LAND BETWEEN BOX END AND CHURCH END, KEMPSTON, BEDFORD

ARCHAEOLOGICAL FIELD EVALUATION

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Preface

Every effort has been made in the preparation of this document to provide as complete an assessment as possible, within the terms of the Brief. All statements and opinions in this document are offered in good faith. Bedfordshire County Archaeology Service (BCAS) cannot accept responsibility for errors of fact or opinion resulting from data supplied by a third party, or for any loss or other consequence arising from decisions or actions made upon the basis of facts or opinions expressed in this document.

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This report has been prepared by Mike Luke (Project Officer), Matt Edgeworth (Project Supervisor) and Jackie Wells (Artefacts Officer). All BCAS projects are under the overall management of Drew Shotliff (Projects Manager). Joan Lightning (CAD technician) undertook the digitisation of site drawings and produced all illustrations in this report.

Trial excavation was supervised by Matt Edgeworth with investigation and recording undertaken by Ian Beswick and Rob Edwards. Surveying was undertaken by David Glasspoole (Mouchels Property Services) assisted by Tony Walsh and Joan Lighting. All artefacts were catalogued and analysed by Jackie Wells. Jerry Stone undertook the processing of environmental samples and BCAS would like to thank Dr Mark Robinson for assessing these and offering advice during his site visit.

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Key terms

Throughout this project the following terms or abbreviations are used:

BCAS	Bedfordshire County Archaeology Service
BCC	Bedfordshire County Council
CAO	County Archaeological Officer (of BCC)
Client	The Barbour Partnership
Clients consultant	Development Land and Planning
Project Design	Document: *Land between Box End and Church End, Kempston, Bedfordshire: Archaeological field evaluation*
The Brief	Document: *Brief for archaeological field evaluation of land between Box End and Church End, Kempston, Bedfordshire*

Structure of report

After the introductory Section 1, this report presents the results of the of the geophysical survey (Section 2) and the trial excavation (Section 3). The preservation and areas of archaeological remains are discussed in Section 4 with an overall chronological synthesis of the results presented in Section 5. The final section of the report discusses the significance of the results in the light of known national and regional criteria. The detailed pottery type summaries and trench descriptions are placed at the back of the textual section of the report (Appendices 1 and 2). All figures are bound at the very back of this report.

Non-Technical Summary

Prior to the archaeological evaluation reported here, the County Council's Historic Environment Record contained details of two areas of cropmarks immediately adjacent to the proposed extraction area (Fig. 1). In addition, Roman features and artefacts had been found during the construction of the Southern Orbital Sewer in the south of the Study Area (Fig. 2).

The evaluation has located and assessed the nature, date and extent of archaeological remains within the proposed extraction area. This was undertaken through two investigative methods; geophysical survey and trial excavation. The geophysical survey has been subject to a separate detailed specialist document which is only summarised in this report. The results of the trial excavation are presented here to the level of detail required by the Brief (issued by the County Archaeological Officer). Appendix 3 (at the back of this report) contains a brief explanation of archaeological terms and procedures used during trial excavation recording and in this report

Trial excavation has demonstrated that former river channels of the River Great Ouse exist within the proposed extraction area. Only the upper deposits of these were examined by trial excavation. Boreholes undertaken as part of the mineral reserve assessment indicate that a western and eastern channel exist within the extraction area. These are likely to have formed during the late glacial period. Pollen evidence recovered from the eastern channel during the construction of the Southern Orbital Sewer suggest it was infilling during the early prehistoric period.

The earliest direct evidence from the evaluation for human activity comprised worked flints, likely to be Neolithic or Bronze Age in date. These were derived from deposits more recent in date than the artefacts. Therefore, although indicating some kind of prehistoric activity took place within the Study Area, the absence of contemporary archaeological remains may suggest this was restricted to hunting and gathering along the river plain.

In the southern part of the Study Area Roman remains were found which represent the continuation of the major Roman settlement centred on Kempston Church End. Archaeological remains, including ditches and graves, were found buried beneath floodwater (alluvial) clays. Roman (and late Iron Age) pottery, a small quantity of tile and metalwork, along with animal bone was recovered from these features. Two main types of activity were indicated by the remains; settlement and burial in ***Area 1****, and deliberate dumping of domestic and other material in* ***Area 2*** *possibly to infill a natural undulation in the ground overlying a former river channel.*

The Kempston Church End Roman settlement is now known to extend over an area in excess of 20ha. With its regular layout of enclosures and trackways it represents a significant settlement, possibly a planned large village or small town.

Although the remains within the extraction area are not of schedulable quality, they do have the potential to address a number of national and regional research aims. Regionally the Roman settlement is of particular interest because it is poorly understood and has only been partially examined by evaluation or salvage recording. The human burials within the proposed extraction area will need sensitive treatment if they are to be removed and the relevant Home Office Licence.

1. INTRODUCTION

1.1 Background to the project

A planning application (BC/CM/99/0027) has been submitted to Bedfordshire County Council for mineral extraction and the creation of a water based recreation area on land between Box End and Church End, Kempston

The County Archaeological Officer (CAO) determined this land was archaeologically sensitive (Brief section 1.3). The CAO requested further information to enable an assessment of the impact of the development on archaeological remains within the application area. This is in line with Local Plan Policy HA1a and the guidance contained in PPG 16 *Archaeology and Planning*. In order to make this assessment a Brief (V3 11th February 2000) was issued for an archaeological field evaluation.

On 1st March 2000 BCAS was appointed by the Client to undertake the evaluation. The Project Design was approved by the CAO in writing on the 17th March 2000. The evaluation was to comprise geophysical survey and trial excavation (as stipulated in the Brief).

1.2 Site location (Fig. 1)

The application area (here after referred to as the Study Area) is situated immediately west of the River Great Ouse. It is located in between Kempston Box End and Church End to the west of Bedford. The Study Area is 23 hectares in extent centred on TL 0134 4865.

Topographically the majority of the Study Area lies within the floodplain and immediately west of a large meander (known as the Biddenham Loop) in the River Great Ouse. The site is generally flat, although rises slightly towards the west. The solid geology comprises Jurassic strata including Oxford Clay, Kellaway Beds, Cornbrash, Blisworth Clay/Limestone (from top to bottom). Sands and gravel overlie Oxford Clay across the entire application area.

Site investigation[1], including boreholes and trial pits located gravel at variable depths between 0.4m (for example borehole 6) and 3.7m (for example) borehole 3). It was also demonstrated that overburden, probably alluvial deposits, of a depth of over 1m extend over the eastern third of the application area (Fig. 3). These increase in thickness towards the present course of the river where they are up to 3m thick. Overburden is at its shallowest towards the south-west, north-west and south central parts of the application area. A soil survey[2] within the application area has demonstrated that soil type corresponds with the type of subsoil, for example being very poor over the depths of alluvial clays.

The southern half of the Study Area has been disturbed during the construction

[1] Edge and Pritchard, 1999, Site at Box End Farm, Kempston: Mineral Reserve Assessment
[2] Burton, RGO, 1999, Agricultural land classification at Vicarage Farm, Kempston

of the Southern Orbital Sewer in 1991. Large upstanding manholes are present in the southern fields indicating the course of the sewer. Although the actual pipe was placed within a 10m wide trench, extensive topsoil stripping is known to have taken place on either side of its route (Fig. 2). A major electricity pylon crosses the application from west to east. Other than these the Study Area is relatively free of obstacles.

1.3 *Archaeological background (Fig. 1)*

The Study Area is situated in an area "extremely rich in archaeological remains" (Brief Section 3.1). *BCC* has a catalogue of archaeological sites and historic buildings, the Historic Environment Record (HER), in which all known discoveries in Bedfordshire are recorded. The Study Area has produced archaeological features and artefacts associated with the Roman settlement (HER 162). It is also immediately adjacent to two areas of cropmarks (HER 13976 and 15025).

Neolithic and Bronze Age settlement and monuments are known on the higher ground east of the Rive Great Ouse (within an area known as the Biddenham Loop). Three monuments, burial ring ditches, have recently been located by evaluation within the river floodplain to the southwest of the Loop at the Cutler Hammer sportsground[3]. These were sealed by alluvial deposits.

Within the Biddenham Loop discrete Iron Age and Roman farmsteads existed immediately above the floodplain, presumably utilising the resources of the river[4]. It is possible a similar pattern of settlement existed to the west in the vicinity of the Study Area. This is supported by the discoveries of Iron Age pottery (HER 246), cropmarks (HER 13976 and 15025) and farmsteads (HER 163).

Archaeological observations and excavation were undertaken during construction of the Southern Orbital Sewer, (including the southern field of the present Study Area) of what was initially believed to be a villa[5]. These remains are now believed to represent a large village or small town (HER 162). Ditches, pits, Roman artefacts and human bones were observed within the sewer trench as it passed through the present Study Area, with dense settlement feature observed to the south (Fig. 2). Based on evidence recorded during field evaluation on the route of the Bedford Western Bypass[6] and at Cutler Hammer Sportsground the settlement is know to comprise a regular system of enclosures associated with trackways. If the cropmarks (Fig. 2) visible on aerial photographs (HER 13976), immediately west of the Study Area, are part of this settlement it is likely to be in excess of 20ha in extent.

[3] BCAS, 1999 Cutler Hammer Sportsground: Archaeological Field Evaluation (Report 99/33_
[4] BCAS, 1998, Biddenham Loop: Post Fieldwork Project Design (Report 98/8)
[5] BCAS, 1991, The Kempston Villa: Post Excavation Proposal (Report 91/9)
[6] BCAS, 1998, Bedford Western Bypass: Archaeological Field Evaluation (Report 97/46)

1.4 Project objectives

Section 4 of the Brief outlines the general objectives of the evaluation:

- The location, extent, and date of any archaeological features or deposits that may be present.
- The integrity and state of preservation of any archaeological features or deposits that may be present.

The Project Design (section 1.4) outlined the principal research themes which formed the basis for the fieldwork:

- Is there evidence for former courses of the River Great Ouse and will they provide environmental information?
- What evidence is there for prehistoric activity within the floodplain?
- How far did the Roman settlement centred on Church End extend northwards? What is the nature of this?
- Is there any evidence for Saxon or medieval activity associated with the Church End and Box End settlements?

1.5 Stages of archaeological fieldwork

The Brief (Section 5) required a staged approach in undertaking the archaeological field evaluation. The nature of each stage was dependent on the results of the previous stage. The sequence was as follows:

- STAGE 1: geophysical survey
- STAGE 2: trial excavation.

1.6 Methodological standards

Throughout the project the standards set out in the following documents were adhered to:

- IFA's *Codes of Conduct* and *Standard and Guidance for Archaeological Excavations*;
- English Heritage's *Management of Archaeological Projects* (1991);
- Bedfordshire County Council's *Procedures Manual: Volume 1 Fieldwork* (1997).

Detailed method statements were produced in the Project Design and are therefore not described in detail here. However, where variations or circumstances dictated a different approach these are described here.

2. GEOPHYSICAL SURVEY

2.1 *Introduction*

A specialist contractor, West Yorkshire Archaeology Services (WYAS), undertook the geophysical survey between 6th March and 7th March 2000. The full results are submitted in a separate report[7]. The summary presented here is intended to provide the background within which the trial excavation strategy was devised. For more detailed information, technical data and scaled plots of the results the specialist report should be consulted.

2.2 *Method statement*

A detailed method statement for the geophysical survey using fluxgate gradiometers was produced in the Project Design. This is not repeated here. However, due to the variation from the original Brief method statement the revision is discussed here.

2.2.1 Factors affecting the effectiveness of the survey

Two factors, unique to this Study Area, which may have affected the productiveness of geophysical survey were:

1. Modern disturbance associated with the southern orbital sewer construction. The sewer was constructed within a 10m wide trench which will have destroyed any archaeological remains. In addition, an extensive area of topsoil was stripped adjacent to the sewer and was used as a "working level", topsoil storage area and compound. It was uncertain how much this activity and the backfilling would affect the geophysical survey.
2. Alluvial deposits are known to occur across the Study Area (*see* above). These have a low magnetic susceptibility making it less likely to be enhanced by human activity to a degree detectable by gradiometery. The depth (in excess of 1m over the eastern half of the Study Area) may mask magnetic responses from deeply buried archaeological feature.

2.2.2 Targetted detailed geophysical blocks

Due to uncertainty over the productiveness of geophysical survey within an area known to contain deep alluvial deposits and part of which had been disturbed a staged approach was adopted. The initial survey would comprise five survey blocks usually 60m by 60m in extent (Table 3, overleaf).

[7] WYAS, 2000, Land between Box End and Church End, Kempston, Bedford Geophysical Survey

Investigate an area where archaeological features were observed during sewer construction within the area of topsoil stripping. If archaeological type anomalies are located this will enable instruments to be calibrated more accurately	Block 5
Investigate an area adjacent to cropmarks of archaeological origin	Block 4
Investigate an area where topsoil storage took place during sewer construction.	Block 3
Investigate an area outside sewer construction where alluvial deposits are less then 1m deep.	Block 2
Investigate an area to the north-west on slightly higher ground	Block 1

Table 1: Investigative reasons for the geophysical blocks

Depending on the results, the size of some areas was extended to "chase" possible archaeological type anomalies.

2.2.3 Topsoil magnetic susceptibility transects

This method is not used to actually detect archaeological features but it can, on certain sites, help to explain why known features (for example cropmarks) cannot be detected as magnetic anomalies. Although not conclusive, if topsoil susceptibility is low, it is likely to be difficult to detect archaeological features. Four transects were undertaken adjacent to the detailed blocks 1, 2, 3 and 4.

2.3 Results of the geophysical survey (Fig. 4)

2.3.1 Block 1

Block 1 was positioned on higher ground off the flood plain. Two responses believed to be associated with land drains were located.

2.3.2 Block 2

This block was located in an area where alluvial deposits were known to be less than 1m deep. Two areas of magnetic disturbance were located, at least one of which is believed to be associated with a modern drain.

2.3.3 Block 3

This was situated within the area of topsoil storage associated with the sewer construction and an area of weak magnetic disturbance was detected. Although clearly representing buried magnetic material it was not possible to determine if this was of modern or ancient origin. The absence of other archaeological type responses suggested the former was more likely.

2.3.4 Block 4

Block 4 was situated immediately east of known cropmarks, at least one linear of which is believed to continue into this survey area. No evidence for the latter was detected. However, several weak linear anomalies parallel to the modern field boundary and interpreted as ploughing/land drains were located. An archaeological origin for the three isolated weak responses towards the south could not be ruled out.

2.3.5 Block 5

This block was situated adjacent to the sewer trench in an area known to contain archaeological features. In complete contrast to the other blocks very strong magnetic variations were detected. Although groundworks associated with the sewer (clearly visible) are plausible, many of the responses were not dissimilar to archaeological anomalies caused by pits, ditches and areas of burning.

2.3.6 Magnetic susceptibility transects

The transects demonstrated that magnetic susceptibility is extremely low and uniform. This is likely to reflect the presence of alluvial deposits across most parts of the Study Area.

2.4 Summary

The overall responses from gradiometer survey were extremely low, with the exception of Block 5. This means that archaeological type anomalies will be extremely weak in nature. Therefore although uncertain those identified in Blocks 3 and 4 may be significant.

The very strong magnetic responses in Block 5 were in complete contrast to the other blocks. This may be a result of disturbance associated with the sewer. However, it is interesting to note these responses extend beyond the limit of the land subject to this disturbance and is in contrast to Block 4 also situated within the disturbance zone. An archaeological origin is therefore quite possible.

3. TRIAL EXCAVATION

3.1 Introduction

Trial excavation was undertaken between 23rd and 31st March 2000 in initially warm and dry, but later wet and cold weather. A total of nine trenches, four testpits and two extensions to trenches were investigated (Fig. 5). Details of all trenches and the deposits/features they contained are recorded in Appendix 2 at the end of this report.

3.2 The initial trench strategy (Fig. 5)

The initial nine trenches (Table 2) were positioned in areas:

- believed to contain archaeological feature (observed during sewer construction, as cropmarks or in the geophysical survey)
- in the area where alluvial deposits were shallow
- on the higher ground to the north-west.

The higher ground to the north-west.	**1 and 2**	**30m**
The gravel "island" (alluvial under 1m)	**3 and 4**	**50**
Possible archaeological geophysical anomalies in block 3	**5**	**30m**
Possible archaeological geophysical anomalies in block 4 and cropmarks	**6**	**30m**
Possible archaeological geophysical anomalies in block 5, area adjacent to archaeological features observed in sewer construction and land outside sewer construction.	**7 and 8**	**50m**
Area to north of cropmarks	**9**	**30m**

Table 2: Initial trench strategy

3.3 Contingency trenching

Once initial examination of the trenches was complete a number of extensions and additional testpits were requested by the CAO (Table 3). This was in line with the contingency arrangements outlined in the Brief and Project Design. These were undertaken after agreement with the Client.

Clarify extent of the archaeological deposit in trenches 7 and 8	Testpits 10-13
Determine eastern limit of cemetery and whether it continues westwards.	Two extensions to trench 6

Table 3: Contingency trench strategy

3.4 Method statement

A detailed method statement for the trial excavation was produced in the Project Design. This is not repeated here. In addition:

- Topsoil and alluvial deposits were removed by machine either onto archaeological deposits, gravel, clays or peat.
- Excavation was undertaken by machine deeper to examine the depths of deposits in extensive features.
- Human remains were encountered and investigated under Home Office

Licence (Number A2538). Only human bones recovered from the machine excavated topsoil were removed.

- Prior to the backfilling of trench 6, boards and red plastic fencing were placed over the graves as a protective measure.
- All archaeological deposits were recorded using a unique recording number e.g. context (the basic unit of recording) commenced from 100.
- Each trench was allocated a block of recording numbers in a continuous sequence. Therefore feature 203 (a modern trench "cut") is located in trench 2, context 621 (a skeleton) is located in trench 6, etc.
- In the following description, feature numbers are shown in square brackets, for example [634], while deposits (layer and fills) are shown in round brackets, for example (1302).

3.5 Results of the trial excavation

A total of 106 contexts were investigated within the trenches and testpits. These comprised 16 "cut" type features, 7 deposits associated with archaeological artefacts and 21 deposits either derived from alluviation (flooding) or fluviation (river channels). Table 4 summarizes the main feature/deposit types found within each trench. Appendix 2 provides detailed descriptions of contexts arranged by trench.

Trench	Finds	Alluvial deposits	Alluvial/ fluvial deposits	Colluvium	Ditches	Graves	"Dump" deposits	Modern features
1				3				
2		1	1					1
3		1	1					
4		1						
5		4	1					
6	Y	1	1		2	6		2
7	Y	1	1				2	1
8	Y	1	1				2	2
9	Y	1						2
10	Y	1					1	
11		1					1	
12			1					
13		1					1	
Total		14	7		2	6	7	8

Table 4: Feature/deposit summary by trench

In the following discussion, the results of the trial excavation have been grouped firstly into an overall description of the types of features/deposits within the entire Study Area, followed by a description of those of Roman period to the south of the Study Area.

3.5.1 Overall Study Area

3.5.1.1 Topsoil

A layer of modern ploughsoil comprising green brown silty clay covered the entire Study Area. It varied in depth from 0.2m to 0.3m. The topsoil from trenches 6 to 9 contained Roman artefacts.

3.5.1.2 Modern disturbances (Fig. 6)

Several linear features truncating the alluvial deposits were found in trenches 6 and 9 to the south of the Study Area. These, [634], [904] and [906], are therefore likely to be relatively recent in date. Deposit (905) infilling ditch [904] contained modern brick fragments. Both [634] and [904] share roughly the same northwest-southeast alignment and could be the same ditch. The nature of this and its position in relation to a kink in the present hedge suggests this may be a recent field boundary.

Within trench 2 a straight linear feature [203] oriented northeast-southwest, also truncated the alluvium. This was filled by a mixed deposit containing fragments of limestone, and is thought to be associated with a former limestone quarry, visible as a series of hollows immediately to the west.

Underlying the topsoil in the western halves of Trenches 7 and 8 was a mixed deposit of clay, sand and gravel (709 and 811). The nature of this material and its stratigraphical location above the alluvium indicates it is a disturbed zone associated with the construction of the Southern Orbital Sewer.

Several features in Trenches 7 and 8 truncated the alluvial deposits. They comprised large trench or pit-type features [707], [806] and [808] and were filled by mixed clay and gravel deposits which produced a mixture of modern and Roman artefacts. These are likely to represent excavations undertaken during the construction of the Southern Orbital Sewer.

3.5.1.3 Upper alluvial deposits

A layer of clay, believed to be alluvial in origin, was located in all trenches, except trench 1 (situated just above the floodplain). Within the trenches to the south these layers sealed archaeological remains. They were typically red to grey brown silty clays, for example (702) and fairly homogenous throughout. Generally they were *c.*0.25m thick but showed greater variations in trenches 3 and 4 reflecting the slope of the underlying gravel. Towards the east of trench 4 no alluvium was present.

3.5.1.4 Lower alluvial/fluvial deposits

In a number of trenches, for example 2 and 6 (extension), the alluvial deposits described above overlay red brown clays, for example (205) and (637), which are also believed to be alluvial in origin but are stratigraphically older. The absence of gravel in trenches 2, 5, 7, 8, 10, 11 and 12 and the presence of yellow brown clay, for example (505) and (708), suggests these trenches are situated within former river channels. The edge of these may have been located

in trenches 3, 4 (Fig. 8), 6 and 13. The borehole data supports this and suggests two areas of major river channels located on either side of a gravel "island".

3.5.1.5 Peat deposits

In trench 5 a dark black brown fibrous deposit of peat (504)/(508) was found below alluvial deposits at a depth of 0.54m. The overlying alluvium consisted of two layers - an upper layer of mid grey brown silty clay (501)/(506) and a lower layer of similar material with orange mottling (502)/(507). The peat was proved by excavation to be 0.2m deep and to overlie an orange grey clay deposit (505), which is interpreted as an older alluvial/fluvial deposit. Although the edge of the peat deposit was not defined it is likely to have formed within a natural hollow left by a partially infilled former river channel.

3.5.1.6 Colluvial deposits

The position of the dark sandy deposits in trench 1 suggests these are colluvial deposits. The nature of these suggests they may be post glacial in origin (Robinson *pers comms*).

3.5.1.7 Natural strata

Fine gravels in a grey brown sand matrix were encountered below the alluvium in trenches 3, 4, 6, 9, and 13. Solid geology was only encountered within trench 1 comprising an outcrop of limestone.

3.5.2 Features/deposits underlying alluvium in the south of the Study Area (Fig. 6)

3.5.2.1 Dump material (sections on Fig. 9)

Underlying the "upper" alluvium in Trenches 7 and 8, and contingency testpits 10-13, was a dark grey clay silt layer with reddish mottling, for example (803, sample 2). This varied between 0.1m and 0.15m in thickness and sealed a much darker grey clay silt layer, for example (804, sample 1). This was between 0.4m and 0.45m in thickness. Both these deposits contained moderate quantities of small flints and small to large limestone fragments, with occasional charcoal flecks. Roman artefacts within these deposits included a large number of Roman pottery sherds, a small coin (RA 1), a piece of lead waste (RA 2). A small quantity of animal bone and oyster shell was also recovered.

Contingency testpits were undertaken in an attempt to define the limits of these deposits. Testpits 10 and 11 produced similar deposits, although no Roman pottery was recovered from the latter. It is likely that Testpit 13 identified the edge of the dumped deposits (1303) with gravel (1305) observed to the north. The absence of the dump deposit in Testpit 12 suggests it did not extend this far.

The nature and composition of these deposits suggest that they represent deliberate dumping of occupation debris and stoney soil. Given the extent it is likely these occurred within an undulation in the contemporary ground surface (in an area of a former river channel). This may have been as part of a rubbish

disposal process or a deliberate attempt to raise the level of the ground. The red mottling of the upper fill is likely to be a result of post-depositional chemical changes associated with waterlogging (iron in solution migrating to the top of the fill), rather than representing a separate stage of deposition.

3.5.2.2 Linear features

Two parallel ditches 5m apart, southern [604] and northern [607], aligned west to east were sealed by the alluvium. Both ditches had sides sloping at 45 degrees, although the water table prevented the bases being observed (sections on Fig. 7). They were filled by similar grey sandy loam fills, which contained Roman pottery sherds, an iron buckle frame (RA 4), an iron nail and animal bone. The fills (605, sample 4 and 608, sample 5) on the northern side of both ditches were more stoney and may have resulted from a bank. Although the parallel nature of the ditches might suggest they defined a trackway the presence of a bank to the north of both ditches would not support this idea.

3.5.2.3 Human burials

Human inhumations were located in the vicinity of ditches [606] and [607], mainly in-between but with one to the north. Human bone was observed, but not removed, within cuts [611], [614], [617], [620] and [623]. With the addition of [626] a total of six graves were observed. Three [611], [614] and [617] appear to be orientated parallel with the ditches, but the others appear to be more west to east. From the limited investigation undertaken the majority of the skeletons were supine, although the position of the vertebrae and pelvis in [614] suggest that this individual may have been buried on its side. Visible in the latter were skull fragments placed next to the knee suggestive of a decapitation burial. The fill of the graves was generally a brown grey sandy loam which produced no artefacts.

The trench was extended in an attempt to define the limit of the cemetery. Although graves continued westwards their absence to the east suggests it may not continue in this direction. Although there are some similarities in the alignment of the ditches and the graves the precise relationship is uncertain. The absence of disturbed human bone within the ditch fills may suggest that the graves are later than the ditches. It is possible the burials occurred in this area adjacent to the boundary on the edge of an enclosure or field plot.

3.6 Artefact assemblage

3.6.1 Introduction

Trial excavation produced an artefactual assemblage comprising mainly pottery, ceramic building material and animal bone (Table 5). The material was scanned to ascertain the nature, condition and, where possible, date range of the artefact types present.

Tr/tp	Context	Feature	Type	Spotdate*	Pottery sherd:wt	CBM frag:wt	Animal bone frag:wt	Other Finds
06	600	600	Topsoil	Roman	12:68			flint core & flake (35g)
	601	601	U. alluvium	modern	4:31	2:95		
	605	604	L. ditch fill	Roman	1:1		1:1	
	606	604	U. ditch fill	Roman	3:24	1:35	5:122	oyster shell (1g), iron buckle frame (RA 4)
	608	607	L. ditch fill	Roman	15:545		22:287	
	609	607	U. ditch fill	Roman	17:153		25:311	iron nail (13g)
	627	626	Pit fill	Roman	1:29			
	636	636	Topsoil	Belgic IA	1:14			human bone (635g)
07	701	701	Topsoil	modern	3:23	3:253		
	702	702	U. alluvium	Roman	4:33		1:2	
	703	705	U. dump	Roman	3:96		1:17	
	704	705	L. dump	Roman	1:20			
	706	707	Mod. feature	Roman	5:35			
08	801	801	Topsoil	Roman	13:219	13:219		?crested blade (37g)
	802	802	U. alluvium	Roman	12:166			
	803	805	U. dump	Roman	22:278	3:148	5:59	flint ?scraper (RA 3), oyster shell (2g), lead waste (RA 2)
	804	805	L. dump	Roman	5:672	14	14:21	copper coin (RA 1), fired clay (1g)
	807	806	Mod. feature	modern	5:134	1:29**	2:25	
09	901	901	Topsoil	modern		2:157**		
	905	904	U. ditch fill	modern		5:335**		
10	1003	1004	U. dump	Roman	13:226		1:8	
-	1600	1600	ploughsoil to west	Roman	9:75			
Totals					149:2842	17:1052	77:853	

CBM = ceramic building material RA = registered artefact

* = this is based solely on the nature and date of all artefacts from the context

** = modern CBM

Table 5: Artefact Assemblage by trench and context (weight in grammes)

3.6.2 Ceramics

Pottery

A total of 149 sherds, weighing 2.8kg was recovered. These were examined by context. Twenty-four fabric types were identified using common names and type codes in accordance with the Bedfordshire Ceramic Type Series, held by BCAS. Fabrics are listed below (Table 6) in approximate chronological order. Quantification was carried out using minimum sherd count and weight.

Fabric type	Common name	Form	Sherd no.
Late Belgic Iron Age (*c.* BC 50-AD 50)			**31**
F	Non-specific Iron Age	undiagnostic	1
F05	Grog and shell	lid-seated jar	2
F06B	Medium Grog	undiagnostic	2
F06C	Coarse Grog	undiagnostic	7
F07	Shell	undiagnostic	10
F09	Sand and Grog	undiagnostic	8
F34	Sandy	undiagnostic	1
Roman (*c.* AD 50-350)			**111**
R	Non-specific Roman	plain rim beaker	1
R01	Samian ware (*c*)	Dr 33 cup, Dr 37 bowl	15
R02	Mica-gilded	undiagnostic	1
R05A	Orange sandy	white-slipped bowl	5
R06B	Coarse greyware	bowls with triangular & undercut rims	4
R06C	Fine greyware	dog-dish	7
R06D	Micaceous greyware	undiagnostic	1
R06E	Calcareous greyware	undiagnostic	4
R07B	Sandy blackware	dog-dish	3
R11	Oxford oxidised wares (*r*)	undiagnostic	3
R11D	Oxford Colour Coat (*r*)	undiagnostic	2
R11F	Oxford Mortaria (*r*)	mortarium	4
R13	Shelly	storage, lid-seated jars, flat rim bowl	59
R18	Pink gritty (*r*)	undiagnostic	1
R19A	Dressel 20 Amphora (*c*)	amphora	1
Post-medieval (*c.* AD 1500+)			**1**
P01	Glazed red earthenware	bowl	1
UNID	Unidentified	undiagnostic	6

NB: Bracketed italics denote vessels of regional (*r*) or continental (*c*) origin.
NB: see Appendix 1 for details of pottery type by context

Table 6: Pottery type series

Nine pottery sherds (75g) were collected from ploughsoil (1600) within the Study Area, in the field to the west of trench 6. Pottery was recovered from trenches 6-8, and from test pit 10. Approximately 22% of the material derived from topsoil or alluvial deposits. Trench 8 produced the largest quantity of pottery (1.5kg), in particular the fills of dump [805], which contained 33% of the total assemblage. A sizeable assemblage (698g) was also recovered from the fills of ditch [607], trench 6.

Despite an average sherd weight of 19g, there are few vessels represented by more than one sherd. A lot of the pottery is abraded, even the sherds from the deposits underlying the alluvium suggesting a degree of pre-depositional disturbance. However, the pottery deriving from dumps is generally more substantial than that deriving from ditch fills, with sherds being, on average, ten grammes heavier.

The material dates predominantly to the Roman period (75% of total assemblage), with smaller quantities of late Belgic Iron Age material (21%). There are few diagnostic forms among the Iron Age material. Roman vessels, however, are indicative of a domestic assemblage, comprising tablewares, cooking pots and storage jars.

Late Iron Age
Locally produced late Belgic Iron Age vessels in grog tempered fabrics (types F05, F06 and F09) are most numerous. Shell tempered vessels in fabric F07 are likely to derive from one of a number of kiln sites known in the vicinity, such as Bromham and Stagsden (BCAS in prep).

Roman
Although the assemblage spans the entire Roman period, the majority is more closely dated to the earlier part of this period. The material comprises a comparable range of wares to those recovered from adjacent excavations at SOS. Coarsewares are represented by local reduced wares (types R06 and R07). Diagnostic shell tempered forms are comparable to vessels produced at the Lodge Farm kilns in Harrold[8], and constitute 53% of the Roman assemblage. Regional imports are represented in the earlier period by vessels from the Verulamium region (type R18), and in the later period, by pottery from Oxfordshire (type R11). Continental imports comprise samian ware vessels and a Spanish amphora.

Ceramic Building material
A total of seventeen brick and tile fragments, weighing 1.0kg was recovered. The majority derive from topsoil and alluvial deposits, and comprise sand tempered flat roof tiles, ridge tiles and brick fragments of post-medieval/modern date. Roman material comprises six shell tempered *tegulae* fragments, deriving mainly from trench 8, and a single undiagnostic sand tempered fragment (*?tegula*).

3.6.3 Non-ceramics

Registered artefacts
Three metal and one flint artefacts (*see* below) were recovered. Those of metal comprise a copper alloy coin (RA 1), and a lead waste fragment (RA 2) from trench 8, and an iron buckle frame (RA 4) from trench 6. The coin survives in poor condition, and it is unlikely that x-ray will enable the object to be identified and dated.

Flint
Four pieces of worked flint (total weight 80g) were identified. A patinated core fragment and flake derive from ploughsoil (600), a ?crested blade from ploughsoil (801) and a retouched flake / ?scraper (RA 3) from the fill of dump [805]. All were therefore residual being found within topsoil or deposits of Roman date.

[8] Brown, A, 1994, "A Roman-British shell-gritted pottery and tile manufacturing site at Harrold", *Bedfordshire Archaeological Journal* 21.

3.7 Ecofactual evidence

3.7.1 Animal Bone

Forty-seven fragments of animal bone, weighing 821g were recovered, the majority (598g) occurring in the fills of ditch [607] trench 6. A further 32g derived from soil sample residues. The bone survives in fair condition, with some surface erosion. Diagnostic material comprises long bone, rib, vertebrae and tooth fragments. A single rib fragment exhibits cut marks. Species represented include horse, dog, cattle, and sheep/goat.

3.7.2 Human Bone

Forty disarticulated human bone fragments, weighing 635g, were recovered from machine spoil (636) associated with trench 6. Identifiable elements comprise a clavicle, ulna, and miscellaneous fragments of mandible, vertebrae, ribs and long bone.

3.7.3 Environmental Sampling

Four environmental samples were taken (Table 7). The samples were washed over a 0.5mm mesh and the residues sieved down to 1.0mm. The dried flots and residues were then scanned under a binocular microscope.

		Sample	1	2	4	5
		Context	804	803	605	608
		Feature	805	805	604	607
			Dump	Dump	Ditch	Ditch
		Sample Volume (litres)	5	5	5	5
CEREAL GRAIN						
Triticum dicoccum or *spelta*	emmer or spelt wheat		-	-	+	-
cereal indet.			+	-	-	-
CEREAL CHAFF						
Triticum spelta- glume	spelt wheat		+	-	-	-
WEED SEEDS						
cf. *Medicago lupulina*	black medick		+	-	-	-
Polygonum persicaria	red shank		+	-	-	-
Rumex sp.	dock		+	-	-	-
weed indet.			+	-	-	-
CHARCOAL						
cf. *Prunus spinosa*	sloe		+	-	-	-
Quercus sp.	oak		+	-	+	+
MOLLUSCS						
Lymnaea truncatula			+			
Trichia hispida gp.			+			+

\+ 1-5 items

Table 7: Summary of Environmental Samples

3.7.3.1 Charred plant remains

Charred remains were present in low quantities in three of the samples (not sample 2). Sample 1 from the lower dump deposit (804) contained carbonised plant remains consistent with the Roman period. These included spelt wheat chaff and a variety of weeds. Sample 4 from ditch [604] is notable for the presence of emmer or spelt wheat grain. Charred wood was identified as of sloe and oak.

3.7.3.2 Molluscs

Sample 1 from the lower dump deposit (804) also contained rather badly-preserved mollusc shells. These include *Trichia hispida* gp., which occurs in both dry and marsh habitats and *Lymnaea truncatula*, an amphibious species. They suggest dumping took place in wet, perhaps seasonally flooded, conditions.

4. AREAS OF ARCHAEOLOGICAL REMAINS AND LEVEL OF PRESERVATION

The significance of the identified archaeological remains within the planning process is partly dependent on their distribution within the development area and their quality of preservation.

4.1 Areas of archaeological remains (Fig. 10)

Archaeological features/deposits and artefacts were identified only from the south of the Study Area. The nature of the features suggests the area of archaeological remains can be divided between:

Area 1	**South-west**- ditches, graves and pits observed within trial trenches and as cropmarks. The quantity of artefacts recovered from these features and the ploughsoil to the west, indicates domestic activity in the vicinity. The trackway may mark the approximate limit of this activity.
Area 2	**South-east**- dumping of settlement derived deposits into a hollow overlying an earlier river channel. The contingency testpits have defined the approximate extent of this deposit.

4.2 Preservation of the archaeological remains

The level of preservation of archaeological remains can be assessed based on the nature of the surviving of archaeological features and artefacts/ecofacts.

4.2.1 Archaeological features

The survival of archaeological features is often dependent on the nature and intensity of previous landuse, especially ploughing. Although larger features such as ditches and pits often survive the most intensive-farming regime, it is the smaller and relatively more fragile features such as postholes and graves, which are often truncated or destroyed completely. The presence and dimensions of these provide the best indication of the quality of archaeological survival.

Within **Area 1** archaeological features including Roman graves (containing relatively undisturbed burials) and ditches survive. No small features such as postholes were found. No variation in the Roman dump deposits, **Area 2,** could be detected. All features were sealed by an alluvial clay which will have protected the remains from any post Roman ploughing.

The dump deposit had been truncated by trench and pit-type features associated with the Southern Orbital Sewer. However the alluvial clays will have protected all the Roman remains from any damage caused by the topsoil stripping associated with this construction. The actual sewer trench is known to have destroyed archaeological remains and will therefore represent a zone of total destruction.

4.2.2 Artefact and ecofact assemblage

The survival of artefacts and ecofacts can also be affected by former landuse and the nature of the soil (specifically acidity). Although less vulnerable material such as ceramics and stone frequently survive, animal bone and metal can easily be destroyed.

The artefactual assemblage comprises pottery, ceramic building material, metal objects and worked flint. This represents a good range of artefacts suggesting the soil is conducive to survival. However, the pottery sherds are generally small and abraded. Given the protection afforded by the alluvial clays this is likely to be a result of pre-depositional processes, for example rubbish disposal processes, rather than a result of more recent plough damage and weathering. Although the coin is in poor condition the other metal artefacts are in reasonable condition. Given the high water table it is possible some archaeological deposits, for example the lower ditch fills and dumps, may be waterlogged. Therefore the potential for organic artefact survival exists.

The ecofactual material included human and animal bone, the latter in fair condition. The environmental samples suggested the potential for charred plant remains along with the potential for waterlogged plant remains.

5. CHRONOLOGICAL SYNTHESIS OF RESULTS

The following synthesis incorporates relevant data from the Southern Orbital Sewer investigations, cropmarks visible to the west and available information on adjacent archaeological sites. It is presented in chronological order based on the stratigraphic evidence and the artefactual assemblage.

5.1 *Late glacial-post glacial*

The clay deposits located at the base of many of the trenches and in the boreholes, probably represent the infilling of river channels by alluvial processes. The undulatory nature of the upper surface of the gravel is reflected in the variation in depth of overburden (Fig. 3). This suggests there may have been two main north-south channels possibly with linking channels. These are likely to be Late Glacial in origin becoming infilled in the early Post-Glacial (Robinson *pers comms*). The identification of river channels was one of the original project aims (Project Design section 1.4).

The eastern channel was identified during the Southern Orbital Sewer construction and environmental samples taken. Assessment[9] of these demonstrated that they contained good quantities of well preserved pollen spanning the late upper Palaeolithic into the early Mesolithic. However there was no evidence for human activity in the pollen, or in the form of artefacts.

The channels are post glacial in date (M Robinson *pers comms*) and probably represent meandering channels of an abraded river. The gravel "islands" remained prominent with the area in-between gradually in filled with silty clays and finally alluvial clays from floodwaters of the established river. No archaeological material was found within them or on the gravel "islands". As noted at Warren Villas, near Sandy[10] the edge of the present flood plain coincides with the outer, in this case the western, channel. Water filled undulations within the upper fills of the channels are indicated by peat deposits observed within trench 5 and in the borehole records. Some undulations survived for a considerable period of time, for example in **Area 2** (*see* below).

5.2 *Prehistoric*

The worked flint assemblage was small and did not include any diagnostically dated tools. It is therefore broadly dated to the Neolithic and/or Bronze Age. No prehistoric features were located despite the presence of burial ring ditches at Cutlers Hammer Sportsground.

Within the Biddenham Loop concentrations of flint artefacts recovered from the ploughsoil suggest Mesolithic to Bronze Age "activity" was concentrated on the higher ground adjacent to the floodplain. This probably represents seasonal and short terms camps positioned to exploit the river floodplain resources

[9] Scaife, R 1992, River Ouse: Biddenham Loop; Pollen Assessment

[10] Dawson and Maull, 1996, "Warren Villas, Upper Caldecote: interim report on excavations from 1989-1994. *Bedfordshire Archaeology* 22.

5.3 Late Iron Age/early Roman

Evidence for this period within the Study Area is indicated solely by pottery representing 21% of the total assemblage. It is mainly derived from trench 6 (**Area 1**) and occurs within features associated with later pottery.

The Kempston Church End Roman settlement is believed to have origins in the middle Iron Age but expanded during this period (BCAS in prep). Farmsteads of a comparable date were recorded in advance of development on the Biddenham Loop.

5.4 Roman

5.4.1 Settlement

Roman features and/or artefacts were recovered from trenches 6, 8, 9 and 10. These represent the continuation of the Roman settlement centred on Kempston Church End, the identification of which was one of the original project aims (Project Design 1.4). Pottery was the principal artefact type recovered from these trial trenches and was also recovered from the south-east corner of the cropped field to the west of trench 6 (within the Study Area). Other artefacts recovered included Roman tile, a coin and other metal objects. Datable pottery spanned the entire Roman period but was dominated by vessels characteristic of the early part of this period. The assemblage included small quantities of regional and continental imports.

The Kempston Church End settlement is known to have comprised a regular layout of rectangular ditched enclosures and trackways. Two major north-west to south-east trackways were identified and cropmarks suggest these continued into the southern part of the field to the west of the Study Area before changing alignment. The enclosures contained buildings, other structures, yards, pits, wells and burials.

This settlement activity within the Study Area can be characterised into two main types; domestic and burial (**Area 1**) and deliberate dumping (**Area 2**).

5.4.2 Trackway?

The parallel ditches investigated in trench 6 (**Area 1**) may define a west to east trackway. These were also visible intermittently as linear cropmarks across the Study Area and the northern ditch was observed in the Southern Orbital Sewer trench. The alignment of these ditches is perpendicular to the parallel linear cropmarks immediately west of the Study Area. The latter may represent the continuation of one of the major settlement trackways. Although no domestic type features were observed in trench 6, cropmarks and investigations within the sewer trench suggest pits will occur in this area. The quantity of pottery and animal bone recovered from the ditch fills also suggests this area is likely to be part of, or immediately adjacent to a domestic enclosure. The absence of any features in the northern half of trench 6 suggests this trackway may be located on the periphery of the settlement.

5.5.3 Burials

Six inhumation burials were located within discrete graves in trench 6, **Area 1**. Given their proximity to the ditches, which they appear to avoid, they are likely to be Roman in date, but later than the trackway. Limited examination of the skeletons suggested that one may have been decapitated. This was a burial rite believed to be associated with religious beliefs of the individual. Of the 88 inhumations buried in the later Roman cemetery south of Church Road, approximately 12 had been decapitated (BCAS in prep). The extensions to trench 6 indicate this linear? cemetery continued westwards but not to the east. Human skull fragments were recovered 60m to the south of trench 6 during topsoil stripping associated with the Southern Orbital Sewer. A child inhumation was also found in a similar area during the laying of land drains in 1993 (BCAS project WB181). Within Roman rural settlements burials are frequently made adjacent to the boundaries of domestic enclosures[11]. Both inhumations and cremations (recorded during the SOS excavations) are now known to occur adjacent to boundaries within the Kempston Church End settlement.

5.5.4 Dump deposits

The deliberate dumping in **Area 2** comprised a dark deposit with a high coarse component of pottery, flints and limestone fragments. Given the coarse component it is possible this represents a deliberate attempt to level an undulation in the ground rather than simply rubbish disposal. No gravel was found below these deposits and it is presumed the original undulation reflected an underlying former river channel.

5.5.5 Extent and status of Kempston Church End Roman settlement

Due to the limited extent and nature of the archaeological investigations undertaken within the Kempston Church End Roman settlement, its true limits and status are uncertain. However, it is now known to extend to Cutlers Hammer Sportground to the south, and to continue into the south of the present Study Area (and the field to the west). Its extent is therefore in excess of 20ha and its regular layout would suggest rather than representing a large village, it could be given the status of a small town.

5.4.2 Alluvial deposits

As at Cutlers Hammer Sportsground all the Roman features within the Study Area are sealed by alluvial clays. Robinson,[12] based largely on the excavations at Warren Villas and Bromham[13], believes the rise in water level which led to extensive flooding occurred from the mid Roman period onwards. The depositional rate may have varied considerably over time, but Robinson believes that only limited sedimentation occurred before the medieval periods. The artefacts recovered from the deposits within the Study Area would appear to support this dating, although a small sherd of 3rd/4th century mortaria was recovered from the dump deposit.

[11] Leech, R, 1982, *Excavations at Catsgore 1970-73: a Romano-British village.*
[12] Robinson, M, 1992, "Environment, archaeology and alluvium on the river gravels of the south midlands" in Needham and Macklin *Alluvial archaeology in Britain*
[13] Tilson, P, 1973, "A Belgic and Romano British site at Bromham", *Bedfordshire Archaeology* 8.

5.5 Post-Roman and modern

Only a small quantity of artefacts of post-Roman date were recovered. These were all post-medieval or modern in date and included pottery and tile. The features which truncated the alluvium including the ditches in trench 2 and trench 9 are considered to be modern. One of these in the latter trench produced modern tile.

Features associated with the Southern Orbital Sewer include not just the main sewer trench but also topsoil stripping and associated works in trench 7 and 8.

6. SIGNIFICANCE OF THE RESULTS

6.1 *The assessment of archaeological remains within the planning process*

The CAO's *Brief* specifically forbids this report discussing the potential implications for the development of any archaeological remains discovered during the evaluation. However, a discussion of the significance of the remains in terms of their national and regional archaeological research frameworks is appropriate.

Although archaeological remains are now a material consideration in the planning process, there is no single, "easy-to-use" guide to assessing the importance of a particular archaeological site.

A limited number of nationally important archaeological sites have been given the status of Scheduled Ancient Monuments (SAMs) to indicate their exceptional type, nature and state of preservation. No such sites are located within or adjacent to the Study Area.

With the issuing of *Planning Policy Guidance Note 16; Archaeology and Planning (PPG16)* central government accepted the view that archaeological remains should be regarded as a finite, non-renewable resource, and that there should be a presumption in favour of the physical preservation of nationally important remains (whether Scheduled or not). The Bedford Borough Local Plan policy HA1 adopted this view. The case for the preservation of archaeological remains *in-situ* must be assessed based on the significance of the remains. The creation of an archaeological record, through the mechanism of archaeological fieldwork, was indicated to be the second best option and a similar view was adopted in Local Plan policy HA2.

Central government, though English Heritage, addressed the issue of national research needs with the publication of *Exploring our past* in 1991 and a draft Research Agenda in 1997. The latter contains a number of research agendas, against which the archaeological resource of an area may be assessed.

On a more regional level, the County Archaeologists of East Anglia have published the first volume in a research framework for the eastern counties (Glazebrook 1997). Although this document covers the adjacent counties of Cambridgeshire and Hertfordshire, it does not specifically consider Bedfordshire. Nevertheless, topographical and historical similarities (at regional level) between these counties make the document a useful tool for assessing the significance of the archaeological remains within the Study Area.

6.2 *Assessment of the significance of the post-glacial/prehistoric archaeological remains within the Study Area*

No *in situ* anthropogenic deposits of this date were located within the Study Area. However, there is potential for pollen preserved within former river channels to provide evidence for the vegetation and environment for at least the early prehistoric period. Although of no significance for the present Study Area the importance of this is increased when considering the CAO's view stated in the Brief that this area is extremely rich in archaeological remains. Given this any contemporary environmental information from **Areas of significance 1 and 2** would give these a **moderate** potential, especially if this information could be contrasted with the Roman environment.

6.3 *Assessment of the significance of the late Iron Age/early Roman archaeological remains within the Study Area*

The archaeological remains of this period represent part of an extensive Roman settlement that may have developed from an Iron Age farmstead. The Roman features, artefacts and ecofacts within **Areas of significance 1** and **2** are moderately well preserved. However, they represent part of a settlement which has already been subject to destruction by Kempston Church End and the construction of the SOS. Therefore, it should not be considered of national significance or of schedulable quality.

However, the remains do appear to have the potential to address a number of national and regional research aims. Regionally they are also important, because although part of a larger settlement, the nature and status of this is poorly understood. It has only been partially investigated, either under hurried "rescue" conditions or as part of a field evaluation associated with a planning application.

6.3.1 English Heritage Research Agenda

Processes of change

Britain into Roman	The transition phase from the late Iron Age to Roman period. The evaluation has shown this is the predominant period of activity. The archaeological remains in **Areas 1 and 2** therefore have **high** potential to address this issue.
Empire to kingdom	The nature of change in Romano-British society in the 3rd and 4th Century is poorly understood. Although Saxon remains were located to the south during the SOS investigations there is no evidence for contemporary activity within the Study Area. However, this may be associated with increased flooding and therefore **Areas 1 and 2** have a **low** potential to address this aim.

Themes

Settlement hierarchies and interaction	A basic understanding of settlement types and their distribution is needed. However, the study between an individual settlement and its environs is an important step towards formulating broader theories and research goals. **Areas 1 and 2** contain evidence for later Iron Age and Roman settlements. They therefore, have a **high**

	potential to address this aim
Rural settlement	Settlement patterns are the key to understanding the economic, social and political structures of rural England. **Areas 1 and 2** contain evidence for rural settlements which will have changed over time. They therefore, have a **high** potential to address this aim.

Site/area selection

Group value	The value of the investigation of a single site may be greatly enhanced by association with other contemporary sites. The Study Area is situated in an area of intense human activity. **Areas 1 and 2** will therefore have **high** potential to compare and contrast settlement types in one locality.
Survival/condition	This is a crucial consideration and has been assessed for the Study Area by identifying the potential of the archaeological data. Despite a number of modern disturbances the archaeological features are generally well preserved under alluvial deposits. **Areas 1 and 2** contain a **moderately** well preserved set of archaeological data.
Ecofactual potential	The potential for ecofactual information is **good** with charred remains and seeds present. Waterlogged material was located. **Areas 1 and 2** therefore has a **high** potential to address this aim.

6.3.2 East Anglian Research Framework

Rural settlement

Non-villa settlement	Investigations over the last ten years have gone some way to address the imbalance between the number of investigations on villas, and other sites. However Glazebrook (1997) stated "study of other kinds of rural settlement has not progressed as rapidly as might be desired". **Areas 1 and 2** have a **high** potential to address this aim.
Burials	Rural Romano-British burials and cemeteries was identified as a particular weakness. The burials of this period within the **Area 1** will assist in understanding the nature and pattern of burial within the settlement. Therefore, this area has a **high** potential to address this aim.

6.3.3 Local interest

Due to the obvious visual impact of Roman remains and artefacts, there is often great public interest in this period. This is increased by the requirement within the national curriculum for study of the Roman period. Kempston is an area of intense past activity and the public appetite for knowledge is highlighted by school requests for visits and displays.

APPENDIX 1: POTTERY TYPE BY CONTEXT

Spot date	Fabric type	Common name	Context	Sherd no.	Weight (g)
-	UNID	Unidentified ware	608	2	133
-	UNID	Unidentified ware	609	1	6
-	UNID	Unidentified ware	803	1	5
-	UNID	Unidentified ware	804	2	25
Iron Age	F	Non-specific Iron Age	636	1	14
Late Belgic Iron Age	F05	Grog and shell	600	1	6
Late Belgic Iron Age	F05	Grog and shell	609	1	8
Late Belgic Iron Age	F06B	Medium Grog	609	1	2
Late Belgic Iron Age	F06B	Medium Grog	803	1	4
Late Belgic Iron Age	F06C	Coarse Grog	600	2	16
Late Belgic Iron Age	F06C	Coarse Grog	606	1	13
Late Belgic Iron Age	F06C	Coarse Grog	608	2	25
Late Belgic Iron Age	F06C	Coarse Grog	609	2	8
Late Belgic Iron Age	F07	Shell	608	3	54
Late Belgic Iron Age	F07	Shell	609	6	71
Late Belgic Iron Age	F07	Shell	1600	1	5
Late Belgic Iron Age	F09	Sand and Grog	601	1	16
Late Belgic Iron Age	F09	Sand and Grog	606	1	7
Late Belgic Iron Age	F09	Sand and Grog	608	2	16
Late Belgic Iron Age	F09	Sand and Grog	702	1	9
Late Belgic Iron Age	F09	Sand and Grog	801	1	18
Late Belgic Iron Age	F09	Sand and Grog	802	1	7
Late Belgic Iron Age	F09	Sand and Grog	1003	1	2
Late Belgic Iron Age	F34	Sandy	601	1	5
Roman	R	Non-specific Roman	1003	1	1
Roman	R05A	Orange sandy	801	2	7
Roman	R05A	Orange sandy	803	1	4
Roman	R05A	Orange sandy	1003	1	10
Roman	R05A	Orange sandy	1600	1	9
Roman	R06B	Coarse greyware	601	1	5
Roman	R06B	Coarse greyware	701	1	13
Roman	R06B	Coarse greyware	703	1	58
Roman	R06B	Coarse greyware	802	1	19
Roman	R06C	Fine greyware	609	1	9
Roman	R06C	Fine greyware	627	1	29
Roman	R06C	Fine greyware	701	1	2
Roman	R06C	Fine greyware	702	2	20
Roman	R06C	Fine greyware	703	1	6
Roman	R06C	Fine greyware	802	1	2
Roman	R06D	Micaceous greyware	1600	1	7
Roman	R06E	Calcareous greyware	600	2	10
Roman	R06E	Calcareous greyware	606	1	4
Roman	R06E	Calcareous greyware	1003	1	20
Roman	R07B	Sandy blackware	802	1	16
Roman	R07B	Sandy blackware	803	1	2
Roman	R07B	Sandy blackware	1003	1	2
Roman	R13	Shelly	600	6	40
Roman	R13	Shelly	601	1	5
Roman	R13	Shelly	605	1	1
Roman	R13	Shelly	608	6	317
Roman	R13	Shelly	609	5	49
Roman	R13	Shelly	701	1	8
Roman	R13	Shelly	703	1	32
Roman	R13	Shelly	706	1	9

Spot date	Fabric type	Common name	Context	Sherd no.	Weight (g)
Roman	R13	Shelly	801	8	186
Roman	R13	Shelly	802	5	99
Roman	R13	Shelly	803	11	239
Roman	R13	Shelly	804	1	158
Roman	R13	Shelly	807	4	133
Roman	R13	Shelly	1003	5	163
Roman	R13	Shelly	1600	3	18
Roman	R18	Pink gritty	1003	1	1
Roman 1st/2nd century	R02	Mica-gilded	803	1	1
Roman 2nd/3rd century	R01	Samian ware	600	1	2
Roman 2nd/3rd century	R01	Samian ware	704	1	20
Roman 2nd/3rd century	R01	Samian ware	706	1	1
Roman 2nd/3rd century	R01	Samian ware	801	1	4
Roman 2nd/3rd century	R01	Samian ware	802	2	18
Roman 2nd/3rd century	R01	Samian ware	803	5	21
Roman 2nd/3rd century	R01	Samian ware	804	1	2
Roman 2nd/3rd century	R01	Samian ware	1003	2	27
Roman 2nd/3rd century	R01	Samian ware	1600	1	1
Roman 2nd/3rd century	R19A	Dressel 20 Amphorae	804	1	487
Roman 3rd/4th century	R11	Oxford oxidised wares	702	1	4
Roman 3rd/4th century	R11	Oxford oxidised wares	802	1	5
Roman 3rd/4th century	R11	Oxford oxidised wares	1600	1	7
Roman 3rd/4th century	R11F	Oxford Mortaria	706	3	25
Roman 3rd/4th century	R11F	Oxford Mortaria	803	1	2
Roman 4th century	R11D	Oxford Colour Coat	801	1	4
Roman 4th century	R11D	Oxford Colour Coat	807	1	1
Post-medieval	P01	Glazed Red Earthenware (fine)	1600	1	22

APPENDIX 2: TRENCH SUMMARIES

Trench: 1

Max Dimensions: **Length:** 30.00 m. **Width:** 1.90 m. **Depth to Archaeology Min:** m. **Max:** m.

OS Co-ordinates: **Ref. 1:** TL0110049170 **Ref. 2:** TL0113049170

Reason for trench: Excavation of higher ground to NW

Context:	Type:	Description:	Excavated:	Finds Present:
101	Topsoil	Loose mid green brown silty clay occasional small stones.	☒	☐
102	Colluvium	Firm dark grey brown silty clay .	☐	☐
103	Colluvium	Firm mid red brown sandy clay .	☐	☐
104	Colluvium	Compact light yellow brown sandy clay .	☐	☐
105	Bedrock	. limestone outcrop	☐	☐

Trench: 2

Max Dimensions: **Length:** 30.00 m. **Width:** 1.90 m. **Depth to Archaeology Min:** m. **Max:** m.

OS Co-ordinates: **Ref. 1:** TL0117048900 **Ref. 2:** TL0120048900

Reason for trench: Examine of central area of higher ground to NW

Context:	Type:	Description:	Excavated:	Finds Present:
201	Topsoil	Loose mid green brown silty clay occasional small stones.	☒	☐
202	Upper alluvium	Compact mid grey brown silty clay occasional medium stones.	☒	☐
203	**Ditch**	**Linear NE-SW profile: vertical dimensions: max breadth 2.m, min length 3.m. Modern trench cutting alluvium (202). Possibly connected with nearby limestone quarrying.**	☐	☐
204	Fill	Loose light grey brown silty clay frequent small-medium stones. Very mixed deposit containing fragments of limestone.	☐	☐
205	Lower alluvium	Compact mid red brown silty clay .	☐	☐

Trench: 3

Max Dimensions: **Length:** 50.00 m. **Width:** 1.90 m. **Depth to Archaeology Min:** m. **Max:** m.

OS Co-ordinates: **Ref. 1:** TL0130648700 **Ref. 2:** TL0135648700

Reason for trench: Examine the gravel 'island' (overburden under 1m deep)

Context:	Type:	Description:	Excavated:	Finds Present:
301	Topsoil	Loose mid brown silty clay occasional small stones.	☒	☐
302	Upper alluvium	Firm mid grey brown silty clay .	☒	☐
303	Lower alluvium	Compact mid yellow brown silty clay .	☒	☐
304	Gravel	Compact mid yellow brown silty sand frequent small stones. Slopes down from E to W	☐	☐

Trench: 4

Max Dimensions: **Length:** 50.00 m. **Width:** 1.90 m. **Depth to Archaeology Min:** m. **Max:** m.

OS Co-ordinates: **Ref. 1:** TL0135048600 **Ref. 2:** TL0140048600

Reason for trench: Examine gravel 'island' (overburden under 1m deep)

Context:	Type:	Description:	Excavated:	Finds Present:
401	Topsoil	Loose mid brown silty clay occasional small stones.	☒	☐
402	Upper alluvium	Firm light red brown silty clay .	☒	☐
403	Gravel	Compact mid yellow brown silty sand frequent small stones.	☐	☐

Trench: 5

Max Dimensions: **Length:** 30.00 m. **Width:** 1.90 m. **Depth to Archaeology Min:** m. **Max:** m.

OS Co-ordinates: **Ref. 1:** TL0130048582 **Ref. 2:** TL0133048582

Reason for trench: Examine geophysical anomalies of possible archaeological origin in Block 3

Context:	Type:	Description:	Excavated:	Finds Present:
500	Topsoil	Firm mid green brown silty clay occasional small stones.	☒	☐
501	Upper alluvium	Firm mid grey brown silty clay .	☒	☐
502	Upper\lower alluvium	Firm mid grey silty clay .	☒	☐
504	Peat	Spongy dark brown black . Peat deposit, possibly in old palaeochannel. Fibrous to plastic with some clay content. Orange stains in fissures.	☒	☐
505	Lower alluvium	Firm mid yellow brown clay . Old riverbed deposit?	☐	☐
506	Upper alluvium	Firm light grey brown clay . Diffuse boundaries with lower deposit (507). Same as (501)	☒	☐
507	Upper\lower alluvium	Firm light grey brown clay . Same as (502).	☒	☐
508	Peat	Firm dark grey black silty clay . Continuation of peat 504, but less fibrous and more silty.	☐	☐

Trench: 6

Max Dimensions: Length: 30.00 m. Width: 1.90 m. Depth to Archaeology Min: 0.4 m. Max: 0.85 m.

OS Co-ordinates: Ref. 1: TL0140048220 Ref. 2: TL0140048250

Reason for trench: Examine geophysical anomalies of possible archaeological origin in Block 4 and cropmarks

Context:	Type:	Description:	Excavated:	Finds Present:
600	Topsoil	Dark grey silt occasional small stones, occasional medium stones.	☒	☒
601	Upper alluvium	Spongy mid grey brown clay silt moderate small stones, moderate medium stones. Contains orange clay sand and grey clay laminates.	☒	☒
602	Gravel	Firm mid grey sandy clay frequent small stones. .	☒	☐
603	Gravel	Firm light brown clay sand frequent small stones.	☒	☐
604	**Ditch**	**Linear E-W profile: 45 degrees dimensions: min breadth 1.4m, min depth 0.44m. Base not excavated so profile could either be "U" shaped or "V" shaped. Boundary ditch.**	☒	☐
605	Fill	Firm mid grey sandy loam frequent small stones, moderate medium stones. Contains fine brown mottling. Redeposition from bank ?	☒	☒
606	Fill	Firm mid grey sandy loam moderate small stones, occasional flecks charcoal. Contains fine brown mottling.	☒	☒
607	**Ditch**	**Linear ESE-WNW profile: 45 degrees base: concave dimensions: max breadth 2.62m, min depth 0.52m. Base not observed, therefore profile may be "U" shaped or "V" shaped.**	☒	☐
608	Fill	Grey sandy loam frequent small stones, frequent medium stones. Redeposition from bank ?	☒	☒
609	Fill	Grey sandy loam moderate small stones, occasional flecks charcoal. Gradual accumulation ?	☒	☒
610	Fill	Brown grey sandy loam frequent small stones. Inwash/ alluviation into depression left by infilled ditch ?	☒	☐
611	**Grave**	**Rectangular ENE-WSW dimensions: max breadth 0.55m, min length 1.5m. Unexcavated**	☐	☐
612	Human skeleton	. Observed rib fragments (presumed human) in unexcavated grave.	☐	☐
613	Fill	Brown grey sandy loam occasional small stones. Grave backfill.	☐	☐
614	**Grave**	**Rectangular ESE-WNW dimensions: max breadth 0.65m, max length 2.1m.**	☐	☐
615	Human skeleton	. Human skeleton. Observed lumbar vertibrae and pelvis. Possibly not supine. Skull fragments observed.	☐	☐
616	Fill	Brown grey sandy loam occasional small stones. Grave backfill.	☐	☐
617	**Grave**	**Sub-rectangular ESE-WNW dimensions: max breadth 0.45m, max length 1.9m.**	☐	☐
618	Human skeleton	. Skull observed. Damaged, possibly by machine. Human remains found in spoilheap may be from here - see 636.	☐	☐
619	Fill	Brown grey sandy loam occasional small stones. Grave backfill.	☐	☐
620	**Grave**	**Sub-rectangular E-W dimensions: min breadth 0.65m, min length 1.35m.**	☐	☐
621	Human skeleton	. Human skeleton - skull, lumbar vertebrae, pelvis and femurs observed. Obvious "old" damage/disturbance to skull and pelvis.	☐	☐
622	Fill	Brown grey sandy loam occasional small stones. Backfill of grave.	☐	☐
623	**Grave**	**Sub-rectangular E-W dimensions: min breadth 0.5m, min length 1.4m.**	☐	☐
624	Human skeleton	. Right femur, part of left femur, and right tibia observed. Possible skull fragment next to left knee.	☐	☐
625	Fill	Brown grey sandy loam occasional small stones. Grave backfill	☐	☐
626	**Grave**	**Sub-rectangular NW-SE dimensions: max breadth 0.45m, max length 1.15m. Probable grave. Different alignment and length but similar fill to other graves.**	☐	☐
627	Fill	Brown grey sandy loam occasional small stones. Very similar to grave fills. Possible backfill.	☐	☒

Trench: 6

Max Dimensions: Length: 30.00 m. Width: 1.90 m. Depth to Archaeology Min: 0.4 m. Max: 0.85 m.

OS Co-ordinates: Ref. 1: TL0140048220 Ref. 2: TL0140048250

Reason for trench: Examine geophysical anomalies of possible archaeological origin in Block 4 and cropmarks

Context:	Type:	Description:	Excavated:	Finds Present:
628	**Pit**	**Sub-oval dimensions: min breadth 0.8m, min length 1.25m. Shallow scoop - modern.**	☐	☐
629	Fill	Dark grey silt occasional small stones, occasional medium stones. Topsoil fill to modern scoop.	☐	☐
630	**Natural strata**	**Sub-rectangular E-W dimensions: min breadth 0.7m, min length 1.3m. Homogenous nature of fill suggests that it is likely to be a natural feature.**	☐	☐
631	Fill	Brown grey sandy clay occasional small stones.	☐	☐
632	**Natural strata**	**Sub-oval E-W dimensions: min breadth 0.45m, max length 1.75m. Homogenous nature of fill suggests that this is a natural feature**	☐	☐
633	Fill	Brown grey sandy clay occasional small stones.	☐	☐
634	**Ditch**	**Linear NNW-SSE dimensions: max breadth 1.2m. Drainage ditch. Cuts the alluvium - probably post -medieval in date.**	☐	☐
635	Fill	Firm brown grey clay . Possibly alluvial but different from alluvium (601).	☐	☐
636	Human skeleton	. Human skeletal remains recovered from machine spoil. May be from [617]/(618), but not certain..	☐	☒
637	Lower alluvium	Firm mid yellow brown silty clay . Found in eastern extension to trench only. Old riverbed deposit?	☐	☐

Trench: 7

Max Dimensions: **Length:** 50.00 m. **Width:** 1.90 m. **Depth to Archaeology Min:** 0.5 m. **Max:** 1.1 m.

OS Co-ordinates: **Ref. 1:** TL0147548212 **Ref. 2:** TL0149948212

Reason for trench: Examine geophysical anomalies of possible archaeological origin in Block 5

Context:	Type:	Description:	Excavated:	Finds Present:
701	Topsoil	Firm mid brown silty clay .	☒	☒
702	Upper alluvium	Plastic light red brown silty clay occasional small stones. Becoming shallower at W end.	☒	☒
705	**Dump material**	**Dimensions: max depth 0.6m. Material containing settlement debris dumped in natural hollow, possibly former palaeochannel ?**	☒	☐
703	Fill	Firm dark grey clay silt moderate small stones, occasional flecks charcoal. Frequent red brown motting. Contains small pieces of limestone. Occupation debris	☒	☒
704	Fill	Firm dark grey clay silt moderate small stones, occasional flecks charcoal. Similar to (703), but with less red mottling. Lower fill of [705]. Contains small fragments of limestone. Occupation debris	☒	☒
707	**Modern disturbance**	**NE-SW profile: near vertical dimensions: max breadth 12.m, min length 1.9m. Modern feature.**	☒	☐
706	Fill	Clay silt . Very mixed deposit. Modern. Not bottomed.	☒	☒
708	Lower alluvium	Red grey clay . Natural clay and gravels. Fluvial deposit.	☐	☐
709	Modern disturbance	Loose light yellow brown clay sand frequent small stones. Modern spread of gravel mixed with topsoil.	☒	☐

Trench: 8

Max Dimensions: Length: 50.00 m. Width: 1.90 m. Depth to Archaeology Min: 0.6 m. Max: 1.1 m.

OS Co-ordinates: Ref. 1: TL0145048173 Ref. 2: TL0150048173

Reason for trench: Examine geophysical anomalies of possible archaeological origin in Block 5

Context:	Type:	Description:	Excavated:	Finds Present:
801	Topsoil	Mid brown silty clay . Seals modern features [806] and [808].	☒	☒
802	Upper alluvium	Plastic light red brown silty clay occasional small stones. Alluvial material overlying earlier Roman deposits. 0.45m thick at E. end, shallowing out to 0.25m at W. end.	☒	☒
805	**Dump material**	**Dimensions: max depth 0.55m. Material containing occupation debris dumped in hollow formed by old palaeochannel, possibly to reclaim land.**	☒	☐
803	Fill	Firm dark grey clay silt frequent small stones, moderate flecks charcoal. Red brown mottling. Contains small fragments of limestone. Uppermost fill of palaeochannel. Sampled.	☒	☒
804	Fill	Firm dark grey clay silt moderate small-large stones. Contains quantities of pottery and moderate small to large lumps of limestone. Lower fill of palaeochannel. Sampled.	☒	☒
806	**Modern disturbance**	**Dimensions: min breadth 1.9m, min depth 0.6m, min length 10.m. Steep sided feature cutting through alluvium deposit (802). Modern disturbance associated with Southern Orbital Sewer.**	☒	☐
807	Fill	Loose mid yellow brown silty clay frequent small stones. Very mixed clay gravels containing Roman pottery together with modern brick. Fill of modern feature, which has disturbed archaeological deposits.	☒	☒
808	**Modern disturbance**	**NE-SW dimensions: max breadth 4.m, min length 2.m. Similar to feature [806]. Linear.**	☐	☐
809	Fill	Loose mid yellow brown silty clay frequent small stones. Fill of modern trench, which has disturbed archaeological deposits. Contains Roman pot mixed with modern brick.	☐	☐
810	Lower alluvium	Firm mid brown grey clay occasional small stones. Fluvial deposit.	☐	☐
811	Modern disturbance	Loose light yellow brown clay sand frequent small stones. Modern spread of gravel mixed with topsoil.	☒	☐

Trench: 9

Max Dimensions: **Length:** 30.00 m. **Width:** 1.90 m. **Depth to Archaeology Min:** 0.25 m. **Max:** 0.8 m.

OS Co-ordinates: **Ref. 1:** TL0138048270 **Ref. 2:** TL0138048300

Reason for trench: Examine area of known cropmarks

Context:	Type:	Description:	Excavated:	Finds Present:
901	Topsoil	Firm dark brown black silty clay occasional small stones.	☒	☒
902	Upper alluvium	Firm mid red brown clay silt moderate small stones. Cut by ditch [906].	☒	☐
903	Gravel	Firm mid red brown sandy clay frequent small stones. Coarse red gravelly clay.	☐	☐
904	**Ditch**	**Linear NW-SE base: flat dimensions: max breadth 1.5m, min depth 0.6m, min length 2.75m. Cuts alluvium**	☒	☐
905	Fill	Firm light grey brown silty clay . Upper fill of ditch [904].	☒	☒
906	**Ditch**	**Linear E-W profile: concave base: concave dimensions: max breadth 1.m, max depth 0.55m, min length 1.9m. Cuts alluvium**	☒	☐
907	Fill	Firm light grey brown silty clay .	☒	☐
908	Fill	Firm mid grey brown silty clay moderate small stones.	☒	☐

Trench: 10

Max Dimensions: Length: 1.50 m. Width: 1.90 m. Depth to Archaeology Min: 0.6 m. Max: 0.8 m.

OS Co-ordinates: Ref. 1: TL0150048200 Ref. 2: TL0150248200

Reason for trench: CONTINGENCY: To define extent of dump deposits between Trs 7 and 8.

Context:	Type:	Description:	Excavated:	Finds Present:
1001	Topsoil	Loose mid green brown silty clay occasional small stones.	☒	☐
1002	Upper alluvium	Firm light yellow brown silty clay .	☒	☐
1004	**Dump material**	**. Material containing occupation debris dumped in hollow formed by old palaeochannel**	☒	☐
1003	Fill	Firm dark brown black clay silt frequent small stones. Reddish tinge. Contains potsherds	☒	☒

Trench: 11

Max Dimensions: **Length:** 1.50 m. **Width:** 1.90 m. **Depth to Archaeology Min:** 0.6 m. **Max:** 0.75 m.

OS Co-ordinates: **Ref. 1:** TL0152048200 **Ref. 2:** TL0152248200

Reason for trench: CONTINGENCY: To define extent of dump deposits found in Trs 7,8,10

Context:	Type:	Description:	Excavated:	Finds Present:
1101	Topsoil	Loose mid green brown silty clay occasional small stones.	☒	☐
1102	Upper alluvium	Firm light yellow brown silty clay .	☒	☐
1104	**Dump material**	**. Material containing occupation debris dumped in hollow formed by palaeochannel**	☐	☐
1103	Fill	Firm dark brown black clay silt . Reddish tinge	☐	☐

Trench: 12

Max Dimensions: **Length:** 1.50 m. **Width:** 1.90 m. **Depth to Archaeology Min:** m. **Max:** m.

OS Co-ordinates: **Ref. 1:** TL0153248200 **Ref. 2:** TL0153448200

Reason for trench: CONTINGENCY: To define extent of dump deposits found in Trs 7,8,10,11

Context:	Type:	Description:	Excavated:	Finds Present:
1201	Topsoil	Mid green brown silty clay .	☐	☐
1202	Lower alluvium	Firm light yellow grey clay . Fluvial deposit on old riverbed ? Not bottomed.	☒	☐

Trench: 13

Max Dimensions: **Length:** 1.50 m. **Width:** 1.90 m. **Depth to Archaeology Min:** 0.7 m. **Max:** 0.7 m.

OS Co-ordinates: **Ref. 1:** TL0150048300 **Ref. 2:** TL0150248300

Reason for trench: **CONTINGENCY: To define extent of dump deposits found in Trs 7,8,10,11**

Context:	Type:	Description:	Excavated:	Finds Present:
1301	Topsoil	Mid green brown silty clay .	☒	☐
1302	Upper alluvium	Light yellow brown silty clay . Alluvium.	☒	☐
1304	**Dump material**	**. Edge of dump material sealing gravel, which slopes gently down from north to south.**	☐	☐
1303	Fill	Dark brown black clay silt . Small gravel content and slightly greasy consistency.	☐	☐
1305	Gravel	Loose light yellow brown clay sand frequent small stones.	☐	☐

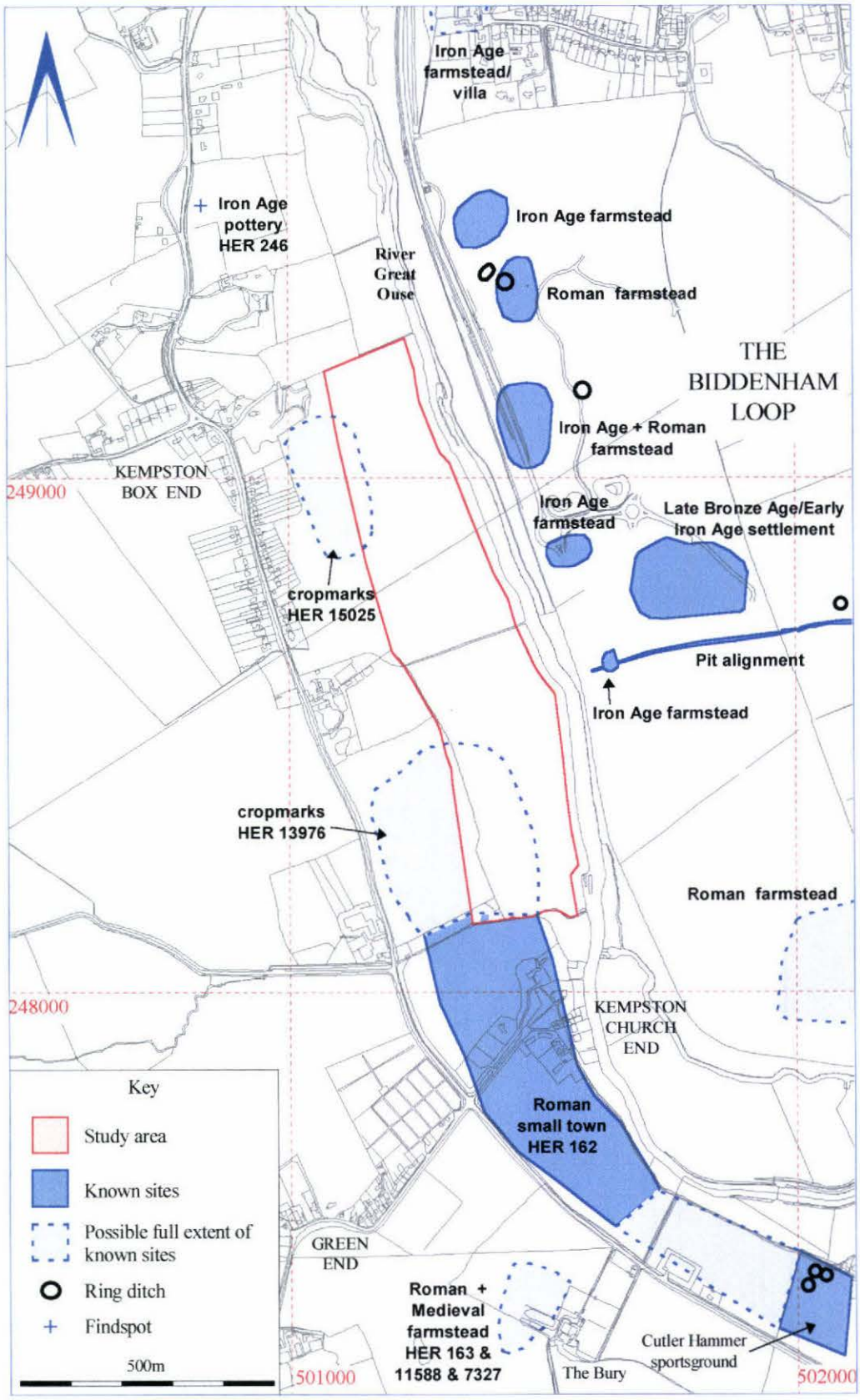


Fig. 1: Location of study area and adjacent archaeological sites.

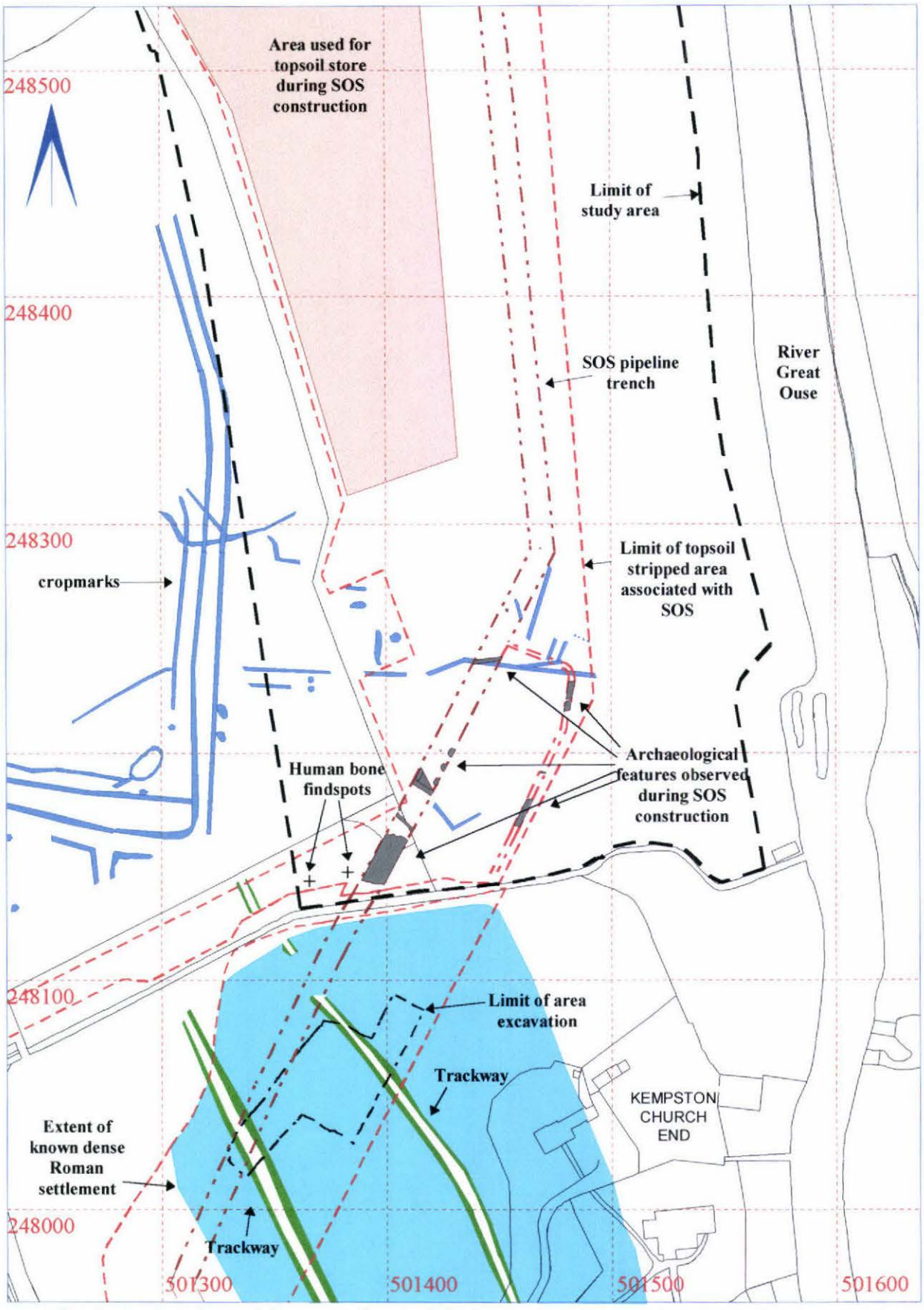


Fig. 2: Archaeological features observed during sewer construction and a sketch plan of cropmarks visible on aerial photographs.

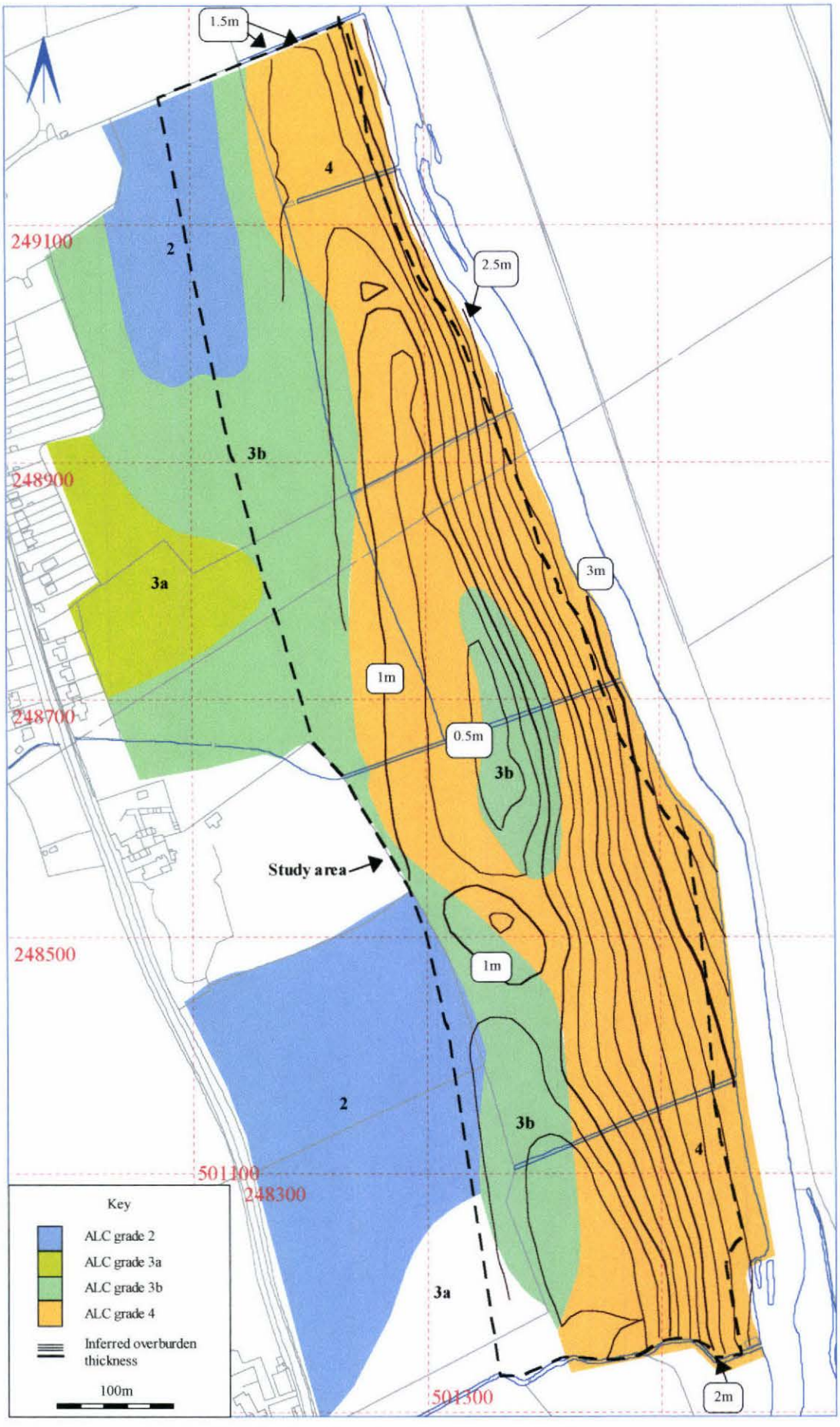


Fig. 3: Overburden contours and soil types.

Soil type map after R.G.O. Burton, 1999, *Agricultural Land Classification Assessment at Vicarage Farm Kempston, Bedford*. Map 2.
Overburden thickness contours after Edge & Pritchard, 1999, *Site at Box End Farm, Kempston, Mineral Reserve Assessment*. Drawing EAP7.

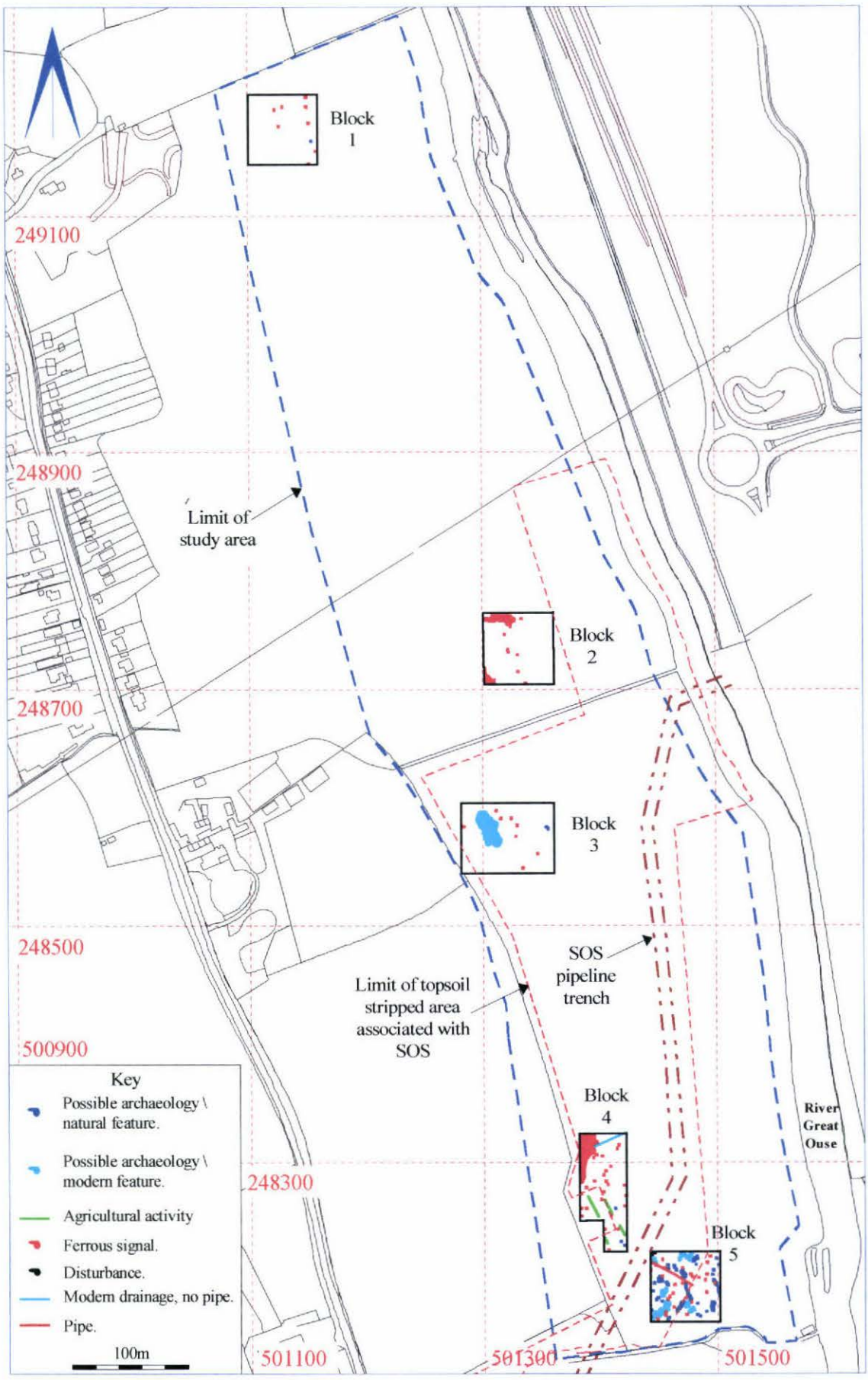


Fig. 4: Results of the geophysical survey.

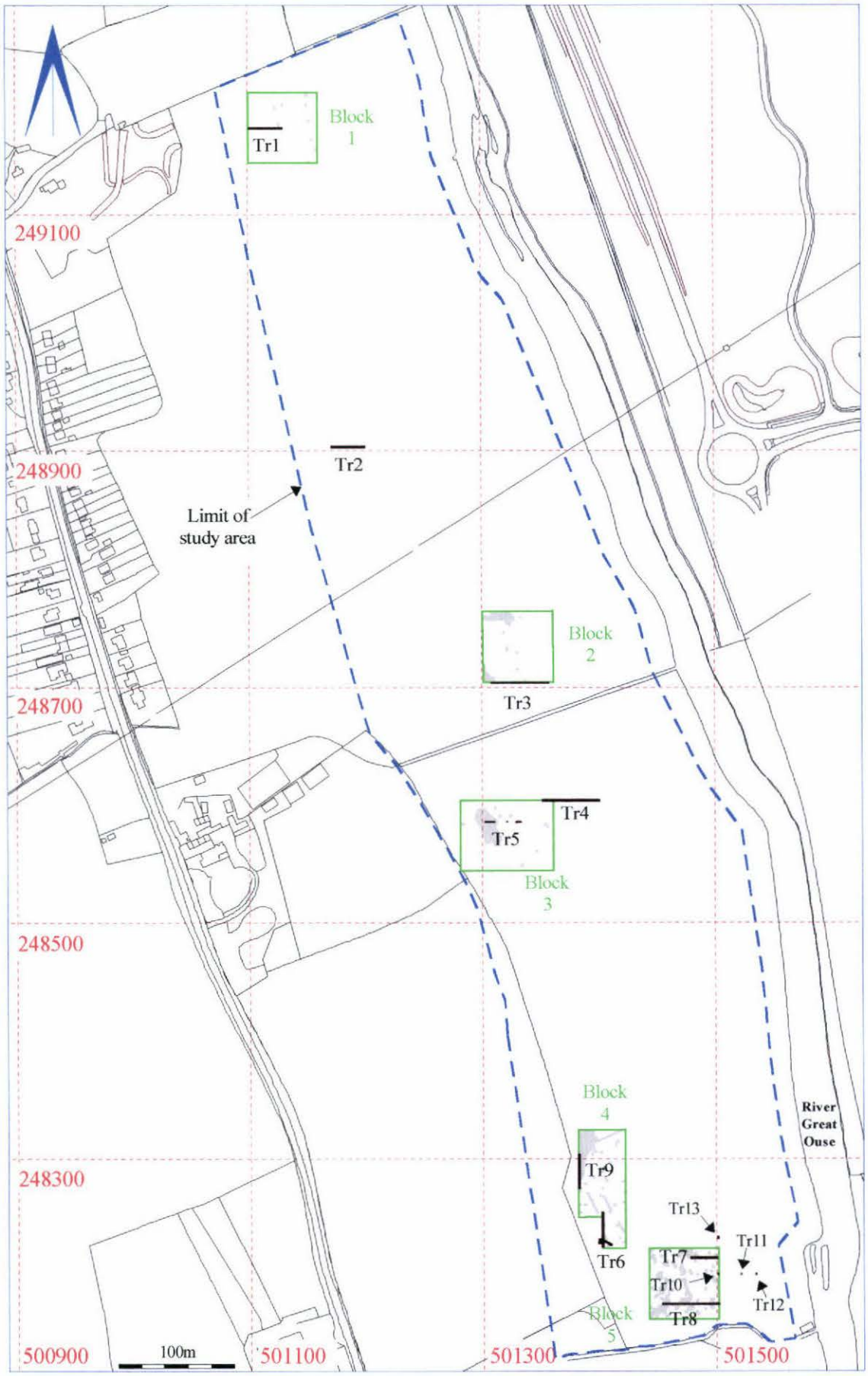


Fig. 5: Location of trial trenches showing geophysical survey areas.

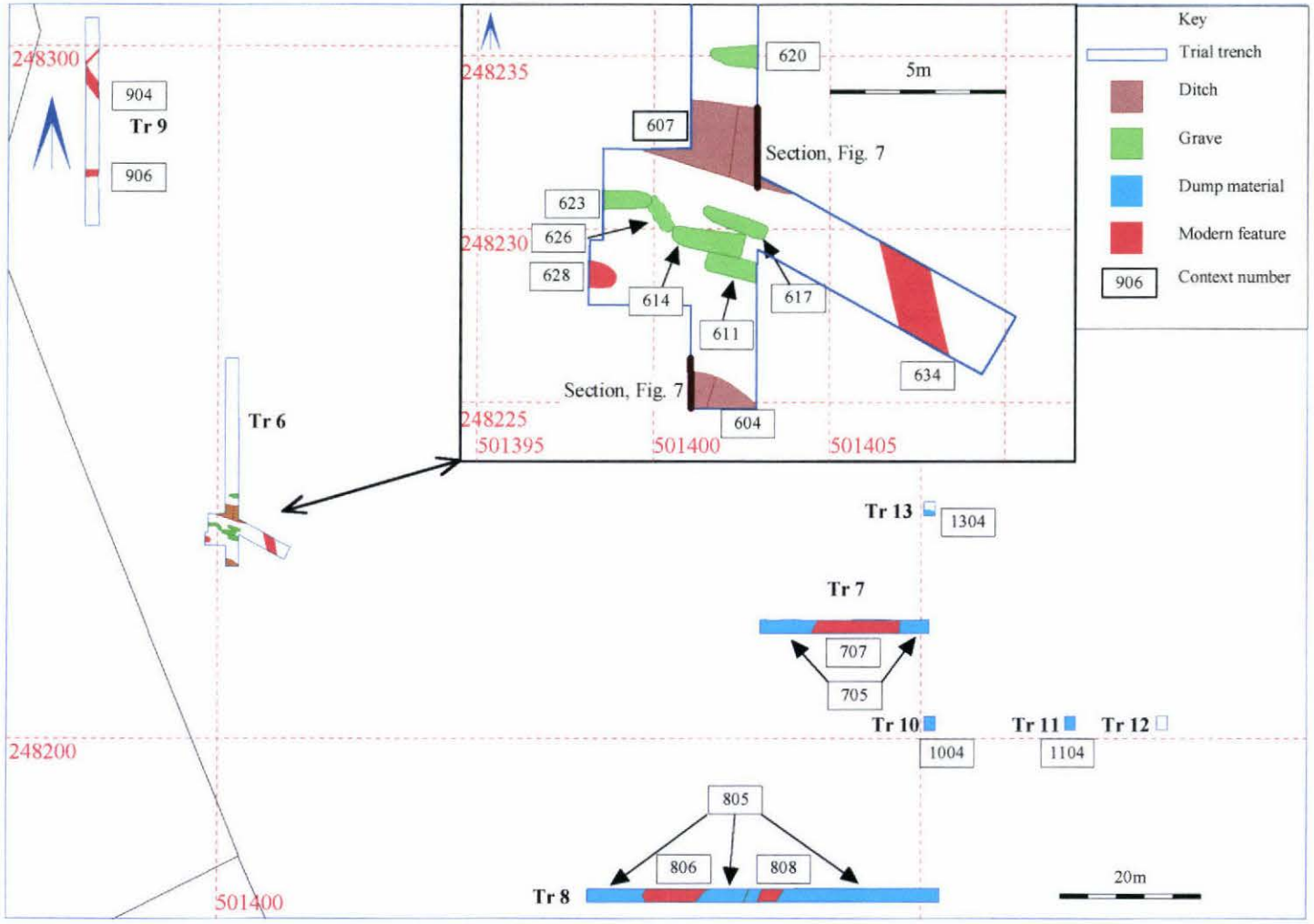
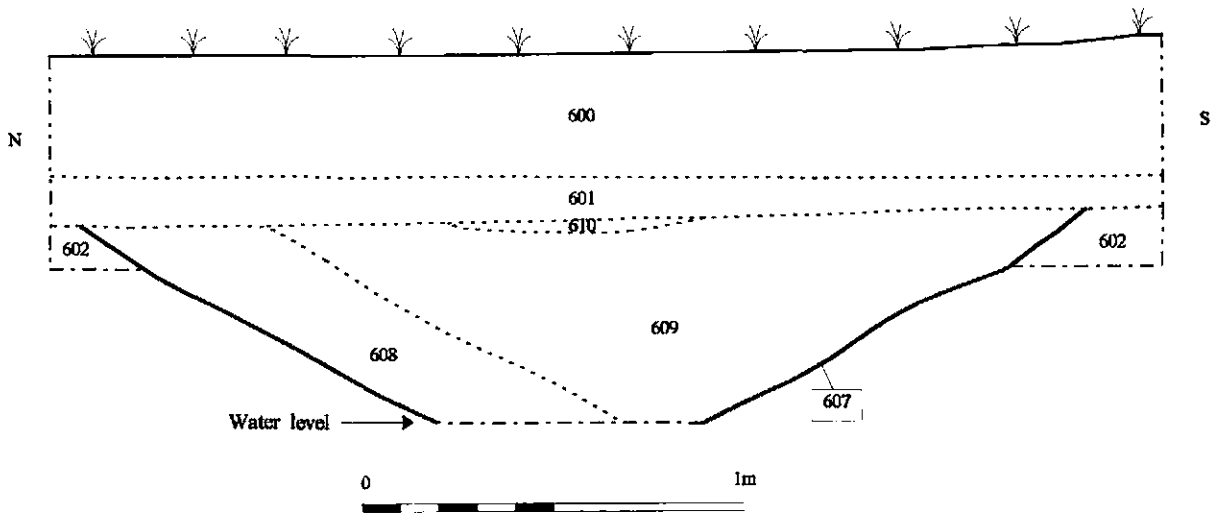
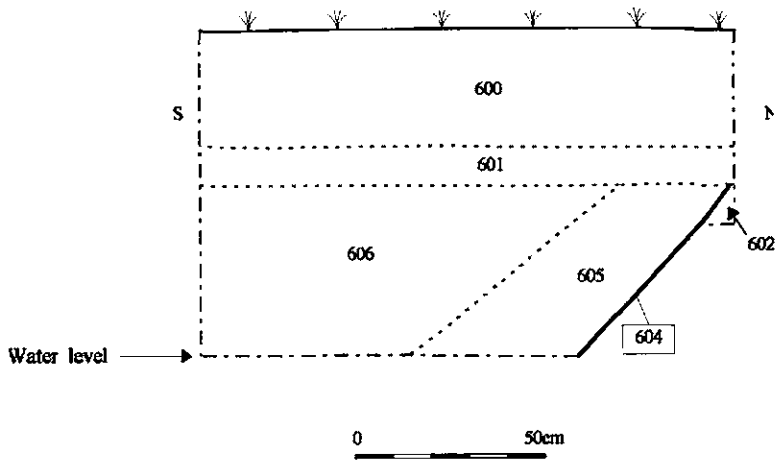


Fig. 6: Detail of southern trenches.



Section of ditch 607



Section of ditch 604

Fig. 7: Sections of ditches [604] and [607], trench 6.

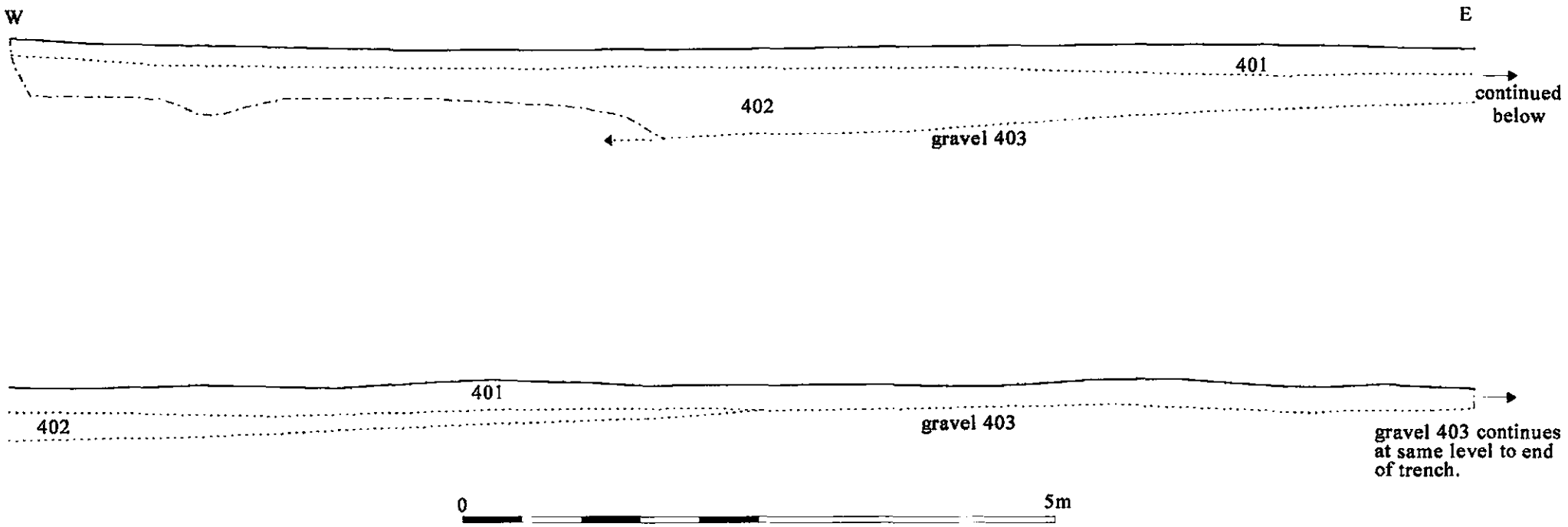


Fig. 8: Section showing deposits in trench 4 (west 25m).

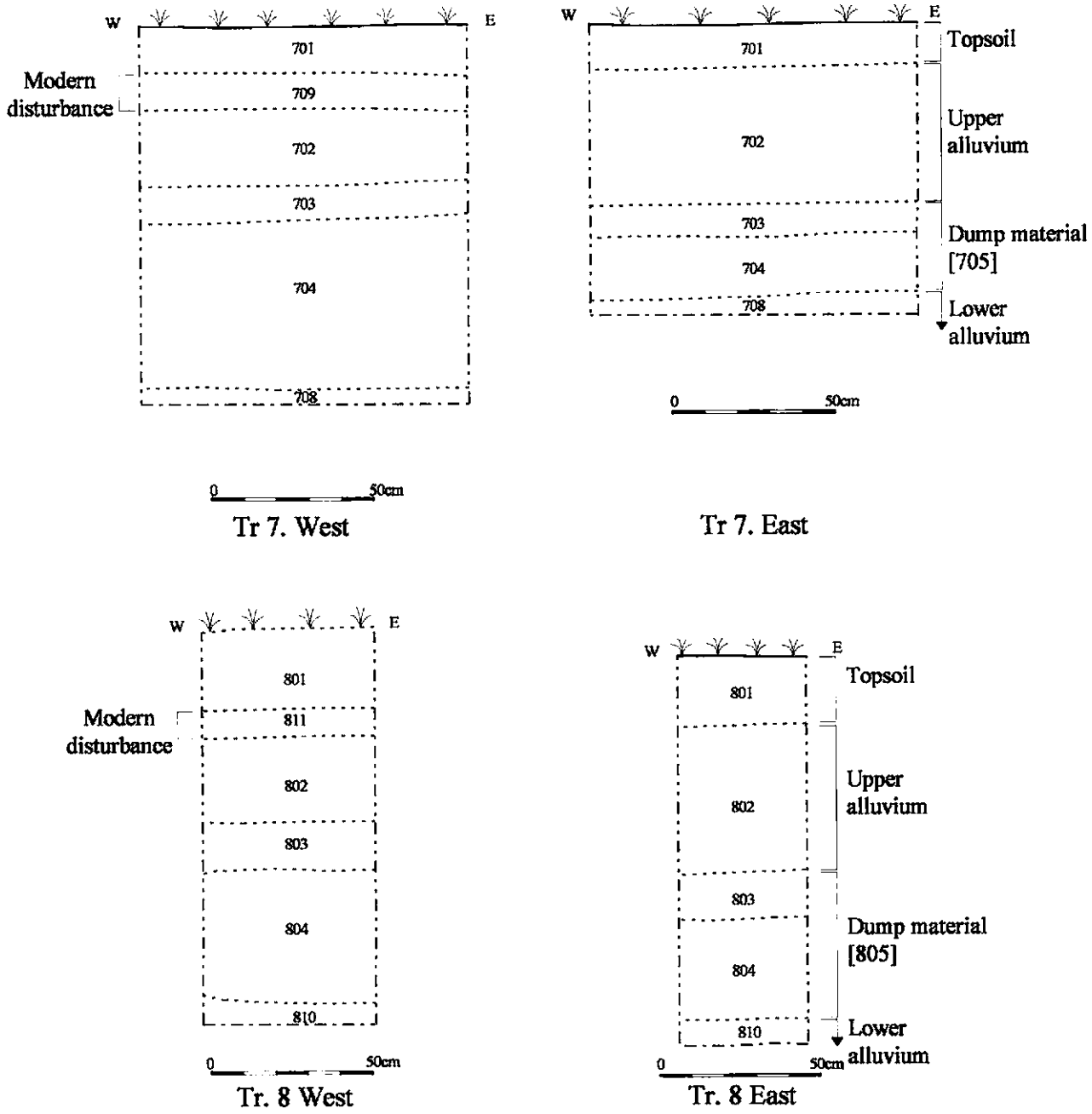


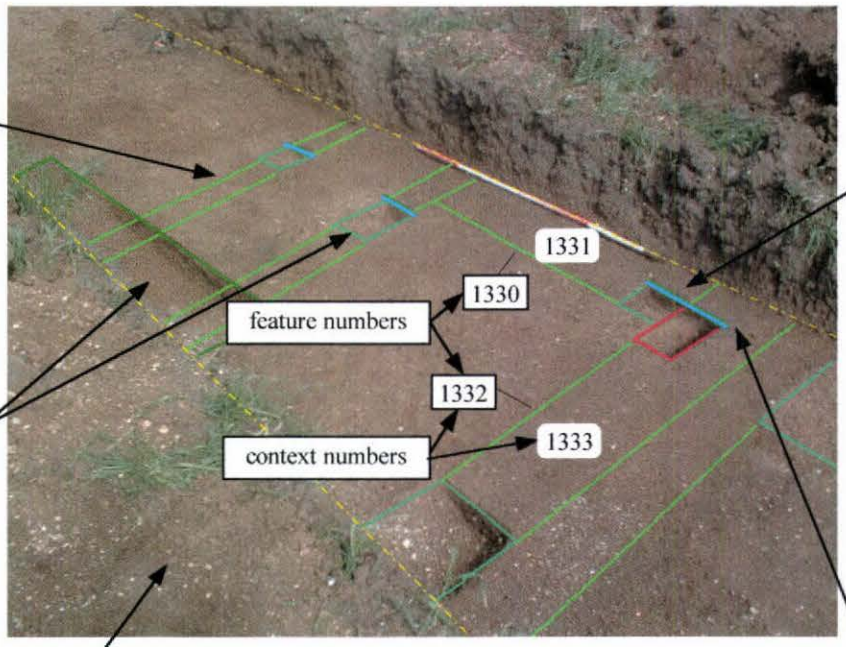
Fig. 9: Sections showing deposits in trenches 7 and 8.

Fig. 10: Areas of archaeological significance.

APPENDIX 3: EXPLANATION OF ARCHAEOLOGICAL TERMS AND PROCEDURES (NOT EXAMPLES FROM KEMPSTON)

1, FEATURE IDENTIFICATION
After machining **features** such as gullies, post-holes, pits, tree-holes and animal burrows are often visible as darker areas of soil against the lighter undisturbed **natural**.

2, EXCAVATION AND RECORDING
All features are investigated. If they are archaeological a **segment** is excavated. The nature of the deposits is studied and any artefacts in the soil are collected.

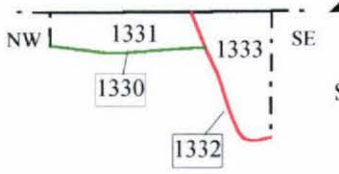


Photograph of gullies at the north-western end of trench 13

3, CONTEXT RECORDING
Descriptions and interpretations of all aspects of the identified feature (e.g. upper and lower fills, and the cut) are recorded as **contexts**. The **context number** given to the cut is also known as its **feature number**.
Written recording takes place on pro-formae sheets.

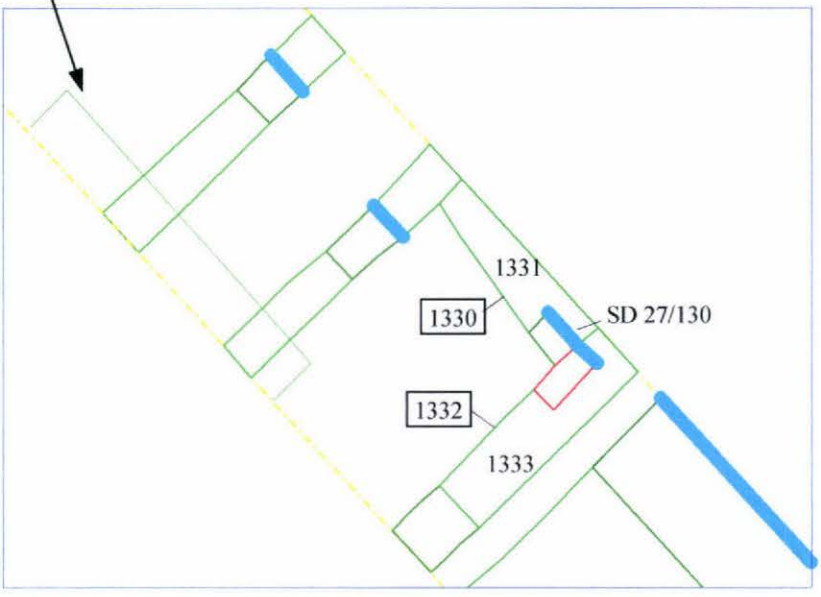
4, SECTION RECORDING
The profile of features and nature of their fills are recorded on scale drawings known as **sections**. These record the distributions of stones and other inclusions and also the relationships between features

5, PLAN RECORDING
The positions of all features are mapped on scale drawings known as **plans**. These show the spatial and stratigraphic relationships of all features, excavated or not. The relevent feature and section numbers are also shown

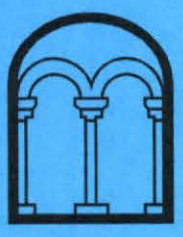


SD 27/130 ← section number i.e. section drawing 130 on sheet 27

Section of excavated segment across two intercutting gullies



Plan of area of photograph.



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