No. 3 St Botolph's Church Walk, Colchester, Essex

Archaeological Watching Brief Report

May 2020

Client: Anglian Water

Issue No:	1.1
OAE Report No:	2404
NGR:	TL 99941 24941
Event number:	ECC4420
OASIS:	oxfordar3-395049

oxfordarchaeology

Client Name:	Anglian Water
Document Title:	No. 3 St Botolph's Church Walk, Colchester, Essex
Document Type:	Watching Brief Report
Report No.:	2404
Grid Reference:	TL 99941 24941
Invoice Code:	XEXBOT19
Receiving Body:	Colchester and Ipswich Museums Service
Accession/HER No.:	ECC4420
OA Document File Location:	X:\Active Projects_Use KT\Essex\XEXBOT19_St Botolph's\Project Data\Reports
OA Graphics File Location:	X:\Active Projects_Use KT\Essex\XEXWLS20_Water Lane eval\Project Data\Graphics
Issue No:	1.1
Date:	May 2020
Prepared by:	Tim Lewis (Project Officer)
Checked by:	Nick Gilmour (Project Manager)
Edited by:	Rachel Clarke (Post-excavation Editor)
Approved for Issue by:	Elizabeth Popescu (Head of Post-excavation and Publications)
Signature:	…….

OA South
Janus House
Osney Mead
Oxford
OX2 0ES

t. +44 (0)1865 263 800

OA East
15 Trafalgar Way
Bar Hill
Cambridge
CB23 8SQ

t. +44 (0)1223 850 500

OA North
Mill 3
Moor Lane Mills
Moor Lane
Lancaster
LA1 1QD
t. +44 (0)1524 880 250

e. info@oxfordarch.co.uk
w. oxfordarchaeology.com
Oxford Archaeology is a registered Charity: No. 285627

Director and Chief Executive
Gill Hey, BA PhD FSA MCIfA
Private Limited Company, No: 1618597
Registered Charity, No: 285627
Registered Office: Oxford Archaeology Ltd
Janus House, Osney Mead, Oxford OX2 0ES

No. 3 St Botolph's Church Walk, Colchester, Essex

Archaeological Watching Brief Report

Written by Tim Lewis BA (Hons)

With contributions from Carole Fletcher HND BA (Hons) ACIfA and Patrick Lambert BA (Hons) and illustrations by David Brown BA

Contents

List of Figures

List of Plates

Summary

Between 8th January – 16th March 2020 Oxford Archaeology (OA) East monitored emergency excavation works for sewer repairs at the rear of No. 3 St Botolph's Church Walk, St Botolph's Street, Colchester, Essex. The works were located within the scheduled monument of St Botolph's Priory (located to the east) and north-west of the later St Botolph's church, the cemetery wall of which forms the northern boundary of the site. Although the site was positioned outside the Roman wall, remains of a Late Roman building had previously been identified to the north-east, close to the priory church.

Disturbed deposits were revealed in the upper levels of the trenching, notably in the northern part of the site (Trench 1), with contamination and water ingress associated with the damaged sewer pipe being a factor throughout. Trenching for a new pipe to the south (Trench 2) revealed a number of earlier deposits, some of which yielded a small quantity of Roman ceramic building material, a possible iron trumpet brooch and fragments of a highly decorated German Werra slipware dish of post-medieval date.

Acknowledgements

Oxford Archaeology would like to thank Anglian Water, in particular Jo Everitt, for commissioning this project. Thanks are also extended to Jess Tipper who monitored the work on behalf of Colchester County Council and to Will Fletcher of Historic England.

The project was managed for Oxford Archaeology by Nicholas Gilmour. The fieldwork was undertaken principally by Tim Lewis, with assistance from Neal Mason, Nick Cox, Lyndsey Kemp and George Gurney. Thanks are also extended to the teams of OA staff that cleaned and packaged the finds under the management of Natasha Dodwell and to Katherine Hamilton who prepared the archive for deposition.

1 INTRODUCTION

1.1 Scope of work

1.1.1 Oxford Archaeology East was commissioned by Anglian Water to undertake a watching brief on emergency repair works to a sewer main to the rear of No. 3 St Botolph's Church Walk, within the bounds of St Botolph's Augustinian Priory (Scheduled Monument No. 26301, HA 1013764; NGR TL 99941 24941; Fig. 1). Scheduled monument consent was obtained prior to the works taking place.

1.1.2 The requirements for the work were set out in the Written Scheme of Investigation (WSI; Gilmour 2020) and were agreed in consultation with Dr Jess Tipper, archaeological advisor to Colchester County Council and Will Fletcher, Inspector of Ancient Monuments for Historic England.

1.2 Location, topography and geology

1.2.1 The site was bounded to the east by the property boundary of No. 3 St Botolph's Church Walk and to the west by the rear of properties fronting St Botolph's Street; to the north lies the cemetery wall of St Botolph's Church. The initial 1.5m by 2m trench was located at the northern end, close to St Botolph's Church Walk, with subsequent works progressing southwards in 3m-long sections (Fig. 2; Plates 1-3).

1.2.2 The geology of the area is mapped as Thames Group silts, clays and sands (http://mapapps.bgs.ac.uk/geologyofbritain/home.html: accessed 27/03/2020).

1.3 Archaeological and historical background

1.3.1 Soon after the Roman Conquest in AD 43, a Roman legionary fortress was established at Colchester (Camulodunum), the first in Britain. Later, when the Roman frontier moved outwards and the 20th legion had moved to the west (c.AD 49), Camulodunum became a *colonia*, the southern boundary wall of which – constructed in AD125 – runs *c*.70m north of the site. The purported location of the south gate into the *colonia* lies *c*.75m to the north-west of the site, at the junction of Short Wyre Street, St Botolph's Street (formerly South Gate Street) and Queen Street.

1.3.2 Camulodunum served as a provincial Roman capital of Britain but was attacked and destroyed during the Boudican revolt in AD 61. Colchester's town walls (c.2700m long) were built between *c*.AD 65–80 when the Roman town was rebuilt, however, after the destruction London became the eventual capital of the province (Hull 1958). ECC is the and MCC is the monument code

1.3.3 Excavation work (Colchester HER event code ECC1003) conducted by Colchester Archaeological Trust in 1991, *c*.60m east of the current site, revealed a wall (Colchester HER Monument code MCC2538) of a Late Roman building to the east of the extant structure of St Botolph's Priory. Despite being located outside the town walls, these works also revealed a 'surprising number' of Late Roman finds (Crummy 1992).

St Botolph's Priory

1.3.4 Founded between 1093 and 1100, the Priory of St Julian and St Botolph was one of the first Augustinian priories in England, built mainly of flint and reused Roman brick. Following the Dissolution in 1536 the priory was granted to the Lord Chancellor, Lord Audley, although part of the priory church remained in use as a parish church. In 1648 it was largely destroyed by cannon fire during the Civil War siege of Colchester and has remained a ruin ever since. The current watching brief was located at the western edge of the scheduled area, close to the church and potentially within the priory graveyard. The full extent of the precinct is not known, although its suggested outline is shown on Fig. 1 (MCC425).

Previous work

1.3.5 Two watching briefs are recorded as having taken place in the vicinity of the site, at Nos 33-34 St Botolph's Street (ECC1596, 1988) roughly 20m south-west of the site, which recorded no significant finds, and at No. 31a St Botolph's Street (ECC1612, 1989) roughly 36m south-southwest of the site (Fig. 1). The watching brief at No. 31a St Botolph's Street encountered a band of white mortar at 1m below ground level and a large wooden object at a depth of 1.6m; possibly part of a medieval wooden drain.

2 WATCHING BRIEF AIMS AND METHODOLOGY

2.1 Aims

2.1.1 The project aims and objectives were as follows:

i. To determine or confirm the general nature of any remains present.
ii. To determine or confirm the approximate date or date range of any remains, by means of artefactual or other evidence.
iii. To locate and preserve any human remains encountered.

2.2 Methodology

2.2.1 The initial plan for the works involved excavating a 1.5x2m trench (Fig. 2), over the existing pipe (to a depth of *c.*2.5m) to the west of the damaged section (located beneath No. 3 St Botolph's Church Walk), and to attempt to repair the broken pipe by mechanical means. Should this plan fail, the second option was to install a new pipe by excavating a 1m wide trench for a distance of 12m, south along the lane, inserting a secondary chamber/manhole and a further 3m connection east to connect to the existing service.

2.2.2 As a result of a number of factors, including the depth of excavation required, the proximity of walls and other structures (Figs 2 & 3; Plates 1-3) and the uncertain nature of the ground conditions (significant fluid ingress/contamination from the damaged pipe was anticipated), the initial plan was not successful. Consequently, the additional trench was excavated to the south in four main segments, each measuring approximately 3m long.

2.2.3 Where possible material was removed using a small 2 tonne excavator equipped with a toothless ditching bucket, with a mechanical barrow used to take spoil to a larger muck-away vehicle.

2.2.4 Constant monitoring of excavation works was carried out with a second visual inspection of spoil following its removal from the excavation area. In total 21 monitoring visits were made over a period of several weeks during January, February and March 2020. The insertion of trench supports to some extent hampered the monitoring and recording, although it was possible to recreate representative sections of the sequences revealed. A written record of deposits within the trench was maintained and digital photographs were also taken. A representative sample of finds from these deposits, other than those which were clearly modern, was retained for later inspection. No environmental samples were taken as all contexts were subject to biological contamination from the damaged sewer pipe.

2.2.5 Ground conditions throughout the monitoring were poor, and the trench was consistently wet, partly due to weather conditions and partly due to ingress from the damaged sewer and cleaning discharge from the rear of shops located to the west of the site.

3 RESULTS

3.1 Introduction and presentation of results

3.1.1 The full details of the deposits revealed during the watching brief are included in Appendix A. The results have been split into two groups, the initial excavation (Trench 1; Plates 1, 4 and 5) was to attempt the repair wholly within previously-excavated ground (*i.e* within the original pipe trench backfill), while the subsequent excavation of a trench and associated chamber/manhole (Trench 2; Plates 2, 3, 6-7) was to install the new replacement pipe. Although Trench 2 was completed in 3m-long segments (due to previously stated constraints), the stratigraphy in each section was generally uniform and is consequently described as a single sequence, with representative sections for both trenches included as Fig. 3.

3.2 Trench 1

3.2.1 The initial trench measured 1.5m north-south and 2m east-west at the surface and had a total depth of 2.5m. This was the only location where the natural geology, a yellowish grey sandy clay was briefly observed at the base of the trench (Fig. 3, S. 1 and Plate 4).

3.2.2 Overlying the natural was a 2m-thick deposit of mixed dark brownish-grey clay (5), the backfill of the original pipe trench. Within this – at a depth of 0.6m – a disused foul sewer pipe was encountered running east-west, 0.2m from the northern limit of excavation. At 0.3m below ground level, a domestic freshwater service was also encountered within this deposit, located in the north-east corner of the trench (Plates 4 and 5).

3.2.3 An unbonded brick surface (3) bedded onto sand (4) overlay backfill deposit (5) and was sealed by a thin levelling deposit (2) of dark ashy material; this was covered by the modern concrete yard (1) (Fig. 3, S.1).

3.2.4 No archaeological features or *in situ* deposits were observed within this trench.

3.3 Trench 2

3.3.1 The subsequent 16m (including the chamber/manhole) of trenching revealed a similar depth of deposits, but a slightly different sequence of stratigraphy (Fig. 3, S. 2). The lowest deposit comprised a light grey silty clay (13) that was at least 0.4m thick, although its full extent was not observed due to the depth of the excavation and the presence of contaminated groundwater associated with the damaged sewer pipe.

3.3.2 Overlying this was a soft mid to dark grey silty clay (12; Plate 6) which yielded several large fragments of Roman ceramic building material, including a partial box flue tile (Appendix B.3; Plate 8), which was scattered through the deposit but was mostly found near the northern end of the trench. A damaged iron object – a probable Late Iron Age to Early Roman trumpet brooch (SF 1) – was also recovered from this layer towards the southern third of the trench (Appendix B.1).

3.3.3 Towards the south, this deposit was covered by a thin layer of pale grey silty sand (11) which produced the majority of a highly decorated German Werra slipware dish

(Appendix B.2; Plate 9), above which was a light greyish brown silty sand (10) which was devoid of finds.

3.3.4 These deposits were sealed by a 0.3m-thick layer of very compacted light 'whitish' grey sandy silt (8; Plate 7) that contained occasional undiagnostic fragments of clay tobacco pipe and crushed construction rubble (not retained). Above this was a 0.8m-thick made ground deposit (7) of dark brownish grey silty clay with modern brick and occasional plastic fragments, similar in character to deposit 5 (pipe trench backfill) in Trench 1.

3.3.5 This made ground was sealed by the same concrete yard (1) that was observed in Trench 1.

3.4 Finds summary

3.4.1 A single iron object (SF 1), possibly an incomplete Late Iron Age to Early Roman trumpet brooch (Appendix B.1), was recovered from context 12. Four fragments of Roman CBM were also recovered from the same context, including box flue tile (Appendix B.3). Layer 11 produced an incomplete, fragmentary, Werra dish of German origin, datable to the mid to late 17th or 18th century (Appendix B.2).

4 DISCUSSION

4.1 Reliability of field investigation

4.1.1 Beyond the upper 0.8m of the trench, no sections were visible as trench supports were necessary due to the depth of excavation, poor ground conditions and proximity of other structures, giving rise to the possibility of subsidence. Despite, this it has been possible to create indicative sections of both Trenches 1 and 2 (Fig. 3) based on measurements taken during excavation works. Consequently, given the constant monitoring of all excavation activities and the secondary inspection of removed spoil, the reliability of the investigation can be viewed as good.

4.2 Watching Brief objectives and results

4.2.1 The monitoring of the works was undertaken to determine if any remains, particularly inhumations, relating to either the original St Botolph's Priory or the later St Botolph's Church were present. No evidence of *in situ* deposits or artefacts relating to St Botolph's were identified. This is possibly due to the difference in height between the graveyard and the excavation area (the latter being *c*.1m lower than the extant graveyard) and the disturbed ground evident within the excavation area.

4.2.2 The presence and condition of Roman CBM within one of the lower layers encountered (in Trench 2) suggests that there are *in situ* deposits within this area, however given the constraints of the work, no associated cut or defined limit to this or related contexts could be identified. It is possible that the CBM relates to the 4th century AD Roman building located just east of St Botolph's Priory (see below).

4.3 Interpretation

4.3.1 Given the lower level of the ground comparative to that of the graveyard to the north and east of the site, and disturbed upper deposits, it seems likely that the area was either substantially reduced in height (if it were integral to the graveyard) or lay wholly outside the graveyard during the period when burials were interred. The presence of pottery (Appendix B.2) dating approximately to the 17th-18th century immediately below the compacted layer (8) and the soft nature of the deposits below this suggest that a significant effort was made to reclaim this area for construction / development at some point in that time period in order to provide a reliable platform onto which No. 3 St Botolph's Church Walk and surrounding structures were constructed. As no building is noted on this site in James Deane's *c*.1748 *Ichnography of Colchester*, this may provide a probable earliest date for this activity.

4.3.2 The disturbed upper deposits match those described in the Colchester Archaeological Trust's reports for work conducted at Nos 33-34 St Botolph's Street (ECC1596, 1988), south-west of the site and No. 31a St Botolph's Street (ECC1612, 1989), south-southwest of the site (Fig. 1). The latter report also notes a 'band of whitish mortar' at a depth of 1m: this is perhaps equivalent to the well compacted light 'whitish' grey deposit (8) encountered at a similar depth in Trench 2.

4.4 Significance

4.4.1 As this excavation took place near the former southern gate of Roman Colchester, outside the town wall, and within sight of a known Late Roman building to the north-east of the site (ECC1003, MCC2538; Fig. 1), it is perhaps not surprising that a small quantity of (redeposited) Romano-British artefacts were recovered. The general paucity of finds and absence of deposits directly related to St Botolph's Priory or church may, at least in part, be due to the extensive disturbance evident across the monitored area.

APPENDIX A DESCRIPTIONS AND CONTEXT INVENTORY

Trench 1						
General description					**Orientation**	n/a
Initial trench					**Length (m)**	2.5m
					Width (m)	2m
					Avg. depth (m)	2.5
Context No.	**Type**	**Width (m)**	**Thickness (m)**	**Description**	**Finds**	**Date**
1	Layer	-	0.2	Concrete	-	-
2	Layer	-	0.15	Made ground – levelling	-	-
3	Layer	-	0.2	Brick Path	-	
4	Layer	-	0.05	Sand bedding for brick path	-	
5	Layer		2.0	Pipe trench back fill – mixed deposit, primarily dark brownish-grey clay with darker patches in places.	Post-med / modern finds including brick, clay tobacco pipe fragments and occasional plastic fragments (not retained)	Modern
6	Layer	-	-	Natural	-	-

Trench 2						
General description					**Orientation**	N-S
Pipe trench and chamber					**Length (m)**	16
					Width (m)	1
					Avg. depth (m)	2.5
Context No.	**Type**	**Width (m)**	**Thickness (m)**	**Description**	**Finds**	**Date**
7	Layer	-	0.8	Made Ground – levelling		
8	Layer	-	0.3	Firmly compacted light whitish-grey silty sand.		
9	VOID	VOID	VOID	VOID	VOID	VOID
10	Layer	-	0.1	Light greyish-brown soft silty sand		
11	Layer	-	0.1	Light grey silty sand 'ashy'	German Werra slipware dish	17th-18th c
12	Layer	-	0.6	Soft mid-dark grey silty clay	Several fragments of Romano British CBM and FE object (brooch)	LIA-Roman
13	Layer	-	0.4+	Light grey silty clay		

APPENDIX B FINDS REPORTS

B.1 Metalwork

By Patrick Lambert

B.1.1 A partial iron object, possibly a trumpet brooch (SF 1), was recovered from a layer (12) that contained later Roman material.

B.1.2 The object is extremely corroded and encrusted and its identification is primarily based on size and remaining form. The bow has a distinctive curve although is distorted and the presumed original trumpet head has also been distorted and is now flat. Nothing remains of either the spring mechanism or pin and the moulding that would be expected around the upper bow is either corroded or missing. There is a prominent foot nob. A similar brooch of this type and in similar condition has been found previously in Colchester (Crummy 1983). A date range of Late Iron Age/1st century AD is commonly attributed to this brooch type but the manufacture of later varieties continued into the 2nd century AD.

B.1.3 The heavily corroded and distorted form of the brooch is strongly suggestive of it being disturbed from elsewhere and redeposited at a much later date.

B.2 Pottery

By Carole Fletcher

Introduction

B.2.1 Archaeological works produced a small assemblage of pottery, six sherds weighing 0.307kg, from a single imported vessel. The condition of the assemblage is unabraded to moderately abraded, and the average sherd weight is high at approximately 51g.

Methodology

B.2.2 The Prehistoric Ceramics Research Group (PCRG), Study Group for Roman Pottery (SGRP), The Medieval Pottery Research Group (MPRG), 2016 *A Standard for Pottery Studies in Archaeology* and the MPRG *A guide to the classification of medieval ceramic forms* (MPRG 1998) act as standards. Rapid recording was carried out using OA East's in-house system, based on that previously used at the Museum of London. Fabric classification has been carried out for all previously described types using Essex fabric types (Cotter 2000), based on those of Cunningham (1985). All sherds have been counted, classified, and weighed on a context-by-context basis and recorded in the text of this report. The pottery and archive are curated by Oxford Archaeology East until formal deposition.

Assemblage and Discussion

B.2.3 The fragmentary vessel (six sherds, 0.307kg) was recovered from a machine excavated deposit (11) exposed within a pipe trench (Trench 2). Several of the sherds have

undergone differential burial conditions, leading to discolouration of some of the refitting sherds, although most of the breaks appear to be old. The vessel is a highly decorated German Werra slipware (Fabric 44B) dish, with internal clear lead glaze that extends over the hammer-headed rim (diameter 260mm, estimated vessel equivalence 40%). The central design of this flared dish is a personified sun (Plate 9), with the face and pointed rays in sgraffito, and green glaze highlights have been added to the sgraffito rays. Other (wavy) rays are present only as slip decoration.

B.2.4 Surrounding the central sun motif/medallion are concentric lines, the middle zone of which is dark brown with arcs (infilled with wavy lines) and foliage with occasional green lines or streaks. Beyond this is are further concentric lines with groups of oblique dashes inside the rim edge, separated by long horizontal lines. Demuth indicates that allegorical depictions of the sun were very common on Werra ware and a similar design to the central image on the Colchester dish was recovered from excavations at Bryggen, Norway (Demuth 2001, 106, fig. 18). The design surrounding the central motif is, with the exception of the long horizontal lines on the rim, almost identical to one described and illustrated by Hurst *et al.*, although on Hurst's vessel the central design is of a Cavalier, dated to 1597 (Hurst *et al* 1986, colour plate XIV, 243). The present vessel is unfortunately undated, although Cotter writes that most examples of Werra (from Colchester) occur in mid to late 17th- and even 18th-century contexts and that they were almost certainly for display, rather than general use, and were likely to have been old when discarded (Cotter 2000, 292).

Retention, dispersal or display

B.2.5 This statement acts as a full record and the pottery should be retained for archival deposition.

B.3 Ceramic Building Material

By Carole Fletcher

Introduction and Methodology

B.3.1 A fragmentary assemblage of ceramic building material (CBM), consisting of four fragments of brick and tile (5.766kg), was recovered from a machine excavated deposit within a pipe trench, all from context 12 (Trench 2). No complete examples were recovered, and abrasion varies from un-abraded to abraded. The material recovered is very probably all Roman.

B.3.2 The assemblage was quantified by context, counted, weighed, and form recorded, where this was identifiable. Fabrics are noted and dating is necessarily broad. Only complete dimensions were recorded. The results are recorded in the text. Archaeological Ceramic Building Materials Group *Ceramic Building Material, Minimum Standards for Recovery, Curation, Analysis and Publication* (2002) forms the basis for recording, and Woodforde (1976) and McComish (2015) form the basis for identification. The CBM and archive are curated by Oxford Archaeology East until formal deposition or dispersal.

Assemblage

B.3.3 The small assemblage of CBM was recovered by machine from various points along the excavated trench (Trench 2), dispersed within context 12. The most obvious of the Roman material recovered is an incomplete box flue tile (2.152kg), consisting of two joining fragments, broken vertically across the combed pattern and through the rectangular cut-outs (Plate 8). The most complete cut out shows the clay was removed while it was almost leather hard, with several attempts made to remove the clay and create the corner of the rectangular or square cut-out, and there is evidence of an over-cut into the wall of the tile at the lower/upper corner of the cut out, which is roughly 70mm high. The box flue tile is wider than it is tall, 200mm high by 250mm wide with a depth in excess of 90mm, the thickness of the clay slab varies from 20-24mm. The surface pattern is vertical combing (7-8 lines) each side and short lengths of diagonal combing (7-8 lines) inside the border, right to left on one side and left to right (depending on the tile's orientation) with a single short length of vertical combing roughly in the centre of the tile. The fabric is hard fired, with fully oxidised orange-red surfaces and margins and a slightly darker core, quartz tempered with occasional calcareous inclusions.

B.3.4 The third piece of CBM is a near-complete *Bessales* (smallest size of Roman brick) measuring 200 x 202mm and 30-38mm thick (1.972kg), with three surviving, somewhat rounded, corners, the fourth is missing, broken in antiquity as the broken edge is somewhat concreted from the burial environment, as are its surfaces and edges. There are slight traces of mortar on the underside. The fabric is hard fired, quartz and mica tempered with rare sub-rounded pebbles up to 10-15mm and fully oxidised, dull red-brown-red.

B.3.5 The final fragment of CBM (1.642kg) has only a single complete measurable dimension, the thickness which is 43-46mm. The sub-rectangular fragment has roughly broken edges and somewhat powdery ?lime mortar on both the upper and lower surface and across several of the broken edges, suggesting reuse. Fully oxidised, the fabric is similar to that of the box flue tile, although the breaks have a far more hackly fracture; the upper surface is well finished, the lower is more rough. This CBM cannot be closely dated, however, it is very probably a fragment of Roman material, its thickness suggests it is not a tegula and is more likely to be from a *Bessales* or a larger brick.

Discussion

B.3.6 The presence of Roman brick and tile within the machine excavated pipe trench is not unexpected, considering the site lies close to numerous Roman remains and that Roman CBM can be found in the fabric of St Botolph's priory itself, which lies very close to the excavated trench. The near-complete *Bessales* may have been used in an underfloor pillar for a hypocaust system, and the box flue tile also indicates a building with an underfloor heating system. However, both examples are redeposited within the trench and, although clearly Roman, indicate little other than that Roman CBM is present. The third fragment cannot be closely dated; however, it is also likely to be Roman.

Retention, dispersal or display

B.3.7 The fragmentary nature of the total assemblage and its recovery from an area where Roman CBM is commonly found means it is of limited interest. This statement acts as a full record, the box-flue tile may be retained if the combing pattern is unusual, and it should be deposited with the museum. If not, it may be retained for educational use. The remainder of the CBM may be deselected prior to archival deposition.

APPENDIX C BIBLIOGRAPHY

Cotter, J. 2000: The post-Roman pottery from excavations in Colchester 1971-85, Colchester Archaeology Report 7

Crummy, N. 1983, 'Colchester Archaeological Report 2: The Roman small finds from excavations in Colchester 1971-9', p. 14, Colchester Archaeological Trust, Colchester

Crummy, P. 1992 St Botolph's Priory in *The Colchester Archaeologist* Issue 5

Cunningham, C. M. 1985 'The pottery', in Cunningham, C. M. and Drury, P. J., Post-medieval sites and their pottery: Moulsham Street, Chelmsford, Chelmsford Archaeological Trust Rep.5, Council for British Archaeology Research Report. 54, 63-78

ECC1003 1991, *Excavation at St Botolph's Priory, Colchester*, Colchester Archaeological Trust: Unpublished

ECC1596 1988, *Watching Brief at 33-34 St Botolph's Street, Colchester*, Colchester Archaeological Trust: Unpublished

ECC1612 1989, *Watching Brief at 31a St Botolph's Street, Colchester*, Colchester Archaeological Trust: Unpublished

Gilmour, N. 2020 *No. 3 St Botolph's Church Walk, Colchester, Essex. Written Scheme of Investigation*. OA East

Hull, M. R., 1958, Roman Colchester Reports of the Research Committee of the Society of Antiquaries of London, no. XX.

Hurst, J. G., Neal, D. S. and Van Beuningen, H. J. E 1986 Pottery Produced and Traded in Europe 1350-1650 Rotterdamxa

Medieval Pottery Research Group 1998 A Guide to the Classification of Medieval Ceramic Forms. Medieval Pottery Research Group Occasional Paper I

PCRG SGRP MPRG, 2016 A Standard for Pottery Studies in Archaeology.

Woodforde, J. 1976 *Bricks to Build A House* London

Electronic sources

ACBMG, 2002. Ceramic Building Material, Minimum Standards for Recovery, Curation, Analysis and Publication. Consulted 15/07/2019 http://www.archaeologicalceramics.com/uploads/1/1/9/3/11935072/ceramic_building_material_guidelines.pdf

McComish, J.M. 2015. A Guide to Ceramic Building Materials. York Archaeological Trust. An Insight Report. Consulted 15/07/2019 https://static1.squarespace.com/static/5c62d8bb809d8e27588adcc0/t/5ce6ad5e9b747a09f79f91d8/1558621555715/A-Guide-To-Ceramic-Building-Materials.pdf

Museum of London Archaeology (MoLA), 2014 Medieval and post-medieval pottery codes https://www.mola.org.uk/sites/default/files/resource-downloads/Medieval%20and%20post-medieval%20pottery%20codes%20in%20Excel_0.xls

https://www.academia.edu/37681358/Weser_and_Werra_Ware_in_Bergen Demuth, V. 2001 An Archaeological Perspective on Aspects of Daily Life in the Town's Early Modern Period in *The Bryggen Papers No7 Ships and Commodities* 69-136

Cartographic sources

Deane, J. 1748 'The Ichnography of Colchester' (Essex Record Office MAP/CM/25/1) http://www.essexrecordofficeblog.co.uk/colchester-then-and-now-the-ichnography-of-colchester/

APPENDIX D SITE SUMMARY DETAILS / OASIS REPORT FORM

Site name: 3 St Botolph's Church Walk, Colchester, Essex
Site code: XEXBOT19
Grid Reference TL 99941 24941
Type: Watching Brief
Date and duration: 08/01/20 -16/03/20 (21 monitoring visits)
Area of Site 1.5m x 2m (initial) 183 sqm (total)
Location of archive: The archive is currently held at OA East, 15 Trafalgar Way, Bar Hill, and will be deposited with Colchester and Ipswich Museums Service in due course, under the following accession number: ECC4420

Summary of Results: Between 8th January – 16th March 2020 Oxford Archaeology (OA) East monitored emergency excavation works for sewer repairs at the rear of 3 St Botolph's Church Walk, Colchester, Essex. The works were located within the scheduled monument of St Botolph's priory (located to the east) and north-west of the later St Botolph's church, the cemetery wall of which forms the northern boundary of the site. Although the site was positioned outside the Roman wall, evidence of a Late Roman building had previously been identified to the north-east, close to the priory church.

Disturbed deposits were revealed in the upper levels of the trenching, notably in the northern part of the site, with contamination and water ingress associated with the damaged sewer pipe being a factor throughout. Trenching for a new pipe to the south revealed a number of earlier deposits, some of which yielded Roman ceramic building material, a possible iron trumpet brooch and fragments of a highly decorated German Werra slipware dish of post-medieval date.

Project Details

OASIS Number	oxfordar3-395049
Project Name	3 St Botolph's Church Walk, Colchester, Essex

Start of Fieldwork	08/01/20	End of Fieldwork	16/03/20
Previous Work	n/a	Future Work	n/a

Project Reference Codes

Site Code	XEXBOT19	Planning App. No.	n/a
HER Number	ECC4420	Related Numbers	n/a

Prompt	Water Act 1989
Development Type	Pipeline
Place in Planning Process	Not known/Not recorded

Techniques used (tick all that apply)

☐ Aerial Photography – interpretation	☐ Grab-sampling	☐ Remote Operated Vehicle Survey
☐ Aerial Photography - new	☐ Gravity-core	☐ Sample Trenches

☐	Annotated Sketch	☐	Laser Scanning	☐	Survey/Recording of Fabric/Structure
☐	Augering	☐	Measured Survey	☐	Targeted Trenches
☐	Dendrochonological Survey	☐	Metal Detectors	☐	Test Pits
☐	Documentary Search	☐	Phosphate Survey	☐	Topographic Survey
☐	Environmental Sampling	☐	Photogrammetric Survey	☐	Vibro-core
☐	Fieldwalking	☐	Photographic Survey	☐	Visual Inspection (Initial Site Visit)
☐	Geophysical Survey	☐	Rectified Photography	☒	Watching Brief

Monument	Period
Layer	Roman (43 to 410)
Layer	Post Medieval (1540 to 1901)
	Choose an item.

Object	Period
CBM	Roman (43 to 410)
pottery	Post Medieval (1540 to 1901)
	Choose an item.

Insert more lines as appropriate.

Project Location

County	Essex
District	Colchester
Parish	Colchester
HER office	Colchester
Size of Study Area	183 sqm
National Grid Ref	TL 99941 24941

Address (including Postcode)

3 St Botolph's Church Walk
St Botolph's Street
Colchester
CO2 7EE

Project Originators

Organisation	OA East
Project Brief Originator	n/a
Project Design Originator	OA East
Project Manager	Nicholas Gilmour
Project Supervisor	Tim Lewis

Project Archives

	Location	ID
Physical Archive (Finds)	OA East	ECC4420
Digital Archive	OA East	XEXBOT19
Paper Archive	Colchester Museum	ECC4420

Physical Contents	Present?	Digital files associated with Finds	Paperwork associated with Finds
Animal Bones	☐	☐	☐
Ceramics	☒	☒	☐
Environmental	☐	☐	☐
Glass	☐	☐	☐
Human Remains	☐	☐	☐
Industrial	☐	☐	☐
Leather	☐	☐	☐
Metal	☐	☐	☐
Stratigraphic		☐	☐
Survey		☐	☐

Textiles	☐	☐	☐
Wood	☐	☐	☐
Worked Bone	☐	☐	☐
Worked Stone/Lithic	☐	☐	☐
None	☐	☒	☒
Other	☐	☐	☐

Digital Media

Database	☐
GIS	☐
Geophysics	☐
Images (Digital photos)	☒
Illustrations (Figures/Plates)	☒
Moving Image	☐
Spreadsheets	☐
Survey	☐
Text	☒
Virtual Reality	☐

Paper Media

Aerial Photos	☐
Context Sheets	☐
Correspondence	☐
Diary	☐
Drawing	☒
Manuscript	☐
Map	☒
Matrices	☐
Microfiche	☐
Miscellaneous	☐
Research/Notes	☐
Photos (negatives/prints/slides)	☐
Plans	☐
Report	☒
Sections	☒
Survey	☐

Further Comments

APPENDIX E WRITTEN SCHEME OF INVESTIGATION

Church Walk, Colchester

Written Scheme of Investigation

Client: Client Name Here

Prepared by	Nick Gilmour
Date prepared	3rd January 2020
Version	1
Planning application no.	n/a (emergency sewer repair)
Site code	XEXBOT19
Project number	2403
Project type	Archaeological Monitoring
NGR	TL 99941 24941
Event number	TBC

oxfordarchaeology
easteasteast

CONTENTS

1 GENERAL BACKGROUND

1.1.1 This WSI conforms to the principles identified in Historic England's guidance documents *Management of Research Projects in the Historic Environment (MoRPHE)*, specifically the MoRPHE *Project Manager's Guide* (2015) and *Project Planning Note 3: Archaeological Excavation.*

1.1.2 All work will be conducted in accordance with the Chartered Institute for Archaeologists *Code of Conduct* and Standard and guidance for an archaeological watching brief (2014)

1.1.3 This document represents a Written Scheme of Investigation (WSI) for the archaeological monitoring only. This document alone will not result in the discharge of any archaeological condition.

1.1.4 This WSI also incorporates the requirements of the EAA Standards for Field Archaeology in the East of England (Gurney 2003).

1.2 Circumstances of the project

1.2.1 A sewer pipe which passes under 3 Church Walk, Colchester, has become blocked and is broken. This pipe requires urgent replacement to avoid potential damage to surrounding buildings and adverse environmental impacts.

1.2.2 The area of the pipe is within the Scheduled Monument of St. Botolph's Augustinian Priory. There is, therefore, high potential for significant archaeology to be present. The most likely archaeology to be present is related to the Priory, which was founded between 1093 and 1100 and continued until as a religious house until it was dissolved in 1536. Part of the Priory church remained in use as a parish church until 1648, which it was largely destroyed by cannon fire during the Civil War siege of Colchester. There is also potential for Roman archaeology to be present.

1.2.3 Any ground disturbance as part of the works have the potential to destroy archaeological deposits that may be present. Therefore, archaeological monitoring will be carried out to avoid this where possible, and to record any archaeological deposits that are impacted.

1.2.4 Scheduled monument consent has been obtained for the works to take place.

1.2.5 This Written Scheme of Investigation (WSI) has been prepared on behalf of the Client in response to an Archaeological Brief for Investigation issued by the Archaeological Advisor to Colchester Borough Council.

1.3 The proposed archaeological strategy

1.3.1 It is proposed to carry out archaeological monitoring of all groundworks. Where health and safety considerations allow, this will include excavations of archaeological deposits encountered.

1.3.2 All groundworks below modern layers (i.e tarmac, concrete etc.) will be monitored by an archaeologist. Where possible archaeological features will be excavated by hand and fully recorded. However, archaeologists will not work within deep excavations, or in areas where confined space training is required.

1.3.3 If in situ burials are observed, the excavation will not be extended to recover these remains in their entirety.

1.3.4 Details of the proposed construction methodologies are set out in the design report appended to the end of this document.

1.4 Changes to this method statement

1.4.1 If changes need to be made to the methods outlined below – either before or during works on site – the County Archaeologist will be informed and asked to consider changes before they are made. Changes will be agreed in before work on site commences, or else at the earliest available opportunity.

1.5 Liaison with the Archaeological Planning Advisor

1.5.1 The Archaeological Advisor will be kept informed during the site work and following report writing.

2 THE GEOLOGY, TOPOGRAPHY AND OTHER FEATURES OF THE SITE

2.1.1 The bedrock geology of the site is the Thames Group – clay silt and sand. This is overlain in places by superficial deposits of sand and gravel (of the Kesgrave Catchment Subgroup) (British Geological Survey 2014, (British Geological Survey online map viewer http://www.bgs.ac.uk/discoveringGeology/geologyOfBritain/viewer.html). (January 2020)

2.1.2 The site is located at an elevation of 16m OD. It is within the area of a scheduled monument (SM 26301), which is the Augustinian Priory of St Botolph.

2.1.3 The area where works will take place is currently occupied by buildings, a surfaced road and other hard surfaced areas. It is possible that the construction of the current buildings on the site and the laying of original (now broken) sewer pipe, have damaged any archaeological remains that were present.

3 ARCHAEOLOGICAL BACKGROUND

3.1.1 The works will take place within the scheduled monument of St Botolph's Augustinian Priory. This Priory was established between AD 1093 and 1100 and was one of the first in England to adopt Augustinian rule. It continued until it was dissolved in AD 1536. It is possible that remains of the priory buildings could be located in the area where the works are to take place.

3.1.2 The works will be located to the south-west of the Priory Church, which survives as a ruin (since it was bombarded during the siege of Colchester in 1648). It is of note that burials were most commonly placed to the west and south of a church during the medieval period in England and thus burials may well be present in this area.

3.1.3 Colchester was the Roman city of *Camulodunum*, the capital of the Roman province of Britain. As such extensive Roman remains are present across much of the current town. As such, it is possible that Roman archaeological remains survive in the area of the current works.

4 AIMS AND OBJECTIVES

4.1 Aims of the Watching Brief

4.1.1 This watching brief will investigate and record archaeological features or deposits encountered during ground works.

4.1.2 Metal detecting will also be undertaken of both the excavated areas and spoil heaps to aid recovery of metal objects.

4.2 Research frameworks

4.2.1 This watching brief takes place within, and will contribute to the goals of Regional Research Frameworks relevant to this area:

- Glazebrook J. (1997). *Research and Archaeology: A Framework for the Eastern counties: 1. Resource Assessment*. East Anglian Archaeology Occasional Papers 3.
- Brown, N. & Glazebrook, J. (2000). *Research and Archaeology: A Framework for the Eastern counties: 2. Research Agenda and Strategy.* East Anglian Archaeology Occasional Papers 8.
- Medlycott, M. (2011). *Research and Archaeology Revisited: A Revised Framework for the East of England*. East Anglian Archaeology Occasional Papers 24.

5 METHODS

5.1 Background research

5.1.1 A suitable level of background research will be undertaken before work on site commences. This research will draw on information in the County Historic Environment Record and County Records Office, and will include historical sources, previous archaeological finds, and past archaeological investigations in the vicinity. The results will not be presented separately, but will be incorporated into the final report.

5.2 Event number and site code

5.2.1 Before work commences on site:

- an event number will be obtained from county HER
- an OASIS reference number established for the project, and
- a unique site code assigned to the project (XEXBOT19).

5.3 Watching Brief

Excavation standards

5.3.1 The proposed archaeological excavation and analysis will be conducted in accordance with current best archaeological practice and the appropriate national and regional standards and guidelines.

5.3.2 All work will be conducted in accordance with the Chartered Institute for Archaeologists' *Code of Conduct* and *Standard and Guidance for Archaeological Watching Briefs*.

5.3.3 All fieldwork will be undertaken in accordance with the requirements of the OA Field Manual (ed. D Wilkinson 1992), and the revised OA fieldwork manual (publication forthcoming). Further guidance is provided to all excavators in the form of the OA *Fieldwork Crib Sheets – a companion guide to the Fieldwork Manual.* These have been issued ahead of formal publication of the revised Fieldwork Manual.

Watching Brief procedures

5.3.4 The Watching Brief will be conducted during machine works by the Client.

5.3.5 All machine excavation will take place under the supervision of a suitably qualified and experienced archaeologist.

5.3.6 Topsoil will be stripped to the depth required for the construction works, or to the upper interface of archaeological features or deposits, whichever is encountered first. A toothless ditching bucket will be used to excavate the trenches. Overburden will be excavated in spits not greater than 0.1m thick.

5.3.7 The top of the first archaeological deposit will be cleared by machine, then cleaned off by hand. Exposed surfaces will be cleaned by trowel and hoe as necessary, in order to clarify located features and deposits.

5.3.8 All features will be investigated and recorded to provide an accurate evaluation of archaeological potential, whilst at the same time minimising disturbance to archaeological structures, features, and deposits. All relationships between features or deposits will be investigated and recorded. Any natural subsoil surface revealed will be hand cleaned and examined for archaeological deposits and artefacts.

5.4 Recording of archaeological deposits and features

5.4.1 Records will comprise survey, drawn, written, and photographic data.

Survey

5.4.2 Surveying will be done using a survey-grade differential GPS (Leica CS10/GS08 or Leica 1200) fitted with "smartnet" technology with an accuracy of 5mm horizontal and 10mm vertical.

5.4.3 The site grid will be accurately tied into the Ordnance Survey National Grid and located on the 1:2500 or 1:1250 map of the area. Elevations will be levelled to the Ordnance Datum.

Written records

5.4.4 A register of all trenches, features, photographs, survey levels, small finds, and human remains will be kept.

5.4.5 All features, layers and deposits will be issued with unique context numbers. Each feature will be individually documented on context sheets, and hand-drawn in section and plan. Written descriptions will be recorded on pro-forma sheets comprising factual data and interpretative elements.

5.4.6 Where stratified deposits are encountered, a Harris Matrix will be compiled during the course of the excavation.

Plans and sections

5.4.7 Site plans will normally be drawn at 1:50, but on deeply-stratified sites a scale of 1:20 will be used. Detailed plans of individual features or groups will be at an appropriate scale (1:10 or 1:20).

5.4.8 Long sections showing layers will be drawn at 1:50. Sections of features or short lengths of trenches will be drawn at 1:20. All section levels will be tied in to Ordnance Datum.

5.4.9 All site drawings will include the following information: site name, site code, scale, plan or section number, relevant context or feature numbers, orientation, date and the name or initials of the archaeologist who prepared the drawing.

Photogrammetric recording

5.4.10 Plans and sections may be supplemented with photogrammetric recording of the excavation areas. Photogrammetric models will be based on high-resolution digital photographs with a minimum file size of 5 MB. Photogrammetric processing will be conducted using the Agisoft Photosoft

(Professional Edition) software, and will incorporate reference points taken by GPS-based survey equipment.

Photographs

5.4.11 The photographic record will comprise high resolution digital photographs.

5.4.12 Photographs will include both general site shots and photographs of specific features. Every feature will be photographed at least once. Photographs will include a scale, north arrow, site code, and feature number (where relevant), unless they are to be used in publications. The photograph register will record these details, and photograph numbers will be listed on corresponding context sheets.

5.5 Exceptional remains, including human remains

Significant archaeological features

5.5.1 If exceptional or unexpected features are uncovered, the Colchester Borough Council Archaeology Advisor and Historic England will be informed, and their advice sought on further excavation or preservation.

5.5.2 Where possible, significant archaeological features (e.g. solid or bonded structural remains, building slots or post-holes) will be preserved intact, even if fills are sampled.

5.5.3 If preservation *in situ* is require, all exposed surfaces will be cleaned and prepared for reburial beneath construction materials. If appropriate, the areas will be protected with geotextile or other buffering materials.

Human remains

5.5.4 If human remains are encountered, the Client, historic England, and the Colchester Borough Council Archaeological Advisor will be informed immediately.

5.5.5 Unless directed otherwise by Colchester Borough Council Archaeological Advisor or Historic England, human remains within the disturbed area will be hand excavated, recorded and removed. The excavation will not be extended to recover the entire extent of any individual burial.

5.5.6 Human remains will be excavated in accordance with all appropriate legislation and Environmental Health regulations. Excavation will only take place after Oxford Archaeology has obtained a Ministry of Justice exhumation licence.

5.6 Metal detecting and the Treasure Act

5.6.1 Metal detector searches will take place at all stages of the excavation by an experienced metal detector user. Excavated areas will be detected immediately before and after mechanical stripping. Both excavated areas and spoil heaps will be checked. To prevent losses from night-hawking, features will be metal detected immediately after stripping.

5.6.2 Metal detectors will not be set to discriminate against iron.

5.6.3 Artefacts will be removed and given a small find number. Labels will be placed on the location of each 'small find' and surveyed in with a GPS.

5.6.4 If finds are made that might constitute 'Treasure' under the definition of the Treasure Act (1996), they will, if possible, be excavated and removed to a safe place. Should it not be possible to remove the finds on the day they are found, suitable security will be arranged. Finds that are 'Treasure' will be reported to the landowner and County Coroner within 14 days, in accordance with the Act. The County Finds Liaison Officer from the Portable Antiquities Scheme will also be informed.

5.7 Post-excavation processing

5.7.1 Processing will take place in tandem with excavation, and advice will be sought from relevant specialists on key artefact types. The Project Manager and fieldwork project officer will be given feedback to enable them to develop excavation strategies during fieldwork.

5.7.2 Any finds requiring specialist treatment and conservation will be sent for appropriate treatment.

5.7.3 Finds will be marked with context numbers, site code or accession number, as detailed in the requirements of the County Store.

5.8 Finds recovery and processing

Standards for finds handling

5.8.1 Finds will be exposed, lifted, cleaned, conserved, marked, bagged, and boxed in line with the standards in:

- United Kingdom Institute for Conservators (2012) *Conservation Guidelines No. 2*
- Watkinson & Neal (1988) *First Aid for Finds*
- Chartered Institute for Archaeologists (2014) *Standard and Guidance for the Collection, Documentation, Conservation and Research of* Archaeological Materials
- English Heritage (1995) *A Strategy for the Care and Investigation of Finds.*

5.8.2 Where finds require conservation, this will be done in accordance with the guidelines of the Institute for Conservation (ICON),

Procedures for finds handling

5.8.3 At the start of work, a finds supervisor will be appointed to oversee the collection, processing, cataloguing, and specialist advice on all artefacts collected.

5.8.4 Artefacts will be collected by hand, sieving, and metal detector. Excavation areas and spoil will be scanned visually and with a metal detector to aid recovery of artefacts. All finds will be bagged and labelled according to the individual deposit from which they were recovered, ready for later cleaning and analysis. 'Special/small finds' may be located more accurately by GPS if appropriate.

5.8.5 Processing will take place in tandem with excavation, and advice will be sought from relevant specialists on key artefact types. (See the Appendix for a list of specialists.)

5.8.6 All artefacts recovered from excavated features will be retained for post-excavation processing and assessment, except:

- those which are obviously modern in date
- where very large volumes are recovered (typically ceramic building material)
- where directed to discard on site by the County Archaeologist.

5.8.7 Where artefacts are not removed from site, a strategy will be employed to ensure a sufficient sample is retained, in order to characterise the date and function of the features they were excavated from. A record will be kept of the quantity and nature of artefacts which are not removed from site.

5.9 Sampling for environmental remains and small artefact retrieval

Standard methodology – summary

5.9.1 Sampling methods will follow guidelines produced by Historic England and Oxford Archaeology. The project team will consult Historic England's Scientific Advisor on environmental sampling and dating where necessary. Where possible an environmental specialist(s) will visit the site to advise on sampling strategies which will be reviewed periodically during the length of the excavation.

Standards for environmental sampling and processing

Paleoenvironmental remains will be sampled and processed in accordance to the OA Sampling Policy (2005) with reference to the relevant guidelines produced by Historic England:

- Oxford Archaeology 2005. *Environmental Sampling Guidelines*, 2nd ed.
- Historic England 2011. *Environmental Archaeology. A guide to the theory and practice of methods, from sampling and recovery to post excavation*, (2nd ed)
- Historic England 2008. *Guidelines for the Curation of Waterlogged Macroscopic Plant and Invertebrate Remains*.
- Historic England 2010. *Waterlogged Wood: Guidelines on the recording, sampling, conservation and curation of waterlogged wood*.
- Historic England 2012. *Waterlogged organic artefacts. Guidelines on their recovery, analysis and conservation*.
- Historic England 2008. *Investigative conservation. Guidance on how detailed examination of artefacts from archaeological sites can shed light on their manufacture and use.*
- Historic England 2014. *Animal Bones and Archaeology. Guidelines for Best Practice*.
- Historic England 2004. *Dendrochronology: Guidelines on Producing and Interpreting Dendrochronological Dates*.
- Historic England 2006. *Archaeomagnetic Dating. Guidelines for Producing and Interpreting Archaeomagnetic Dates*.

- Historic England 2008. *Luminescence Dating. Guidelines on Using Luminescence Dating in Archaeology*.
- Historic England 2015. *Archaeometallurgy. Guidelines for Best Practice.*
- Historic England 2015 *Geoarchaeology. Using Earth Sciences to Understand the Archaeological Record*.

Procedures for sampling and processing

5.9.2 Where possible, environmental samples (up to 40 litres or 100% of context if less is available) will be taken from a range of potentially datable features and well-stratified deposits to target the recovery of plant remains, fish, bird, small mammal and amphibian bone and small artefacts. Samples will be labelled with the site code, context number, and sample number and a register will be kept.

5.9.3 Larger soil samples (up to 100L) may be taken for the complete recovery of animal bones, marine shell and small artefacts from appropriate contexts. Smaller bulk samples (general biological samples) of 20 litres will be taken from any waterlogged deposits present for the recovery of macroscopic plant remains and insects. Series of incremental 2L samples may be taken through buried soils and deep feature fills for the recovery of snails and/or waterlogged plant remains, depending on the nature of the stratigraphy and of the soils and sediments.

5.9.4 Typically, 20 litres of each bulk sample will be processed standard water flotation using a modified Siraf-style machine and meshes of 0.3mm (flot) and 0.5 or 1mm depending on sediment type and like modes of preservation (residue). The remaining soil from a sample will be subsequently processed if appropriate based on the results of an initial assessment. Normally, early prehistoric samples will be fully processed and samples containing human remains will always be fully processed. Heavy residues will be wet sieved, air dried and selectively sorted. Samples taken exclusively for the recovery of bones, marine shell or artefacts will be wet sieved to 2mm. Waterlogged samples will have a sub-sample (approximately 10L) processed as above and the flot will assessed whilst wet and again once dried. Snail samples (2L) will be processed by hand flotation with flots and residues collected to 0.5mm; these flots and residues will be sorted by the specialist.

5.9.5 Where practical, waterlogged wood specimens will be recorded in detail on site, in situ. When removed, they will be cleaned and photographed, and stored in wet cool conditions for assessment by a suitably qualified specialist (see the Appendix).

6 REPORTING

6.1 Evaluation Report

6.1.1 Post-excavation analysis and reporting will follow guidance in Historic England's *Management of Research Projects in the Historic Environment* (2006, reissued 2015).

6.2 Contents of the evaluation report

6.2.1 The report will include:

- a title page detailing site address, site code and accession number, NGR, author/originating body, client's name and address
- full list of contents
- a non-technical summary of the findings and appropriate acknowledgements
- the aims of the work
- a description of the geology and topography of the area
- a description of the methodologies used
- a description of the findings
- tables summarising features and artefacts
- site and trench location plans, and plans of each area excavated showing the archaeological features found
- sections of excavated features
- interpretation of the archaeological features found
- relevant colour photographs of features and the site
- a bibliography of all reference material
- A copy of the approved WSI
- the OASIS reference and summary form.

6.3 Draft and final reports

6.3.1 A draft copy of the report will be supplied to the Colchester Borough Council Archaeological Advisor for comment.

6.3.2 Following approval of the report, one printed copy and one digital copy (PDF) will be presented to the Colchester Borough Council Archaeological Advisor. We will also supply an HER summary sheet in digital form to the Colchester Borough Council Archaeological Advisor with the final report.

6.4 Digital Data

6.4.1 Where appropriate, a digital vector plan will be submitted with the report. The data will be compatible with MapInfo GIS to enable integration into the County HER. Relevant AutoCad files associated with the project will be saved a .dxf files suitable for integration with MapInfo. Digital data will include all data captured by OA East, but will not include OS copyright data.

6.5 OASIS

6.5.1 A digital copy of the approved report will be uploaded to the OASIS database.

6.5.2 A copy of the OASIS Data Collection Form will be included in the report.

7 ARCHIVING

Archive standards

7.1.1 The site archive will conform to the requirements Appendix 1 of the Historic England's (2015) *Management of Research Projects in the Historic Environment* (MoRPHE), and the requirements of the Colchester and Ipswitch Museum Service.

7.1.2 The preparation of the archive will follow the guidelines contained in *Guidelines for the Preparation of Excavation Archives for Long Term Storage* (United Kingdom Institute for Conservation, 1990), *Standards in the Museum care of Archaeological Collections* (Museums and Galleries Commission 1992), and *Archaeological Archives: A guide to best practice in creation, compilation, transfer and curation (*Brown 2007*).*

Archive contents

7.1.3 The archive will be quantified, ordered, and indexed. It will include:

- artefacts
- ecofacts
- project documentation – including plans, section drawings, context sheets, registers, and specialist reports
- photographs (digital photographs will be stored on CD-ROM, and colour printouts made of key features)
- an archive-standard CD-ROM with electronic documentation (such as GIS and CAD files)
- a printed copy of the Written Brief
- a printed copy of the WSI
- a printed copy of the final report
- a printed copy of the OASIS form.

7.1.4 It is Oxford Archaeology Ltd's policy, in line with accepted practice, to keep site archives (paper and artefactual) together wherever possible.

7.1.5 A digital security copy of all documentary parts of the archive will also be made and retained by Oxford Archaeology.

Transfer of ownership

7.1.6 The archaeological material and paper archive produced from this investigation will be held in storage by OA East who will seek to transfer the complete project archive to the Colchester and Ipswich Museums Service, in order to facilitate future study and ensure long-term public access to the archive. To do so will require a transfer of title to the repository.

7.1.7 Where the landowner wishes to retain items recovered during excavation, all selected artefacts will be fully drawn and photographed, identified, analysed, documented and conserved in order to create a comprehensive catalogue of items to be kept by the landowner before the remainder of the archive can be deposited in the County Store.

7.1.8 A written transfer of ownership document will be forwarded to the Colchester Borough Council Archaeological Advisor before the archive is deposited.

7.1.9 In the unlikely event that artefacts of significant monetary value are discovered, and if they are not subject to Treasure Act legislation, separate ownership arrangements may be negotiated following the creation of a comprehensive illustrated catalogue, as described above.

8 TIMETABLE

8.1.1 If the “pipe bursting” option is successful, then it is expected that archaeological monitoring of the works will be required for approximately two days. However, if this is not susessful, then monitoring could be required for up to two working weeks.

8.1.2 Post-excavation processing and assessment tasks will commence shortly after excavation commences, to inform the excavation strategy, and minimise time required to prepare the final report after excavation is completed.

8.1.3 Post-excavation tasks and report writing will take a maximum of four weeks following the end of fieldwork, unless there are exceptional discoveries requiring lengthier analysis.

9 STAFFING AND SUPPORT

9.1 Fieldwork

9.1.1 The fieldwork team will be made up of the following staff:

- 1 x Project Manager (supervisory only, not based on site)
- 1 x Project Officer/Supervisor (full-time)
- 1 x Archaeological Surveyor (as required)
- 1 x Finds Assistant (part-time, as required)
- 1 x Environmental Assistant (part-time, as required)

9.1.2 The Project Manager will be Nick Gilmour and the work on site will be conducted by one of OAE's experience field staff.

9.1.3 All Site Assistants will be drawn from a pool of qualified and experienced staff. Oxford Archaeology East will not employ volunteer, amateur, or student staff, whether paid or unpaid, except as an addition to the team stated above.

9.2 Post-excavation processing

9.2.1 We anticipate that the site may produce later prehistoric to medieval remains, with medieval and Roman remains the most likely. Environmental remains may also be sampled.

9.2.2 Pottery will be assessed by Matt Brudenell (prehistoric), Alice Lyons (Roman) and Carole Fletcher (Anglo-Saxon and medieval).

9.2.3 Environmental analysis will be carried out by OA East staff, in consultation with the OA Environmental Department in Oxford. The results will be reported to Historic England's Regional Scientific Advisor. Environmental analysis will be undertaken by Rachel Fosberry (charred plant macrofossils, plant macrofossils), Liz Stafford (land molluscs), and Denise Druce and Mairead Rutherford (pollen analysis).

9.2.4 Faunal remains will be examined by Hayley Foster.

9.2.5 Conservation will be undertaken by Ipswich and Colchester Museums / Karen Barker (Antiquities Conservator), and will be undertaken in accordance with guidelines issued by the Institute for Conservation (ICON).

9.2.6 In the event that OA's in-house specialists are unable to undertake the work within the time constraints of the project, or if other remains are found, specialists from the list in the Appendix will be approached to carry out analysis.

10 OTHER MATTERS

10.1 Monitoring

10.1.1 The Colchester Borough Council Archaeological Advisor will be informed appropriately of dates and arrangements to allow for adequate monitoring of the works.

10.1.2 During the excavation, representatives of the client, Oxford Archaeology East and the Colchester Borough Council Archaeological Advisor may meet on site to monitor the excavations, discuss progress and findings to date, and excavation strategies to be followed.

10.2 Insurance

10.2.1 Oxford Archaeology is covered by Public and Employer's Liability Insurance. The underwriting company is CNA / Hardy, policy number 10347803. Details of the policy can be supplied on request to the Oxford Archaeology (East) office.

10.3 Chartered Institute for Archaeologists

10.3.1 Oxford Archaeology is a Registered Organisation with the Chartered Institute for Archaeologists (CIfA), and is bound by CIfA By-Laws, Standards, and Policy.

10.4 Services, Public Rights of Way, Tree Preservation Orders etc.

10.4.1 The client will inform the project manager of any live or disused cables, gas pipes, water pipes or other services that may be affected by the proposed excavations before the commencement of fieldwork. Hidden cables/services should be clearly identified and marked where necessary. If there are overhead cables on the site or in the approachways, a survey must be completed by the relevant authority before plant is taken onto site.

10.4.2 The client will likewise inform the project manager of any public rights of way or permissive paths on or near the land which might affect or be affected by the work.

10.4.3 The client will inform the Project Manager if the site is a Scheduled Ancient Monument, Site of Special Scientific Interest (SSSI), or any other type of designated site. The client will also inform the project manager of any trees subject to Tree Preservation Orders, protected hedgerows, protected wildlife, nesting birds, or areas of ecological significance within the site or on its boundaries.

10.5 Site Security

10.5.1 Unless previously agreed with the Project Manager in writing, this specification and any associated statement of costs is based on the assumption that the site will be sufficiently secure for archaeological work to

commence. All security requirements, including fencing, padlocks for gates etc. are the responsibility of the client.

10.6 Access

10.6.1 The client will secure access to the site for archaeological personnel and plant. Any costs incurred to secure access, or incurred as a result of withholding of access will not be Oxford Archaeology's responsibility. The costs of any delays as a result of withheld access will be passed on to the client in addition to the project costs already specified.

10.7 Site Preparation

10.7.1 The client is responsible for clearing the site and preparing it so as to allow archaeological work to take place without further preparatory works, and any cost statement accompanying or associated with this specification is offered on this basis. Unless previously agreed in writing, the costs of any preparatory work required, including tree felling and removal, scrub or undergrowth clearance, removal of concrete or hard standing, demolition of buildings or sheds, or removal of excessive overburden, refuse or dumped material, will be charged to the client, in addition to any costs for archaeological evaluation already agreed.

10.8 Site offices and welfare

10.8.1 All site facilities – including welfare facilities, tool stores, mess huts, and site offices – will be positioned to minimise disruption to other site users, and to minimise impact on the environment (including buried archaeology).

10.9 Health and Safety, Risk Assessments

10.9.1 A risk assessment and method statement (RAMS) covering all activities to be carried out during the lifetime of the project will be prepared before work commences.

10.9.2 The risk assessment will conform to the requirements of health and safety legislation and regulations, and will draw on OA East's activity-specific risk assessment literature.

10.9.3 All aspects of the project, both in the field and in the office will be conducted according to OA East's Health and Safety Policy, Oxford Archaeology Ltd's Health and Safety Policy, and Health and Safety in Field Archaeology (J.L. Allen and A. St John-Holt, 1997). A copy of OA East's Health and Safety Policy can be supplied on request.

11 APPENDIX: CONSULTANT SPECIALISTS

NAME	SPECIALISM	ORGANISATION
Allen, Leigh	Worked bone, CBM, medieval metalwork	Oxford Archaeology
Allen, Martin	Medieval coins	Fitzwilliam Museum
Allen, Martyn	Zooarchaeology	Oxford Archaeology
Anderson, Katie	Roman pottery	Freelance
Anderson, Sue	Medieval & post-medieval pottery (specifically from Norfolk & Suffolk), CBM and human remains	Freelance
Bamforth, Mike	Woodworking	York University
Barker, Karen	Small find conservation & X-Ray	Freelance
Bayliss, Alex	C14 advice	Historic England
Biddulph, Edward	Roman pottery	Oxford Archaeology
Billington, Lawrence	Lithics	Oxford Archaeology
Bishop, Barry	Lithics	Freelance
Blinkhorn, Paul	Iron Age, Anglo-Saxon and medieval pottery	Freelance
Booth, Paul	Roman pottery and coins	Oxford Archaeology
Boreham, Steve	Pollen and soils/ geology	Cambridge University
Broderick, Lee	Zooarchaeology	Oxford Archaeology
Brown, Lisa	Prehistoric pottery	Oxford Archaeology
Brudenell, Matt	Prehistoric pottery	Oxford Archaeology
Cane, Jon	Display & reconstruction artist	Freelance
Champness, Carl	Molluscs, geoarchaeology	Oxford Archaeology
Cotter, John	Medieval/post-medieval finds, pottery, CBM	Oxford Archaeology
Crummy, Nina	Small finds	Freelance
Cowgill, Jane	Slag/metalworking residues	Freelance
Dickson, Anthony	Worked Flint	Oxford Archaeology
Dodwell, Natasha	Osteology, including cremations	Oxford Archaeologist
Donelly, Mike	Lithics	Oxford Archaeology
Doonan, Roger	Slags, metallurgy	Freelance
Druce, Denise	Pollen, charred plants, charcoal/wood identification, sediment coring and interpretation	Oxford Archaeology
Drury, Paul	CBM (specialised)	Freelance
Fletcher, Carole	Medieval & post-medieval pottery, glass, shell & small finds	Oxford Archaeology
Fosberry, Rachel	Charred waterlogged and mineralised plant remains	Oxford Archaeology
Foster, Hayley	Zooarchaeologist	Oxford Archaeology
Fryer, Val	Molluscs/environmental	Freelance
Mark Gibson	Osteology	Oxford Archaeology

NAME	SPECIALISM	ORGANISATION
Gleed-Owen, Chris	Herpetologist (amphibians & reptiles)	CGO Ecology Ltd
Goffin, Richenda	Post-Roman pottery, building materials, painted wall plaster	Suffolk CC
Howard-Davis, Chris	Small finds, Mesolithic flint, leather, wooden objects and wood technology	Freelance
Locker, Alison	Fish bone	Freelance
Loe, Louise	Osteology	Oxford Archaeology
Lyons, Alice	Late Iron Age/Roman pottery	Oxford Archaeology
Martin, Toby	Anglo-Saxon metalwork and artefacts	Oxford University
Masters, Pete	Geophysics	Cranfield University
McIntyre, Lauren	Osteology	Oxford Archaeology
Middleton, Paul	Phosphates/garden history	Peterborough Regional College
Mould, Quita	Ironwork, leather	freelance
Nicholson, Rebecca	Fish and small mammal and bird bones, shell	Oxford Archaeology
Palmer, Rog	Aerial photographs	Air Photo Services
Percival, Sarah	Prehistoric pottery, quern stones	Freelance
Poole, Cynthia	Multi-period finds, CBM, fired clay	Oxford Archaeology
Popescu, Adrian	Roman and later coins	Fitzwilliam Museum
Quinn, Patrick	Pottery thin section, ceramic petrology	UCL
Riddler, Ian	Worked bone objects & related artefact types	Freelance
Robinson, Mark	Insects	Oxford University
Rowland, Steve	Zooarchaeology & osteology	Oxford Archaeology
Rutherford, Mairead	Pollen, diatoms, *etc*	Oxford Archaeology
Samuels, Mark	Architectural stonework	Freelance
Scott, Ian	Roman, medieval, post-medieval finds, metalwork, glass	Oxford Archaeology
Shaffrey, Ruth	Worked stone and Roman CBM	Oxford Archaeology
Smith, David	Insects	University of Birmingham
Smith, Ian	Zooarchaeology	Oxford Archaeology
Spoerry, Paul	Medieval pottery	Oxford Archaeology
Stafford, Liz	Molluscs and geoarchaeology	Oxford Archaeology
Timberlake, Simon	Archaeometallurgy & geoarchaeology	Freelance
Tyers, Ian	Dendrochronology	Sheffield University
Ui Choileain, Zoe	Osteology & zooarchaeology	Oxford Archaeology
Vickers, Kim	Insects	Sheffield University
Wadeson, Stephen	Samian pottery, Roman glass	Oxford Archaeology
Walker, Helen	Medieval pottery (Essex)	Essex CC
Way, Twigs	Medieval landscape and garden history	Freelance

NAME	SPECIALISM	ORGANISATION
Webb, Helen	Osteology	Oxford Archaeology
Young, Jane	Medieval Pottery (Lincolnshire)	Freelance
Zant, John	Roman coins	Oxford Archaeology

Radiocarbon dating is normally undertaken for Oxford Archaeology East by SUERC and by the Oxford University Accelerator Laboratory.

Geophysical prospection is normally undertaken by Magnitude Surveys Ltd.

oxfordarchaeology

Head Office/Registered Office/ OA South

Janus House
Osney Mead
Oxford OX2 0ES

t: +44 (0) 1865 263 800
f: +44 (0) 1865 793 496
e: info@oxfordarchaeology.com
w: http://oxfordarchaeology.com

OA North

Mill 3
Moor Lane
Lancaster LA1 1QD

t: +44 (0) 1524 541 000
f: +44 (0) 1524 848 606
e: oanorth@oxfordarchaeology.com
w: http://oxfordarchaeology.com

OA East

15 Trafalgar Way
Bar Hill
Cambridgeshire
CB23 8SQ

t: +44 (0) 1223 850500
e: oaeast@oxfordarchaeology.com
w: http://oxfordarchaeology.com

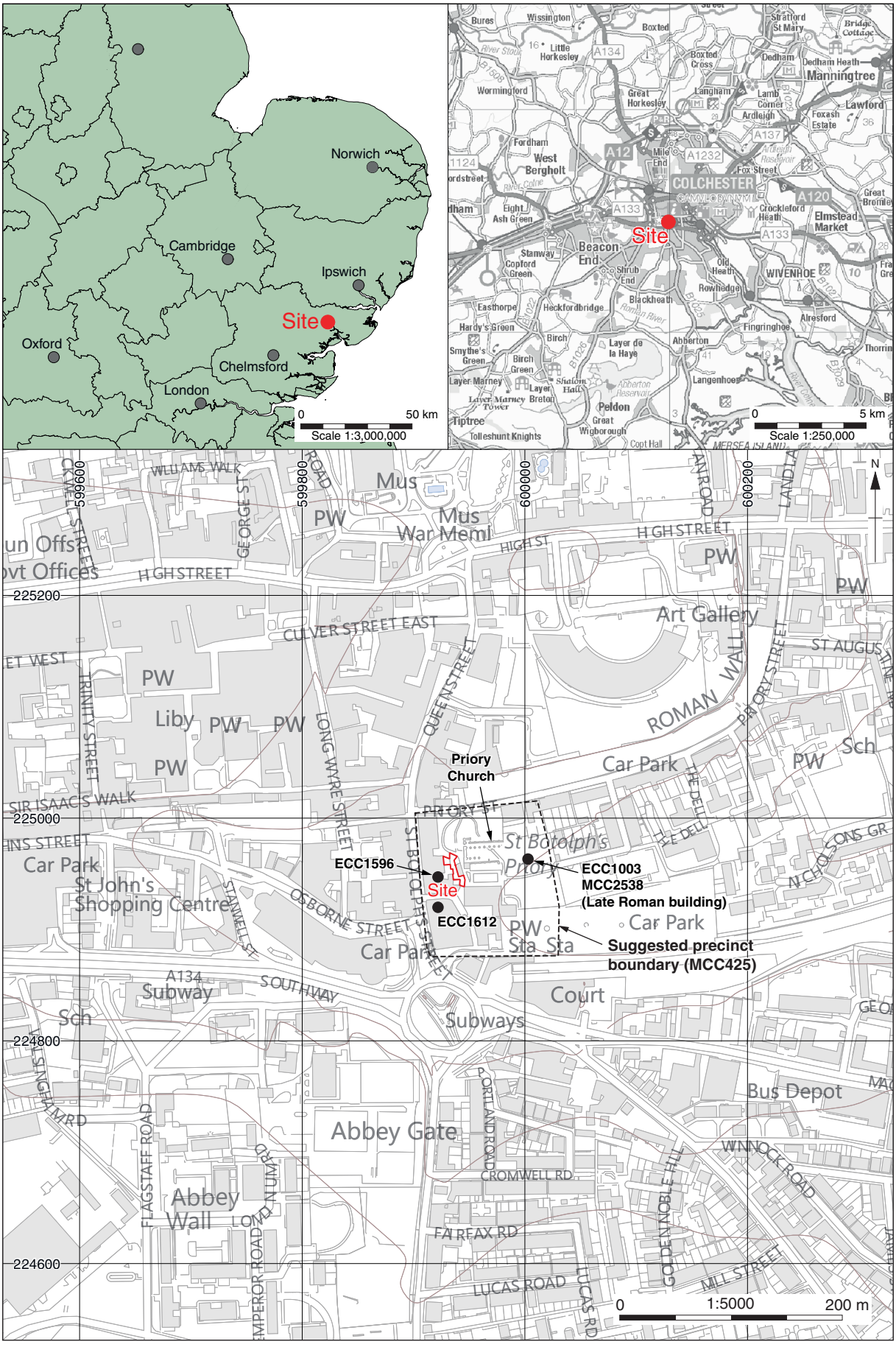

Figure 1: Site location showing (the likely extent of) the Precinct and Priory church and selected ECC entries

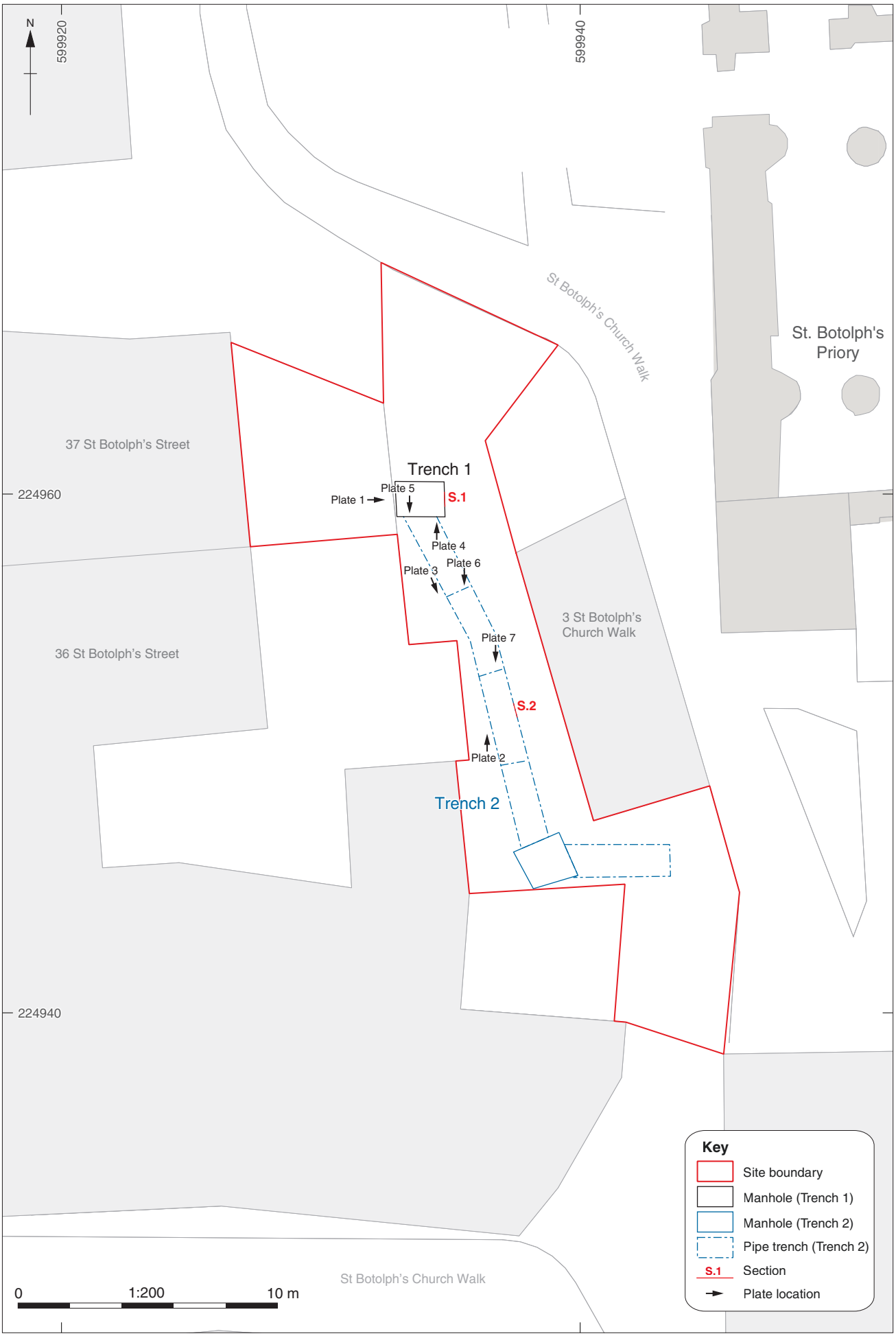

Figure 2: Plan of works showing location of Plates 1-7

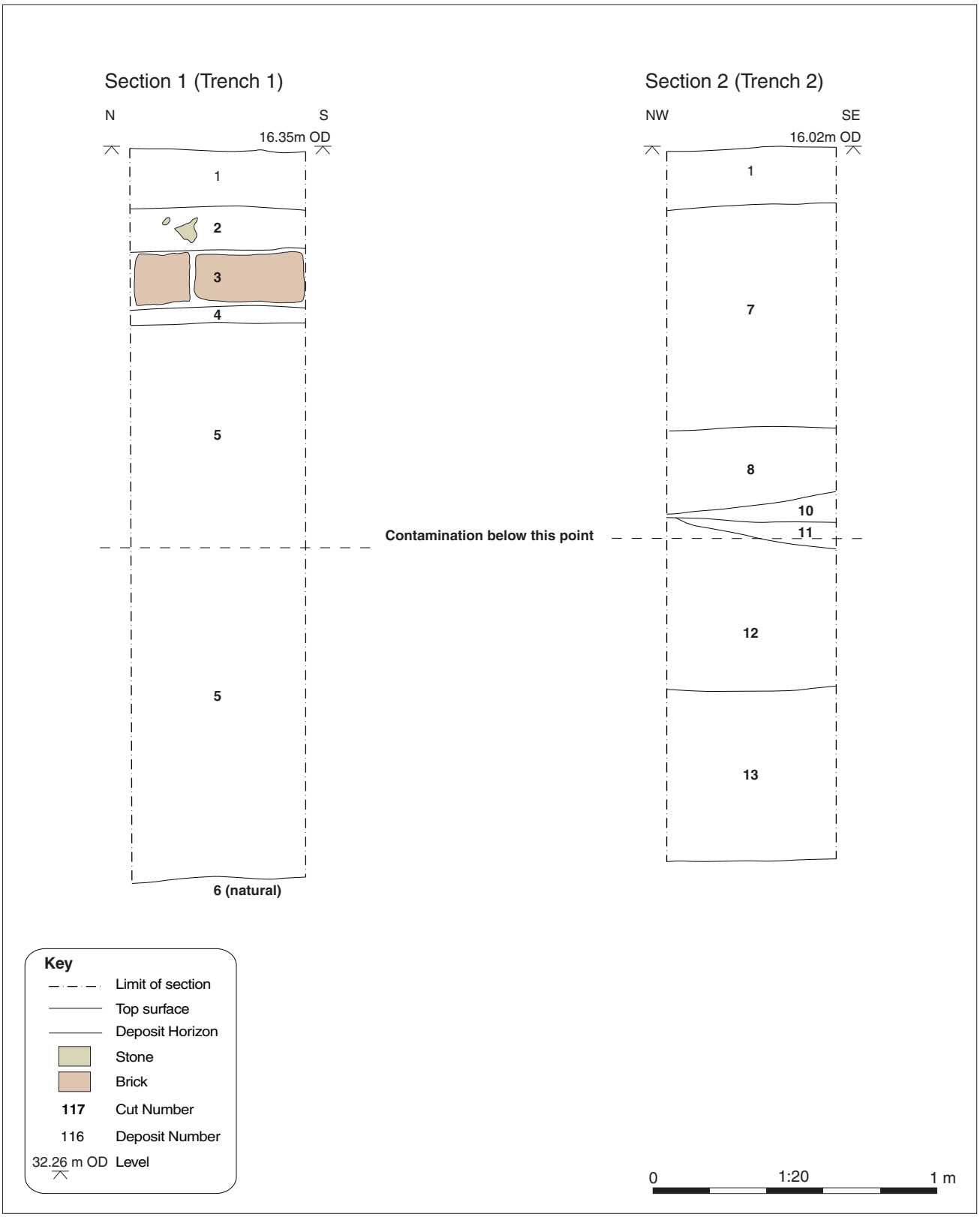

Figure 3: Representative sections

Plate 1: Pre-excavation (Trench 1), looking east towards St Botolphs Priory

Plate 2: Pre-excavation (Trench 2), looking north along pipe route

Plate 3: Pre-excavation (Trench 2), looking south-east along pipe route

Plate 4: Working shot (Trench 1) showing geology and pipe

Plate 5: Upper deposits (Trench 1) showing disturbance/modern services

Plate 6: Trench 2: mid grey layer 12, from which Roman finds were recovered

Plate 7: Trench 2: compacted layer 8, showing brick inclusions

Plate 8: Roman tile from layer 12

Plate 9: Highly decorated German Werra slipware dish from layer 11

oxfordarchaeology

Head Office/Registered Office/ OA South

Janus House
Osney Mead
Oxford OX2 0ES

t: +44 (0) 1865 263 800
f: +44 (0) 1865 793 496
e: info@oxfordarchaeology.com
w: http://oxfordarchaeology.com

OA North

Mill 3
Moor Lane
Lancaster LA1 1QD

t: +44 (0) 1524 541 000
f: +44 (0) 1524 848 606
e: oanorth@oxfordarchaeology.com
w: http://oxfordarchaeology.com

OA East

15 Trafalgar Way
Bar Hill
Cambridgeshire
CB23 8SQ

t: +44 (0) 1223 850500
e: oaeast@oxfordarchaeology.com
w: http://oxfordarchaeology.com