Archaeological strip, map and recording excavation at Colchester Northern Gateway (South), between Via Urbis Romanae and Mill Road, on land to the south of Axial Way, Colchester, CO4 5XD

March 2020

by Dr Elliott Hicks and Laura Pooley
figures by Ben Holloway and Sarah Carter

fieldwork by Ben Holloway and Chris Lister with Matthew Perou, Alexander Smith and Bronagh Quinn

commissioned by Jack Conington on behalf of Colchester Amphora Trading Ltd

NGR: TM 0001 2882 (centre)
Planning ref.: 190665
CAT project ref.: 20/01c
ECC code: ECC4434
OASIS ref.: colchest3-383849

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CAT Report 1544
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Contents

List of photographs, tables and figures

1 Summary

The first phase of an archaeological strip, map and record project was carried out at Northern Gateway (South), between Via Urbis Romanae and Mill Road, on land south of Axial Way, Colchester, Essex in advance of the construction of a new access road and boulevard and associated drainage, services and an energy centre. Three charcoal-rich pits were uncovered, in addition to the eleven which were excavated during the evaluation stage of this investigation, one of which produced a Late Neolithic flint arrowhead. Together, these provide further evidence of historic charcoal production within northern Colchester which has been revealed by archaeological investigations over the previous two decades. Three undatable pits and a modern ditch were also recorded.

2 Introduction (Fig 1)

This is the report for the first phase of an archaeological strip, map and record project carried out at Northern Gateway (South), between Via Urbis Romanae and Mill Road, on land south of Axial Way, Colchester, Essex during 2nd to 13th March 2020. A second phase of investigation will be undertaken on land directly to the east of the present site. The work was commissioned by Jack Conington on behalf of Colchester Amphora Trading Ltd in advance of the construction of a new access road and boulevard and associated drainage, services and an energy centre and was carried out by Colchester Archaeological Trust (CAT).

As the site lies within an area highlighted by the EHER/CHER as having a high potential for archaeological deposits, an archaeological condition was recommended by the Colchester Borough Council Archaeological Advisor (CBCAA). This recommendation was for an archaeological excavation and was based on the guidance given in the *National Planning Policy Framework* (MHCLG 2019).

All archaeological work was carried out in accordance with a *Brief for Archaeological Excavation*, detailing the required archaeological work, written by Jess Tipper (CBCAA 2019), 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 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 excavation* (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 Colchester Archaeological Trust report archive and the Colchester Historic Environment Record (CHER) accessed via the Colchester Heritage Explorer (www.colchesterheritage.co.uk).

A gradiometry survey of the *c* 50 hectare development area was carried out in 2016 by Stratascan. Their survey identified the corner of an undated enclosure along with a number of possible associated linear responses and a number of modern anomalies related to services (Richardson 2016, ECC3649). The present investigation is located in a plot adjacent to the surveyed area, located to the west.

In 2018 and 2019, a trial-trench evaluation was carried out across part of the proposed development site by Archaeological Services, Durham University. Archaeological deposits uncovered included fire pits, post-medieval boundary ditches, and postholes and ditches of unknown date (AS Report 4977, ECC4302).

CAT have carried out several investigations as part of the Colchester Northern Gateway project. During an evaluation of Sports Hub plots 2-3 significant archaeological remains were recorded, consisting of 24 charcoal-rich pits which probably related to charcoal production. These were sub-round or sub-oval charcoal-rich features with occasional evidence of in situ burning. Dating evidence was mostly lacking, but two of the pits contained finds dated to the Roman and post-Roman periods, with radiocarbon dates from charcoal in another two of the pits dating to the Middle Iron Age and late Anglo-Saxon/early medieval period. Together with another 121 charcoal-rich pits known from other archaeological investigations, these remains suggest that charcoal production was occurring in this part of northern Colchester from the Early Iron Age through to the medieval period. Other archaeological remains included residual prehistoric worked flints, a single tree throw containing a prehistoric worked flint which was possibly residual, a small number of undated pits and tree throws, and a number of modern field boundary ditches, many of which are visible on old OS maps dating from the late 19th century to the late 1990s (CAT Report 1219, ECC4112). Further excavations conducted at Sports Hub plots 2-3 2018 revealed over a hundred further charcoal-rich pits, analysis of which is pending (CAT Report forthcoming).

4 Aim

The aim of this this investigation was to excavate and record all archaeological horizons due to be destroyed during the proposed development.

5 Results (Figs 2-5)

Three separate areas, totalling 3336.3m², were stripped under archaeological supervision to accommodate the new access road and boulevard. Two layers were recorded. Modern ploughsoil (L1, *c* 0.33-0.35m thick, soft moist dark grey/brown silty-clay) sealed natural clays (L2, firm, moist light/medium yellow/orange/brown clay).

The majority of the features lay within the south strip.

Undatable ?pit F1 was 1.33m wide and 0.19m deep.

Undatable charcoal-rich pit F2 was 0.75m wide and 0.1m deep. Evidence of in-situ burning was evident on the base and sides of the feature.

Photograph 1 F2 sx – looking south southwest

Undatable pit F3 was 0.33m wide and 0.05m deep.

Undatable pit F4 was 0.32m wide and 0.07m deep.

Undatable charcoal-rich pit F7 was 1.19m wide and 0.36m deep. There was evidence of in-situ burning on the base and sides of the feature.

Photograph 2 F7 sx – looking south

Modern ditch F6 extended through the south strip on a NNE-SSW alignment. The feature was not excavated.

Charcoal-rich pit F5 was uncovered in the north strip. It was 0.72m wide and 0.19m deep. The feature exhibited no evidence of in-situ burning. A Late Neolithic flint arrowhead was recovered from the feature.

6 Finds (Fig 6)

by Adam Wightman

Late Neolithic oblique arrowhead (charcoal-rich pit F5)

A complete and well-made example of a British oblique arrowhead with semi-abrupt retouch along one flake edge and on both faces to form a point (Fig 6). The retouch extends down the entire edge and around the base of the arrowhead (again on both faces). The retouch on the base creates a hollow which forms two slight barbs. There is a small length of retouch on the other edge of the arrowhead to either strengthen the barb on that side or make the piece symmetrical. Oblique arrowheads are frequently found associated with Grooved Ware pottery (Butler 2006, 160).

7 Environmental assessment

by Lisa Gray MSc MA ACIfA Archaeobotanist

Introduction

This report is an assessment of five samples (see Table 1) taken from charcoal-rich pits.

Sample	Finds No.	Feature type	Date	Initial volume (L.)
1	F2	Charcoal-rich pit – upper fill	Undated	20
2	F2	Charcoal-rich pit – lower fill	Undated	30
3	F5	Pit	Undated	40
4	F7	Charcoal-rich pit – upper fill	Undated	50
5	F7	Charcoal-rich pit – lower fill	Undated	20

Table 1 Samples presented for assessment

Methodology
Samples were taken and processed by Colchester Archaeological Trust. 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.

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; Jacomet 2006). Nomenclature for plants is taken from Stace (2010). Latin names are given once and the common names used thereafter.

Charcoal fragments larger than 4mm Ø in size were separated from the main flots and where possible, one hundred fragments were randomly selected for identification using a riffle box. Identification was attempted using epi-luminating microscopy. It is difficult to make identifications of charcoal fragments that are smaller than 4mm Ø in size because the diagnostic features necessary for identification may not be visible in such small fragments (Asouti 2006, 31; Smart & Hoffman, 1988, 178-179). Fragments smaller than this size were scanned to find any twigs or smaller roundwood fragments. When fragments have been broken to reveal anatomical features, they have been wrapped in foil to keep those fragments intact so they can be counted. Charcoal identifications were made using modern reference slides (author's own) and anatomical guides (Hather 2000; Schoch *et al.* 2004).

Results
Each flot produced only charcoal and modern rootlet fragments. No table has been created for them due to their unproductivity.

Most of the charcoal in each sample (see Table 2) came from fragments of oak (*Quercus* sp.) and beech (*Fagus sylvatica* L.). Sample <4> contained a fragment of cherry/plum/sloe (*Prunus* sp.). It was not possible to distinguish between stem or branch oak-wood.

Sample	Oak	Beech	Cherry/Plum
1	61	39	-
2	73	32	-
3	52	48	-
4	68	18	1
5	34	54	-

Table 2 Charcoal taxa

Discussion
As with previous charcoal analyses carried out for Colchester Northern Gateway sites

(Gray 2018 & Gray 2020) the most frequently occurring charcoal type in these features are oak and beech wood. Both wood taxa represented in the charcoal have uses as fuel and craft woods. Well-seasoned oak burns slowly giving off a '…good lasting heat…' and well-seasoned beech also burns well but not as well as oak (Skellern 2000). It is possible that bundles of wood and woody stems from trees and shrubs, such as cherry/plum were gathered to produce extreme heat and high flames over a short time (Marguerie & Hunot 2007, 1425).

8 Discussion

Three charcoal-rich pits (CRPs) were uncovered during this investigation. Added to the eleven which were revealed during the evaluation, a total of fourteen charcoal-rich pits have been recorded during archaeological investigations at CNG South.

Since 2001, another 145 charcoal-rich pits have been recorded during a series of archaeological investigations within an area measuring 2km east to west by 4km north to south in northern Colchester (not including those uncovered at CNG Plots 2-3 SME, to the north of the present site on the other side of the A12). Although they seem to be concentrated in the area immediately to the north and south of the A12, especially between Boxted Road and Severalls Lane, this distribution may simply reflect where archaeological investigations have taken place rather than revealing any particular clusters of activity.

Only thirteen of these 145 charcoal-rich pits contained datable finds. Two produced prehistoric pottery, three produced Roman pottery sherds, five others yielded pottery sherds of medieval date, two contained a medieval or post-medieval CBM, while one more yielded pottery of post-medieval or modern date. Since 2015, the charcoal from nine of these pits has also been sent for radiocarbon dating, producing results dating to the Early Iron Age, Middle Iron Age (x3), Late Iron Age, early Roman and early medieval periods.

Like the charcoal-rich pits excavated elsewhere in northern Colchester, the three charcoal-rich pits uncovered during this phase of work at CNG South were relatively shallow, round or oval pits, containing charcoal-rich fills and occasional evidence of in-situ burning. A Late Neolithic arrowhead was recovered from one of them, although this is almost certainly residual. The results of radiocarbon dating will shed further light on the origins of these features.

Previous theories as to the origin and function of these charcoal-rich pits concluded that they were associated with military encampments from the 19th century or First World War (for which there has been no dating evidence) (Mattinson 2004; CAT Report 728) and that they were associated with medieval tree-clearance (CAT Report 627). More recently they have been interpreted as being connected to charcoal production (Dyson 2015; House 2017). It is now thought that these features are the remains of charcoal clamps, small pyres of wood arranged in a small pit over which small mud domes were constructed and which were burned to produce charcoal (CAT Report 1219).

Records show that during the early medieval period much of this area of northern Colchester was woodland, divided into Kingswood Forest and Cestrewald (BHO, 'Lexden Hundred'). Large-scale woodland clearance began during the 13th century. It was this clearance that eventually led to the creation of the heathland of later centuries, the development site being located just to the west of Boxted Heath (BHO, 'Boxted: Introduction' and 'Great Horkesley: Economic History'). Radiocarbon dating of the charcoal-rich pits has shown that these ancient woodlands were being exploited for charcoal production as far back as the Early Iron Age, presumably for localised use. The proximity of such a large woodland to the urban centre of Colchester in the Roman and medieval periods would have been significant for the supply and/or trade of

charcoal to the town. It is likely the sporadic distribution of CRPs across northern Colchester relates either to the targeting of dense woodland or the use of existing clearings within that woodland. This would explain why little other evidence (features or finds) has been found relating to the charcoal-rich pits across northern Colchester. It is interesting to note, however, that no tree-throws were excavated at CNG South.

Other archaeological remains uncovered during this investigation comprised of two pits, a possible pit and a ditch. No dating evidence was recovered from the pits, and so their relation to other remains in the vicinity cannot be ascertained. Much of the ditch which was uncovered is a still extant field boundary ditch which is modern in date. A number of trenches were excavated within the stripped areas during the evaluation previously carried out at the site, but none revealed archaeological deposits.

9 Acknowledgements

CAT thanks Jack Conington and Amphora Developments Ltd for commissioning and funding the work. The project was managed by C Lister, fieldwork was carried out by B Holloway and C Lister with M Perou, A Smith and B Quinn. Figures are by B Holloway and S Carter. The project was monitored for Colchester Borough Council by Jess Tipper.

10 References

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

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CAT Report 1219	2018	*Archaeological evaluation at Colchester Northern Gateway Sports Hub Plots 2-3, Colchester, Essex: November-December 2017*, by L Pooley
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CIfA	2014a	*Standard and Guidance for an archaeological evaluation*
CIfA	2014b	*Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives*
CIfA	2014c	*Standard and guidance for the collection, documentation,*

		conservation and research of archaeological materials
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11 Abbreviations and glossary

Anglo-Saxon	period from *c* 500 – 1066
CAT	Colchester Archaeological Trust
CBCAA	Colchester Borough Council Archaeological Advisor
CHER	Colchester Historic Environment Record

CIfA	Chartered Institute for Archaeologists
context	specific location of finds on an archaeological site
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
modern	period from *c* AD 1800 to the present
natural	geological deposit undisturbed by human activity
NGR	National Grid Reference
OASIS	**O**nline **A**cces**S** to the **I**ndex of Archaeological Investigation**S**, http://oasis.ac.uk/pages/wiki/Main
post-medieval	period from *c* AD 1500 to *c* 1800
prehistoric	pre-Roman
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

12 Contents of archive

Finds: flint and environmental remains

Paper and digital record

One A4 document wallet containing:
The report (CAT Report 1544)
ECC evaluation brief, CAT written scheme of investigation
Original site record (sections)
Site digital photos and log

13 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 project ref. ECC4434

Distribution list:
Jack Conington, Amphora Developments Ltd
Jess Tipper, Colchester Borough Council Planning Services
Essex Historic Environment Record

Colchester Archaeological Trust
Roman Circus House,
Roman Circus Walk,
Colchester,
Essex, CO2 7GZ

tel.: 01206 501785
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Checked by: Philip Crummy
Date: 12.05.2020

Appendix 1 Context list

Context Number	Finds Number	Feature Type	Description	Date
L1	-	Ploughsoil	Soft moist dark grey/brown silty-clay	Modern
L2	-	Natural	Firm, moist light/medium yellow/orange/brown clay	Post-glacial
F1	-	?Pit	Loose, moist light orange clayey-silt	Undatable
F2	-	Charcoal-rich pit	Firm, moist medium grey/black silty-clay with frequent charcoal fragments	Undatable
F3	-	Pit	Firm, wet medium grey silty-clay with occasional small stones and occasional CBM and charcoal flecks	Undatable
F4	-	Pit	Firm, moist medium grey silty-clay with occasional small stones and occasional CBM and charcoal flecks	Undatable
F5	-	Charcoal-rich pit	Soft moist dark grey/brown silty-clay with charcoal flecks	?Undatable with Late Neolithic flint
F6	-	Ditch	Loose, dry medium grey/brown silty-clay	Modern
F7	-	Charcoal-rich pit	Upper fill: Firm, moist light grey/orange silty-clay with frequent charcoal flecks Lower fill: firm, moist medium grey/orange/black silty-clay with frequent charcoal fragments	Undatable

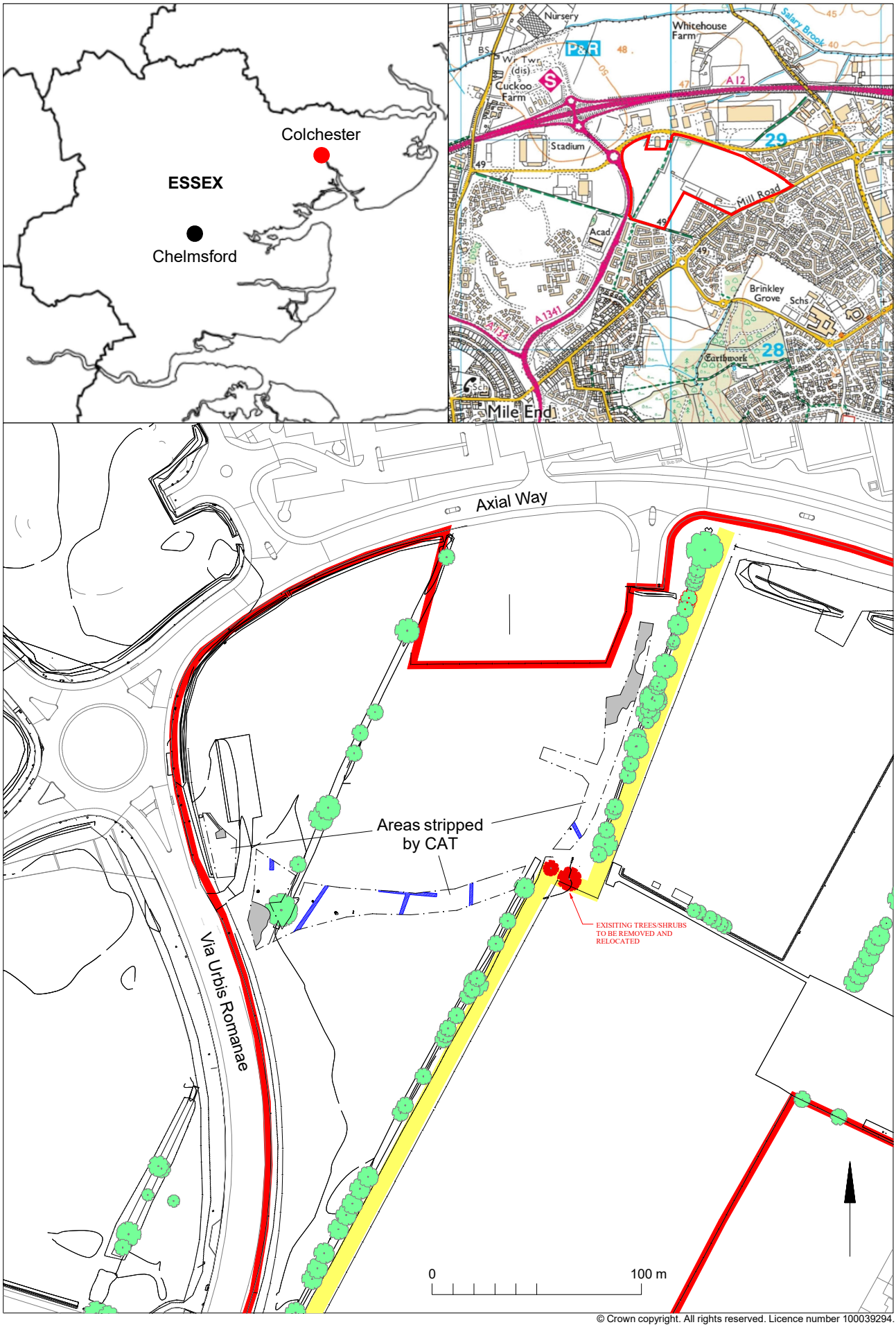

Fig 1 Site location.

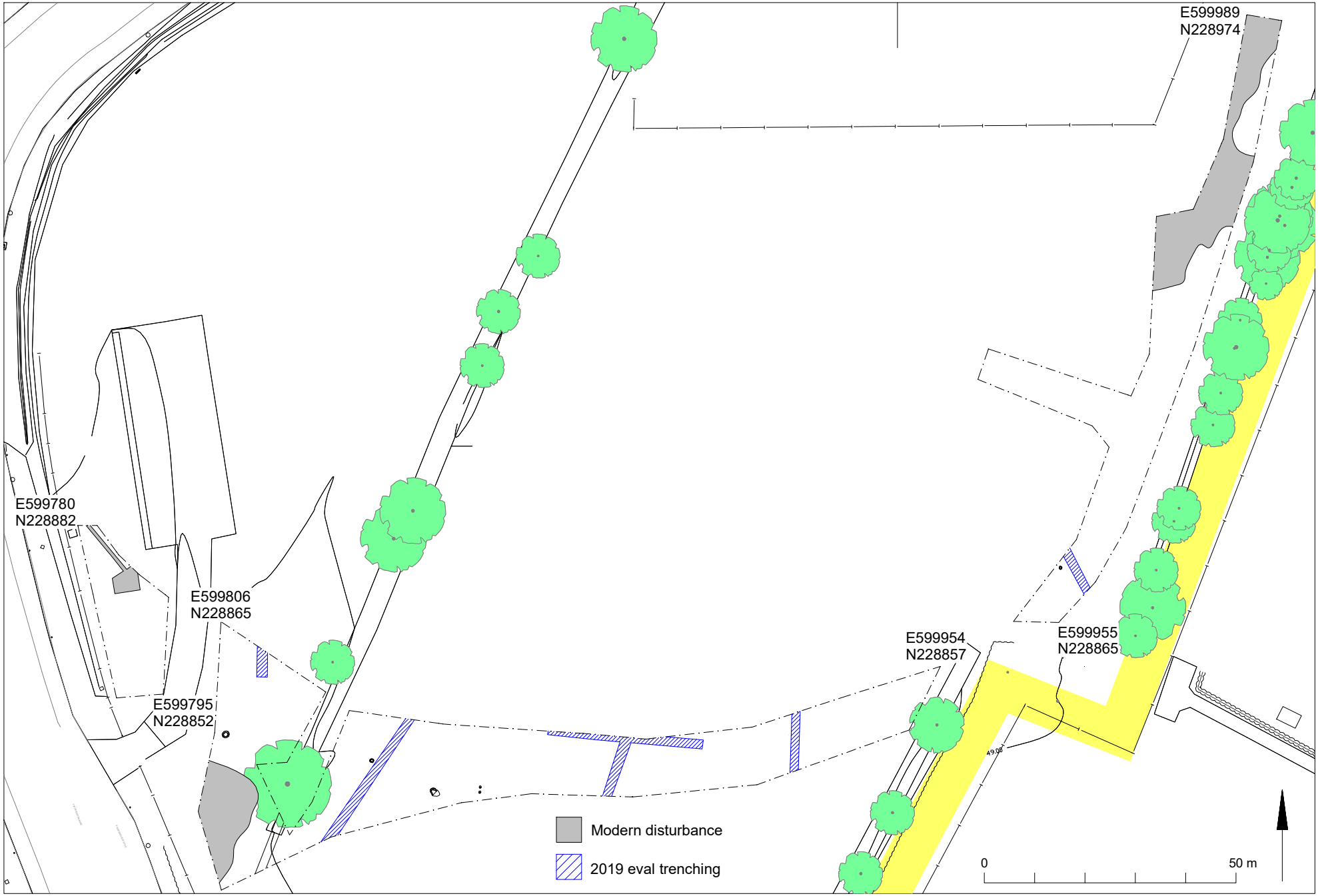

Fig 2 Excavation Results

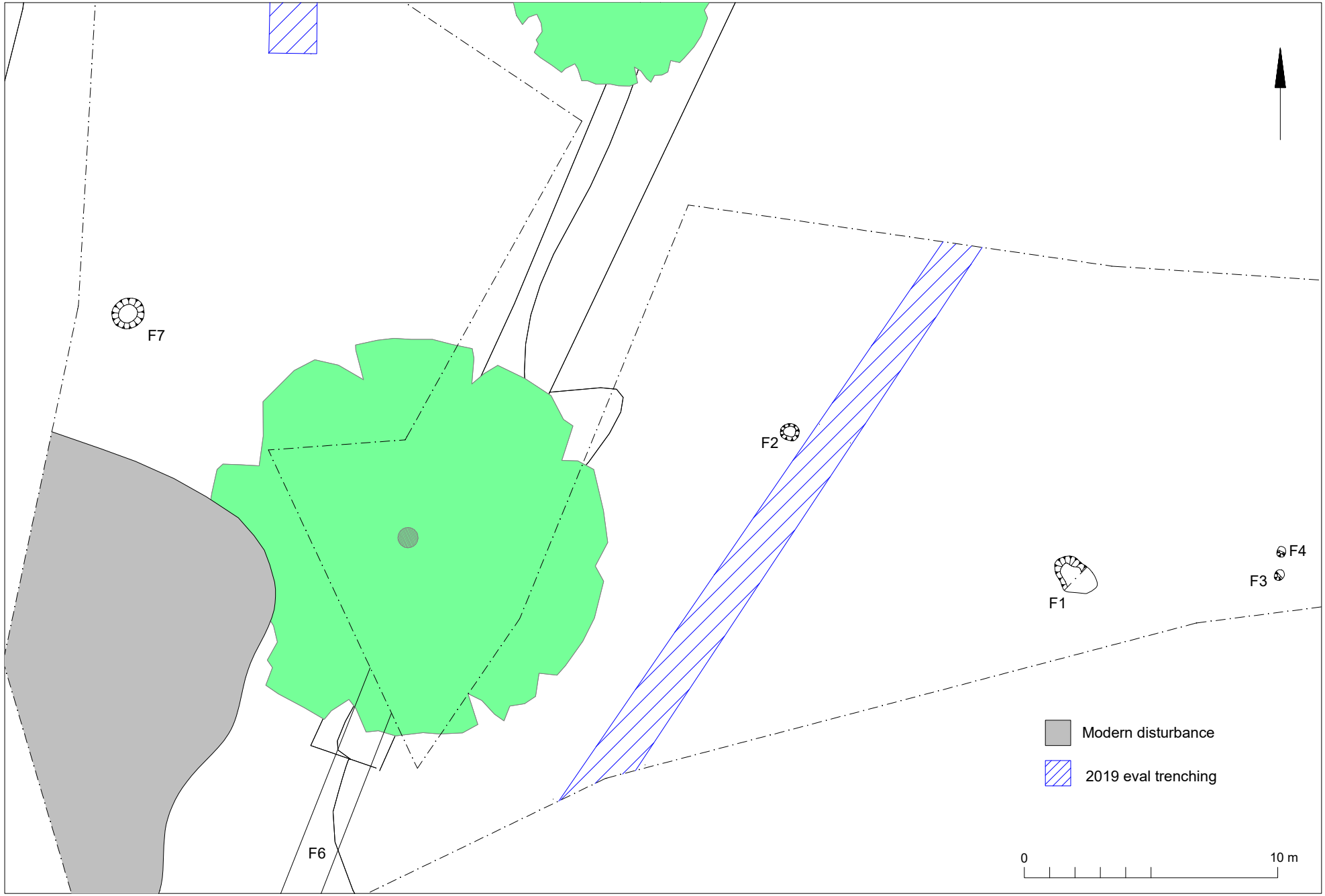

Fig 3 Excavation results (south strip)

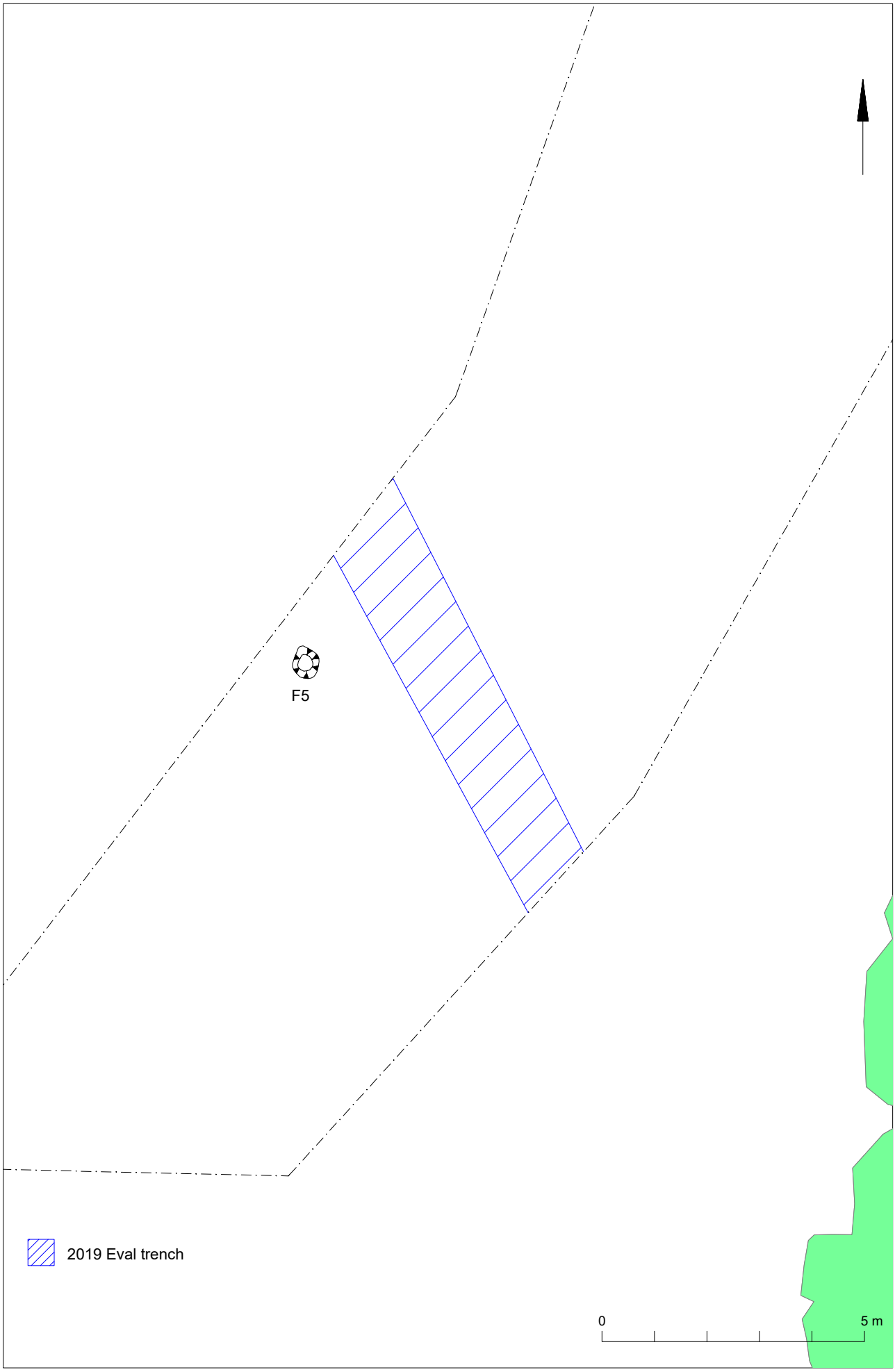

Fig 4 Excavation results (north strip)

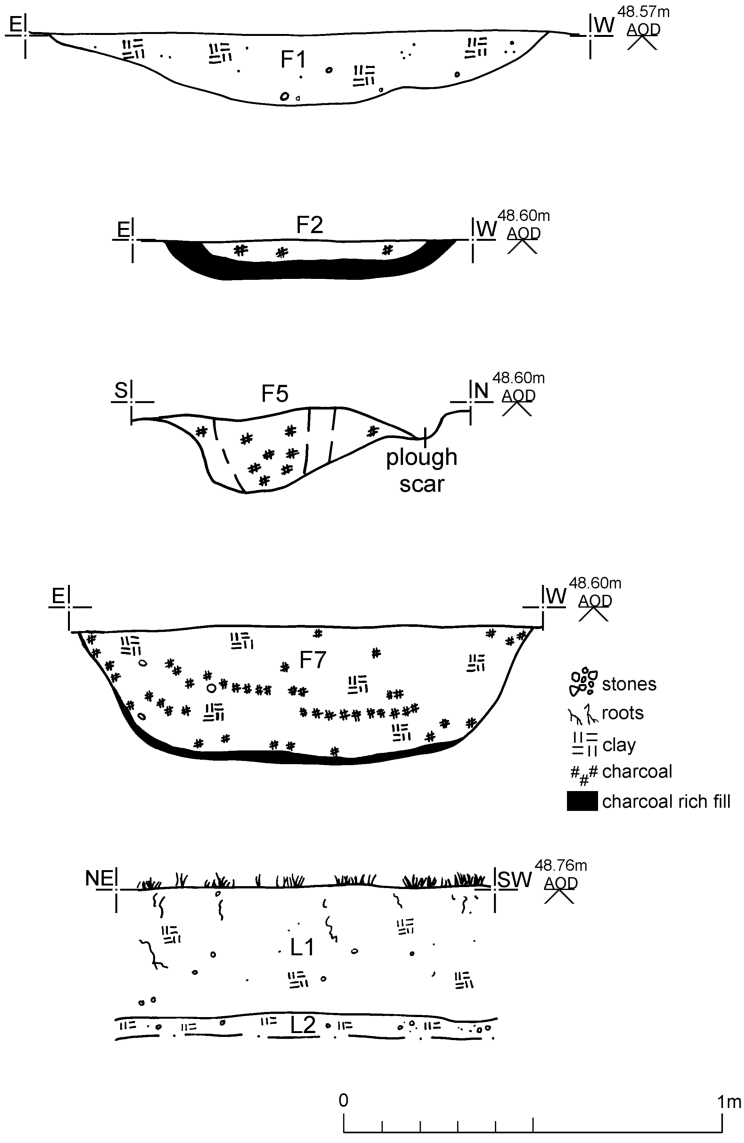

Fig 5 Feature and representative sections.

Fig 6 Flint arrowhead from F5.

Essex Historic Environment Record/
Essex Archaeology and History

Summary sheet

Address: **Colchester Northern Gateway (South), between Via Urbis Romanae and Mill Road, south of Axial Way, Colchester, Essex, CO4 5XD**	
Parish: Colchester	***District:*** Colchester
NGR: TM 0001 2882 (centre)	***Site code:*** CAT project ref.: 20/01c CHER ref: ECC4434 OASIS ref: colchest3-383849
Type of work: Strip, map and record	***Site director/group:*** Colchester Archaeological Trust
Date of work: 2nd-13th March 2020	***Size of area investigated:*** 21.25 ha
Location of curating museum: Colchester museum	**Funding source:** Developer
Further seasons anticipated? No	***Related CHER/SMR number:*** ECC4112, ECC4302
Final report: CAT Report 1544	
Periods represented: modern	
Summary of fieldwork results: An archaeological strip, map and record project was carried out at Northern Gateway (South), between Via Urbis Romanae and Mill Road, on land south of Axial Way, Colchester, Essex in advance of the construction of a new access road and boulevard and associated drainage, services and an energy centre. Three charcoal-rich pits were uncovered, in addition to the eleven which were excavated during the evaluation stage of this investigation, one of which produced a Late Neolithic flint arrowhead. Together, these provide further evidence of historic charcoal production within northern Colchester which has been revealed by archaeological investigations over the previous two decades. Three undatable pits and a modern ditch were also recorded.	
Previous summaries/reports: CAT Report 1219	
CBC monitor: Dr Jess Tipper	
Keywords: -	***Significance:*** -
Author of summary: Dr Elliott Hicks	***Date of summary:*** May 2020

Written Scheme of Investigation (WSI) for an archaeological strip, map and record excavation at Colchester Northern Gateway (South), between Via Urbis Romanae and Mill Road, on land to the south of Axial Way, Colchester, CO4 5XD.

NGR: TM 0001 2882 (centre)
Parish: Colchester

Planning reference: 190665

Commissioned by: Jack Conington (Amphora Trading)
On behalf of: Colchester Amphora Trading Ltd

Curating Museum: Colchester
CHER event number: tbc

CAT project code: 2020/01c
OASIS project id: colchest3-383849

Site Manager: Chris Lister

CBC Monitor: Jess Tipper

This WSI written: 05/02/2020

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Site location and description

The proposed development site lies approximately 3.6km north-northeast of Colchester town centre at Colchester Gateway (South), between Via Urbis Romanae and Mill Road, on land south of Axial Way, Colchester, Essex, CO4 5XD (Fig 1). The site is centred on National Grid Reference (NGR) TM 0001 2882. The site is currently land used as the Mill Road Sports Ground.

Proposed work

This phase of the development comprises the creation of a new access road and boulevard and associated drainage, including drainage basins, services, the energy centre and associated groundworks (see planning background for full description).

Archaeological background

The following archaeological background includes extracts from the Colchester Archaeological Trust report archive and the Colchester Historic Environment Record (CHER: accessed via Colchester Heritage Explorer (https://colchesterheritage.co.uk).

A gradiometry survey was carried out by Stratascan in 2016 of the *c* 50 hectare development area. Their survey identified the corner of an undated enclosure along with a number of possible associated linear responses and a number of modern anomalies related to services (Richardson 2016, ECC3649).

In 2018/19 a trial-trenched evaluation was carried out across part of the proposed development site by Archaeological Services, Durham University. Results included fire pits, post-medieval boundary ditches, and postholes and ditches of unknown date (AS Report 4977, ECC4302).

CAT have carried out several investigations as part of the Colchester Northern Gateway project. During an evaluation of Sports Hub plots 2-3 significant archaeological remains consisted of 24 charcoal-rich pits probably relating to charcoal production. These were sub-round or sub-oval charcoal-rich features with occasional evidence of in situ burning. Dating evidence was mostly lacking but two of the pits contained finds dated to the Roman and post-Roman periods. With radiocarbon dates from charcoal in another two of the pits dating to the Middle Iron Age and late Anglo-Saxon/early Medieval period. Together with another 77 charcoal-rich pits known from previous archaeological investigations, they suggest that charcoal production was occurring in this part of northern Colchester from the Early Iron Age through to the medieval period. Other archaeological remains included residual prehistoric work flints, a single tree throw containing a prehistoric worked flint which may or may not be residual, a small number of undated pits and tree throws, and a number of modern field boundary ditches, many of which are visible on old OS maps dating from the late 19th-century to the late 1990s, with associated agricultural features (CAT Report 1219, ECC4112).

Planning background

A planning application (190665) was made to Colchester Borough Council in March 2019 proposing a *hybrid planning application- outline application for healthcare campus (5ha) of up to 300 older people's homes (C3), 4,300sqm private acute surgical hospital (C2), (1,200sqm) medical centre (D1), 3,600sqm, 75- bed care home (C2), up to 55742sqm offices (B1a); up to 350 homes (C3), with ancillary retail & food & drink (A3), digital network of ultra fast broadband; 2 points of vehicular access from public highway, pedestrian boulevard & community green (4.5ha). All matters apart from access to be reserved in relation to outline elements of proposals. Detailed consent for a 1st phase of infrastructure to energy centre & heat distribution network.*

As the site lies within an area highlighted by the CHER as having a high potential for archaeological deposits, an archaeological condition was recommended by the Colchester Borough Council Archaeological Advisor (CBCAA). This recommendation was for an

archaeological excavation and was based on the guidance given in the *National Planning Policy Framework* (MHCLG 2019).

Requirement for work

The required archaeological work covers the first stage of archaeological excavation of the area of the new boulevard, access roads and associated drainage, including drainage basins and swales and services, as well as the energy centre and any other associated infrastructure in the first phase of development. Details are given in a Project Brief written by CBCAA (2019).

Specifically, the archaeological work will will comprise of a strip, map and record excavation of the area highlighted blue on Fig 1.

If unusual, significant or unexpected remains are encountered the CBCAA will be informed immediately. Amendments to the brief, and this WSI, may be required to ensure adequate provision for archaeological recording.

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-c)
- 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 CBCAA (2019)

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 CBCAA 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 Essex Historic Environment Record (EHER). This will include an uploaded .PDF version of the entire report.

A unique HER event number will be obtained from the CBCAA prior to the commencement of fieldwork. The curating museum will be notified of the details of the project and the event code, which will be used to identify the project archive when depositing at the end of the project.

Staffing

The number of field staff for this project is estimated as follows: one supervisor and three archaeologists for fifteen days.
In charge of day-to-day site work: Ben Holloway/Nigel Rayner

Strip, map and excavate 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.

Trained CAT staff will use a metal detector to scan all areas of the strip and map both before and during excavation. All features and spoil heaps will be scanned and finds recovered.

Individual records of excavated contexts, layers, features or deposits will be entered on proforma record 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. A representative section will be drawn to include ground level and the depth of machining. 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. Standard “record” shots of contexts will be taken on a digital camera. A photographic register will accompany the photographic record. This will detail as a minimum feature number, location, and direction of shot.

Site surveying

The excavation area and any features will be surveyed by Total Station, 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).

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. CAT staff will process samples (unless of a complex nature) and the flots will be sent to VF/LG for reporting.

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

Provision will be included (where necessary) for column or core samples to be taken, for the assessment and/or full analysis of those samples, and for absolute dating of the sequence.

Provision will also be made (where necessary) for the identification and absolute dating of suitable deposits of charred remains. Should VF/LG make a recommendation that suitable samples not datable by other means (ie associated finds) be submitted for absolute dating, then these samples will be sent to the SUERC Radiocarbon Dating Laboratory at Glasgow University for analysis.

Should any complex, or otherwise outstanding deposits be encountered, VF/LG will be asked onto site to advise. Waterlogged 'organic' features will always be sampled. In all cases, the advice of VF 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 CBCAA.

CBCAA will be notified immediately if any human remains are encountered during the excavation.

If circumstances indicated it were prudent or necessary to remove remains from the site during the excavation, 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. Human remains removed from site for analysis this may involve radiocarbon dating (see finds section).

If it cannot be demonstrated that future ground works are able to avoid impacting them, burials will be fully excavated. However, 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 CBCAA 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. Digital site photographs will be supplied as both a jpeg and in raw uncompressed format (TIFF), with metadata will be embedded into the raw file as per HE guidelines (HE 2015a).

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 bones (large groups): Julie Curl (*Sylvanus*)
human bone (large groups): 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 CBCAA.

A contingency will be made in the budget for scientific assessment/analysis. This can include soil micromorphological assessment, absolute dating in the event that archaeomagnetic and/or (more probably) radiocarbon dating is required, if burning is encountered or human remains (in which case it might be necessary to lift a small sample for absolute dating). The Historic England Regional Science Advisor will be consulted for advice on this.

Post-excavation assessment

Once fieldwork has finished the need for a post-excavation assessment will be discussed and agreed with CBCAA. This may include discussion as to whether there is a need for and extent of radiocarbon dating of appropriate contexts and/or further detailed scientific analysis of other aspects of the project.

If a post-excavation assessment is required by CBCAA, it will be normally be submitted within 2 months of the end of fieldwork, or as quickly as is reasonably practicable and at a time agreed with CBCAA. It will be a clear and concise assessment of the archaeological value and significance of the results, and will identify the research potential in the context of the Regional Research Framework. It will include an Updated Project Design, with a timetable, for analysis, dissemination and archive deposition.

Where archaeological results do not warrant a post-excavation assessment, preparation of the normal site report will begin.

Results

Notification will be given to CBCAA 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 2015b).

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

The report will contain:

- The aims and methods adopted in the course of the archaeological project.
- Location plan of the excavation area in relation to the proposed development. At least two corners of the area will be given 10 figure grid references.
- A section drawing showing depth of deposits from present ground level with Ordnance Datum, vertical and horizontal scale (if this can be safely done)
- Archaeological methodology and detailed results including a suitable conclusion and discussion and results referring to Regional Research Frameworks (Medlycott 2011).
- All specialist reports or assessments
- A concise non-technical summary of the project results.

An EHER summary sheet will also be completed within four weeks and supplied to CBCAA.

Results will be published, to at least a summary level (i.e. round-up in *Essex Archaeology & History*) in the year following the archaeological field work. 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

It is a policy of Colchester Borough Council that the integrity of the site archive be maintained (i.e. all finds and records should be properly curated by a single organisation), with the archive available for public consultation. To achieve this desired aim it is assumed that the full archive will be deposited in Colchester Museums *unless otherwise agreed in advance*. (A full *copy* of the archive shall in any case be deposited).

By accepting this WSI, the client agrees to deposit the archive, including all artefacts, at Colchester & Ipswich Museum.

The requirements for archive storage will be agreed with the curating museum.

If the finds are to remain with the landowner, a full copy of the archive will be housed with the curating museum.

The archive will be deposited with Colchester & Ipswich Museum within 3 months of the completion of the final publication report, with a summary of the contents of the archive supplied to CBCAA.

A digital / vector drawing of the site be given to the CBCAA for integration into the HER.

Monitoring

CBCAA 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 to CBCAA one week in advance of its commencement.

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

CBCAA will be notified when the fieldwork is complete.

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

References

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

AS Report 497	2019	*Archaeological evaluation: Colchester Northern Gateway (South), Colchester, Essex*. Archaeological Services, Durham University
Brown, D	2011 (2nd Ed.	*Archaeological Archives: A guide to best practice in creation, compilation, transfer and curation*
CAT Report 1219	2018	*Archaeological evaluation at Colchester Northern Gateway Sports Hub Plots 2-3, Colchester, Essex – November-December 2017*. By L Pooley
CBCAA	2019	*Brief for Archaeological Excavation at Phase 1, Colchester Northern Gateway (south) Between Via Urbis Romanae & Mill Road Land South of, Axial Way, Colchester.* By J Tipper
CIfA	2014a	*Standard and Guidance for an archaeological evaluation*
CIfA	2014b	*Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives*
CIfA	2014c	*Standard and guidance for the collection, documentation, conservation and research of archaeological materials*
Gurney, D	2003	*Standards for field archaeology in the East of England.* East Anglian Archaeology Occasional Papers 14 (EAA **14**).
Historic England (HE)	2015a	*Digital Image capture and File Storage: Guidelines for best practice. By*. S Cole & P Backhouse
Historic England (HE)	2015b	*Management of Research Projects in the Historic Environment (MoRPHE)*
Historic England (HE)	2018	*The Role of the Human Osteologist in an Archaeological Fieldwork Project*. By S Mays, M Brickley and J Sidell
Medlycott, M	2011	*Research and archaeology revisited: A revised framework for the East of England*. East Anglian Archaeology Occasional Papers 24 (EAA **24**)
MHCLG	2019	*National Planning Policy Framework. Ministry of Housing, Communities and Local Government.*
Richardson, T	2016	*Stratascan Geophysical Report: Colchester Northern Gateway, Colchester, Essex.*

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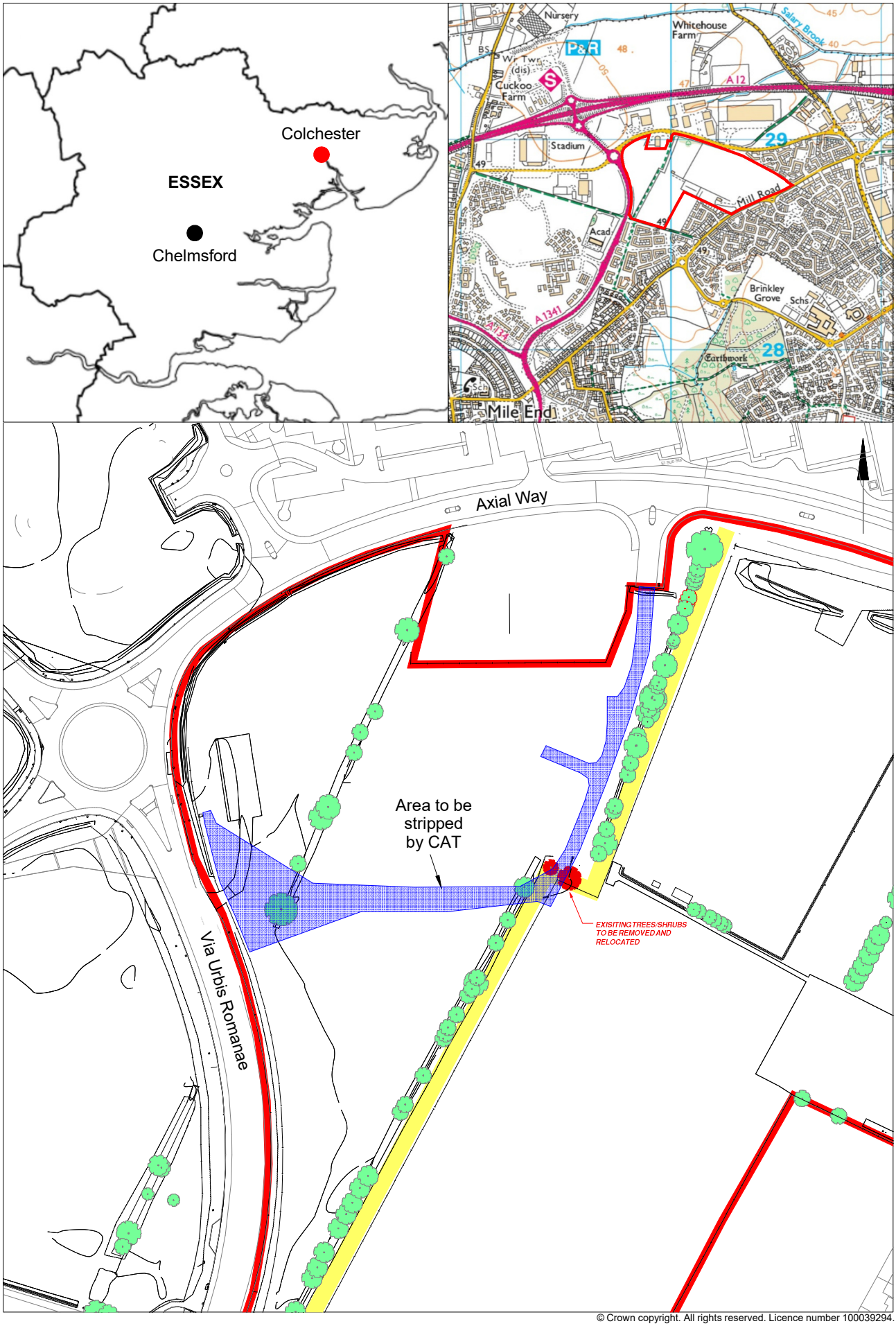

Fig 1 Site location.

0 100 m

OASIS DATA COLLECTION FORM: England

OASIS ID: colchest3-383849

Project details

Project name	Archaeological strip, map and record excavation at Colchester Northern Gateway (South), between Via Urbis Romanae and Mi
Short description of the project	An archaeological strip, map and record project was carried out at Northern Gateway (South), between Via Urbis Romanae and Mill Road, on land south of Axial Way, Colchester, Essex in advance of the construction of a new access road and boulevard and associated drainage, services and an energy centre. Three charcoal-rich pits were uncovered, in addition to the eleven which were excavated during the evaluation stage of this investigation, one of which produced a Late Neolithic flint arrowhead. Together, these provide further evidence of historic charcoal production within northern Colchester which has been revealed by archaeological investigations over the previous two decades. Three undatable pits and a modern ditch were also recorded.
Project dates	Start: 02-03-2020 End: 13-03-2020
Any associated project reference codes	2020/01c - Contracting Unit No.
Any associated project reference codes	190665 - Planning Application No.
Any associated project reference codes	ECC4434 - HER event no.
Type of project	Recording project
Site status	None
Current Land use	Community Service 2 - Leisure and recreational buildings
Monument type	PIT Uncertain
Monument type	CHARCOAL-RICH PIT Uncertain
Monument type	DITCH Modern
Significant Finds	FLINT ARROWHEAD Late Neolithic
Investigation type	"'Open-area excavation"'
Prompt	National Planning Policy Framework - NPPF

Project location

Country	England
Site location	ESSEX COLCHESTER COLCHESTER Colchester Northern Gateway (South), between Via Urbis Romanae and Mill Road, on land to the south of Axial Way, Colchester
Postcode	CO4 5XD
Study area	21.25 Hectares
Site coordinates	TM 0001 2882 51.921397871331 0.908945285459 51 55 17 N 000 54 32 E Point
Height OD / Depth	Min: 48.18m Max: 48.6m

Project creators

Name of Organisation	Colchester Archaeological Trust
Project brief originator	CBC Archaeological Officer
Project design originator	Emma Holloway

Project director/manager	Chris Lister
Project supervisor	Ben Holloway
Type of sponsor/funding body	Developer
Name of sponsor/funding body	Colchester Amphora Trading Ltd

Project archives

Physical Archive recipient	Colchester Museum
Physical Archive ID	ECC4434
Physical Contents	"Environmental","Worked stone/lithics"
Digital Archive recipient	Colchester Museum
Digital Archive ID	ECC4434
Digital Media available	"Images raster / digital photography","Survey","Text"
Paper Archive recipient	Colchester Museum
Paper Archive ID	ECC4434
Paper Media available	"Miscellaneous Material","Photograph","Report","Section"

Project bibliography 1

Publication type	Grey literature (unpublished document/manuscript)
Title	Archaeological strip, map and recording excavation at Colchester Northern Gateway (South), between Via Urbis Romanae and Mill Road, on land to the south of Axial Way, Colchester, CO4 5XD: March 2020
Author(s)/Editor(s)	Hicks, E.
Other bibliographic details	CAT Report 1544
Date	2020
Issuer or publisher	Colchester Archaeological Trust
Place of issue or publication	Colchester
Description	A4 loose-leaf brass-stapled
URL	http://cat.essex.ac.uk

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Entered on	12 May 2020