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AN ARCHAEOLOGICAL EVALUATION

STATION ROAD, KNAITH PARK

KNAITH

LINCOLNSHIRE

National Grid Reference (NGR) SK 8415 8570

AOC Archaeology

on behalf of:

Land Improvement Holdings

February 1998

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1 SUMMARY

An archaeological evaluation was undertaken by AOC Archaeology to assess the impact of residential development on land south of the junction between Station Road and Willingham Road in Knaith Park. Four trenches were excavated to the surface of the natural sand. Despite the proximity of the site to the scheduled remains of the Cistercian nunnery located at Park Farm South, no archaeological features or deposits were observed during the work.

2 INTRODUCTION

2.1 Site Location

The site considered by this report lies within the parish of Knaith which is situated on the river Trent, south of Gainsborough, with Knaith Park some 3km to the northeast (Fig. 1). The application site lies behind housing fronting Station Road and Willingham Road at NGR SK 8415 8570 and encompasses an area of 0.9ha (Fig. 2). The southern boundary of the application site is undefined on the ground.

Geologically, Knaith is situated on the Penarth Group of rocks belonging to the Triassic period comprising variable red calcareous silts and clays ('marls'). These are partially overlain by Lower Lias Clays including Frodingham ironstone which is sealed by 'drift' deposits of Cover Sand. Topographically, the northern end of the field is fairly level while the rest descends gradually southward (Plate 1). Although the soil is well-drained and easily worked, it is not very fertile and requires frequent manuring.

The site is currently used as a field, from which the crop had been harvested prior to the evaluation. Access is via a track between houses on Station Road.

2.2 Planning Background

An outline planning application for residential development of land off Station Road in Knaith Park comprising 15 dwellings has been submitted to West Lindsey District Council.

The remains of the Cistercian Nunnery of Heynings (Scheduled Ancient Monument number 22603) founded after 1135 and closed in 1539, lie to the south of the application site. Aerial photographs show features associated with the priory extending into the field just south of the proposed development site.

Therefore, due to the presence of features of potential archaeological interest within the vicinity of the application site, and in line with PPG 16, the Archaeology Section - Lincolnshire County Council, on behalf of the local planning authority, requested that an archaeological evaluation of the application site be undertaken. This was necessary to confirm the presence/absence and significance of any remains in order to assess the impact of the proposed development.

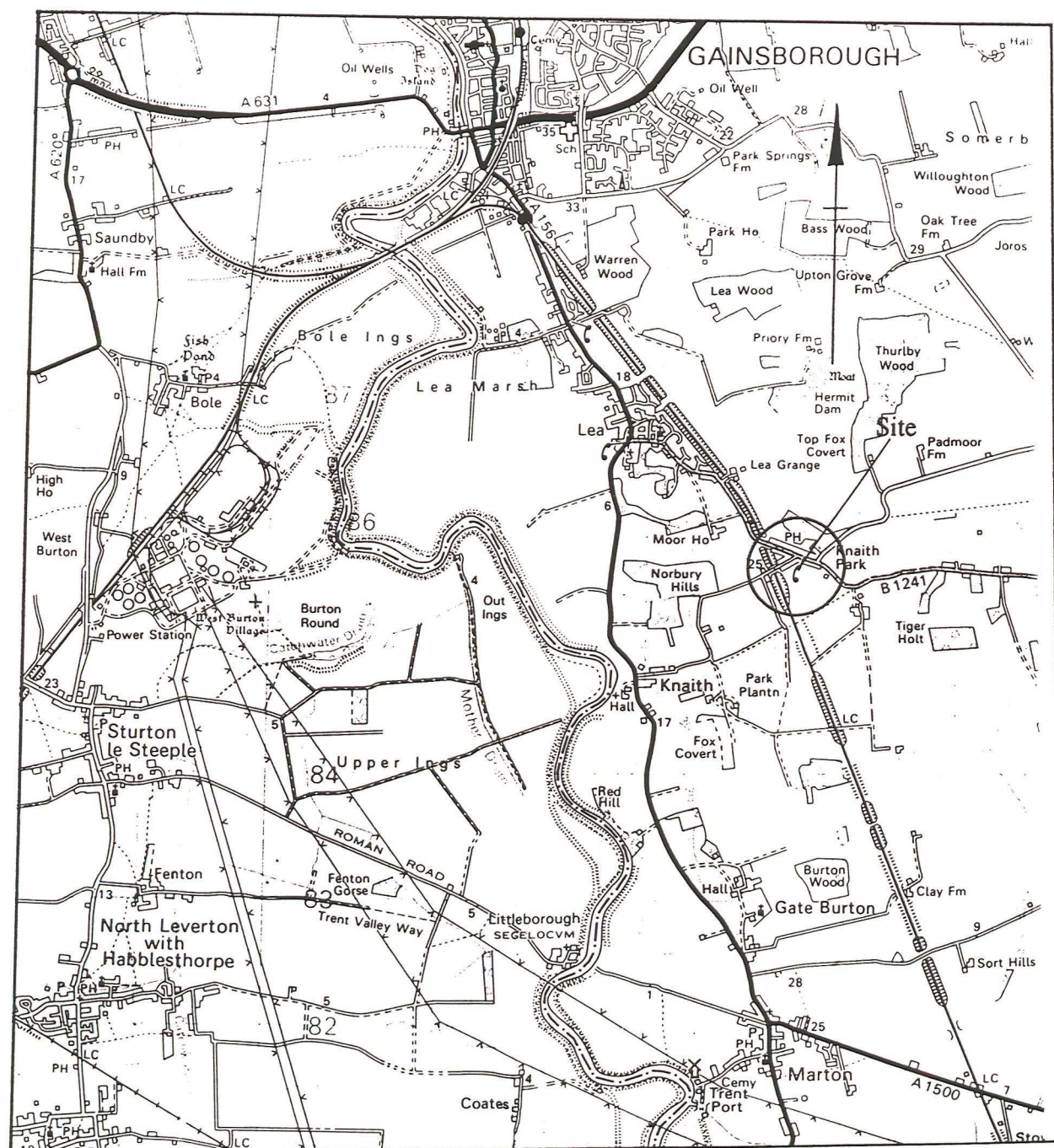


Figure 1 Site Location

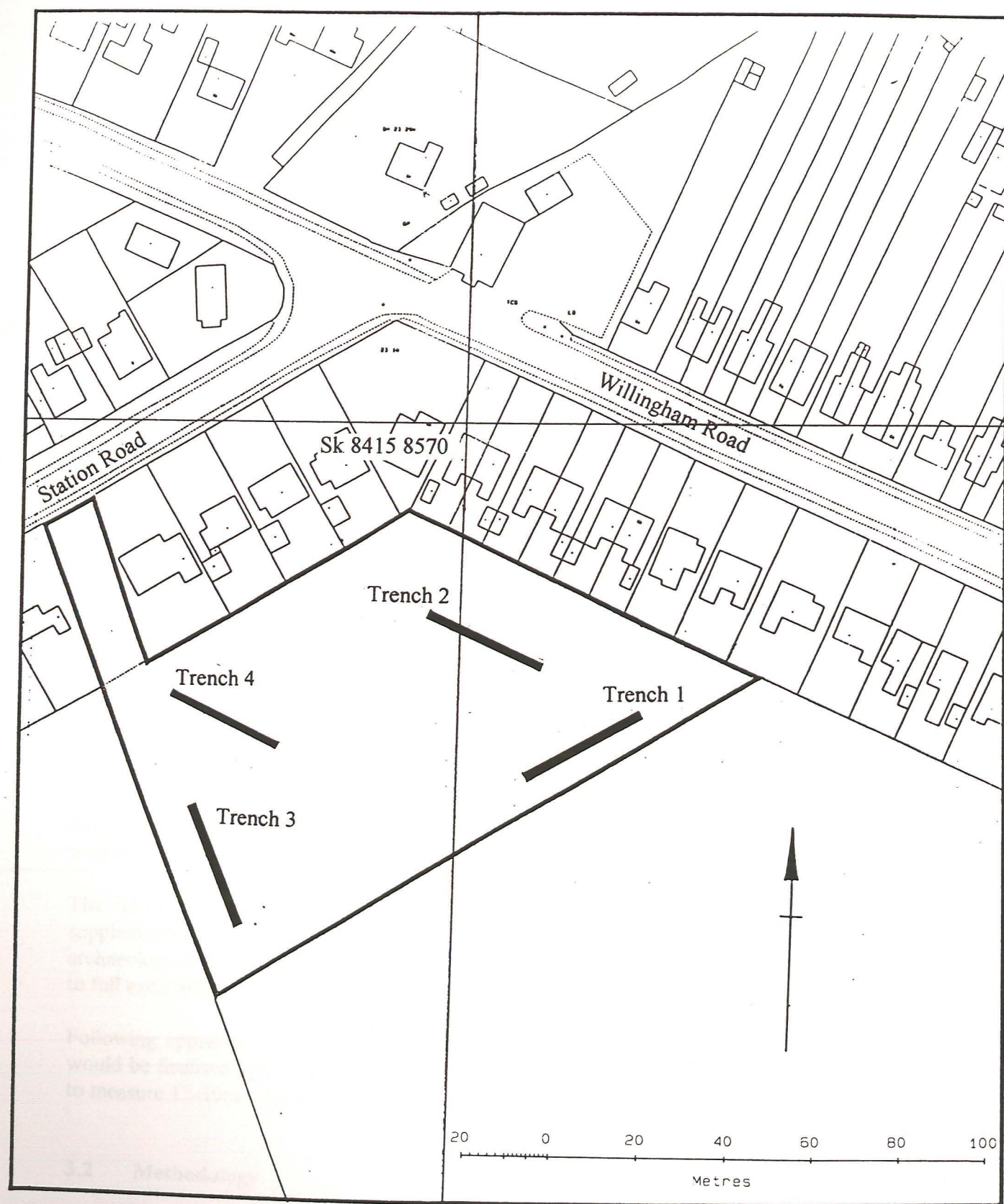


Figure 2 Development Site with Trench Locations

2.3 Aims of the Investigation

To establish the presence/absence of archaeological remains within the site.

To determine the extent, condition, nature, character, quality and date of any archaeological remains encountered.

To assess the ecofactual and environmental potential of the archaeological features and deposits.

In particular to determine whether remains relating to the priory were present on the site.

To make available to interested parties the results of the investigation subject to any confidentiality restrictions.

3 STRATEGY

3.1 Research Design

A scheme of investigation for the site was designed by AOC Archaeology and approved by the County Archaeological Officer, with the agreement of the applicant. This included the provision for both a desk-top assessment and intrusive field evaluation by trenching.

Research for the desk-top assessment was to involve consultation of the following: Lincolnshire Sites and Monuments Record; Ordnance Survey maps; Tithe, Parish and Enclosure maps; historical documents; archaeological books and journals; unpublished reports if appropriate; aerial photographs; and other sources relevant.

Relevant features visible on aerial photographs were to be plotted at 1:2500 scale and linked with the results of the evaluation.

The intrusive field evaluation was to comprise the mechanical excavation of trenches supplemented by limited hand investigation of archaeological deposits. The integrity of any archaeological features or deposits which might better be excavated in conditions pertaining to full excavation, or might warrant preservation *in situ*, would not be compromised.

Following appraisal of the results of the desk-top assessment, the actual trench positions would be finalised and agreed with the Archaeology Section Lincs. C. C. Each trench was to measure 15-30m x 1.65m..

3.2 Methodology

The Lincolnshire Sites and Monuments Record which included a number of aerial photographs for the area under consideration was consulted as part of the research for the desk-top assessment. Another important source of information was the survey carried out in

northwest Lincolnshire for the RCHME directed by P L Everson and colleagues (Everson *et al*, 1991). Reports of archaeological work undertaken in Knaith were consulted. Apart from O.S. maps, only the Tithe Map was available for viewing at the Lincolnshire Archives office.

Modern ploughing of the application site had obscured any earthworks or cropmarks that might have been visible on aerial photographs which meant that the evaluation trenches could not be located with reference to them. Instead, the trenches were positioned in areas most likely to be affected by the foundations of the proposed houses (Fig. 2).

Excavation of the trenches was carried out using a JCB 3CX mechanical excavator equipped with a 1.60m wide toothless ditching bucket. This proceeded to the surface of the natural sand at a depth of between 0.30m and 0.65m, at which level anomalies requiring investigation were also visible. All further excavation was conducted by hand. The trenches were 1.60m wide with lengths totalling 115.10m (Appendix A tables individual trench dimensions). This amounted to approximately 2% of the total area being sampled.

The work was carried out in accordance with the standard specified by the Institute of Field Archaeologists (1994). Standard AOC Archaeology techniques were used throughout, involving the completion of written trench sheets for each deposit encountered with scale plans and/or section drawings where appropriate. Levels were calculated by surveying from an Ordnance Survey benchmark in the vicinity. A full photographic record was made, using black and white print and colour slide film. The trenches were backfilled following completion of the appropriate records and inspection by the monitor from Lincolnshire County Council Archaeology Section, Mr. Jim Bonner.

This report has been prepared in accordance with the minimum requirements of Appendix 7.1 of *MAP 2* (English Heritage 1991) and the Archaeology Section, Lincs. C.C. Brief. A copy of the report will be supplied to the County SMR on the understanding that it will become a public document after an appropriate period of time.

The archive is currently being prepared in accordance with the guidelines published in *Guidelines for the Preparation of Excavation Archives for Long-term Storage* (United Kingdom Institute for Conservation, 1990) and *Standards in the Museum Care of Archaeological Collections* (Museums and Galleries Commission, 1994). The site archive, including the finds (subject to the owners consent), will be deposited with the appropriate museum when complete. If further works are to be undertaken on the site in the foreseeable future, the evaluation archive will be deposited with that of the further works.

4 CONDITIONS

Weather conditions during field work were variable. A dry sunny morning developed into an overcast day with occasional rain showers. Upon exposure the deposits were slightly damp although well drained, providing good conditions for definition. The wind was strong throughout the day blowing sand into open trenches and covering deposits shortly after exposure. Despite the bad weather conditions, archaeological recording was carried out

rapidly before deposits were obscured, resulting in only a few of the photographs being adversely affected.

5 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

The following information has been compiled with the much appreciated assistance of staff at the Lincolnshire County Sites and Monuments Record (SMR) office. Research was concentrated on an area within a 1000m radius of the application site.

Prehistoric

Prehistoric activity in the vicinity of the site is indicated by stone tools from a number of findspots just to the north of site: north of Upton Road; southeast and east of Lea Grange Farm. These include examples from the mesolithic, neolithic and Bronze Age periods.

Roman

Evidence for several Romano-British pottery kilns of the 3rd and 4th centuries and two possible structures was found in a field at Lea Grange Farm to the north of the application site. The A1500 to the south of Knaith follows the line of a Roman Road (Fig. 1) providing good access to the area facilitating trade in kiln products.

Medieval

A useful source for this period is the *Domesday Book* written in the 11th century, which is organised by landholders within Counties and usually further subdivided into administrative units (Morris 1986). The County of Lincolnshire was primarily divided into the three districts of Lindsey, Kesteven and Holland, of which Lindsey was further divided into three Ridings. These districts were subdivided into Wapentakes, hundreds and parishes. Knaith played a subordinate part within this administrative system being a parish in the Wapentake of Well in the West Riding of the District of Lindsey. The entry for Knaith in the *Domesday Book* is:

LAND OF THE BISHOP OF LINCOLN

In Knaith - 12 bovates and 2 parts of 1 bovat taxable.
Land for 13 oxen. St. Mary's has there 3 Freeman with
2 ploughs; and meadows, 25 acres; woodland, 26 acres.

A 'bovat' has been calculated as about 15 acres or as much land as a team of oxen could plough in a year. It appears that Knaith was a fairly wealthy parish with access to a variety of resources and that the parish church of St. Mary's was influential in this period.

Aerial photographs provide another source of evidence for extensive medieval farming and settlement in Knaith. These show earthworks and cropmarks which have been plotted by Lincolnshire SMR and surveyed by the RCHME. The population expansion in the 11th and 12th centuries, due to a number of factors which shall not be discussed here, resulted in the cultivation of marginal land which had not previously been exploited due to its poor fertility, drainage or isolated location. For these reasons, when the population contracted in the 14th century and this land was no longer needed, it may never have been subsequently cultivated

thus preserving abandoned medieval settlements and field systems as earthworks (Platts, 1985).

The Cistercian nunnery of Heynings has been identified with the remains at Park Farm South visible on aerial photographs, Scheduled Ancient Monument (SAM) 22603 (Fig. 3). Documentary sources tell us that the nunnery was founded for brethren and sisters after 1135. The nunnery was dissolved in 1539 and its buildings later robbed for stone but their foundations still survive today as earthworks beneath and around Park Farm South and extending to Park Farm North. More recent activity on the site means that the remains are in varying states of preservation but several features can be identified, of which further details are available from the SMR and Everson *et al*, 1991. It is possible to discern foundations of one large barn-like building and the end of a massive building about 15m wide standing on a platform overlain by a farm cottage (d and g respectively on Fig. 3). The latter building is close to the end of a holloway leading to Park Farm North. Features associated with the nunnery include channels for water control which feed into ponds and a moat-like feature now surrounding the modern farm. Landscaping and excavations on the farm uncovered medieval artefacts and burials probably belonging to the conventual cemetery.

Additional linear features to the west of Heynings nunnery have been plotted from aerial photographs (Fig. 4). These probably functioned as either irrigation or drainage channels and may have been contemporary with the nunnery.

Another type of earthwork takes the form of parallel lines of 'ridge and furrow' formed by medieval ploughing techniques. There are examples of this in the fields to the northeast of Park Farm South together with a massive 'headland' formed by the plough team turning (Fig. 3). Ridge and furrow is also visible as cropmarks on the west side of the railway although the actual ridges have been levelled by modern ploughing.

The deserted settlement of Knaith lies to the southwest of the application site near St. Mary's Church on the east bank of the River Trent at a prominent bend in the river. The place-name 'Knaith' is thought to describe a 'landing place by knee or bend'. Emparkment and landscaping led to the abandonment of the original settlement which relocated to the positions of modern Knaith and Knaith Park. By 1536 there is documentary evidence for a park on land bounded by the modern North, South and Central Park Farms, which was stocked with deer and rabbits.

Post-Medieval

There is cartographic evidence for the medieval park in the form of field names on the Tithe Map of 1850. The field name Conney Green to the east of Stephenson's Hill indicates the presence of a rabbit warren. The field of the application site and those surrounding it were called 'Park' and owned by either William Hutton or, in the case of the application site, by Thomas Wright. The hamlet of Knaith Park had not been developed by 1850 and the buildings of Park Farm North are the only ones shown in the vicinity of the site on the Tithe Map.

The 2nd edition 6" Ordnance Survey map (Fig. 5) illustrates the first buildings at Knaith Park which include the Stag's Head Inn and also the Great Northern and Great Eastern Joint

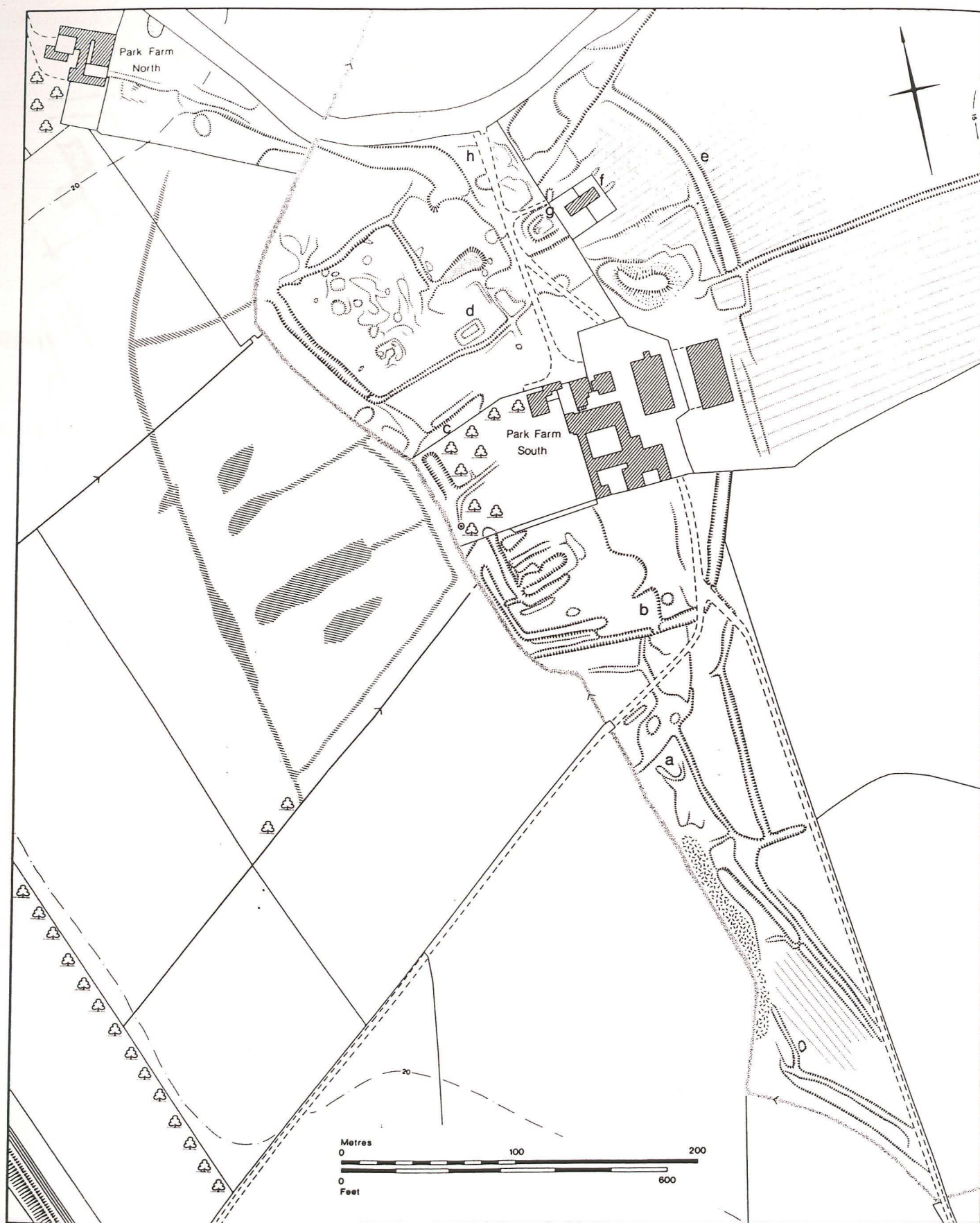
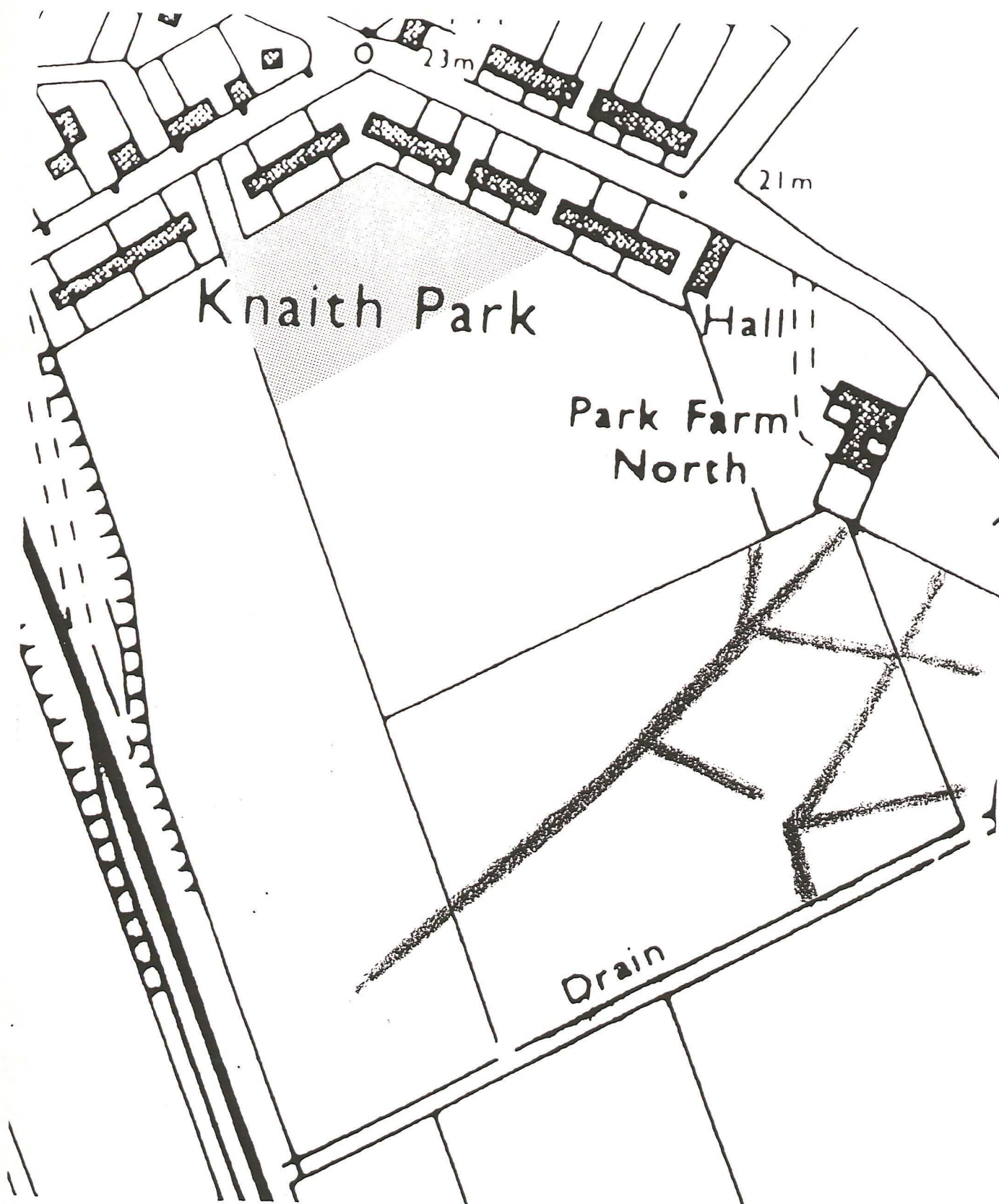
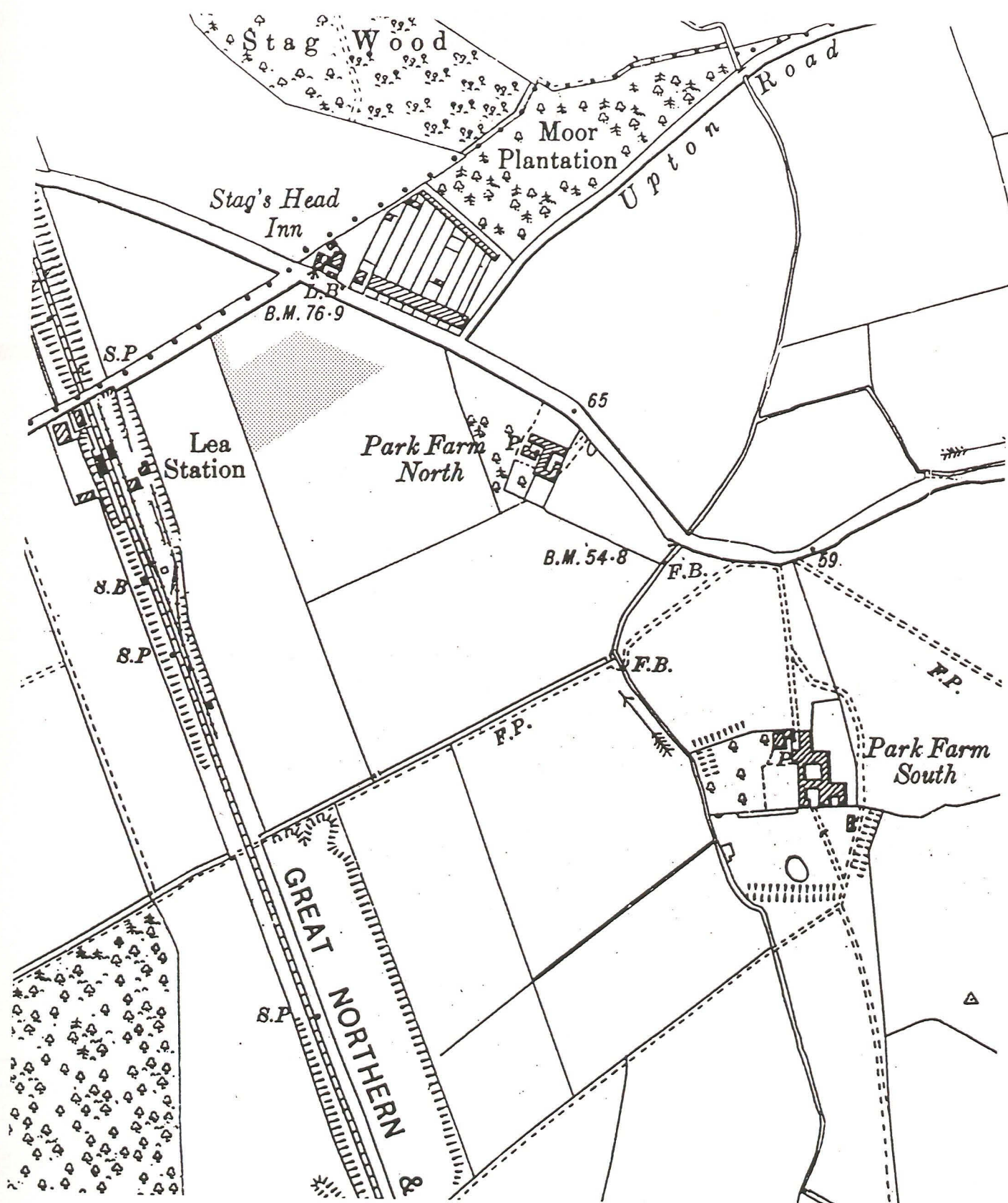


Figure 3 Earthworks attributed to Heynings Priory, after Everson *et al*, 1991



Scale 1:2500, adapted from 1:10,000 sheet

Figure 4 Plot of Features seen on Aerial Photographs



Reproduced at Scale 1:5000

Figure 5 6" 2nd edition O. S. Map

Railway. The station house of the former Lea Railway Station survives to the west of the site but the platforms have been demolished. However the railway line is still in use.

Previous Archaeological Work

Watching briefs by Lindsey Archaeological Services in August and September 1995 to the southwest of the application site at SK 8295 8479 and 8297 8480 produced no archaeological remains but some fragments of Romano-British greyware were found.

While archaeology is known in the vicinity of the site, research for the desk top assessment produced no evidence for archaeology on the site itself.

6 DISCUSSION

An evaluation was deemed necessary due to the proximity of the application site to several known sites of archaeological significance including Roman pottery kilns, prehistoric findspots and the Scheduled Ancient Monument of Heynings priory. However there is no evidence for archaeology on the site itself.

Aerial photographs illustrate linear features that may have been associated with the nunnery in fields to the south of the application site, but these do not appear to extend as far north as the site. This is probably due to differences in farming practices; the site itself is under plough while land to the south has been kept as pasture.

Remains from the post-medieval period were not expected as features associated with the railway were unlikely to have encroached as far east as the area of the site.

7 RESULTS OF FIELDWORK

The earliest deposit encountered in all four evaluation trenches was a predominantly dark orange coloured sand with irregularly shaped black and brown sandy mottles (Plate 1). This was identified as the natural subsoil. A 0.66m deep sondage dug through the natural sand at the south east end of Trench 4 revealed that the iron panning on the surface of the sand penetrated about 0.10m and that the unstained sand was white in colour. The water table was reached at a level of 21.88mAOD. The surface of the natural sand descended southward to a height of 21.55mAOD in Trench 1 from the north eastern end of the site where the maximum height in Trench 4 was 22.92mAOD.

Truncating the surface of the natural sand in Trench 1 was a 0.50m wide channel with an irregular profile running approximately north-south. This was filled by dark brown sand with paler mottles up to 0.20m deep. No evidence of human activity was present and the feature was interpreted as a natural one which may have been formed by the passage of water (Plate 2).

The surface of the sand in Trench 4 undulated slightly which may represent the base of medieval plough furrows orientated approximately north-south although no early soil horizons were present.

Cut into the natural sand were grooves filled with topsoil running parallel or perpendicular to one another. These varied in depth and were thought to have been created by modern ploughing

Overlying the natural sand across the entire site was a single fairly homogenous layer of mid brownish grey slightly silty sand forming the topsoil. This had an average depth of 0.30m to 0.40m thickening to 0.65m at the entrance to the field in Trench 4. The southward slope of the natural deposits was reflected by the surface topography of the ploughsoil. No finds were recovered during excavation of the trenches but occasional fragments of tile were observed on the surface of the field which were probably deposited during muck-spreading.

8 CONCLUSION

The completed field work effectively met the original aims of the investigation. During the evaluation no archaeological features associated with the priory were identified. It is likely that the trenches were located in open areas that had always been paddocks or fields, but the only possible evidence for this were undulations in the natural sand in the northeast part of the site which may have been the base of medieval furrows

The slope of the field means it is likely that topsoil will have eroded downhill leaving a thinner coverage on the upper slopes where the application site is situated. This affords less protection for buried remains so that ploughing of the upper slopes will have destroyed any earthworks and would explain the complete absence of archaeological deposits

It is the opinion of AOC Archaeology that, as no archaeological deposits were revealed during the evaluation and the potential for any surviving in this location is low, no further archaeological work is necessary on this site. The final decision rests with the Archaeological Officer for Lincolnshire County Council.

A summary of the negative results from the evaluation will be submitted to the forthcoming volume of *Lincolnshire History and Archaeology* to be considered for publication.

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Plate 1 Trench 3 with Ploughscars. View South



Plate 2 Section through Natural Feature in Trench 1. View North

APPENDIX A

Trench Dimensions

TRENCH	LENGTH (x 1.60m)m	DEPTH m	MAX HEIGHT mAOD	MIN HEIGHT mAOD
1	29.30	0.45	22.25	21.55
2	27.80	0.63	22.64	22.01
3	30.00	0.45	23.06	22.57
4	28.00	1.16	23.56	21.88