

Archaeological evaluation at St Michael's Primary School, Camulodunum Way, Colchester, Essex, CO2 9RA

August 2017



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**commissioned by Richard Havis,
Essex County Council Place Services
on behalf of Morgan Sindall**

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1 Summary

An archaeological evaluation (four trial-trenches) was carried out at St Michael's Primary School, Camulodunum Way, Colchester, Essex in advance of the construction of a new junior wing of c 610m², extension to the kitchen, a further 20 car parking spaces and approximately 500m² hard play area. The site is located within the Late Iron Age oppidum of Camulodunum and an area of Late Iron Age and Roman cropmarks. The evaluation revealed two undated pits and an undated ditch.

2 Introduction (Fig 1)

This is the archive report for an archaeological evaluation by trial-trenching at St Michael's Primary School, Camulodunum Way, Colchester, which was carried out on 10th-11th August 2017. The work was commissioned by Richard Havis of Essex County Place Services on behalf of Morgan Sindall in advance of the construction of a new junior wing of c 610m², extension to the kitchen, a further 20 car parking spaces and approximately 500m² hard play area, and was undertaken by Colchester Archaeological Trust (CAT).

In response to consultation with Essex County Council Place Services (ECCPS), Historic Environment Advisor Richard Havis advised that in order to establish the archaeological implications of this application, the applicant should be required to commission a scheme of archaeological investigation in accordance with the *National Planning Policy Framework* (DCLG 2012).

All archaeological work was carried out in accordance with a *Brief for archaeological trial trenching*, detailing the required archaeological work, written by Richard Havis (ECCPS 2017), and a written scheme of investigation (WSI) prepared by CAT in response to the brief and agreed with ECCPS (CAT 2017).

In addition to the brief and WSI, all fieldwork and reporting was done in accordance with English Heritage's *Management of Research Projects in the Historic Environment (MoRPHE)* (English Heritage 2006), and with *Standards for field archaeology in the East of England* (EAA 14 and 24). This report mirrors standards and practices contained in the Institute for Archaeologists' *Standard and guidance for archaeological field evaluation* (CIfA 2014a) and *Standard and guidance for the collection, documentation, conservation and research of archaeological materials* (CIfA 2014b).

3 Archaeological background

The following archaeological background draws on the Essex Historic Environment Record (EHER) held at Essex County Council, County Hall, Chelmsford, Essex and the Colchester Historic Environment Record (CHER).

The EHER shows that prehistoric activity close to the development site is represented by two find-spots of prehistoric (probably Neolithic) axes (MCC 1179 and 4843) from Layer Road and Donyland, with Neolithic pottery and a Bronze Age pit from the Gosbecks site (see below).

The development site is located within the Late Iron Age *oppidum* (trial capital) of Camulodunum. This was an area of farmsteads, burial grounds, field-systems, nucleated settlements and ritual sites covering a wide area between the River Colne in the north and the Roman River to the south, bounded by substantial earthworks to the west.

The site is located 1.3km east of the scheduled ancient monument area of Gosbecks Iron Age and Romano-British site (NHLE no.1002180). During the Late Iron Age, Gosbecks was one of the most important centres of the *oppidum*, with an enclosed farmstead connected to the corresponding field systems by a network of droveways. It

was also protected by a series of earthwork fortifications or dykes. The site is thought to contain a funerary enclosure which after the Roman invasion saw the construction of a Romano-Celtic temple complex (EHER 11649), along with other large public buildings including a theatre (EHER 11646, 11647).

A further 1.4km west of Gosbecks was the Stanway burial complex (EHER 12552). Located here was a series of five enclosures consisting of an Iron Age farmstead and four Late Iron Age funerary enclosures of high status individuals (Crummy et al, 2007).

Aerial photographs have revealed a complex system of Late Iron Age and Roman cropmarks around the Gosbecks and Stanway sites which also extended to the north, east and south of the development site, although none are known from the school grounds itself (Fig 2). Many of the cropmarks to the north and west have been investigated in recent years by CAT as part of the Colchester Garrison redevelopment project (see CAT Reports 292, 311, 412) demonstrating the existence of a multi-period (but principally Late Iron Age and Roman) rural landscape.

In advance of the development a desk-based assessment (DBA) was carried out by Essex County Council (Bennett, 2017).

4 Results (Figs 2-4)

Four archaeological trial-trenches were machine excavated under the supervision of a CAT archaeologist.

Trench 1 (T1): 25m long by 1.8m wide

Trench 1 was excavated through modern topsoil (L1, 0.13-0.17m thick), and subsoil (L2, 0.39-0.44m thick) onto natural soils (L3). A small sondage was dug to ensure that the natural had been reached.

Undated ditch F2 was uncovered. It was aligned NW-SE and measured 0.76m wide and 0.28m deep. At the request of the Essex County Council monitor, a second section was dug through this feature to determine how far it extended beyond the area of the evaluation trench. The terminus of F2 was thereby uncovered, measuring 0.7m wide and 0.24m deep.



Photograph 1 T2 trench shot – looking north northeast

Trench 2 (T2): 30m long by 1.8m wide

Trench 2 was excavated through L1 (c 0.25-0.26m thick), L2 (0.25-0.26m thick), onto L3.

Undated pit F1 was uncovered. It measured 0.98m in width and 0.1m in depth.



Photograph 2 T3A trench shot – looking south southeast

Trench 3A (T3A): 30m long by 1.8m wide

Trench 3A was excavated through L1 (0.23-0.3m thick), L2 (0.08-0.15m thick), onto L3. It was excavated in two sections due to the presence of a modern drain.

Undated pit F3 was uncovered. It measured 2.11m in width and 0.46m in depth.

Trench 3B (T3B): 19m long by 1.8m wide

Trench 3B was excavated through L1 (0.17-0.19m thick), L2 (0.27-0.28m thick), onto L3.

No archaeological remains were uncovered.

5 Finds

There were no archaeological finds.

6 Environmental results

by Lisa Gray MSc MA ACIfA Archaeobotanist

Introduction – aims and objectives

Two samples were presented for assessment. They were taken from two undated pits excavated during an evaluation of a site where Late Iron Age/ Roman cropmarks were present.

The aims of this assessment are to determine the significance and potential of the plant macro-remains in the samples, consider their use in providing information about diet, craft, medicine, crop-husbandry, feature function and environment.

Sampling and processing methods

Sixty litres of soil samples were taken and processed by Colchester Archaeological Trust (Table 1). All samples were processed using a Siraf-type flotation device. Flot was collected in a 300-micron mesh sieve then dried.

Once with the author the flots were scanned under a low powered stereo-microscope with a magnification range of 10 to 40x. The whole flots were examined. The abundance, diversity and state of preservation of eco- and artefacts in each sample were recorded. A magnet was passed across each flot to record the presence or absence of magnetised material or hammerscale.

Identifications were made using uncharred reference material (author's own and the Northern European Seed Reference Collection at the Institute of Archaeology, University College London) and reference manuals (such as Beijerinck 1947; Cappers *et al.* 2006; Charles 1984; Fuller 2007; Hillman 1976; Jacomet 2006). Nomenclature for plants is taken from Stace (Stace 2010). Latin names are given once and the common names used thereafter.

At this stage, to allow comparison between samples, numbers have also been estimated but where only a very low number of items are present they have been counted. Identifiable charred wood >4mm in diameter has been separated from charcoal flecks. Fragments this size are easier to break to reveal the cross-sections and diagnostic features necessary for identification and are less likely to be blown or unintentionally moved around the site (Asouti 2006, 31; Smart and Hoffman, 1988, 178-179). Charcoal flecks <4mm diameter have been quantified but not recommended for further analysis unless twigs or roundwood fragments larger than 2mmØ were present.

Results (Table 1)

The plant remains

Identifiable charcoal fragments and charcoal flecks too small to identify were found, in moderate to abundant numbers in each sample. Sample <2> also contained two fragments of roundwood charcoal and two uncharred/dried waterlogged elderberry (*Sambucus nigra* L.) seeds.

Sample	Finds number	Feature number	Description	Period	Bulk volume processed (L)	Flot volume (ml)	Charred grains			Charred wood >4mmØ	Charred wood <4mmØ	Dried waterlogged seeds			Modern root/rhizomes	Details - main and significant taxa
							a	d	p	a	a	a	d	p		
1	1	1	pit	undated	20	300	-	-	-	3	3	-	-	-	2	-
2	2	3	pit	undated	40	200	1	1	3	3	3	1	1	3	-	2 fragments of roundwood charcoal, 1 bread/club/rivet wheat grain

Table 1 Environmental results

Key: a = abundance [1 = occasional 1-10; 2 = moderate 11-100; and 3 = abundant >100]
 d = diversity [1 = low 1-4 taxa types; 2 = moderate 5-10; 3 = high]
 p = preservation [1 = poor (family level only); 2 = moderate (genus); 3 = good (species identification possible)]

Fauna

No faunal remains were found in either sample.

Inorganic remains

No inorganic artefactual remains were found in either sample.

Discussion

Biases in recovery, residuality, contamination

Nothing with regards biases in recovery, residuality or contamination was highlighted for any of these samples. Uncharred, probably modern root/rhizome fragments were found in moderate quantities in sample <1>. Evidence for bioturbation is scant.

Quality and type of preservation

No waterlogged or mineralised plant remains were found.

Charred plant remains were present, consisting of flecks and fragments of charcoal and charred grains. Charring of plant macrofossils occurs when plant material is heated under '...reducing conditions...' where oxygen is largely excluded (Boardman and Jones 1990, 2) leaving a carbon skeleton resistant to biological and chemical decay (English Heritage 2011, 17). These conditions can occur in a charcoal clamp, the centre of a bonfire or pit or in an oven or when a building burns down with the roof excluding the oxygen from the fire (Reynolds, 1979, 57).

Significance of the samples and recommendations for further work

Where only one poorly preserved charred grain is found in a 40 litre sample, as is the case with in sample <1>, it is possible that the grains are not associated with the context in which they have been found. A recent study of intrusion and residuality in the archaeobotanical record for central and southern England (Pelling *et al.* 2015) has highlighted the problem of assigning solitary or scarce charred plant macro-remains to the dated contexts they were taken from because it is possible that these durable charred plant remains survived being moved between contexts by human action and bioturbation so cannot be properly interpreted unless radiocarbon dates are gained from the plant macro-remains themselves. That is the only way to secure a genuine date for the charred plant macro-remains like these (Pelling *et al.* 2015, 96).

However, for sample <1> evidence for bioturbation is scant and it was found in a rich charcoal assemblage so may be a remnant of hearth or fuel waste.

Identification of the charcoal on both samples may be useful if taxa can be found that are suitable for radiocarbon dating.

7 Discussion

Archaeological evaluation at St Michael's Primary School, Camulodunum Way, Colchester revealed two undated pits and an undated ditch.

8 Acknowledgements

CAT thanks Richard Havis of Essex County Council Place Services and Morgan Sindall for commissioning and funding the work. The project was managed by C Lister, fieldwork was carried out by N Rayner with H Furniss, G Morgan, J Roberts, Z Eksen, G Morgan and A Tuffey. Figures are by S Carter and C Lister. The project was monitored for ECCPS by Richard Havis.

9 References

Note: all CAT reports, except for DBAs, are available online in PDF format at <http://cat.essex.ac.uk>

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Bennett, A	2017	<i>Archaeological Desk Based Assessment for St Michael's Primary School</i>
Cappers, R J T, Bekker, R M & Jans, J E A	2006	<i>Digital Zadenatlas Van Nederlands – Digital Seeds Atlas of the Netherlands.</i> Groningen Archaeological Studies Volume 4. Groningen: Barkhius Publishing Groningen.
CAT	2014	<i>Health & Safety Policy</i>
CAT	2017	<i>Written Scheme of Investigation (WSI) for archaeological evaluation at St Michael's School, Camulodunum Way, Colchester, CO2 9RA</i>
CAT Report 292	2005	<i>The Colchester Garrison PFI project, Colchester, Essex: a report on the 2003 excavation of Areas 2, 6, 10 August-November 2003</i>
CAT Report 311	2005	<i>An archaeological excavation and watching brief at the Musket Club, Homefield Road, Colchester, Essex, December 2004-February 2005</i>
CAT Report 412	2011	<i>Archaeological investigations on the 'Alienated Land', Colchester Garrison, Colchester, Essex. May 2004-October 2007</i>
Charles, M	1984	'Introductory remarks on the cereals.' <i>Bulletin on Sumerian Agriculture</i> 1, 17-31.
ClfA	2014a	<i>Standard and Guidance for archaeological evaluation</i>
ClfA	2014b	<i>Standard and guidance for the collection, documentation, conservation and research of archaeological materials</i>
DCLG	2012	<i>National Planning Policy Framework</i>
ECCPS	2017	<i>Brief for Archaeological Trial Trenching and Excavation at St Michael's Primary School, Camulodunum Way, Colchester, CO2 9RA</i>
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Pelling, R, Campbell, G, Carruthers, W, Hunter, K & Marshall, P	2015	'Exploring contamination (intrusion and residuality) in the archaeobotanical record: case studies from central and southern England'. In <i>Vegetation History and Archaeobotany</i> (2015) 24: 85-99.
Reynolds, P	1979	<i>The Iron Age Farm: The Butser Experiment</i> London: British Museum Press.
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10 Abbreviations and glossary

Bronze Age	period from c 2500 – 700 BC
CAT	Colchester Archaeological Trust
CHER	Colchester Historic Environment Record (previously UAD, Urban Archaeological Database)
ClfA	Chartered Institute for Archaeologists
context	specific location of finds on an archaeological site
ECC	Essex County Council
ECCHEA	Essex County Council Historic Environment Advisor
ECCPS	Essex County Council Place Services
EHER	Essex Historic Environment Record
feature (F)	an identifiable thing like a pit, a wall, a drain: can contain 'contexts'
Iron Age	period from 700 BC to Roman invasion of AD 43

layer (L)	distinct or distinguishable deposit (layer) of material
modern	period from c AD 1800 to the present
natural	geological deposit undisturbed by human activity
Neolithic	period from c 4000 – 2500 BC
NGR	National Grid Reference
OASIS	Online Access to the Index of Archaeological Investigations, http://oasis.ac.uk/pages/wiki/Main
residual	something out of its original context, eg a Roman coin in a modern pit
Roman	the period from AD 43 to c AD 410
section	(abbreviation sx or Sx) vertical slice through feature/s or layer/s
wsi	written scheme of investigation

11 Contents of archive

Finds: n/a

Paper and digital record

One A4 document wallet containing:

The report (CAT Report 1154)

ECC evaluation brief, CAT written scheme of investigation

Original site record (feature and layer sheets, finds record, plans)

Site digital photos and log, architectural plans, attendance register, risk assessment

12 Archive deposition

The paper and digital archive is currently held by the Colchester Archaeological Trust at Roman Circus House, Roman Circus Walk, Colchester, Essex CO2 7GZ, but will be permanently deposited with Colchester Museum under accession code COLEM: 2017. 108.

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Distribution list:

Morgan Sindall

Richard Havis, Essex County Council Place Services

Essex Historic Environment Record, Essex County Council



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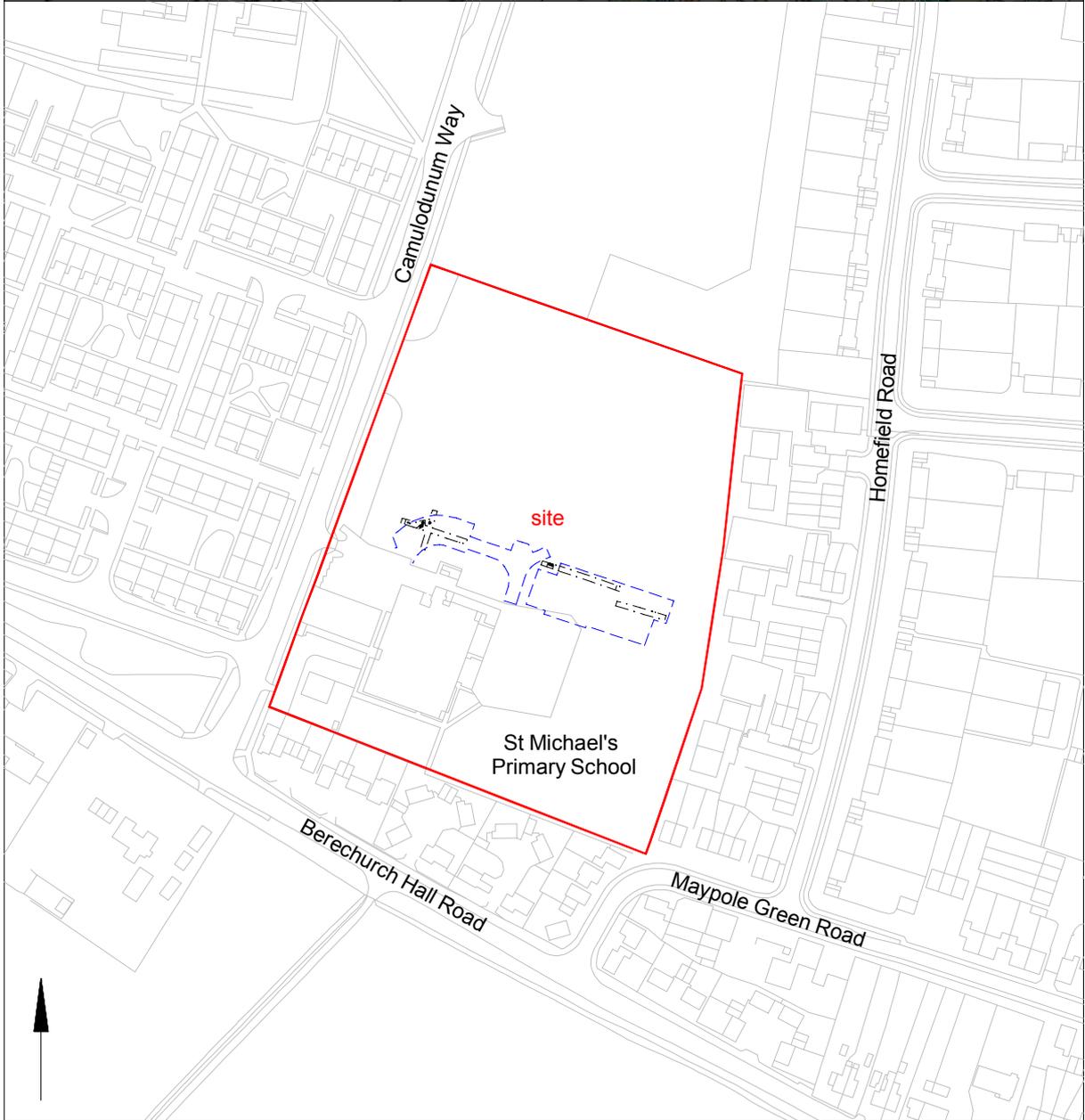
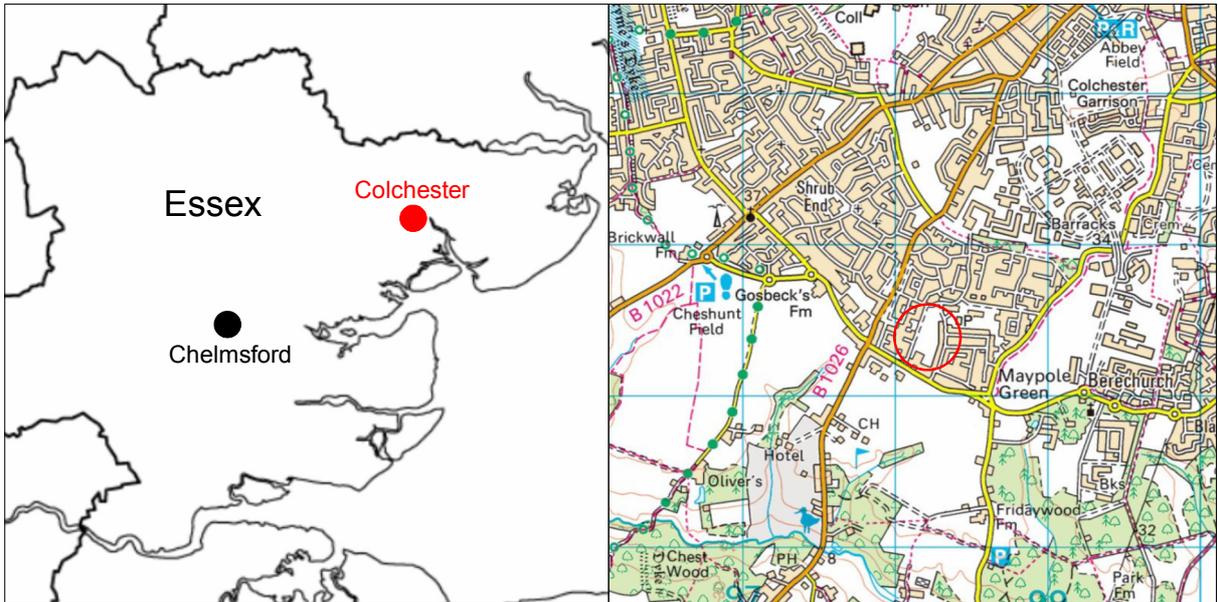
email: lp@catuk.org

Checked by: Philip Crummy

Date: 30.8.2017

Appendix 1 Context list

Context Number	Finds Number	Feature / layer type	Description	Date
F1	-	Pit	Soft medium grey/brown silty-clay with charcoal fleck inclusions	Undatable
F2	-	Ditch	Soft, light grey/brown sandy-silt	Undatable
F3	-	Pit	Soft, moist medium yellow/brown sandy-silt with charcoal fleck inclusions	Undatable
L1	-	Topsoil	Soft, moist medium brown loam with occasional stone inclusions	Modern
L2	-	Subsoil	Soft, moist medium grey-brown silty-clayey-loam with occasional stone inclusions	Undatable
L3	-	Natural	Soft, dry light yellow/orange/brown mottled silty-sand with occasional stone inclusions	Post-glacial



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Fig 1 Site location, trenches and proposed development (dashed blue).



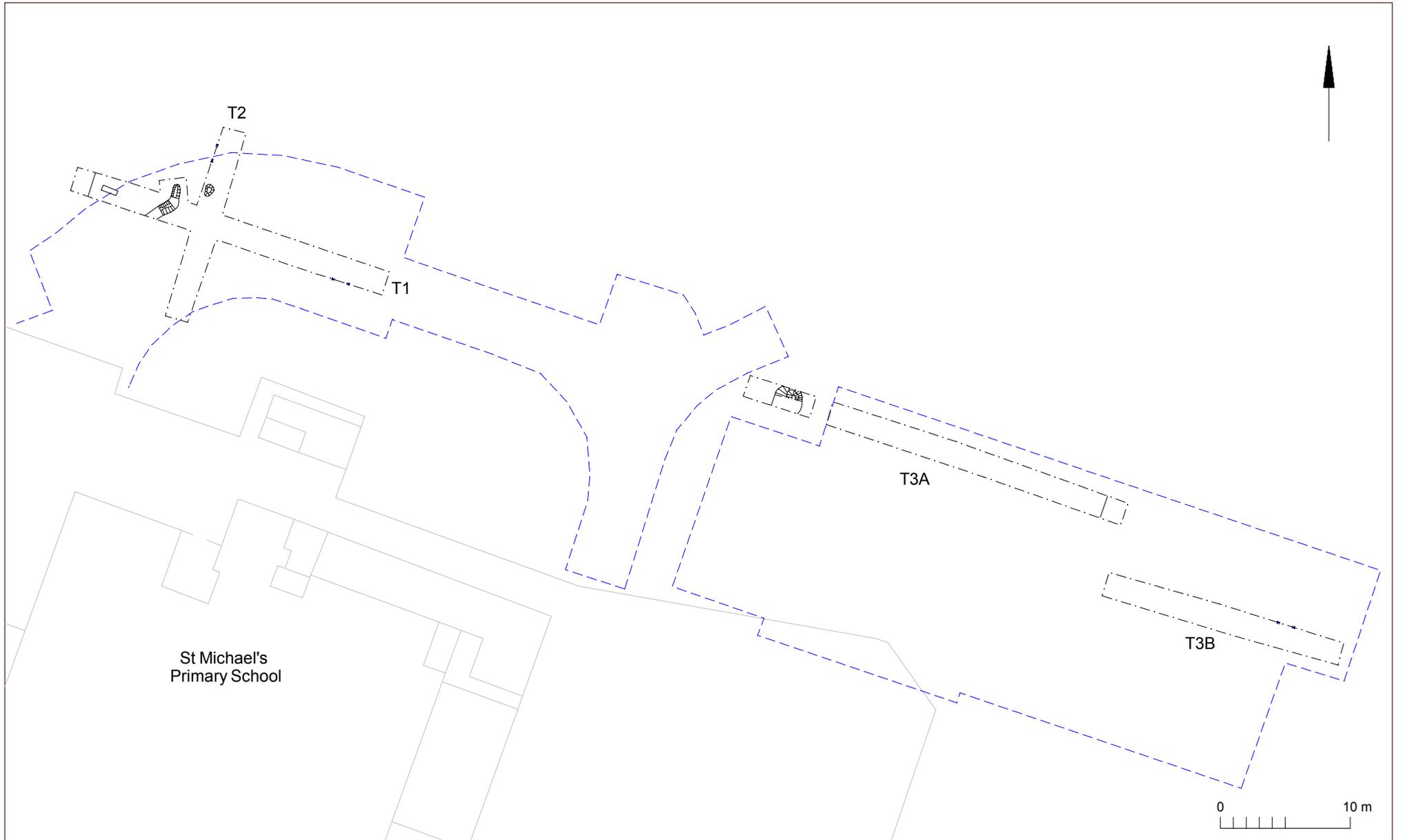


Fig 2 Results.

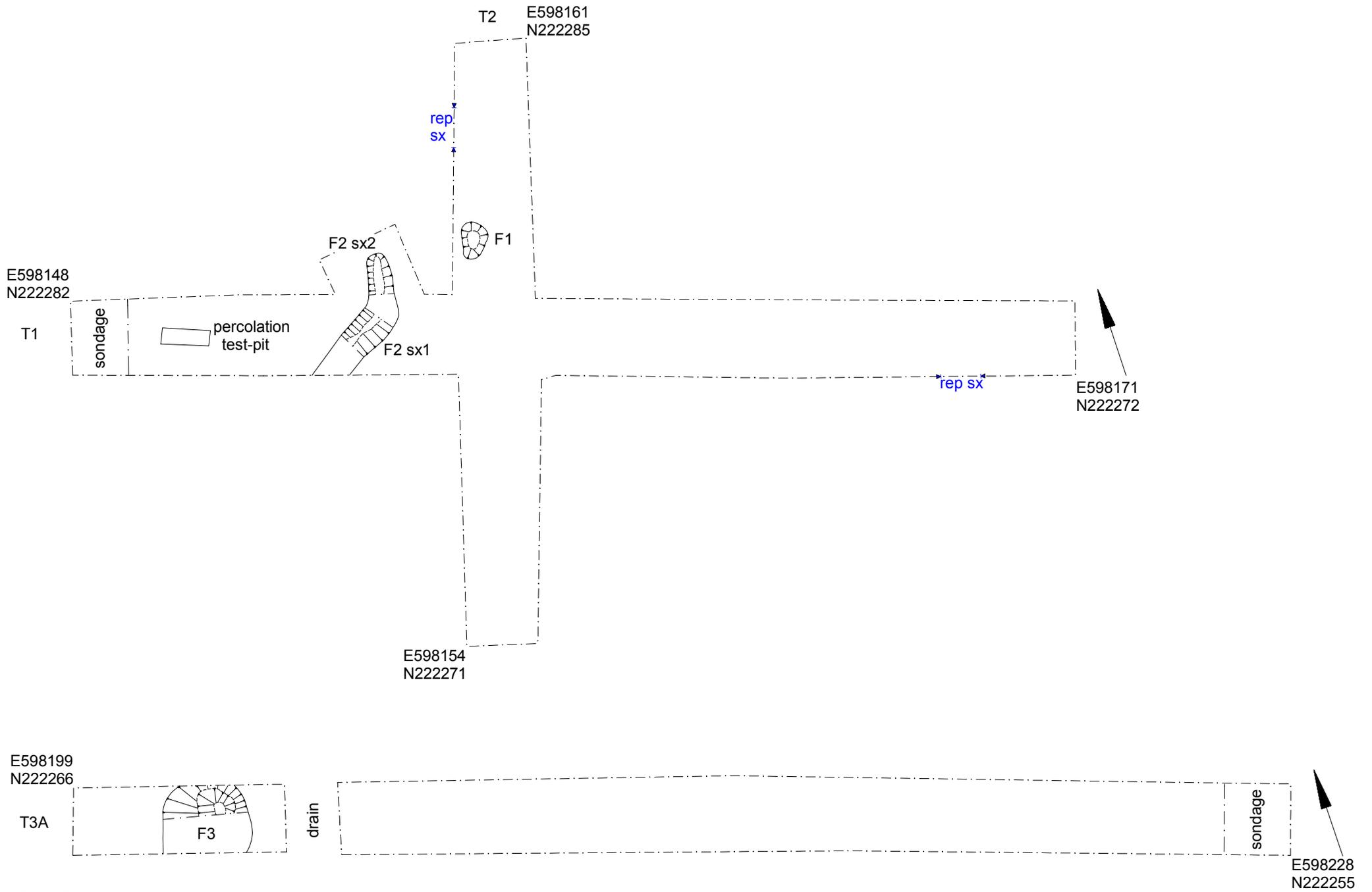


Fig 3 Results by trench.

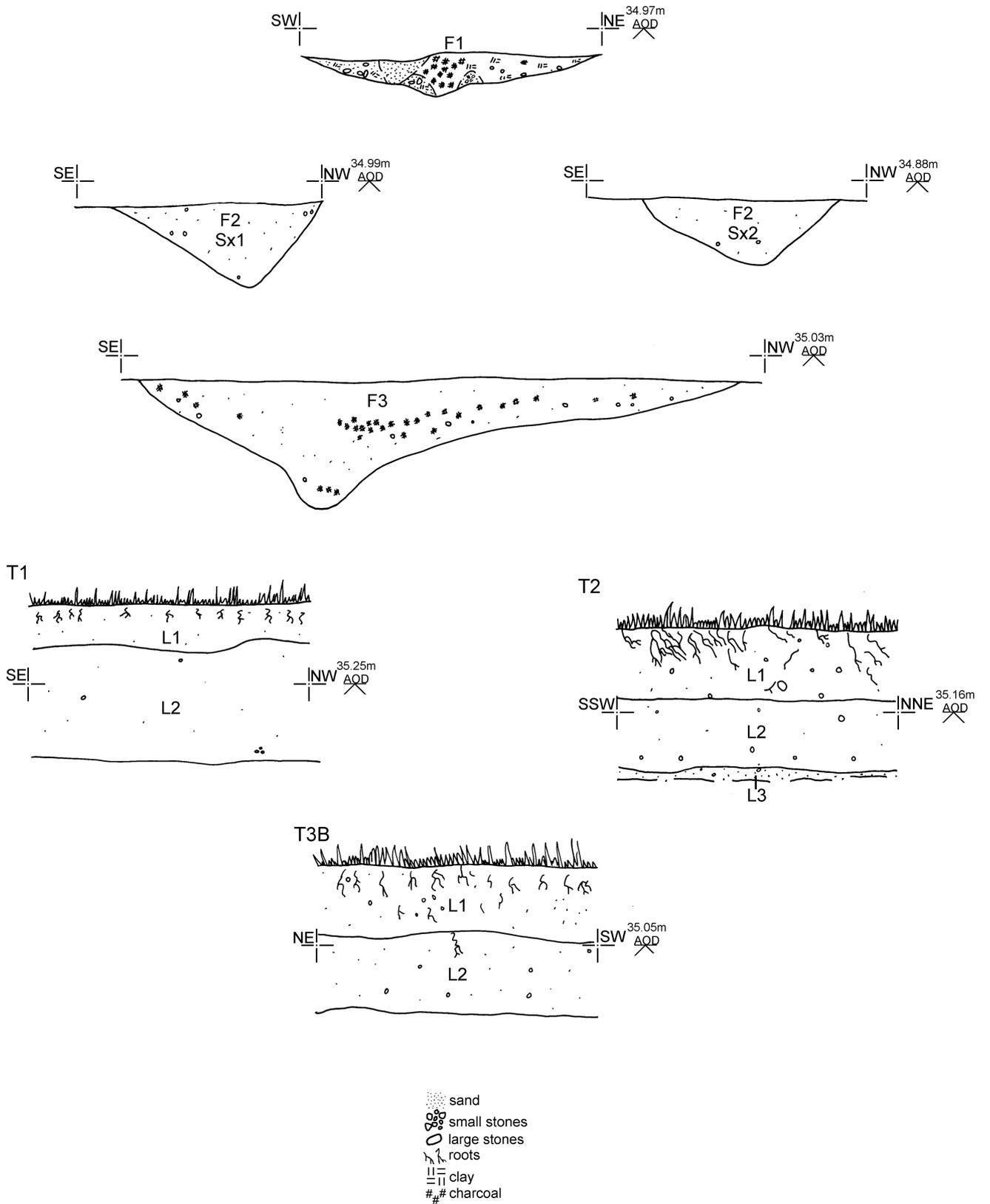


Fig 4 Feature and representative sections

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OASIS ID: colchest3-291760

Project details

Project name	Archaeological evaluation at St Michael's Primary School, Camulodunum Way, Colchester, Essex, CO2 9RA
Short description of the project	An archaeological evaluation (four trial-trenches) was carried out at St Michael's Primary School, Camulodunum Way, Colchester, Essex in advance of the construction of a new junior wing of c 610m ² , extension to the kitchen, a further 20 car parking spaces and approximately 500m ² hard play area. The site is located within the Late Iron Age oppidum of Camulodunum and an area of Late Iron Age and Roman cropmarks. The evaluation revealed two undated pits and an undated ditch.
Project dates	Start: 10-08-2017 End: 11-08-2017
Previous/future work	No / Not known
Any associated project reference codes	17/08a - Contracting Unit No.
Any associated project reference codes	CC/COL/33/17 - Planning Application No.
Any associated project reference codes	COLEM: 2017.108 - Museum accession ID
Any associated project reference codes	COLSM17 - HER event no.
Type of project	Field evaluation
Site status	None
Current Land use	Community Service 1 - Community Buildings
Monument type	DITCH Uncertain
Monument type	PIT Uncertain
Methods & techniques	"Sample Trenches"
Development type	Large/ medium scale extensions to existing structures (e.g. church, school, hospitals, law courts, etc.)
Prompt	Planning condition

Position in the planning process Not known / Not recorded

Project location

Country England
Site location ESSEX COLCHESTER COLCHESTER St Michael's Primary School, Camulodunum Way
Postcode CO2 9RA
Study area 2.47 Hectares
Site coordinates TL 98156 38400 52.008095258511 0.887545591526 52 00 29 N 000 53 15 E Point
Height OD / Depth Min: 34.49m Max: 34.99m

Project creators

Name of Organisation Colchester Archaeological Trust
Project brief originator HEM Team Officer, ECC
Project design originator Laura Pooley
Project director/manager Chris Lister
Project supervisor Ben Holloway
Type of sponsor/funding body Developer

Project archives

Physical Archive Exists? No
Digital Archive recipient Colchester Museum
Digital Archive ID COLEM: 2017.108
Digital Media available "Images raster / digital photography", "Survey"
Paper Archive recipient Colchester Museum
Paper Archive ID COLEM: 2017.108
Paper Media available "Context sheet", "Drawing", "Miscellaneous Material", "Notebook - Excavation", "Research", "General Notes", "Photograph", "Report"

Project bibliography 1

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