Bradwell Trout Farm, The Slades, Cuthedge Lane, Bradwell, Essex

Planning application: 12/01034/FUL HER Ref: BDTS 13

Archaeological Evaluation & Excavation Report

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(April 2013)

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Site details for HER

Name: Bradwell Trout Farm, The Slades, Cuthedge Lane, Bradwell, CM77 8FR Client: Mr G Lockey Local planning authority: Braintree DC Planning application ref: 12/01034/FUL Development: Erection of new dwelling Date of fieldwork: 29 January, 2013 HER Ref: BDTS 13 OASIS ref: johnnewm1-146904 Grid ref: TL 82399 22206

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Summary: Bradwell Trout Farm, The Slades, Cuthedge Lane, Bradwell, (BDTS 13, TL 82399 22206) evaluation trenching, for a single house development, followed by a small scale open area excavation covering 80m² revealed various features of mid to later Roman date. The features investigated comprised part of a shallow curvilinear ditch with a projected internal diameter of c12m, a small and shallow pit within the ring area and a north-south aligned ditch nearby. Finds were recovered from all the features save the shallow pit and included pottery sherds indicative of domestic type settlement nearby and occasional fragments of tile while carbonised macrofossil ecofacts strongly suggest crop processing with spelt wheat being the main cereal grown. By comparison with more extensively excavated sites of this date in the eastern counties it may be inferred that the curvilinear ditch is likely to have surrounded a roundhouse type structure of mid to later Roman date within a mid to lower status type farmstead (John Newman Archaeological Services for Mr G Lockey).

1. Introduction & background

1.1 Mr G Lockey commissioned John Newman Archaeological Services (JNAS) to undertake the archaeological evaluation works for a new dwelling development on land at the Bradwell Trout Farm, The Slades, Cuthedge Lane, Bradwell (see Fig. 1). The evaluation requirements were set out in a Brief, following the granting of planning application 12/01034/FUL, set by Ms T O'Connor of the Historic Environment Team, Essex CC (HEM) with the aim of gaining a representative sample by trial trenching of the area concerned. The Written Scheme of Investigation for the archaeological evaluation (see Appendix II) was subsequently prepared by JNAS in order to gain a conditional discharge and allow the trenching to go ahead before any other ground works were undertaken. A small scale excavation was then carried out once the trenches had been opened in full consultation with Ms O'Connor in order to complete the programme of works on site as efficiently as possible. This report comprises the results of both stages in this investigation. At the time of the field work the site was part of grassed paddock on a gentle north facing slope with planned construction ground works to the creation of a level terrace into the slope before trench foundations are excavated which together will lead to extensive ground disturbance.

1.2 Bradwell parish is located to the east of Braintree and is bisected on a northwest/south-east alignment by the River Blackwater and, to the north of the river, the Roman road known as Stane Street. The site for the new house is in an isolated location towards the base of a north facing slope c500m east of the parish church and some 160m south of the River Blackwater at c30m OD on the river side sand and gravel terraces which give rise locally to relatively light, well drained, soils. However the local glaciofluvial deposits are variable and include areas of heavier silty sands which are more likely to impede drainage and some 50m to the east of the site there is a spring the location of which suggests the presence of an interface between lighter, well drained ground upslope to the south and more impermeable deposits to the north along towards river's edge.

1.3 Archaeological interest in this development has therefore been generated by its location in an area where prehistoric finds have been recovered with valley sides close to a reliable water source and areas of well drained land often attracting settlement from the earliest periods. Cropmarks recorded on aerial photographs also confirm multi-period activity along both sides of the River Blackwater with evidence for field systems and possible droveways (HER 8796 & 14200) that clearly pre-date the present landscape which largely has its origins in the medieval period. In addition circular features which may mark the sites of prehistoric burial mounds are also evident as cropmarks. While cropmarks are essentially not dateable save by inference from their form and relation to dateable features in the landscape definite evidence for early Iron Age and Roman period activity (HER 8611 & 8612) has been recorded prior to guarrying works some 500m to the south-east of The Slades. Finally a medieval coin was recovered from close to the planned new house site and the 1st edition Ordnance Survey map shows a lane or track running towards the area of the site suggesting the possible location of medieval or earlier Post medieval structure in this area.

2. Evaluation & excavation methodology

2.1 The area of the proposed new house development was trenched to a previously agreed plan (see Fig. 2) with a T shaped trench over the house footprint area and an east-west trench across the area just to the south which will see the most extensive terracing works. In total the initial evaluation trenching came to a total length of 22m giving a substantial sample of 39.60m² of the area that will terraced for the new house. The trenching was undertaken using a large 360 machine equipped with a 1.80m wide flat bucket which was under archaeological supervision at all times with any indistinct areas being hand cleaned for better clarity. In addition a large ditch (0006/0010) in trench 2 was sectioned mechanically after consultation with the relevant HEM officer due to a high local water table and lack of any clear dating evidence.

2.2 The base of the trenches and the upcast spoil were examined visually and scanned for any finds as the evaluation work progressed and once clear evidence for the Roman date of the feature (0002/0003) revealed in trench 1 had been established a site visit was arranged with the relevant HEM officer. During the ensuing on site consultation with Ms O'Connor it was agreed that to facilitate the rapid and most efficient conclusion to the archaeological site works trench 1 would be expanded to the south, east and west within the development footprint area so any further features could be investigated, sampled and plotted (see Fig. 3). This work commenced immediately and, in total, an area of 80m² was mechanically stripped to the top of the archaeological horizon under close supervision and the features exposed were then investigated by hand with three sample sections across a curvilinear ditch (0002), the butt-end of a north-south ditch (0006/0007) and the total excavation of a small pit (0008). Site visibility for features and finds is considered to have been good throughout the evaluation and excavation which was undertaken under cold and, at times, wet conditions. At the end of the archaeological site works the location of the areas examined was plotted from nearby mapped features and as the overall works progressed a full photographic record in digital format (see Appendix I) was taken.

3. Results

3.1 The overall results for the initial evaluation trenches are most easily summarised in tabular form as detailed below (see also Figs. 3 & 4, Appendix I- Images & Appendix V- Context list):

Trench	Orientation	Length (m)	Topsoil depth (mm)	Subsoil depth (mm)	Drift geology	Archaeological/ natural features & finds
1	East-west & north-south	13	300	Northern edge 300 rising to 450 at southern end mid brown silty sand	Pale yellow clay with areas of orange silty sand with flints	Curvilinear ditch 0002, RB sherds from surface
2	East-west	9	400	500 as T1 over 300 grey/brown silty lower ss	As trench 1	N-S aligned ditch 0006/0010, no finds
Total		22	300-400	300-800 (N-S)		

3.2 As outlined in above table 1 the topsoil depth across the site was consistent at between 300mm and 400mm while the depth of subsoil increased rapidly towards the southern, upslope area examined in trench 2. At the northern section of trench 1 the subsoil deposit was only 300mm deep while trench 2 revealed 500mm of the same mid brown silty sand subsoil over 300mm of a lower grey/brown silty subsoil giving an overall trench depth of 1100mm. It was also at this depth in trench 2 that the local water table was encountered. Both the top and subsoil were notable for a lack of any stray finds of any date.

3.3 Given the small scale and low number of archaeological features investigated the results from the initial evaluation results and subsequent excavation will be considered together. As indicated above a single ditch (0002/0003) was revealed in trench 1 with another (0006/0010) in trench 2. The expansion of the area around the southern, eastern and western edges of trench 1 (see Fig. 3) revealed an 8m arc for a small curvilinear ditch (0002) and Roman pottery sherds were recovered from its surface at various points. This curvilinear ditch proved to vary between 500mm (sections 0003 & 0005) and 800mm (section 0004) wide and from 200mm (0003) and 280mm (0004) deep. This ditch (0002) had a gently rounded profile (see Fig. 4) with no trace of any structural features in its base. Within the area enclosed by this curvilinear ditch (0002) one feature was revealed which proved to be a shallow circular pit (0008) that was 600mm across but only 120mm deep. The fill (0009) of this small pit (0008) did not contain any finds.

3.4 The single feature revealed in trench 2 was a relatively large ditch (0006/0010) which was 1500mm wide and 400mm deep. As outlined above this was sectioned mechanically and the upcast spoil was examined closely but did not contain any finds. However the butt-end of a similarly north-south orientated ditch (0006/0007) was revealed during the small scale excavation works around trench 1 which did produce a small number of pottery sherds. At this butt-end (0006/0007) this ditch proved to be much smaller at 600mm wide and only 150mm deep but can confidently be identified as the same feature 4.60m to the south.

4. The Finds

4.1 In total 24 sherds (435g) of pottery and 3 fragments (894g) of tile were recovered from two of the three features (0002 & 0006) revealed at this site and the full report by Stephen Benfield is included as Appendix III below. In summary the small pottery assemblage can be dated to the mid 2nd-3rd/4th century and is dominated by coarse wares which are likely to be of relatively local origin. In addition a sherd of imported Spanish amphora of Dressel 20 (olive oil) is present as are a number of sherds from a bowl of Dorset Black-Burnished ware suggesting domestic activity nearby keeping the various sherds close to each other on discard. One sherd from the curvilinear ditch (0002/0005) is highlighted as being 'in an unusually pale (white), micaceous fabric' whose source maybe from Colchester though this is uncertain.

5. The Environmental evidence

5.1 Bulk samples were taken from four sections of the three features identified at the site with two (0004 & 0005) from the curvilinear ditch and single samples from the north-south ditch (0006/0007) and from the small, undated, pit (0008/0009) and the full report by Val Fryer is included as Appendix IV below. In summary all of the

samples produced similar results with regard to the charred macrofossils and other remains present in the residues with all four being dominated by chaff and with only minor components from weed remains. The overall conclusion for the macrofossil assemblages is that are best interpreted as being 'partly or wholly derived from cereal processing waste' and there may also be some evidence for the drying of cereals with wheat (*T. Spelta*) dominating though oats (*Avena sp.*) are also present. Spelt wheat is the most common type found on Roman period sites and from this evidence it appears clear that the undated pit (0008) is also of this date and that the cereal processing was taking place close to the area examined.

6. Conclusion

6.1 While the overall archaeological investigation was small scale useful information relating to a previously unknown rural Roman period site has been recorded at The Slades. The site though north facing in other respects is in a topographic location often favoured in the past for settlement being just above the flood plain of the nearby River Blackwater and close to a spring which still gives a good water supply. Locally the soils vary between light and well drained and somewhat heavier types over occasional areas of clay and silty sands which would benefit a mixed farming economy and the macrofossil assemblages point strongly to this site being part of a Roman period farm type settlement where crops were processed. Similarly the pottery assemblage is in general a typical rural group for the area of 2nd to 3rd/4th century date. Local coarse wares dominate though Dorset Black-Burnished ware is also present as is a single sherd of Spanish amphora, the latter being of Dressel 20 type which is the most common in Roman Britain. Such a pottery assemblage might be expected from a moderately prosperous Roman period rural farm type site which in all probability produced a surplus in order to gain imported items, such as the amphora with its contents, with the nearby Stane Street providing a good link to the major town of Colchester to the east and, more locally, to the small market town at Braintree.

6.2 Little can be said regarding the overall layout of this rural, farmstead type, settlement from such a small scale investigation. However some comparison with a Roman period farmstead at Strood Hall to the west of Great Dunmow that was examined during improvements to the A 120 is useful (Timby et al, 2007). At Strood Hall a number of enclosures and droveways of early, mid and late Roman date were identified with an overall identification as a farmstead (Biddulph p81, in Timby et al, 2007) of a status well below the more often examined rural villa sites of the period. By comparison the single linear ditch (0006) recorded at The Slades may well be an enclosure boundary. Of more interest however is the presence of four curvilinear ditches within the complex at Strood Hall (ibid. 110) that are interpreted as marking the sites of four roundhouses and which are very similar in scale to the curvilinear ditch (0002) recorded at The Slades. At Strood Hall the arcs of these gullies are argued as being possibly for drainage and may never have completely surrounded the respective roundhouse though the site appears to have been somewhat truncated as little direct structural evidence was recorded and parts of the smaller ditches may also have been eroded by centuries of agricultural action. Until relatively recently roundhouses have been seen as structures characteristic of prehistoric settlements. However various examples have now been recorded of Roman date as outlined above at Strood Hall in addition to near Harlow and at Kilverstone in Norfolk and Cedars Park, Stowmarket in Suffolk (Medlycott, p35, 2011). Within the area encompassed by the curvilinear ditch at The Slades only one feature was revealed and this was a small pit (0008). However only part of the c12m diameter area was exposed and it can be suggested that this arcing ditch (0002) does mark the site of a Roman period roundhouse dating to somewhere between the 2nd and 4th century AD.

6.3 A recent overview of the state of archaeological understanding within the eastern counties notes that the now recognised survival of roundhouses into the Roman period into the 2nd century and beyond should form a research topic for the period (Medlycott, p47, 2011). In addition the form of lower status rural settlements and their economic base are another relevant research area (ibid.). The results from this programme of works could form a small part of such a study. It is finally concluded that the results from the archaeological investigations at this site can be disseminated effectively by the publication of a short summary in the relevant County Journal coupled with deposit of the report and archive in at Braintree Museum and via the uploading of a digital version of the report to the OASIS online report depository (http://ads.ahds.ac.uk/project/oasis/).

Archive- to be deposited at Braintree Museum under the HER ref. BDTS 13)

Disclaimer- Formal comment regarding the relevant planning application related to this development must be sought from the official Archaeological Advisors to the relevant Planning Authority.

(Acknowledgements: JNAS is grateful to Glenn Lockey and his partner for their close cooperation on site, to Teresa O'Connor of the Essex CC HEM team for her useful advice regarding local sites and rapid response during the field work, to Esther Newman for processing the finds, to Stephen Benfield for his specialist finds reporting, to Val and Robert Fryer for their work on the samples and to Sue Holden for preparing Fig. 3 & 4)

Ref.

Medlycott, M	2011	'Research & Archaeology Revisited: a revised framework for the East of England,' East Anglian Archaeology Occ. Paper 24
\timby, J, Brown, R, Biddulph E, Hardy, A & Powell, A	2007	'A Slice of Rural Esesex- Archaeological discoveries from the A120 between Stanstead Airport & Braintree' Oxford Wessex Archaeology monograph no 1

John Newman Archaeological Services



Fig. 1: Site location (Ordnance Survey © Crown copyright 2008 All rights reserved Licence No 100049722)



Fig. 2: Location of trenches (black) & excavation area (dark blue) over development footprint (light blue) (Ordnance Survey © Crown copyright 2013 All rights reserved Licence No 100049722)



Fig. 3: Site plan.



Fig. 4: Site sections.

Appendix I- Images



General view from east- the evaluation



Main area from south-east pre-excavation



Curvilinear ditch 0002, section 0003

Curvilinear ditch 0002, section 0004



Pit 0008 from south



Trench 2- ditch 0006, section 0010

Bradwell Trout Farm, The Slades, Cuthedge Lane, Bradwell, Essex

Written Scheme of Investigation for Archaeological Evaluation

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Site details

Name: Bradwell Trout Farm, The Slades, Cuthedge Lane, Bradwell, CM77 8FR

Clients: Mr G Lockey

Local planning authority: Braintree DC

Planning application ref: 12/01034/FUL

Proposed development: Erection of a new dwelling

Proposed date for evaluation: tbc

Brief ref: BTE.01034.12_Bradwell_trout_Farm

Grid ref: TL 82399 22206

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- 4. Aims of the Site Evaluation
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Proposed location of trial trenches

1. Introduction

1.1 Mr G Lockey has commissioned John Newman Archaeological Services (JNAS) to undertake the archaeological site evaluation for a proposed single dwelling development that has recently received consent to go ahead. This written scheme of investigation (WSI) details the background to the archaeological requirements for planning will application 12/01034/FUL and how JNAS implement the requirements of the Brief for Archaeological Evaluation set by Ms T O'Connor of the Historic Environment Team, Essex CC (HEM). The WSI will also set out how potential risks will be mitigated. The proposed development concerns the construction of a detached dwelling at the Bradwell Trout Farm, The Slades, Cuthedge Lane, Bradwell.

1.2 The evaluation will be carried out to the standards set regionally in the Standards for Field Archaeology in the East of England (EAA Occ. Papers 14, 2003 and nationally in Standards and Guidance for Archaeological Field Evaluation (Institute for Archaeologists 1994, revised 2001).

2. Location, Topography & Geology

2.1 Bradwell parish is located to the east of Braintree and is bisected on a north-west/south-east alignment by the River Blackwater and, to the north of the river, the Roman road known as Stane Street. The proposed development site (PDS) for the new house is in an isolated location c500m east of the parish church and some 160m south of the River Blackwater at c30m OD on the river side sand and gravel terraces which give rise locally to relatively light, well drained, soils.

3. Archaeological & Historical Background

3.1 To quote from the relevant Brief:

'The development site is located adjacent to the River Blackwater in an area close to where finds dating to the prehistoric period have been previously recovered, including flint tools. Circular cropmark features nearby along both sides of the Blackwater may indicate prehistoric burial features and activity within the area. Trenching in advance of gravel extraction in the adjacent fields identified a large Early Iron Age ditch and further south Roman pottery and finds have been collected by fieldwalking.

The 1st edition OS maps shows a lane leading off from Cuthedge Lane, where it turns sharply westwards, leading towards the river. This lane terminates at the point of higher ground above the rivers floodplain and a track can be seen leading off eastwards along the higher ground towards the mill. It is possible the lane would have led to a property that must predate the mapping (c.1870) and would have been sited in the area of the proposed development. On the modern mapping the lane is now marked as a track, which leads onto a historic track that connected the church and settlement at Bradwell to the crossing and mill along the Blackwater and beyond towards Stane Street. Stane Street follows the route of a known Roman road, and it is likely that the track from Bradwell would have been in use since at least Medieval times. A Medieval coin was recovered by metal detecting close to the track close to the proposed development area.

The location of the proposed site means that there is also the potential for buried waterlogged sediments which may preserve important palaeoenvironmental remains.'

The development will cause significant ground disturbance and will damage or destroy any archaeological deposits that might be present at the site.

3.2 A site evaluation by trial trenching will therefore be required to:

- Identify the date, approximate form and purpose of any archaeological deposit, together with its likely extent, localised depth and quality of preservation.
- Evaluate the likely impact of past land uses, and the possible presence of masking colluvial/alluvial deposits.
- Establish the potential for the survival of environmental evidence including waterlogged deposits.
- Provide sufficient information to construct an archaeological conservation strategy, dealing with preservation, the recording of archaeological deposits, working practices, timetables and orders of cost. The further recording of any archaeological deposits may

involve excavation prior to ground works commencing or monitoring of the relevant ground works

4. Aims of the Site Evaluation

4.1 As outlined in section 3 above the main archaeological potential relates to the site's location in a location and topographic setting where evidence for settlement and related activities of prehistoric and later date may be found. The aim of the evaluation is therefore to examine the specified sample of the proposed development area with evaluation trenches under controlled conditions so, if archaeological deposits are revealed they can be sampled and characterised. With this information a strategy can then be formulated for their possible preservation in situ or, failing that, the systematic recording of these deposits and the associated working practices, timetables and orders of cost.

5. Methodology

5.1 The proposed development is for a single residential dwelling at the Bradwell Trout Farm, The Slades, Cuthedge Lane, Bradwell.

5.2 The Brief requires L or T shaped trench within the area of the new house footprint and another trench in the area behind which is to be terraced, the development plan below indicates the proposed location of this trenches. The trenching will be undertaken using a 1.2m/1.5m wide toothless ditching bucket on a suitably sized 360 mini-digger type machine operated by an experienced driver with a trench plan as set out below. The machine will be closely supervised by an experienced archaeologist as the overburden is removed in shallow spits to the top of any archaeological deposits that are present, where hand investigation will start, or to expose the underlying drift geology which will be further hand cleaned and examined. The spoil will be stored adjacent to the excavated trench with top and sub soil kept separate to allow for subsequent sequential backfilling. No trenches will be backfilled until the relevant officer at HEM has been consulted and has the opportunity to visit, should any modification to the trench layout be required due to any unforeseen circumstances, such as local services, then HEM will be contacted immediately. A metal detector search will be carried out by an experienced operator at all stages of the evaluation. The up cast spoil will also be closely examined for unstratified artefacts as evidence for past activity in rural areas in particular is often as evident via artefact scatters as by undisturbed archaeological deposits.

5.3 Site records will be made under a continuous and unique numbering system of contexts under an overall site HER number obtained from the Essex CC HER beforehand. All contexts will be numbered and finds recorded by context. Conventions compatible with the county HER will be used throughout the monitoring. Site plans will be drawn at 1:20 or 1:50 as appropriate and sections at 1:10 or 1:20 (all on plastic drawing film) and related to OS map cover. Sections will be levelled to a datum OD. A photographic record in monochrome film and high resolution digital images will be made of the site and exposed features.

5.4 As necessary and to define archaeological deposits exposed surfaces will be trowelled clean before appropriate hand investigation and recording. Exposed archaeological features will be sampled at standard levels with care being taken to cause minimum disturbance to the site consistent with evaluation to a level adequate to properly form a subsequent mitigation strategy. Significant features such as solid or bonded structural remains, building slots or post holes (where fills are sampled) will have their integrity maintained (and during backfilling). Otherwise for discrete, contained, features, sampling will be at 50%possibly rising to 100% if requested, and 1m wide sampling slots across linear features. If human burial evidence is revealed the HEM Officer will be informed and the clear presumption must be to preserve such remains in situ with minimum disturbance during this evaluation stage. If this is not possible then a Ministry of Justice licence will be obtained prior to full on site recording (total 100% sampling if a cremation deposit) and removal of the remains followed by examination by the relevant specialist and possibly scientific dating. If human remains do have to be recorded, removed from site and reported on then these works will add an additional cost to the evaluation works which may involve radiocarbon dating (in this case the likelihood of revealing human burial is assessed as being low at this location).

5.5 All finds will be collected and processed unless any variation is agreed with the relevant HEM Officer. Finds will be assessed by recognised period specialists and their interpretation will form an integral part of the overall report. Finds will be stored according to ICON guidelines with specialist advice/treatment sought for fragile ones. Every effort will be made to gain the deposit of the site finds and archive to Braintree Museum under their relevant HER code and site numbering for future reference. If this is not possible then the HEM Officer will be consulted over any requirements for additional finds recording (which may have an additional cost implication). Any discard policy will be discussed and agreed with the relevant HEM Officer.

5.6 Where appropriate palaeoenvironmental samples will be taken for processing and assessment by a specialist conversant with regional archaeological standards and research agendas. The sampling, processing and assessment will follow the guidelines as detailed in A guide to sampling archaeological deposits for environmental analysis (Murphy P L & Wiltshire P E J, 1994). In accordance with standard practice bulk samples of 40 litres (or 100% of the deposit where less) will be taken from a representative cross section of archaeological deposits of all periods (respecting defined fills within features), in consultation with the relevant HEM Officer (and RSA if the deposits merit more targeted advice) including deposits that cannot be immediately dated by their artefact content, so the state of preservation and full archaeological and palaeoenvironmental potential of the deposits can be assessed and any further sampling, should further field work take place, be systematically planned and fully costed. Archaeological deposits of all types may reveal valuable data through the processing and assessment of samples with high priority features including the primary fills of pits, wells and cesspits, layers of middens, occupation surfaces and structural features as well as other discrete activity areas, contents of hearths, ovens, and other craft related or industrial structures. In addition more generalised settlement and land use features such as ditches may also yield valuable and informative data when sampling is undertaken systematically as the sum of all the assessment results can add considerably to the interpretation of a site and its landscape. Through an integrated study of all the data recovered from the evaluation the results from the assessment of the samples will be reviewed in terms of:

- What is the quality and state of preservation of charred plant remains, mineralised plant and animal related remains, small vertebrates and industrial residues such as evidence for iron working (contributing to the fullest interpretation of the evaluation results and to aid the planning of any further field work- <u>if any RC</u> <u>dates are required on features containing suitable material but no</u> <u>easily dateable finds then this will incur an additional cost</u>.
- What is the concentration of macro-remains (to inform sampling strategy in any further field work), in particular how might bulk sampling inform the interpretation of burial deposits.
- Can any patterning or similarities/differences be ascertained between deposits from different periods represented on site, similarly can any useful comparisons be made with undated and unphased deposits (to aid interpretation of the evaluation results and help in the study of undated deposits which may otherwise be

overlooked and which may via sampling yield material for RC dating)

- Do waterlogged deposits exist on site, if so is there potential for palaeoenvironmental data from preserved insects or pollen and do such deposits contain organic material suitable for RC dating from samples taken as advised by the relevant soil specialist (who would also coordinate the assessment for pollen and insect remains), the RSA will also be consulted in such cases in conjunction with the relevant HEM Officer. Incremental column samples will be taken should waterlogged deposits be revealed in close consultation with the evaluation soils specialist with 10-20 litre sample sizes which will be sub-sampled for preserved pollen, insects, diatoms, preserved parasite eggs etc. If waterlogged wood is encountered it will ideal to leave in situ, if it has to be lifted it will be packed while wet in black polythene and stored at 5C until it can be transferred to a specialist for species identification, assessment and potential for RC dating is undertaken (examination of the topographic location of the site indicates that the presence of waterlogged deposits is possible though the local drift deposits encourage good drainage).
- Deep blanket type deposits resulting from both natural and human derived actions and events can yield valuable land use and palaeoenvironmental information. In particular such deposits can form at the base of a slope, if located in the evaluation the relevant HEM Officer and RSA will be consulted over monolith sampling and assessment by the relevant evaluation specialist (the composition of such deposits may give information on past land use in the area through a study of the soil matrix notwithstanding additional data if it is waterlogged)

5.7 An archive of all records and finds will be prepared consistent with the principles in *Management of Archaeological projects* (MAP2, and particularly Appendix 3). This archive will be deposited with Braintree Museum within 3 months of working finishing on site under the relevant HER number and following the relevant county guidelines. As necessary the site digital archive will deposited with the Archaeology Data Service (ADS) within the agreed allowance for the monitoring and reporting works.

5.8 The evaluation report will be consistent with the principles of MAP2 (particularly Appendix 3.1 & Appendix 4.1) and this report will summarise the methodology employed and relate the archaeological record directly

to the aims of this WSI and section 4 above in particular. The report will give an objective account of the deposits and stratigraphy recorded and finds recovered with an inventory of the latter. The report will include an assessment of palaeoenvironmental remains recovered from palaeosols and cut features in relation to both dated and undated features and in terms of patterning across the site.

5.9 Any interpretation of the evaluation will be clearly separated from the objective account of the evaluation and its results and the results will be discussed with the relevant HEM Officer at an early stage in the reporting process following reporting on the day of the immediately apparent conclusions. The report will give a clear statement regarding the results of the site evaluation in relation to both the more detailed aims in section 4 above and their significance in the context of local HER records and of the Regional Research Framework (EAA Occ. Papers 3, 8 & 24; 1997, 2000 & 2011). There will be no further work on site until the evaluation results have been assessed and the HEM Officer has considered whether further archaeological works are required if this application receives consent. The report may give an opinion regarding the necessity for further evaluation work as appropriate. A draft copy of the report will be presented to HEM following completion of the site works. Once accepted pdf copy will be provided for the County HER. As required the site evaluation will be registered on the OASIS online archaeological record followed by submission of the final draft in .pdf format. An HER summary sheet will be completed and a summary prepared of any positive results for inclusion in the annual county roundup.

6. Risk Assessment

6.1 Protective clothing will be worn on site (hard hat, high visibility vest/coat, steel-toe cap boots, and ear muffs if required). A safe working method will be agreed with the machine operator for excavation of the trenches and examination of the up cast spoil while at the same time allowing efficient use of plant. Suitable clothing will be available to mitigate against extremes of weather.

6.2 Vehicles will be safely parked away from work areas and lines of access.

6.3 Discussion with the client has already confirmed that there is no known, or likely, ground contamination and the trench will avoid the existing garden wall. No overhead services impinge on the trench location and no underground services are anticipated. Gloves and hand wash/wipes be available and any information on possible ground

contamination revealed during the evaluation will be passed to finds and environmental specialists.

6.4 A fully charged mobile phone will be carried and a first aid kit will be taken to site.

6.5 It is unlikely that any trench plus excavated feature depth will go below c1/1.3m from the present ground level. If any excavations need to go deeper measures such as stepping in the sides will be employed.

6.6 JNAS holds full insurance cover for archaeological site works from the specialist provider Towergate Risk Solutions covering Public & Products Liability, details can be supplied on request.

7. Specialists

Conservation:	Conservation Services
Faunal remains:	J Curl (Sylvanus Archaeology)
Human remains:	S Anderson (CFA Archaeology)
Metal detecting:	J Armes (experienced freelance)
Palaeoenvironmental samples:	V Fryer (Freelance)
Soils specialist	R Macphail (UCL)
Pre-historic flint:	S Bates (Freelance)
Pre-historic pottery:	S Percival (Freelance)
Post Roman ceramics & CBM:	S Anderson (CFA Archaeology)
Roman period small finds:	N Crummy (Freelance)
Roman period ceramics:	S Benfield (CAT)
Medieval coins:	M Allen (Fitzwilliam Museum)
Post Roman small finds:	JNAS



Proposed location of trial trenches

Appendix III- The Finds

Bradwell Trout Farm (HER BDTS 13)

Stephen Benfield, Colchester Archaeological Trust, April, 2013

Introduction

A small quantity of bulk finds consisting of pottery and ceramic building material (CBM) of Roman date were recovered (table 1). The finds come from four contexts (0003-0005 & 0007) located in two ditch features, 0002 & 006.

Finds type	no.	wt (g)
Pottery	24	435
Ceramic building material (CBM)	3	894
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Table 1: Type and quantities of finds

Roman pottery

Introduction

In total there are twenty-four sherds of Roman pottery with a combined weight of 435g. The average sherd size is 18g. The pottery was recorded using the Chelmsford (Essex) fabric and form type series (Going 1987), with the addition of the fabric group Black surface wares (Fabric BSW) (see Martin 2003). The fabrics recorded are listed in Table 2 & Table 3 and the pottery is listed by context in Table 3. A spot date is provided for each of the fabrics and form types recorded for each context.

Fabric name	Code	No	Wt(g)	EVE	broad date range
Roman fabrics:					
Black-Burnished ware 1 (BB1)	40	7	87	0.09	M2-4C
Sandy grey wares	47	14	210	0.26	Rom
South Spanish (Baetican) amphorae	55	1	123		M1-2/E3C
Black surface wares	BSW	2	15		Rom
Tot	al	24	435	0.35	

Table 2: Roman pottery fabric quantities

Ctxt	Ctxt type	Fabric	No	Wt(g)	Eve	Abr.	Form	Notes	Spot date
0003	Ditch 0002	47 40	2 3	17 24		*	Jar/beaker Dish/bowl	Abraded grey ware SV, not joining, very sandy dark fabric with grey-brown internal smoothed/burnished surface	Rom M2-4C
0004	Ditch 0002	47	3	45	0.16	*	G9 (jar)	SV, not joining, rim and shoulder from a BB type jar	M2-3C
		47	1	28	0.10		E5/E6 (bowl)	Bowl rim, neck-less with high shoulder, probably form E6	Rom, prob 2-4C
		47	6	77		*		Misc grey body sherds, poss from the jar and bowl from this context	Rom
0005	Ditch 0002	55	1	123			D20 (amphora)	Body sherd	M1-2/E3C
		40	4	63	0.09	*	B1 (dish)	SV, joining sherds	M2-4C
		47	1	16		8	Jar?	Pale, micaceous, slightly sandy fabric, sherd edges and interior possibly slightly bleached or leached as the fresh fabric core is a pale buff colour, surface pale grey. It can be	Rom

Ctxt	Ctxt type	Fabric	No	Wt(g)	Eve	Abr.	Form	Notes	Spot date
								noted that there are a number of unsourced, micaceous, pale grey wares at Colchester (CAR 10 Fabric WC) but the fabric is unusually pale here	
0007	Ditch 0006	47	1	27		*	jar	Jar base, quite abraded	Rom
		BSW	1	9		*	Jar/bowl	Sandy fabric with traces of encircling wavy comb line around body	Rom
		BSW	1	6			Dish/bowl base	dish or bowl base sherd with chamfered edge probably BB type	M2-4C

Table 3: Pottery by context (SV=same vessel)

Discussion

The more closely dated of the Roman pottery is of mid 2nd-3rd century and mid 2nd-4th century date. Some of the pottery is abraded, which could suggest it was old when it entered these contexts. However, the average sherd size (18g) is good and sherds (some joining) which are clearly part of the same pots were recovered from three of the contexts in ditch 0002 (0003, 0004 & 0005), notably one dish (represented by several joining sherds) in Black-Burnished ware 1 (Fabric 40). This suggests that much of pottery was broken close to the contexts from which it was recovered.

The small assemblage is dominated by coarse wares, with one Spanish amphora import - a Dressel 20 (olive oil) amphorae which is the most common amphorae type found in Roman Britain. The most common fabric type is sandy grey wares (Fabric 47) which are probably mostly local products. Vessel forms identified in Fabric 47 are a Black-burnished ware (BB) style jar (form G9) and a bowl of form E5 or E6 (probably E6). The relatively large number of sherds in Dorset Black-Burnished ware 1 (Fabric 40), are mostly from one vessel, a dish of form B1, and possibly all could be from this one pot. Of note is one sherd (0005) in an unusually pale (white), micaceous fabric. The exterior surface is a pale grey while sherd edges and interior are possibly slightly bleached or leached white as when exposed, the fresh fabric core is predominantly a pale buff colour. It can be noted that there are a number of unsourced, micaceous, pale grey wares at Colchester (*CAR* **10**, Fabric WC), but the fabric of the sherd here is unusually pale.

Roman ceramic building material (CBM)

Introduction

Three pieces of Roman CBM were recovered with a total weight of 894g. These are listed in

Table 4.

Ctxt	CBM type	No.	Wt (g)	Thick (mm)	Abr	Fabric	Notes	Spot date
0003	Roman brick/tile	1	616	32-35		red sandy fabric with grey core	Probably from a Roman brick	Rom
0004	tegula	1	224	18-20	*	Fine sandy orange fabric (similar to 0007)	Back (upper) cutaway, slightly abraded	Rom
0007	tegula	1	54	15-20	*	Fine silty orange fabric (similar to 0004)	Part of lower cut-away, Warry Type C5 (dated M2-M3C), slightly abraded	Rom (M2- M3C?)

Table 4: Roman ceramic building material (CBM) by context

Discussion

The few pieces of Roman CBM are from flat roof tiles (*tegulae*) (0004 & 0007) and a thicker piece which is probably brick (0003). The CBM pieces are associated with contexts containing pottery dated to the mid 2nd-3rd century and mid 2nd-4th century. The tile pieces themselves are not closely dated, although one (0007) has part of a lower cut-away that is probably Warry's Type C5 (2006, fig 1.3) which he dates as current in the mid 2nd-mid 3rd century. However, while different types of lower cut-aways are possibly more common at different times during the Roman period, this dating should be treated as speculative as there are instances of some tiles with lower cut-away types from closely date early Roman deposits which contradict this (Warry's) dating scheme (*CAR* **3** fiche 301 & fig 203).

Significance of the finds

The finds indicate Roman activity or occupation on, or immediately adjacent to the site in the mid-late Roman period of the mid 2nd-3rd/4th century.

References

CAR 3, 1984, Philip Crummy, *Excavations at Lion Walk, Balkerne Lane and Middleborough, Colchester, Essex*, Colchester Archaeological Report 3

CAR 10 1999, Robin Symonds and Sue Wade, *Roman pottery from excavations in Colchester, 1971-86*, Colchester Archaeological Report 10

Going, C., 1987, *The mansio and other sites in the south-eastern sector Caesaromagus: the Roman pottery,* CBA Research Report 62

Martin, T., 2003, 'Roman pottery' in Germany, M., *Excavations at Great Holts farm, Boreham, Essex, 1992-94*, East Anglian Archaeology 105, 96-155

Warry, P., 2006, *Tegulae, manufacture, typology and use in Roman Britain*, BAR British Series 417

Appendix IV- The Environmental Evidence

AN ASSESSMENT OF THE CHARRED PLANT MACROFOSSILS AND OTHER REMAINS FROM BRADWELL TROUT FARM, ESSEX (HER BDTS 13)

Val Fryer, April 2013

Introduction and method statement

Excavations at Bradwell, undertaken by John Newman, recorded a limited number of features of probable Roman date, including part of a possible ditched enclosure with ancillary features, and further outlying ditches. Samples for the retrieval of the plant macrofossil assemblages were taken from ditch and pit fills, and four were submitted for assessment.

The samples were processed by manual water flotation/washover and the flots were collected in a 300 micron mesh sieve. The dried flots were scanned under a binocular microscope at magnifications up to x 16 and the plant macrofossils and other remains noted are listed in Table 1. Nomenclature within the table follows Stace (1997). All plant remains were charred.

The non-floating residues were collected in a 1mm mesh sieve and will be sorted when dry. Any artefacts/ecofacts will be retained for further specialist analysis.

<u>Results</u>

Cereal grains/chaff and seeds of common weeds were present at varying densities within all four assemblages. Preservation was moderately good, although some grains were puffed and distorted, probably as a result of combustion at very high temperatures (see table below).

Oat (*Avena* sp.) and wheat (*Triticum* sp.) grains were recorded, with wheat being predominant. Of the wheat grains, most were of an elongated 'drop' form typical of spelt (*T. spelta*), and spelt glume bases were common or abundant within all four assemblages. It was noted that a number of the wheat grains had distinctive concave sides, strongly suggesting that they had germinated prior to charring, and a small number of detached cereal sprouts were also recorded. Oat grains were scarce, and it was considered most likely that all were present as contaminants of the main wheat crop.

The weed seed assemblage was very limited in composition. Brome (*Bromus* sp.) fruits were present within three samples, and were moderately common within the assemblage from sample 0007, but otherwise only two indeterminate grass (Poaceae) fruits were noted along with a single dock (*Rumex* sp.) seed. Charcoal/charred wood fragments were present throughout, and were especially common within sample 0007. The only other plant macrofossils recorded were fragments of charred root or stem.

The black porous residues, which were noted within all four assemblages, were all probably derived from the combustion of organic remains (including cereal grains) at very high temperatures. Other remains were scarce, but did include a piece of calcined bone and small pellets of burnt or fired clay.

Conclusions and recommendations for further work

In summary, as all four assemblages are chaff dominant, it would appear most likely that the remains are partly or wholly derived from cereal processing waste. That a small number of germinated grains are present may suggest that some drying waste is recorded, although there is insufficient material to confirm this hypothesis. As the assemblages are mostly small in volume, it would appear that the remains are principally derived from scattered refuse which was accidentally included within the feature fills. However, the density of material within the assemblages probably indicates that cereal processing and/or storage were being undertaken within the near vicinity.

Although three of the four assemblages do contain a sufficient density of material for quantification (i.e. 100+ specimens), analysis of such a small group of material would probably add little to the data already contained within this assessment. Therefore, no further work is recommended at this stage. However, if any future interventions are planned within the immediate area, it is strongly recommended that additional plant macrofossil samples of approximately 20 - 40 litres in volume are taken from all dated and well-sealed contexts recorded during excavation.

<u>Reference</u>

Stace, C., 1997 New Flora of the British Isles. 2nd edition. Cambridge University Press

Sample No.	0004	0005	0007	0009
Feature No.	0002	0002	0006	0008
Feature type	Ditch	Ditch	Ditch	Pit
Cereals				
Avena sp. (grains)	xcf		х	
(awn frag.)				х
(floret)			х	
Triticum sp. (grains)	x	х	х	х
(glume bases)	хх	х	хх	х
(spikelet bases)	хх	х		х
(rachis internodes)	x		х	
T. spelta L. (glume bases)	ххх	хх	хххх	ххх
Cereal indet. (grains)	х	х	хх	хх
(detached sprouts)	x		х	х
(detached embryos)			х	
(basal rachis node)			х	
Herbs				
Bromus sp.	x		хх	xcf
Small Poaceae indet.			х	
Large Poaceae indet.		х		
<i>Rumex</i> sp.			х	
Other plant macrofossils				
Charcoal <2mm	xx	хх	хххх	хх
Charcoal >2mm	хх	х	ххх	хх
Charcoal >5mm	x	х	ххх	х
Charcoal >10mm	x	х	х	
Charred root/stem			х	х
Other remains				
Black porous 'cokey' material	x	хх	х	хх
Bone			xb	
Burnt/fired clay		х	х	х
Small coal frags.			х	
Sample volume (litres)	11	10	10	12
Volume of flot (litres)	<0.1	<0.1	0.3	<0.1
% flot sorted	100%	100%	50%	100%

Key to Table

x = 1 - 10 specimens xx = 11 - 50 specimens xxx = 51 - 100 specimens xxxx = 100+ specimens cf = compare b = burnt

Appendix III- Context list

Bradwell Trout Farm- BDTS 13

Context	Finds/ sample	Туре	Part of	Description	Spotdate
0001		US		Unstratified finds	
0002		Ditch	0002	Shallow curving ditch on eastern side of site, three sections exc., width 500/800mm, depth 200/300mm (extrapolating curve gives an internal diam. of 12m for area enclosed by ring ditch)	
0003	F	Fill	0002	Fill in northern section across 0002 (500mm w x 200mm d), dark brown silty sand with charcoal flecks	
0004	F?S	Fill	0002	Fill in central section across 0002, fill as 0003 (800mm w x 300mm w)	
0005	F/S	Fill	0002	Fill in southern section across 0002, fill as 0003 (500mm w x 250mm d)	
0006		Ditch	0006	North-south orientated ditch, only feature in trench on southern side of house footprint area, butt ends in main area opened, close to butt end 600mm wide x 200mm deep, in trench to south 1500mm wide x 400mm deep (latter mechanically exc. due to high water table)	
0007	F/S	Fill	0006	Fill of ditch in larger area opened, dark brown silty sand	
0008		Small pit	0008	Small pit within area enclosed by ditch 0002, 600mm wide x 120mm deep	
0009	S	Fill	0008	Fill of 0008, dark greyish brown silty sand	

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OASIS ID: johnnewm1-146904

Project details

Project name	Bradwell Trout Farm, The Slades, Cuthedge Lane, Bradwell, Essex- Archaeological Evaluation Report
Short description of the project	Bradwell Trout Farm, The Slades, Cuthedge Lane, Bradwell, (BDTS 13, TL 82399 22206) evaluation trenching, for a single house development, followed by a small scale open area excavation covering 80m2 revealed various features of mid to later Roman date. The features investigated comprised part of a shallow curvilinear ditch with a projected internal diameter of c12m, a small and shallow pit within the ring area and a north-south aligned ditch nearby. Finds were recovered from all the features save the shallow pit and included pottery sherds indicative of domestic type settlement nearby and occasional fragments of tile while carbonised macrofossil ecofacts strongly suggest crop processing with spelt wheat being the main cereal grown. By comparison with more extensively excavated sites of this date in the eastern counties it may be inferred that the curvilinear ditch is likely to have surrounded a roundhouse type structure of mid to later Roman date within a mid to lower status type farmstead.
Project dates	Start: 29-01-2013 End: 29-01-2013
Previous/future work	No / No
Any associated project reference codes	BDTS 13 - HER event no.
Type of project	Field evaluation
Site status	None
Current Land use	Grassland Heathland 3 - Disturbed
Monument type	DITCH Roman
Monument type	PIT Roman
Significant Finds	POTTERY Roman
Significant Finds	TILE Roman
Significant Finds	ECOFACT Roman
Methods & techniques	"Sample Trenches"
Development type	Small-scale (e.g. single house, etc.)
Prompt	Planning condition

Project location

Country	England
Site location	ESSEX BRAINTREE BRADWELL BRADWELL TROUT FARM, THE SLADES, CUTHEDGE LANE
Postcode	CM77 8FR
Study area	100.00 Square metres
Site coordinates	TL 82399 22206 51 0 51 52 05 N 000 38 58 E Point
Height OD / Depth	Min: 28.00m Max: 30.00m

Project creators

Name of Organisation	John Newman Archaeological Services
Project brief originator	Local Authority Archaeologist and/or Planning Authority/advisory body
Project design originator	John Newman
Project director/manager	John Newman
Project supervisor	John Newman
Type of sponsor/funding body	Landowner

Project archives

Physical Archive recipient	Braintree District Museum
Physical Contents	"Ceramics"
Digital Archive recipient	Braintree District Museum
Digital Contents	"Ceramics","Environmental"
Digital Media available	"Images raster / digital photography","Text"
Paper Archive recipient	Braintree District Museum
Paper Contents	"Ceramics","Environmental"
Paper Media available	"Plan","Report"

Project bibliography 1

Publication type	Grey literature (unpublished document/manuscript)
Title	Bradwell Trout Farm, The Slades, Cuthedge Lane, Bradwell, Essex- Archaeological Evaluation and Excavation Report
	Newman, J

Author(s)/Editor (s)	
Date	2013
lssuer or publisher	John Newman Archaeological Services
Place of issue or publication	Henley, Suffolk
Description	Loose bound client report
Entered by	John Newman (johnnewman2@btinternet.com)
Entered on	22 April 2013

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