

LONGVIEW, MANOR FARM BARNS, 1 COCKHALL LANE, LITLINGTON

ARCHAEOLOGICAL EXCAVATION



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LONGVIEW, MANOR FARM BARNS, 1 COCKHALL LANE, LITLINGTON ARCHAEOLOGICAL EXCAVATION REPORT

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Abstract

In December 2018 Britannia Archaeology Ltd (BA) undertook a trial trench evaluation on behalf of Tim Bond in advance of the erection of one dwelling on land adjacent to Longview, 1 Manor Farm Barns, Cockhall Lane, Litlington, Cambridgeshire (TL 31296 42381) (Fig. 1). Previous excavations close to the site in the early 19th century and in 2009 by Time Team identified the presence of a Roman villa building, thought to be located 70m to the north of the site.

The evaluation was undertaken in response to a design brief issued by Cambridgeshire Historic Environment Team (CHET) which required a trenched evaluation, sampling 5% of the threatened area.

The trial trenching produced a large volume of archaeological material including a substantial spread of Roman wall plaster and CBM/ceramic demolition material in the northern trench (trench 2) suggesting a substantial part of the villa complex must have been located on or very close to development site.

Consequently, it was agreed with CHET to extend the excavation area around the northern trench (approximately 2m either side) to provide further information as to the extent and character of the Roman building deposits and relatively complex intercutting features identified during the evaluation and to entirely excavate the proposed dwelling footprint.

In January 2018, the width of trench 2 was extended and 4 main phases of activity were identified.

Phase I - Late Iron Age to c.AD60/70

A single archaeological feature had been assigned to this phase from the excavation. Ditch 2010 was on a broadly northeast to southwest alignment and was subsequently cut by features from all other phases. It is likely that this ditch represents a first phase of enclosure in this area of the settlement.

Phase II – Mid to late 1st century

Similar to Phase I this phase only contained a single feature. Ditch 2061 was on a broadly northeast to southwest alignment. This ditch could be perceived as a broad re-establishment of this boundary however with the limits of the excavation area it is impossible to know the extent of the boundary.



Phase III - Mid/Late 1st - 3rd Century

This is the predominant phase of activity on the site and has been split into three subphases.

Phase IIIA Late 1st century

This sub-phase includes ditches 2034, 2040 and 2042. All these features were on a northwest to southeast alignments and were subsequently cut by Phase IIIB Ditch 2027 and Phase IIIC ditch 2022.

Phase IIIB Mid/Late 1st - Mid/Late 2nd Century

The main feature assigned to this phased ditch 2027 which traversed the whole of the excavation area on a northwest to southeast alignment. This substantial ditch forms a boundary similar to those seen in the nearby Wessex excavations (Wessex, 2010) to the northwest of the site.

Phase IIIC Mid/Late 1st - Late 3rd Century

This phase relates to the largest ditch in the excavated area, 2022, which also ran through the excavation area on a northwest to southeast orientation. All other features were truncated by this ditch placing it as the latest feature in the excavation.

Phase IV - Undated

Only a single feature has been assigned to this phase, pit 2036, a lack of dating evidence makes it impossible to assign to one of the confirmed earlier phases.

The pottery assemblages from both phases of Roman land use, contained little consistent evidence of high-status activity. The CBM assemblage seems to directly contradict this interpretation.

The CBM database that has been created as a result of the excavation, can now also be used as a research tool, to compare the results against of any subsequent fieldwork that might be carried out in the village.

This excavation was successful in identifying further outlying areas of settlement in the Litlington historic landscape. The project has not only been successful in identifying the further extent of the Romano-British settlement, adding to the information gleaned by the Wessex excavation, but it has also identified the likelihood of multiple structures, perhaps



ancillary buildings for the already identified villa complex in the immediate vicinity of Longview.

As the site lies on the edge of a known Roman settlement the results contribute to an increasing picture of the periphery activity associated with the villa complex and perhaps the extent of the known villa complex itself.



1.0 INTRODUCTION

In December 2018 Britannia Archaeology Ltd (BA) undertook a trial trench evaluation on behalf of Tim Bond in advance of the erection of one dwelling on land adjacent to Longview, 1 Manor Farm Barns, Cockhall Lane, Litlington, Cambridgeshire (TL 31296 42381) (Fig. 1). Previous excavations close to the site in the early 19th century and in 2009 by Time Team identified the presence of a Roman villa building, thought to be located 70m to the north of the site.

The evaluation was undertaken in response to a design brief issued by Cambridgeshire Historic Environment Team (CHET) (Stewart, G. 24th April 2017) which required a trenched evaluation, sampling 5% of the threatened area.

The evaluation comprised two $15.00 \text{m} \times 1.80 \text{m}$ trenches arranged in an L-shape targeting the proposed development footprint (Fig. 5).

The trial trenching produced a large volume of archaeological material including a substantial spread of Roman wall plaster and CBM/ceramic demolition material in the northern trench (trench 2) suggesting a substantial part of the villa complex must have been located on or very close to development site.

Consequently, it was agreed with CHET to extend the excavation area around the northern trench (approximately 2m either side) to provide further information as to the extent and character of the Roman building deposits and relatively complex intercutting features identified during the evaluation and to entirely excavate the proposed dwelling footprint.

In January 2018, the width of trench 2 was extended by c.2.00m on each side resulting in an excavation area c.5.50m wide with a length of c.13.00m. At the northwest end of the excavation area the first c.3.50m of the excavation area were excavated to a greater width of c.6.80m to better define features present.

Furthermore, following the completion of the excavation works a watching brief was carried out at the site on the 18th October 2019, during the construction works on the excavation and installation of a soakaway.



2.0 SITE DESCRIPTION (Fig. 1)

The development was located in the south of the historic village of Litlington, which lies approximately 4km north west of Royston. The site comprised a roughly rectangular parcel of land covering 0.11ha on the eastern side of Cockhall Lane at around 37m aOD.

2.1 Site Geology

The bedrock geology is Zig Zag Chalk Formation, a Sedimentary Bedrock formed approximately 94 to 101 million years ago in the Cretaceous Period when the local environment was previously dominated by warm chalk seas (BSG, 2020).

No superficial geology had been recorded at the site at this time (BSG, 2020).



3.0 PLANNING POLICIES

The archaeological investigation was carried out on the recommendation of the local planning authority, following guidance laid down by the *National Planning and Policy Framework* (NPPF, DCLD 2018). The relevant local planning policy is the *South Cambridgeshire Local Plan (adopted September 2018)*.



4.0 ARCHAEOLOGICAL BACKGROUND (Fig. 2-3)

The following archaeological background draws on the Cambridgeshire Historic Environment Record (CHER) (1km search centred on the site), Historic England PastScape (www.pastscape.org.uk), and the Archaeological Data Service (www.ads.ahds.ac.uk) (ADS) (Fig. 2, 3 & 4). Where possible, the CHER preferred reference has been used.

4.1 Significant records

The development area lies at the centre of a particularly dense concentration of archaeological records, primarily associated with a known Roman Villa located 60m to the north-west (03186). The site was originally investigated by the Rev. W. Clack in the early 19th century and again in 2009 for the Time Team television series (ECB3288 & ECB3502). The villa is thought to follow a standard courtyard design with ancillary structures radiating out from the main building. During the 2009 evaluation, evidence of a bathhouse with tessellated floor surface and wall plaster was identified in a small copse 60m to the north-west of the site (MCB19307) and further evidence of high status flooring was recorded in test pits on the modern housing estate to the north. The evaluation also covered an area of the field south east of the site in an attempt to locate the 'Heaven's Walls' Roman cemetery associated with the villa. The exact location was not confirmed but an inhumation and grave were found as were disarticulated human bones. The area has been disturbed by quarrying, but this indicates some burials may have survived.

Archaeological work at Manor Farm (40m north) identified Iron Age and Roman occupation (11752) in the form of a possible enclosure or field system associated with the Villa. Roman building material and pottery was found to support this interpretation. Late Iron Age features and finds also suggested an earlier settlement with established wealth and continental trade contacts.

Roman tesserae, pottery, and tile fragments were found in the garden of 13 Cockhall lane, next to the site and are closely associated with the villa (MCB17646).



4.2 Prehistoric

Cropmarks of ring ditches, interpreted as possible Bronze Age round barrows, and linear ditches of a possible later prehistoric date have been noted c.950m east of the site (09463).

4.3 Romano-British

Close to the site cropmarks of enclosures in fields south of the site have been recorded and interpreted as likely Iron Age or Roman, and possibly relating to the villa (MCB23166, 11432, 09459). The north-east corner of the rectangular enclosure lies 10m from the site boundary. Evidence for the Romanisation of rural Iron Age communities is a research priority in East Anglian (Medlycott. 2011).

4.4 Saxon

The origins of the modern settlement are likely to date to the Anglo-Saxon period. The etymology of Litlington is derived from Old English $l\tilde{y}tel$ (a person's name) inga and $t\bar{u}n$ meaning farmstead or settlement and was recorded in Domesday as Lidlingtone (1086) (Mills. 2003).

To the north-west (400m), an evaluation and subsequent excavation adjacent to the church (ECB1372 and ECB2067), recorded 6th century AD Saxon ditches and several inhumations which were thought to be broadly contemporary (MCB15969).

4.5 Medieval

Medieval earthworks were found using LIDAR c.200m north-west of the site (MCB23169).

A medieval moat (MCB1595) is located at Huntingfield Manor Farm, 340m to the north-west near the historic centre of the settlement.



4.6 Post-medieval and Modern

Structures and air raid shelters associated with a WW2 camp located c. 200m east of the site were seen on 1947 aerial photographs but are no longer extant. They were likely associated with RAF Steeple Morden (MCB23163).

Given the above, the site has a very high potential for Roman and Iron Age archaeological remains to be present. There is moderate to low potential for Anglo-Saxon remains and low potential for all other periods.

4.7 Archaeological Potential

Given the above, the site had a **very high** potential for Roman and Iron Age archaeological remains to be present. There was a **moderate** to **low** potential for Anglo-Saxon remains and **low** potential for all other periods.



5.0 PROJECT AIMS

The CCC HET brief stated that the evaluation should aim to determine, the location, extent, date, character, condition, significance and quality of any surviving archaeological remains liable to be threatened by the proposed development. An adequate representative sample of all areas where archaeological remains were potentially threatened was studied (Stewart, G. Brief, Section 3.1).



6.0 PROJECT OBJECTIVES

Research objectives for the project were in line with those laid out in *Research and Archaeology Revisited: a revised framework for the East of England,* East Anglian Archaeology Occasional Paper 24 (Medlycott, 2011).

Specific objectives outlined in the brief stated that particular importance be placed on:

- presence/absence of palaeosols and old land surface soils/deposits,
- the character of deposits and their contents within negative features
- palaeochannels
- site formation processes generally.

An assessment of the environmental potential of the site through examination of suitable deposits was also to be arranged with a suitably qualified specialist. Attention was paid to:

- to the retrieval of charred plant macrofossils and land molluscs from former dry-land palaeosols and cut features, and to soil pollen analysis;
- to the retrieval of plant macrofossils, insect, molluscs and pollen from waterlogged deposits located.
- provision for the absolute dating of critical contacts should be made: eg the basal contacts of peats over former dryland surfaces; distinct landuse or landmark change in urban contexts



7.0 FIELDWORK METHODOLOGY

The CCC HET Brief required an adequate representative sample of all areas where archaeological remains were potentially threatened. Two $15.00 \,\mathrm{m} \,\mathrm{x} \,1.80 \,\mathrm{m}$ trenches were considered suitable to achieve the sample.

Following the discovery of significant archaeological finds and features and with the consent of CHET, a wider excavation area was opened around trench 1. The width of trench 1 was extended by c.2.00m on each side resulting in an excavation area c.5.50m wide with a length of c.13.00m. At the northwest end of the excavation area the first c.3.50m of the excavation area were excavated to a greater width of c.6.80m to better define features present.

A 360° mechanical excavator fitted with a toothless ditching bucket was used to machine down to the first archaeological horizon, thereafter all excavation work was undertaken by hand unless agreed with CCC HET (Fig. 5).

The archaeology was recorded using pro-forma record sheets, drawn plans and section drawings and appropriate photographs were taken.



8.0 DESCRIPTION OF RESULTS (Fig. 6 - 32)

8.1 Trial Trenching

A professional metal detector was used to scan the trenches locations prior and post excavation along with the spoil heaps. All stratigraphic layers were scanned for metal and non-metal finds.

8.2 Trial Trench 1 (Figs. 7 – 10)

Trench 1 was located in the southern area of the site on a northeast to southwest orientation forming an L-shape with trench 2 at its northeast end. It measured $15.00m \times 1.80m$. The trench contained two ditches and three gullies.

Ditch **1008** was linear in plan $(6.00\text{m} + \text{x} \ 0.96\text{m} \times 0.24\text{m})$, orientated NE-SW and continued in both directions beyond the limits of trench 1. The NE end is cut by gully **1018** just before the edge of the trench. The primary fill **1015** was a thin layer of dark greyish brown, firm sandy clay with frequent inclusions of flint and occasional inclusions of large stones. Pottery of LIA-AD60/70 date was present in this fill (142g/4), and pieces of animal bone (33g/4) and daub (10g/1) were also found. The secondary fill **1009** was a dark grey, firm sandy clay with frequent inclusions and occasional inclusions of large stones. Pottery fragments dated likely AD60/70 were present in this fill (588g/39) (Fawcett 2020 appendix 3). CBM fragments (61g/2), and pieces of animal bone (135g/19) were also found.

Gully **1018** was linear in plan (2.10m+ x 0.40m x 0.48m), orientated E-W and continued in both directions beyond the limits of trench 1. The east end of the feature cuts ditch **1008** just before the edge of the trench. It also cuts gully **1020** which runs parallel. The single fill **1019** comprised a dark grey, firm clayey silt with frequent inclusions of ill-sorted flint and chalk. Pottery dated 17^{th} - 18^{th} century (8g/2) was present in the fill (Fawcett 2020 appendix 3). CBM fragments (213g/15), pieces of animal bone (10g/3), oyster shell (2g/1), and snail shell (36g/6) were also found.

Gully **1020** was linear in plan (2.10m + x 0.40m + x 0.41m +), orientated E-W and continued in both directions beyond the limits of trench 1. It runs parallel to gully **1018** and is cut by it along its south side. At the west end just before the trench



edge it cuts ditch **1037**. The single fill **1021** comprised a dark grey, firm clayey silt with frequent ill-sorted flint and chalk inclusions. No finds were present but as it is parallel with gully **1018** which is dated as 17th-18th century it is likely to be of a similar date (Fawcett 2020 appendix 3).

Ditch **1037** was linear in plan $(1.30\text{m} + \times 0.60\text{m} + \times 0.51\text{m} +)$, orientated NE-SW and continued in both directions beyond the limits of trench 1. The NW edge of the ditch was not present within the trench and so the full width is unknown. At the SW end it is cut by gullies **1020** and **1039** just before the edge of the trench. The single fill **1038** comprised a dark greyish brown, silty clay with moderate inclusions of stones and flints. Pottery fragments (133g/8), of late 1st century date (Fawcett 2020 appendix 3), were found in the fill as well as CBM fragments (87g/1), and pieces of animal bone (42g/2).

Gully **1039** was linear in plan ($2.25m + x 0.25m \times 0.38m$), orientated E-W and continued in both directions beyond the limits of trench 1. The west end of the feature cuts ditch **1037** just before the edge of the trench and is cut by gully **1020** in the NW section of the trench. The single fill **1040** comprised a dark brownish grey, clayey silt with occasional small stone inclusions. A single fragment of LIA-AD60/70 pottery was found in the fill (3g/1) (Fawcett 2020 appendix 3).

8.3 Trial Trench 2 (Figs. 11 & 12)

Trench 2 was located in the northern area of the site on a northwest to southeast orientation forming an L-shape with trench 1 at its southeast end. It measured $15.00 \, \mathrm{m} \times 1.80 \, \mathrm{m}$. The trench contained a number of layers and spreads of material. To define these deposits three test pits were excavated across the trench.

Test Pit 1 was located at the southeast end of the trench and contained three layers likely associated with the demolition of villa structures. Layer **1006** was present in this test pit and contained a large assemblage of finds. In total 50 sherds of pottery (497g) were present providing a date of mid/late 3rd – mid 4th century AD (Fawcett 2020, section 9.2 this report). The CBM assemblage totalled 146 fragments (15663g) with an additional four pieces of mortar (98g), and one piece of daub (19g). A total of 52 pieces of animal bone were present (776g) which included fragments from cattle, sheep/goat, goose, and equid (Curl 2020, section 9.9 this report). Mollusc remains were also found including 32 pieces of oyster shell (631g),



11 pieces of mussel shell (28g), one piece of clam shell (8g), and one piece of snail shell (7g). Of particular note amongst the finds was a copper alloy armlet (SF1) dated 3rd-4th century AD which, given its small size, was most likely for a child (Sillwood 2020, Section 9.14, this report). In addition, three Fe nails were also found (30g) as well as three pieces of quernstone (956g) and one piece of worked stone (70g). The quernstone pieces were millstone grit quern fragments which displayed no obvious grinding surfaces indicating they had reached the end of their useful life as a grinding tool, the fragments also showed possible evidence of burning and may have been reused in a hearth (Sillwood 2020, appendix 9.14, this report). Finally, three pieces of charcoal (3g) and six pieces of chalk (240g) were found. Layer 1016 was located directly beneath layer 1006 and comprised a dark black grey, firm, clayey silt with occasional inclusions of chalk. One piece of Roman pottery was found (3g) as well as eight pieces of CBM (1735g), two pieces of daub (61g), and three pieces of chalk (185g). Five pieces of animal bone were present (106g) including fragments of equid spine with severe arthritic changes (Curl 2020. Section 9.9, this report). A total of 16 pieces of oyster shell (272g), 2 pieces of mussel shell (6g), and one snail shell (5g) were also present. Layer 1017 was present in this test pit with the same composition as in test pit 4. It was present beneath layer 1016 and contained a large quantity of finds. The most significant finds were nine pieces of painted wall plaster and opus signinum (SF2, 502g). The wall plaster is relatively unsophisticated with just areas of plain colour and a few simple border areas suggesting the presence of simple plain coloured panels bordered by stripes and bands of a different colour (Betts 2019, Section 9.13, this report). Much of the plaster is of relatively poor-quality implying that the owner of the property from which the plaster derives, may not have been wealthy enough to employ top quality wall painters, a scenario further supported by the lack of evidence for the use of more expensive pigments (Betts 2019, Section 9.13, this report). In addition 20 sherds of pottery were found (634g) providing a date of mid/late 3rd - mid 4th century (Fawcett 2020, Section 9.2 this report), as well as 73 fragments of CBM (10314g), 14 pieces of mortar (942g), and two pieces of daub (275g). Animal bone fragments totalling 33 pieces (1477g) were found including heavily fused equid thoracic vertebrae and part of a red deer skull with antler pedicles (Curl 2020, Section 9.9, this report). Mollusc remains were also found including 31 pieces of oyster shell (915g), 14 pieces of mussel shell (24g), and two pieces of snail (18g). The remaining finds included two Fe nails (18g), two pieces of charcoal (4g), four pieces of chalk (479g), two pieces of flint (9g), and one piece of worked stone (705g).



A single test pit, Test pit 2, was located in the northeast of the trench and contained layers **1031** and **1032**. No finds were recovered from these layers and it seems likely that they are associated with the former modern building that was previously in this aera of the site.

Test Pit 3 was located at the northwest end of the trench and contained three archaeological features. Ditch 1023 (0.70m+ x 0.46m+ x 0.52m+) was located on the northeast side of the test pit and orientated NW-SE. It was linear in plan with steep sides and continued beyond the limits of the test pit. It comprised a single fill (1024) which contained a single sherd of pottery dated mid 1st-late 2nd century AD (Fawcett, 2020, appendix 3 this report). Five fragments of CBM were also found (294g). Pit **1025** (1.00m + x 0.53m + x 0.33m +) was located on the northwest side of the test pit against the edge of the trench and was sub-circular in plan with moderately sloping sides and a concave base. It continued beyond the limits of the test pit. It comprised a single fill (1026) which contained four sherds of pottery (18g), two fragments of CBM (13g), and a single sheep/goat molar (Curl, 2020 Section 9.9, this report). The pottery sherds provided a date of mid-late 1st century AD (Fawcett, 2020, Section 9.2, this report). Pit 1025 cut the northwest end of d+-itch **1023**. The final feature in the test pit was ditch **1027**($0.50m+ \times 0.50m+$ x 0.42m+). The overall shape in plan was not clear from what was visible in the test pit as it appeared to be the edge a ditch orientated E-W across the south corner of the test pit but is presumed to be linear. The single fill (1029) contained five sherds of pottery (46g) which provided a date of c.AD69 – late 2nd century (Fawcett, 2020, Section 9.2, this report) as well as 13 fragments of CBM (594g) and five pieces of animal bone (56g). Ditch 1027/1028 is cut by ditch 1023 at its eastern end.

Test pit 4 was located in the centre of the trench and contained layers **1006** and **1017**. Layer **1006** comprised a mid-greyish brown, firm, clayey silt with frequent chalk inclusions. No finds were recovered from this layer in this test pit. Layer **1017** comprised a mid-greyish brown, firm, clayey silt with moderate chalk inclusions. In this test pit the layer contained a single sherd of pottery (29g) dated Late Iron Age – c.AD60/70 (Fawcett 2020, Section 9.3, this report), five fragments of CBM (167g), and one piece of oyster shell (27g). These layers likely represent the debris from the demolition of villa structures.



8.4 Description of Results – Excavation (Figs. 13 – 31)

The trial trenching produced a large volume of archaeological material including a substantial spread of Roman wall plaster and CBM/ceramic demolition material in the northern trench. The known Roman villa building was thought to be located 70m to the north, however the material recorded in the evaluation suggested a substantial part of the villa complex could be located on or very close to development site. The finds recovered suggested a 3rd to 4th century date for the structure at that time. The trial trenching also identified several ditches in the southern trench.

Consequently, it was been agreed with CCC HET to extend the excavation area around the northern trench (approximately 2.00m either side) to provide further information as to extent and character of the Roman building deposits and relatively complex intercutting features identified during the evaluation. This would help to mitigate the potential disturbance/damage to these important deposits during the construction of the new building, especially the service/utility trenches which run through the area.

A professional metal detector was used to scan the area prior and post excavation along with the spoil heaps. All stratigraphic layers were scanned for metal and non-metal finds.

Once the area was reduced to the correct level it was decided in agreement with the CHET archaeologist that three parallel transects would be cut through the site to bisect all the features. These transects would be on a northeast to southwest alignment and would be labelled 1-3 (Fig. 13). additional slots where required would follow the normal excavation methodology presented in the agreed WSI.

The results presented below are organised by phase (Fig. 14). This is based on finds recovered, stratigraphic relationship to other features, location and spatial relationship to dated features. A full context list and descriptions are presented at Appendix 1.

In this case, pottery spot dates and stratigraphic relationship form the primary means of dating.



8.5 Phasing (Fig. 14 - 21)

The following phases were identified during the excavation and post excavation analysis to date:

I. Late Iron Age to c.AD60/70

II. Mid to late 1st century

III. Mid/Late 1st – 3rd century

IIIA. Late 1st century

IIIB. Mid/late 1st - mid/late 2nd century

IIIC. Mid – Late 3rd century

IV. Undated

8.6 Phase I Late Iron Age to c.AD60/70 (Fig. 16)

Ditch **2010** was linear in plan (6.10m+ x 2.11m x 1.19m), orientated E-W and continued in both directions beyond the limits of the excavation area. It is cut by ditch **2061** which follows the same orientation and is cut into its surface and is most likely a later re-cut. It is also cut by NW-SE ditches **2022** and **2027** at a near right angle. Two slots were excavated in this ditch (A & C). Slot A comprised of six fills, five of which contained ceramics totalling 12 sherds (17g). Three fills contained animal bone totalling 33 fragments (1468g), two fills contained a total of 4 pieces of slag (85g), and two fills contained a total of 3 pieces of worked flint (118g). Slot C contained three fills, of which only fill **2069** produced finds. It contained 5 sherds of pottery (288g), one fragment of CBM (21g), 11 pieces of animal bone (337g), and a single piece of slag (135g). The ceramic evidence provided a date of 1st -2nd century for this ditch (Fawcett 2020 appendix 3).

8.7 Phase II Mid to late 1st century (Fig. 17)

Ditch **2061** (6.10m+ \times 2.18m \times 0.61m) was linear in plan and followed the same NE-SW orientation as ditch 2010. It is most likely a later re-cut of ditch 2010. Two slots were excavated of this feature (A & C) which each comprised a single fill. Fill **2062** of slot A contained a single fragment of Roman pottery (57g) (Fawcett 2020 appendix 3). Fill **2071** of slot C contained 6 sherds of pottery (106g), 18 pieces of CBM (2849g), 10 pieces of animal bone (394g), and 3 fragments of clunch (118g).



The pottery was dated early 2^{nd} century to mid 3^{rd} century (Fawcett 2020 appendix 3).

Ditch **2034** was linear in plan $(4.00\text{m} + \text{x} \ 0.37\text{m} + \text{x} \ 0.32\text{m})$ and was orientated N-S. The ditch terminates in slot B next to ditch **2027B** and continues south where it is cut by ditch **2022**. It is also cut on its east side by ditch **2040**. The ditch comprised a single fill **2034** which contained 3 sherds of pottery (30g), 27 fragments of CBM (6861g), a single piece of mortar (315g), 2 pieces of animal bone (96g), and a single piece of oyster shell (46g). The ceramic evidence provided a date of 3^{rd} - 4^{th} century (Fawcett 2020 appendix 3).

Ditch **2040** was linear in plan $(6.00m + x \, 0.63m \, x \, 0.44m)$ and was located between ditches 2027 and 2022 on a N-S orientation. It is cut by ditches 2027, 2022, and 2042, and cuts ditch 2034. Two slots were excavated (A & B), no finds were recovered from either.

Ditch **2042** (7.50m+ \times 0.35m+ \times 0.65m) was linear in plan and on N-S orientation. It is substantially truncated on the NE side by ditch 2022 which leaves only a small portion of the feature visible in plan. The ditch cuts ditch 2040 and was excavated in two slots (A & B). It comprised a single fill in both slots which contained no finds.

Ditch **2027** was linear in plan (12.80m+ x 1.75m x 0.78m), orientated NW-SE and continued in both directions beyond the limits of the excavation area. It cuts ditches **2026**, **2061**, **2010**, and pit **2036**, and runs parallel to ditch **2022**. Four slots were excavated (A, B, C, D). Slot A comprised of two fills which both produced finds including a total of 19 sherds of pottery (185g), 82 fragments of CBM (8799g), and 20 pieces of animal bone (699g). In addition, a single piece of wall plaster (SF14) was found in secondary fill **2017** (42g), and 5 pieces of oyster shell (88g) were present in primary fill **2018**. Slot B comprised three fills which all produced finds. A total of 4 sherds of pottery (77g) were found (77g) as well as 46 fragments of



CBM (6309g). A total of 20 pieces of animal bone were present (587g) with 4 pieces of oyster shell (154g). The uppermost fill **2030** contained 2 Fe objects (49g), and the middle (secondary) fill **2029** contained a single Fe nail (18g). Slot C comprised two fills but only the secondary fill contained finds including 5 sherds of pottery (59g), 14 fragments of CBM (2083g), and 19 pieces of animal bone (902g). Slot D also comprised two fills. Upper fill **2056** contained 3 sherds of pottery (49g), 6 fragments of CBM (242g), a single Fe nail (9g), 3 pieces of animal bone (44g), and a single piece of oyster shell (13g). Lower fill **2055** contained only 4 pieces of animal bone (81g). Overall the ceramic evidence provided a date of 1st-4th century (Fawcett 2020 appendix 3).

Ditch **2039** was linear in plan $(1.00\text{m} + \text{x}\ 0.63\text{m} + \text{x}\ 0.44\text{m})$ and was only partially visible on the NE edge of the excavation area. It was substantially truncated by ditch 2022A but appeared to be following a similar orientation of NW-SE. It comprised two fills; primary fill **2023** contained a single piece of pottery (12g) dated 2^{nd} - 4^{th} century, and two pieces of CBM (83g) (Fawcett 2020 appendix 3). Secondary fill **2007** contained 13 sherds of pottery (365g), 16 fragments of CBM (3699g), 13 pieces of animal bone (74g), 2 pieces of oyster shell (34g), and 3 snails (28g). The pottery provided a date of AD2/260-300+ (Fawcett 2020 appendix 3).

Ditch **2044** (0.73m+ x 0.40m+ x 0.36m) was located below ditch 2022B and not visible in plan due to the level of truncation. It is presumed linear and, on a NW,-SE orientation. The ditch comprised two fills, of which primary fill **2045** contained one fragment of pottery (41g) dated late 1^{st} - 4^{th} century (Fawcett 2020 appendix 3).

8.8.3 Phase IIIC Mid – Late 3rd Century (Fig. 20)

Ditch **2022** was linear in plan $(1.00\text{m} + \text{x} 1.74\text{m} \times 0.73\text{m})$, orientated NW-SE and continued in both directions beyond the limits of the excavation area (extended around trench 2). It cuts ditches **2039**, **2057**, **2042**, **2040**, **2034**, and **2010**, and runs parallel to ditch **2027**. Three slots were excavated (A, B, C). Slot A comprised five fills all of which produced finds. A total of 252 sherds of pottery were present in slot A (9272g) as well as 369 fragments of CBM (87625g). Fragments of wall plaster were also present in the fills totalling 8 fragments (157g) (SF8 & SF9) and



a piece of opus signinum adhered to tile (508g) (SF10) in fill 2019. In addition, a total of 72 pieces of mortar/opus signinum were also found (8216g), as well as 80 pieces of animal bone (3460g) and 80 pieces of oyster shell (2633g). In total 11 Fe nails were found in the feature (118q) and additionally a spindle whorl (SF5) and a Cu object (SF4) were also found in fill 2019. Slot B comprised four fills which also all produced finds. In total 12 sherds of pottery were present (557g) and 326 fragments of CBM (80100q). Four pieces of mortar/opus signinum (555q) were found in total, as well as two pieces of wall plaster (472g) (SF11 & SF13). In total 21 pieces of animal bone (1294g) were present and 13 pieces of oyster shell (453g). Two pieces of possible worked stone (1474g) were found. In addition, four Fe nails (44g) and a Cu object (SF12) were also found in fill 2032. Slot C comprised five fills, only two of which produced finds: the lower two fills 2063 and 2064. A total of 14 sherds of pottery were present (533g), 48 fragments of CBM (12807g), and 12 pieces of animal bone (640g). Three pieces of mortar/opus signinum (144g) were found in fill 2063, as well as 5 pieces of oyster shell (203g). Overall, the ceramic evidence gives a date of 2nd-4th century AD for the feature (Fawcett 2020 appendix 3).

The first archaeological horizon encountered in the area was context **2004** which was an irregular and shallow deposit measuring c.3.00m x 2.00m. It comprised a compacted dump of opus signinum, mortar, clunch, and CBM which was deposited above ditches **2027C**, **2061C**, and **2010C**. During the initial trial trench phase this layer was identified as **1004** and was thought to possibly represent the remnant of a floor surface. Once the trench was extended into an excavation area it became apparent that this was not the case. This deposit is not present as a consistent layer across the site and is most likely a localised dump of material associated with the demolition of the villa that was deposited after the backfilling of the ditches and prior to the deposition of subsoil **2003** (**1003** in the preceding evaluation). The deposit contained three sherds of pottery (54g), 34 fragments of CBM (2654g), 119 pieces of mortar/opus signinum, 3 pieces of animal bone (172g), 8 pieces of clunch (287g), and 4 pieces of wall plaster (SF6, 103g). The pottery was dated from the late 1st century to the 19th century but the building material was of a Roman date (Fawcett 2020 appendix 3).



8.9 Phase IV Undated (Fig. 21)

Pit **2036** was sub-circular in plan (0.48m \times 0.30m+ \times 0.39m) and located on the SE edge of ditch 2027B. It comprised a single fill, **2037**, which contained no finds.

8.10 Description of Results – Watching Brief 18th October 2019 (Fig. 32)

Following the excavation work a single watching brief exercise was undertaken on the 18^{th} October 2019 during the installation of a soakaway at the site. The soakaway measured 2.00m x 2.00m and was 0.87m deep. The excavation was located to the south east of the area already subject to excavation. Only layers already encountered in the preceding works were identified in the watching brief.

A full report on the ceramics recovered during the watching brief can be found in Appendix 2. In summary, two fragments of slightly abraded pottery were recovered from sub-soil **2003** and have been dated to the 3rd – 4th century. A total of eleven pieces of Roman CBM were retrieved from sub-soil **2003**, weighing 7052g. The assemblage includes six tegula fragments, four imbrex and one flat tile, (Fawcett, 2020).

No additional features were encountered in the watching brief.



9.0 SPECIALIST REPORTS

The following specialist reports are presented here with their accompanying tables and individual appendices.

9.1 Ceramics

The Roman pottery, ceramic building materials (CBM), fired clay and mortar from Longview, 1 Manor Barns, Cockhall Lane, Litlington, Cambridgeshire (ECB 5273).

Andy Fawcett

Introduction

This report sets out the results of the analysis of the pottery, CBM, fired clay and mortar recovered from both the evaluation and excavation phases of the archaeological intervention at Longview, Litlington. First of all the methodology used in the analysis of the materials is described and thereafter the principle components within each category of finds will be described followed by their related overall conclusion.

Methodologies

All the categories of finds have been examined at x20 vision and have been allocated fabric codes.

The fabric codes employed for the pottery assemblage are based upon those developed by Going at Chelmsford (1987) which have been further enhanced by Tomber and Dore (1998) as part of their national fabric reference collection. The form codes have used the basic sequence provided by Going (1987) at Chelmsford, however these have also been supplemented, principally by form matches from Harrold (Brown 1994), Baldock (Stead and Rigby 1986) as well as Chells (Waugh 1999).

The pottery has been recorded by sherd count and weight (g). Other types of information gathered during the analysis include rim and base measurements (r.eve and b.eve), the level of abrasion and decoration.



A full listing of fabric, form and abrasion codes can be seen in Appendix 1, and the fully recorded pottery assemblage can be consulted in Appendix 2.

Fabric codes for the CBM assemblage are also simple letter combinations based upon those utilised for the pottery assemblage. The only exception to this are the placement of lower case letters after the main coding. These letters denote the principle fabric ingredients that define its uniqueness. The form codes are either plainly spelt out as in the case of bricks, or are synthesized letters which relate to the given form such as *tegulae* (TEG).

The CBM has been recorded by form count and weight (only joining form pieces and unidentifiable fragments have been recorded as groups). Also noted during the recording process were the dimensional aspects of the CBM as well as the presence of marks, impressions, mortar, the level of abrasion and any indications of the fragment being heat affected.

A list of fabric codes that relate to the CBM assemblage can be seen in Appendix 1 and a full breakdown of the entire assemblage can be observed in Appendix 3; the abrasion codes remain the same as those used for the recording of the pottery. Finally, a detailed description of the range of CBM fabrics recorded during the analysis can be found in Appendix 6.

The fabric codes used for the fired clay and mortar reflect the principle ingredients of the individual fragment, and are constructed of simple letter combinations which can be seen in Appendix 1. Apart from fragment number, weight and abrasion, other recorded aspects of this finds group include the presence of surfaces, marks and impressions, as well as signs of being heat affected. The fully recorded collection of fired clay/daub can be seen in Appendix 4, the mortar in Appendix 7 and the *opus signinum* in Appendix 5.

9.2 Pottery

A total of 447 sherds with a weight of 10197g, a r.eve of 6.75 and a b.eve of 5.78 was recovered during the evaluation and excavation phases at Longview. The sherds were retrieved from a total of thirty-two contexts (six layers, two pits, twenty-three ditches and the sub-soil) and are predominantly dated to the early and later Roman periods.



In general the condition of the pottery may be described as being in a good state of preservation with only a very small number of sherds displaying anything other than very slight abrasion. The average sherd weight of the pottery as a whole, stands at just under 23g. This figure may be defined as good, and alongside the lack of abrasion within the assemblage, all of this information demonstrates that the assemblage was recovered from its original place of deposition. In some of the fills of features the average sherd weight is higher, however further comments with regard to condition and weights shall be made under the individually phased groups section of the report.

LIA to c AD60/70 (1015, 1040, 1041 and 2012)

Only four contexts have been allocated to this phase of activity. However, due to the nature of the ceramic evidence used to define the existence of this period, it cannot be proven which side of the conquest the pottery represents. The evidence relies solely on the presence of the transitional grog-tempered fabric SOB GT which straddles the conquest period. A total of eleven body sherds (240g) were recovered from the four contexts (two ditches, a gully and layer). The small number of sherds per context within these fills means that they must be considered to be poorly dated.

Two further residual body sherds in this fabric were retrieved from two later ditch fills (1020 and 1073) and several too, were identified alongside true Roman pottery, these shall be discussed in the next two phases below.

Mid to late 1st century (1009, 1026)

The two contexts dated to this period are both from the evaluation phase of the project, a ditch and pit fill. The first of these (Ditch fill 1009) contained an assemblage amounting to thirty-eight sherds (583g) with a r.eve of 0.37. The sherds within this fill display only very slight abrasion and have a reasonable average sherd weight of 15.5g. There is no independent dating evidence within this fill, in terms of finewares or distinctive coarseware form types, therefore dating has principally fallen back on a combination of fabrics. The end result of this is that there is a possibility that the ceramics from this context are dated to around the late 1st century rather than earlier.



The group contains a mixture of grog-tempered (SOB GT), Romanising (BSW) and shell-tempered sherds (HAR SH). A single jar rim fragment was noted in SOB GT that was too small to identify further, however the majority of sherds (26@412g) belonged to a HAR SH jar. This vessel belongs in Going's G5 category (1987, 23) and is directly comparable to Brown No's 43/44 (1994), Baldock 283 (Stead & Rigby 1986) and Chells 107 (1999). Its fabric is pale orange and patchy black, containing abundant ill-sorted shell. The bead rim above the channel is prominent which is symptomatic of the early versions of this jar whose history spans back to the late Iron Age. If this is indeed a Harrold fabric, then it is likely to be no earlier than the late 1st century AD: the early beginnings of this industry are not clearly understood, it was likely to have been produced at several locations in the area. Shell tempered pottery was being used before and after the conquest period, therefore the fabric could date from the mid 1st century onwards and the presence of fabric SOB GT alongside this helps support the possibility.

The pottery in pit fill 1026 (4@18g) is poorly dated due to the small number of sherds present and it is the combination of a body sherd from *Verulamium* (VER WH) and fabric SOB GT that provides the date range.

c Late 1st (1007 and 1038)

The first of the two contexts dated to this period (Layer 1007) contained sixty-five sherds (828g) with a r.eve of 0.43. This assemblage has an average sherd weight of 13g and exhibits little abrasion. It is comprised of four fabrics VER WH, UNS BU, UNS OX and SOB GT, the latter being the most prolific ware. Two form types were noted, the first is a J3.2.1 ring-necked flagon (Going 1987, 33) in fabric VER WH; this vessel is similar to *Verulamium* types 1928-32 (Wilson 1984). None of these however are a perfect match, this version has a slightly flared neck and not straight like the cited examples, and therefore is possibly dated from the late 1st to early 2^{nd} century.

Most of the sherds in fabric SOB GT belong to an everted rimmed jar, however this version of the ware is not a classic type, with some elements having a more sandy, rather than soapy feel. The jar is an early version of the 'Braughing' style that displays rilling which covers the vessels entire body from just below the neck, rather than a zone of rilled decoration which is typical of later examples. Similar



examples can be seen at Baldock (Stead and Rigby 1986, No 426) and *Verulamium* (Wilson 1984, No 2170) both of which are dated to the Flavian period.

Ditch fill 1038 contained just eight sherds with a weight of 128g and a r.eve of 0.19. Two of these are in fabric BSW, one is an unidentifiable jar rim and the other a H1.1.1 globular beaker fragment dated from around the mid 1st to the end of the century. A further two sherds are in the transitional fabric SOB GT, one of which is a base fragment, these are dated from the late Iron Age to around AD60/70. Finally, four sherds of Gaulish *amphorae* complete the group, these are in the category one style (GAL AM 1) and all join and are dated from the around the late 1st to mid-3rd century.

?Mid?/late 1st to mid/?late? 2nd century (1012, 1013, 1022, 1029, 2011, 2016, 2017, 2021, 2056 and 2069)

The contexts within this group are all broadly dated but are no later than mid/late 2^{nd} century. They have been grouped together in order to demonstrate the extent of Roman activity dating to this period. However, all of these contexts must be considered as poorly dated as none contain more than eight sherds (most below four); the entire total for all of these fills stands at just thirty-three sherds. The three most closely dated contexts are ditch fills 2016, 2056 and 2069 (?mid?/late 1^{st} to early/mid 2^{nd} century).

Context 2016 contained just three sherds (68g), two of which are in the Romanising fabric BSW and the other ROB MD. This last fabric is of interest, it is represented by a B1.6 dish which is a typical form type associated with this fabric (Going 1987, 37). The dish has grey/brown surfaces which are abundantly covered in gold mica, it has a grey core and orange margins and its fabric is composed solely of fine quartz. The fabric is dated from the late 1st to early/?mid 2nd century.

The three sherds recorded in fill 2056 (50g) are made up of two body sherds, one each in fabrics UNS WH and HAD RE St. The former is likely to be dated no later than the end of the second century. The final sherd is a base fragment of LGF SA (La Graufesenque samian ware); this is the only continental fineware recovered from Litlington dated to the Roman period. Although small in size it appears to be a fragment from Drg 30 bowl and is dated from the mid 1st to early 2nd century.



The final context (2069) contained five sherds (273g) split between four fabrics, one of which is a residual hand-made Iron Age jar fragment that displays a serrated rim whose mineral suite is dominated by shell and grog (UNS SG). The remainder of the assemblage is made up of a body sherd of HAD RE 1 as well as pieces of jar rims in fabrics BSW and SOB GT St. The latter has an everted rim and the remains of a combed zone below this, a broadly comparable jar in this style can be seen at *Verulamium* (Wilson 1984, No 2324).

The only example of a context that is likely to be dated to the early/mid 2nd century was Layer 1013. This contained a single fragment of VER WH in the form of a C16.4 reed-rimmed bowl (Going 1987). Similar style rims associated with this form can be seen at *Verulamium* (Wilson 1984, No's 2451 and 2460) and these are both dated to the first half of the 2nd century.

Mid to later 3rd century (*Ditch 2022; contexts 2008, 2009, 2019, 2020, 2032, 2033, 2038, 2063 and 2064*)

Table 1 presents the quantified pottery results from Ditch 2022 which has a date range that spans the mid to later 3rd century. The exclusion of the storage and *amphorae* fabric data from the rest of the assemblage is due to the weight bias, these fabrics are much heavier than the other wares.

Fabric	No	%	Wgt/g	%	R.eve	%
LNV CC	6	5	91	2	0.18	6.5
UNS CC	3	2.5	7	Pres	0.08	3
LNV WH	3	2.5	78	2	0.13	4.5
UNS WH	1	1	4	Pres	-	-
HAD OX	10	8.5	170	4	0.03	1
HOR OX	2	1.5	36	1	-	-
UNS OX	3	2.5	994	23.5	0.22	7.5
UNS OX	1	-	25	-	-	-
St *						
UNS BB	1	1	17	0.5	0.07	2.5
BSW	2	1.5	16	0.5	-	-
GRS	30	25.5	707	16.5	0.53	18.5
GRS St *	25	ı	610	-	-	_
GRS bio	9	7.5	66	1.5	-	-
HAD RE 1	33	28	1698	40	1.35	47
HAD RE 2	3	2.5	70	1.5	0.05	1.5
HOR RE	1	1	90	2	-	-
HAR SH	10	8.5	169	4	0.23	8
HAR SH St *	5	-	576	-	0.06	-



SOB GT	1	1	7	Pres	_	-
GAL AM *	2	-	264	ı	-	-
UNS AM *	1	-	17	ı	-	-
Total	152	100	5712	100	2.93	100

Table 1. Mid to later 3rd century. *denotes not included with quantification figures

Excluding the denoted fabrics, the average sherd weight of the assemblage is a very good 35.5g and the sherds display barely any abrasion. Only a single grog-tempered sherd (SOB GT) was abraded, which is dated from the late Iron Age to c AD60/70 and is considered residual.

The only continental imports within the assemblage are three sherds of amphorae, two of which are from Gaul (GAL AM) a fabric that is present within British assemblages up until at least AD260. The remaining sherd is too small to identify further with any accuracy (UNS AM).

The range of fabrics identified within Ditch 2022 show that only a very small percentage of these are finewares. They amount to a total of nine sherds of which two thirds are from the Nene Valley (LNV CC) in Cambridgeshire, with the remainder being unsourced (UNS CC).

Regional coarsewares within the assemblage arrive from Cambridgeshire (LNV WH, HOR OX and HOR RE), Bedfordshire (HAR SH) and Hertfordshire (HAD OX, HAD RE 1 & 2). However of these three sources, the overwhelming majority are derived from the Hertfordshire kilns at Hadham, amounting to 45.5% by weight. This major pottery production area is around 20km south-east from Litlington, and with access to the major Roman road of Ermine Street, it is not a surprise that the products of this industry dominate the regional coarseware group. In general one would have expected a larger contribution to the assemblage of the Bedfordshire fabric HAR SH. However, its low showing may be partly explained by the distance of the kilns from Litlington (c 50km to the north-west) alongside no direct route, and by the fact that this fabric only really began to contribute larger percentages of pottery to most regional sites from around the very late $3^{\rm rd}/4^{\rm th}$ century (Going 1987, 10 & Waugh 1999, 96).

The remainder of the assemblage from Ditch 2022 is comprised of unsourced coarsewares which are likely to be of a local origin. Nonetheless, one group of sandy grey wares (GRS bio) contains a significant quantity of black iron ore, and these are highly likely to be products of the Hadham industry.



A total of twenty-four forms were identified from the fills of Ditch 2022. Table 2 depicts the range of forms and their relevant percentages.

Form type	No	%
Dish (B)	9	37.5
Bowl (C)	1	4
Mortaria (D)	2	8.5
Bowl-jar (E)	1	4
Jar (G)	8	33.5
Beaker (H)	3	12.5
Total	24	100

Table 2. Form range

The form assemblage is dominated by dishes and jars. Within the dish group there are two examples of the plain-rimmed B1 type (Going 1987) dated from the early 2nd to 4th century. However, the remainder of dishes are all in the B5 style, a transient form which has an incipient bead that precedes the fully flanged dish form B6 (Going 1987). This type of vessel is roughly dated from around AD230/250 to 270/280; no fully flanged dishes were noted within Ditch 2022.

Of particular interest within the B5 group is a rim sherd fragment from Ditch fill 2032 in fabric HAD RE 1. The interior of the vessel (just below the rim) is decorated with a continuous single wavy line. This style of decoration from Hadham, is normally associated with the fully flanged dishes (B6) which are dated from the late 4th to early 5th century (Going 1987, 15, Going Unpub No's 5155-61, Stead & Rigby 1986, No's 839-840, Wilson 1972, No 1293). Nevertheless, at Colchester Symonds and Wade have dated the style on B6 dishes as commencing from the third quarter of the third century (Symonds & Wade 1999, 482). In any case, none of these *corpuses* contain a B5 with this style of decoration so it must therefore be concluded that the date range of this vessel is that of the form AD230/250-270/280.

The only bowl type is a C8.2.1 (Going 1987) with a down turned flange, this was recovered from the surface of the ditch and is dated from the late 3rd to 4th century.

Two mortaria fragments were noted, the first in fill 2019 in fabric LNV WH. It is in the hammer-head style and is similar to Perrin's M21/28 types (1999) and is dated



to the 3^{rd} century. The second is in fabric UNS OX from context 2032 and it in the D3.1.1 style (Going 1987) and dated to the 2^{nd} century, it is considered residual.

The single example of a bowl-jar (E2) was recorded in context 2019. This form has a long life span (late 2nd to 4th century) however, the form was more popular during the latter half of the Roman period.

Of the eight jar forms present, only three could be identified beyond their general class of vessel. These include a late shell-tempered type (HAR SH) which has a flat and flared rim and is dated from the late 2nd to 3rd/?early 4th century. It is similar in style to Brown numbers 81/171 (1994). In the same fabric a fragment of storage jar was recorded (2019) which is broadly comparable to No 238 in Brown's *corpus* (1994) and is dated from the mid 3rd to 4th century. Finally, in fill 2033 a globular reed rimmed jar was noted in fabric UNS OX. The form is similar in profile to Stead and Rigby type 699 (1986) and is dated from the mid to later 3rd century.

Although beaker body sherds were continuously present with the fills of Ditch 2022 only three forms were represented by rim fragments. Two of these are in the Cambridgeshire fabric LNV CC, the first fragment (context 2009) has a long tapering neck and an angular rim and appears to be in the H41 style (Going 1987, 33) and is dated from the late 3rd to early/mid 4th century. The second is either a H32 or 33 type (context 2019) which have plain rims and have indented bodies (Going 1987); these are typical forms of the 3rd century. A single sherd of an LNV CC beaker was noted in fill 2020 which was decorated with an animal barbotine scheme. This style is particularly associated with 'hunt cups' and is dated from the late 2nd/early to mid/?late 3rd century.

Elsewhere on the site, a further three contexts from the excavation phase (2007, 2018 and 2030) have been dated to the same period as Ditch 2022. The fabric and form ranges encountered within these fills follow exactly the same profile as those just described. It is interesting to observe that only in one of these fills (2007) was a B6 fully flanged dish type recorded. These types occur from around the mid-3rd century and become the dominant dish type during the 4th century. This form occurs sporadically at Litlington but in terms of numbers it is far outweighed by its overlapping incipient flanged predecessor B5.



?Mid?/late 3rd to mid-4th century (1006 and 1017)

Several contexts with pottery on the site could only be broadly dated to the later Roman, however, only two with any accuracy, and these were both noted during the evaluation stage of the project, and at the time were both classed as layers. The forms and fabrics recorded within these two contexts exhibit no significant differences from those noted in Ditch 2022, except that two flanged B6 dishes were noted. Both of these contexts appear to be no later than the mid 4th century, however the mix of fabrics and forms indicate that these two layers may in actual fact be dated no further than the later 3rd century.

Conclusion

The pottery assemblage has shown that although in the background (as residual sherds), some form of minimal Iron Age activity took place on the site, the ceramic evidence as a whole appears to demonstrate that two distinct phases of Roman activity are present on the site.

The evidence for the first of these, cannot however be completely defined by the separation of phased assemblages which date to the early Roman period, these divisions appear to present a slightly distorted picture. For example, it is unproven if the first group (LIA-c AD60/70) is dated to the pre or post-conquest period, and although the next assemblage (mid to later $1^{\rm st}$ century) is clearly post-conquest in nature, there are hints within it that it may date to the latter end of this range. Indeed the following group (c late $1^{\rm st}$ century) appears to have more in common with the previous assemblage, and it may well be possible too that the assemblage dated ?mid?/late $1^{\rm st}$ to mid/?late? $2^{\rm nd}$ century contains mostly components that are predominantly dated from the late $1^{\rm st}$ to early $2^{\rm nd}$ century.

The separation of these groups has primarily been due to the lack of finewares within them, the dating for individual contexts has been dictated solely by the presence of coaresware fabrics and their accompanying forms. However, when taken as a whole, the combined evidence from these assemblages strongly suggests that the first main phase of Roman activity on the site commenced from somewhere around the late $1^{\rm st}$ century. The end of this initial site use looks to have occurred around the early $2^{\rm nd}$ century, although some elements may possibly be as late as the middle of the century. However, this latter fact is based



exclusively on the presence of a *Verulamium* reed-rim bowl as well as a micadusted dish. The presence of a single very small sherd of La Graufesenque samian ware (whose condition by comparison to the rest of the assemblage makes the question of residuality a possibility), may well also demonstrate that the Roman activity in this first phase is actually no later than the early 2nd century.

It is interesting to note, that although the Wessex excavation retrieved Roman pottery that was not deemed closely dateable, within that assemblage was a single central Gaulish Drg18/31 dish and a Dressel 2/4 amphora sherd (2010, 15). In the first instance, this would provide a date of c AD120-150 and in the second a $1^{\rm st}$ century date. However, in the case of the Dressel 2/4 sherd, this fabric is far more frequently encountered on early Roman sites (c AD50-100), rather than preconquest sites (Tyers 1996, 90). These two sherds, alongside carinated types (2010, 16), appear to provide more evidence in support of this initial phase of Roman activity on the site.

The Roman pottery from this phase clearly represents domestic settlement of some description. Despite the fact that the form range from this period is quite restricted there are still beakers, flagons, bowls and dishes present within the assemblage all of which denote dining activity. The fineware component within this assemblage is very low, and only a single *amphora* sherd was noted (representing imported coarsewares), as well as equally low percentages of regionally imported coarsewares. These small quantities are not indicative of high status activity, however although the quantities of CBM associated with these earlier contexts are nowhere near as large as those recorded in later contexts, they nonetheless exist. This suggests that the pottery is derived from a structure, however perhaps from an area of the building (or even an ancillary or periphery construction), in which the activity they represent was not of such a high status and one which may well have served a different purpose.

There is no clear or consistent evidence within the pottery assemblage that indicates Roman activity on the site between the mid and later 2^{nd} century. Similarly, there is no direct ceramic evidence for activity on the site during the first thirty to fifty years of the third century. The next major phase of activity began somewhere around AD230/250.



The pottery assemblage (dated from around the mid to later third century) was recorded alongside a substantial and diverse ceramic building materials group, which also included wall plaster and *opus signinum*. All of these materials point towards the presence of a significant structure of some status, however the recorded pottery fabric and form ranges do not themselves appear to reflect this.

The pottery associated with this phase has primarily been dated by the use of a particular coarseware form, the B5 dish (Going 1987). There are very few finewares associated with this phase (only nine colour-coated wares were noted), however the majority that could be dated, were firmly of a third century date. The only wares which were imported from the continent, were three small *amphora* fragments. Even the coarseware assemblage contained little diversity in the form of regional imports, with very small quantities arriving from Harrold (Beds), however the main contributor were the kilns at Hadham in Hertfordshire.

The form range too is principally made up of jars (of which several are storage versions) and dishes, with very few components that might be considered to be associated with dining or even food preparation.

The pottery assemblage therefore does not reflect a high-status residence however, there may be a number of reasons for this. It might be that the function of this part of the building was not an area of dining, or perhaps ceramics were not the major dining table ware. Another possibility is that the building from which they are derived may too have been an ancillary structure, and therefore not primarily concerned with food preparation and dining but built for other purposes.

The Wessex report contains descriptions of individual fabrics and forms that are dated from the late 3rd to 4th century, with some clearly being of a 4th century date (2010, 16). However, it is unclear at what point in the 4th century activity ceased to take place. The potentially latest pottery from the current excavation suggests that this may have been no later than the mid-4th century. However, these assemblages are broadly dated (although they can be no earlier than the mid-3rd century), but they do display many similarities to the pottery encountered during the previous phase of activity, it is therefore a possibility that they may well be of a contemporary nature with those fragments. It should be noted too that large CBM assemblages are present within contents 1006 and 1017, and within these are



fragments of CBM from Harrold (and possibly Horningsea), which are likely to be no later than the mid- 4^{th} century.

9.3 Ceramic Building Material

A total of 1'398 fragments of CBM with a weight of 248'920g were retrieved during the excavation at Litlington. This part of the report firstly describes the condition of the CBM assemblage which is then followed by descriptions of the form types and the range of fabrics encountered; a separate section concentrates on the fabrics (and their accompanying form types) which could be identified as arriving from a particular geographical area. Finally, an overall discussion of the CBM assemblage completes this section of the report.

As a whole the CBM assemblage contains very few examples that may described as suffering from significant abrasion, the overwhelming majority of fragments exhibit nothing more than very slight wear. An analysis of fragment size, demonstrates that across all of the main contexts containing CBM this figure is variable (as might be expected) as these fills contain very large to fairly small pieces. With this in mind, it is difficult also to be objective about average weights within the CBM assemblage as these would be entirely dependent to a certain extent, on the quantities present of some of the heavier forms such as flat/brick and brick. Nevertheless, if one considers three of the main ditch fills that are dated to around the mid/late 3rd century (2019, 2020 and 2032) the average fragment weight stands at a high and consistent rate 231g, 265g and 250g. This figure drops down somewhat, for instance in Layer 1006 (116g) and Ditch fill 2018 (114g). Nonetheless, the combination of a lack of abrasion and the average fragment size clearly demonstrates (as was noted with the pottery assemblage) that the CBM assemblage is in its original place of deposition.

Form assemblage

Table 3 shows a complete breakdown of the CBM form assemblage by number and weight. The figures presented in the table reveal that roofing tile (*tegula*, *imbrex*, ridge and flat) amounts to 50% by fragment count and 60% by weight. The structural component (flat/brick and brick) accounts for 14.5% by fragment count and 28.5% by weight. The remainder of the assemblage is composed of flooring pieces (*tesserae*), hypocaust heating tile (key/box) and unidentifiable fragments



(frag). Interestingly the trial trenching undertaken in the vicinity of the current site by Wessex Archaeology (2010, 17-18) had figures for roofing tile which were broadly comparable (37% and 73%), whereas the structural totals were much lower (2% and 8%); true bricks were completely absent in their assemblage. Their hypocaust tile figures were slightly higher (6% and 6.5%) and the *tesserae* presence was much higher (45% and 10%).

Form	No	%	Wgt/g	%
Tegulae	237	17	70017	28
Imbrices	173	12.5	23443	9.5
Ridge	3	Pres	1365	0.5
Flat	340	24.5	55560	22.5
Flat/brick	146	10.5	43890	17.5
Brick	57	4	27115	11
Key/box	29	2	5553	2.5
Tesserae	18	1.5	410	Pres
Frag	395	28	21567	8.5
Total	1398	100	248920	100

Table 3. Form range

The *tegula* roof tile group contained no complete dimensions and only a single width measurement was possible (300mm). Depth measurements therefore were the only dimensional aspect left to record. These had a range of 12mm to 36mm, however the concentration of depths were noted between 15mm and 25mm. This range of depths is directly comparable to those recovered from the small Roman town of Ware in Hertfordshire (Fawcett forthcoming). The flange depth ranged from 7mm to 38mm, although most were between 15mm and 35mm, however unlike the depths, there were many peaks and troughs within this range, no specific concentration. It should also be noted that the flanges were never consistently double the height of the tile depth.

The shape of flanges varied enormously with very little consistency in terms of shape, few examples were directly repeated in terms of outline, although it could be said that many followed a similar style. The Wessex analysis of flange shape found that most were square or curved (2010, 17). Many of the flanges within the current assemblage for example have a variety of 'bifid' style tops and other elaborations. Only a very small quantity (thirty) could be exactly matched with the basic profile sequence illustrated by Brodribb (1987, 15). These consisted of types B1 to B7, although in reality seven of these were in the B1 category and thirteen were matched to B2.



Not all of the *tegula* fragments displayed flange grooves and where they were present they generally consisted of just one, and only very occasionally two.

A total of thirty-three cut-aways were recorded both complete and partial. Only two could be matched to Brodribb's B1 style (1987, 16) and their lengths where complete, were mostly between 40mm and 60mm.

Including those which occur upon flat tile examples, which are highly likely to be *tegula* mid-sections (these shall be discussed below), a total of twenty-three partial signatures were recorded on *tegulae* fragments. These marks are even, symmetrical and semi-circular in shape made by the use of fingertips. Brodribb found (with the exception of one example) that these signatures ranged from between one and four lines (1987, 100), and indeed this is the case at Litlington. However, a closer look at the range shows that nine consisted of one line, a further nine of two lines, three of three lines and finally two of four lines. The only signature that did not conform to the semi-circular pattern was noted on a HAD OX flat tile fragment (which is clearly a *tegula* mid-section) from Ditch fill 2032. This consisted of a top curved horizontal line, underneath of which was a single short vertical line, a single curved diagonal line to the right, and below this a further short straight diagonal line that meets the curve of the previous line.

Brodribb describes these marks as being signatures (1987, 99-100) or the marks of particular workers, however McWhirr points out, that the fact these marks nearly always occur on the bottom edge of *tegulae*, seems to be significant. He explains that the *tegula* cut-away sections were designed to enable the tiles to slot together, and that it may have been necessary to indicate which end should have which type of joint. Nevertheless he concedes too that there may be further practical explanations as to why persons or the brickyard may create these marks (1984, 96-99). It seems that if every tile was thus marked there should be a much higher percentage of these within a large assemblage such as this one. Perhaps the answer may be something to do with quality control, or the production of batches of tiles by an individual? No such marks were found on the *tegulae* recovered by the Wessex investigation (2010, 17).

The presence of mortar on the *tegula* fragments was rather erratic, however it was noted on a total of thirty-nine pieces (this does not include *tegula* mid-section



fragments within the flat tile section). Mortar was predominantly recorded on the *tegula* flanges although it was frequently too observed on both surfaces. In Ditch fill 2020, one fragment that was without a flange was covered in *opus signinum*, which was also spread over the breaks and clearly indicated that it had been reused. Only one other example within the assemblage displayed similar evidence of being reused.

Around twelve examples exhibited signs of being heat affected and this manifested itself in several different ways. A small quantity may be described as being partially burnt (by the presence of blackened/sooted areas) whilst others displayed part or fully reduced areas and finally several had fabrics that appeared over-fired or vitrified. The few heat affected examples reveal that they have been subjected to both direct and in-direct heat.

The *imbrex* group contained no complete profiles and only one recorded width measurement was present within the assemblage (Ditch fill 2019) in fabric HAD OX which stood at 175mm. The one complete *imbrex* profile recovered by Wessex (2010, 17) had a considerably different width measurement (135mm). The depth range spanned 4 to 22mm however the majority of these were in a narrow concentration between 12 and 18mm. These figures are very similar to those recorded at Roman Ware (Fawcett forthcoming). Unlike the Wessex findings (2010, 17) the number of *imbrex* retrieved from this site is lower than that of *tegulae* and is far nearer to Brodribb's ratio of 3:2 (1987, 24).

The presence of ribbing that runs lengthways on the *imbrex* at Litlington is prolific with more displaying this trait rather than not. In some instances a zone at one end of the *imbrex* exhibits horizontal ribbing as well as the vertical version. This style is not mentioned by Brodribb (1987, 24) and he implies too that ribbing in general was perhaps not a frequent occurrence, and its presence is either absent or not documented within the previous groups recovered from Litlington by Wessex (2010, 17).

Ditch fill 2019 contained an *imbrex* fragment in fabric HAD OX that displayed a vertical groove pattern on its upper surface as opposed to ribbing.

None of the *imbrex* fragments within this group have any traces of signatures on their upper surfaces.



Two separate *imbrex* pieces were noted in Ditch fill 2022 A that displayed individual fingerprints on their upper surfaces.

Of the 173 fragments of *imbrex* recorded at Litlington a total of twenty-nine exhibited traces of mortar. The majority of pieces only displayed mortar on their undersides and only two examples had mortar on the upper surface. Of note were single fragments in ditch fills 2019 and 2020. Both of these pieces had a thick and consistent zone of mortar on the underside that extended for *c* 70mm. This is to do with the overlap of individual *imbrices* (this type of evidence in quantity could be of use in calculating the number of these tiles required on a given roof section under ideal circumstances) and similar fragments with comparable measurements have been noted by Brodribb at Exeter, Nottingham and Silchester (1987, 24). Finally, only one *imbrex* fragment indicated that it had been reused, demonstrated by the fact that mortar traces were present over the breaks as well as the surfaces. This was recorded in Ditch fill 2022 B.

Only a total of seven *imbrex* fragments from within the group displayed any signs of being heat affected. This figure is very low when compared against the *tegulae* figures and in the absence of definite evidence of destruction by fire or to indicate the reuse of these tiles, the reasons for this are unclear. However, the evidence for reuse of CBM within the current assemblage as a whole, is based principally upon the presence of mortar over old breaks. It may well be that the reuse of these materials was much more prolific than can be detected by the evidence available, or that perhaps by the nature of their shape, it was far easier to redeploy *tegulae* fragments in walling or hypocaust stacks for instance. The few heat affected examples at Litlington are restricted mainly to areas of reduced surfaces and the occasional fragment which had been clearly over-fired.

Only three possible ridge tile fragments were recorded within the entire CBM assemblage, these were noted in Ditch fills 2018 and 2063 as well Layer 1006. Although these are only small pieces the height of two of these measures between 85 and 100mm. The curvature therefore of these tiles, which were meant for the apex of the roof, is too high and angular to be classed as *imbrex* fragments. Only the example in Ditch fill 2063 exhibited mortar which was located on the underside of the tile. No examples of this tile type were identified by the Wessex investigation (2010).



The flat tile group of CBM is the largest and includes all of the fragments that are undistinguishable in terms of tile types and the only measurement available (in terms of dimensions) is that of depth. The Wessex excavations produced 109 fragments of flat tile (2010). Tiles within this group have a depth range that spans 9mm to 38mm. However, the depths that fall between 29mm and 38mm are deemed as belonging to the group flat/brick; this section shall be explained and discussed next. It is assumed therefore that the majority that range from 9mm to 28mm are principally made up of roof tile fragments (*tegula* mid-sections). The concentration of depths within this group are principally from 15mm to 25mm which coincides, as we have already seen, with the concentration of *tegulae* depths. The same sets of collected statistical data from the Roman small town of Ware also revealed a correlation in concentrations between *tegula* and flat tile depths.

Another fact that links these fragments to *tegulae* is the presence of partial semicircular signature marks. These fall within the same range as already noted on the true *tegulae* fragments and were noted on sixteen fragments. Only two pieces exhibited fingerprint impressions.

Of the 340 pieces of flat tile twenty-six displayed mortar and thirty-seven had been variably heat affected. The mortar can be chiefly observed on the tile surfaces, although a small number of pieces also display it on the edges too. Only three examples exhibited mortar over their breaks indicating that they had been reused at some point. As was noted earlier a single example of *tegula* was covered in *opus signinum* and within this group a single piece was similarly covered although from a different context, Ditch fill 2029.

The heat affected group consisted mainly of examples that had either reduced surfaces or were over-fired as well as being occasionally vitrified; only one fragment could be described as being directly burnt. One piece in Ditch fill 2019 was vitrified and warped.

Ditch fill 2019 contained a fragment that displayed a sub-conical hole with a diameter of 13mm, two further separate partial holes were noted on pieces in Ditch fill 2032.

The flat/brick group consists of 146 fragments; the Wessex intervention recovered only sixteen pieces. This assemblage contains the pieces that have a depth range



of 29mm to 38mm and which cannot be deemed as either roofing or structural (true brick). Nevertheless, it should be noted that only four *tegulae* examples had depths within this range (30, 31, 31 and 36) and most of these depths are at the very lower end of the flat/brick scale. Some *tegula* display big variations in depth and this may account for their occurrence within this range. It is probable that most of the flat/brick examples are indeed structural, employed either as walling or more likely for the use in *pilae* (to support the suspended floor above the hypocaust).

Almost one third (thirty-seven pieces) of the flat/brick assemblage (a far higher percentage than noted within the previous tile groups) displayed mortar on the surfaces. Two of these fragments in Ditch fill 2032 had the remnants of *opus signinum* on their surfaces. Only a single fragment of flat/brick indicated that it had been reused by the presence of mortar over the breaks.

A similar figure (forty-two fragments) may be described as being heat affected. Again, this figure by percentage is a lot higher than that encountered within the other tile groups. The range of heat affected traits within the assemblage are more variable then the other tile categories, and although many reduced surfaces were observed, this is not the dominant heat characteristic (as within the previous groups). There are more examples within this group that display burning, sooting as well as vitrification and over-firing.

Only two flat/brick fragments had the partial remains of signatures both of which consisted of two lines. A possible tally mark was recorded on a fragment in Ditch fill 2030, this was made up of three potential numerals (III). Finally, a thumb print was noted on the surface of a single fragment.

The Wessex report made no mention as to the presence of true brick fragments (2010). This assemblage contained a total fifty-seven fragments of brick whose depth ranged from 39mm to 65mm. However, a closer analysis of the contents of this depth range shows that all but six of the examples were between 39mm and 46mm, and within this grouping a total of thirty fragments had a depth of 40mm. At Glaxo the range of brick depths was far more evenly spread with nothing beyond the 49mm mark. Nevertheless, the greatest concentration occurred from 39mm to 43mm with 40mm examples being the most frequent (Fawcett forthcoming). It is not possible to accurately define the types of bricks being used here based upon



depth measurements, nonetheless the average depths of both *bessalis* and *pedalis* (used for both *pilae* and their associated caps within the hypocaust system) tie in with the main concentration of depths recorded here. The small number of greater depths possibly relate to either *lydion* or *sesquippedalis*, which too can be used as part of a hypocaust for a pavement on to which the *pilae* may be mounted, or even caps but can also be utilised as part of walling.

Fifteen of the brick fragments displayed signs of being heat affected. Although most had patchily reduced surfaces or were over-fired at least five exhibited partial burning and sooting.

A total of sixteen brick pieces were observed to have mortar on their surfaces and on three examples, the mortar covered their breaks indicating that they had been reused.

Only two brick fragments had the partial remains of signatures on their surfaces both of which consisted of three semi-circular lines.

A small quantity of keyed/box flue tile (*tubuli*) was recovered from the site (twenty-nine fragments); a slightly higher number (forty-eight) were retrieved during the Wessex investigation (2010). This group is divided between true box tile (where the shape can easily be defined) and keyed tile (where only a flat fragment has survived).

The depth range of the examples from Litlington span 15mm to 25mm however, with the exception of the latter measurement, the remainder have a very distinct concentration of depths (15mm to 20mm).

Eight of the tiles, as might be expected, display traces of sooting and burning on their interiors, whilst seven fragments exhibit mortar traces on their keyed outer surfaces. One fragment in Ditch fill 2018 was partially covered in *opus signinum*.

The majority of fragments within this group displayed simple combing (for the purposes of mortar being applied), that was either straight lined (cross hatched) or wavy. The only exceptions to this style were two pieces in Ditch fill 2022 which had single grooved lines instead of true keying. Brodribb describes this technique as much less common and that it could not have provided much grip for keying (1987, 109). It is possible that these lesser keyed tiles might have had a slightly



different use within the hypocaust system as a whole where keying perhaps was not so essential.

None of the tile fragments showed any evidence for the presence of cut out vents.

A total of eighteen *tesserae* were recorded at Litlington which is very small number by comparison to those recovered during the work undertaken by Wessex (2010) whose figure stands at 351.

It is difficult to spot any consistency in the depth range of the recorded tesserae which spans 14 to 26mm with no real areas of concentration. However, their depth range suggests that is highly likely that these have been cut down from the flat tile group, which as we have already seen, are more likely to be *tegula* mid-sections. The average width of the *tesserae* stands at 23mm and the range runs from 18-28mm, however most are between 20mm and 25mm. The measurement for the average length stands at 25mm with a range of 18mm to 31mm, although most are between 20 to 28mm. All of this data demonstrates that the *tesserae* are more commonly rectangular than square. These statistics are comparable to those collected by the Wessex analysis (2010, 17-18). It should also be noted that not all of the *tesserae* recovered from the site are complete.

All of the recorded *tesserae* are oxidised (one of which is over-fired) however, none of the examples exhibit decoration. One fragment is non-ceramic, this has been cut from grey calcareous mudstone (depth 15mm/width 25mm/length 26mm) and was recorded in the *opus signinum* layer (2004). Stone tesserae of this type were a considerable part of the Wessex assemblage (2010, 19).

Thirteen of the *tesserae* have the remains of mortar on their sides, six of which are covered on five sides, one on four sides, three on three sides and two on two sides. The remaining five are mortar free.

A total of 395 unidentifiable fragments were recorded during the course of the excavation. These appear predominantly from all of the above categories (with the exception of keyed/box flue tile and *tesserae*), however none of these could be measured or securely placed within individual CBM groups.

Fabric groups



A full list of the fabrics and their descriptions can be seen in Appendix 6. It is not possible to make a direct comparison with the fabrics recovered from the Wessex investigation (2010, 17) as no detailed recording from this point of view was undertaken, except for observing the most distinctive fabric type (Harrold shell tempered CBM), the remainder are simply described as non-distinctive, slightly sandy and fired orange-red.

This study has revealed a range of fabric types of which three can be sourced to a specific geographical location (these shall be discussed in more detail in the next section). With the exception of fabric UNS WS all of the recorded fabrics are oxidised and predominantly coloured orange to light red occasionally with a range of grey cores. These are generally hard and sandy (UNS OX), containing mostly medium quartz sand (although finer and coarser examples were also noted as well as some softer fabrics) alongside subsidiary minerals. It is these subsidiary minerals that have helped define the sub-groups listed in Appendix 6 by the inclusion of accompanying letters in brackets after the main fabric code.

The main group of fabrics (apart from UNS OX which has been used as a dumping ground for indistinguishable fabrics) have the presence of common calcite (UNS OX [cal]), either on its own or alongside grog (UNS OX [cal/g]) and iron ore (UNS OX [cal/io). The prolific nature of these fabrics within the assemblage as a whole suggests that are likely to be of a more localised nature.

The next largest group are those that contain quartz as well as red and black iron ore (UNS OX [io]). This group bears some resemblance to the products of the Hadham industry (below), although there are significant differences within this group that makes it impossible to be certain of its source as either a direct, or supplementary product of east Hertfordshire.

Another large grouping contains quartz alongside grog (UNS OX [g]). There is some variety expressed within this group as well some overlap with fabric UNS OX [cal/g], which may indicate that this fabric type too is of a local nature.

One of the most distinctive fabric types is UNS OX (m) which contains common to abundant fine silver mica as well as some fine iron ore. This fabric does not occur in large numbers, and this fact as well as its overall look, strongly suggests that it



is likely to be a regional import whose source may be well be somewhere around the border of Suffolk. There are some broad similarities between this fabric and the style of pottery produced in Suffolk (Fawcett 2011a & 2011b).

An analysis of the form types relating to each of the above unsourced fabrics shows that all of these were present within each fabric division.

The final fabric within the unsourced group (UNS WS) is of some interest although only nineteen fragments were retrieved from the site; no fragments of this fabric style were present within the Wessex CBM assemblage (2010). This is because of the white slipped surface that occurs on the surfaces of this fabric.

Form	No	%	Wgt/g	%
Tegulae	10	52.5	3705	71
Imbrices	2	10.5	134	2.5
Flat	6	31.5	1075	20.5
Flat/Brick	1	5.5	306	6
Brick	-	-	-	-
Keyed/Box	-	-	-	-
Tesserae	-	-	-	-
Totals	19	100	5220	100

Table 4. Fabric UNS WS form assemblage

It seems quite significant (as Table 4 demonstrates) that the form assemblage relating to this fabric type are all roof tiles, as opposed to structural CBM which in itself, indicates specialist production. However, although the fabric is distinctive it is not possible to suggest where it may have arrived from, but it has clearly been deliberately selected. The point of producing a white slip on the surfaces is clearly for a visual effect.

This excavation has obviously only retrieved a small proportion of the surviving fragments that relate to this fabric, however their numbers by comparison to the other fabric groups are significantly less. These lower figures may suggest that perhaps, either only a small proportion of the main roofed building (possibly a public area rather than a private space) was covered with these white slipped tiles. Another scenario might be that they are derived from a separate smaller building or an annexe such as a bathhouse. In any event these tiles have been purposefully sought out and are likely to be indicative of high-status dwelling.

Fabrics from a particular geographical area



Hadham

The largest group of identifiable fabrics arrived from the Hadham area of east Hertfordshire and represents around 16% by both number and weight of the entire CBM assemblage. Appendix 6 depicts two groups of fabrics associated with this production centre (HAD OX and ?HAD OX). The latter fabric is a variation on the main fabric type, which is very similar to a pottery variant which is associated with the Hadham kilns that has been identified consistently around the east and north Hertfordshire (Fawcett 2018, 220).

Form	No	%	Wgt/g	%
Tegulae	38	23.5	11600	31
Imbrices	20	12.5	2716	7.5
Flat	52	32	10181	27.5
Flat/Brick	35	21.5	9388	25
Brick	7	4.5	2118	5.5
Keyed/Box	8	5	1042	3
Tesserae	2	1	60	0.5
Totals	162	100	37105	100

Table 5. Fabric HAD OX form assemblage

Table 5 shows that this fabric contributed to the full range of form types identified at Litlington. This range of forms ties in roughly with what was observed at Barley Hill, Hadham, where 'tegulae, imbrex, pilae and bonding tiles' were recorded (McWhirr 1984, 146). The kilns around the Hadham area are well known for pottery production which expanded dramatically at some point during the 3rd century, exporting products to a wide geographical area. Less well known are the facts concerning the production and distribution of CBM from the same location. In McWhirr's study of CBM kilns within Roman Britain he describes the capacity of production as industrial (1984, 146) and although we know that CBM was produced at sites which include Barley Hill, Wickham Spring, Hadham Hall School and Westland Green, there are clearly many more as yet to be discovered. Indeed, a recent field-walking exercise undertaken by the Braughing Archaeology Group (Landon 2010, 24) has revealed potentially further CBM kiln evidence in the area. One of the original excavators of the kilns (Bernard Barr) whose records of these structures were lost in a fire, suggested that tile making may have formed the greater part of the industrial activity with pottery ancillary to it, however McWhirr



dismisses this interpretation as a very subjective analysis without direct evidence (1984, 196).

The only direct dating evidence associated with CBM production at Hadham came from Barley Hill, where it was assumed that the kilns were contemporary with pottery produced at this location and therefore of a fourth century date (McWirr 1984, 146), however the records relating to this site have been lost. The Hadham fabrics encountered at Litlington have been given a conservative date range of ?mid/late 3rd to 4th century?. This covers the pottery industries major expansion from around the early/mid-3rd century onwards and is too based on the authors own experience on the recording of Hadham CBM on a variety of sites (Fawcett 2018, 224 & Fawcett Unpub); it is unproven if they were distributed any earlier than the early 3rd century.

The distance from the Hadham production area and the site at Litlington is around 18 miles via Stane and Ermine Street. It is therefore perhaps not surprising that a quantity of Hadham CBM might be expected at the site. However, little work has been done on the extent of the distribution of Hadham CBM, therefore the current assemblage is of some importance in contributing to our future knowledge. Previous observations concerning its distribution have tended to concentrate on Stane Street and west Essex as a possible outlet for the products of these kilns, and furthermore McWhirr adds that it is not clear where the CBM was used, as there is no high demand centre close by (1984, 146 & 197).

Before commenting on the last point made by McWhirr with regard to the distribution of Hadham CBM, it was worth touching on some of the problems surrounding the identification of these products.

McWhirr was researching and writing preceding 1984, long before the advent of true commercial archaeology. In that time even the modern analysis and identification of pottery fabrics was at an early stage, the documentation of CBM fabrics was not even considered in the same way. It was not until the early 90's that the proper identification of CBM fabrics got underway and even then the application of this skill was patchy and variable and was perhaps (and still is to a certain degree today) not seen as economically worthwhile, it was the form assemblage that was the sole focus of research and comment. A good recent example of this approach is the recent Wessex analysis of CBM fabrics at Litlington.



Here the obvious shell-tempered fabrics were noted, and the remainder were referred to as non-distinctive hard-fired, slightly sandy fabrics firing orange-red (2010, 17). Writing in the mid-eighties Brodribb comments 'An increasing number of reports contain some reference to fabric, and where the study is concentrated on some particular line, e.g. stamped tile or relief-patterned tile, it can be most informative' (1987, 138). Any analysis of the distribution of a kiln's product relies entirely on the identification the CBM fabrics.

Commercial archaeology since the early nineties (PPG 16) has created a situation where there are an abundance of archaeological reports of varying dates and sizes. However, as we have just seen, not all of these may contain the right information one requires to track distributional traits of a given industry. Nevertheless, this sort of research material (in quantity or detail) was simply not available to McWhirr or Brodribb at the time of their ground-breaking studies. Even now it is still a struggle to be totally accurate about this kind of information, but what we do have is plenty to work from, and if necessary, the ability to revisit this information and re-evaluate it.

As far as I am aware at the time of writing, nobody is currently working on the distribution of Hadham CBM products, however when that time arrives it is hopeful, that studies of this kind, will help to build up, and present a more accurate account of their importance in the eastern region.

Currently (without considering Essex or south of Hadham) it is clear that these products are common in the north and eastern parts of Hertfordshire and southern Cambridgeshire, they have been found on numerous sites along or near to the A10 like Westmill (Fawcett unpub) and Ashwell (Fawcett 2018, 224). Of course, to a large extent the presence of these products depends on the type of site excavated (for instance they are more likely to be encountered within urban or villa type situations than basic rural settlement sites). It is now known, as more information about the rural landscape comes to light in Hertfordshire and Cambridgeshire, that it was far more extensively occupied than previously thought. For instance, the documentation of villa or potential villa sites since the 1980's has increased considerably. When considering the presence and range of Hadham CBM products at Litlington, it throws up some interesting questions, which for the moment remain unanswered. These relate to the economy, status and function of the site, for instance; A) Why, when the larger percentage of CBM fabrics and forms appear to



be adequately supplied from what appears to be a more localised source would it be necessary to be supplied from east Hertfordshire. B) Is this to do with supply and demand or fluctuations in the distributional market. C) Are these products supplied for a specific element of building at a given time for whatever reason. D) Are they deliberately sought out or selected for specific purposes or even preordered. E) If not, is it because these products had already been moved for example, further up Ermine Street and stockpiled in some form of 'collection' centre, where it was far easier to purchase them and supply the surrounding villas and settlements. What is clear is that these large tile manufacturers competed and supplied certain economic catchment areas rural or otherwise, and as Mills points out, these obviously (one way or another) relied on the road network (2013, 467).

It is not the purpose of this report to provide answers to these questions, however it can be seen that the presence of these east Hertfordshire fabrics at Litlington, for which we only have a snapshot of their totality and date range, is of some importance. As Mills makes clear 'It is important to realise that roof tile was an expensive commodity and its purchase had a considerable economic impact' (2013, 453).

Harrold

The presence of shell tempered CBM at Litlington has already been documented as part of the Wessex investigation (2010, 17), and a further small quantity of mainly roof tile fragments in this fabric are depicted in Table 6.

Form	No	%	Wgt/g	%
Tegulae	9	21.5	3896	52
Imbrices	3	7	336	4.5
Flat	29	69	3178	42.5
Flat/Brick	-	-	-	-
Brick	-	-	-	-
Keyed/Box	1	2.5	90	1
Tesserae	-	-	-	-
Totals	42	100	7500	100

Table 6. Fabric HAR SH form assemblage

With the exception of *tesserae* the form assemblage is broadly similar to that retrieved by the Wessex unit (2010, 17). These fabrics are thought to have



originated from Harrold in Bedfordshire, which is around thirty-two miles to the north-west of the current site.

The Harrold industry is another major supplier of both pottery and CBM in the later Roman period, particularly from around the mid/late 3rd to 4th century. However, unlike the Hadham kilns there has been a significant part publication which relates directly to the CBM. Within this the author indicates that the CBM part of the industry ceased somewhere around the mid-4th century (Brown 1994, 79). Its presence at Litlington has been given a date range of mid/late 3rd to mid-4th?+ century, the start date reflecting broadly the date at which a major expansion of the Harrold industry as a whole begins.

Brown says that the depths of the *tegulae* at the kiln site are between 15 to 20mm (1994, 83), with the exception of one of the nine recovered from this site, the remainder match this range. It is interesting to see that of the twenty-nine flat tiles recorded at Litlington not one of these goes beyond that range, and just three are off the scale at the other end, at 13mm. It is therefore quite reasonable to assume, as has previously been described in the report, that these are *tegula* midsections.

Only three examples of *imbrex* were noted within this assemblage and their depth ranged from 13 to 17mm, the latter being the only example of that depth. Brown's kiln examples spanned 12 to 14mm (1994, 83).

The keyed tile from the Harrold kilns ranged in depth from 12 to 18mm (Brown 1994, 86) and the single example here had a depth of 13mm.

As we have already seen within the section on the Hadham CBM, there are many unanswered questions and points of debate as to why those products ended up at Litlington. All of these apply too in the case of the Harrold industry and to some degree more so. This is because these kilns are much further afield and more importantly the route of potential trade to Litlington is by no means simple. Perhaps then, the presence of this distinctive fabric within the assemblage, may provide further potential evidence to the fact that perhaps indeed these products were moved to a larger settlement or a 'collection' area to provide easier access to the CBM. Again the answer as yet to this is unknown.



Horningsea

Only four fragments of CBM at Litlington were sourced to the kilns at Horningsea which are located just north-east of Cambridge. It should be noted too, that two of these fragments are questionable. They include one fragment of *tegula* whose depth is 22mm, and three of flat tile whose depth measurements again suggest that they are *tegula* mid-sections. The date range of these products is not completely understood nor their distribution, and furthermore there have been very few meaningful assemblages from which to draw data. Evans also states that Horningsea fabrics have so far not been noted as far south as either Letchworth or Baldock for instance (2017, 49). Litlington is a considerable distance from Horningsea and around nine miles north of the two Hertfordshire sites, and although these fragments cannot be described as significant, they at least contribute further to our knowledge and the debate surrounding the distribution and trade of CBM, as previously discussed in relation to Hadham and Harrold.

9.4 Fired clay/daub

A total of ten fragments of fired clay/daub with a weight of 647g were retrieved from the site. These were all recovered from the first stage of the archaeological investigation from just five contexts, which consisted of four layers (1006, 1016, 1017 and 1030) and a single ditch fill (1015).

There is little consistency within the group either in terms of distribution, fabric or the date of the contexts from which they were recovered. Two of the contexts were dated from the late Iron Age to AD60/70, two to around the late 3rd century and finally one that could only be broadly dated to the Roman period.

A variety of fabrics were noted which included two examples in a medium sandy fabric with chalk (Msch), two with calcite (Fsc & Msc) and one each with shell (Mssh) and grog (Msg).

Although the group is small and fragmentary only one piece displayed significant abrasion and that was noted in Ditch fill 1015.

Most of the pieces were part oxidised and reduced, only the fragments in Layers 1016 and 1030 were completely reduced. These pieces had clearly been heat



affected; at least four fragments had been partially burnt rather than subjected to what looks like indirect heat.

A single fragment in Layer 1017 had exhibited the remains of a flat surface, whereas all of the pieces in Layer 1030 (which look to be from the same structure, although none are joining) had the partial areas of a flat/irregular surface.

The only recorded impression was noted on the fragment in Layer 1017. This was a partial rod mark with a length of 50mm and a width of 21mm.

Conclusion

Unfortunately, the assemblage is too small, thinly spread and from differentially dated fills to enable any firm conclusions to be formed with regard to its use. The presence of pieces that are hard and appear indirectly affected by heat, may possibly represent the remnants of an oven or kiln. Only a single fragment exhibited a rod mark impression, indicating that this piece had been associated with some form of walling, either as part of a structure or a free-standing erection. The function of the very small quantity of fired clay recovered from Trench 12 by Wessex (2010, 18) which had been burnt/sooted is also unknown.

9.5 Mortar

A total of ninety-eight fragments of mortar were recovered as part of the archaeological investigation (9776g). These were retrieved from seven contexts, three ditch fills (2008, 2019 and 2020) and four layers (1017, 1022, 2003 and 2004), however the majority of the pieces were recorded in the three fills of Ditch 2022 A (69 @ 8260g). These pieces are of an extremely variable size which includes both very small and large examples. As a whole the fragments may be considered, in terms of condition, as between abraded and slightly abraded, although many of the pieces exhibit only minor wear.

All of the mortar fragments are in the same lime based sandy fabric (WSL/BSL). With the exception of two fragments within Layer 2017 which are coloured brown/buff, the remainder are all white/off white. The fabric is hard and sandy



whose inclusions are ill-sorted, these consist of abundant rounded and sub-rounded lime, dense abundant quartz sand and occasional (mostly large) flint.

Measurements of depth were not undertaken as there was no correlation between the individual fragments which obviously derive from a variety of building situations.

Several of the fragments displayed the partial remains of surfaces which can be described as being flat/irregular. One piece in Layer 2004 had a right angle with partial surfaces which are consistent with being shaped around a brick or tile. Two separate fragments in Layer 2004 exhibited a thumb and finger impression.

The larger part of the mortar assemblage is associated with contexts (five) that are dated from around the mid to later 3rd century. Only one fill with mortar has an early date (Layer 1022), however the date range of this context is not secure.

Conclusion

The Wessex excavation (2010, 19) also only recovered a very small quantity of mortar, which was present in four of their trenches (1, 4, 5 and 11). The variable thickness of the mortar from this current site suggests that it was probably used for walling, roofing, tessellated flooring as well as potentially part of the hypocaust system. Apart from the angular fragment (described above), mortar traces have consistently been identified within the CBM assemblage as a whole, on *imbrex*, *tegula*, flat tile, flat/brick, brick, keyed tile and tesserae.

9.6 Opus signinum

A total of 149 fragments of *opus signinum* with a weight of 11′601g were identified from eleven different contexts. These include four layers (1006, 1017, 1022 and 2004), six ditch fills (2009, 2019, 2020, 2021, 2032 and 2063) and a single pit context (2035). The fragments are of a variable size however a considerable number may be described as being large. In terms of condition, only the fragments recovered from Layer 1022 can be described as suffering from significant abrasion, the remainder of the assemblage displays only minor abrasion. The thickness of the fragments is extremely variable, and it is impossible to ascertain what an average depth or an actual depth is in relation to a specific function (for instance,



to compare against an intact in situ section of flooring to act as a template), therefore none of the pieces were deemed worth measuring.

Two fabrics have been identified within this group which are essentially the same basic make up as the mortar fabric (described above) with one main exception, the addition of crushed CBM fragments. The first fabric (OPSIG 1) contains sparse to common ill-sorted crushed CBM pieces, whereas the second (OPSIG 2) contains abundant fragments of this material. Both of the fabrics are more compact and harder by comparison to those within the mortar category. The crushed CBM within them is red/orange and variable both in its size and shape, it is not unusual to both rounded and angular fragments side by side. Some of these pieces are very large and can be clearly identified as being derived from tile. Around two thirds of the group recovered from the various contexts was in fabric OPSIG 2. The fragments of OPSIG 2 in Ditch fill 2019 have a pinkish tinge due to the density of CBM within the fabric. Of interest is a single fragment recorded in Layer 2004 which contained a small number of shattered copper alloy pieces.

At least sixty-two pieces of *opus signinum* exhibited the partial remains of surfaces (either flat or flat/irregular), the largest group of which was noted in Layer 2004. A single fragment within this layer had two surfaces that lay either side of a 'T' shaped fragment that created two right angles, this appears to have had tile or brick on either side of the vertical bar.

Although just over one hundred fragments were noted in Layer 2004 the *opus signinum* was consistently present too in the fills of Ditch 2022. Eight of the fills that contained this material are dated from the mid to later 3rd century, whilst two others are dated to around the 2nd century, although one of these is doubtful (1022); a final context was only very broadly dated.

Conclusion

The archaeological investigation undertaken by Wessex only recovered a few small fragments of *opus signinum* (2010, 18) therefore this current group is of some significance. This material has often survived in quite large pieces with many partial surfaces remaining on them too, and their compactness (as a result of being rammed down) indicates that a proportion of this assemblage is derived from some sort of flooring associated with the a part of the building. The use of *opus signinum*



in flooring was popular due to its durability and waterproof qualities, however it was also utilised in a variety of other situations too such as the lining of water tanks and as part of thermal buildings.

The analysis of the CBM assemblage (see above) has shown clearly that not all of the opus signinum recorded at Litlington was used for the purpose of flooring for instance, it was noted on a tegula fragment in Ditch fill 2020. However, there is evidence also to suggest that it was employed within the hypocaust system as well by its presence on keyed tile (Ditch fill 2018) and flat/brick fragments (Ditch fill 2032). Interestingly, a fragment of UNS WS flat tile (discussed above), whose depth measurement suggests it is a tegula mid-section, was recorded with traces of opus signinum on one surface. These tiles possibly relate to an area of the main building, or a separate building entirely, that potentially is of a high status, therefore the use of a waterproof substance on a tile such as this, despite the fact that the evidence is scanty, may well be significant.

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9.7 Appendix 1: Pottery, CBM and fired clay (form, fabric and abrasion codes)

Pottery

Prehistoric

HMS Hand-made sand tempered ware HMG Hand-made grog tempered ware

Roman

LGF SA La Graufesenque samian ware

LNV CC Lower Nene Valley colour coated ware

UNS CC Unsourced colour coated ware

ROB MD Romano-British mica dusted ware

VER WH Verulamium white ware UNS WH Unsourced white ware

UNS WS Unsourced white slipped ware

UNS BU

HAD OX

HOR OX

Horningsea oxidised ware

UNS OX

Unsourced oxidised ware

DOR BB 1 Dorset black burnished ware (category 1)

UNS BB Unsourced black burnished ware

HAD RE 1 Hadham reduced ware (category 1)
HAD RE 2 Hadham reduced ware (category 2)

HOR RE Horningsea reduced ware

BSW Black surfaced/Romanising greyware

GRS Unsourced sandy grey ware

GRS bio Unsourced sandy grey ware (with black

iron ore)

HAR SH Harrold shell tempered ware

SOB GT South-eastern British grog tempered

ware

UNS SG Unsourced shell and grogged ware GAL AM 1/2 Gaulish amphorae fabric (category 1/2)

UNS AM Unsourced amphora fabric



Post-medieval

ESW English brown stoneware

MANG Manganese ware

Form codes

B =dish, C = bowl, D = mortaria, E = bowl-jar, G = jar, H = beaker, K = lid: St after fabric code denotes storage jar version of the fabric

CBM

HAD OX Hadham oxidised ware

HAR SH Harrold shell tempered ware
HOR OX Horningsea oxidised ware
UNS WS Unsourced white slipped ware

UNS OX Unsourced oxidised ware

UNS OX cal Unsourced oxidised ware with calcite UNS OX g Unsourced oxidised ware with grog

UNS OX cal/g Unsourced oxidised ware with calcite and grog

UNS OX io Unsourced oxidised ware with iron ores

UNS OX cal/io Unsourced oxidised ware with calcite and iron

ores

UNS OX m Unsourced oxidised ware with mica

NAT Natural stone tile

Fired clay, mortar and opus signinum

FSC Fine sandy fabric with calcite
MSC Medium sandy fabric with calcite
MSCH Medium sandy fabric with chalk
MSG Medium sandy fabric with grog
MSSH Medium sandy fabric with shell
WSL White sandy lime based fabric

BSL Buff/brown sandy lime based fabric

OPSIG 1 White sandy lime based fabric with

sparse/common crushed CBM

OPSIG 2 White sandy lime based fabric with

abundant crushed CBM



Abrasion codes

Very = very abraded, Abr = abraded, Abr/sli = variably abraded, Sli = slightly abraded, Gd = good condition

9.8 Appendix 6: CBM fabric descriptions

HAD OX

A typical Hadham style fabric mostly orange (a slightly browner/orange colour to surfaces and core also occurs on some examples) with common red and black iron ores, alongside abundant quartz and varying quantities of silver mica; although many fragments display a fairly fine mineral suite, the inclusions may still be described as being ill-sorted. The fabric is directly comparable (although coarser) to the well documented pottery fabrics produced at around Hadham in east Hertfordshire (Tomber & Dore 1998, 151-153).

?HAD OXThis is very similar to the BSW (h) pottery fabric found around the east Hertfordshire area. The fabric is quite a silty, which occasionally can be more orange/brown with a brownish core (as opposed to orange with a grey core). It is fairly fine with common fine black and red iron ores and prominent silver mica but also some gold can also be observed. Also commonly present are rare irregular burnt out organics and sparse brown ill-sorted grog. It should be noted that some do not have burnt out organics, just very fine iron ores and coarser versions of this fabric exist too. However, these variants are almost certainly products of the Hadham industry.

HAR SH The CBM fragments in this fabric are predominantly coloured brownish-yellow and their content is identical to that of the Harrold pottery industry (Brown 1994, 79-86), containing dense abundant ill-sorted shell.

HOR OX This fabric has surfaces which are coloured orange/brown/buff to brown and exhibits a grey core. The distinctive presence of abundant quartz with sparse large lime, flint and grog/red iron ore is identical (all be it coarser) for instance, to the classic storage jar fabric from Horningsea (Evans 2017).

UNS WS This is a hard-sandy orange fabric which often displays a light grey core of varying thickness. The surface has an off-white slip which occasionally extends to the sides, under-surface and tegula flanges on some examples. In some



instances, the presence of a slip is not always certain, as it has considerably degraded. There are some examples where the slip looks more like a thin buff surface on top of the oxidised surface, however the majority of fragments show a definite attempt to make an off-white thin surface. The fabric is often quite silty and contains common ill-sorted calcite that is mostly fine, some larger quartz grains can also be seen alongside sparse black/red iron ores, some of which too are very large; sparse gold mica as well as frequent silver mica is also present on the surfaces.

UNS OX (io) A hard orange and sandy fabric with a grey core. It contains ill-sorted abundant quartz, alongside common fairly small calcitic inclusions as well as sparse ill-sorted red and black iron ores. This fabric may possibly be another Hadham variant.

Another fully oxidised version of this fabric is very coarse, containing no calcite with just quartz and large fragments of red and black iron ore.

UNS OX (g) This is a silty and orange fabric, sometimes with a brownish looking core. It contains common ill-sorted grog and in many examples this is streaked and generally colours white and grey as well as occasionally too, brown and orange.

Some of the examples assigned to this group exhibit no streaking and look to be a different fabric. In these the quartz is easily observable and the grog is coloured brown or orange which is occasionally accompanied by fine sparse black iron ore and mica; sporadic examples contain small rare/sparse calcitic elements.

One heavily grogged example was noted which contained abundant orange and brown grog in a silty soft micaceous matrix.

UNS OX (cal/g) This is an orange and sandy fabric, sometimes with a brownish or blue/grey core which is occasionally laminated. It is silty and contains ill-sorted quartz sand alongside calcite, black iron ore and grog.

Another version of this fabric is orange with grey or a blue-grey core which contains abundant calcite and common grog. In some cases the calcite and grog can be streaked and these examples appear related to fabric UNS OX (g).

UNS OX (cal) A hard sandy orange fabric either with or without a grey core. It contains common (or slightly less) well-spaced but ill-sorted calcite alongside some sparse iron ores. Another version of this fabric contains streaked



calcite and appears related to fabric UNS OX cal/g however this contains no obvious grog.

UNS OX (cal/io) This is another hard sandy orange fabric which appears to be a derivative of the above version (UNS OX cal). In general the calcite is common to sparse and is in association with ill-sorted iron ores.

UNS OX (m) Overall this can be described as a hard sandy fabric which generally contains silty quartz. This fabric is mostly fully oxidised and contains common to abundant fine silver mica, which is especially noticeable on the surfaces. Also present too, are sparse fine iron ores. Some of the examples of this fabric that relate to bricks in particular, are surprisingly fine when compared to other the other brick fabrics within the assemblage.

UNS OX Generally this is a hard sandy orange fabric some of which exhibit a grey core. There is no visible dominant inclusion within the fabric except for the presence of ill-sorted quartz.

Version two of this fabric is much coarser. It is hard and sandy and is coloured orange to brown often with a thin light grey core. This again contains abundant illsorted quartz, however also present are sparse large flint fragments which can frequently be seen erupting on to the surfaces. More rarely within this fabric sparse grog can infrequently be seen.



9.9 Animal Bone

ECB 5273

Litlington, Cambs.

The FAUNAL REMAINS and SHELL analysis and catalogues

(Includes canid coprolite within bone report)

by Julie Curl –Sylvanus – Archaeological, Natural History & Illustration Services for Britannia Archaeology.

ANIMAL BONE

Appendix 1. Plate 1. Tables 1 and 2.

Methodology

This analysis was carried out following a modified version of guidelines by English Heritage (Davis, 1992). All of the bone was scanned to determine range of species and elements present. A note was also made of butchering and any indications of skinning, hornworking and other modifications. When possible a record was made of ages and any other relevant information, such as pathologies. Counts and weights taken and additional counts were made for each species identified, Counts were also taken of bone classed as 'countable' (Davis, 1992) remains. Measureable bones (following Von Den Dreish, 1976) and measureable mandibles and teeth (following Hillson, 1992) were seen in low numbers, so not all were recorded for analysis, with just isolated bones measured for an estimation of height and sex of larger bones that may show sexual dimorphism or stock improvement. Information was recorded into an Excel file for analysis and quantification and this file is available in the digital archive.

The faunal assemblage

Quantification, provenance and preservation

A total of 13,490g of bone, consisting of 406 elements, was recovered from this excavation and this is quantified in Table 1.



The bone is in good condition, although many bones are fragmented from butchering and breakages. Little invertebrate (insect, isopods and molluscs) damage was seen, suggesting much of the waste was buried rapidly. Canid gnawing was seen on several bones, many of which were main meat-bearing elements. The canid gnawing on these main meat-bearing bones would suggest that food waste was given to domestic or working dogs and then disposed of with the rest of food waste. A little rodent gnawing was observed in Ditch fill 2009, this may have occurred when rodents were burrowing; rodents gnaw bones regularly to keep the constantly growing front teeth in trim and for a source of calcium for growing rodents and for breeding females.

	Date, Weights and	Counts	
Feature Type	Post-medieval	Roman	Totals
Demo Layer		776g/52	776g/52
Ditch		10417g/288	10417g/288
Gully	10g/3		10g/3/3
Layer		2066g/57	2066g/57
Pit		3g/1	3g/1
Pit/terminus		96g/2	96g/2
Spread		7g/1	7g/1
Subsoil		101g/1	101g/1
TT1 & 2		14g/1	14g/1
Totals	10g/3	13480g/403	13490g/406

Table 1. Quantification of the bone by weight, date and feature type

Species range and modifications and other observations

Nine species are were identified, with the sheep/goat group including both sheep and goat, with the species quantified by NISP in Table 2. Additional presence of dog on the site was produced with a coprolite that contained fragments of bone.

	Date and NISP		
Species	Post-medieval	Roman	Totals
Bird - Fowl		1	1
Bird - Goose		1	1
Cattle		110	110
Deer - Red		3	3
Dog/wolf		3	3
Coprolite (dog/wolf)		1	1
Equid		7	7
Mammal	3	241	244
Pig/boar		7	7
Sheep/goat		29	29



Totals 3 403 406

Table 2. Quantification of the bone (and coprolite) by species, NISP and feature type

Cattle were recovered from thirty deposits. The bulk of the cattle were adults, with juvenile remains seen in four fills. A notable feature of the cattle remains is the relatively high number of large and robust bones recovered.

Metrical data from a small number of Roman metacarpals produced estimated shoulder heights of 1.21m (from Ditch fill 2009) and 1.15m (from Ditch fill 2012), both of these were also wide bones. Comparing the cattle sizes with those seen from Roman features at Mildenhall (Curl, 2013), they are in the mid to large range of the Mildenhall cows. Comparing with Roman cattle at Witham, Essex (Luff, 1999) the Litlington cattle are on the large end of the scale. The most common cattle in the Iron-Age to Roman period are the Kerry breed, which are around 1.1 to 1.2m at the shoulder, so the cattle measured at Litlington are perhaps likely to be males.

Several cattle bones showed health problems. Abnormal bony growths were seen around proximal metapodials, particularly from the Roman ditch fills 2009 and 2012, which would suggest strain from cart pulling or ploughing. A cattle metacarpal from the Roman ditch fill 2064 showed arthritic changes and a shallow lesion on the proximal articular surface that could be attributed to *osteochondrosis dissecans*, which can occur when the bovid is young and probably starting training for traction, placing strain on the developing bones.

Heavy calculus deposits were seen on a mandible from the Roman ditch fill 2012. The mandible has the third molar not fully erupted, so the animal is not aged. The heavy deposits on the teeth of a fairly young animal can occur when they are fed on a dry diet that increases the carbohydrates and sugars; it is possible that this animal had been kept indoors for milking and fed on a largely dry diet.

Butchering was frequently seen on the bovid remains and include skinning, meat production and horn removal. Elements from the cattle varied, but there are a higher number of primary waste bones, with potentially a good deal of skinning waste. Some of the butchering was excessive for the task, for example, with the cattle metacarpal from the Roman ditch fill 2071 there are numerous knife cuts and



scrape marks along the rear of the shaft , which is really excessive and a skilled skinner could remove the skin with one or two fine knife cuts.

Sheep/goat were seen in sixteen fills. Most remains are from adults, with juvenile elements from three deposits. As with cattle, there are a higher number of primary waste bones, which, along with butchering, suggests skins as well as meat. Using criteria by Albarella and Salvagno (2017) both sheep and goat present, which need to be determined as they have quite different uses. Some arthritic changes were seen and quite heavy wear on teeth, both suggesting quite aged animals. The older animals are generally indicative of animals kept for a supply of wool, milk, cheese and butter, dung, lanolin and breeding prior to culling for meat, skins and byproducts.

Pig/boar were found in four deposits in small numbers. In contrast to the cattle and sheep/goat remains, most porcine elements were from juveniles (including a neonatal bone), with one adult bone seen. This difference in ages at death is to be expected with pigs as they are primarily kept for meat. The generally younger ages with porcine remains also tends to mean that fewer pathologies are seen as these often result with advancing age.

Equid were produced from six fills, although mostly in small numbers. The equid remains from this site are of great interest. Two deposits, 1016 and 1017, produced equid vertebrae with severe changes and fusion of the separate vertebra.

The thoracic vertebrae (Plate 1) were not fused on the articular surface, but the fusion had largely involved the neural spines, which had fully fused and expanded. Parallels have been difficult to find with animals, although a similar problem is seen with people, which is sometimes referred to as 'bamboo spine'. Research has shown a genetic link to this form of spondylosis (*spondylosis ankylopoetica*) with humans and it affects mainly males (Waldron, 2009) and it is possible that inherited susceptibility to this is just as likely for equids as their use for riding or traction work (Bartosiewicz and Gill, 2013). Natural selection would have eliminated this from wild horses. The presence in a domestic animal, which would have been limited in its usefulness for the mains tasks for an equid (riding and traction) and this might suggest a high level of affection for the animal for it to have survived an early cull and use for meat and skin, even keeping it as a pet or retired animal in



its later years. It may be possible that the pony had been used for riding and by a person who was too large and heavy for the size of the animal.

There would have been a lack of work for an animal affected like this and the pony would have suffered with stiffness and pain and a great deal of human care would have been required for this debilitating condition. These fused sections discovered do not fit together, and, even if they are from the same animal, they would suggest the whole spine was affected. It may be possible that the sections recovered came from different animals and, given that there may be a genetic link to this problem, it may be possible that more than one animal suffered.



Plate 1. Two of the vertebrae affected by severe fusion of the spine, in particular the neural spines. A similar condition, known as 'bamboo spine', is seen with humans and thought to be an inherited problem in both animals and people.

Dog/wolf were seen in two deposits. A skull and limb from fill 2016 suggest a medium sized dog.



In addition to the canid bones, a single **coprolite** from a large dog was recovered from Ditch fill 1009. The shape and size of the coprolite is typical of dogs fed on a protein rich diet and there are small fragments of mammal bone visible in the remains, which canids are known to crush and consume. The high bone (and therefore calcium) content of some carnivore droppings can aid their preservation. The size of the coprolite would suggest a medium to large sized dog.

Deer remains were retrieved from two deposits. An incomplete adult skull with pedicles (base of antlers) remaining from where the antlers were removed, was found in Layer 1017. A juvenile mandible and teeth were seen in the Ditch fill 2019. The remains of the cervids from this site clearly suggest hunting. The skull fragment showed the antlers had been removed by butchering from below the burr, presumably for working the antlers or perhaps to retain them for decorative or ritual purposes. Deer antlers are naturally shed each spring and then the new and larger antlers grow through the summer ready for rutting and display in the autumn. The size of the pedicle (the antler base) suggests a large stag and the fact that the antler had to be removed by butchering suggests the deer was killed between autumn and early spring.

Bird bones were recorded in two deposits with a fowl (chicken/pheasant) ulna in Layer 1017. A goose radius was seen in Layer 1006. Both bird bones showed knife cuts, which attests to them being used for meat.

A single context produced a **coprolite**. The well-preserved dropping was recovered from the Roman ditch fill 1009 and found with bone and other waste. The coprolite is large and examination showed small fragments of bone present. The size and shape of the coprolite suggests **canid** and one that regularly fed on bone, which generally helps to preserve the droppings. Mammal bone fragments were seen in the coprolite, which is typical of canid remains where the animals have had access to bones for gnawing and marrow.

Pathologies

Heavy calculus deposits were seen on a cattle mandible from the Roman ditch fill 2012. The mandible has the third molar not fully erupted, so the animal is not aged. The thick and extensive calculus deposits on the teeth of a fairly young animal can occur when they are fed on a dry diet that increases the carbohydrates and sugars;



it is possible that this animal which may have been kept indoors for milking and fed on a largely dry diet.

Abnormal bony growths were seen around proximal metapodials, particularly from the Roman ditch fills 2009 and 2012, which would suggest strain from cart pulling or ploughing. A cattle metacarpal from the Roman ditch fill 2064 showed arthritic changes and a shallow lesion on the proximal articular surface that could be attributed to *osteochondrosis dissecans*, which can occur when the bovid is young and probably starting training for traction, placing strain on the developing bones.

Sheep/goat showed a few pathologies, with dental problems and arthritic changes.

Two deposits, 1016 and 1017, produced equid vertebrae with severe changes and fusion of the separate vertebra. Initial research suggests a genetic link to this form of spondylosis, a lack of or minimal work for an animal affected and a good deal of human care. Research has shown a genetic link to this form of spondylosis (*spondylosis ankylopoetica*) with humans and it is often referred to as 'bamboo spine' and it affects mainly males (Waldron, 2009) and it is possible that inherited susceptibility to this is just as likely for equids as their use for riding or traction work (Bartosiewicz and Gill, 2013). This animal was unlikely to have worked at all in later years and it suggests a high level of human care.

Butchering

Butchering was seen throughout the assemblage, with primary processing and skinning and secondary butchering waste, with range of joints of meat were produced. Heavily cut metapodials and a chopped horncore was seen, the latter would suggest some interest in horn for working. A relatively high number of skinning cuts were seen, partly due to the number of lower limbs, foot and head elements present. Some of the butchering was excessive, for the task, for example, with the cattle metacarpal from the Roman ditch fill 2071 there are numerous knife cuts and scrape marks along the rear of the shaft, which is really excessive and a skilled skinner could remove the skin with one or two fine knife cuts. Such excessive butchering may suggest individuals carried out their own infrequent processing of carcasses or that someone was training to skin and butcher the sites animals.

Discussion



Although this is a relatively small Roman assemblage, it is rich in information on the health, husbandry and uses of the livestock kept at the time. The bulk of the waste appears to be derived from skinning waste and meat production and consumption with some hunting and non-meat working animals.

The cattle sizes, compared to Roman remains at Mildenhall (Curl, 2013) and Witham (Luff, 1999), the Litlington cattle are on the large end of the range, probably suggesting males. These are likely to be bulls of the Kerry type cattle that was common in Roman Britain, which would be kept for traction and eventually meat, with males producing 430 to 500kg of meat (females producing 320-365kg). Pathologies seen with the cattle suggest some were used for cart pulling or ploughing, with typical signs of strain on the lower limbs.

Both sheep and goat were present, with both producing milk and cheese and butter, which was the main supply in the Roman period as cattle milk was not as popular. Sheep would also produce wool, dung and lanolin and both would provide skins and by-products. Dogs were clearly a presence on site, perhaps for hunting, guarding and even as pets and clearly had access to bones for consumption.

Butchering skills varied at this site and some was deemed excessive for the task. Such excessive butchering may suggest individuals carried out their own infrequent processing of carcasses or that someone was training to skin and butcher the sites animals. Similarly, with the Red Deer skull, the antlers at Litlington were hacked away from the skull, while at Colchester (Luff, 1993), the antlers were cleanly sawn away just below the burr to leave the pedicles on the skull. The variation in butchering and the rather heavy-handed approach might suggest a small settlement and the lack of a permanent skilled butcher that might be seen in larger urban areas.

Parallels for the equid suffering spinal problems have been difficult to find with animals, although a similar problem is seen with people, which is sometimes referred to as 'bamboo spine'. Examples are known in Hungray (Bartosiewicz and Gill, 2013) with similar levels of fusion and full fusion of thoracic and lumbar neural spines. Research has shown a genetic link to this form of spondylosis (*spondylosis ankylopoetica*) with humans and it affects mainly males (Waldron, 2009) and it is possible that inherited susceptibility to this is just as likely for equids as their use



for riding or traction work (Bartosiewicz and Gill, 2013). Natural selection would have eliminated this from wild horses. The presence in a domestic animal, which would have been limited in its usefulness for the mains tasks for an equid (riding and traction) and this might suggest a high level of affection for the animal for it to have survived an early cull and use for meat and skin, even keeping it as a pet or retired animal in its later years.

The birds recovered are likely to represent birds kept for a supply of eggs and feathers prior to use for meat. The remains of deer in the assemblage confirm hunting and an interest in meat and by products. The chopping of antlers and horncores show an interest in working faunal remains for craft or tools. Deer antlers are shed each year and the size and butchering of the skull and antlers suggests the deer was killed between autumn and early spring when the antlers are at full size; perhaps to supplement the diet during the latter winter when preserved domestic meat supplies may be running short.

9.10 MOLLUSC REMAINS Appendix 2. Table 3.

Methodology

The molluscs were identified to species using a variety of reference material. Shells were catalogued by species and where appropriate, counts were made of the number of individual species present (NISP), counts of top and base shells and an estimate of the minimum number of individuals (MNI). Bivalve shells are known to be used as painter's palettes and the remains are examined for any traces of pigments. Shells are also examined for any cut marks that would confirm their use for food from the prising apart of the shells or removal of meat with a knife and examined for parasites and other information following Winder (2011).

The assemblage and discussion

A total of 5915g of shell, consisting of 245 pieces, was recovered from this site and these are quantified in Table 3.

	Feature Type and NISP	



Species		Black Earth	Demo Layer	Ditch	Gully	Layer	Pit/Terminus	Spread	Subsoil	Totals
Brown-Lipped Snail	L				3					3
Cockle	М		1							1
Garden Snail/Helix	L	1	1	3	2	2				9
aspersa										
Mussel	М	2	11			14				27
Oyster	М	16	32	110	1	34	1	5	3	202
Whelk	М			1						1
White-Lipped Snail	L				2					2
Totals		19	45	114	8	50	1	5	3	245

Table 3. Quantification of the mollusc assemblage by feature type and NISP.

Marine molluscs

Oyster (*Ostera edulis*), which is the most common species of edible shell to appear on most archaeological sites. With oyster representing 82% of the mollusc assemblage in terms of NISP (number of shells per species). One deposit, the Gully fill 1019, produced ceramic material of a Post-medieval date, with the remaining assemblage produced from Roman deposits. Larger numbers of oysters were produced from fills of Ditch 2022A as well as Layers 1006 and 1017. Initial observations of the parasitic worms and sponges show the oyster were of marine origin and most of the remains were from complete or largely complete shells. Many of the oysters showed some cuts from prising the shells open to access the flesh.

Portuguese Oyster (*Crassotrea angulata*) was found in the Roman Ditch fill 2063. This Mediterranean species is now present in small numbers and sometimes farmed around British waters, but in the Roman period the presence of this species would suggest imported shell. A washed up shell may be possible, but there is relatively little wear on the shell, which would be expected if it had travelled any distance.

Common Mussel (*Mytilus edulis*) fragments were recovered from three Roman fills, but in much smaller numbers and with largely fragmented remains.



A single **Common Whelk** shell was found in the Ditch 2022A with a large number of oysters. The single whelk might suggest it was accidentally collected with the oysters.

Land molluscs

Three species of land mollusc were identified. The land molluscs are in good condition, with complete or mostly complete shells, although much of the colour has been lost.

The common **Garden Snail** (*Helix aspersa*) was found in five fills with a total of nine complete shells, most of Roman date with two shells from the Post-medieval Gully fill 1019.

The Post-medieval Gully fill 1019 also produced three shells of **Brown-Lipped Snail** and two shells from **White-Lipped Snail**. Generally, the Brown-Lipped Snail prefers drier areas than the White-Lipped Snail, with the latter often in damp areas, although both species are often found in the same habitat, particularly during hibernation.

Mollusc discussion

The mollusc assemblage from this site largely consists of marine molluscs that had been collected for use for food, with knife cuts on the oyster showing they had been consumed. The presence of worms and marine sponge further confirms the marine origin for these shells rather than farmed molluscs. Most of the marine shells are found all around British coasts. While Cambridge is some distance from the coast, oysters travel well in jars or vessels of water for a few days.

The Portuguese Oyster is interesting and suggest some imported shell for food or perhaps molluscs for consumption while travelling from Europe to Britain, which would survive in a container of water for several days or meats may have been bought at markets on route. If this shell had been washed ashore in Britain having travelled in the sea from the Mediterranean then more wear and damage to the shell would be expected and the level of damage to this individual is very low, which



further supports the likelihood of it being food brought here. There is a low possibility that larger migrating water birds may have transported very small individuals of this species to British waters where they might survive.

The land molluscs are likely to represent intrusive and relatively modern snails if they are close to the surface as they will burrow to short depths for hibernation. The group of three species in the Post-medieval gully are likely to represent a hibernation group, where, with suitable conditions and protection, numerous snails of several species will congregate for winter or long periods of hot dry weather.

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9.11 Appendixes 1 (Animal bone), 2 (Molluscs)

Appendix 1. Summary catalogue of the faunal remains recovered from ECB5273, listed in context order.

Key:

NISP = Number of Individual Species elements Present Measure – following Von Den Driesch, 1976 Countable – Following Davis, 1992

Context	Feature No	Ctxt Qty	Wt (g)	Species	NISP	Adult	Juvenile	Element range	Measure	Count	Butchering	Chopped	Cut	Comments
1003	1003	1	14	Mammal	1							1		
1006	TP1	52	776	Cattle	8	8		metacarpal, tibia, radius, ribs, PPH, pelvis	2	3		6	4	
1006	TP1			Sheep/goat	6		6	mandibles, ribs, radius	1	1		4	2	
1006	TP1			Mammal	36			fragments						butchered
1006	TP1			Bird - Goose	1	1		radius					1	
1006	TP1			Equid	1	1		lower molar						heavily worn,



1007	TP2	18	363	Cattle	1	1		humerus	1	1	1	1	gnawed at (chopped) mid shaft
1007	TP2			Pig	1	1		humerus		1	1		
1007	TP2			Sheep/goat	2	2		phalange and pelvis	1	1.5	1	2	PPH cut
1007	TP2			Mammal	14			fragments					
1009	1008	19	135	Sheep/goat	3	3		mandible, humerus radius	1	2	2	1	
1009	1008			Mammal	15			fragments					
1009	1008			Coprolite	1			part of large coprolite	1				large, dog. Has bone fragments in it.
1015	1008	4	33	Cattle	1			PPH	1	0.5		1	
1015	1008			Pig	1		1	humerus			1		neonatal
1015	1008			Mammal	2			fragments					
1016	2010	5	106	Equid	1	1		thoracic vert					severe arthritis - part of 1017 spine?
1016	2010			Mammal	4			fragments					
1017	TP1	33	1477	Equid	2	2		vertebrae, distal MT			1	2	2 sets of 2 heavily fused thoracic vertebrae, rather like DISH in humans
1017	TP1			Sheep/goat	3	3		tibia, MC, mandible	2	2	1		slight arthritis at distal end, heavy irregular wear on teeth, broad MC may be goat
1017	TP1			Mammal	27			fragments, including skull					



1017	TP1			Bird - Fowl	1	1	ulna				1	
1017	TP1			Deer - Red	1	1	skull with pedicles, antlers broken away	1				
1019	1018	3	10	Mammal	3		fragments					med-sized mammal
1022	1022	3	54	Mammal	3		fragments					
1026	1025	1	3	Sheep/goat	1	1	lower molar					
1029	1027/8	1	12	Mammal	1							1013 = 1029
1029	1027/8	4	44	Cattle	4	4	femur and scapula fragments	1	1	2		1027 = 1029
1030	1030	1	7	Sheep/goat	1		mandible				1	
1038	1037	1	42	Cattle	1		ulna		1	1		proximal end
2003	2003	1	101	Cattle	1	1	metacarpal	1	1	1		distal end, broad and robust
2004	2004	3	172	Cattle	3	3	metacarpal, vert frags	1	1	2	1	distal metacarpal wide and robust, probable bull
2007	2039A	13	74	Cattle	2		tooth and rib			1	1	
2007	2039A			Sheep/goat	1		proximal phalange	1	0.5			
2007	2039A			Mammal	10		fragments			3	3	chopped and cut rib fragments
2008	2022A	8	181	Cattle	1	1	distal metacarpal	1	1	1		
2008	2022A			Sheep/goat	1		lower molar					



2008	2022A			Mammal	6			fragments					some gnawing on rib fragments
2009	2022A	15	590	Cattle	4	4		MCs, Mt, pph	3	3.5	3	2	rodent gnawing , lesion on prox metacarpal, robust animal and 1 smaller MC, large MC with boney growth at proximal end, MC GI = 194/Bd 66.5
2009	2022A			Sheep/goat	1		1	mandible	1	1		1	heavy tooth wear on Dp4
2009	2022A			Mammal	10			fragments					
2011	2010	5	251	Cattle	5			pelvis fragments			4	1	
2012	2010	17	801	Cattle	5	5		skull/hc, lower molar, humerus, mandible	1	2	3	2	one skull fragment with base of horncore chopped away, mandible has M3 NFE and with heavy calculus deposits
2012	2010			Sheep/goat	3	3		humerus, MT	1	1	2	1	
2012	2010			Mammal	9			inc skull fragments					
2016	2010	11	416	Cattle	1	1		radius		1	1		
2016	2010			Equid	1	1		lower molar					heavy calculus
2016	2010			Dog/wolf	2	2		skull, ulna	2	2			small to med sized dog
2016	2010			Mammal	7			fragments					
2017	2027A	2	97	Equid	1	1		calcaneus	1	1			robust
2017	2027A			Mammal	1			shaft frag					med-size mammal



2018	2027A	18	602	Cattle	9	9		scapula, vertebrae, skull frags, tooth	1	1	1	1	
2018	2027A			Sheep/goat	1	1		tibia		1	1	1	robust, ?goat
2018	2027A			Mammal	8			fragments					
2019	2022A	49	1642	Cattle	12	10	2	metapodials, phalanges, mandible, limb,	4	2.5	4	5	robust adult , large proximal phalanges, growth on rear of proximal metacarpal, M3 NFE
2019	2022A			Deer - Red	2		2	mandible, skull/teeth		1	1	1	Dp4 in wear, M1 erupted and very low wear, M2 not erupted (summer fawn)
2019	2022A			Pig	3		2	radius , pph, scapula		1.5	1		
2019	2022A			Mammal	32			inc rib fragments					needs further identification, check for more deer, some fragments burnt black , heavy butchering of ribs
2020	2022A	12	942	Cattle	7	1	1	metapodials, humerus,	1	3	4	2	MC GL=185, MT gnawed, robust large humerus gnawed at distal end, UF femur



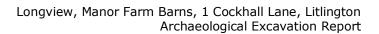
2020	2022A			Sheep/goat	1	1		mandible	1	1		1	mandible with M3 in low
													wear, cut from skinning
2020	2022A			Mammal	4			fragments					butchered
2021	2022A	4	105	Equid	1	1		proximal	1	1		?	robust phalange, some
								phalange					canid gnawing
2021	2022A			Mammal	3			fragments			1		
2023	2039A	2	83	Cattle	2	2		scapula			1	1	
								fragments					
2029	2027B	1	99	Cattle	1	1		metatarsal			1		proximal end, robust bone,
													canid gnawing
2030	2027B	19	488	Cattle	6	6		mandible,		1	1	1	cuts from skinning, calculus
								isolated teeth					on teeth
2030	2027B			Pig	2		2	radius,		2	1	1	
								mandible					
2030	2027B			Mammal	11			fragments					butchered fragments
2031	2022B	2	54	Cattle	1	1		proximal	1	0.5		1	robust phalange
								phalange					
2031	2022B			Mammal	1			rib fragment					
2032	2022B	14	994	Cattle	6	4	2	metapodials,	4	5	4	2	lesion on prox metacarpal,
								mandible,					robust animal
								talus, radius					
2032	2022B			Sheep/goat	2	1	1	mandible	1	1	1	1	Dp4 in wear, adult radius
2032	2022B			Mammal	6			fragments					
2033	2022B	1	175	Cattle	1	1		scapula		1	1	1	
2035	2034	2	96	Cattle	2	2		rib and		1	2	1	
								metapodial					
								frag			 		



2038	2022B	4	71	Sheep/goat	1	1		mandible	1	1		1	mid-wear on teeth
2038	2022B			Mammal	3			fragments					
2045	2044	1	26	Mammal	1								
2055	2027D	1	37	Cattle	1	1		calcaneus		1	1		cut and canid gnawing
2056	2027D	3	44	Cattle	2	2		lower molar					
								and mandible					
								fragment					
2056	2027D			Mammal	1			shaft					
								fragment					
2063	2022C	10	497	Cattle	1	1		mandible	1	1	1	1	large mandible with full
													wear on teeth inc M3 –
													mature, cut from skinning
2063	2022C			Mammal	9			fragments					need further identification
2064	2022C	2	143	Cattle	1	1		metacarpal	1	1	1	1	proximal end. Some
													arthritic growth and lesion
													on
													proximal articular surface.
													Canid gnawing
2064	2022C			Sheep/goat	1	1		mandible	1	1		1	left side, M3 in wear.
													Sheep.
2069	2010C	11	337	Cattle	1	1		humerus	1	1	1	1	
2069	2010C			Sheep/goat	1		1	unfused		1	1		
								femur					
2069	2010C			Dog/wolf	1	1		canine tooth					
2069	2010C			Mammal	8			fragments					



2071	2061C	10	394	Cattle	8	8		mandible, scapula, limb		1	5	3	numerous knife cuts along rear shaft of cattle metacarpal
2071	2061C			Mammal	2								
2073	2027C	19	902	Cattle	12	12	2	metapodials, mandible, phalanges, limbs, vertebra	1	4.5	8	5	butchered and canid gnawing on distal humerus, gnawed proximal tibia, robust pph, adult and juvenile metatarsals
2073	2027C			Mammal	6			rib frags			2		





9.12 Appendix 2. Catalogue of the mollusc remains from ECB5273, listed in context order.

Context	Feature	Ctxt Qty	Weight	Marine	Land	Species	NISP	Тор	Base	INW	Apex	Fragment	Condition	Distort	Cut	Worms	Sponges	Attached	Pigment?	Comments
100	TP1	1	28	1		Mussel	1			5	1	1	good							
6 100 6	TP1	1	8	1		Cockle	1			1	1		good							
100 6	TP1	1	7		1	Helix aspersa	1			1	1		good							
100 6	TP1	3	631	3 2		Oyster	3 2	1 2	1 5	1 5	2 7	5	good	4	7	8	10	3		
100 7	TP2	1	3	1		Oyster	1					1	fragmente d							
101 6	TP1	2	6	2		Mussel	2			1	2		good							
101 6	TP1	1	5		1	Helix aspersa	1			1	1		good							
101 6	TP1	1 6	272	1 6		Oyster	1 6	3	1 3	1 3	1 6		good	2	5	6	5	1		
101 7	TP1	1 4	24	1 4		Mussel	1 4			2	3	11	fragmente d							



101	TP1	2	18		2	Helix aspersa	2			2	2		good						
7						·													
101	TP1	3	915	3		Oyster	3	1	1	1	2	2	good	7	7	10	12	6	some burning
7		1		1			1	5	4	5	9								
101 9	1018	7	36		2	Helix aspersa	2			2	2		good						
101 9	1018				3	Brown-Lipped Snail	3			3	3		good						Prefers drier areas than WLS
101	1018				2	White-Lipped	2			2	2		good						prefers damper
9						Snail													areas than BLS
101 9	1018	1	2	1		Oyster	1					1	fragmente d						
102 2	1022	1	54	1		Oyster	1	1		1	1		good	1	1	1			
103 0	1030	5	62	5		Oyster	5	1	3	4	5	1	good	1	1	2	2		
104 1	TP4	1	27	1		Oyster	1	1		1	1		good			1	1		
200 3	2003	3	144	3		Oyster	3	3		3	3		good	3	1	2	2		
200 7	2039 A	3	28		3	Helix aspersa	3			3	3		good						1 at 35mm
200 7	2039 A	2	34	2		Oyster	2	2		2	2		good		1	2	2		
200 8	2022 A	1 7	510	1 7		Oyster	1 7	9	8	9	1 7		good	3	6	7	4	3	cuts on ventral side of upper and lower



																		shells, 1 burnt shell (grey colouring)
200 8	2022 A	8	202	8	Oyster	8	3	5	5	8		good	2	2	3	5		
201 8	2027 A	5	88	5	Oyster	5	1	2	2	3	2	good						
201 9	2022 A	1	21	1	Whellk	1			1	1		good						
201 9	2022 A	3 0	118	3 0	Oyster	3 0	1 4	1 5	1 5	9	1	good	8	6	10	11	5	cuts on ventral side of upper and lower shells, 1 fragment of shell burnt to a grey colour.
202 0	2022 A	2 0	632	2 0	Oyster	2	9	1 0	1 0	1 0	1	good	4	7	11	12	3	
202 1	2022 A	5	108	5	Oyster	5	1	4	4	5		good		1	1	3		
202 9	2027 B	2	70	2	Oyster	2	1	1	1	2		good				2		
203	2027 B	2	84	2	Oyster	2	2		2	2		good	1	1	2	1		
203 0	2027 B	1	46	1	Oyster	1		1	1	1		good	1	?	1	1		



203	2022	1	386	1	Oyster	1	4	7	7	1	good		3	6	7	2	
2	В	1		1		1				1							
203	2022	1	21	1	Oyster	1		1	1	1	good		1	1	1		
3	В																
203	2034	1	46	1	Oyster	1		1	1	1	good				1		
5																	
205	2027	1	13	1	Oyster	1	1		1	1	good	1			1		
6	D																
206	2022	5	203	5	Oyster	5	3	2	3	5	good		1	3	2	2	one top shell of
3	С																Crassotrea
																	<i>angulata</i> or
																	Portugese
																	OysterGL=95m
																	m-
																	import/farmed/
																	consumed on
																	travels?



9.13 Wall Plaster

Longview, 1 Manor Barns, Cockham Lane, Litlington, Cambridgeshire, (ECB5273)

Report on Roman Wall Plaster and Painted Opus Signunum

Ian M. Betts

MOLA

Introduction

All the plaster from the site has been examined, including both the top painted layer and the mortar backing. The latter can be used to identify plaster which may have come from the same rooms. Almost all the plaster has a top white or pink plaster layer (intonaco) on which the paint was applied, probably when it was still damp. When dry the paint would have been locked into the plaster surface.

Below the intonaco is a layer of sandy mortar backing. This contains frequent quartz (mainly up to 0.8mm) with varying amounts of white chalk, grey and brown flint and red and orange ceramic, probably small fragments of crushed brick and tile. On one plaster group this lies above an earlier plaster-like backing layer with reed impressions.

The plaster assemblage also includes four pieces of painted *opus signinum* which is also discussed.

Wall plaster

Plaster believed to be from the same room, or suite of rooms has been grouped together. It would appear that plaster from different rooms in present in certain contexts.

(1017) <SF2>), (2009), <SF8>, (2019), <SF9>

Present is a border area in brownish-yellow and discoloured white, together with twelve areas of plain brownish-yellow and one piece of light grey.

Intonaco: pink (c 0.05–0.75mm) above traces of a thinner initial white intonaco (c 0.05–0.5mm). One fragment from (1017) (SF2) has a far more uneven initial white



intonaco layer, which ranges from 0.5mm to 4mm in thickness. This is the result of having a slightly concave top surface.

One piece of plaster (1017) <SF2> has a dark red and white border whilst another is painted plain dark red above a very uneven top surface. Both dark red areas have irregular small patches of pink paint suggesting they may be from the lower dado area. These both have a thin layer of white intonaco, but the second pink intonaco layer seems to be absent in places.

Mortar backing: two backing layers are present.

An initial whitish-cream coloured more plaster-like layer containing abundant white chalk (up to 8mm). This first layer has a very irregular bottom surface resulting in a thickness of between 9–28mm. Numerous parallel reed impressions are present in the base of some of the better preserved fragments. These are around 2.5mm in diameter. This was followed by a second (later) 8–14mm thick cream mortar layer with occasional chalk (up to 8mm).

(2004) <SF6>

Present are three fragment pf plain yellow plaster.

Intonaco: white (0.25mm)

Mortar backing: cream, 19mm thick, with common flint (up to 7mm) and occasional chalk (up to 3mm).

(2004) <SF6>, (2019) <9>

Present from (2004) <SF6>) is a fragment with a faded dark red stripe $(c\ 10\text{mm})$ on white on an exceptionally uneven and crudely smoothed top surface. There is no clearly defined intonaco, only a white plaster layer measuring 1 to 3mm thick.

Mortar backing: the backing from (2004) <SF6> comprises a 19–20mm layer containing abundant crushed ceramic (up to 9mm) giving it a pink tinge. Above part of this backing layer is a patch of cream mortar backing up to 5mm thick. This would appear to be a crude repair added after the pinkish-white mortar backing was applied, but before the upper plaster layer was added.



A small piece of plain red plaster from (2019) <9> may also belong to the same group. This has the same pink mortar backing and rough plaster layer (4mm thick) although this contains slightly more quartz.

(2009) <SF8>

One piece of plain dark red.

Intonaco: this is white in colour but measures only c 0.05mm thick and seems to be missing entirely from some areas.

Mortar backing: the cream backing, which has a smoothed flat base, measures 21–22mm in thickness; there is a patch of mortar on part of the upper surface suggesting reuse in a later structure.

(2032) <FS11>

One piece of plain dark red.

Intonaco: white 0.25mm.

Mortar backing: 26–27mm thick cream backing with a scatter of white chalk and crushed ceramic (up to 9mm) and occasional flint (up to 7mm).

Painted opus signinum

(1022) <SF3>, (1017) <SF2>, (2038) <SF13>

All three fragment of painted *opus signinum* have a dark red paint layer. The best preserved (2038) <SF13>) has two cream coloured backing layers, both characterised by abundant red and orange coloured crushed ceramic (up to 7mm) with chalk and flint (up to 4mm). The crushed ceramic gives the cream mortar a pink tinge. The second upper layer, which measures 10mm in thickness, overlays a 25–30mm thick initial *opus signinum* layer. Painted *opus signinum* found in southeast England, which more commonly has just one-layer present, is often covered by dark red paint.



Discussion

The small assemblage size makes any discussion of the wall plaster very difficult. What can be said is that the plaster seems to be relatively unsophisticated with just areas of plain colour and a few simple border areas, and two pieces of what may be the lower dado. This suggests the presence of simple plain coloured panels bordered by stripes and bands of a different colour. Five types of plaster would seem to be present, based on mortar backing and paint colour, which may derive from different rooms.

Of particular interest is the plaster with reed marks recovered from (1017) <SF2>), (2009), <SF8> and (2019), <SF9>, examples of which has been found on plaster from a site in north-west Cambridge (Betts 2019) and on daub from Kettle's Yard, Cambridge (Brittian and Evans 2016, 38–41). Plaster with reed impressions is usually thought to derive from the ceiling area (Ling 1985, 51), but the reed mark daub from Kettle's Yard would seem to derive from a vertical partition, although its use in a ceiling cannot be entirely discounted. The plaster assemblage from Litlington would therefore comprise plaster from the walls, and from either a wall or ceiling area.

Much of the plaster is of relatively poor quality with evidence of patching up of the mortar backing, missing areas of intonaco and plaster with a poorly finished top surface. As most of the plaster, all of which derives from layers and ditch fill, has been provisionally dated to the mid/late 3rd century or possibly later this suggests that the wall painters may not have been as skilled as those working during the early Roman period. Alternatively, the owner of the property from which the plaster derives, may not have the finances available to employ top quality wall painters. Certainly, there is no evidence for the use of more expensive pigments, such as the artificial pigment Egyptian blue or the highly prized bright red pigment cinnabar which had to be imported from Spain. A further possibility is that the plaster comes from a room, or rooms of relatively minor significance.

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9.14 Metalwork and Stone

P1214 ECB5273 Longview, 1 Manor Barns, Cockhall Lane, Litlington, Cambs.

Metalwork and Stone

By R. Sillwood

Introduction

Forty fragments of metalwork and stone were recovered from excavations on this site; this breaks down as twenty-eight pieces of iron, seven of copper alloy, and five of stone.

The finds were recovered from two ditches, a demolition layer, a layer, and a spread, all of Roman date.

Methodology

The material was recorded by count and weight, and a catalogue produced in Excel detailing the salient features of each object/fragment. The pieces were measured, where possible, in millimetres and this is also recorded within the spreadsheet.

Select metal finds were sent for x-radiography, to enable further clarity on the purpose of some of them.

The finds are discussed below organised by material type.

Iron

The iron segment of the assemblage was mainly made up of nails, with only two objects which were not nails out of a total of twenty-eight pieces.

It is difficult to date iron nails. They are a ubiquitous find throughout multiple periods and are obviously still in use today. The only way to date the nails is to use other material from the same context to provide a rough date for them. The pottery spot dates for the site provide a date range covering the entirety of the Roman period, but with no activity either before or after this period. It is therefore obvious



that the nails must be Roman in date, though their exact purpose remains unknown. For a full list of nails and their contexts, see the Appendix.

The two remaining iron objects were both subject to x-radiography, though they are still difficult to identify with any certainty.

The first object was recovered from ditch fill 2030, and consisted of an open V-shaped object with a circular sectioned tapering ?tang at one end and a flat rectangular opposite end. This object may have been a knife, either bent or a folding type, though the x-ray shows no hinge at the apex of the V-shape, where the object transitions from circular to flat section. The exact date and purpose of this object remains uncertain, though it comes from a 3rd-4th century feature, and so it would appear to be Roman in date.

The second object was also somewhat difficult to define, though several possibilities for purpose present themselves with this piece. This object was simply an incomplete circular sectioned rod with a flattened semi-circular head. The object was recovered from ditch fill 2032. An object very similar to this was identified as part of a window fitting from Stonea in Cambridgeshire (Jackson & Potter, 1996, 367, fig. 120, no. 55). However, the object also has similarities with some types of Roman nail (Manning, 1985, Plate 63, R97-98), and also with linch pins of Type 2 (Manning, 1985, Plate 31, H40). It is difficult to be certain what type of find this piece was, as it was incomplete, and encrusted. The context was dated to the 3rd century by pottery, and therefore, whatever the exact purpose of the piece it seems likely that it dates to around that period.

Copper alloy

The seven copper alloy finds include several friable thin pieces, which were undiagnostic, but also one find that was more classifiable.

SF 1, which was recovered from demolition layer 1006, was a Roman armlet, of circular section with spatulate terminals. Copper alloy armlets, according to Crummy (1983, 37), are mainly of 3rd to 4th century date, and this fits neatly with the spotdating for this particular context. The flat terminals and plain band mean this is not a particularly striking armlet. It is also a small example, possibly for a



child, which seems to be a common occurrence during the Roman period, as Crummy (1983, Figs. 41-47) illustrates many of these smaller examples.

SF4 consists of a rectangular sheet, in two pieces, with a pierced rectangular slot down one edge of the piece. This object was recovered from ditch fill 2019, which was a Roman context, however it is not possible to be certain about the exact purpose or date of this object. It may be part of a buckle plate or strap end; however, this is not certain. The same can be said for both SF7 and SF12, where the copper alloy consists of a sheet fragment with no diagnostic features, and two pieces with small rivets through, which could also be buckle plate fragments or strap ends.

Stone

Three pieces of millstone grit quern fragments were recovered from the site, also a probable chalk spindle whorl in two pieces.

The quern fragments came from demolition layer 1006, and consisted of worn pieces, all of which are of a greyish colour with slightly darker areas, which could be evidence of burning. Quernstones are sometimes said to have been re-used within hearths, and this could be the case with these fragments from Litlington. The absence of any obvious grinding surfaces implies that the quern had reached the end of its useful life as a grinding tool and was then re-used. The trade in millstone grit querns appears to have been strongest in the later Roman period, however a few have been found which date from the 2nd century (Buckley 2014) and beehive querns of Later Iron Age date have also been recovered. Millstone grit was also used in the medieval period as a quernstone (Smith & Margeson, 1993, 202), where it could also be used in brewing, as well as for the milling of grain, although this does not appear to be the case here at Litlington.

The spindle whorl (SF5), in two pieces, was probably made of dirty off-white chalk, and was roughly circular in plan with a central hole. A similarly sized chalk spindle whorl was recovered from the Roman town of Great Chesterford in Essex (Major, 2011, 278, fig. 17.9, T175), although that object had radially incised lines as decoration. This piece is of Roman date; however, it is not possibly to closely date the object within that.



Conclusion

The metalwork and the stone fragments from Litlington form a small group of finds for which a definitive conclusion is difficult to reach. The pottery from the site clearly dates it to the Roman period, and the material, in general fits with that broad period, however, the copper alloy is thin, friable and fragmentary, as is the ironwork encrusted and ambiguous. The only dated find is the armlet, which can generally be placed in the latter part of the Roman period, and this fits with the pottery spot dates for that particular context. The other material is, as stated, more ambiguous, and precludes any further analysis.

The material has been subject to x-radiography, and any features of the pieces that might have been concealed by corrosion will have been recognised during this analysis.

The categories of the finds, where possible to pinpoint, includes dress accessories, fittings, and objects associated with spinning and milling.

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9.15 Environmental samples

Analysis of Sample Flots and Residues LITLINGTON CAMBRIDGESHIRE

Client: Britannia Archaeology Ltd

Author: M Law

Doc Ref: LP2255E-EAR-v26.0

Site Code: ECB 5273

A trading name of L - P: Heritage LLP Unit i5 | Woodside | Dunmow Road | Bishop's Stortford CM23 5RG | +44 [0]1279 755252 |eoe@lparchaeology.com

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Appendix 1 – Biological Remains

1. Introduction and Methods

- 1.1. Ten bulk sediment samples were presented for analysis from a Romano-British site at Litlington, Cambridgeshire. Samples 2, 3, 6, 9 and 10 were 10 litres volume, and 1, 4, 7 and 8 were 20 litres. All material was processed. The samples were processed using a Siraf-style flotation tank. The washovers (flots) were caught on a 250 μ m mesh sieve, and the heavy fractions (residues) were retained on a 1mm mesh.
- 1.2. The residues were weighed and air dried, then sorted into fractions using a nest of sieves before being scanned under a low power microscope. The flots were weighed and scanned while wet.
- 1.3. Molluscan analysis was carried out on the flot and residue from 10 litres of each sample. Shells were extracted under a low-power microscope and identified to species level where possible, using a reference collection. Ecological information is derived from Evans (1972), Kerney and Cameron (1979), and Davies (2008). Nomenclature follows Anderson (2008).



- 1.4. For each gastropod taxon within a sample, the most commonly represented non- repetitive element (usually the shell apex, umbilicus, or body whorl with mouth) was counted to determine the minimum number of individuals (MNI) present. This avoids the underestimation reported when only shell apices are counted (GIOVAS 2009).
- 1.5. As an aid to interpretation, taxa were arranged into groups, broadly following those of Evans (1972) and Evans (1991). These are:
- 1a. Oxychilidae. 'Glass snails', taxonomically related species of shaded places, represented here by Aegopinella nitidula, and Oxychilus cellarius.
- 1b. Carychium tridentatum. A widespread shade-demanding species. 1c. Discus rotundatus. A common shade-demanding species
- 1d. Other shade-loving species. Represented here by Clausilia bidentata, Columella edentula, Lauria cylindracea, Merdigera obscura, and Punctum pygmaeum.
- 3. Intermediate/ catholic. Molluscs with a broad range of ecological tolerances. Represented here by Cepaea hortensis, Cochlicopa cf. lubrica, Cochlicopa cf. lubricella, Cornu aspersum, and Trochulus hispidus.
- 4a. Commonly open country. Snails associated with open habitats such as short grassland. Represented here by Helicella itala, Pupilla muscorum, Vallonia costata, Vallonia excentrica, and Vertigo pygmaea.
- 5a. Amphibious/ freshwater. Species found in wet ground habitats and freshwater environments that may dry out seasonally. Represented here by Galba truncatula and Pisidium casertanum.
- 6a. Freshwater slum. Species preferring or tolerating stagnating habitats. Represented here by Anisus leucostoma.
- 6b. Freshwater catholic. Species found in all but low-quality freshwater bodies. Represented here by Bathyomphalus contortus.
- 6c. Ditch group. Species usually found in clean, slow moving water bodies with aquatic vegetation. Represented here by Anisus vortex and Planorbis planorbis.

The groupings broadly represent a progression from shaded conditions through more open environments to gradually wetter conditions.



2. Results and Discussion

- 2.1. Counts of biological remains and artefacts are presented in APPENDIX 1. Biological remains were well preserved, and there was no modern root intrusion, although the burrowing snail Cecilioides acicula is present in all samples and is likely to be a recent intrusion.
- 2.2. In general, the samples contained a relatively high number of molluscan shells, with lower quantities of charred grain, charcoal, bone and artefacts. Seeds of elder (Sambuca nigra) are present in contexts 1039, 2028, and 2038, most likely reflecting the presence of one or more elder trees in the vicinity of these contexts. This is an especially durable seed which is often preserved where other seeds are not.
- 2.3. In context 1016, the charcoal includes pieces with a strong ring curvature and narrow diameter, suggesting that small branches and underwood were used as fuel. The shells in this sample are not charred, which implies that burnt material has been dumped in this context, rather than burnt in situ.
- 2.4. The molluscan assemblage reflects a complex habitat, dominated by 'catholic' Group 3 taxa (those that are tolerant of a wide range of habitats), although Group 4 species (those associated with open habitats) make up a significant component of each sample. Taken together, these two groups would appear to suggest a grassland habitat, however there is also a consistent presence of Group 1 taxa (associated with shaded places), and Group 5 and 6 taxa (amphibious and freshwater species). Looking at the ecology of individual species, rather than broad ecological groups, sheds more light.
- 2.5. While many snail species are somewhat generalist provided there is some shade and moisture, a few species (often those that are less common in assemblages) have quite specific ecological requirements. Columella edentula, for example, found here in context 1038, is associated with wet woods, fields and marshes where there is abundant calcium carbonate. Merdigera obscura, found here in context 2021 is a rupestral species (generally found above ground on rocks, logs and tree trunks) in woodland habitats. Lauria cylindracea and Clausilia bidentata are similarly rupestral.



- 2.6. The amphibious and freshwater taxa include species like Galba truncatula and Pisidium casertanum which are found in generally wet environments that are prone to drying out (such as boggy ground around spring flushes), as well as those associated with more permanent water bodies, such as Bathyomphalus contortus and Valvata piscinalis.
- 2.7. Overall, the snail assemblage would appear to suggest that the environment was wet, with plentiful shade. The 'open country' taxa may have been happily thriving even within these conditions, as species such as Vallonia costata often occur in low numbers in woods. Pupilla muscorum and Helicella itala are more typically open country xerophiles (favouring dry conditions) however, although even Pupilla can occur in woods, and was reported from woods around the Gogmagog hills (EVANS 1972, 146).
- 2.8. Although the molluscs may represent a wet, wooded habitat with sufficient clear areas to allow Helicella and Pupilla to flourish, another possibility is that there has been some time averaging in the assemblage. This could be due either to slow rates of sedimentation or reworking of earlier sediment in cut archaeological features; or to a lag in biological succession following clearance of a woodland habitat. Working in modern woodlands in Oxfordshire, Davies and Gardner (2009) noted a fifteen to twenty year lag before woodland species were replaced by open country species in new clearings.



Plate 1 - Ctenoid scale from context 1016. Small squares are 1mm

2.8.1. There is a small collection of shells of edible marine species (oyster and mussel) in context 1016, as well as a ctenoid fish scale (PLATE 1). Ctenoid scales are found only on a limited range of fish species, in the British



Isles most notably European perch (Perca fluviatilis). Taken together, these suggest that the inhabitants of the site were able to source provisions from the coast and inland freshwater bodies.

3. Conclusions

- 3.1. The samples contain a range of well-preserved biological remains which together provide evidence of the site environment and economy. Foods consumed at the site include shellfish, fish (possibly perch), cereals and terrestrial mammals. The site seems to have been the located in wet woodland, although by the time the site was occupied and in use, this may have been cleared.
- 3.2. Identification of the charred grain from contexts 2028 and 2021 is recommended to enhance understanding of dietary economy at the site.

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Context Number	Ecological Group (Molluscs)		1016	1	038	:	2011	2	2072	2028	2	038	3	2043		2021	1	2018
Sample Number			I		2		3		4	6		7		8		9		10
None of the second seco		Flot	Residue	Flot	Residue	Flot	Residue		Residue		Flot	Residue	Flot	Residue	Flot	Residue	Flot	Residue
Cornu aspersum								J								1		
Trochulus hispidus		15		15				46	1	16	П		3		40		17	
Helicella itala	4a	20						3		16	2		4		12		19	
Pupilla muscorum		9		2				5		7			4		6		6	
Vallonia costata		3		П				20		4	6		1		12		6	
Vallonia cf. excentrica		£		7				15		11	5		8		14		2	
Vertigo þygmaea				1				ı							2		ı	
Galba truncatula	5a																Ĺ	
Pisidium casertanum																		
Left valve																	i	
Right valve		Ē						ì							2			
Anisus leucostoma	6a														1			
Bathyomphalus contortus	6b	Ü									2							
Anisus vortex	6c							1										
Planorbis planorbis		2						1							2		2	
, Valvata piscinalis	6d																2	
Cecilioides acicula MARINE SHELL	7	34		38				49		44	27		53		114		25	
Ostrea edulis																		
Left valve			4															I (9g)
Right valve			2															
Mytilus edulis																		
Left valve			5															
Right valve			8															
BONE			22 (35g)				7 (17g)	+		2(1g)		4 (3g)		6 (10g)				3 (12g)



Context Number	Ecological Group (Molluscs))	016		1038	:	2011	2	2072	2028	2	038	:	2043	:	2021	:	2018
Sample Number			1		2		3		4	6		7		8		9		10
CTENOID SCALE		Flot	Residue I (0.2g)	Flot	Residue	Flot	Residue	Flot	Residue		Flot	Residue	Flot	Residue	Flot	Residue	Flot	Residue
POT			I (Ig)						1 (7g)			2 (6g)		5 (14g)				
СВМ			I (117g)						3 (8g)			9 (18g)				13 (19g)		5 (8g)
PLASTER/ MORTAR												I (Ig)				3 (35g)		5 (24g)
Fe NAIL																		2 (13g)
CORROSION PRODUCTS																		2 (4g)

Context Number	Ecological Group (Molluscs)	1	1016)	1038	19	2011	2	072	20	028	2	038	2	2043		2021	ì	2018
Sample Number			1		2		3		4		6		7		8		9		10
		Flot	Residue	Flot	Residue	Flot	Residue	Flot	Residue			Flot	Residue	Flot	Residue	Flot	Residue	Flot	Residue
Weight after processing (g) % modern		130	3154	12	196		533	34	3360	13	87	22	1173	30	1249	16	1362	12	1014
oots		0		0		0				0		0							
Votes								20 litres				20 litres		20 litres					
CHARCOAL																			
4mm		++						+				+		+		#		+	
!-4mm		+++						+		+		+		+		++		+	
CHARRED GRAIN SEEDS				3				8		21		6		5		46		14	
Sambucus nigra				ï						2		ſ							
HELL										2									
Aegopinella nitidula	la			6				15		į		3		1		n		2	
Oxychilus cellarius		8								5		5				3		4	
Carychium ridentatum	Ib													1		2			
Discus otundatus	Ic							2				5		1		9		3	
Slausilia oidentata Solumella	Id															1			
dentula .auria		2)												2			
ylindracea Merdigera		2														1			
obscura Punctum oygmaeum				1												2			
Cepaea nemoralis	3			3					2							1			
Cochlicopa ubrica		13		10	Ĺ			16		6		3		5		9		6	
Sochlicopa ubricella								1											



Analysis of Sample Flots and Residues LITLINGTON CAMBRIDGESHIRE

Client: Britannia Archaeology Ltd

Author: K Reed

Doc Ref: LP2255E-EAR-v29.0

Site Code: ECB 5273

Date: July 19

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TABLE OF TABLES Table 1 – Quantification of the plant macrofossils

1. Introduction and Methods

- 1.1. Following excavations at the Romano-British site of Litlington, Cambridgeshire (ECB5273), two soil samples were chosen for archaeobotanical analysis. This report presents the results from the analysis of the charred plant macrofossil assemblage retrieved from the sample light fractions and discusses the significance of the remains recovered.
- 1.2. Processing of the soil samples was undertaken by L-P: Archaeology using standard flotation techniques. The flots were scanned under a low power stereomicroscope (x 10-x 30 magnifications) and the charred plant macrofossils were removed for further assessment. The flots contained small charcoal fragments (<2mm) but no rooty material or modern seeds. Charred plant macrofossils were identified and recorded following nomenclature of Stace (1997) for wild plants, and traditional nomenclature, as provided by Zohary and Hopf (2000) for cereals.

Results and Discussion

2.1.1. Charred plant macrofossils were present in both samples and the results are presented in TABLE 1. Overall the two samples yielded low numbers of charred plant macro-remains that were poorly preserved, highly fragmented and were lacking in most identifying morphological characteristics. The identified charred plant remains included three fragmented barley grains, three free- threshing wheat (Triticum turgidum/aestivum type) grains, a spelt wheat (Triticum spelta) grain, a rye (Secale cereale) grain, and four glume wheat glume bases (Triticum sp.).

In addition, sample 9 contained two small grass seeds (Poaceae).



Context Number	2021	20 28
Sample Number	6	9
Cereal grain Hordeum vulgare	1	2
Secale cereale	1	
<i>Triticum turgidum/aestivum t</i> ype <i>Triticum spelta</i>	3	1
Triticum sp.	8	2
Cereal indet. fragments* Cereal chaff Triticum glume base	100 4	20
Non-cereal taxa Poaceae (small)	2	

Table 1: Quantification of the plant macrofossils.

2.2. This assemblage is probably representative of dispersed domestic waste and indicative of settlement activities taking place in the nearby vicinity. Free-threshing wheat is occasionally recorded in the Roman period, although is more typical of the Saxon and later periods. Seeds of grasses and grassland species may have been weeds in arable plots or been growing within or around the settlement itself, or could have originated from other settlement activities e.g. foddering. There is a possibility that the small number of charred plant remains could be intrusive, however, they still provide a small indication of possible settlement activity in the area.

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10.0 DEPOSIT MODEL (Fig. 7 - 32)

The stratigraphic sequence varied across the site.

In trench 1 the stratigraphic sequence was different due to the previous presence of building in this area.

At the top of the stratigraphic sequence was topsoil **1000** present to a maximum depth of 0.10m in sample section 2.

Below this layer was Foundation layer **1034** present to a maximum depth of 0.34m in sample section 2 with a thickness of 0.24m. The layer comprised a light grey, friable clunch gravel with frequent inclusions of small-medium pieces of clunch gravel. This layer represents one of the foundations layers for the previous building on the site.

Foundation layer **1035** was located below to a maximum depth of 0.74m in sample section 2 with a thickness of 0.40m. The layer comprised a dark blackish brown, firm silty clay with moderate inclusions of small-medium stones. It represents another foundation layer for the previous building.

Below this layer was foundation layer **1036** present to a depth of 1.18m in sample section 2 with a thickness of 0.44m. It comprised of a mid-brownish grey, firm silty clay with frequent inclusions of small-large stones and chalk.

At the base of the sequence was natural geology 1014.

In trench 2 and the subsequent widened excavation area the stratigraphic sequence was as follows.

At the top of the stratigraphic sequence was topsoil **1000/2000** present to a maximum depth of 0.25m in sample section 6. It comprised a mid-grey brown, firm clayey silt with infrequent inclusions of chalk and flint.



Below topsoil 1000/2000 was compacted chalk layer **1001/2001** present to a maximum depth of 0.35m in sample section 3 with a thickness of 0.13m. It comprised a pale-yellow grey, compacted chalk and gravel.

Below layer 1001/2001 was buried topsoil **1002/2002** present to a maximum depth of 0.54m in sample section 6 with a thickness of 0.20m. It comprised a dark grey brown, firm clayey silt with frequent inclusions of chalk.

Below buried topsoil 1002/2002 was subsoil **1003/2003** present to a maximum depth of 0.92m in sample section 6 with a thickness of 0.38m. It comprised a midgrey brown, firm clayey silt with moderate chalk inclusions.

At the base of the stratigraphic sequence was natural geology **1014/2024** which comprised a mid-yellow orange, compact clayey sand with moderate patches of firm chalk.



11.0 DISCUSSION AND CONCLUSION

The following discussion and conclusion focus on the excavation area situated on the widened Trial Trench 2.

11.1 Confidence Rating

The phasing of features on the site has been problematic due to the sample size of the excavation. While there is an abundance of dateable material from the site the complications of such a confined area must be considered when attributing features to phases. The phasing has used the dating evidence provided by the artefacts as well as the stratigraphic relations ships and similar features on the site. Conclusions about the overall extent, layout and boundaries at the site are necessarily tentative due to the nature of the investigation. A large portion of the site was not subject to archaeological investigation. Although it is unlikely that areas of intensive activity were completely missed by the preceding evaluation trenching, it is possible that dispersed features and feature groups similar to those excavated were not identified.

The following discussion of should be viewed in the light of these investigative limitations.

11.2 Discussion on Phases

Given that the interpretation of this site is lead primarily by the ceramics reporting, it being the largest part of the assemblage the discussion here focuses on the feature interpretation. A sperate discussion has been provided focusing on the conclusions that can be drawn from the substantial ceramic assemblage.

The identified phases within the excavation area are:

I. Late Iron Age to c.AD60/70

II. Mid to late 1st century

III. Mid/Late 1st – 3rd century

IIIA. Late 1st century

IIIB. Mid/late 1st – mid/late 2nd century



IIIC. Mid – Late 3rd century

IV. Undated

11.3 Phase I - Late Iron Age to c.AD60/70

A single archaeological feature has been assigned to this phase from the excavation. Ditch **2010** was on a broadly northeast to southwest alignment and was subsequently cut by features from all other phases. The ditch has been assigned to this phase mainly due to the earliest ceramic evidence that it contained however it cannot be proven which side of the conquest the pottery represents. It is likely that this ditch represents a first phase of enclosure in this area of the settlement.

11.4 Phase II – Mid to late 1st century

Similar to Phase I this phase only contained a single feature. Ditch **2061** was on a broadly northeast to south west alignment similar to ditch **2010**. This ditch could be perceived as a broad re-establishment of this boundary however with the limits of the excavation area it is impossible to know the extent of the boundary. The excavation of the ditches with the same linear trend shows a continued use of the site; however over what period of time is impossible to determine without a larger sample of the surrounding area.

11.5 Phase III – Mid/Late 1st – 3rd Century

This is the predominant phase of activity on the site and has been split into three sub-phases.

11.6 Phase IIIA Late 1st century

This sub-phase includes ditches **2034**, **2040** and **2042**. All these features were on a northwest to southeast alignments and were subsequently cut by Phase IIIB Ditch **2027** and Phase IIIC ditch **2022**. Despite the ceramic evidence in Ditch **2034** which was dated to the 3rd century, the ditches are all truncated by the later Ditch **(2022)** containing 3rd century material. The dating evidence therefore in ditch **2034** should be considered intrusive.



The homogeneous nature of the fills and the spatial relationships of the ditches suggests that these are broadly contemporary and likely to have been re cuts of the same boundary / demarcation linear.

It is interesting that these ditches run on an opposing alignment to the Phase I and Phase II ditches, potentially suggesting that the ditches in the earlier phase were still extant at the time these ditches were dug.

The main feature assigned to this phased ditch **2027** which traversed the whole of the excavation area on a northwest to southeast alignment. This substantial ditch forms a boundary similar to those seen in the nearby Wessex excavations (Wessex, 2010) to the northwest of the site. The ditch appears to run parallel to ditch **2022** from Phase IIIC forming a double ditched enclosure of some kind. These types of enclosures are common across Roman Britain and it likely relates to peripheral activity associated with the villa complex.

Ditches **2039** and **2044** have also been assigned to this phase due to their stratigraphic relationships with **2017** and **2022** rather than the dating of the pottery which is likely intrusive.

This phase relates to the largest ditch in the excavated area, **2022**, which also ran through the excavation area on a northwest to southeast orientation. All other features were truncated by this ditch placing it as the latest feature in the excavation. Overall the ceramic evidence from this feature gave it a date of 2- 4th century spanning all three sub phases of phase III however it consistently contains the highest percentage of later pottery suggesting that this ditch was possibly the final ditch to be filled with the deposits described below. As suggested above it is likely that this ditch formed a parallel boundary with ditch **2027**, however its full extent cannot be determined due to the limited scope of the excavation area.



11.9 Phase IV - Undated

Only a single feature has been assigned to this phase, pit **2036**, which contained no finds. While this feature is cut by Ditch **2027**, a lack of dating evidence makes it impossible to assign to one of the confirmed earlier phases.

11.10 Artefactual evidence

The main artefactual evidence recovered was ceramic in nature and this is discussed below. From the other finds groups that were recovered there are trends that contain significant information which may help to build a better model of the historic landscape in the immediate vicinity of Longview.

It was noted that the cattle sizes were at the large end of the rage for Roman remains, likely to be bulls which would have been used for traction and eventually meat (Curl, 2019). With the presence of sheep and goat and bird it is apparent that there was a significant number of species kept in the surrounding area of the site used for both food and labour. The mollusc assemblage mainly contained marine molluscs collected for use for food, evidence with knife cuts (Curl. 2019). The presence of the Portuguese Oyster is interesting and suggests some imported shell for food or perhaps molluscs for consumption while travelling from Europe.

The only metal find of any significance that was recovered was an armlet, which was a common piece of jewellery in the latter part of the Roman period. Much of the plaster that was recovered can be considered relatively poor quality (Betts, 2019). It has been suggested that the owner of the property from which the plaster derives, may not have the finances available to employ top quality wall painters. This is interesting when combined with the conclusions below and lends weight to the idea that the buildings in the area while large may not have been of particularly high status, or of a lesser ancillary nature to the nearby villa complex.



11.11 Conclusions

Ceramics Discussion and Conclusion – Andrew Fawcett (Britannia Archaeology)

This ceramics report has described in detail, both the range of CBM fabrics and forms that have been encountered at Litlington, as a result of the archaeological excavation.

Although the pottery assemblage exhibits some limitations in its contribution to the dating process, it nevertheless shows at least two distinct phases of activity took place within the excavated area of the site. These span the late 1st to early/mid-2nd century as well as the mid to later 3rd, with the possibility of activity continuing into the early/mid-4th century. The pottery has demonstrated that even though CBM assemblages were also present within these earlier fills, the larger part of the CBM is associated with later Roman contexts.

The area excavated at Longview is very small indeed, especially when set against the potential of the immediate and surrounding larger archaeological landscape. However, the fact is, that this excavation has yielded a considerable quantity of CBM for such a small area.

In review, this assemblage displays very little indeed, in terms of general wear and tear. Therefore, there is no reason to suggest that it is not in its original place of deposition, even if this demolished material may have screed around to some extent before being dumped. It is also worth noting that very little of the material had been reused, and similarly the only elements that exhibited burning or sooting, are those fragments that are likely to have been used in under floor heating. There is nothing within this current CBM assemblage that indicates it represents the remains of a dramatic destruction event, such as fire. Equally, given the expense of such materials (as well as the quite large fragment sizes encountered at Longview), it seems odd that little appears to have been removed for reuse in one way or another. It may well be that some buildings, or the settlement as a whole, simply went out of use or were abandoned around the mid to later 3rd century, either for good, or as a temporary measure. This period of time in Roman Britain was one of instability, due to rebellions in both this country as well as on the



continent, therefore this settlements fortunes might have been tied to these larger events in some way.

The pottery assemblages from both phases of Roman land use, contained little consistent evidence of high-status activity. The CBM assemblage seems to directly contradict this interpretation. It contains forms that relate to roofing and structure, as well as those associated with high status occupation, like under floor heating, tessellated flooring and decorative roof tiles (as well as wall plaster). This examination of the CBM fabrics has also shown that that these materials were drawn from Hertfordshire, Bedfordshire, Cambridgeshire, as well as probably being locally produced.

Already within the pottery discussion (above) an interpretation has been offered as to why there is a lack of high-status groups. For example, are the ceramics derived from an area of a building whose activity is more functional, or indeed from some sort of ancillary structure?

It would seem that in the past and to a certain extent even now, that all of the focus has been on the presence of a high-status villa building(s) of some considerable size. In fact the conclusions drawn up by Wessex confirmed the existence of a villa, with the possibility of further Roman structures to the northeast, and although the dating was quite poor (late 3rd to 4th century, based on coins), the presence of wall plaster and tesserae indicated that at least some building components were decorated to a finer level (2010, 25-26). The Wessex excavations also revealed evidence for Roman activity that dated from at least the mid-1st to 2nd century, which in their view implied the early establishment of a Roman villa or farmstead (2010, 26) on the site.

However, despite the fact that these materials represent high status activity, it is not possible to be certain that the entire assemblage represents the partial remains of an area of a building, or indeed if it all originated from a single structure. The Wessex report has shown that building debris has been recorded over quite a large area (2010, 25), which in itself suggests that the landscape contained more than one significant structure, rather than just one large villa or *mansio*. Of course, there is the possibility that these buildings may have been ancillary structures to a villa or *mansio*, however it cannot be ruled out that these may also have been of



an independent nature. Certainly the potential size of the nearby Heaven's Walls Romano-British cemetery, suggests that domestic settlement was more extensive than simply the existence of single structures and any attendant buildings; Mills suggests that the large scale civilian use of CBM started to occur from around the middle of the 2nd century (2013, 466).

Despite the fact that the CBM assemblage from Longview is of a considerable size, we still cannot be entirely certain if the buildings represented by this material, were entirely constructed of brick and tile.

Indeed the use of bricks outside of hypocaust structures relies heavily on the availability of this ceramic material, but also as Mills points out (2013, 451-53), the presence and suitable quantities of local stone too, could also have an influence on what materials were used for wall building. Certainly, the excavation at Longview did not produce large quantities of natural stone worked or otherwise alongside the CBM, and only two fragments of worked chalk were recorded during the Wessex investigation (2013, 19). It was highlighted earlier that very little of the CBM bore signs of reuse, nevertheless before being dumped into ditches, useful local stone may well have been separated out.

Although there are many unanswered questions relating to this assemblage, it nevertheless still contributes important new information about Roman settlement in the Litlington area. The CBM database that has been created as a result of the excavation, can now also be used as a research tool, to compare the results against of any subsequent fieldwork that might be carried out in the village. This information too can be used also as a temporary model to compare for instance, the range of fabrics, their forms and percentages, against groups from the wider geographical area. These types of comparisons will enable us to see how typical it might be for high status sites to draw materials from several different kiln sites, and this in turn will reveal more detailed information about the little understood economy of construction during the Romano-British period.

11.12 Excavation Conclusion

While the amount of material recovered from the relatively small excavation area can be considered large, the obvious limitations of feature interpretation from such



a small excavation area have meant that this report has had to reply on specialist input to drive the discussion. This excavation was successful in identifying further outlying areas of settlement in the Litlington historic landscape. The project has not only been successful in identifying the further extent of the Romano-British settlement, adding to the information gleaned by the Wessex excavation, but it has also identified the likelihood of multiple structures, perhaps ancillary buildings for the already identified villa complex in the immediate vicinity of Longview. The results also present a useful narrative through the analysis of the finds as of the development and redevelopment of the area from the early Roman period through to the third century and show more long term activity continuing through to the end of the Roman period. This site, along with the archaeology present to the northwest and the remains encountered to the southeast (Fig. 33) presents a clearer picture of a landscape that is in constant use throughout the Roman period.

The presence of the poorer quality wall plasters within the excavation area could suggest either the nearby structures were associated with a less wealthy villa, or a villa complex that was robust and wealthy enough as to afford even its minor ancillary structures be plastered. As the site lies on the edge of a known Roman settlement the results contribute to an increasing picture of the periphery activity associated with the villa complex and perhaps the extent of the known villa complex itself.



12.0 ARCHIVE DEPOSITION

The final archive will be deposited with the Cambridgeshire County Council's Historic Environment Team (CHET) at their Deepstore facility. The digital archive with be stored with the Archaeological Data Service (ADS).



13.0 ACKNOWLEDGEMENTS

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The site was excavated by Matthew Baker, Matthew Adams, Louisa Cunningham, Andy Fawcett, Dan McConnell, Martin Brook and Daniel Hills of Britannia Archaeology Ltd.



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DEFRA Magic http://magic.defra.gov.uk/website/magic



APPENDIX 1 - DEPOSIT TABLES

TRIAL TRENCHING

TRENCH 1

Trench No	Orient	ation		Height AOD		Shot ID				
1		NE-SW		38.69m		18, 19				
Sample Section No		Locati	ion		Facing	Facing				
2		9	SE side,	SW end		NW				
Context No	Depth		Depos	sit Description						
1000	0.00-0	0.00-0.10m		Topsoil: Mid grey brown, clayey silt, firm, with infrequent inclusions of chalk and flint.						
1034	0.10-0	0.10-0.34m		Foundation layer: Light grey, friable clunch gravel with frequent inclusions of small-medium pieces of clunch gravel.						
1035	0.34-0	0.34-0.74m		Foundation layer: Dark blackish brown, firm silty clay with moderate inclusions of small-medium stones.						
1036	0.74-1.18m		Foundation layer: Mid brownish grey, firm silty clay with frequent inclusions of small-large stones and chalk.							
1014	1.18m+			Natural: Mid yellow orange compact clayey sand, with moderate patches of firm chalk.						

Context Descriptions

Feature Context	Feature Type & Description (m)	Layer/Fi II Context	Layer/Fill Description	Spot Date	Finds /g (sherds or number)
1008	Ditch (6.00m+ x 0.96m x 0.24m) Linear in plan with moderately sloping sides and a concave base. On an NE-SW orientation.	1015	Primary Fill. Dark greyish brown, firm, sandy clay with frequent flint inclusions and occasional large stone inclusions.	LIA-c. AD60/70	Pot 142g (4), A.bone 33g (4), Daub 10g (1)
		1009	Secondary fill. Dark grey, firm, sandy clay with frequent flint inclusions and occasional large stone inclusions	M-L1st (Likely AD60/70)	Pot 588g (39), CBM 61g (2), A.bone 135g (19)
1018	Gully (2.10m+ x 0.40m x 0.48m+) Linear in plan with steep sloping sides and a concave base. On an E-W	1019	Primary Fill. Dark grey, firm clayey silt with frequent inclusions of ill-sorted flint and chalk.	M17th- M18th C	Pot 8g (2), CBM 213g (15), A.bone 10g (3), oyster 2g (1), snail shell 36g (6)



	orientation. Cuts gully 1020.				
1020	Gully (2.10m+ x 0.40m+ x 0.41m+) Linear in plan with steep sloping sides and a concave base. On an E-W orientation. Cut by Gully 1018.	1021	Primary Fill. Dark grey, firm clayey silt with frequent illsorted flint and chalk inclusions.	-	-
1037	Ditch (1.30m+ x 0.60m+ x 0.51m) Linear in plan with moderately sloping sides and a concave base. On a NE-SW orientation. Cut by gully 1039.	1038	Primary Fill. Dark greyish brown, silty clay with moderate inclusions of stones and flints.	c. L1st C	Pot 133g (8), CBM 87g (1), A.bone 42g (2)
1039	Gully (2.25m+ x 0.25m x 0.38m) Linear in plan with moderately sloping sides and a concave base. On an E-W orientation. Cuts ditch 1037.	1040	Primary Fill. Dark brownish grey, clayey silt with occasional small stone inclusions.	LIA – c.AD60/70	Pot 3g (1)

TRENCH 2

Trench No	Orient	ation		Height AOD		Shot ID			
2		NE-SW		37.91m					
Sample Section No		Locati	on		Facing				
1		N	IW side,	SW end		SE			
Context No	Depth		Depos	sit Description					
1000	0.00-0	.25m	Topso	il: Mid grey br	own, cl	ayey silt, firm, with			
				infrequent inclusions of chalk and flint.					
1001	0.25-0	0.25-0.62m		acted Chalk	cted Chalk layer: Pale yellow grey				
			compacted chalk and gravel, compact.						
1002	0.62-0	.82m	Buried topsoil: Dark grey brown, clayey silt, firm						
			with fr	equent inclusion	ns of ch	alk.			
1003	0.82-1	0.82-1.25m		Sub soil: Mid grey brown, clayey silt, firm, wi					
				ate chalk inclus	ions.				
1014	1.25m	1.25m+		Natural: Mid yellow orange compact clayey sand,					
				noderate patche	s of firr	n chalk.			

Feature	Feature Type	&	Layer/Fi	Layer/Fill Description	Spot Date	Finds /g (sherds or
Context	Description (m)		П			number)
			Context			



1008	Ditch (6.00m+ x 0.96m x 0.24m) Linear in plan with moderately sloping sides and a concave base. On an NE-SW orientation.	1015	Primary Fill. Dark greyish brown, firm, sandy clay with frequent flint inclusions and occasional large stone inclusions.	LIA-c. AD60/70	Pot 142g (4), A.bone 33g (4), Daub 10g (1)
		1009	Secondary fill. Dark grey, firm, sandy clay with frequent flint inclusions and occasional large stone inclusions		Pot 588g (39), CBM 61g (2), A.bone 135g (19)
1018	Gully (2.10m+ x 0.40m x 0.48m+) Linear in plan with steep sloping sides and a concave base. On an E-W orientation. Cuts gully 1020.	1019	Primary Fill. Dark grey, firm clayey silt with frequent inclusions of ill-sorted flint and chalk.	M17th- M18th C	Pot 8g (2), CBM 213g (15), A.bone 10g (3), oyster 2g (1), snail shell 36g (6)
1020	Gully (2.10m+ x 0.40m+ x 0.41m+) Linear in plan with steep sloping sides and a concave base. On an E-W orientation. Cut by Gully 1018.	1021	Primary Fill. Dark grey, firm clayey silt with frequent illsorted flint and chalk inclusions.	-	-
1037	Ditch (1.30m+ x 0.60m+ x 0.51m) Linear in plan with moderately sloping sides and a concave base. On a NE-SW orientation. Cut by gully 1039.	1038	Primary Fill. Dark greyish brown, silty clay with moderate inclusions of stones and flints.	c. L1st C	Pot 133g (8), CBM 87g (1), A.bone 42g (2)
1039	Gully (2.25m+ x 0.25m x 0.38m) Linear in plan with moderately sloping sides and a concave base. On an E-W orientation. Cuts ditch 1037.	1040	Primary Fill. Dark brownish grey, clayey silt with occasional small stone inclusions.	LIA – c.AD60/70	Pot 3g (1)

EXCAVATION AREA

Trench No	Orient	ation		Height AOD		Shot ID	
-		SW - NE		38.96m		51	
Sample Section No		Locati	on		Facing	g	
1			SE S	Side		NW	
Context No	Depth		Depos	sit Description			
2000	0.00-0.25m		-	il: Mid grey br uent inclusions		ayey silt, firm, with and flint.	



2001	0.25-0.34m	Compacted Chalk layer: Pale yellow grey,
		compacted chalk and gravel, compact.
2002	0.34-0.54m	Buried topsoil: Dark grey brown, clayey silt, firm,
		with frequent inclusions of chalk.
2003	0.54-0.92m	Sub soil: Mid grey brown, clayey silt, firm, with
		moderate chalk inclusions.
Rooting	0.92-1.30m	Rooting intrusion

Trench No	Orientati NV	on V-SE	Height AOD 38.09m		Shot ID 36					
Sample Section No	L	ocation	Side	Facing						
2	D				NE					
Context No	Depth		sit Description							
2000	0.00-0.20	1	il: Mid grey br uent inclusions		ayey silt, firm, with and flint.					
2001	0.20-0.30	- I	Compacted Chalk layer: Pale yellow grey, compacted chalk and gravel, compact.							
2002	0.30-0.55		Buried topsoil: Dark grey brown, clayey silt, firm, with frequent inclusions of chalk.							
2003	0.55-0.77		Sub soil: Mid grey brown, clayey silt, firm, with moderate chalk inclusions.							
2032	0.77-1.10		Tertiary fill ditch 2022B: Mid greyish brown, firm, sandy clay, with inclusions of large stones and CBM.							
2033	1.10-1.22		Secondary fill ditch 2022B: Dark greyish borwn, firm, silty clay, with inclusions of CBM.							
2046	1.22-1.35	chalky	Secondary fill ditch 2044B: Pale green white, firm chalky clayey silt, with frequent inclusions of chalk.							
2045	1.35-1.45		Primary fill ditch 2044B: Mid orange brown, firm clayey silt with moderate chalk and flint inclusions.							
2024	1.45m+		al: Mid yellow o noderate patche	_	ompact clayey sand, n chalk.					

Trench No	Orient	ation		Heig	ht AOI)	Shot ID					
-		NW-SE			38.09	m	31					
Sample Section No		Locati	on			Facin	g					
3			NE :	side			SW					
Context No	Depth		Depos	sit De	scripti	on						
2000	0.00-0	.23m	Topso	l: Mic	grey	brown, c	layey silt, firm, with					
			infrequent inclusions of chalk and flint.									
2001	0.23-0	.26m	Compacted Chalk layer: Pale yellow grey,									
			compacted chalk and gravel, compact.									
2002	0.26-0	.46m	Buried topsoil: Dark grey brown, clayey silt, firm,									
			with frequent inclusions of chalk.									
2003	0.46-0	.70m	Sub soil: Mid grey brown, clayey silt, firm, with									
			moderate chalk inclusions.									
2007	0.70-0	.89m	Secondary ditch fill 2039: Mid greyish brown, firm,									
			clayey	silt,	with	modera	te chalk and flint					
			inclusi	inclusions.								



2023	0.89-1.13m	Primary fill ditch 2039: Mid yellow brown, firm, clayey silt with frequent rounded flint inclusions.
2024	1.13m+	Natural: Mid yellow orange compact clayey sand, with moderate patches of firm chalk.

Trench No	Orient	ation SE-NW		Height AOD 38.82m		Shot ID			
Sample Section No		Locati	on	30.02111	Facin				
3			NW	NW side SE					
Context No	Depth		Depos	sit Description					
2000	0.00-0	.22m	Top soil: Mid grey brown, clayey silt, firm, with infrequent inclusions of chalk and flint.						
2001	0.22-0	.35m	Compacted Chalk layer: Pale yellow grey, compacted chalk and gravel, compact.						
2002	0.35-0	.50m	Buried top soil: Dark grey brown, clayey silt, firm, with frequent inclusions of chalk.						
2003	0.50-0	.80m	Sub soil: Mid grey brown, clayey silt, firm, with moderate chalk inclusions.						
Rooting	0.80-1	.00m	Rooting disturbance						
2024	1.00m	+	Natural: Mid yellow orange compact clayey sand, with moderate patches of firm chalk.						

Excavation Context Table

Context	Туре	Associated Feature	Description (L x W x D m)
2000	Topsoil	-	Mid grey brown, clayey silt, firm, with infrequent inclusions of chalk and flint.
2001	Compacted Chalk Layer	-	Pale yellow grey, compacted chalk and gravel, compact.
2002	Buried Topsoil		Dark grey brown, clayey silt, firm, with frequent inclusions of chalk.
2003	Subsoil		Mid grey brown, clayey silt, firm, with moderate chalk inclusions.
2004	Clunch and Opus Signinum layer		Light white grey brown, chalk silt, compact, with frequent inclusions of clunch and CBM and opus signinum.
2005			
2006			
2007	Secondary fill of ditch	2039	Mid greyish brown, firm, clayey silt, with moderate chalk and flint inclusions.
2008	Quintenary fill of ditch	2022A	Mid greyish brown, firm, clayey silt
2009	Quaternary fill of ditch	2022A	Dark greyish brown, firm clayey silt, with frequent inclusions of chalk and flint
2010	Ditch		(6.10m+ x 2.11m x 1.19m) Linear in plan, with moderately sloping sides and a concave base. On an E-W orientation.
2011	Primary ditch fill	2010A	Mid orange brown, firm, clayey silt, with moderate flint inclusions.
2012	Secondary ditch fill	2010A	Mid orange brown, firm, clayey silt, with moderate flint inclusions.



	Г	1	
2013	Tertiary ditch fill	2010A	Mid grey brown, firm, clayey silt, with moderate flint inclusions.
2014	Quaternary ditch fill	2010A	Pale grey brown, firm, chalky/clayey silt, with frequent inclusions of chalk and flints.
2015	Quintenary ditch	2010A	Mid red brown, firm, clayey silt, with moderate flint inclusions.
2016	Senary ditch fill	2010A	Mid yellow brown, firm, clayey silt, with moderate flint inclusions.
2017	Secondary ditch	2027A	Light white brown, firm, silty chalk/clay, with inclusions of large stones and flints.
2018	Primary ditch fill	2027A	Mid orange brown, firm, sandy clay, with medium-large stone and flint inclusions.
2019	Tertiary ditch fill	2022A	Dark grey brown, firm, clayey silt, with frequent chalk and flint inclusions.
2020	Secondary ditch fill	2022A	Mid greyish brown, firm, clayey silt, with frequent chalk and flint inclusions.
2021	Primary ditch fill	2022A	Mid yellow-grey brown, firm, silty sand with frequent chalk and flint inclusions.
2022	Ditch		(12.00m+ x 1.74m+ x 0.73m) Linear in plan with moderately sloping sides and a concave base. On a NW-SE orientation.
2023	Primary ditch fill	2039A	Mid yellow brown, firm, clayey silt, with frequent rounded flint inclusions.
2024	Natural		Mid yellow orange compact clayey sand, with moderate patches of firm chalk.
2025	Primary ditch fill	2026	Dark brown/black, firm, silty clay, with inclusions of small-medium stones.
2026	Ditch		(1.00m+ x 0.25m+ x 0.23m+) Linear in plan, with moderately sloping sides and a concave base. On a NW-SE orientation.
2027	Ditch		(12.80m+ x 1.75m x 0.78m) Linear in plan, with moderately sloping sides and a concave base. On a NW-SE orientation.
2028	Primary ditch fill	2027B	Mid yellow brown, firm, clayey silt, with moderate flint and chalk inclusions.
2029	Secondary ditch fill	2027B	Mid grey brown, firm, clayey silt, with frequent inclusions of flints and chalk.
2030	Tertiary ditch fill	2027B	Mid grey brown, firm, clayey silt, with frequent flint and chalk, and CBM inclusions.
2031	Quintenary ditch fill	2022B	Light greyish brown, firm, clayey silt, with inclusions of large stones, and CBM.
2032	Tertiary ditch fill	2022B	Mid greyish brown, firm, sandy clay, with inclusions of large stones and CBM.
2033	Secondary ditch fill	2022B	Dark greyish brown, firm, silty clay, with inclusions of CBM.
2034	Ditch		(4.00m+ x 0.37m+ x 0.32m) Linear in plan, with moderately sloping sides, and a concave base. On a N-S orientation.
2035	Ditch fill	2034	Mid orange brown, firm, clayey silt, with moderate flint inclusions.
2036	Pit		(0.48m x 0.30m+ x 0.39m) Circular in plan, steep sides, and a concave base.
2037	Fill of post hole	2037	Mid orange brown, firm, clayey silt, with moderate flint inclusions.
2038	Primary ditch fill	2022B	Dark grey orange brown, compact, sandy clay, with inclusions of small stones.
2039	Ditch		$(1.00m+ \times 0.29m+ \times 0.32m)$ Shape in plan and sides unknown, with a flat base on a NW-SE orientation.
2040	Ditch		(6.00m+ x 0.63m x 0.44m) Linear in plan with moderately sloping sides and a concave base. On a N-S orientation.
2041	Ditch fill	2040	Mid yellow brown, firm, clayey silt, with moderate flint inclusions.
2042	Ditch		(7.50m+ x 0.35m+ x 0.65m) Linear in plan with moderately sloping sides and a concave base. On a N-S orientation.



	1	1	Mid grey-yellow brown, firm, clayey silt, with moderate flint
2043	Ditch fill	2042B	inclusions.
2044	Ditch		(0.73m+ 0.40m+ x 0.36m) Linear in plan with moderately sloping sides and a concave base. On an E-W orientation.
2045	Primary ditch fill	2044B	Mid orange brown, firm, clayey silt with moderate chalk and flint inclusions.
2046	Secondary ditch fill	2044B	Pale green white, firm, chalky clayey silt, with frequent inclusions of chalk.
2047	-	-	-
2048	-	-	-
2049	-	-	-
2050	-	-	-
2051	-	-	-
2052	-	-	-
2053	-	-	-
2054	-	-	-
2055	Primary ditch fill	2027D	Mid greyish brown, firm, sandy silty gravel, with inclusions of occasional small stones.
2056	Secondary ditch fill	2027D	Dark greyish brown, firm, silty clay, with occasional small-medium stone inclusions.
2057			
2058	Gully fill	2057A	Mid yellow brown, firm, clayey silt, with moderate flint and frequent chalk inclusions.
2059	-	-	-
2060	-	-	-
2061	Ditch		(6.10m+ x 2.18m x 0.61m) Linear in plan, with a steep sloping sides, with a concave. On a NE-SW orientation.
2062	Ditch fill	2061	Mid orange brown, firm, clayey silt, with moderate flint inclusions.
2063	Primary ditch fill	2022C	Mid yellow brown, firm, clayey silt, with occasional flint inclusions,
2064	Secondary ditch fill	2022C	Mid greyish brown, firm, clayey silt, with moderate flint inclusions.
2065	Tertiary ditch fill	2022C	Dark yellow grey brown, firm, clayey silt, with moderate inclusions of flints and chalk.
2066	Quaternary ditch fill	2022C	Pale yellow grey brown, compact, chalk and clayey silt, with moderate flints and very frequent chalk inclusions.
2067	Quintenary ditch fill	2022C	Mid greyish brown, firm, clayey silt, with moderate flint and chalk inclusions.
2068	Primary ditch fill	2010C	Mid yellowish brown, firm, clayey silt, with moderate flint inclusions.
			Mid vellage grant branch firms along all with mandamaka
2069	Secondary ditch fill	2010C	Mid yellow-grey brown, firm, clayey silt, with moderate inclusions of flints.
2069		2010C 2010C	
	fill		inclusions of flints. Mid grey brown, firm, clayey silt, with moderate flint
2070	fill Tertiary ditch fill	2010C	inclusions of flints. Mid grey brown, firm, clayey silt, with moderate flint inclusions. Mid grey brown, firm, clayey silt, with moderate flint

Watching Brief

Trench No	Orientation	Height AOD	Shot ID



-		SW - NE		38.73m		55			
Sample Section No		Locati	on		g				
5			NW	Side		SE			
Context No	Depth	th Deposit Description							
2000	0.00-0	.30m	Topsoil: Mid grey brown, clayey silt, firm, with infrequent inclusions of chalk and flint.						
2001	0.30-0	.45m	Compacted Chalk layer: Pale yellow grey, compacted chalk and gravel, compact.						
2002	0.45-0	.68m	Buried topsoil: Dark grey brown, clayey silt, firm, with frequent inclusions of chalk.						
2003	0.68m	+	Sub soil: Mid grey brown, clayey silt, firm, with moderate chalk inclusions.						



APPENDIX - 2 CONCORDANCE OF FINDS

FEATURE	LAYER/FILL	FEATURE	TOTAL	DATE	DOTTERY		СВМ		MORTAR	OPSIG	ANIMAL	BONE	DAUB		
CONTEXT	CONTEXT	FEATURE	TRIAL TRENCH	DATE	POTTERY No	Wqt/q	CBM No	Wgt/g	MORTAR No	OPSIG Wgt/g	ANIMAL No	BONE Wgt/g	DAUB No	Wgt/g	OTHER
NONE	1003	SUB-SOIL	1 & 2	Roman	140	1191/9	3	202	140	11949	1	14	140	11949	Office
TEST PIT 1	1006	DEMO LAYER	1	?M?/L3rd-M4th?+ (could be c L3rd)	50	497	146	15663	4	98	52	776	1	19	SF1 Cu Alloy 1@3g, Fe Nails 3@30g, Oyster 32@631g, Quernstone 3@959g, Mussel 11@28g, Clam 1@8g Snail 1@7g, Charcoal 3@3g, W.Stone 1@70g, Chalk 6@240g
TEST PIT 1	1016	LAYER (BLACK EARTH)	1	Roman	1	3	8	1735			5	106	2	61	Oyster 16@272g, Mussel 2@6g, Snail 1@5g, Chalk 3@185g
TECT DIT 1	1017	LAVED		?M?/L3rd-?M4th?+	20	634	73	10314		942	33	1477	2	275	SF2 Wall Plaster 9@502g, Fe Nail 2@18g, Oyster 31@915g, Mussel 14@24g, Snail 2@18g, Charcoal 2@4
TEST PIT 1 TEST PIT 2	1017	LAYER LAYER	2	(possibly c L3rd) c L1st-AD100 (likely c	68	848	/3	10314	14	942	33 18	363	2	2/5	Chalk 4@479g, Flint 2@9g, W.Stone 1@705g Oyster 1@3g
				L1st)											
1008	1009	DITCH	2	?M?-L1st (likely c AD60/70)	39	588	2	61			19	135			
1008	1015	DITCH	2	LIA-c AD60/70	4	142					4	33	1	10	
1018	1019	GULLY	2	M17th-M18th	2	8	15	213			3	10			Oyster 1@2g, Snail 6@36g
NONE	1022	LAYER	1	?L1st-L2nd?	4	75	111	3919	9	69	3	54			SF3 Wall Plaster 2@126g, Slag 1@2g, Oyster 1@54g, W.Stone 1@194g, Flint 4@45g
1023	1024	Ditch	1	M1st-L2nd?+	1	8	5	294							
1025	1026	PIT	1	?M-L1st?+	4	18	2	13			1	3			
1027/1028	1013/1029	DITCH	1	E-M/?L2nd	1	20	4	260			1	12			Worked stone 1@436g
	1029	DITCH	1	c AD69-L2nd?+	4	26	9	334			4	44			
NONE 1037	1030 1038	SPREAD DITCH	2	c AD69-370 c L1st	2 8	23 133	17	1034 87			2	7 42	4	282	Fe Nail 1@6g, Oyster 5@62g
1037	1038	GULLY	2	LIA-c AD60/70	1	3	1	87				42			
TEST PIT 4	1040	LAYER	1	LIA-c AD60/70	1	29	5	167							Oyster 1@27g
NONE	2003	SUB-SOIL	-	c AD200-4th	5	47	19	4517	1	29	1	101			Oyster 3@144g
NONE	2004	OP SIG LAYER		L1st-19th	3	54	34	2654	119	7868	3	172			SF6 Wall Plaster 4@103g, Clunch 8@287g
2010	2011	DITCH		M1st-L2nd?+	2	28					5	251			
	2012	DITCH		LIA-c AD60/70 (possibly slightly later)	5	72					17	801			?W.Flint 2@116g
	2013	DITCH		M1st-L2nd?+	2	7									Slag 2@20g
	2015	DITCH													Slag 2@65g
	2016	DITCH		L1st-E/?M2nd	3	68					11	416			W. Flint 1@2g
2010 C	2069	DITCH		M1st-E/M2nd	5	288	1	21			11	337	1		?Slag 1@135g (Check CBM and 2 x pot greyware rim frag from same)
2022 2022 A	NONE 2008	DITCH SURFACE DITCH		L3rd-4th 3rd/?4th (no later than	10 14	172 752	40	52 10192	10	747	8	181			SF7 Cu Alloy Object 2@<1g, Fe Nails 2@15g Oyster 17@510g, Fe Nail 1@10g
2022 //	2009	DITCH		E4th) L3rd-E/?M4th (no later	41	694	66	14216	2	913	15	590			SF8 Wall Plaster 6@72g, Fe Nails 6@41g, Oyster 8@202g
	2019	DITCH		than E4th) c ?M?-L3rd	46	1575	162	37737	47	5035	49	1642			SF9 Wall Plaster 2@85g, SF5 Spindle whorl 2@60g, SF4 Cu Object 2@2g, SF10 Opsig with tile 1@508g Nails 3@59g, Oyster 30@1181g
	2020	DITCH		c L2nd/E-M/?L3rd	17	1564	90	24252	12	1441	12	942			Fe Nail 1@8q, Oyster 20@632q
	2021	DITCH		c AD100-L2nd	8	51	11	1228	1	80	4	105			Oyster 5@108g, ?W.Flint 1@13g
2022 B	2031	DITCH		Roman			40	8656			2	54			
	2032	DITCH		AD230/250-270/280	9	468	244	61714	4	555	14	994			SF11 Wall Plaster 1@166g, SF12 Cu Object 2@10g, Fe Nails 4@44g, Oyster 11@386g, ?Worked Stone 1@1332g
	2033	DITCH		AD230/250-270/280	2	49	18	6098			1	175			Oyster 1@21g
	2038	DITCH		AD230/250-270/280	1	40	24	3632			4	71			SF13 Wall Plaster 1@306g, ?Worked Stone 1@142g, Oyster 1@46g
2022 C	2063	DITCH		?AD230?/250-270/280	12	511	22	6877	3	144	10	497			?Worked Stone 1@258g, Oyster 5@203g
	2064	DITCH		Roman	2	22	26	5930			2	143	ļ		
2027 A	2017	DITCH		M1st-L2nd?+ AD230/250-270/280	2 17	16 169	22 60	1786	-		2 18	97 602			SF14 Wall Plaster 1@42g
2027 B	2018 2028	DITCH	1	AD230/250-270/280 Roman	1/	109	1	7013 16	1		18	002			Oyster 5@88g
202/ D	2028	DITCH		Roman	1	7	26	2721			1	99			Fe Nail 1@18g, Oyster 2@70g
	2030	DITCH		3rd-4th (likely M/L3rd+)	3	70	20	3588			19	488			Fe Objects 2@49g, Oyster 2@84g
2027 C	2073	DITCH		E2nd-L4th	5	59	14	2083			19	902			
2027 D	2055	DITCH									1	37			
	2056	DITCH		M1st-E2nd (?residual?)	3	49	6	242			3	44			Fe Nail 1@9g, Oyster 1@13g
2034	2035	PIT/TERMINUS		AD200-4th	3	30	27	6861	1	315	2	96			Oyster 1@46g
2039 A	2007	DITCH		c AD250/260-300?+	13	365	16	3699			13	74			Oyster 2@34g, Snail 3@28g
	2023	DITCH		E2nd-4th	1	12					2	83			
2044	2045	DITCH		L1st-4th	1	41					1	26			
2061 A	2062	DITCH	ļ	Roman			1	57	-					<u> </u>	
2061 C	2071	DITCH	-	E2nd-M3rd	6	106	18	2849	-		10	394	1		Clunch 3@118g
3003	NONE	SUB-SOIL	-	Mid/late 3rd-4th	2	101	11	7052	-		-	-	-		
TOTALS					454	10542	1422	260039	227	18236	407	13490	10	647	Wall Plaster 26@1402g,Cu Alloy Objects 7@16g, Fe Objects 27@307g,Spindle Whorl 1@60g, Quemstr 3@959g, Opsig/tegula 1@508g, Worked Stone 7@5137g, Clunch 24@1309g, Oyster 202@5734g, Mus 27@58g, Snail 13@94g, Clam 108g, Flint 100183g, Slag 0e222g, Charcol 5@7g



APPENDIX – 3 WATCHING BRIEF SPECIALIST REPORT

The Roman pottery and ceramic building materials (CBM) from the archaeological monitoring at Longview, 1 Manor Barns, Cockhall Lane, Litlington, Cambridgeshire (ECB 5273).

Andy Fawcett

Introduction

A small quantity of pottery and CBM was recovered from the sub-soil (3003) at Longview, during a brief post-excavation phase of the monitoring of a pipeline. This report describes the two categories of finds retrieved during this work, and this is then followed by an overall summary.

Pottery

Two fragments of slightly abraded pottery were recovered from the sub-soil (101g). The first (69g) is a section of a B6 dish rim (Going 1987) in a reduced Hadham fabric (HAD RE 1). This is a typical late Roman form that is dated from the mid/late 3rd to 4th century. The second is small jar fragment in the same fabric, which has a thick beaded rim (32g). The form is too small to be accurately identified, however the rim style is very characteristic also of the late Roman style. It is dated from the 3rd to 4th century, but it is more likely to be dated from the mid-3rd century onwards.

CBM

A total of eleven pieces of Roman CBM were retrieved from the sub-soil (7052g) and the fully recorded assemblage has been added to Appendix 3. None of the fragments displayed anything more than minor abrasion, and some good-sized pieces are present within the group.

The assemblage is made up six *tegula* fragments, four *imbrex* and one flat tile. All of the fragments are fully oxidised, the only exception being the *tegulae* which



mostly have a thick light grey core. One of these is extremely high-fired almost to the point of vitrification, its core is pink/orange and has distinct blue-grey margins. Of the eleven CBM pieces six are in Hadham fabrics (HAD OX) with the remainder being unsourced. The unsourced fabrics (UNS OX) mostly contain grog alongside iron ores and occasionally calcite.

The depth ranges of all the forms (as well as the *tegulae* flanges) are within the parameters of those already recorded during the excavation stage of the project. This is also true in relation to flange shapes and cutaway lengths, as well as the presence of flange grooves and signature marks. Only two *imbrex* fragments displayed mortar traces, which typically are on the underside of the tile end.

Conclusion

The pottery and CBM fragments are part of a representative sample (around 25%) that were removed from the very disturbed fill of a narrow pipe channel.

Analysis of the two pottery sherds has shown them to be dated to the later Roman period, and they are contemporary in both form and fabric with the sherds already recorded during the excavation phase of the project. This is also true of the CBM fragments, which too are all dated to the Roman period.

Bibliography

(See main report)



APPENDIX - 4 OASIS SHEET

OASIS FORM - Print view https://oasis.ac.uk/form/print.cfm

OASIS DATA COLLECTION FORM: England

List of Projects | Manage Projects | Search Projects | New project | Change your details | HER coverage | Change country | Log out

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OASIS ID: britanni1-402376

Project details

Project name Longview, Manor Farm Barns, 1 Cockhall Lane, Litlington

Short description of the project

In December 2018 Britannia Archaeology Ltd (BA) undertook a trial trench evaluation in advance of the erection of one dwelling on land adjacent to Longview, 1 Manor Farm Barns, Cockhall Lane, Litlington, Cambridgeshire (TL 31296 42381). The evaluation was undertaken in response to a design brief issued by Cambridgeshire Historic Environment Team (CHET). The trial trenching produced a large volume of archaeological material including a substantial spread of Roman wall plaster and CBM/ceramic demolition material in the northern trench suggesting a substantial part of a villa complex must have been located on or very close to development site. Consequently, it was agreed to extend the excavation area around the northern trench (approximately 2m either side) to provide further information as to the extent and character of the Roman building deposits. In January 2018, the width of trench 2 was extended and 4 main phases of activity were identified. Phase I - Late Iron Age to c.AD60/70 Phase II - Mid to late 1st century Phase III - Mid/Late 1st - 3rd Century Phase IV - Undated This excavation was successful in identifying further outlying areas of settlement in the Litlington historic landscape. The project has not only been successful in identifying the further extent of the Romano-British settlement, adding to the information gleaned by the Wessex excavation, but it has also identified the likelihood of multiple structures, perhaps ancillary buildings for the already identified villa complex in the immediate vicinity of Longview.

Project dates Start: 01-12-2017 End: 31-01-2018

Previous/future

work

Yes / No

Any associated project reference codes ECB5273 - Sitecode

Type of project Recording project

Site status None

Current Land use Cultivated Land 1 - Minimal cultivation

Monument type DITCH Roman

Monument type PIT Roman

Significant Finds CERAMICS Roman

Significant Finds ANIMAL BONE Roman

Significant Finds PAINTED WALL PLASTER Roman

Significant Finds METALWORK Roman Investigation type "Full excavation"

1 of 3



https://oasis.ac.uk/form/print.cfm

Prompt National Planning Policy Framework - NPPF

Project location

OASIS FORM - Print view

Country England

CAMBRIDGESHIRE SOUTH CAMBRIDGESHIRE LITLINGTON Longview, Manor Farm Site location

Barns, 1 Cockhall Lane, Litlington

SG8 0RE Postcode Study area 0 Hectares

TL 31296 42381 52.06378873322 -0.084477689298 52 03 49 N 000 05 04 W Point Site coordinates

Height OD / Depth Min: 0m Max: 0m

Project creators

Name of Organisation Britannia Archaeology Ltd

Project brief originator

Local Planning Authority (with/without advice from County/District Archaeologist)

Project design originator

Matthew Adams

Project

Dan McConnell

director/manager Project supervisor

Matthew Baker

Type of

Developer

sponsor/funding body

ECB5273

Name of sponsor/funding

body

Mr Tim Bond

Project archives

Physical Archive

Cambridgeshire HER

Physical Archive

Physical Contents "Animal Bones", "Ceramics", "Environmental", "Metal", "other"

Physical Archive

notes

Contains Painted Wall Plaster

Digital Archive

Cambridgeshire HER

Digital Archive ID ECB5273

Digital Contents Digital Media

"Animal Bones", "Ceramics", "Environmental", "Metal", "Stratigraphic", "other" "GIS","Images raster / digital photography","Spreadsheets","Survey","Text"

available

Cambridgeshire HER

Paper Archive recipient

available

Paper Archive ID

ECB5273

Paper Contents Paper Media

"Animal Bones", "Ceramics", "Environmental", "Metal", "Stratigraphic", "other" "Context sheet", "Drawing", "Photograph", "Plan", "Report", "Section", "Survey "

2 of 3 28/08/2020, 11:48



OASIS FORM - Print view

https://oasis.ac.uk/form/print.cfm

Project bibliography 1

Grey literature (unpublished document/manuscript)

Publication type

Title Longview, Manor Farm Barns, 1 Cockhall Lane, Litlington

Author(s)/Editor(s) A. Fawcett and M. Brook

R1253

bibliographic details

2020 Date

Issuer or publisher Britannia Archaeology Ltd

publication

Entered on

Place of issue or Bury St Edmunds

Description A4 Bound Report with A3 Pull-Out Figures

URL www.britannia-archaeology.com

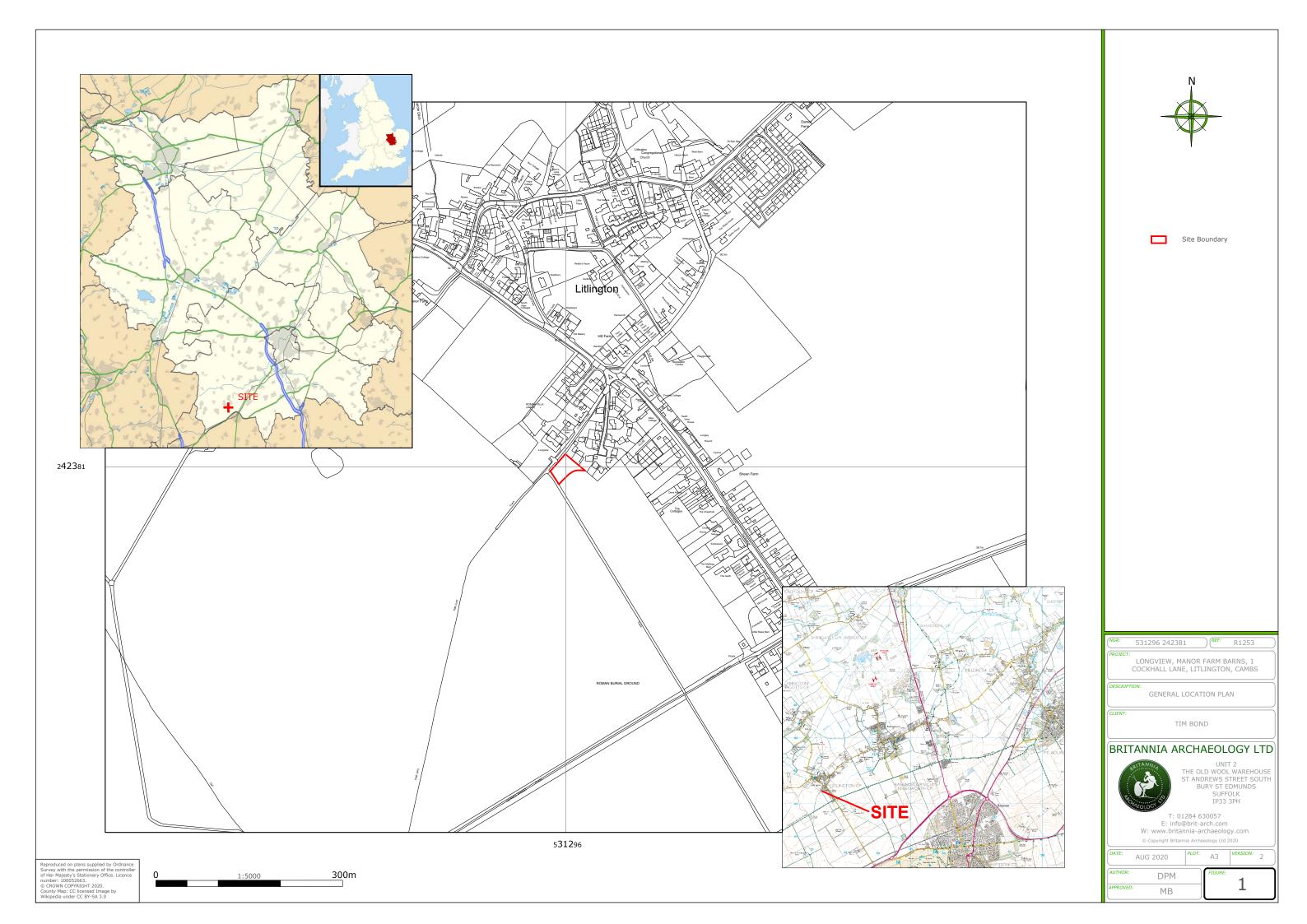
Martin Brook (martin@brit-arch.com) Entered by 28 August 2020

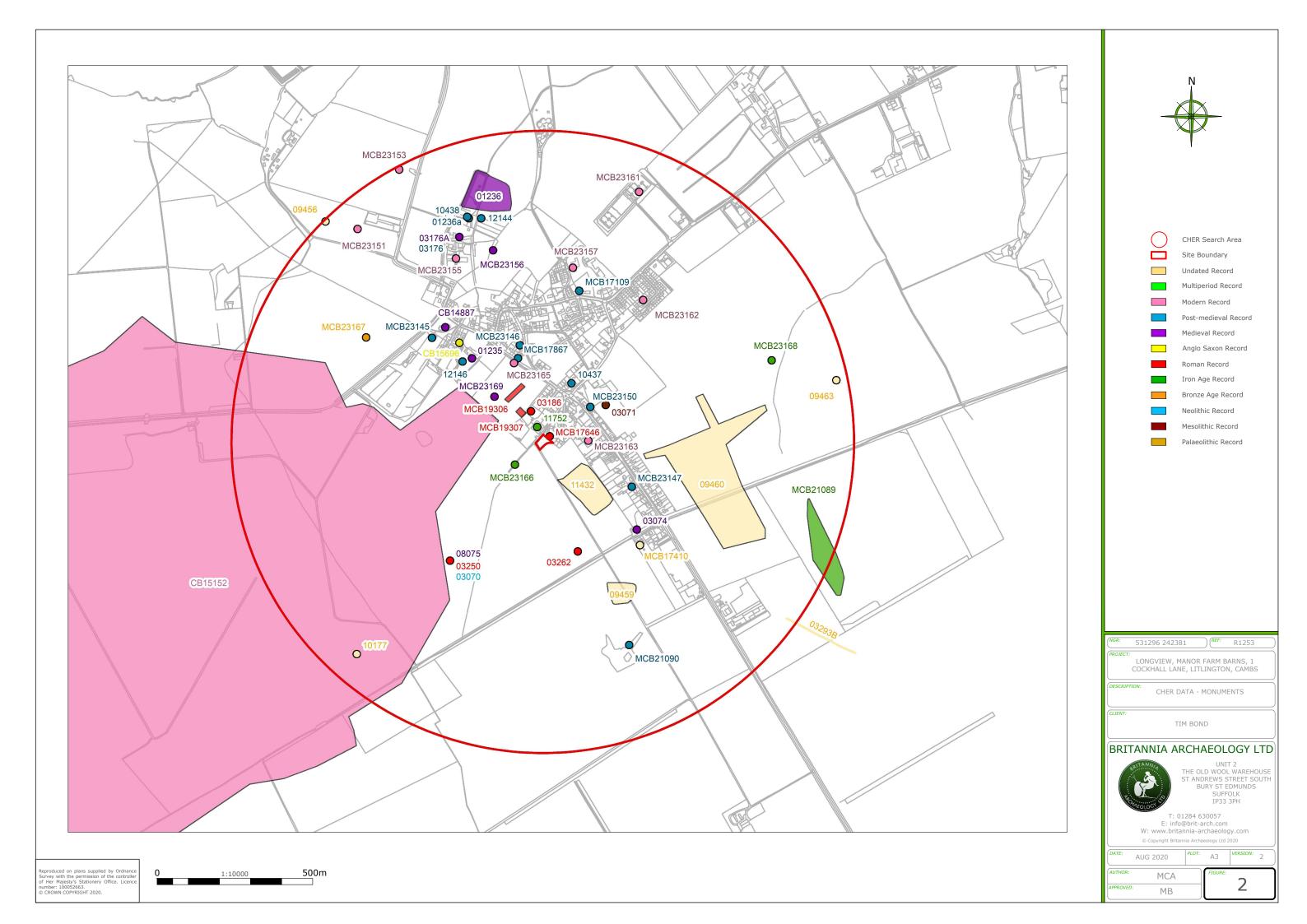
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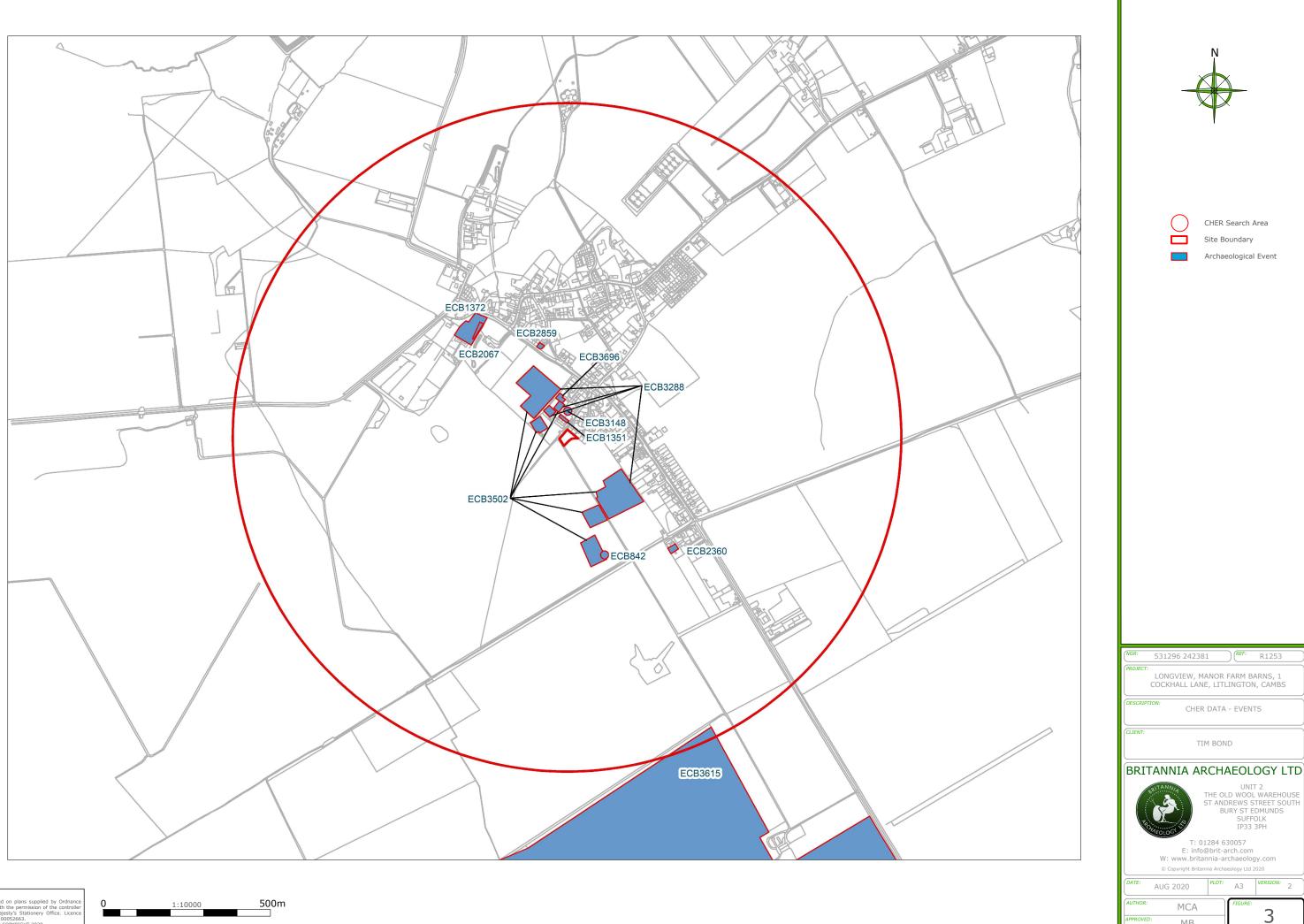
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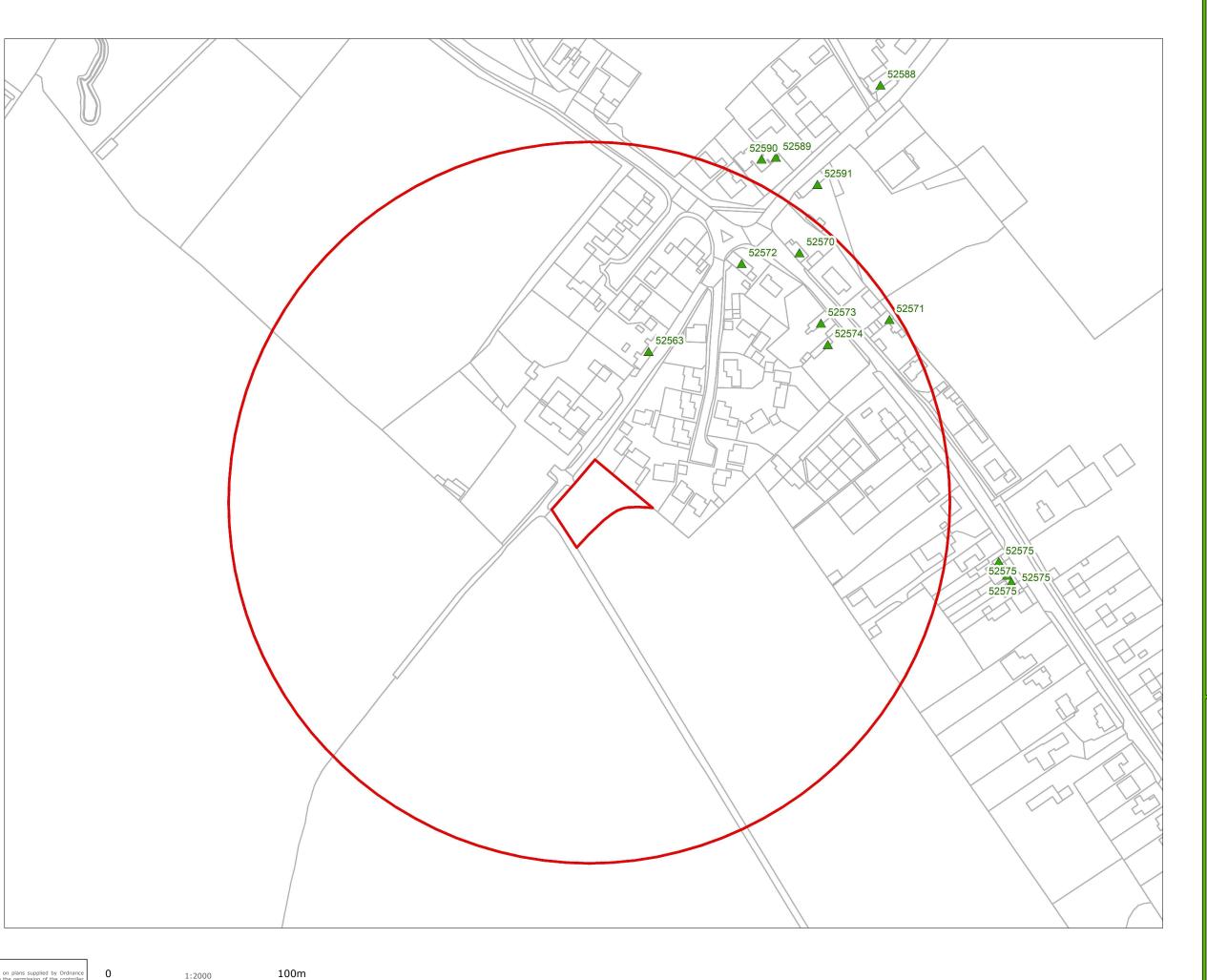






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3 MB





CHER Search Area

Site Boundary Grade I

Grade II*

Grade II

531296 242381 (REF: R1253

LONGVIEW, MANOR FARM BARNS, 1 COCKHALL LANE, LITLINGTON, CAMBS

DESCRIPTION: CHER DATA - LISTED BUILDINGS

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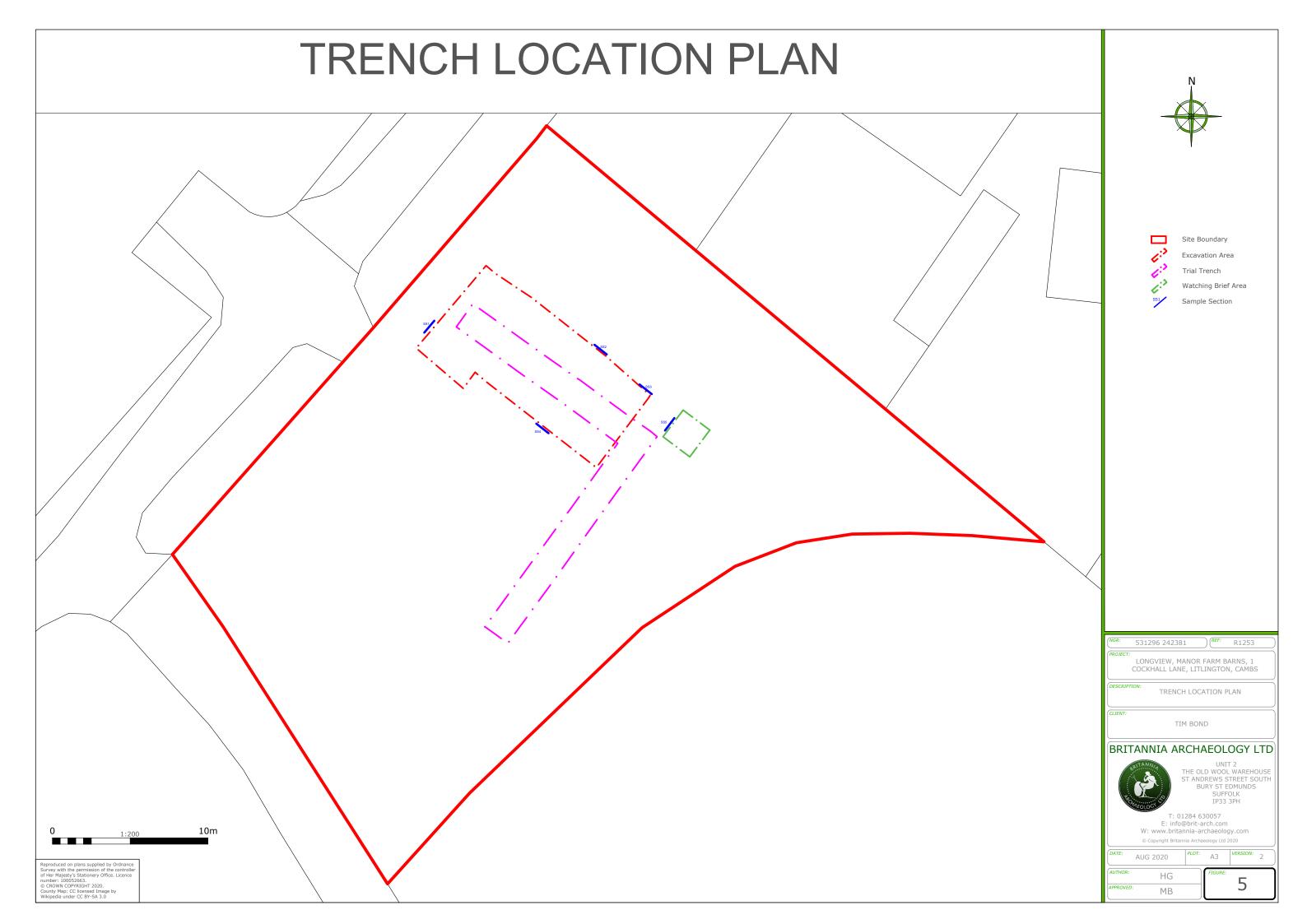
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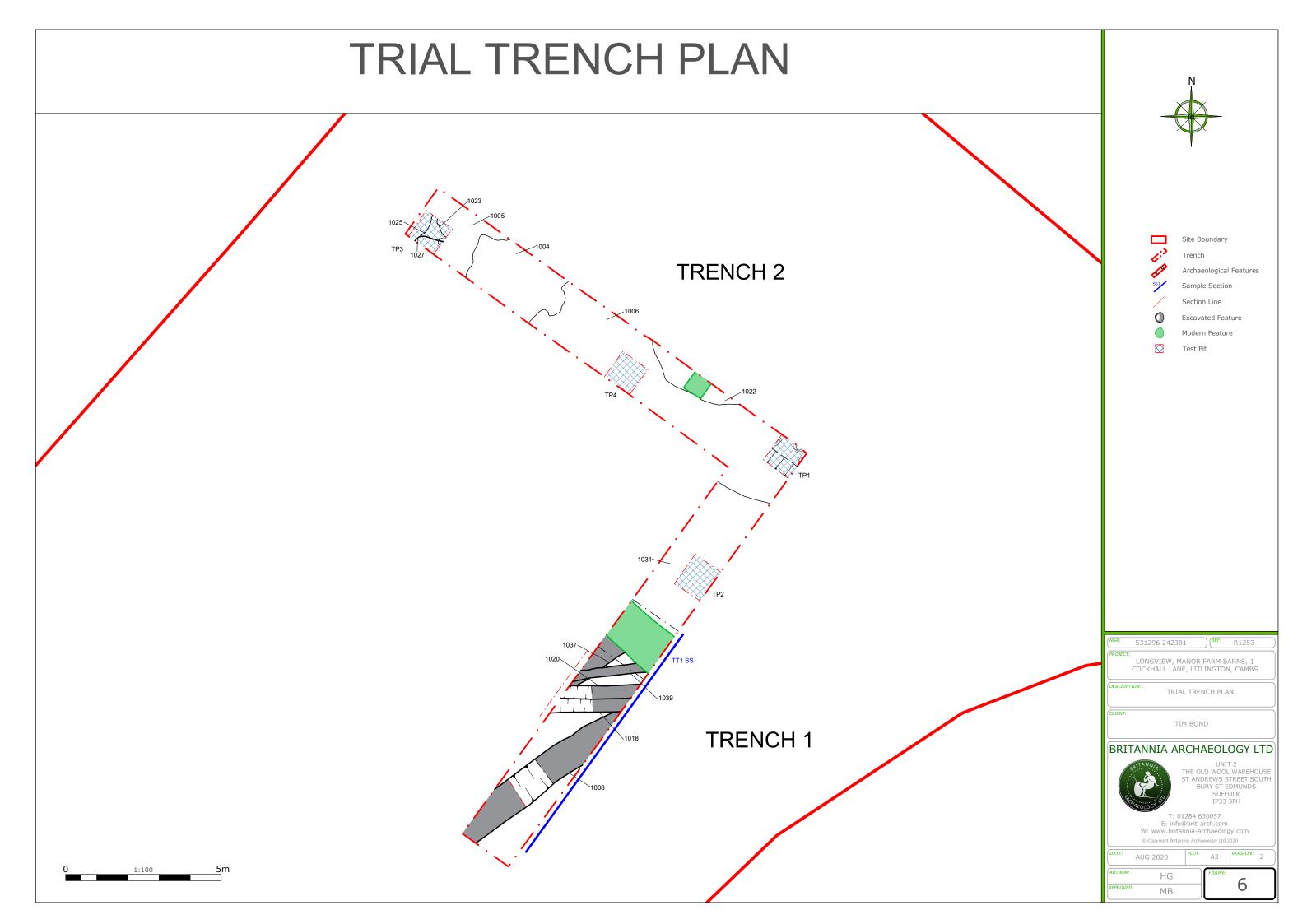
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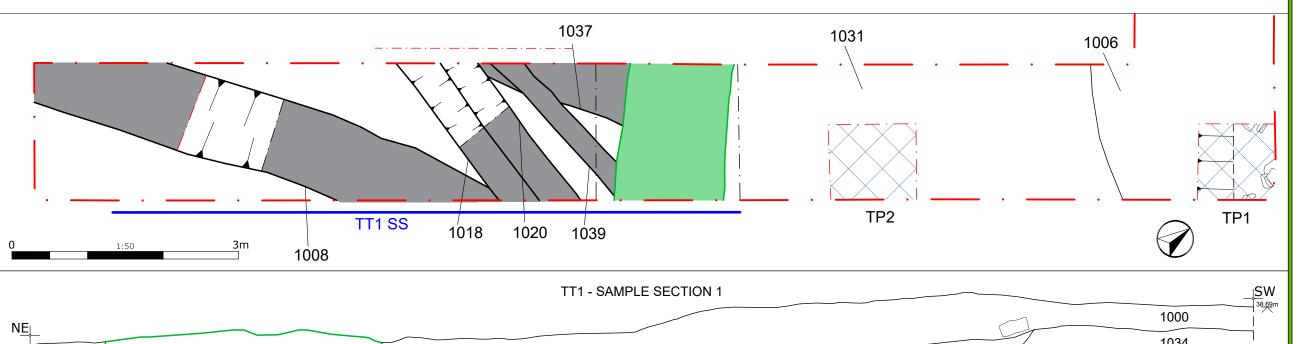
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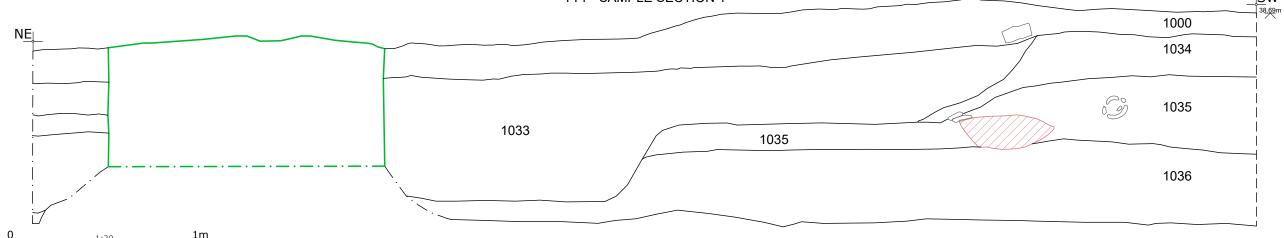


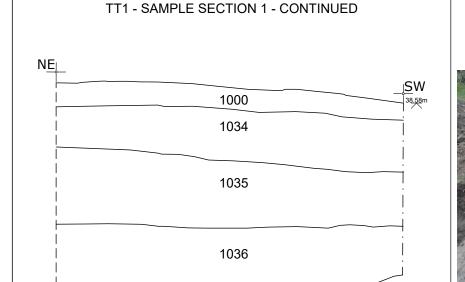






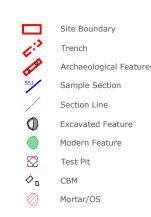












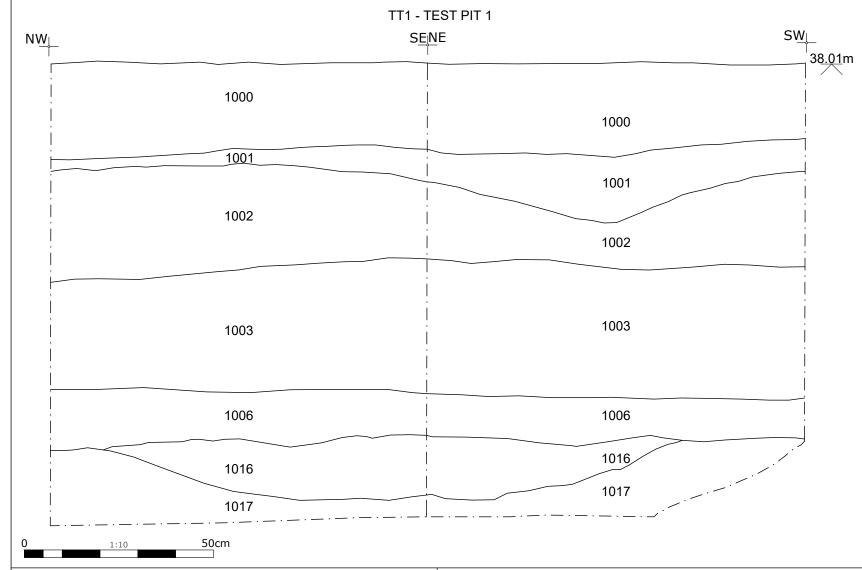






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AUTHOR:	HG	FIGURE:	7	
APPROVED:	MB		/	





DP4 - TEST PIT 1 - VIEW NE

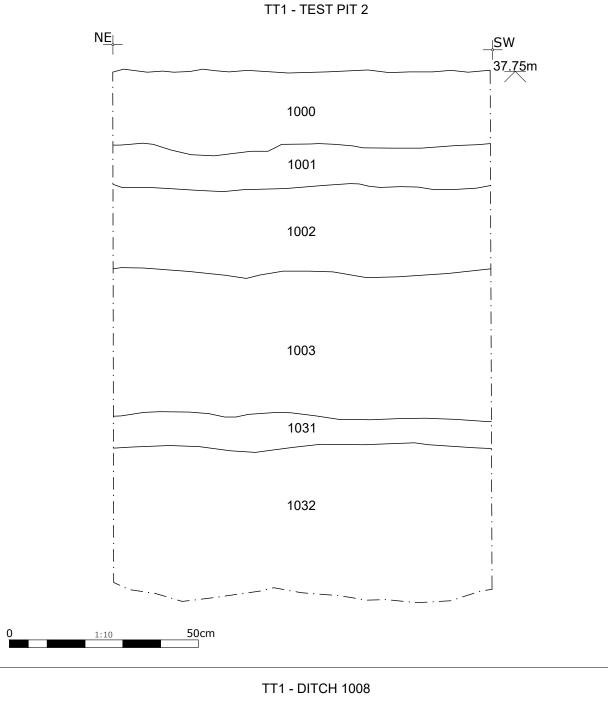








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DP11 - TEST PIT 2 - VIEW SE



SE 1009 1009 1015

DP3 - DITCH 1008 - VIEW SW





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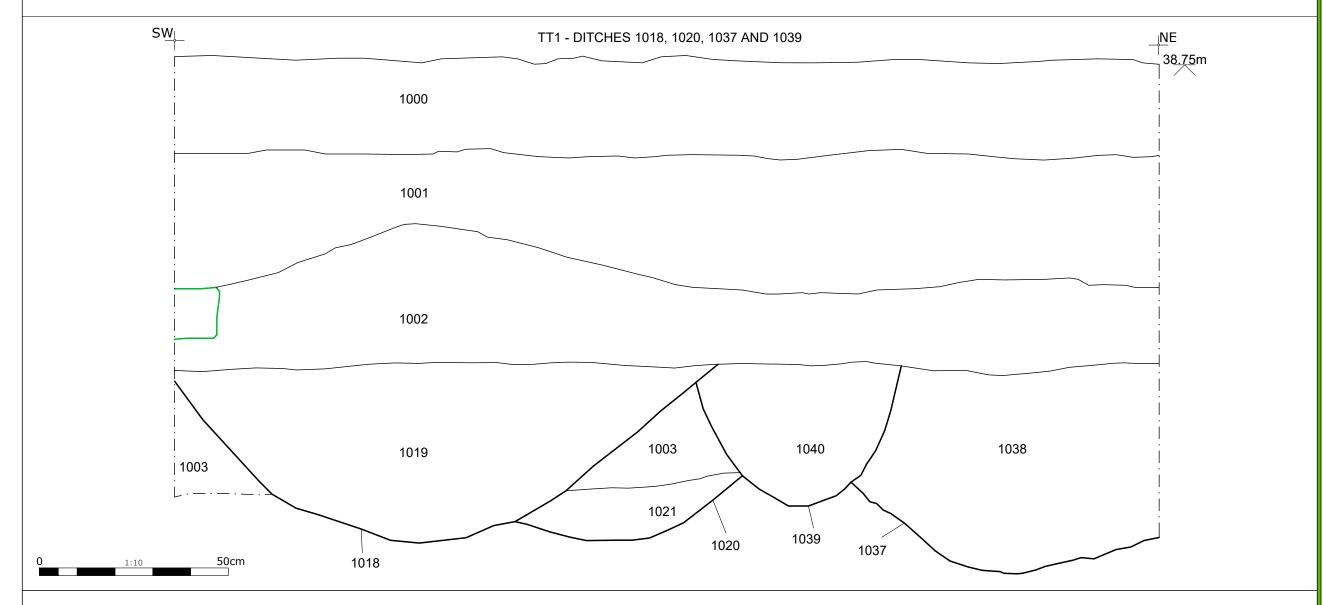
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FIGURE:

9



DP12 - DITCHES 1018, 1020, 1037 AND 1039 - VIEW NW





Modern Intrusion

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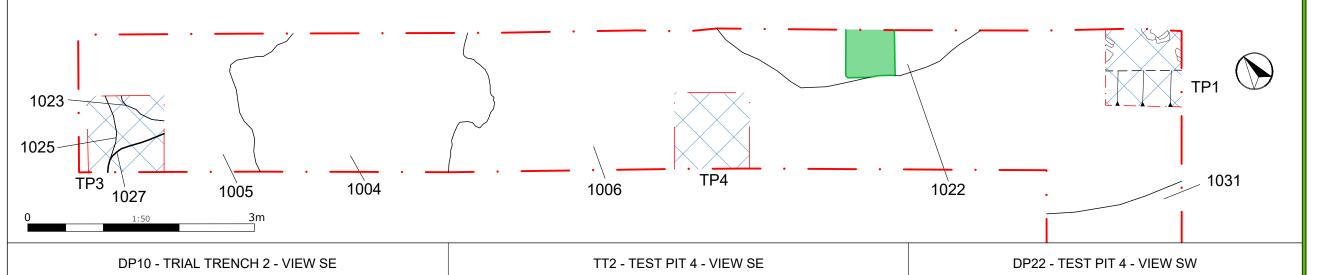
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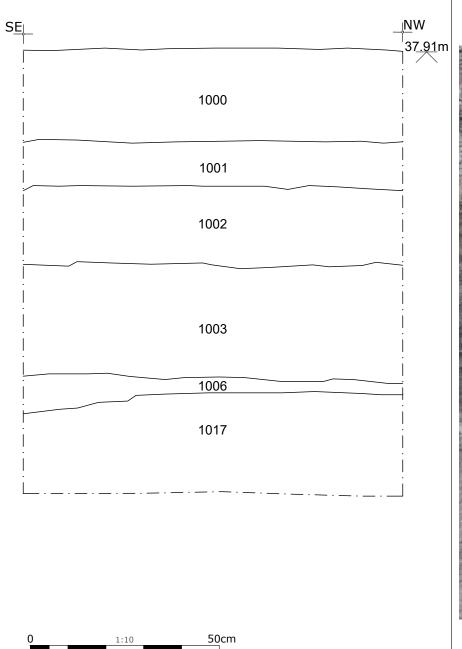
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VERSION: 2

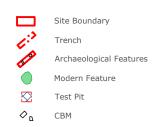
FIGURE: 10















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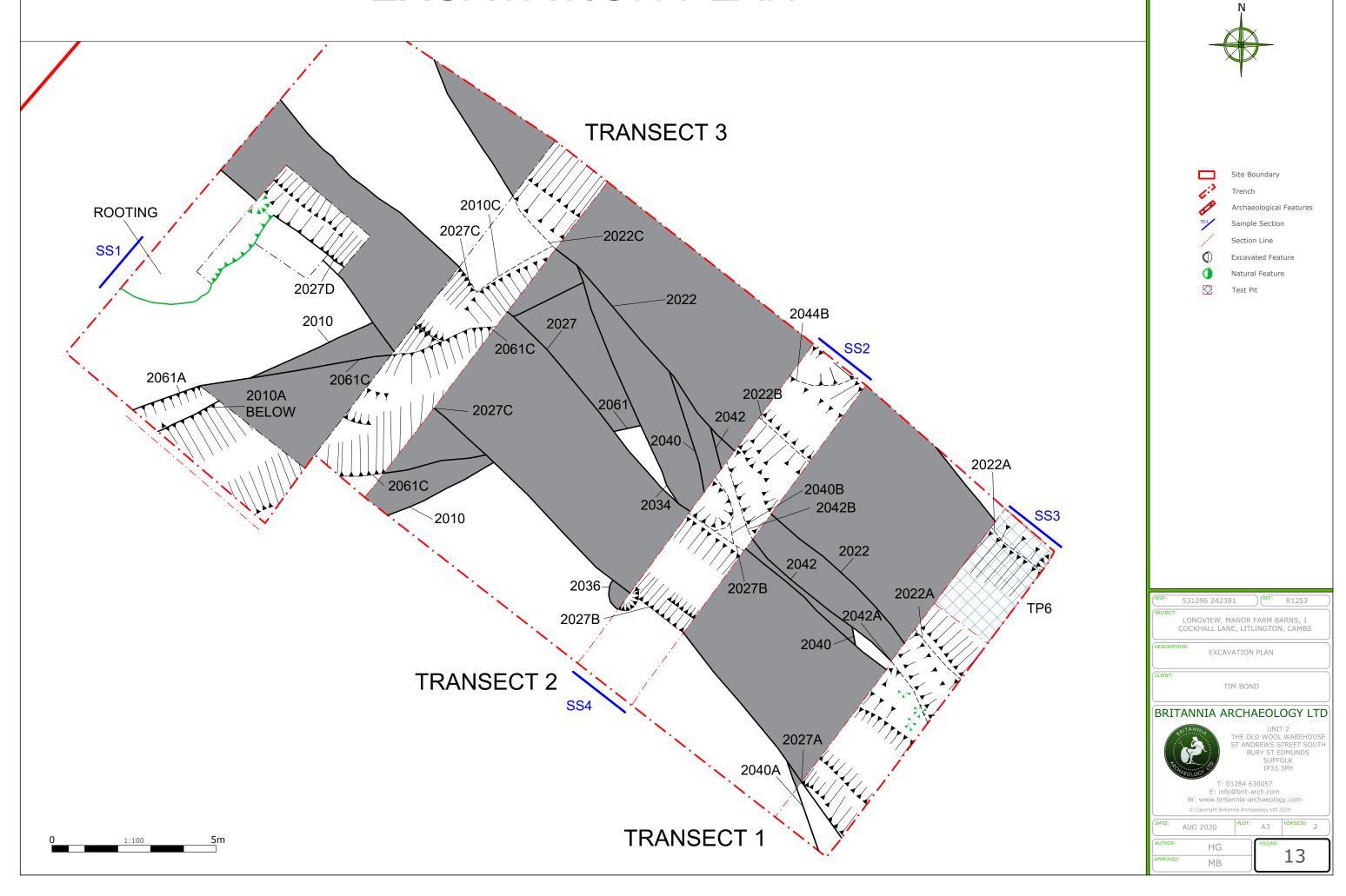
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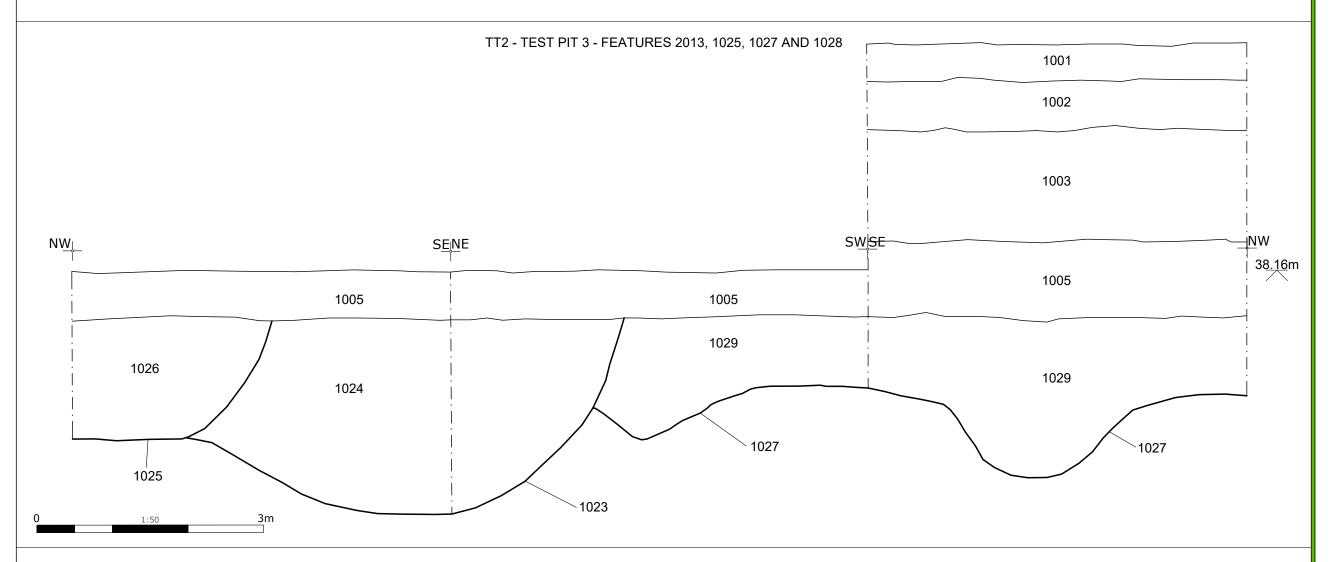
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FIGURE: 11

EXCAVATION PLAN





DP7, 8, 9 - TEST PIT 3 - VIEW SW, NW, NE



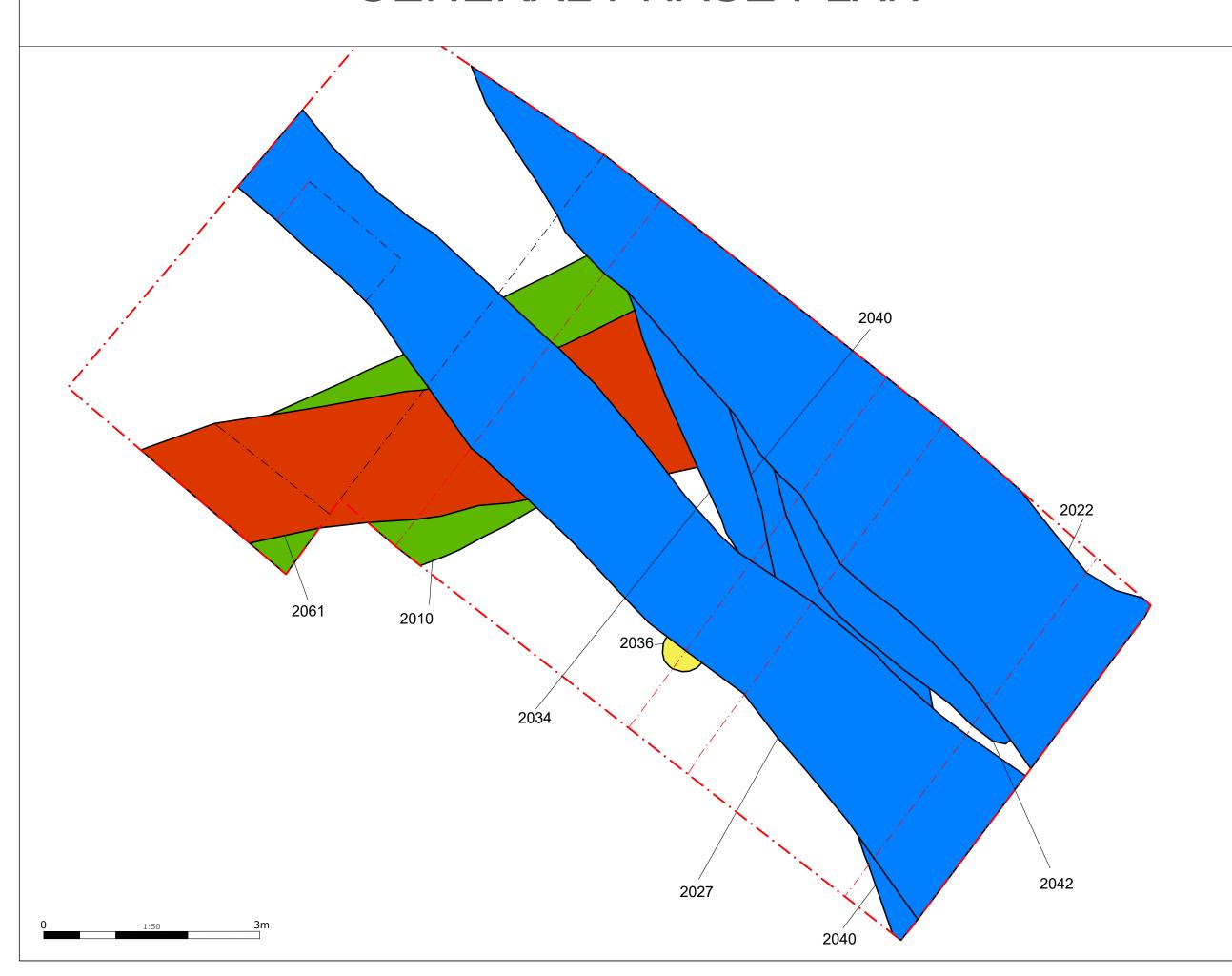






HG

GENERAL PHASE PLAN





Site Boundary

PH1 - Late Iron Age -AD60/70

PH2 - Mid 1st - Late 1st

PH3 - Mid/Late 1st - Late 3rd

531296 242381 (REF: R1253 : LONGVIEW, MANOR FARM BARNS, 1 COCKHALL LANE, LITLINGTON, CAMBS GENERAL PHASE PLAN

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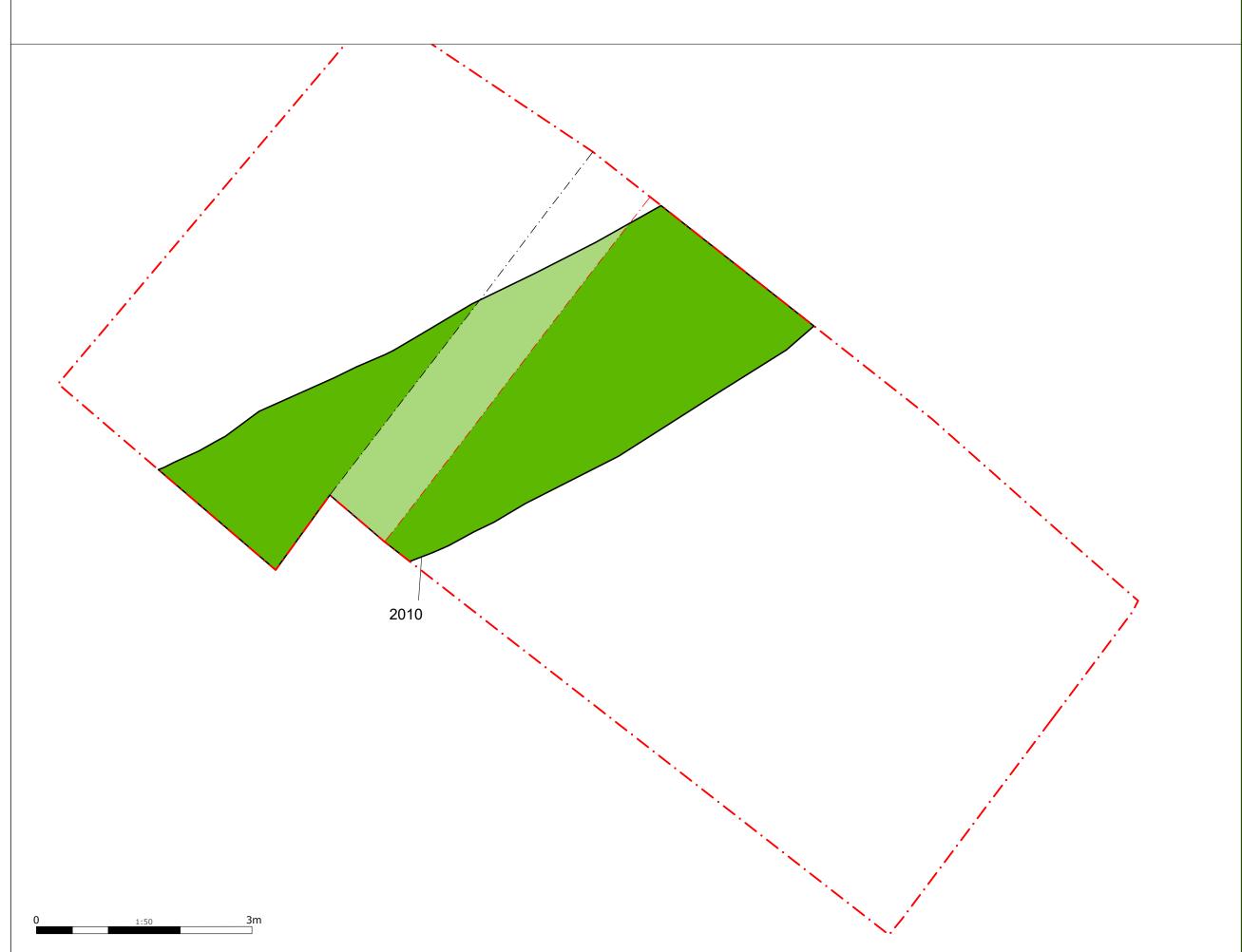


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А3 AUG 2020 14

PHASE 1 PLAN





Site Boundary

:> Tr

rench

PH1 - Late Iron Age -AD60/70

PH2 - Mid 1st - Late 1st

PH3B - M/L 1st - M/L 2nd

PH3C - Mid - Late 3rd

PHSC - Mid - Late Sit

Undated

GR: 531296 242383

ROJECT: LONGVIEW MA

531296 242381 (REF: R1253

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PHASE 1 PLAN

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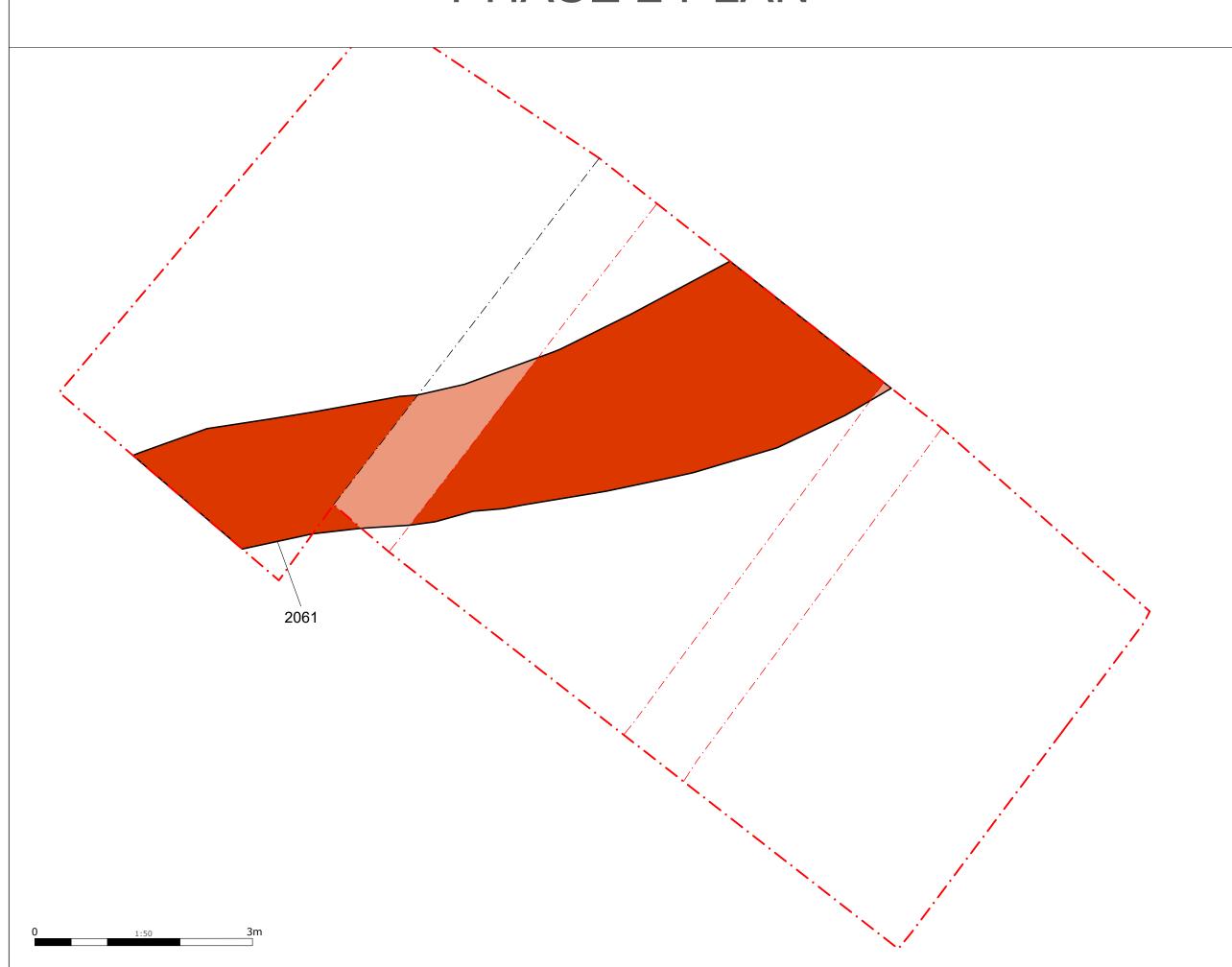
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PHASE 2 PLAN





Site Boundary

PH1 - Late Iron Age -AD60/70

PH2 - Mid 1st - Late 1st

PH3B - M/L 1st - M/L 2nd

PH3C - Mid - Late 3rd

Undated

531296 242381 (REF: R1253

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PHASE 2 PLAN

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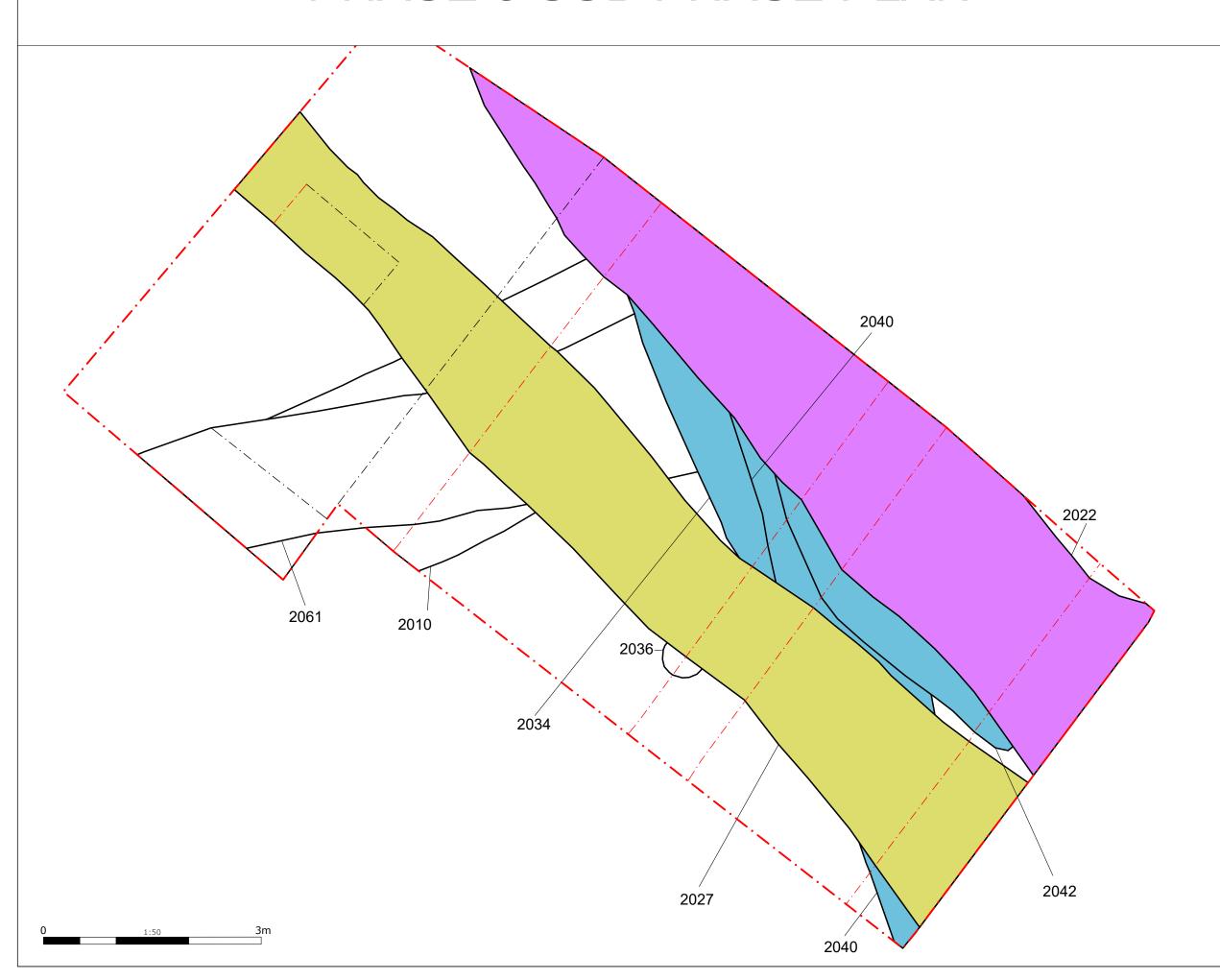


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PHASE 3 SUB PHASE PLAN





Site Boundary

PH3B - M/L 1st - M/L 2nd

PH3C - Mid - Late 3rd

531296 242381 (REF: R1253

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PHASE 3 SUB PHASE PLAN

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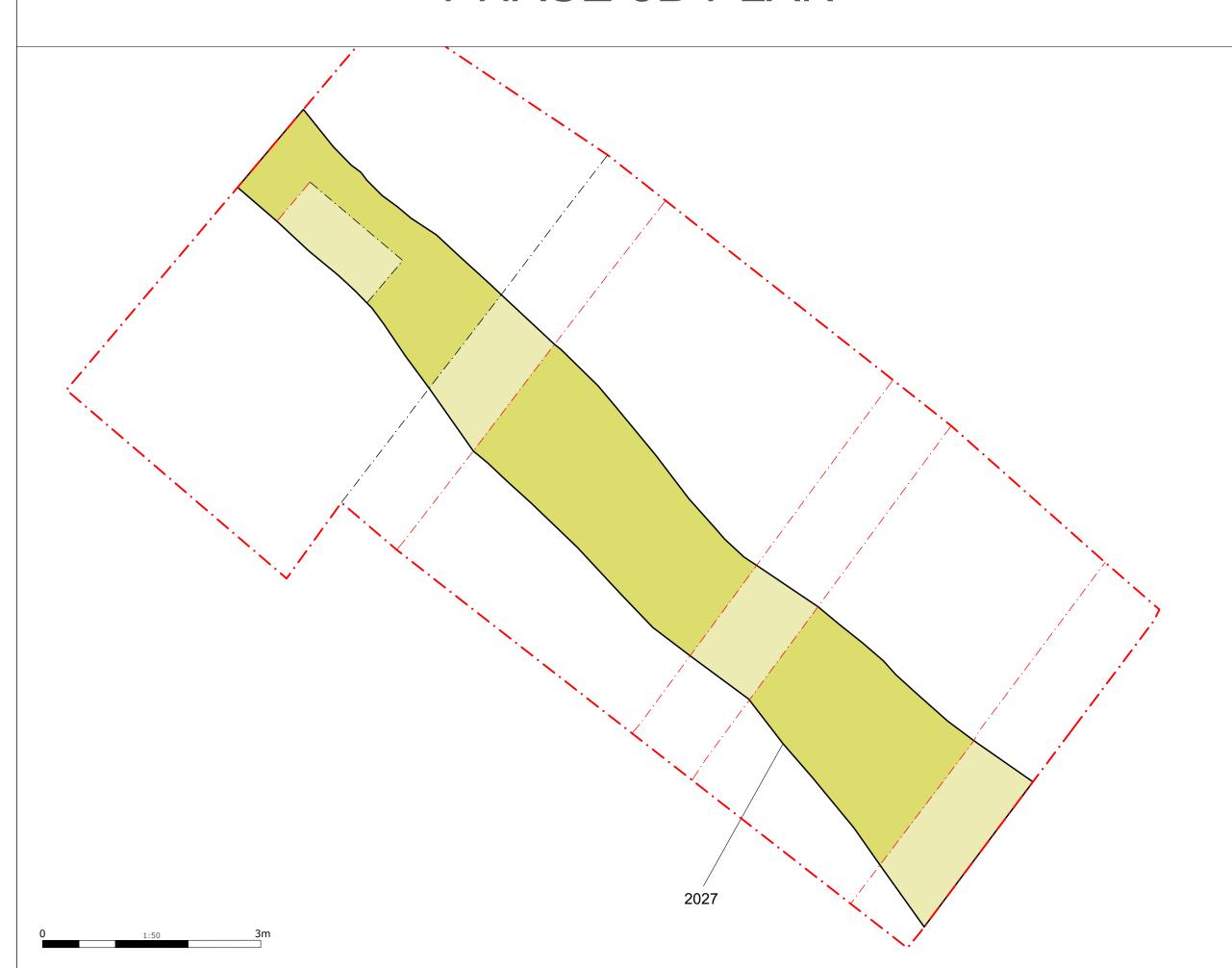
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PHASE 3A PLAN Site Boundary PH1 - Late Iron Age -AD60/70 PH2 - Mid 1st - Late 1st PH3B - M/L 1st - M/L 2nd Undated 531296 242381 (REF: R1253 : LONGVIEW, MANOR FARM BARNS, 1 COCKHALL LANE, LITLINGTON, CAMBS PHASE 3A PLAN 2034 TIM BOND BRITANNIA ARCHAEOLOGY LTD UNIT 2 THE OLD WOOL WAREHOUSE ST ANDREWS STREET SOUTH BURY ST EDMUNDS SUFFOLK IP33 3PH T: 01284 630057 E: info@brit-arch.com W: www.britannia-archaeology.com 2042 AUG 2020 18 2040

PHASE 3B PLAN





Site Boundary

PH1 - Late Iron Age -AD60/70

PH2 - Mid 1st - Late 1st

PH3B - M/L 1st - M/L 2nd

Undated

531296 242381 (REF: R1253

: LONGVIEW, MANOR FARM BARNS, 1 COCKHALL LANE, LITLINGTON, CAMBS PHASE 3B PLAN

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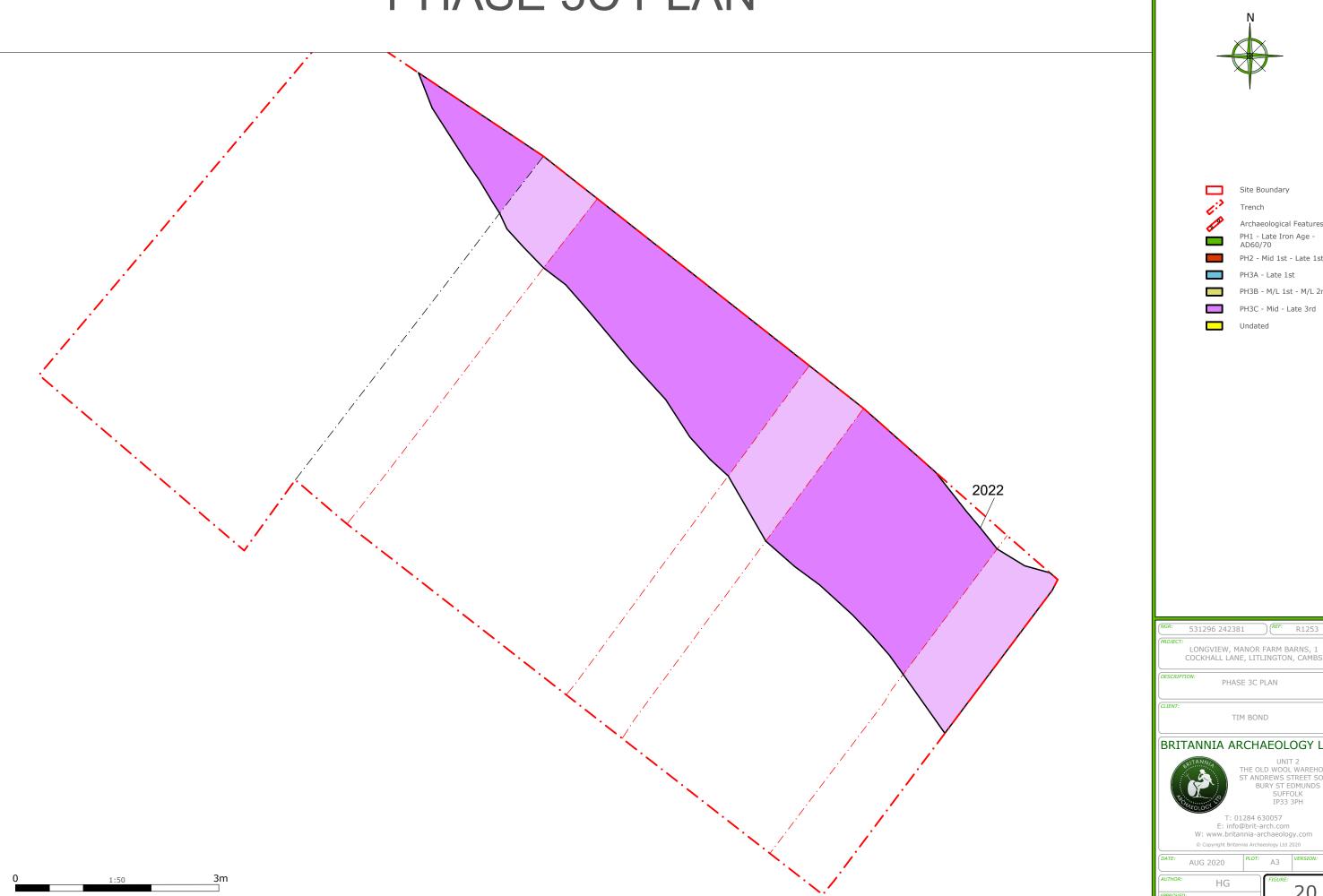


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PHASE 3C PLAN





PH1 - Late Iron Age -AD60/70

PH2 - Mid 1st - Late 1st

PH3B - M/L 1st - M/L 2nd

Undated

LONGVIEW, MANOR FARM BARNS, 1 COCKHALL LANE, LITLINGTON, CAMBS

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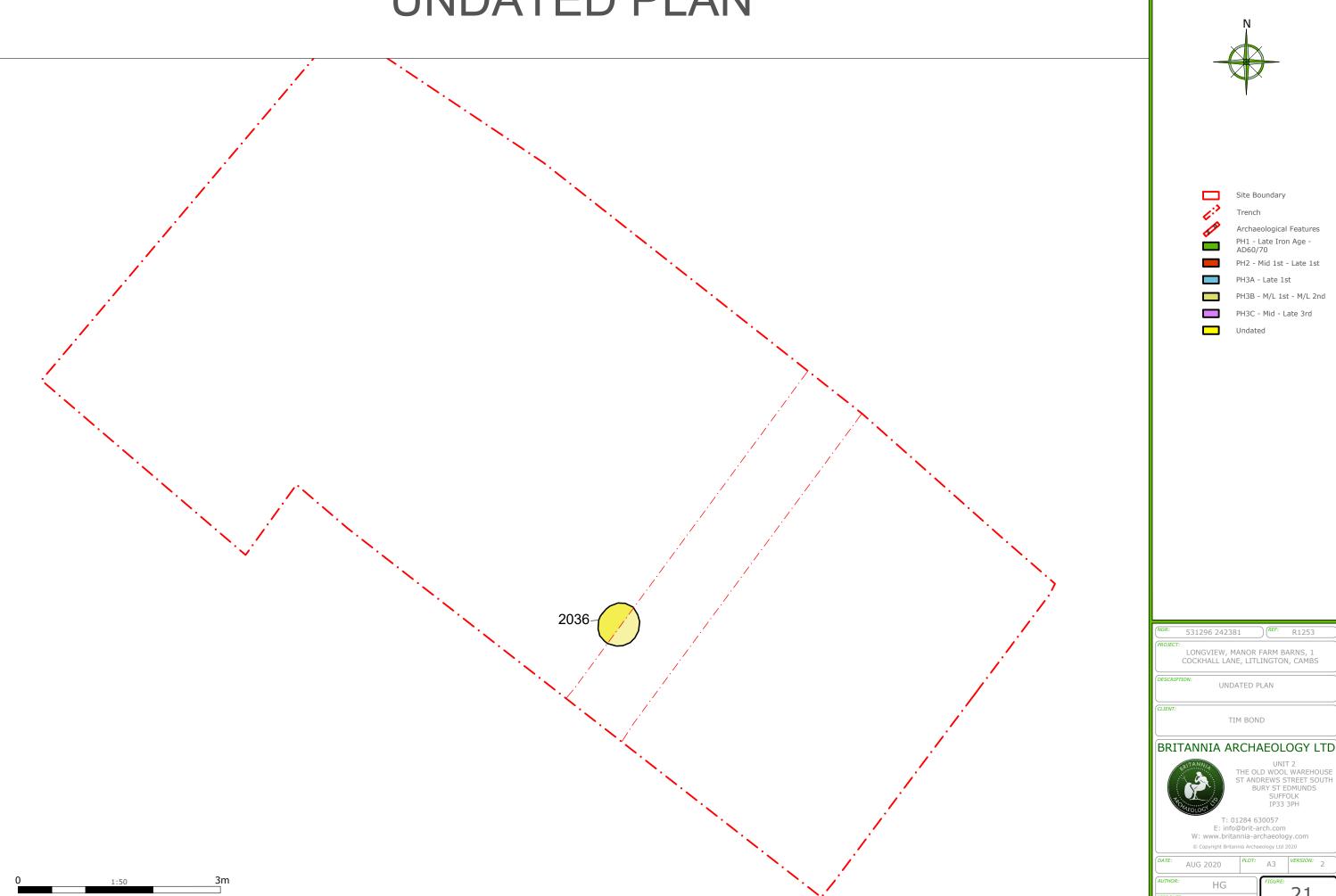
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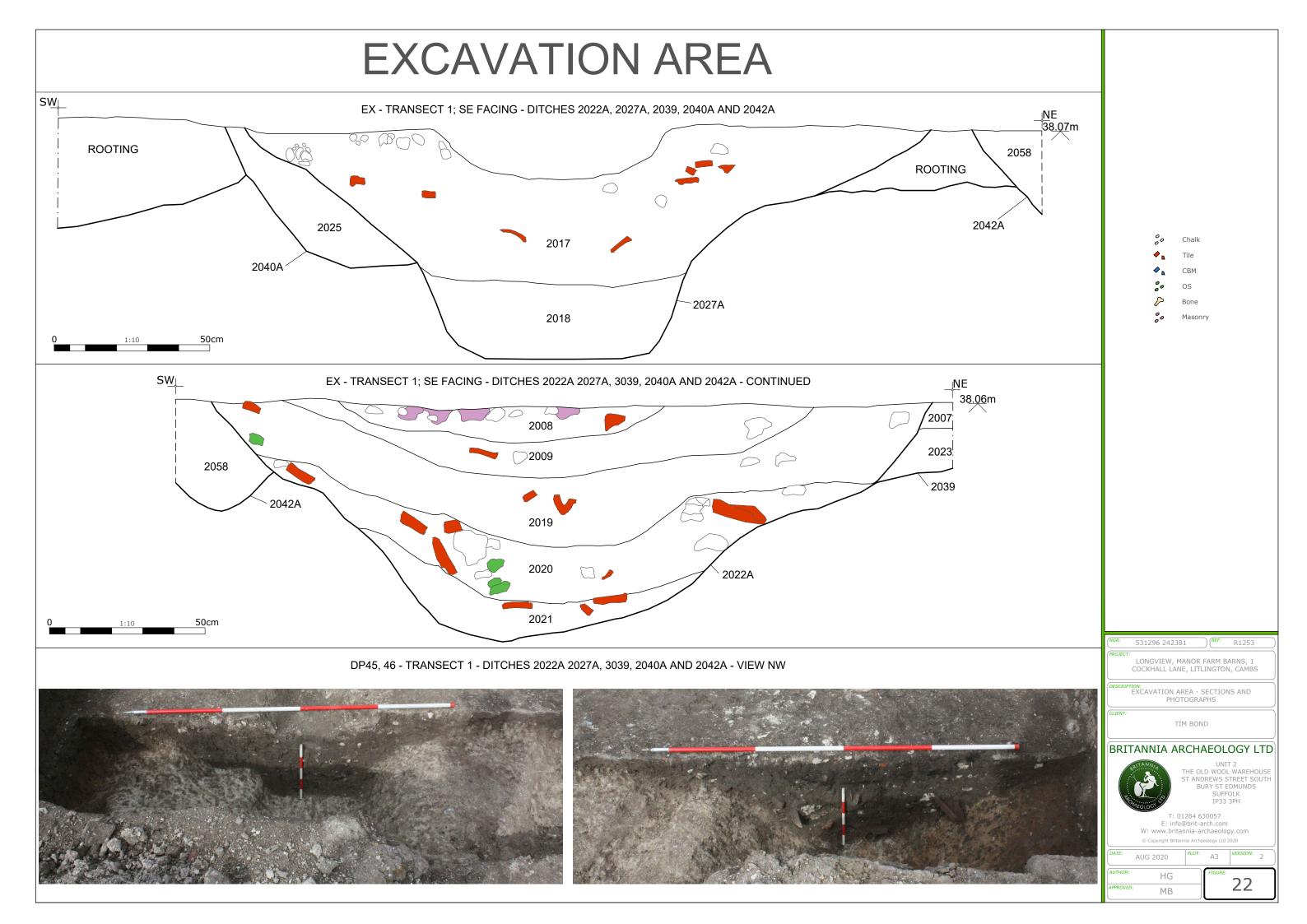
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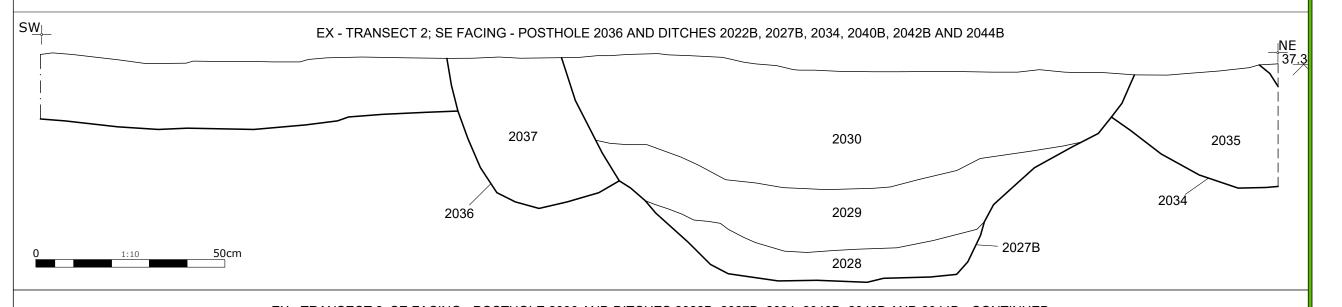
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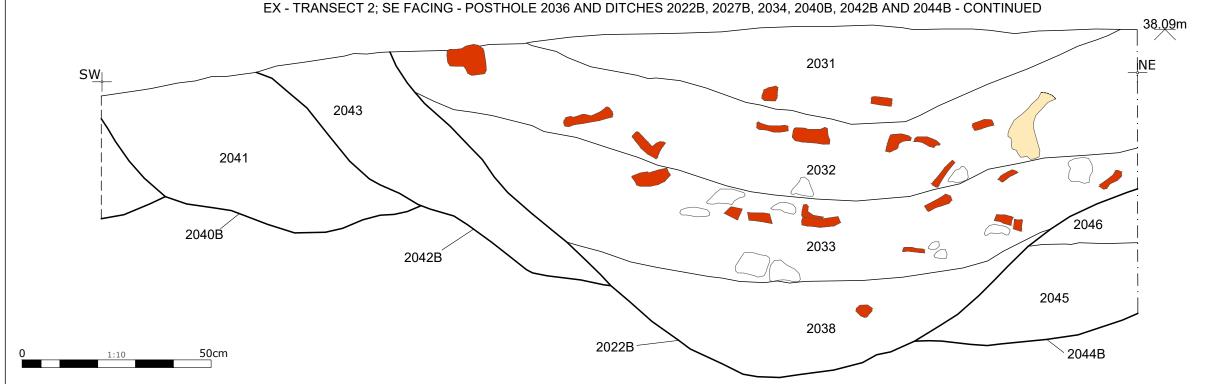
UNDATED PLAN











531296 242381 LONGVIEW, MANOR FARM BARNS, 1 COCKHALL LANE, LITLINGTON, CAMBS DP33 - TRANSECT 2; NW VIEW - POSTHOLE 2036 AND DITCHES 2022B, 2027B, 2034, 2040B, 2042B PHOTOGRAPHS

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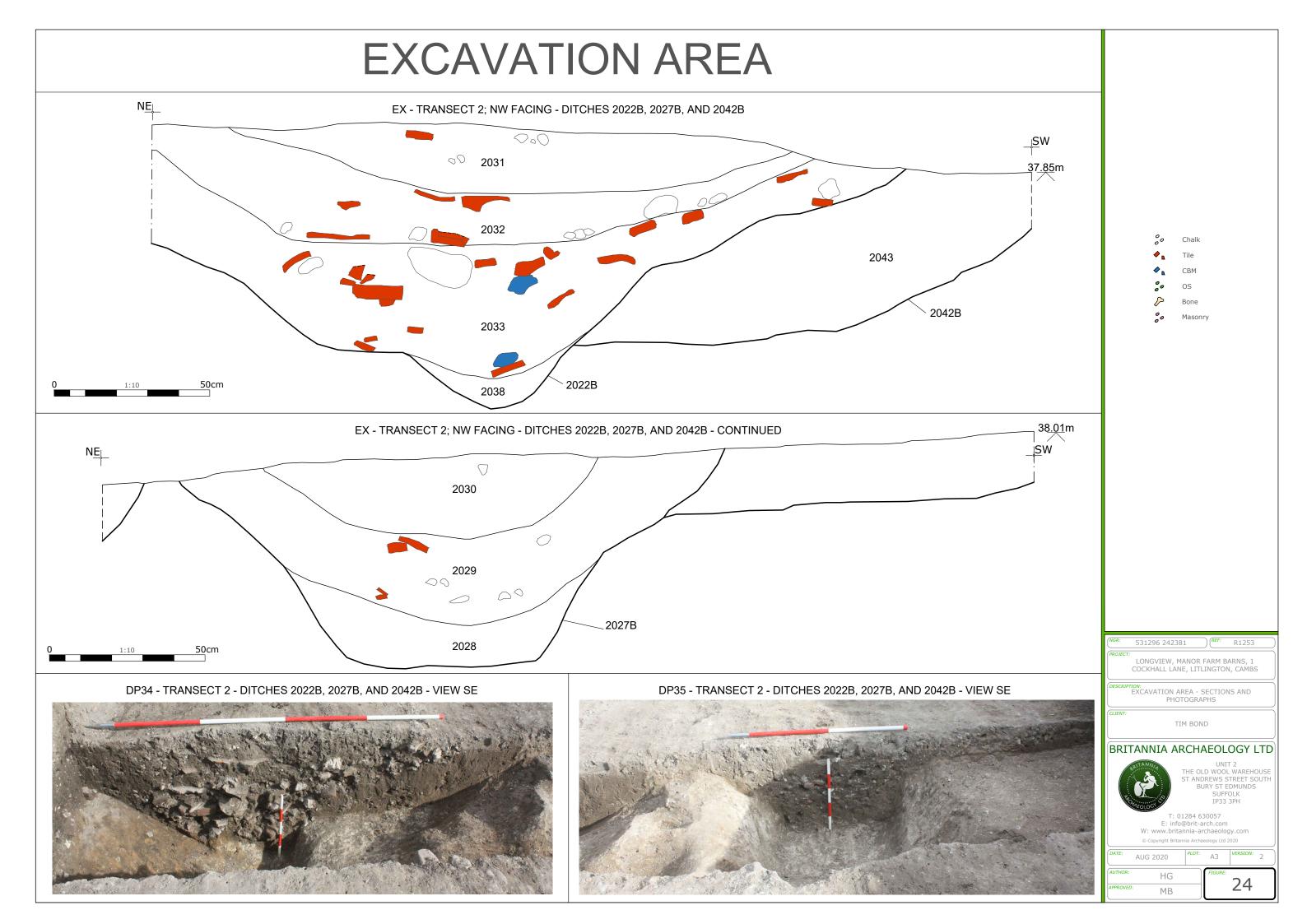
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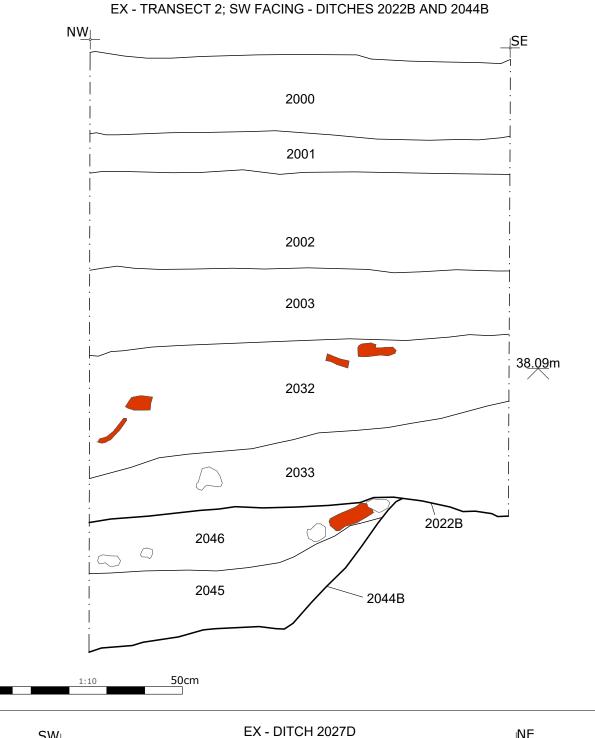
DP32 - TRANSECT 2 - POSTHOLE 2036 AND DITCHES 2022B, 2027B, 2034, 2040B, 2042B AND 2044B -VIEW NW

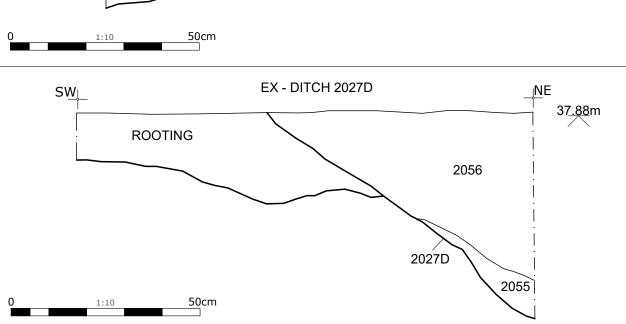




AND 2044B - VIEW NW















Tile

CBN

• OS

Bone

Masonry

(NGR: 531296 242381) (REF: R1253)

(PROJECT:

LONGVIEW, MANOR FARM BARNS, 1

COCKHALL LANE, LITLINGTON, CAMBS

DESCRIPTION:
EXCAVATION AREA - SECTIONS AND
PHOTOGRAPHS

CLIENT:

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THE OLD WOOL WAREHOUSE ST ANDREWS STREET SOUTH BURY ST EDMUNDS SUFFOLK 1P33 3PH

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DATE: AUG 2020 PLOT: A3 VERSION: 2

AUTHOR: HG FIGURE:

EXCAVATION AREA EX - TRANSECT 3 - DITCHES 2010C, 2022C, 2027C AND 2061C NEL _SW _38.0 2067 2070 2066 2073 Chalk 2065 2069 2027C 2010C 2022C 2072 2064 2063 EX - TRANSECT 3 - DITCHES 2010C, 2022C, 2027C AND 2061C - CONTINUED NEL 38<u>.08</u>m 2070 2073 531296 242381 2071 LONGVIEW, MANOR FARM BARNS, 1 COCKHALL LANE, LITLINGTON, CAMBS EXCAVATION AREA - SECTIONS AND PHOTOGRAPHS 2027C TIM BOND 2070 2072 BRITANNIA ARCHAEOLOGY LTD 2061C THE OLD WOOL WAREHOUSE ST ANDREWS STREET SOUTH BURY ST EDMUNDS - 2010C 2069 T: 01284 630057 E: info@brit-arch.com W: www.britannia-archaeology.com 2068 AUG 2020 АЗ HG 26

DP48, 49, 50 - TRANSECT 3 - DITCHES 2010C, 2022C, 2027C AND 2061C - VIEW SE



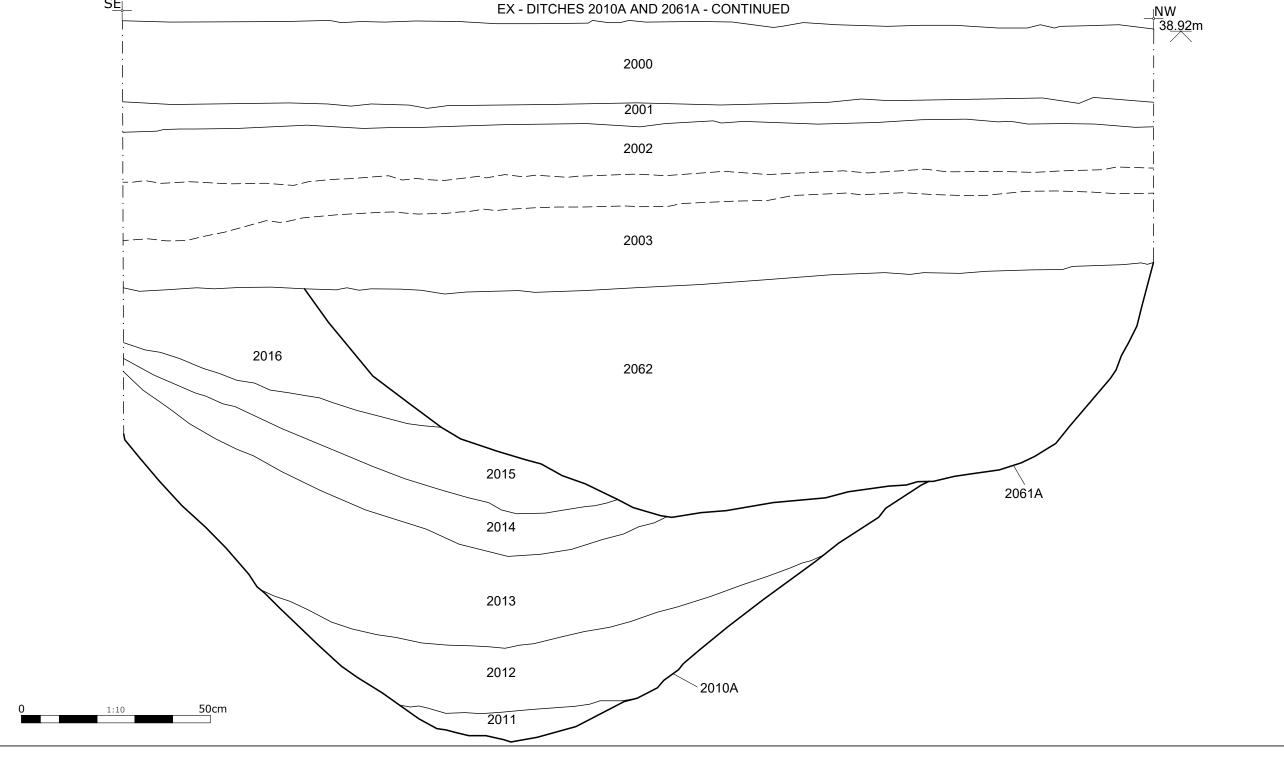
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EX - DITCHES 2010A AND 2061A - CONTINUED



Chalk Lens







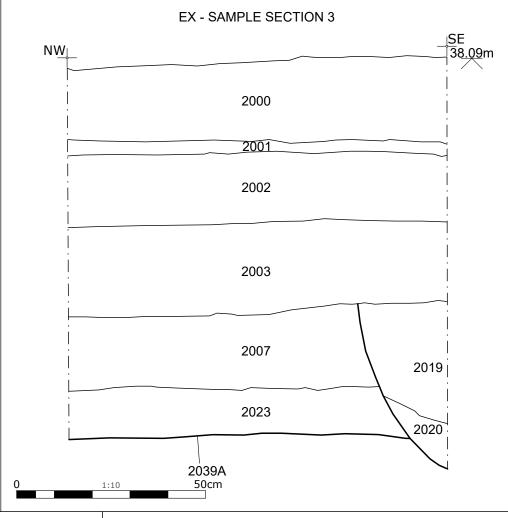
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DATE: AL	IG 2020	PLUT:	А3	VERSION:	2
AUTHOR:	HG		FIGURE:	27	
APPROVED:	MB			2/	

DP27 - DITCHES 2010A AND 2061A - VIEW SW





2000

2001

2002

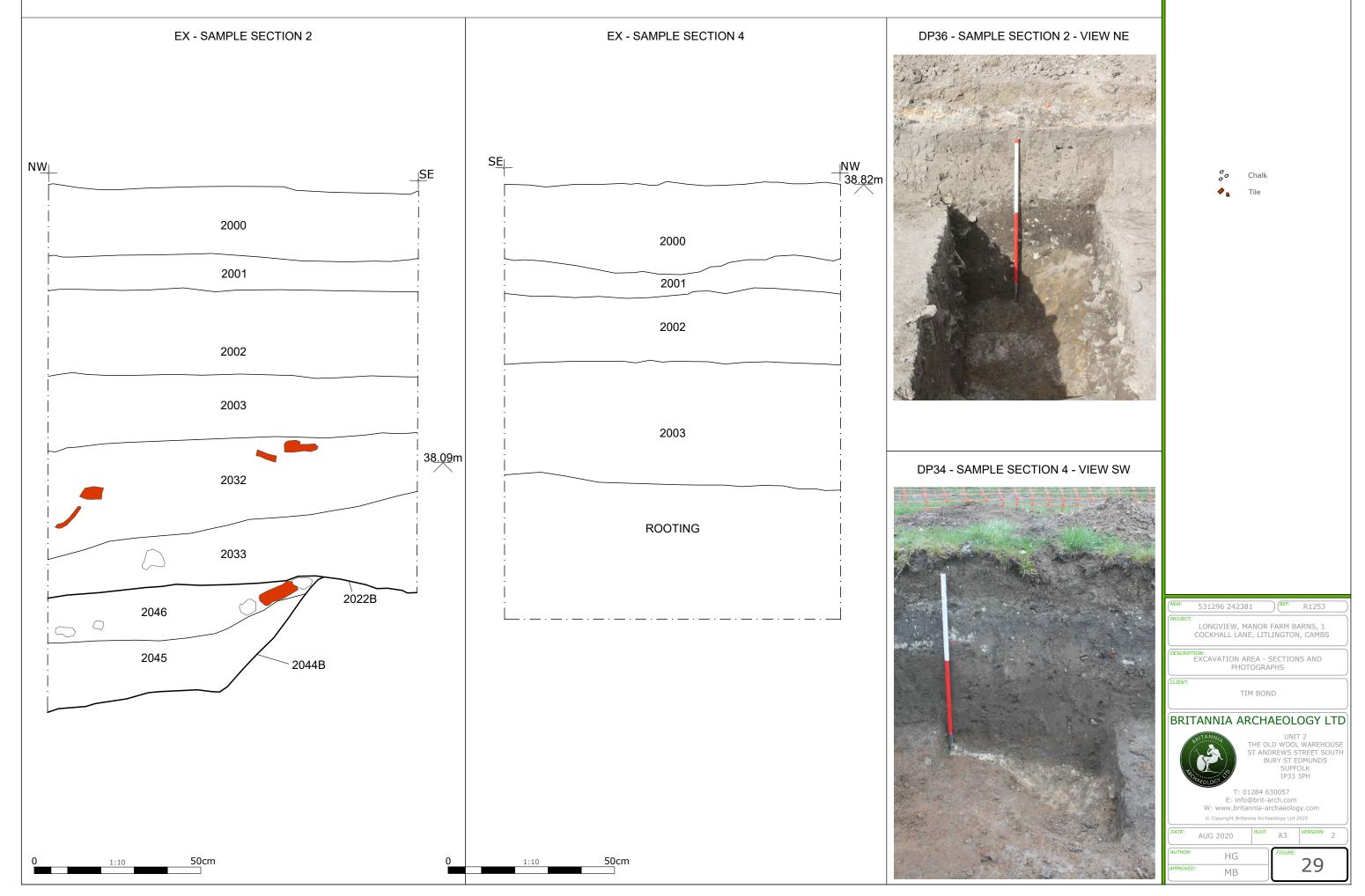
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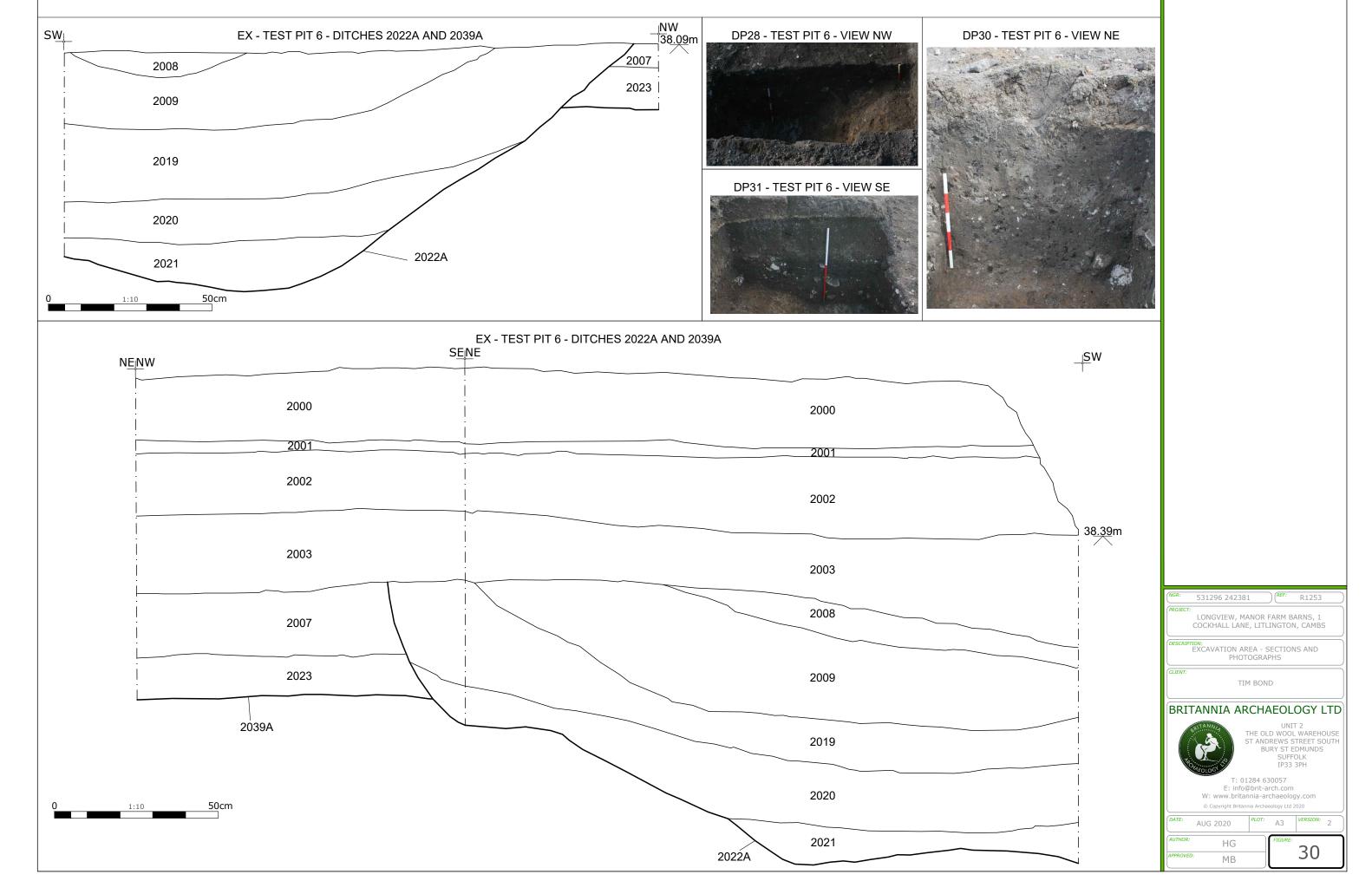
ROOTING











EXCAVATION SITE PHOTOGRAPHS

DP38 - NW EXCAVATION AREA - VIEW SW



DP39 - SE EXCAVATION AREA - VIEW SW



DP40 - SE EXCAVATION AREA - VIEW NW



	531296 242	2381) (***
PROJECT	: LONGVIEW, COCKHALL L		
DESCRIP	TION: EXCAVATIO	N SITE	PHOTOGRA
CLIENT:		TIM BO	ND
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	BRITANNIA	ST AN	UNIT OLD WOOL IDREWS ST BURY ST FI

OGY LTD



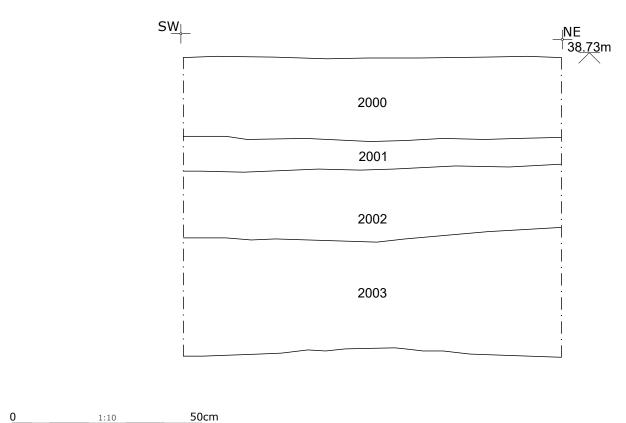
WATCHING BRIEF AREA







WATCHING BRIEF - SAMPLE SECTION 5



DP55 - WATCHING BRIEF - SAMPLE SECTION 5 - VIEW NW



