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**ARCHAEOLOGICAL WATCHING BRIEF
DURING EXTENSIONS AND ALTERATIONS
TO THE NUNS BOARDING HOUSE,
STAMFORD HIGH SCHOOL,
STAMFORD,
LINCOLNSHIRE
(STN00)**

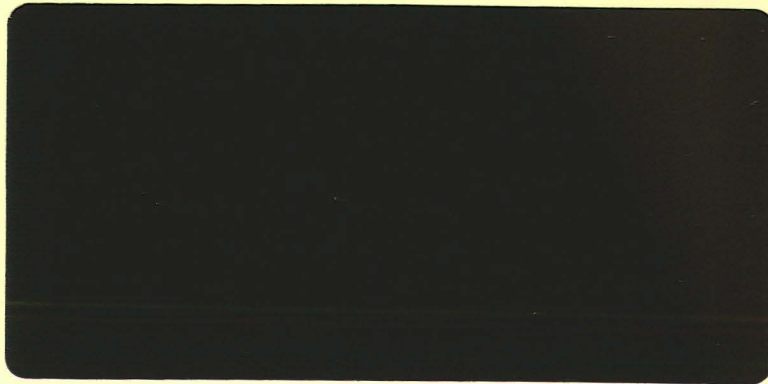


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DURING EXTENSIONS AND ALTERATIONS
TO THE NUNS BOARDING HOUSE,
STAMFORD HIGH SCHOOL,
STAMFORD,
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(STN00)**

Work Undertaken For
W.J. Hemmings and Partners

August 2001

Report Compiled by
Joanna Hambly

Planning Application No: S99/1294/69
National Grid Reference: TF 02763 06574
City and County Museum Accession No: 2000.89

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1. SUMMARY

An archaeological watching brief during groundworks for an extension to the Nuns boarding house, Stamford High School, was undertaken because the proposed development lay within the 13th century Benedictine priory of St. Michael, founded in 1155 to house forty nuns, a number of monks and a prior. The priory was dissolved in 1536.

Previous archaeological investigations to the south of the development have identified a reredorter, now a Scheduled Monument, remains of possible cloistral buildings, and a cemetery. Investigations to the east of the site identified a number of undated pits and ditches.

The continuation of features identified immediately east of the development area were not encountered in this investigation. However, it was established that the truncation caused by the construction of the railway, recorded to the east, did not extend westwards into the area of investigation.

The investigations revealed that the cemetery identified in a previous archaeological evaluation, 65m to the south, appears to extend northward at least as far as the Nuns boarding house, indicating the existence of a sizeable burial ground associated with St. Michael's priory.

The southwest corner of a limestone building and a limestone drain probably represent the remains of monastic buildings located to the northeast of the central cloistral and church complex. It is believed that the construction of these structures disturbed burials, possibly indicating that part of the graveyard was re-developed, very likely during the medieval period. A cobble surface was also revealed, this was dated to the later post-medieval and

possibly represents post-dissolution re-use of priory land and materials.

A small quantity of medieval pottery and one fragment of medieval roof tile was recovered from the fill of one of the graves and from a possible surface. Other material was post-medieval and recovered from disturbed subsoil.

Archaeological remains were well preserved and survived between 0.3 and 0.7m below the present ground surface, between approximately 24.7m and 24.3m OD. The potential exists for further associated deposits, including inhumations and buildings remains, to be present in the area. It is likely that any archaeological remains would occur at a similar level and also be in a good state of preservation.

2. INTRODUCTION

2.1 Definition of an Archaeological Watching Brief

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

2.2 Planning Background

A full planning application (S99/1294/69) was submitted to South Kesteven District Council for extensions and alterations to the existing school boarding house (The Nuns), Stamford High School, Lincolnshire. An archaeological watching brief was requested by the South Kesteven community archaeologist due to the proximity of the

development to known archaeological remains (Appendix 1). The watching brief was undertaken during all phases of soil movement (Appendix 2). Archaeological Project Services was commissioned by W. J. Hemmings and Partners to undertake the work which was carried out between 3rd May and 16th August 2000.

2.3 Topography and Geology

Stamford is situated 63km south of Lincoln and 23km southwest of Spalding, in the administrative district of South Kesteven, Lincolnshire (Figure 1). Stamford lies on the banks of the River Welland, close to the confluence with the Gwash which provides the eastern boundary of the town.

The development site (Figures 2 and 3) is located south of the River Welland, approximately 600m south of the town centre as defined by All Saints' parish church (National Grid Reference TF 02751 06465).

The site of the extension is a rectangular block of land, roughly 450 square metres, that lies at approximately 25m OD. The ground occupied by the development is level but the general trend of the land slopes down northwards to the river Welland.

Local soils are the Denchworth Association, wet clayey (pelostagnogley) soils (Hodge *et al.* 1984, 155) and Fladbury 1 Association pelo-alluvial gley soils, developed on clayey alluvial subsoils (*ibid*, 194). Stamford sits in a narrow valley cut in the Lower Lincolnshire Limestone. Upper Lincolnshire Limestone and the overlying Great Oolite form the northern valley sides. In contrast, the southern part of the town, including the development area, is located on a solid geology of Northampton Sand and Lower Lincolnshire Limestone (Inferior Oolite). Remains of a river terrace and recent

alluvium fill the valley bottom (Anderson 1982, 1).

2.4 Archaeological Setting

Stamford is situated in an area of known archaeological remains dating generally from the prehistoric to the post-medieval periods. Two worked flints of Neolithic or Early Bronze Age date were recovered during an archaeological evaluation approximately 65m south of the area of investigation (Hambly 2000a). Romano-British archaeology comprises unrelated find spots and the Roman road, Ermine Street which crosses the River Welland to the west of the town and adjacent to the proposed development (Figure 2).

One piece of Early Saxon pottery recovered in a previous archaeological investigation (Hambly 2000a) is the only evidence of this period in the vicinity of the site. By the end of the 9th century, Stamford was described as one of the five boroughs of the Danelaw. A reference to the visit of Edward the Elder in 918 indicates that the Danish *burh* lay to the north of the River Welland and also records that the King commanded a new borough to be built on the south side of the river (Mahaney 1982, 3).

The Domesday survey of 1086 refers to Stamford as a royal borough comprising six wards, five of these north of the river. At that time, the sixth ward, south of the river, was located in the County of Northamptonshire. A bridge spanned the river and in the wards to the north were over four hundred messuages, three and a half mills and a castle. In addition, four churches, were located in the northern part of the town (Foster and Longley 1976, 9 - 11).

Previously *Steanford* and *Stanford*, the place-name Stamford - 'stony ford' derives from Old English *stan* and *ford* (Ekwall

1974, 436 - 7).

Numerous religious foundations were established during the medieval period. Of particular significance is the Benedictine Nunnery of St. Michael which is located within the development area. The Nunnery was founded by William de Waterville, abbot of Peterborough, about 1155 (English Heritage 1994). Originally the house was founded for 40 nuns with a prior and brethren until 1323 when it became entirely a nunnery (Knowles and Hadcock 1953, 219).

Following the dissolution, St. Michael's Nunnery was acquired by the Cecil family of nearby Burghley House. It is not known whether a post-dissolution house was constructed at the site although Speed's map of Stamford, dating to 1600, depicts conventual buildings set within a defined outer precinct. Later maps of 1773, 1779 and 1839 all depict buildings on the site, some named as Nun's Farm (APS 1994).

Construction of the railway in 1846 revealed a number of features associated with the nunnery (RCHME 1977, 32). These included foundations, carved stonework, a coffin lid and a quantity of human bones. Excavations in 1973, prior to the construction of the present school buildings, revealed part of an elaborate reredorter (latrine) comprising a 4 bay arcade set in front of a channel which was supplied with water from a reservoir fed by rainwater from a roof (Mahaney 1977, 10). The reredorter, and its associated features, are a Scheduled Monument No. 22607 (English Heritage 1996, 23).

An archaeological evaluation of Station Yard (Dymond 1994) immediately east of the boarding house (Figure 3), identified a number of undated ditches, pits and a possible hollow way that may have been

associated with the Nunnery of St. Michael. Excavations carried out on the south side of the railway cutting, approximately 90m southwest of the development area, on land north of the present junior school (Figure 3), revealed part of a priory building including a room with painted plaster walls and a mortar floor, roofed with slate and green glazed ridge tiles (Cope Faulkner 1999). Archaeological investigations on the playing field to the east of the junior school, approximately 65m south of the present site (Figure 3), identified part of a medieval cemetery and a probable ironstone quarry, also likely to be of medieval date (Hambly 2000a).

3. AIMS

The aims of the archaeological watching brief, as outlined in the brief (Appendix 1), and specification (Appendix 2) were to locate, record and interpret, archaeological deposits and to recover disturbed archaeological artefacts.

The objectives were to determine, as far as possible, the form, function, spatial arrangement, date and sequence of archaeological remains encountered.

4. METHODS

4.1 Excavation

A mechanical excavator was used to remove topsoil from the area of the extension. Foundation trenches for the building measuring 0.6m wide and 0.9m deep and two soakaways 0.6m wide and 0.9m deep, located east and west of the extension were excavated by machine.

The topsoil stripping and excavation of the footings were monitored. Following

excavation the sides of the trenches were cleaned by hand and each deposit or feature was given a unique reference number (context number) with an individual written description. Where human remains were revealed these were cleaned by hand and recorded. An archaeological licence for the removal of human remains was obtained from the Home Office (Licence Number A2617). Human remains were only removed where disturbed by the groundworks and were otherwise left *in situ*.

All plans were drawn at a scale of 1:20 and all sections and elevations at a scale of 1:10. A photographic record was compiled consisting of colour slides.

4.2 Post-excavation

Following excavation, all records were checked and ordered to ensure that they constituted a complete Level II archive and a stratigraphic matrix of all identified deposits was produced. Finds recovered from those deposits excavated were examined and a period date assigned where possible. A list of all contexts and interpretations appears as Appendix 2. Phasing was based on artefact dating and the nature of the deposits and recognisable relationships between them.

5. RESULTS

Following post-excavation analysis, a total of three phases was identified:

- Phase 1: Natural deposits
- Phase 2: Medieval deposits
- Phase 3: Recent deposits

Archaeological contexts are listed below and described. The numbers in brackets are the context numbers assigned during the watching brief.

5.1 Phase 1: Natural Deposits

The earliest deposits encountered during the investigations were a plastic, mid-grey clay [005] and a compact reddish brown clayey sand containing occasional pebbles and iron panning [018] (Figure 8, Sections 1 and 2, Figure 9, Section 4). The top of these natural deposits occurred between 0.8m and 1m below the present ground surface at approximately 24m OD. A 0.3m thick layer of loose, mid-yellowish brown subsoil [034] containing frequent angular limestone fragments overlay the natural clays (Figures 8 and 9, Sections 3, 5, 6 and 8).

5.2 Phase 2: Medieval deposits

Cutting subsoil [034], in the southern half of the area of development (Figure 5) were the partially exposed remains of five graves, [004], [007], [013], [016] and [026], all oriented east-west and most containing generally well-preserved skeletal material.

Grave cut [004] was hardly discernible and exposed in section only (Figure 8, Section 1). Articulated human remains were identified in the grave cut [004] (Plate 5). The skeletal material [003] recovered from the apparent grave cut [004] represents the remains of at least three individuals (Appendix 5) suggesting that there may have been more than one burial at, or in close proximity to, the observed grave.

Just to the west (Figure 5), part of a skull, vertebra, the clavicles, both scapulae, and right humerus of skeleton [006] of an adult, possibly male (Appendix 5), were exposed in plan within indiscernible grave cut [007] (Figure 6, Plan 1). This skeleton showed signs of possible leprosy.

Approximately four metres to the northwest (Figure 5), the skull, some vertebra and the clavicles of skeleton [012], an adult female

(Appendix 5), were encountered within a clearly defined grave cut [013] that measured 0.36m wide (Figure 6, Plan 2) (Plate 4).

Exposed in section 3, (Figure 5), grave cut [016], which measured at least 1.2m long contained the articulated remains of part of the right leg and pelvis of skeleton [015], which were left *in situ* (Figure 8, Section 3).

A possible grave cut [026] was uncovered in the sides of the foundation trench. The end of the cut was clearly visible in section (Figure 9, Section 5), but the main part was located beyond the limits of excavation (Figures 4 and 5). A small quantity of animal bone [027] was recovered from the fill [025].

The fills of all graves [002], [008], [011], [014] and [025] comprised a loose, mid-yellowish or light brown clayey and sandy silt containing frequent small angular fragments of limestone. An abraded sherd of Stamford ware (10th-12th century) and a fragment of green glazed roof ridge tile of the 13th-14th century (Appendix 4) were recovered from deposit [008], the backfill of grave [007].

Examination of the sections (Figures 8 and 9) showed that the grave cuts were visible between 0.3m and 0.5m below the ground surface, or between 24.7m and 24.5m OD. In all cases, however, only the lower 0.3m of the grave was clearly distinguishable, so it is likely they were cut from a higher level.

In the southwest corner of the extended area, a 0.06m thick compacted (but loose upon excavation) light brownish yellow silty sand [017] containing occasional limestone fragments overlay natural sand (Figure 9, Section 4). The top of the deposit occurred 0.75m below the ground surface at approximately 24.3m OD. A single sherd of

Stamford ware, of the 10th-12th century, was recovered from [017].

The remains of limestone structures [010], [030], [031] and [032] were recorded in two places during the investigation. The corner of a probable wall foundation [010], 1.93m long (as seen) and 0.39m wide, was uncovered approximately half way along the western north-south foundation trench of the extension (Figure 5). Four courses of the wall were exposed. It was constructed from ashlar and roughly hewn limestone blocks with no evidence of bonding material. The main part of the wall exposed in the foundation trench, was oriented north-south, though there appeared to be an east-west return at its southern end (Plate 3 and Figure 6, Plan 3). The top of the masonry was encountered 0.4m below the ground surface at approximately 24.6m OD.

The wall was trench built, so the construction cut [019] respected the edges of the masonry (Figure 8, Section 2). The small amount of backfill [020] comprised a loose, brown, clayey sandy silt containing flecks of charcoal and small limestone fragments.

Disarticulated human bone was recovered from close proximity to wall [010] and this may suggest that part of the graveyard was disturbed during the construction of this building.

Six metres west of wall [010], a stone built drain [032], capped by slabs of limestone [031] was revealed during excavations of a soakaway (Figure 7, Plans 4, 5 and 6). The exposed part of the drain extended for 1.35m northeast-southwest and was constructed by placing two parallel rows of limestone blocks 100mm apart to form a rectangular channel, which was capped with limestone slabs (Figure 7, Plan 4 and Figure 9, Section 7). The drain appeared to be contemporary with a cobbled surface [033] which abutted

its northern edge (Figure 7, Plan 5 and Figure 9, Section 7). Only a small area, 0.4m by 0.3m of the surface was exposed in the base of the soakaway trench. The cobbles were set into a matrix of dark brown silt and occasional fragments of brick were incorporated into the surface. The capstones of the drain [031] and the cobbling [033] lay 0.6m below the topsoil at approximately 24.4m OD.

A concentration of limestone rubble [030] (Figure 7 Plan 6) overlay the drain and cobbled surface which, in turn, was sealed by subsoil [009].

5.3 Phase 3: Recent Deposits

A 0.3m thick layer of loose mid-yellowish brown subsoil [009], containing many limestone fragments and a very mixed assemblage of post-medieval and modern artefacts, was recorded throughout the area of investigation. Fragments of disarticulated bone were recovered from this deposit, possibly indicating that the graveyard had undergone a degree of disturbance. These fragments included part of a cranium, part of a femur and two fragments of tibia (Appendix 5).

This was covered by a 0.3m thick layer of topsoil [001], typically a soft, dark brown clayey silt, occurred throughout the area of the extension. The topsoil was cut by a shallow foundation for a gravel drainage surface [022] which, in turn, was cut by a modern drainage ditch [024], both located adjacent to the southern wall of the existing school building (Figure 5). The easternmost soakaway trench cut through an area of concrete [028], supported by a layer of limestone hardcore [029] (Figure 9, Section 8).

6. DISCUSSION

The natural clayey sand with pebbles and iron panning represents the weathered surface of the underlying parent rock. Lenses of naturally deposited clay, as encountered in this investigation and a previous investigation (Hambly 2000b), appear to occur towards the lower slopes of the river valley. The top of the natural deposits occurred at 24m OD, four metres lower than natural deposits recorded approximately 60m to the south during an archaeological evaluation of part of the junior school playing field (Hambly 2000a). This reflects the general slope of the land down to the northwest towards the River Welland.

In the southern half of the area affected by the development, five grave cuts were partially exposed within the confines of the foundation trenches, four containing human remains. The grave cuts being clearly visible at an approximate height of 24.5m OD. They were all oriented east-west, a characteristic of the Christian burial tradition, the density of the burials also suggests they were interred in a cemetery. No evidence of coffins, coffin fittings or grave markers were found during the investigation, but only a limited area was excavated.

During the construction of the Stamford to Leicester railway in 1846, the cutting of which lies within 20m south of the Nuns boarding house, it was recorded that, amongst many other remains, a quantity of human bone and a coffin lid was found (RCHME 1977). A recent archaeological evaluation of the playing field east of the junior school building (Hambly 2000a), approximately 65m south of the development area, on the south side of the railway cutting (Figure 3), identified part of a medieval cemetery, presumed to be associated with St. Michael's priory. The combined evidence reveals the existence of,

a sizeable cemetery, the limits of which stretch from at least the site of the Nuns boarding house in the north to the playing field, east of the junior school to the south.

The corner of a limestone wall or foundation of a wall [010], which was traced for 1.93m along the western footing trench probably represents the remains of a building within the monastic complex. Although no dating evidence was recovered from the wall its position in the stratigraphic sequence suggests that it was constructed at some time between the early use of the grave yard and the later post-medieval period, it may have been contemporary with the later use of the graveyard. The presence of disarticulated skeletal material in close proximity to the wall could suggest that its construction had disturbed burials, although the deposits from which the bone was recovered was overlying the wall and this material could represent other, later, disturbance.

Located 2.5m south of the corner of wall, the compaction and composition of sandy layer [017], support an interpretation that it is the remains of a made surface. Pottery from the deposit dates it to the 10th to 12th centuries. The height of the top of the surface relative to wall [010] suggests a possibility that the two features are associated, although they are not contiguous. Layer [017], therefore, may be the remains of a contemporary surface outside the building represented by the wall, or a layer of trample formed during the construction of the wall.

Six metres west of the wall, the remains of a limestone drain [031, 032] and fragment of an associated cobbled surface [033] suggest a probable courtyard. The nature of the construction and stratigraphic position of the remains indicate they belong to the medieval period. The courtyard, if contemporary with

wall [010], lies to the west of the building, or, according to the ground plan (Figure 5), may even be bounded by it. The limestone rubble [030] that overlay the cobbled surface may originate from the demolition of the wall or another nearby structure not encountered in the investigation.

Within our present limited understanding of the layout of St. Michael's priory, the central church and cloistral complex, has been tentatively located, on the basis of recent investigations (Cope-Faulkner 1999; Hambly 2000c) and historical records, to the northern half of the site occupied by the present junior school and the area truncated by the railway cutting (Figure 3). The courtyard and building identified in this investigation lie to the north east of the central complex and so probably represent the remains of other buildings that would have been integral to a monastic complex, such as an infirmary, bake house, guest quarters etc.

The presence of post-medieval pottery and clay pipe dating from the 18th to 19th centuries and modern material in the upper layer of subsoil [009] indicates that there was habitation in the vicinity during the post-medieval period. Pottery of the 16th to 18th century and animal bone, representing typical domestic refuse was also found in the previous evaluation. The author notes that there is no real indication of a post-dissolution house, but that a farm is shown near the site on 17th and 18th century maps of the area (Cope-Faulkner 1999).

7. CONCLUSIONS

An archaeological watching brief during groundworks for an extension to the Nuns boarding house, Stamford High School, was undertaken because the proposed development lay within the medieval priory

of St. Michael.

Further evidence of ditches, pits or a trackway recorded during a previous investigation just to the east at Station Yard (Dymond 1994) were not found, though this may be, in part, due to the limited area of the excavations. It was established that the truncation caused by the construction of the railway identified in the Station Yard evaluation (*ibid*) did not extend as far west as the Nuns boarding house. Post-medieval disturbance of the upper 0.5m of the site, however, appeared to have taken place, in contrast to the relatively undisturbed sequence of archaeological and natural deposits recorded in investigations south of the railway cutting (Hambly 2000a, b & c).

The present investigation revealed that a cemetery identified in a previous archaeological evaluation, 65m to the south, extends northwards at least as far as the Nuns boarding house, thereby indicating the existence of a sizeable burial ground associated with St. Michael's priory.

The southwest corner of a limestone building, a limestone drain and cobbled surface probably represent the remains of conventual buildings located to the northeast of the central cloistral and church complex.

Although these remains were probably built after the establishment of the cemetery, stratigraphic, comparative and historical evidence suggest they are still likely to belong to the medieval period.

A small quantity of medieval (10th to 14th century) pottery and one fragment of medieval roof tile was recovered from the fill of one of the graves and from a possible surface. Other material was 18th to 20th century and recovered from disturbed subsoil.

Archaeological remains were well preserved and survived between 0.3 and 0.7m below the present ground surface, between approximately 24.7m and 24.3m OD. The potential exists for further associated deposits, including inhumations and building remains, to be present in the area. It is likely that any archaeological remains would occur at a similar level and also be in a good state of preservation.

8. ACKNOWLEDGEMENTS

Archaeological Project Services wish to acknowledge the assistance of Mr A. Delaney of W. J. Hemmings and Partners for commissioning the fieldwork and post-excavation analysis. Steve Malone coordinated this project and Denise Drury and Tom Lane edited this report. Gail Smith, the South Kesteven Community Archaeologist, provided access to the relevant parish files maintained by Heritage Lincolnshire.

9. PERSONNEL

Project coordinator	Steve Malone
Field staff	Mark Dymond Tobin Rayner, Steve Thompson
Finds processing	Denise Buckley
Illustration	Mark Dymond Joanna Hambly James Snee
Photographic reproduction	Sue Unsworth
Post-excavation analyst	Joanna Hambly

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11. ABBREVIATIONS

APS	Archaeological Project Services
BGS	British Geological Survey
IFA	Institute of Field Archaeologists
RCHME	Royal Commission on Historical Monuments for England
OD	Ordnance Datum

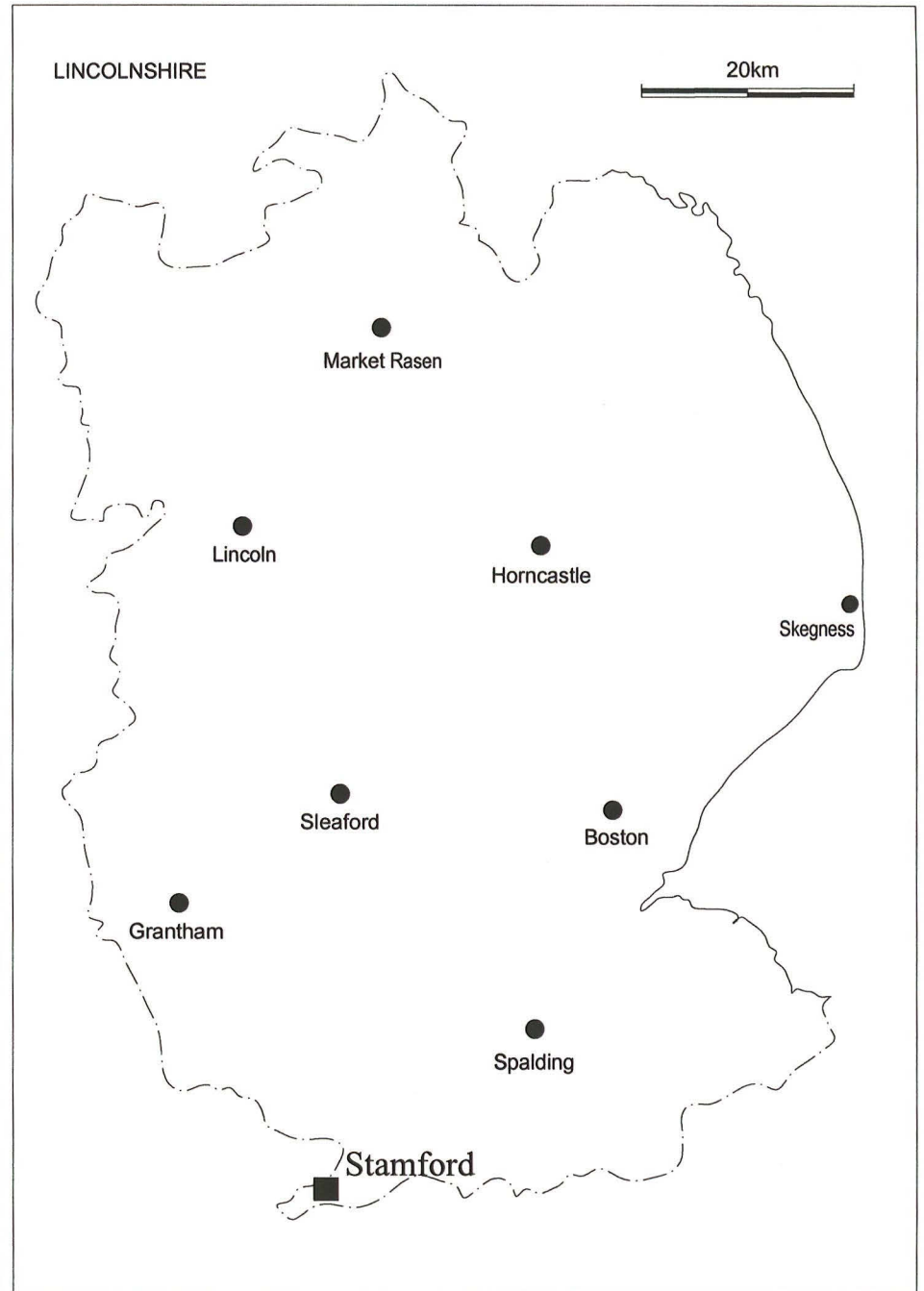


Figure 1 - General Location Plan.

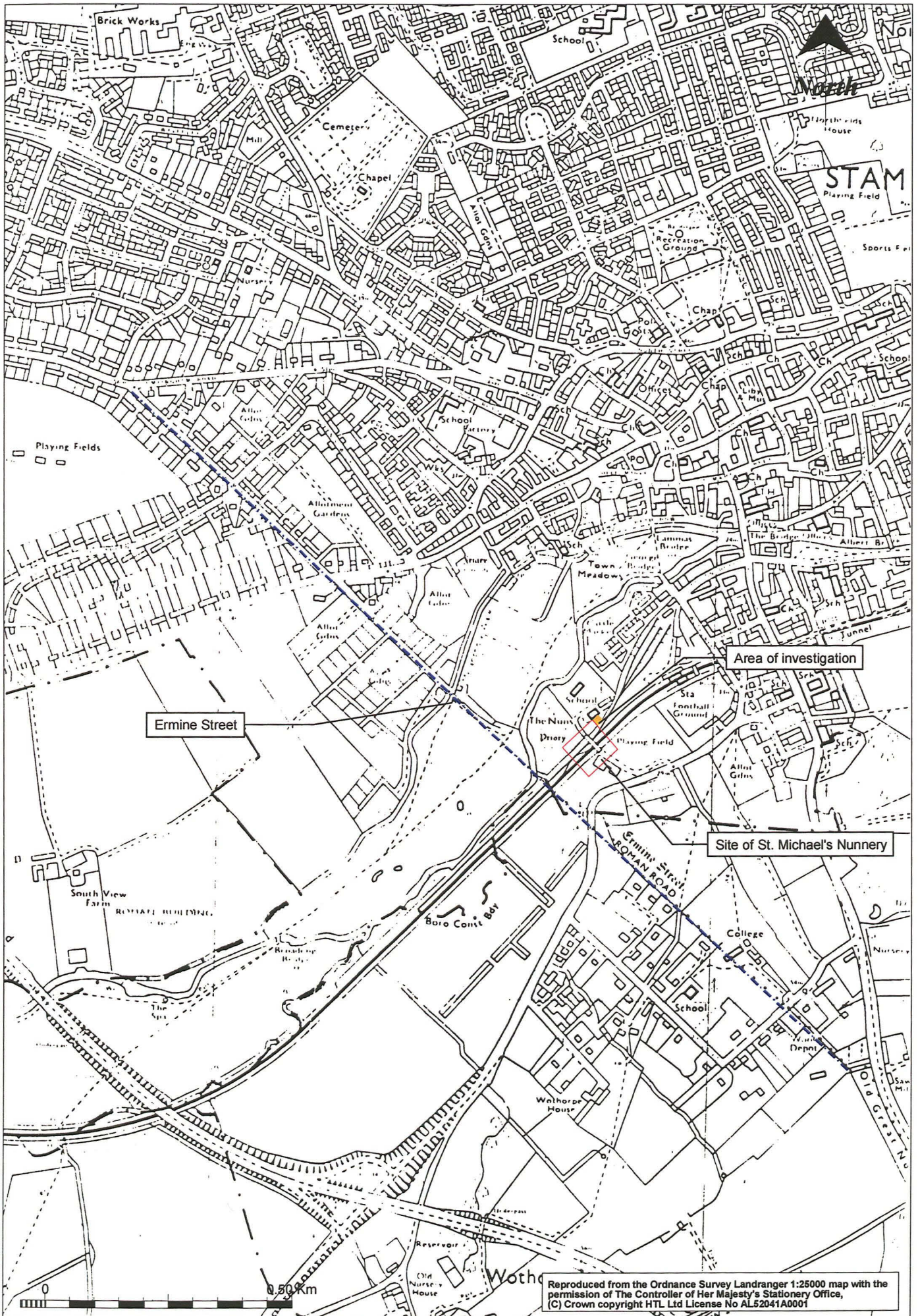


Figure 2 Site Location Plan

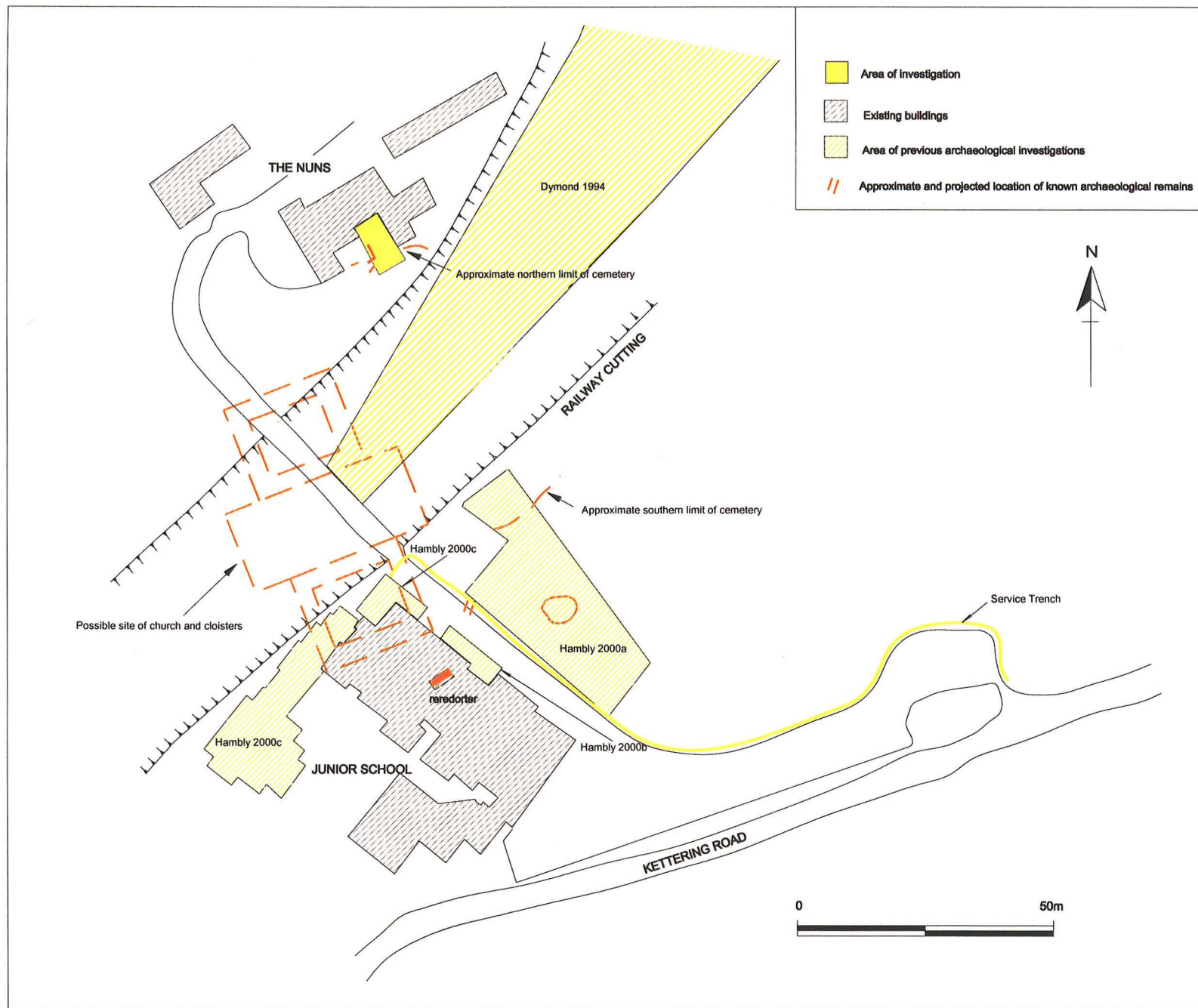


Figure 3: Detailed site location in relation to previous archaeological investigations and the approximate and projected location of known archaeological remains

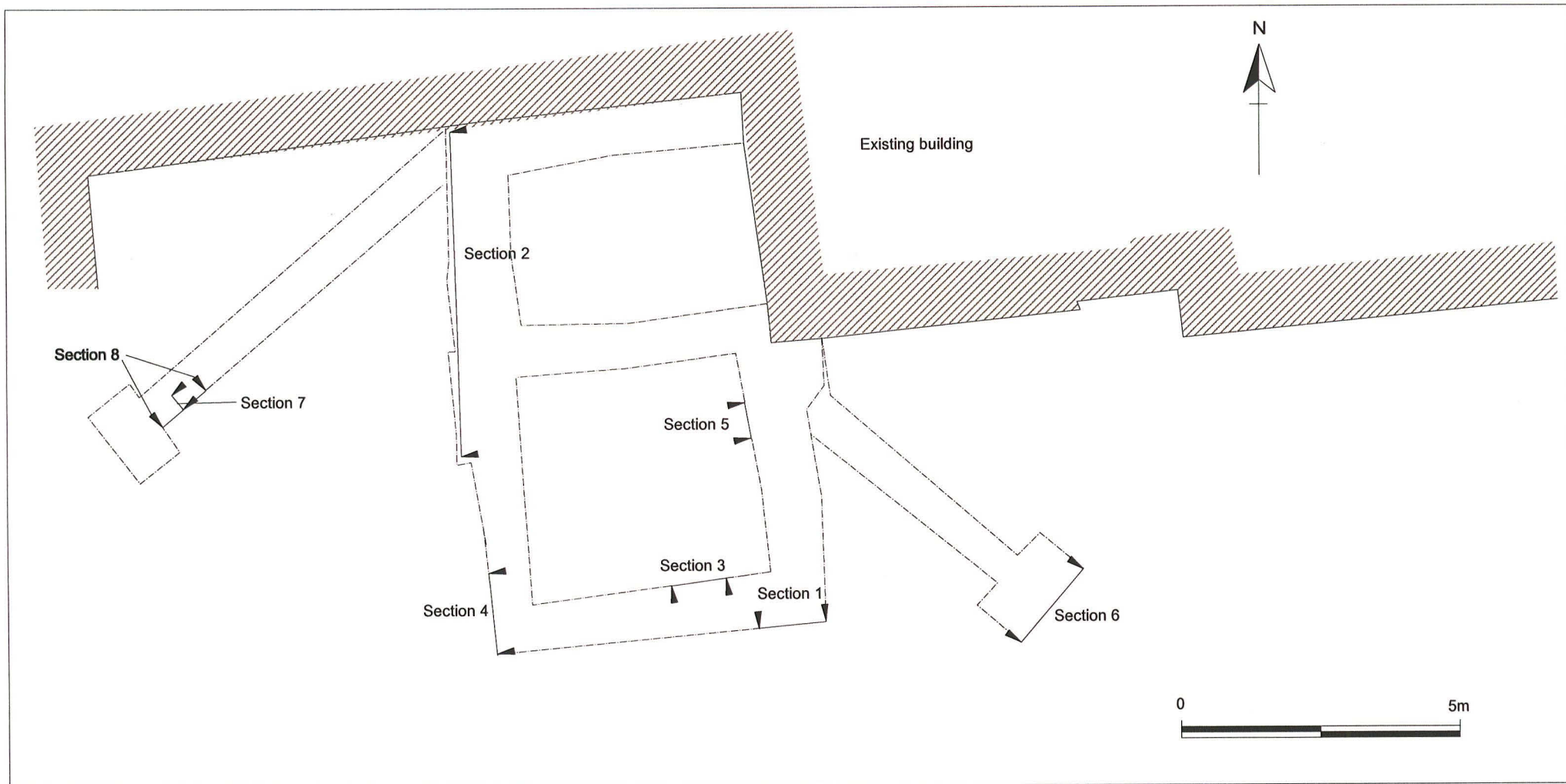


Figure 4 Detailed development area with section locations

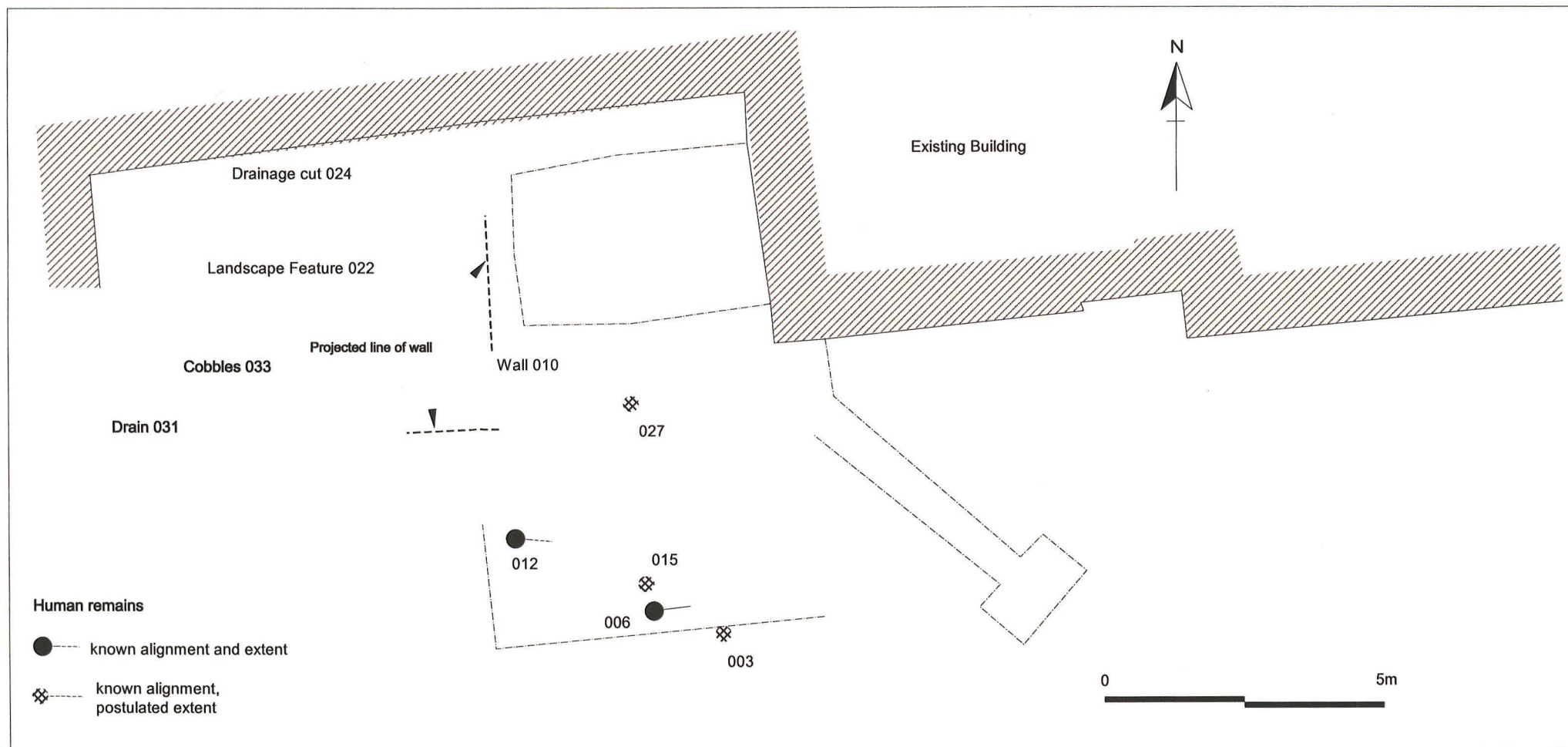
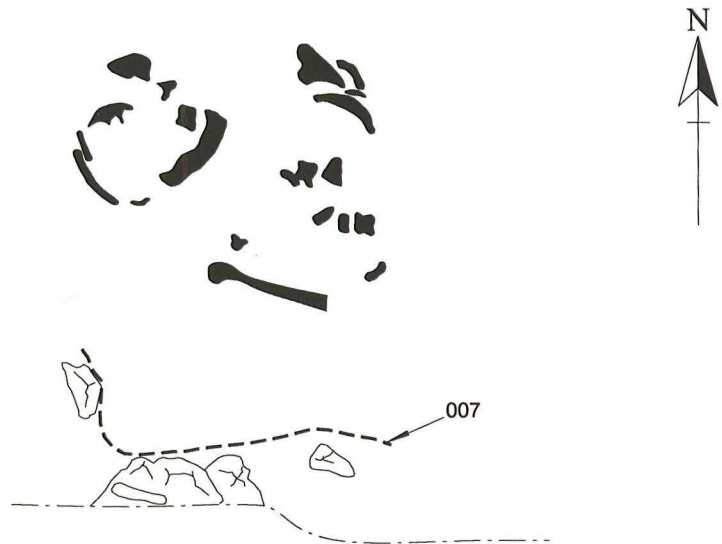
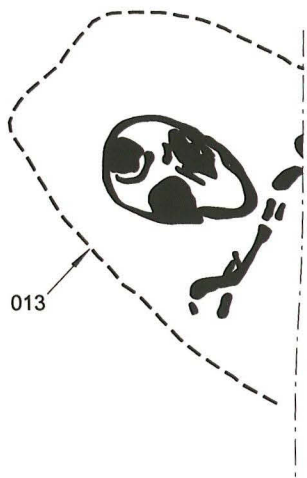


Figure 5: Location of archaeological remains recorded in development area



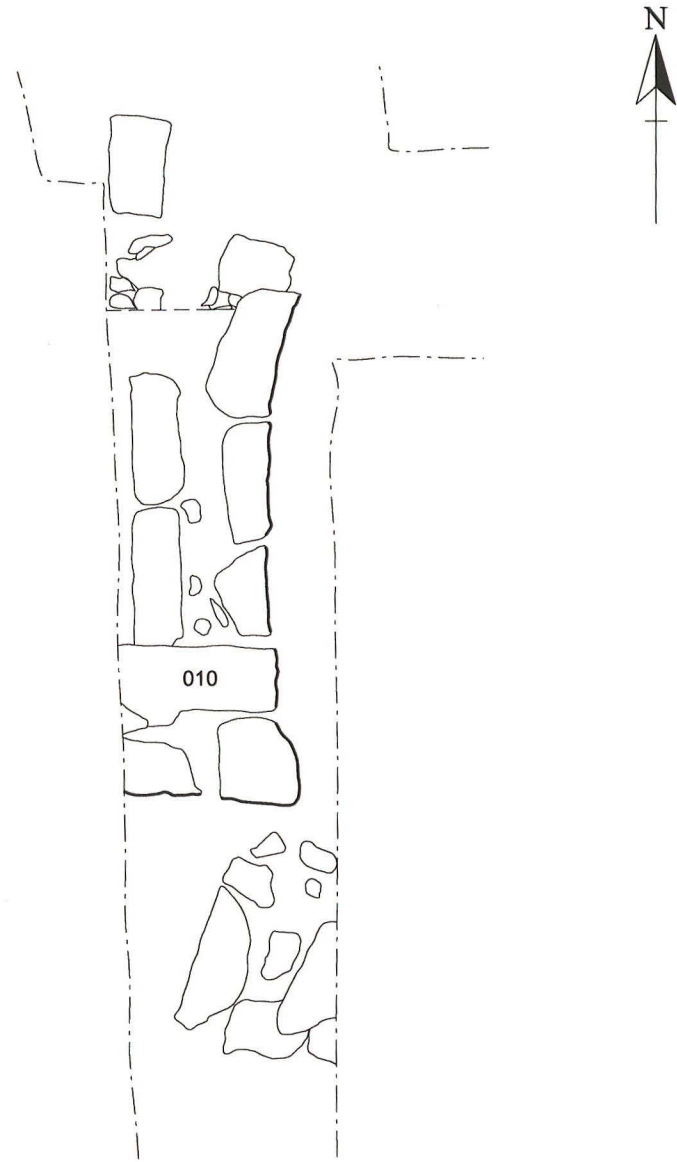
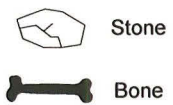
Plan 1 Skeleton 006



013

Plan 2 Skeleton 012

0 0.25m



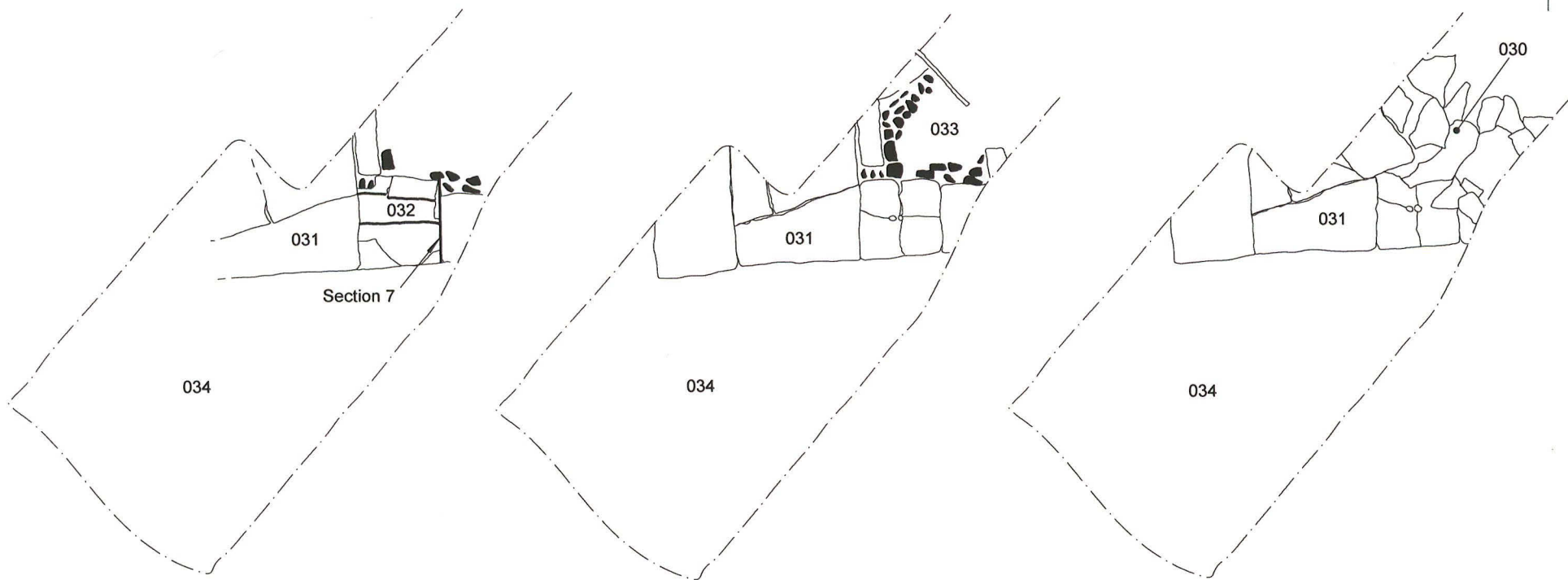
010

Plan 3 Wall 010

0 0.5m



Figure 6 Plans 1 and 2 (Scale 1:10) and Plan 3 (Scale 1:20).

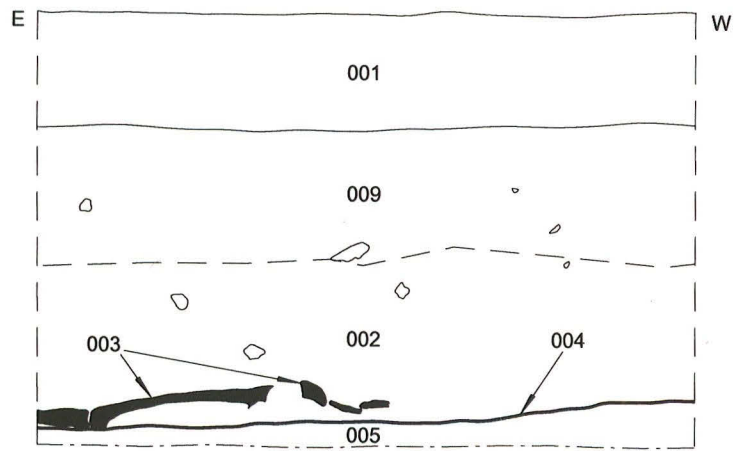


Plan 4 Drain 031/032

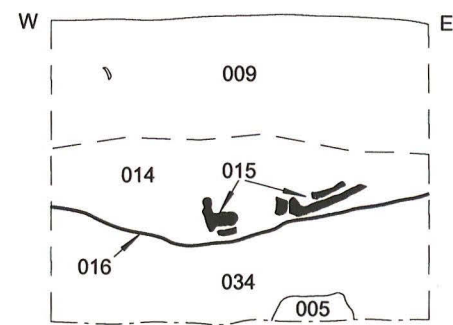
Plan 5 Drain 031/032 and Cobbled Surface 033

Plan 6 Drain 031/032 and Wall 030

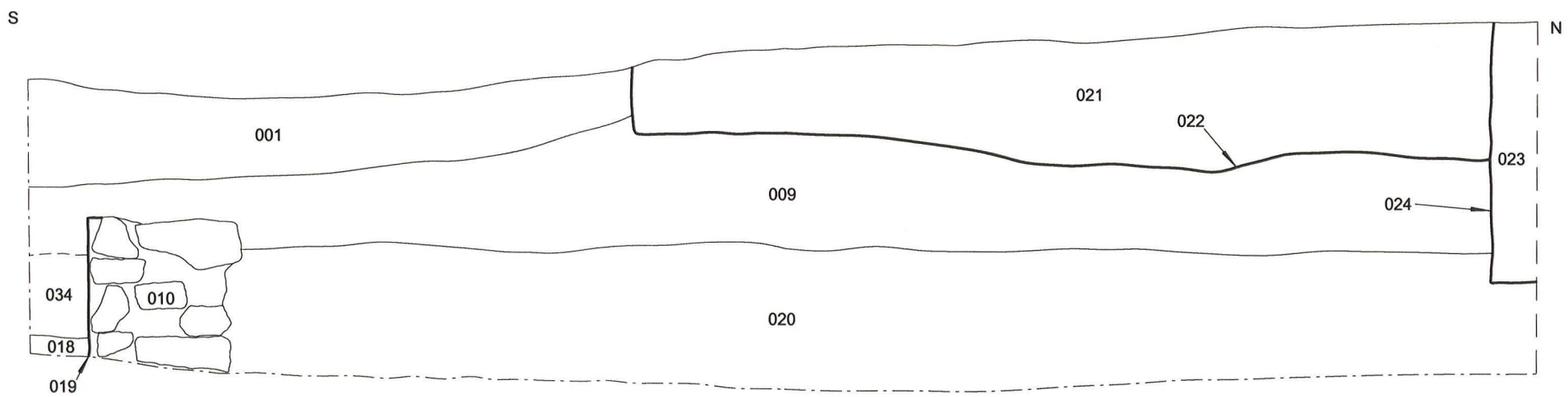
Figure 7 Plans 4, 5 and 6. Scale 1:25.



Section 1 North Facing



Section 3 South Facing

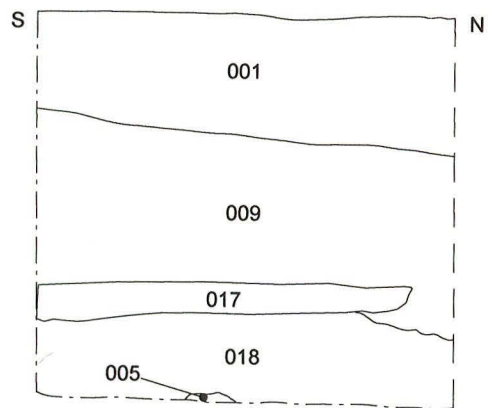


Section 2 East Facing

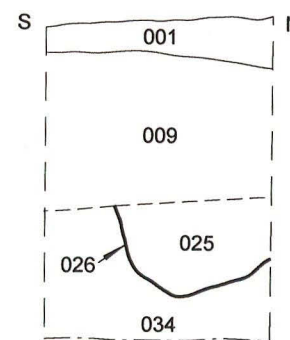
0 0.5m



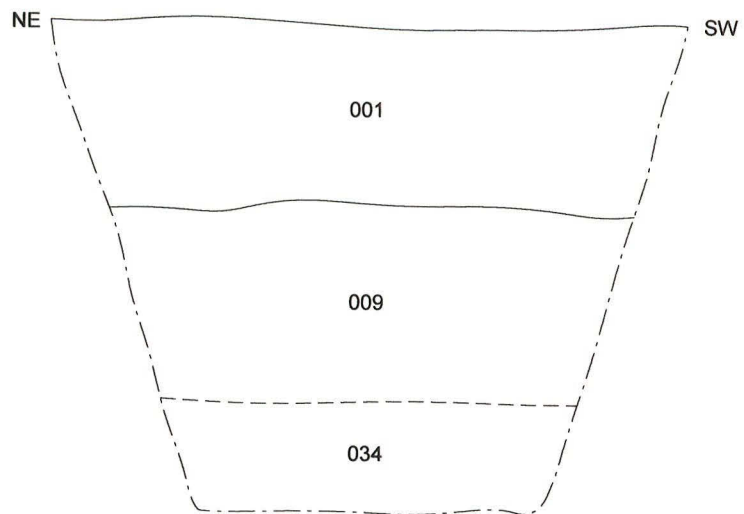
Figure 8 Sections 1, 2 and 3. Scale 1:20.



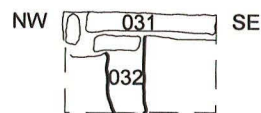
Section 4 East Facing



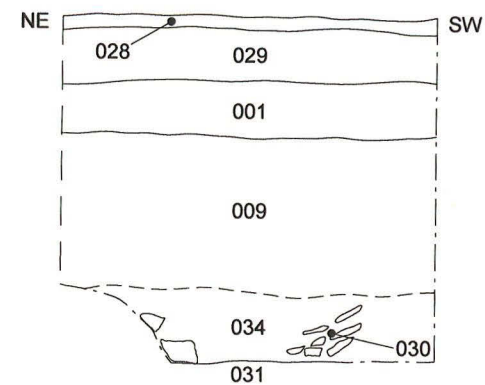
Section 5 East Facing



Section 6 Northwest Facing



Section 7 Southwest Facing



Section 8 Northwest Facing

0 0.5m

Stone

Figure 9 Sections 4 to 8. Scale 1:20.



Plate 1 General view of
topsoil stripping, looking east



Plate 2 General view of
work in progress, looking
northwest



Plate 3 Wall [010],
looking north



Plate 4 Skeleton [012] in
grave cut [013], looking south



Plate 5 Skeleton [003] and
overlying stratigraphy,
looking southwest

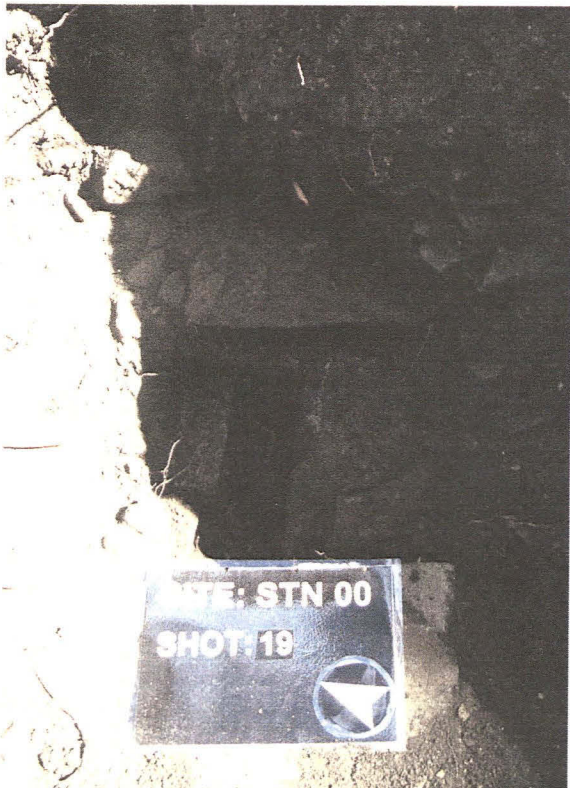


Plate 6 Drain [032] and
[031], looking northeast

Appendix 1

BRIEF FOR ARCHAEOLOGICAL WATCHING BRIEF
DURING EXTENSION AND ALTERATIONS
TO SCHOOL BOARDING HOUSE,
STAMFORD HIGH SCHOOL,
KETTERING ROAD,
STAMFORD

WATCHING BRIEF DURING EXTENSION AND ALTERATIONS TO SCHOOL BOARDING HOUSE, STAMFORD HIGH SCHOOL, KETTERING ROAD, STAMFORD.

1. SUMMARY.

1.1 This document is the brief for an archaeological watching brief to be carried out during extension and alterations to school boarding house, Stamford High School.

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.

(The Community Archaeologist does not maintain a list of archaeological contractors but names of local units can be found in the Yellow Pages or from the Institute of Field Archaeologists Tel 0118 931 6446.)

1.3 The detailed specifications will be submitted for approval to the Community Archaeologist of South 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 The application site lies in the south-west of Stamford, south of the river Welland, and north of the railway. The actual site itself is situated at NGR: TF 02763 06574. Please see location map.

3. PLANNING BACKGROUND.

3.1 A planning application renewal has been submitted to South Kesteven District Council for: Extension and alterations to school boarding house (S99/1294/69).

Due to the possibility that archaeological remains may be present on the site, the Community Archaeologist for South Kesteven has recommended that a Watching Brief take place during the groundwork stages of the development.

4. ARCHAEOLOGICAL BACKGROUND.

4.1 The proposed development is located in the area of the site of the 13th century Benedictine priory of St. Michael, founded c.1155 to house forty nuns, some monks and a prior. It was dissolved in 1536. When the current junior school was built on the opposite side of the railway, part of the latrine to the priory was exposed and subsequently scheduled as an Ancient Monument. Recent investigations at the junior school have identified further remains of the priory buildings in the form of an L-shaped wall. Painted plaster and a mortar floor suggest this was perhaps part of a cloister. Later deposits uncovered were associated with the demolition of the nunnery during the post-medieval period.

During construction of the railway in the 19th century, significant remains were uncovered including 'ancient foundations. . . broken mullions of windows and other carved stones, five stone coffins, a quantity of human bones, coloured glass' etc.

- 6.2.1 archaeological supervision of soil stripping;
- 6.2.2 inspection of subsoil for archaeological features;
- 6.2.3 recording of archaeological features in plan;
- 6.2.4 rapid excavation of features if necessary.
- 6.2.5 archaeological supervision of subsoil stripping;
- 6.2.6 inspection of natural for archaeological features and recording of them;
- 6.2.7 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 under the Disused Burial Grounds (Amendment) Act, 1981 or other Burial Acts 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. Attempt must be made at all times not to cause offence to any interested parties;
- 6.2.8 If discovered during excavation, finds of gold and silver must be archaeologically removed to a safe place and reported to the local Coroner immediately (within 14 days) in accordance with the procedures of the Treasure Act 1997 and Code of Practice. If removal of such finds is not possible on the same day then adequate security arrangements must be made.
- 6.2.9 The use of a metal detector on site is encouraged. Especially for the survey of spoil heaps.

7. MONITORING ARRANGEMENT.

7.1 The Community Archaeologist of South Kesteven District Council will be responsible for monitoring progress and standards throughout the project and will require at least fourteen days notice prior to the commencement of the work. The Community Archaeologist should be kept informed of any unexpected discoveries and regularly updated on the project's progress. They should be allowed access to the site at their convenience and will comply with any health and safety requirements associated with the site.

8. REPORTING REQUIREMENT.

8.1 A full report should be produced and deposited with the South Kesteven Community Archaeologist, South Kesteven District Council Planning Department, the Developer and the County Sites and Monuments Record. The report should include:

- 8.1.1 location plan of the development;
- 8.1.2 section and plan drawing, with ground level, Ordnance Datum, vertical and horizontal scales as appropriate;

Mr T Page
City and County Museum
12 Friars Lane
Lincoln
LN2 5AL

Brief set by Community Archaeologist, South Kesteven District Council. January 2000. This project brief is valid for a period of six months. After that period consult the SKCA.

Appendix 2

**EXTENSIONS AND ALTERATIONS
TO THE NUNS BOARDING HOUSE
STAMFORD HIGH SCHOOL**

**SPECIFICATION FOR
ARCHAEOLOGICAL WATCHING-BRIEF**

**PREPARED FOR
W. J. HEMMINGS & PARTNERS**

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

MARCH 2000

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1 SUMMARY

- 1.1 *This document comprises a specification for the archaeological watching-brief during extensions and alterations to The Nuns Boarding House at Stamford High School, Kettering Road, Stamford.*
- 1.2 *Medieval St. Michael's Priory was located in the vicinity of the site, with the Scheduled remains of the priory latrine (reredorter) being 100m to the south. Archaeological evaluation in the vicinity of the school revealed well-preserved medieval remains. Within Station Yard, to the east, there is considerable modern disturbance.*
- 1.3 *The watching brief will be undertaken during groundworks associated with the development. The archaeological features exposed will be recorded in writing, graphically and photographically.*
- 1.4 *On completion of the fieldwork a report will be prepared detailing the results of the investigation. The report will consist of a narrative supported by illustrations and photographs.*

2 INTRODUCTION

- 2.1 This document comprises a specification for an archaeological watching brief during extensions and alterations to The Nuns Boarding House (Client Ref: SHS55) at Stamford High School, Kettering Road, Stamford, Lincolnshire, national grid reference TF 027 065.
- 2.2 The document contains the following parts:
- 2.2.1 Overview
 - 2.2.2 The archaeological and natural setting
 - 2.2.3 Stages of work and methodologies to be used
 - 2.2.4 List of specialists
 - 2.2.5 Programme of works and staffing structure of the project

3 SITE LOCATION

- 3.1 Stamford is located 63km south of Lincoln and 17km northwest of Peterborough in the southwest corner of Lincolnshire. The site is in the southwestern part of the town, south of the River Welland and about 600m south of the town centre. It lies just to the north of the railway at national grid reference TF 0276 0657.
- 3.2 The site is an irregular rectangular block of land approximately 450 square metres in extent on the southern side of existing school boarding house.

4 PLANNING BACKGROUND

- 4.1 A full planning application (S99/1294/69) for extensions and alterations to an existing school boarding house has been approved by South Kesteven District Council subject to a condition that

an archaeological watching-brief be implemented. A brief for the works has been produced by the Community Archaeologist, South Kesteven District Council.

5 **SOILS AND TOPOGRAPHY**

5.1 Located on the south bank of the River Welland, the site lies at approximately 25m OD on land that slopes down northward to the river. Soils at the site are Denchworth Association pelostagnogleys, with Fladbury 1 Association pelo- alluvial gleys immediately to the north (Hodge *et al.* 1984 155; 194). These soils are developed on clayey alluvial subsoils. Beneath this alluvium is a solid geology of Lower Lincolnshire Limestone.

6 **ARCHAEOLOGICAL OVERVIEW**

6.1 The proposed development area lies in the vicinity of St. Michael's Priory, a nunnery founded in 1155. The nunnery was set within an enclosure that also accommodated a cemetery. The nunnery was dissolved in 1536, though ruins of the establishment seem to have been evident at least until 1779. Remains of the nunnery, including burials, were found during construction of the railway yard, north of the railtrack, in the mid 19th century.

6.2 Part of the reredorter (toilet block) of the nunnery has been excavated and is preserved in an underground chamber beneath the entrance of the Junior School to the south of the railway. This reredorter is a Scheduled Ancient Monument, County Number 22607. Archaeological investigation by APS of the site of a proposed extension to the junior school revealed well-preserved medieval masonry and floor levels of one of the Priory buildings, perhaps part of a cloister, standing *c.* 0.5m high (Cope-Faulkner 1999).

6.3 Evaluation in Station Yard (APS 1994) concluded that medieval and later deposits had been largely disturbed by the 19th-century railway construction. However, archaeological features were present in the eastern part of the site, closest to the present proposal, and it is probable that the modern disturbance was confined to the station yard.

7 **AIMS AND OBJECTIVES**

7.1 The aims of the watching brief will be:

7.1.1 To record and interpret the archaeological features exposed during the excavation of the foundation trenches and other areas of ground disturbance.

7.2 The objectives of the watching brief will be to:

7.2.1 Determine the form and function of the archaeological features encountered;

7.2.2 Determine the spatial arrangement of the archaeological features encountered;

7.2.3 As far as practicable, recover dating evidence from the archaeological features, and

7.2.4 Establish the sequence of the archaeological remains present on the site.

8 **SITE OPERATIONS**

8.1 General considerations

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

8.2 Methodology

- 8.2.1 The watching brief will be undertaken during the ground works phase of development, and includes the archaeological monitoring of all phases of soil movement.
- 8.2.2 Stripped areas and trench sections will be observed regularly to identify and record archaeological features that are exposed and to record changes in the geological conditions. The section drawings of the trenches will be recorded at a scale of 1:10. Should features be recorded in plan these will be drawn at a scale of 1:20. Written descriptions detailing the nature of the deposits, features and fills encountered will be compiled on Archaeological Project Services pro-forma record sheets.
- 8.2.3 Any finds recovered will be bagged and labelled for later analysis.
- 8.2.4 Throughout the watching brief a photographic record will be compiled. The photographic record will consist of:
 - 8.2.4.1 The site during work to show specific stages, and the layout of the archaeology within the trench.
 - 8.2.4.2 groups of features where their relationship is important
- 8.2.5 Should human remains be located the appropriate Home Office licence will be obtained before their removal. In addition, the Local Environmental Health Department and the police will be informed.

9 POST-EXCAVATION

9.1 Stage 1

- 9.1.1 On completion of site operations, the records and schedules produced during the watching brief will be checked and ordered to ensure that they form a uniform sequence forming a level II archive. A stratigraphic matrix of the archaeological deposits and features present on the site will be prepared. All photographic material will be catalogued and labelled, the labelling referring to schedules identifying the subject/s photographed.
- 9.1.2 All finds recovered during the field work will be washed, marked and packaged according to the deposit from which they were recovered. Any finds requiring

specialist treatment and conservation will be sent to the Conservation Laboratory at the City and County Museum, Lincoln.

9.2 Stage 2

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

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

9.3 Stage 3

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

9.3.2 This will consist of:

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

9.3.2.2 A description of the archaeological setting of the watching brief.

9.3.2.3 Description of the topography of the site.

9.3.2.4 Description of the methodologies used during the watching brief.

9.3.2.5 A text describing the findings of the watching brief.

9.3.2.6 A consideration of the local, regional and national context of the watching brief findings.

9.3.2.7 Plans of the archaeological features exposed. If a sequence of archaeological deposits is encountered, separate plans for each phase will be produced.

9.3.2.8 Sections of the archaeological features.

9.3.2.9 Interpretation of the archaeological features exposed, and their chronology and setting within the surrounding landscape.

9.3.2.10 Specialist reports on the finds from the site.

9.3.2.11 Appropriate photographs of the site and specific archaeological features.

10 **REPORT DEPOSITION**

10.1 Copies of the report will be sent to the client; the South Kesteven Community Archaeologist; South Kesteven District Council Planning Department; and to the County Council Archaeological Sites and Monuments Record.

11 **ARCHIVE**

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

12 **PUBLICATION**

- 12.1 A report of the findings of the watching brief will be published in Heritage Lincolnshire's Annual Report and a note presented to the editor of the journal *Lincolnshire History and Archaeology*. If appropriate, notes on the findings will be submitted to the appropriate national journals: *Britannia* for discoveries of Roman date, and *Medieval Archaeology* and the journal of the *Medieval Settlement Research Group* for findings of medieval or later date.

13 **CURATORIAL RESPONSIBILITY**

- 13.1 Curatorial responsibility for the archaeological work undertaken on the site lies with the Community Archaeologist of South Kesteven District Council. They will be given seven days notice in writing before the commencement of the project.

14 **VARIATIONS**

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

15 **PROGRAMME OF WORKS AND STAFFING LEVELS**

- 15.1 The watching brief will be integrated with the programme of construction and is dependent on the developers' work programme. It is therefore not possible to specify the person-hours for the archaeological site work.
- 15.2 An archaeological supervisor with experience of watching briefs will undertake the work.
- 15.3 Post-excavation analysis and report production will be undertaken by the archaeological supervisor, or a post-excavation analyst as appropriate, with assistance from a finds supervisor, illustrator and external specialists. It is expected that each fieldwork day (equal to one person-day) will require a post-excavation day (equal to one-and-a-half person-days) for completion of the analysis and report. If the fieldwork lasts longer than about four days then there will be an economy of scale with the post-excavation analysis.

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

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

Task

Body to be undertaking the work

Conservation	Conservation Laboratory, City and County Museum, Lincoln
Pottery Analysis	Prehistoric - D. Knight, Trent & Peak Archaeological Unit Roman - B Precious, Independent Specialist Anglo-Saxon - J Young, Independent Specialist Medieval and later - G. Taylor APS in consultation with H Healey, Independent Archaeologist
Non-pottery Artefacts	J Cowgill, Independent Specialist
Animal Bones	Environmental Archaeology Consultancy
Environmental Analysis	J Rackham, Independent Specialist
Human Remains Analysis	R Gowland, Independent Specialist

17 **INSURANCES**

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

18 **COPYRIGHT**

- 18.1 Archaeological Project Services shall retain full copyright of any commissioned reports under the *Copyright, Designs and Patents Act 1988* with all rights reserved; excepting that it hereby provides an exclusive licence to the client for the use of such documents by the client in all matters directly relating to the project as described in the Project Specification.
- 18.2 Licence will also be given to the archaeological curators to use the documentary archive for educational, public and research purposes.
- 18.3 In the case of non-satisfactory settlement of account then copyright will remain fully and exclusively with Archaeological Project Services. In these circumstances it will be an infringement under the *Copyright, Designs and Patents Act 1988* for the client to pass any report, partial report, or copy of same, to any third party. Reports submitted in good faith by Archaeological Project Services to any Planning Authority or archaeological curator will be removed from said planning Authority and/or archaeological curator. The Planning Authority and/or archaeological curator will be notified by Archaeological Project Services that the use of any such information previously supplied constitutes an infringement under the *Copyright, Designs and Patents Act 1988* and may result in legal action.
- 18.4 The author of any report or specialist contribution to a report shall retain intellectual copyright of their work and may make use of their work for educational or research purposes or for further publication.

19 **BIBLIOGRAPHY**

APS, 1994 Archaeological Evaluation at the Station Yard, Station Road, Stamford, Lincolnshire unpublished APS report

Cope-Faulkner, P. 1999 *Archaeological Evaluation on Land Adjacent to Stamford High School, Kettering Road, Stamford, Lincolnshire* unpublished APS report **118/99**

Hodge, CAH, Burton, RGO, Corbett, WM, Evans, R, and Seale, RS, 1984 *Soils and their use in Eastern England*, Soil Survey of England and Wales **13**

Specification: Version 2, 01-03-00

Appendix 3

CONTEXT SUMMARY

Context Number	Description	Interpretation
001	Soft dark brown, clayey silt	Topsoil
002	Loose mid-yellowish brown, clayey silt, with frequent limestone fragments, 0.8m thick	Fill of grave [004]
003	Articulated right leg and partial pelvis, radius and ulna	Skeleton
004	Grave cut for skeleton [003]	Grave cut for skeleton [003]
005	Plastic mid-grey, clay. + 0.15m thick	Natural clay
006	Articulated partial skull, vertebra, left clavicle, scapulas, sternum, right humerus	Skeleton
007	Grave cut for skeleton [006]	Grave cut for skeleton [006]
008	Loose mid-yellowish brown, silty clay, with occasional limestone fragments, 0.5m thick	Fill of grave cut [007]
009	Loose mid-yellowish brown, clayey silt, with frequent limestone fragments, 0.30m thick	Subsoil
010	Two courses of dry stone limestone wall foundation, possibly a corner, N-S and E-W, 1.93m long 0.37m wide	Corner of wall foundation
011	Loose light brown, sandy silt, with limestone fragments	Fill of grave cut [013]
012	Articulated partial skull, vertebra, clavicles, partial scapulas	Skeleton
013	Rectangular grave cut, 0.53m long, 0.36m wide	Grave cut for skeleton [012]
014	Loose mid-brown, sandy silt, with occasional limestone fragments	Fill of grave cut [016]
015	Articulated partial right pelvis, right femur, tibia and fibula	Skeleton
016	Rectangular grave cut, 1.2m long, 0.25m deep, as seen	Grave cut for skeleton [015]
017	Loose light brownish yellow, silty sand, with occasional limestone fragments, 1.6m long, 0.96m wide, 60mm thick	Possible external surface

018	Compact reddish brown clayey sand, with occasional pebbles and iron panning	Natural
019	L-shaped cut in plan with square profile, oriented N-S and E-W, 1.93m long 0.37m wide +0.5m deep	Construction cut for wall [010]
020	Loose brown, clayey silty sand, containing moderate charcoal flecks and occasional limestone fragments	Backfill around wall [010] in construction trench [019]
021	Loose, dark grey and yellowish brown soil and gravel	Fill of trench to provide dry surface around building
022	Linear cut, 2.85m wide, 0.45m deep, square profile, oriented E-W	Modern drainage cut around building
023	Loose dark grey, sandy silt	Fill of modern drainage cut
024	Linear cut, square profile, 0.87m wide, 0.85m deep	Modern drainage cut
025	Loose brown, sandy silt, with frequent limestone fragments	Fill of grave cut [026]
026	Rectangular grave cut, 0.46m wide, 0.63m deep, oriented E-W	Grave cut
027	Animal bone in fill [025]	Animal bone
028	Concrete surface	Modern concrete surface
029	Loose mid-yellowish white limestone rubble	Hardcore for concrete surface [028]
030	Dry stone limestone wall, 0.7m long, 0.6m wide as seen, oriented northeast-southwest	Wall - possibly continuation of wall [010]
031	Limestone capping stones for drain, 0.55m x 0.50m x 60mm	Capping stones for drain
032	Drain constructed with squared limestone blocks, 1.34m long by 0.55m wide, oriented N-S	Drain
033	Cobbles within a loose dark brown silty matrix, containing occasional bricks	Cobbled surface bounded by drain
034	Loose mid-yellowish brown, clayey silt, with frequent limestone fragments	Subsoil

Appendix 4

THE POTTERY AND OTHER FINDS

*By Paul Cope-Faulkner, Hilary Healey,
James Rackham and Gary Taylor*

Provenance

The material was recovered from grave fill [008], subsoil [009], a possible surface [017] a possible burial [027] and a cobble surface [033].

Pottery from various production centres was recovered, with material made in Stamford and Nottingham identified. Much of the later material was probably manufactured in Staffordshire.

Range

The range of material is detailed in the table.

Context	Description	Context Date
008	1x Stamford ware, abraded, 10 th - 12 th century 1x glazed roof ridge tile, 13 th -14 th century	13 th -14 th century
009	1x Midlands Purple-type ware, 18 th century 1x Nottingham salt-glazed stoneware, mid 18 th -early 19 th century 7x creamware, late 18 th -early 19 th century 2x Mocha ware, 19 th century 4x blue and white transfer printed tableware, 19 th -early 20 th century 2x white glazed tableware, 19 th century 2x soft paste porcelain, 19 th century 1x white ironstone, copying salt-glazed stoneware, early 19 th century 1x clay pipe stem, bore 5/64", 18 th century 1x iron nail, rectangular section 8x pale green window glass, moderate iridescence, 18 th -19 th century 3x brick/tile, post-medieval 1x handmade brick, 60mm thick, post-medieval 1x machine-made brick, ?Fletton, 105mm wide, 60mm thick, 19 th -early 20 th century 1x ?handmade brick, ?Fletton, burnt on one side, 102mm wide, 56mm thick, ?19 th century 1x machine-made brick, 200mm long, 102mm wide, 65mm thick, 19 th century 2x mortar/plaster, 1 with white paint 3x Slate, 2 possibly Swithland, 1 possibly Welsh, 19 th century? 1x oyster shell 1x cattle sized rib fragment 1x sheep pelvis, 2 fragments 1x unidentified bone fragment	19 th -early 20 th century
017	1x Stamford ware, 10 th -12 th century 1x cattle metacarpus	10 th -12 th century
027	1x cattle-size thoracic vertebra - 6 fragments	
033	1x air brick, late 19 th - 20 th century	late 19 th - 20 th century

Fragments of pottery of probable 10th -12th century date are the earliest artefacts though late post-medieval pottery forms the largest component of the artefact assemblage.

Although associated with a single medieval artefact, the condition and appearance of the cattle bone from (017) implies that it is moderately recent, probably late post-medieval.

Condition

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

Documentation

A number of archaeological investigations have been undertaken in Stamford, with several in particular proximity to the present investigation site (eg, Mahany 1977, 10; Cope-Faulkner 1999).

Potential

The artefact assemblage has limited potential though the medieval pottery and tile indicates activity of the period, though of indeterminate nature, on the site. The medieval glazed roof tile complements previous discoveries of such artefacts in the vicinity (Cope-Faulkner 1999), suggesting the proximity of tile-roofed buildings during the medieval period.

References

Cope-Faulkner, P., 1999 *Archaeological Evaluation on Land Adjacent to Stamford High School, Kettering Road, Stamford, Lincolnshire (SKR 99)*, A.P.S. Report No. 118/99

Mahany, C.M., 1977, St. Michael's Nunnery, Stamford, *South Lincolnshire Archaeology* 1

Appendix 5

**The Skeletal Remains from the High School, Kettering
Road, Stamford.**

Author: Rebecca Gowland

December 2000

1.0 Introduction

The skeletal material analysed in this report was excavated during the evaluation of a site located on the South side of Stamford, at the High School on Kettering road. The evaluation identified part of a medieval cemetery believed to be associated with the priory of St. Michael's. Although five graves were recorded during the evaluation, these were not under threat of disturbance by development and were, therefore, left unexcavated. The skeletal material analysed in this report comprises three partially articulated adults and the remains of a minimum number of a further three adults. These remains were recovered under watching brief conditions. The skeletal remains were examined in order to discern age, sex, stature, and the presence of any pathological abnormalities. The methods used in this analysis, together with the results, have been presented in the following sections. A catalogue of the bones present, together with skeletal charts, has been included in the appendix.

2.0 Methods

2.1 Sexing

Sex determinations were based upon a variety of diagnostic criteria of the pelvis and skull (Krogman and İscan 1986, Bass 1987, Buikstra and Ubelaker 1994), together with a consideration of metrical data and observations regarding general robusticity. In those instances where sex cannot be confirmed absolutely (due to either ambiguous skeletal traits, or post-cranial damage/absence of bones), a question mark has been added to the sex stated to indicate a 'probable' male or female.

2.2 Ageing

Skeletal indicators of adult age at death used in this analysis include the metamorphosis of the auricular surface of the ilium (Lovejoy *et al.*, 1985), and dental attrition (Brothwell, 1981). The pubic symphyseal ageing method (Brooks and Suchey 1990) was

not used due to the non-preservation of this skeletal element. The adults have been divided into three broad age categories as defined in Ubelaker and Buikstra (1994).

Young adult (25-34)

Middle adult (35-49)

Old adult (50+).

2.3 Stature

Stature estimates were derived from several of the long bones using formulae provided by Trotter and Gleser (1952).

2.4 Pathology

All skeletal elements were examined for evidence of degenerative and infectious diseases, metabolic and endocrine disorders, nutritional deficiency, trauma and neoplastic disease. The dentition was also examined for the presence of pathological lesions or abnormalities.

3.0 Results

Context 003

This context represents a minimum number of three individuals.

Sex/Age

A number of pelvic fragments indicate that at least one middle adult female, one adult female, and at least one middle-old adult male are represented. The skull of one middle adult male is also present, whether this belongs to the same individual as the latter pelvic fragment is unknown.

Stature

None of the long bones were complete.

Pathology

A number of thoracic and lumbar vertebrae are present, belonging to more than one individual. Schmorl's nodes are present on the superior and inferior surface of a fifth lumbar vertebra. Schmorl's nodes are small depressions or pits in the vertebral bodies and occur when the intervertebral discs become herniated and exert pressure on the adjacent vertebrae. Moderate osteophytes are also present on the thoracic and lumbar vertebrae. Osteophytes form as a mechanistic response by the vertebrae to spinal degeneration.

Dental Pathology

The fragments of the maxilla and mandible of one male individual are present. This person experienced ante-mortem loss of a minimum number of two teeth (some of the jaw is missing): the upper left second molar and the lower left first molar. Ante-mortem tooth loss may occur from a variety of factors including severe attrition, periodontal disease, caries and trauma. Calculus is also present in moderate quantities on the buccal and lingual surfaces of both the anterior and posterior teeth.

Skeleton 006

Preservation

Poor. Approximately 10-20% of the skeleton remains.

Sex

Male?

Age

Old adult

Stature

Unknown

Pathology

The cranium exhibits bony changes indicative of infection. Both the right and left parietals, and the posterior part of the frontal bone exhibit reactive pitted lamellar bone, so that the outer table of the skull is considerably thicker in the region of infection. The area of infection is quite demarcated in a cap type region, and appears to be periostitic rather than osteomyelitic, the inner diploe is not affected and no cloacae are present. The alveolar bone in the region of the inferior nasal margin shows evidence of smooth resorption and pitting.

Resorption and remodeling of the rhinomaxillary area occurs during both leprosy and treponemal (syphilis) infections. The cranial changes observed in this individual do not, however, correspond to those observed in syphilis (i.e. no caries sicca or characteristic depressions). Although in the early stages of caries sicca development, inflammatory conditions may stimulate porous pitting through the cranial vault, this does not correspond to the pathological changes observed in this individual. The cranial vault changes are not characteristic of the lesions observed in tuberculous infection either, in which one or two destructive foci are usually observed.

In Leprosy, there are no specific lesions to the cranial vault, although scalp lesions arising indirectly from the disease may result in infection of the cranium. Leprosy bone changes are most frequently seen in the peripheral bones of the hands and feet. These bones have not been preserved in this individual, so there can be no confirmation that this is the cause of the pathological changes. In conclusion, the rhinomaxillary changes are suggestive of leprosy, however, the vault lesions are not characteristic of this condition, or any other specific infection that affects the bones. The pathological changes to the cranial vault are indicative of a chronic non-specific infection resulting from either trauma or infection of the soft tissue of the scalp (there is no evidence of healed fractures to the skull).

Dental pathology

This individual has lost at least nine teeth ante-mortem (not all of the jaw is present). Pitting and resorption of the alveolar bone around the tooth margins indicates periodontal disease and this factor, together with the severe attrition is likely to have been responsible for the ante-mortem tooth loss. One abscess sinus is present at the apex of the upper left second incisor and one large carious lesion is present on the lower right second molar. Heavy calculus is present both buccally and lingually on all mandibular teeth.

Skeleton 009**Preservation**

Very Poor. Less than 5% of the skeleton is preserved.

Sex

Unknown

Age

Adult

Stature

Unknown

Pathology

No pathology is present on those few bone fragments preserved

Dental pathology

No dental remains present.

Skeleton 012

Preservation

Very poor. Approximately 10% of the skeleton is all that is preserved.

Sex

Female

Age

Old adult

Stature

Unknown

Pathology

Both clavicles exhibit resorptive lesions on the sternal end in the region of the costal tuberosity. These lesions are thought to be indicative of heavy or repeated strain of this area during an activity such as lifting. The third to sixth cervical vertebrae exhibit vertebral osteophytes of varying severity, those present on the fourth and fifth cervical vertebrae being severe. Fragments of ossified pleura are also present.

Dental pathology

This individual suffered from extensive ante-mortem tooth loss, with at least six maxillary (some of the maxilla has been lost post-mortem) teeth and six mandibular teeth having been lost during life. The ante-mortem loss includes both anterior and posterior teeth and the severity of tooth wear on those remaining teeth would indicate that severe attrition is the most likely cause. One carious lesion is present on the lower left second mandibular molar.

4.0 Discussion

The skeletal remains analysed in this report comprise of at least three adult females, two adult males, and one adult of unknown age or sex. The poorly preserved and disarticulated nature of much of this material means that only a limited amount of information can be obtained. There is, however, evidence of spinal degeneration in the form of vertebral osteophytosis and Schmorl's nodes, both commonly observed conditions in skeletal remains from archaeological contexts. One individual exhibits evidence of possible leprosy, with rhinomaxillary remodeling and a chronic, non-specific infection to the ectocranial vault surface. Leprosy was a relatively common condition during the medieval period, and many leper hospitals were founded during the twelfth century. Leprosy in Europe appears to have greatly reduced from about the fourteenth century onwards with many of these hospitals then converted to almshouses. The incomplete nature of the skeletal remains makes diagnosis of specific infections problematic. Oral hygiene would appear to have been poor with several individuals exhibiting considerable ante-mortem tooth loss and with evidence of periodontal disease, caries and abscesses. The sample is too small for any comparison of prevalence rates of these conditions with other medieval populations to be meaningful.

Appendix: Catalogue of Bones Present

Dental annotation

- = jaw not present

/ = lost post-mortem

X = ante-mortem tooth loss

C = carious lesion

A = abscess

R = root only

I = impacted

Context 003

This context consisted of the skull and one individual, plus the postcranial bones of a minimum number of three individuals. It is not possible to determine which of the postcranial skeletal elements, if any, belong to the same skeleton as the skull.

Axial skeletal elements:

Right ilium (female?, auricular surface indicates middle adult)

Right ilium (female, not able to age)

Right ilium (sex unknown, old adult)

Left pubic bone fragment (male, age unknown)

Several small fragments of ilia.

Four left ribs (vertebral ends), five right ribs (vertebral ends), two unsided sternal fragments and twenty two rib shaft fragments (one individual).

Fragment of frontal bone (unfused metopic suture)

Right zygomatic bone

Upper Limb Bones:

Right humerus- distal end missing.

Right distal humerus

Right proximal humerus fragment

Left ulna and radius of one individual

Left distal radius,

Two left distal ulnae

Right scapula

Left first, second and third metacarpals, and right second metacarpal of one individual

Three proximal phalanges

Three middle phalanges

One distal phalanx

Left capitate

Left and right fourth metacarpal (one individual).

Lower Limb Bones:

Left proximal tibia

Femoral head fragment (unsided)

Right patella

Two fibula shaft fragments (unsided)

Proximal fibula fragment (unsided)

Right and left calcaneus (one individual)

Male skull (context 003)

Right and left temporal fragments, sphenoid, right and left parietal, occipital including basilar portion.

Dentition

Max. R - - - - - . / / 3 / 5 6 X 8 L

 Mand. R - - 6 5 4 3 2 1 . / 2 3 4 5 X 7 8 L

Moderate to severe quantities of calculus on the buccal surfaces of the teeth.

Skeleton 006

Cranial

Cranial vault is fragmented, but complete. The maxilla and right and left zygoma are also present.

Dentition

Max. R - - X / X 3 / / . 1 / / X X X X X L

 Mand. R X 7 / 5 4 3 2 1 . 1 2 3 4 5 X 7 / L
 cR

Severe calculus buccally and lingually on all mandibular teeth. Peridontal disease, pitting and resorption of the alveolar bone around the maxilla and mandible.

Post-Cranial

Upper limbs:

Left: Mid-shaft of radius, clavicle, scapula.

Right: Proximal humerus (diameter of head = 47.0mm [male]), clavicle and scapula.

Lower limbs:

No lower limb bones present

Axial Skeleton:

Vertebrae: third to seventh cervical vertebrae, first to eighth thoracic vertebrae

Ribs: Four left ribs, five right ribs (from vertebral ends), seven rib shaft fragments.

Manubrium also present

Skeleton 009

Cranial

Left parietal fragment and left part of frontal only.

Dentition

None present

Post-Cranial

Lower limbs:

Right: Distal femur

Left: Distal femur (epicondylar diameter = 75.6 mm, bicondylar = 72.7 mm [female?]), and femur shaft fragments, proximal tibia.

Axial Skeleton:

Ribs: Sternal rib fragment.

Context 012

Cranium

Cranium fragmented, bones present include: occipital, right and left parietals (posterior fragments only), right and left temporals, left fragment of frontal bone, and both the right and left zygoma.

Dentition

Max. R - - - - X X X X . / X X - - - - - L

.....

Mand. R X X X / 4 3 X X . X / 3 4 5 6 7 8 L

R c

Post-cranial

Upper limbs:

Left: clavicle

Right: scapula, clavicle,

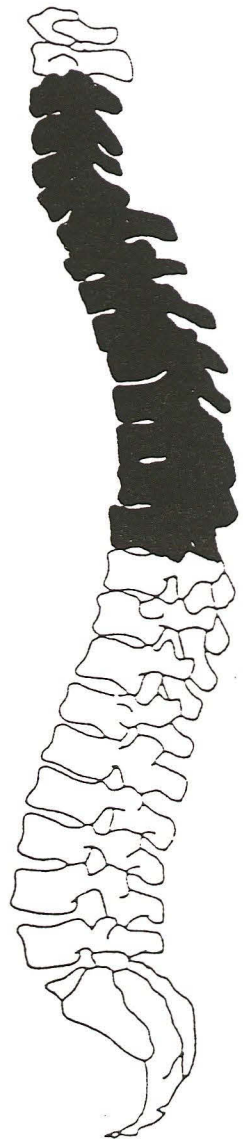
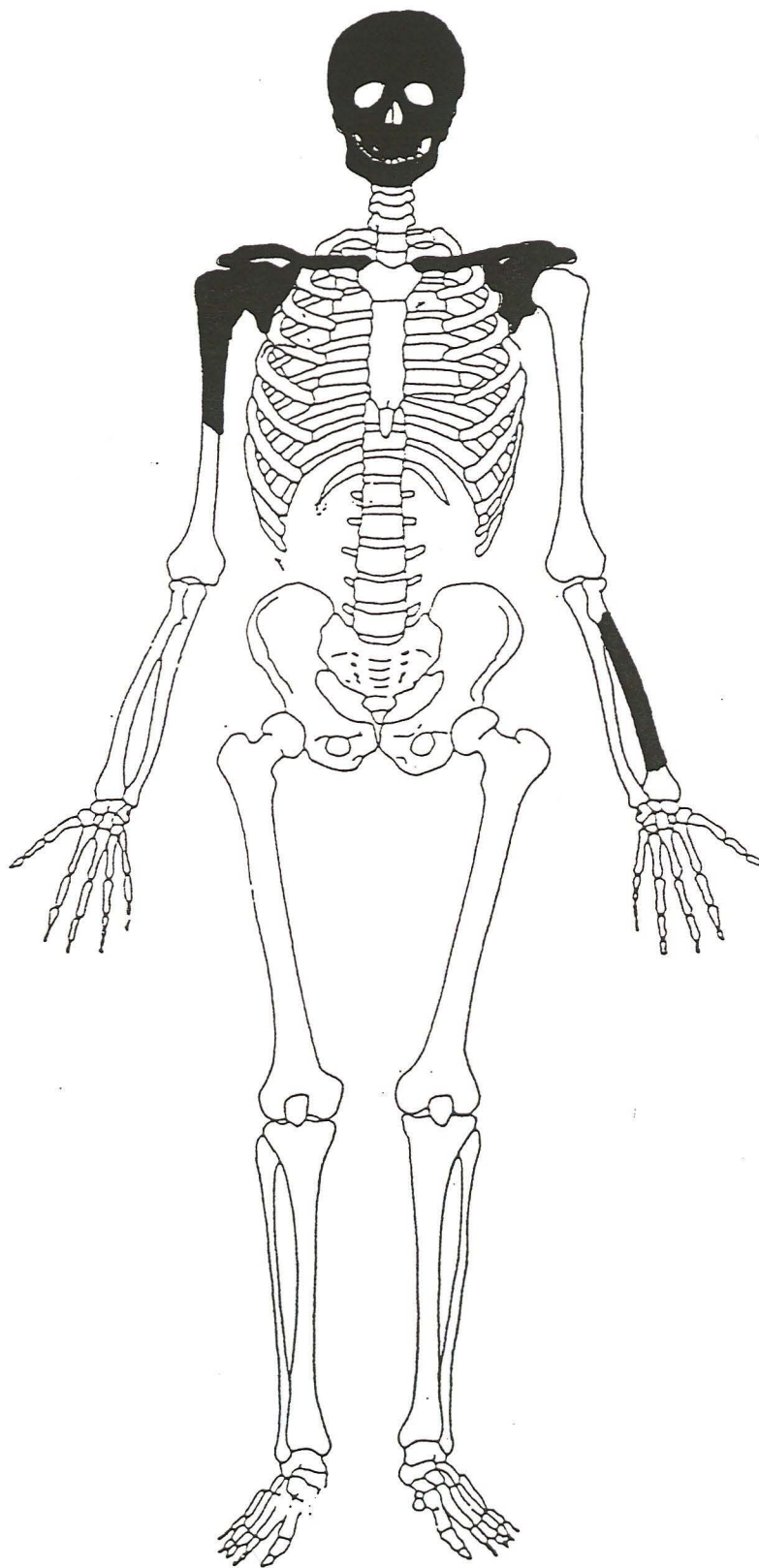
Lower limbs:

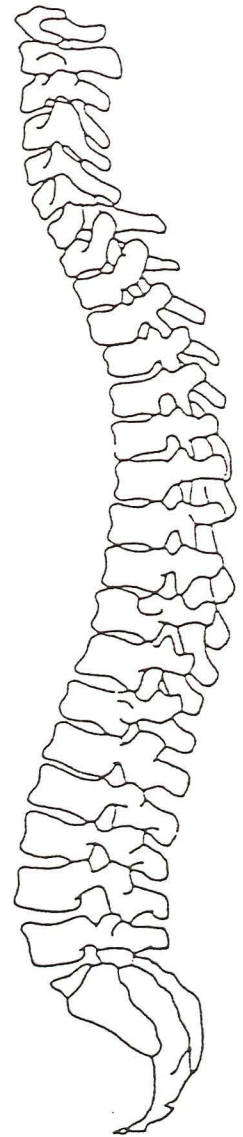
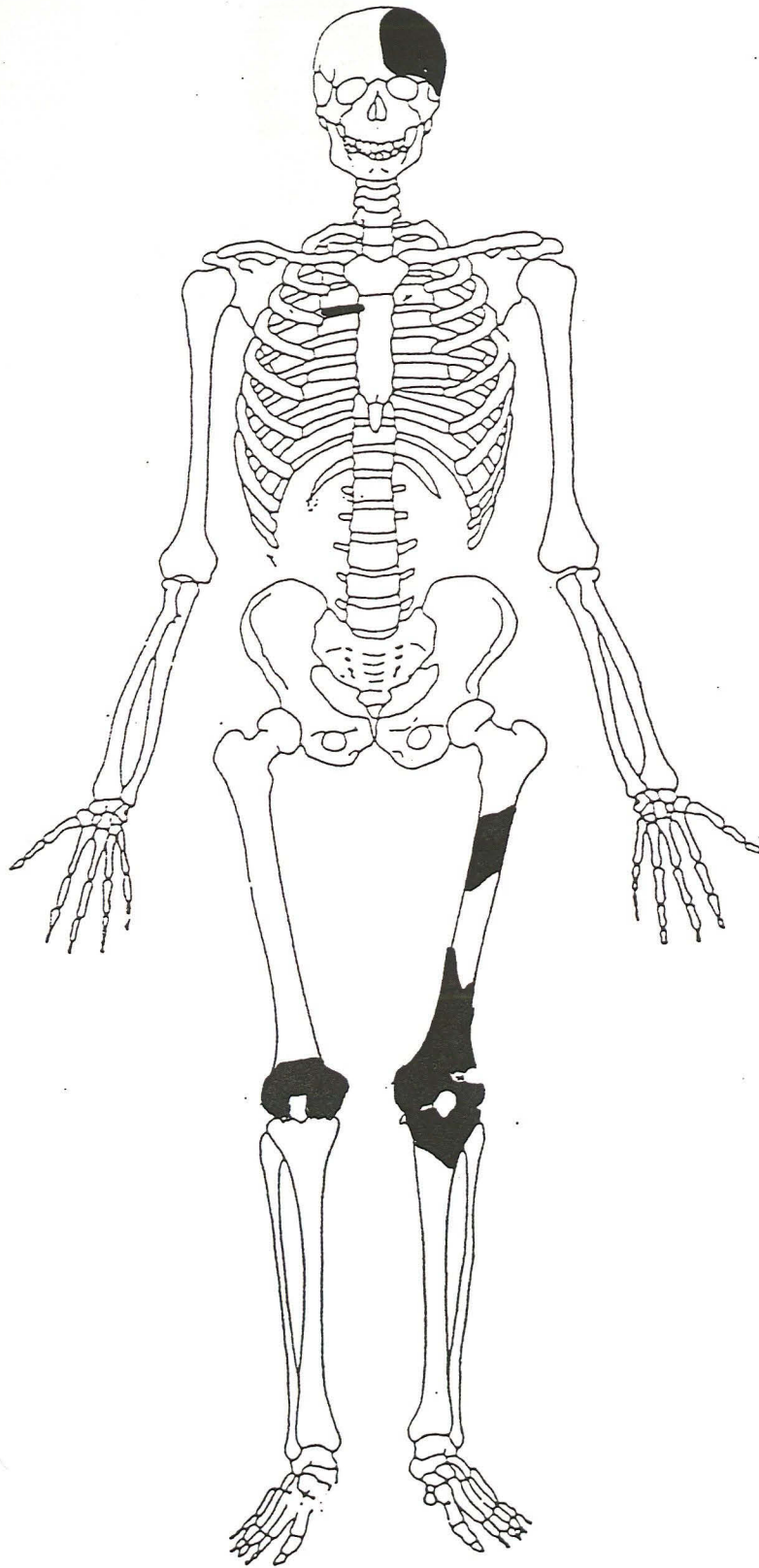
No lower limb bones present.

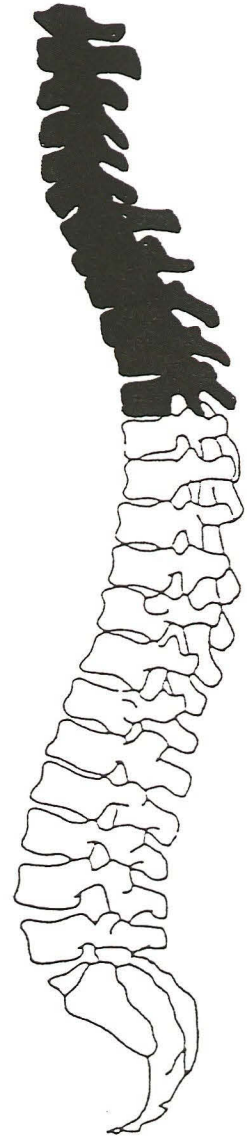
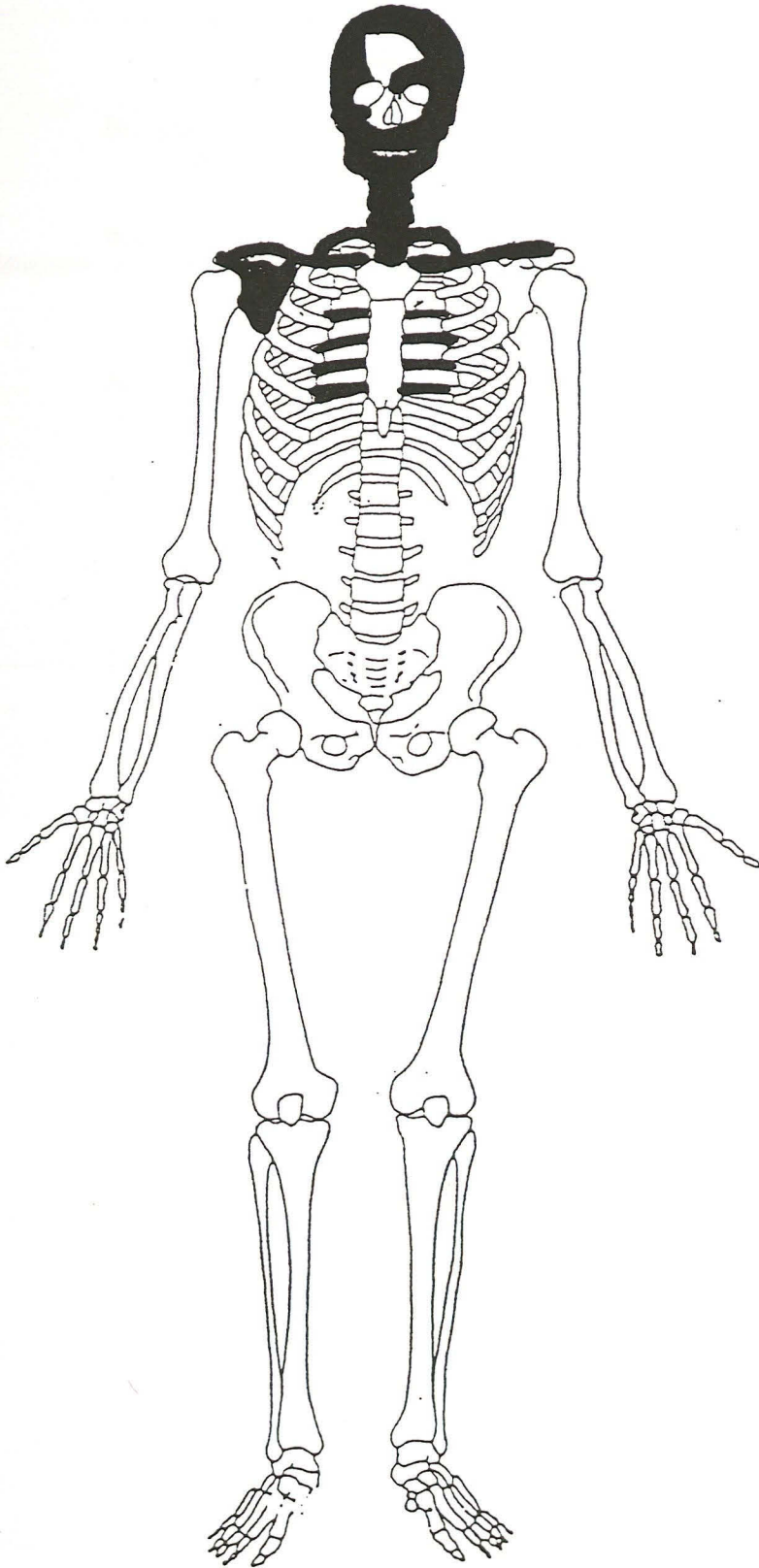
Axial Skeleton:

Vertebrae: All seven cervical vertebra present, first to fifth thoracic vertebrae

Ribs: right and left first ribs, four right and four left vertebral ends of ribs, three rib shaft fragments.







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Appendix 6

GLOSSARY

Bronze Age	A period characterised by the introduction of bronze into the country for tools, between 2250 and 800 BC.
Domesday Survey	A survey of property ownership in England compiled on the instruction of William I for taxation purposes in 1086 AD.
Medieval	The Middle Ages, dating from approximately AD 1066-1500.
Neolithic	The 'New Stone Age' period, part of the prehistoric era, dating from approximately 4500-2250 BC.
Post-medieval	The period following the Middle Ages, dating from approximately AD 1500-1800.
Prehistoric	The period of human history prior to the introduction of writing. In Britain the prehistoric period lasts from the first evidence of human occupation about 500,000 BC, until the Roman invasion in the middle of the 1st century AD.
Romano-British	Pertaining to the period dating from AD 43-410 when the Romans occupied Britain.
Saxon	Pertaining to the period dating from AD 410-1066 when England was largely settled by tribes from northern Germany

Appendix 7

THE ARCHIVE

The archive consists of:

5	Daily record sheets
1	Context record sheet
33	Context records
1	Section record sheet
1	Plan record sheet
11	Scale drawing sheets
1	Photographic record sheet
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 titled *Conditions for the Acceptance of Project Archives*, produced by the Lincolnshire City and County Museum.

Lincolnshire City and County Council Museum Accession Number: 2000.89

Archaeological Project Services Site Code: STN 00

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

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