, the majority of which are hedged. A trackway to Burton Gorse Farm runs along the site's eastern boundary.

The route of a high pressure National Grid Transco gas pipeline which crosses the application area diagonally from northwest to southeast is shown on Fig. 7 and is partially marked by white posts on the ground. Overhead power cables also cross Fields 1 and 2.

5.5 Geotechnical Data

The client has excavated four geotechnical test pits within the application area (Fig. 7) to depths of between 3.8 and 4.4m.

Test Pit 1

0 – 0.30m Wet clayey topsoil

0.30-1.6m Brown slightly sandy clay

1.6-3.7m Blue grey clay

3.7-4.1m Blue clay

4.1-4.4m Clay with sedimentary sea bed layers

Test Pit 2

0-0.45m Clayey topsoil

0.45-1.4m Blue/grey/brown clay with grey sand mix

1.4-3.0m Blue grey clay

3.0-4.4m Blue silty clay, dry

Test Pit 3

0-0.30m Clayey topsoil

0.30-1.7m Brown clay

1.7m-4.2m Blue/grey/brown clay, dry

Test Pit 4

0-0.30m Clayey topsoil

0.30-0.90m Brown clay

0.90-3.8m Blue clay, dry

Although archaeological monitoring of these test pits was not required, the results would appear to suggest that the top of natural strata within Fields 1 and 2 lies between 0.30 and 0.45m below the present ground level.

6. HERITAGE CONSTRAINTS

Scheduled Ancient Monuments are protected by the Ancient Monuments and Archaeological Areas Act (1979) and English Heritage need to be consulted about any development proposal which may, either directly or indirectly, impact upon them. Archaeological remains and monuments are scheduled if they are deemed to be of national importance.

Two Scheduled Ancient Monuments are located within 1000m of the proposed extraction site. The first, the remains of a small medieval wayside cross (Fig. 2 Map Ref. 5) (SAM No. 22641), lies 735m southwest of the application area, well beyond the line of sight, and will not be adversely impacted by its development.

The second, Mareham Grange (Fig. 2 Map Ref. 4) (SAM No. 31605), lies 15 to 95m west of the application area. Given this close proximity, there are two potential impacts upon the the monument:

1. Visual Impact

As Plate. 4 shows the northeast corner of Field 1 lies close to and within direct line of sight of the Scheduled Ancient Monument. Consequently, unless mitigation works are undertaken, groundworks within this area will inevitably have both a visual and a noise impact upon the monument setting.

2. Potential desiccation of waterlogged remains

Archaeological deposits below the water table are frequently waterlogged, enabling the preservation of organic material such as timber work, wooden artefacts and leather, which do not survive in dry conditions. These deposits therefore have a scarcity value. On other sites, extensive groundworks and drainage activity has been shown to lower the water table across the surrounding area, causing waterlogged deposits to dry out and any organic material within them to desiccate (decay) over a number of years.

The site of Mareham Grange has never been excavated and the nature and preservation of the buried remains present there are consequently unknown. Nevertheless, the site is low-lying and the English Heritage Scheduling for the monument states; *'Waterlogging in the base of the moat will preserve organic remains (such as timber, leather and seeds) which will give an insight into domestic and economic activity on the site'* (English Heritage 1999).

However, an unpublished earthwork survey report on the monument suggests that the scheduled enclosure has been 'deep drained' (Healey and Roffe, unpublished) which, if correct, would

indicate that any waterlogged remains which may have been present are likely to have been damaged or destroyed.

It is suggested that the applicant seek the advice of English Heritage about these potential impacts and how they may be mitigated.

Significant historic buildings and structures are 'listed' and consequently protected under the Planning (Listed Buildings and Conservation Areas) Act (1990). No listed buildings are located within the Assessment Area although the scheduled medieval wayside cross (Fig. 2 Map Ref. 5) 735m southeast of the application area is also listed grade II.

Cropmark evidence suggests that buried enclosures, possibly associated with Mareham Grange are present within Field 1. These, or any other archaeological remains which may be present on the proposed site, are protected only through the implementation of PPG16 (DoE 1990).

7. ASSESSMENT

The Application Area lies within an area of open farm land c. 320m east of the Mareham Lane Roman Road and 15m to the east of Mareham Grange, a scheduled monastic grange of medieval date.

Two undated crop marks, most probably representing enclosures evident within Field 1, adjacent and parallel to Mareham Grange, will inevitably be impacted upon by the proposed extraction (Fig. 2, Map Ref. 11).

No direct evidence of prehistoric activity is known within the assessment area although fragments of pottery recovered, from the fill of a late Romano-British ditch 50m to the west of Field 1 (Fig. 2 Map Ref. 6) may be of Iron Age. The possibility of some of the undated crop

marks evident on aerial photographs being prehistoric cannot be discounted. In addition to this, the Mareham Lane Roman road is believed to have prehistoric antecedents. The potential for remains of prehistoric date being present on the site is therefore low to moderate.

The proposed site lies to the east of Mareham Lane Roman Road (Fig. 2 Map Ref. 8) and Romano British remains and artefacts have been found at three other locations within the assessment area, including 50m to the west of Field 1, where a north-south aligned late Romano British ditch was found in 1995 (Fig. 2 Map Ref. 6). The distribution of these remains is however clearly concentrated along the alignment of the Roman road, which means that there is a moderate to high potential for Romano-British remains being located on the western side of the proposed site (Field 1). This potential decreases to the east (Fields 2 and 3), where the potential is low to moderate potential.

The application area is located immediately east of the moated site of Mareham Grange, a monastic grange of medieval date. Although the scheduled area lies 15m to the west of the proposed extraction site, the northwest corner of the moated enclosure was cut when the railway line was built in the 19th century, and earthworks, almost certainly associated with the grange, have been noted in the extreme northwest corner of Field 1 within an area excluded from the application. Although its exact location is unknown the remains of a deserted medieval settlement '*Cold Mareham*' are believed to be located within proximity of those of the grange. Crop mark evidence also suggests the presence of medieval ridge and furrow cultivation remains within Field 1, although this is of lower archaeological significance.

The potential for buried remains of

medieval date being present is therefore high for the northern end of Field 1, moderate to high for the remainder of Field 1 and low to moderate for Fields 2 and 3.

Historic maps suggest that the application area has been open fields since at least the mid-19th century and the potential for remains of post-medieval date being impacted by the proposed development is correspondingly low.

8. ASSESSMENT OF IMPACT

The precise details of the proposed mineral extraction are unknown, although it is assumed that the groundworks will extend below the depth at which archaeological deposits may be present, meaning that any impact is likely to be severe.

A National Grid Transco high pressure gas pipeline runs diagonally across the site from northwest to southeast (Fig. 7). The laying of this pipeline will have had an adverse effect on any archaeological remains which may have been present within its easement. Ploughing is also likely to have caused some damage to any shallow buried remains.

9. ACKNOWLEDGEMENTS

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All of the following references were consulted in the research. However, as some of them duplicated evidence given in others, or proved not to be relevant to the assessment, not all of them have been specifically referred to in the text.

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Historic Written Sources

The following written sources were consulted in Lincolnshire Archives;

BRA 1597/ 1/2/11/7

BRA 1597/ 1/2/11/8

Craggs 3/56, 3/57 and 358

FL Deeds 12492

Padley III/317:1864 and III/349:1869

Cartographic Sources

In chronological order. Some of the historic maps listed were found not to include the proposed site and are not discussed in the text.

Armstrong, A., 1778, *Map of Lincolnshire*

Bryant, A., 1828, *Map of the County of Lincoln*

Brick Kiln Field (1828) LA Ref. KSB 1828/Epiph/122 (not relevant)

Footpaths at 1841 LA Ref. KSB/1841/Mids/29A (not relevant)

Burton Pedwardine Tithe Award (1852) LA Ref. H664 (not relevant)

'*Plan of Estates in the parishes of Burton Pedwardine, Heckington, Helpringham, Screddington and Kirkby Laythorpe in the County of Lincoln*', for sale by Auction 1864.' LA Ref. 16/5/36

Ordnance Survey, 1st Edition, 1891, 6" to 1 mile, (Online Copy)

Ordnance Survey, Second Edition, 1905, 6" to 1 mile, Lincolnshire Sheet CVI. SE

Aerial Photographs

A search of aerial photographic records held by the Lincolnshire Historic Environment Record was undertaken. The following photographs were consulted.

University of Cambridge J.K St. Joseph Collection

113/085431 (2 images)

No photographs pertaining to the Assessment Area are located in the Heritage Trust of Lincolnshire collection.

11. ABBREVIATIONS

APS	Archaeological Project Services
DoE	Department of the Environment
HER	Historic Environment Record
HMSO	Her Majesty's Stationery Office
HTL	Heritage Trust of Lincolnshire
IFA	Institute of Field Archaeologists
LA	Lincolnshire Archives
NMR	National Monuments Record
SMR	Sites and Monuments Record
TLA	Trust for Lincolnshire Archaeology

Table 1: Details of Archaeological Sites, Finds, Historical References and Listed Buildings, within a 1km radius of the Application Site included on the Lincolnshire Historic Environment Record (HER) and the records of the Heritage Trust of Lincolnshire (HTL), which are pertinent to the proposed development.

As shown on Figure 2

Map Ref.	HER Reference No.	Grid Reference (TM)	Monument Types and Description	Period
1	61954-ML182434	TF 0834 4372	Pit containing a single adult cremation recorded during watching brief. Over 100 iron nails recovered from the pit-fill possibly from a bier or coffin. Third century Romano-British pottery also recovered from the pit-fill.	Roman
2	61026-ML180444	TF 08538 43752	Medieval Lincoln ware pottery sherd found west of Mount Farm	Medieval
3	61025-ML180443	TF 08592 43850	Mid-third century or later Romano-British greyware sherd found during fieldwalking	Roman
4	60726-ML160726	TF 0858 4312	Mareham Grange; moated medieval enclosure containing remains of former monastic grange. Scheduled Ancient Monument (SAM No. 31605)	Medieval
5	60725-ML160725	TF 08410 42038	Remains of a 15 th century wayside cross alongside Mareham Lane. Scheduled Ancient Monument (SAM No. 22641)	Medieval
6	607575-ML160575	TF 0870 4290	A north south aligned ditch containing Romano-British, and possible Iron Age, pottery sherds was found during watching brief. An undated pit was also found.	Roman and undated
7	60292-ML184583	TF 0900 4438	Kirkby Mount; Cropmarks identified on aerial photographs, thought to consist of a multiple linear boundary and a possible Hill fort. Believed to be 'thinghou' referred to on Semprinham Priory Charter as moot place for the Warpentake of Aswardhurn.	Saxon and Undated
8	64105-ML189214	Centroid 08592 40270	Line of Mareham Lane Roman Road south of Sleaford. Believed that the road formalised an earlier prehistoric route.	Roman
9	HER TF04SE Map Ref. E	TF085 432	Possible site of deserted medieval settlement of Cold Mareham. No archaeological trace of this settlement has been found and an alternative location south of Kirkby Mount has been suggested (<i>Healey Pers Comm.</i>)	Saxon/ Medieval
10	HER TF04SE Map Ref. AB	TF085 431	Fragments of medieval tile, quern and slate recovered from site of Mareham Grange	Medieval
11	HTL Records	Get Ref	Cropmarks of possible enclosures or field system plotted by RCHME, from aerial photographs	Undated
12	HTL Ref. 16.3	TF 085 427	Burton Brick and Tile works recorded on 1903 Ordnance Survey 6 inch	Post-Medieval

DESK-BASED ASSESSMENT OF LAND AT SALTBOX FARM, WHITECROSS LANE, BURTON PEDWARDINE, Lincs

13	TLA Overlay Sheet TF04 SE	Centroid TF 0968 4280	Cropmarks shown on aerial photo plot overlay derived from Photo Refs. Lincs E BLK 11 No. 115, 116, 193 and 4+5 taken on 13 th June 1975. Uncertain as HTL records interpret cropmarks shown at or close to this location on a 1976 photo (Ref. AP 10-7-76 (SF1196-35) TF0942/1) as possible tractor marks.	
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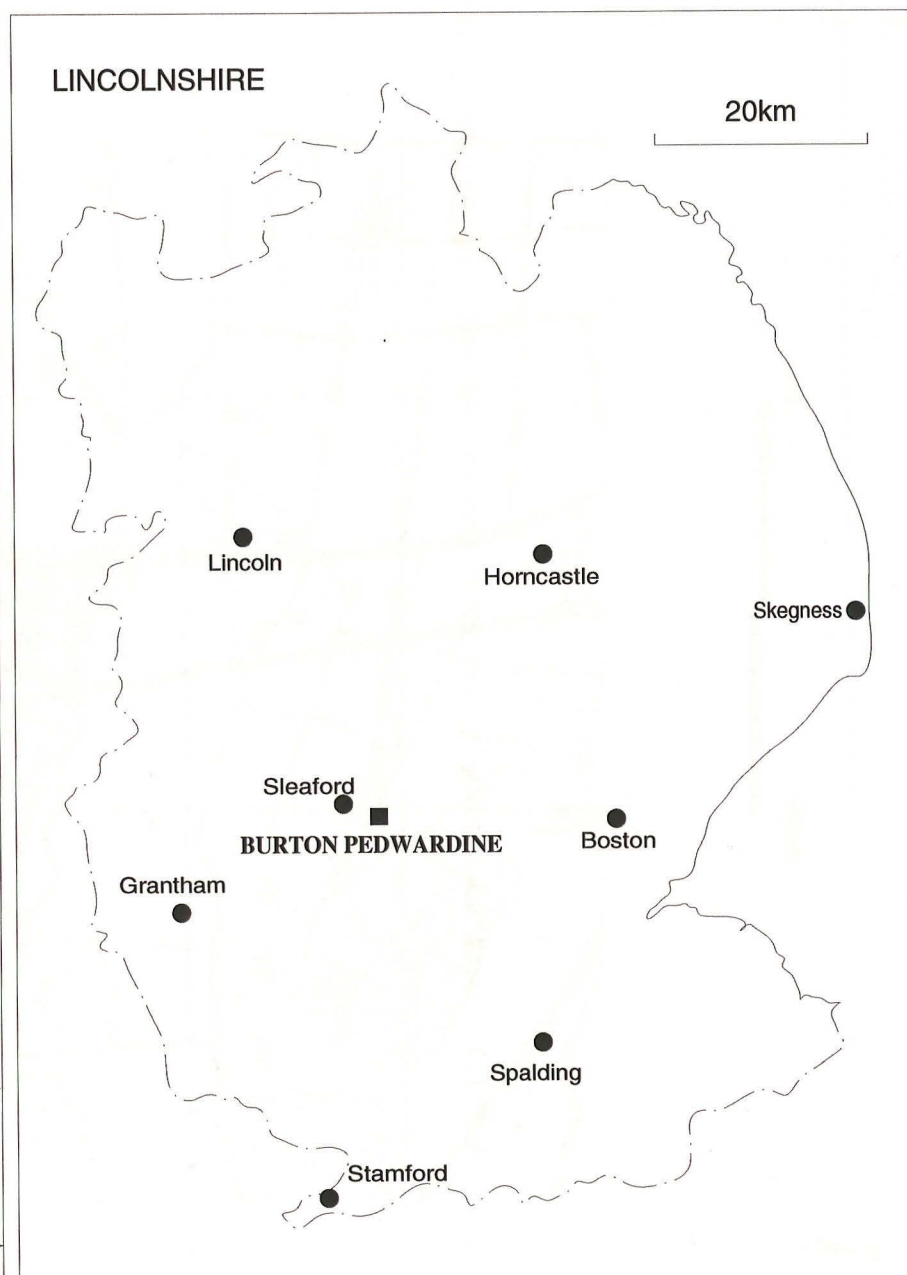
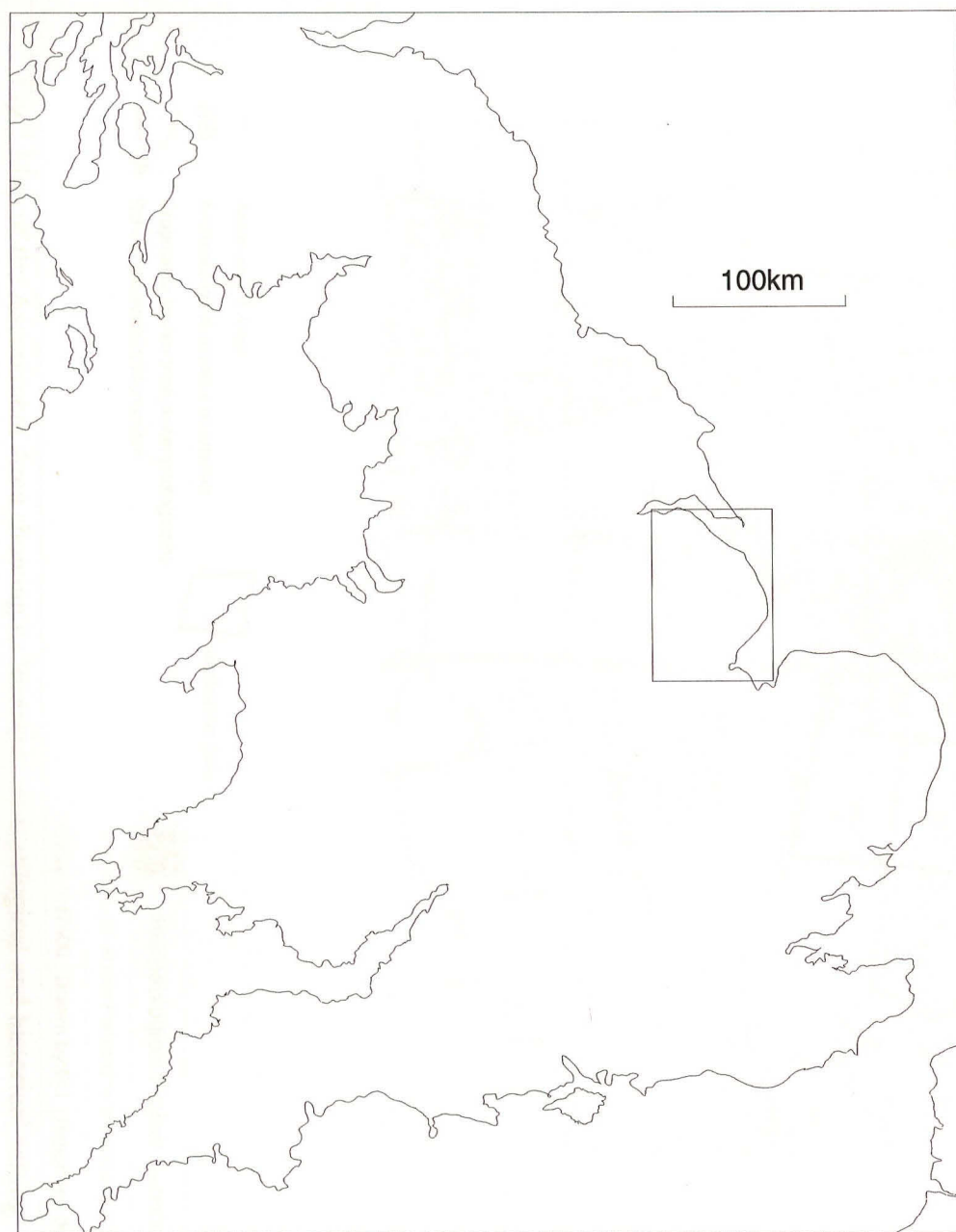


Figure 1 - General Location Plan

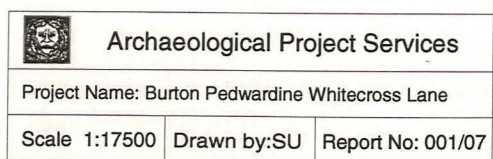
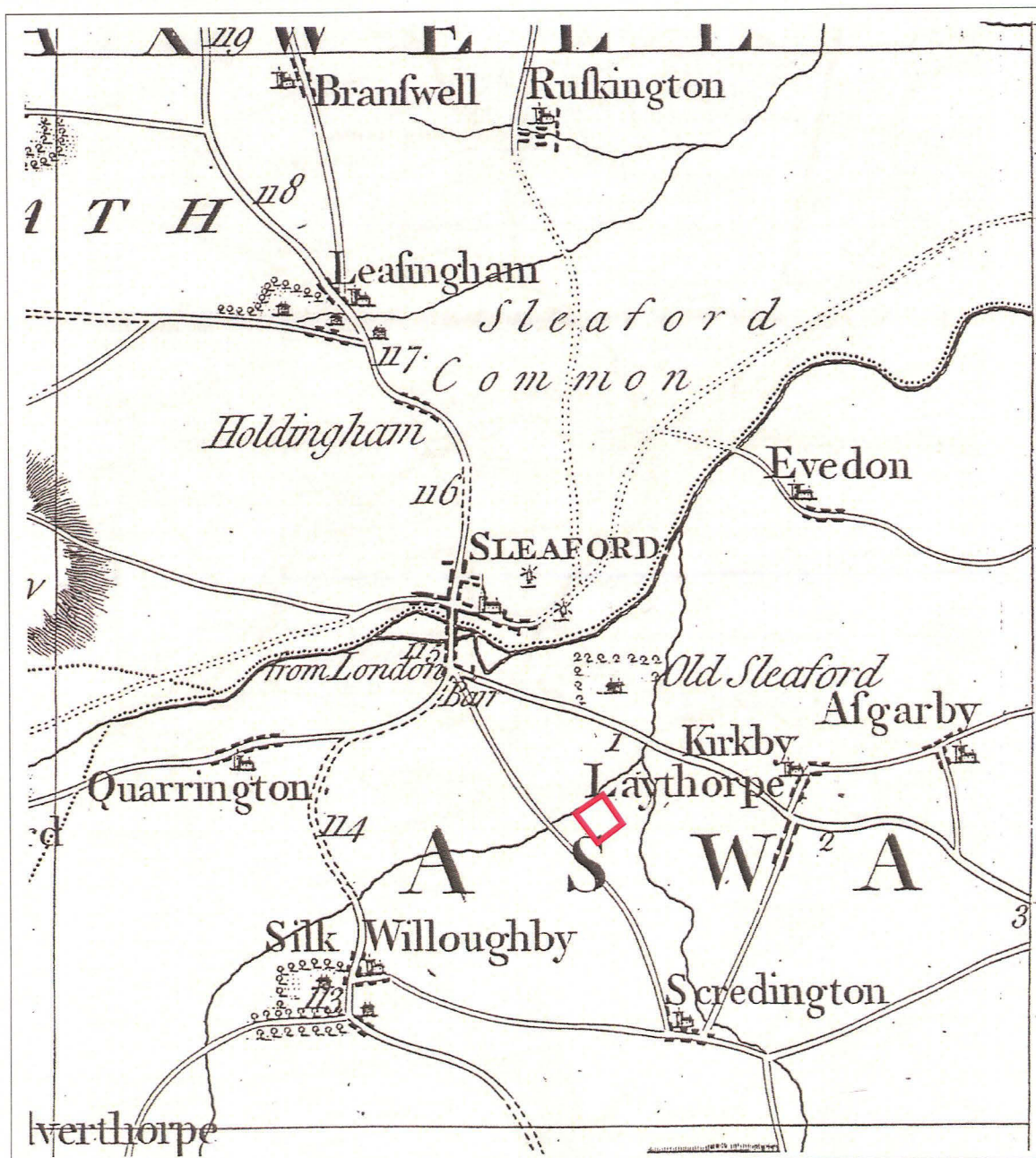


Fig.2 Map of the Assessment Area showing its location, archaeological and historical setting



Approximate location
of application area



Archaeological Project Services

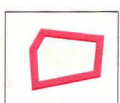
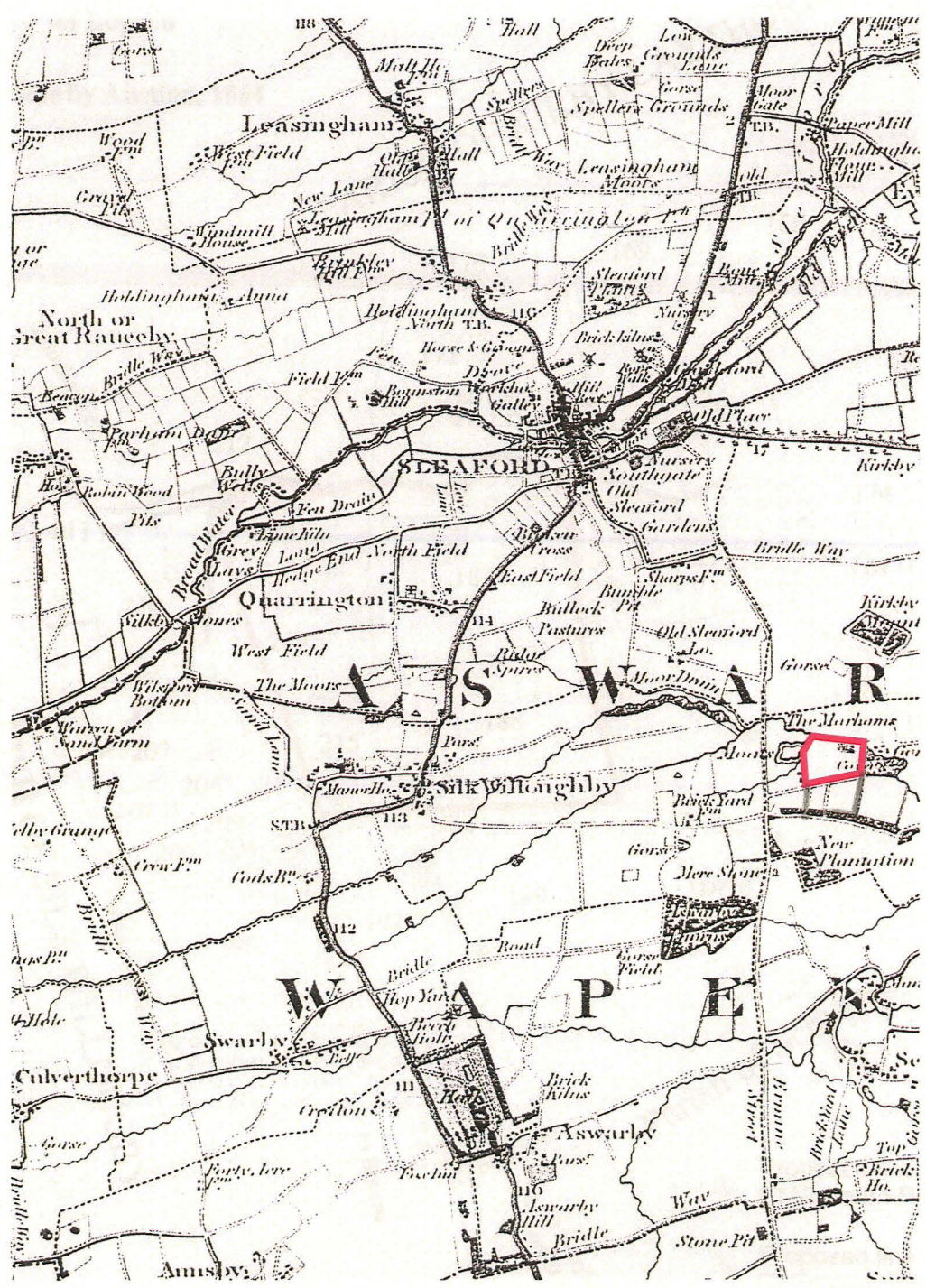
Project Name: Burton Pedwardine Whitecross Lane

NTS

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Report No: 001/07

Figure 3 An Extract from Armstrong's 'Map of Lincolnshire' (1778), showing site location



Approximate area of site



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Report No: 001/07

Fig. 4 An Extract from Bryant's 'Map of County of Lincoln' (1828), showing site location

Plan of Estates in the Parishes of
Burton Pedwardine, Heckington,
Helpringham, Scredington and
Kirkby Laythorpe in the County
of Lincoln

For sale by Auction, 1864

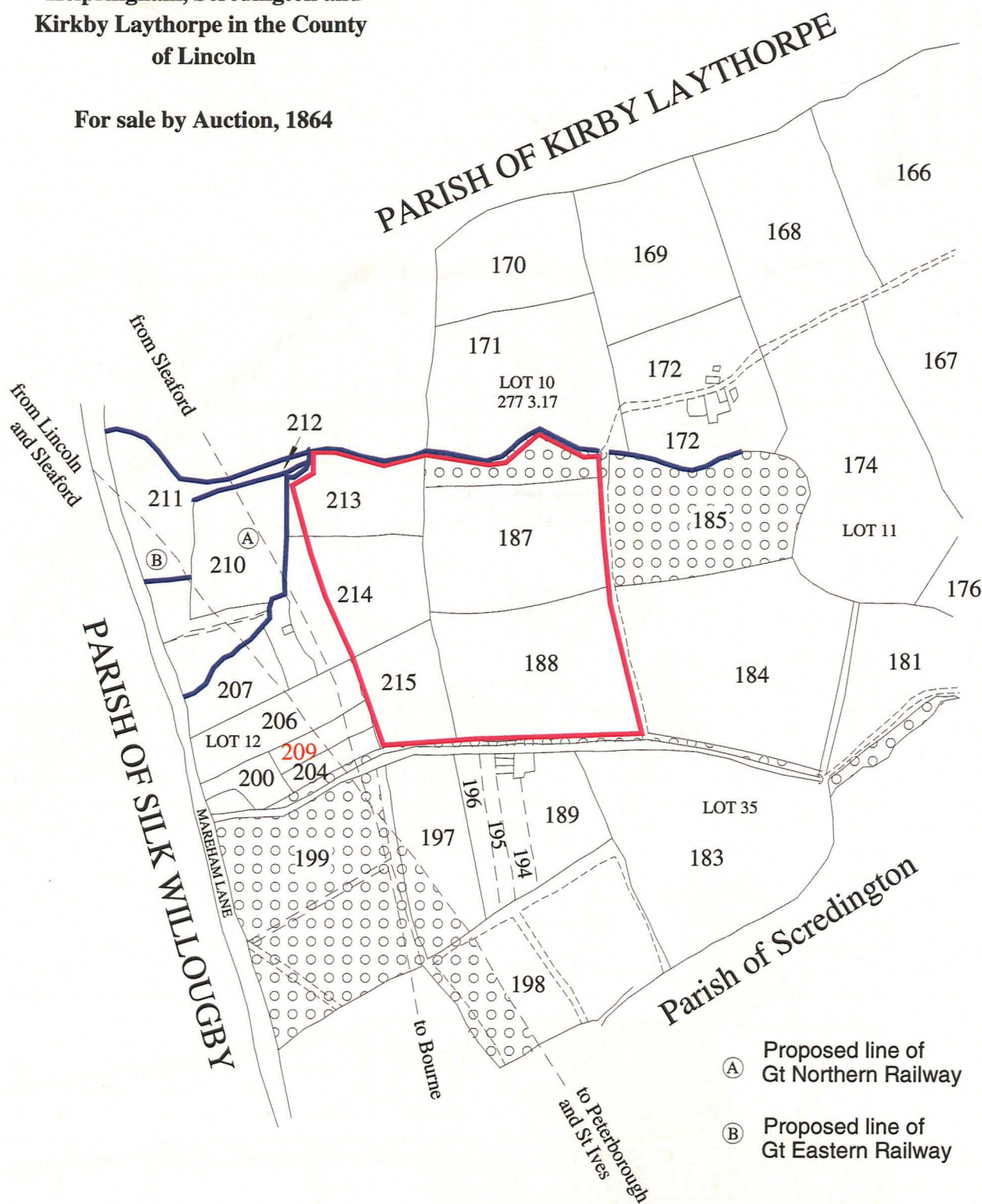


Fig. 5 Extract from 1864 estate map showing site location

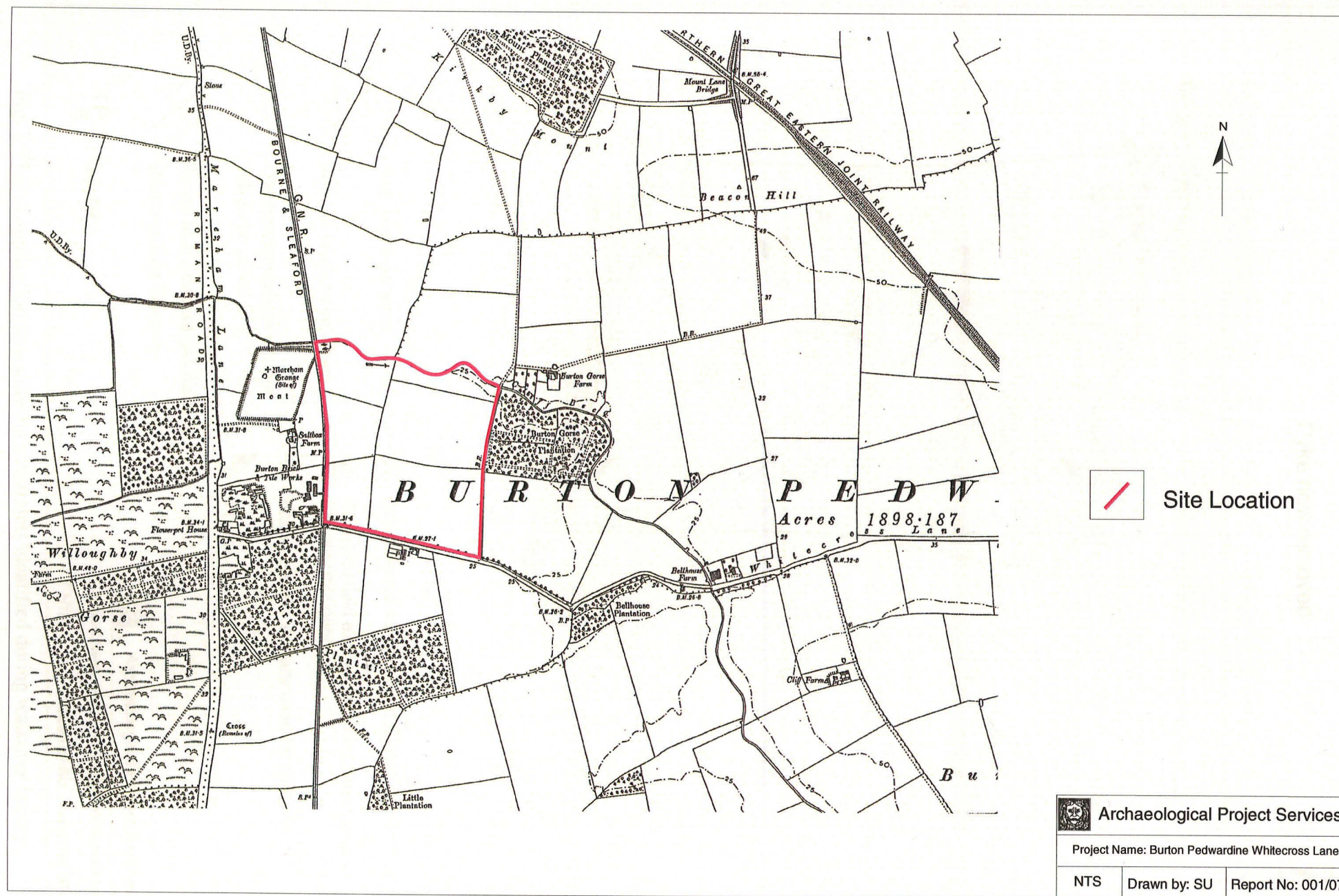
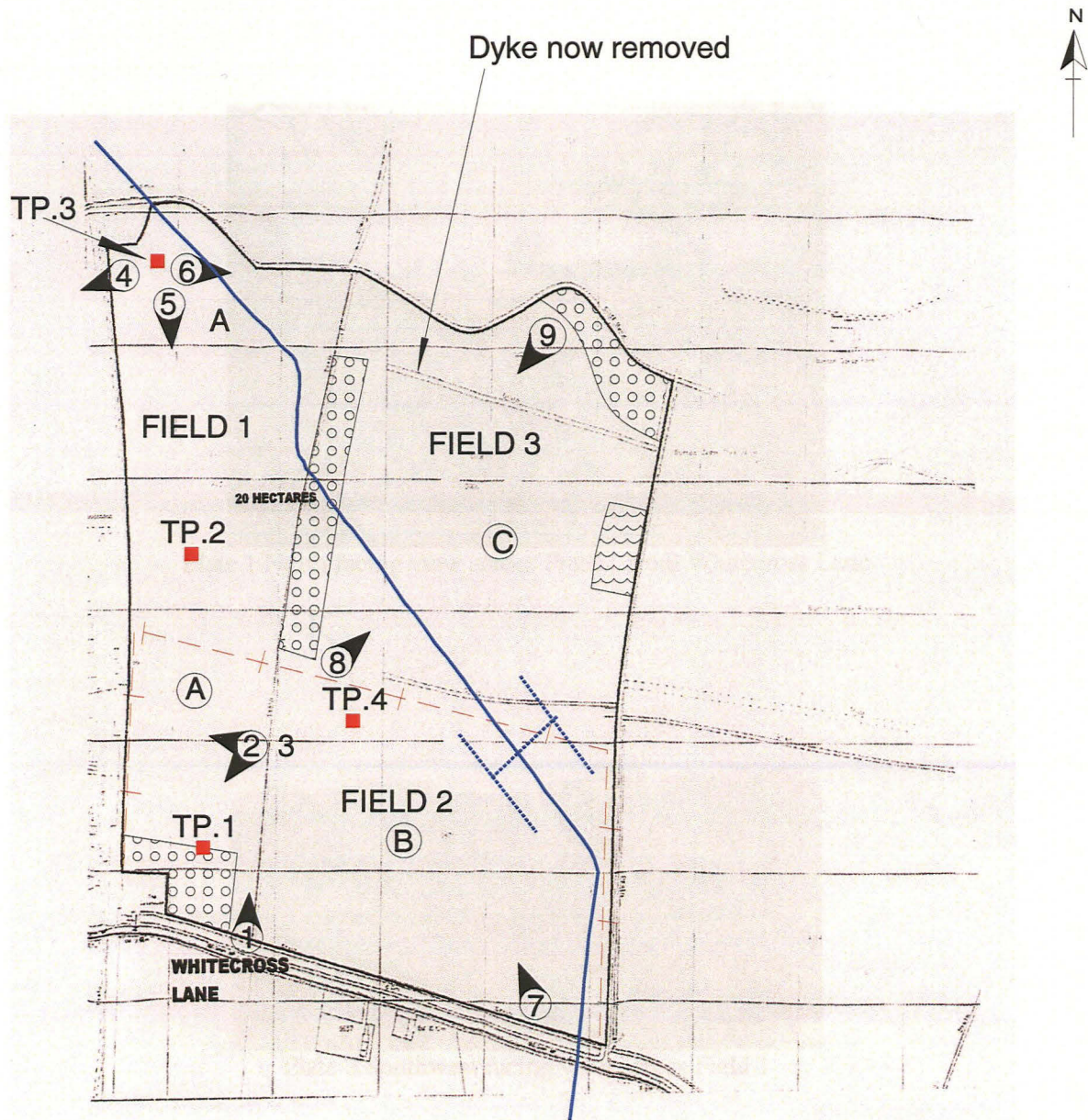







Fig. 6 Extract from Ordnance Survey 6 inch to 1 mile 1906 showing site location



-  New Tree Plantation
-  Artificial Wetland inc. Pond
-  Overhead powerline wooden telegraph poles
-  Buried high pressure gas pipeline (National Grid Transco)

TP.1  Test Pit

- (A) Rough scrub some ground water on surface
- (B) Ploughed field exposed medium brown slightly silty clay ploughsoil
- (C) Fallow ground formerly used for cereals
-  7 Photos



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Fig. 7 Plan of application area showing constraints identified during walkover survey



Plate 1 North facing view across Field 1 from Whitecross Lane



Plate 2 Southwest facing view across Field 1



Plate 3 West facing view across Field 1 showing poultry farm



Plate 4 West facing view from northwest corner of Field 1 showing Mareham Grange
Scheduled Ancient Monument



Plate 5 South facing view across Field 1 from its northeast corner



Plate 6 East facing view along northern site boundary showing the Cliff Beck



Plate 7 Northwest facing view across Field 2 from southern site boundary



Plate 8 Northeast facing view across Field 3 from southeast corner



Plate 9 Southwest facing view across site from northeast corner of Field 3

Appendix 1

GLOSSARY

Anglo-Saxon	Period pertaining to the society in Britain which existed between the departure of the Roman legions in AD 409 and the Norman Conquest of 1066.
Boulder Clay	A deposit formed after the retreat of a glacier. Also known as till, this material is generally unsorted and can comprise of rock flour to boulders to rocks of quite substantial size.
Context	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).
Cropmark	A mark that is produced by the effect of underlying archaeological features influencing the growth of a particular crop.
Cut	A cut refers to the physical action of digging a posthole, pit, ditch, foundation trench, <i>etc.</i> Once the fills of these features are removed during an archaeological investigation the original 'cut' is therefore exposed and subsequently recorded.
Desiccation	Drying out of buried deposits through removal of groundwater, usually resulting from changes to drainage.
Domesday	Extensive survey of landholdings, usage and ownership undertaken by the crown in 1086 for the purposes of taxation.
Fill	Once a feature has been dug it begins to silt up (either slowly or rapidly) or it can be back-filled manually. The soil(s) which become contained by the 'cut' are referred to as its fill(s).
Iron Age	A period characterised by the introduction of Iron into the country for tools, between 800 BC and AD 50.
Layer	A layer is a term to describe an accumulation of soil or other material that is not contained within a cut.
Medieval	The Middle Ages, dating from approximately AD 1066-1500.
Moot	Meeting place.
Natural	Undisturbed deposit(s) of soil or rock which have accumulated without the influence of human activity.
Neolithic	The 'New Stone Age' period, part of the prehistoric era, dating from approximately 4500-2250 BC.
Post-medieval	The period following the Middle Ages, dating from approximately AD 1500-1800.
Prehistoric	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 st century AD.

Romano-British

Period pertaining to the 'occupation' of Britain by Rome from AD 43 – 409. In reality more of a cultural transformation of British society.

Wapentake

Administrative division of a shire within the former Danelaw counties.