

20/7 5433

JB

M2113

**ARCHAEOLOGICAL EVALUATION
ON LAND ADJACENT TO
16 ABBEY WALK,
CROWLAND,
LINCOLNSHIRE
(CAW01)**



A P S
ARCHAEOLOGICAL
PROJECT
SERVICES

ENTL 2321
SOURCES LIB994 LIB995
PRN 20268

**ARCHAEOLOGICAL EVALUATION
ON LAND ADJACENT TO
16 ABBEY WALK,
CROWLAND,
LINCOLNSHIRE
(CAW01)**

Work Undertaken For
SOKE ARCHAEOLOGICAL SERVICES LTD
and LONGSTAFF CHARTERED SURVEYORS

Report Compiled by
G. TAYLOR BA (Hons), MA

June 2001

Planning Application No: H02/0827/00
National Grid Reference: TF 24136 10185
City and County Museum Accession No:2001.96

A.P.S. Report No: 97/01



10 700 E 1

WORLD UNIVERSITY
PUNJAB UNIVERSITY

CONTENTS

List of Figures

List of Plates

1.	Summary	1
2.	Introduction	1
2.1	Definition of an Evaluation	1
2.2	Planning Background	1
2.3	Topography and Geology	2
2.4	Archaeological Setting	2
3.	Aims	3
4.	Methods	3
5.	Results	3
5.1	The Stratigraphic Sequence	3
6.	Discussion	5
7.	Assessment of Significance	6
8.	Effectiveness of Techniques	7
9.	Conclusions	7
10.	Acknowledgements	8
11.	Personnel	8
12.	Bibliography	8
13.	Abbreviations	8

Appendices

1	Project Brief
2	Specification
3	Context Descriptions
4	The Finds, <i>by Rachael Hall, Hilary Healey and Gary Taylor</i>
5	Catalogue of Animal Bone, <i>by James Rackham</i>
6	Glossary
7	Extract from <i>Criteria for the scheduling of ancient monuments</i>
8	The Archive

List of Figures

- Figure 1 General Location Plan
- Figure 2 Location Plan
- Figure 3 Site Plan, showing trench locations
- Figure 4 Trench 1, plan and section
- Figure 5 Trench 2, plan and section
- Figure 6 Trench 1 and 2, sections

List of Plates

- Plate 1 General view of site prior to commencement of excavation
- Plate 2 Trench 1, looking northeast
- Plate 3 Section across ditch 113
- Plate 4 Trench 2, rubble surface 208 exposed

1. SUMMARY

An archaeological evaluation consisting of trial trenching was undertaken to determine the implications of proposed development on land adjacent to 16 Abbey Walk, Crowland, Lincolnshire.

Burial mounds of Bronze Age date (2000-700BC) are located in the Crowland area. Some of these were possibly reused later as windmill mounds and one such mill site is located immediately north of the investigation area. Iron Age (700BC-AD43) and Romano-British (AD43-410) artefacts have also been close to the site. Crowland Abbey, founded in the Late Saxon period (AD850-1066) and a nationally important scheduled ancient monument, was located just to the north of the investigation area. Artefacts of Late Saxon and medieval (AD1066-1500) date have previously been found in close proximity to the site. The abbey was suppressed in 1539 and a royalist garrison established a fort around the church in the Civil War (1642-6).

Two trenches were excavated at the site and revealed a ditch and a rubble surface, both of medieval date. Domestic waste, including food residues, has been dumped in the ditch and these materials imply the proximity of habitation of the period. Fragments of ceramic roofing tile from both the ditch and rubble surface suggest tile-roofed buildings of medieval date in the vicinity. Subsequently, the ditch was apparently re-cut, at an unknown date but probably in the post-medieval period (c.1500-1800). In addition, several relatively recent, 19th century, refuse pits were dug through the medieval rubble surface.

2. INTRODUCTION

2.1 Definition of an Evaluation

An archaeological evaluation is defined as 'a limited programme of non-intrusive and/or intrusive fieldwork which determines the presence or absence of archaeological features, structures, deposits, artefacts or ecofacts within a specified area or site. If such archaeological remains are present Field Evaluation defines their character and extent, quality and preservation, and it enables an assessment of their worth in a local, regional, national or international context as appropriate' (IFA 1997).

2.2 Planning Background

A planning application (H02/0827/00) for the residential development (erection of two houses) of the site has been submitted to South Holland District Council. The planning authority were advised by Lincolnshire County Council Built Environment Team (Archaeology Section) that the area was archaeologically significant and that an evaluation was requested in order to assess the presence and character of the archaeological resource within the proposed development area. A brief for investigation was prepared by the County Council Archaeology Section (Appendix 1).

Archaeological Project Services was commissioned by Soke Archaeological Services Ltd, on behalf of Longstaff Chartered Surveyors, to undertake the archaeological evaluation at the site. The investigation fieldwork was carried between 24th April and 3rd May 2001 in accordance with a specification prepared by Soke Archaeological Services Ltd (Appendix 2).

2.3 Topography and Geology

Crowland is situated 12km south of Spalding and 22km east of Stamford in the civil parish of Crowland, South Holland District, Lincolnshire (Fig. 1).

Located immediately east of 16 Abbey Walk, on the eastern side of the road, the site lies 150m south of the parish church of Our Lady, St. Bartholomew and St. Guthlac in the village centre (Plate 1). A rectangular area approximately 1097m² in extent, the site lies on generally level ground at c. 4m OD and is centred on National Grid Reference TF 24136 10185 (Fig. 2)

The village is located on soils of the Swanwick Series, coarse loamy argillic gley soils (Robson 1990, 29). North, south and east of the village are various alluvial gley soils of the Clayhithe, Downholland, Midelney and Wallasea Series (*ibid.* 14, 15, 20 and 34). Beneath these soils is a drift geology of marine or estuarine sand and gravels, commonly referred to as the Abbey Gravels (Horton 1989, 21). These in turn overlie a diffuse deposit of Boulder Clay (Booth 1983, 190). Beneath drift deposits is a solid geology of the Jurassic Oxford Clay (BGS 1984).

2.4 Archaeological Setting

The development site lies in an area of known archaeological remains dating from the prehistoric period onwards. The earliest evidence of occupation is during the Neolithic period and stone axes have been found in the vicinity of the site (Hayes and Lane 1992, 197).

During the Early Bronze Age, the gravel ridge occupied by Crowland was the focus for a sizeable barrow cemetery. This was part of a system of such cemeteries extending from Borough Fen to the south, to Deeping

St. Nicholas west of Crowland and continuing to the north (Lane 1994, 6). Some of the barrows may have been used as mill mounds and one such mill was located immediately north of the present investigation site (Cope-Faulkner 1998b, fig. 18). Most of the barrows are only known from their destruction in the last two centuries and the nearest to the site are located 700m to the southwest and northeast (*ibid.*, fig. 12). Although settlement contemporary with these burial sites has yet to be identified in Crowland, pottery fragments of the period are known from the vicinity of the church (Hayes and Lane 1992, 197).

Later Bronze Age remains are unknown from the Crowland peninsula though an Iron Age site, possibly a saltern (salt producing site), has been identified to the north of the town (*ibid.*, 198) and an Iron Age pin was found just north of the present investigation area (Cope-Faulkner 1998b, fig. 12). Evidence for Romano-British remains is also scarce, though a substantial stone building, perhaps of Roman origin but used in later periods, is known at Anchor Field at the northeastern corner of the village. Additionally, a Roman *intaglio* (gemstone) has been found immediately north of the investigation site (*ibid.*, fig. 13).

Crowland is first mentioned in the mid 8th century by Felix, the biographer of St. Guthlac. Referred to as *Crugland* and *Crowlond*, the name is derived from the Old English *crūw* meaning 'bend' and denotes its location at a bend in the River Welland (Cameron 1998, 35). Felix was writing about the life of St. Guthlac who founded a cell here with two followers in c. 700 AD (Page 1988, 105). It has been suggested that St. Guthlac's hermitage made use of the probable Romano-British building at the northeastern edge of Crowland (Cope-Faulkner 1998b, 10).

A Benedictine monastery dedicated to St. Guthlac was in existence in Crowland by 1051 and was subject to Peterborough Abbey. It is not known when the monastery was first built, although it is believed to be in the mid-late 10th century. A documentary reference noting an earlier foundation is now believed to be a forgery (Hayes and Lane 1992, 202). The present standing remains of the abbey date to 1156 (Pevsner and Harris 1989, 238). The abbey precinct lies just north of the present investigation area and is a Scheduled Ancient Monument.

Medieval pottery has previously been found immediately north of the investigation site (Cope-Faulkner 1998b, fig. 14). Additionally, Late Saxon pottery, medieval glazed roof tile and layers of limestone rubble thought to be associated with Crowland Abbey, have been identified about 100m to the northwest, on the opposite side of Abbey Walk (Cope-Faulkner 1998a, 4).

Following the dissolution in 1539, the abbey buildings gradually fell into decay, a process that was accelerated during the English Civil War (1642-46) when a Royalist garrison constructed a fort surrounding the church (Pevsner and Harris 1989, 240).

3. AIMS

The requirements of the evaluation were to gather information to establish the presence or absence, extent, condition, character, quality and date of any archaeological deposits to enable the archaeological curator to formulate a policy for the management of the archaeological resources present on the site.

4. METHODS

The trial trenching consisted of the

excavation of 2 trenches, both 10m x 2m in extent, in locations defined by the County Council Archaeology Section (Fig. 3).

Removal of the topsoil and other overburden was undertaken by mechanical excavator using a toothless ditching bucket.

The exposed surfaces of the trenches were then cleaned by hand and inspected for archaeological remains. Where present, features were excavated by hand in order to retrieve dateable artefacts and other remains.

Each deposit exposed during the evaluation was allocated a unique reference number (context number) with an individual written description. A photographic record was compiled. Sections were drawn at a scale of 1:10 and plans at a scale of 1:20. Recording of deposits encountered was undertaken according to standard Archaeological Project Services' practice.

The location of the excavated trenches was surveyed with an EDM in relation to fixed points on the existing building.

5. RESULTS (Figs. 4, 5 and 6)

5.1 The Stratigraphic Sequence

Following excavation, all records were checked and ordered to ensure that they constituted a complete level II archive and a stratigraphic matrix of all identified deposits and features was produced.

Finds recovered from the deposits identified during the evaluation were examined and a date assigned where possible (Appendix 4). Records of the deposits encountered were also examined. A summary list of all contexts and interpretations appears as Appendix 3. Phasing was based on the nature of the deposits and recognisable

relationships between them, supplemented by artefact dating where relevant. Four phases were identified:

- Phase 1 Natural deposits
- Phase 2 Medieval deposits
- Phase 3 Undated, ?Post-medieval, deposits
- Phase 4 Recent deposits

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

Phase 1 Natural deposits

Approximately 1.2m below present ground level, in the base of Trench 1 at 1.93m OD, a layer of light grey-brown silty gravel (118) was encountered. This was identified as a natural alluvial deposit (Fig. 4).

Above this gravel, and also observed in Trench 2, were deposits of dark brown peat (117, 210). Encountered approximately 0.9m below the present ground surface at 2.28m OD, this deposit was about 0.3m thick (Fig. 5; Plate 2). This is explained as a natural peat development. However, limestone fragments were observed in (210) and these may be archaeological in origin.

Overlying the peat in Trench 1 a sequence of red-brown and mottled brown sandy silts (114, 115, 116), up to 0.37m thick, was revealed. The lowest of these deposits (116) contained occasional lenses of peat. These silts are probably natural alluvium, but may be redeposited or dumped material.

Water entered the lowest levels of both trenches.

Phase 2 Medieval deposits

Trench 1

Cutting the natural silts was a north-south

ditch [113]. This was 2.2m wide, 0.38m deep and flat-bottomed and was filled with a sequence of brown sandy silts (107-112; Figs. 4 and 6; Plate 3). Pottery and ceramic roofing tile of medieval date was recovered from the fill deposits (107, 109 and 112). These deposits also contained moderately abundant faunal remains, with a large quantity of whelk shell recovered from (107), fairly numerous animal bones from (109) and several oyster shells from (112).

Trench 2

Sealing the natural peat was a 0.2m thick layer of mixed grey-brown and orange-brown silty sand with occasional large limestone fragments (209). This is interpreted as a make-up or dumped deposit (Fig. 5). Above this was a layer of limestone rubble (208). Approximately 0.12m thick, this layer included frequent medium or large pieces of limestone (Plate 4). Single pieces of medieval pottery and roof tile were recovered from the deposit.

Phase 3 Undated, ?Post-medieval, deposits

Trench 1

Partially overlying the infilled medieval ditch [113], and extending northeastwards away from it, was an approximately 0.15m thick layer of yellow-brown silty sand (106). This may be a subsoil and the deposit terminated over ditch [113], though there were no clear indications that it was cut.

Above layer (106), and also evident on the opposite side of ditch [113], were approximately 100mm thick layers of grey-brown sandy silt (104=105). No artefacts were recovered from these deposits, which thickened and dipped where they overlay ditch [113]. In this same area, these layers were apparently truncated by a wide, shallow cut [119], approximately 0.2m deep (Fig. 4). Although minimally observed, this

is thought to be a ditch. It was filled with deposits of pebbly, brown sand-silts (102, 103). No artefacts were recovered from either deposit.

Phase 4 Recent deposits

Trench 1

Above the undated gully [119] was a 0.5m thick layer of dark grey-brown clay silt topsoil (101) which forms the current ground surface of the area. Medieval and post-medieval artefacts were recovered as unstratified artefacts from the trench area (100).

Trench 2

Cutting the medieval rubble layer were three sub-rectangular features [203, 205, 207]. All were steep-sided, over 1.4m long and, where observed, flat-based and are interpreted as pits (Figs. 5 and 6). They were all filled with friable, pebbly dark brown/black sandy silts (202, 204, 206). Artefacts of 18th-early 19th century date were recovered from (204) and (206). Redeposited medieval pottery was also retrieved from (204).

Sealing these pits was a 0.4m thick, black humic sandy silt topsoil (201) which covered the area. Single pieces of 17th-18th century pottery and brick/tile were recovered from the topsoil, and several fragments of 18th century pottery were collected as unstratified artefacts from the trench area (200).

6. DISCUSSION

Natural (Phase 1) silty gravel was encountered in the base of Trench 1. This is a river terrace deposit derived from the former course of the River Welland and is part of the pre-Flandrian Abbey Gravel sequence (Horton 1989, 21).

Developed on the gravel was a peat deposit. This is likely to be prehistoric and peat formation had commenced around Crowland by the Neolithic and continued into the medieval period (Hayes and Lane 1992, 203). The presence of this deposit indicates that the area was marshland during the formation of the peat.

Above the peat in the northeastern part of the site (Trench 1) was a sequence of sandy silts, the lowest containing lenses of peat. It is highly likely that these are natural alluvium, though they may be dumped.

The peat in the southwestern part of the site (Trench 2) contained occasional limestone fragments. These were almost certainly introduced to the peat by human activity and perhaps derive from the overlying dump or make-up deposit (209) which also contained occasional large limestone fragments (Phase 2). This dumping was perhaps intended to stabilize the peaty ground and the limestone fragments may be from building activity in the area. On this make-up deposit was a layer of limestone rubble (208). This was only 0.12m thick and may be a surface, though large pieces of limestone were incorporated in the deposit and these may derive from construction activity. Very few artefacts were recovered from the limestone surface and this may indicate that medieval occupation was not located in the immediate proximity, or that the surface was kept clean.

Cutting the natural silts in the northeastern part of the site was a north-south ditch [113]. This probably served as a boundary and also for drainage. It was filled with a series of probably natural silts, though domestic debris was also dumped in to them. This material included food waste, animal bones and shellfish remains, and pottery fragments of medieval date. The pottery from the lower deposits (109, 112) within the ditch was earlier in date, 11th-14th

century, than the material from the uppermost fill (107), which was 13th-15th century. This suggests that the ditch was gradually infilled during the medieval period.

Although the various deposits in the ditch contained differing faunal remains, these separate assemblages of food waste probably represent discard from specific meals or food processing activities, rather than changing diet through time. The quantity of settlement debris from the ditch suggests medieval occupation was located in close proximity. Additionally, the presence in the ditch of ceramic building material, including glazed roofing tile, implies tile-roofed buildings nearby. Moreover, fragments of glazed ridge tile were recovered and such artefacts are generally associated with buildings of higher status. Given the proximity of Crowland Abbey to the investigation site, it is perhaps likely that not only the glazed ridge tile, but also the other occupation debris from these medieval deposits, derives from the abbey or its ancillary structures.

Above the infilled ditch, and extending across Trench 1 were layers of silty sand (106) and sandy silt (104=105). These were undated (Phase 3) and are perhaps alluvial in origin, though may be subsoils or transformed deposits. The lower deposit (106) terminated over ditch [113], which may imply some recutting of the ditch, though this was not clear.

Cutting the upper two deposits (104=105) was a shallow, wide feature [119]. Although only seen in section, this is thought to be a ditch, probably a recut of medieval ditch [113]. It is therefore likely that the medieval ditch, although infilled, was still apparent as an earthwork, and this suggestion is supported by the evidence of deposit (104) which sinks in to the medieval ditch.

Cutting in to the medieval rubble surface in Trench 2 were three refuse pits [203, 205, 207] of recent, perhaps early 19th century, date (Phase 4). Modern topsoil sealed the pits. Undated ditch [119] in Trench 1 may have been subject to truncation of its upper parts by development of the topsoil which directly overlay it.

7. ASSESSMENT OF SIGNIFICANCE

For assessment of significance the *Secretary of State's criteria for scheduling ancient monuments* has been used (DoE 1990, Annex 4; See Appendix 7)

Period

Archaeological deposits dating from the medieval, ?post-medieval and recent periods were recorded during the evaluation. However, the types of remains revealed, boundary/drainage ditches, rubble surfaces and refuse pits, are not period-specific.

Rarity

Remains of medieval and later date, in the form of ditches and a rubble surface, were identified at the site. In general terms, these types of remains are not rare, though within Crowland such evidence is scarce. Refuse pits of 19th century date, as identified during the investigation, are not uncommon.

Documentation

Records of archaeological sites and finds made in the Crowland area are held in the Lincolnshire Sites and Monuments Record. The parish and village have been the subject of archaeological surveys and studies and syntheses of their archaeological and historical evidence. Several archaeological investigations have been undertaken in the vicinity and are reported.

Group Value

Ditches, a rubble surface, and later refuse pits were encountered during the investigation. In site-specific terms, these have low group value. However, the contents of the medieval ditch tentatively raises the possibility that it is associated with the adjacent abbey, which increases the group value. Furthermore, the remains of the abbey in general terms, and previous discoveries of other medieval evidence in the vicinity, enhances the group value.

Survival/Condition

Archaeological remains of medieval and later date survived well across the area, although some relatively recent activity, in the form of 19th century pits and topsoil development, had disturbed earlier remains. Other than natural peat, the preservation of organic remains was limited to bone and mollusc shell.

Fragility/Vulnerability

Archaeological remains of medieval date were encountered approximately 0.5m below present ground surface. Any proposed development at the site is likely to impact the ground to the level of natural deposits. Therefore, all archaeological remains in the area are vulnerable.

Diversity

Boundary/drainage ditches of medieval and later date, the earlier containing domestic refuse, a medieval rubble surface and relatively recent refuse disposal pits were revealed during the evaluation. As a group these have low-moderate functional and period diversity.

Potential

There is a high potential that further medieval and later features and deposits, similar to those found during the archaeological evaluation, occur on, and in the immediate vicinity of the site.

Peat survives at depth, and water was also encountered in the lowest parts of the trenches. In consequence, there is moderate-high potential for the preservation of organic remains by waterlogging.

8. EFFECTIVENESS OF TECHNIQUES

The technique of using trial trenches to evaluate archaeological deposits was successful. Mechanical excavation allowed a rapid appraisal indicating archaeological deposits were present across the investigation site. Furthermore, manual investigation techniques established that the archaeological remains were well-preserved with different phases of activity, from the medieval period to the present. Additionally, the investigations also indicated the majority of the functions of the remains.

9. CONCLUSIONS

Archaeological evaluation on land adjacent to 16 Abbey Walk, Crowland, Lincolnshire was undertaken as the site lay within an area of known archaeological remains of prehistoric to post-medieval date, in close proximity to medieval Crowland Abbey.

Medieval remains, consisting of a ditch and limestone rubble surface, were revealed approximately 0.5m below the present ground surface. These were well preserved, although evidence of truncation by modern features, 19th century refuse pits, was evident. Artefacts from the medieval ditch suggest the proximity of higher status occupation or other activity, perhaps associated with the adjacent abbey.

Natural peat was revealed and ground water was encountered at depth. Consequently, conditions exist for the preservation of

organic materials by waterlogging at greater depths, though above the water-table site conditions suggest that few environmental indicators (plant remains, seeds, pollen *etc.*) would survive other than through charring.

10. ACKNOWLEDGEMENTS

Archaeological Project Services would like to acknowledge the assistance of Soke Archaeological Services Ltd who commissioned the investigation on behalf of Longstaff Chartered Surveyors. The work was coordinated by Steve Malone and this report was edited by Tom Lane. Background information was kindly provided by Dave Start, who allowed access to the relevant parish files maintained by Heritage Lincolnshire.

11. PERSONNEL

Project Coordinator: Steve Malone
Supervisor: James Snee
Assistants: Rachael Hall, Barry Martin
Illustration: Fiona Walker and Sue Unsworth
Photographic Reproduction: Steve Malone
Post-excavation Analyst: Gary Taylor

12. BIBLIOGRAPHY

BGS, 1984 *Peterborough: Solid and Drift Geology*, 1:50 000 map sheet 158

Cameron, K., 1998, *A Dictionary of Lincolnshire Place-Names*

Cope-Faulkner, P., 1998a *Archaeological Watching Brief of Development on land off Abbey Walk, Crowland, Lincolnshire (CAW98)*, unpublished APS report 74/98

Cope-Faulkner, P., 1998b *Archaeological*

Implications of the appraisal of Crowland Conservation area, Crowland, Lincolnshire (CCA 98), unpublished APS report 83/98

DoE, 1990, *Archaeology and Planning, Planning Policy Guidance note 16*

Hayes, P.P. and Lane, T.W., 1992 *The Fenland project No. 5: Lincolnshire Survey, the southwest fens*, East Anglian Archaeology 55

Horton, A., 1989 *Geology of the Peterborough District*, Memoirs of the British Geological Survey Sheet 158

IFA, 1997 *Standard and Guidance for Archaeological Evaluations*

Lane, T.W., 1994 'The site in its setting and adjacent salvage excavations' in C.A.I. French, *Excavations of the Deeping St. Nicholas barrow complex, South Lincolnshire*, Lincolnshire Archaeology and Heritage Reports Series No. 1

Page, W., 1988 *The Victoria History of the County of Lincoln*, (reprint of 1906 edition)

Pevsner, N. and Harris, J., 1989 *Lincolnshire, The Buildings of England* (2nd edition, revised Antram, N.)

Robson, J.D., 1990 *Soils of the Boston and Spalding District*, Memoirs of the Soil Survey of Great Britain

13. ABBREVIATIONS

APS Archaeological Project Services
BGS British Geological Survey
DoE Department of the Environment
IFA Institute of Field Archaeologists

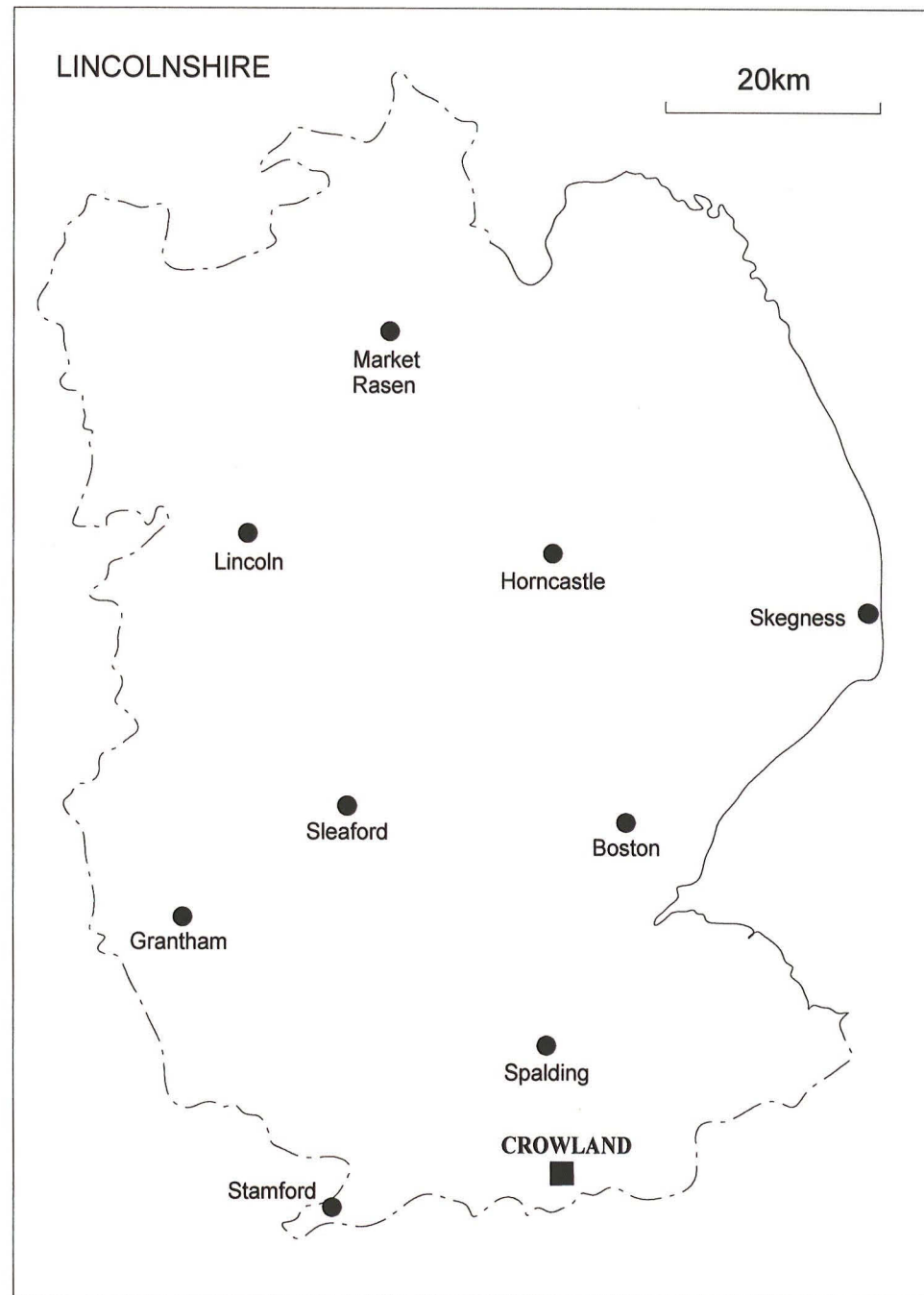
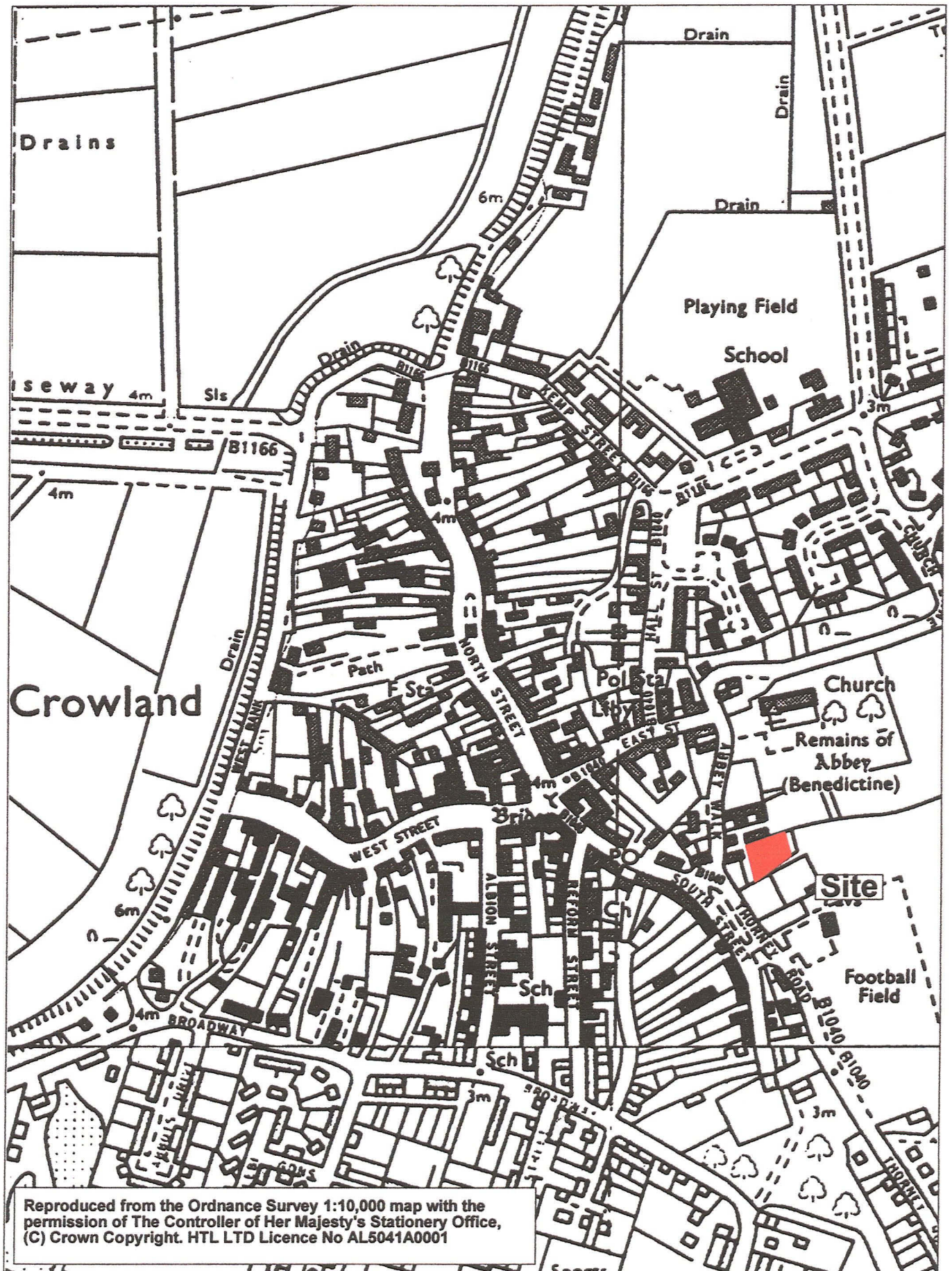


Figure 1 - General Location Plan



Reproduced from the Ordnance Survey 1:10,000 map with the permission of The Controller of Her Majesty's Stationery Office, (C) Crown Copyright. HTL LTD Licence No AL5041A0001

Figure 2 Location plan

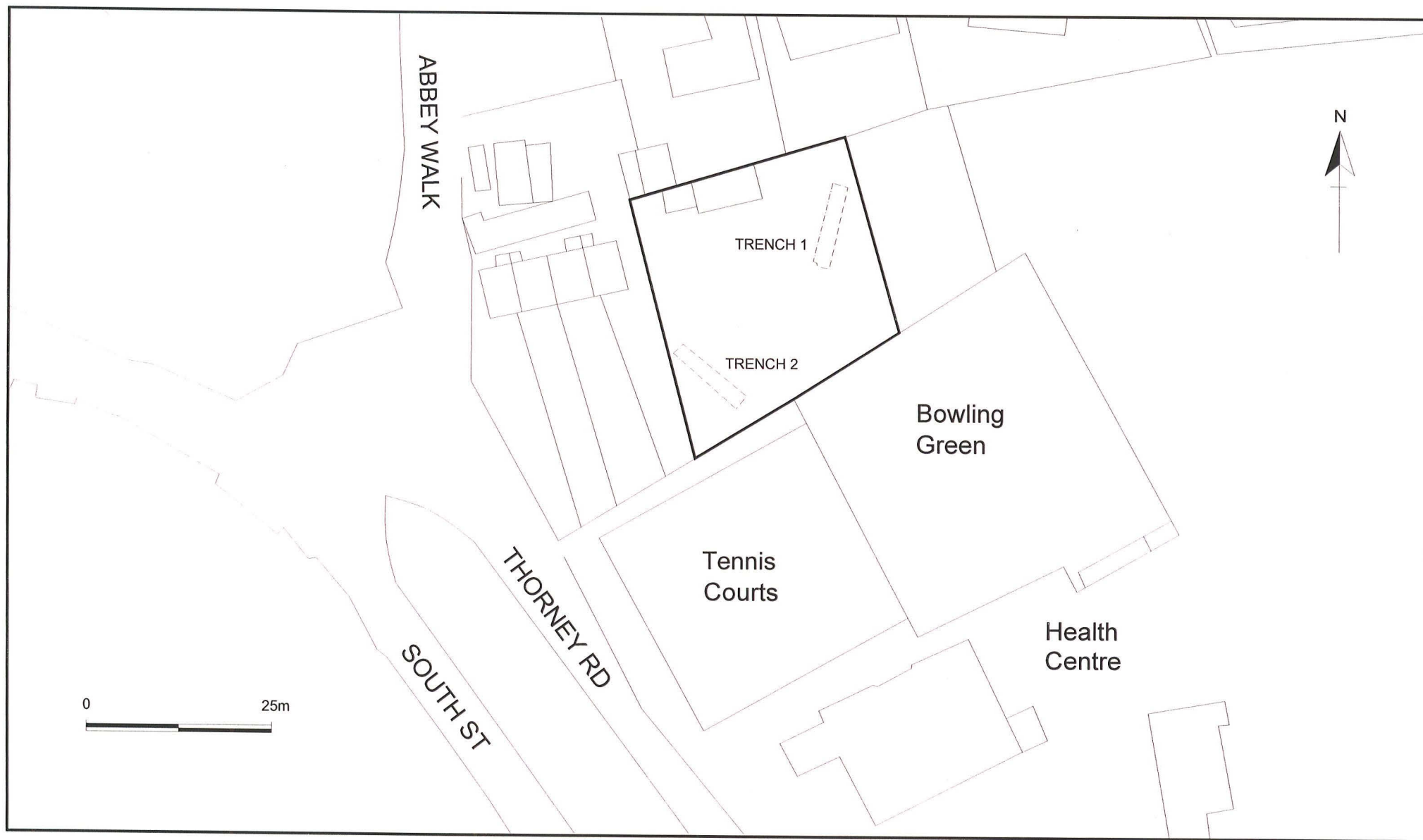


Figure 3 Site Plan, showing trench locations

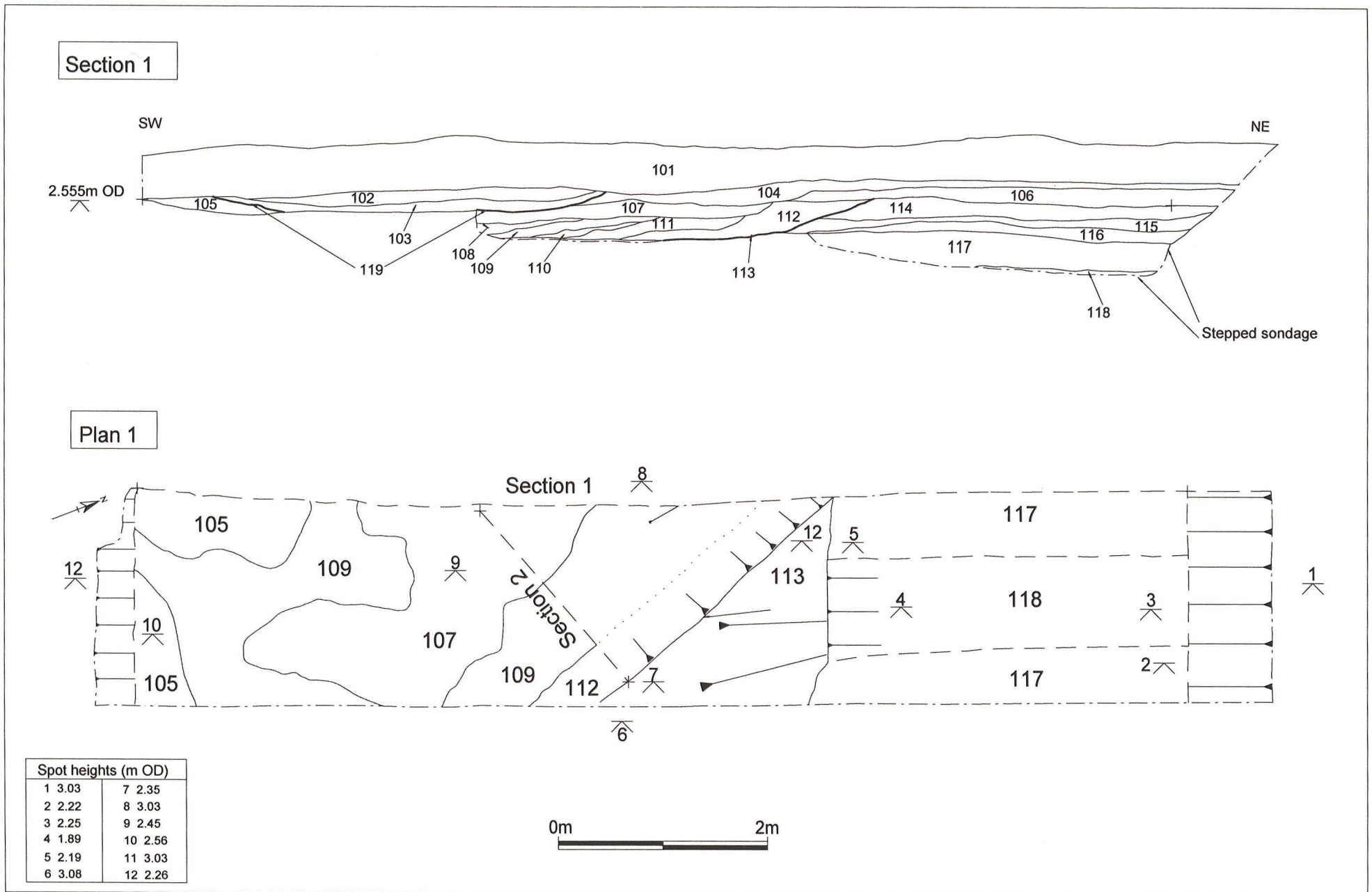


Figure 4 Trench 1, plan and section

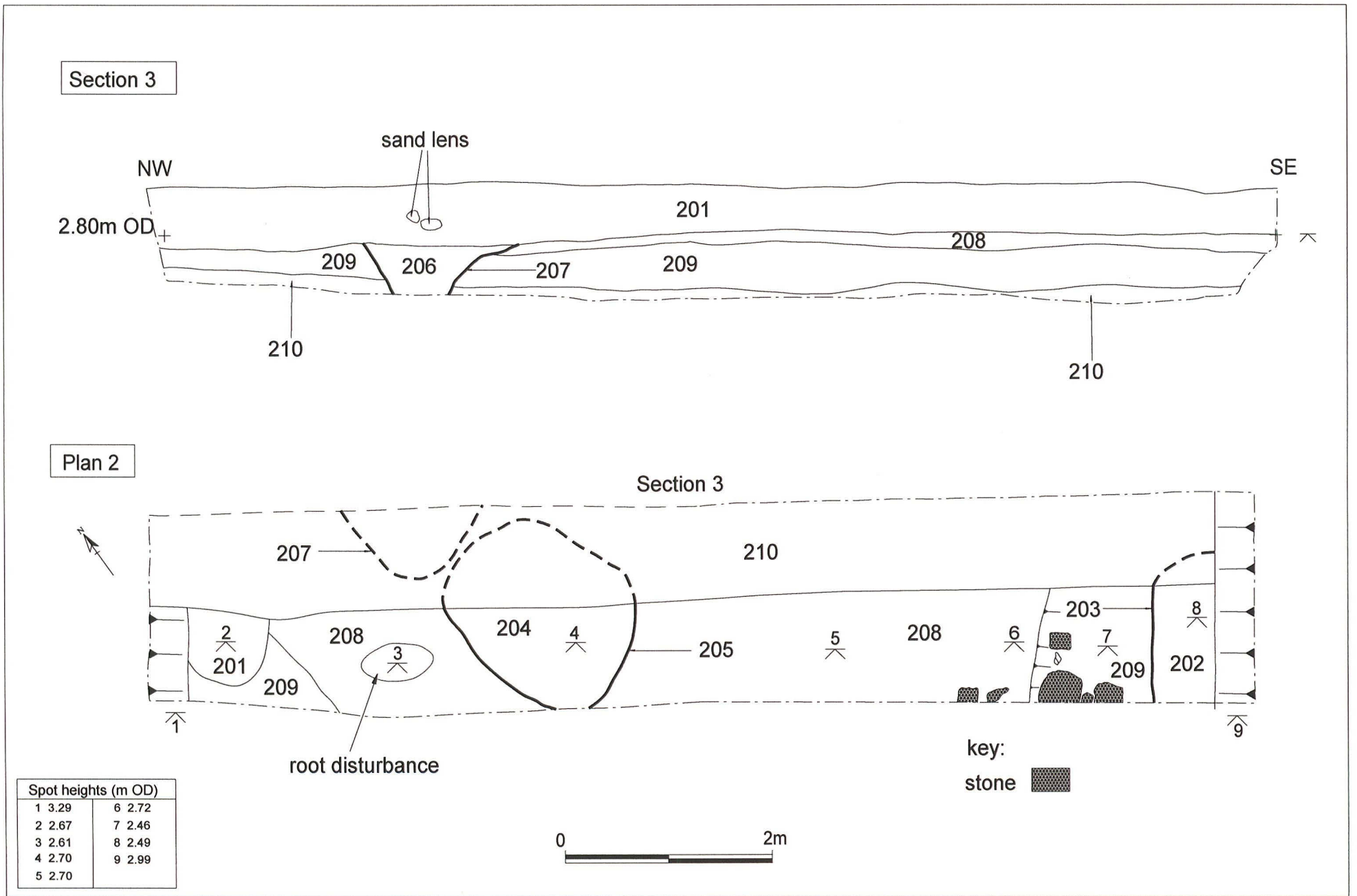
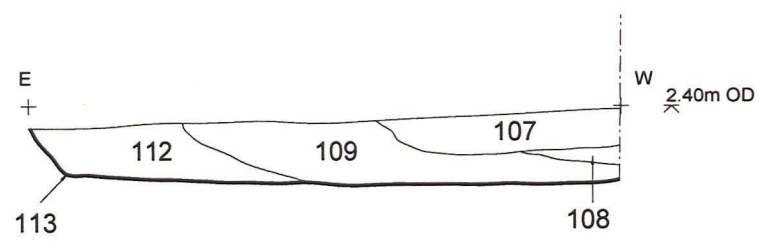
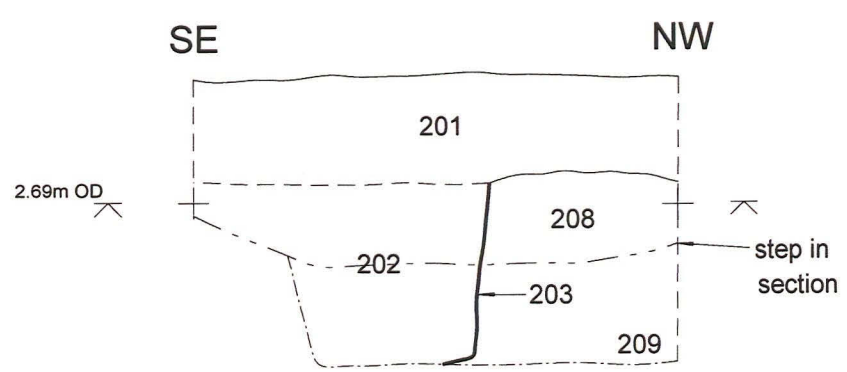


Figure 5 Trench 2, plan and section

Trench 1
Section 2



Trench 2
Section 4



Trench 2
Section 5

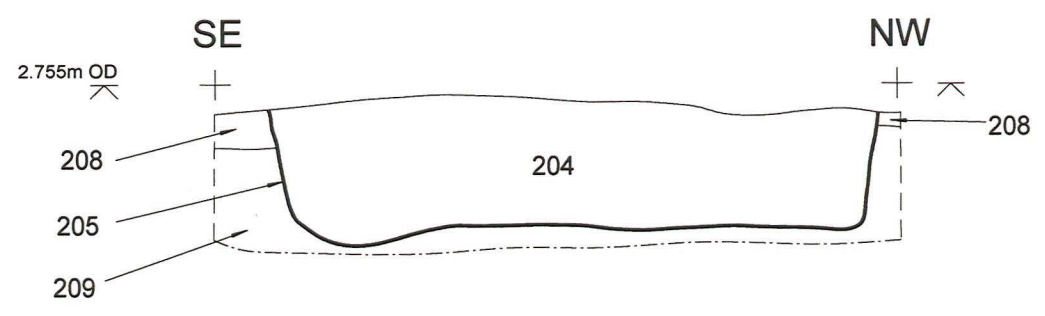


Figure 6 Trench 1 and 2, sections



Plate 1 General view of site prior to commencement of excavation, looking northeast, with tower of parish church to rear left



Plate 2 Trench 1, looking northeast, showing peat (117) at far end of trench



Plate 3 Section across ditch 113, looking south



Plate 4 Trench 2, rubble surface 208 exposed, looking northwest

PROJECT BRIEF

ARCHAEOLOGICAL EVALUATION
AT
Garden Ground adjoining 16 Abbey Walk

Issued by Lincolnshire County Council, Conservation Services, on behalf of
Longstaff Chartered Surveyors

1. Introduction

- 1.1 This document should be read in conjunction with the *Lincolnshire Archaeological Handbook*, available from the Built Environment Team, Conservation Services Lincolnshire County Council or at the County Council's web site: www.lincolnshire.gov.uk The successful specification must have been approved by the Senior Built Environment Officer on behalf of the planning authority.

2. Site Description

- 2.1 Crowland is situated 12km south of Spalding at the southern extent of the County of Lincolnshire on the border with Cambridgeshire and within the administrative district of South Holland. The site is situated off Abbey walk to the rear of no. 16 and within the area previously known as Abbey Farm. It is a roughly square piece of land of approximately 1097sqm with buildings shown on the OS map along part of the northern edge of the site which probably relate to former farm buildings.
- 2.2 Crowland sits on a long, narrow peninsular of sand and gravel formed as a terrace of a proto-course of the River Welland and surrounded by soils derived from Flandrian alluvium. The site sits on this peninsular at NGR TF2413610185. The ground is assumed to be grass but this will need verification as a site visit has not been made. No constraints to the proposed evaluation strategy are known.

3. Planning Background

- 3.1 A planning application for outline permission for the erection of two dwellings has been submitted to South Holland District Council (SHDC ref: H02/0827/00) by Messrs R Longstaff & Co on behalf of their client. The local planning authority, acting on advice from Lincolnshire County Council, Built Environment Team, have requested that the results of an archaeological evaluation are submitted in support of the planning application.

4. Archaeological Background

- 4.1 Prehistoric activity on the peninsular is attested by finds of Neolithic stone axes and flints and the establishment of a large barrow cemetery during the early bronze age, some of which were later used as mill mounds. Later Bronze Age remains are unknown and Iron Age sites are limited to a possible saltern to the north of the town.
- 4.2 Romano-British remains are known within the town and some pottery has been found to the north of the development site, within the scheduled area. Of particular interest is the site at Anchor Field where evidence suggests a substantial building of possible Roman date used in later periods and suggested as the site of St Guthlac's hermitage.
- 4.3 A saxon monastery is believed to lie beneath the present abbey remains which are a scheduled ancient monument and lie just to the north of the site. A religious establishment attracted settlement and there has been an important settlement here from the 11th century at least. Specifically medieval pottery has been recovered during building work on the site to the north but no detail is included in the SMR (source H. Healey).
- 4.4 In summary there is a considerable potential for remains from the medieval period to be present on the site, possibly associated with the abbey or earlier establishment. Remains of the Roman and prehistoric periods are also possible.

5. Specific Project Requirements

- 5.1 Given the condition and size of the site trial trenching would appear to be the most effective technique for evaluation. It is proposed that 2 trenches are excavated, each measuring 10m x 2m and located according to the attached plan.
- 5.2 The environmental potential of the area should be noted and provision made for assessment of deposits by an environmental specialist.

Issued 10/00 (Valid until 31/5/2000)



THE SITE

Crowland

South View Primary School

Abbey Hotel

Bowling Green

Football Field

Playing Field

Playground

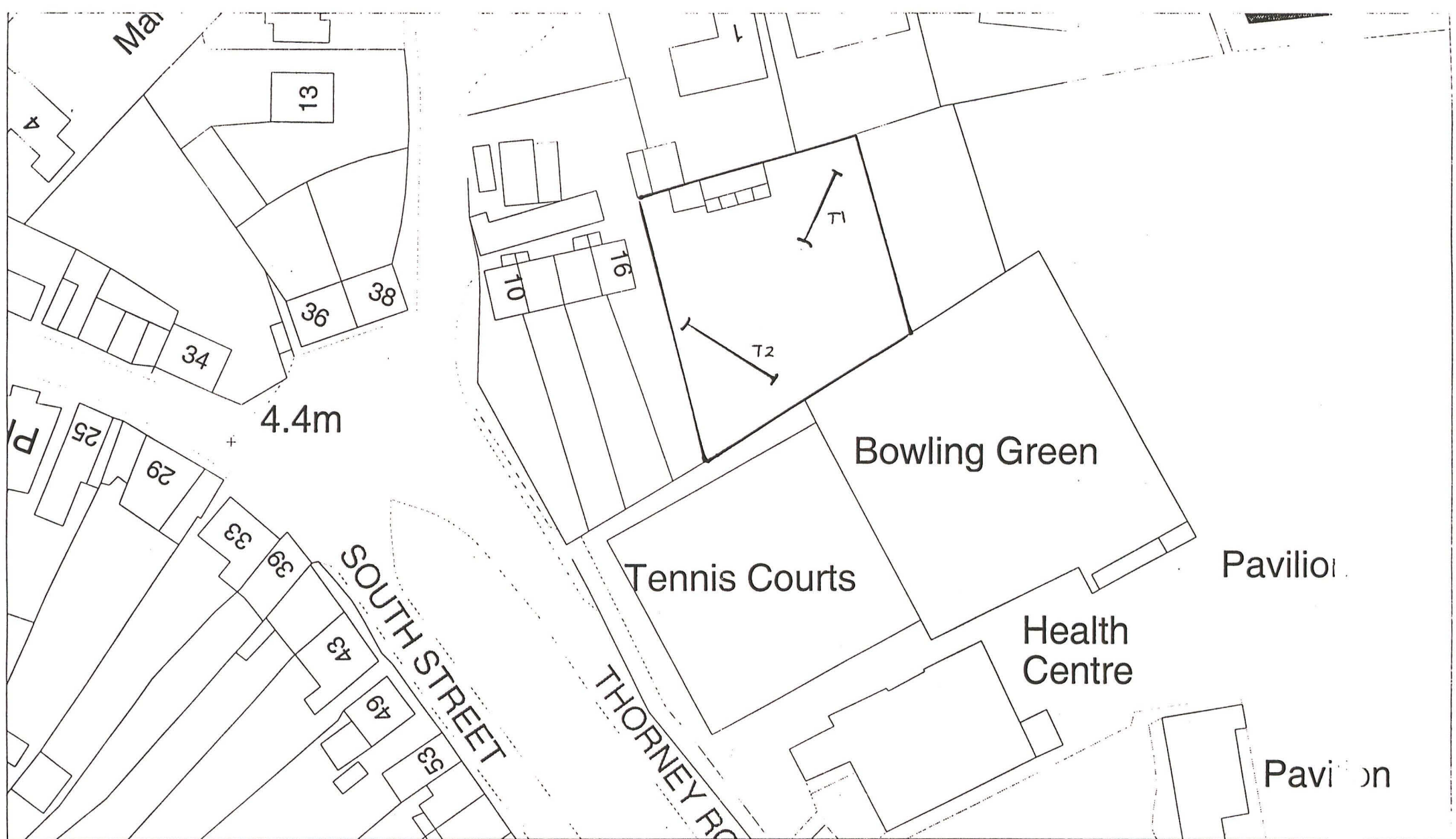
Health Centre

Crowland House

South View Primary School

Trinity Court





Appendix 2

Specification for Archaeological Evaluation

1.0 Summary

Prior to the development of two dwellings, at 16 Abbey Walk, Crowland, Lincolnshire County Council have requested that an Archaeological Evaluation takes place, in order to determine, and record, the levels of archaeological disturbance caused by the planned development. Crowland is situated within the southern extent of the county of Lincolnshire, within the administrative district of South Holland. The site is approximately 1097 sq.m, and centred on NGR TF24136 10185. The majority of the site is currently unused and under scrub, and occupied only by a few small derelict buildings on its northern edge.

Acting on behalf of their client, Messrs Longstaff & Co have commissioned Soke Archaeological Services Ltd, to carry out the works, in accordance with guidelines and recommendations given in the project brief by Lincolnshire County Council, Conservation Services (see Appendix B). The evaluation will consist of two trenches, each measuring 10m x 2m, positioned as specified in the brief.

This specification, which incorporates the above mentioned brief, provides information on how the evaluation will be carried out. This includes details regarding the archaeological and historical background, as well as the aims and methods of excavation and post-excavation analysis.

2.0 Planning Background

2.1 Reasons and circumstances of the project

In response to Planning Application number H02/0827/00, South Holland District Council, acting on advice from Lincolnshire County Council (LCC), has issued a 'predetermination' condition, which requests that 'the results of an archaeological evaluation are submitted in support of the planning application' (LCC 2000:3.1). This is due to the considerable potential for remains, ranging from the Neolithic to the Medieval period.

The Institute of Field Archaeologists (IFA) define an evaluation as being:

'...a limited programme of non-intrusive and/or intrusive fieldwork which determines the presence or absence of archaeological features, structures, deposits, artefacts or ecofacts within a specified area or site on land, inter-tidal zone or underwater. If such archaeological remains are present field evaluation defines their character, extent, quality and preservation, and enables an assessment of their worth in a local, regional, national or international context as appropriate' (IFA 1999:2).

Therefore, due to the position of the site in proximity to the medieval core of the village, as well as the evidence for earlier occupation with the surrounding area (section 3.2), an archaeological evaluation has been commissioned, as it is considered as being the most effective strategy to satisfy the criteria defined above.

3.0 Topographical and Archaeological Background

3.1 Description of the area to be examined

Crowland is located approximately 12km south of Spalding, in the administrative district of South Holland District Council, Lincolnshire. The parish is situated on a 'peninsular of sand and gravel, formed as a terrace of a proto-course of the River Welland and surrounded by soils derived from Flandrian alluvium' (LCC 2000:2.2).

The site is situated off Abbey Walk adjacent to plot 16, approximately 50m to the south of the abbey, within an area formally known as Abbey Farm (2000:2.1). At present, the land is only occupied by a couple of small derelict buildings, possibly associated with the former farm, which are situated on level ground covered with vegetation.

3.2 Archaeological and historical background

3.2.1 Sites and Monuments Record

A full listing of the data covered within the Sites and Monuments Record is provided in Appendix A. The following, however, describes those, which due to their close proximity, have special significance to this particular site.

Throughout the last 25 years, the development of housing estates, within 500m to the east of the site, have produced evidence for prehistoric occupation at Crowland. It is not clear, due to the lack of systematic archaeological investigation, as to whether these were permanent, seasonal or temporary, but artefacts ranging from the Early Neolithic to the Late Bronze Age have been recovered (SMR 22980, 22014, & 20263).

Romano-British settlement within this area of the fens ranges from saltern sites, to isolated finds such as pottery and coins. There is also evidence to suggest that 'a substantial building of possible Roman date used in later periods and suggested as the site of St Guthlac's hermitage' (LCC 1998:4.2), exists to the north of the development site, within the scheduled area of Crowland Abbey. This close proximity of the site, in relation to the scheduled area, provides the possibility that Romano-British remains may be extant within the development area.

The Medieval record within Crowland is dominated by the establishment of the Abbey, and the arrival of St Guthlac in AD699. It is believed that the original settlement consisted of a hermitage comprising of a oratory, a guest house and a number of cells that are 'thought to have been scattered over the original peninsula of Crowland, in some cases superimposed on the remains of pre-Christian burial mounds' (SMR 23519). The SMR states that the house was destroyed during the Danish invasions in AD870, and subsequently re-founded as a Benedictine Abbey, possibly in the mid-tenth century.

For 500 years the site underwent constant expansion and rebuilding, until it was finally dissolved in AD1539, when all the monastic buildings were demolished, with the exception of the nave and aisles of the Abbey church (SMR 20551). The building is now used as a parish church.

As well as the above mentioned sites, there is also evidence for post-medieval occupation within the scheduled site. During the Civil War, Crowland Abbey was utilised as a Royalist stronghold, with banks and ditches 'that took the form of a defensive rampart around the churchyard with projection bastions' (SMR 22051).

3.2.2 Previous work

Although very little systematic archaeological work has been carried out in Crowland, it is worth mentioning a watching brief carried out in close proximity to both the site, and the scheduled area.

In 1998, Archaeological Project Services (APS) carried out the monitoring of works during the development of a new building (NGR TF2408 1025), adjacent to both the development site, and the Abbey grounds (Cope-Faulkner 1998). The following statement was included in the final report as a summary:

'The watching brief identified natural deposits overlain by a series of limestone layers which may represent the former location of structures associated with Crowland Abbey. Finds include Late Saxon pottery, medieval roof tile and a collection of animal bone' (1998:1).

If, indeed, structures did extend this far towards the west, as Cope-Faulkner suggests, there seems little reason to believe that they could not continue further south – towards, and possibly within, the development site. Cope-Faulkner also identified a buried soil deposit, which consisted of a blackish brown clayey silt, approximately 300mm thick.

Other watching briefs carried out within Crowland (Britchfield 2000, Britchfield & Redding 2000, Tann 2000) have provided little information that can be added to the archaeological record.

3.2.3 Archaeological summary

In summary, the multi-phased nature of the archaeological record within Crowland ranges from the Neolithic, through the Bronze Age, Roman and medieval periods, and continues to be in use at the time of the Civil War. Due to the close proximity of the development site in relation to the above, it is likely that excavations will disturb some kind of archaeological deposits. Due to the frequency of archaeological data, this is more likely to be medieval/post-medieval, although earlier periods should not be ruled out.

4.0 Archaeological Strategy

4.1 Aims and objectives

The aims and objectives will be as follows:

- 4.1.1 To determine the location, extent, date, character condition, significance and quality of any surviving archaeological material remains liable to be threatened by the proposed development. The results will be subsequently placed in their local, regional and national contexts.

- 4.1.2 To determine the survival rate of any *in-situ* buried soil, as well as the levels of truncation to buried deposits.
- 4.1.3 Define any potential constraints for further archaeological fieldwork, such as foreseen ground disturbance caused by the foundation and service trenches of any proposed development.
- 4.1.4 To supplement and improve existing information to a level of confidence at which the archaeological potential of the site can be assessed, thus enabling reasonable planning recommendations to be made.
- 4.1.5 Due to the nature of an evaluation, it is possible that features and/or finds may warrant physical preservation *in-situ*. However, sufficient work will be carried out to allow the resolution of the principal aims (above) of the project

4.2 Timetable

The project is expected to last approximately 1 week, although this is dependant on the density of archaeological deposits encountered. The proposed start date is 23rd April 2001, although this may be subject to change. The following is a breakdown of the expected timetable:

- Day 1 Mechanical excavation of the two trenches. This is not expected to take much longer than half a day, therefore, the remainder of the day will be spent cleaning the exposed surfaces by hand. Exposed surfaces will be allowed to weather overnight.
- Day 2-4 Examination of potential archaeological deposits and features. Hand excavation of appropriate deposits and features (as set out in section 4.3)
- Day 5-6 Recording of deposits and features.
- Day 7 Backfill of trenches.

LCC will be updated on all developments throughout the project and may arrange a site visit during the course of the fieldwork. This will be likely to take place between days 5 and 7. If the duration of the project is expected to continue beyond the agreed completion date, then the client and LCC will be notified as soon as possible. Completion of the fieldwork will be confirmed in writing.

Note: This timetable is subject to the approval of the client and LCC.

4.3 Fieldwork methodology

4.3.1 General considerations

All fieldwork will be carried out following the regulations and guidelines, as set out by LCC (1998) and the IFA (1999). If any changes in methodology need to be adopted on site during the course of the evaluation, LCC will be consulted prior to doing so. Health and Safety regulations, as set out in English Heritage (1993), will be adopted on site.

4.3.2 Techniques of excavation

4.3.2.1 Machine stripping

Trial trenches have been strategically positioned in order to gain an appreciation of any archaeological remains across the site (see Appendix B).

Initially, a JCB, or similar, will be used to excavate the existing topsoil, using a toothless ditching bucket. This will be monitored and inspected for finds. Following this, excavation of spits no more than 20mm will be carried out, until either a level of secure archaeological deposits, or the maximum depth of impact, has been reached.

4.3.2.2 Hand excavation

Following mechanical clearance, the machined surface(s) will be hand cleaned and allowed to weather. Hand excavation will then commence in line with the appropriate standards (IFA 1992, LCC 1998). Discrete features under threat from development will be subject to 100% excavation, while larger linear features will be sample excavated to a minimum of 10%. If any human remains are encountered, they will be left *in situ*, covered, protected, and LCC will be notified. LCC will also be notified if any structural remains, special remains or deposits are unearthed during the course of the excavation.

4.3.4 Metal detecting

Routine metal detector scanning of topsoil, horizons, spoil or contexts will be undertaken by experienced and competent operators.

4.3.5 Palaeoenvironmental sampling

Due the potential for high levels of preservation for palaeoenvironmental material, it is likely that a sampling strategy will need to be employed. It is suggested that a site visit from a specialist will probably be unnecessary, due to the small scale of the project, and that sampling advice, if needed, can be given over the phone (Murphy and Wiltshire 1994:1).

As a minimum, it is suggested that monolith sampling be carried out. All sampling will be in accordance with Murphy and Wiltshire (1994), the Association for Environmental Archaeology (1996), and English Heritage (1996).

4.3.6 Recording

All written records will be on Soke Archaeological Services Ltd, pro-forma, MOLAS based context sheets. All archaeological features will be recorded in single context.

Also:

- a) Sections will be drawn at 1:10; plans at 1:20; burials at 1:10; trench location plans at a suitable scale for publication.
- b) All plans will be tied into the Ordnance Survey National Grid.
- c) All surveying levels will be tied into the Ordnance Datum.
- d) Trenches will be surveyed using an EDM or equivalent.
- e) All small finds will be 3D co-ordinated.

f) A photographic record, including both monochrome and colour prints or slides, will form part of the final report and archive. Particular attention will be given to archaeological relationships, specific features, spatial relationships and general on-going site views etc.

If any changes in recording methodology need to be adopted on site, LCC will be consulted prior to doing so.

4.4 Post-fieldwork methodology

4.4.1 General considerations

Provision has been made for the identification of artefacts, with a list of specialists in section 7.0. All finds processing will be in-line with recommendations made by the IFA (1992). During the fieldwork stage, all finds will be immediately labelled with site codes and context numbers, and kept in secure accommodation. Fragile material, such as wood, will be temporarily housed at Flag Fen, Peterborough, which has adequate facilities for such storage. The treatment of any archaeological wood will be in accordance with standards set out in English Heritage (1996).

Any items of gold or silver will be forwarded to the local coroners office, under the Treasure Trove Act (1996).

4.4.2 Cataloguing and packaging

All cataloguing and packing will be carried out as specified by LCC (1998: Section 13). Prior to the excavation taking place, site codes and accession numbers will be assigned and submitted to Lincolnshire City and Council Museum for approval.

4.4.3 Dating techniques

It is assumed, at this point, that the majority of dating, should it be required, will be carried out using the typological sequence of artefacts. It is, however, recognised that scientific dating techniques may be required. The costs for such techniques have been incorporated within a contingency.

4.4.4 Specialist input

Due to the multi-phased nature of the archaeological record within Crowland, specialists may be required to provide individual analysis' on specific deposits/artefacts. These will be incorporated within the final report and add to the overall interpretation of the site. A list of specialists likely to be used is covered in section 7.0.

5.0 Working Standards

Work will be conducted in accordance with the *Lincolnshire City Council Archaeological Handbook* (LCC 1998), by competent and experienced staff, familiar with local archaeological and geological deposits. All work will be undertaken to a standard acceptable to Lincolnshire City Council and the client.

6.0 Miscellaneous requirements and considerations

6.1 Risk Assessment

Prior to any fieldwork, it is necessary to prepare a risk assessment, in order to describe any possible hazards, along with the effect, severity and likelihood, to provide the degree of risk (see Appendix C). The analysis suggested that the highest risk is caused by the presence of the machine and trenches. However, all involved in the project have experience in such conditions, and are familiar with all the relevant health and safety procedures. These will be reinforced by the Site Supervisor.

7.0 Staff

The Project Director is Francis Pryor MBE, MA, PhD, FSA, MIFA. The Project Manager will be David Britchfield BA (Hons), HNC, OND, with the fieldwork being supervised by Archaeological Project Services Ltd. Specialist support will be given, if necessary, by the following:

Prehistoric: Pottery and flint: Francis Pryor MBE MA PhD FSA MIFA
Wood: Maisie Taylor BA Cert Ed FSA MIFA

Roman: Gwladys Monteil - Cambridge Archaeology Unit

Medieval: David Hall

Environmental: Charlie French PhD MIFA - Cambridge University Archaeology Department

8.0 Report and Archive

The evaluation report will be in accordance with English Heritage guidelines (1991) and guidelines set out by LCC (1998).

The final report will include maps, plans sections and photographs, which will accompany the narrative. Selected artefact drawings (should there be any) will also form part of the final report, along with the comments from appropriate specialists.

9.0 References

Association for Environmental Archaeology (1996) *Environmental Archaeology and Evaluation Guidelines*. Working papers of the Association for Environmental Archaeology 2.

Britchfield, D. & Redding, M (2000) *A Report on Archaeological Excavations at Cluttons Close (Rear of 65 North Street), Crowland, Peterborough*. Soke Archaeological Services Ltd.

Britchfield, D (2000) *A Report on an Archaeological Watching Brief at West Bank, Crowland*. Soke Archaeological Services Ltd.

Cope-Faulkner, P (1998) *Archaeological Watching Brief on Development of Land off Abbey Walk, Crowland, Lincolnshire (CAW 98)* Aps Report No.: 74/98, Accession No.: 216.98.

English Heritage (1991) *Management of Archaeological Projects*.

English Heritage (1993) *Health and Safety Policy*.

English Heritage (1996) *Waterlogged Wood: Guidelines on the Recording, Sampling, Conservation and Curation of Waterlogged Wood*.

IFA (1992) *Guidelines for Finds Work*.

IFA (1993) *Standard and Guidance for Archaeological Excavations*.

Lincolnshire County Council Archaeology Section (1998) *County Standards for Field Archaeology in Lincolnshire*. ISBN: 0-86111-229-6.

Lincolnshire County Council, Conservation Services (2000) *Project Brief, Archaeological Evaluation at Garden Ground adjoining 16 Abbey Walk*.

Murphy, P. and Wiltshire, P. (1994) *A Guide to Sampling Archaeological Deposits for Environmental Analysis*.

Phillips, C.W (1970) *The Fenland in Roman Times*. Royal Geographic Society, Series No. 5.

Tann, G (2000) *West Street, Crowland, Lincs - Archaeological Watching Brief*. Lindsey Archaeological Services. Accession No.: 2000.160.

Westron, P (2000) *Report for the Archaeological Watching Brief at 78 North Street, Crowland*. Soke Archaeological Services Ltd. SAS00/3.

10.0 Appendix A - Sites and Monuments Data

The following is a list of Sites and Monuments Record data, relevant to this particular project. These are separated into chronological periods.

10.1 Prehistoric

<i>SMR Number</i>	<i>Details</i>	<i>Grid Reference</i>
20261	Iron Age pottery from mound	TF24000 11200
20263	Early Bronze Age pottery	TF2436 1032
20265	Possible barrow cemetery	TF24600 10600
22004	Neolithic flint axe	TF24100 10600
22005	Neolithic flint axe	TF2400 1040
22014	Early Neolithic to Late Bronze Age flint scatter	TF2450 1035
22980	Early Neolithic to Late Bronze Age flint implements	TF2450 1035

10.2 Romano-British

<i>SMR Number</i>	<i>Details</i>	<i>Grid Reference</i>
20250	Tesserae and possible saltmaking debris	TF25050 10870
20251	Cropmarks	TF29050 14050
22017	Coin	TF24300 10500

10.3 Medieval

<i>SMR Number</i>	<i>Details</i>	<i>Grid Reference</i>
20266	Knife handle	
20551	Medieval site of Crowland Abbey	TF2423 1030
20552	Holy Trinity Bridge	TF23940 10230
22012	Possible pottery kiln	TF24400 10300
23519	Early Medieval site of Crowland Abbey	TF2430 1030
23653-5	APS Watching Brief	TF2408 1025

10.4 Post-Medieval

<i>SMR Number</i>	<i>Details</i>	<i>Grid Reference</i>
22051	Civil War defences	TF2423 1030

Appendix 3

CONTEXT DESCRIPTIONS

Context No.	Trench	Description	Interpretation
100	1	Unstratified finds	Unstratified finds
101	1	Moderately firm, dark greyish brown clay silt, 0.5m thick	Topsoil
102	1	Firm mid greyish brown silty sand with small pebbles, 0.13m thick	Fill of [119]
103	1	Firm light yellowish brown sandy silt with small pebbles, 0.12m thick	Fill of [119]
104	1	Firm mid greyish brown sandy silt with small pebbles, 0.18m thick	?Subsoil, equivalent to 105
105	1	Firm mid greyish brown sandy silt with small pebbles, 0.12m thick	?Subsoil, equivalent to 104
106	1	Firm mid yellowish brown silty sand with small pebbles, 0.18m thick	?Subsoil
107	1	Firm mid greyish brown sandy silt with frequent mollusc shell, 0.12m thick	Fill of [113]
108	1	Firm dark reddish brown sandy silt, 70mm thick	Fill of [113]
109	1	Firm light yellowish brown sandy silt with mollusc shell, 0.25m thick	Fill of [113]
110	1	Firm dark reddish brown sandy silt, 60mm thick	Fill of [113]
111	1	Firm light yellowish brown sandy silt with mollusc shell, 0.14m thick	Fill of [113]
112	1	Firm mottled mid yellowish and greyish brown sandy silt with frequent mollusc shell, 0.30m thick	Fill of [113]
113	1	N-S linear cut, 2.2m wide, 0.38m deep, flat-bottomed	Ditch
114	1	Firm mottled mid - dark greyish brown sandy silt, 0.20m thick	Dumped deposit
115	1	Firm mottled mid reddish/yellowish and light yellowish brown sandy silt, 100mm thick	Dumped deposit
116	1	Firm dark reddish brown sandy silty, 0.14m thick	Dumped deposit
117	1	Soft dark reddish brown silty peat, 0.33m thick	Natural peat
118	1	Firm light greyish brown sandy silty gravel, >60mm thick	Natural
119	1	Cut, 3.75m wide, 0.2m deep, only seen in section	?Ditch

200	2	Unstratified finds	Unstratified finds
201	2	Soft black humic sandy silt, 0.4m thick	Garden soil
202	2	Soft, friable black sandy silt with frequent pebbles and occasional limestone fragments, 0.7m thick	Fill of [203]
203	2	Sub-rectangular, steep-sided cut, >1.45m long x >0.6m wide, c. 0.7m deep, flattish bottom	Pit
204	2	Friable black sandy silt with frequent pebbles and occasional limestone fragments, 0.5m thick	Fill of [205]
205	2	Sub-rectangular, steep-sided cut, >2m long x >1.8m wide, 0.5m deep, flattish bottom	Pit
206	2	Friable dark brown peaty silty sand with frequent pebbles, >0.5m thick	Fill of [207]
207	2	Sub-rectangular, steep-sided cut, >1.4m long x >0.7m wide, >0.5m deep	Pit
208	2	Compacted mid orange-brown fine limestone rubble with silty sand matrix and occasional large limestone fragments, 0.18m thick	Surface
209	2	Friable mixed dark grey-brown with pale orange-brown clayey silty sand with occasional large limestone fragments, 0.4m thick	Make up layer
210	2	Soft dark brown/black peat with occasional limestone fragments, >100mm thick	Natural peat

Appendix 4

THE FINDS

Rachael Hall, Hilary Healey and Gary Taylor

Provenance

The material was recovered from topsoil (201), ditch fills (107, 109, 112), pit fills (204, 206) a rubble surface (208) and as unstratified material (100, 200).

All the faunal remains were recovered from the fills of a single ditch, though separate fill deposits contained distinctly differing faunal assemblages. Most of the medieval pottery was recovered from the ditch fills too, though the majority of the post-medieval artefacts were retrieved from the pit fills.

Most of the medieval pottery was made in moderate proximity to Crowland, at Bourne 18km to the west, and elsewhere in South Lincolnshire, including Stamford, 20km to the west. However, medieval pottery from further afield, including Lincoln 75km away, Toynton All Saints, 55km to the north, and Nottingham, 75km to the northwest, was also retrieved. Much of the medieval tile is likely to have been made locally to Crowland. The early post-medieval material was mostly manufactured in the general south Lincolnshire area, at Bourne and Boston, though later pottery types were perhaps made outside the area.

Range

The range of material is detailed in the table.

Pottery of 11th-13th century date is the earliest material recovered, though only 2 fragments of this date were found and the remainder of the medieval aspect of the assemblage is slightly later, dating from the 12th to 14th century. There are few items of late medieval - early post-medieval date, though later post-medieval material, of 16th-18th century date, is abundant and co-dominates the artefact assemblage with the 12th-14th century pieces. In addition to the pottery, ceramic building material (brick/tile), clay pipe and glass was found. Faunal remains were also retrieved, with mollusc shell moderately abundant

Table 1: *The Pottery and Other Finds*

Context	Description	Context Date
100	1x Bourne D ware, 16 th -17 th century	16 th -17 th century
	1x ?Toynton All Saints-type ware, jug handle, 14 th -15 th century	
	2x ceramic roof tile, 1 shaped/trimmed, medieval	
	1x stone roofing tile, late medieval-post-medieval	
107	1x Toynton All Saints-type ware, jug, 14 th -15 th century	14 th -15 th century
	2x glazed roofing tile, 13 th -14 th century	
109	8x Bourne A, 4 link, 12 th -14 th century	12 th -14 th century
	1x brick/tile, medieval	
112	1x Nottingham splash glazed ware, 12 th -14 th century	12 th -14 th century
	1x Bourne B ware, 12 th -14 th century	
	1x South Lincs. shelly ware, 11 th -13 th century	
	2x ceramic roofing tile, medieval	

200	1x ?Boston ware, copying Dutch Red Earthenware, pancheon, 17 th -18 th century	18 th -early 19 th century
	1x Boston ware, black glazed, 18 th century	
	2x glazed red earthenware, 18 th century	
	4x red painted earthenware, black glazed, including pancheon, 18 th -early 19 th century	
201	1x ?Boston ware, copying Dutch Red Earthenware, 17 th -18 th century	17 th -18 th century
	1x brick/tile, ?post-medieval	
204	8x red painted earthenware, black glazed, 2 link, 18 th century	18 th century
	1x ?Boston ware, copying Dutch Red Earthenware, bowl, 18 th century	
	1x Lincoln ware jug, 13 th -14 th century	
	1x Developed Stamford ware, 11 th -mid 13 th century	
	1x clay pipe stem, bore 5/64", 18 th century	
	1x mid green glass, bottle, iridescence, 17 th century	
	1x dark green glass, wine bottle base, 1750-1800	
	1x ceramic roof tile, late medieval-post-medieval	
206	1x red painted earthenware, black glazed, 18 th -early 19 th century	18 th -early 19 th century
	1x brick/tile, post-medieval	
208	1x Bourne A ware, burnt exterior, encrusted interior, 12 th -14 th century	12 th -14 th century
	1x ceramic roof tile, medieval	

Two fragments of a glazed ridge tile were recovered from (107). Although these do not link they probably derive from a single tile. These, and the other medieval tiles, indicate the presence of tile-roofed buildings of the period in proximity to the site.

Although Crowland had good trade routes in the medieval period, the presence of several pottery types made at kilns some distance away may imply that the medieval activity at or in close proximity to the site was of moderately high status. The glazed ridge tile may also support this suggestion as such items are usually associated with higher status buildings.

Table 2: Mollusc shells

Context	Species	Description
107	Whelk, <i>Buccinum undatum</i>	17 shells
109	Whelk, <i>Buccinum undatum</i>	2 shells
112	Oyster, <i>Ostrea edulis</i>	7shells, ave. width 62mm, spread 49-78mm

The oyster shells from (112) are broadly of the same size, indicating that they were obtained from managed beds. Both the oyster and whelk shells are food residues.

Condition

All the material is in good condition and present no long-term storage problems. Archive storage of the collection is by material class.

Documentation

There have been numerous previous archaeological investigations at Crowland, including in close proximity to the present investigation, which are the subject of reports. Additionally, reports collating and synthesising the archaeological and historical evidence for the village and its vicinity have been produced. Details of archaeological sites and discoveries in the area are maintained in the Lincolnshire County Council Sites and Monuments Record.

Potential

The medieval aspect of the assemblage has moderate potential as it implies the presence of occupation of the period, perhaps of moderately high status, on or in close proximity to the site. The limited quantity of late medieval to early post-medieval material is informative and perhaps suggests the site was abandoned, or served some non-habitation purpose during this time, though the artefacts themselves have low potential due to the restricted amount. The later post-medieval material is of limited potential but indicates re-use of the site for occupation-related purposes from perhaps the 17th century.

The absence of any material earlier than the 11th-13th century is informative and suggests that archaeological deposits dating from before this period are absent from the area.

Appendix 5
Archive Catalogue of animal bone from CAW01
James Rackham

site	cont.	species	bone	no.	side	fusion	zone	butchery	gnawing	toothwear	measurement	path	comment	preservation
CAW01	107	SUS	SKL	1	R		8						TEMPORAL FACET	4
CAW01	109	BOS	TIB	1	L		4		DG				PROXIMAL MIDSHAFT-PROX CHEWED	4
CAW01	109	CSZ	RIB	1	F								MIDSHAFT FRAGMENT	4
CAW01	109	CSZ	RIB	4	F			CH					SHAFT FRAGMENT-CHOPPED ONE END	4
CAW01	109	CSZ	TRV	1	F			CH					BASE OF SPINE-CHOPPED	4
CAW01	109	SUS	SKL	1	L		48						TEMPORAL	4
CAW01	109	SUS	SKL	1	R		56						FRONTAL-SUTURES UNFUSED	4
CAW01	109	SUS	SKL	1	F								NASAL-SUTURE UNFUSED	4
CAW01	109	SUS	MAN	1	L		23						SYMPHYSEAL REGION-DEC INCISORS-ADULT NOT ERUPTED-FEMALE-LOOSE TEETH	4
CAW01	109	CSZ	TRV	1	F		1						DORSAL PART SPINE-DORSAL UNFUSED	4
CAW01	109	SSZ	RIB	2	F								SHAFT FRAGMENT	4
CAW01	109	CSZ	CC	1	F									4
CAW01	109	BOS	MAN	1	L		6						ANGLE-CONCRETED	4
CAW01	109	OVCA	SKL	1	F								PETROUS	4
CAW01	109	OVCA	RAD	1	R	PFDN	123456						COMPLETE-DISTAL EPI DETACHED	4
CAW01	109	CHIK	ULN	1	L					GL-74			COMPLETE	4
CAW01	109	GOOS	MTC	1	R					GL-87.3 Bp-20.6 Did-10.7			COMPLETE	4
CAW01	109	SUS	FEM	1	R		4						DISTAL SHAFT FRAGMENT	4
CAW01	200	CSZ	TIB	1	R								PROX SHAFT FRAGMENT	4

THE ENVIRONMENTAL ARCHAEOLOGY CONSULTANCY

Key to codes used in the cataloguing of animal bones and marine shells

SPECIES:

SPECIES CODE			SPECIES CODE	
MAN	human		DOVE	Dove species
EQU	Horse		FER	Feral dove
EQSZ	Horse size		PART	Partridge
BOS	Cattle		SWAN?	Swan?
BOSL	Cattle-large		WOOD	Woodcock
CSZ	cattle size		CURL	Curlew
SUS	Pig		WADE	wader
OVCA	sheep or goat		CROK	Crow or rook
OVI	Sheep		CORV	Crow or rook
CRA	Goat		JACK	Jackdaw
SSZ	sheep size		OWL	Owl indet.
FEL	Cat		BUZZ	Buzzard
CAN	Dog		GULL	Gull sp.
AUR	Aurochs			
AUR?	Aurochs?		TURD	Turdidae
CER	red deer		BIRD	Identifiable but not id'd
DAM	Fallow deer		PASS	Passerine
CLS	roe deer		LBIRD	Large bird
LEP	Hare		UNIB	Bird indet
ORC	Rabbit			
LAG	Lagomorph		FROG	Frog
CARN	Carnivore		FRTO	Frog or toad
FOX	Fox			
POLE	Polecat/ferret			
WEA	weasel		GAD	Gadid, cod family
BADG	Badger		LING	Ling
SEAL	seal		HADD	Haddock
SQU?	Squirrel?		RAY	ray
BEAV	Beaver		FISH	Fish
ROD	Rodent		UNIF	Fish indet
RAT	Rat			
AGR	Field vole		OYS	oyster
ARV	Water vole		COK	Cockle
MUS	House mouse		MUSS	Common Mussel
SORA	Common shrew		WHELK	Common whelk
MOLE	Mole		HEL	Helix aspersa
SMA	Small mammal		HELIX	Helix sp.
UNI	Unknown		HELN	Helix nemoralis
			SNAIL	snail
CHIK	Chicken			
CHKZ	Chicken size		FOSS	Fossil bone
GOOS	Goose, dom			
GOOS?	Goose, dom.?			
GSSZ	Goose size			
GSSP	Goose species			
GOSZ	Goose, poss. Wild			
DUCK	Duck, domestic sp.			
DUCK?	Duck?			
DKSP	Duck species			
DSP	Duck species indet			
MALL	Duck, dom.			
TURK	Turkey			

BONE ELEMENT:

BONE CODE		BONE CODE	
SKEL	skeleton	SCP	scapula
SKL	skull	HUM	humerus
ANT	antler	RAD	radius
ANT?	antler?	ULN	ulna
ATT	antler tine	RUL	radius and ulna
HC	horn core	C/T	carpus/tarsus
TEMP	temporal	C23	carpus 2+3
FRNT	frontal	CAR	carpus
PET	petrous	CPA	accessory carpal
PAR	parietal	CPI	intermediate carpal
OCIP	occipital	CPR	radial carpal
ZYG	zygomatic	CPU	ulnal carpal
NAS	nasal	MTC	metacarpus
PMX	premaxilla	MC1-5	metacarpus 1-5
MAN	mandible	MTP	metapodial
MNT	mandibular tooth	MPL	lateral metapodial
DLI	deciduous lower incisor	INN	innominate
DLPM1-4	deciduous lower premolar 1-4	ILM	ilium
LI	lower incisor (and 1-3)	PUB	pubis
LC	lower canine	ISH	ischium
LPM1-LPM4	lower premolar 1-4	FEM	femur
LM1-LM3	lower molar 1 - molar 3	PAT	patella
MAX	maxilla	TIB	tibia
DUI	deciduous upper incisor	FIB	fibula
UI	upper incisor (1-3)	LML	lateral malleolus
UC	upper canine	AST	astragalus
DUPM	deciduous upper premolar	CAL	calcaneum
DUPM1-4	deciduous upper premolar 1-4	CQ	centroquartal
UPM1-UPM4	upper premolar 1-4	TAR3	tarsus 3
UM1-UM3	upper molar 1 - molar 3	T4	tarsus 4
MXT	maxillary tooth	TAR	tarsus
TTH	indeterminate tooth	MTT	metatarsus
INC	incisor	MT1-5	metatarsus 1-5
HYD	hyoid	MTL	lateral metatarsus
ATL	atlas	SES	sesamoid
AXI	axis	PH1	1st phalanx
CEV	cervical vertebra (and 3-7)	PH2	2nd phalanx
TRV	thoracic vertebra (and 1-13)	PH3	3rd phalanx
LMV	lumbar vertebra	PHL	lateral phalanx
SAC	sacrum	LBF	long bone
CDV	caudal vertebra	UNI	unidentified
VER	vertebra		
STN	sternum	CLV	clavicle
CC	costal cartilage	COR	coracoid
RIB1	first rib (2 etc)	CMP	carpo-metacarpus
RIB	rib	CMC	carpo-metacarpus
		WPH1-3	wing phalanges 1-3
URO	urostyle	WPH	wing phalanx
		LSA	lumbosacrale
DENT	dentary		
CLEI	cleithrum		
RAY	fin ray		
SHELL	shell		
UV	upper valve		
VAL	valve		

NUMBER: number of fragments in the entry

SIDE: W - whole L - left side R - right side F - fragment

FUSION: records the fused/unfused condition of the epiphyses
P - proximal; D - distal; E - acetabulum; N - unfused; F - fused; C - cranial; A - posterior

ZONES: records the part of the bone present.
The key to each zone on each bone is on page 4

BUTCHERY: records whether a bone has been chopped (CH), cut (KN), worked (W), burnt (C)

GNAWING: records if a bone has been gnawed by dogs (DG), cats (FEL) or rodents (RG)

TOOTH WEAR - Codes are those used in Grant, A. 1982 *The use of tooth wear as a guide to the age of domestic animals*, in B. Wilson, C. Grigson and S. Payne (eds) *Ageing and sexing animal bones from Archaeological sites*, 91-108.

Teeth are labelled as follows in the tooth wear column:

Deciduous	Permanent
f ldpm2/dupm2	F lpm2/upm2
g ldpm3/dupm3	G lpm3/upm4
h ldpm4/dupm4	H lpm4/upm4
	I lm1/um1
	J lm2/um2
	K lm3/um3

MEASUREMENTS :Any measurements are those listed in A. Von den Driesch (1976) *A Guide to the Measurement of Animal Bones from Archaeological Sites*, Peabody Museum Bulletin 1, Peabody Museum, Harvard, USA

PATHOLOGICAL: A 'P' indicates that the bone fragment carries a pathology

COMMENTS: This may include a short description of the fragments, any pathologies, butchery or gnawing evidence

PRESERVATION: records the condition of the bone in the following manner

- 1- enamel only surviving
- 2- bone very severely pitted and thinned, tending to break up; teeth with surface erosion and loss of cementum and dentine
- 3- surface pitting and erosion of bone, some loss of cementum and dentine on teeth
- 4- surface of bone intact, loss of organic component, material chalky, calcined or burnt
- 5- bone in good condition, probably with some organic component

ZONES - codes used to define the zones on each bone

SKULL	1. paraoccipital process	METACARPUS	1. medial facet of proximal articulation, MC3	
	2. occipal condyle		2. lateral facet of proximal articulation, MC4	
	3. intercornual protuberance		3. medial distal condyle, MC3	
	4. external acoustic meatus		4. lateral distal condyle, MC4	
	5. frontal sinus		5. anterior distal groove and foramen	
	6. ectorbitale		6. medial or lateral distal condyle	
	7. entorbitale			
	8. temporal articular facet		FIRST PHALANX	1. proximal epiphysis
	9. facial tuber			2. distal articular facet
	0. infraorbital foramen			
MANDIBLE	1. Symphyseal surface	INNOMINATE	1. tuber coxae	
	2. diastema		2. tuber sacrale + scar	
	3. lateral diastemal foramen		3. body of illium with dorso-medial foramen	
	4. coronoid process		4. iliopubic eminence	
	5. condylar process		5. acetabular fossa	
	6. angle		6. symphyseal branch of pubis	
	7. anterior dorsal ascending ramus posterior M3		7. body of ischium	
	8. mandibular foramen		8. ischial tuberosity	
			9. depression for medial tendon of rectus femoris	
VERTEBRA	1. spine	FEMUR	1. head	
	2. anterior epiphysis		2. trochanter major	
	3. posterior epiphysis		3. trochanter minor	
	4. centrum		4. supracondyloid fossa	
	5. neural arch		5. distal medial condyle	
SCAPULA	1. supraglenoid tubercle	TIBIA	6. lateral distal condyle	
	2. glenoid cavity		7. distal trochlea	
	3. origin of the distal spine		8. trochanter tertius	
	4. tuber of spine		1. proximal medial condyle	
	5. posterior of neck with foramen		2. proximal lateral condyle	
	6. cranial angle of blade		3. intercondylar eminence	
	7. caudal angle of blade		4. proximal posterior nutrient foramen	
HUMERUS	1. head	CALCANEUM	5. medial malleolus	
	2. greater tubercle		6. lateral aspect of distal articulation	
	3. lesser tubercle		7. distal pre-epiphyseal portion of the diaphysis	
	4. intertuberal groove		1. calcaneal tuber	
	5. deltoid tuberosity		2. sustentaculum tali	
	6. dorsal angle of olecranon fossa		3. processus anterior	
	7. capitulum			
8. trochlea	METATARSUS	1. medial facet of proximal articulation, MT3.		
9.		2. lateral facet of proximal articulation, MT4		
0.		3. medial distal condyle, MT3		
RADIUS	1. medial half of proximal epiphysis	METATARSUS	4. lateral distal condyle, MT4	
	2. lateral half of proximal epiphysis		5. anterior distal groove and foramen	
	3. posterior proximal ulna scar and foramen		6. medial or lateral distal condyle	
	4. medial half of distal epiphysis			
	5. lateral half of distal epiphysis			
	6. distal shaft immediately above distal epiphysis			
ULNA	1. olecranon tuberosity			
	2. trochlear notch- semilunaris			
	3. lateral coronoid process			
	4. distal epiphysis			

Appendix 6

GLOSSARY

Alluvium	Deposits laid down by water. Marine alluvium is deposited by the sea, and fresh water alluvium is laid down by rivers and in lakes.
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.
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 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).
Dumped deposits	These are deposits, often laid down intentionally, that raise a land surface. They may be the result of casual waste disposal or may be deliberate attempts to raise the ground surface.
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.
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.
Old English	The language used by the Saxon (<i>q.v.</i>) occupants of Britain.
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	Pertaining to the period dating from AD 43-410 when the Romans occupied Britain.
Saltern	Salt producing site typified by ash, derived from fuel needed to evaporate sea water, and briquetage.
Saxon	Pertaining to the period dating from AD 410-1066 when England was largely settled by tribes from northern Germany and adjacent areas.

Appendix 7

SECRETARY OF STATE'S CRITERIA FOR SCHEDULING ANCIENT MONUMENTS - extract from *Archaeology and Planning* DoE Planning Policy Guidance note 16, November 1990

The following criteria (which are not in any order of ranking), are used for assessing the national importance of an ancient monument and considering whether scheduling is appropriate. The criteria should not however be regarded as definitive; rather they are indicators which contribute to a wider judgement based on the individual circumstances of a case.

i *Period*: all types of monuments that characterise a category or period should be considered for preservation.

ii *Rarity*: there are some monument categories which in certain periods are so scarce that all surviving examples which retain some archaeological potential should be preserved. In general, however, a selection must be made which portrays the typical and commonplace as well as the rare. This process should take account of all aspects of the distribution of a particular class of monument, both in a national and regional context.

iii *Documentation*: the significance of a monument may be enhanced by the existence of records of previous investigation or, in the case of more recent monuments, by the supporting evidence of contemporary written records.

iv *Group value*: the value of a single monument (such as a field system) may be greatly enhanced by its association with related contemporary monuments (such as a settlement or cemetery) or with monuments of different periods. In some cases, it is preferable to protect the complete group of monuments, including associated and adjacent land, rather than to protect isolated monuments within the group.

v *Survival/Condition*: the survival of a monument's archaeological potential both above and below ground is a particularly important consideration and should be assessed in relation to its present condition and surviving features.

vi *Fragility/Vulnerability*: highly important archaeological evidence from some field monuments can be destroyed by a single ploughing or unsympathetic treatment; vulnerable monuments of this nature would particularly benefit from the statutory protection that scheduling confers. There are also existing standing structures of particular form or complexity whose value can again be severely reduced by neglect or careless treatment and which are similarly well suited by scheduled monument protection, even if these structures are already listed buildings.

vii *Diversity*: some monuments may be selected for scheduling because they possess a combination of high quality features, others because of a single important attribute.

viii *Potential*: on occasion, the nature of the evidence cannot be specified precisely but it may still be possible to document reasons anticipating its existence and importance and so to demonstrate the justification for scheduling. This is usually confined to sites rather than upstanding monuments.

Appendix 8

THE ARCHIVE

The archive consists of:

31	Context records
6	Scale drawings
4	Daily record sheets
1	Levels recording sheet
1	Photographic record sheet
1	Stratigraphic matrix
1	Box of finds

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 entitled *Conditions for the Acceptance of project Archives*, produced by the Lincolnshire City and County Museum.

City and County Museum Accession Number: LCNCC 2001.96

Archaeological Project Services Site Code: CAW01

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

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