NORTH BATTLESBRIDGE

TIDAL DEFENCE IMPROVEMENTS

ESSEX

ARCHAEOLOGICAL MONITORING

Essex County Council

Field Archaeology Unit

NOVEMBER 2006

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As part of our desire to provide a quality service, we would welcome any comments you may have on the content or the presentation of this report**.**

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NORTH BATTLESBRIDGE
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Client: Jackson Civil Engineering Ltd
NGR: TL 74734232
Site Code: REFD 06
Oasis No.: essexcou1-19464
Dates of Fieldwork: 3rd July to 19th September 2006

SUMMARY

Archaeological monitoring of groundworks associated with improvement to the tidal defences on the north bank of the River Crouch at Battlesbridge identified only a few occurrences of archaeological significant remains.

Two small fire-pits or hearths buried beneath 1.5m of overburden were revealed during the excavation of Piper's Pond. Both pits showed signs of in-situ heating, contained charcoal flecks and pieces of baked clay, and may be associated with salt-making activities. No dating evidence was recovered but the depth of burial suggests that they may be of prehistoric or Roman date. The pits were cut into a former land surface at an approximate Ordnance Datum of 1.2m and were sealed beneath estuarine clays.

A boundary ditch filled with modern debris was recorded at the eastern end of the improvement area in length K. The position of this ditch corresponded with that of a 19th/20th century field boundary depicted on the 1st to 3rd editions of the Ordnance Survey map. Areas of modern ground build-up were also identified in length K, along with a solitary pit of probable recent origin.

During ecological works an unstratified moulded clay figurine of possible 16th century date was recovered from the riverbank to the west of the bridge.

1.0 INTRODUCTION

This report describes the results of archaeological monitoring of groundworks associated with improvements to the tidal defences at North Battlesbridge. The defences were divided into a series of working areas, or lengths, lettered west to east as A to K. The groundworks broadly comprised of strengthening the river bank by piling, raising of the existing earth embankments and the creation of a new embankment at length K. Also included was the excavation of a new pond and an extension to an existing pond to the rear of the embankment.

The fieldwork was carried out by the Essex County Council Field Archaeology Unit (ECC FAU) on behalf of Jackson Civil Engineering Ltd, under the terms of an archaeological condition placed on planning consent in accordance with Planning Policy Guideline note 16 (PPG16). The archaeological work followed a brief produced by ECC HEM (March 2006) and a written scheme of investigation prepared by ECC FAU (June 2006).

The site archive will be deposited in Chelmsford Museum. A digital version of this report will be submitted, along with a project summary, to the Online Access to the Index of Archaeological Investigations (OASIS) (http://ads.ahds.ac.uk/project/oasis).

2.0 BACKGROUND (Fig. 1)

2.1 Topography and Geology

The area of tidal defence improvements is located on the north Bank of the River Crouch at Battlesbridge (TL 74734232). The northern side of the river is defended by an earthen bank, apart from the area around the road-bridge and Antiques Centre car park, where there are concrete walls.

On the riverside of the embankment is marsh and rough grassland. Behind the embankment at the western end of the improvements is an industrial estate and caravan park, with a pond and rough grassland closer to the bridge. The land behind the bank at the eastern end of the improvements comprises rough grassland, pasture and gardens.

The River Crouch cuts through an area of low hills which developed on London clay and Claygate Beds to the north and London clay and bagshot beds to the south. These clays are in places masked by 'head' deposits. Within the upper estuary these are overlain by a limited depth of estuarine alluvium (Wilkinson, Murphy and Manson 1983a, 1-3).

2.2 Archaeological and Historical Background

Archaeological remains dating from the Mesolithic through to the post-medieval periods are known within the Battlesbridge area. Remains Include an Iron Age/ Roman Redhill (HER 7678), several possible medieval moated sites (HER 7517, 7607, 7608) and post-medieval limekilns (ERO D/CT 287b). A bridge across the river Crouch is believed to have been in existence by 1351 (Reaney 1935). The present bridge dates from *c.*1872 (HER 31008).

A detailed archaeological and historical background is presented in a desk-based assessment (Heppell 2002) previously prepared for the Environment Agency.

3.0 AIMS AND OBJECTIVES

The aim of the work was to determine the location, extent, date, character, condition, significance and quality of any surviving archaeological remains along the length of the tidal defence improvements.

4.0 METHOD

Machine removal of topsoil was monitored in four specific locations (Piper's Pond, Hart's Pond, lengths K and D) along the tidal defence improvements. Stripping was undertaken to archaeological standards by a 360° tracked mechanical excavator fitted with a toothless ditching bucket. All required areas were observed apart from a small strip obscured by modern stockpiling in length K (Fig. 3).

In addition to the requirements of the brief, observation of a test-pit at Piper's Pond was undertaken. This revealed the presence of an archaeological feature approximately 1.5m below the ground surface. With the agreement of the client the test-pit was enlarged into a 10m trial trench to check for further features. Monitoring was also undertaken during the machine excavation of this pond.

In light of the results from Piper's Pond it was deemed appropriate to put an 11m trial trench through the footprint of the Hart's pond extension.

All work was carried out in accordance with IFA (Institute of Field Archaeologists) by-laws and guidelines and complied with Standards for Field Archaeology in the East of England (Gurney 2003). Standard ECC FAU excavation, artefact collection and recording methodologies were employed where practicable.

5.0 FIELDWORK RESULTS (Fig. 1)

The results of this fieldwork are described below, with further context information presented in Appendix 1. The illustrations are at the back of the report.

5.1 Piper's Pond (Fig. 2)

No archaeological features were identified in the initial topsoil strip. Two archaeological features (8 and 13) were observed and subsequently excavated during machine-removal of deposits from within the footprint of the new pond. Both were located at an approximate Ordnance Datum of 1.2m. Pit 8 was sub-circular in plan with a near vertical side to east and south and a 45° side to the west. Hard baked clay at the base of the pit was indicative of in-situ burning. The pit was filled with light grey clay (7) containing numerous flecks and pieces of charcoal and small lumps of baked clay. One 12 litre soil sample was taken from this fill for analysis. This sample produced further charcoal and baked clay but no carbonised ecofactual material. The top of the pit was overlain by an indistinct layer of charcoal flecked greyish brown clay (6).

Pit 13 was located some 3m south-west of pit 8. It was oval in plan with concave sides and base. Reddish baked clay, indicating in-situ burning, was noted around the exposed edges of the pit. The base of the pit was filled with grey clay (12) that contained occasional flecks of charcoal. Above were two small lenses of grey (11) and dark grey brown (10) clay. The top of the pit was overlain and in-filled with speckled dark grey clay (9) that contained charcoal and baked clay flecks.

Both features were overlain by thick, naturally-accumulated, deposits of grey (5) and brown (4) clays. Layer 4 was sealed by dark grey brown clay (3) that was probably a buried former topsoil. This, in-turn, was sealed beneath re-deposited clay (2) and modern topsoil (1). In total the archaeological deposits were sealed beneath approximately 1.5m of overburden.

No dating evidence was recovered from either pit. However, depth of burial suggests that they are of some antiquity, probably prehistoric or Roman in date.

5.2 **Length K** (Fig. 3)

The topsoil strip was monitored along the *c.*150m extent of length K. A north-east/south-west aligned field boundary ditch was identified at the east-end. The ditch was filled with modern debris, including brick rubble and plastic, and was partly sealed beneath a layer of re-deposited clay. A vague, ill-defined, greyish brown silt feature running parallel with the ditch probably represented root disturbance from a former hedge-line. The position of the ditch matched exactly with a 19th-20th century boundary depicted on the 1st to 3rd editions of the Ordnance Survey map.

One shallow, oval, pit (15), probably of fairly recent origin, was excavated in the middle of the north-south leg of length K. Occasional charcoal flecks were noted in the dark grey clay silt fill (14) but no dateable artefacts were recovered. At the south end of the stripped area the clay subsoil was overlain by re-deposited brown clay and soil in excess of 0.5m thick. These deposits appeared to be part of the existing embankment along the edge of the river.

5.3 **Hart's Pond** (Fig. 4)

The topsoil strip was monitored at the eastern extension to Hart's Pond. No archaeological features were identified. The east side of the pond extension was disturbed and built-up with modern brick rubble. An 11m-long trial trench, *c.*0.9m deep and orientated north-east/south-west, was dug through the middle of the pond extension to investigate and characterise the underlying deposits. These deposits comprised mixed grey and brown clay with occasional lenses of dark grey organic grassy material. No archaeological features were observed.

5.4 **Length D** (Fig. 1)

Topsoil was removed from an area of river bank, in excess of 20m in length, approximating to the position of the intended piling platform in length D. Deposits of natural grey and brown clay were revealed underlying re-deposited mixed brown clay (in excess of 1.2m thick) forming the existing embankment. A dark grey band, visible at the west-end of the area, underlying the re-deposited clay and above natural, probably represented a former topsoil. No obvious archaeological features were identified.

6.0 **FINDS** by Joyce Compton

Few finds were collected and are described below. Quantification by count and weight, in grams, can be found in Appendix 2.

6.1 Baked clay

A large number of fragments, weighing a total of 336g, were recovered from the fill of pit 8. Almost half was retrieved from the collected soil sample, along with a small amount of charcoal. All of the baked clay fragments are rounded, and appear to have been rolled. The smallest pieces were collected from the dried residue of the soil sample, but, even so, the largest piece measures only 50 x 45 x 25mm (approx.). The fabric is fine and sandy with few inclusions and is uniformly pale grey in colour, with occasional pink and cream patches. All fragments are undiagnostic and there is no accompanying dating evidence.

6.2 **Stoneware figurine** by Helen Walker

Of interest is part of a moulded figurine, found unstratified on the riverbank to the west of the bridge during ecological work (Fig. 1). The object comprises the headless torso of a male figure in brown-glazed stoneware, the head and limbs having broken-off in antiquity (see front cover illustration). He is dressed in a tunic and tights, and the remains of the left hand can be seen resting on the hip. A band of incised dashes across the chest may represent a pattern on the tunic. There are also incised lines radiating below the neck which may represent a collar. The figure is crudely-made and somewhat flat, suggesting that it could have been part of a frieze, with other figures and a background of some sort. However, the incised lines of the collar continue around the back of the figure and there is also some texturing on the reverse of the tunic, equally suggesting that he was intended to be viewed from both sides. The method of manufacture is rather odd, the stumps of the limbs showing that clay was wrapped around pre-formed rods of ceramic that provided a framework for the figure.

No parallel can readily be found, but stoneware figurines and anthropomorphic jugs were made in Rhineland Germany during the 16th century. A jug in the shape of a man, manufactured at the Rhenish production centre of Frechen, is dressed in a tunic and shows a very similar-shaped hand resting on the hip; although otherwise the figures are unalike. The Frechen figure, published in the Frechen Ceramics Museum guidebook, is dated to around 1570. Female figurines were also produced at the nearby production centres of Aachen and Raeren, dating to *c.*1500-40, and a very small number of such figurines have been excavated in this country (Gaimster 1997, 228-9, fig.78). Unlike German stoneware jugs, which were imported in great quantities, figurines are rare objects. As Battlesbridge is on a tidal river

draining into the North Sea, this object could have been transported by boat directly from the Rhineland, rather than as the result of wider trade in pottery.

6.3 Environmental material

A single 12-litre soil sample was taken from fill 7 of pit 8 at Piper's Pond. This was processed by wet-sieving with flotation using a 0.5mm mesh and collecting the flotation fraction (flot) on a 0.5mm sieve. The residue was then dried and separated into coarse and fine fractions using 4mm and 2mm sieves. The material in the coarse fraction (>4mm) was sorted by eye and baked clay and charcoal were extracted and bagged separately. Quantification details are included in Appendix 2. The fine fraction and flot were dried and examined. No carbonised ecofactual remains were identified and there is no potential for specialist analysis.

6.4 Comments on the assemblage

The figurine is an uncommon find and, though unstratified, should be retained for deposition in Chelmsford Museum. The baked clay could be discarded at the archiving stage, although the landowner has expressed an interest in the material.

7.0 CONCLUSIONS

Archaeological monitoring of the topsoil strip revealed a post-medieval field boundary, areas of modern ground build-up and a solitary pit of probable contemporary date. Of note was the recovery of an unstratified moulded clay figurine of possible 16th century date from the riverbank to the west of the bridge.

Additional monitoring of the pond excavations revealed the presence of two features of probable prehistoric or Roman date situated in the eastern half of Piper's Pond, some 50m north of the existing course of the River Crouch. These were sealed beneath estuarine clays at a depth of 1.5m below the present ground surface. Evidence of in-situ burning suggests that these features may be fire-pits or hearths possibly associated with the process of winning salt from sea water. These features are often accompanied by large mounds of baked clay salt-making debris know as 'red hills' (Fawn *et al* 1990) and are found on the peripheries of saltmarshes and in estuarine locations around the Essex coast.

Full excavation of Piper's Pond revealed that the two fire-pits were cut into a former land surface situated about 0.5m above a natural gravel deposit, which was in total located some 2m below the ground surface. It is possible that salt extraction activities took place upon localised firm ground as the presence of clay, to the north-west of the gravel, suggests that the surrounding terrain may have been marshier.

Remains of a similarly-situated possible salt-working area (red hill) have previously been excavated downstream from the improvement area at Oldtree Point (HER 7678). Here, a layer of charcoal and fired clay was also found buried at the interface between a buried land surface and overlying estuarine clay. Beneath the buried land surface were head deposits at an approximate depth of 2m below the ground surface (Wilkinson *et al* 1983b, 9 and Fig. 9c). Previously, the layer at Oldtree Point was believed to be the most upstream example of salt-making evidence (Wilkinson et al 1983b, 9). This is now perhaps superseded by the fire-pits from Battlesbridge which suggest that salt-making activities may have been taking place over a kilometre further upstream.

Given the presence of buried archaeological deposits in Piper's Pond, the possibility of further deposits was investigated by trial trench within the footprint of the extension to Hart's Pond. However no archaeological features were encountered. The Hart's Pond extension was much shallower than Piper's Pond, *c.*0.9m in depth as opposed to 2m, and it may be that the archaeological horizon (if present) was not reached.

It is likely that other archaeological remains of prehistoric or Roman date may be masked by significant depths of overburden within the floodplain of the River Crouch and it is important that this should be noted when future developments in the Battlesbridge area are considered. The siting of such remains may have been influenced by the contemporary topography of the riverside and favoured areas of slightly higher ground located above firmer natural deposits.

ACKNOWLEDGEMENTS

Thanks are due to Andy Wargent for commissioning the fieldwork on behalf of Jackson Civil Engineering Ltd and to the various landowners involved in the project. Thanks also to Richard Kilshaw for finding and donating the clay figurine. The archaeological monitoring was undertaken by Trevor Ennis of Essex County Council Field Archaeology Unit. The project was managed by Mark Atkinson of ECC FAU and monitored by Pat Connell of ECC HEM.

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Wilkinson, T.J., Murphy, P. and Austin, T.J.F	1983b	*The Hullbridge Basin Survey Interim Report 4.* ECC internal publication

APPENDIX 1: CONTEXT DATA

All dimensions given in metres

Context	Location	Type	Description	Period
01	Piper's Pond	Topsoil	Dark grey clay silt, *c.*0.3m thick	Modern
02	Piper's Pond	Layer	Grey brown clay, 0.19m thick	Undated
03	Piper's Pond	Layer	Dark grey brown clay, 0.11m thick	Undated
04	Piper's Pond	Layer	Brown clay, 0.52m thick	Undated
05	Piper's Pond	Layer	Grey clay, 0.4m thick	Undated
06	Piper's Pond	Layer	Light greyish brown clay, 0.15m thick	Prehist/Rom?
07	Piper's Pond	Fill of 8	Light grey clay	Prehist/Rom?
08	Piper's Pond	Pit	0.82m x 0.25m x 0.28m deep	Prehist/Rom?
09	Piper's Pond	Fill of 13	Dark grey (speckled) clay, 0.23m thick	Prehist/Rom?
10	Piper's Pond	Fill of 13	Grey clay, 0.09m thick	Prehist/Rom?
11	Piper's Pond	Fill of 13	Dark grey clay, 0.03m thick	Prehist/Rom?
12	Piper's Pond	Fill of 13	Grey clay, 0.2m thick	Prehist/Rom?
13	Piper's Pond	Pit	0.9m x 0.7m x 0.34m deep	Prehist/Rom?
14	Length K	Fill of 15	Dark grey clay silt	Post-med?
15	Length K	Pit	0.5m x 0.3m x 0.1m deep	Post-med?

APPENDIX 2: FINDS DATA

All weights in grams

Context	Feature	Count	Weight	Description	Date
u/s	-	1	126	Pottery; moulded male figure, comprising torso wearing jerkin	Post med.
7	8	-	2	Charcoal from sample 1	-
		-	336	Baked clay fragments, inc 160g from sample 1	-

APPENDIX 3: CONTENTS OF ARCHIVE

SITE NAME: North Battlesbridge Tidal Defence Improvements
SITE CODE: REFD 06

Index to Archive:

1. Introduction
1.1 ECC HEM Brief
1.2 ECC FAU WSI

2. Research Archive
2.1 Client Report
2.2 Finds Reports

3. Site Archive
3.1 Context Record Register
3.2 Context Records (1 to 15)
3.3 Section/Plan Register
3.4 3 x A4 Plan/Section sheets
3.5 Trench location plans
3.6 Photographic Register
3.7 Site Photographic Record (1 set of colour prints and digital images on disk)
3.8 Miscellaneous notes/plans

Not in File:

Finds
The finds occupy less than one box.

APPENDIX 4: EHER SUMMARY SHEET

EHER SUMMARY SHEET

***Site name/Address*:** North Battlesbridge Tidal Defence Improvements	
Parishes: Rettendon	***District*:** Chelmsford
***NGR*:** TL 74734232	***Site Code*:** REFD 06
***Type of Work*:** Archaeological Monitoring	***Site Director/Group*:** T. Ennis ECC Field Archaeology Unit
***Date of Work*:** 3rd July to 19th September 2006	***Size of Area Investigated***: over 1500m in length
Location of Finds/Curating Museum: Chelmsford	***Funding source*:** Jackson Civil Engineering Ltd
***Further Seasons Anticipated*?:** No	***Related HER Nos.*:**
***Final Report*:** EAH round-up	
***Periods Represented*:** Prehistoric/Roman?, post-medieval, modern	

SUMMARY OF FIELDWORK RESULTS:

Monitoring of ground works associated with improvement to the tidal defences on the north bank of the River Crouch revealed two small fire-pits or hearths buried beneath 1.5m of overburden at Piper's Pond. Finds collected from them comprised charcoal and pieces of baked clay. In-situ heating was indicated by the presence of baked clay around the rim of one pit and in the base of the other. No dating evidence was recovered but the depth of burial suggests that they may be of prehistoric or Roman date. The pits were cut into a former land surface at an approximate Ordnance Datum of 1.2m and were sealed beneath estuarine clays. It is possible that the pits are associated with salt-making activities and as such are the furthest upstream examples recorded on the River Crouch to date.

A boundary ditch filled with modern debris was recorded at the eastern end of the improvement area in length K. The position of this ditch corresponds with that of a 19th/20th century field boundary depicted on the 1st to 3rd editions of the Ordnance Survey map. Areas of modern ground build-up were also identified in length K, along with a solitary pit of probable modern date.

An unstratified moulded clay figurine of possible 16th century date was recovered from the riverbank to the west of the bridge during ecological works.

Previous Summaries/Reports: Battlesbridge Tidal Defences: Archaeological Survey, ECC FAU internal publication, July 2002	
Author of Summary: T. Ennis	**Date of Summary:** November 2006

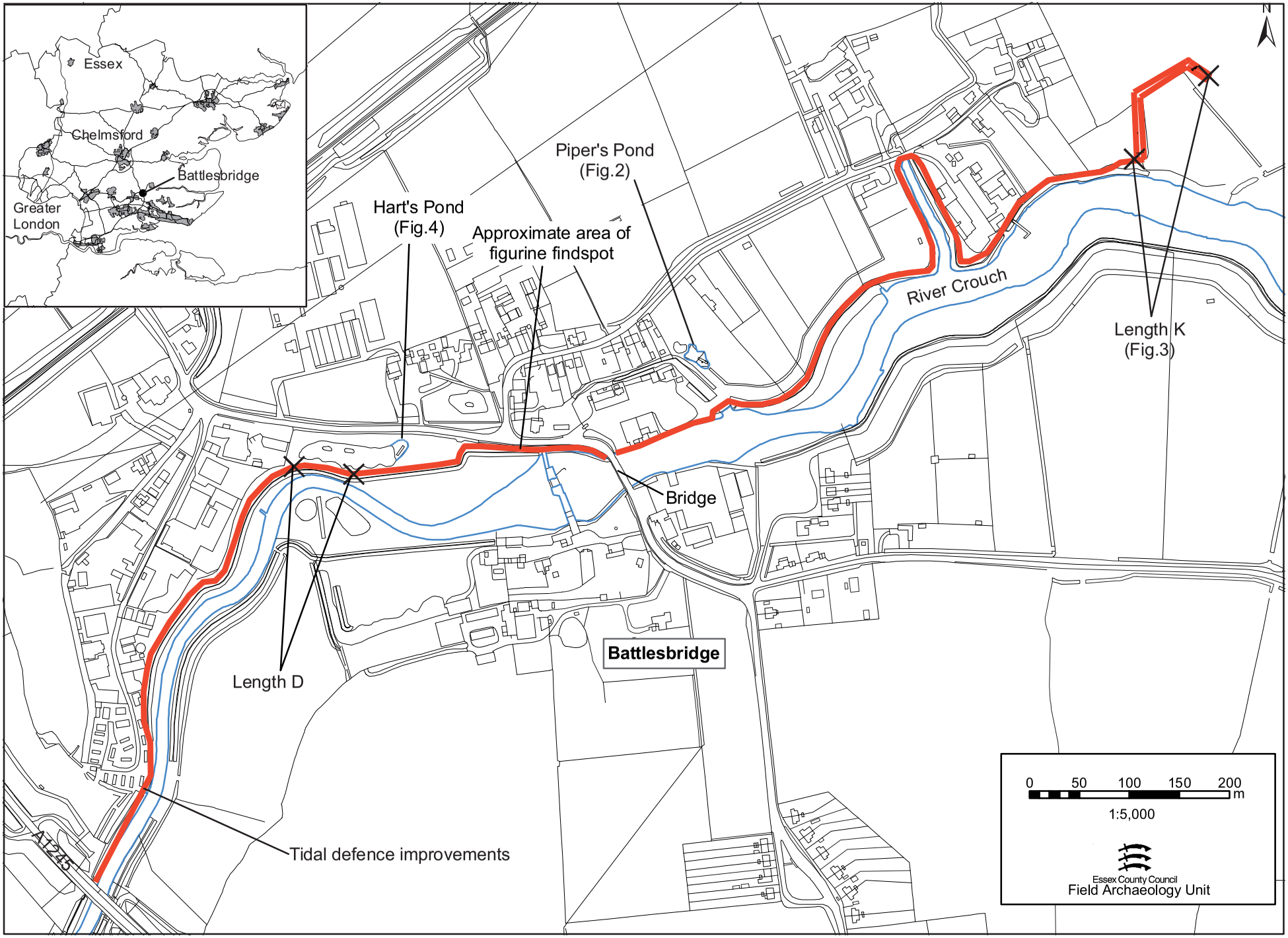
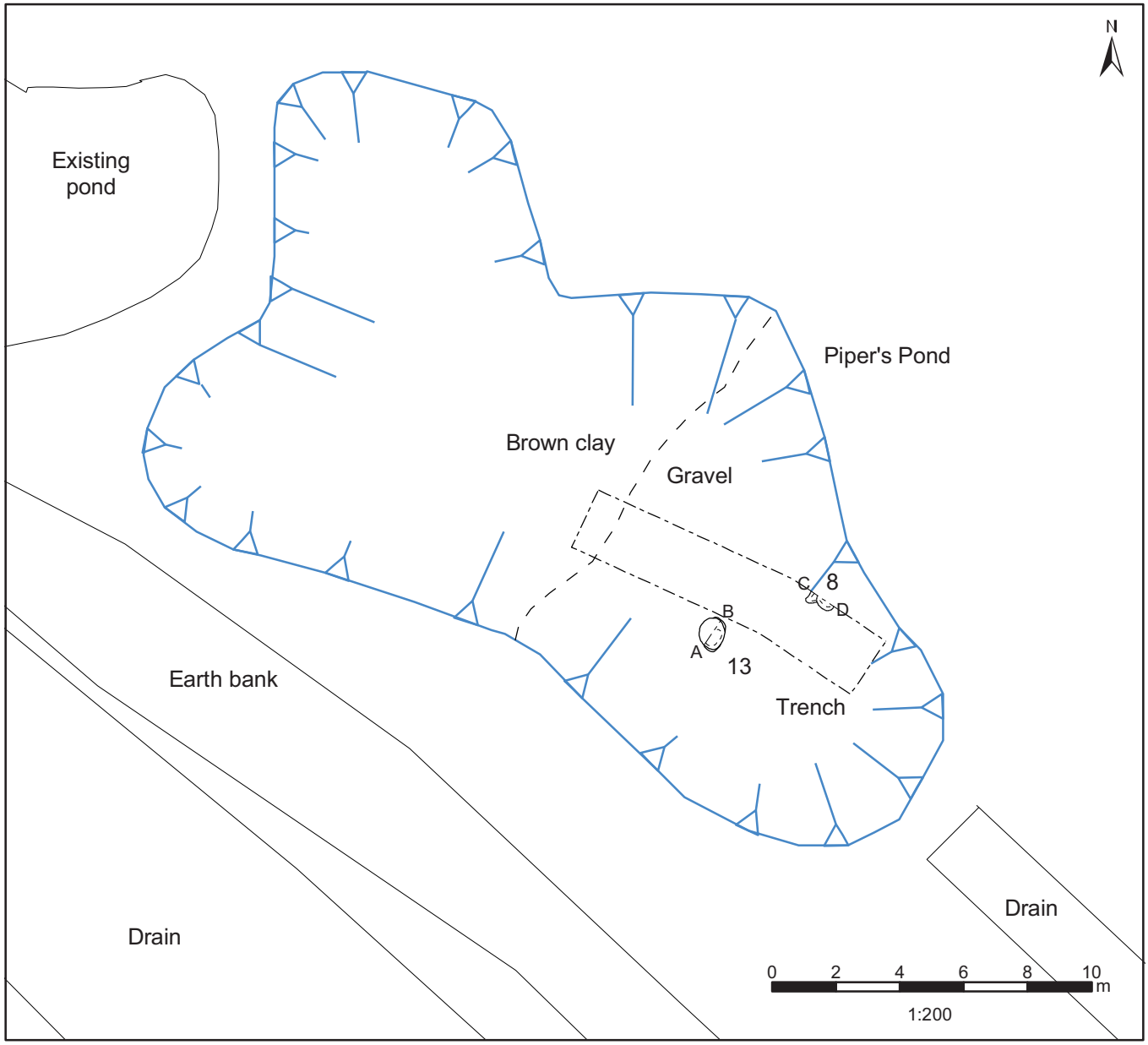


Fig.1. Site location plan



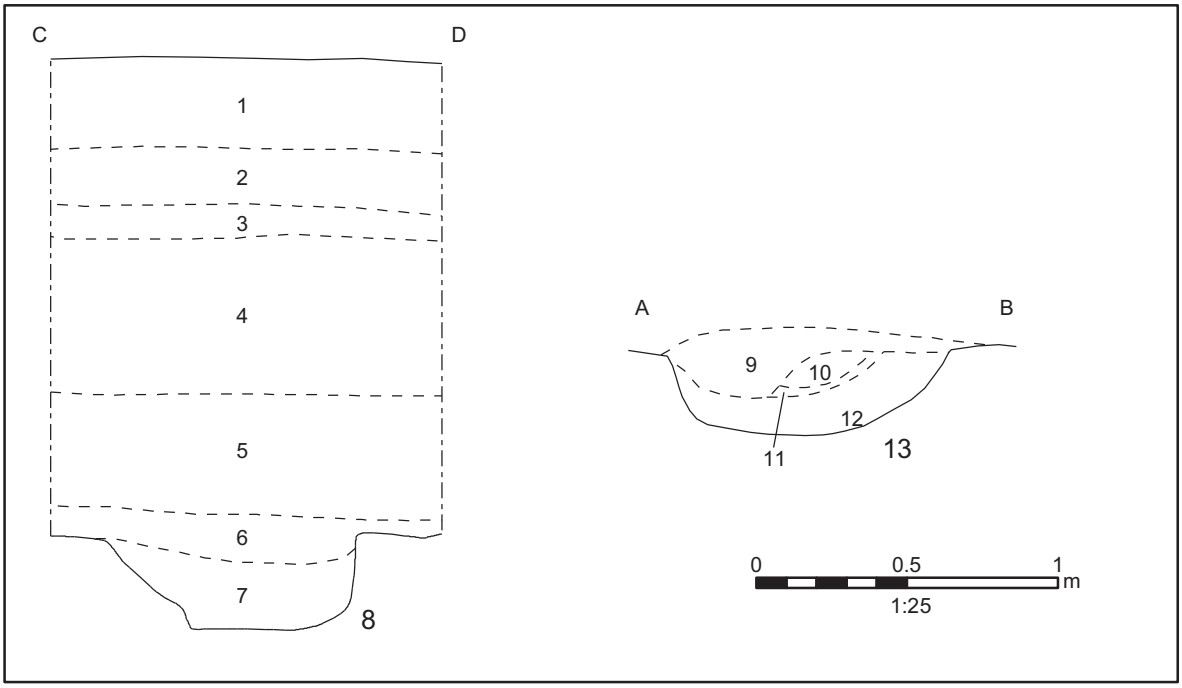


Fig.2. Piper's pond plan and sections

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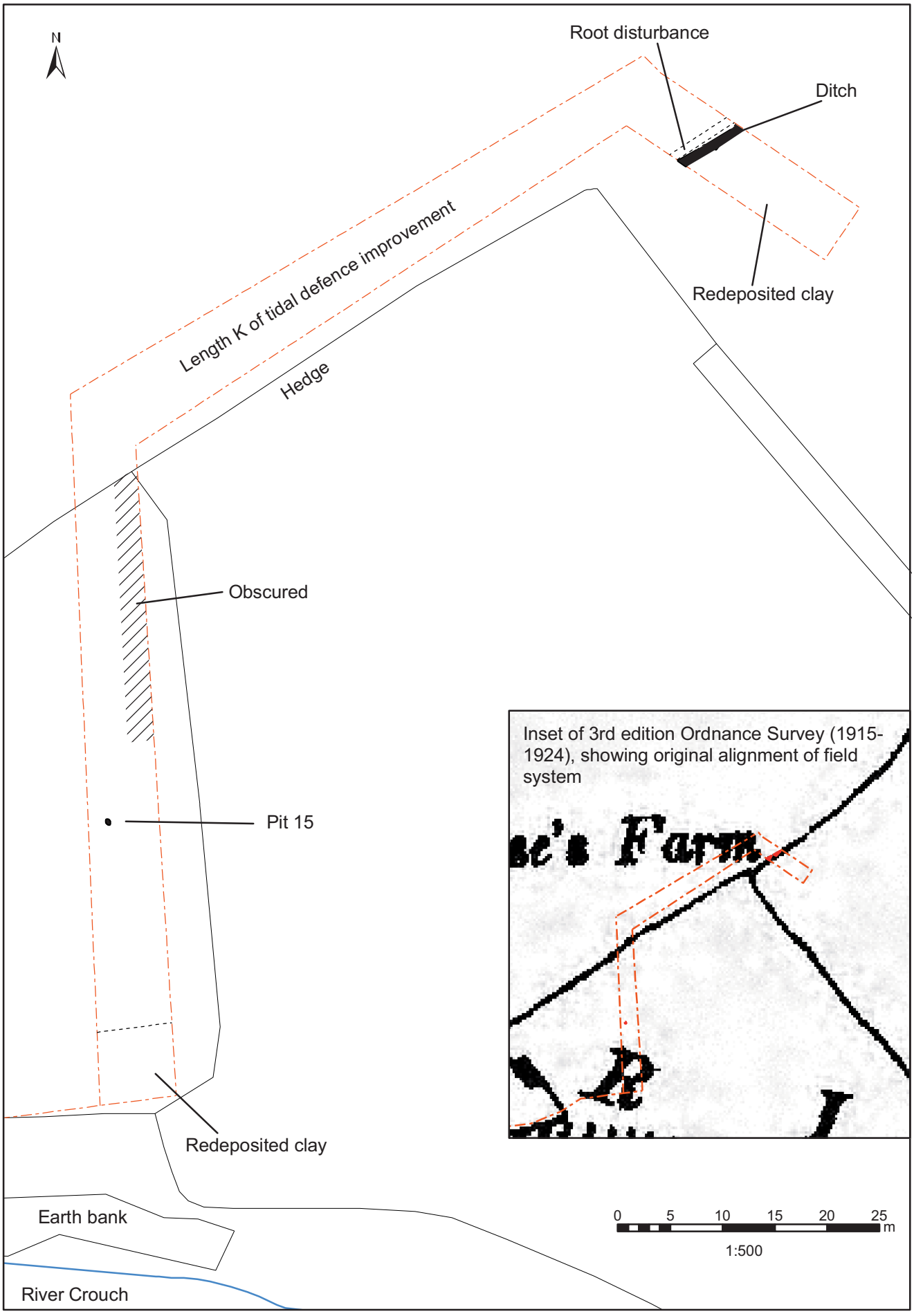

Fig.3. Length K monitored area

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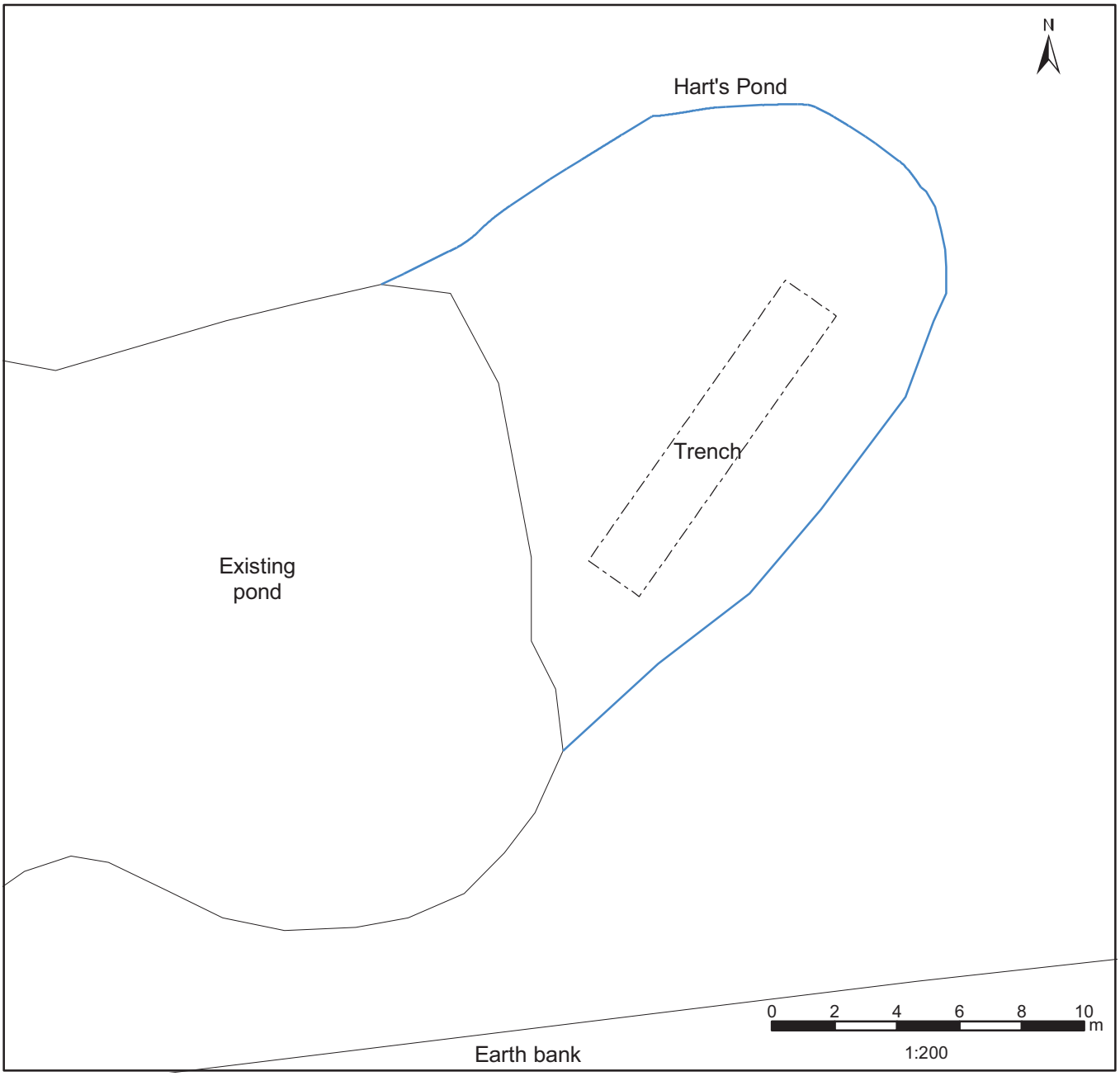

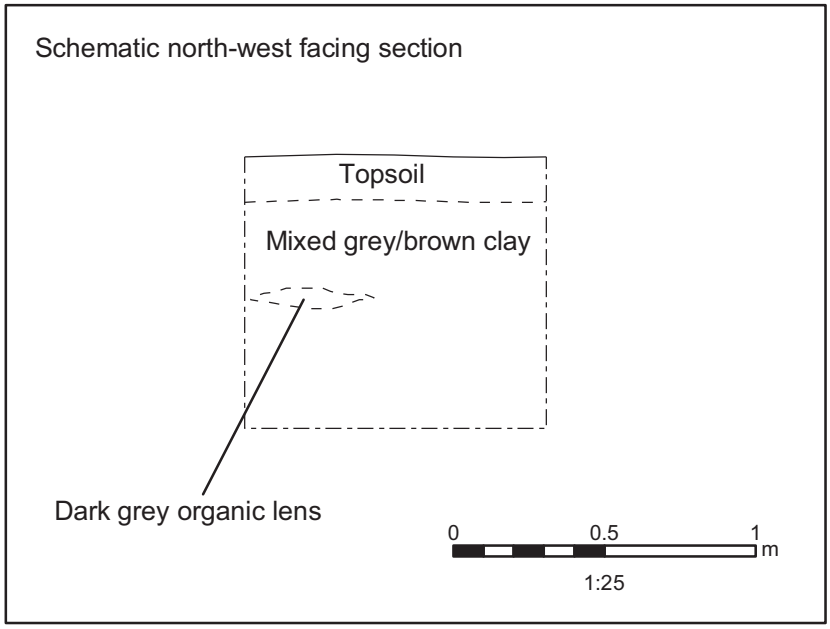

Fig.4. Hart's pond plan and section

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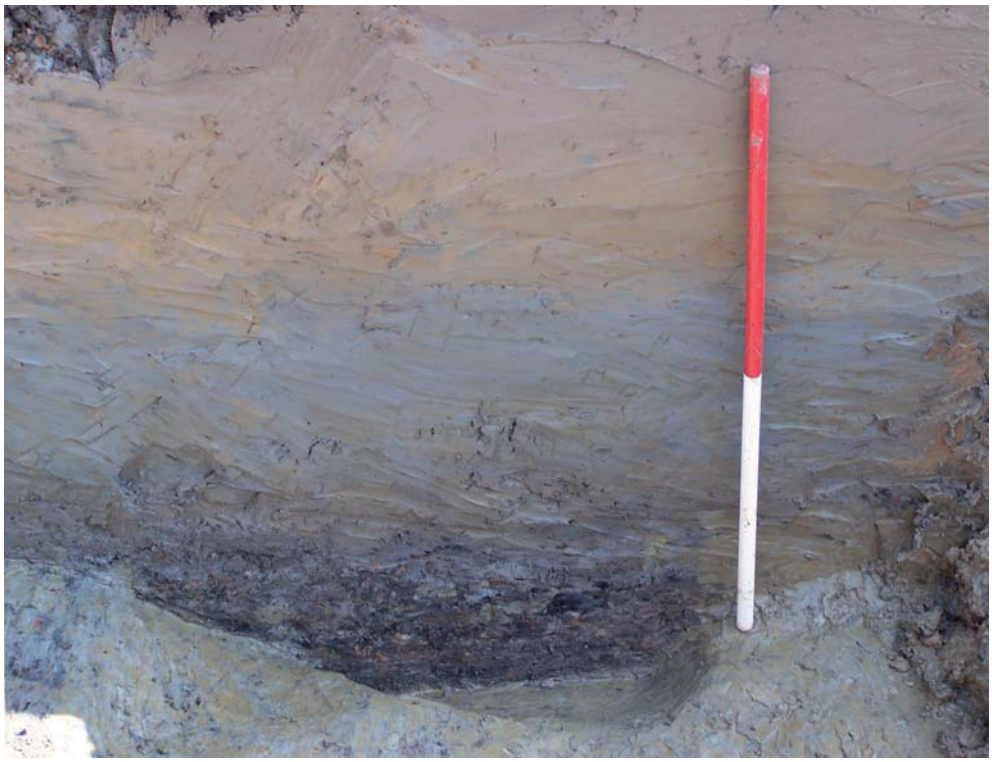

Plate 1 Pit 8, looking north-east (1m scale)

Plate 2 Pit 13, looking north-west (1m scale)