

Archaeological evaluation at The Forge, The Street, Bradwell, Essex, CM77 8EG

October 2020



by Sarah Carter

with contributions by Dr Matthew Loughton, Laura Pooley and Alec Wade
figures by Chris Lister, Mark Baister and Sarah Carter

fieldwork by Mark Baister with Ziya Eksen and Alexander Smith

**commissioned by Mike Bradburn
on behalf of Fairfield Holdings Ltd**

NGR: TL 80575 23063 (centre)
Planning ref.: 20/00972/FUL
CAT project ref.: 2020/10e
ECC code: BDTS20
OASIS ref.: colchest3-405171



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CAT Report 1612
October 2020

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1 Summary

An archaeological evaluation (two L-shaped trial-trenches) was carried out at The Forge, Bradwell, in advance of the construction of two new dwellings, including parking, utilities and the demolition of the old forge building. Three ditches were uncovered, two undated and one post-medieval in date.

2 Introduction (Fig 1)

This is the report for an archaeological evaluation by trial-trenching at The Forge, The Street, Bradwell, Essex which was carried out on the 23rd October 2020. The work was commissioned by Mike Bradburn on behalf of Fairfield Holdings Ltd in advance of the construction of two new dwellings, including parking, utilities and the demolition of the old forge building and was undertaken by Colchester Archaeological Trust (CAT).

In response to consultation with Essex County Council Place Services (ECCPS), Historic Environment Advisor Teresa O'Connor 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* (MHCLG 2019).

All archaeological work was carried out in accordance with a *Brief for trial-trenching and excavation*, detailing the required archaeological work, written by Teresa O'Connor (ECCPS 2020), and a written scheme of investigation (WSI) prepared by CAT in response to the brief and agreed with ECCPS (CAT 2020).

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 2015), 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* (ClfA 2014a) and *Standard and guidance for the collection, documentation, conservation and research of archaeological materials* (ClfA 2014b).

3 Archaeological background

The following archaeological background draws on the brief and the Essex Historic Environment Records (EHER) held at Essex County Council, County Hall, Chelmsford, Essex (accessible to the public via <http://www.heritagegateway.org.uk>).

The Essex Historic Environment (HER) Record shows that the proposed development will affect a site of archaeological interest and a historic building. The site lies within a historic settlement formerly known as Blackwater and now forming part of Bradwell.

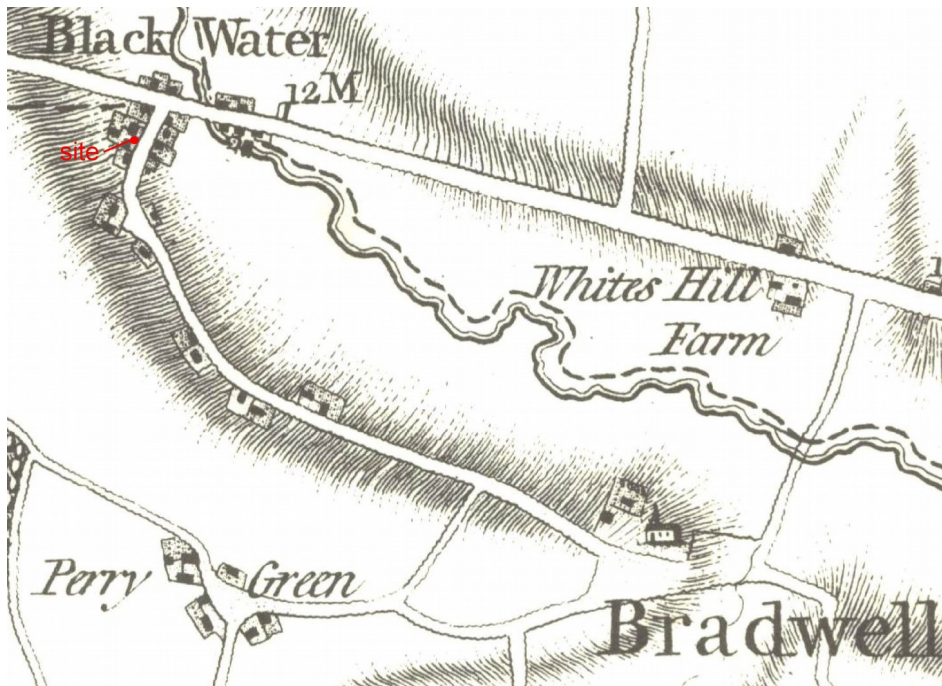
Multiple areas of cropmarks recorded by aerial photography are noted on the EHER close to the site. Fields on the northern side of the A120 (line of the Roman Road) include: linear features northeast of Bridge Hall (EHER 14199); linear features north of Bradwell (EHER 8793); a ring-ditch (with internal pit), a rectangular enclosure (with internal pits) and linear features on land northeast of Bradwell (EHER 8788); enclosures and ditches suggesting dense activity on land south of Pattiswick (EHER 8787); ditch and pits at Bridge Hall (EHER 14196); and a possible ring-ditch north of Sandy Hill (EHER 14184). While many of the linear features are probably post-medieval field boundaries, the ring-ditches and enclosures likely represent evidence of potential prehistoric settlements.

The site lies to the south of the Roman Road of Stane Street, which ran from Braintree to Colchester, close to the river, and would have been a preferable location for settlement and activity in the Roman period (EHER 8646). Around 100m to the northeast remains of several wooden bridges were found when the Blackwater bridge

was rebuilt, a Roman pottery vessel and type of horseshoe were recovered which suggests the bridge may be of Roman origin (EHER 8717).

The Swan Inn to the north is 16th century in date and is a listed building (EHER 29947), opposite the Forge lies Ruffles a 17th century listed building (EHER 29954). Settlement along the Street is depicted on the Chapman and André map of 1777 (see Map 1) and is likely to be medieval in origin. The Forge building is depicted on the 2nd edition OS map but not the 1st edition OS map and thus was constructed somewhere between 1875 and 1896. Prior to this a large “L” -shaped building occupied the plot.

There has been little archaeological fieldwork in the area due to the lack of recent development, the exception is aggregate work at Bradwell Quarry, approximately 2km southeast of the site. Essex Field Archaeology unit undertook multiple archaeological investigations prior to phased quarry expansion. Main archaeological sites between 2001-2010 have recorded small amounts of Neolithic and later worked flints, a Middle Bronze Age and Middle Iron Age settlement, including round-house, medieval enclosures with evidence of crop-processing and a disturbed early Saxon cremation (Peachey 2003; Allen & Roy 2006; Germany 2006; Ennis 2008).



Map 1 Extract of the 1777 Chapman and André map, showing site location (red).

4 Aim

The aim of the archaeological evaluation was to record the extent of any surviving archaeological deposits, and to assess the archaeological potential of the site to allow the ECCHEA to determine if further investigation is required.

5 Results (Figs 2-6)

Two L-shaped trial-trenches were machine-excavated under the supervision of a CAT archaeologist. Trench 1 measured 12.5m long and 1.8m wide and Trench 2.14m long and 1.8m wide.

Three layers were recorded. Modern hardstanding (L1, c 0.18-0.30m thick, 0.05m of hardcore overlaying a firm, moist medium/dark grey/brown silty-loam) sealed subsoil

(L2, 0.17-0.29m thick, firm, moist medium grey/brown silty-loam), beneath which lay natural (L3, firm, moist medium yellow/orange/brown sands and gravels) encountered at a depth of 0.38-0.55m below current ground level.

3 ditches were uncovered, each sectioned twice. All were orientated NE-SW and were parallel to one another.

Ditch 1

Ditch 1 was undated and recorded as F1 in T1 and F4 and in T2. F1 was 1.31m wide and 0.36m deep. F4 measured 1.17m wide and 0.14m deep

Ditch 2

Ditch 2 was 19th century in date and cut ditch 3. It was recorded as F2 and F5 in T1 and T2 respectively. F2 was 1.66m wide and 0.37m deep. F5 was 2.01m wide and 0.44m deep.

Ditch 3

Ditch 3 was undated and cut by ditch 2. It was recorded as F3 in T1 and F6 in T2. F3 was 0.87m wide and 0.37m deep. F6 was 0.46m wide and 0.45m.



Photograph 1 T1 trench shot – looking north-west

6 Finds

6.1 Ceramic finds

by Dr Matthew Loughton

The evaluation uncovered 29 sherds of pottery and ceramic building material (henceforth CBM) with a weight of nearly 3,494 kg (Table 1). There were rim sherds from 0.25 vessels (rim EVE) (Table 1). CBM accounts for the majority of this material by sherd count and weight (Table 1).

Ceramic material	Quantity	weight/g	MSW/g	Rim EVE
Pottery	4	128	32	0.25
CBM	25	3,366	135	-
All	29	3,494	120	0.25

Table 1 Details on the main types of ceramics and pottery

Pottery and CBM was recovered from two features although most of the material came from the ditch F5 (Table 2).

Context	Description	Quantity	weight/g	MSW/g
F2	Ditch	5	622	124
F5	Ditch	24	2,879	120
All		29	3,494	120

Table 2 Quantities of pottery and CBM from specific features and contexts

Most of the pottery and CBM dates to the medieval and post-medieval periods except for one fragment of Roman brick (275g) and one sherd of Roman coarse, principally locally-produced, grey ware pottery (fabric GX) which came from ditch F5. The CBM consists of sherds of medieval/post medieval pegtile (20/2 at 107g) and brick fragments (4 at 984g). Post-Roman pottery was limited to a baluster jug (EVE:0.25) in Colchester-type ware (fabric F21) dating to c1200-1550 and two sherds of post-medieval red earthenware dating to c1500-19th/20th century.

Table 3 summarizes the dating evidence for the features and layers which produced dateable ceramic finds. The two ditches can be dated to the post-medieval and modern periods.

Context	Feature type	Roman	Post-Roman	CBM	Overall date Approx.
F2	Ditch	-	F40	PT	Post-medieval
F5	Ditch	GX	F21 Baluster jug F40	RB PT BR	19th-20th century

Table 3 Approximate dates for the individual features and contexts

6.2 Glass

by Laura Pooley

A single fragment of clear bottle glass came from ditch F5 (finds no.2). The fragment (9.4g) came from the base of the bottle, was embossed [...] **26/2** / [...] **17**, and likely dates to the late 19th or 20th century.

6.3 Animal bone

by Alec Wade

The evaluation produced 15 pieces of bone (total weight 110g) from F5 in Trench 2, a ditch of post-Medieval date. Two species were identified, cow and sheep or goat (no distinction being possible due to a lack of diagnostic features).

The material was in poor condition with a general loss of surface detail.

Context	Find no.	No. of pieces	Weight (g)	Species	Comments
F5 ditch	2	14	98	Cow	Eight fragments of cow horn core, four fragments of a mandible, part of a molar from the lower jaw and a molar from the maxilla. One of the horn core fragments has four indistinct circumferential groove marks across its surface. Although tempting to see this as possible evidence of cord marks (i.e. tethering) this is not clear.
		1	12	Sheep or goat	A metacarpal fragment in poor condition with a possible oblique chop mark across the posterior of the proximal joint.
Total		15	110		

Table 4 Animal bone by context

7 Conclusion

Finds from ditch 2 (F2/F5), dated it to the 19th to 20th century, while the other two ditches were undated. Ditch F5 also contained a brick fragment and pottery sherd dating to the Roman period. It is probable that the ditches pre-date the original forge building on the site, constructed somewhere between 1875 and 1896 (CAT Report 1615). The presence of post-medieval CBM within ditch 2 could indicate that it was infilled due to the demolition of the previous L-shaped building on the site ready for the construction of the forge building. Ditch 2 may also be a later recut of the earlier undated ditch 3.

The 1841 tithe map (ERO D/P 261/27) of the surrounding area shows a number of short water-filled drainage ditches around the surrounding properties. Although not present on the tithe map it is possible one or more of the ditches excavated at The Forge site represent a similar drainage system. They could possibly be related to a large Malt House visible on the tithe map on a plot just south of the site, either as the aforementioned drainage ditches or perhaps as property boundary. As the ditches are all parallel (and one appears to be a recut of another) it seems likely that they served similar purposes, although perhaps at different times.

8 Acknowledgements

CAT thanks Mike Bradburn for commissioning and Fairfield Holdings Ltd for funding the work. The project was managed by C Lister with fieldwork carried out by M Baister with Z Eksen and A Smith. Figures are by C Lister, M Baister and S Carter. The project was monitored for ECCPS by Teresa O'Connor.

9 References

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

- Allen, P & Roy, M 2006 *Former Rivenhall Airfield, Rivenhall, Essex. Continuous archaeological observation and excavation, Phase 1.4. Interim report (Revised). ECC FAU report 1368*
- Brown, N & Glazebrook, J 2000 *Research and Archaeology: A Framework for the Eastern Counties 2. Research agenda and strategy. East Anglian Archaeology Occasional Paper 8 (EAA 8)*

CAT	2020	<i>Health & Safety Policy</i>
CAT	2020	<i>Written Scheme of Investigation (WSI) for an archaeological evaluation by trial trenching at The Forge, The Street, Bradwell, Essex, CM77 8EG</i> By E Holloway
CAT Report 1615	2020	<i>Historic building recording of the Forge, The Street, Bradwell, Essex, CM77 8EG</i> By M Baister
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>
ECCPS	2020	<i>Brief for Historic Building Recording and trial-trenching evaluation at The Forge, The Street, Bradwell</i> , by T O'Connor
Ennis, T	2008	Bradwell Quarry, Former Rivenhall Airfield, Rivenhall, Essex. <i>Archaeological Observation and Excavation. Interim Report – phases 3.1 (East), 3.2, 3.3 and 4.1.</i> ECC FAU report 1773
Germany, M	2006	<i>Former Rivenhall Airfield, Rivenhall, Essex. Continuous archaeological observation and excavation, Phases 2.1, 2.2 and 2.3.</i> Interim report. ECC FAU report 1422
Gurney, D	2003	<i>Standards for field archaeology in the East of England.</i> East Anglian Archaeology Occasional Papers 14 (EAA 14)
Historic England (HE)	2015	<i>Management of Research Projects in the Historic Environment (MoRPHE)</i>
Historic England (HE)	2018	<i>The Role of the Human Osteologist in an Archaeological Fieldwork Project</i> , by S Mays, M Brickley and J Sidell
Medlycott, M	2011	<i>Research and archaeology revisited: A revised framework for the East of England.</i> East Anglian Archaeology Occasional Papers 24 (EAA 24)
MHCLG	2019	<i>National Planning Policy Framework.</i> Ministry of Housing, Communities and Local Government
Peachey, M	2003	<i>Former Rivenhall Airfield, Rivenhall, Essex. Continuous archaeological observation and excavation. Access road and Phases 1.1-1.3 and 3.1 (west).</i> Interim report. ECC FAU report 807

10 Abbreviations and glossary

CAT	Colchester Archaeological Trust
CBM	ceramic building material, ie brick/tile
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'
layer (L)	distinct or distinguishable deposit (layer) of material
medieval	period from AD 1066 to c 1500
Mesolithic	period from c 10,000 – 4000BC
modern	period from c AD 1800 to the present
natural	geological deposit undisturbed by human activity
NGR	National Grid Reference
OASIS	Online Access to the Index of Archaeological Investigations, http://oasis.ac.uk/pages/wiki/Main
post-medieval	from c AD 1500 to c 1800
prehistoric	pre-Roman
Roman	the period from AD 43 to c AD 410
section	(abbreviation sx or Sx) vertical slice through feature/s or layer/s
ws	written scheme of investigation

11 Contents of archive

Finds: None retained

Paper and digital record

One A4 document wallet containing:

The report (CAT Report 1612)

ECC evaluation brief, CAT written scheme of investigation

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

Site digital photos and log

Digital record

The report (CAT Report 1612)

CBC evaluation brief, CAT written scheme of investigation

Site digital photographs, thumbnails and log

Graphic files

Survey data

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 Braintree Museum.

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Distribution list:

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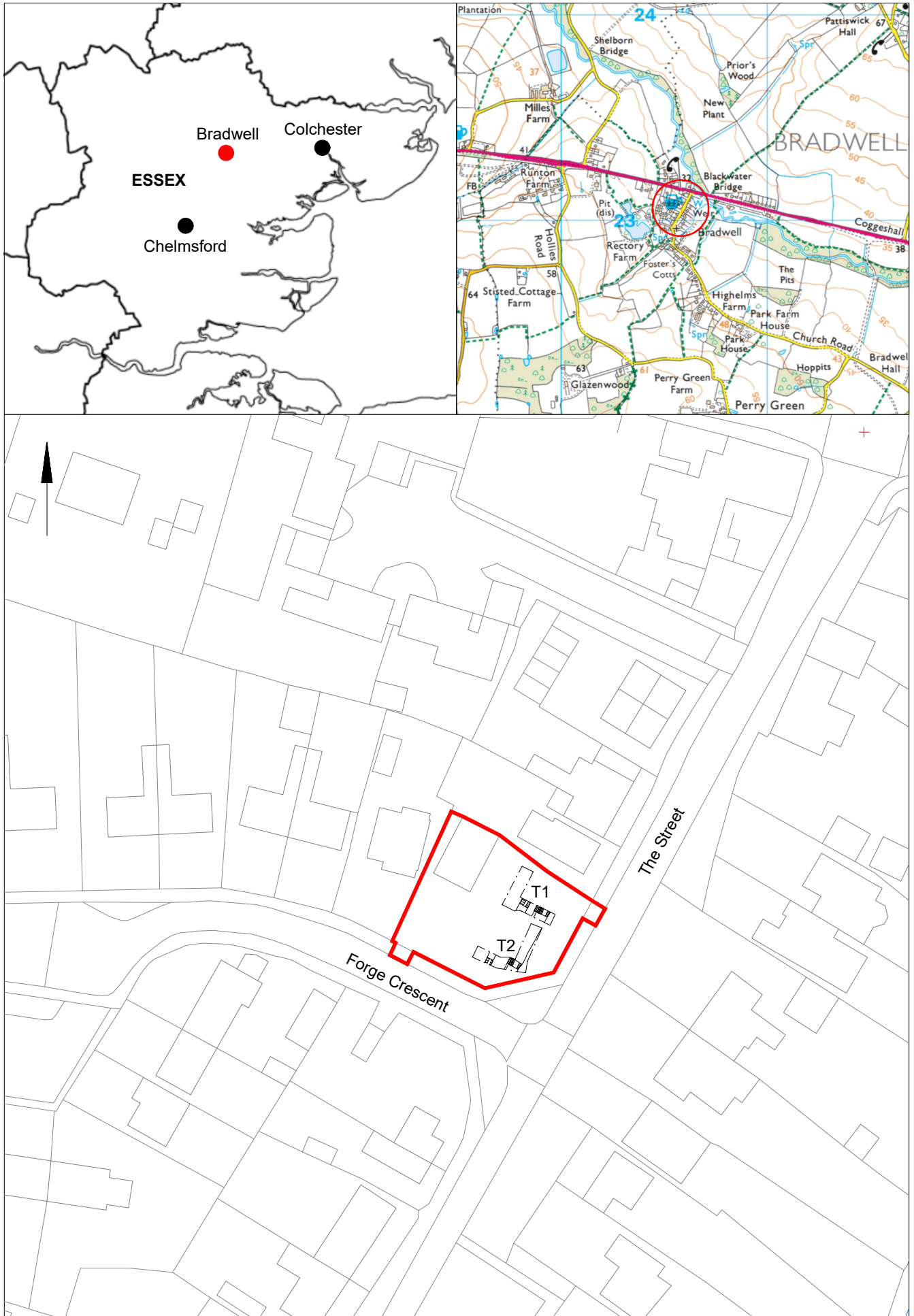
email: sc@catuk.org

Checked by: Philip Crummy

Date: 10/11/2020

Appendix 1 Context list

Context number	Trench number	Finds number	Feature type	Description	Date
L1	All	-	Hardstanding	0.05m of hardcore overlaying a firm, moist medium/dark grey/brown silty-loam	Modern
L2	All	-	Subsoil	firm, moist medium grey/brown silty-loam	Post-medieval
L3	All	-	Natural	firm, moist medium yellow/orange/brown sands and gravels	Post-glacial
F1	1	-	Ditch	firm moist very light grey/brown clayey silt and inclusions of: gravel 5%	Undated
F2	1	1	Ditch	soft moist medium/dark grey/brown loamy silt sand and inclusions of: stone 15%	Post-medieval
F3	1	-	Ditch	soft moist light/medium grey/brown loamy silt sand	Undated
F4	2	-	Ditch	soft moist light grey/brown loamy clay silt	Undated
F5	2	2	Ditch	soft dry medium/dark grey/brown sandy silt	Post-medieval
F6	2	-	Ditch	soft moist light/medium grey/brown sandy silt	Undated



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Fig 1 Site location.



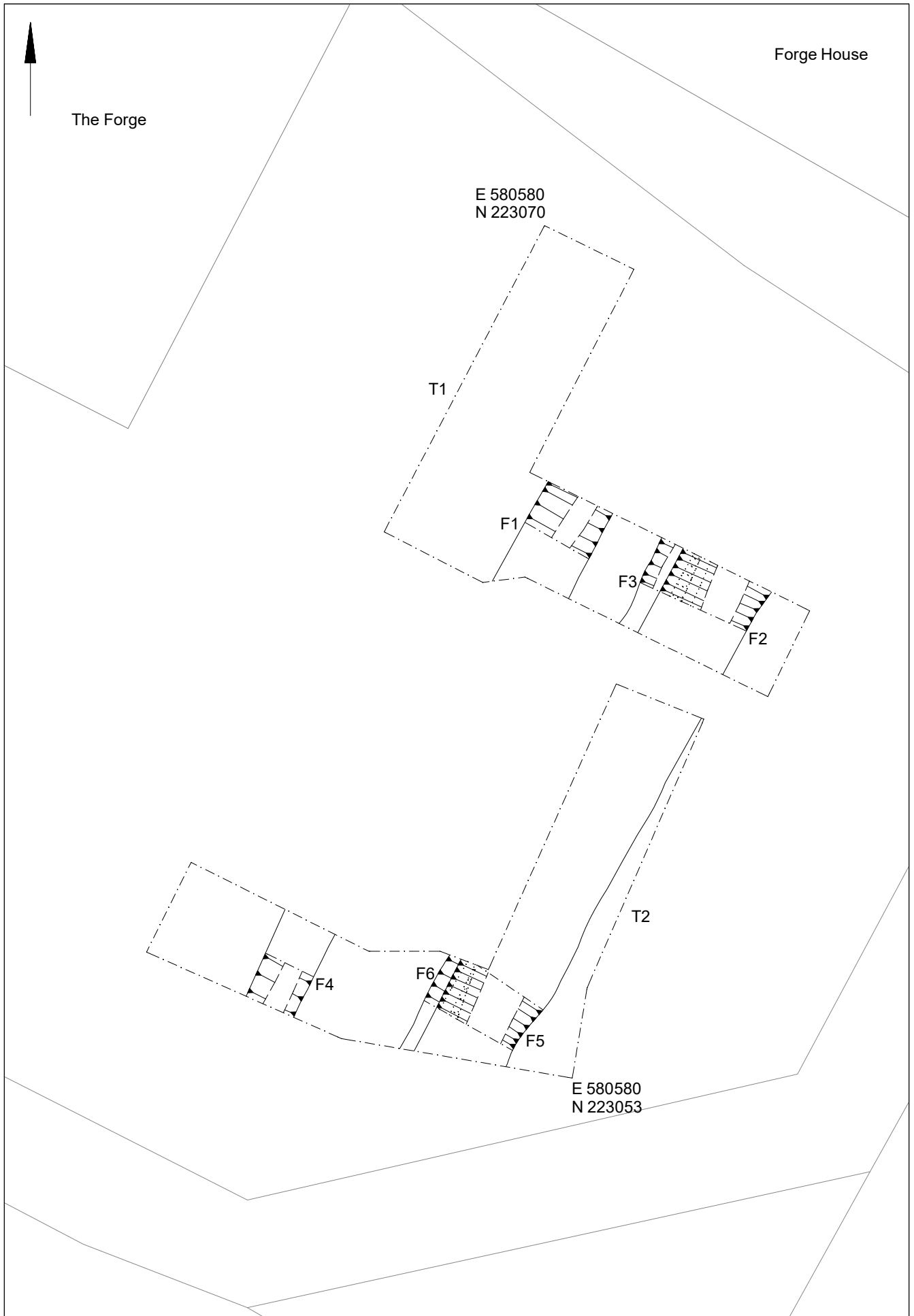


Fig 2 Evaluation results.

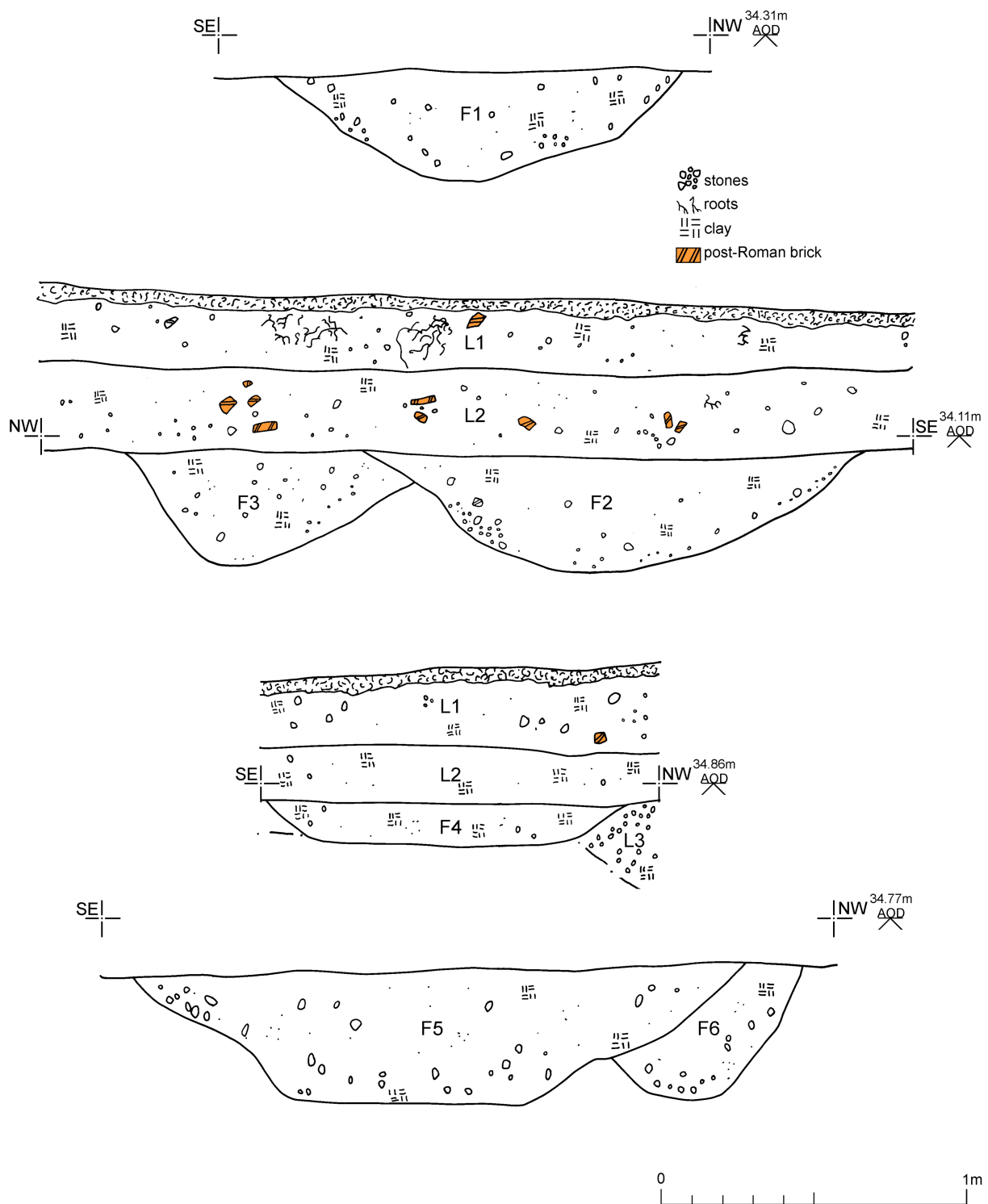


Fig 3 Feature and representative sections.

OASIS DATA COLLECTION FORM: England

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Printable version

OASIS ID: colchest3-405171

Project details

Project name	Archaeological evaluation by trial trenching at The Forge, The Street, Bradwell, Essex, CM77 8EG.
Short description of the project	A trial-trench evaluation of 2 L-shaped trenches uncovered 6 ditches, 4 undated and 2 post-medieval in date. F1-F3 in T1 are continuations of F4-6 in T2.
Project dates	Start: 23-10-2020 End: 23-10-2020
Previous/future work	No / Not known
Any associated project reference codes	20/00972/FUL - Planning Application No.
Any associated project reference codes	2020/10e - Contracting Unit No.
Any associated project reference codes	BDTS20 - HER event no.
Type of project	Field evaluation
Site status	None
Current Land use	Vacant Land 3 - Despoiled land (contaminated derelict and ?brownfield? sites)
Monument type	DITCH Post Medieval
Significant Finds	POTTERY SHERDS Post Medieval
Significant Finds	CBM Post Medieval
Significant Finds	ANIMAL BONE Post Medieval
Methods & techniques	""Targeted Trenches""
Development type	Small-scale (e.g. single house, etc.)
Prompt	National Planning Policy Framework - NPPF
Position in the planning process	After full determination (eg. As a condition)

Project location

Country	England
Site location	ESSEX BRAINTREE BRADWELL The Forge, The Street, Bradwell, Essex
Postcode	CM77 8EG

Study area 0.05 Hectares
 Site coordinates TL 80575 23063 51.876358159842 0.623604127946 51 52 34 N 000 37 24 E Point

Project creators

Name of Organisation Colchester Archaeological Trust
 Project brief originator HEM Team Officer, ECC
 Project design originator Emma Holloway
 Project director/manager Chris Lister
 Project supervisor Mark Baister
 Type of sponsor/funding body Developer
 Name of sponsor/funding body Fairfield Holdings Ltd

Project archives

Physical Archive Exists? No
 Digital Archive recipient Archaeological Data Service
 Digital Contents "none"
 Digital Media available "Images raster / digital photography", "Images vector", "Survey", "Text"
 Paper Archive recipient Braintree Museum
 Paper Contents "none"
 Paper Media available "Photograph", "Plan", "Report", "Section", "Survey "

Project bibliography 1

Publication type Grey literature (unpublished document/manuscript)
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Written Scheme of Investigation (WSI) for an archaeological evaluation by trial trenching at The Forge, The Street, Bradwell, Essex, CM77 8EG.

NGR: TL 80575 23063 (centre)

District: Braintree

Parish: Bradwell With Pattiswick Parish Council

Planning reference: 20/00972/FUL

Commissioned by: Mike Bradburn (Fairfield Holdings Ltd)

Client: Fairfield Holdings Ltd

Curating museum: Braintree

Museum accession number: tbc

ECC project code: tbc

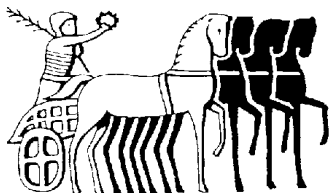
CAT project code: 2020/10e

Oasis project ID: colchest3-405171

Site manager: Chris Lister

ECC monitor: Teresa O'Connor

This WSI written: 12/10/2020 (revised)



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Site location and description

The proposed development site is located c 2.6km east of the edge of Braintree at The Forge, The Street, Bradwell, Essex (Fig 1). Site is centred at National grid reference (NGR) TL 80575 23063. The site is currently an area of hard standing and vegetation with the former Forge building in the northwestern corner. In more recent years the site has been in use as a car repair garage.

Proposed work

The planning application proposes the demolition of the former forge building and erection of two semi-detached three bedroomed houses with parking and associated groundworks.

Archaeological background

The following archaeological includes extracts of the ECC brief and the Essex Historic Environment Records (EHER) held at Essex County Council, County Hall, Chelmsford, Essex (accessed via <http://www.heritagegateway.org.uk>).

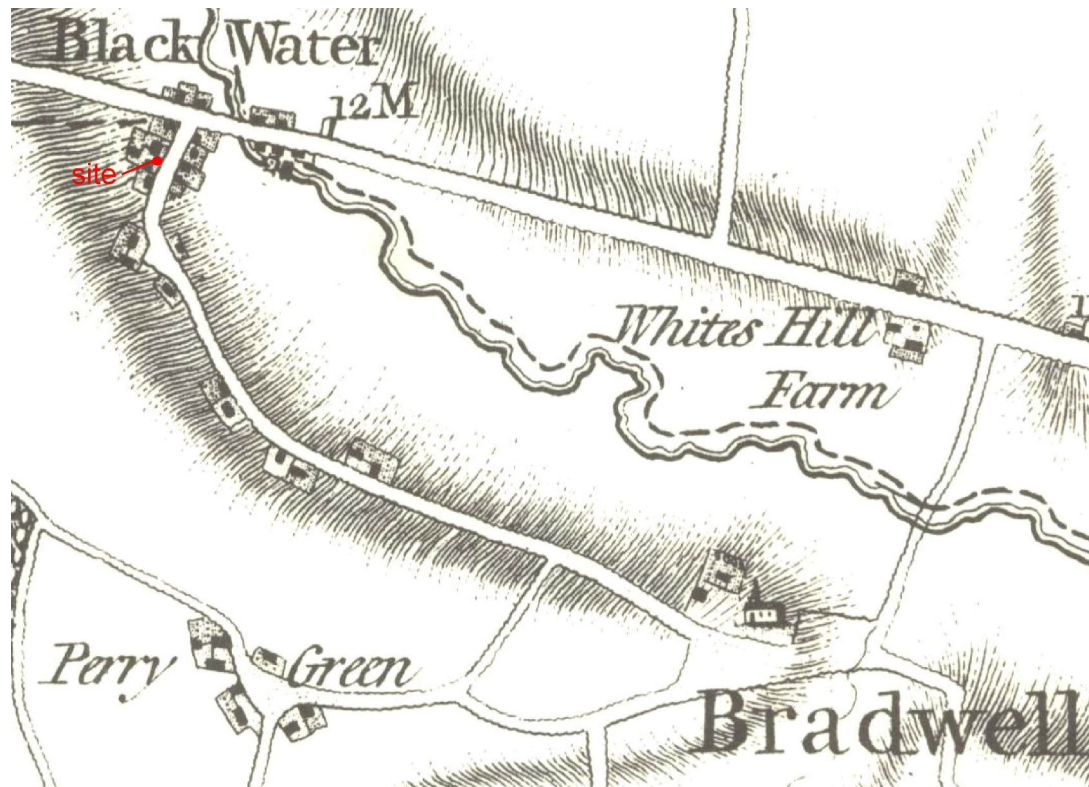
The Essex Historic Environment (HER) Record shows that the proposed development will affect a site of archaeological interest and a historic building. The site lies within a historic settlement formerly known as Blackwater and now forming part of Bradwell.

Multiple areas of cropmarks recorded by aerial photography are noted on the EHER close to the site. Fields on the northern side of the A120 (line of the Roman Road) include: linear features Northeast of Bridge Hall EHER 14199); linear features North of Bradwell (EHER 8793); a ring-ditch (with internal pit), a rectangular enclosure (with internal pits) and linear features on land Northeast of Bradwell (EHER 8788); enclosures and ditches suggesting dense activity on land South of Pattiswick (EHER 8787); ditch and pits at Bridge Hall (EHER 14196) and a possible ring-ditch North of Sandy Hill (EHER 14184). While many of the linear features probably represent post-medieval field boundaries, the ring-ditches and enclosures likely represent evidence of potential prehistoric settlements.

The site is just to the south of the line of the Roman Road Stane Street which ran from Braintree to Colchester and close to the river and would have been preferable location for settlement and activity in prehistoric and Roman periods (EHER 8646). Around 100m to the north east remains of several wooden bridges were found when the Blackwater bridge was rebuilt, a Roman pottery vessel and type of horseshoe were recovered which suggests the bridge may be of Roman origin (EHER 8717).

The Swan Inn to the north is 16th century in date and is a listed building (EHER 29947), opposite the Forge lies Ruffles a 17th century listed building (EHER 29954). Settlement along the Street is depicted on the Chapman and André map of 1777 (see Map 1) and is likely to be medieval in origin. The Forge building is depicted on the 2nd edition OS map and so dates to c 1870. Prior to this the site appeared to form part of a walled garden.

There has been little archaeological fieldwork in the area, due to the lack of recent development, the exception is aggregate work at Broadwell Quarry, approximately 2km southeast of the site. Essex Field Archaeology unit have undertaken multiple archaeological investigations prior to phased quarry expansion. Main archaeological sites between 2001-2010 have recorded small amounts of Neolithic and later worked flints, a Middle Bronze Age and Middle Iron Age settlement, including round-house, medieval enclosures with evidence of crop-processing and a disturbed early Saxon cremation (Peachey 2003; Allen and Roy 2006; Germany 2006; Ennis 2008).



Map 1 Extract of the 1777 Chapman and André map, showing site location (red).

Planning background

A planning application (20/00972/FUL) was submitted to Braintree District Council in June 2020 for the *erection of 2 x3 bedroomed two-storey semi-detached dwellings with parking and amenity space following demolition of existing building.*

As the site lies within an area highlighted by the EHER as having a high potential for archaeological remains a phased full archaeological condition was recommended. This recommendation follows the guidelines given in National Planning Policy Framework (MHCLG 2019). This WSI covers the evaluation phase. A second WSI covers the historic building recording phase.

Requirement for work (Fig 1)

The required archaeological work will consist of an of a phased archaeological programme. An historic building recording (covered by a separate WSI) and an archaeological evaluation by trial-trenching (this WSI). Details are given in a Project Brief written by ECCPS (Brief for Trial Trenching & Excavation at The Forge, The Street, Bradwell – ECC 2020).

Specifically, two 'L-shaped' trial-trenches will be evaluated positioned within the footprint of the proposed new dwellings (see Map 1). Trench 1 measures 12.5m long by 1.8m wide and Trench 2 measures 14m long by 1.8m wide. This equates to 26m of trenching covering an area of 46.8m².

Aims of the archaeological evaluation is to target:

- Potential activity associated with the medieval settlement, specifically along the roadside
- Roman activity associated with Stane Street

Further area excavation may be required should significant archaeological deposits/features be identified that cannot be preserved *in situ*. This will be decided by the ECCHEA on completion of the trial-trenching and report.

General methodology

All work carried out by CAT will be in accordance with:

- professional standards of the Chartered Institute for Archaeologists, including its *Code of Conduct* (CIfA 2014a, b)
- Standards and Frameworks published by East Anglian Archaeology (Gurney 2003, Medlycott 2011)
- relevant Health & Safety guidelines and requirements (CAT 2019)
- the Project Brief issued by ECC Historic Environment Advisor (ECCPS 2020)

Professional CAT field archaeologists will undertake all specified archaeological work, for which they will be suitably experienced and qualified.

Notification of the supervisor/project manager's name and the start date for the project will be provided to ECCHEA one week before start of work.

Unless it is the responsibility of other site contractors, CAT will study mains service locations and avoid damage to these.

At the start of work (immediately before fieldwork commences) an OASIS online record <http://ads.ahds.ac.uk/project/oasis/> will be initiated and key fields completed on Details, Location and Creators forms. At the end of the project all parts of the OASIS online form will be completed for submission to EHER. This will include an uploaded .PDF version of the entire report.

A project or site code will be sought from ECCHEA and/or the curating museum, as appropriate to the project. This code will be used to identify the project archive when it is deposited at the curating museum.

Staffing

The number of field staff for this project is estimated as follows:

- One CAT officer and two archaeologists for one day.

In charge of day-to-day site work: Mark Baister

Evaluation methodology

Where appropriate, modern overburden and any topsoil stripping/levelling will be performed using a mechanical excavator equipped with a toothless ditching bucket under the supervision and to the satisfaction of a professional archaeologist. If no archaeologically significant deposits are exposed, machine excavation will continue until natural subsoil is reached.

Where necessary, areas will be cleaned by hand to ensure the visibility of archaeological deposits.

If archaeological features or deposits are uncovered, time will be allowed for these to be excavated, planned and recorded.

There will be sufficient excavation to give clear evidence for the period, depth and nature of any archaeological deposit. For linear features 1m wide sections will be excavated across their width to a total of 10% of the overall length. Discrete features, such as pits, will have 50% of their fills excavated, although certain features may be fully excavated. Complex

archaeological structures such as walls, kilns, ovens or burials will be carefully cleaned, planned and fully recorded, but where possible left *in situ*. Only if it can be demonstrated that the complex structure/feature is likely to be destroyed by groundworks, and only then after discussion with the ECCHEA, will it be removed.

Fast hand-excavation techniques involving (for instance) picks, forks and mattocks will not be used on complex stratigraphy.

The depth and nature of colluvial or other masking deposits will be established. Therefore, a sondage will be excavated in each trench to test the stratigraphy of the site. This will occur in every trench unless it can be demonstrated that a feature excavated within a particular trench has clearly penetrated into natural.

A representative section will be drawn of each trench, to include ground level, the depth of machining within the trench and the depth of any sondages.

Trained CAT staff will use a metal detector to scan all trenches both before and during excavation. All spoil heaps will also be scanned and finds recovered.

Individual records of excavated contexts, layers, features or deposits will be entered on proformarecord sheets. Registers will be compiled of finds, small finds and soil samples.

All features and layers or other significant deposits will be planned, and their profiles or sections recorded. The normal scale will be site plans at 1:20 and sections at 1:10, unless circumstances indicate that other scales would be appropriate.

The photographic record will consist of general site shots, and shots of all archaeological features and deposits. A photographic scale (including north arrow) shall be included in the case of detailed photographs. A photographic register will accompany the photographic record. This will detail as a minimum feature number, location, and direction of shot.

Trenches will not be backfilled until they have been signed off by the ECCHEA.

Site surveying

The evaluation trench and any features will be surveyed by Total Station or GPS, unless the particulars of the features indicate that manual planning techniques should be employed. Normal scale for archaeological site plans and sections is 1:20 and 1:10 respectively, unless circumstances indicate that other scales would be more appropriate.

The site grid will be tied into the National Grid. Corners of excavation areas will be located by NGR coordinates.

Environmental sampling policy

The number and range of samples collected will be adequate to determine the potential of the site, with particular focus on palaeoenvironmental remains including both biological remains (e.g. plants, small vertebrates) and small sized artefacts (e.g. smithing debris), and to provide information for sampling strategies on any future excavation. Samples will be collected for potential micromorphical and other pedological sedimentological analysis. Environmental bulk samples will be 40 litres in size (assuming context is large enough).

Sampling strategies will address questions of:

- the range of preservation types (charred, mineral-replaced, waterlogged), and their quality
- concentrations of macro-remains
- and differences in remains from undated and dated features
- variation between different feature types and areas of site

CAT has an arrangement with Val Fryer / Lisa Gray whereby any potentially rich environmental layers or features will be appropriately sampled as a matter of course. Trained CAT staff will process the samples and the flots will be sent to Val Fryer or Lisa Gray for analysis and reporting.

Should any complex, or otherwise outstanding deposits be encountered, VF or LG will be asked onto site to advise. Waterlogged 'organic' features will always be sampled. In all cases, the advice of VF/LG and/or the Historic England Regional Advisor in Archaeological Science (East of England) on sampling strategies for complex or waterlogged deposits will be followed, including the taking of monolith samples.

Human remains

CAT follows the policy of leaving human remains *in situ* unless there is a clear indication that the remains are in danger of being compromised as a result of their exposure or unless advised to do so by the project osteologist or ECCHEA. If circumstances indicated it were prudent or necessary to remove remains from the site during the evaluation, the following criteria would be applied; if it is clear from their position, context, depth, or other factors that the remains are ancient, then normal procedure is to apply to the Department of Justice for a licence to remove them and seek advice from the project osteologist. Following HE guidance (HE 2018) if the human remains are not to be lifted, the project osteologist should be available to record the human remain *in situ* (i.e. a site visit). Conditions laid down by the DoJ license will be followed. If it seems that the remains are not ancient, then the coroner, the client, and the ECCHEA will be informed, and any advice and/or instruction from the coroner will be followed.

Photographic record

Will include both general and feature-specific photographs, the latter with scale and north arrow. A photo register giving context number, details, and direction of shot will be prepared on site, and included in site archive.

Finds

All significant finds will be retained.

All finds, where appropriate, will be washed and marked with site code and context number. CAT may use local volunteers to assist the CAT Finds Officer with this task.

Most of our finds reports are written internally by CAT Staff under the supervision and direction of Philip Crummy (Director) and Howard Brooks (Deputy Director). This includes specialist subjects such as:

ceramic finds (pottery and ceramic building material): Matthew Loughton

animal bones: Alec Wade (or Adam Wightman, small groups only)

small finds, metalwork, coins, etc: Laura Pooley

non-ceramic bulk finds: Laura Pooley

flints: Adam Wightman

environmental processing: Bronagh Quinn

project osteologist (human remains): Meghan Seehra

or to outside specialists:

animal and human bone: Julie Curl (*Sylvanus*)

environmental assessment and analysis: Val Fryer / Lisa Gray

radiocarbon dating: SUERC Radiocarbon Dating Laboratory, Glasgow

conservation/x-ray: Laura Ratcliffe (LR Conservation) / Norfolk Museums Service, Conservation and Design Services

Other specialists whose opinion can be sought on large or complex groups include:

flint: Hazel Martingell

prehistoric pottery: Stephen Benfield / Nigel Brown / Paul Sealey

Roman pottery: Stephen Benfield / Paul Sealey / Jo Mills / Val Rigby /
Gwladys Monteil
Roman brick/tile: Ernest Black / Ian Betts (MOLA)
Roman glass: Hilary Cool
small finds: Nina Crummy
other: EH Regional Adviser in Archaeological Science (East of England).

All finds of potential treasure will be removed to a safe place, and the coroner informed immediately, in accordance with the rules of the Treasure Act 1996. The definition of treasure is given in pages 3-5 of the Code of Practice of the above act. This refers primarily to gold or silver objects.

Requirements for conservation and storage of finds will be agreed with the appropriate museum prior to the start of work, and confirmed to ECCHEA.

A contingency will be made in the budget for scientific assessment/analysis if suitable deposits are identified. This can include soil micromorphological and geochemical analysis of floors and dark earth deposits and/or absolute dating (such as archaeomagnetic and radiocarbon). The Historic England Regional Science Advisor will be consulted for advice.

Post-excavation assessment

An updated post-excavation assessment will be submitted within 2 months or at an alternatively agreed time with the ECCHEA.

Where archaeological results do not warrant a post-excavation assessment then agreement will be sought from the ECCHEA to proceed straight to grey literature / publication.

Results

Notification will be given to ECCHEA when the fieldwork has been completed.

An appropriate archive will be prepared to minimum acceptable standards outlined in *Management of Research Projects in the Historic Environment* (HE 2015).

The report will be submitted within 6 months of the end of fieldwork, with a copy supplied to the Historic Environment Advisor as a single PDF.

The report will contain:

- Location plan of trenches in relation to the proposed development. At least two corners of each excavated area will be given a 10 figure grid reference.
- Section/s drawings showing depth of deposits from present ground level with Ordnance Datum, vertical and horizontal scale.
- Archaeological methodology and detailed results including a suitable conclusion and discussion. Appropriate discussion and results section assessing the site in relation to the Regional Research Frameworks (Brown and Glazebrook 2000, Medlycott 2011).
- All specialist reports or assessments
- A concise non-technical summary of the project results.

An OASIS summary sheet shall be completed at the end of the project and supplied to the ECCHEA. This will be completed in digital form with a paper copy included with the archive. A copy (with trench plan) will also be emailed to the Hon. Editor of the *Essex Archaeology and History Journal* for inclusion in the annual round-up of projects (paul.gilman@me.com).

Publication of the results at least a summary level (i.e. round-up in *Essex Archaeology & History*) shall be undertaken in the year following the archaeological fieldwork. An allowance will be made in the project costs for the report to be published in an adequately peer reviewed journal or monograph series.

Archive deposition

The requirements for archive storage shall be agreed with the Curating museum.

The paper archive will be deposited with the appropriate museum within two months of the completion of the final publication report and confirmed in writing to the ECCHEA.

The digital archive resulting from the work will be deposited with the Archaeology Data Service (www.archaeologydataservice.ac.uk) to safeguard the long-term curation of the digital records. The ECCHEA will be notified when the digital archive has been deposited. Prior to deposition CAT's data management plan (based on the official guidelines from the Digital Curation Centre [DCC 2013]) will ensure the integrity of the digital archive. A summary of the contents of the archives shall be supplied to the ECCHEA at the time of their deposition.

Monitoring

ECCHEA will be responsible for monitoring progress and standards throughout the project, and will be kept regularly informed during fieldwork, post-excavation and publication stages.

Notification of the start of work will be given ECCHEA one week in advance of its commencement.

Any variations in this WSI will be agreed with ECCHEA prior to them being carried out.

ECCHEA will be notified when the fieldwork is complete.

The involvement of ECCHEA shall be acknowledged in any report or publication generated by this project.

References

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

- | | | |
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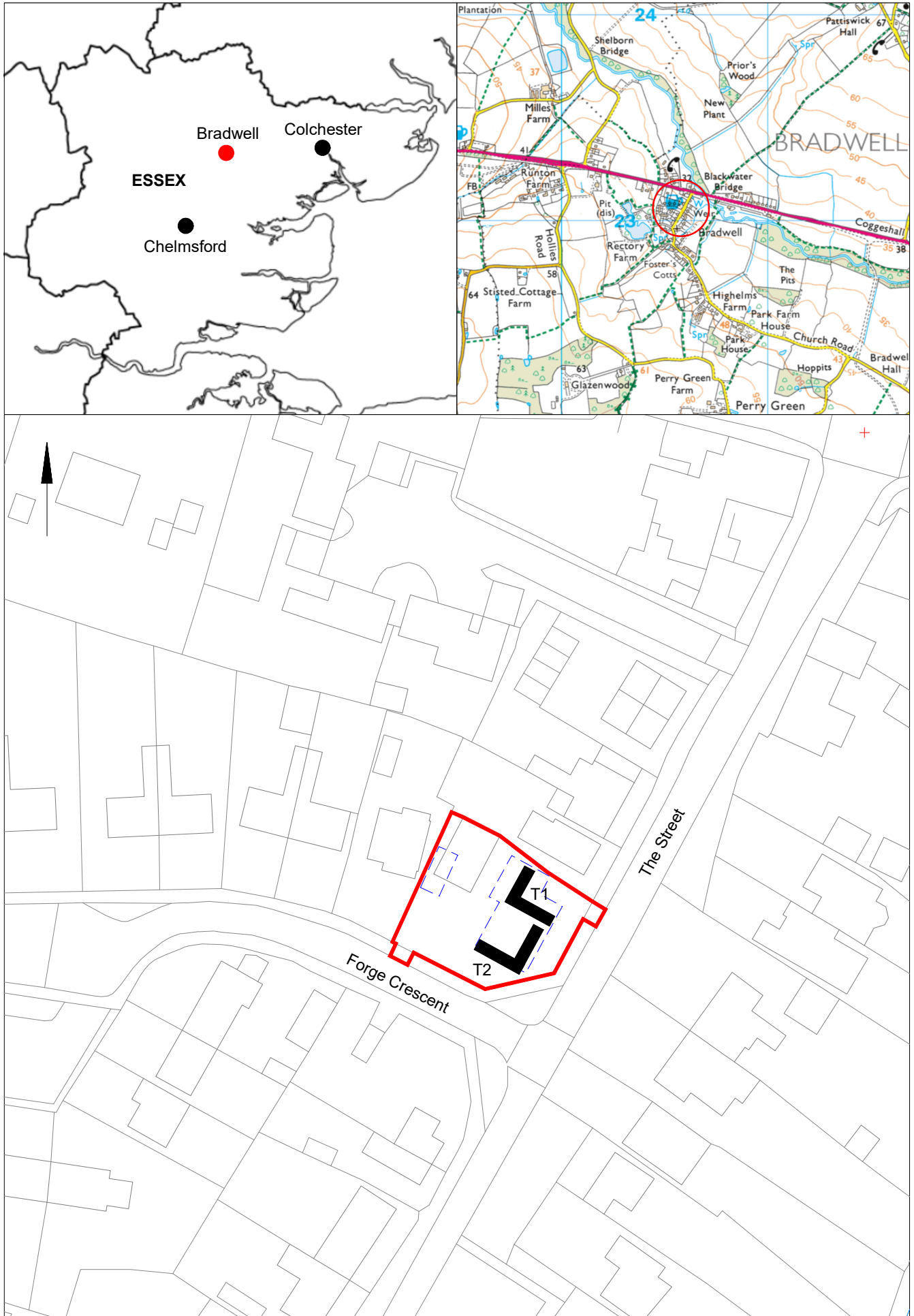
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Fig 1 Site location and trench layout in relation to the proposed development (indicated by the dashed blue lines).

