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ARCHAEOLOGICAL WATCHING BRIEF
OF DEVELOPMENT AT
ABBAY FARM, KIRKSTEAD, *WOODHA*
LINCOLNSHIRE
(KTR99)



A P S
ARCHAEOLOGICAL
PROJECT
SERVICES

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**ARCHAEOLOGICAL WATCHING BRIEF
OF DEVELOPMENT AT
ABBEY FARM, KIRKSTEAD, WOODHALL SPA - PARISH
LINCOLNSHIRE
(KTR99)**

Work Undertaken For
Mr W. Nelstrop

Report Compiled by
James Snee BSc (Hons)

April 2001

Planning Application No: S/215/1662/98
National Grid Reference: TF 193 614
City and County Museum Accession No: LCNCC : 146.98

A.P.S. Report No. 74/01



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1. SUMMARY

An archaeological watching brief was undertaken during the construction of an irrigation reservoir at Abbey Farm, Kirkstead, Lincolnshire. The development lay close to the remains of medieval Kirkstead Abbey, in an area of cropmarks probably associated with the Abbey. Previous investigations had revealed several buried ditches close to the site.

A number of undated linear features, mostly boundary ditches were revealed during the development. In addition a substantial ditch, believed to be the continuation of an extant earthwork ditch was revealed to the north of the site, and a possible enclosure ditch was exposed in the southeast corner of the reservoir.

Unfortunately no finds were recovered from the features, or any part of the site. This would suggest that the ditches were not closely associated with domestic or industrial activity, but were boundaries of varying status.

2. INTRODUCTION

2.1 Definition of a Watching Brief

A Watching brief is defined as 'a formal programme of observation and investigation conducted during any operation carried out for non-archaeological reasons within a specified area or site on land or underwater, where there is a possibility that archaeological deposits may be disturbed or destroyed' (IFA, 1997).

2.2 Planning Background

Between November 1999 and January 2000 an archaeological watching brief was undertaken during the construction of a new

reservoir at Tattershall Road, Kirkstead, Lincolnshire (Planning Ref: S/215/1662/98). The Lincolnshire County Archaeology Officer recommended that an archaeological impact assessment and scheme of works were undertaken in order to determine the presence of, and record any archaeological remains at the development site.

Archaeological Project Services was commissioned by Mr W. Nelstrop of Abbey Farm Group to undertake an archaeological watching brief in accordance with the requirements of the project specification (Appendix 1).

2.3 Topography and Geology

WOODHALL SPA - PARISH

Kirkstead is located approximately 22km southeast of Lincoln and 10km southwest of Horncastle in the administrative district of East Lindsey, Lincolnshire (Fig. 1).

The site lies to the west of Tattershall Road, and is located approximately 5m OD at National Grid Reference TF 193 614 (Fig 2). Rectangular in shape, the site is approximately 4 hectares in extent.

The area under investigation lies to the southern end of a grassed field at the base of a slight east-west valley. The undulating ground slopes westward down towards the River Witham. No earthworks were noted on visiting the site although aerial photographic evidence suggests the site is traversed by ditches aligned approximately east-west.

Local soils are predominantly of the Aldeby Association, typically sandy loam or loamy sand (Robson *et. al.* 1974, 31). Areas of Nocton, Downholland and Isleham Association soils also cross the site and comprise humose and peaty soils, possibly developed in former tributaries of the Witham (*ibid.* 26).

These soils overlie a drift geology of predominantly sand and gravel deposits that comprise the second river terrace of the Witham (BGS 1995). This overlies boulder clay or till and underlying these deposits is a solid geology of Jurassic clays of the Ancholme Group (*ibid.*)

2.4 Archaeological Setting

The site is located in an area of known archaeological activity of prehistoric and later date. Neolithic and Early Bronze Age stone tools represent the earliest finds from the investigation area, though there is no firm evidence of prehistoric settlement in the vicinity.

Iron Age settlement has been identified close to the investigation area. A boundary ditch, gullies and pit were revealed in evaluation at Witham Road, Woodhall Spa and a large triple ditched enclosure, positioned on a slight promontory to the south of Kirkstead Abbey, has been identified from aerial photographs.

Romano-British settlement is restricted to a single site, approximately 2km to the southeast, comprising earthworks of banks and ditches recorded in 1929.

Place-name evidence suggests that the settlement had originated during the medieval period. Historical documentation of Kirkstead first occurs with the foundation of the abbey in 1139 when it is referred to as *Kirkestede*. The name is derived from a partially Scandinavianized form of the Old English *cirice-stede* meaning the site of a church (Cameron 1998). Woodhall possibly has an earlier origin as it is mentioned in the Danelaw Charters of the 12th century and the place-name is derived from the Old English meaning a hall in the wood (*ibid.*).

Neither location is mentioned in the

Domesday Survey of 1086 but it is likely that the land was held by Eudo from one of the surrounding manors at either Tattershall Thorpe, or Kirkby-on-Bain (Foster and Longley 1976).

Hugh, son of Eudo and Lord of Tattershall, gave land for monks of the Cistercian order to build Kirkstead Abbey in 1139 (Page 1988, 135). The first location chosen for the monastery was unsuitable as it lay within a marsh and was not large enough. Leave to move to a suitable location was granted by Robert, the son of Hugh, in 1187. However, a certain amount of controversy surrounds details regarding the move to a new location and the date of the charter, as Robert is thought to have died before 1185 and the architectural styles are thought to predate 1175 (RCHME n.d., 1).

Despite the discrepancies in the early history of the abbey, it is known that Kirkstead prospered in the first one hundred years of its existence. The tax returns for 1291 give a value of between £345 and £369 (RCHME n.d., 2; Page 1988, 137). The basis of this wealth relied on the large sheep flocks kept up by the abbey at Kirkstead and granges in Lincolnshire and Yorkshire. The land they owned in the vicinity included the manor of Woodhall and the profits from the rectory of Woodhall church (Page 1988, 137). Up to 40 sacks of wool per year were being produced at Kirkstead and represents, along with Revesby and Spalding, the highest in the county (Owen 1981, 66). Alternative sources of revenue came from quarries in the Wolds and salterns, salt producing sites, at Fishtoft (*ibid.* 68.) and Wrangle (Lane 1993, 110). Fishing in the River Witham was also a prime interest and a grant was given to the Abbot extending its fisheries over the Witham valley between 1239-45, thus allowing the abbey to fish freely during floodtimes (Hallam 1965, 103).

Between 1230-40, Kirkstead Abbey was responsible for building the small church of St. Leonard south of the abbey and 100m west of the proposed reservoir. The history of the church is overshadowed by the abbey, although it has been referred to as a chapel '*ante portas*' (Pevsner and Harris 1989, 418), and it is possible that was intended for the lay community, and may suggest the existence of medieval settlement around the abbey precincts. Other examples of chapels and churches built for this purpose are known from Westminster (St Maragaret's) and Little Coggeshall in Essex.

Kirkstead Abbey was dissolved in 1537 during the Reformation. Remains of the abbey lie about 300m northwest of the proposed reservoir site and comprise an outer bank and moat, the earthworks of individual buildings as well as a surviving fragment of the south transept wall. Cropmarks indicate an elaborate system of drainage, enclosures and fishponds surrounding the abbey.

Other medieval remains include the possible site of a moated enclosure near Old Hall Farm and supposed medieval vaulted cellars beneath Abbey Lodge Inn. A boat discovered whilst digging for clay in the 19th century was described as medieval, however it is possibly earlier.

Post-medieval archaeology within the environs of the abbey is represented by three mounds located in the abbey precinct which are likely to be post-medieval pottery kilns. Recent work by RCHME has also identified the possible remains of a post-dissolution house. A number of gullies and field systems dating to the post medieval period have also been identified (Cope-Faulkner 1998).

Several listed buildings are located in the immediate area, including Old Hall, Old Abbey Farm and Abbey Lodge Inn (DoE

1986), some of which incorporate reused masonry from the nearby abbey (Cope-Faulkner 1998).

3. AIMS

The aim of the watching brief as set out in the specification (Appendix 1) was to record and interpret the archaeological features exposed during the ground works for the development.

4. METHODS

The ground works for the reservoir began with the stripping of a 4.4m wide, 1.2m deep easement for a drain around the perimeter of the site. This was carried out using a mechanical excavator and provided a relatively clean surface on which archaeological features could be observed. The excavations for the reservoir itself were carried out by bulldozer and tracked mechanical excavator, and the resulting surface was very uneven and disturbed by machine tracks, this made it difficult to observe archaeological remains. In addition a service trench was excavated along the western boundary of the site and the field to the north of the site. Areas stripped of topsoil were inspected and sections were hand cleaned where necessary. The depth and thickness of each deposit was measured from the ground surface. Each deposit or feature was allocated a unique reference number (Context Number) with an individual written description. Sections were drawn at appropriate scales and annotated plans were produced. A photographic record was compiled, depicting the setting of the site and the nature of recorded features and deposits. The spoil from the excavations was searched using a trowel to recover finds that may assist in the interpretation of the site.

5. RESULTS

The records of deposits excavated during development were examined and a list of contexts appears as Appendix 2. Phasing was assigned based on the nature of the deposits

Phase 1	Natural Geology
Phase 2	Undated Deposits
Phase 3	Modern deposits

Phase 1 Natural Geology

The earliest deposit recorded at the site consisted of soft orange sand containing frequent rounded quartzite pebbles (006). This layer was observed across the whole of the stripped area with a thickness of greater than 0.8m.

Phase 2 Undated Deposits

A total of at least ten undated cut linear features were observed during three phases of the groundworks.

Five linear features were identified in the land drain easement along the northern and eastern sides of the reservoir area (Fig. 3). The most westerly of these was a north to south aligned feature (008) with irregular shallow sloping sides (Fig. 5, section 2). Although not fully excavated, it was greater than 0.64m deep and 6.3m wide. The fill of this feature was a soft dark grey sand containing some pebbles (007).

Approximately 11m east of (008) were two inter-cutting north to south linear features. The most easterly of these (003) had a shallow irregular profile *c.* 1.7m wide and 0.38m deep (Fig. 5, section 1). Adjoining this feature to the west was a 2.9m wide linear feature with irregular convex sides (005). The relationship between these two features could not be established as both were filled with medium grey sand (002 & 004). Patches

of redeposited natural sand were present on the western side of feature 005.

Two southeast to northwest oriented linear features were recorded in the drain easement to the east of the reservoir area. In the northern part of this easement was a 2.5m wide linear feature (012) with a depth of 0.78m (Fig. 5, section 4). It had concave sides and contained dark grey sand (011). To the south of this feature was another linear (010) with a 2.1m wide U-shaped profile (Fig. 5, section 3). This feature was also filled with dark grey sand (009).

In the main area of the reservoir (Fig. 4), at least two linear features were identified. In the northern part of the area a southeast to northwest aligned feature (014) was observed. This had been truncated by the groundworks but survived to a depth of 0.6m with a rounded profile (Fig. 7, section 5). It contained pebbly dark brown sand (013). It is likely that this feature represents a continuation of (010) despite the slight differences in their fills.

The second linear to be observed in the main area of the reservoir was located in a drainage cut in the southeast corner. This feature (018) was 8.4m wide with shallow sloping sides (Fig. 6, section 6). Its upper fill was a mixture of medium yellowish brown clays and silts (015). Beneath this deposit were a medium to dark grey clay (016) and a dark grey silty clay (017).

Immediately to the west of (018) was another apparently linear feature (024) which had a broad and shallow-sided profile (Fig. 6, section 7). The sequence of deposits was similar to those recorded in (018). The upper part of the feature contained medium brownish grey silty clay (019), medium orangey brown silty clay (020) and dark grey silty clay (021). Beneath these deposits were a dark grey clay (022) and silty clay (023).

The drainage trench was waterlogged and the base of the feature was not observed. The shape of its profile in the observed section suggested that it lay at an oblique angle to the course of the feature. However, no evidence of the feature was observed in the south side of the drainage cut. The similarity in the sequence of deposits to those in (018), suggested that it may have been a corner or kink in the side of this feature.

Three linear features were identified in an electricity cable trench along the western side of the field (Fig. 3). The most northerly of these (026) had a rounded V-shaped profile (Fig. 7, section 8) and contained dark grey sand (025). Approximately 40m south was an east-west oriented ditch cut (028) with sloping sides (Fig. 7, section 9) and filled with mid grey sand (027). A third ditch, approximately 60m south of (028), was an east-west ditch cut (030) with sloping sides (Fig. 8, section 10) and a fill (029) of mid grey sand.

Phase 3 Modern Deposits

All features and deposits revealed at the site were sealed by a modern dark grey brown sandy silt ploughsoil which was up to 0.6m thick (001).

6. DISCUSSION

The natural (Phase 1) sand was the earliest deposit encountered and is typical of Aldeby Series loamy sands (Robson *et al.* 1974).

Ten undated (Phase 2) features were revealed by the groundworks. North-south oriented ditches (003), (005) and (008) were on the same alignment as two extant field boundaries to the north, which lay either side of a track from Abbey Farm. East-west oriented ditch (010 & 014) was probably a property boundary, as was ditch (012)

further to the north. Cropmarks of two parallel east-west ditches have been recorded in this area and it likely that these marks represent (014 & 010) and (012). Ditch (018) and (024) was a substantial feature and may be the corner of an enclosure. Ditch (026) was also probably a boundary. Ditch (028) was a substantial features which corresponded to an extant linear earthwork ditch to the west, this may have been a drain or outer moat related to the abbey. The fact that it was not recorded further east may suggest that it turns abruptly to line up with the eastern side of the abbey moat. Ditch (030) was also a substantial feature and appeared to be parallel to (028), although no earthworks survive around it.

Although Ditches (010 & 014) and (021) are believed to correspond to cropmarks identified on the site, no other features were recorded that could have been related to previously recorded cropmarks.

The final phase (Phase 3) was represented by a layer of plough soil.

7.0 CONCLUSION

An archaeological watching brief was undertaken during the construction of an irrigation reservoir at Abbey Farm, Kirkstead, Lincolnshire. The development lay close to the remains of medieval Kirkstead Abbey, in an area of cropmarks probably associated with the Abbey. Previous investigations had revealed several buried ditches close to the site.

A number of undated linear features, mostly boundary ditches were revealed during the development. In addition a substantial ditch, believed to be the continuation of an extant earthwork was revealed to the north of the site, and a possible enclosure ditch was exposed in the southeast corner of the

reservoir.

Although a number of linear cropmarks traverse the area of investigation, only two were identified as archaeological features.

Unfortunately no finds were recovered from the features, or any part of the site. This would suggest that the ditches were not closely associated with domestic or industrial activity, but were boundaries of varying status.

7. ACKNOWLEDGEMENTS

Archaeological Project Services would like to acknowledge the assistance of Mr W. Nelstrop of Abbey Farm Group who commissioned the fieldwork and post-excavation analysis. The work was coordinated by Gary Taylor and this report edited by Tom Lane.

8. PERSONNEL

Project Coordinator: Gary Taylor
Site Supervisors: James Albone, Jo Hambley, Tobin Rayner & Fiona Walker
Cad Illustration: James Albone, Mark Dymond & James Snee
Post Excavation Analysts: James Albone & James Snee

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11. ABBREVIATIONS

APS Archaeological Project Services

BGS British Geological Survey

DoE Department of the Environment

IFA Institute of Field Archaeologists

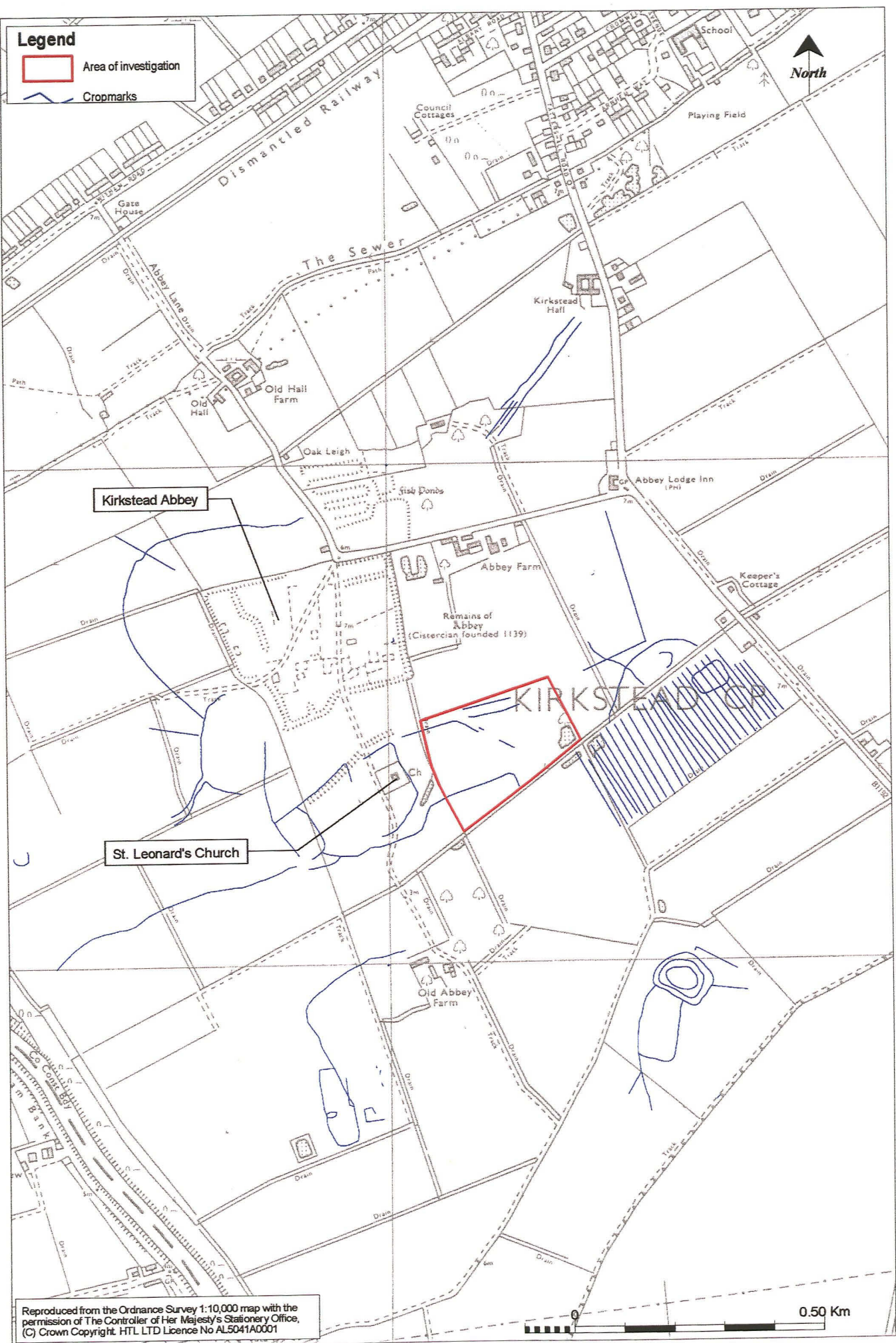
LCCAS Lincolnshire County Council
Archaeology Section



Figure 1 General Location Plan.

Legend

- Area of investigation
- ~ Cropmarks



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Figure 2 Location plan and archaeological survey

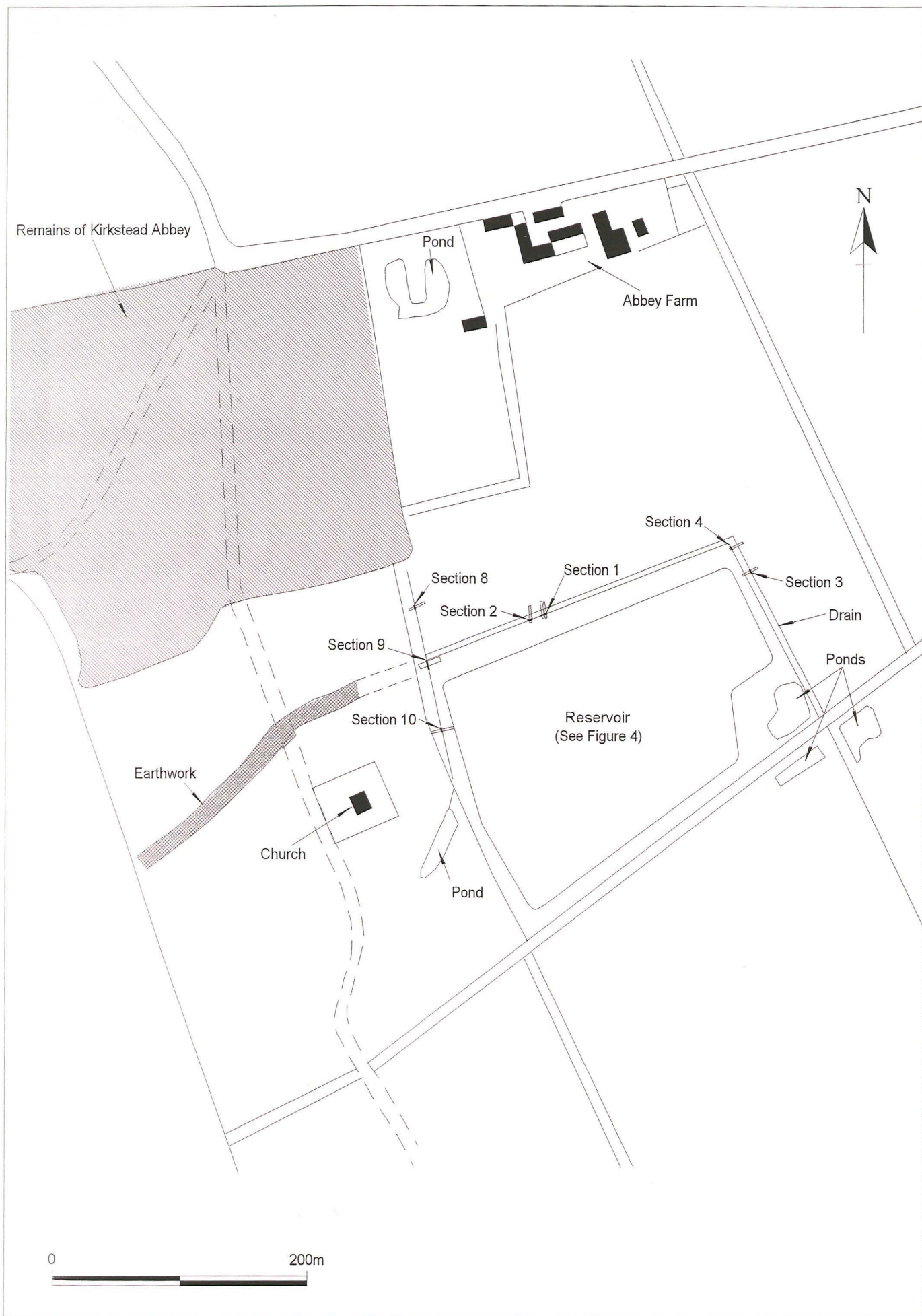


Figure 3 Plan of Development Area. Scale 1:4000.

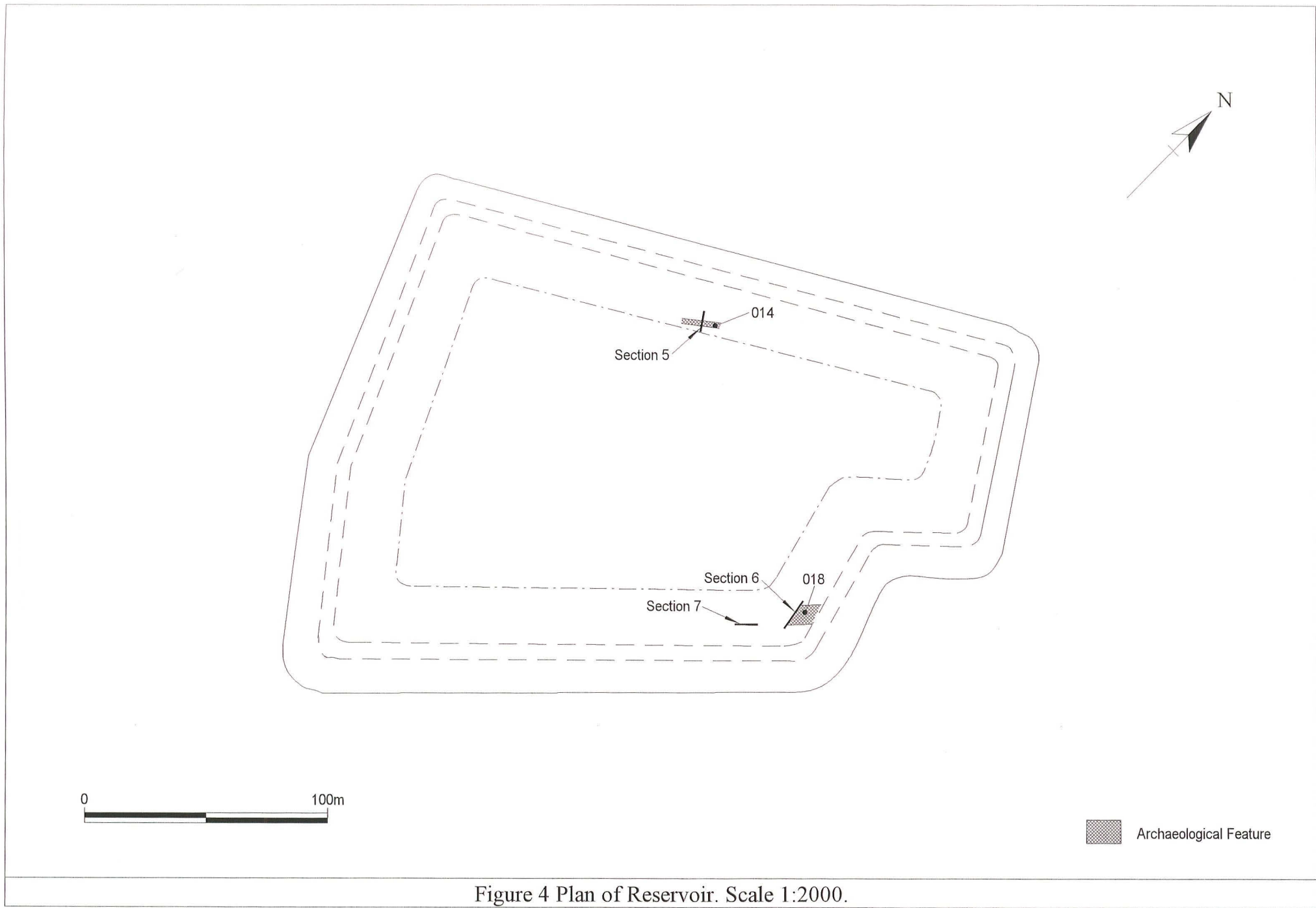
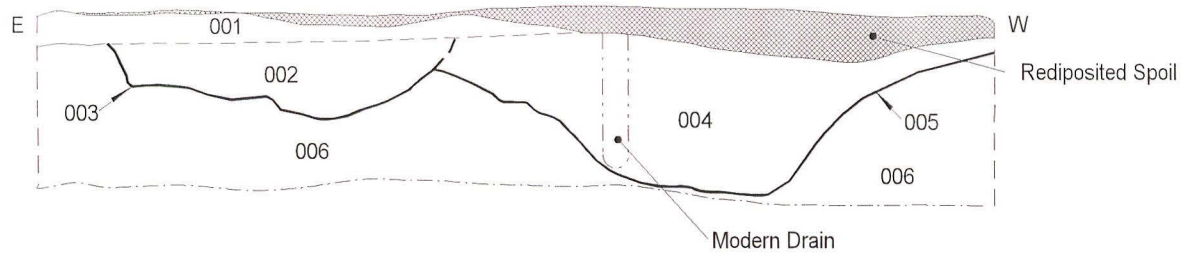
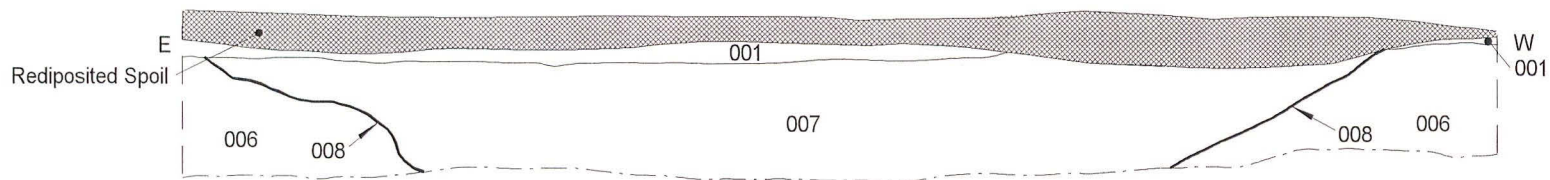


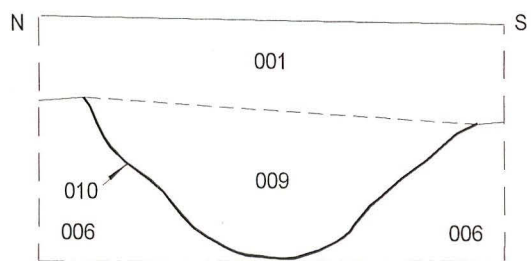
Figure 4 Plan of Reservoir. Scale 1:2000.



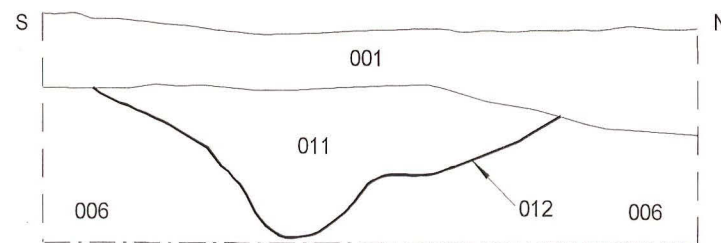
Section 1 North Facing



Section 2 North Facing



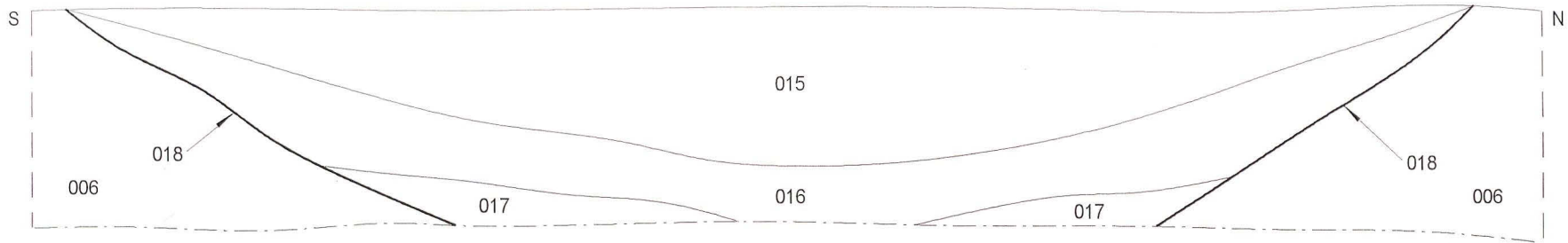
Section 3 West Facing



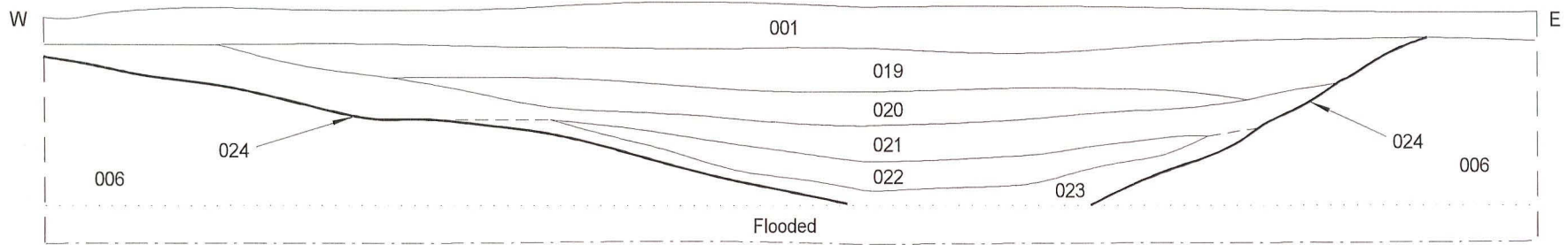
Section 4 East Facing



Figure 5 Sections 1 to 4. Scale 1:40.



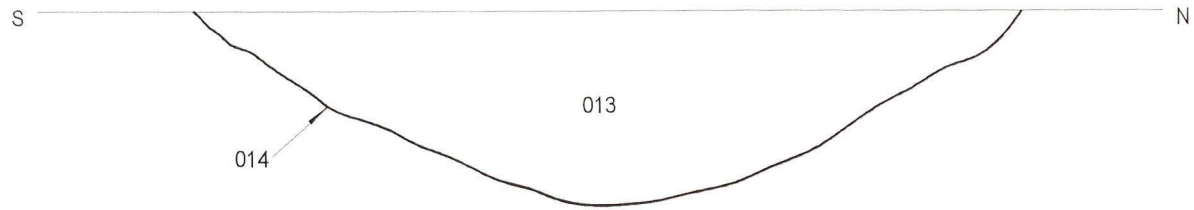
Section 6 East Facing



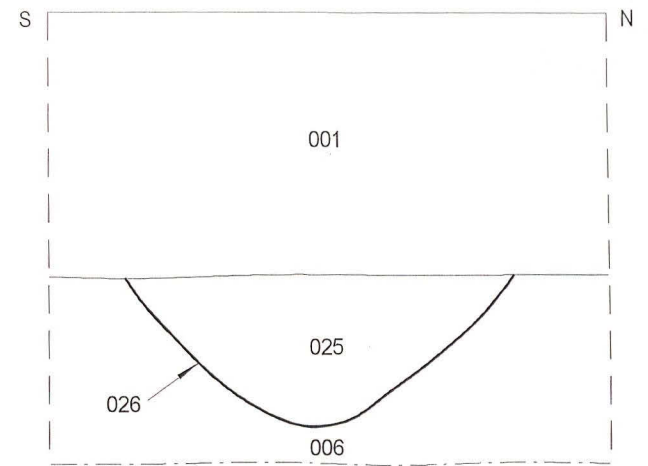
Section 7 South Facing



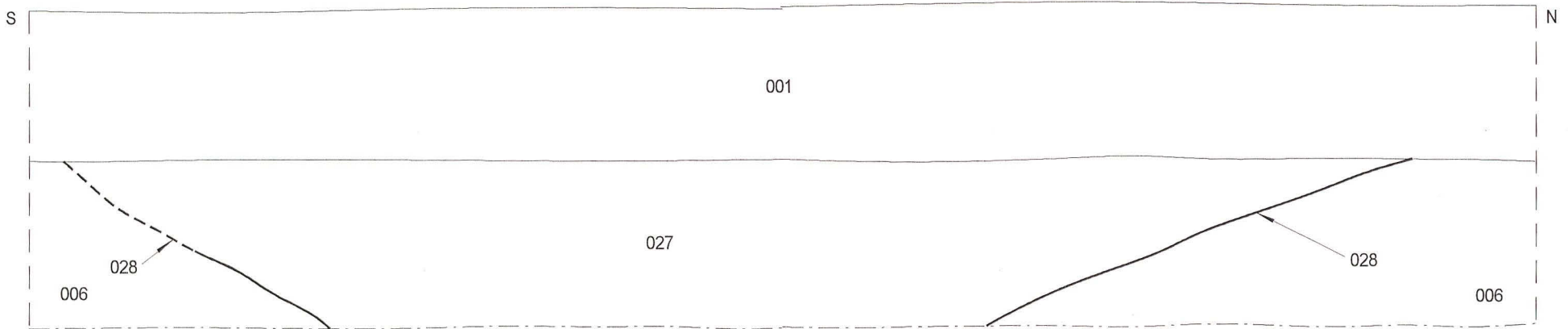
Figure 6 Sections 6 and 7. Scale 1:40.



Section 5 East Facing



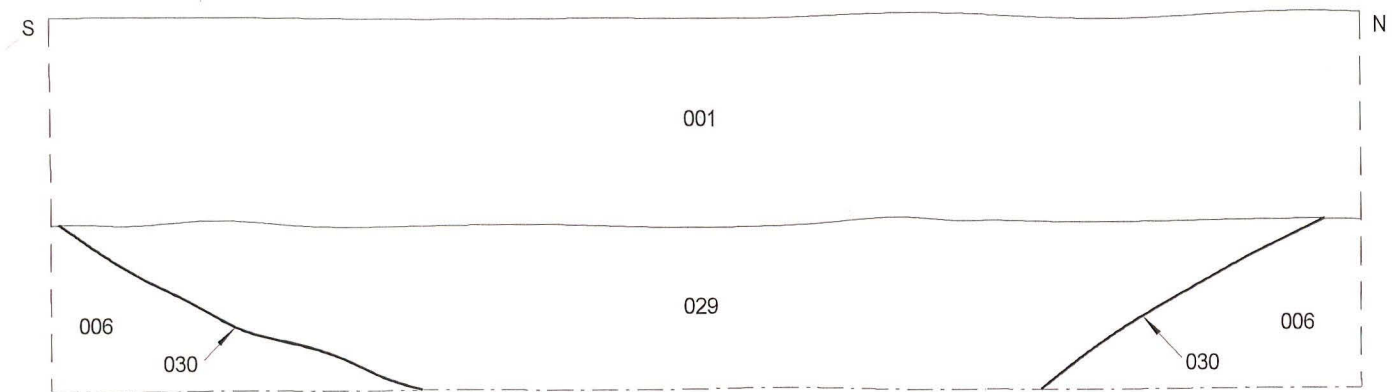
Section 8 East Facing



Section 9 East Facing



Figure 7 Sections 5, 8 and 9. Scale 1:20.



Section 10 East Facing



Figure 8 Section 10. Scale 1:20.



Plate 1 General view of site during excavation, looking north.



Plate 2 Section through undated boundary ditch (010), looking west.



Plate 3 Section through undated ditch (028), looking west.

Appendix 1

**LAND AT
TATTERSHALL ROAD,
KIRKSTEAD,
LINCOLNSHIRE**

**SPECIFICATION FOR
ARCHAEOLOGICAL WATCHING BRIEF**

**PREPARED FOR
NELSTROP FARMS LTD**

**BY
ARCHAEOLOGICAL PROJECT SERVICES**
Institute of Field Archaeologists'
Registered Organisation No. 21

OCTOBER 1999

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1 SUMMARY

- 1.1 *A watching brief is required during the construction of an irrigation reservoir at Tattershall Road, Kirkstead, Lincolnshire.*
- 1.2 *The development lies close to the remains of medieval Kirkstead Abbey. Cropmarks of archaeological remains, probably associated with the abbey, occur in the proposed development area. Geophysical survey of the site recorded buried ditches that correspond with some of the cropmarks. In addition, previous investigations at the site revealed several ditches and demolition debris thought to be from a 14th-17th century building.*
- 1.3 *The watching brief will be undertaken during groundworks associated with the development. The archaeological features exposed will be recorded in writing, graphically and photographically.*
- 1.4 *On completion of the fieldwork a report will be prepared detailing the results of the investigation. The report will consist of a narrative supported by illustrations and photographs.*

2 INTRODUCTION

- 2.1 This document comprises a specification for an archaeological watching brief during the creation of an irrigation reservoir on land off Tattershall Road, Kirkstead, national grid reference TF 192 614.
- 2.2 This document contains the following parts:
 - 2.2.1 Overview.
 - 2.2.2 Stages of work and methodologies.
 - 2.2.3 List of specialists.
 - 2.2.4 Programme of works and staffing structure of the project.

3 SITE LOCATION

- 3.1 Kirkstead lies approximately 22km southeast of Lincoln in the administrative district of East Lindsey. The site is on the west side of Tattershall Road, c. 2km southwest of the centre of Wodhall Spa at national grid reference TF 192 614.

4 PLANNING BACKGROUND

- 4.1 A planning application (S/215/1662/98) was submitted to East Lindsey District Council for the construction of an irrigation reservoir. Permission has been

granted subject to conditions requiring the implementation of an archaeological watching brief, in accordance with a written scheme of works submitted to and approved by planning authority, during the development. This present document constitutes such a written scheme of works.

5 SOILS AND TOPOGRAPHY

- 5.1 The site lies on gently undulating land at the base of a slight east-west valley on ground that slopes westward down toward the River Witham at approximately 5m OD. Local soils are predominantly Aldeby Association sandy loam, though areas of Nocton, Downholand and Isleham Association soils cross the site and comprise humose or peaty soils, possibly developed in former tributaries of the Witham. These soils overlie sand and gravel river terrace deposits which in turn overlie boulder clay or till. Beneath these glacial deposits is a solid geology of Jurassic clays.

6 THE ARCHAEOLOGY

- 6.1 Prehistoric stone tools have been found in the general area and an Iron Age settlement has been identified close to the site. A Roman site is also located nearby.
- 6.2 Immediately to the north of the reservoir area is the site and remains of Kirkstead Abbey, founded in the 12th century. The abbey was a wealthy house and was responsible for building a small chapel which still stands about 100m west of the reservoir site. The abbey was dissolved in 1537 and now mainly survives as earthworks about 300m northwest of the reservoir area. Cropmarks indicate an elaborate system of drainage, enclosures and fishponds surrounding the abbey, some of the cropmarks extending in to the reservoir area. A number of mounds, thought to be the remains of post-medieval pottery kilns have been found in the area (Archaeological Project Services 1998a).
- 6.3 Geophysical survey of the area was hampered by conditions at the site but tentatively identified some buried ditches which correspond to the locations of some of the cropmarks. Previous investigations at the site revealed buried ditches, demolition debris of 14th-17th century date that suggests the former location of a building, and recovered medieval pottery (Archaeological Project Services 1998b).

7 AIMS AND OBJECTIVES

- 7.1 The aims of the watching brief will be:
- 7.1.1 To record and interpret the archaeological features exposed during the ground works for the development.

- 7.2 The objectives of the watching brief will be to:
 - 7.2.1 Determine the form and function of the archaeological features encountered;
 - 7.2.2 Determine the spatial arrangement of the archaeological features encountered;
 - 7.2.3 As far as practicable, recover dating evidence from the archaeological features, and
 - 7.2.4 Establish the sequence of the archaeological remains present on the site.

8 SITE OPERATIONS

8.1 General considerations

- 8.1.1 All work will be undertaken following statutory Health and Safety requirements in operation at the time of the watching brief.
- 8.1.2 The work will be undertaken according to the relevant codes of practise issued by the Institute of Field Archaeologists (IFA), under the management of a Member of the institute (MIFA). *Archaeological Project Services* is IFA registered organisation no. 21.
- 8.1.3 Any and all artefacts found during the investigation and thought to be 'treasure', as defined by the Treasure Act 1996, will be removed from site to a secure store and promptly reported to the appropriate coroner's office.

8.2 Methodology

- 8.2.1 The watching brief will be undertaken during the ground works phase of development, and includes the archaeological monitoring of all phases of soil movement.
- 8.2.2 Stripped areas and trench sections will be observed regularly to identify and record archaeological features that are exposed and to record changes in the geological conditions. The section drawings of the trenches will be recorded at a scale of 1:10. Should features be recorded in plan these will be drawn at a scale of 1:20. Written descriptions detailing the nature of the deposits, features and fills encountered will be compiled on Archaeological Project Services pro-forma record sheets.
- 8.2.3 Any finds recovered will be bagged and labelled for later analysis.

8.2.4 Throughout the watching brief a photographic record will be compiled. The photographic record will consist of:

8.2.4.1 The site during work to show specific stages, and the layout of the archaeology within the area.

8.2.4.2 groups of features where their relationship is important.

8.2.5 Should human remains be located the appropriate Home Office licence will be obtained before their removal. In addition, the Local Environmental Health Department, archaeological curator, coroner and the police will be informed, as appropriate.

9 POST-EXCAVATION

9.1 Stage 1

9.1.1 On completion of site operations, the records and schedules produced during the watching brief will be checked and ordered to ensure that they form a uniform sequence forming a level II archive. A stratigraphic matrix of the archaeological deposits and features present on the site will be prepared. All photographic material will be catalogued and labelled, the labelling referring to schedules identifying the subject/s photographed.

9.1.2 All finds recovered during the field work will be washed, marked and packaged according to the deposit from which they were recovered. Any finds requiring specialist treatment and conservation will be sent to the Conservation Laboratory at the City and County Museum, Lincoln.

9.2 Stage 2

9.2.1 Detailed examination of the stratigraphic matrix to enable the determination of the various phases of activity on the site.

9.2.2 Finds will be sent to specialists for identification and dating.

9.3 Stage 3

9.3.1 On completion of stage 2, a report detailing the findings of the watching brief will be prepared.

9.3.2 This will consist of:

9.3.2.1 A non-technical summary of the results of the investigation.

- 9.3.2.2 A description of the archaeological setting of the watching brief.
- 9.3.2.3 Description of the topography of the site.
- 9.3.2.4 Description of the methodologies used during the watching brief.
- 9.3.2.5 A text describing the findings of the watching brief.
- 9.3.2.6 A consideration of the local, regional and national context of the watching brief findings.
- 9.3.2.7 Plans of the archaeological features exposed. If a sequence of archaeological deposits is encountered, separate plans for each phase will be produced.
- 9.3.2.8 Sections of the archaeological features.
- 9.3.2.9 Interpretation of the archaeological features exposed, and their chronology and setting within the surrounding landscape.
- 9.3.2.10 Specialist reports on the finds from the site.
- 9.3.2.11 Appropriate photographs of the site and specific archaeological features.

10 REPORT DEPOSITION

- 10.1 Copies of the report will be sent to the client; East Lindsey District Council Planning Department; and to the County Council Archaeological Sites and Monuments Record.

11 ARCHIVE

- 11.1 The documentation and records generated during the watching brief will be sorted and ordered into the format acceptable to the City and County Museum, Lincoln. This will be undertaken following the requirements of the document titled *Conditions for the Acceptance of Project Archives* for long term storage and curation.

12 PUBLICATION

- 12.1 A report of the findings of the watching brief will be published in Heritage Lincolnshire's Annual Report and a note presented to the editor of the journal

Lincolnshire History and Archaeology. If appropriate, notes on the findings will be submitted to the appropriate national journals: *Britannia* for discoveries of Roman date, and *Medieval Archaeology* and the journal of the *Medieval Settlement Research Group* for findings of medieval or later date.

13 **CURATORIAL RESPONSIBILITY**

13.1 Curatorial responsibility for the archaeological work undertaken on the site lies with the County Archaeological Officer. They will be given as much written notice as possibly, ideally seven days, prior commencement of the project.

14 **VARIATIONS**

14.1 Variations to the proposed scheme of works will only be made following written confirmation of acceptance from the archaeological curator.

15 **PROGRAMME OF WORKS AND STAFFING LEVELS**

15.1 The watching brief will be integrated with the programme of construction and is dependent on the developers' work programme. It is therefore not possible to specify the person-hours for the archaeological site work.

15.2 An archaeological supervisor with experience of watching briefs will undertake the work.

15.3 Post-excavation analysis and report production will be undertaken by the archaeological supervisor, or a post-excavation analyst as appropriate, with assistance from a finds supervisor, illustrator and external specialists. It is expected that each fieldwork day (equal to one person-day) will require a post-excavation day (equal to one-and-a-half person-days) for completion of the analysis and report. If the fieldwork lasts longer than about four days then there will be an economy of scale with the post-excavation analysis.

16 **SPECIALISTS TO BE USED DURING THE PROJECT**

16.1 The following organisations/persons will, in principal and if necessary, be used as subcontractors to provide the relevant specialist work and reports in respect of any objects or material recovered during the investigation that require their expert knowledge and input. Engagement of any particular specialist subcontractor is also dependent on their availability and ability to meet programming requirements.

<u>Task</u>	<u>Body to be undertaking the work</u>
Conservation	Conservation Laboratory, City and County Museum, Lincoln

Pottery Analysis	Prehistoric - Trent & Peak Archaeological Trust
	Roman - B Precious, Independent Specialist
	Anglo-Saxon - J Young, Independent Specialist
	Medieval and later - H Healey, Independent Archaeologist
Non-pottery Artefacts	J Cowgill, Independent Specialist
Animal Bones	Environmental Archaeology Consultancy
Environmental Analysis	J Rackham, Independent Specialist
Human Remains Analysis	R Gowland, Independent Specialist

17 **INSURANCES**

17.1 Archaeological Project Services, as part of the Heritage Trust of Lincolnshire, maintains Employers Liability Insurance of £10,000,000, together with Public and Products Liability insurances, each with indemnity of £5,000,000. Copies of insurance documentation can be supplied on request.

18 **COPYRIGHT**

18.1 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.

18.2 Licence will also be given to the archaeological curators to use the documentary archive for educational, public and research purposes.

18.3 In the case of non-satisfactory settlement of account then copyright will remain fully and exclusively with Archaeological Project Services. In these circumstances it will be an infringement under the *Copyright, Designs and Patents Act* 1988 for the client to pass any report, partial report, or copy of same, to any third party. Reports submitted in good faith by Archaeological Project Services to any Planning Authority or archaeological curator will be removed from said planning Authority and/or archaeological curator. The Planning Authority and/or archaeological curator will be notified by Archaeological Project Services that the use of any such information previously supplied constitutes an infringement under the *Copyright, Designs and Patents Act* 1988 and may result in legal action.

- 18.4 The author of any report or specialist contribution to a report shall retain intellectual copyright of their work and may make use of their work for educational or research purposes or for further publication.

19 **BIBLIOGRAPHY**

Archaeological Project Services, 1998a *Desk-top Assessment of the Archaeological Implications of Proposed Reservoir Construction at Woodhall Spa and Kirkstead, Lincolnshire (WSK98)*

Archaeological Project Services, 1998b *Archaeological Watching Brief on land at Abbey Farm, Kirkstead, Lincolnshire (AFK98 and KAD98)*

Specification: Version 1, 22nd October 1999

Appendix 2

CONTEXT DESCRIPTIONS

No.	Section	Description	Interpretation
001	1-4	Dark grey brown sandy silt, thickness 0.58m	Topsoil
002	1	Mid grey sand, thickness 0.38m	Fill of 003
003	1	Linear cut with steep sides and undulating base, 4.4m x 1.7m x 0.38m	Boundary Ditch
004	1	Mid grey sand, thickness 0.78m	Fill of 005
005	1	Linear cut, with flat base, 3m wide, 0.78m deep	Boundary Ditch
006		Orange sand, thickness 0.8m	Natural
007	2	Dark grey sand, thickness 0.64m	Fill of 008
008	2	Linear cut, not completely excavated, 6.3m wide	Ditch
009	3	Dark grey silty sand, thickness 0.74m	Fill of 010
010	3	Linear cut with vertical sides and rounded base, 2.1m wide, 0.74m deep	Boundary Ditch
011	4	Dark grey sand, thickness 0.78m	Fill of 012
012	4	Linear cut with rounded base, 4.4m long, 0.78m wide, 0.78m deep	Boundary Ditch
013	5	Dark brown sand, thickness 0.25m	Fill of 014
014	5	Linear cut with concave sides and base, 3m x 1.1m x 0.25m	Ditch
015	6	Mid yellowish brown mix of clays and silts, thickness 0.95m	Back fill of 018
016	6	Mid- dark grey clay, thickness 0.4m	Fill of 018
017	6	, thickness 0.4m	Fill of 018
018	6	Cut with smooth sides, not fully excavated	Ditch
019	7	Mid brownish grey silty clay, thickness 0.26m	Fill of 024
020	7	Mid orange brown clay, thickness 0.2m	Fill of 024
021	7	Dark grey silty clay, thickness 0.32m	Fill of 024
022	7	Dark grey clay, thickness 0.2m	Layer
023	7	Dark grey silty clay, thickness 0.14m	Fill of 024
024	7	Linear cut, not fully excavated	Ditch
025	8	Dark grey sand, thickness 0.4m	Fill of 026
026	8	Linear cut, with concave sides and base, 1.05m wide, 0.4m deep	Ditch
027	9	Mid grey sand, thickness 0.55m	Fill of (028)

No.	Section	Description	Interpretation
028	9	Linear cut, not fully excavated, 4.48m wide, 0.55m deep to limit of excavation	Ditch
029	10	Mid grey sand, thickness 045	Fill of 030
030	10	Linear cut, not fully excavated, 3.35m wide, 0.45m deep	Boundary Ditch

Appendix 3

GLOSSARY

Bronze Age	A period characterised by the introduction of bronze into the country for tools, between 2250 and 800 BC.
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 interpretation 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].
Crop mark	A mark that is produced by the effect of underlying archaeological or geological 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.
Domesday Survey	A survey of property ownership in England compiled on the instruction of William I for taxation purposes in 1086 AD.
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) that become contained by the 'cut' are referred to as its fill(s).
Geophysical Survey	Essentially non-invasive methods of examining below the ground surface by measuring deviations in the physical properties and characteristics of the earth. Techniques include magnetometry and resistivity survey.
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 used 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.
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 hole	The hole cut to take a timber post, usually in an upright position. The hole may have been dug larger than the post and contain soil or stones to support the post. Alternatively, the posthole may have been formed through the process of driving the post into the ground.
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 1st century AD.

Ridge and Furrow

The remains of arable cultivation consisting of raised rounded strips separated by furrows. It is characteristic of open field agriculture.

Romano-British

Pertaining to the period dating from AD 43-410 when the Romans occupied Britain.

Appendix 4

THE ARCHIVE

The archive consists of:

30	-	Context records
1	-	Photographic record sheets
8	-	Drawing sheets
1	-	Stratigraphic matrix

All primary records and finds 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:

Lincolnshire City and County Museum
12 Friars Lane
Lincoln
LN2 1HQ

The archive will be deposited in accordance with the document titled *Conditions for the Acceptance of Project Archives*, produced by the Lincolnshire City and County Museum.

Lincolnshire City and County Council Museum Accession Number: LCNCC : 146.98

Archaeological Project Services Site Code: KTR99

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.

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