

**ARCHAEOLOGICAL FIELD EVALUATION REPORT: LAND OFF KING
STREET, KIRTON, BOSTON, LINCOLNSHIRE**

Site Code: SKSK03
NGR: TF 30784 38161
Planning Ref. B/03/0393 FULL
Accession No. 2004.19

Report prepared for Chestnut Homes Ltd.
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February 2004

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Summary

- A programme of trial excavation was undertaken for Chestnut Homes Ltd. to determine the archaeological potential of a proposed residential site situated in the angle of the A16 and King Street in Kirton, Boston, Lincolnshire. The information gathered by this process is documented in the sections that follow and will be used to inform the planning process, where archaeology is a material consideration within this process.
- The investigation was undertaken due to the high potential for archaeological remains to exist in this area of Kirton, and trench locations were selected on the basis of a previous geophysical survey of the proposed development zone.
- Four trial excavation trenches were examined, and these identified only low levels of archaeological remains across the site, which are considered to be of limited potential. In one of four trenches, a buried soil of medieval date was investigated; thought to have been associated with a former headland.

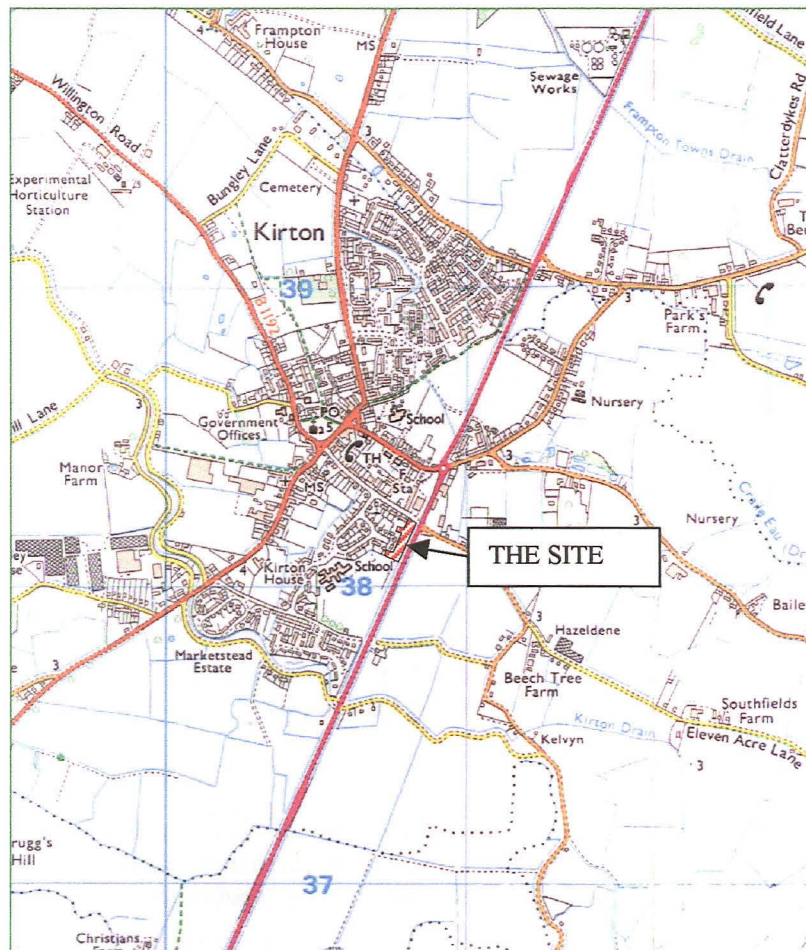


FIG.1: GENERAL SITE LOCATION SCALE 1:25000

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1.0 Introduction

Chestnut Homes Ltd commissioned Pre-Construct archaeology (Lincoln) to undertake an archaeological field evaluation of land at Kirton, Boston, Lincolnshire. This work was carried out to fulfil the requirements of Boston Borough Council in respect of a planning application to construct 24 dwellings and associated access/infrastructure (Planning ref: B/03/0393/FULL). Initially, a geophysical survey of the proposed development area was undertaken by Pre-Construct Geophysics (Bunn 2004), and this was used to inform a programme of target trial excavation.

2.0 Location and description

Kirton is situated approximately 3km to the southwest of Boston. The site of proposed development is at the southeast end of the village, to the south of King Street where this meets the A16. It comprises an F-shaped unit of pasture that extends to c.0.42 ha. Tall metal railings separate the site and a school playing field at the southern end, and a residential area lies to the immediate west.

The drift geology of the area comprises Terrington Beds, which (generally) comprise younger Marine Deposits (Romano-British to present day), salt marsh, tidal creek and river deposits (sandy silt, sand and clay). These overlie clays that were deposited during the Jurassic period. (B.G.S. 1995).

Central National Grid Reference TF 30784 38161.

3.0 Planning Background

Full planning consent is sought by Chestnut Homes Ltd. to construct 24 new dwellings with associated access and infrastructure (Ref. B/03/0393/FULL).

Due to the known proximity of archaeological remains of Saxo-Norman date, the Community Archaeologist for Boston Borough Council recommended the undertaking of a full field evaluation; the results of which would be used to inform the planning process. This approach is in accordance with the recommendations of *Archaeology & Planning: Planning Policy Guidance Note 16 (PPG 16)*.

4.0 Archaeological and historical background

The site lies within an area of archaeological interest, with particular emphasis on the Saxo-Norman period. A Saxo-Norman settlement lies c.150m to the northwest of the site, where excavation revealed traces of domestic occupation and iron smithing. Further sites include farmstead settlements that have been identified to the north and west of the proposed development area.

The remains of a medieval manor, Boxon Hall, lie c.200m to the east of the site.

Kirton was a Domesday settlement, and two entries appear in the Domesday Book of 1086 (Morgan & Thorne 1986). As such, it doubtless emerged at some point during the Saxon period; a situation that has been substantiated by recent archaeological investigation of the area.

In January 2004, almost the entire site area was surveyed by gradiometry (Bunn 2004). This survey identified widespread magnetic variation across the site, but much of it appeared to be associated with modern activities (for example, the construction of the A16 and residential development to the immediate west of the proposed development area). In certain areas (primarily the north end of the site), faint linear and L-shaped anomalies were detected; possibly representing traces of buried ditches of unknown date.

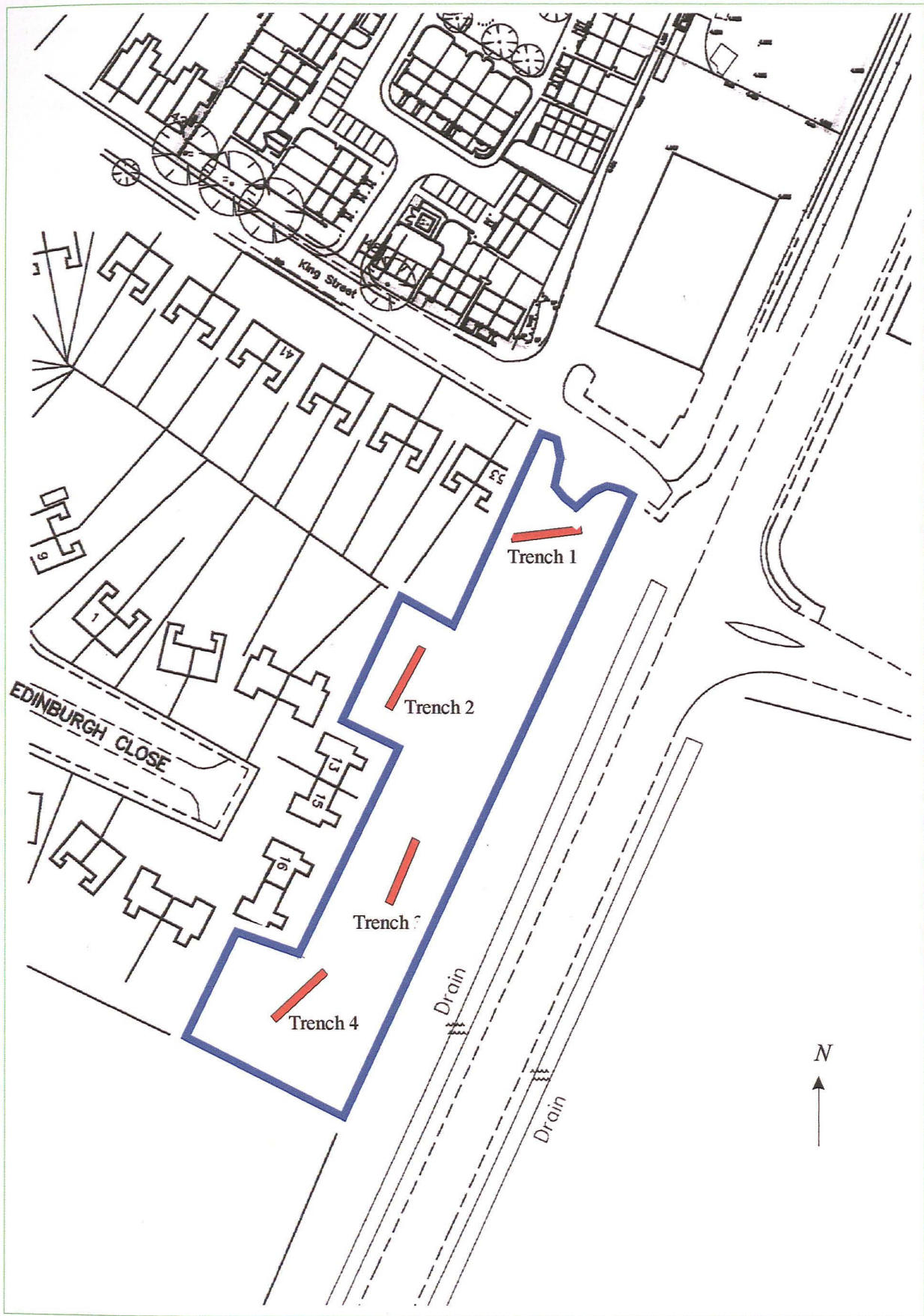


Figure 2: Location of trenches (in red) at scale 1:1250.
Site boundary outlined in blue

5.0 Methodology (trial excavation)

The purpose of archaeological evaluation is to assemble and collate information for planning purposes: to assess the archaeological potential of a site and provide a basis for mitigating against the effects of development, where appropriate.

To achieve the above, four trial excavation trenches, each 15m x 2m, were investigated to examine a representative percentage of the proposed development footprint: locations depicted on fig 2. Trenches 1, 3 and 4 were positioned to traverse suspected archaeological features (ie faint magnetic anomalies detected by gradiometry); Trench 2 was sited in an area where gradiometry had not been possible.

The evaluation was undertaken by a team of two experienced field archaeologists (including the project supervisor, Mr S Savage) over two days, the 26th and 27th January, 2004.

A JCB excavator with smooth ditching blade was used to remove all topsoil, subsoil and underlying non-archaeological deposits in spits not exceeding 20cm in depth. The process was repeated until the first archaeologically significant or natural horizon was exposed, and all further excavation was by hand. Due to the potential masking effects of post-glacial alluvial silts in this area of the fenland, sondages (up to 1.9m in depth) were excavated in Trenches 1, 2 and 4. These deeper excavations were subjected to rapid investigation and then backfilled as a health and safety consideration.

Where archaeological remains were exposed, features and deposits were sample excavated manually, and context information was recorded on Context Record Sheets. Archaeological deposits were drawn to scale, in plan and in section, and Ordnance Datum heights were entered on appropriate drawings. Archaeological contexts were photographed, and some prints are reproduced within this report (see Appendix 1).

Low levels of archaeological finds were recovered during the investigation (e.g. domestic pottery sherds). They were washed and processed at the offices of PCA, prior to submission for detailed specialist appraisal.

6.0 Results

Trench 1 (Fig 3)

Three modern postholes were exposed in Trench 1. These features were cut through what appeared to be a buried soil, possibly a headland, which contained pottery sherds of medieval date.

The topsoil in this area (and in all other trenches) comprised approximately 30cm of dark grey-brown clayey silt mixed with occasional brick/tile fragments and flecks of charcoal, context 100. This material sealed a subsoil deposit of clean dark orange/brown clay-silt, 101, c. 8cm thick.

The subsoil deposit had been cut by three small features; all thought to be postholes, arranged in an east-west line:

[103] This was the largest posthole (approximately 30cm x 16cm in plan, 32+cm deep, with steep sides). It was filled with dark brown/grey sandy silt that incorporated occasional fragments of coal and mottles of subsoil-like material, 103.

[105] This appeared to be sub-square in plan (18cm+ x 10cm x 16cm deep, with steep sides and relatively flat base). Its fill, 106, was identical to 104, where this also incorporated fragments of coal.

[109] This was 20 x 12cm in plan, 20cm+ deep, and its profile was stepped; possibly reflecting the shaking of a post upon removal. Again, this was filled with material identical to that filling the other two postholes, 108.

Although finds were not recovered from any of the above features, the fact that they contained loose soil that was mixed with coal fragments suggests that they are of relatively recent origin, even though the projected WSW to ENE line does not appear to align with any existing boundaries.

Each of the postholes had cut through a relatively thick deposit (20cm) of mid-brown silty clay, context 107. This layer was exclusive to Trench 1, and was not observed in any of the other areas. It appeared to represent some kind of buried soil horizon, and this horizon contained 6 sherds of medieval pottery. These sherds have all been dated between the 13th to 14th century (Appendix 2). It is suggested that the deposit that they were recovered from may have been a former headland that developed towards the north end of the site, to the south of an established boundary (ie King Street, which is presumed to have been a medieval street or track). Context 107 also yielded several fragments of animal bone; representing cattle, pig and horse (Appendix 3).

No other features were exposed in Trench 1. A sondage was excavated at the west end of the trench to 0.71m below existing ground level, and this exposed deposits of natural origin only.

Trench 2 (Fig 4)

Trench 2 was archaeologically sterile.

No features or deposits of archaeological significance were exposed in Trench 2, with the general sequence of layers being identical to those in Trench 1: c. 32cm of topsoil, 200, overlying c. 12 cm of subsoil, 201. This merged with an underlying mid-yellow/brown clay silt, 202, over 12cm+ of light yellow-brown pure natural silt, 203. A sondage on the north side of the trench was excavated to c. 0.9m below existing ground level, exposing deposits of an exclusively natural origin.

Trench 3 (Fig 5)

Trench 3 contained two modern land drains and an undated east-west orientated ditch.

Removal of the topsoil, 300, exposed an east-west orientated ditch, situated towards the south side of the trench. This ditch, context [303], appeared to correspond with the alignment of a faint linear anomaly that had been identified by geophysical survey. It was approximately 75cm wide and 45cm deep, and its profile was broadly U-shaped. It was filled with an homogenous dark grey/brown silty soil; free of inclusions, excluding occasional snail shells. No datable finds were recovered from this feature.

Two east-west orientated land drains were exposed: one to the immediate east of ditch [303], the other c. 2.6m to the south of the first.

Trench 4 (Fig 6)

In trench 4, one land drain, and two modern post holes were exposed.

Removal of the topsoil and subsoil, contexts 400/401, exposed two obviously modern post holes that were orientated north-south. These features, which were not assigned context numbers, were of the exact north-south projection of the principal western site boundary. They were filled with loose topsoil, indicating that the posts had been removed in very recent times.

Towards the centre of the trench, one land drain, orientated east-west, was exposed.

A deep sondage was excavated at the north-east end of the trench, and this exposed a general stratigraphy to 1.8m below existing ground level, summarised as follows:

400 (c. 30cm): grey/brown silty topsoil

/

401 (c. 10cm): dark orange/brown silty subsoil

/

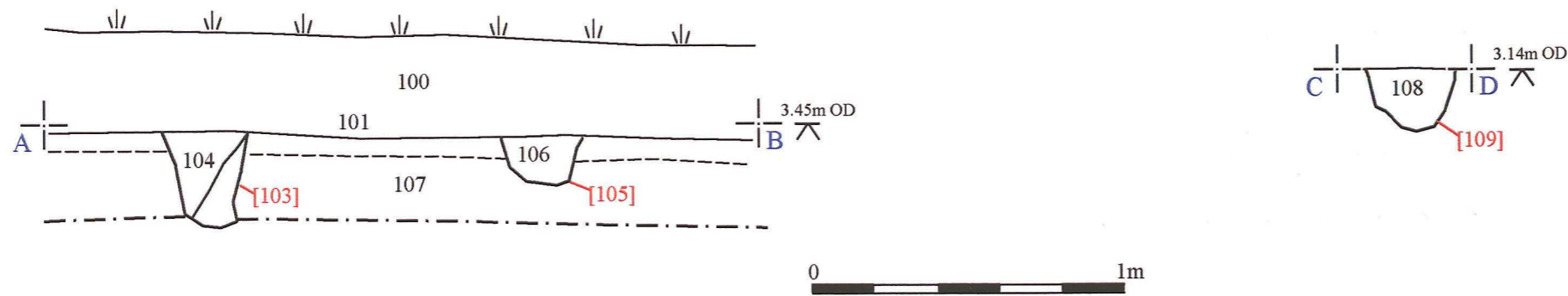
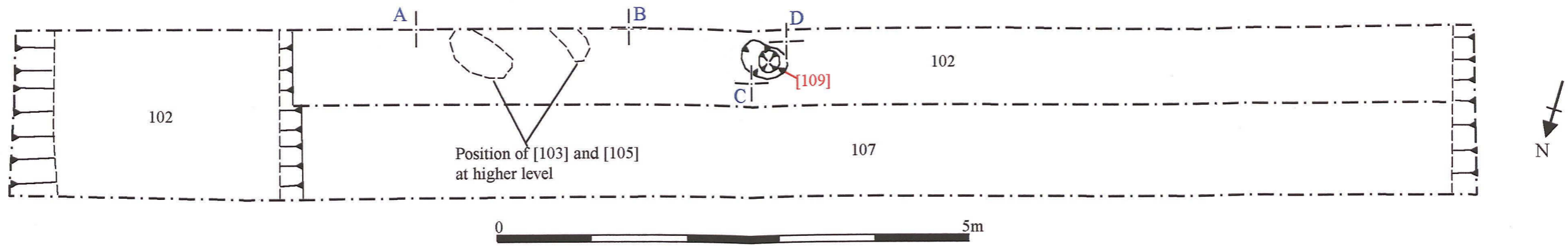


Fig. 3 (above): Plan and sample sections of Trench 1. Plan 1:50, Sections 1:20

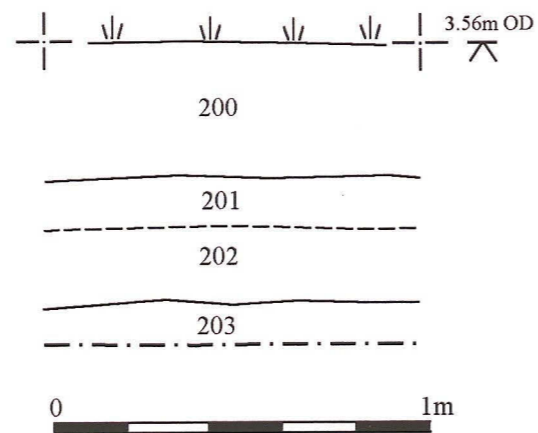


Fig. 4 (left): Sample section of Trench 2. Scale 1:20

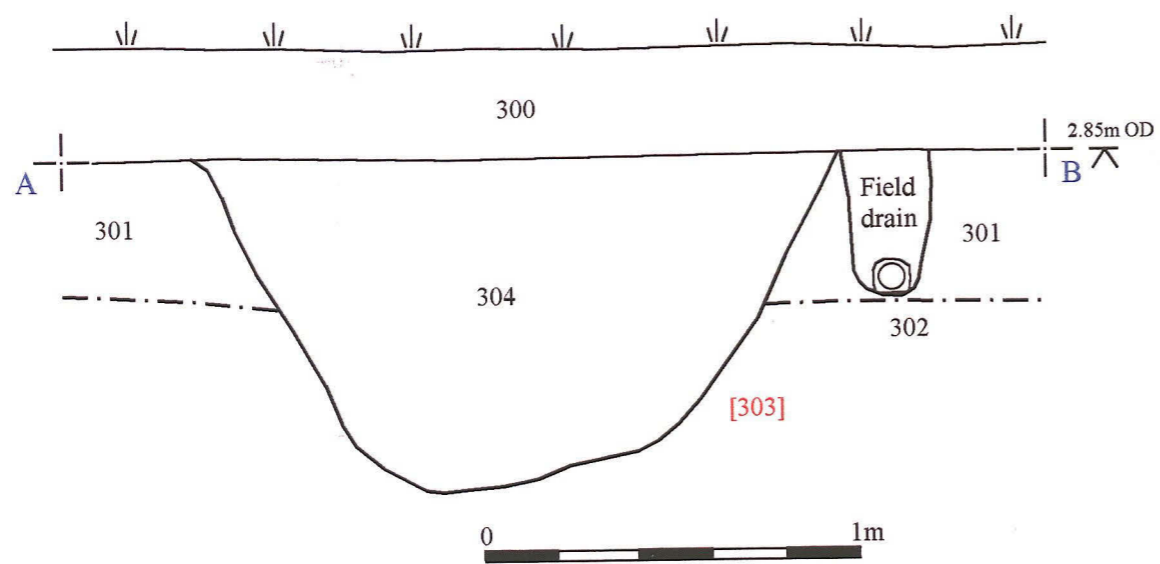
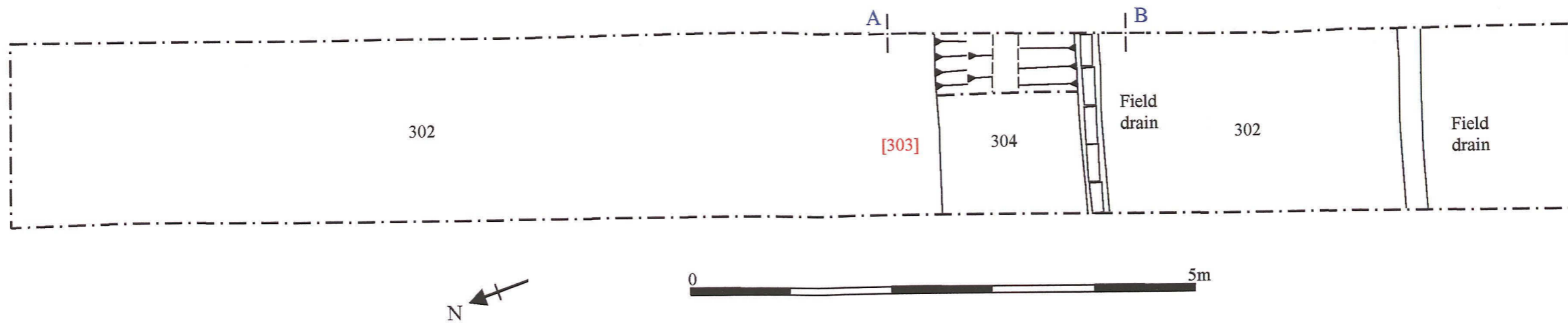


Fig. 5 (above): Plan and sample section of Trench 3. Plan 1:50, Section 1:20

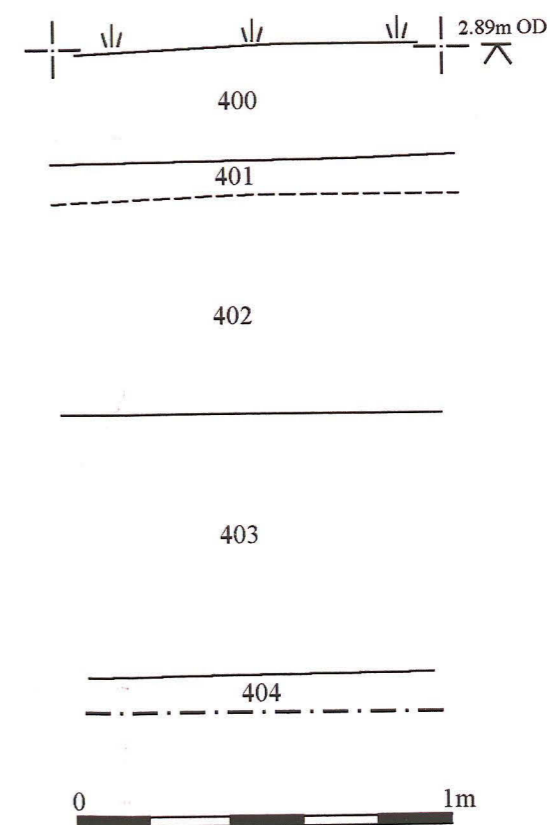


Fig. 6 (right): Sample section of Trench 4. Scale 1:20

402 (c. 60cm): clean orange/brown silty clay deposit

/
403 (c. 68cm): slightly greyer clean silt

/
404 (10cm+): very clean medium-grey sandy silt

7.0 Discussion and conclusions

Overall, it is concluded that the archaeological potential of this site is limited. Of four trenches investigated, none have exposed what the author would consider to be significant archaeological remains.

Trench 2 was completely devoid of archaeology: Trenches 1 and 4 contained cut features, but these were either land drains or post holes of very recent origin.

In Trench 3, one linear ditch was exposed, and this appeared to correlate with an anomaly detected by geophysical survey. Although undated, this ditch has a spatial correlation with existing east-west boundaries. This suggests that the feature was perhaps a drainage ditch, probably of relatively recent origin (this is supported by the fact that the cut of the feature was traced from immediately beneath the topsoil – see Fig 5).

Only in Trench 1 was a deposit of definitely earlier origin encountered, context 107. This appeared to be some kind of buried soil horizon that was not extensive, suggesting that it survives only on the north side of the site. It has been suggested that this deposit relates to a former headland associated with an established boundary, although this is not proven. Six sherds of associated unabraded pottery date this horizon somewhere within the 13th – 14th century.

8.0 Effectiveness of methodology

The methodology used to evaluate the archaeological potential of the site has been appropriate and effective. Geophysical survey of the area was only partially effective, where the magnetic properties of the soil had been artificially enhanced by the presence of modern materials associated with road construction and residential development. The survey identified a number of weakly magnetic linear or L-shaped anomalies; only one of which was identified in the soil as an archaeological feature. Subsequent trial excavation has confirmed that the general archaeological potential of this site is limited, despite the occurrence of important archaeological remains in the vicinity of the proposed development.

9.0 Acknowledgments

The author would like to thank Chestnut Homes Ltd. for commissioning this work. Thanks are also expressed to Simon Savage for supervising the evaluation and for preparing the illustrations and photographs used in this report. The site assistant, David Brown, is also thanked.

10.0 Bibliography

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Morgan P., & Thorn C., (eds.), 1986, *Domesday Book: vol.31: Lincolnshire*, Phillimore & Co. Ltd, Chichester

11.0 Site archive

The site archive (documentary and physical) for this project is in preparation and will be deposited with Lincoln City & County Museum within six months. The global accession number for this scheme is 2004.19.

Appendix 1: Colour Plates



Plate 1 (above): Machining Trench 1, looking north-east.

Plate 2 (right): General view of Trench 1, looking west.

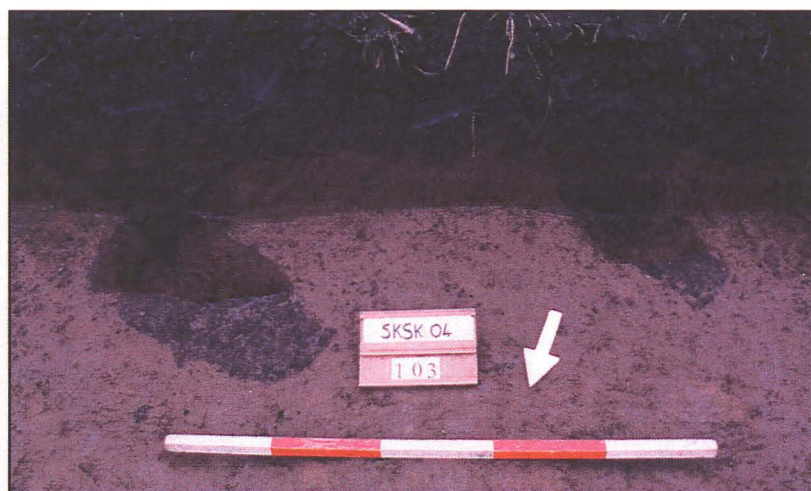


Plate 3 (above): Modern postholes [103] and [105] in Trench 1, looking SSW.

Plate 4 (right): General view of Trench 2, looking north-east.



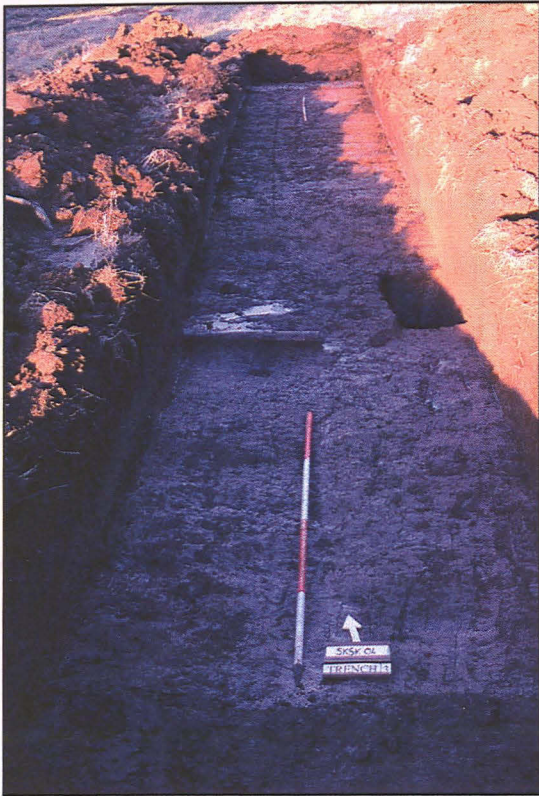


Plate 5 (left): General view of Trench 3, looking North.

Plate 6 (below): Section through ditch [303] in Trench 3, looking east.

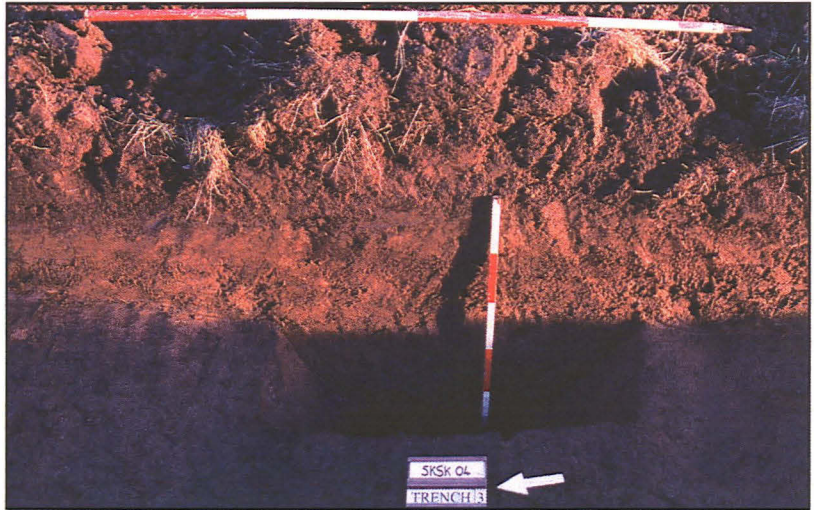


Plate 7 (left): General view of Trench 4, looking south-west.

Plate 8 (below): General view of the site during backfilling, looking North.



Appendix 2: Post-Roman pottery assessment by J Young

ID	site code	context	cname	sub fabric	form type	sherds	vessels	weight	decoration	part	ref no	description	date	condition
1	sksk04	107	BOSTTT		jug	1	1	13		BS		thin walled;early	mid 13th to mid 14th	fresh
2	sksk04	107	BOSTLT		jug	1	1	16		BS		cu glaze	mid 13th to mid 14th	fresh
3	sksk04	107	BOSTLT		jug	1	1	12		BS		cu glaze over white slip	mid 13th to mid 14th	fresh
4	sksk04	107	BOUA	A/B	jar	1	1	7		BS		soot;int glaze	13th to 14th	fresh
5	sksk04	107	SLST		jar	2	1	15		BS		soot	13th to 14th	fresh

Appendix 3

Faunal Remains from an Archaeological Evaluation on land off King Street, Kirton, Boston (SKSK04)

Mark Ward BA (Hons) MSc.

Faunal remains were recovered by hand during the course of an archaeological evaluation on land off King Street, Kirton, Boston. The bones were from a single context, a buried soil horizon, suggested as a former headland, and dated as late 13th / early 14th century.

METHODOLOGY

Species Identification

No comparative collection was required for the identification of the bone.

Recording

The material was recorded by noting the species, element, and preservation. In light of the small assemblage, the mammal bones were recorded following the every identifiable element method.

Ageing

Insufficient characteristics and material was present to facilitate any ageing criteria, though most ageable elements are likely to be from adult individuals.

Measurements

Due to the fragmented condition and the paucity of suitable elements, no measurements were taken, as recommended by von den Driesch (1976).

Sexing

Sexing was determined on a sole pig canine following Schmid (1972). No other required elements from other species were present.

Taxonomic identification

Species distinction of horse (*Equus caballus*) and donkey (*E. asinus*) could not be made because the morphological criteria (e.g. Baxter (1998).

Pig and wild boar can be differentiated using biometrical separation (Payne & Bull 1988), however, the teeth remains were only useful as a guide to size and sexual dimorphism.

Preservation

The condition of the bone was good: abrasion appeared minimal and any degradation due to pH value of the burial environment was very slight.

Fragmentation

This obviously summarizes both pre- and post-depositional taphonomic processes, such as butchery, gnawing and mechanical destruction within the burial environment respectively.

Fragmentation is often gauged by determining the proportion of material that consisted of isolated maxillary and mandibular teeth. In this case, fragmentation can be determined as high, i.e. the bone fragments are fragmented almost beyond identification and there are equal numbers of loose teeth, some of which are fragmented themselves.

Butchery was noted on a sole element, although the taphonomic processes may have masked the true extent of butchery and food preparation.

Archive

Pre-Construct Archaeology is currently holding the studied material.

RESULTS

Context	Species	Element
107	Cow	Upper M1 / M2
107	Pig	Upper canine (side?) Male
107	Pig	Maxillary fragment containing teeth (below)
107	Pig	P4 (part of Max. frag.)
107	Pig	M1 (part of Max. frag.)
107	Pig	M2 (part of Max. frag.)
107	Pig	M3 (Frag) (part of Max. frag.)
107	Horse	Lower left M3
107	Horse	Femur (Frag)
107	Cow	Tibia (Frag)

Table 1: Total faunal material recovered.

The retrieved material gives no indication of economic activities other than the utilisation and presence of the animals themselves, i.e. Pig, horse and cow.

The assemblage is reasonably well preserved but is quite fragmented. Fragmentation may have resulted from being exposed to the elements and through plough action.

Furthermore, fragmentation is likely to have occurred before deposition through butchery, cooking, canid gnawing and discard.

Also present but not noted was one large vertebrae fragment, and one large and one small rib fragment, the larger of which displayed indications of cut and chop marks. The larger fragments probably derive from a horse/cow, whereas the smaller rib is probably from a sheep/goat/roe deer sized mammal.

The horse tooth is the better preserved taxonomic indicator of the two equid elements, however, the equid remains are likely to denote horse (*E. caballus*) because donkey (*E. asinus*) is exceptionally rare in British assemblages from any period (Baxter 1998: 5).

The pig canine is from a male individual. The remains are likely to derive from domestic pig (*Sus domesticus*) than wild boar (*Sus scrofa*). Post-cranial elements are better indicators but teeth size and morphology can be used as a guide (Payne & Bull 1988). These elements appear to be too small to represent wild boar.

CONCLUSIONS AND RECOMMENDATIONS

The faunal material is insufficient to suggest animal economy, other than the presence of the animals represented. The assemblage is well preserved but highly fragmented. It is likely that the material represents night soiling; the deposition of domestic material onto fields as a fertiliser.

The material should be retained in the event that more archaeological investigation occurs.

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Appendix 4 Contest Summary List

Trench 1

- 100 Topsoil
- 101 Subsoil
- 102 Patchy yellow natural horizon
- 103 Cut, post hole
- 104 Fill of post hole 103
- 105 Cut, post hole
- 106 Fill of post hole 105
- 107 Mid-brown layer of silty clay: medieval ?buried soil
- 108 Fill of post hole 109
- 109 Post hole

Trench 2

- 200 Topsoil
- 201 Subsoil
- 202 Layer of mid yellow/brown clay-silt (natural)
- 203 Layer of light yellow/brown pure silt (natural)

Trench 3

- 300 Topsoil
- 301 Subsoil
- 302 Layer of mid yellow/brown clay-silt (natural)
- 303 Ditch, aligned SE – NW
- 304 Fill of ditch 303

Trench 4

- 400 Topsoil
- 401 Subsoil
- 402 Medium orange/brown clean silty clay (natural)
- 403 Similar to above; slightly greyer
- 404 Very clean mid-grey sandy silt (natural)