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ARCHAEOLOGICAL EVALUATION ON LAND ADJACENT TO NORTH JUNCTION, SLEAFORD, LINCOLNSHIRE (SNJ 97)

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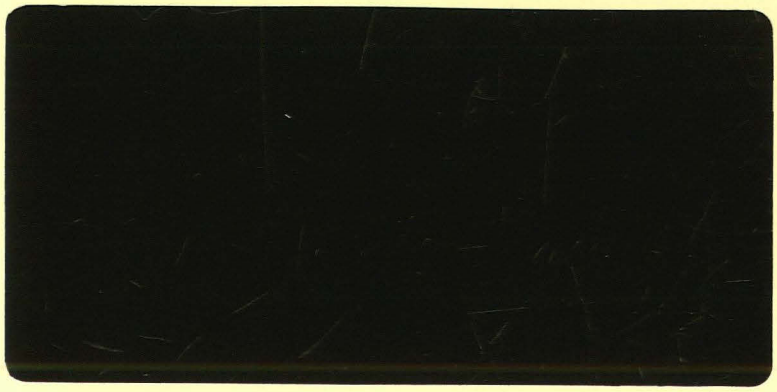

ARCHAEOLOGICAL EVALUATION ON LAND ADJACENT TO NORTH JUNCTION, SLEAFORD, LINCOLNSHIRE (SNJ 97)

Work Undertaken For
Mr R. Blackbourn
on behalf of
The Farming Investment Company

Report Compiled by
Neil Herbert BA (Hons)

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1. SUMMARY

An evaluation was undertaken to determine the archaeological implications of proposed development on land adjacent to North Junction, East Road, Sleaford, Lincolnshire. Aerial photographs of the site depict a large subrectangular cropmark, interpreted as an enclosure of prehistoric or Roman date, adjacent to linear north-south cropmarks thought to be a Roman road.

The evaluation identified the enclosure ditches recorded on aerial photographs and established that the feature encircled a settlement of Mid-Late Iron Age date (c. 300-100 BC). An apparent entrance was identified at the northwest corner of the enclosure and within the circuit were remains of timber structures.

Remains of the Roman road, also evident as cropmarks, were revealed and found to overlie a prehistoric ditched trackway. A possible Roman gully was identified in the northeastern part of the site but otherwise remains of this date were not recognised and only two fragments of Roman pottery were retrieved.

Most of the site was waterlogged below a depth of 0.6m beneath the ground surface. As a result, ancient environmental remains, including insects, snails and other organic materials, were in an excellent state of preservation.

The archaeological remains were buried by up to 0.4m depth of ploughsoil. Metal detection of this soil retrieved a quantity of post-medieval metalwork, including several coins.

2. INTRODUCTION

2.1 Background

Between the 31st October and 14th November 1997, an archaeological evaluation was undertaken on land adjacent to North Junction, East Road, Sleaford, Lincolnshire. The evaluation was requested prior to the determination of Planning Application No. (N/57/0846/94) in order to assess the presence and character of the archaeological resource within the proposed development area. The archaeological investigation was commissioned by Mr R. Blackbourn on behalf of the Farming Investment Company. Archaeological Project Services carried out the work in accordance with a brief set by the Heritage Officer for North Kesteven District Council (Appendix 1).

Archaeological Field Evaluation is defined by the Institute of Field Archaeologists (IFA) 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, and relative quality; and it enables an assessment of their worth in a local, regional, national or international context as appropriate.'* (IFA 1994, 1).

2.2 Topography, Geology and Soils

Sleaford is situated 27km south of Lincoln and 26km west of Boston in the civil parish of Sleaford, North Kesteven District, Lincolnshire (Fig. 1). The town stands on the River Slea and its tributaries which flow northeastward to join the River Witham.

The area of investigation is located

approximately 1.5km northeast of Sleaford town centre (Fig. 2), as defined by the church of St. Denys. The site lies in an area of flat land at a height of *c.*12m OD to the immediate west of the river Slea (Plate 1). This ground tends to be extensively utilised for arable farming, with very occasional blocks of deciduous woodland.

The site is centred on National Grid Reference TF 078 468 and is 3.7 hectares in extent. Local soils are the Ruskington Association glaciofluvial sands and gravels with a calcareous substrate containing limestone stones, flints and quartzite pebbles (Hodge *et al.* 1984, 304). These deposits overlie a solid geology of Upper Jurassic limestones and Oxford Clays.

Natural deposits recorded during the archaeological evaluation comprised a loose light orange clayey sand with moderate clayey or sandy lenses (Appendix 3). Frequent rounded pebbles and flat sub-angular stones were contained by these deposits. They were waterlogged beneath a depth of 0.6m below ground surface.

2.3 Archaeological Setting

The modern town of Sleaford has been developed over several archaeological sites dating from the prehistoric to the medieval periods. North Junction is situated on the periphery of these major archaeological sites. However, a desk-top assessment previously prepared in response to proposed development in the vicinity of East Road has shown that the area contains numerous archaeological remains (Tann 1996, 4).

There is evidence for prehistoric activity in close proximity to the area of investigation. A flint axe of Lower Palaeolithic date was retrieved approximately 100m west of the area of development (Fig. 2; SMR60473). Farther afield, within 900m of the site, a greenstone axe and a flint thumbnail scraper have been recovered. It is likely that the latter date to the Neolithic (3500-2000 BC) or Bronze Age (2000-600 BC) periods.

A series of undated cropmarks have previously been recorded by aerial photography on the area of proposed development (Figs. 2 and 3). Interpreted as a rectangular enclosure with a bisecting internal boundary and adjacent trackway, these are believed to represent a possible prehistoric or Romano-British settlement alongside the Mareham Lane Roman road (Tann 1996, 12).

Recent archaeological evaluation to the northwest of the proposed development recorded a small Romano-British ditch and an undated double-ditch (Fig. 2; ERS97). The latter was surveyed as a cropmark and appeared to form a sub-rectangular enclosure. Other features including pits and gullies were also recorded though no finds were recovered. These remains were interpreted as possible prehistoric or Romano-British stock enclosures (Herbert 1997, 5).

There is no evidence for activity within the area of investigation during the post-Roman or medieval periods and it is likely to have remained as agricultural land until the present. During the 19th century a railway line was built along the eastern boundary of the proposed site as part of the Great Northern and Great Eastern Joint Railway (Tann 1996, 11).

3. AIMS

The aim of the archaeological evaluation, as outlined in the brief set by the Heritage Officer for North Kesteven District Council, were: to gather sufficient

information to establish the presence or absence, extent, condition, character, quality and date of any archaeological deposits. Evaluation trenches were positioned to investigate anomalies previously recorded by aerial photography as cropmarks in order to establish their date, and to determine the extent of any further remains (Appendix 1; 5.1).

4. METHODS

The evaluation was to consist of the excavation of eighteen 3m x 10m trenches, as stated in the Requirement for Work (Appendix 1; 5.2). This scheme was revised and implemented as seventeen 1.5m x 20m trenches on the advice of the Heritage Officer.

The 17 trenches (labelled from A to Q) were excavated by machine across the area (Fig. 3). All of the trenches were placed according to a location plan devised by the Heritage Officer. The plan was designed to find features previously identified as cropmarks and to assess areas that appear to be devoid of archaeological remains (on the basis of previous aerial photography).

Each archaeological 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 during the evaluation was undertaken according to standard Archaeological Projects Services practice.

Field survey of the excavated trenches and existing reference points was completed using a Geodolite Total Station Theodolite in conjunction with a Psion Datalogger.

5. RESULTS

5.1 The Stratigraphic Sequence

Finds recovered from the deposits identified in the evaluation were examined and a date was assigned where possible. Records of the deposits excavated during the evaluation were also examined. A list of all contexts and interpretations appears as Appendix 3. Phasing was assigned based on artefact dating and the nature of the deposits and recognisable relationships between them. A stratigraphic matrix of all identified deposits was produced. Four phases were identified:

Phase 1: Geological deposits
Phase 2: Prehistoric/Undated features
Phase 3: Romano-British features
Phase 4: Modern deposits

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

5.2 Phase 1: Geological Deposits

The earliest recorded layers comprised a yellowish-orange or reddish-brown sand with a variable gravel content (003/033). These natural geological deposits were recorded to a maximum thickness of 1.2m during the excavation of deep archaeological features and were present within all of the excavated trenches.

5.3 Phase 2: Prehistoric/Undated Features

A complex sequence of features, dated by associated pottery to the Middle or Late Iron Age, had been cut into the underlying geological deposits. Undated remains have also been incorporated on the basis that they are probably of similar date.

Trench A:. Orientated north-south were

four deep and broad linear features (014, 053, 078, and 080). A fifth feature, on a similar alignment, was recorded in plan and interpreted as a ploughmark.

Cuts (014), (078) and (080) have been interpreted as ditches (Fig. 6; Plate 3). These features have almost identical profiles, dimensions and alignments and are likely to be related. Although no artefacts were recovered from (078) or (080), 3 sherds of Mid-Late Iron Age pottery were recovered from deposit (012) within ditch (014). Ditches (014) and (078) also contained the shells of snails that prefer an open grassland environment (Appendix 5).

Truncating ditch (080) was a pit (079).

Cut (053) was interpreted as a gully terminal. Although truncated [by Phase 3 feature (051)], gully (053) displayed a profile and alignment similar to ditches (014), (078) and (080) and may, therefore, be related to them.

Cuts (018) and (055) have been interpreted as pits. The sandy nature of their fills (015), (016), (017) and (054) suggests that they have been infilled naturally.

Amorphous features (075) and (077) are interpreted as possible animal burrows.

Trench B: This trench, located to the south of Trench A, and revealed a similar sequence of prehistoric/undated features.

Only partially revealed at the western edge of the trench was cut (034). Approximately 0.5m deep with steep sides and flat base, this is interpreted as a ditch. The dimensions, profile and alignment of this feature are directly comparable to those of ditches (014), (078) and (080) in Trench A. Moreover, it is probable that ditch (034) is an extension of ditch (078). Further east, also aligned north-south, was cut (030). Interpreted as a ditch, this feature is also comparable to those recorded within Trench A and is likely to be the continuation of ditch (014).

Although truncated, cut (037) has been interpreted as a possible pit. No artefacts or environmental remains were retrieved from this feature.

Trench C: Machine excavation disturbed a small quantity of unstratified material of Mid-Late Iron Age date (Appendix 4). These finds may reflect the presence of refuse material on the surface of the site. Excavation revealed several linear, circular and sub-circular features that contained a quantity of stratified animal bone, burnt stone and pottery (Figs. 4 and 5; Plate 2).

A large east-west ditch (020), representing part of the enclosure cropmark, was revealed (Fig. 5). The basal fill (058) of this ditch comprised an organic sand containing vegetable matter, including numerous seeds and beetle fragments, small twigs and fragments of wood. The presence of water flea, freshwater snails, ostracods and aquatic beetles reflect the continuous waterlogging of this feature (Appendix 5). Well preserved red deer, cattle, horse and sheep/goat bones were also recovered from (058).

A single sherd of Mid-Late Iron Age pottery and a quantity of pig, sheep/goat, horse and cattle bones were recovered from higher deposits (010, 008) within enclosure ditch (020). Deposit (010) also contained abundant charcoal, a corroded piece of iron and a single flake of hammerscale. Snail shells, aquatic beetles and water fleas were also found and it is likely that deposit (010) originated in a waterlogged environment (Appendix 5).

To the north of (020) was a smaller,

northeast-southwest, gully (004). This was filled with brown sandy silts, (005) and (006), that contained fragments of cattle bone. Also within deposit (005) were the remains of snail species that prefer a habitat of open grassland (Appendix 5).

A third linear feature (072), aligned northwest-southeast crossed the southern end of the trench. Approximately 0.15m deep, this is interpreted as a gully and may have had a structural function, as it is in close proximity to several postholes (022), (025), (027), (029), (064), (066), (068), (070) and (084). These postholes form a cluster (Plate 2) to the immediate south of, and within the circuit of, the enclosure ditch (020). Several of the postholes were truncated by others: (066) and (084) cut across (063) and posthole (025) disturbed (026) and (028).

Trench D: Situated immediately to the west of Trench C, this revealed a cut interpreted as a ditch terminal (116), apparently an extension of the enclosure ditch (020) in the adjacent trench. Approximately 1m deep, it contained fragments of cattle and pig bone.

West of the ditch terminal were several smaller linear feature. Two gullies/ditches, (153) and (157), were truncated by a third, (155), which was aligned northwest-southeast. Ditch (157) is approximately 2.5m wide and probably represents the cropmark enclosure ditch.

Sealing (153), (155) and (157) was a deposit of brown sandy silt subsoil (002). This layer was cut by two further northwest-southeast gullies (159) and (161).

An irregular rectilinear cut (167) at the western limit of the trench was interpreted as a structural gully. To the east were circular and subcircular cuts (163 and 165) interpreted as postholes.

Trench E: Located at the southern edge of the site and positioned to investigate a large curvilinear cropmark. The feature responsible for this cropmark was not encountered but the trench did reveal a single linear cut (039). Interpreted as a gully, this cut through a deposit of silty sand subsoil (042). Aligned northeast-southwest the gully was filled with grey-brown silty sand from which a single sherd of Mid-Late Iron Age pottery was retrieved.

Trench F: Revealed a single linear feature (179), approximately 2.5m wide and *c.* 1m deep. Interpreted as a ditch, this represents part of the cropmark enclosure. The primary fill was a brownish-black clayey sand (185) that is likely to have remained waterlogged during its formation. Later fills within this feature (182, 183 and 184) were composed of coarser sediments. No finds were recovered from any of the deposits contained by (179), perhaps reflecting their excavation by machine.

Trench G: Did not contain archaeological remains.

Trench H: Two intercutting, undated features (087 and 094) were revealed within this trench. Orientated west-east, cut (087) has been interpreted as a possible gully terminal. After it had been filled the feature was re-cut on the same alignment by (094). The latter has been interpreted, on the basis of its steep and narrow profile, as a post-trench. No finds were recovered from these features.

Trench I: A north-south ditch (136), approximately 1.7m wide and 0.6m deep, was revealed. This was filled by a series of sandy silts (134, 135, 133 and 132) that are likely to have formed as a result of natural deposition. The western edge of the ditch

was truncated by 0.5m wide, 0.2m deep gully (197). No finds were recovered from these features. East of the ditch was the northern terminal of a north-south gully (131). Fragments of bone, a piece of Iron Age pottery and a small sherd of Roman pottery were recovered from the uppermost fill (128) of this gully.

To the west of ditch (136) was a narrow, 0.35m wide, 0.3m deep, linear feature (062). Aligned northeast-southwest with near-vertical sides and a flat base, this is interpreted as a post-trench. Several sherds of Mid-Late Iron Age pottery, together with house mouse and amphibian bones, were recovered from deposit (060) which backfilled (062).

Trench J: Located to examine the northern boundary of the cropmark enclosure. At the northern end of the trench was a large ditch (196) which curved across the trench from northwest to southeast. Partially excavated by machine, to a depth of 0.45m, this is the enclosure ditch. Iron Age pottery and bone were retrieved from the uppermost fill (170) of this feature. At the southern end of the trench was an east-west linear gully (213).

Sealing (196) and (213) was a silty sand subsoil. This deposit was cut by a possible pit (177), a ditch (181) and a gully terminal (175). No finds were retrieved from any of the features that truncated the subsoil.

Trench K:
A north-south ditch (207) was revealed, later re-cut on the same orientation by ditch (204). These ditches were sealed by a layer of subsoil (002), which was cut by a small northwest-southeast gully (200). This gully was subsequently truncated by a 1.5m wide north-south ditch (202). No artefacts were retrieved from any of these features though sherds of Mid-Late Iron Age pottery were recovered as unstratified finds during machine opening of the trench.

Trench L: Located to investigate the cropmark of an apparent internal boundary to the enclosure. The cause of this cropmark was identified at the eastern end of the trench where there was a northeast-southwest ditch (194) which had been recut (114).

At the western end of the trench was a 2m wide, north-south ditch (112) that also appeared to have been recut (103). A large, shallow pit (169) was recorded at the centre of the trench. This feature contained a sandy silt (168) and may have naturally silted. No finds were recovered from any of the excavated features within this trench.

Trench M: Situated to the west of Trench L, this revealed a 1.5m wide, north-south ditch (211) that had been recut on the same alignment by a 2.5m wide ditch (209). This latter ditch is identifiable as the west side of the cropmark enclosure.

West of, and outside, the enclosure ditch was a north-south gully (191) and two postholes (109 and 111). Overlying these features and the enclosure ditch was a layer of subsoil (002).

Cutting the subsoil to the west of the enclosure ditch (209) was a possible pit (107) and two north-south linear gullies (187 and 189).

Trench N: Did not contain archaeological remains.

Trench O: Towards the west end of the trench was a 1.5m wide north-south ditch (120). This may equate to a linear cropmark. To the east was a north-south gully, up to 0.8m wide (122). A little to the east was an east-west linear feature

(118). Approximately 0.5m wide and 0.25m deep with a near vertical side and flat base, this is interpreted as a post-trench.

Trench P: At the western end of the trench were two northeast-southwest linear features (137) and (139), interpreted as a gully and ditch respectively. Further east were three small features (141), (143) and (147) that have been interpreted as possible pits or gully terminals. A circular gully (145), up to 0.4m wide and describing an arc 2m across was recorded against the northern edge of excavation within this trench. All of these features were sealed by a deposit of subsoil (002).

Trench Q: Located at the northwest corner of the site to investigate for the line of the cropmark of the Mareham Lane Roman road. Two small pits (089 and 091) with shallow concave profiles were revealed. No artefacts were recovered. A layer of subsoil (002) was recorded in section but had been removed by machine. Therefore it was not possible to establish any relationship between the subsoil and the pits.

5.4 Phase 3: Romano-British Features

This phase incorporates deposits and features that contained Romano-British artefacts. Where recorded features are of Romano-British character (such as metalled surfaces) they have also been included.

Trench A: Subsequent to the infilling the Phase 2 gully (053) a shallow linear cut (051) was established on the same north-south alignment. This is interpreted as the remains of wheel-ruts or a hollow-way. It contained a sandy silt (050) with frequent stone and occasional fire-cracked pebbles that are likely to have been deposited as an attempt at surfacing.

The infilled wheel-rut was overlain by a 1.5m wide north-south band of compact stones (049) to a thickness of at least 30mm (Fig. 6; Plate 3). This is interpreted as a metalled trackway. No finds were recovered from this sequence.

Trench B: Following the infilling of the Phase 2 pit (037), two shallow, irregular cuts (059 and 036) developed across an area at least 4m wide at the centre of the trench (Plate 4). These have been interpreted as wheel-ruts or a hollow-way and provide an extension of the similar feature in Trench A to the north.

Deposits of compacted stones (045 and 047) were dumped within the confines of this hollow-way to form a surface, an extension of the metalled trackway in Trench A to the north. Deposits of grey-orange clayey sand (046) and brown silty clay (073) overlay the trackway and are thought to have resulted from use of the surface.

Trench H: An east-west linear gully (085) containing a dark grey clayey sand (086) was revealed. A single sherd of Roman greyware (Figure 7) and two fragments of burnt clay were retrieved from (086).

Phase 4: Modern Deposits

A deposit of dark-brown loamy soil or silty sand (032/001) was recorded within all of the evaluation trenches to a thickness of 0.4m. This has been interpreted as a topsoil. Metal detection across the surface of the topsoil retrieved an amount of post-medieval metalwork (Appendices 6 and 7).

Trench I: A small cut (150) containing the skeleton of an unidentified animal (151), probably a rabbit. This may be a pet burial or a natural death.

No archaeological remains were

encountered in Trench G, at the northeastern corner of the site, or in Trench N in the west central part of the investigation area.

6. DISCUSSION

Archaeological evaluation at North Junction, Sleaford has revealed a sequence of geological, prehistoric/undated, Romano-British and modern deposits. Several of the larger features form part of a sequence that has previously been recognised by aerial photography.

6.1 Phase 1: Geological Deposits

The earliest recorded layers are typical of deposits formed within a high energy waterborne environment. These are likely to have been deposited as part of a process of either glaciofluvial or riverine deposition within the valley of the river Slea.

6.2 Phase 2: Prehistoric/Undated Deposits

Prehistoric/undated deposits formed the majority of the archaeological features recorded during excavation. These have been variously interpreted as ditches, gullies, pits, postholes and post-trenches. In order to facilitate a more structured discussion these features have been considered according to their functional interpretation.

Droveways/Trackways: Just within the western limit of the investigation area, aerial photographs have previously recorded a linear cropmark (Figs. 2 and 3). This has been interpreted as the line of Mareham Lane/King Street Roman Road (Tann 1996, 9). Trenches A, B and Q were deliberately placed to assess the nature of the cropmark feature.

Archaeological excavation within Trenches A and B (Trench Q did not record such a feature) suggest that the cropmark is likely to have originated as a prehistoric droveway or trackway. A series of parallel ditches, of similar dimensions and profile and on a north-south alignment (Fig. 6; Plate 3), were recorded in both trenches, some 75m apart. These parallel ditches demarcated a strip of land 9-12m wide which is interpreted as the area designated for the movement of people, livestock or transport south (to modern Sleaford) or north (towards modern Lincoln). Sherds of pottery were found within one of the ditches (014) and provide a Mid-Late Iron Age date for the routeway.

The ditches marking the droveway/trackway are sizeable and reflect a considerable amount of co-ordinated effort, especially as the feature has been recorded (predominantly by aerial photography) between Bourne and Washingborough (May 1976, 9).

The presence of a double-ditch flanking the western limit of the route (as opposed to a single ditch at the east) may reflect an attempt at demarcating land to the west of the droveway/trackway. However, any further outlying ditches or other features associated with the track did not fall within the evaluation trenches.

It is perhaps significant that Mid-Late Iron Age pottery was recovered from the easternmost ditch of this trackway as previous excavations to the south, within the area of modern Sleaford, have recorded similarly dated features. Parallel north-south orientated ditches containing pottery dating to the Late Iron Age have previously been excavated in the vicinity of St. Giles' Avenue (Elsdon 1997, 12; 19). Thus, although the recorded features, both on the present site and in the town, indicate a pre-Roman droveway/trackway

passing through Sleaford on a north-south alignment, the dating evidence varies from the Middle to the Late Iron Age for the establishment of this route. This suggests that communications between Sleaford, already recognised as a developed prehistoric settlement and probable mint, and lands to the north were well-established by the Mid-Late Iron Age.

Major Boundaries: For the purposes of this report a boundary is defined as a linear feature that continues for a distance of 20m or more and/or has a depth of more than 0.7m. Exceptions to this category are those that have been interpreted as trackways/droveways. The category of measurements used are not arbitrary and are designed to reflect differences in the nature of the recorded archaeological remains.

Aerial photography has recorded the presence of a large sub-rectangular enclosure at centre of the proposed development (Figs 2 and 3). Enclosing an area approximately 70m north-south by 60m east-west this is likely to represent a small farmholding, a field or an animal enclosure. By definition this is a major boundary, the course of which has been located in Trenches C, D, F, J, K and M. This course has been established through comparison of the orientations, dimensions and profiles of features recorded during the field evaluation in association with analysis of the previously recorded cropmark plot.

Thus, cuts (020), (116), (179), (196), (204), (207), (209) and (211) form a major boundary defining a sub-rectangular enclosure. A single access point to the main enclosure was recorded at its northwestern corner within Trench D where cut (116) has been interpreted as a ditch terminal. This break in continuity of the enclosure ditch was noted for a distance of at least 1.2m to the limit of excavation. This access point was not observed as part of the cropmark plot (which shows continuity of the main enclosure ditch) and it is therefore possible that other access points are present on the line of the sub-rectangular enclosure that have not been recognised through the techniques of aerial photography.

Features that have been interpreted as part of the enclosure ditch were often only partially excavated by machine due to a policy of selective sampling. However, ditch cuts (020), (116) and (179) were fully excavated to establish an accurate record of the dimensions of this feature. Due to the obstructive presence of groundwater augering was employed as a technique to determine the depth of the bottom of these ditches.

The average depth of the enclosure ditch, where fully excavated, has been established as approximately 1m from the surface of the natural deposits. An average width of 3m was deduced from measurements taken from all of the trenches in which the enclosure ditch was exposed.

Although only a small quantity of pottery (3 sherds) was recovered from the enclosure ditch all were of Mid-Late Iron Age date. Substantial amounts of well-preserved animal bone were also retrieved. The presence of cattle, horse, sheep, pig and red deer remains suggests that a variety of animals were kept, killed, processed or disposed of in close proximity to the enclosure ditch. In particular, the presence of neonate pig and sheep bones indicate that both species were being bred at the site (Appendix 5). The pig and deer remains may also imply that there was areas of woodland in the vicinity. This suggestion is supported by fragments of wood and twigs from the enclosure ditch, together with structural evidence of timber post-built structures. Some of the wood

fragments were chopped and may, therefore provide evidence of wood working techniques.

Water fleas, freshwater snails and aquatic beetles, and the survival of these items, indicate that the enclosure ditch contained water at least seasonally. Additionally, the preservation of these faunal remains indicate that it remained waterlogged when it silted up or was backfilled.

Human remains were found within the uppermost fill of the enclosure ditch and imply that ritual activity of some indeterminate form occurred in the area.

In summary, the evidence indicates that there was a marked preference for the disposal of refuse (in the form of pottery and bone) within the enclosure boundary.

A second major boundary ditch, previously recorded as a north-south cropmark to the north of the enclosure, was excavated within Trench I (Fig. 3).

Within the centre of the enclosure, and also recorded as a cropmark, was a north-south re-cut gully. It is likely that this reflects the establishment and maintenance of a small internal boundary within the enclosure, effectively forming a sub-division (Fig. 3).

Minor Boundaries: By definition (and solely for the purpose of this report) these comprise all other linear features that are not long enough, or deep enough, to be interpreted as major boundaries. This category includes small ditches and gullies, the majority of which were previously unrecorded as they do not appear as cropmark features.

The majority of the minor boundaries were recorded outside the circuit of the main enclosure ditch, though this perhaps reflects the trench location pattern. Thus, of a total of 17 evaluation trenches only 1 was situated on the inside of the enclosure ditch, 8 were located across the ditch and the remaining 9 were situated outside of the circuit. No relationships were established between the enclosure ditch and any of the minor boundaries. This suggests that the main enclosure may have been established on a previously unoccupied site, though the small portion of the area investigated mitigates against a definitive statement.

Structural Remains: This category defines all features that were interpreted as being of a structural purpose or function. As a result postholes, post-trenches and eavesdrip gullies have been incorporated within this section of the report.

Remains of a structural nature were recorded within Trenches C, D, H and I. Those within Trenches C and I occur within the main enclosure while those found in Trench H are outside the circuit of the ditch. Trench D was situated at an access point at the northwestern corner of the enclosure. The majority of structural remains were recorded either within or at the entry to the main enclosure. That the majority of the trenches were excavated outside the enclosure ditch emphasises the evidence that structural remains were concentrated within the confines of the ditched circuit.

A cluster of structural remains were revealed in Trenches C and D, at the entrance to the enclosure (Fig. 4; Plate 2). These comprised 11 postholes (022, 025, 027, 029, 064, 066, 070, 084, 163 and 165), a possible eavesdrip gully (072) and a rectilinear gully (167). Two phases of structural activity were recognised and it was clear that some postholes (025, 065 and 083) had cut into the remains of earlier ones. Such activity is likely to reflect the

replacement or re-siting of existing timber uprights. None of these postholes exceeded 0.3m in depth. Such a shallow profile may be a result of later erosion or that the structures represented were insubstantial. Alternatively, the shallowness of the postholes may indicate that the timbers were set in, and supported by, an earthen bank. Although no evidence for such a bank was revealed, one can be expected to have been located alongside the enclosure ditch. The location of these postholes may indicate, therefore, that they represent a possible gateway or bank-retaining structure.

Trench I contained a single structural feature, a post-trench (062). This was situated inside the enclosure and contained 4 sherds of Mid-Late Iron Age pottery. Large quantities of charcoal, 2 charred cereal grains and bones of sheep, pig, vole, house mouse and amphibian suggested that human occupation had occurred in the near vicinity of the feature (Appendix 5).

Evidence for structures lying outside the enclosure was exposed within Trench H. This consisted of a post-trench (087) that had been re-cut (094) on the same alignment with a much narrower profile. This represents 2 phases of structural activity, reflecting a similar pattern of occupation to that recorded within the enclosure.

Subsoil Deposits: A subsoil deposit was present within Trenches A, B, C, D, E, G, J, K, M, P and Q (002/042). In several circumstances (Trenches D, E, J, K and M) there were features cutting through the subsoil, though the majority appear to have been sealed by these deposits. This suggests that there are two phases to the site, the first when the enclosure and the majority of other features were cut and the second when a smaller number of linear features and a pit were developed following the deposition of a layer of subsoil. One of these features (039) that truncated the subsoil contained a single piece of Mid-Late Iron Age pottery. This is contemporary with material recovered from features beneath the subsoil. This might imply that this pottery fragment is residual, or may indicate that the deposition of the subsoil and the subsequent development of later features occurred in a relatively short period of time.

However, and more probably, the subsoil may be a transformed deposit and it is likely that all the archaeological remains were originally cut through or developed on the layer. Subsequent, partial transformation of the soil has served to erase the upper parts of certain features with the result that they now appear to be buried by the deposit. That this transformation is not uniform would tend to indicate that it resulted from bioturbation, such as worm action, rather than agricultural activity which would not have been selective in occurrence.

Pits: Several features that were present on site have been interpreted as pits. This interpretation stems from the size and morphology of these features as they are considered too large to be postholes.

Trenches A, B, J, L and Q contained pits. These represent activity both within the main enclosure (J and L) and outside (A, B and Q). The features contained no functional or dateable material and are therefore unlikely to have been for refuse disposal. It is possible that the pits originated as small quarries for the natural sands and gravels. Composition of the deposits within the pits is variable, though the presence of large quantities of gravel within the primary fills of (018), (079) and (177) is unusual. Pits (089) and (091) contained deposits of dark organic sands, possibly reflecting the decomposition of

organic material. The latter may be related to the development of natural vegetation and intrusive root activity.

Economy and Environment:
Molluscs recovered from trackway ditches (014) and (078) are typical of species that prefer an open grassland habitat. The dearth of associated artefacts within the trackway ditches is likely to reflect an absence of human occupation in near proximity.

Samples from the enclosure ditch showed that this feature contained water whilst it was functioning and is likely to have remained waterlogged since its development. Aside from aquatic snails, the fauna retrieved during sampling reflected the same open grassland habitat as recorded within the droveway/trackway ditches.

Habitation of the site was represented by the quantity and nature of the artefacts found within the enclosure ditch, consisting primarily of material evidence associated with the disposal of refuse. Cattle, horse, sheep, pig and red deer bones had been disposed of within the ditch. The association of this assemblage with the evidence for an open grassland environment suggests that the economy may have been predominantly pastoral. Remains of dung beetle further suggest that animals were kept on site. The recovery of charred cereal grain reflects possible arable farming, or at least the processing of its residue. Wood, some of it worked, and twigs had survived in small amounts and may be the remains of firewood or natural flora.

Amphibian bones were also recorded. These are likely to have been attracted by a wet or waterlogged environment, as would have existed in the main enclosure ditch. Unusual, but not uncommon, were the human remains found within the enclosure ditch. These are often recorded on prehistoric sites where there appears to be a lack of formal burial rites.

Overview:
These prehistoric remains are situated within a wider landscape of contemporary activity. The evidence from the present investigation suggests that this site contains an enclosed settlement, surrounded by fields and with an adjacent trackway. Previous investigations immediately to the northwest have revealed double-ditched enclosures thought to be stock compounds. Although undated, these animal pounds may be related to the newly examined settlement.

The trackway is perhaps part of a route that extends southwards to, and beyond, the Late Iron Age settlement at the fording point across the river Slea, approximately 1.5km to the south. Moreover, a second Middle Iron Age settlement enclosure, defined by a palisade and crossed by the Mareham Lane Roman road, is known a further 0.5km south of the ford (Trimble 1991, 28).

Cumulatively, the evidence may suggest that the Middle Iron Age was characterised by a pattern of dispersed settlement, represented by small enclosed occupation areas as at North Junction. However, during the Late Iron Age people began to leave their isolated farms and congregate together, probably in a nucleated settlement located where the prehistoric track crossed the river.

6.3 Phase 3: Romano-British Deposits

There was no evidence for the continuation of prehistoric settlement into this period and it is probable that occupation of the main enclosure had ceased.

Minor Boundaries: To the north of the Iron Age enclosure, in Trench H, was a broad, shallow gully (085) which contained a single piece of Roman pottery. This feature is likely to have been infilled as a result of natural weathering and the Roman pottery may only indicate the date of disuse of the feature.

Similarly, a gully terminal just outside the northern limit of the enclosure in Trench I contained a single fragment of Roman pottery, together with a sherd of Iron Age pot. Both artefacts were retrieved from the uppermost fill of the feature and, therefore, the Roman pottery only signifies the date of the final infilling of the gully.

Road/Metalled Trackway: The prehistoric ditched track at the west side of the site continued in use and apparently saw the movement of carts or wagons as wheel-ruts formed in the base of the routeway. These were backfilled with stones and a compact metalled surface between 2m - 3.7m wide laid across them to improve passage.

Sandy deposits had accumulated over this surface. These deposits may have formed as trample resulting from continued traffic on the surface.

No artefacts were recovered from this road. However, this phase of the feature has been assigned to the Roman period on the basis of its nature and similarity to roads and metalled tracks of confirmed Roman date elsewhere. In particular, metalled surfaces a little to the south have been shown to be of Roman date (Elsdon 1997).

Comparison with recorded surfaces of Mareham Lane/King Street to the south suggests that investment in the thickness and durability of the surface was much greater in closer proximity to the area of Old Place (the focus of occupation during the Romano-British period). The insubstantial nature of the surfacing recorded within the present investigation site suggests this area was on the periphery of the nucleated Romano-British settlement. This suggestion is supported by the virtual absence of Roman artefacts and very limited evidence for activity during this period.

6.4 Phase 4: Modern Activity

Activity of modern date within the area of investigation is largely limited to agriculture, as indicated by ploughmarks and the ploughsoil that forms the present surface of the site. A possible pet burial, or natural animal (rabbit) death, was also identified.

A quantity of post-medieval artefacts, including several coins, indicate some use of the site probably in the early 19th century. The nature of this activity is unknown but may be related to the construction of the adjacent railway track, which was opened in 1881 (Wright 1993, 113). An imported late medieval coin from the site may simply imply some continued passage through the area at this time.

This limited modern activity on the site suggests that surviving archaeological remains are likely to be predominantly intact.

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 2).

Period

Remains of a Mid-Late Iron Age settlement enclosure with adjacent fields and a ditched trackway were revealed.

Such remains are typical of the period. A metalled road or track of probable Roman date was also identified. Such roads are a major characteriser of the period.

Rarity
Rural Iron Age settlement remains with associated fields and trackways are rare in both regional and national terms. Moreover, the settlement here identified possesses a very rare complement of contemporary environmental remains.

Roman roads are not uncommon. However, investigations have shown that the road overlies a prehistoric trackway. This is a regionally, and probably nationally, rare instance where the maintenance of a prehistoric route into the Roman period has been proven.

Documentation
Records of archaeological sites and finds made in the Sleaford area are held in the Lincolnshire Sites and Monuments Record and the files maintained by the North Kesteven Heritage Officer. A Desk-Top Assessment of the area has previously been produced (Tann 1996) and synopses of excavations to the west (Herbert 1997) and south (Elsdon 1997) have also been written. Aerial photographs of the site have been transcribed and plotted (RCHME 1996).

Group value
Archaeological evaluation has recorded evidence for Mid-Late Iron Age settlement associated with agricultural activities production, small-scale iron working and probable ritual activity in close proximity to a major routeway. The combination of this evidence provides a moderate group value.

The presence of a Romano-British road surface adds to the understanding of the site during a later period. As a single feature, developed for the movement of peoples or livestock, the surface has a low group value.

Survival/Condition
Iron Age and Roman remains survived well and there was little evidence of disturbance other than through later agricultural activity. Most of the deposits within the enclosure ditch were waterlogged and as a result ancient environmental remains were in an excellent state of preservation. Shallower features did not exhibit waterlogging, therefore organic preservation was limited. In general, the prehistoric pottery was durable and survived in good condition.

Fragility/Vulnerability
Development of the site is likely to impact into natural deposits. Consequently, all archaeological remains present are vulnerable. Moreover, the archaeological remains are widespread across the area and only appear to be absent in the northeastern part of the site.

Additionally, ancient environmental remains are preserved due to waterlogging. Consequently, these organic materials are very vulnerable to destruction through any alteration to the existing level of groundwater.

Diversity
The prehistoric remains at the site Mid-Late Iron Age settlement incorporating evidence of farming, probable small-scale industrial production, developed communications and ritual activity possess a moderate diversity. This diversity is enhanced by the proximity of the site to the major prehistoric settlement at Old Sleaford.

Subsequent Romano-British road surfacing has a low diversity, though the later remains can be considered as integral to

the development of the area.

Potential

Potential is extremely high that prehistoric and Roman remains, as found during the evaluation, occur elsewhere on, and in the immediate vicinity of, the site. However, there is low potential for archaeological remains occurring in the northeastern part of the site.

There is also extremely high potential for the survival, in the enclosure ditch, of further ancient organic remains, as identified by the evaluation. Such evidence has the potential to reveal details of the environment of the site and its environs during the prehistoric and Roman periods.

7.1 Site Importance

In summary, the criteria for assessment have indicated that the Mid-Late Iron Age settlement enclosure and adjacent droveway/trackway are of high regional significance. This is enhanced by the excellent preservation of contemporary environmental remains. The remains of the probable Roman road are of local importance.

8. EFFECTIVENESS OF TECHNIQUES

Techniques employed during the archaeological evaluation at North Junction, Sleaford, Lincolnshire have successfully achieved the aims set by the Heritage Officer for North Kesteven District Council (Appendix 1).

Machine excavation and removal of the recent ploughsoil allowed a rapid appreciation of the scale and location of surviving archaeological remains. Machine excavation of certain of the larger features allowed for a much larger sample of deposits to be recorded than would have been achieved by hand excavation. However, where such techniques were employed the potential for the recovery of artefactual and environmental material was reduced.

Subsequent manual excavation identified well-preserved remains of Iron Age and Roman date. Many of these could be equated with features previously identified as cropmarks. Moreover, manual excavation revealed many more hitherto unknown archaeological features, including apparent structural evidence in the form of postholes and foundation trenches. However, the location of the trenches was biased towards investigation of the main enclosure ditch. As a result, there is limited information on what this feature enclosed.

The techniques of sampling and analysis of deposits effectively determined the environmental and economic potential of the site. In particular, the technique established that the enclosure ditch has been permanently waterlogged and therefore retains well-preserved organic remains. Metal detection across the field surface also led to the recovery of post-medieval artefacts which would not otherwise have been found.

9. CONCLUSIONS

Archaeological evaluation on land adjacent to North Junction, Sleaford, has revealed an extensive and dense pattern of archaeological remains across the area. These remains represent a Mid-Late Iron Age settlement enclosure and a probable Roman road, both previously known through cropmark evidence recorded on aerial photographs. The evaluation also established that the Roman road overlay an earlier, Iron Age, ditched trackway.

Deeper features, such as the enclosure ditch, were waterlogged and contained abundant, very well-preserved ancient organic remains, including chopped roundwood. Rackham (Appendix 5) notes that the palaeoenvironmental potential for the waterlogged deposit is high 'for understanding the economic basis and environmental context of the site'.

Remains of prehistoric and Roman date were buried by approximately 0.4m of ploughsoil and extended up to a further 1m in depth. There had been little later disturbance to the site, other than through agriculture. Consequently, archaeological remains were well preserved.

10. ACKNOWLEDGEMENTS

Archaeological Project Services would like to acknowledge the assistance of Mr R. Blackbourn who commissioned the evaluation on behalf of the Farming Investment Company. The work was coordinated by Gary Taylor and this report was edited by Gary Taylor and Tom Lane. Dr David Knight kindly commented on the pottery and Dr Barrie Cook identified the silver coin. Metal detection of the site was by Peter Storer and Ray Hilliard. Kate Orr, the Heritage Officer for North Kesteven District Council, kindly permitted examination of the relevant parish files.

11. PERSONNEL

Project Coordinator: Gary Taylor
Site Supervisor: Jenny Young
Site Assistants: Dave Bower, Alex Brett, Mike Garrett, Martin Griffiths, Ian McGregor, Rene Mouraille, Jon Sygrave and Fiona Walker
Finds Processing: Denise Buckley
Illustration: Paul Cope-Faulkner, Neil Herbert and Phil Mills
Post-excavation Analyst: Neil Herbert

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13. ABBREVIATIONS

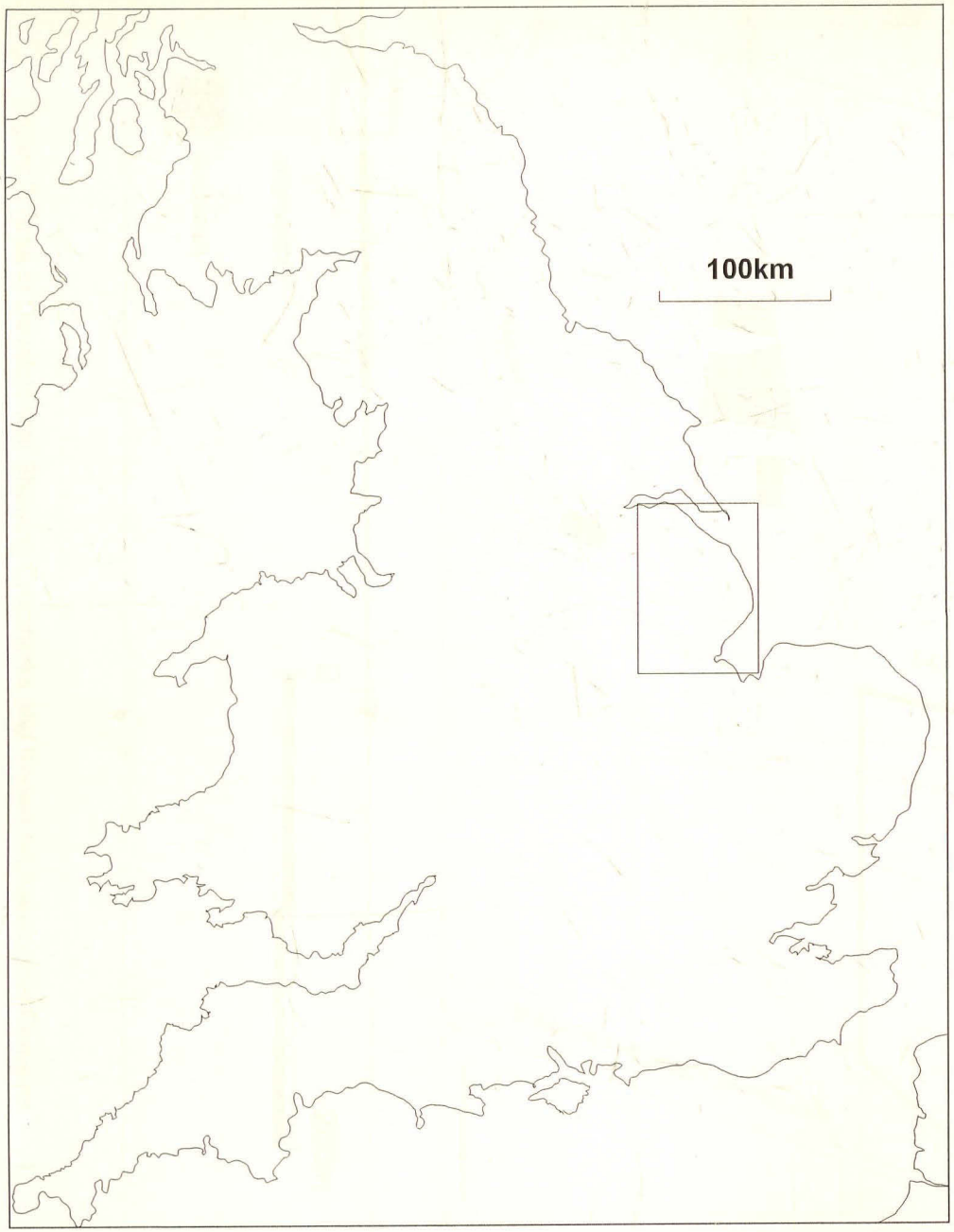
APS refers to Archaeological Project Services

DoE refers to the Department of the Environment

EAC refers to the Environmental Archaeology Consultancy

LAS refers to Lindsey Archaeological Services

RCHME refers to the Royal Commission on the Historical Monuments of England



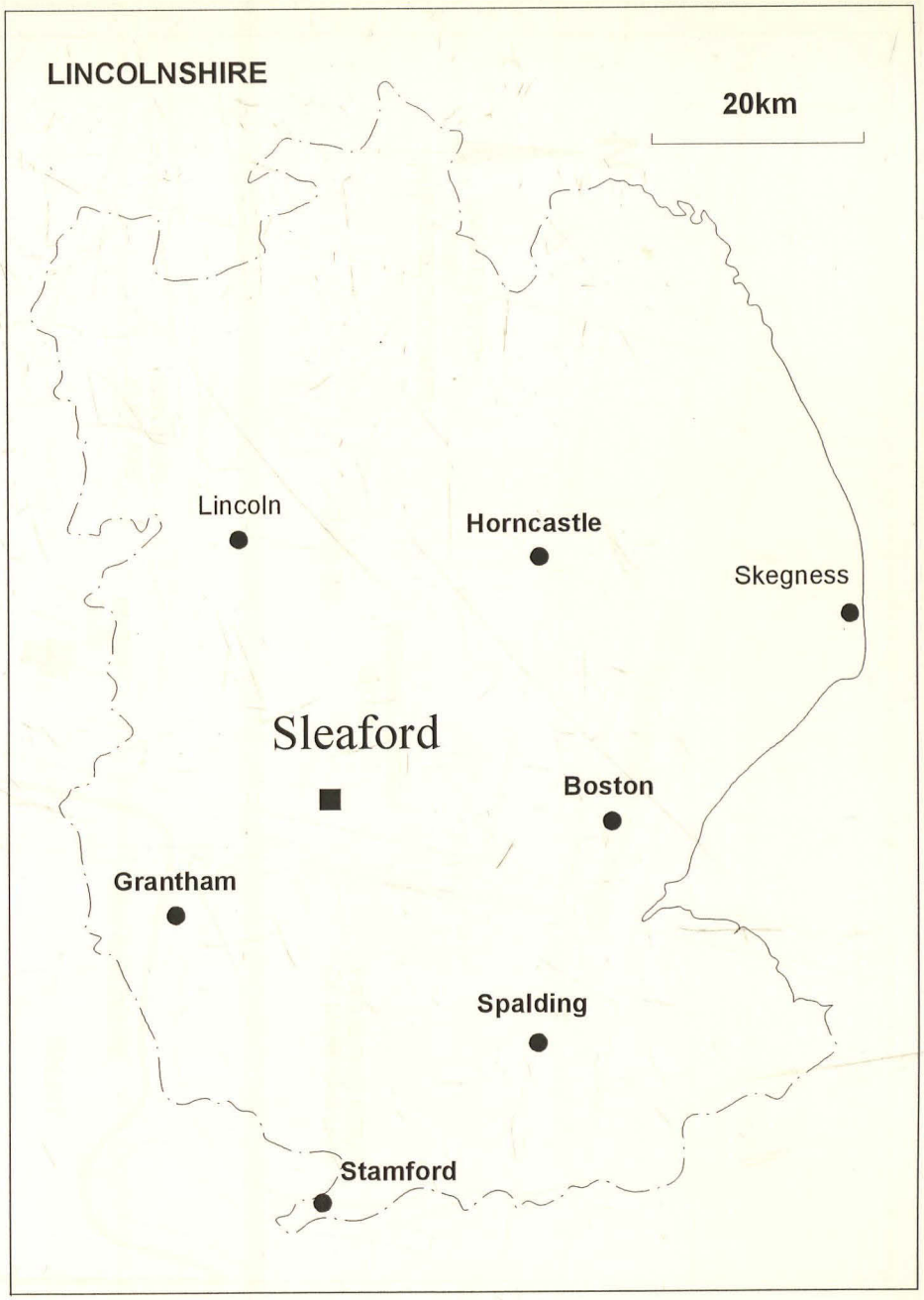


Figure 1 - General Location Plan

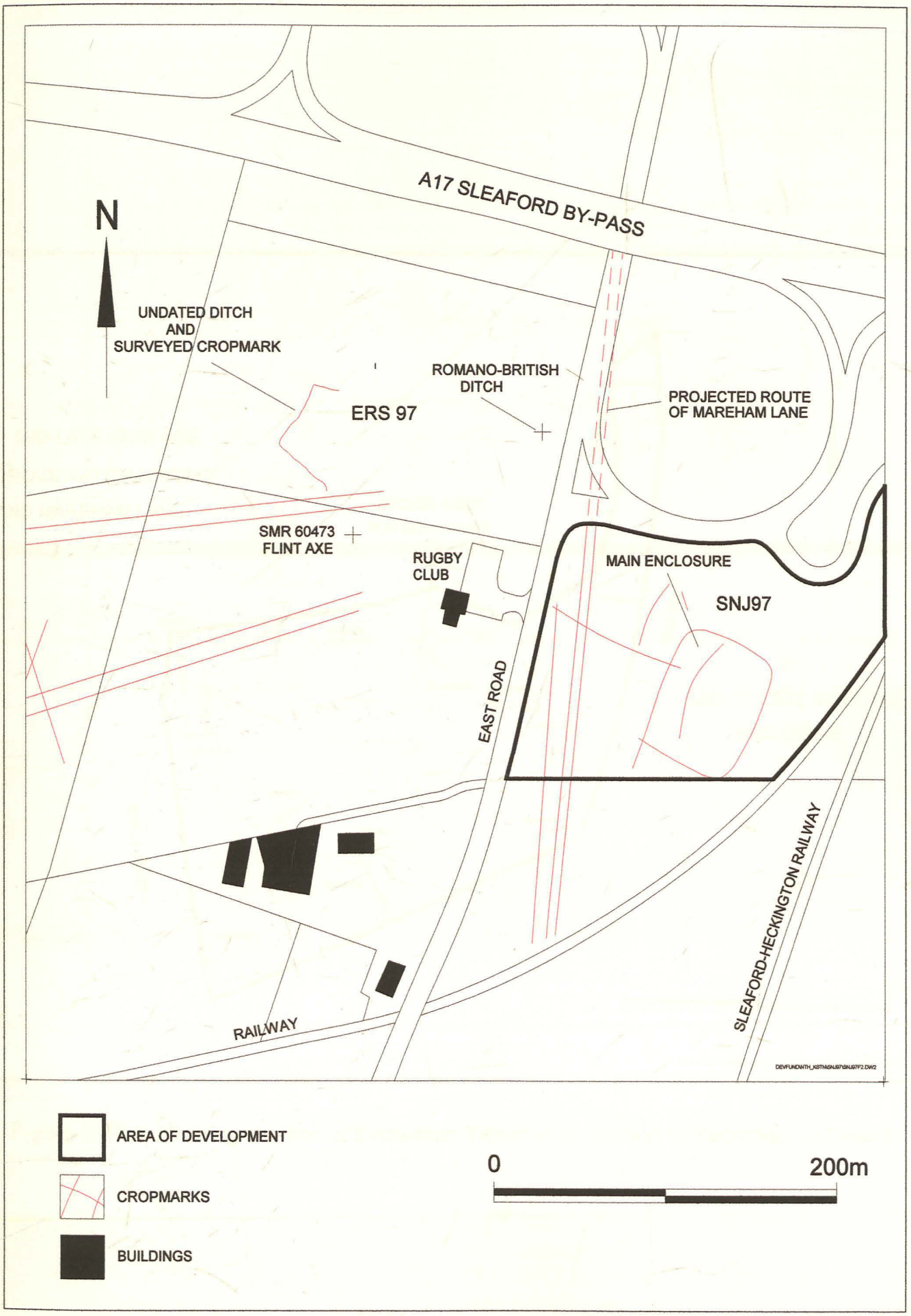


Figure 2: Area of Development Showing Cropmarks and Known Archaeological Remains

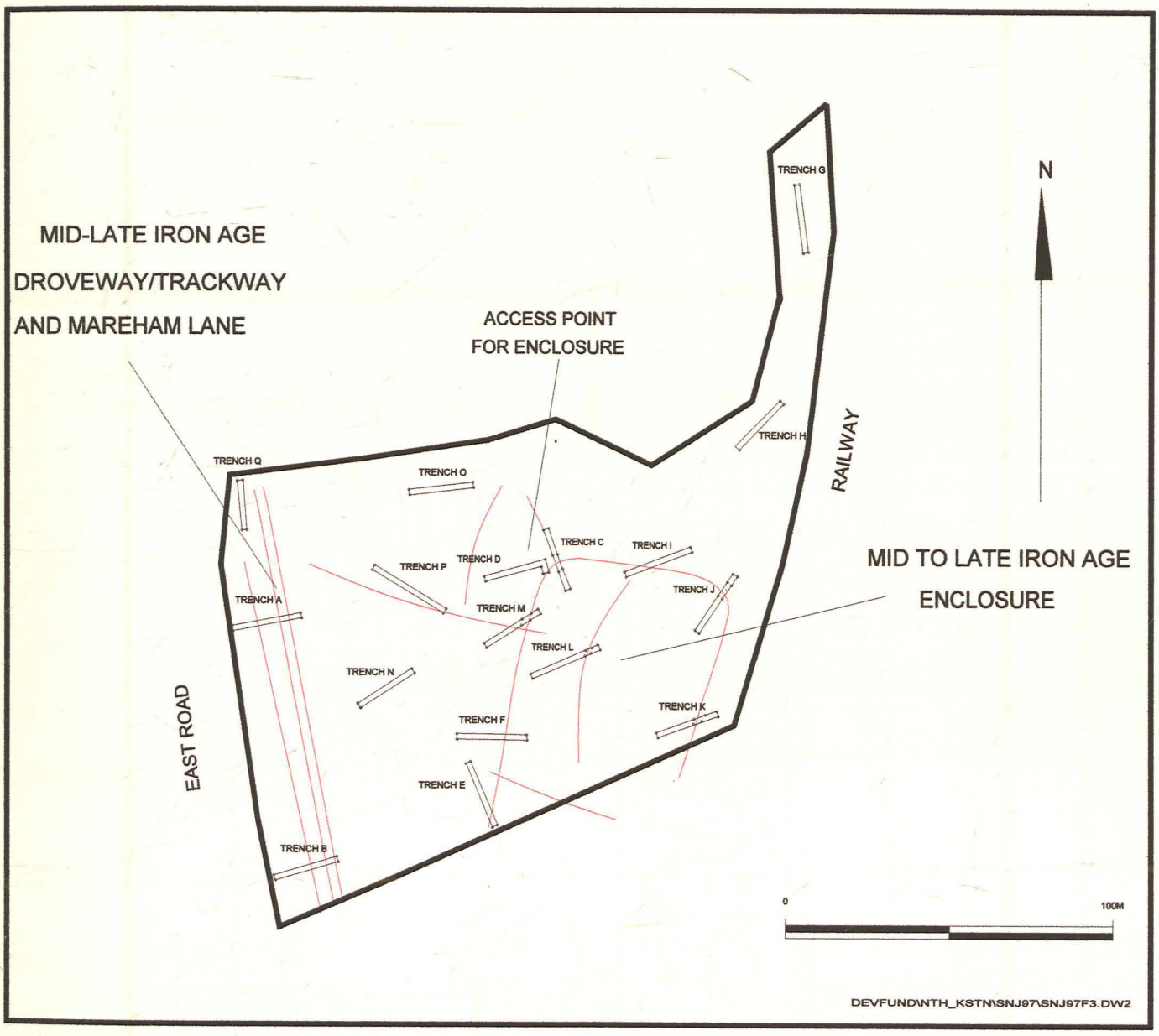


Figure 3: Plan showing location of Evaluation Trenches in relation to Recorded Cropmarks

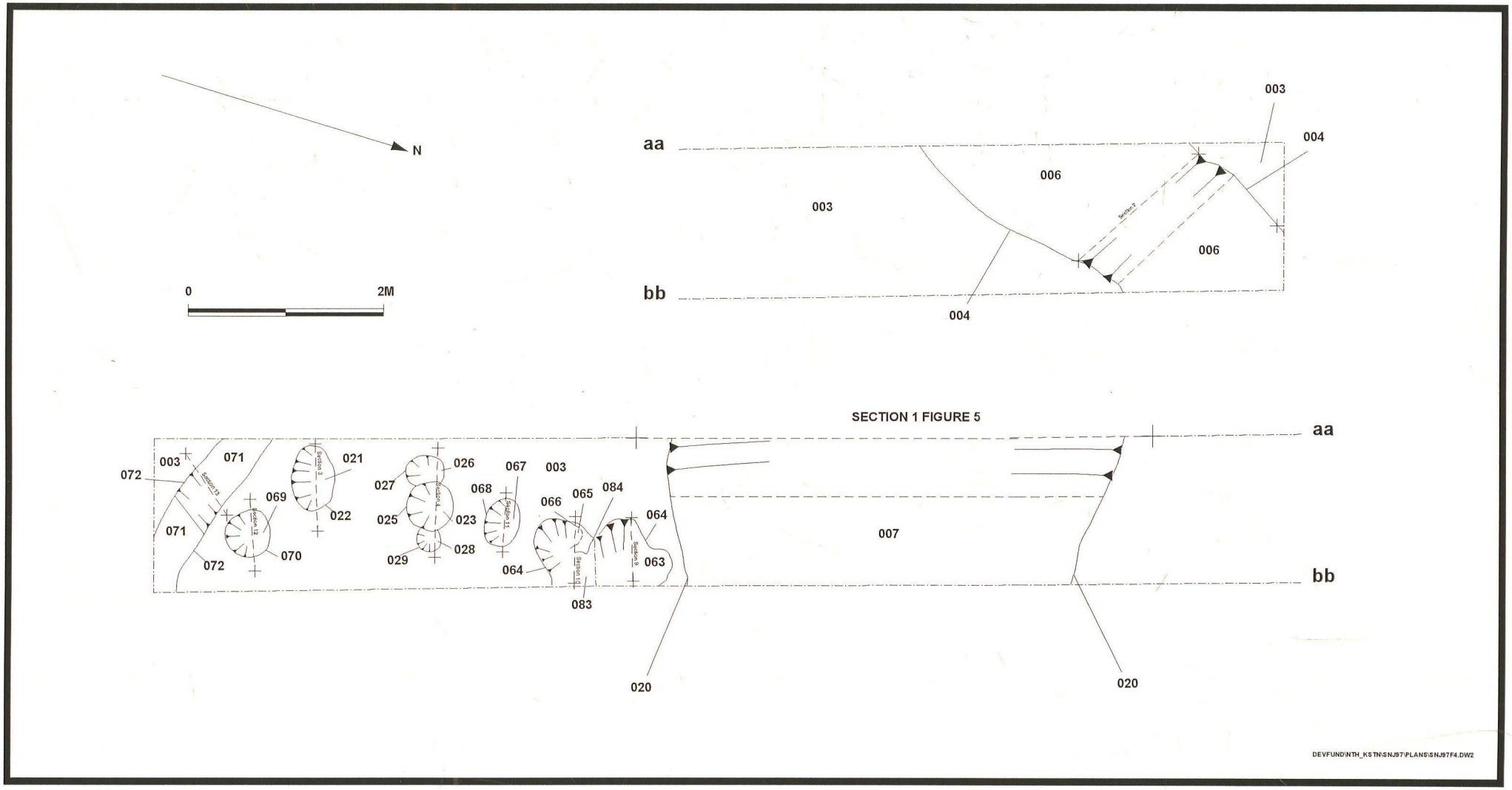


Figure 4: Plan of Trench C showing Structural Remains, Minor Boundaries and the Enclosure Ditch

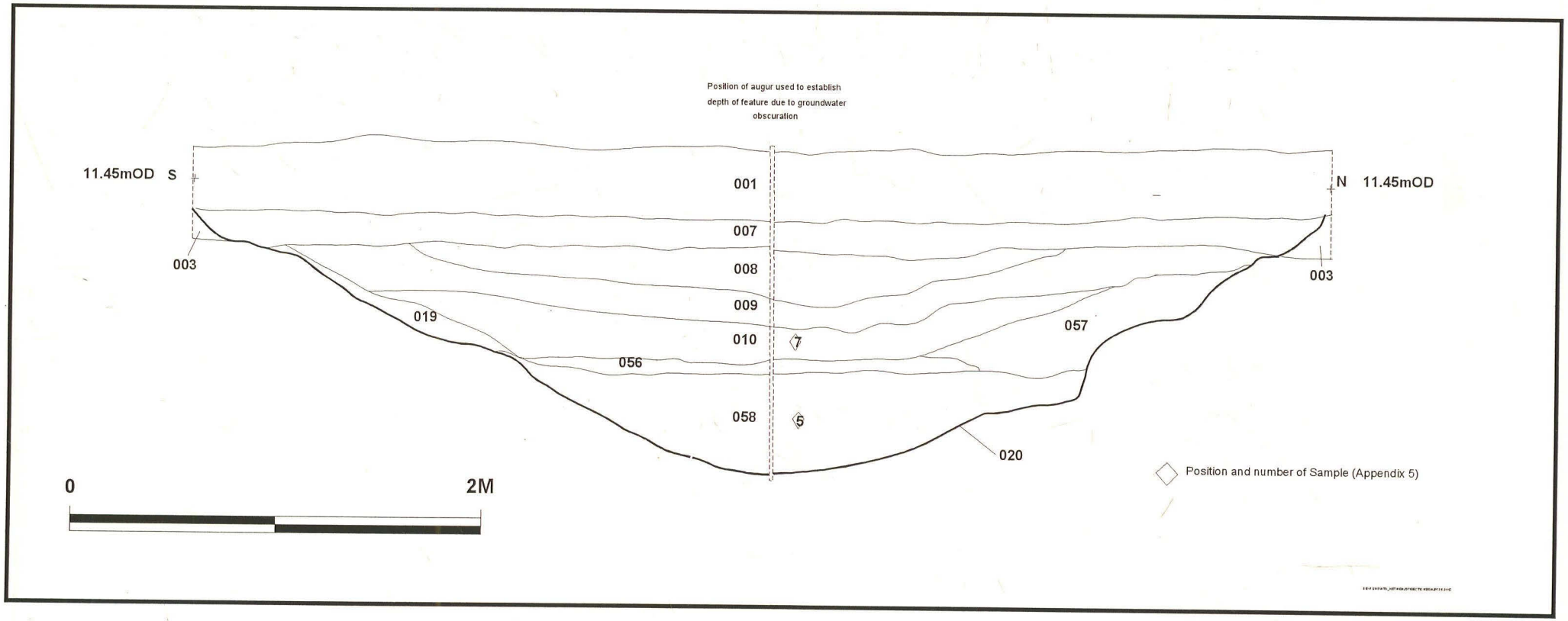


Figure 5: Trench C, Section 1, showing the Excavated Profile of the Enclosure Ditch

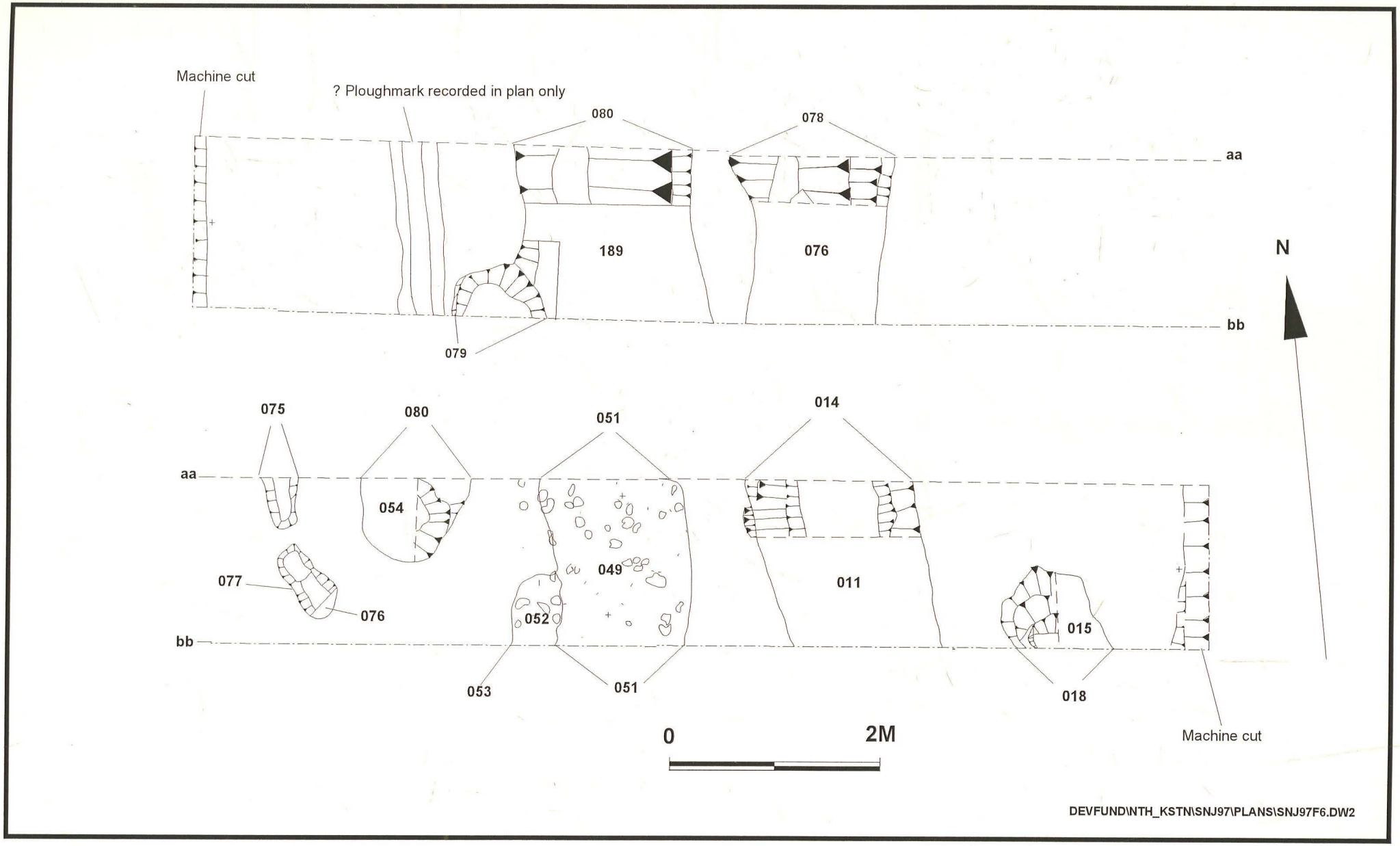
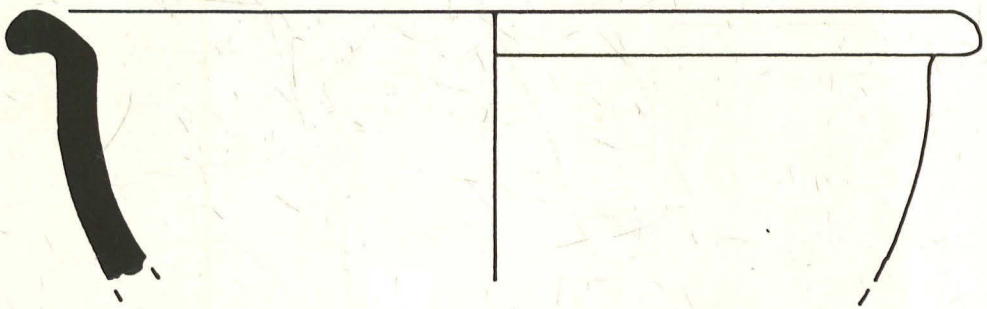
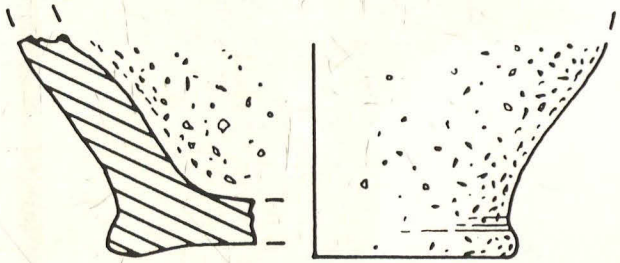


Figure 6: Plan of Trench A showing the Mid-Late Iron Age Droveway overlain by Romano-British surfacing

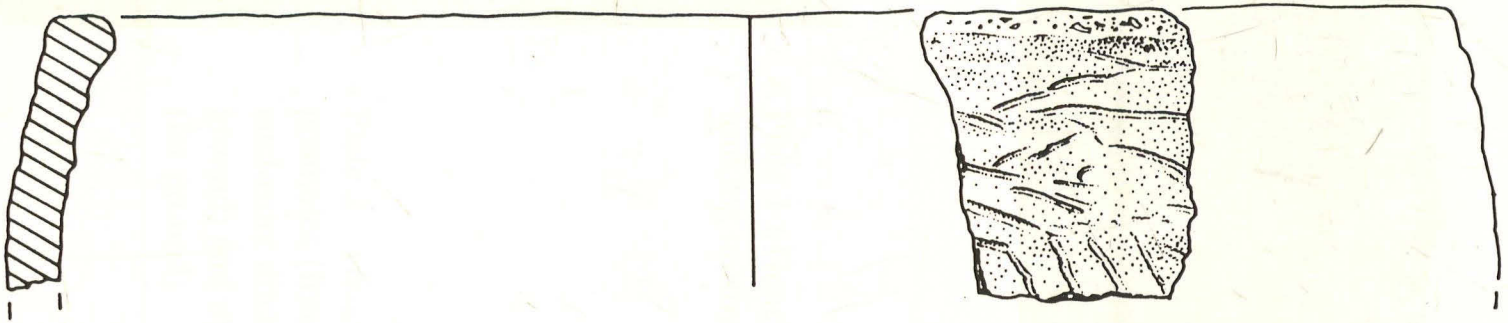
All at 3/4 scale



Romano-British Greyware (086)



Mid-Late Iron Age Shellyware Trench C +



Mid-Late Iron Age Shellyware Trench C +

Figure 7: Romano-British and Mid-Late Iron Age Pottery from SNJ 97

Plate 1 : General site view looking northwest

Plate 2 : Trench C showing postholes (foreground) enclosure ditch (middle ground) and minor boundary (far ground)

Plate 3 : Trench A showing excavated sections through the Mid-Late Iron Age droveway/trackway and later Romano-British surfacing (centre)

Plate 4 : Trench B showing depth and form of wheel-ruts and later surfacing

Appendix 1

ARCHAEOLOGICAL PROJECT BRIEF FOR TRIAL TRENCHING AS PART OF AN EVALUATION AT LAND AT

EAST ROAD INDUSTRIAL PARK, SLEAFORD, LINCS
OS PLOT 0004 (FIELD 5)

Planning Application Number: N/57/0846/94 **NGR:** 507804 346801

Applicant: Farming Investment Company
The Grange
South Kyme
Sleaford

Agent: DB Lawrence and Associates
Cammack House
30 Handley St
Sleaford NG34 7TQ
01529 302 541

1. Summary

1.1 This document sets out the brief for archaeological fieldwork, recording and publication to be carried out prior to the development of land at OS plot 0004. East Road. It sets out the requirements for a programme of trial trenching as the second step in an evaluation of the site.

1.2 This brief should be used by archaeological contractors as the basis for the preparation of a detailed archaeological project specification. In response to this brief contractors will be expected to provide details of the proposed scheme of work, to include the anticipated working methods, timescales and staffing levels.

1.3 All detailed specifications will be submitted by the developer for approval by the Heritage Officer for North Kesteven District Council. The client will be free to choose between those specifications which are considered to adequately satisfy this brief.

2. Site Location and Description

2.1 Sleaford is located approximately 27km south of Lincoln in the district of North Kesteven. The field in question is Field 5 (so numbered in the desk-based assessment report) which is 3.657 hectares in area. It is located between East Road and the Sleaford North railway junction. The field is uncultivated and under rough vegetation. It may have been affected by construction work for the adjacent A 17 sliproads.

3. Planning Background

3.1 Outline planning permission has been applied for to develop this land for general industrial, business and warehousing purposes. The site is within the general East Road Industrial Park development area. Before planning permission can be given, an archaeological evaluation must be completed. The first stage; a desk-based assessment has recently been carried out by Lindsey Archaeological Services.

4. Archaeological Background

4.1 The desk-based assessment examined aerial photographs, maps and records for the whole East Road area and has verified that this area is rich in sites from the Iron Age or Roman period which may be destroyed by the development. The assessment also identified constraints to the archaeological potential of the area such as underground services and land use. Field 5 is not considered to be in a state that would merit a geophysical survey.

4.2 To quote the conclusion of the desk-based assessment report 'the known Roman site to the north of Sleaford Wood has direct archaeological relevance to the development proposal ...The Roman site probably continues into the wood and may extend into Field 2 or even Fields 4 and 5. Field 5, east of Ruskington Road, may contain a Romano-British site with an enclosure complex, directly beside a possible Roman Road'. The Roman Road may well be the continuation of the known Roman Road'. (see enclosed map).

5. Requirement for Work

5.1 The purpose of the archaeological evaluation should be to gather sufficient information to establish the presence/absence, extent, depth, character, quality and date of any archaeological deposits. The trial trenches have been positioned to investigate those anomalies which appeared on the aerial photographs as crop marks, to provide dating evidence and to discover if there are any further remains (see enclosed map).

The results of this assessment should enable a decision on whether the remains should be preserved 'in situ' ie through careful siting of buildings or design of foundations, or whether they should be preserved 'by record' ie through excavation.

5.2 The evaluation will consist of the excavation of eighteen 3m x 10m trial trenches which is an approximately 1.5% sample of the area of Field 5 (see enclosed map). 1.5 % - 2 % is the usual percentage used to evaluate areas by trial trenching as it gives a fairly representitive sample.

As a guide the trenches are to be positioned as follows:

4 along the two parallel north south aligned cropmarks (a possible Roman road)
4 within the rectangular cropmark (a possible Romano-British enclosure)
5 through the ditch of the rectangular cropmark
4 in the blank areas outside the rectangular cropmark
1 through another linear cropmark outside the enclosure

The positioning of the trenches needs to be discussed in more detail with the Heritage Officer.

5.3 Reference should be made to relevant historical sources and previous archaeological work in the area when interpreting the results.

5.4 The investigation should be carried out by a recognised archaeological body in accordance with the code of conduct of the Institute of Field Archaeologists.

6. Methods

6.1 In consideration of methodology the following details should be given in the contractor's specification:

6.1.1 A projected timetable must be agreed for the various stages of work.

6.1.2 The staff structure and numbers must be detailed. This should include lists of specialists and their role in the project.

6.1.3 It is expected that all on site work will be carried out in a way that complies with the relevant Health and Safety legislation and that due consideration will be given to site security.

6.1.4 The recovery and recording strategies to be used must be described in full.

6.1.5 An estimate of time and resources allocated for post-excavation work and report production should be given.

6.1.6 A list of specialists who might be required to conserve or report on finds should be included.

6.2 Excavation is a potentially destructive technique and the specification should include a detailed reasoning behind the application of this technique. The following factors should be borne in mind:

6.2.1 the use of an appropriate machine with a wide toothless ditching blade.

6.2.2 the supervision of all machine work by an archaeologist.

6.2.3 the machine should be used to remove topsoil down to the first archaeological horizon.

6.2.4 the most recent archaeological deposits are not necessarily the least important and this should be considered when determining the level to which machining will be carried out.

6.2.5 when archaeological features are revealed by machine these will be cleaned by hand.

6.2.6 a representative sample of every archaeological feature must be excavated by hand (although the depth of surviving deposits must be determined, it is not expected that every trench will be excavated to natural).

6.2.7 all excavation must be carried out with a view to avoiding features which may be worthy of preservation in situ.

6.2.8 any human remains encountered must be left in situ and only removed if absolutely necessary. The contractor must comply with all statutory consents and licences regarding the exhumation and interment of human remains. It will also be necessary to comply with all reasonable requests of interested parties as to the method of removal, reinterment or disposal of the remains or associated items. Attempts must be made at all times not to cause offence to any interested parties.

6.2.9 it is expected that an approved recording system will be used for all on-site and post-fieldwork procedures.

7. Monitoring Arrangements

7.1 The Heritage Officer will be responsible for monitoring progress to ensure that fieldwork meets the specification. To facilitate this she should be contacted at least one week prior to the commencement of fieldwork.

7.2 Any adjustments to the brief for the evaluation should only be made after discussion with the Heritage Officer for North Kesteven District Council. If any major archaeological discovery is made it is hoped that this will be accommodated within the scheme, and preservation in situ be given due consideration.

8. Reporting Requirements

8.1 The evaluation report should be produced to the level outlined in The Management of Archaeological Projects, Appendix 3, English Heritage, 1991 and should be produced within two months of the completion of the fieldwork phase. If this is not possible then the Heritage Officer must be consulted at the earliest possible opportunity. The report should include:

8.2.1 plans of the trench layout and features therein.

8.2.2 tables summarising features and artefacts together with a full description and brief interpretation.

8.2.3 section and plan drawings with ground level Ordnance Datum, vertical and horizontal scales as appropriate.

8.2.4 plans of actual and potential deposits.

8.2.5 a consideration of the evidence within the wider landscape setting.

8.2.6 a consideration of the importance of the findings on a local, regional and national basis.

8.2.7 a critical review of the effectiveness of the methodology;

8.3 A copy of the evaluation report must be deposited with Lincolnshire Sites and Monuments Record, the Heritage Officer and the client.

9. Archive Deposition

9.1 Arrangements must be made with the landowner(s) and/or developers and an appropriate museum for the deposition of the object and paper archive. If the receiving museum is to be the City and County Museum, Lincoln then the archive should be produced in the form outlined in that museum's document 'Conditions for the Acceptance of Project Archives', see address below.

10. Publication and Dissemination

10.1 The deposition of a copy of the report with the Lincolnshire Sites and Monuments Record and with the Heritage Officer will be deemed to put all information into the public domain, unless a special request is made for confidentiality. If material is to be held in confidence a timescale must be agreed with the Heritage Officer but is expected this will not exceed six months.

10.2 Consideration must be given to a summary of the results being published in Lincolnshire History and Archaeology in due course.

11. Additional Information

11.1 This document attempts to define the best practice expected of an archaeological evaluation but cannot fully anticipate the conditions that will be encountered as work progresses. However, changes to the approved programme of evaluation work are only to be made with the prior written approval of the Heritage Officer.

11.2 Further contact addresses:

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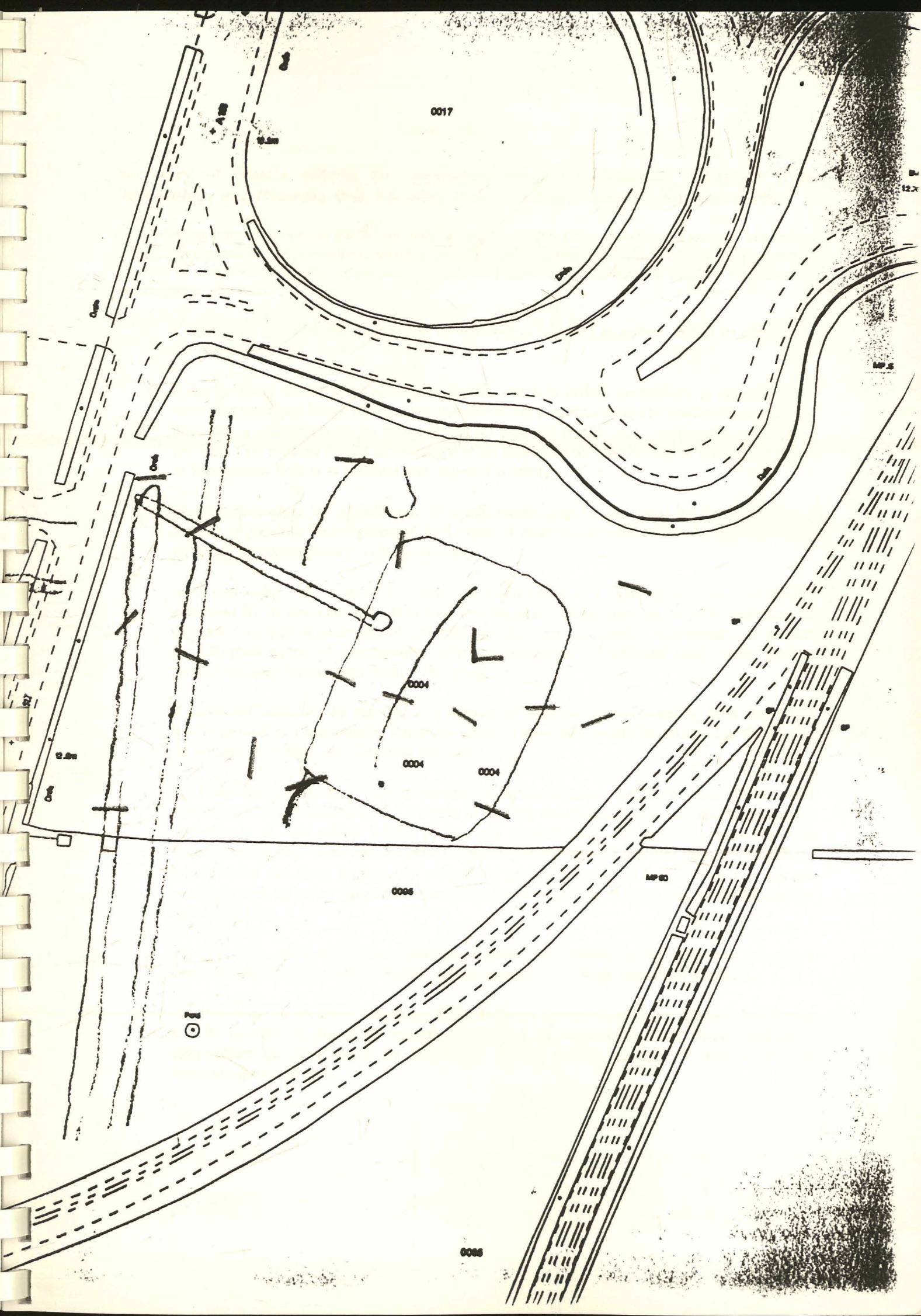
Brief set by the North Kesteven Heritage Officer 6/11/1996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Appendix 2

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 3

Context Summary

Context Number	Trench	Description	Phase	Interpretation
001	all	Soft, dark brown loamy soil containing frequent small to medium stones and roots. Approximately 0.36m thick.	4	Topsoil, overlying (002)
002	all except F,H,I,L	Soft, mid brown silty sand containing frequent small to medium stones. Approximately 0.19m thick.	2	Subsoil deposit
003	all	Loose, yellowish-orange sandy gravel. Approximately 1m thick to the limit of excavation (LOE).	1	Natural deposit, recorded to LOE
004	C	Linear cut with sharp sides and a concave base. Approximately 1.75m wide x 0.33m deep x 2.6m long to LOE.	2	Gully, cutting (003)
005	C	Loose, mid brown sandy silt containing frequent pebbles. Approximately 60mm thick.	2	Primary fill of (004)
006	C	Loose, mid brown sandy silt containing occasional angular flints and pebbles. Approximately 0.27m thick.	2	Fill of (004), overlying (005)
007	C	Loose, dark orange-brown sandy silt containing moderate flint and pebbles. Approximately 0.18m thick.	2	Fill of (020), overlying (008)
008	C	Loose, dark grey-brown silty sand containing occasional flint and pebbles. Approximately 0.26m thick.	2	Fill of (020), overlying (009)
009	C	Loose, very dark grey-brown silty sand containing occasional flint and pebbles. Approximately 0.2m thick.	2	Fill of (020), overlying (010)
010	C	Plastic, mid grey clayey silt containing frequent charcoal flecks and moderate flints and pebbles. Approximately 0.26m thick.	2	Fill of (020), overlying (019) and (057)
011	A	Firm, mid yellowish-brown sand containing occasional stones and roots. Approximately 0.2m thick.	2	Fill of (014), overlying (012)
012	A	Firm, mid greyish-yellow sand containing moderate stones. Approximately 0.15m thick.	2	Fill of (014), overlying (013)
013	A	Soft, dark grey-brown silty sandy gravel containing moderate stones. Approximately 0.21m thick.	2	Primary fill of (014)
014	A	Linear cut with steep concave sides and a broad concave base. Approximately 1.7m wide x 0.65m deep x 1.5m long to LOE.	2	Ditch, cutting (003)
015	A	Soft, dark greyish-yellow silty sand containing occasional stones and roots. Approximately 85mm thick.	2	Fill of (018), overlying (016)
016	A	Soft, mid brownish-grey silty sand containing occasional stones and roots. Approximately 45mm thick.	2	Fill of (018), overlying (017)
017	A	Firm, light yellow sand containing frequent gravel. Approximately 80mm thick.	2	Primary fill of (018)
018	A	Circular cut with shallow irregular sides and an uneven base. Approximately 1m long x 0.65m wide x 0.25m deep to LOE.	2	Pit, cutting (003)
019	C	Loose, mid brown/yellow-orange sand containing moderate pebbles. Approximately 0.13m thick.	2	Fill of (020), overlying (056)

Context Number	Trench	Description	Phase	Interpretation
020	C	Linear cut with gradual concave sides and a concave base. Approximately 5.9m wide x 1.2m deep x 1.5m long to LOE.	2	Ditch, cutting (003)
021	C	Loose, dark grey-brown/orange sandy silt containing moderate flint and pebbles. Approximately 0.14m thick.	2	Primary fill of (022)
022	C	Circular cut with gradual concave sides and base. Approximately 0.65m diameter x 0.14m deep.	2	Posthole, cutting (003)
023	C	Loose, dark grey-brown/orange-brown sandy silt containing frequent rounded pebbles and moderate charcoal flecks. Approximately 0.28m thick.	2	Fill of (025), overlying (024)
024	C	Loose, dark blackish-grey/brown sandy silt containing frequent charcoal flecks and moderate pebbles. Approximately 70mm thick.	2	Primary fill of (025)
025	C	Circular cut with steep concave sides and a concave base. Approximately 0.5m diameter x 0.3m deep.	2	Posthole, cutting (026) and (028)
026	C	Loose, light brown silty sand containing frequent flints and pebbles. Approximately 70mm thick.	2	Primary fill of (027)
027	C	Circular cut with concave sides and base. Approximately 0.3m diameter x 80mm deep.	2	Posthole, cutting (003)
028	C	Loose, light brown sandy silt containing frequent flint and pebbles. Approximately 70mm thick.	2	Primary fill of (029)
029	C	Circular cut with concave sides and base. Approximately 0.2m diameter x 70mm deep.	2	Posthole, cutting (003)
030	B	Linear cut with steep sides and a broad flat base. Approximately 1.6m wide x 0.55m deep x 1.5m long to LOE.	2	Ditch, cutting (033)
031	B	Loose, mid yellowish-brown sand containing moderate roots, limestone fragments and pea-grit. Approximately 0.55m thick.	2	Primary fill of (030)
032	all except F,H,I,L	Loose, dark greyish-brown silty sand containing moderate limestone fragments, pea-grit and occasional charcoal. Approximately 40mm thick (same as 002).	2	Subsoil deposit
033	ALL	Loose, light reddish-brown sand containing moderate sandstone fragments and iron pan. Approximately 1m thick to LOE (same as 003).	1	Natural deposit, recorded at LOE
034	B	Linear cut with vertical sides and a broad, flat base. Approximately 0.65m wide x 0.5m deep x 1.5m long to LOE.	2	Ditch, cutting (003)
035	B	Loose, mid yellowish grey-brown sand containing occasional limestone fragments and moderate pea-grit. Approximately 0.6m thick.	2	Primary fill of (034)
036	B	Linear cut with shallow, irregular sides and an uneven, rutted base. Approximately 3.1m wide x 0.2m deep x 1.5m long to LOE.	3	Wheel-ruts, cutting (033)
037	B	Amorphous cut with a steep side. Approximately 0.25m wide x 0.4m deep x 1.5m long to LOE.	2	Possible pit, cutting (033)
038	B	Loose, greyish-brown silty sand containing occasional sub-angular pebbles. Approximately 50mm thick.	2	Layer, overlying (033)
039	E	Linear cut with gradual sides and a concave base. Approximately 1m wide x 0.25m deep x 1.8m long to LOE.	2	Gully, cutting (003)

Context Number	Trench	Description	Phase	Interpretation
040	E	Loose, light to mid grey-brown silty sand containing occasional stones. Approximately 0.25m thick.	2	Primary fill of (039)
041	E	Same as (040).	2	Primary fill of (039)
042	E	Same as (002).	2	Subsoil deposit
043	B	Loose, mottled yellow-orange sand. Approximately 0.1m thick.	2	Lens within (044)
044	B	Loose, dark grey silty sand. Approximately 0.2m thick.	2	Primary fill of (037)
045	B	Compact, sub-angular and sub-rounded stones (60-80mm) within a coarse grey sand matrix. Approximately 0.15m thick.	3	Primary fill of (059)
046	B	Loose, light greyish-orange clayey silty sand. Approximately 0.15m thick.	3	Fill of (059), overlying (045)
047	B	Firm, rounded and sub-rounded stones (80-100mm) within a coarse grey sand matrix. Approximately 0.15m thick.	3	Primary fill of (036)
048	B	Loose, light orange-grey coarse sandy silt. Approximately 0.12m thick.	3	Fill of (036), overlying (047)
049	A	Compact, rounded and sub-angular stones (40-100mm). Approximately 30mm thick.	3	Fill of (051), overlying (050)
050	A	Soft, dark brown sandy silt containing frequent stones and occasional fire-cracked pebbles. Approximately 0.3m thick.	3	Primary fill of (051)
051	A	Linear cut with steep, irregular sides and a flat base. Approximately 0.3m deep x 1.4m wide x 1.5m long to LOE.	3	Wheel-ruts, cutting (052)
052	A	Compact, dark grey sandy silt containing occasional stones and roots. Approximately 0.17m thick.	2	Primary fill of (053)
053	A	Linear cut terminal with steep sides and a gently sloping base. Approximately 0.2m deep x 0.45m wide x 0.7m long to LOE.	2	Gully, cutting (003)
054	A	Firm, mid greyish-brown silty sand containing occasional small stones. Approximately 0.14m thick.	2	Primary fill of (055)
055	A	Sub-circular cut with steep concave sides and base. Approximately 0.75m wide x 0.2m deep x 0.4m long.	2	Pit, cutting (003)
056	C	Loose, dark red-brown sandy silt containing frequent pebbles and iron pan. Approximately 70mm thick.	2	Fill of (020), overlying (058)
057	C	Loose, mid grey-brown sand containing moderate pebbles. Approximately 0.35m thick.	2	Fill of (020), overlying (056)
058	C	Loose, blackish-grey organic sand containing frequent pebbles and fragments of vegetation. Approximately 0.33m thick.	2	Primary fill of (020)
059	B	Linear cut with vertical sides and a flat base. Approximately 0.3m deep x 0.4m wide x 1.5m long to LOE.	3	Wheel-ruts, cutting (044)
060	I	Soft, dark blackish-brown sandy silt containing occasional flecks of charcoal. Approximately 0.25m thick.	2	Fill of (062), overlying (061)
061	I	Loose, mid grey-brown sandy silt containing moderate stones. Approximately 50mm thick.	2	Primary fill of (062)
062	I	Linear cut with vertical sides and a narrow flat base. Approximately 0.3m deep x 0.35m wide x 2m long to LOE.	2	?Post-trench, cutting (003)

Context Number	Trench	Description	Phase	Interpretation
063	C	Loose, mid brown sandy silt containing flint and pebbles. Approximately 15mm thick.	2	Primary fill of (064)
064	C	Sub-circular cut with gradual concave sides and base. Approximately 1.4m long x 0.14m deep x 0.85m wide to LOE.	2	Posthole, cutting (003)
065	C	Loose, mid brownish-orange sandy silt. Approximately 50mm thick.	2	Primary fill of (066)
066	C	Circular cut with steep sides and a concave base. Approximately 0.2m diameter x 50mm deep.	2	Posthole, cutting (063)
067	C	Loose, mid brown sandy silt containing moderate pebbles and flint. Approximately 80mm thick.	2	Primary fill of (068)
068	C	Circular cut with steep sides and a concave base. Approximately 0.43m diameter x 80mm deep.	2	Posthole, cutting (003)
069	C	Loose, mid brown sandy silt containing moderate pebbles and flint. Approximately 0.13m thick.	2	Primary fill of (070)
070	C	Circular cut with steep sides and a concave base. Approximately 0.5m diameter x 0.13m deep.	2	Posthole, cutting (003)
071	C	Loose, mid brown sandy silt containing moderate pebbles and flint. Approximately 0.15m thick.	2	Primary fill of (072)
072	C	Slightly curving cut with gradual sides and a concave base. Approximately 0.5m wide x 0.15m deep x 1.9m long to LOE.	2	Gully, cutting (003)
073	B	Firm, mid brown silty clay. Approximately 0.23m thick.	3	Layer, overlying (038), (048) and (046)
074	A	Soft, dark grey sand containing moderate stones. Approximately 0.12m thick.	2	Primary fill of (075)
075	A	Sub-rectangular cut with steep sides and a concave base. Approximately 0.32m wide x 0.12m deep x 0.44m long to LOE.	2	?Animal burrow, cutting (003)
076	A	Soft, dark grey silty sand containing occasional small stones. Approximately 0.1m thick.	2	Primary fill of (077)
077	A	Sub-rectangular cut with steep sides and an irregular concave base. Approximately 0.47m wide x 0.77m long x 0.1m deep.	2	?Animal burrow, cutting (003)
078	A	Linear cut with steep sides and a broad, flat base. Approximately 1.95m wide x 0.55m deep x 1.6m long to LOE.	2	Ditch, cutting (003)
079	A	Sub-circular cut with vertical sides and a broad concave base. Approximately 0.5m wide x 0.45m deep x 0.9m long to LOE.	2	Pit, cutting (198)
080	A	Linear cut with steep sides and a broad, flat base. Approximately 1.85m wide x 0.5m deep x 1.58m long to LOE.	2	Ditch, cutting (003)
081	A	Firm, mid brownish-orange silty sand containing frequent gravels and stones. Approximately 0.28m thick.	2	Fill of (078), overlying (096)
082	A	Firm, mid brownish-orange silty sand containing moderate stones and roots. Approximately 0.26m thick.	2	Fill of (079), overlying (099)
083	C	Loose, mid brown sandy silt containing flint and pebbles. Approximately 0.18m thick.	2	Primary fill of (084)

Context Number	Trench	Description	Phase	Interpretation
084	C	Circular cut with steep sides and a flat base. Approximately 0.3m diameter x 0.2m deep to the LOE.	2	Posthole, cutting (063)
085	H	Linear cut with steep concave sides and a concave base. Approximately 0.9m wide x 0.25m deep x 2.1m long to LOE.	3	Gully, cutting (003)
086	H	Friable, dark grey/red mottle clayey sand containing moderate pebbles. Approximately 0.25m thick.	3	Primary fill of (085)
087	H	Sub-circular cut with steep sides and a narrow, blunt base. Approximately 1.3m wide x 0.55m deep x 1.4m long to LOE.	2	?Post-trench, cutting (003)
088	H	Loose, dark grey silty sand containing occasional pebbles. Approximately 0.53m thick.	2	Primary fill of (087)
089	Q	Amorphous cut with concave sides and base. Approximately 0.8m wide x 0.2m deep x 1.27m long.	2	Pit, cutting (003)
090	Q	Firm, blackish-grey organic sand containing occasional stones. Approximately 0.2m thick.	2	Primary fill of (089)
091	Q	Circular cut with concave sides and base. Approximately 0.79m long x 0.35m wide x 0.25m deep to LOE.	2	Pit, cutting (003)
092	Q	Firm, greyish-brown organic sand containing occasional small stones. Approximately 0.25m thick.	2	Primary fill of (091)
093	H	Firm, grey-brown sandy silt. Approximately 0.14m thick.	2	Fill of (087), overlying (088)
094	H	Linear cut with vertical sides and a narrow blunt base. Approximately 0.4m long x 0.47m deep x o.39m wide.	2	?Post-trench, cutting (093)
095	H	Firm, greyish-yellow silty sand. Approximately 0.47m thick.	2	Primary fill of (094)
096	A	Firm, mid brownish-yellow silty sand containing occasional stones. Approximately 0.22m thick.	2	Fill of (078), overlying (097)
097	A	Soft, mid grey sandy silt containing occasional gravels and roots. Approximately 0.14m thick.	2	Fill of (078), overlying (098)
098	A	Soft, mid greyish-brown gravelly silt containing occasional stones. Approximately 0.15m thick.	2	Primary fill of (078)
099	A	Soft, dark brown sandy clayey silt containing moderate gravel. Approximately 0.31m thick.	2	Fill of (079), overlying (100)
100	A	Loose gravel. Approximately 90mm thick.	2	Primary fill of (079)
101	A	Firm, mid yellowish-brown sandy clay containing moderate small stones. Approximately 0.3m thick.	2	Fill of (080)
102	A	Firm, light greyish-yellow clayey silty sand containing moderate gravel. Approximately 90mm thick.	2	Primary fill of (080)
103	L	Linear cut with concave sides and an uneven base. Approximately 1.6m long x 1.7m wide x 0.55m deep.	2	Gully, cutting (113)
104	L	Firm, mid reddish-brown sandy silt containing occasional stones. Approximately 0.5m thick.	2	Fill of (103), overlying (105)
105	L	Firm, mid yellowish-brown sandy silt containing frequent stones. Approximately 90mm deep.	2	Primary fill of (103)
106	M	Soft, mid brown sand containing moderate lenses of blckish-grey silty sand. Approximately 0.35m thick.	2	Primary fill of (107)

Context Number	Trench	Description	Phase	Interpretation
107	M	Amorphous cut with gradual sides and a flat base. Approximately 0.35m deep x 1.2m wide x 1.55m long.	2	?Possible gully, cutting (003)
108	M	Firm, light brown sand containing occasional stones. Approximately 0.15m thick.	2	Primary fill of (109)
109	M	Sub-rectangular cut with gradual sides and a flat base. Approximately 0.5m wide x 0.15m deep x 0.5m long to LOE.	2	?Posthole, cutting (003)
110	M	Soft, light to mid brown sand containing moderate grit and occasional stone. Approximately 0.3m thick.	2	Primary fill of (111)
111	M	Sub-circular cut with vertical sides and a slightly concave base. Approximately 0.4m long x 0.3m wide x 0.3m deep.	2	Posthole, cutting (002)
112	L	Linear cut with concave sides and base. Approximately 1.9m wide x 50mm deep x 1.5m long to LOE.	2	Gully, cutting (003)
113	L	Soft, light yellowish-brown sandy silt containing moderate stones. Approximately 50mm thick.	2	Primary fill of (112)
114	L	Linear cut (unexcavated).	2	Gully, cutting (193)
115	L	Soft, mid reddish-brown sandy silt containing occasional stones (unexcavated).	2	Layer, overlying (192)
116	D	Sub-circular cut with concave sides and base. Approximately 3.5m wide x 1.1m deep x 1.4m long to LOE.	2	Ditch terminal, cutting (003)
117	D	Same as (127).	2	Primary fill of (020)
118	O	Linear cut with steep sides and a flat base. Approximately 0.58m wide x 0.26m deep x 1.8m long.	2	Post-trench, cutting (033)
119	O	Loose, mid grey-brown silty sand containing occasional charcoal flecks and stones. Approximately 0.26m thick.	2	Primary fill of (118)
120	O	Linear cut (unexcavated).	2	?Gully, cutting (003)
121	O	Loose, dark greyish-brown silty sand containing occasional stones (unexcavated).	2	Fill of (120)
122	O	Linear cut (unexcavated).	2	?Gully cutting (003)
123	O	Loose, dark greyish-brown silty sand containing occasional stones (unexcavated).	2	Fill of (122)
124	D	Loose, dark greyish-brown silty sand containing occasional flint fragments. Approximately 0.47m thick.	2	Fill of (020), overlying (125)
125	D	Loose, very dark greyish-brown silty sand containing occasional flint fragments. Approximately 0.53m thick.	2	Fill of (020), overlying (126)
126	D	Loose, dark reddish-brown sandy silt containing frequent pebbles and iron-pan. Approximately 50mm thick.	2	Fill of (020), overlying (117/127)
127	D	Loose, blackish-grey organic sand containing frequent pebbles and organic fragments. Approximately 0.42m thick. Same as (117).	2	Primary fill of (020)
128	I	Soft, mid reddish-brown sandy silt. Approximately 0.2m thick.	2	Fill of (131), overlying (129)
129	I	Firm, mid blackish-brown sandy silt containing occasional stones. Approximately 0.35m thick.	2	Fill of (131), overlying (130)
130	I	Firm, mid grey-brown sandy silt containing occasional stones. Approximately 0.15m thick.	2	Primary fill of (131)

Context Number	Trench	Description	Phase	Interpretation
131	I	Curvilinear cut with steep concave sides and an uneven base. Approximately 2m wide x 0.5m deep x 1.5m long to LOE.	2	Gully, cutting (003)
132	I	Soft, mid reddish-brown sandy silt. Approximately 0.2m thick.	2	Fill of (136), overlying (133)
133	I	Firm, mid yellowish-brown sandy silt containing moderate stones. Approximately 0.1m thick.	2	Fill of (136), overlying (134)
134	I	Firm, mid to dark brown sandy silt containing occasional stones. Approximately 0.4m thick.	2	Fill of (136), overlying (135)
135	I	Firm, light brown sandy silt containing occasional gravels. Approximately 50mm thick.	2	Primary fill of (136)
136	I	Linear cut with steep concave sides and a concave base. Approximately 1.7m wide x 0.7m deep x 1.5m long to LOE.	2	Ditch, cutting (003)
137	P	Linear cut. Approximately 0.6m wide x 2.2m long (unexcavated).	2	Gully, cutting (003)
138	P	Not recorded	2	Fill of (137)
139	P	Linear cut. Approximately 1.3m wide x 2.6m long (unexcavated).	2	Ditch, cutting (003)
140	P	Not recorded	2	Fill of (139)
141	P	Sub-rectangular cut with rounded corners. Approximately 0.8m wide x 0.8m long (unexcavated).	2	?Pit, cutting (003)
142	P	Not recorded	2	Fill of (141)
143	P	Not used	*	*
144	P	Not used	*	*
145	P	Curvilinear cut. Approximately 0.2m wide x 2m long (unexcavated).	2	Gully, cutting (003)
146	P	Not recorded	2	Fill of (145)
147	P	Sub-rectangular cut with rounded corners. Approximately 0.6m long x 0.4m wide (unexcavated).	2	?Pit, cutting (003)
148	P	Not recorded	2	Fill of (147)
149	I	Firm, mid reddish-brown sandy silt. Approximately 0.15m thick.	2	Primary fill of (197)
150	I	Circular cut with concave sides and base. Approximately 0.2m diameter x 0.1m deep.	4	Grave, cutting (003)
151	I	Soft, light greyish-brown sandy silt containing animal skeleton. Approximately 0.1m thick.	4	Primary fill of (150)
152	D	Loose, greyish-brown sandy silt (unexcavated).	2	Primary fill of (153)
153	D	Linear cut (unexcavated).	2	?Gully, cutting (003)
154	D	Loose, orange-brown sandy silt containing frequent pebbles. Approximately 0.5m thick.	2	Primary fill of (155)
155	D	Linear cut with gradual concave sides and an undulating base. Approximately 2.6m wide x 0.4m deep x 1.5m long to LOE.	2	Gully, cutting (152) and (156)

Context Number	Trench	Description	Phase	Interpretation
156	D	Soft, dark to mid brown sandy silt containing frequent pebbles (unexcavated).	2	Primary fill of (157)
157	D	Linear cut (unexcavated).	2	Gully, cutting (003)
158	D	Firm, dark brown sandy silt containing moderate pebbles. Approximately 0.4m thick.	2	Fill of (159)
159	D	Linear cut with gradual concave sides and a concave base. Approximately 1.3m wide x 0.3m deep x 1.5m long.	2	Gully, cutting (002)
160	D	Friable, dark brown sandy silt containing moderate pebbles. Approximately 0.3m thick.	2	Primary fill of (161)
161	D	Linear cut with concave sides and base. Approximately 0.3m deep x 0.6m wide x 1.5m long to LOE.	2	Gully, cutting (002)
162	D	Friable, dark brown sandy silt containing occasional pebbles. Approximately 0.2m thick.	2	Primary fill of (163)
163	D	Circular cut with vertical sides and a concave base. Approximately 0.25m diameter x 0.35m wide.	2	Posthole, cutting (003)
164	D	Friable, dark brown sandy silt containing occasional pebbles. Approximately 0.1m thick.	2	Primary fill of (165)
165	D	Sub-circular cut with gradual sides and an uneven base. Approximately 0.35m diameter x 0.1m deep.	2	Posthole, cutting (003)
166	D	Loose, dark orange-grey sand containing moderate pebbles (unexcavated).	2	Primary fill of (167)
167	D	Rectilinear cut. Approximately 2.3m long x 0.3m wide (unexcavated).	2	?Gully, cutting (003)
168	L	Soft, mid grey-brown sandy silt. Approximately 0.3m thick.	2	Primary fill of (169)
169	L	Sub-circular cut with steep sides and an irregular base. Approximately 1.85m long x 0.3m deep x 0.3m wide to the LOE.	2	?Pit, cutting (003)
170	J	Firm, mid grey gravelly sandy silt containing frequent stones. Approximately 0.15m thick.	2	Fill of (196), overlying (171)
171	J	Firm, dark brown sandy gravelly silt containing frequent stones. Approximately 0.25m thick.	2	Fill of (196), overlying (173)
172	J	Firm, reddish-brown sandy gravelly silt. Approximately 0.15m thick.	2	Fill of (196), overlying (173)
173	J	Soft, dark blackish-grey sandy gravelly silt containing frequent stones. Approximately 0.15m thick.	2	Primary fill of (196)
174	J	Soft, mid brownish-grey clayey sandy silt containing moderate stones. Approximately 0.3m thick.	2	Primary fill of (175)
175	J	Linear cut with steep sides and a narrow concave base. Approximately 1.05m wide x 0.35m deep x 0.5m long to the LOE.	2	Gully, cutting (171)
176	J	Firm, dark brownish-grey sandy silt containing frequent stones (unexcavated).	2	Primary fill of (177)
177	J	Circular cut (unexcavated).	2	?Pit, cutting (002)
178	*	Not used.	*	*
179	F	Linear cut with steep sides and a concave base. Approximately 3m wide x 0.95m deep x 1.5m long to the LOE.	2	Ditch, cutting (002)

Context Number	Trench	Description	Phase	Interpretation
180	J	Firm, dark grey-brown sandy silt containing moderate stones (unexcavated).	2	Primary fill of (181)
181	J	Linear cut (unexcavated). Approximately 0.8m wide x 1.7m long to the LOE.	2	Ditch, cutting (002)
182	F	Soft, mid to dark grey-brown sandy silt containing occasional gravel. Approximately 0.4m thick.	2	Fill of (179), overlying (183)
183	F	Soft, mid-brown silty sand. Approximately 0.15m thick.	2	Fill of (179), overlying (184)
184	F	Soft, mid brown silty sand containing occasional gravel. Approximately 0.2m thick.	2	Fill of (179), overlying (185)
185	F	Soft, dark brownish-black clayey sand containing occasional stones. Approximately 0.25m thick.	2	Primary fill of (179)
186	M	Firm, mid brownish-black sand. Approximately 0.15m thick.	2	Primary fill of (187)
187	M	Curvilinear cut with steep sides and a flat base. Approximately 0.4m wide x 0.25m deep x 2m long to the LOE.	2	?Gully, cutting (002)
188	M	Soft, mid grey sand containing occasional stones. Approximately 0.3m thick.	2	Primary fill of (189)
189	M	Linear cut with steep sides and a narrow blunt base. Approximately 0.8m wide x 0.4m deep x 1.7m long to the LOE.	2	Gully, cutting (002)
190	M	Firm, mid brown silty sand containing moderate stones. Approximately 0.23m thick.	2	Primary fill of (191)
191	M	Linear cut with gradual sides and an uneven base. Approximately 1.2m wide x 0.25m deep x 1.7m long.	2	Gully, cutting (003)
192	L	Soft, dark brown sandy silt containing occasional stones (unexcavated).	2	Fill of (114)
193	L	Soft, light yellow-brown sandy silt containing moderate stone (unexcavated).	2	Fill of (194)
194	L	Linear cut (unexcavated). Approximately 1.2m wide x 1.8m long to the LOE.	2	Gully, cutting (003)
195	F	Soft, mid reddish-brown sandy silt. Approximately 0.4m thick.	2	Fill of (179)
196	J	Linear cut with gradual sides (not fully excavated). Approximately 4m wide x 0.45m deep x 2.5m long to the LOE.	2	Ditch, cutting (003)
197	I	Linear cut with concave sides and base. Approximately 0.5m wide x 0.2m deep x 1.5m long to the LOE.	2	Gully, cutting (134)
198	A	Firm, mid brownish-orange silty sand containing frequent gravel. Approximately 0.28m thick.	2	Fill of (080), overlying (101)
199	K	Soft, mid brownish-yellow silty sand containing moderate stones (not fully excavated). Approximately 0.3m thick to the LOE.	2	Fill of (200)
200	K	Linear cut with steep sides (not fully excavated). Approximately 0.8m wide x 0.3m deep x 0.7m long to the LOE.	2	Gully, cutting (002)
201	K	Soft, mid reddish-brown silty gravelly sand containing frequent stones and roots and occasional charcoal flecks (unexcavated).	2	Primary fill of (202)

Context Number	Trench	Description	Phase	Interpretation
202	K	Linear cut (unexcavated). Approximately 0.7m wide x 1.5m long to the LOE.	2	Gully, cutting (199)
203	K	Soft, dark brown silt containing frequent stones and moderate charcoal flecks. Approximately 0.35m thick.	2	Primary fill of (204)
204	K	Linear cut (unexcavated). Approximately 2.6m wide x 0.4m deep x 1.5m long to the LOE.	2	Ditch, cutting (205)
205	K	Firm, mid yellowish-brown silty sand containing occasional stones. Approximately 0.2m thick.	2	Fill of (207), overlying (206)
206	K	Firm, dark brown silty sand containing frequent stones (unexcavated).	2	Primary fill of (207)
207	K	Linear cut (unexcavated). Approximately 1.3m wide x 1.8m long to the LOE.	2	Gully, cutting (003)
208	M	Soft, light to mid greyish-brown sandy silty clay containing moderate stones (not fully excavated). Approximately 0.4m thick to the LOE.	2	Fill of (209)
209	M	Linear cut with gradual sides (not fully excavated). Approximately 0.4m deep x 2.6m wide x 1.5m long to the LOE.	2	Ditch, cutting (210)
210	M	Friable, mid brown clayey sandy silt containing occasional small stones (not fully excavated). Approximately 0.45m thick to the LOE.	2	Primary fill of (211)
211	M	Linear cut with a steep side (not fully excavated). Approximately 0.45m deep x 1.5m wide x 1.5m long to the LOE.	2	Gully, cutting (003)
212	J	Firm, mid greyish-brown sandy silt (not fully excavated). Approximately 60mm thick to the LOE.	2	Fill of (213)
213	J	Linear cut (unexcavated). Approximately 0.7m wide x 1.5m long to the LOE.	2	Gully, cutting (003)

Appendix 4

The Pottery
Dr David Knight
Trent & Peak Archaeological Trust

CONTEXT	TRENCH	DESCRIPTION	DATE
unstratified	C	1x base/wall shell-tempered sherd; 1x shell-tempered rim sherd, scored and sooted; 1x burnt clay/stone; 1x charcoal fragment	Mid-Late Iron Age
unstratified	K	4x sherds shell-tempered scored ware, 3 linked	Mid-Late Iron Age
010	C	1x sherd shell-tempered ware	Mid-Late Iron Age
012	A	3x sherds sand-tempered ware, 2 linked	Mid-Late Iron Age
040	E	1x sherd sand-tempered ware	Mid-Late Iron Age
060	I	6x sherds scored shell-tempered ware, 2 linked	Mid-Late Iron Age
086	H	1x greyware rim sherd; 2x fragments burnt clay	Roman
128	I	1x shell-tempered scored ware sherd; 1x samian ware sherd	Mid-Late Iron Age; Roman
170	J	2x shell-tempered scored ware sherds; 1 x ceramic tile	Mid-Late Iron Age
180	J	1x shell-tempered sherd (in 5 small fragments)	Mid-Late Iron Age

Appendix 5

ENVIRONMENTAL ARCHAEOLOGY ASSESSMENT

By James Rackham

(Environmental Archaeology Consultancy)

East Road, Sleaford SNJ97

Environmental Archaeology Assessment

Introduction

A series of eight soil samples were collected (Table 1) for environmental analysis from archaeological evaluation trenches at East Road, Sleaford and a small collection of animal bone was recovered during intrusive excavation of ditches and other features.

Table 1:

sample	context	trench	feature	weight in kg	volume in l.	processed
1	24	C	posthole			no
2	60	I	post trench	8	7	yes
3	13	A	trackway ditch	10	8	yes
4	98	A	trackway ditch	10.5	8	yes
5	58	C	enclosure ditch-terminal	6.5	6	yes
6	206	K	enclosure ditch-primary fill			no
7	10	C	enclosure ditch- 4th fill	9	8	yes
8	5	C	linear cut	14.5	10	yes

The submitted samples were assigned a priority by the archaeologist, and those with the lowest priority, samples 1 and 6 were not processed. The samples include two from the ditches either side of a trackway (samples 3 and 4), presumed to be the Roman road running north out of Sleaford and the remainder are associated with a collection of features, linear cuts and an enclosure ditch of middle-late Iron Age date.

Methods

The animal bone collected during excavation was catalogued using the Environmental Archaeology Consultancy recording procedures (see Appendix 1), but no analysis has been carried out owing to the small size of the sample. Identifications were made by comparison to modern reference skeletons in the author's collection.

The soil samples were processed in the following manner. Sample volume and weight was measured prior to processing. The samples were washed in a bowl using a flotation sieve with a 0.25mm. The floating and organic debris was washed over into the 250 micron sieve and the residue then washed through a mesh of 1mm. Both residue and float were dried except where well preserved organic material was evident. This was kept wet. The dry or wet volume of the flot was measured, and the volume and weight of the residue recorded. A total of 40 litres of soil was processed in this way.

The residue was sorted by eye, and environmental and archaeological finds picked out, noted on the assessment sheet and bagged independently. A magnet was run through each residue in order to recover magnetised material such as hammerscale and prill. The residue was then discarded. The float of each sample was studied under a low power binocular microscope. The

presence of environmental finds (ie snails, charcoal, carbonised seeds, bones etc) was noted and their abundance and species diversity recorded on the assessment sheet. The float was then bagged. The float and finds from the sorted residue constitute the material archive of the samples.

The individual components of the samples were then preliminarily identified and the results are summarised below in Tables 2 and 3.

Results

Archaeological finds other than animal bone were limited in the samples. A few crumbs of possible pottery were recovered from the residue in a number of samples (Table 2), two samples included pieces of limestone toolarge to occur naturally in the gravel and the sample from context 10, the upper fill of the enclosure ditch in Trench C, included fuel ash slag, a small corroded piece of iron and a single flake of hammerscale.

Table 2:

sample	context	washed vol in l.	coal	bone wt	flot vol in ml	water-logged	finds
2	60	7	+	21	60	+	poss pot 'crumbs'; cobble/stone tessera?
3	13	8	+		14	+	
4	98	8	+		8	+	large piece limestone
5	58	6		259	450	+++++	poss pot 'crumb'
7	10	5		31	150	++++	fuel ash slag; poss pot 'crumbs'; smallpiece iron; 1 flake hammerscale
8	5	6	+	<1	20	+	

The environmental finds were variable. Most contexts produced some evidence of waterlogged material but its survival in all but contexts 10 and 58 was such that some fibrous material and a few robust seeds such as *Chenopodium* (goosefoots) and *Sambucus* (elder) are all that is identifiable. However contexts 10, the 4th fill of the enclosure ditch, and context 58, the terminal of the enclosure ditch were rich in very well preserved organic remains including numerous seeds and beetle fragments, and small twigs and fragments of wood, including small round wood with chopped ends. All the samples, except context 60, produced indications that the ditches were waterlogged including ephippia of water flea, freshwater snails, ostracods and aquatic beetles, such as *Helophorus* sp.

The ditches on either side of the Roman road in Trench A produced no archaeological material and very little charcoal. These samples were composed of orange brown silty sand and only molluscs were found in any abundance. The snail fauna included *Cochlicopa* sp., *Hygromia hispida*, *Vallonia* sp., *Pupilla muscorum*, *Carychium tridentatum*, and *Helicella* sp., with occasional *Oxychilus* sp. and *Vertigo* sp., as well as aquatic species including bivalves. *P.muscorum* and *C.tridentatum* were the most abundant terrestrial species. The assemblage suggests an open grassland habitat on the calcareous gravels of the site. There is no evidence for any contemporary Roman activity along the trackway.

The samples associated with the enclosure ditch were waterlogged and rich in environmental material. Animal bone included fragments of horse and sheep, but large samples of bone were also recovered from the excavated sections (see below). Although the terminal sample had little charcoal, it was abundant in sample 7 (context 10) along with 2 charred cereal grains, and preserved small wood and twigs were present in both contexts. A preliminary scan of some of the beetle fragments showed the presence of dung beetle, *Aphodius* sp., remains as well as aquatic and other species. No attempt was made to identify insect and plant species in this assessment.

Table 3: Environmental finds from the samples

cont	flot vol	char-coal*	cereal grains	wood	snails #	water-logged seeds #	insects #	bone	burnt bone
60	60	5	2		1/1	2/2		sheep,pig,pig neonate, common vole,house mouse,amphibian	+
13	14	1			3/2	1/1			
98	8	1			3/3	1/1			
58	450	1		twigs	1/1	4/4	3/3	horse,rodent, small bird	
10	150	4	2		2/2	4/3	3/3	sheep, rodent,bird, amphibian	+
5	20	1			3/3	2/1	1/1		

* frequency of charcoal, snails,seeds and insects: 1=1-10; 2= 11-100; 3=101-250; 4=251-500; 5=>500 items
# frequency/diversity of snails, waterlogged seeds and insects; frequency as above, diversity as follows: 1=1-3; 2=4-10; 3=11-25; 4=26-50 taxa.

A linear cut, context 5, in Trench I and a post trench, context 60, in Trench C were the only other samples processed. The latter produced large quantities of charcoal, two charred cereal grains and some animal bone and indicate occupation nearby. Some waterlogged preservation occurred but not of the quality of that from the enclosure ditch. The bone from the sample included fragments of sheep, pig, neonate pig and house mouse. Context 5 produced little evidence of human occupation in the immediate vicinity. There was little charcoal, a few tiny fragments of bone and the remaining material reflects the natural environment. Snails were abundant and besides the aquatics, included *Vallonia* sp., *Hygromia hispida*, *Pupilla muscorum*, *Vitrina* sp., *Helicella* sp., *Cochlicopa* sp., *Helix/Cepaea* sp. and Zonitoides. This suite is similar to the fauna obtained from the ditches beside the Roman road.

Animal Bone

The majority of the excavated animal bone derives from the enclosure ditch (see Appendix). This bone is very well preserved and apart from modern breakage during excavation and some evidence of dog gnawing has suffered little since being discarded. The enclosure ditch includes cattle, horse, sheep, pig and red deer remains. The only other species identified is human, two bones of which, a long bone shaft and a fragment of skull, were recovered from context 195.

The presence of bones from neonate pigs and lambs among the excavated bones and those from the samples indicate that sheep and pig were being bred at the site. The condition of the bone is such that measurement data and information on the age at death of the animals in the

samples was readily recovered and is unlikely to have been biassed by post-depositional processes.

Table 4: Number of bone fragments of each species in the hand collected sample

Cattle	35
Cattle size	57
Horse	4
Red deer	1
Sheep/goat	18
Sheep	1
Sheep size	10
Pig	11
Human	2
Unidentified	24

Discussion

The samples from the ditches along the Roman trackway produced little or no evidence of human settlement activity suggesting that there was no 'ribbon' development along this stretch of the trackway. Although not analysed or quantified the snail fauna perhaps suggests an open grassland habitat adjacent to the ditches.

The quantity of animal bone and charcoal in the enclosure ditch suggests that this was receiving rubbish from human settlement, presumably within it, although settlement activity is also suggested outside the enclosure in Trench I. There is a relative absence of charred cereal remains but this is unlikely to be significant given the limited sampling and sample size. Full analysis of the well preserved botanical and insect remains might further contribute to the evidence for human settlement. The presence of house mouse suggests nearby buildings and the dung beetle remains in the enclosure ditch suggest domestic animals were kept nearby. The palaeoenvironmental potential for these waterlogged deposits is high.

The main enclosure would appear to be a small Iron Age farmstead and all the ditches sampled were at least seasonally filled with water during their initial infilling stages.

Potential

The limited sample available from the evaluation indicates that the site has very considerable environmental archaeology potential both for understanding the economic basis and the environmental context of the site. The trackway ditches, associated with the Roman road, produced little material and apart from affording a chronologically later sample of the molluscan fauna at the site has little further potential. The enclosure ditch and associated remains however constitute an important archaeological resource. The survival of well preserved organic remains in the enclosure ditch affords an important opportunity to study the local environment around the site in the middle to late Iron Age and indicates that much of the organic rubbish that may have been thrown into the enclosure ditch could still survive in identifiable condition. That the ditch was used as a receptacle for the rubbish from a settlement, presumably within the enclosure, is evident from the quantity and character of the

animal bone recovered during the evaluation. The survival of wooden, leather and other organic artefactual material is a probability as is the preservation of organic debris from the agricultural and domestic activities that took place at the site.

It is also clear that the enclosure ditch must contain a large, well dated, and extremely well preserved sample of animal bone from the settlement. Well preserved samples of this date are very rare in Lincolnshire and if a large enough sample was to be recovered it should permit a reconstruction of the animal economy of the site. For the bone sample to contribute significantly to the current knowledge of this period in the county the excavation strategy would demand extensive intrusive excavation of the enclosure ditch and other features in order to obtain a 'large' collection (several thousand fragments) of bones for study.

Snails are well preserved in a number of the deposits and these will provide complimentary data to the waterlogged deposits where waterlogged survival is not present.

Should preservation *in situ* be considered as an option at this site account should be taken as to whether development (including service trenches, drainage, etc), or future development, at the site might result in the de-watering of those deposits currently surviving in a waterlogged condition irrespective of whether the building footprints disturb the known archaeology or not. If this is a potential threat then sample excavation of the enclosure and its associated features would be recommended while these deposits still survive and the information they contain is recoverable. Although similar sites have been identified in evaluations or watching briefs no sites of this date and character with well preserved organic remains have been excavated in Linconshire in recent years.

Recommendations

Should excavation be required a programme of sampling all waterlogged features, including sampling at multiple locations along the enclosure ditch is recommended. This sampling should be targetted for macro-botanical, insect and pollen recovery, and include sampling of any surviving wood or other organic finds. Sampling for molluscan remains in both waterlogged and non-waterlogged ditch sediments is recommended to compliment the other environmental evidence. Bulk flotation samples for carbonised plant remains should be taken from archaeological features within the enclosure and potential occupation deposits outside it. The fieldwork should include a strategy for the excavation of linear sections of the enclosure ditch, and other bone rich ditches or features, to recover animal bone and other finds assemblages in sufficient quantity to permit constructive interpretation of the samples during the post-excavation analysis.

Bibliography

Cameron, R.A.D. and Redfern, M. 1976 *British Land Snails*. Linnean Soc. Synopses of the British Fauna No. 6

03/12/97

THE ENVIRONMENTAL ARCHAEOLOGY CONSULTANCY

Key to codes used in the cataloguing of animal bones

SPECIES

BOS	cattle
CSZ	cattle size
SUS	pig
OVCA	sheep or goat
OVI	sheep
SSZ	sheep size
EQU	horse
CER	red deer
CAN	dog
HAN	human
UNI	unknown
CHIK	chicken
GOOS	goose, dom
LEP	hare
UNB	indet bird
MALL	duck, dom.
GULL	gull sp.
FISH	fish
UNIB	bird indet
UNIF	fish indet
GSIZ	goose size
BEAV	beaver
CORV	crow or rook
BUZZ	buzzard

BONE

SKL	skull
TEMP	temporal
FRNT	frontal
PET	petrous
PAR	parietal
OCIP	occipital
ZYG	zygomatic
MAN	mandible
MAX	maxilla
ATL	atlas
AXI	axis
CEV	cervical vertebra
TRV	thoracic vertebra
LMV	lumbar vertebra
SAC	sacrum
CDV	caudal vertebra
SCP	scapula
HUM	humerus
RAD	radius
MTC	metacarpus
MC1-4	metacarpus 1-4
INN	innominate
ILM	ilium
PUB	pubis
ISH	ischium
FEM	femur
TIB	tibia
AST	astragalus
CAL	calcaneum
MTT	metatarsus
MT1-4	metatarsus 1-4
PH1	1st phalanx
PH2	2nd phalanx
PH3	3rd phalanx
LM1-LM3	Lower molar 1 - molar 3
UM1-UM3	upper molar 1 - molar 3
LPM1-LPM4	lower premolar 1-4
UPM1-UPM4	upper premolar 1-4
DLPM1-4	deciduous lower premolar 1-4
DUPM1-4	deciduous upper premolar 1-4
MNT	mandibular tooth
MXT	maxillary tooth
LBF	long bone
UNI	unidentified
STN	sternum
INC	incisor
TTH	indet. tooth
CMP	carpo-metacarpus

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

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:

h ldpm4/dupm4	f ldpm2/dupm2
H lpm4/upm4	g ldpm3/dupm3
I lm1/um1	
J lm2/um2	
K lm3/um3	

ZONES - zones record the part of the bone present.
The key to each zone on each bone is on page 2

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

03/12/97

ZONES - codes used to define zones on each bone

SKULL - 1. paraoccipital process
2. occipal condyle
3. intercornual protuberance
4. external acoustic meatus
5. frontal sinus
6. ectorbitale
7. entorbitale
8. temporal articular facet
9. facial tuber
0. infraorbital foramen

MANDIBLE
1. Symphyseal surface
2. diastema
3. lateral diastemal foramen
4. coronoid process
5. condylar process
6. angle
7. anterior dorsal acsending ramus posterior M3
8. mandibular foramen

VERTEBRA
1. spine
2. anterior epiphysis
3. posterior epiphysis
4. centrum
5. neural arch

SCAPULA
1. supraglenoid tubercle
2. glenoid cavity
3. origin of the distal spine
4. tuber of spine
5. posterior of neck with foramen
6. cranial angle of blade
7. caudal angle of blade

HUMERUS
1. head
2. greater tubercle
3. lesser tubercle
4. intertuberal groove
5. deltoid tuberosity
6. dorsal angle of olecranon fossa
7. capitulum
8. trochlea

RADIUS
1. medial half of proximal epiphysis
2. lateral half of proximal epiphysis
3. posterior proximal ulna scar and foramen
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

METACARPUS -
1. medial facet of proximal artciulation, MC3
2. lateral facet of proximal articulation, MC4
3. medial distal condyle, MC3
4. lateral distal condyle, MC4
5. anterior distal groove and foramen
6. medial or lateral distal condyle

FIRST PHALANX
1. proximal epiphysis
2. distal articular facet

INNOMINATE
1. tuber coxae
2. tuber sacrale + scar
3. body of illium with dorso-medial foramen
4. iliopubic eminence
5. acetabular fossa
6. symphyseal branch of pubis
7. body of ischium
8. ischial tuberosity
9. depression for medial tendon of rectus femoris

FEMUR
1. head
2. trochanter major
3. trochanter minor
4. supracondyloid fossa
5. distal medial condyle
6. lateral distal condyle
7. distal trochlea
8. trochanter tertius

TIBIA
1. proximal medial condyle
2. proximal lateral condyle
3. intercondylar eminence
4. proximal posterior nutrient foramen
5. medial malleolus
6. lateral aspect of distal articulation
7. distal pre-epiphyseal portion of the diaphysis

CALCANEUM
1. calcaneal tuber
2. sustentaculum tali
3. processus anterior

METATARSUS
1. medial facet of proximal artciulation, MT3.
2. lateral facet of proximal articulation, MT4
3. medial distal condyle, MT3
4. lateral distal condyle, MT4
5. anterior distal groove and foramen
6. medial or lateral distal condyle

Archive catalogue of animal bone from East Road, Sleaford- SNJ97

site	context	species	bone	no.	side	fusion	zone	butchery	gnawing	toothwear	measurement	comment
SNJ97	5	CSZ	LBF	1	F							SHAFT FRAG
SNJ97	6	BOS	TIB	1	R	DF	567				SD-31.3	DISTAL END AND SHAFT
SNJ97	8	BOS	ATL	1	F			CH				DORSAL FRAG-CHOPPED ON INNER SURFACE NEURAL ARCH
SNJ97	8	BOS	CAL	1	L		23		DG			PROX END CHEWED OFF
SNJ97	8	BOS	SCP	1	R	DF	123	KN			GLP-65.4 LG-56.2 SLC-46.9	GLENID AND NECKCUTS ON DORSAL & ANT SURFACE OF NECK
SNJ97	8	CSZ	RIB	2	F							SHAFT FRAG
SNJ97	8	CSZ	RIB	3	F			CH				SHAFT FRAG-ONE END CHOPPED
SNJ97	8	CSZ	TRV	1	F	CNAN	45					CENTRUM AND ARCH
SNJ97	8	OVCA	MAN	1	L		123			GH11I13J12		ANT HALF
SNJ97	8	OVCA	TRV	1	F	CNAJ	345					CENTRUM AND ARCH
SNJ97	8	OVCA	UM2	1	L					J8		
SNJ97	8	SSZ	RIB	1	F							SHAFT FRAG
SNJ97	8	SSZ	SCP	1	F							BLADE FRAG
SNJ97	8	SUS	FIB	1	F	DN						DISTAL SHAFT-V SMALL-PIGLET
SNJ97	8	SUS	MAX	1	L					J8K7		2PIECES-M3 LENGTH=31.6
SNJ97	8	SUS	SKL	1	R							ZYGOMATIC ARCH-JUV
SNJ97	8	UNI	LBF	1	F							SMALL ANIMAL-POSS BIRD?
SNJ97	10	BOS	CAL	1	R				DG			ANT FRAG SHAFT-PROX CHEWED-POROUS
SNJ97	10	BOS	FEM	1	F							POST DISTAL MIDSHAFT FRAG
SNJ97	10	BOS	FEM	1	F							ANT DISTAL MIDSHAFT FRAG
SNJ97	10	BOS	MAN	1	R							VENTRAL HORI RAMUS
SNJ97	10	BOS	MAX	1	R					g12h13		TWO LOOSE TEETH
SNJ97	10	BOS	RAD	1	L				DG			DISTAL MIDSHAFT-DIST END CHEWED
SNJ97	10	BOS	SCP	1	R		34					SPINE- 2 PIECES-MOD BREAK
SNJ97	10	BOS	SCP	1	L		35					DISTAL PART BLADE
SNJ97	10	BOS	SKL	1	L							ZYGOMATIC ARCH
SNJ97	10	BOS	TIB	1	L						SD-29.4	MIDSHAFT
SNJ97	10	CSZ	LBF	5	F							SHAFT FRAG
SNJ97	10	CSZ	RIB	13	F							SMALL SHAFT FRAG
SNJ97	10	CSZ	RIB	9	F							SHAFT FRAG
SNJ97	10	CSZ	SKL	9	F							INDET FRAG

site	context	species	bone	no.	side	fusion	zone	butchery	gnawing	toothwear	measurement	comment
SNJ97	10	CSZ	VER	2	F							INDET
SNJ97	10	EQU	RIB	1	F	PF						PROX END
SNJ97	10	OVCA	MAN	1	L		5					FRAG ASC RAMUS WITH CONDYLE
SNJ97	10	OVCA	TIB	1	F							MIDSHAFT-6 PIECES-MOD BREAK
SNJ97	10	OVCA	TIB	1	R							DISTAL MIDSHAFT-POROUS-JUV?
SNJ97	10	OVI	SKL	1	R							PAR & FRNT WITH PART BASE OF HC
SNJ97	10	SSZ	RIB	5	F							SHAFT FRAG
SNJ97	10	SSZ	TRV	2	F		1					SPINE
SNJ97	10	SUS	MAN	1	R					gh5		TINY PIGLET-NO WEAR?NEONATE
SNJ97	10	SUS	MT4	1	L		1					PROX END
SNJ97	10	SUS	RAD	1	L	PFDN	1236					PROX END AND SHAFT-2 PIECES-MOD BREAK
SNJ97	10	SUS	SKL	1	R					DFG		PREMAX AND ANT MAX-MALECANINE-4 PIECES
SNJ97	10	UNI	CC	1	F							
SNJ97	10	UNI	UNI	21	F							INDET FRAG
SNJ97	19	BOS	RAD	1	R	PF						SPLIT FRAG PROX END-SL ERODED
SNJ97	23	CSZ	UNI	1	F							UNIDENTIFIED BONE-COMPLETELY FRAGMENTED-MODERN BREAKS
SNJ97	58	BOS	MTC	1	R		12		DG			PROX HALF-END CHEWED
SNJ97	58	BOS	RAD	1	L			CH				PROX MEDIAL SHAFT-CHOPPED AXIALLY
SNJ97	58	BOS	SCP	1	L		5					DISTAL FRAG CAUDAL MARGIN BLADE
SNJ97	58	BOS	ULN	1	F							MIDSHAFT-2 PIECES-MOD BREAK
SNJ97	58	CER	MTC	1	L	DN	125					PROX END AND SHAFT-LENGTH-260
SNJ97	58	CSZ	LBF	1	F							SHAFT FRAG
SNJ97	58	EQU	RAD	1	R	PF	123		DG		SD-32.1	PROX END AND SHAFT-DISTAL END CHEWED-ULNAL ARTIC ATTACHED
SNJ97	58	EQU	UI	1	R							WELL WORN
SNJ97	58	OVCA	MAN	1	L		23			gh11		LAMB
SNJ97	58	OVCA	MAN	1	L		23			fgh11		LAMB
SNJ97	58	OVCA	MAX	1	L					J9		FRAG WITH M2
SNJ97	58	OVCA	PH1	1	R	PF	12					COMPLETE-VERY SMALL-GRACILE
SNJ97	58	OVCA	SKL	1	L							SUPRAORBITAL FRAG
SNJ97	58	OVCA	SKL	1	R							NASAL
SNJ97	60	BOS	INN	1	L	EF	5					LATERAL HALF ACETABULUM

site	context	species	bone	no.	side	fusion	zone	butchery	gnawing	toothwear	measurement	comment
SNJ97	60	BOS	PH2	1	L	PF	12					DISTAL END BROKEN
SNJ97	60	BOS	SCP	1	F		4					DORSAL FRAG OF SPINE
SNJ97	60	BOS	SKL	1	R		124					OCCIPITAL & AUDITORY FRAG- 2 PIECES
SNJ97	60	CSZ	MAN	1	F							LATERAL FRAG RAMUS
SNJ97	60	OVCA	MTC	1	F							ANT MIDSHAFT FRAG
SNJ97	60	OVCA	RAD	1	L	PF	1236					PROX END AND SHAFT-LENGTH-138
SNJ97	60	SUS	SCP	1	R							CAUDAL MARGIN OF BLADE
SNJ97	60	UNI	UNI	1	F							INDET-2 PIECES
SNJ97	117	BOS	INN	1	R	EF	2359					ILIAL SHAFT AND ACETABULUM- 3PIECES-MODERN BREAKS
SNJ97	117	BOS	SCP	1	R		35		DG			DISTAL BLADE AND NECK-DISTAL END CHEWED
SNJ97	117	BOS	TIB	1	R		4		DG			MIDSHAFT-DISTAL END CHEWED OFF
SNJ97	117	CSZ	RIB	5	F							SHAFT FRAG
SNJ97	117	SUS	HUM	1	L	DF	6789				Bd-35.3 HT-26.2	DISTAL HALF
SNJ97	117	SUS	MAN	1	L		2			FG9		ANT FRAG RAMUS-MALE
SNJ97	195	BOS	HUM	1	R	DF	67890		DG		BT-65.4 HT-39	DISTAL HALF
SNJ97	195	BOS	RAD	1	L	PF	123		DG		Bp-68.5 Dp-35.1	PROX HALF-2 PIECES-DISTAL CHEWED
SNJ97	195	BOS	SCP	1	R	DF	1235				GLP-57.2 SLC-42.3	GLENOID AND NECK +BIT OF BLADE
SNJ97	195	MAN	FEM	1	F							SHAFT FRAG-ERODED
SNJ97	195	MAN	SKL	1	F							PART CRANIAL VAULT
SNJ97	999	BOS	FEM	1	L		4					SHAFT-SMALL
SNJ97	999	BOS	HUM	1	R	DF	567890				BT-65.8 HT-40.6	DISTAL END AND SHAFT-KNIFE CUT ON DISTAL MEDIAL SURFACE-TRENCH I
SNJ97	999	BOS	MAN	1	L		457	CH				ASC RAMUS-2 PIECES-MODERN BREAK-CHOP ACROSS CONDYLE-TRENCH I
SNJ97	999	BOS	PH1	1	L		2					DISTAL HALF-PROX END BROKEN-0MODERN-TRENCH L
SNJ97	999	BOS	RAD	1	L			KN				SPLIT MIDSHAFT-CUT MARK ON SHAFT-MODERN BREAK
SNJ97	999	CSZ	RIB	1	F							SHAFT FRAG-TRENCH L
SNJ97	999	CSZ	TRV	1	F	AN	4					POST FRAG CENTRUM-2PIECES-MODERN BREAK-TRENCH L
SNJ97	999	CSZ	TRV	1	F		1					SPINE- TRENCH L

site	context	species	bone	no.	side	fusion	zone	butchery	gnawing	toothwear	measurement	comment
SNJ97	999	OVCA	MAN	1	R		123			GH11		ANT HALF RAMUS
SNJ97	999	OVCA	SCP	1	L		5					DISTAL HALF BLADE- 3 PIECES-MODERN BREAKS
SNJ97	999	OVCA	TIB	1	L							DISTAL MIDSHAFT-TRENCH L
SNJ97	999	SSZ	RIB	1	F			CH				SHAFT FRAG DISTAL END CHOPPED
SNJ97	999	SUS	TIB	1	R	DF	567	KN			Bd-25.3 Dd-23.6	DISTAL END-KNIFE CUTS ACROSS ANT SURFACE-TRENCH L

Appendix 6

Metal and Other Artefacts By Gary Taylor MA

The artefacts found by metal detecting of the field surface are mostly 18th century or later in date. The small copper ring could possibly be a child's finger ring of Roman date but this is unlikely and it is probably just a smaller version of the large rings found at the site. Also, the buckle may be medieval to post-medieval and similar examples date from the 13th to the 17th century (Read 1988, 70-1).

Reference

Read, B.A., 1988 *History Beneath our Feet*

Coins

1 x copper penny, George III, 1797
1 x copper penny, George III, 1806-7
1 x bronze penny, George V, 1921
2 x copper halfpenny, George III 1770-5; 1 counterstruck 'AT'
2 x copper halfpenny, George III 1806-7
2 x copper halfpenny, illegible but probably between 1770-1807
1 x bronze halfpenny, Victoria 1887

Copper Alloy Objects

Including 5 rings, 1 ferrule, 8 buttons (including one stamped 'T FINN & SON NOTTINGHAM'), 1 hinge, 1 shotgun case (stamped 'ELEY, LONDON'), 1 buckle strap and pin, 5 discs, 2 thimbles, 2 tacks/screws, 1 watch key, 2 brooches, 1 EPNS spoon handle and 6 fittings.

Lead Objects

Including 2 pieces of lead sheet, 1 ?spindle whorl, 1 piece of window kame, 2 weights, 1 disc and 1 die-cast ?toy fragment.

Iron and Steel Objects

TRENCH Q, unstratified, 3 iron nails
Field surgace - 1 steel button.

Other Materials

Gun flint, post-medieval

Appendix 7

The Silver Coin by Dr. Barrie Cook
Curator of Medieval and Early Modern Coinage, British Museum

The coin found during metal-detector survey at North Junction, Sleaford, is a silver *soldino* of Agostino Barbarigo, Doge of Venice (1486-1501). Venetian *soldini* came to England in large numbers in two periods: the early 15th century and the early 16th century (around 1520). They were brought by the regular Venetian galley-fleets and snapped up to serve as small change - of which there was a short supply. As a result these were given the name galley-halfpennies.

On both occasions that they came to England the government eventually suppressed their use, but they made a sufficient impact on currency to be relatively common as English finds.

Appendix 8

The Archive

The archive consists of:

213	Context records
100	Sheets of scale drawings
267	Colour Slides
1	Stratigraphic matrix
2	Boxes 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.

Archaeological Project Services project code:	SNJ97
City and County Museum, Lincoln Accession Number:	256.97

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 proposed development site but away from those 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 curent investigation.

Appendix 9

Glossary of Terms

Context	An archaeological context represents a distinct archaeological event or process. For example, the action of digging a pit creates a context (the cut) as does the process of its subsequent backfill (the fill). Each context encountered during an archaeological investigation is allocated a unique number by the archaeologist and a record sheet detailing the description and interpretation of the context (the context sheet) is created and placed in the site archive. Context numbers are identified within the report text by brackets, *e.g.* (004).
Cut	A cut refers to the physical action of digging a posthole, pit, ditch, foundation trench, *etc.* Once the fills of these features are removed during an archaeological investigation the original 'cut' is therefore exposed and subsequently recorded.
Droveway	Route primarily used for the movement of livestock.
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.
Fill	Once a feature has been dug it begins to silt up (either slowly or rapidly) or it can be back-filled manually. The soil(s) which become contained by the 'cut' are referred to as its fill(s).
Iron Age	Part of the prehistoric era characterised by the introduction and use of iron for tools and weapons. In Britain this period dates from approximately 700 BC - AD 50. The Middle Iron Age dates between 300 and 100 BC, the Later Iron Age between 100 BC and AD 50.
Layer	A layer is a term used to describe an accumulation of soil or other material that is not contained within a cut.
Lower Palaeolithic	Period dating between 1,000,000 and 100,000 BC and characterised by the development of stone tools.
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.
Post-medieval	The period following the Middle Ages, dating from approximately AD 1500-1800.
Romano-British	Pertaining to the period from AD 43-410 when Britain formed part of the Roman empire.
Terminal	Term defining the 'end' of a linear feature such as a ditch or gully.
Terminus Post Quem	Term used to define the earliest possible date for an archaeological feature or deposit. Thus, if a pit contains a coin dated 1546, the pit cannot be earlier than that year but must be contemporary or later.