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LINDSEY ARCHAEOLOGICAL SERVICES
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Old Leake: The Giles School

Archaeological Monitoring of Building Works

*NGR: **TF 4081 5006***

Site Code **OLG 95**
LCNCC Museum Accn. No. **115.95**
Planning Application No. B16/0585/94 BA

Report prepared for Architects Joint Partnership Ltd

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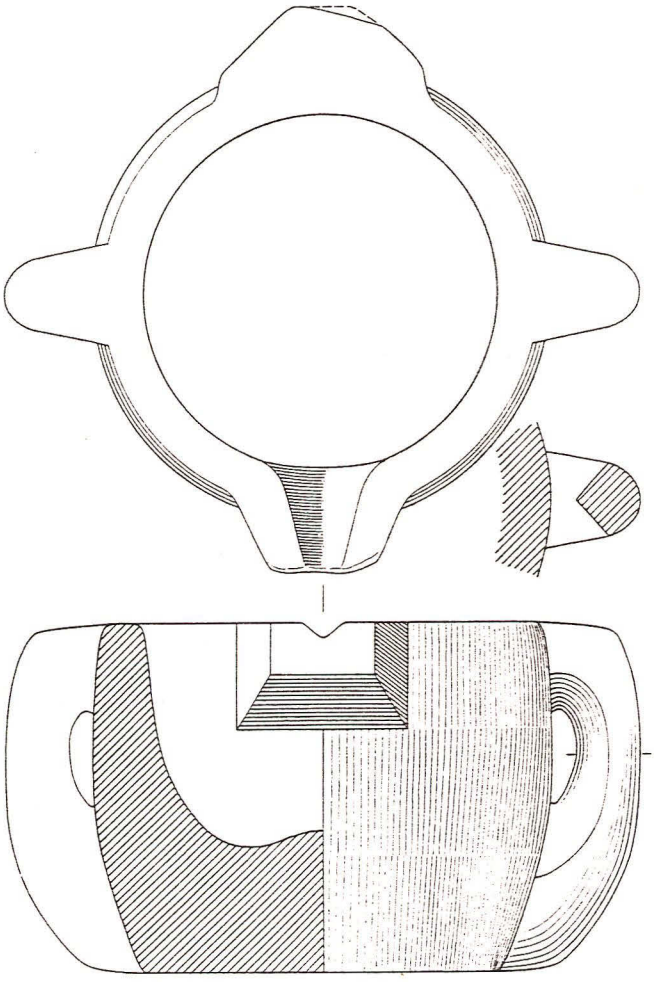

MORTAR IN CAEN STONE, TYPE 2, FROM KING'S LYNN. Sc. $\frac{1}{4}$

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Summary

A watching brief during excavation of foundation trenches for a school extension identified a cluster of features containing late Anglo-Saxon and medieval pottery together with some animal bone, which post-date a flood silt deposit. The features were thought to comprise three phases of a ditch course, with small rubbish pits either side of the ditches. The date range of the finds suggests a mid-12th to 14th century date; later levels (before the present school outbuildings) were absent. The concentration of finds suggests this ditch to be close to habitation, perhaps defining part of a manorial complex.

Introduction

Lindsey Archaeological Services was commissioned in August 1995 by Architects Joint Partnership Ltd. to conduct a watching brief during groundworks for a school extension at The Giles School, Old Leake (Figs. 1 - 3). The work was undertaken to fulfil a condition on Planning Consent No. B16/0585/94 BA (imposed by Boston Borough Council, the local planning authority) and in accordance with the brief prepared by Jim Bonnor (Boston Community Archaeologist), dated February 1995.

The extension was constructed by Hentons, and the groundworks comprised mechanical excavation of foundation trenches for a new Technology Block, approximately 18m x 16m, on the site of bicycle sheds demolished shortly before the monitoring began (Fig. 4).

Monitoring, by the author, began on 21st August 1995 and was completed on 24th August. Archaeological remains were encountered and additional assistance was given by Naomi Field who attended the site on 23rd August. The appointed environmental specialist for this project, Dr. James Rackham, also visited the site and sampled deposits on August 24th.

Archaeological Background

The Community Archaeologist's brief for this work noted many Iron Age and Roman sites discovered in the adjacent parish, Wrangle, and suggested that similar sites could be expected in Old Leake. It also referred to the early medieval salt industry known to have existed in Old Leake, although few remains of the period have yet been reported. Medieval pottery had been recorded from the school grounds in the past, and there was potential for recovering information about the late Saxon and medieval settlements during the present groundworks.

Old Leake parish was not included in the intensive archaeological survey of Lincolnshire parishes as part of The Fenland Project but the adjacent parish of Wrangle was surveyed during 1988 (Lane 1993). The high level of information gathered (including numerous Iron Age and Roman finds) provided a glimpse as to the archaeological potential of Old Leake.

The boundary between Old Leake and Wrangle is thought to have begun as a tidal creek which remained navigable close to Wrangle church into the medieval period. Old Leake is mentioned in the Domesday Survey of 1086, when it is recorded as land belonging to a manor in Drayton. It seems to have had at least 41 salt-pans emphasising the marginal saltmarsh environment (Foster and Longley 1976, 68). Similar conditions had prevailed since the Bronze Age. At Friskney, evidence for three marine incursions separated by regressive episodes when peat formed has been recorded; two incursions have been reported from Midville (Lane 1993, 68-80). The silt deposited by these incursions has blanketed and levelled the earlier ground surfaces, masking traces of human activity; only deeply intrusive groundworks (such as dyke cleaning, land drainage and excavation of some foundations) may penetrate through the silt and reveal the former surfaces.

The layout of the medieval settlement of Old Leake has not been established, although dylings (a system of fields and associated drainage ditches) have been recorded (Appendix 1). There is a documentary reference to the ditch around the churchyard as the 'moat' noted in the Community Archaeologist's index of sites (Appendix 1) but no manorial complex is known, and at the time of Domesday the manorial *caput* (centre) appears to have been in Drayton.

Medieval pottery, including early shell-tempered and undeveloped Stamford wares has been found south of The Giles School, and surface finds of Saxo-Norman and medieval pottery sherds were recovered from a garden adjoining the school grounds in 1965; the grid references appear to be incorrect (Appendix 1).

The Watching Brief

Method

The foundation trenches were excavated using a mechanical excavator with a toothed bucket. It was seldom possible to observe the material in the face about to be removed, so with a few exceptions only the sides of the dug trench could be examined. This meant that the courses of features shallower than the trench base could not be satisfactorily pursued across the trench (Fig. 5). At The Giles School, most of the features found were exposed at oblique angles (which made initial understanding and recording difficult) and all recording was restricted by time constraints.

Archaeological remains were recorded by drawing base and the external faces of the northern and western foundation trenches at a scale of 1:20, marking the various boundaries of soil types and colours (Figs. 6 - 8). Each distinct soil area was given a Context number so that it could be described on a recording form and the finds (if any) kept separated from other contexts. An

overlapping series of photographs was taken of the western trench where less detailed investigation was possible, and the drawn section was checked against that photographic record. A detailed description of each observation has been prepared (Appendix 3). Two other archaeological features were recorded separately (Figs. 9 and 10).

During monitoring of the groundwork simultaneous recording was being conducted by two archaeologists in different parts of the site. Blocks of context numbers were allocated to avoid the risk of duplication; as a result the numeration of features and layers is not sequential. Further contexts were identified from the photographs and these were assigned later numbers.

It was only during post-excavation analysis that certain similarities between the observations were recognised, but the circumstances in which these archaeological remains and features were observed and recorded were not appropriate for the satisfactory resolution of numerous problems concerning their date, form and function. Exposures of apparently linear features seen in the western and northern trenches could not be linked with certainty, but where some characteristics were present a tentative interpretation of the early activity on the site can be presented.

Pre-Medieval Deposits (Pls. 1-3)
The earliest deposit exposed on the site was a red-brown clay incorporating some chalk. This layer **16** had an upper surface at about 1.80m OD and was thought to be glacial boulder-clay.

The boulder-clay was covered by a siltier form of **16** with no obvious chalk inclusions, usually about 0.14m thick. It appeared to be a weathered version of the natural clay, probably a prehistoric subsoil.

A grey silt layer **71** was present above the subsoil; although it was up to 0.18m thick at parts of the western side of the site, it was much thinner and sometimes missing elsewhere. The thicker exposures may reflect an uneven land surface, with greater depth forming on the slopes of small depressions. This layer was probably a topsoil associated with the underlying subsoil, probably of prehistoric date.

The prehistoric topsoil was overlain by a thin peat layer **15** seldom thicker than 0.02m. This represents vegetation growth in water-logged conditions, probably when local drainage deteriorated prior to marine encroachment over the region. Only a single peat layer was recorded on the site, implying either that only one episode of drainage deterioration followed by sediment deposition had occurred or that other peat layers had been removed by erosion or tidal action. The peat layer was at about 1.70m OD, dropping to 1.50m OD at the SW corner, and 1.40m at the NE corner.

Evidence of a marine transgression over the site was present, in the silt layers **14** and **17**. Layer **14**, a brown silt, was found across the entire site, but **17**, a lighter and grittier soil, was only noted in part of the western trench

underneath **14**. The distinction is unlikely to have been more than a slight localised difference in the material deposited, perhaps affected by differing sunlight conditions during the recording. The total thickness (where both were identified) was about 0.35m; the upper surface had been removed by modern disturbances associated with the present school. This deposit was thought to represent sediment deposition during a prolonged phase of local flooding. Similar flood silts are present along the Lincolnshire coast which has experienced several episodes of marine inundation.

Previous investigations at Friskney, about 5km NE of Old Leake, found three peat layers, with two deposits of marine silts or clays, but research in the area found that not all these phases were evident elsewhere. There was considerable variation in the post-glacial land surface which would have resulted in some areas escaping submersion during local flooding. It was concluded that in Wrangle parish (adjoining Old Leake) the sediment above the peat band was probably of Iron Age date (Lane 1993, 71-74).

It was impossible to place any firm date on the flood episode recorded at The Giles School, except that it pre-dates the late Anglo-Saxon period (by which time ground conditions were conducive to nearby habitation). It may have been as early as the Iron Age.

Late Anglo-Saxon to Medieval (11th to 14th centuries)
A number of features had been dug into the flood silt layer **14** at some time after the marine regression, presumably sufficiently long afterwards for the surrounding ground to have dried and become tractable again. The upper surface of the flood silt has been removed in the vicinity of the archaeological remains and it is impossible to know from what height they were dug, or whether a topsoil had developed over the silt.

The features were seen as a number of cut features with sloping or steeply sloping sides, depths of over 0.3m and flat or rounded bases. Although it was virtually certain that a minimum of two pits were present, most of the other features seemed to be parts of ditches which crossed the NW corner of the monitored area (Pls. 4 and 5). Several separated observations in the northern and western trenches had shared affinities, and from careful correlation of the plans and sections three probable intercutting ditch courses were distinguished. The courses and positions of these ditches were so closely coincident that they have been interpreted as three phases of a single ditch, re-excavated on a slightly diverging course as a combination of natural silting and deliberate refuse tipping reduced the effectiveness of the ditch as a boundary barrier or drainage feature.

The continuous course of these ditches across the site corner could not be recorded as the ground in between the foundation trenches did not need to be reduced below modern deposits. A glimpse of the intervening ground was obtained briefly when the contractors removed some material from the angle between the northern and western trench in order to bury a large piece of concrete foundation demolished from the previous structures occupying the

site (Pl. 6). It was obvious that this hole was near to the already exposed archaeological remains and a close watch was made while the irregular hole was machined to a depth of about 0.4m. The contractors were then asked to suspend operations while the revealed information was recorded but this delay was, by necessity, of only about 15 minutes duration.

The edge of a feature **74**, cut into orange clay and filled with green/brown silt, was identified at the base of the hole. It was then recorded by photograph and planned by triangulation (Fig. 5; Pls. 7 and 8). Although this demonstrated only the existence of a disturbance at that point, it seemed to suggest that there was continuous disturbed ground between the features in the western and northern trenches.

Ditch I

Very little survived in the trench sides of the earliest ditch, conjectured to comprise contexts **18** and **59** (Pls. 9-11). No trace was seen in the western trench, and there was no proof other than the indications of Ditch III in plan that the exposure noted between the trenches, **74**, had to form part of that feature.

From the reconstructed glimpses, Ditch I is thought to have been a NE-SW aligned ditch segment, at least 0.6m wide and over 0.8m deep. There was evidence of a slight shelf on the upper eastern face, but otherwise a fairly steeply sloping profile. Some fills (**13** and **38**) may have been tipped from the eastern side.

It is interesting that, within the area of the watching brief, the subsequent recuts of Ditch I did not extend east of that original course, as if it marked a carefully observed boundary. The majority of the monitored area contained no archaeological features and it is felt that Ditch I marked the limit of a property or house site to the west. From this it could be extrapolated that much of the monitored area was perhaps under a contemporary pastoral or arable regime.

The only finds from Ditch I were a single early medieval handmade pottery sherd from a cooking pot of 12th/13th century date, and 1 fragment of animal bone (pig mandible). Small fish bones and amphibian bone sieved from the soil sample were thought to represent natural fauna while the feature was open.

Ditch II (Pls. 4, 5, 9 and 10)

Rather more survived of the successor to Ditch I, including its full width and depth in the northern trench. Ditch II (comprising cuts **19** and **30**) was aligned slightly closer to north-south than the earliest cut, and its eastern side lay a maximum of 3.5m to the west of the external side of Ditch I. The sides sloped steeply, each with a rounded shelf towards the base, to a flat base about 1m deep. The width was almost 3.5m.

The earliest fills of this ditch, **24**, **25**, **26, 27** and **39** show signs that they entered from its external eastern side. This may represent slumping where the recut had a face in the unconsolidated fill of Ditch I, but the cess fills appear dissimilar to the earlier ditch fill. Subsequent fills, including probably deliberate backfilling while the ditch was only half silted, were tipped from the internal edge. Environmental analysis has shown that the cess was probably human (although animal dung may also have been present) and present in considerable quantity and concentration. There was some evidence that the feature had been exposed and that the waste deposits had dried at intervals. The possibility was raised that the 'ditch' contained unrecognised pit features dug specially for cess disposal (Appendix 8).

Domestic refuse, including pottery, a stone mortar handle fragment (see Frontispiece for an illustration of a handled mortar), animal bone and mussel shells had been incorporated into the fills of this ditch. The date range of the pottery from this ditch overlaps with that from Ditch I and may extend as late as the mid 14th century.

Ditch III (Pls. 5 and 12-16)
The latest identified phase of the ditch (comprised of cuts **37** and **68**) may have been aligned closely with the course of Ditch I; it seemed to follow the same NE-SW direction and its eastern edge was less than 0.7m west of the external edge of Ditch I. In the western trench it was about 4m wide and over 1.2m deep, but it decreased to about 2m wide and 0.6m deep where it showed in the northern trench. This was probably the result of deeper disturbance by previous works associated with the school yard.

The deeper part contained several lenses of black soil fill with charcoal and mussel shells, interspersed with loam which may represent periodic silting. The impression was gained that this ditch contained more domestic refuse than its predecessors, suggesting that the habitation site was becoming closer or more intensive than before. Two soil samples were taken for environmental analysis from the fills of Ditch III in the western trench (Pls. 15 and 16).

One fragment of brick and a sherd of Stamford Ware pottery was found, with a date range earlier than that of the earlier ditches; the burnt sherd may have been residual material disturbed from an earlier fill or a fragment of an heirloom vessel.

The conjectured arrangement of ditches appears to define part of the eastern boundary of a habitation area, probably of a single dwelling or farmstead. Ditches I and II may have been changing direction as if at a plot corner. All the ditches represented a single moderate barrier to animal/human movement (there may have been an external bank to Ditch II) and probably also a division between land ownership or use. There was evidence of a water table covering some of the lower fills but the ditches may not have been designed to be water-filled or even to drain the surrounding land.

The Pits (Pls. 17 - 22)
Six pits, **9**, **20**, **33**, **47**, **57** and **70** were located but none of these could be seen completely in plan so dimensions, shape and fills are only partly known. Four pits lay to the south of the ditches and had no stratigraphic relationship with them, with **57** and **9** lying north of the ditches and stratigraphically earlier than Ditch II. The position of the pits at the limits of land, either side of a land division, reflects a standard siting position of pits which were used for noxious contents, or were intended to remain open for some time.

Pits **20** and **47** were sited respectively 15m and 4m outside the ditch and were not related to any other archaeological remains. Pit **20** was of rather irregular shape and may have been the result of a 0.7m deep pit excavated through the backfill of a deeper slightly earlier pit. Pit **47** (0.5m deep) might possibly have been a large post-hole.

Pits **33** and **70** were on the external edge of Ditch III (and probably also that of Ditch I). Pit **70** was slightly deeper (0.5m) than Pit **33** and had removed most of its northern side; unfortunately an existing drain trench had removed evidence for their dimensions and the stratigraphic sequence between the pits and the adjacent ditches. From projection of the feature edges in surviving deposits, it is possible that one pit and a ditch could have been in use at the same time although they were originally dug as separate events.

Inside the ditched area, two further pits were found. Pits **9** and **57** were also on the edge of the ditches, but were both clearly older than Ditch II. Pit **9** was 0.7m deep and Pit **57** was 0.5m deep; pit **57** had removed the thin peat layer at its base, but this was thought to be coincidental rather than deliberate.

The function of all these pits was not ascertained, but it seemed unlikely that they had been excavated specifically to quarry the sandy silt.

Discussion
This watching brief, prompted in part by medieval pottery finds made by chance apparently on the school premises in the past, showed the land beside School Lane to be rich in archaeological remains and with stratified deposits containing environmental information about diet and land use at this site in the late 12th to 14th centuries. Fragments of eggshell, fish bones and shellfish (mussels) were identified from the soil samples (Appendix 8). Fruit stones (thought to be from plum or bullace), cereal grains of bread wheat, barley, rye and oats and seeds from elder, brambles and cereal crop weeds were also present. The environmental data suggests that Ditch I supported some level of natural fish population and was probably water retaining; Ditch II seemed to vary between waterlogged and dried episodes.

Some consideration of the nature of the settlement remains uncovered is necessary but the relevant information from the watching brief is limited; the archaeological features lay on the edge of the construction site and were also at the periphery of the medieval site. Repeated re-excavation of a ditch along the same course indicates continued use of the site, probably across

several generations; the pottery suggests a period of about 250 years, late 10th century to mid-13th century. The pottery wares are neither particularly fine or imported from far (Stamford and Lincoln kilns are represented) and the other finds of clay roof tiles, a limestone culinary mortar and mussel food remains are also probably local. From this slight material collection the wealth of the inhabitants does not seem to have been high but they had sufficient security of tenure, access to labour, and available time to maintain the ditch boundary. From the silting of the ditches between re-cutting, there are slight indications that the level of human settlement activity here fluctuated.

The 1821 Enclosure Award plan (LAO Holland Award 1) shows a single water-filled moated enclosed site in Old Leake, at the modern Moat Farm (previously the site of the 16th/17th century St Lawrence's Chantry) in the south of the parish. No manorial complex is known for the village centre but, from its position and date, the site at The Giles School forms part of the settlement near the church and might possibly be associated with manorial buildings.

The archaeological remains found during this watching brief at The Giles School are likely to be peripheral features for a medieval dwelling associated with those early enclosures. On the western side of the new extension, the deep roadside drainage ditch, School Lane and modern houses fronting it have almost certainly removed any chance of defining the extent of the medieval site in that direction. Nevertheless, between the school extension and the churchyard much of that area is open playing field, asphalted yard and tennis courts where there would be a high potential for survival of structural, artefactual and environmental archaeological remains.

Acknowledgements

LAS would like to thank Mr. D. Swarbrick (Architects Joint Practice Ltd), and the School Governors for the opportunity to monitor groundworks on this site. Curatorial advice was provided by Jim Bonnor (Boston Community Archaeologist) who visited the site during the watching brief. The contractors (especially the site foreman Daryl Green on behalf of Hentons, together with the machine operator) gave practical assistance when possible.

Fieldwork was conducted by the author with considerable help from Naomi Field, with environmental samples being taken and examined by Dr. James Rackham (Environmental Archaeology Consultancy). Finds processing was by Heather Burns, Diana Mahoney and Mick McDaid. The finds were examined by Jen Mann (stone mortar), Jane Young and Judy Wilkinson (pottery) and Rick Kemp (tile and brick) at the City of Lincoln Archaeology Unit.

Post-excavation research was aided by a search of the Lincolnshire SMR by Diana Mahoney and Naomi Field; further help was given by Jim Bonnor and Hilary Healey when the Boston Site and Find Index was consulted. The staff of the Lincolnshire Archives Office provided access to documentary sources. Mick McDaid prepared the illustrations for the report and offered many helpful suggestions when discussing the interpretation of the site. The report was produced and collated by Jane Frost.

Geoff Tann
Lindsey Archaeological Services
24th November 1995

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Archive Summary

Archaeological finds: pottery, tile, animal bone, stone mortar fragment
Specialists' reports and or lists: pottery, tile, stone mortar, animal bone, environmental
Architect's plans
Annotated plans
Field sections
Field plans

Appendix 1:
Summary of Previously Reported Archaeological Sites and Finds

(Sources: **SMR** = Lincs. County Sites and Monuments Record;
OS Sheets TF 44 NW and TF 45 SW
HTL = Records held by Community Archaeologist for Boston District; all prefixed with 16.)

SMR	*HTL* 16/	NGR: (all TF)	Description
	4	?405 506	Saxo-Norman and medieval pottery found on surface, 1965; Giles School
	5	425 490	saltern remains
	6		Ditch around churchyard referred to as 'moat'
	7	407 504	Medieval pottery, incl. green-glazed, shelly and undeveloped Stamford wares
	11	?	Pottery jug from garden; no details
	12		Dylings: field drainage system recorded 1993
12798 m	*17*	407 503	Post-medieval pottery (3 sherds) 1968
	18	4083 5030	Post-medieval pits and undated deposits from 1994 watching brief
	19	4083 5030	Partly timber-framed building Tradition that burial below floor of one room; hearth and animal remains recorded below floor of front room
12801 x		4074 5027	St. Mary's Church
13052 x		"	St. Mary's Church

Appendix 2: List of Archaeological Contexts

Context No.	Description
1	Finds reference: unstratified finds from northern trench, vicinity of cuts 18, 19 and 37
2	Finds reference: finds from cleaning northern trench base vicinity of cuts 18 and 37
3	Finds reference: finds from cleaning northern trench base, vicinity of cuts 9, 18 and 19
4	modern tarmac, 0.02-4m thick; extended around edge of building area
5	modern hardcore base to 4; 0.2-0.35m thick; crushed limestone and some bricks. Upper surface smoothed; base uneven.
6	upper fill of ditch 19; sealed by 5. 0.6m thick
7	layer below 23, above 24 and 25
8	mixed layer below 7; may overlie 24
9	Small pit
10	fill of drain 18, cut by 19 and 37
11	Upper fill of 37
12	Basal fill of 37
13	Lens within 10
14	Flood deposit
15	Buried land surface
16	Natural boulder-clay; upper part weathered
17	Silt layer above flood deposit 14; may be part of 14
18	Ditch; earliest cut
19	Ditch; recut of 18
20	Pit
21	Fill of Pit 47

22	Layer: ?buried topsoil; medieval or later
23	Lens of ?cess; rubbish deposit within 19
24	?Cess deposit, within 19
25	Similar to 24
26	Early fill of 19
27	Iron pan layer, fill of 19; perhaps same deposit as 24 and 25
28	Same as 23
29	Upper fill of 33
30	?Ditch from where soil sample taken
31	Primary fill of 33
32	Fill within 30
33	Pit Cut
34	Not used
35	Fill within 30
36	Primary fill of 9
37	2nd Re-cut of Ditch 18
38	Fill of 18
39	Fill within 19
40	Probably natural clay
41	Upper fill of 20
42	Fill of 20
43	Fill of 20
44	Fill of 20
45	Fill of 20

46	Modern building foundations and disturbed ground
47	Pit
48	Fill of 21
49	Fill of 21
50	Fill of 21
51	Fill of 21
52	Fill of 21
53	Primary fill of 21
54	Fill of 20
55	Iron pan lens in 20
56	Fill of 20
57	Pit
58	Fill of 57
59	Early ditch cut (same as 18?)
60	Fill of 59
61	Upper fill of 30
62	Upper fill of 68
63	Fill of 68
64	Fill of 68
65	Fill of 68
66	Fill of 68
67	Fill of 68
68	Ditch; ?same as 37; 2nd recut of Ditch 18/59
69	Fill of 30
70	Pit

71	Layer; ?buried topsoil below peat
72	Basal fill of 30
73	Fill of 30
74	Fill exposed in contractor's pit

Appendix 3: Detailed Description of Archaeological Contexts

Pit 9

A flat-bottomed feature **9** was present at the junction of the northern and western foundation trenches. Its eastern edge had been removed by **19**, but the surviving southern face demonstrated a slight shelf close to the top. The feature was at least 1.5m diam. and 0.65m deep, cut into **16**. Two fills were present; the basal fill **36** was a dark green/brown (perhaps containing cess) which may have been tipped from the SW side, while the upper fill **8** was a mottled yellow/brown silt loam.

No finds were recovered from this feature, which was interpreted as a pit of unknown function. The profile of **9** was very similar to that of **33**, suggesting that they may have served a similar purpose.

Flood deposit 14

A pale red/brown silt layer was present over most of the site, overlain by modern construction or demolition deposits and small areas of modern topsoil. At most recorded points the layer was about 0.5m thick, varying slightly to a maximum of 0.7m in the northern trench.

The deposit was thought to represent sediment deposition during a prolonged phase of local flooding. Similar flood silts are present along the Lincolnshire coast which has experienced several episodes of marine inundation; this layer is probably of Late Iron Age date. The late Anglo-Saxon date of some of the pottery in the backfilled later ditches provides the only terminus ante quem for this deposit.

Peat Layer 15

A thin layer of peat-like material (0.01m - 0.02m thick) was observed in the trench faces across most of the site. This formation lay below the silt deposit **14** and sealed the grey silt layer **71**. The layer was not level, but dipped towards the NE of the site and also into a depression at the SW corner of the existing building (close to **20**). A sample was taken at this point but not considered suitable for analysis.

The layer was interpreted as peat formed on a former land surface as local drainage deteriorated prior to flooding, perhaps within the Roman period although no dating evidence was found.

Layer 16

Below the peat deposit and a layer of grey silt, **71**, was a layer of red/brown silt about 0.14m thick which merged into undisturbed natural clay containing some chalk inclusions. The deposit was interpreted as glacial boulder-clay, possibly weathered at the surface. No lower material was revealed at any point.

Layer 17
This layer, only seen at the northern end of the western trench was lighter and grittier than the brown flood silt layer 14 which it sealed, but was probably a local variation of the same material.

Ditch 18
Context **18** was assigned to a deep cut in the centre of the northern trench which contained fills **10**, **13** and **38**. The eastern edge of the feature was the most easterly limit of visible archaeological remains on the construction site, and cut through layers **14**, **15**, **71**, **16** and **17**.

The greatest surviving width west - east was 4m, but a projection of the western face where it had been removed by later ditch **19** would produce a width of 4.75m. Its surviving depth was at least 0.8m; an unknown part extended below the trench base.

Two distinct fills were identified, **10** and **13**, although the latter formed a green silt lens (possibly cess) within mid brown **10**, implying that **10** probably consisted of two similar substantial backfill deposits interrupted by a small quantity of material from another source. Although finds from the brown fill were retrieved as **10**, the earlier fill was assigned **38** in post-excavation; it is probable that the finds (1 sherd pottery, 1 fragment animal bone) did in fact come from **10**. Later fills may have been completely removed by **37** which was entirely within the centre of this feature.

Cut **18** had a slight shelf where it cut through **14** on its eastern face, and uniformly sloping sides through lower deposits. It has been interpreted as part of a ditch crossing the NW corner of the area, and the same as **59** (**Ditch I**).

Ditch 19
Context **19** had cut the backfill of **18** to the east, and that of **9** on its western side. Its sides both exhibited a slight rounded shelf at about 0.5m deep before sloping below the trench base. A small test pit was dug in the centre of the feature 0.3m below the trench base; near the base of this inspection pit (and slightly above the water-table) a red/brown clay deposit **40** was recorded which may have been undisturbed natural clay, identical to **16**. If that clay was undisturbed natural, rather than a backfill layer, **19** was about 1m deep with a flat base.

The primary fill of **19** was **26**, a very wet grey silty clay deposit with charcoal fleck inclusions. Although this deposit was only noted in the test pit, the trench section revealed a small area to the east (**39**) which may have been part of the same material. Each of these were thickest to the east, suggesting that this fill had slumped from that side (possibly from an upcast bank, but perhaps from exposed backfill from **10** in Ditch I).

Above **26/39** was a lens of iron-panned material **27**, which seemed to be the same formation as **25** and **24** (thin green silt lenses). Again this fill layer had apparently entered from the east side of the feature. This layer has been identified as a cess deposit.

The cess was covered by 7, a thicker dark brown fill which was thickest on the western side. Green mottling was present, and it may have been partly composed of cess. A thin layer (**23/28**) of green silt with domestic refuse - pottery sherds and animal bone - lay above 7 in the centre of the feature, also perhaps tipped from the western edge. A concretion with an appearance of animal bone marrow fragments was sampled and has been identified as mineralized human cess.

Fill **6**, the latest surviving fill in **19**, was a thick mid brown silt with a few charcoal flecks, pottery sherds, tile fragments and part of a stone mortar (domestic mixing vessel).

19 has been interpreted as part of a recut of **18** (**Ditch II**).

Pit 20

A sub-circular feature was revealed in the trench faces where the new foundation abutted the NW corner of the existing building. It was present in all 3 faces at the trench end, extended between 0.5m and 0.7m north of the existing building and was greater than 0.6m west-east. The base of feature **20** lay below the trench floor but it was in excess of 0.7m deep. The evidence could conceivably be interpreted as a northern terminal of a ditch extending below the existing buildings, but a pit identification is more likely.

The shape of the pit was unclear; although its edge showed clearly in the west trench face as a very steeply sloping side, two less uniform slopes were present in the east face where the pit side had presumably slumped. There is a possibility that a second pit had been cut through a separate earlier feature slightly to its east.

The complex sequence of fills are shown in Fig. 9; those with a green hue may have contained cess, and those with charcoal inclusions probably represent domestic waste disposal. No finds were recovered from the fills of **20**.

The siting of **20** coincided with a marked localised downward slope in the buried ground surface **15** and the layers beneath it. Although there was no evidence for a similar slope in the flood deposit **14** through which the pit was cut, the upper surface of the medieval ground level has been truncated across the site by later activity and no conclusion can be made about it. Pit **20** may have been dug into an existing natural hollow but its function remains unknown.

Layer 22
A deposit of compacted dark brown clay loam was found sealing the upper fill layer of **47** and extending slightly beyond the cut of that feature. This layer **22** could not be pursued elsewhere (as the overlying modern rubble layer had either removed or contaminated it) but it was thought to represent a topsoil layer preceding the construction of the nearest school buildings. A single bone fragment was found in the layer.

Ditch 30
The northern side of a feature was recorded in the western foundation trench face, cutting through **58** and **60**. The southern part had been removed by 68 which crossed the trench at an angle making interpretation of the stratigraphy difficult. From the available evidence **30** was at least 2.7m wide (with a broad shelf at the top of the northern side) and had a surviving depth of 1m with a flat base wider than 0.35m.

Three fills were identified: a primary fill of grey silty clay **72**, an overlying dark brown deposit with red flecks **73**, and an upper dark brown silt fill **61**. No finds were observed in any of these fills.

This feature has been tentatively interpreted as forming a vestigial part of the recut to **18** (**Ditch II**).

Pit 33
The southern side of a small flat-bottomed feature **33** was recorded on the southern side of the ditches in the western trench. It was at least 0.6m diam. but probably less than 1.3m; the depth was 0.5m, cut into **16**. Much of the feature had been removed by pit **70**.

Two fills were identified; the thin basal fill **31** (tipped from the southern side) contained frequent charcoal fleck inclusions but the upper fill **29** was a much cleaner brown silty clay. One piece of animal bone was found in **31**. Insufficient survived of this pit to suggest a function, but the close similarity with **9** was noted.

Ditch 37
Entirely within the fills of Cut **18** in the northern trench was a shallow V profiled feature 2.5m wide and 0.6m deep. It contained two fills; the primary fill **12** was a thin lens of very dark brown-black silt, containing fragmented mussel shells and charcoal, apparently tipped from the western side. The remainder of the feature was filled with a lighter brown silt containing small amounts of charcoal.

This feature was identified as a shallow ditch but alternatively could have formed later fill deposits within **18**. As a separate ditch, **37** is interpreted as part of the second recut of **18** (**Ditch III**).

Pit/Post-hole 47
Another feature was located 0.6m NW of **20**, at the extreme southern limit of the foundation trench. From its shape (seen in the western and southern trench faces but not on the eastern face) this was identified as a small pit or a large post-hole. No packing stones or a post-pipe were seen and therefore it has been interpreted here as a pit. As with **20**, a very slight chance exists that it is the terminal of a ditch extending to the SW.

The fills of this pit contained little obvious evidence that it had been used for disposal of organic or ceramic domestic waste, although 1 fragment of brick-type material was retrieved from the upper fill **21**.

Pit 57
A shallow and narrow feature **57** lay at the northern edge of the broad complex of ditches cut by the western foundation trench. Both sides sloped uniformly and the flat base coincided with the base of the peat layer **15**. It was 0.42m deep and the surviving width of 1.2m had been truncated by **30**.

The cut contained a single fill of brown silt but no finds were seen. There was no apparent function for this feature which has been interpreted tentatively as a pit.

Ditch 59
Sandwiched between Cuts **30** and **57** in the western trench was the northern side of a much truncated feature **59** of unknown dimensions. The face sloped evenly, extending below the trench base, but from the evidence of the deeper test pit nearby it is possible to determine that it was either narrow and deep or more probably broad and no deeper than Cut **30**. The greatest surviving width was 1.2m and 0.5m of its depth was evident.

Cut **59** contained a single mottled light brown silty clay fill, with patches of charcoal flecks. No finds were recovered.

The feature has been interpreted as part of the earliest ditch represented by Cut **18** (**Ditch I**).

Ditch 68
A broad feature **68** containing thin lenses of dark material between layers of lighter soil was cut by the western foundation trench. Although its southern side had been effectively removed by an existing ceramic drain serving the school, its approximate width immediately below modern disturbed ground was about 4.2m and its visible depth 1m.

Although the stratigraphically early fills **66** and **67** displayed a gentle slope downward on the south face, fill deposit **65** had served to level the feature and subsequent fills were virtually flat. Thin lenses of black soil with mussel shells separated thicker layers of loam with fewer visible remains; the latest

surviving fill was a thick silt deposit almost certainly deliberately introduced to fill the remaining depression.

This cut crossed the trench from SW to NE, and as part of it was deeper than the foundation trench its course could be seen in plan. Soil samples <8> and <9>, taken from the centre of the foundation trench 5.5m from the NW corner of the new building were later interpreted as from fills of **68**.

The samples were taken from the middle of the trench width during a pause in the machine excavation and after the working face had been cleaned and photographed. A scale section drawing of the face was made, recording fill lines of thin lenses tipping downwards towards the south, interleaved with slightly lighter silty soils. Undisturbed natural chalky boulder-clay was present on the west side of the section with a flat shelf, but dropped abruptly in the centre of the trench below its base.

A sample from above the natural step was allocated context **35** and a lower sample from below the natural step **69**. No further context numbers were allocated to lenses within fill **35**. It is probable that **35** is the same material as **65** and that the thin lenses were continuations of **64** and **66**.

A single burnt, glazed pottery sherd was recovered from **35**. This has been identified as from a Stamford Ware jar or pitcher of 11th to 12th century date (Jane Young/Judy Wilkinson, City of Lincoln Archaeology Unit).

Cut **68** has been interpreted as part of the second ditch recut, part of **37** (Ditch **III**).

Pit 70

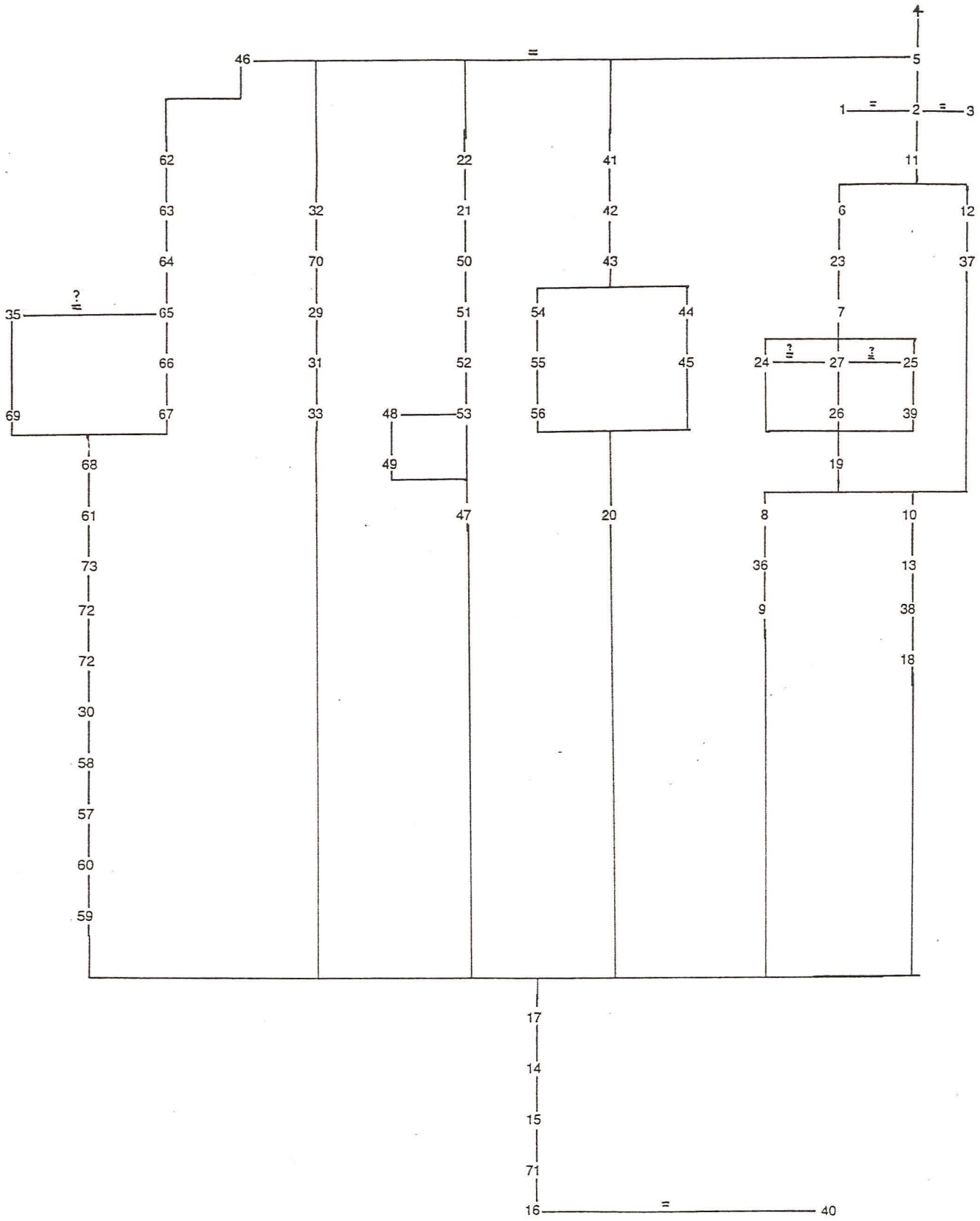
A small pit was recorded in the western trench face on the southern side of Ditch 68. Much of the northern side had been removed by the modern drain, but from its relative position it seemed likely that the pit and adjacent ditch could have been in use contemporaneously.

The pit extended below the trench base but was deeper than 0.5m. It was at least 1m (and probably originally about 1.3m) wide. A single brown clay loam fill, **32** was identified within it; 3 medieval pottery sherds and 2 animal bone fragments were recovered from it.

Layer 71

A layer of grey silt **71**, varying from minimal thickness to about 0.2m thick, was present across the site except where it had been removed by later features. The layer lay below the peat layer **15** and above the red/brown weathered clay **16**. This layer may be an ancient topsoil, formed before the deterioration of drainage which prompted the peat growth, and before the transgression episode. Waterlogging of the soil may have altered the decomposition processes on its organic constituents, producing the grey colour to the soil.

Appendix 4: Stratigraphic Matrix



Appendix 5: Report on the Pottery

Context	Ware	Sherds	Form	Comments
1	EMHM	18	COOKG	SV 3 6 7;FABRIC GROUP C ?
1	EMHM	4	COOKG	? SV;FABRIC GROUP C ?
1	LSH	1	-	SCRAP
1	LSLOC	1	-	FABRIC INCLUDES SHELL + QUARTZ
1	LSW1	1	-	SCRAP
1	LSW2	3	JUG	SV 6;HORIZ SCALE DEC
1	LSW2	3	JUG	SV;SCALE IN LINE DEC
1	MEDLOC	1	-	SCRAP
1	MEDLOC	12	JUG	SV 6;SPL GLZE;FABRIC INCLUDES QUARTZ
1	MEDLOC	2	JUG	SV;AMBER GLZE;FABRIC INCLUDES QUARTZ
2	LKT	1	BOWL	INT RIM;
2	LSH	1	JAR	? SV AS ABOVE
2	LSH	1	JAR	SROUL DEC
3	EMHM	1	COOKG	SV 7 1 6;
3	LKT	1	JAR	-
3	MISC	1	-	UNGLZE;FABRIC INCLUDES QUARTZ
6	EMHM	1	COOKG	-
6	EMHM	12	COOKG	SV 1 7 3
6	LSW2	3	JUG	SV 1;HORIZ SCALE DEC
6	MEDLOC	5	JUG	SV 1;SPL GLZE;FABRIC INCLUDES QUARTZ
7	EMHM	5	COOKG	SV ? 1 3 6;FABRIC GROUP C ?
10	EMHM	1	COOKG	FABRIC GROUP C ?
32	LKT	1	JAR	ODD RIM
32	MISC	1	-	UNGLZE;FABRIC INCLUDES QUARTZ + OOLITE + SHELL? + CARB VEG + FE
35	ST	1	JAR/PIT	GLZE;11/12TH;BURNT

OLG95 POST-ROMAN DATING ARCHIVE

Context	Earliest horizon	Latest horizon
1	MH4	MH6
2	ASH9	ASH11
3	MH1	MH4
6	MH4	MH6
7	MH1	MH4
10	MH1	MH4
32	MH1	MH9
35	ASH13	MH3

Glossary of Fabric Codes

Emhm	early medieval handmade fabrics: early 12th - early 13th centuries
Lsh	Lincoln shelly ware: late 9th - mid 11th centuries
Lsloc	late Saxon local fabrics: late 9th - late 11th centuries
Lsw1	glazed Lincoln ware: early 12th - mid 13th century
Lsw2	glazed Lincoln ware: 13th century
Medloc	medieval local fabrics: early 13th - late 15th centuries
Lkt	Lincoln Kiln type ware: late 9th - late 10th centuries
Lsh	Lincoln shelly ware: late 9th - mid 11th centuries
Misc	undated wares
St	Stamford ware: late 9th - early 13th centuries

ASH 9	late Saxon; early-mid 10th century
ASH 11	late Saxon; late 10th century
ASH 13	late Saxon; 11th century
MH 1	early medieval; early-mid 12th century
MH 3	early medieval; mid-late 12th - early 13th century
MH 4	early medieval; early-mid 13th century
MH 6	medieval; late 13th-mid 14th century
MH 9	late medieval; 15th century

Appendix 6: Report on a Stone Mortar Fragment

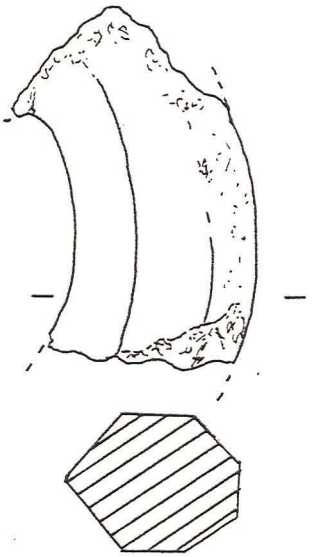
THE STONE MORTAR HANDLE FROM OLG95

The mortar handle is of limestone (probably local) and is of irregular hexagonal section; both ends are broken and one break shows part of the junction between the handle and the vessel wall. The form of the mortar is unknown, and therefore this could be of medieval or later date.

Medieval mortar fragments frequently survive in post-medieval and later levels because they are virtually indestructible.

JEM

08/09/95

Mus Acc No 115.95	Sitecode OLG95	Context 6	Reg No 1
Material STONE	Object MORTAR	Type	Date MEDIEVAL
Description Handle Fragment, irregular hexagonal section, both ends broken. Limestone.		Sketch 	
Dimensions (in mm) c 112 x 59 x 57 (max)			
Lab Card	X-ray		
B/W Photo	Drawing	Spec Report	
Slide	Pub		LAS

OLG95: REGISTERED FIND

Context	Finds No	Material	Object	Comments
6	1	STON	MORT	MED;LST HAND

Appendix 7: Report on the Building Materials

Context	Form	Sherds	Weight	Subform	Fabric	Comments
1	NIB	1	465	2A	7	CORN; MORTAR WITH MUCH SHELL
1	NIB	1	85	2A	7	WASTER OR SECOND; JOINS 6
1	PNR	1	100	FLAT	2	-
1	BRK	1	30	-	B2	SANDY FABRIC; WORN
6	PNR	1	50	2A	7	CORN; JOINS 1
6	PNR	1	410	FLAT	7	CORN
7	MORR	2	205	-	-	MUCH SHELL
12	BRK	1	25	-	B1	-
21	BRK	1	15	-	-	WORN
29	PNR	1	70	FLAT	-	MORTAR
29	PNR	1	30	FLAT	-	-

Form code	Description
BRK	*MEDIEVAL/POST-MEDIEVAL BRICK*
MORR	*BUILDING MORTAR*
PNR	*UNGLAZED UNDIAGNOSTIC ROOFING TILE*
NIB	*UNGLAZED NIB TILE*

Appendix 8: Report on the Environmental Remains

Old Leake: The Giles School, Lincs OLG95

Environmental Archaeology Assessment

Nine soil samples were collected from deposits exposed during a watching brief adjacent to the Giles School at Old Leake. In addition animal bone was collected by hand during the work. The deposits have produced a ceramic assemblage indicating a date range from the early 12th to the mid-14th century.

The samples

The following samples were taken.

Sample no.	Context no.	Sample volume in l.	context type
1	**6**	1.5	upper fill of ditch cut **19**
2	**7**	1.2	lower fill of ditch cut **19**
3	**26**	2.5	primary fill of ditch cut **19**
4	**27**	0.35	lens within lower fill of ditch cut **19**
5	**11**	2.0	secondary fill of ditch cut **37**
6	**12**	0.8	primary fill of ditch cut **37**
7	**10**	3.0	upper fill of ditch cut **18**, below ditch **37**
8	**69**	7.0	lower fill of ditch cut **68**
9	**35**	11.0	upper fill of ditch **68** or later recut

The samples were processed in the following manner.

Sample volume was measured prior to processing. The samples were washed in a 'Siraf' tank using a flotation sieve with a 0.5mm mesh and an internal wet-sieve of 1mm mesh for the residue or in a bowl where the sample size was small enough. Both residue and float were dried, the dry volume of the flot was measured, and the weight of the residue recorded.

The residue was sorted by eye, and environmental and archaeological finds picked out, noted on the assessment sheet and bagged independently. The residue was then bagged. 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 sorted residue, float and finds constitute the material archive of the samples. No archaeological finds were made from any of the samples. All the samples were composed of stone free silt/clay sediments and no waterlogged deposits appeared to be present although a number of seeds that had preserved through waterlogging were recovered from deposits in cut **30/68**.

The excavated animal bone was catalogued to archive level (see attached archive) but is not discussed further. The botanical remains from the flots were studied by John Giorgi and a report and species list with seed counts produced.

The assessment sheets are attached and the results summarised below.

Results

The samples derive from the fills of a series of intercutting ditches the earliest of which (early 12th-mid 13th C), ditch I, is represented by sample *7* (**10**). The sediments were a silt/clay deposit

with no stone or pebble inclusions and including single individuals of a freshwater bivalve and a planorbid. Some small fish bones and fragments of amphibian bone may reflect the natural fauna in the feature. A few small fragments of unidentifiable animal bone were sorted from the samples as were finds of common mussel, barnacle fragments, carbonised cereals, a few carbonised weed seeds and some bird eggshell fragments. Densities of material are low. A pig mandible fragment was collected by hand during excavation.

Ditch II represents a feature that cuts Ditch I at an angle. Four samples were collected from the fills of this ditch. The primary fill, context **26**- sample *3*, produced a number of environmental finds including mineralised seeds and mineralised concretions in which vegetable matter was clearly visible. The finds including small fragments of charcoal, one or two being small roundwood twigs, a few small mussel shell fragments, some small indeterminate fragments of mammal, rodent , passerine and chicken bone, a carbonised hazel nut shell fragment and the carbonised seeds of cereals and other seeds. A number of fish bones and teeth were recovered, including eel vertebrae, and compressed and misshapen fish vertebrae which suggest that they have passed through a human or animal digestive system (Wheeler and Jones 1989). The mineralised plant remains include the eroded testa and kernels of plums or bullace. It is clear that this deposit contains primary cess in sufficient concentrations to create a mineralising environment and also that it was subject to drying out. This indicates both proximity to human settlement, since the remains suggest human rather than animal cess, and the possibility that part of this feature was a pit cut for a cess pit, rather than an open ditch in which dilution levels are likely to have been to high for mineralisation to take place.

Above this layer was a lens, context **27** - sample *4*. This lens was composed exclusively of concreted calcium phosphate deposits, or cess, in which mineralised vegetable matter was clearly visible. It seems probable that this layer represents the hardened skin over the top of a partially desiccated cess deposit , **26**, immediately below. Although identifiable material survives in the concretions further processing (grinding up) would be necessary to extract it.

Sample *2* was collected from the layer above this, context **7** - which contains pottery dating from the early 12th-mid 13th centuries. This sample also included calcium phosphate concretions and mineralised material indicating the continued presence of cess. The sample produced small quatities of unidentifiable charcoal, a number of carbonised cereals and weed species, mineralised stones and kernels of *Prunus* sp., some unidentifiable mammal bone fragments and fish bones, including eel. The upper fill of this feature, cut **19**, was also sampled, sample *1*. This deposit produced pottery ranging in date from the early 13th-mid 14th centuries but was relatively poor in environmental finds. A few small fragments of charcoal and mussel shell were recovered, two cereal grains, some unidentifiable mammal bone fragments, a house mouse mandible and amphibian bone fragments. Concentrations of material were low although bones of cattle and chicken were recovered by hand excavation.

Ditch III appears to cut the two earlier features, and where it was sampled lies in the upper fills of Ditch I (see Northern Trench Section). Two samples were collected, one - sample *6*, context **12**- from the primary fill, and the second - sample *5*, context **11**- from the secondary fill. The primary fill produced a number of small fragments of charcoal, fish bone and eggshell, a few carbonised cereals grains and rare weed seeds and a fragment of cattle scapula. Rather larger fragments of mussel and cockle shell were also recovered. The secondary fill was similar with in addition a small piece of glassy slag, probably fuel ash slag, a burnt fish vertebra and a few fragments of amphibian bone. The carbonised plant component of these samples was relatively rich by comparison with most of the other samples (see below) from the site.

Two further samples were collected from fills thought to be associated with Ditch III. These samples were much larger than the others collected but produced significantly less evidence of human activity. The lowest fill sampled in this section - sample *8*, context **69** - produced a very few charcoal fragments, some mussel shells fragments, a few indeterminate cereal grains and some unidentifiable mammal bone. The upper fill - sample *9*, context **35** - produced a similar assemblage with a few more cereals grains, some small fish vertebrae and some fuel ash slag.

The Botanical remains
by John Giorgi

All the samples, with the exception of fill **27** (sample *4*), produced assemblages of carbonised remains, while two ditch fills, **7** and **26**, also contained several mineralised fruit stones. Cereal grains made up the greater part of the charred remains although several rachis fragments and a small number of weed seeds were also present. Flecks and small fragments of charcoal were recovered from all the samples. In the two samples from the fills of cut **30/68** waterlogged seeds of elder, *Sambucus* sp., brambles, *Rubus* sp. and goosefoots, *Chenopodium* spp. were found. These plants are characteristic of disturbed/waste ground habitats, and although the seeds of these species may be intrusive and of more recent origin they are robust and are often the species that survive longest before destruction, and occurred in the deepest and clayeyest deposits sampled.

The cereals
These were recovered from eight samples in varying amounts. Despite the generally fragmented nature of the material, four cereals were identified; bread wheat (*Triticum aestivum*), barley (*Hordeum sativum*), rye (*Secale cereale*) and oat (*Avena* sp.). Bread wheat and barley were the best represented grains, particularly in Ditches I and II respectively. The presence of free-threshing hexaploid wheat was confirmed by the recovery of a single wheat rachis fragment belonging to this species in fill **35** of Ditch III. Two barley rachis fragments were also recovered.

The weeds
Weed seeds of arable land and disturbed/waste ground were present in five samples and included two characteristic crop weeds for this period; stinking mayweed (*Anthemis cotula*) and cornflower (*Centaurea cyanus*) often associated with the cultivation of clay and sandy soils respectively.

The mineralised remains
The small number of *Prunus* sp. fruit stones from Ditch I were too fragmentary to be reduced to species level, not helped by the survival of the kernel only for a number of specimens, although the morphology of the fruits suggest that they may be from plum or bullace. One mineralised legume and a grass seed were recovered but could not be identified.

Discussion
All the cereals found in the samples were common crops in the medieval period and have been found in varying quantities from other sites in central and southern Britain. Bread wheat and rye are often associated with the cultivation of clay and sandy soils respectively, which may account for the presence of stinking mayweed and cornflower in the assemblages, harvested as weeds of these crops. The few weed seeds and rachis fragments represent the residues of early stages of crop-processing while the grains themselves were probably accidentally burnt while being dried prior to storage or while being hardened for preparation for milling into flour. All four cereals may have been used for bread, in particular wheat and rye, on their own or as mixes. Barley, and sometimes oats and wheat, were used for brewing, while oats and barley were also used for animal feed.

Interpretation

Although no structural features were found during the watching brief the results of the environmental analyses indicate that occupation is close by. The sampled deposits from the Ditch II sequence clearly show that cess was being deposited in reasonable concentrations over a period either straight into the ditch, or possibly a feature that was cut by, or had cut, the ditch at the sampling site. The samples from the sequences in Ditches II and III were quite small but yielded reasonable quantities of carbonised plant remains and a range of debris from food such as eggshell, mammal and fish bone and shellfish. However the quantity of bone recovered by hand was small so there appears to be a dominance of cess and carbonised material in the deposits.

Ditch I and the possible Ditch III sequence (cut **30/68**) produced much lower concentrations of environmental material and along with the upper fill, **6**, of Ditch II appear to be deposits that formed while there was little human occupation in the immediate vicinity, presumably from natural silting or inwash infilling the earlier ditches.

Recommendations

No further work is warranted on the collections recovered from the watching brief. If future excavations take place in the immediate vicinity then there is a likelihood of occupation or structural evidence being uncovered and this assessment has shown that plant remains, in particular, and other environmental evidence survives well with the former occuring in significant concentrations. Any future archaeological work should include a programme of sampling in order to better define the character of the occupation at the site.

Wheeler, A and Jones, A.K.G 1989 *Fishes*, Cambridge Manuals in Archaeology, CUP.

Table 1: The plant remains from samples at Old Leake, Giles School, Lincolnshire - OLG95

Species	Common name	Habitat	Feature	19	19	19	37	37	18	30/68	68
			Context	6	7	26	11	12	10	35	69
			Sample No	1	2	3	5	6	7	9	8
			Volume in l.	1.5	1.2	2.5	2.0	0.8	3.0	11.0	7.0
Carbonised remains											
Triticum aestivum L. s.l.	bread/club wheat	FI			25		1	1			
Triticum aestivum L. s.l.	bread wheat rachis	FI									1
Triticum aestivum type	bread/club wheat	F1					2				
Triticum cf aestivum type	bread/club wheat	F1			1						
Triticum spp.	wheat	FI			9		2				
Secale cereale	rye	FI			2						
cf Secale cereale	rye	FI			4						
Triticum/Secale spp.	wheat/rye	F1			7						
Hordeum sativum	barley	FI			2	1	7	20	1		4
Hordeum sativum	barley, rachis	FI						1			1
Avena sp.	oat	AFI			1		1				
cf. Avena sp.	oat	AFI				2		2			
Cerealia	indet. cereal	FI		2	37	9	18	54	6	15	22
Chenopodium sp.	goosefoot etc.	ABCDFH					2	1			
Vicia/Lathyrus spp.	vetch/tare/vetchling	ACDEFI			5	1	1	1			
Leguminosae indet.	-	-			2						
Polygonum sp.		ABCDEFG					1				
Rumex spp.	docks	ABCDEFG					2				
Corylus avellana L.	hazel	CF				1					
Anthemis cotula L.	stinking mayweed	ABGH			6			2	1		
Centaurea cyanus L.	cornflower	ABGH			2						
Gramineae indet.	-	ABCDEFHI							2		
indeterminate	-	-			2	1	3		1		
Mineralised remains											
Prunus spp.		CFGI			9	22					
Vicia/Lathyrus spp.	vetch/tare/vetchling	ACDEFI							1		
Gramineae indet.		ABCDEFHI				1					
Waterlogged remains											
Sambucus sp.	elder	BCFGH								+	+
Rubus sp.	brambles	CFGH								+	+
Chenopodium spp.	goosefoot, etc	ABCDFH								+	+

HABITAT KEY: A-weeds of cultivated land; B-ruderals; C-plants of woods, scrub and hedgerows; D-open environment; E-damp/wet environment; F-edible plants; G-medicinal and poisonous plants; H-commercial/industrial plants; I-cultivated plants

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
MAN	human
UKN	unknown
CHIK	chicken
GOOS	goose, dom
LEP	hare
UNB	indet bird
MALL	duck, dom.
GULL	gull sp.

BONE

SKL	skull
TEMP	temporal
FRNT	frontal
PET	petrous
PAR	parietal
OCIP	occipital
ZYG	zygomatic
MAND	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
LBON	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; A - anterior; C - caudal

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

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

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 BONES FOR OLG95

SITE	CON.	SPEC.	BONE	NO	SIDE	FUS	ZONES	TOOTH WEAR	COMMENTS
OLG95	1	SUS	CEV	1	W	CNAN	145		
OLG95	1	OVCA	HUM	1	L				MIDSHAFT FRAG
OLG95	6	BOS	TIB	1	R				PROX POST SHAFT FRAG
OLG95	6	CSZ	LBON	1	F				SHAFT FRAG
OLG95	6	CHIK	ULN	1	L				SLIGHT DAMAGE TO PROX END
OLG95	6	BOS	SKL	1	L		5		CHOPPED AXIALLY -YOUNG CALF FRONT-SUTURES OPEN
OLG95	7	CSZ	RIB	1	F				SHAFT FRAG
OLG95	10	SUS	MAND	1	R				VENTRAL FRAG POST HORIZ RAMUS
OLG95	22	OVCA	MAND	1	L		4578		ASCENDING RAMUS
OLG95	28	BOS	MAND	1	R		123		ANT HORIZ RAMUS-ADULT TEETH ALVEOLI
OLG95	28	BOS	RIB	1	L				PROX SHAFT
OLG95	28	BOS	SCP	1	F				VENTRAL DIST FRAG BLADE
OLG95	28	CSZ	UNI	1	F				INDET
OLG95	28	CSZ	RIB	1	F				SHAFT FRAG-2 PIECES
OLG95	28	BOS	TIB	1	L				PROX SHAFT- 2 PIECES
OLG95	31	GOOS	COR	1	R				SLIGHT DAMAGE TO DIST END
OLG95	32	SUS	RAD	1	R	PF	123		PROX END AND PART SHAFT
OLG95	32	CSZ	UNI	1	F				CHOPPED FRAG-CHECK FEM?

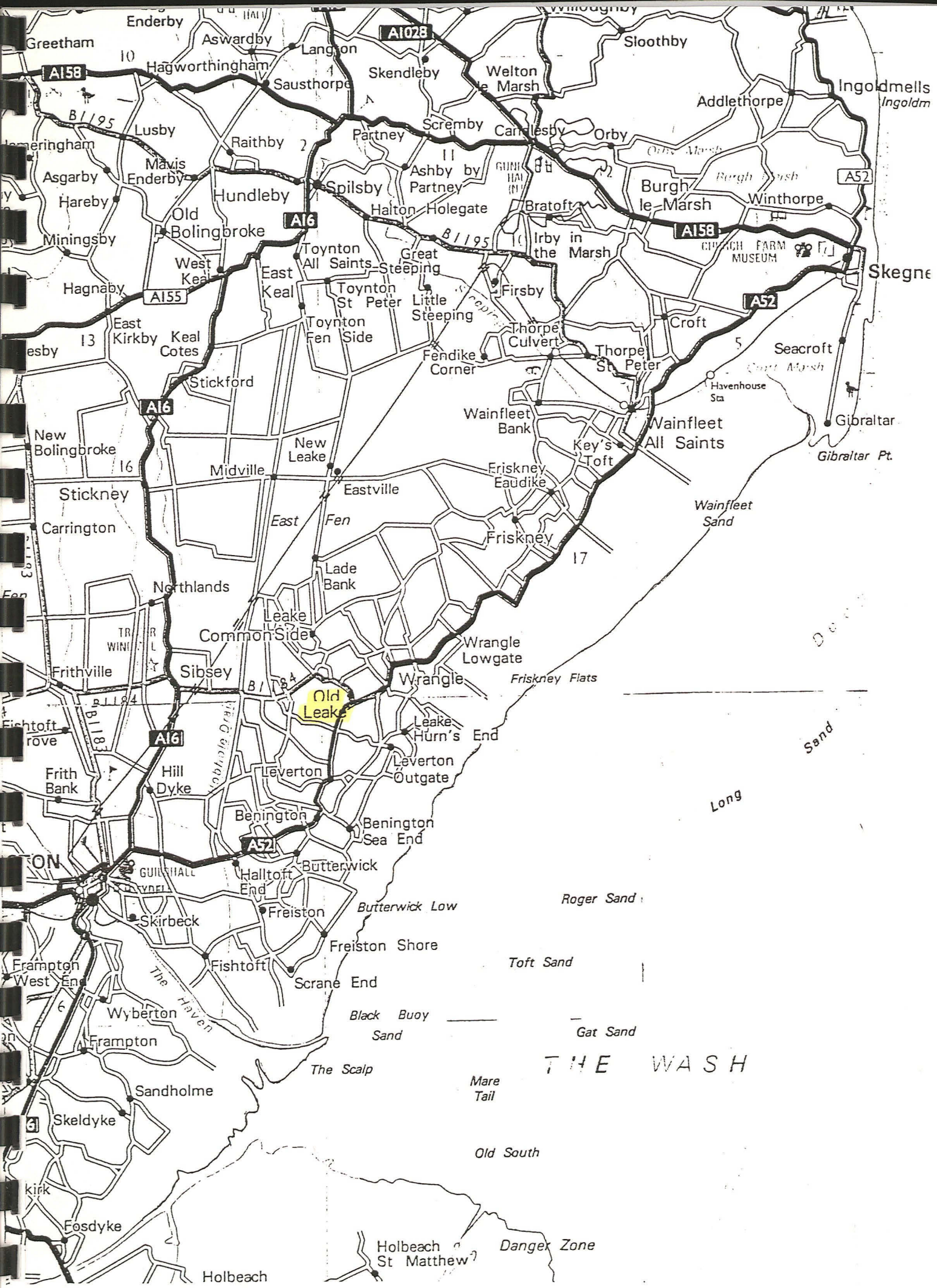


Fig. 1 The Location of Old Leake

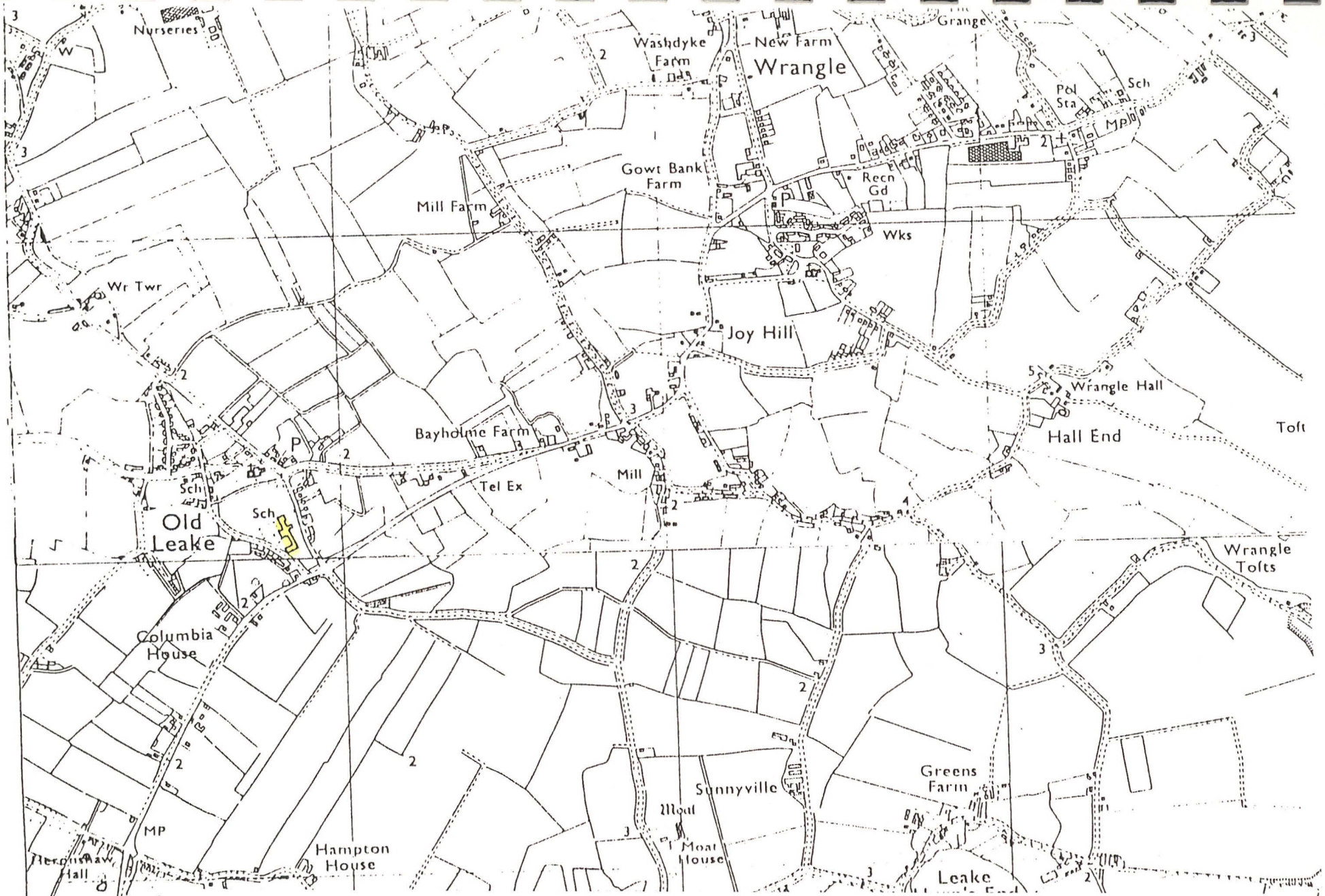


Fig. 2 Location of The Giles School (based on the 1977 Ordnance Survey 1:25000 scale map, Sheets TF 44, 45, 54 and 55, reproduced at enlarged scale. Crown Copyright; reproduced with the permission of the Controller of Her Majesty's Stationery Office. Licence no. AL50424A).

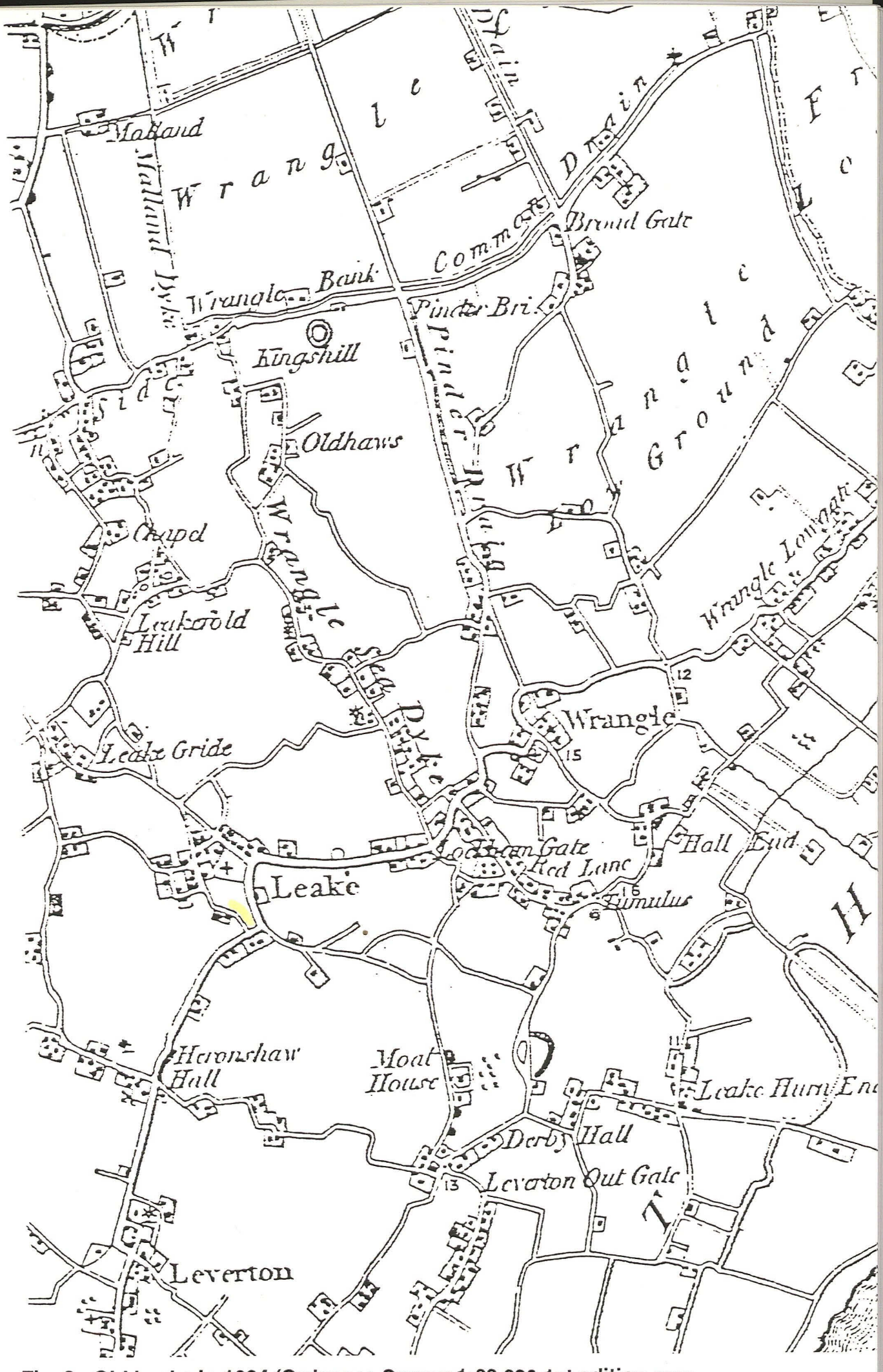


Fig. 3 Old Leake in 1824 (Ordnance Survey 1:63,630 1st edition map, Sheet 69; reproduced at enlarged scale).

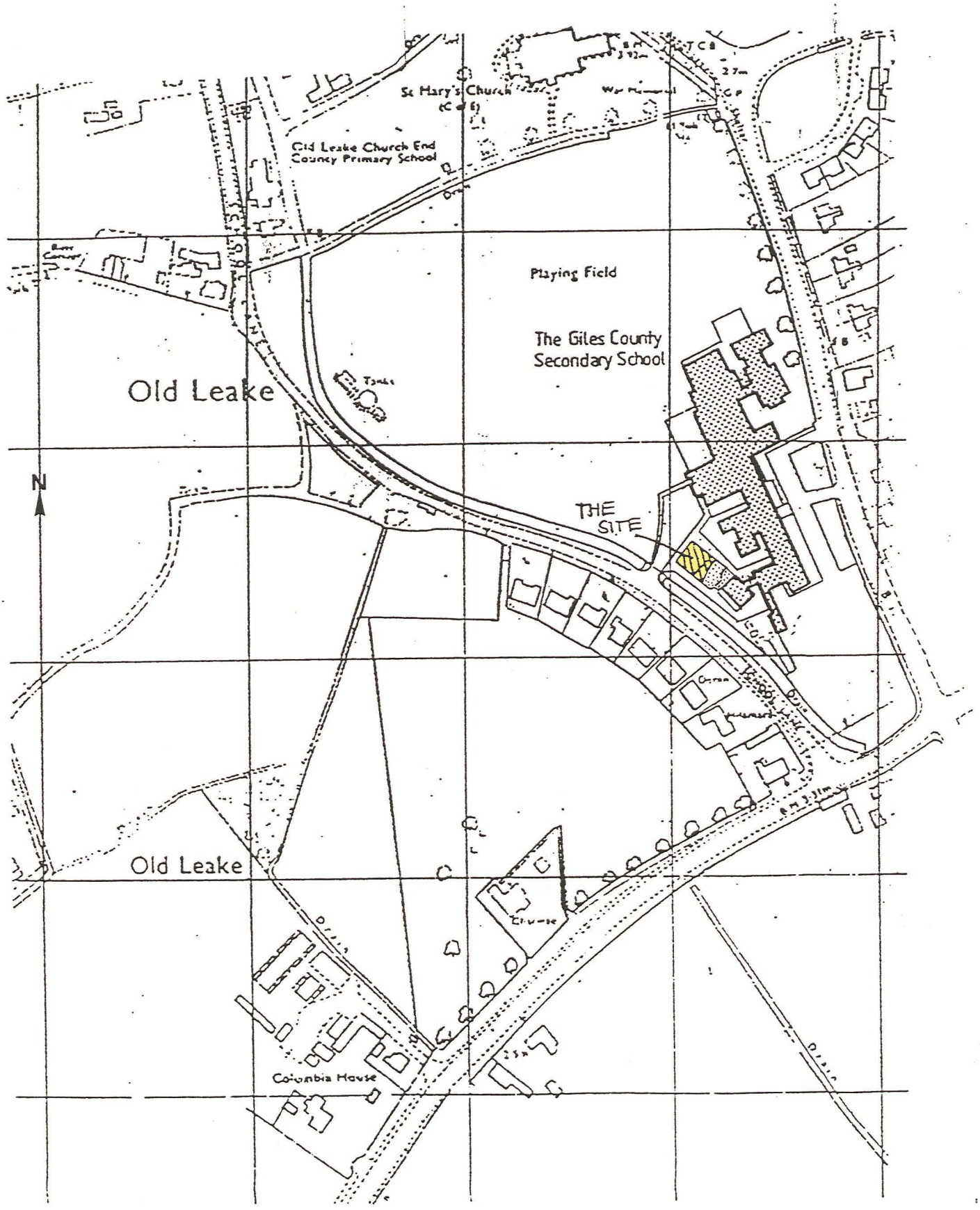


Fig. 4 Position of the Monitored Building Site (based on the 1:2500 location plan supplied).

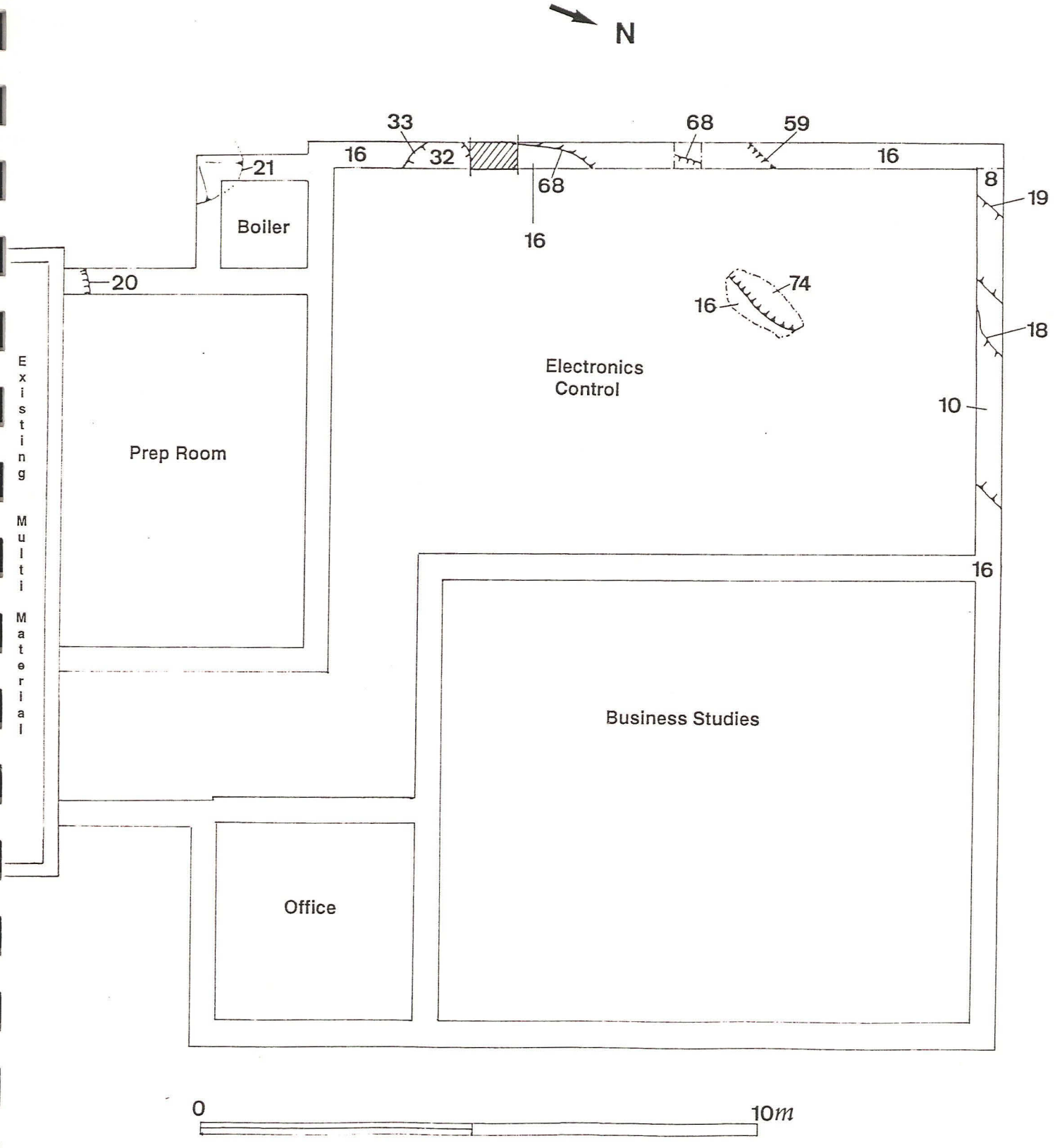


Fig. 5 Plan of the Foundation Trenches, showing the Positions of Archaeological Features (McDaid, after plans supplied by the architect)

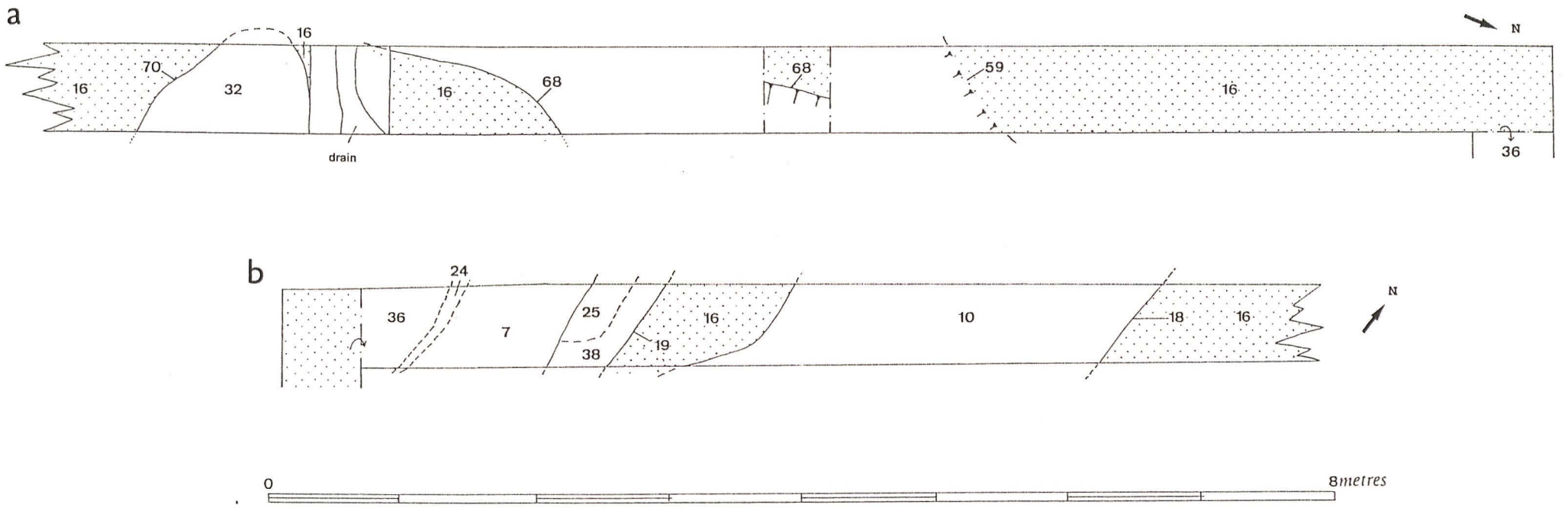
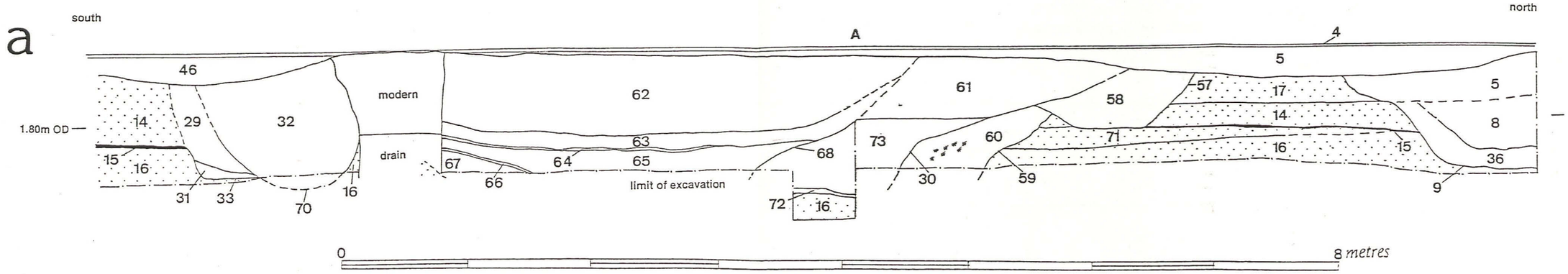
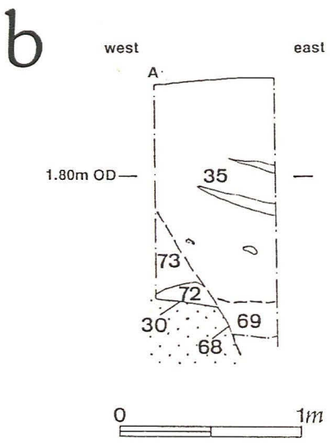


Fig. 6 a) Plan of Archaeological Features in part of the Western Trench (McDaid and Tann)

b) Plan of Archaeological Features in part of the Northern Trench (McDaid, Field and Tann)

Fig. 7 Interpretative Plan (McDaid and Tann)





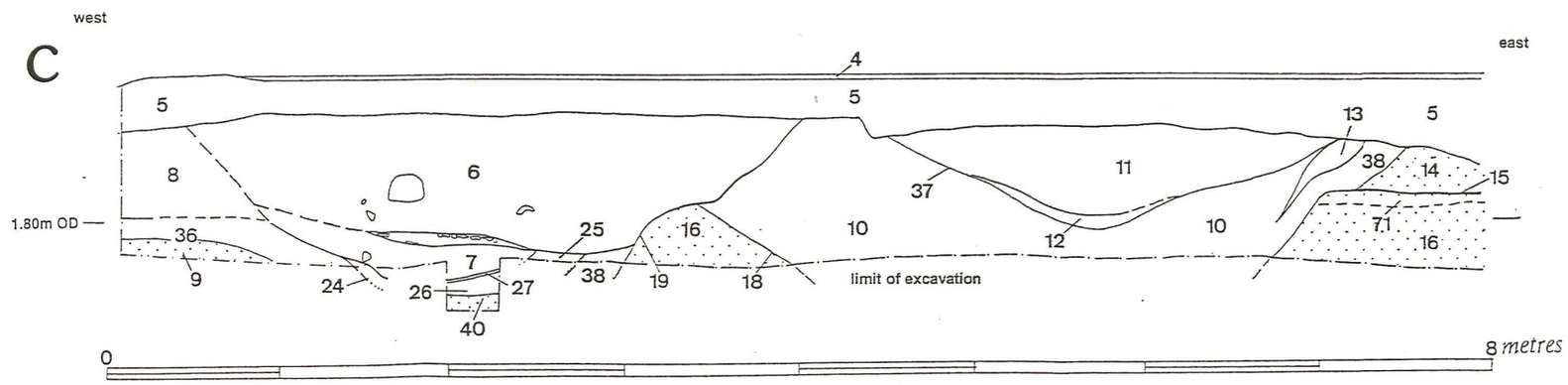


Fig. 8 a) West Section of the Western Trench (McDaid and Tann)

b) Section of the Face Sampled for Environmental Analysis; 'A' represents point 'A' on Fig. 8a (McDaid and Tann)

c) North Section of the Northern Trench (McDaid, Field and Tann)

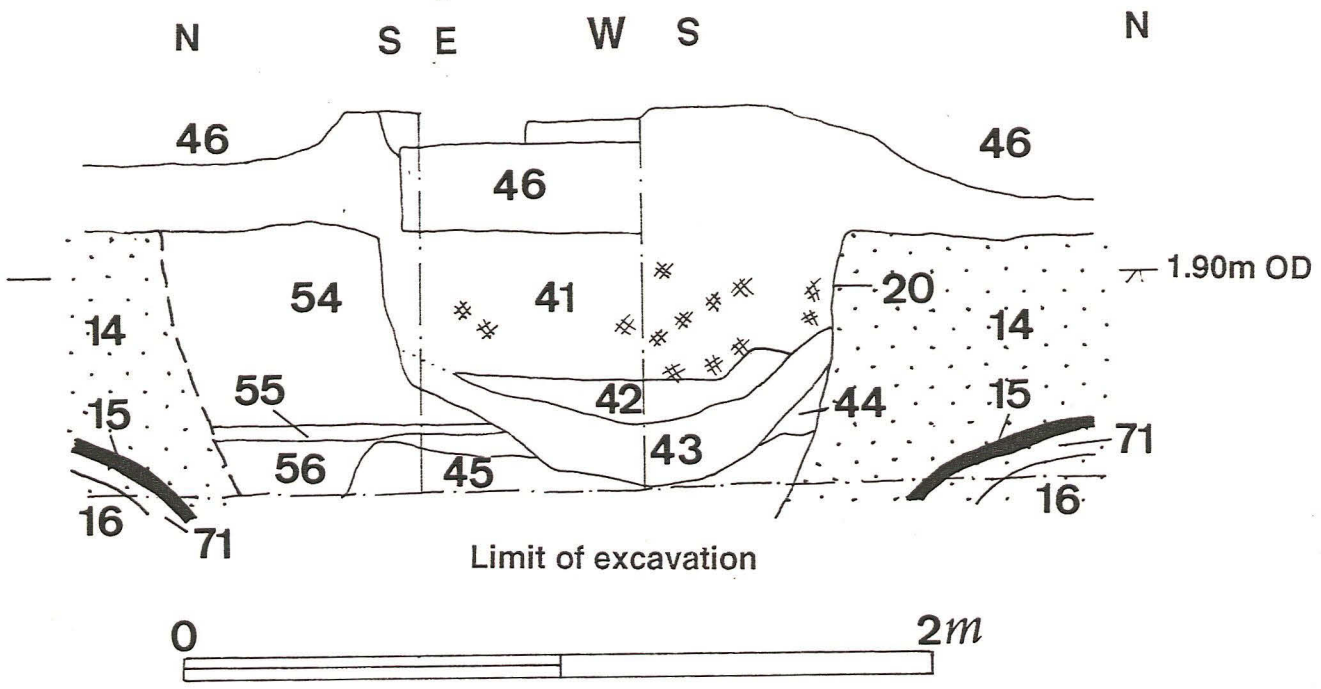


Fig. 9 Section of Pit 20 (McDaid and Tann)

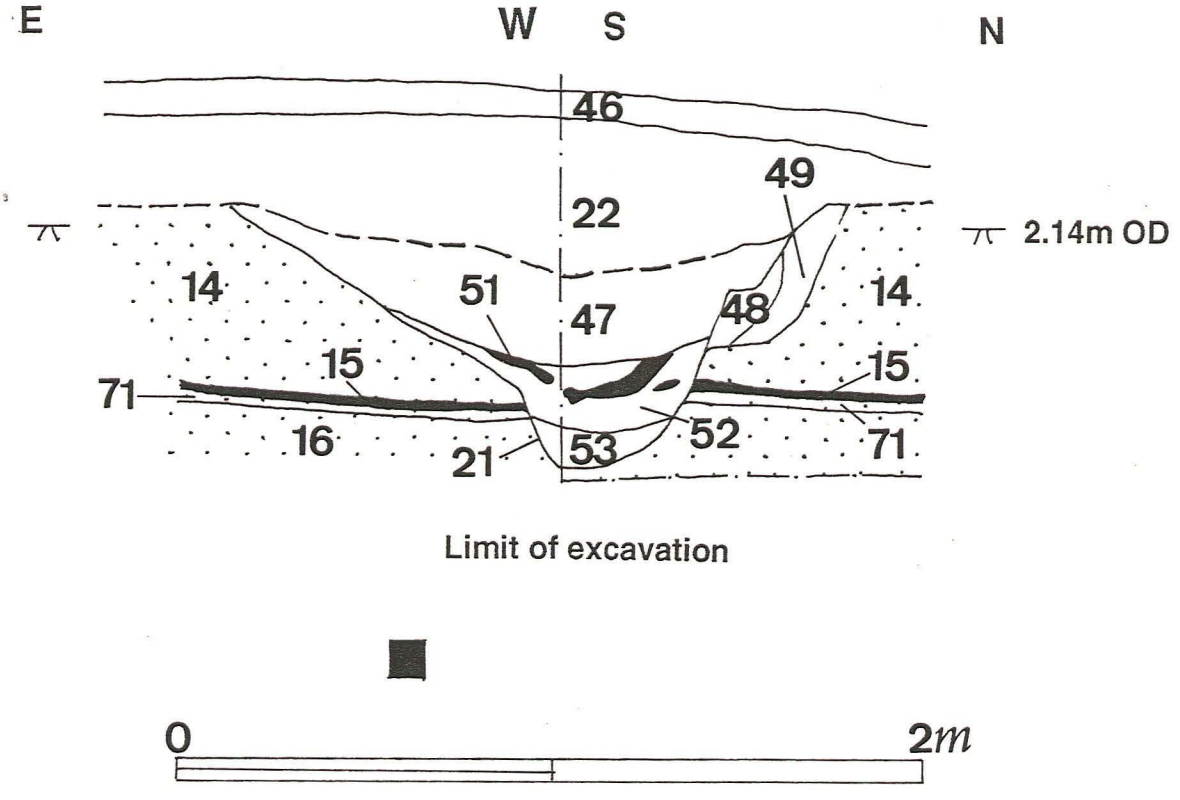
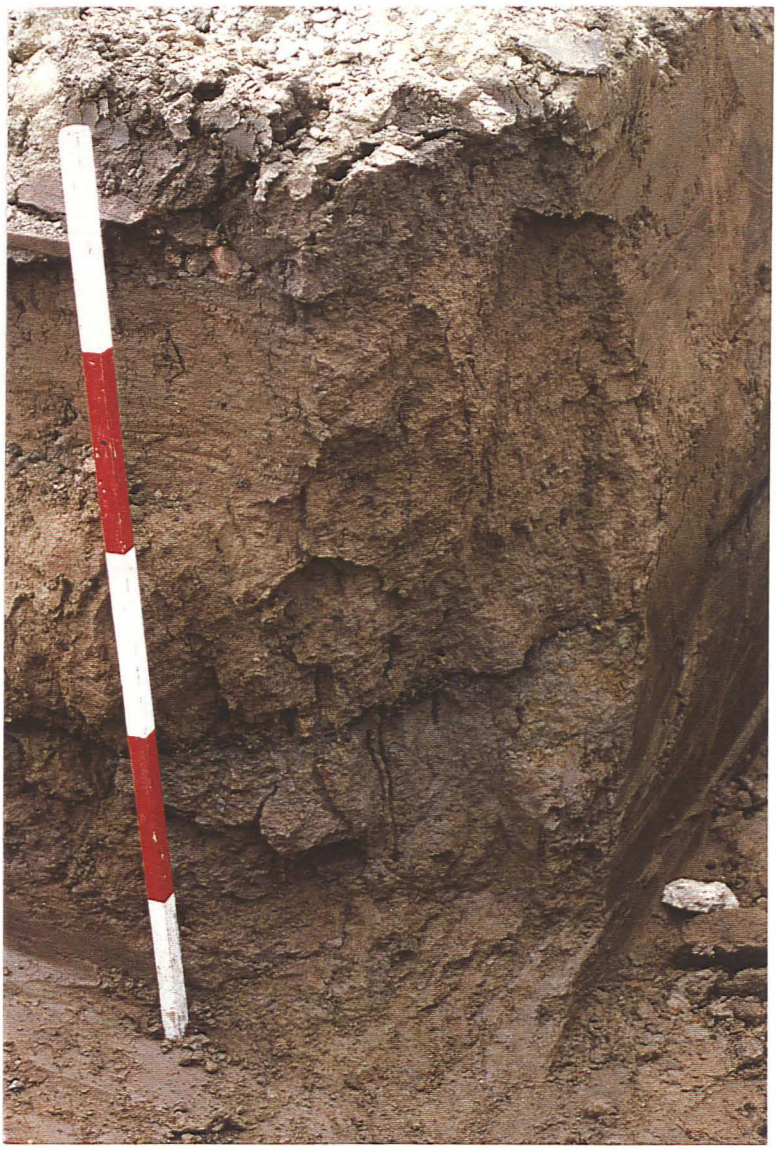


Fig. 10 Section of Pit 47 (McDaid and Tann)



Pl. 1 Trench face stratigraphy, showing deposits pre-dating the medieval features. Vestigial remains of 20th century topsoil cover the thick flood silt layer, below which is the peat lens 15 and the grey silt lens 71. Weathered natural clay 16 is at the base of the section. (Scale divisions 0.2m).

Pl. 2 Stratigraphy at the northern end of the eastern trench, showing the ground surface pre-dating the flood episode to be sloping down towards the NE. (Scale divisions 0.2m).

Pl. 3 Peat lens 15 dropping abruptly near the NW corner of the existing building, close to 20. (Looking west; scale divisions 0.2m).

Pl. 4 View eastwards along northern trench, showing dark fills of 19 (in front of scale), and 18 beyond the orange clay. (Scale divisions h 0.2m, v 0.1m).

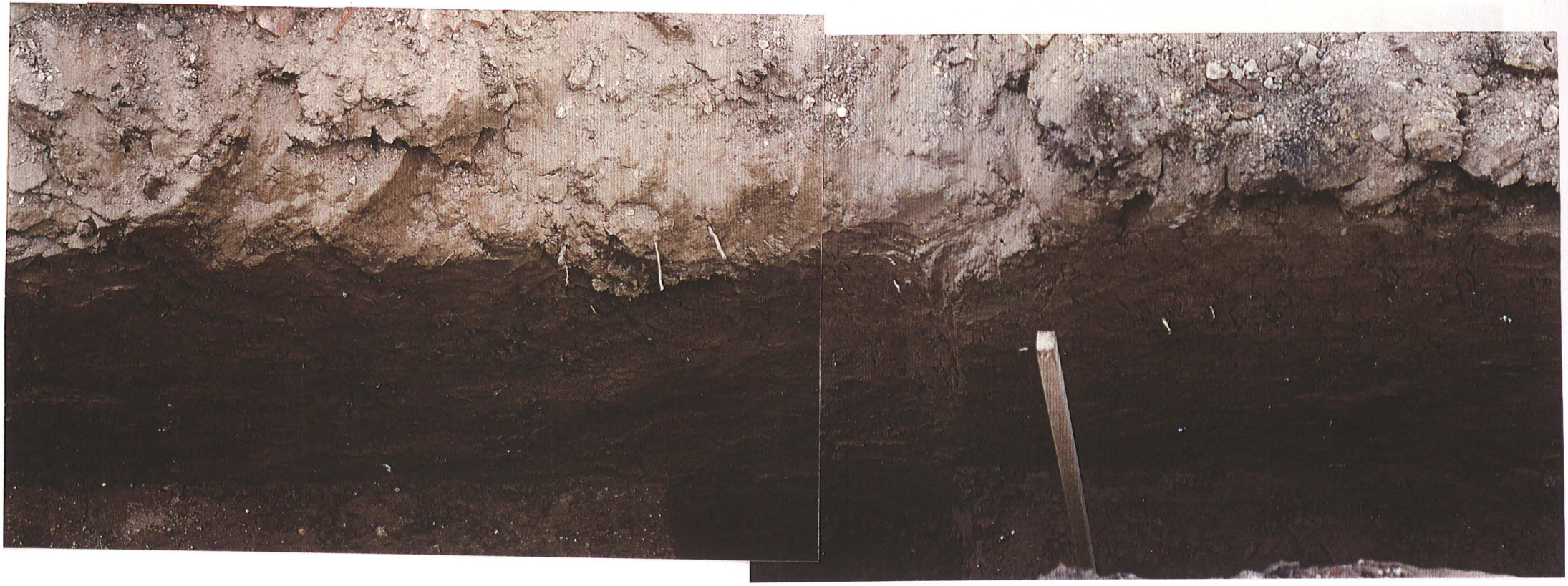
Pl. 5 Contexts 19, 18 and 37 (from left) crossing the northern trench. (Looking north; scale divisions h 0.2m, v 0.1m).

Pl. 6 Location of hole dug by the contractor to bury concrete lump, between the northern and central excavated trenches. (Looking SW).

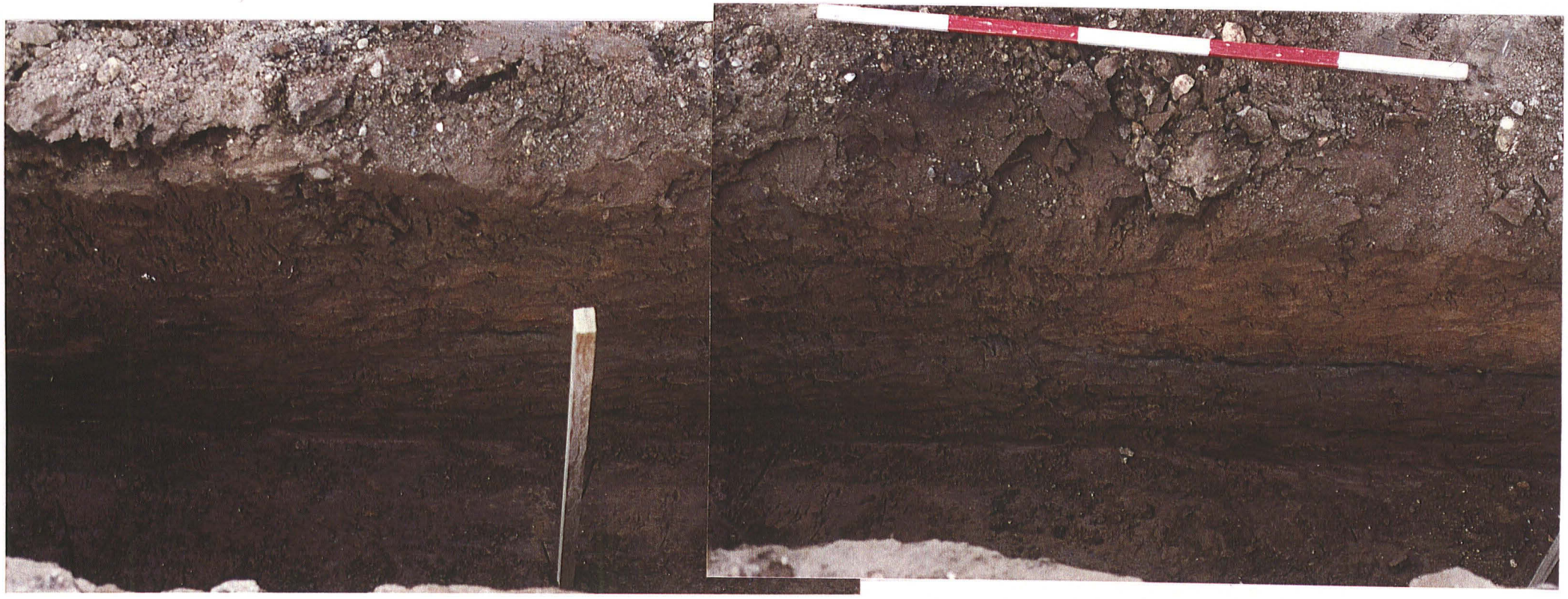
Pl. 7 Base of the hole dug by the contractor to bury concrete lump. (Looking north).

Pl. 8 Detail of the archaeological deposits visible in the contractor's hole, with darker fills to the right of the scored line and pre-medieval stratigraphy to the left. (Looking south).

Pl. 9 Detail of the stratigraphic relationship between 19 (dark fill on left) cutting lighter fill of 18. (Looking north; scale divisions h 0.2m, v0.1m).



Pl. 10 Fills of 68, 30 and 59 with the test pit for the environmental samples. (Looking west).



Pl. 11 Pit 57 and Ditch 59, with earlier stratigraphy to the north. (Looking west; scale divisions 0.2m).

Pl. 12 Position of 37 crossing the northern trench. (Looking east towards school buildings).

Pl. 13 Fills of 68 to north of a modern drain trench. (Looking west).

Pl. 14 Charcoal rich basal fill of 37, seen in the northern trench. (Looking south; scale divisions h 0.2m, v 0.1m).

Pl. 15 Fill deposit 35 with darker lenses, at upper part of sampled section. (Looking north; scale divisions 0.2m).

Pl. 16 Lower part of sampled section, showing the boulder-clay shelf and fills of 30 and 68 (on right). (Looking north; scale divisions 0.2m).

Pl. 17 SW corner of the monitored plot, beside the existing school building. Pit 20 lay to the left, Pit 47 is marked by the scale. (Looking west across School Lane).

Pl. 18 Fills of Pit 20 (looking south; scale divisions h 0.1m, v 0.2m).

Pl. 19 Pit 47, at the SW corner of the monitored area. (Looking west; scale divisions h 0.1m, v 0.2m).

Pl. 20 Pits 33 and 70 to the south of a modern drain trench. (Looking west).

Pl. 21 The southern part of the western trench, with the modern drain in the immediate foreground and the dark fills of 33 behind. (Looking west).

Pl. 22 Pit 9 cutting the flood silt deposit and the peat layer at the northern end of the western foundation trench. Looking west.

Pl. 23 The proximity of St. Mary's Church to the monitored site, with tennis courts and playing fields between. The scales mark the ditch positions. (Looking north).