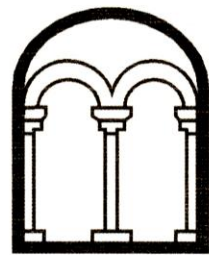


LAND SOUTH OF ROOKERY FARM
COTTON END
BEDFORDSHIRE

ARCHAEOLOGICAL MITIGATION

Albion
archaeology



**LAND SOUTH OF ROOKERY FARM
COTTON END
BEDFORDSHIRE**

ARCHAEOLOGICAL MITIGATION

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Preface

All statements and opinions in this document are offered in good faith. This document has been prepared for the titled project or named part thereof and was prepared solely for the benefit of the client. This document should not be relied upon or used for any other project without an independent check being carried out as to its suitability and the prior written authority of Albion Archaeology (a trading unit of Central Bedfordshire Council).

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Acknowledgements

Albion Archaeology was commissioned by Willmott Dixon Construction Ltd to carry out archaeological mitigation works and prepare a report for Land south off Rookery Farm, Cotton End, Bedfordshire.

The open-area excavation work was undertaken by Marcin Kozimiński (Archaeological Supervisor), assisted by Matthew Billings and Allan King (Assistant Supervisors), whilst the subsequent strip, map and sample investigation was carried out by Marcin Kozimiński, Kathy Pilkinton, Ian Turner and Wiebke Starke (Archaeological Supervisors). This report has been prepared by Marcin Kozimiński with contributions from Joan Lightning (CAD Technician), Gary Edmondson (environmental soil samples) and Jackie Wells (artefacts). The project was managed by Rob Wardill (Project Manager) and Iain Leslie (Project Officer). All Albion projects are under the overall management of Drew Shotliff (Operations Manager).

The project was monitored on behalf of the Local Planning Authority by Geoff Saunders, Archaeological Officer for Bedford Borough Council.

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Key Terms

The following terms and abbreviations are used throughout this report:

AO	Bedford Borough Council Archaeological Officer
BBC	Bedford Borough Council
BBHER	Bedford Borough Historic Environment Record
CIfA	Chartered Institute <i>for</i> Archaeologists
PDA	Permitted development area
WSI	Written Scheme of Investigation



Non-Technical Summary

Bedford Borough Council granted planning permission (17/01602/MDC3) for the erection of a new primary school, drop-off area and car park and associated landscaping works at land south of Rookery Farm, High Road, Cotton End, Bedfordshire. Albion Archaeology was commissioned to carry out archaeological mitigation works, which included two stages — open-area excavation and strip, map and sample investigation. This report details the findings of both stages of work.

The archaeological investigations uncovered remains dating to the early medieval to modern periods. The vast majority of archaeological remains date to the early medieval period. They comprise an area of enclosed settlement and wider peripheral activity. The settlement, enclosed by a ditch, included evidence for internal division, storage pits and a post-built structure. Whilst the remains were probably part of a settlement, the relatively modest finds assemblage suggests the investigated area was not a domestic focus. The post-built structure, rather than representing a domestic building, probably represents a less substantial storage structure or lean-to.

The settlement almost certainly represents the southernmost limit of the settlement identified as earthworks to the north (BBHER 15518), which includes holloways, ponds and at least one moated site. Only limited peripheral activity was present in the vicinity of the settlement, with the presence of a heavily truncated furrow suggesting the south-west part of the site was open fields during the medieval period.

The remains uncovered during the investigations are somewhat limited in their analytical potential by the fact that only a very small portion of the settlement was uncovered, with the vast majority existing to the north. Nonetheless the investigations are able to add to our understanding of the development of medieval Cotton End. The presence of residual late Saxon pottery confirms that, although no cut features of this date were present, the settlement did exist in the 9th–11th centuries, which is consistent with references in Domesday Book, recording its existence in 1066.

The majority of dateable artefacts were of 12th–13th-century date, suggesting this part of the settlement was predominantly in use during the early medieval period, with limited evidence for settlement activity beyond this date. This part of the settlement probably went out of use in the 13th or 14th century.

Activity dating to the late medieval/early post-medieval period was also identified. This was characterised by a boundary system defined by ditches, associated with rural land management outside of any settlement focus.

A summary of the work will be published in South Midlands Archaeology and this report will be uploaded onto the OASIS website (ref. no.: albionar1-302320). With the landowner's permission the archive will be deposited with the Higgins Art Gallery and Museum under accession number BEDFM: 2017.24.



1. INTRODUCTION

1.1 *Planning Background*

Bedford Borough Council granted planning permission (17/01602/MDC3) for the erection of a new primary school, drop-off area and car park and associated landscaping works at land south of Rookery Farm, High Road, Cotton End, Bedfordshire.

Archaeological evaluation of the southern part of the permitted development area (PDA) – the school site – was completed in August 2017; this identified significant archaeological remains (Albion Archaeology 2017a). Accordingly, the Bedford Borough Council Archaeological Officer (AO) issued a Brief (BBC 2017), setting out the requirements for archaeological mitigation, which was to comprise two elements:

- Open-area excavation where a focus of early medieval settlement activity was identified, and;
- Strip, map and sample investigation within the remainder of the site.

The adjoining overspill car park to the north was subject to an earthworks survey to record the extant medieval ridge and furrow earthworks (Souterrain 2018) followed by a separate trial trench investigation (Albion Archaeology 2018).

Albion Archaeology was commissioned to carry out the archaeological mitigation works, the scope of which was described in a Written Scheme of Investigation (WSI) (Albion Archaeology 2017b). This report details the findings of both stages of the archaeological work — open-area excavation as well as strip, map and sample investigation.

1.2 *Site Location and Geology*

Cotton End is a village within the unitary Borough of Bedford and is situated in the centre of Bedfordshire. The county town of Bedford lies 5km to the north-west, and the A1 (Great North Road) and Biggleswade are located *c.* 10km to the east. Cotton End is a linear development situated on the east side of the A600.

The PDA lies on the west side of the A600 (High Road), centred on NGR TL 08400 45292 (Figure 1). It comprises a 2.8ha field bounded by the A600 to the south and east and by fields to the north and west.

The underlying bedrock comprises Stewartby Member and Weymouth Member (undifferentiated) Mudstone¹. This is overlain by a mix of sands, gravels, silt and clay. The site lies on fairly flat ground at *c.*30.6m OD.

¹ <http://mapapps.bgs.ac.uk/geologyofbritain/home.html>



1.3 Archaeological and Historical Background

1.3.1 Archaeological evaluation of the school site

Archaeological trial trenching of the school site was undertaken between 17th and 23rd August 2017 (Albion Archaeology 2017a). Archaeological features were identified in seven of the fourteen trenches excavated, providing evidence of activity on the site dating from the early medieval to post-medieval periods.

The vast majority of features dating to the early medieval period were revealed within Trench 1 located at the north end of the PDA. These features included a number of boundary ditches and a pit, which together produced a reasonably substantial amount of pottery and other artefacts, suggesting that they represent a continuation of the medieval settlement activity surviving as earthworks immediately to the north-west (BBHER 15818).

In contrast, the few early medieval artefacts recovered from a ditch and two pits revealed within Trench 8 suggest that they represent peripheral activity away from the main settlement focus. Located within the centre of the site, they lie closer to the neighbouring ridge and furrow earthworks of the medieval fields bordering the former settlement.

The revealed late medieval/early post-medieval remains largely consisted of ditches confined to the areas nearest the eastern and southern boundaries of the PDA. A series of ditches revealed within Trenches 7, 9 and 13 appeared to define a NE–SW aligned boundary, whilst the nature of a number of features within Trenches 10 and 11 suggested they might be associated with the management and drainage of water. Alluvial deposits were also revealed within Trench 10 and an existing watercourse lies immediately to the west. The small amount of artefacts collectively recovered from all the late medieval/early post-medieval features tends to confirm their association with land management/division on the periphery of any settlement focus; their location within the PDA is more in line with the ridge and furrow earthworks (BBHER 3291) of the medieval fields immediately to the north-west rather than the settlement remains further to the north.

1.3.2 Archaeological evaluation of the overspill car park

Archaeological trial trenching of the overspill car park area was undertaken on 19th July 2018 (Albion Archaeology 2018). Archaeological features revealed predominantly comprised furrows, corresponding with the extant ridge and furrow earthworks present across the car park area.

A single late Iron Age/early Roman pit was also identified. The small amount and abraded nature of the pottery suggests that whilst activity of this date probably took place in the wider vicinity, the focus of domestic activity was elsewhere. This was probably outside of the PDA to the west where there are known cropmarks (BBHER 14750).



1.3.3 The wider historical and archaeological background

The school site is situated immediately to the south of known medieval settlement (BBHER 15818) and ridge and furrow earthworks (BBHER 3291). The former comprise holloways, ponds and at least one possible moated site. Recent LIDAR data (Figure 6) and aerial photographs have highlighted that both sets of earthworks are well-preserved and have the potential to be of national significance, equivalent to a scheduled monument.

In addition, cropmarks likely to be indicative of Iron Age settlement have been identified within the fields to the west of the site (BBHER 14750). Further cropmarks of probable Iron Age origin have been identified at the northern edge of Cotton End (BBHER 16659). These cropmarks are part of an extensive area of cropmarks (BBHER 1181) that lie to the north and west of the site; they include double-ditched trackways, small enclosures and ring ditches. Finds of late Iron Age and Roman pottery, roof and floor tiles, quern fragments and metal objects have also been recorded in this general area.



2. AIMS AND OBJECTIVES

2.1 Fieldwork Data Collection Aims

The primary function of the archaeological investigation was to determine and understand the nature, function and character of the site in its cultural and environmental setting. The principal outcome is the production of a report that fully describes the results of the mitigation work and its findings (this document).

To achieve the above, the data collected during the fieldwork aimed to determine the following:

1. the date, nature and extent of any activity or occupation within the site;
2. the relationship of any remains found to the surrounding contemporary landscapes;
3. recovering artefacts to assist in the development of type series within the region;
4. the local environmental conditions by the recovery of palaeo-environmental remains.

2.2 Research Strategies and Project Objectives

In addition to the primary aims of the fieldwork, wider research objectives can be formulated and linked to published research strategies, based upon potential archaeological findings at the site.

Based on the results of the evaluation (Albion Archaeology 2017a), it was anticipated that the site would contain remains associated with early medieval settlement and the medieval to post-medieval rural landscape. Given that generally few early medieval rural settlements have been investigated within Bedfordshire, such remains could contribute to identified research themes for the period regarding the origins, development and dynamics of rural settlement as well as the origins and development of the associated field systems (Oake 2007, 14; Medlycott 2011, 70; Wade 2000, 24).



3. METHODOLOGY

3.1 Introduction

The proposed development was anticipated to have an irreversible destructive impact upon significant archaeological remains. In order to mitigate the significance of that impact, the AO specified (BBC 2017) that the archaeological mitigation should comprise the following two approaches:

MITIGATION METHOD	WHEN APPLIED
Open-area excavation	Prior to construction works
Strip, map and sample investigation	During the development groundworks

The methodological approach to the project is summarised below; a full methodology is provided in the WSI (Albion Archaeology 2017b).

3.2 Standards

The standards and requirements set out in the following documents were adhered to throughout the project:

• Albion Archaeology	<i>Procedures Manual: Volume 1 Fieldwork</i> (3rd ed., 2017c).
• Bedford Museum	<i>Preparing Archaeological Archives for Deposition with Registered Museums in Bedfordshire</i> (2010)
• ClfA	<i>Charter and By-law; Code of Conduct</i> (2014).
	<i>Standard and guidance for archaeological excavation</i> (2014).
	<i>Standard and guidance for the collection, documentation, conservation and research of archaeological materials</i> (2014).
• EAA	<i>Standards for Field Archaeology in the East of England</i> (Gurney 2003)
• English Heritage / Historic England	<i>Management of Research Projects in the Historic Environment (MoRPHE) Project Managers' Guide</i> (2015)
	<i>Environmental Archaeology: A guide to the theory and practice of methods, from sampling and recovery to post-excavation</i> (2011)

3.3 Open-area Excavation

The archaeological open-area excavation took place between 7th and 23rd February 2018. It was focused on the early medieval settlement remains identified within Trench 1 located at the north end of the PDA. Existing buried services located along the north-west boundary of the site restricted the extent of this area to c.0.2ha as shown on Figure 4.

Within the investigation area, the overburden was removed by a mechanical excavator fitted with a toothless bucket, operated under close archaeological supervision. Overburden was removed down to the top of archaeological



remains or the upper surface of undisturbed geological strata, whichever were encountered first.

Once machining was complete, pre-excavation planning was undertaken and used as the framework for the excavation sampling strategy. A metal detector was used routinely both to check spoil and to locate potential metal artefacts in advance of the excavation of features. An appropriate sample of all the potential archaeological features was investigated.

Hand excavation and recording were carried out by experienced Albion staff and any potential archaeological features were recorded using Albion's *pro forma* sheets. Each feature was subsequently drawn and photographed as appropriate.

The AO visited the site on 21st February 2018 to sign-off the completed fieldwork.

3.4 Strip, Map and Sample Investigation

The archaeological strip, map and sample investigation was carried out between 9th April and 25th May 2018 during the groundworks for the development within the remainder of the PDA. Given that the evaluation had demonstrated that archaeological remains were covered by at least 0.4m of overburden (topsoil and subsoil), the areas requiring investigation included areas of ground reduction or excavations in excess of *c.* 0.3m below the existing ground level.

The extent of the strip, map and sample investigation is shown in Figure 4. The archaeological works included monitoring the groundworks associated with the construction of the school buildings, haul roads and service trenches.

Mechanical removal of overburden involved the removal of soils carried out by the groundworks contractor down to the formation level or archaeological remains, whichever were encountered first. In the event that an archaeological feature or deposit was only partially visible at this depth, additional machining was undertaken in order to fully expose the feature or deposit. Open-area ground reduction was undertaken by a mechanical excavator fitted with a flat-edged bucket and operated by an experienced driver under the supervision of an archaeologist.

Investigation and recording of any archaeological features encountered was carried out by experienced Albion staff.

3.5 Archiving

The project archive of materials (subject to the landowner's permission) and accompanying records will be deposited at The Higgins Art Gallery & Museum, Bedford (accession no.: BEDFM: 2017.24). Details of the project and its findings will be submitted to the OASIS database (reference no.: albionar1-302320) in accordance with the guidelines issued by Historic England and the Archaeology Data Service.



4. RESULTS

4.1 Introduction

The majority of archaeological remains were identified within the open-area excavation with very few features revealed during the strip, map and sample investigation (Figure 4). Those features that were revealed during the strip, map and sample excavations all represented continuations of features identified in the trial trench evaluation (Albion Archaeology 2017a). The data from the open-area excavation, strip map and sample investigation and the trial-trench evaluation were combined to form the most comprehensive data-set possible.

The contextual data were assessed in order to establish a coherent spatial and chronological framework. For ease of reference, features have been combined into Groups (indicated by a 'G' prefix). These relate to associated, contemporary groups of related contexts such as ditches, postholes and pits, and comprise a total of 338 contexts (Table 1). The Groups were then assigned to Phases, which represent a distinct chronological period of contemporary activity, *e.g.* early medieval activity. A total of three chronological Phases were identified ranging in date from the early medieval to modern periods.

The text which follows is structured by Phase and discussed by Group (G). Information on artefacts and ecofacts can be found in the Appendix 1.

Phase	Chronological Period	Group	Description	No. of Contexts
1	Early medieval	5	Pits	4
		6	Gully	2
		7	Ditch	5
		8	Ditch	5
		9	Ditch	7
		10	Ditch and re-cut	11
		11	Ditch	16
		12	Gully	2
		13	Pits	4
		14	Posthole structure	41
		15	Storage pits	13
		16	Pit	2
		17	Ditch	5
		18	Gully	3
		19	Posthole	2
		20	Posthole	4
		21	Pits	4
		22	Pits	6
		23	Pit	5
		24	Pit	5
		25	Pit	6
		26	Pit	5
		27	Pit	3
		28	Ditch	7
		29	Pit	2
		30	Pit	2
		31	Gully	7
		32	Pits	6



Phase	Chronological Period	Group	Description	No. of Contexts
		33	Ditch	3
		34	Pits	4
		35	Ditch	2
		36	Pits	4
		37	Ditch	2
		38	Pit	3
		40	Ditch	5
		41	Ditch	2
		42	Layer	1
		43	Gully	5
		44	Gully	2
		45	Gully	2
		46	Ditch	2
		49	Furrow	2
		56	Pits	6
2	Late medieval – post-medieval	3	Buried subsoil	2
		39	Ditch	9
		50	Ditch	5
		51	Ditch	10
		52	Ditch	4
		53	Ditch	4
		54	Ditch	2
		55	Ditch	7
		58	Possible pit/pond	2
		59	Ditch	2
3	Modern	1	Topsoil	20
		2	Subsoil	19
		47	Land drains	1
		57	Pits	5
-	Un-dated	4	Natural stratum	16
		48	Tree throw	1
Total				338

Table 1: Summary of phasing

4.2 Phase 1: Early Medieval Settlement

4.2.1 Overview

The majority of remains identified by the investigations dated to the early medieval period. The remains were almost entirely confined within the open-area investigation in the north-east corner of the PDA and continued beyond the limits of excavation to the north-west (Figures 2-4). Although a small focus of peripheral early medieval activity G56 was identified *c.*125m to the west within the trial-trench evaluation, no further remains were revealed during the strip, map and sample investigations.

The remains were characterised by an enclosed settlement focus, which contained a structure, internal sub-divisions and clusters of pits. This could be seen to extend beyond the limits of excavation to the north-west. Outside of the settlement enclosure was evidence for peripheral activity, comprising a number of scattered pits and isolated ditches as well as evidence for ridge and furrow to the south-west.



Early medieval pottery was recovered from nine ditches², four postholes³ and nine pits⁴. In total, 221 early medieval pottery sherds, weighing *c.* 1.9kg, were recovered (Table 2). Fills of a number of features yielded *c.* 450g of late Saxon pottery; the largest assemblage (206g) was from gully G31. These artefacts were recovered from deposits also containing early medieval pottery and are therefore considered residual. However, their presence does suggest settlement activity of this date in the vicinity. A small animal bone assemblage (*c.* 650g) was recovered — the largest quantity from pit G25 (Table 4). Other artefacts included two fragments of lava quern, an unidentifiable iron object and iron nails. The vast majority of finds were recovered from the enclosed settlement, with only a very small percentage being recovered from peripheral features.

4.2.2 Enclosed settlement

The early medieval settlement remains were predominantly enclosed within a curvilinear ditch⁵, which probably represents the outer boundary of the settlement (Figures 2-3). Only *c.* 0.05ha of remains were exposed during the excavations; they probably represent the south-eastern limit of the known medieval settlement that survives as earthworks to the north-west (BBHER 15818).

The settlement boundary ditch had been re-dug on multiple occasions, indicating that it had persisted for a considerable length of time. A terminus in ditch G40 on the east side of the enclosure may suggest an entrance — an interpretation supported by the presence of an adjacent trample layer G42. However, this part of the enclosure was truncated by a later ditch so this hypothesis cannot be confirmed. Nonetheless, the positioning of an entrance on this side, facing the current and presumably historical location of the road, would seem a reasonable assumption.

The largest form of the enclosure (ditch G11) was 0.9–1.7m wide; it had a steep, concave to V-shaped profile and was up to 0.7m deep (Figure 5). The east side of the enclosure was truncated by a large Phase 2 boundary ditch G39, which itself probably re-established a boundary originating in the early medieval period.

Within the revealed part of the settlement was a rectangular structure G14. It was 10.5m long by at least 3.7m wide and aligned NE–SW. The south-east and south-west sides survived in the form of thirteen postholes and five postholes respectively. There were also two internal postholes. No evidence was found for the north-west or north-east sides of the structure. The presence of a ditch immediately to the north-east suggests that the surviving postholes represent the full length of the structure.

Although there is no evidence for the structure's north-west side, the presence of a line of parallel storage pits G15 immediately to the north-west might

² G7, G8, G9, G10, G11, G17, G18, G28 and G31.

³ [2053], [2055] and [2121] of G14 and G20.

⁴ [2042] of G13, [2006], [2011] and [2017] of G15, G24, G25, G26, G27 and G29.

⁵ G9, G11, G12, G40, G41 and G43.



suggest that the surviving remains represented the complete footprint of the structure. If contemporary, it is unlikely these pits would have been located within the structure. The apparent narrowness of the footprint and the lack of two of the sides suggest the remains represent a non-domestic structure — for example, an open-fronted shelter shed — rather than a more substantial building.

The postholes were generally 0.25–0.65m in diameter; the largest example was a 0.85m-diameter, internal posthole. They had U-shaped, near vertical profiles and were up to 0.3m deep. Two paired postholes within the south-east wall appear to indicate areas of repair. A 1m-wide gap in the south-east side may represent an entrance.

Three pits G15 were identified immediately to the north-west of building G14; they were *c.* 3m apart on a NE–SW alignment. Given that they are arranged in a line parallel to the structure, it is likely that they were contemporary. Their near-vertical sides and flat bases are consistent with storage pits. Pits G15 were 0.9–1.35m in diameter and had near-vertical profiles ranging from *c.* 0.3–0.5m in depth.

An adjacent pit G16 was slightly different in character. It was more irregular in both plan and profile and was not in the same alignment as the other pits. It was up to 1.6m long but its shallow, concave profile did not exceed 0.16m in depth.

Two parallel gullies G7 and G17 aligned NW–SE were located *c.* 13m apart on either side of structure G14 and pits G15/G16. Two associated postholes G19 and G20 seemingly marked the south-east *termini* of each gully respectively. The ditches presumably formed an internal enclosure, including and extending north-west from the structure and related pits. A short gully G18 extended 2.7m to the north-east from gully G17. To the south-west of gully G7, two further parallel ditches G8 and G10 probably formed another internal subdivision of the main enclosure. The gap of *c.* 1.5m between parallel ditches G7 and G8 may have formed a narrow track or entrance between the internal enclosures. These internal gullies were smaller than the main enclosure ditch — up to 0.5–1.1m wide. They predominantly had steep U- and V-shaped profiles that did not exceed 0.3m in depth.

A cluster of six pits⁶ of various shapes and sizes as well as two NW–SE aligned gullies⁷ were present immediately to the south-east of structure G14. Although their function is not certain, the gullies appear to have respected structure G14. The pits and gullies were intercutting with pits both truncating, and being truncated by the gullies. The circular pits were 1.05–1.6m in diameter; the sub-oval and elongated pits were up to 3.3m long. The pits typically had gradual to steep-sided, concave profiles that were 0.1–0.4m deep.

The features were infilled with mid-orange-brown and grey-brown silty clay deposits. In general, most of the upper fills contained an element of

⁶ G24, G25, G26, G27, G28, G29 and G30.

⁷ G28 and G31.



deliberately dumped domestic refuse whilst the lower, initial fills were more consistent with naturally accumulating erosional and silting processes.

4.2.3 Peripheral activity

Outside of the settlement boundary, more sparse remains were identified. Within the open-area excavation and in the immediate vicinity of the settlement a total of seven ditches and ten pits were identified. A small focus of two pits and a ditch were identified *c.* 125m to the south-west in the trial-trench evaluation (Figures 2-3). The peripheral remains were characterised by scattered pits and short lengths of ditch/gully, which generally formed no recognisable enclosures or patterns. A single furrow was also identified.

To the north-east of the enclosed settlement three small gullies, G44–46 were identified on a north-south and east-west axis. They may have formed a small plot or enclosure but continued beyond the limits of excavation and, therefore, cannot be fully understood at this time.

To the south of the enclosed settlement, ditch G33 extended south-south-east for *c.* 7m before terminating. A further 5m to the south two heavily truncated parallel ditches G35 and G37, set 9m apart, ran on a NE–SW alignment. To the south-west of the enclosed settlement a single short length (*c.* 4m) of ditch G6 was identified.

The ditches and gullies in this peripheral area were generally small to medium-sized: 0.3–0.95m wide by up to 0.25m deep; they often survived poorly. They all shared similar, V- and U-shaped profiles.

Pits were scattered across the excavation area in small loose clusters, often adjacent to the short lengths of ditch or the main settlement enclosure ditch. Adjacent to the enclosure ditch were two pits G22 and elongated pit G23, which was truncated by the enclosure ditch G11. Further to the south and adjacent to parallel ditches G35 and G37 were seven pits, G34, G36 and G38. To the south-west of the enclosed settlement two pits G5 were adjacent to short length of ditch G6.

The pits were typically circular in plan and up to 1.1m in diameter and 0.35m deep. The exceptions were sub-oval pit G38, which was 1.1m by 1.8m in plan, and elongated pit G23, which was 4.3m long. They generally had U-shaped profiles with fairly steep sides.

The fills of both ditches and pits were generally homogenous and relatively sterile. They comprised light to mid-brown-grey and grey-brown silty clay deposits that had probably formed via naturally accumulating erosional and silting processes.

A single NE–SW aligned furrow G49 was recorded within the open-area excavation. It was up to 1.5m wide by 0.3m deep and was infilled by a mid-yellow-grey clay silt deposit. This suggests that at least part of the area to the south-west was utilised for medieval strip cultivation, also evidenced by the surviving earthworks to the north (BBHER 3291).



Of the seventeen features, only five yielded scarce artefactual evidence. This comprised eight early medieval pottery sherds (90g) recovered from four features with a residual late Saxon sherd (4g) yielded by the sole fill of ditch terminus of G33. A possible iron nail fragment was also recovered from pit G23.

4.3 Phase 2: Late Medieval/Early Post-medieval Ditches

A small amount of late medieval/early post-medieval remains were recorded in the open-area excavation, as well as within the strip, map and sample investigation and the trial-trench evaluation. They were characterised by a boundary system defined by ditches (Figures 2-4) and were most likely associated with rural land management.

Ditch G39 was aligned north-south and located at the eastern boundary of the open-area excavation (Figures 2-3). It was of a substantial size, measuring up to 2.7m wide and 0.6m deep with a U-shaped profile. It truncated the east side of the early medieval settlement enclosure whilst also running parallel and adjacent to the present-day road. It is, therefore, likely that this ditch represents a boundary associated with the course of the medieval/post-medieval road. It yielded the largest finds assemblage within Phase 2 — comprising 258g of animal bone, 44g of pottery and 165g of ceramic building material (CBM). Dating is predominantly provided by the late medieval / early post-medieval CBM. The presence of modern pottery (5g) in the upper fill suggests this ditch may have existed in the landscape for a considerable period of time, even into the recent past.

To the south-west parallel ditches G50, G51, G52 and G54 represent recuts of a similar NE–SW aligned boundary (Figure 4) identified during the trial-trench evaluation. They were up to 2m wide by 0.6m deep with a U-shaped profile. Given their similarity in character and date, it is likely that this boundary is contemporary with G39 and may even represent the same boundary turning, especially considering that the modern-day road turns in a similar fashion.

Further peripheral boundary ditches and a possible pit were identified during the trial-trench evaluation *c.* 75m to the west; they were probably part of the same system of boundaries.

The ditches were generally filled by naturally weathered material, although there was evidence for deliberate deposition of refuse material in the uppermost fill of ditch G39.

4.4 Phase 3: Modern

Modern deposits comprised topsoil, subsoil and a series of land drains.

Dark brown-grey clay silt topsoil G1 was 0.25–0.35m thick across the site, whilst subsoil G2 was up to 0.2m thick and consisted of mid orange-brown silty clay.



A series of land drains G47 was recorded across the PDA; they were predominantly on a NE–SW and NW–SE alignment.

4.5 Undated Remains and Geological Strata

A single tree-throw G48 was recorded within the open-area excavation. It was infilled by a dark topsoil-like deposit that produced no artefactual evidence.

Undisturbed geological strata within the PDA varied from mid-yellow-orange sandy silt to mid-grey-blue clay.



5. CONCLUSIONS

The archaeological investigations have uncovered remains dating from the early medieval to modern periods.

The vast majority of the archaeological remains date to the early medieval period. They comprised an area of enclosed settlement and wider peripheral activity. The settlement, enclosed by a ditch, included evidence for internal division, storage pits and a post-built structure. Whilst the remains were probably part of a settlement, the relatively modest artefact and ecofact assemblages suggest that the investigated area was not a domestic focus. The post-built structure, rather than representing a domestic building, probably represents a less substantial storage structure or lean-to.

The remains within the PDA almost certainly represent the southernmost limit of the settlement identified as earthworks to the north (BBHER 15518), which includes holloways, ponds and at least one moated site. The settlement is clustered along the western side of the modern road and in the medieval period probably represented multiple plots fronting the road. Existing earthworks to the north showing medieval ridge and furrow (BBHER3291) suggest land to the south-west of the settlement was open fields in this period, and this evidence was borne out in the current investigations. Only limited peripheral activity was present in the vicinity of the settlement, with the presence of a heavily truncated furrow suggesting the south-west part of the PDA was open fields during the medieval period.

The remains uncovered during the current investigations are somewhat limited in their analytical potential by the fact that only a very small portion of the settlement was uncovered, with the vast majority existing to the north. The artefact and ecofact assemblages were also relatively small and, therefore, had limited potential for analysis. Nonetheless, the investigations are able to add to our understanding of the development of medieval Cotton End.

Domesday Book records a manor of 6 hides in Harrowden, which was held by Nigel de Albin in 1086 and had previously been held by 14 freemen in 1066. It is thought that the “Albin land lay chiefly in Cotes, represented by the modern day hamlet of Cotton End” (Page 1912, 233–8). The manor was recorded as comprising 14 villagers, 10 smallholders and 2 slaves. The recovery of residual late Saxon pottery during the current investigations confirms that, although no cut features of this date were present within the PDA, the settlement did exist in the 9th–11th century, which is consistent with references in Domesday Book, recording its existence in 1066.

The majority of dateable artefacts were of 12th–13th-century date, suggesting that this part of the settlement was predominantly in use during the early medieval period, with limited evidence for settlement activity beyond this date. This part of the settlement probably went out of use in the 13th or 14th century.

The BBHER record for medieval Cotton End (17031) suggests that the “medieval settlement of Cotton End appears to have been deserted after the



medieval period and re-occupied in the later post medieval periods”, which is in the most part supported by the evidence gathered during the current investigations. Whilst the Phase 1 early medieval settlement does appear to have been abandoned in the medieval period, the Phase 2 late medieval/early post-medieval remains do show that some level of activity continued into this period, albeit only in the creation of boundaries associated with rural land management.

A summary of the work will be published in *South Midlands Archaeology* and this report will be uploaded onto the OASIS website (ref. no.: albionar1-302320). With the landowner’s permission the archive will be deposited with the Higgins Art Gallery and Museum under accession number BEDFM: 2017.24.



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7. APPENDIX 1: ARTEFACT AND ECOFACT SUMMARIES

7.1 Pottery

7.1.1 Introduction

The assemblage derives mainly from Phase 1 features and totals 295 predominantly early medieval sherds (2.7kg), representing a minimum of 171 vessels. Pottery has a mean sherd weight of 9g, and is moderately abraded. Fifteen fabric types were identified in accordance with the Bedfordshire Ceramic Type Series (Table 2).

Fabric code	Common name	No. Sherd	Wt. (g)
<i>Late Saxon</i>			
B01	St Neots-type ware	9	74
B01A	St Neots-type (orange)	25	328
B01C	St Neots-type (mixed)	6	27
B04	St Neots-type (coarse)	1	23
<i>Medieval</i>			
B07	Shell	108	1,032
B09	Lyveden/Stanion A ware	6	49
C01	Sand	22	209
C03	Fine sand	29	236
C05	Sand (red margins)	24	197
C10	Potterspurty ware	1	39
C59A	Coarse sand	16	150
C59B	Gritty sand	43	362
C67	Mixed inclusions	2	27
E01	Late medieval reduced ware	1	13
<i>Modern</i>			
P38	Creamware	2	5

Table 2: Pottery type series and quantification

7.1.2 Phase 1

The Phase 1 assemblage derives mainly from pits (principally G24, G25), and gully G31, with most other deposits containing less than 250g (Table 3).

Group	Sherd	Wt. (g)
Ditches G7, G8, G10, G17, G28, G33	60	434
Enclosure G9 and recut G11	8	82
Intersecting pits G13	5	62
Posthole building G14	11	28
Storage pits G15	7	30
Gullies G18, G31	40	443
Posthole G20	4	9
Pits G22-G27, G29, G36	142	1,467
Total	277	2,555

Table 3: Phase 1 – pottery quantification by Group

Late Saxon pottery comprises 41 shell-tempered St Neots-type sherds (fabric B01 / variants; and B04: 452g), most occurring residually in early medieval gully G31. Forms are simple everted rim jars, and bowls with inturned or upright rims, the latter ranging in diameter between 320–340mm.



An assemblage of 251 sherds (2.3kg) is datable to the early medieval period. Pottery mainly comprises shell-tempered wheel-thrown vessels of 12th–13th-century date, known to derive from production centres on the borders of Beds. / Bucks. / Northants. Also occurring are contemporary local sandy wares (1.1kg), in both hand-made and wheel-thrown forms, and six sherds (49g) of Lyveden/Stanion A ware, the latter from production sites in Northamptonshire.

Vessels are mainly undecorated jars with everted or square rims, ranging in diameter between 160–240mm. One vessel has linear combed decoration and a second has a faintly thumbled applied strip. Four jugs include one with a thumbled and stabbed rod handle, and a slashed strap handle deriving from a 13th–14th-century regional import from Potterspury, Northants. An abraded late medieval oxidised ware jar rim (14g) occurred as an intrusive find in the backfill of pit G26.

7.1.3 Phase 2

Ditches G39 and G54 yielded two abraded residual early medieval sherds (46g) and a two sherds of 19th-century creamware (5g).

7.1.4 Phase 3

Fourteen abraded early medieval sherds (fabrics B07, C59A, C59B: 165g) were collected from subsoil G2.

7.2 Ceramic Building Material

Sand-tempered late medieval / post-medieval building material (528g) comprises two highly abraded brick fragments (enclosure recut G11, ditch G39), two pieces of flat roof tile (ditches G17, G39) and portions of two unglazed floor tiles, both with smoothed and worn upper surfaces (ditches G39, G51).

7.3 Other Finds

A disparate group of largely undatable objects occurred mainly in Phase 1 deposits. Two undiagnostic, degraded lava fragments (11g) from either a rotary or pot quern (RA7) derived from enclosure recut G11. Posthole structure G14 yielded four indeterminate iron fragments likely to represent a single object (RA5), and ditches G8, G28, and pit G23 each yielded iron nail fragments. A small portion of post-medieval clay tobacco pipe stem (5g) derived from Phase 2 ditch G39.

7.4 Animal Bone

Forty-one animal bone fragments (933g) were collected, the largest assemblage (562g) from Phase 1 pit G25 (Table 4).



	Group	Sherd	Wt. (g)
Phase 1	Ditches G8, G10, G17, G28	4	11
	Enclosure recut G11	6	48
	Gulley G18	2	15
	Pits G25, G26	11	578
Phase 2	Ditches G39, G50, G53	18	281
	Total	41	933

Table 4: Animal bone quantification by Group

Fragments have a mean weight of 22g and display variable surface condition and preservation. Most are indeterminate limb, rib, pelvis and skull fragments, although two joining pieces of horse radius (pit G25), five horse molars and a sheep/goat molar (ditch G39) were identified.

7.5 Environmental Samples

A total of 10 samples was collected for ecofact or artefact recovery (Table 5). Samples were mostly from ditch or pit fills, with one from a posthole.

The samples were processed using a flotation tank with the flot captured on a 250 micron sieve, whilst a 1mm mesh was used for the residue. The material was then air dried before being examined by eye.

The flots were relatively small and contained abundant fine roots.

Sample	Group	Context	Feature	Charcoal	CPR
1	28	2097	Ditch	++	+
2	14	2054	Posthole	++	+
3	17	2126	Ditch	++	+
4	15	2019	Pit	+	+
5	11	2034	Ditch	+	-
6	29	2089	Pit	+	+
7	33	2142	Ditch	+	+
8	36	2152	Pit	-	-
9	43	2186	Gully	+	-
10	11	2199	Ditch	+	-

Key: item frequency: - = no items; + =1-10 items; ++ =11-50 items; +++ = 51-150; ++++ = 151-250; +++++=>250 items

Table 5: Summary of Phase 1 environmental samples

7.5.1 Charcoal

Charcoal was present in all samples, mostly in low quantities, predominantly flecks with some small lumps. The lumps generally showed signs of abrasion, suggesting an element of reworking of the material. There was no significant contrast in the distribution of charcoal between pits and ditches, suggesting that this is a general background distribution.

The small quantities and generally small and abraded condition indicates very limited potential to address general landscape themes.



7.5.2 Charred grain

Small numbers of grains, generally in good condition, were recovered from seven of the samples. Although sample <6> contained the best assemblage, consisting of a few grains of at least two species, it is not clear if this material was associated with the pit, or possibly derived from the underlying ditch.

The very small size of the assemblage means this material does not have any potential to shed light on the diet of the people or the arable regime of the settlement.

7.5.3 Snails

Several samples contained a few snail shells. These do not have any potential to shed meaningful light on the local environment.

7.5.4 Other charred material

A fragment of a possible charred pea and a single small fragment of nut shell — possibly from an acorn were also recovered. Given the very low quantities of these items, their significance is negligible.

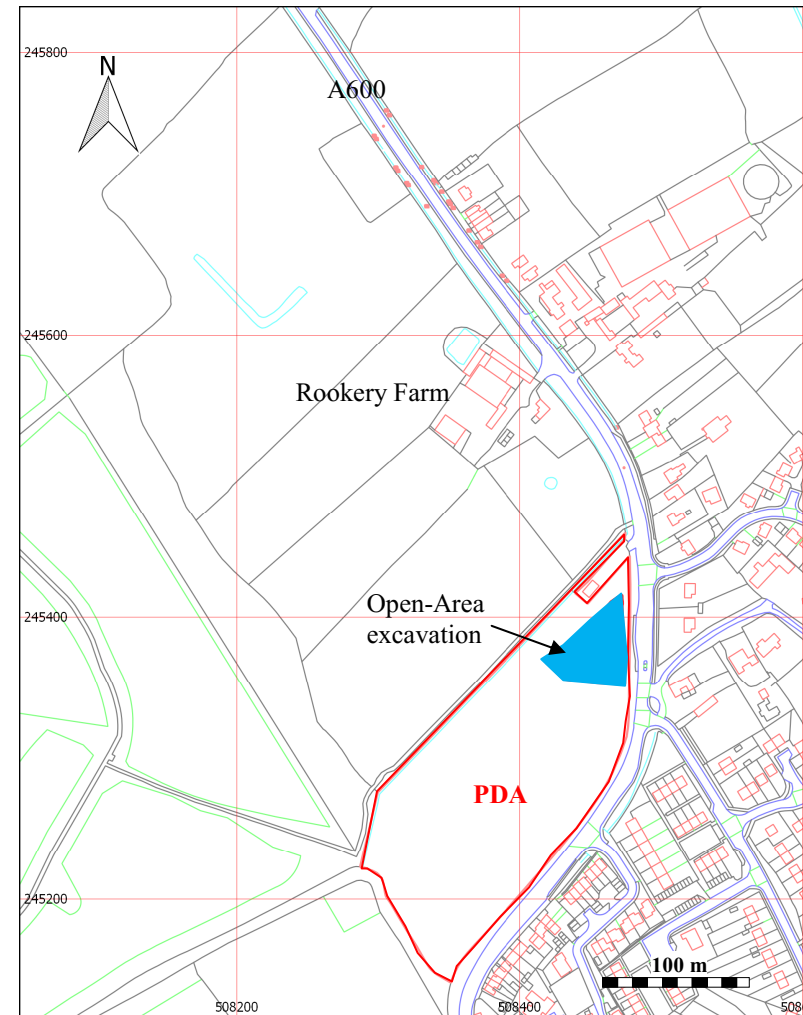
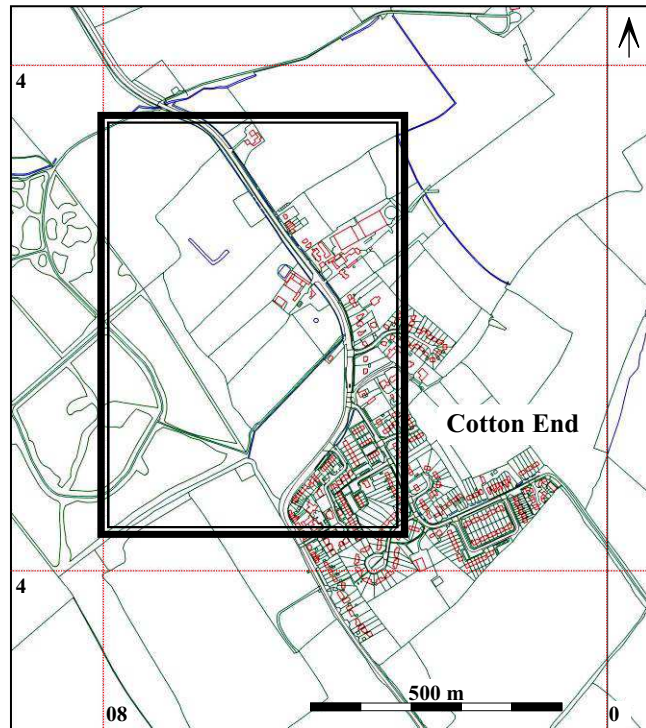
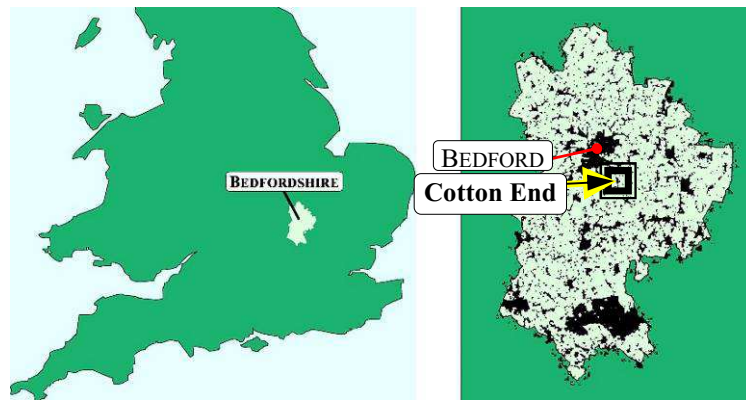


Figure 1: Site location

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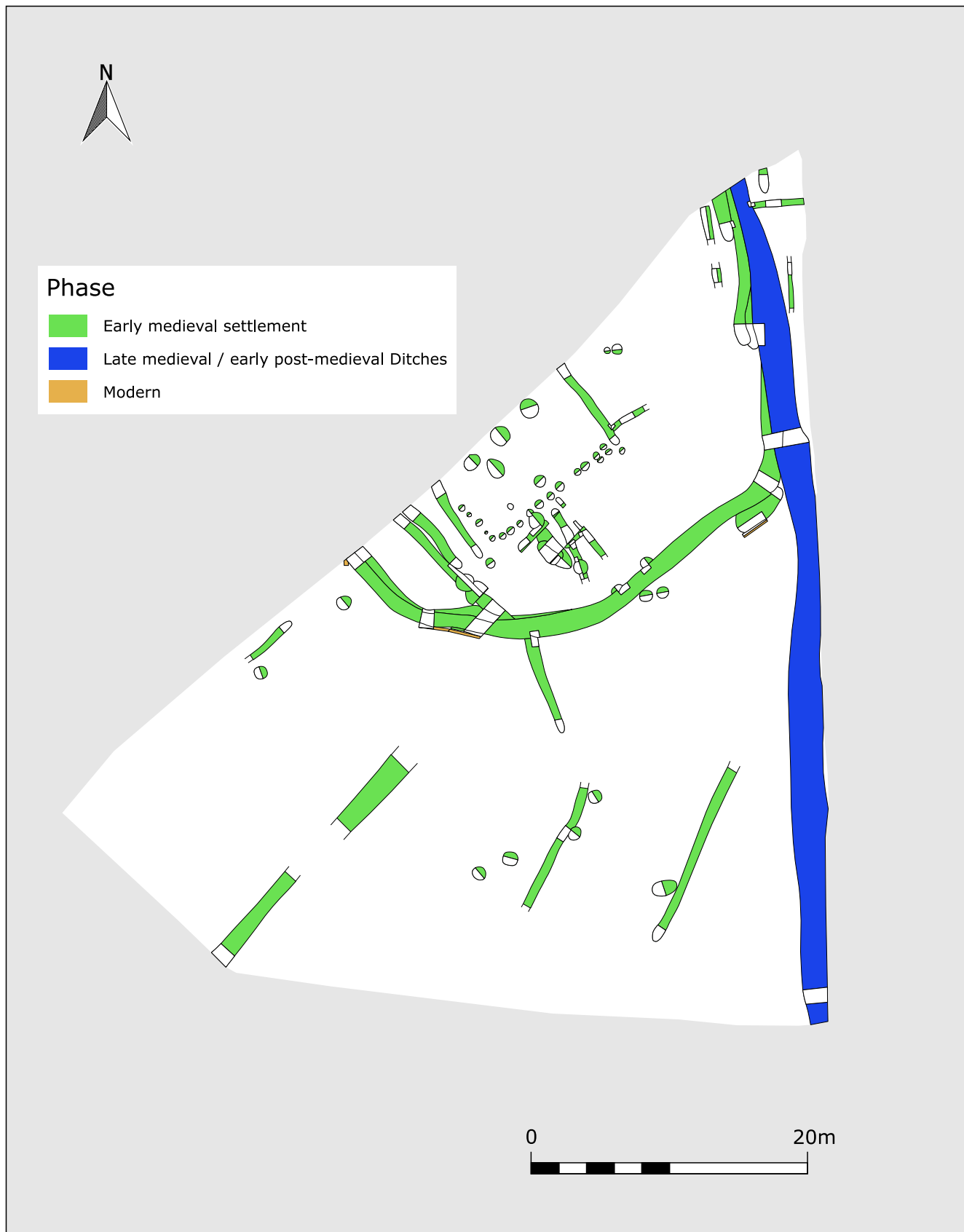


Figure 2: Open-area excavation - Phase plan

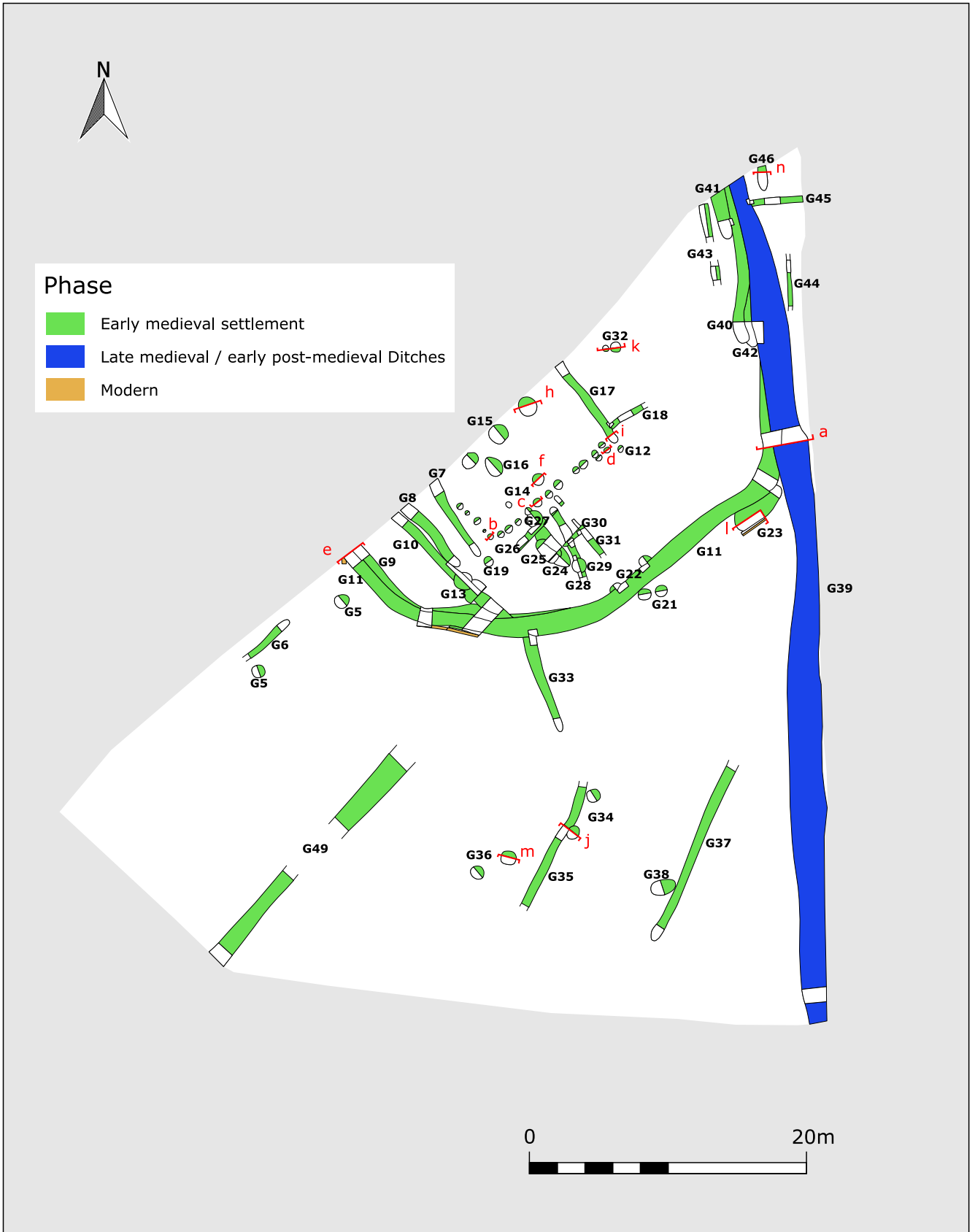


Figure 3: Open-area excavation - Phase plan with Groups and section drawings labelled

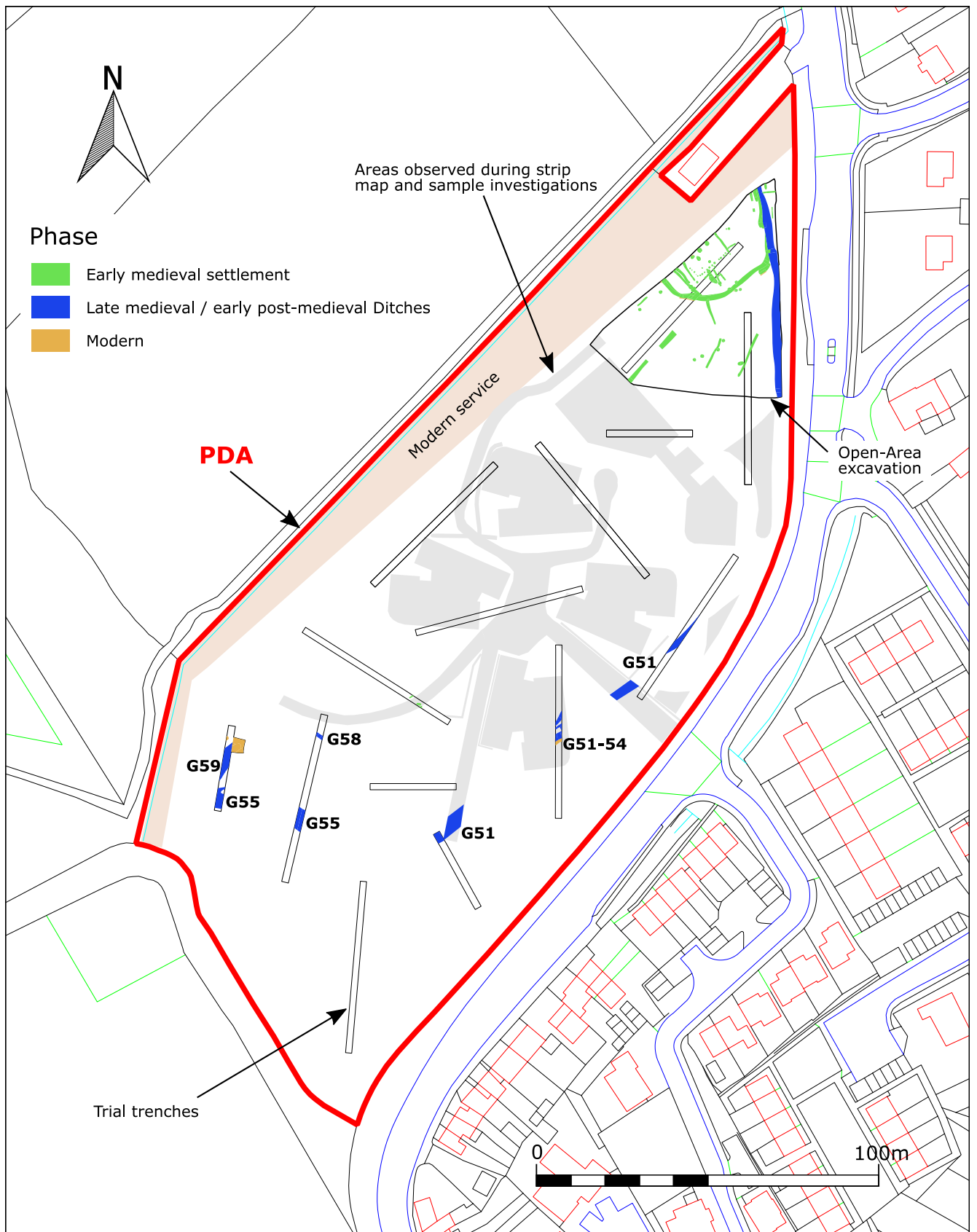


Figure 4: Combined Phase plan showing Open-area, strip, map and sample and trial trench investigations

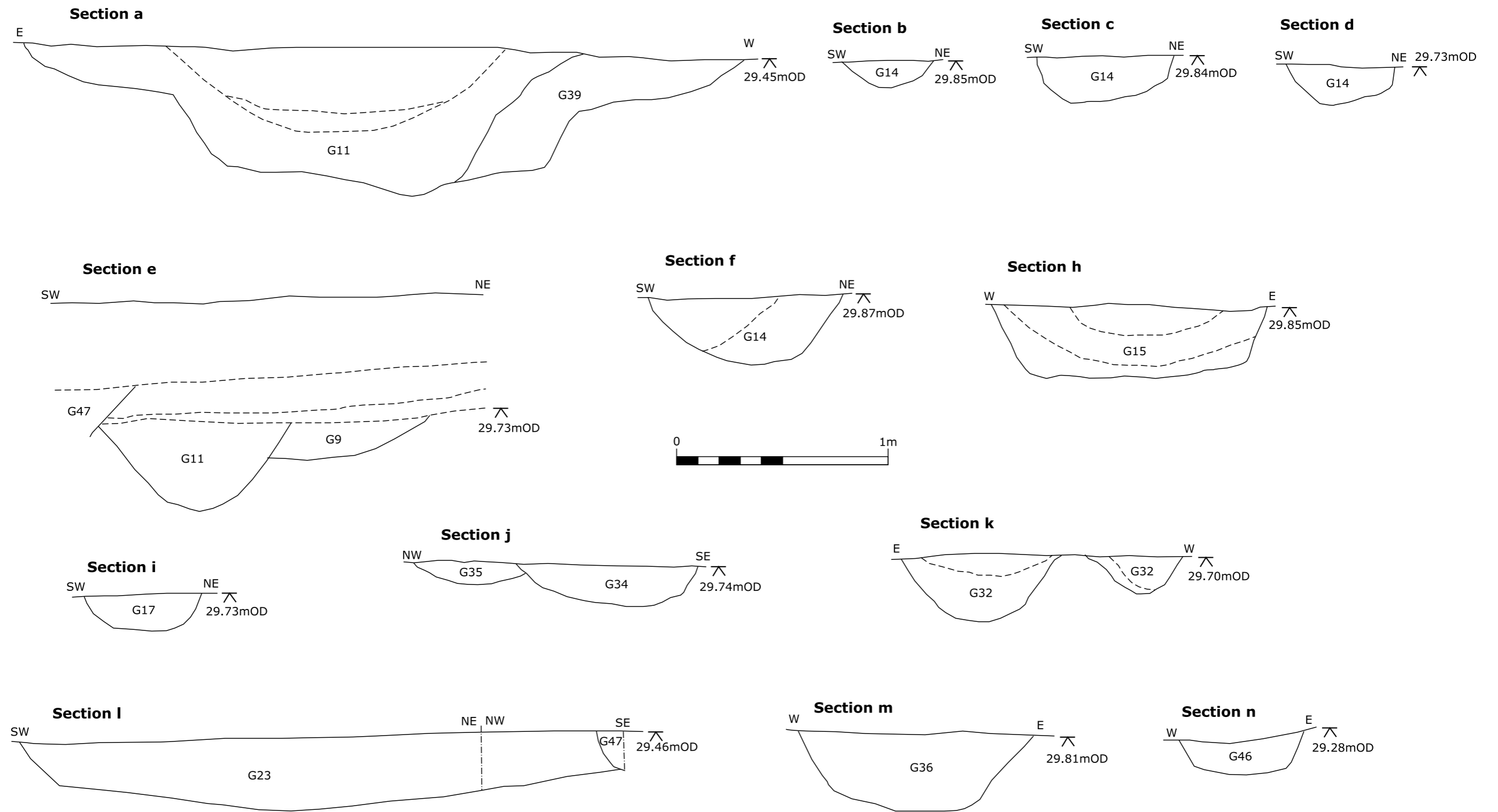


Figure 5: Selected section drawings

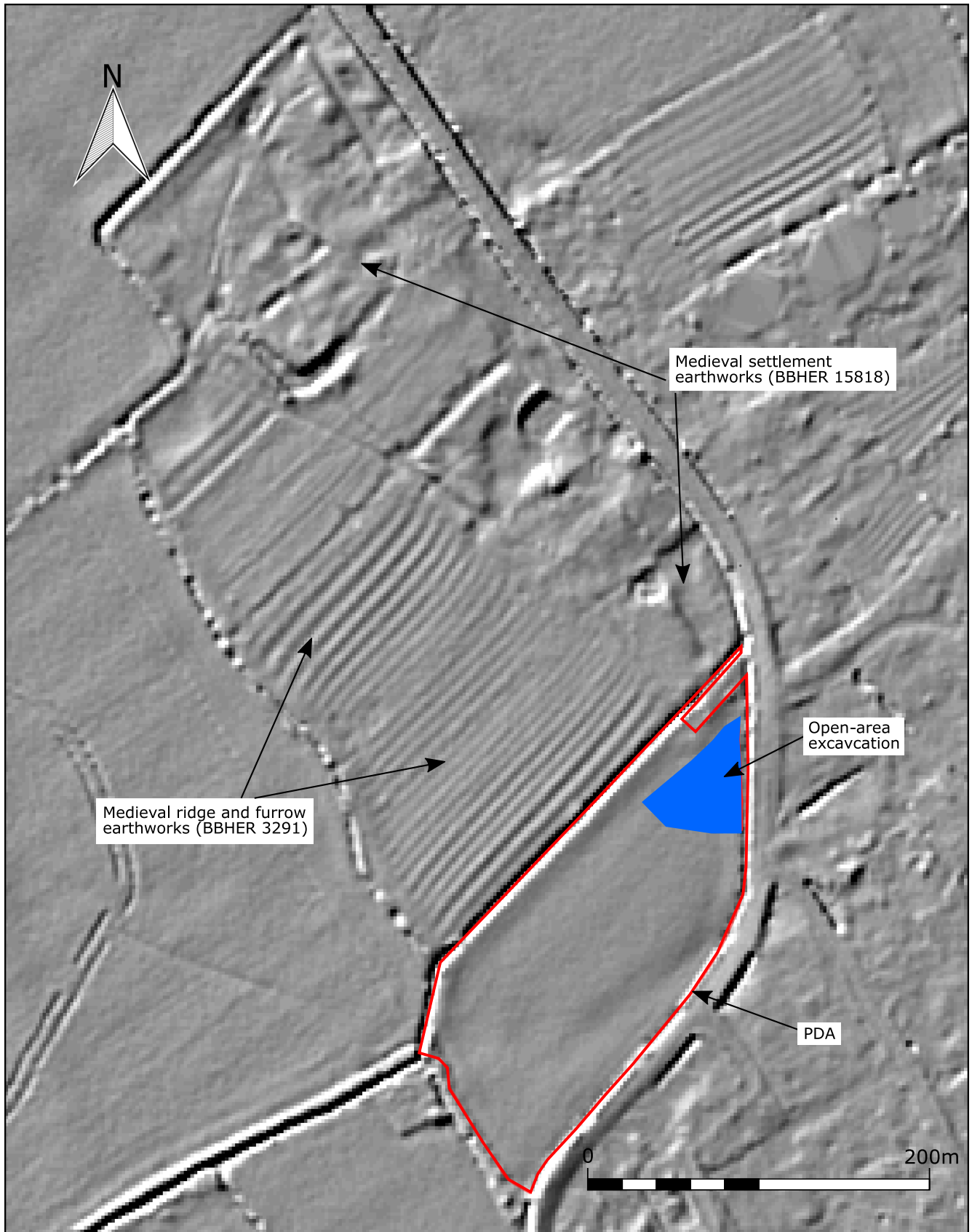
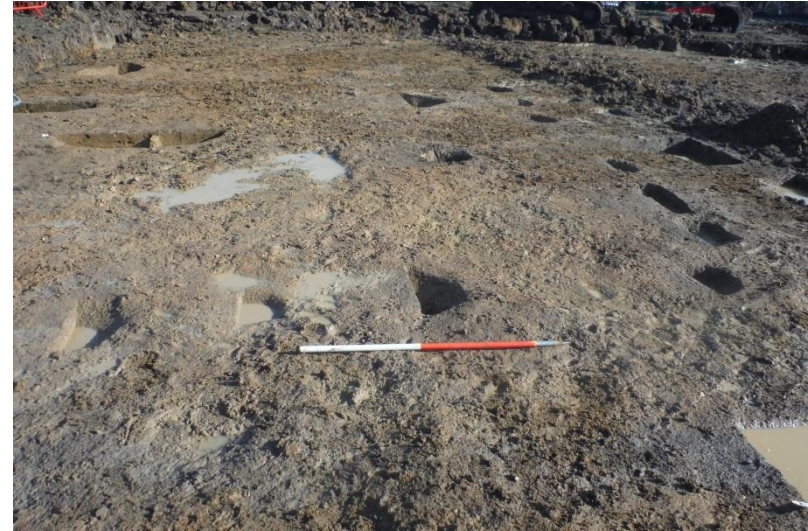


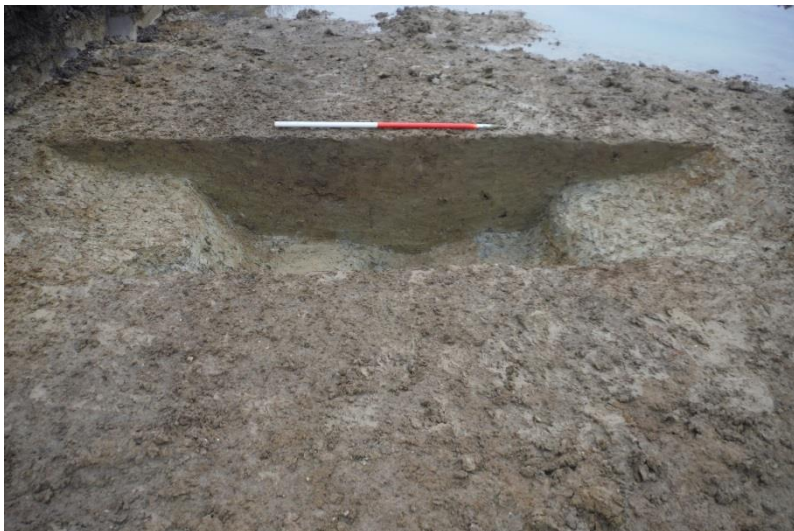
Figure 6: Plan showing location of Permitted Development Area (DA) and nearby medieval earthworks



South facing section of pit G16



Structure G14 – looking north-east



North facing section of ditches G11 and G39



Structure G14 – looking south-west

Figure 7: Selected photos



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