

**The Roman Circus and other remains:
archaeological evaluation and monitoring
at the former Arena Leisure Centre, Circular
Road East, Colchester, Essex, CO2 7SZ
Stage 1b: pre-determination trenching**

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1 Summary

An archaeological evaluation (eleven trial-trenches) was carried out on the former Arena Leisure Centre, Circular Road East, Colchester as part of Stage 1b pre-planning application work associated with the redevelopment of the site. Colchester's Roman circus (scheduled monument 35614) is located within the northern part of the development site with Roman burials, a kiln, ditches and pits having been recorded both on the site and in the immediate vicinity.

Remains associated with the Roman circus were encountered in two of the evaluation trenches (T12-T13) at depths of 0.27-0.39m below current ground level. Trench T12 was positioned over the central barrier, and the shallow remains of a robbed-out wall foundation were identified. Trench T13 was positioned over the southern cavea. The remains of the robbed-out outer cavea wall foundation were identified along with the robbed-out and in situ remains of two north-south walls/wall foundations with metalling in between them. Significantly, these walls/wall foundations represent the remains of a passageway or vomitorium leading to the cavea seating area.

The remaining nine trenches were located to the south of the circus. Twenty-one Roman features, predominantly of 2nd to 3rd century date, were identified: nine ditches, two ditches/gullies, five pits, four possible inhumation burials and one possible pyre site or bustum. Together with evidence from the stage 1a evaluation, it has been possible to identify two parallel north/south ditches running through the site which probably formed a trackway or driveway leading to another passageway/vomitorium identified in 2005. Other ditches most likely formed field boundaries to the south of the east-west aligned circus. It is, however, notable that several of these ditches were aligned north-west/south-east and north-east/south-west rather than north-south and east-west, and these may belong to the Late Iron Age/early Roman landscape typical of the landscape to the south of Abbey Field principally identified by the New Garrison (Merville Barracks) project.

A total of 16 possible inhumation burials or burial related features (five in this current Stage 1b evaluation) have now been recorded during both stages of evaluation. However, as none were fully excavated, more work would be needed (where appropriate depending on development impact) to confirm their identification and ascertain the presence of human skeletal remains and any associated grave goods.

Post-medieval features consisted of four ditches and a pit. Four other ditches/gullies are of possible post-medieval/modern date, and a number of concrete beams and services were all associated with the demolished Arena building.

2 Introduction (Fig 1)

This report presents the results of an archaeological trial-trenching evaluation carried out by the Colchester Archaeological Trust (CAT) at the former Arena Leisure Centre, Circular Road East, Colchester, Essex, on the 23rd May-16th June 2017. The work was commissioned and consultancy managed by Rob Masefield of RPS Group Plc on behalf of RMPA Services Plc.

This trial-trenching forms a second stage (Stage 1b) of archaeological investigation on the development site in support of a future planning application for redevelopment. The archaeological procedures follow protocols used for the separate RMPA development of the New Garrison and the related 'Alienated Land' residential redevelopment of former barracks by Taylor Wimpey. This process typically includes trenching of land parcels before the granting of planning permission. 'Stage 1a' trenching is conducted ahead of demolition with 'Stage 1b' undertaken following demolition usually following planning permission. In this case, RMPA have taken the view that completion of the trenching ahead of sale of the land to a developer is desirable in order to clarify the archaeological issues and inform the future development.

Stage 1a trenching was carried out in April-May 2015 (CAT Report 843). It comprised a c 2.2% sample of the then larger 1.9ha development site, consisting of 362m² of trenching (eleven trenches totalling 201m in length by 1.8m wide). See *Archaeological background* for a summary of the results.

In response to consultation with Colchester Borough Council Planning Services (CBCPS), Colchester Borough Council Archaeological Advisor Jess Tipper advised that the requirement for Stage 1b trenching would be to complete the sample started during Stage 1a to provide a total of 5% coverage.

In accordance with the now slightly smaller 1.7ha development site, the Stage 1b trenching up to 5% by area comprises a further 271m of linear trenches, all 1.8m wide.

All archaeological work was carried out in accordance with a *Brief for Trenched Archaeological Evaluation*, detailing the required archaeological work, written by Jess Tipper (CBCPS 2017), and a Written Scheme of Investigation (WSI) prepared by RPS Group Plc in response to the brief and agreed with CBCPS (RPS 2016).

As the northern part of the development site lies within the Colchester Circus Scheduled Monument (English Heritage National Monument No. 35614), Deborah Priddy of Historic England required that the WSI (RPS 2016) form part of the notification for archaeological works within the SM alongside a formal Scheduled Monument Consent application process.

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

3 Archaeological background (Fig 2)

The following archaeological background draws on the major published sources for Colchester archaeology, and also the Colchester Historic Environment Record (CHER) and the Essex Historic Environment Record (EHER).

The area surrounding the Arena site has been the subject of several large-scale archaeological investigations in the past, the results of which have been detailed in the WSI (RPS 2016) and are briefly summarised below. More details can be found in CAT Reports 97, 412, 424, 628 and 843.

Neolithic and Bronze Age

Neolithic and Bronze Age features (mainly pits) have been uncovered during archaeological investigations as part of the Garrison Alienated Land project within in Areas C1 (north), C2 (east), J1 and H (northwest) and Flagstaff Road (north) (CAT Report 412 and 1033).

The Area C1 pits contained both Mildenhall Ware and Peterborough Ware, and may have been transitional between the middle/late Neolithic traditions (CAT Report 412). A pit in Area C2 contained Beaker pottery typical of the late 3rd to early 2nd millennium BC (RPS 2015).

Late Bronze Age pits were identified in Areas J1 and H (CAT Report 412 and 1033), in the northern zone of St John's Abbey (UAD event 3019) and Alienated Land Trench

WBT4 at Flagstaff Road (CAT Report 412). A pit/posthole of Late Bronze Age/Early Iron Age date was also found during work at Circular Road North to the west of Abbey Field (*ibid*).

No evidence of Neolithic or Bronze Age activity has been found at the Arena site itself.

Iron Age and the *Oppidum*

The Arena site falls within the eastern area of the Late Iron Age *oppidum* of Camulodunum (CAT Report 97). The only above-ground traces of this *oppidum* are the linear banks and ditches of its surrounding defensive dyke system. The closest of these is located some 0.6km away from the Arena site, in the south-east corner of the residential development of the former Hydrabad and Meeanee Barracks (Area A1, CAT Report 628).

The *oppidum* has two main centres of activity. Gosbecks Farm, the site of a late Iron Age and Roman rural farmstead, is 3.5km southwest of the Arena. Sheepen, an industrial and trading centre, is 1.5km to the northwest.

Apart from these two large centres, it is likely that there were a number of smaller domestic and farming sites in the *oppidum*. One of these farms was identified by field boundary paddocks and other features at Kirkee & McMumm Barracks in 1994 (Shimmin 1988) with another identified in 2010 at the former Goojerat Barracks (CAT Report 588). Late Iron Age cremation urns were found to the east of Kirkee McMunn Barracks in 2003 (CAT Report 292, Area 6) and in the southern and southeastern areas of Abbey Field in 1904-5 (UAD 1246, 1248).

Iron Age activity immediately around the Arena site is limited. Three minor ditches in Area C1 are undated but pre-date the Roman circus and may belong an Iron Age or early Roman field system. Two mid-to-late Iron Age parallel droveway ditches and some related pitting were identified in Area J in 2004 and found to extend into the Circular Road North excavation and the Athletics track car park excavations in 2007 (CAT Report 412).

Roman

The plateau of flat ground c 400m south of the Roman town, which includes the northern extent of the Arena site, contains internationally-important Roman archaeology in the form of a stone-built monumental Roman circus discovered in 2004. The circus is currently unique in Britain and has been investigated over multiple archaeological sites, including Areas B1b, C1, C2 and J, as well at the Circular Road North and Napier Road excavations (CAT Report 412). Smaller-scale research excavations have taken place identifying a section of the starting gates (in 2007), and an excavation in 2013 outside Roman circus House exposed a section of the northern *cavea* wall, which has been covered with a viewing platform and is now on display.

The circus was approximately 450m in length and 70m wide with a central barrier (*spina*). Elements identified to date include the stands, known as the '*cavea*', with internal and external walls, entrances on the north and south *caveas*, a racetrack dirt surface, a segment of the semi-circular end of the circus, eight starting gates, and elements of the '*spina*' including fragments of a turning post at the western end, a monument base in the centre of the *spina* at the modern cross roads of Flagstaff/Circular Road East with Napier Road/Circular Road North, and tank-like pits or cisterns within the east and west ends of the *spina*. In Areas B1b, C1 and C2, a metallised trackway was identified around the circus.

The circus appears to have been pulled down in the late Roman period, with rubble spreads to the exterior of the outer wall observed in excavations.

Apart from the circus, the only other archaeology previously encountered within the Arena site is a Roman pottery kiln discovered by a construction team in 1946 whilst excavating the foundation for the current building (Hull, 1958, 249). It was plotted as being at the south-east side of the main building (Fig 3 shows the approximate location of the kiln but may not be accurate).

Numerous Roman burials and burial related features have been located within the area immediately surrounding the Arena site: Area C2, Napier Road and Napier Road carpark (over 100), Area J1 North (over 400) and H (over 300), and Abbey Field (over 100) (CAT Reports 97, 412, 1033, Hull 1958). Sixty-eight burials came specifically from the closest site, Area C2. Eleven of these burials were ring-gully defined former barrows, containing cremations. This style of burial suggests both possible Germanic and military associations. Given this evidence, it was considered possible that burial activity might extend into the development site. However, the presence of a Roman kiln would be atypical on a cemetery site, and could suggest a distinct separation of activities. Alternatively there could be a chronological difference in the use of this space (e.g. the kiln pre-dated the cemetery).

The area to the south of the Arena is part of the rural hinterland south of the Roman town and the circus. To the south-east of the Arena, a small farmstead/villa lies within the playing fields of a new primary school (Area E). Archaeological evaluation identified an enclosure and small building in the playing field, with subsequent excavation of the footprint of the new school revealing a large Roman quarry, further enclosure/field boundaries and several cremations burials, including a bustum burial (CAT Report 778).

Saxon

In the late 19th century and in 1926, a number of early Anglo-Saxon (5th-7th century) burials were uncovered from Hyderabad Barracks (c 300m east of the Arena) and on land to the north of the barracks and east of Mersea Road. This burial ground extended south into the northwest corner of the former Hyderabad Barracks where about 70 inhumation graves were excavated in 2010 (CAT Report 628). Mainly of 6th-7th century date, three of the graves contained Anglo-Saxon weapons (spear heads with iron shield bosses) and were associated with at least four ring-ditches of probable barrows, similar in form to the late 3rd-century Roman examples at Area C2, Napier Road and Circular Road North. The remaining inhumations in Area A1 were not securely dated, although a late Roman to Anglo-Saxon date seems likely.

Later Anglo-Saxon evidence was identified 1972 when a small Anglo-Saxon church of St John was excavated before the construction of St Botolph's roundabout.

Medieval

The principal medieval site in the area is St John's Abbey which lies to the northeast. However, a desk-based archaeological assessment (RPS 2015) indicates that the Arena site probably lay within farmland at this time.

The only medieval archaeology located immediately within the vicinity of the Arena site consists of extensive robber trenches above the circus foundations. The circus foundations were evidentially systematically robbed during the medieval period, with greensand (perhaps from the circus) still observable in the remains of St John's Abbey wall to the north. As well as the robber trenches themselves, spreads of mortar and demolitions layers appear to be associated with this activity.

Post-medieval

The Parliamentary siege of Colchester in 1648 involved the construction of several large fortifications surrounding the town, the exact lines of which have never been established (a contemporary map suggests alignments, but its reliability is questionable). During the excavations in Area A1 and Area E (in 2011 and 2013 respectively), large post-medieval ditches were uncovered that could form part of the

siegeworks surrounding the town. Uncovering elements of the 1648 siegeworks within the site is considered less likely (as none were identified in Area C2) but not impossible.

Post-medieval pits and ditches were exposed during the excavations at Areas C1, C2, Napier Road and Circular Road North. This spread of 17th-19th century features is likely to continue into the Arena site.

Modern

Cartographic sources show that the development site was located within the southeast corner of an agricultural field during the 17th to 18th centuries, and by the later 19th century was located within the northern area of Colchester Garrison's Abbey Field. The NAAFI (the Arena building) was constructed in 1946 (CAT Report 97) and demolished this year.

Military features located on the adjacent Area C2 included Second World War trenches, concrete air-raid bunkers, a communication trench (which linked the bunkers) and a pit containing a stash of carefully stacked Home Guard petrol bombs ('Molotov Cocktails').

Phase 1a archaeological evaluation at the former Arena Leisure Centre (CAT Report 843)

In 2015 eleven trial-trenches were excavated across The Arena as part of the Phase 1a (pre-determination trenching) archaeological investigation of the development site.

No features or finds of a pre-Roman date were identified aside from a residual piece of worked flint with retouch typical of the later prehistoric period.

Numerous features of Roman date were encountered. Up to 11 potential inhumations (not fully excavated) were identified within six of the 11 trenches. Of particular interest were a copper-alloy neck ring associated with two human molars, possibly from an inhumation burial within ditch F2 (now south of the proposal site). In addition were a series of north-south and east-west aligned field boundaries (ditches) respecting the alignment of the Roman circus and several pits.

Two post-medieval ditches and two pits were also present and appeared to be related to the agricultural exploitation of the site. No specifically military features were encountered other than services associated with the NAAFI/Arena building.

4 Results (Figs 3-11)

4.1 Evaluation

Eleven trial-trenches were mechanically excavated under the supervision of a CAT archaeologist. All trench and context numbering continues on from the Stage 1a evaluation (see CAT Report 843).

Unless otherwise stated all trenches were excavated through modern tarmac or concrete on a sand base (L5) which sealed a sandy-silty subsoil (L6) overlaying natural sand (L7). See Appendix 2 for depths of layers.

Trench 12 (T12): 4.25m long by 2m wide

Trench T12 was excavated over the central barrier of the Roman circus.

It was excavated through modern asphalt (L5) which sealed a layer of medieval/post-medieval accumulation or buried topsoil (L8). Beneath L8 was a spread of demolition material (L9) associated with robbed-out wall foundation F87. Sealed by L9 and cut by F87 was accumulation layer L10 which sealed natural sand (L7).

Robbed-out Roman wall foundation F87 was recorded aligned east-west along the trench. This consisted of a shallow spread of mortar fragments with occasional pieces of greensand stone, *opus signinum*, ceramic building material (CBM) and oyster shell in a dark yellow/brown sandy-silt. Two sections through the spread show that it measured c 0.8-1.3m wide by 0.09-0.13m deep. On the southern edge of this robbing was a parallel line of robbing material (F90).

Robbed-out wall foundations F87 and F90 were identified at a depth of 33.71-33.74m AOD or 0.31-0.34m below current ground level.



Photograph 1 Trench T12, Roman circus showing robbed-out wall foundation F87 and F90, looking W

Trench 13 (T13): 7.8m long by 4m wide

Trench T13 was excavated over the southern *cavea* wall of the Roman circus.

It was excavated through modern asphalt (L5) which sealed a layer of medieval/post-medieval accumulation or buried topsoil (L8). Beneath L8 were spreads of demolition material. Mortar spread L11 and demolition spread L12 both sealed metalling F88, wall collapse F91 and robbing F94. At the north end of the trench, an erosion hollow in F88 was filled with accumulation layer L13, which sealed accumulation layer L10.

The outer *cavea* wall was identified in this trench as robbed-out east-west wall foundation F89 which terminated in the trench. The spread of robbing material associated with F89 measured approximately 2.35m wide. This was not investigated further.

Leading from F89 was a north/south wall/wall foundation (F92/F94), measuring c 0.65m wide and recorded for a distance of 4.6m. The first 1.5m length included the *in situ* remains of the wall (F92) consisting of a single row of small ashlar blocks of greensand

stone on the western face, forming the bottom course of the wall. The remaining 3.1m of wall had been robbed-out and only the wall foundation (F94) survived.

To the west of F92/F94 was a second north/south wall foundation (F93); although this was only partially located within the evaluation trench. The wall had been robbed-out for most of its length leaving only the wall foundation, however a single block of ashlar had survived *in situ* and a section of collapsed wall (F91) was found lying face-down on L13 on the northern edge of the trench.

Between F89/F92/F94 and F91/F93 was metalling F88. Together these features define a passageway c 7m long by 1.7-1.8m wide. Similar entrance/exit passageways or *vomitoriums* through the cavea wall have been identified in Areas J1 East and possibly on Circular Road East, c 63m to the east of the trench (CAT Report 412, 1345).

The surface of the passageway was metalled with gravel over most of its length with pieces of worn greensand and fragments of brick/tile found lying face down on top of it. A coffin bone from a small horse (the bottom-most bone in the equine leg encased by the hoof capsule) lay inside the passage where the metalling appears to be thinning out as if scraped away by post-Roman activity.

Pit F96 had been cut through metalled surface F88 and pit F95 had been cut through F91.

Metalling F88 and wall/wall foundations/robbed-out wall foundations F89, F92, F93, F94 and F91 were identified at depths of 33.91-34.03m AOD or 0.27-0.39m below current ground level.



Photograph 2 Trench T13, Roman circus, metalled surface F88 and walls/wall foundations/robbed-out wall foundations F89, F92, F93, F94 and F91, looking N

Trench 14 (T14): 30m long by 1.8m wide

Two Roman ditches (F73 and F77) aligned NW/SE. Ditch F73 measured 0.54m wide by 0.33m deep and ditch F77 1.95m wide (depth was not determined). Undated posthole F80 was identified on the edge of ditch F77, with a second undated posthole, F86, cut by pit F85. Roman pit F85 also cut through ditch F77.

Roman feature F76 was cut by ditches F73 and F77. Some iron nails were recovered on the surface of the feature and it was identified as the remains of a possible inhumation burial and no further excavation was carried out.

Also present were two parallel post-medieval ditches (F75 and F81), probably dating to the 18th century. They were aligned NE/SW and were 4.3m apart. Ditch F75 measured 1.92m wide by 0.85m deep, with ditch F81 measuring 1.9m wide by 0.84m deep. Excavated between the ditches was medieval/post-medieval pit F84. It is likely that ditch F81 continued to the NE as ditch F83 in T22.

Two modern concrete foundations were also present.



Photograph 3 Trench T14, looking SE

Trench 15 (T15): 20m long by 1.8m wide

Large Roman ditch F59 was present in the east end of the trench. It was aligned N/S and measured 3.37m wide by at least 0.85m deep but it was not fully excavated. It is likely that this ditch continued to the south as ditches F71 in T16, F52 in T17 and possibly also F14 in T9 (CAT Report 843).

Also of a Roman date was pit/large posthole F57, and possible inhumation burials F63 and F64. Neither of these two features were fully excavated nor their extents revealed, so their identification as possible inhumation burials is extremely tentative and they could equally be pits. The excavated section of F64 indicates that the feature has vertical sides and a flat base, but the only finds recovered from it were seven fragments

of Roman CBM. Furthermore, it is uncertain whether Roman material from finds number 55 came from F63 or ditch/gully F65, so neither of these features can be confidently dated.

Four parallel ditches/gullies (F54, F55, F56 and F65) aligned north/south and measuring on average 0.52m wide by 0.12m deep were recorded to the west of ditch F59. Dating evidence from these four features was mixed. Feature F54 contained 12th-century pottery (and Roman finds), F55 an iron fencepost fitting of post-medieval/modern date (which could conceivably be intrusive although no evidence of a posthole was identified), F56 was undated, and F65 appeared to be cut by Roman features F63 and F64 and contained Roman finds (although the material from finds number 55 came from either ditch/gully F65 or possible inhumation burial F63, so neither of these features can be confidently dated). The parallel nature and similar size/shape of these ditches/gullies would suggest that they are contemporary features, but the dating evidence does not appear to confirm this.

Trench 16 (T16): 20m long by 1.8m wide

Trench T16 was disturbed by several areas of modern concrete and services associated with the former NAFFI/Arena building.

Roman pit F68 was recorded at the north end of the trench. Cut by a modern drain was F67 containing some charcoal and burnt edges. This was identified during evaluation as a possible pyre site or bustum, similar to those identified on Garrison sites, Areas J1 North and H. This identification must be tentative as only a small part of the feature was excavated and twenty fragments of Roman CBM were recovered from it along with three pottery sherds, all unburnt.

The edges of undated ditch F71 were identified at the southern end of the trench. The ditch had been cut through by a modern concrete foundation and due to the depth of the trench was left unexcavated. It appeared to be aligned approximately north/south. It is likely that this ditch continued to the north as ditch F59 in T15 and to the south as ditches F52 in T17 and possibly also F14 in T9 (CAT Report 843).

Trench 17 (T17): 30m long by 1.8m wide

Trench T17 was disturbed by several modern concrete beams cutting across the trench associated with the former NAFFI/Arena building.

To the southwest was Roman ditch F52. It was aligned N/S and it is likely that this ditch continued to the north as ditches F59 in T15 and F71 in T16 and possibly to the south as ditch F14 in T9 (CAT Report 843). It measured 2.4m wide by 1.09m deep.

Two parallel ditches/gullies were located further to the northeast. Both were aligned N/S, F62 dated to the Roman period and measured 0.60m wide by 0.23m deep, while undated F60 measured 0.35m wide by 0.16m deep. During the 2011 evaluation it was suggested that ditches F4 in T10 and F29/F30 in T6 were a part of the same feature, projected northwards this ditch is on the same alignment as F60 and F62 (and could be part of either feature) and possibly also as ditch F70 in T19.

Also present was undated ditch or pit F69. Undated pit F61 cut ditch/gully F60 and Roman pit or silt filled hollow F78 was recorded close to F52.



Photograph 4 Trench T17, looking E

Trench 18 (T18): 35m long in total by 1.8m wide

Due to space constraints trench T18 was split into two in a T-shape, measuring 15m and 20m long.

Roman ditch F53 was aligned NNW/SSE and measured 2.45m wide by 1.02m deep. To the east were shallow medieval/post-medieval ditch F58 aligned NNE/SSW and measuring 1.26m wide by 0.21m deep and undated ditch F66 aligned NNW/SSE and measuring 1.2m wide by 0.31m deep.

Trench 19 (T19): 15m long by 1.8m wide

Trench T19 was disturbed by several modern concrete beams and service trenches associated with the former NAFFI/Arena building.

Single undated ditch F70 was aligned north/south and measured 0.5m wide by 0.23m deep. During the 2011 evaluation it was suggested that ditches F4 in T10 and F29/F30 in T6 were a part of the same feature, projected northwards this ditch is on the same alignment as F60 and F62 in T17 (and could be part of either feature) and ditch F70.

Trench 20 (T20): 15m long by 1.8m wide

Trench T20 was moved approximately 7m further to the NE than that proposed in the WSI into the tennis courts. Roman ditch F51 was aligned NE/SW and measured 1.25m wide by 0.49m deep. Post-medieval (late 17th-early 18th century) ditch F50 was aligned N/S and measured 1.75m wide by 0.5m deep. Undated pit F49 was also recorded.



Photograph 5 Trench T18, looking SW

Trench 21 (T21): 16m long by 1.8m wide

Trench T21 contained no significant archaeological remains.

Trench 22 (T22): 20m long by 1.8m wide

Roman ditch F72 was aligned ENE/WSW and measured 2.55m wide by 0.9m deep. Next to it was Roman pit F79. The full extent of this pit could not be determined but it measured at least 0.53m deep. Possible Roman inhumation F74 was not fully excavated. It did contain 11 hobnails, usually indicative of Roman burials, but given the quantity of Roman CBM, stone, pottery sherds and slag recovered from this small section, it is perhaps more likely to be a pit. If shown to be affected by the proposed development, this would need to be investigated further.

Ditch F83 was aligned NE/SW and measured 1.3m wide by 0.54m deep. It contained two fragments of Roman CBM but is likely to be a continuation to the NE of post-medieval ditch F81 in T14.

Undated pit F82 was also recorded to the north of F83.



Photograph 6 Trench T22, F72 and F73, looking ENE

4.2 Monitoring and recording

Monitoring and recording was carried out in advance of the demolition of the Arena buildings (12th January – 3rd February 2017) during service works to establish the route of, and thereafter disconnect, the water, gas and electricity supplies.

Water mains: An area 1m² by 0.6m deep was excavated to locate an incoming water main. Approximately 0.3m around an existing valve chamber was also excavated to allow for better access. Groundworks were excavated through modern layers of hardstanding (asphalt and sub-base), buried topsoil and accumulation.

Gas mains: An area 1m by 0.7m by 0.9m deep was excavated around the gas main. Excavations took place through the modern backfill of the service trench.

Electricity supply: Three small pits, c 1m by 0.5m by 0.7-0.8m deep, were excavated to identify electricity cables. Excavations took place through modern tarmac and crush and into the modern backfill of the service trenches.

No significant archaeological horizons were revealed as a result of the monitored groundworks.

5 Finds

by Stephen Benfield (unless otherwise stated)

Introduction

The types and quantities of finds recovered are listed in Table 1. The great majority of the closely-dated finds are Roman with a much smaller quantity dated to the prehistoric, medieval, post-medieval and modern period. All of the finds are listed by context in the bulk finds appendix (Appendix 3).

Finds type	No.	Wt/g.
Pottery	231	6139
Ceramic building material (CBM)	290	61688
Mortar	5	480
Stone (primarily building stone)	128	32911
Querns (lava quern)	1	72
Glass (vessel)	3	38
Clay tobacco pipe	3	20
Slag	1	66
Nails (iron)	14	-
Marine shell (oyster)	2	26
Animal bone	35	531

Table 1 Types and quantities of bulk finds

5.1 Pottery (Fig 12)

Pottery of prehistoric, Roman, medieval and post-medieval date was recovered, the majority of which is Roman. All of the pottery was recorded by sherd count (number) and weight for each fabric type. Vessel forms and EVE (estimated vessel equivalent) was also recorded for Roman and post-Roman pottery. For the Roman period the fabrics refer to the Colchester Roman fabric series (*CAR 10*) and the vessel form to the Colchester *Camulodunum* (CAM) type series (Hull 1958). The post-Roman pottery fabrics refer to the Essex post-Roman fabric series (Cunningham 1985 & *CAR 7*).

Prehistoric

A single, hand made sherd of flint-tempered prehistoric pottery comes from ditch F53 (49) in T18A and is residual in this context. The sherd (12g) is from the rim of an open bowl form, preserving the flat rim with part of the inward sloping body wall. The flint inclusions are of small-medium size and appear relatively well sorted. While difficult to date closely within the main currency of flint-tempered pottery in this area (Neolithic-Early Iron Age), overall the sherd suggests a Bronze Age date.

Roman

The Roman pottery is listed by fabric in Table 2.

Fabric	Fabric description	No.	Wt/g.	EVE
AA	All amphorae (excluding Dressel 20)	1	254	
AJ	Amphorae, Dressel 20	9	2542	
BACG	Central Gaulish plain samian	2	6	
BSW	Black surface wares	4	26	
CB	Colchester red colour-coated roughcast ware	3	68	0.33
CL (NE)	Central Gaulish colour-coated ware	1	1	
CZ	Colchester and other red colour-coated wares	23	96	0.31
DJ	Coarse oxidised and related wares	8	131	
EA	Nene Valley colour-coated ware	3	69	
EZ (Köln)	Cologne colour-coated ware	3	6	
GB	Black-burnished ware Type 2 (BB2)	16	292	0.75
GX	Other coarse wares, principally locally-produced grey wares	137	1354	10.9
HZ	Large storage jars in heavily-tempered fabrics	4	364	
KX	Black-burnished ware types in pale grey ware	4	94	0.20
MQ	White-slipped fine wares and parchment wares	1	8	
TZ	Buff fabric mortaria (general) primarily from Colchester	5	624	0.13
	Total	224	5935	12.62

Table 2 Roman pottery by fabric

Excluding Dressel 20 (Spanish) amphora sherds (Fabric AJ), imports make up a relatively small proportion of the Roman pottery, but include products from several production centres active in the period of the 2nd to 3rd century. This pottery consists of

samian from Central Gaul (Fabric BACG) and colour-coated ware (beaker sherds) from Cologne (Köln) (Fabric EZ (Köln)) and Central Gaul (Fabric CL(NE)). Of note is a body sherd from a non-Dressel 20 amphora; although other amphora types are not uncommon finds at Colchester and other major Roman towns, as opposed to Dressel 20 which are fairly ubiquitous and commonly appear in rural as well as urban pottery assemblages.

British finewares are dominated by sherds from products of the local (Colchester) potteries (Fabric CB and Fabric CZ) and Fabric CZ is especially well represented. The vessel forms recorded in these fabrics are all beakers, either of form Cam 391A/B (dating to the 2nd century) with more than one example of this form, and the later form Cam 392 (dated late 2nd to 3rd century) of which one example was recorded. There are also a few sherds that are (or appear to be) Nene Valley colour-coated ware (Fabric EA) which are likely to date no earlier than the 3rd century at Colchester (after c AD 225) and are most commonly associated with contexts dating to the late 3rd to 4th century.

As is common to most Roman assemblages, the coarsewares are mostly, if not entirely, of local origin. There is a significant number of sherds of black-burnished ware, category 2 (BB2) (Fabric GB), presumed mostly of local production, although other centres in the southeast are known to produce these wares. Forms recorded are the bowl/dish form Cam 37A (early to late 2nd century) and the dish form Cam 40A (early 2nd to 3rd century) together with the jar form Cam 278 (early 2nd to early 3rd century). By far the largest fabric group is local greywares/coarsewares (Fabric GX). Despite this only two forms were recorded in this broad group, the jar Cam 268, current during the period of the early/mid 2nd to late 3rd/early 4th century) and the beaker form Cam 108 (current mid 1st to early 2nd century). The beaker, which was recovered from F59 (60) in T15, is of particular note. Although the profile is rather ovoid, there seems little doubt that it is consistent with the form Cam 108 and, while quite broken into pieces, it is near complete and might represent a displaced votive or burial pot (Fig 12.2). However, black-burnished-type forms were also recorded in local greyware (Fabric KX) with bowl Cam 37 (broadly of 2nd to 3rd century date) and Cam 39 (dated as early/mid 2nd-3rd/4th century). By way of contrast, sherds from large storage jars (Fabric HZ) are noticeably few in number and, perhaps slightly more unusually there are only a few sherds of coarse oxidised ware (Fabric DJ) among the assemblage.

Of interest among the coarse oxidised wares is a sherd from F85 (85) T14 which has part of a ?circular motif on the body made with close spaced fine indentations and probably formed from a single spiral line (see Hull 1958 fig 65 no. 64). Although relatively rare, pots decorated with spiral line made circles are known from Colchester and other sites in East Anglia. At Colchester this motif appears on a greyware jar from the 'Mithraeum' deposit (Hull 1958, fig 65.64) which is dated to the 4th century, but which has a significant amount of residual 3rd century pottery (Going 1987, 119-120) and on a large greyware jar from an inhumation burial dating to the mid/late 3rd to early 4th century at Garrison (GAL) Area H off Butt Road (CAT Report 1033 forthcoming). Other examples on jars or beakers are known from Long Melford in Suffolk associated with late 1st- or early 2nd-century pottery and 2nd-century pottery (CAT Report 893), while other examples from East Anglia also indicate a general Trajanic/Hadrianic date for this style of decoration (Barford 2002, Fig 103 no. 40 & 143). However, the two examples from Colchester (above) suggest this burnished spiral motif persists (certainly on greyware pots) into the late Roman period of the 3rd century and possibly later.

Overall the Roman pottery is dominated by fabrics and forms typical of the mid Roman period of the early 2nd to 3rd century, while pottery typical of the mid 1st to early 2nd century appears to be absent or is hardly present and unrecognised among sherds that are not closely datable. The more closely dated of the latest Roman pottery among the assemblage (represented by sherds classified as Nene Valley colour-coated ware)

comes from T13 metalling F88 (91), demolition L12 (104) and wall foundation F89 (97). There is little or no indication that any of the pottery need date later than the mid to late 3rd century. Closely-datable forms and fabrics of the Late Roman period of the late 3rd to 4th century do not appear to be present. It can be noted the dating of the Roman pottery assemblage is similar to the dating of the Roman pottery assemblage recovered during an earlier evaluation on the site (CAT Report 843,13).

Fig 12.1 F85 (85) T15 Fabric DJ, part of a ?circular motif on body made with close spaced fine indentation and probably formed from a single spiral line

Fig 12.2 F59 (60) T15 Fabric GX, Near complete pot, Cam 108-type beaker, broken into sherds, rouletted body panel around girth, everted rim with cordon defined by grooves (comprised of 48 sherds, total weight 380g).

Medieval & post-medieval

The sherds of medieval and post-medieval pottery are listed by fabric in Table 3.

Fabric	Fabric description	No.	Wt/g.	EVE
13	Early medieval sandy wares (general)	1	10	0.13
20	Medieval sandy greywares (general)	3	36	
40	Post-medieval (glazed) red earthenwares (general)	2	146	
	Total	6	192	0.13

Table 3 Post-Roman pottery by fabric

Medieval

A very small quantity of medieval pottery was recovered and consists of a sherd of Fabric 13, broadly current in the 11th to 12th centuries and three sherds of Fabric 20, broadly current in the period of the late 12th/13th to 14th centuries.

The sherd classified as Fabric 13 comes from linear feature F54 (50) in T15, although otherwise this feature produced a small quantity of Roman pottery, Roman CBM and pieces of Kent-type ragstone. The sherd is from the rim of a cooking pot consistent with rim type A4 (CAR 7, fig 27) dated to the period of the late 11th to 12th centuries, although it should be noted that the curvature suggests a small-medium size pot with a rim diameter of c 120mm.

Single sherds that can be classified as medieval greywares/coarsewares (Fabric 20) come from the lower fill of ditch F81 (79) in T14 and metalling F88 (91) in T13, while a sherd that is probably of this medieval fabric type was also recovered from F75 (81) in T14.

Post-medieval

There are just two sherds that can be dated to the post-medieval period, both are Fabric 40 and come from ditches in T14. One is from ditch F75 (82), the other from the upper fill of ditch F81 (78). They are both broadly dated to the period c late 16th/17th century-18th century.

5.2 Ceramic building material (CBM) (Figs 12-14)

A significant quantity of CBM of Roman and post-Roman date was recovered (290 pieces, total weight 61688g). The great majority of this is Roman and includes three whole Roman roof tiles – two *imbrex* and one *tegula*.

Roman CBM (238 pieces weighing 59770g)

The types and quantity of Roman brick/tile recovered are listed in Table 4. The most significant of the CBM in terms of quantity are roof tiles (*tegula* and *imbrex*) and brick. All of the Roman CBM is in fine-medium sandy orange-red fabrics with little visual contrast or indications of significant differences in fabric and is presumably all or local

origin. The more closely-datable Roman pottery associated with the contexts from which it was recovered would suggest that most of this probably dates to the 2nd to 3rd centuries.

Brick/tile code	Brick/tile type	No.	Wt/g.
RT	Roman <i>tegula</i>	52	27040
RI	Roman <i>imbrex</i>	29	10630
RBT	Roman brick & tile	125	12024
RB	Roman brick	24	9574
RFT	Roman flue tile	7	488
Tess	<i>Tesserae</i>	1	14

Table 4 Roman CBM by type

Roman CBM was recovered from the majority of contexts. As is common to these assemblages, the CBM consists primarily of broken pieces. However, rather unusually there are three whole roof tiles. These consist of two *imbrex* tiles from ditch F59 (59A & 59B) in T15 and a *tegula* tile from feature F79 (73) in T22. These three tiles are described in detail below, although it can be noted that Warry (2006) suggests that the lower cut away Type D16 (present on the *tegula* tile) should date to after the mid 3rd century (c AD 240+). Pottery from feature F79 would suggest a date in the 2nd to 3rd century for the context. It can also be noted that the *tegula* tile is not flat but the body is convex, with the central part 15mm above the ends when placed on a flat surface. Warry proposes that these curved tiles, rather than an accident of manufacture, are possibly for use in vaulted roofs (*ibid*, 111-118). Some of these convex tiles, he notes, have smoothed areas on the base surface (*ibid*, 112) although the tile base here is simply rough and pitted from resting on sand when wet as is typical for most Roman tiles/bricks. One interesting aspect of this particular tile is that the flange has been broken away in antiquity above both of the cut-aways suggesting that an awkward fit had been adjusted to enable it to sit on a roof.

The whole tiles suggest abandoned building material or primary demolition material. It can be noted that this contrasts with the CBM recovered during an earlier evaluation on the Arena site where the lack of any curved *imbrex* tile pieces suggested that the broken-up Roman CBM recovered had possibly been brought in from elsewhere for reuse (CAT Report 843, 14).

Also of note among the Roman CBM is a piece of tile recovered from F59 (60). This is the back part of a *tegula* (three joining pieces) which has a fixing hole central to the tile close to the back edge. Warry (2006) suggests these nail holes (typically a single hole at the centre rear of the tile) were used to fix (nail) the lowest row of *tegulae* onto the roof, these being tiles carrying the weight of the tiles further up on the roof and the most vulnerable to slipping free (*ibid*, 102). There are indications that these holes appear more commonly on late Roman *tegulae* (mid 3rd century and later) than those of the early Roman period (*ibid*, 104).

Where might these tiles have come from? The nearest known Roman structure is the Roman circus (located just to the north). This may well have incorporated roof tiles on small roofed structures (pulvinar and officiating box) on the stands along its length. Despite the presence of stone from the demolished circus walls on the site (see below), there are several points which indicate this may be unlikely as a source for the tile. Use of roofing tile in the circus structure would have been very limited, certainly in relation to the structure as a whole and the small buildings associated with it (as reconstructed in the overall plan) are located some distance from the present site. Also, if Warry's dating is correct (above) then the *tegula* is rather late in relation to the construction date proposed for the circus, although it could represent a later repair/re-roofing. The nature of the *tegula* tile, possibly from a vaulted roof, again might make the circus an unlikely source. There may have been ancillary structures associated with the circus, but no evidence for any has so far been encountered. Another possible source is a Roman

building(s) known to lie 300m to the southeast on a site referred to as Garrison Alienated Land Area E (CAT Report 778). A significant quantity of broken Roman tile and brick was recovered during the excavation there (although no whole tiles or bricks) and associated dating evidence suggested a date of the late 1st/2nd-3rd century. It should also be noted that Roman burials are known from this general area. At least one Roman mausoleum is known from Area C2 (CAT Report 412, 34-35) with this structure and others possible being roofed of tile. Furthermore, a Roman burial on Abbey Field, southwest of the site, was set within a box/cist built out of whole tiles, although this had been made from several *lydion* tile-like bricks rather than roof tile (CAT Report 138).

To return to the assemblage in general, overall roof tile is quite well represented among the CBM and it should be noted that a proportion of the flat tile pieces, recorded as Roman brick/tile (RBT), are also likely to be *tegula* bases. Among the broken pieces of *tegula* several lower cut-aways were able to be identified and recorded. These are Warry Types B6 & C5 (three examples) from F59 (61 & 62) in T15, Type B6 from F79 (73), and probably Type C56 from F72 (64) both in T22 (Warry 2006). It can be noted that Type C56 appears to be one of the more rare types recorded in Colchester. Warry suggests that Type B is typically of 2nd-century date and Type C is typically of mid 2nd to mid 3rd century date. The base thickness of these tiles are listed in the finds appendix (Appendix 3).

There is also a significant number of pieces of Roman brick, of which several are corner pieces, probably from *pedalis* or *lydion* tile-like bricks. In addition there are a few pieces of flue tile with combed keying, one tesserae cube and a single small tile cube of mosaic size. A probable dog paw impression was noted on one tile from F59 (61) in T15. Of interest is a piece from a narrow brick, from F79 (73) in T22, on which parts of both side edges survive and is 110mm in width. Both faces are relatively smooth. Other finds from this feature are of Roman date. In size it is similar to Roman floor bricks or *spicae*; a type of brick that has been recovered from a number of sites in the town notably on North Hill and on North Station Road (CAT Report 193). However, the brick here is very wide, the *spicae* from North Station Road being c 40mm-50mm wide and Brodrigg (1987) gives an average for this type of brick as 62mm. Also, there is a slight taper to the piece with one end at c 32mm thickness and the other at c 25mm thick so that the brick appears to taper and might be part of a special brick (*cuneatus*) for an arched opening; although the brick is rather small for this in relation to examples quoted in Brodrigg where widths are c 150mm and above (*ibid*, 44).

Fig 12.3 F79 (73) T22, whole *tegula* tile, small area of flange above each lower cut away (LCA) broken away deliberately in antiquity, tile length 430mm, width at front 340mm, width at rear 350mm, base thickness at front 20mm, base thickness at rear 18-19mm, flange depth 40mm. The tile body is curved (convex) front-back with a central rise of 15mm from flat. The removal of the flange above each LCA has mostly removed them but the LCA on one side of the tile can be seen to have been of Warry (2006) Type D16 (suggested dating by Warry is c mid 3rd century+ after c AD 240), length of LCA 60mm, length of upper cut away (top rear of tile) c 50-55mm (weight 7606g).

Fig 13.4 F59 (59A) T15, whole *imbrex* tile, length 425mm, max width at front 190mm, max width at rear 155mm, tile thickness at front 19-20mm, tile thickness at rear 15-16mm (internal measure – front max height c 78mm, max width at front c 150mm; rear max height c 50mm, max width c 115mm) (weight 3224g).

Fig 13.5 F59 (59B) T15, whole *imbrex* tile, slight split (original) in tile at rear top edge, length 410mm, max width at front 200mm, max width at rear 150mm, tile thickness at front 18mm, tile thickness at rear c 15mm (internal measure – front max height c 75mm, max width at front c 160mm; rear max height c 55mm, max width c 105mm) (weight 2866g).

Fig 13.6 F59 (60) T15, rear part of a *tegula* tile (in 3 joining pieces) with fixing hole, tile width 335mm, base thickness 25mm.

Fig 14.7 F79 (73) T22, central part of a brick (both ends missing – max surviving length 150mm) in fine sand brownish-orange fabric, relatively smooth surfaces, one face cut or scraped over

smooth the other lightly sanded and faintly coarse (width 110mm), possibly tapering (thickness 32mm at one end, 25mm at the other end) (weight 762g).

Post-Roman CBM (52 pieces, total weight 1918g)

Apart from one piece of brick of probable 15th to 17th century date, which came from the upper fill of ditch F81 (78) in T14, all of the post-Roman CBM consists of pieces of peg-tile.

Peg-tiles are associated with two features in T14 (ditch F81 and pit F84), with individual features in T18B (ditch F58) and T20 (ditch F50) and was collected from topsoil/accumulation (L8) in T12. The largest quantity from a single feature came from the fill of ditch F81 (22 pieces weighing 926g), the majority (18 pieces) being associated with the upper ditch fill, although four pieces from the lower fill (356g) were noted as being moderately good size and not as broken-up as the pieces from the upper fill. Another group consisting of 16 pieces (462g) was recovered from the fill of ditch F50.

Of itself the peg-tile is not generally closely datable within the broad medieval/post-medieval period, although in Essex it appears that it was not in common use until the 14th century (Ryan & Andrews 1993, 97). This would also apply mostly to secular buildings or buildings of modest status and the presence of the nearby Abbey of St John might allow an earlier date for peg-tile pieces in the vicinity. However, the pieces from ditch F81 are associated with pottery of post-medieval date (c 17th to 18th/19th century) and the pieces from ditch F50 are associated with finds of late post-medieval date that include clay pipe.

5.3 Stone

A significant quantity of building stone (primarily Kent greensand and septaria) together with some stone that could be used in building (chalk and slate) was recovered. The stone comes primarily from contexts associated with Roman finds. The quantities of each type of stone are listed in Table 5.

Stone type	No.	Wt/g.
Kent greensand	74	26552
Septaria	41	4707
Chalk	10	940
Slate	1	10
Other (not closely identified)	2	702

Table 5 Building stone and possible building stone

Kent-type greensand

The most significant of the stone recovered in terms of quantity is of a type consistent with being greensand from Kent. This is identified as Kent-type greensand, although the attribution to source appears almost certain as the most likely source for the greensand here is the Roman circus as this was the main (essentially the only) stone component used in that structure, being used extensively to construct the walls. Also, it seems likely that this large building project saw the first significant import and use of Kent greensand at Colchester. This did not take place earlier than the early 2nd century suggesting that features here containing Kent greensand are of 2nd century date or later. The largest quantities of this stone come from the robbed-out wall foundation F87 (93 & 94) in T12 and large pieces, including a large piece suitable for the wall face, from ditch F53 (49) in T18A. The quantity of this stone recovered from F87 forms a numerically significant part of the greensand from the site (34 pieces) but the pieces are of relatively small size with a combined weight of just 5028g. Some of the pieces are noted as having traces of mortar. The seven pieces from F53 are much larger having a combined weight of 9422g suggesting material from the circus construction phase or primary demolition. Little was recovered from other areas of the Roman circus as most of the stone was left *in situ*.

Septaria

Most of the septaria was recovered as a few pieces from a number of contexts. A small concentration of 6 pieces (weight 464g) come from the fill of the post-medieval ditch F81 in T14; however, 6 pieces come from the fill of ditch F72 in T22 and 10 pieces (664g) were recovered from F53 in T18A which are otherwise only associated with finds of Roman date. Other contexts with septaria are F87 (T12), F95 (T13), F75, F77 & F85 (T14), F52 (T17), F72, F74 & F79 (T22).

Septaria (a local/regionally available stone type) is a common building stone in the Roman town from the early Roman period, and like most Roman building materials was extensively reused in the medieval period. It has been noted that this stone is commonly found alongside reused Kent greensand in wall foundations belonging to the nearby St. John's Abbey and while the septaria on the site here might relate to activity in the Roman period, some at least might also derive from salvaged building material imported into this area during the medieval period. It is notable that overall the average weight of the septaria pieces is significantly less than for the greensand at 114g (septaria) as opposed to 358g (greensand), although it should be noted that the septaria is a relatively poor quality stone and much more liable to break-up/fragment than the greensand.

Other stone

An otherwise unidentified and unsourced piece of banded, slightly vesicular quartzite/sandstone was recovered from the metalling in (F88) in T13 (91). Also, a small, light coloured, relatively soft piece of otherwise unidentified sandstone comes from the fill of ditch F58 (53) in T18B and is associated with finds of medieval date.

A single piece of slate (10g) was recovered from ditch F74 (81) in T14 associated with finds of medieval/post-medieval date.

Pieces of chalk (chalk lumps) come from possible burial F74 (66) in T22, ditch F81 (78) in T14 and foundation F87 (3) in T12.

5.4 Roman glass (Fig 14)

Most of a vessel base (two joining sherds) and a single separate large sherd from a curving, ribbed body, were recovered from the lower fill of ditch F72 (65) in T22. All three sherds are in similar blue-green glass. Although not entirely clear it is likely that these two sherds come from different vessels. The body (Fig 14.8a) appears fairly typical of collar rimmed, ribbed jars which are a relatively common form dating to the late 1st-early/mid 2nd century (Price & Cottam 1998, 137-38); although tubular rimmed bowls and globular jugs could also produce similar sherds. The base (Fig 14.8b) with its upright wall and tubular footring (with pontil scar) is more typical of some forms of beakers and jugs dating primarily to the 2nd century and later, and is completely different to the bases found on ribbed jars.

Fig 14.8a F72 (65) T22 Body sherd in blue-green glass with shoulder and vertical ribs

Fig 14.8b F72 (65) T22 Base (two joining sherds) in blue-green glass with pontil scar and relatively upright body wall

5.5 Animal bone

by Alec Wade

The evaluation produced a small assemblage of 35 pieces of animal bone together weighing 531g from eight features and two layers. The bone is listed by context in Table 6. The assemblage was identified to species level. Where it was not possible to positively identify the species it has been categorised as either large mammal (cow,

horse and larger deer), medium mammal (sheep or goat, pig and smaller species of deer) or small mammal (dog, cat or smaller).

All of the main domesticated species are represented in the assemblage (cow, horse and sheep/goat) except for pig. Due to anatomical similarities between sheep and goats no distinction has been possible. No wild or non-domesticated species were positively identified.

Cut marks associated with butchery were noted on two pieces of bone (cow and large mammal) from F72 and F75. Additionally two bone fragments from F88/L13 had been deliberately hacked or broken apart – an action usually attributed to marrow extraction. Just three pieces of animal bone displayed damage from dog gnawing and this is often a good indicator of residual material as it has resulted from the actions of scavenging dogs.

Of particular note is a coffin bone (the bottom-most bone in the equine leg encased by the hoof capsule) from F88/L13 (102) which has been identified from digital images by osteologist Julie Curl as belonging to either a small horse, donkey or mule. Furthermore, she noted that there are signs of arthritic growth on its proximal articular surface suggesting a mature working animal.

Context	Find no.	Species	Quantity	Cut marks	Dog gnawed	Weight (g)
F53	49	Horse	2			22
F53	49	Unidentified	1		1	4
F59	60	Medium mammal	4			1
F72	64	Unidentified	2			2
F72	65	Cow	4	1		168
F74	66	Horse	1			34
F74	66	Large mammal	9		1	92
F75	83	Large mammal	1	1	1	92
F81	79	Medium mammal	1			1
F85	85	Medium mammal	1			4
F88	91	Cow	1			18
F88	91	Large mammal	2			12
F88	91	Unidentified	1			1
F88/L13	101	Cow	1			44
F88/L13	102	Horse (Equid hoof)	1			22
L8	89	Sheep/goat	1			4
L8	90	Large mammal	2			10
		<i>Total</i>	35	2	3	531

Table 6 Animal bone by context and find number

5.6 Other finds

Clay tobacco pipe

Only three pieces of clay tobacco pipe were recovered. One, a stem piece, comes from the lower fill of ditch F81 (79) in T14; the bore size could indicate an 18th-century date. The two other pieces, from ditch F50 (45) in T20, include a pipe bowl of Crummy Type 8 (CAR 5) dated as late 17th to the early 18th century (c 1680-1710).

Iron nails

A total of 14 pieces of corroded iron can either be positively identified as nails and parts of nails, or probably represent whole or part nails. The nails reported here were primarily recovered as single items or as two or three from the same context (feature/layer). Where other dated material is present almost all of them are associated with finds of Roman date suggesting the majority at least are Roman. The small size of the nails and (where present) the flat, round/sub-circular heads allow them to be classified as Manning Type 1B (Manning 1985).

Quernstone

A small, abraded piece of imported (German) lava quernstone (72g) comes from the upper fill of ditch F81 (78) in T14. The context also contained finds of post-medieval date. The quernstone piece is certainly residual in this context and while German lava querns continued to be imported in the post-Roman (Late Saxon and medieval) period the piece is most likely to be of Roman date.

Mortar

A small quantity of pieces of lime mortar (5 pieces, weight 480g) was recovered from ditch F59 (60) in T15 associated with finds of Roman date. Other pieces of mortar, two of *opus signinum* (*op sig*), which can be closely dated to the Roman period, and a single piece of lime mortar are associated with the foundation F87 in T12.

Slag

A single small piece of unidentified ?flow slag (grey, vesicular, relatively smooth surface) was recovered from possible burial F74 (66) in T22.

Shell

Very little shell was recovered. Two pieces of oyster shell came from features in T14. One (quite degraded) is from linear feature F77 and associated with finds of Roman date, the other is from ditch F81 which produced finds datable to the post-medieval/modern period.

5.7 Small finds

by Laura Pooley

Six small finds were recovered from six separate features. Four dated to the Roman period and two to the post-medieval/modern period. For full details see Appendix 4.

Roman

Roman finds consisted of a base-silver coin and copper-alloy coin, both 3rd century, an iron knife and iron hobnails.

The copper-alloy coin (SF1) came from a medieval/post-medieval pit (F84). It was completely worn and illegible but based on size and weight probably dates to after AD 260. The second coin (SF3) was from the Roman metalled surface of the circus (F88). Heavily clipped, it appears to be a barbarous radiate of the 3rd century.

The remains of an iron knife in three pieces (SF4) was found in Roman ditch F52. The blade and handle are both incomplete but the blade appears to continue the line of the handle and appears (from what has survived) to be more or less straight. The handle in oval in cross-section. Probably a Manning type 11 and 12 (1982, 114). The final group of iron objects (SF7) were eleven hobnails and a small iron nail from possible inhumation F74.

Post-medieval/modern

Two iron objects were recovered from post-medieval/modern features. The first was a sheet fragment in several pieces (SF6) and the second a A-framed iron fitting from the base of a wooden fence post. Several of these have been found on the garrison site (Ben Holloway, *pers comm*).

6 Environmental results

This environmental report includes the results from both the Stage 1a (CAT Report 843) and Stage 1b evaluation of the Arena Leisure Centre.

An evaluation of the charred plant macrofossils and other remains

by Val Fryer, Environmental Archaeologist

Introduction and method statement

Evaluation excavations adjacent to the site of the Roman circus in Colchester were undertaken by the Colchester Archaeological Trust Ltd (CAT). The work recorded a number of features including ditches, pits and possible funerary contexts. Samples for the evaluation of the content and preservation of the plant macrofossils assemblages were taken, with twenty-one being submitted for assessment.

The samples were bulk floated by CAT with the flots being collected in a 300 micron mesh sieve. The dried flots were scanned under a binocular microscope at magnifications up to x16 and the plant macrofossils and other remains noted are listed in Tables 1 and 2. Nomenclature within the tables follows Stace (2010). All plant remains were charred. Modern roots, seeds and arthropod remains were also recorded.

Results

Cereal grains and seeds of grassland herbs and wetland plants are present at varying densities within all but seven of the assemblages studied. Preservation is moderately good although occasional cereals and seeds are puffed and distorted, probably as a result of combustion at very high temperatures.

Oat (*Avena* sp.), barley (*Hordeum* sp.) and wheat (*Triticum* sp.) grains are recorded, with barley being predominant throughout. Asymmetrical lateral grains of six-row barley (*H. vulgare*) are noted within three of the assemblages studied. Chaff is all but absent, although a single spelt wheat (*T. spelta*) glume base is present within the assemblage from boundary ditch F59 (sample 20).

Seeds of common grassland herbs are recorded, with the highest density occurring within the assemblages from the possible pyre or bustum (F67 sample 18) and boundary ditch F59. Taxa noted include brome (*Bromus* sp.), small legumes (Fabaceae), medick/clover/trefoil (*Medicago/Trifolium/Lotus* sp.), ribwort plantain (*Plantago lanceolata*), grasses (Poaceae), buttercups (*Ranunculus* sp.), dock (*Rumex* sp.) and vetch/vetchling (*Vicia/Lathyrus* sp.). Wetland plant macrofossils (namely sedge (*Carex* sp.) and spike-rush (*Eleocharis* sp.) nutlets) only occur within three of the Phase 2 assemblages. Charcoal/charred wood fragments are present throughout, although rarely at a high density. However, the assemblage from ditch F73 (sample 19) does include at least one extremely large fragment measuring over 50mm in length. Other plant macrofossils are scarce, but occasional pieces of charred root or stem are noted along with some indeterminate seeds.

With the Stage 1a assemblages (samples 1 – 13), fragments of black porous and tarry material are reasonably common, with most appearing to be bi-products of the combustion of coal. Small pieces of coal (coal 'dust') are also present, and it is thought most likely that both these and the residues are reasonably modern in origin, probably being introduced via the post-depositional bioturbation of the features by both root penetration and insect disturbance. Such remains are far less common within the Stage 1b contexts. Other materials are all but absent.

Conclusions

In summary, it would appear most likely that the majority of the remains are derived from scattered refuse, although it is suggested that material within boundary ditch F59 may be indicative of a small, discrete deposit of burnt fodder and/or bedding. Barley was rarely favoured for human consumption during the Roman period, but it was definitely utilised as animal fodder. It would appear quite likely that similar material is present at a low density within other of the assemblages, although if F67 does prove to be a bustum, those remains may be indicative of the use of dried grassland herbs as

tinder or kindling for the pyre. In the latter instance, it is unclear whether the cereals may also be relicts of fuel or whether they may have a more ritual significance (i.e. an offering to the deceased placed alongside the body).

As only one of the current assemblages (from sample 20) contains sufficient material for quantification, no further analysis is recommended at this stage. However, this material does indicate that well-preserved plant macrofossils, with considerable potential for the interpretation of activities occurring within the immediate area, are present, particularly on the northern edge of the circus site. Therefore, if further interventions are planned, it is strongly recommended that additional plant macrofossil samples of at least 40 litres in volume are taken from all dated and well-sealed features recorded during excavation.

7 Discussion

Archaeological evaluation at The Arena revealed several important contexts of Roman date along with less significant features of a post-medieval date.

Roman

Roman circus

Colchester's Roman circus covers the northern 50m of the development site (60m with the 10m scheduled monument buffer zone). It is located about 400m south of the walled town on effectively the nearest piece of flat land south of the town centre. Orientated east-west, it measures c 450m long by 71.1-74.2m wide. Practically all that survives of its walls today are foundations and many of these have been robbed-out, probably in the medieval period. Where surviving, the walls are faced with dressed greensand blocks from Kent with a core of rubble and stone chippings set in mortar.

The circus consists of four elements: the seating area (*cavea*), the starting gates (*carceres*), the arena, and the central barrier (*spina*) which was located in the arena.

Trench T13 was excavated over the southern *cavea* and revealed robbed-out walls, as well as sections of *in situ* walls, wall foundations and metalling, all identified at 0.27-0.39m below current ground level. Importantly, not only did the evaluation trench reveal part of the robbed-out east-west *cavea*, but two north-south *in situ* walls/wall foundations with metalling in between. This would have formed a passageway (or *vomitorium*) leading into *cavea* seating area. Measuring 7m long by 1.7-1.8m wide, this passageway is comparable to another excavated 155m west on Area J1 East (CAT Report 412) which measured 7m long and 1.6m wide. Another may have existed 63m to the east on Circular Road East (WBT1) (CAT Report 412, 1345), but this could also have been a tribunal (judges' box) (*ibid*) (see Fig 16).

Trench T12 was excavated over the central barrier and revealed robbed-out wall foundations identified at 0.31-0.34m below current ground level. Sections through this robbed-out wall showed that little had survived. In general the barrier would have consisted of a pair of walls 237m long and between about 4-7m apart. Constructed between two turning posts would have been monuments of various kinds (*ibid*, 1349). The turning post nearest the starting gates and the *in situ* remains of a pressurised water-main were excavated along Circular Road North, the far turning posts are probably located near to evaluation trench BT27 in Flagstaff House, and the foundation of one of the monuments was found during excavations in the centre of the crossroad between Circular Road North, Circular Road East, Flagstaff Road and Napier Road (WBT3) (CAT Report 412, 1348-9).

Roman ditches, pits and possible inhumations (Figs 15-17)

Evaluation to the south of the circus in trenches T13-T22 revealed 20 Roman features: eight ditches, two ditches/gullies, five pits, four possible inhumation burials and one

possible pyre site/bustum. This is in addition to the Roman features already identified during the Stage 1a evaluation (CAT Report 843) (see Figs 15-17 for combined plans).

Based on evidence from nearby excavations and the Stage 1a evaluation (CAT Report 843) there was a good chance that burials would be found on the development site. Four possible inhumations were identified, in T14 (F76), T15 (F63-F64) and T22 (F74), and a possible pyre site/bustum from T16 (F16). As per the WSI, none of these features were fully excavated and all identifications are tentative, the high quantity of CBM from some perhaps suggesting that several are in fact pits. A further eleven possible inhumation burials were identified during the Stage 1a evaluation spread across the site, again few fully excavated and some more convincing than others (CAT Report 843). The presence of human remains and a copper-alloy neck ring (F2) in T10 (now outside of the adjusted boundary of the development site) would certainly indicate that burials are located nearby (*ibid*). However, all of the features identified as 'possible' inhumations would need to be fully excavated, if appropriate and subject to construction impact assessment, before they could be positively determined.

No evidence was uncovered relating to the Roman tile kiln described by Hull (1958, 249). However, trench T19 had been heavily disturbed by the, now demolished, buildings.

As with the features identified in 2015 (CAT Report 843), several of the large ditches/gullies representing Roman field boundaries are aligned north/south or east-west, respecting the alignment of the circus, as well as the town further north. This north/south east/west alignment of Roman field boundaries has been observed on several sites south of the circus and the Roman town (CAT Report 412, 13). Using evidence from this and the 2015 evaluation a number of ditch projections can be tentatively identified (see Fig 16), but further investigations would be required to confirm such projections particularly when they occur over a large distance. It is possible that ditch F72 in T22 is a continuation of ditch CF174 identified in Garrison Area C2 further to the east.

It also appears likely that two parallel N/S ditches running from T10 in the south through to trenches T15 and T19 in the north form a trackway/droeway leading towards the Circus. Of particular significance is that this trackway/droeway appears to be aligned on the passageway or tribunal identified on Circular Road East in 2005 (see WBT1, CAT Report 412, 1345) (see Fig 16). Interestingly, an evaluation within the southeast corner of Abbey Field (CAT Report 320) also revealed two parallel Roman(?) ditches forming a possibly trackway/droeway which, allowing for slight movement over such a distance, are on a good alignment to those identified during this evaluation. If a part of the same landscape feature, this trackway/droeway has now been recorded for a distance of 420m.

Other ditches were on markedly different north-west/south east and north-east/south-west alignments, more typical of the pre-Roman and early Roman (*oppidum*) landscape that has been investigated by the New Garrison project to the south and west of Abbey Field. As such, one possibility is that these earlier landscape ditches were backfilled, or had ceased to be used (and were left open to silt) around the 2nd century when the new north-south and east-west ditch alignments within the development site were instigated. These later alignments clearly respect the 2nd-century-constructed circus.

Overall the dating evidence is typical of the mid-Roman period of the early 2nd to the 3rd century, with many of the features containing fragments of CBM, stone and mortar presumably from surface scatters associated with the construction, repair and eventual disuse of the circus. The presence of complete roof tiles from the site suggests the presence of a substantial building in the vicinity. The Roman circus and Area E villa/farmstead are possible origins but alternatively the tile could be associated with a mausoleum or burial-cist.

Post-Roman

Five ditches and a pit were of post-medieval date, probably 17th to 18th century. One ditch/gully contained pottery of 12th-century date but it was aligned parallel with three other ditches/gullies that may be contemporary and one of those contained a post-medieval/modern iron fitting from a fence post.

8 Acknowledgements

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9 References

Note: all CAT reports, except for DBAs, are available online in PDF format at

<http://cat.essex.ac.uk>

Barford, P	2002	<i>Excavations at Little Oakely, Essex, 1951-78: Roman Villa & Saxon settlement, EAA 98</i>
CAR 5	1988	<i>Colchester Archaeological Report 5: Post-Roman small finds from excavations in Colchester 1971-85, by N Crummy</i>
CAR 7	2000	<i>Colchester Archaeological Report 7: Post-Roman pottery from excavations in Colchester, 1971-85, by J Cotter</i>
CAR 10	1999	<i>Colchester Archaeological Report 10: Roman pottery from excavations in Colchester, 1971-86, by R Symonds and S Wade</i>
CAT	2014	<i>Health & Safety Policy</i>
CAT Report 97	2000	<i>An archaeological desk-based assessment of the Colchester Garrison PFI site</i>
Cat Report 138	2001	<i>Archaeological excavations at the Garrison sports pitch, Circular Road North, Colchester, Essex (Abbey Field) February-March 2000</i>
Cat Report 193	2002	<i>An archaeological watching brief at North Station Road (the Victoria Inn), Colchester, Essex February-May 2002</i>
CAT Report 292	2005	<i>The Colchester Garrison PFI project, Colchester, Essex: a report on the 2003 excavation of Areas 2, 6 and 10, August-November 2003</i>
CAT Report 320	2005	<i>An archaeological evaluation at the attenuation pond site (the southeast corner of the Abbey Field), Colchester, Essex: April 2005</i>
CAT Report 412	2011	<i>Archaeological investigations on the 'Alienated Land', Colchester Garrison, Colchester, Essex: May 2004-October 2007</i>
CAT Report 588	2012	<i>Stage 2 archaeological excavation, Alienated Land Area L/N (Goojerat Barracks), Colchester Garrison, Colchester, Essex: June-July 2010</i>
CAT Report 628	2016	<i>A Late Iron Age dyke, Roman and Anglo-Saxon burials, a Roman coin hoard, and a Civil War fort: Stage 1b archaeological evaluation and Stage 2 excavation at Colchester Garrison Alienated Land Area A1 (former Meeanee & Hyderabad Barracks) Colchester, Essex: October-December 2010, January-March and July-September 2011</i>
CAT Report 778	2015	<i>Roman buildings, burials and enclosures west of Mersea Road, Colchester: Stage 3 archaeological excavation at Colchester Garrison Alienated Land Area E (GAL E)</i>
CAT Report 843	2015	<i>Archaeological trial trenching at the Arena Leisure Centre, Circular Road East, Colchester, Essex Phase 1a: pre-determination trenching. April-May 2015</i>
CAT Report 893	2016	<i>Archaeological excavation and monitoring on land to the rear of Chapel House, Chapel Green, Little St Mary's, Long Melford, Suffolk, CO10 9HX: February-November 2015</i>

CAT Report 1033	forth-coming	Working title: <i>Archaeological excavation (Stage 2) on Colchester Garrison 'Alienated Land' Area H, off Butt Road, Colchester, Essex: September 2012 – February 2013.</i>
CBCAA	2015	<i>Brief for a Trenched Archaeological Evaluation at The Arena, Circular Road East, Colchester, CO2 7SZ, by J Tipper</i>
ClfA	2014a	<i>Standard and Guidance for an archaeological evaluation</i>
ClfA	2014b	<i>Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives</i>
ClfA	2014c	<i>Standard and guidance for the collection, documentation, conservation and research of archaeological materials</i>
Crummy, P	2008	'The Roman Circus at Colchester' in <i>Britannia</i> 39, pp15-31
Cunningham, C	1985	'A typology for post-Roman pottery in Essex' in Cunningham, C., & Drury, P., <i>Post-medieval sites and their pottery: Moulsham Street, Chelmsford</i> , CBA Research Report 54
DCLG	2012	<i>National Planning Policy Framework</i>
English Heritage	2006	<i>Management of Research Projects in the Historic Environment (MoRPHE)</i>
Going, C	1987	<i>The Mansio and other sites in the southeastern sector of Caesaromagus: the Roman pottery</i> , CBA Research Report 62
Gurney, D	2003	<i>Standards for field archaeology in the East of England</i> . East Anglian Archaeology Occasional Papers 14 (EAA 14).
Hull, M R	1958	<i>Roman Colchester</i> , RRCSAL, 20
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Stace, C	2010	<i>New Flora of the British Isles, 3rd edition</i> . Cambridge University Press
Warry, P	2006	<i>Tegulae. Manufacture, typology and use in Roman Britain</i> , BAR British Series 417

10 Abbreviations and glossary

CAT	Colchester Archaeological Trust
CBC	Colchester Borough Council
CBCAA	Colchester Borough Council Archaeological Advisor
CBCPS	Colchester Borough Council Planning Services
CBM	ceramic building material, ie brick/tile
CHER	Colchester Historic Environment Record (previously UAD, Urban Archaeological Database)
ClfA	Chartered Institute for Archaeologists
context	specific location of finds on an archaeological site
feature (F)	an identifiable thing like a pit, a wall, a drain: can contain 'contexts'
layer (L)	distinct or distinguishable deposit (layer) of material
medieval	period from AD 1066 to c 1500
modern	period from c AD 1800 to the present
natural	geological deposit undisturbed by human activity
NGR	National Grid Reference
OASIS	Online Access to the Index of Archaeological InvestigationS , http://oasis.ac.uk/pages/wiki/Main
post-medieval	from c AD 1500 to c AD 1800
residual	something out of its original context, eg a Roman coin in a modern pit
Roman	the period from AD 43 to c AD 410
section	(abbreviation sx or Sx) vertical slice through feature/s or layer/s
ws	written scheme of investigation

11 Contents of archive

Finds: three boxes of finds plus three large whole tiles

Paper and digital record

One A4 document wallet containing:

The report (CAT Report 1142)

CBCPS evaluation brief, RPS written scheme of investigation

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

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

12 Archive deposition

The paper and digital archive is currently held by the Colchester Archaeological Trust at Roman Circus House, Roman Circus Walk, Colchester, Essex, CO2 7GZ, but will be permanently deposited with Colchester Museum under accession code COLEM: 2017.4.

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Distribution list

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Appendix 1 Context list

<> = samples

Trench number	Context number	Finds number	Context type	Description	Finds spot date
T20	F49	-	Pit	Soft, moist, medium brown sandy-silt, 5% stone	-
T20	F50	45	Ditch	Firm, dry, light brown sandy-silt, 5% stone, some CBM	Post-medieval, late 17th-early 18th century
T20	F51	44	Ditch	Soft, moist, medium grey/brown sandy-silt, common stone, some flecks of CBM	Roman
T17	F52	46 <47>	Ditch	Soft, moist, light brown sandy-silt, occasional stone, rare charcoal and CBM	Roman, mid 1st-2nd/early 3rd century
T18a	F53	49 <48>	Ditch	Friable, moist, medium grey/brown sandy-silt, <5% stone	Roman
T15	F54	50	Ditch/gully	Soft, moist, dark yellow/brown sandy-silt, occasional stone	Medieval, c 12th century
T15	F55	51	Ditch/gully	Soft, moist, dark yellow/brown sandy-silt, rare stone	Post-medieval/modern
T15	F56	-	Ditch/gully	Soft, moist, light yellow/brown sandy-silt, occasional stone	-
T15	F57	52	Pit/large posthole	Soft, moist, dark yellow/brown sandy-silt, occasional stone	Roman, mid/late 1st-2nd century
T18b	F58	53	Ditch	Soft, dry, light grey/brown sandy-silt	Medieval/post-medieval
T15	F59	59, 60, 61, 62, <77>	Ditch	Firm, moist, dark grey/brown silty-sand with some clay, <2% gravel, <2% stone, <5% CBM, some flecks of charcoal and oyster	Roman, late 2nd-3rd century
T17	F60	-	Ditch/gully	Soft, dry, dark brown sandy-silt, common stone, some flecks of CBM	-
T17	F61	-	Pit	Loose, soft, dry, dark grey/brown sandy-silt, occasional stone and gravel.	-
T17	F62	54	Ditch/gully	Soft, dry, medium-dark brown sandy-silt, common stone, occasional charcoal flecks	Roman
T15	F63	55, 56	Inhumation? Pit?	Soft, moist, dark yellow/grey/brown sandy-silt, occasional stone Finds from 56 were lost	Finds from F63/F65 = Roman, 2nd-3rd century
T15	F64	57 <58>	Inhumation? Pit?	Soft, moist, dark yellow/grey/brown sandy-silt, occasional stone, charcoal flecks	Roman
T15	F65	55	Ditch/gully	Soft, moist, dark yellow/brown sandy silt, occasional stone	Finds from F63/F65 = Roman, 2nd-3rd century

T18b	F66	-	Ditch	Soft, moist, medium grey/brown silty-sand, 5% stone	-
T16	F67	68 <69>	Pyre/bustum?	Friable, dry, medium brown/black silty-sand, <10% charcoal, <5% gravel and stone, with some pieces of CBM and pot. Frequent charcoal and burnt natural.	Roman, early/mid 2nd-late 3rd/early 4th century
T16	F68	70	Hollow or pit	Soft, moist, dark brown/black sandy-silt with flecks of charcoal and CBM	Roman, early/mid 2nd-early 3rd century
T17	F69	-	Ditch/pit	Soft, moist, medium-dark brown silty-sand, common stone.	-
T19	F70	-	Ditch	Soft, moist, dark yellow/brown sandy-silt, occasional stone	-
T16	F71	63	Ditch	Soft, moist, dark yellow/brown sandy-silt, occasional stone. Finds from 63 were lost.	-
T22	F72	64, 65	Ditch	Soft, moist, light-dark grey/brown sandy-silt, flecks of CBM	Roman, early/mid 2nd-3rd/4th century
T14	F73	72 <71>	Ditch	Soft, moist, medium grey/brown silty-sand, 2% stone, charcoal flecks	Roman, early 2nd-mid/late 3rd century
T22	F74	66 <67>	Inhumation? Pit?	Friable, dry, dark grey/brown sandy-silt, 2% stone, flecks of charcoal and CBM.	Roman, early 2nd-3rd century
T14	F75	81, 82, 83	Ditch	Friable, medium orange/grey/black silty-sand	Post-medieval, late 16th/17th-18th/early 19th century
T14	F76	74	Inhumation?	Soft, moist, dark grey/brown sandy-silt with occasional stone, rare charcoal flecks	Roman
T14	F77	76	Ditch	Soft, moist, dark very mixed yellow/orange/grey/brown sandy-silt.	Roman, early/mid 2nd-late 3rd/early 4th century
F17	F78	75	Pit / natural	Loose, soft, dry, medium mottled orange/grey/brown silty-sand, common stone	Roman
T22	F79	73	Pit	Soft, moist, light grey/brown sandy-silty with some clay, flecks of CBM	Roman, possibly after c AD 250
T14	F80	-	Posthole	Soft, moist, medium grey/brown sandy-silt.	-
T14	F81	78, 79, 80	Ditch	Soft, moist, medium grey/brown silty-sand, <1% stone, CBM flecks	Post-medieval, c 18th century
T22	F82	-	Pit	Friable, moist, medium yellow/brown sandy-silt	-
T22	F83	86	Ditch	Soft, moist, light-medium orange/grey/brown sandy-silt, occasional gravel and stone, some flecks of charcoal and CBM	Post-medieval
T14	F84	84, 87	Pit	Soft, moist, medium orange brown silt, 5% stone, included large blocks of	Medieval/post-medieval

		<88>		septaria that were not retained.	
T14	F85	85	Pit	Soft, moist, light brown sandy-silt, flecks of CBM	Roman, early 2nd-3rd century
T14	F86	-	Posthole	Soft, moist, light brown sandy-silt	
T12	F87	93, 94	Robbed-out wall foundation	Loose, soft, moist, dark yellow/brown sandy-silt, common mortar and occasional greensand stone chips/chunks, opsig, oyster and tile	Roman, early/mid 2nd-3rd century
T13	F88	91, 92, 96, 101, 102, 103	Metalling (entranceway)	Abundant gravel and stone mixed in with occasional CBM, pottery, mortar and op sig in a medium yellow/brown sandy-silt.	Roman, 2nd-3rd century (probably 3rd) with intrusive medieval (13th-14th century)
T13	F89	97	Robbed-out wall foundation	Outer circus wall of greensand stone and mortar	Roman, mid 3rd-mid/late 4th century
T12	F90	95	Robbed-out wall foundation?	A line of greensand stone on south side of F87 and a sparse spread of Roman tile, greensand stone and occasional mortar	Roman
T13	F91	-	Collapsed wall	Mortar with greensand stone, occasional Roman CBM, probable collapse of circus structure	-
T13	F92	-	<i>In situ</i> wall	In situ wall foundation of greensand stone faced blocks and mortar, metalled surface (F88) butts up against the facing blocks	-
T13	F93	-	Wall foundation with overlying robbing	In situ wall foundation of greensand stone faced blocks and mortar overlain with robbing material (soft, medium yellow/brown sandy-silt, occasional stone, CBM and mortar flecks.	-
T13	F94	99	Wall foundation of F92, partially robbed	Soft, moist, dark yellow/brown sandy-silt with occasional stone/gravel, flecks of charcoal, oyster and CBM	Roman (2 century+?)
T13	F95	100	Pit?	Soft, moist, medium yellow/brown sandy-silt with flecks of CBM and oyster	Roman
T13	F96	-	Pit?	Soft, moist, medium yellow/brown sandy-silt, flecks of mortar and op sig, occasional stone.	-
All	L5	-	Hardstanding	Tarmac or concrete on a sand base or asphalt	Modern
All	L6	-	Subsoil	Soft, moist, dark grey/brown sandy-silt, occasional stone/gravel patches, occasional CBM, modern and Roman finds (none retained)	Modern
All	L7	-	Natural	Natural sands and gravels	-
T12/T13	L8	89, 90	Accumulation / buried topsoil	Soft, moist, dark yellow/brown sandy-silt, occasional gravel/stone, charcoal and oyster flecks	Medieval + (peg-tile)

T12	L9	95	Demolition spread	Soft, moist, medium yellow/grey/brown sandy-silt with occasional greensand stone and CBM	Roman
T12/T13	L10		Accumulation	Soft, moist, medium yellow/brown sandy-silt with occasional stone/gravel, flecks of greensand stone, oyster and CBM	-
T13	L11		Mortar spread	Loose, moist, dark yellow/brown sandy-silty-loam. Greensand stone chippings, mortar and op sig – none retained	-
T13	L12	98, 104	Demolition spread	Firm, moist, dark yellow/brown sandy-silt, occasional stone/gravel, flecks of charcoal, oyster and CBM	Roman, mid 3rd-mid/late 4th century
T13	L13	101, 102	Accumulation	Medium-dark yellow/brown sandy silt, occasional stone/gravel, flecks of charcoal, oyster and CBM	-

Appendix 2 Depths of layers by trench

Trench number	Layer number	Thickness of layer	Depth from ground level		Trench number	Layer number	Thickness of layer	Depth from ground level
T12	L5, L8 all others	0.31-0.34m -	- begin 0.31-0.34m		T18	L5 L6 L7	0.13-0.18m 0.45-0.56m -	- 0.13-0.18m 0.58-0.72m
T13	L5, L8 all others	0.27-0.39m -	- begin 0.31-0.34m		T19	L5 L6 L7	0.4-0.5m 0-0.2m -	- 0.4-0.5m 0.6m
T14	L5 L6 L7	0.39-0.58m 0.13-0.16m -	- 0.39-0.58m 0.52-0.74m		T20	L5 L6 L7	0.19-0.22m 0.46-0.53m -	- 0.19-0.22m 0.65-0.75m
T15	L5 L6 L7	0.35-0.46m 0.14-0.15m -	- 0.35-0.46m 0.5-0.6m		T21	L5 L6 L7	0.11-0.15m 0.58-0.64m -	- 0.11-0.15m 0.73-0.75m
T16	L5 L6 L7	0.3-0.35m 0.4-0.5m -	- 0.3-0.35m 0.75-0.8m		T22	L5 L6 L7	0.26-0.54m 0.15-0.55m -	- 0.26-0.54m 0.69-0.81m
T17	L5 L6 L7	0.37-0.43m 0.28-0.55m -	- 0.37-0.43m 0.71-0.92m					

Appendix 3 Finds list

CBM=ceramic building material; RBT=Roman brick/tile; RT=Roman tile; RB=Roman brick; RI=Roman imbrex; RFT=Roman flue tile; LCA=lower cut away;
UCA=uppercut away; PT=peg-tile; Abone=animal bone
O/R=orange-red; FS=fine sand; F-MS=fine-medium sand, <>=recovered from bulk sample processing

Trench	Context	Context type	Find no	Find type	Find period	Fabric/type	Description	Form	No	Wt/g	EVE (100=1 EVE)	Abr/Burt	Finds spot date
T20	F50	Ditch	45	CBM	med+	O/R F-MS		PT	16	462			med+
				CBM	Rom	O/R F-MS			8	562			Rom
				Pot	Rom	GX			1	4	2	A	Rom
				Clay pipe	p-med		Bowl and stem piece, Crummy Type 8 L17th-E18th century (c 1680-1710)		2	16			L17-E18C
T20	F51	Ditch	44	CBM	Rom	O/R F-MS	Small abraded piece	RBT	1	4			Rom
T17	F52	Ditch	46	Pot	Rom	AJ	Large body sherd, Dressel 20	D 20	1	1248			M1-2/E3C
				Stone	Rom	septaria			3	30			
				CBM	Rom	O/R F-MS	Tegula?	RBT	3	392			Rom
				CBM	Rom	O/R F-MS	18-22mm thick	RT	3	626			Rom
			47	CBM	Rom	O/R F-MS			1	24			Rom
			<>	Nail	Rom		Length 60mm, Manning Type B		1	5			Rom
T18A	F53	Ditch	49	CBM	Rom	O/R F-MS	Corner piece 30-35 mm thick (prob pedalis or lydion) longest surviving broken side measure, one with some organic matter in fabric 150 mm	RB	3	2090			Rom
				CBM	Rom	O/R F-MS	Corner from a Roman brick (up to 60 mm thick) over fired, finger wipe signature	RB	1	1084			Rom
				CBM	Rom	O/R F-MS	Roman tile/brick corner 40 mm thick	RB	1	1060			Rom
				Stone	Rom	greensand	Kent-type greensand.		6	4956			(Rom)
				Stone	Rom	greensand	Kent-type greensand. Large (wall?) stone		1	4466			(Rom)
				Pot	preh	F S-M	Flint-tempered rim hand-made, small-medium flint, flat rim, inward sloping wall from an open bowl,	bowl	1	12			Preh BA?
				Stone	Rom	Septaria			10	664			
				CBM	Rom	O/R F-MS		RT	1	170			Rom
				CBM	Rom	O/R F-MS		RB	2	536			Rom
				CBM	Rom	O/R F-MS		RBT	8	378			Rom
	ABone	Rom		Horse (2: 22g, one gnawed) and unidentified (1: 4g)		3	26						
T15	F54	Ditch/gully	0	Pot	Rom	BSW	Base edge		1	6			Rom
				Pot	Rom	GX	Including large jar rim		3	28	8	(A)	Rom
				Pot	med	13	Simple slightly flaring rim (CAR 7 Rim Type A4 fig 27) however, rim diameter appears rather small, probably c 120mm		1	10	13	(A)	c 12C
				Stone	Rom	greensand	Kent-type greensand.		2	2190			(Rom)

Trench	Context	Context type	Find no	Find type	Find period	Fabric/ type	Description	Form	No	Wt/g	EVE (100=1 EVE)	Abr/ Burt	Find spot date
				CBM	Rom	O/R F-MS	comb	RFT	2	164			Rom
				CBM	Rom	O/R F-MS		RBT	1	72			Rom
				CBM	Rom	O/R F-MS		RB	1	510			Rom
T15	F57	Pit/ posthole	52	Pot	Rom	TZ	Thick buff fabric, flint/quartz		1	36			M/L1-2C
				CBM	Rom	O/R F-MS		RI	3	734			Rom
				CBM	Rom	O/R F-MS		RT	6	1756			Rom
				CBM	Rom	O/R F-MS	Probably tegula, base 18-23mm thick	RBT	5	1228			Rom
T18B	F58	Ditch	53	CBM	med+	O/R F-MS		PT(?)	1	28			med+
				CBM	Rom	O/R F-MS		RBT	1	882			Rom
				Stone		O/R F-MS	Sandstone(?), sandy feel, slightly soft		1	298			
T15	F59	Ditch	59A	CBM	Rom	O/R F-MS	Complete <i>imbrex</i> tile: length 425mm, width front 190mm, width rear 155mm, thickness front 19-20mm, rear 15-16mm (internal measure front max height c 78mm max, width c 150mm; rear max height c 50mm max, width c 115mm)		1	3224			
			59B	CBM	Rom	O/R F-MS	Complete <i>imbrex</i> tile: slight split (original) in tile at top. Length 410mm, width front 200mm, width back 150mm, thickness front c 18mm, rear c 15mm (internal measure front max height c 75mm, max width c 160mm; rear max height c 55mm, max width c 105mm)		1	2866			Rom
			60	Pot	Rom	GX	Near complete(?) pot: beaker (Cam 108) broken into sherds, rouletted body, everted rim with cordons defined by grooves	Cam 108	48	380			Rom M1-E2C
				CBM	Rom	O/R F-MS		RI	2	534			Rom
				Mortar					5	480			
				CBM	Rom	O/R F-MS	comb	RFT	1	20			Rom
				CBM	Rom	O/R F-MS	Tegula end in 3 pieces, width 335mm, thickness 25mm, with (nail) fixing hole, 2-3 other tiles represented by large pieces one with dog? paw impressions (bases 20-24mm thick)	RT	5	3696			Rom
				CBM	Rom	O/R F-MS	RB over fired		1	406			Rom
				Abone	Rom		Medium mammal		4	1			
			61	Pot	Rom	GX			3	34			Rom (M1-2/3C?)
				CBM	Rom	O/R F-MS	LCA C5 (base 18mm)	RT	1	1256			Rom
				CBM	Rom	O/R F-MS	LCA B6 (base 15mm)	RT	1	266			Rom
				CBM	Rom	O/R F-MS	LCA C5 (base 25mm)	RT	1	2104			Rom
				CBM	Rom	O/R F-MS	One with paw print (bases 17-20mm thick)	RT	9	3020			Rom
				CBM	Rom	O/R F-MS		RI	2	288			Rom

Trench	Context	Context type	Find no	Find type	Find period	Fabric/type	Description	Form	No	Wt/g	EVE (100=1 EVE)	Abr/Burt	Finds spot date
				CBM	Rom	O/R F-MS		RBT	2	330			Rom
T22	F72	Ditch, upper fill	64	Pot	Rom	GX	Inc jar rim and sherds from folded beaker		7	54	15		M/L2C+
				Pot	Rom	KX	Sherds from Cam 39 bowls	Cam 39	2	46	5		E/M2C+
				Nail		fe	Corroded nail (70 mm)		1				
				Stone	Rom	septaria			2	404			
				CBM	Rom	O/R F-MS		RI	1	140			Rom
				CBM	Rom	O/R F-MS		RBT	2	112			Rom
				CBM	Rom	O/R F-MS	Part of LCA ?C56, not positive id and does not appear to be one of the more common LCA types from Roman Colchester, base 16mm thick	RT	3	470			Rom
				Abone	Rom		Unidentified		2	2			
T22	F72	Ditch, lower fill	65	Pot	Rom	GB		Cam 40B	1	44	11		E2-M/L3C
				Pot	Rom	HZ		LSJ	1	182			M1-2/E3C
				Pot	Rom	GX	Inc sherd from a folded beaker?		11	150			Rom (M/L2-3C)
				Pot	Rom	KX	Cam 39 dish	Cam 39	1	14	4		E/M2-3/4C
				Glass	Rom	B/G	Sherds from a base and body both in blue-green glass – the body sherds is most probably from a ribbed jar, while the two base sherds join together and indicate a relatively upright vessel consistent with a beaker or jug		3	38			L1/2-3C
				Stone	Rom	septaria			2	448			
				Stone	Rom	greensand	Kent-type greensand.		6	2820			(Rom)
				CBM	Rom	O/R F-MS	30mm thick	RB	1	528			Rom
				CBM	Rom	O/R F-MS		RBT	2	592			Rom
				CBM	Rom	O/R F-MS	(base 16-18mm thick)	RT	3	1318			Rom
				CBM	Rom	O/R F-MS		RI	1	160			Rom
				CBM	Rom	O/R F-MS	comb	RFT	2	162			
				Stone	Rom	septaria			2	358			
				Stone	Rom	greensand	Kent-type greensand.		3	568			(Rom)
				CBM	Rom	O/R F-MS		RI	2	300			Rom
				CBM	Rom	O/R F-MS	Bases 15-18mm thick	RT	3	862			Rom
				CBM	Rom	O/R F-MS		RBT	5	760			Rom
CBM	Rom	O/R F-MS		RB	1	170			Rom				
Pot	Rom	AA			1	254			M1-2/E3C				
Pot	Rom	GX	Plain body sherd from beaker or small bowl/ jar		1	16			Rom				
Pot	Rom	DJ	Buff fabric, curving flange rim, interior of steeply angled vessel wall flaked away, thin flange/wall – flanged bowl – possibly a mortarium		1	14		A	M1-E3C (poss 2C)				

Trench	Context	Context type	Find no	Find type	Find period	Fabric/ type	Description	Form	No	Wt/g	EVE (100=1 EVE)	Abr/ Burt	Find spot date
				Abone			Cow bones, one with cut marks		4	168			
T14	F73	Ditch, mid fill	72	Pot	Rom	CB	Cam 391A, beaker rim, two different rims one small-medium beaker one medium-large	Cam 391A (2)	2	20	33		E2-L2/E3C
				Pot	Rom	CZ	Base for beaker, barbotine decorated, small animal figure represented by lower part of on pair of legs		1	20		(A)	E2-M/L3C
				Pot	Rom	CZ	Sherds from a rouletted beaker body, with one or two plain sherds from CZ pot(s)		12	30		(A)	E2-M/L3C
				Pot	Rom	EZ (Kohn)	Small sherds, white fabric, worn colour-coating		3	6		A	E2C-L2/3C
				Pot	Rom	DJ			1	4			M1-2/3C
				Pot	Rom	GX	Surface grey worn away over red-brown fabric margin, including possible Cam 278-type/form (different pot to second vessel from this context)		13	60	7		2-3C
				Pot	Rom	GX	Jar with everted plain rim, possibly Cam 278-type/form		1	40	14		2-3C
				Nail		fe	Corroded nail shat (52 mm)		1				
				CBM	Rom	O/R F-MS	Slightly overfired/ burnt	RBT	1	1332		B	Rom
				Stone	Rom	greensand	Kent-type greensand.		1	306			(Rom)
				Pot	Rom	AJ	Including large body sherd	D 20	7	1202		M1-2/E3C	
T22	F74	?Inhumation	66	Pot	Rom	DJ			1	18			M1-2/3C
				Pot	Rom	HZ			1	22			M1-2/E3C
				Pot	Rom	GB			2	16			E2-3C
				Pot	Rom	BSW			1	6			Rom
				Pot	Rom	GX			6	20			Rom
				Stone	Rom	Greensand	Kent-type greensand (small part of ammonite fossil in face)		1	24			Rom (2C+)
				Slag	Rom		Grey vesicular medium weight slag with relatively smooth surface		1	66			Rom?
				Nail		fe	Corroded nail pieces or short nails 30mm-35mm long (too large for hobnails)		5				
				CBM	Rom	O/R F-MS		RI	2	408			Rom
				CBM	Rom	O/R F-MS	comb	RFT	1	110			Rom
				CBM	Rom	O/R F-MS		RB	2	522			Rom
				Stone	Rom	septaria			2	852			
				Stone	Rom	greensand	Kent-type greensand.		5	876			(Rom)
				Stone		chalk			6	550			
				Abone	Rom		Horse (1: 34g), large mammal (9: 92g, one with gnaw marks)		10	126			
T14	F75	Ditch	81	Pot	Rom	AJ		D 20	1	92			M1-2/E3C

Trench	Context	Context type	Find no	Find type	Find period	Fabric/type	Description	Form	No	Wt/g	EVE (100=1 EVE)	Abr/Burt	Finds spot date
				Stone	Rom	slate			1	10			(prob p-med/mod)
				Pot	Med?	20	Sherd from just below rim		1	10			13-14 C (?)
				CBM	Rom	O/R F-MS	Misc fragmentss	RBT	8	110			Rom
				CBM	Rom	O/R F-MS	combed	RFT	1	32			Rom
				CBM	Rom	O/R F-MS		tess	1	14			Rom
			82	Pot	p-med	40			1	58			L16/17-18/E19C
				Pot	Rom	GX		Cam 268?	1	8	7		E/M2-L3/E4C
			83	Abone			Large mammal, evidence of cut marks and gnawing		1	92			
T14	F76	?Inhumation	74	Pot	Rom	GX	some external sooting		1	4			Rom
				Pot	Rom	BSW			1	6			Rom
T14	F77	Ditch	76	Shell		oyster	Degraded shell		1	24			
				Pot	Rom	GB	Sherds from dish rims, bead (Cam 37) & plain (Cam 40), rather pointed/triangular rims on Cam 37 (Cam 37A) - although one pot tending toward rounded bead (Cam 37B)	Cam 37A, Cam 40A	7	148	43		E/M2-E3C
				Pot	Rom	GX	Misc sherds, includes rim cam 268	Cam 268	7	68	20		E/M2-L3/E4C
				Pot	Rom	CZ	Plain (simple) rim beaker	Cam 392	1	4	8		
				Stone	Rom	septaria			1	32			
				CBM	Rom	O/R F-MS	fragments	RBT	4	112			Rom
				CBM	Rom	O/R F-MS		RBT	1	136			Rom
				CBM	Rom	O/R F-MS	Areas of surface discoloured/ darkened by heat	RBT	2	776			Rom
				CBM	Rom	O/R F-MS		RI	1	40			Rom
				Stone	Rom	greensand	Kent-type greensand.		1	2398			Rom
T17	F78	Pit	75	Pot	Rom	GX	Base edge sherd		1	26			Rom
T22	F79	Pit	73	Pot	Rom	CB	Roughcast beaker base		1	48			E2-M3C
				Pot	Rom	TZ	Cream/buff fabric	mortarium	1	42		A	M1-2/E3C
				Pot	Rom	DJ			1	12			M1-2/3C
				Pot	Rom	GX	Including most of a jar/deep bowl base		2	96			Rom
				Nail	(Rom)	fe	Complete 80mm with flat round head (Manning Type 1B)		1	16			Rom
				CBM		O/R F-MS	medium-Large piece 110mm wide, 32mm thick		1	778			
				Stone	Rom	septaria			1	492			(Rom)
				Stone	Rom	greensand	Kent-type greensand.		1	114			(Rom)

Trench	Context	Context type	Find no	Find type	Find period	Fabric/ type	Description	Form	No	Wt/g	EVE (100=1 EVE)	Abr/ Burt	Find spot date
				CBM	Rom	O/R F-MS	LCA B6 (base 20mm thick)	RT	1	300			Rom
				CBM	Rom	O/R F-MS	Bases 15-18 mm thick	RT	3	1716			Rom
				CBM	Rom	O/R F-MS	Probably tegula	RBT	3	550			Rom
				CBM	Rom	O/R F-MS		RBT	1	260			Rom
				CBM	Rom	O/R F-MS	Complete <i>tegula</i> tile: small area above each LCA broken away deliberately in antiquity. Length 430mm, width front 340mm, rear 350mm, base thickness front 20mm, rear 18-19mm, flange depth 40mm. Length of LCA 60mm, length of UCA c 50-55mm. The tile body is curved (convex) with a central rise of 15mm from flat. The LCA is partly removed but on one side but the cut can be seen to be of Warry Type D16 (c mid 3rd century+, after c AD 240)	RT	1	7606			Rom (possibly after c AD 250)
T14	F81	Ditch, upper fill	78	Pot	Rom	GX	Rim, small sherd, possibly Cam 268		3	24	6		Rom (2-3C?)
				CBM	med+	O/R F-MS		PT	18	570			med+
				CBM	Rom	O/R F-MS		RBT	4	368			
				CBM	Rom	O/R F-MS		RB	4	404			
				Stone	Rom	septaria			5	354			
				Stone	Rom	greensand	Kent-type greensand.		1	138			
				Stone		chalk			1	326			
				Pot	p-med	40			1	88			Prob 16/17-18C
				Quern	(Rom)	lava	Piece (rounded lump) of grey vesicular lava quern, German import – almost without doubt Roman		1	72		A	Rom
				CBM	p-med	R/B F-MS	Brick piece – 43mm thick, grey glaze – probably a Tudor brick	BR	1	96			C 15-E17C
T14	F81	Ditch, lower fill	79	Shell		oyster			1	2			
				Pot	Rom	BACG	Small sherd		1	4			2C
				Pot	med	20	base sherds		1	14			C 13-14C
				Pot	Rom?	GX	base		1	18			Rom (?)
				Clay pipe	p-med		Stem piece, bore c 2mm (c 18C ?)		1	4			P-med (c 18th C (?))
				Stone	Rom	septaria			1	110			
				CBM	Rom	O/R F-MS		RI	1	80			Rom
				CBM	med+	O/R F-MS	Medium size pieces, one with round peg hole	PT	4	356			med+
				Abone			Medium mammal		1	1			
T22	F83	Ditch	86	CBM	Rom	O/R F-MS			2	54			Rom
				Stone	Rom	greensand	Kent-type greensand.		1	20			
T14	F84	pit	87	Pot	Rom	CZ	Rim from a Cam 391A beaker, with rouletted	Cam	4	24	18	A	E2-M/L3C

Trench	Context	Context type	Find no	Find type	Find period	Fabric/type	Description	Form	No	Wt/g	EVE (100=1 EVE)	Abr/Burt	Findspot date
							bands, and base sherd from a beaker	391A					
				Pot	Rom	CL (NE)	Sherds from a folded beaker, appears likely to be CGCC	Beaker (folded)	1	1			M/L2-E3C
				Pot	Rom	GX			1	14			Rom
				CBM	p-Rom	O/R MS	Small piece of peg-tile (prob c 1300+)	PT	1	16			med-p-med
				Nail		fe	Two nails, one broken piece, one shaft bent 90 deg (90mm).		2				
				CBM	Rom	O/R F-MS	fragments	RBT	4	74			Rom
				Stone			Burnt sandstone		1	52		B	
T14	F85	pit	85	Nail		fe	Three corroded nails, one 90mm, one 50mm & one 40mm		3				
				CBM	Rom	O/R F-MS		RI	1	510			Rom
				CBM	Rom	O/R F-MS	Corner (32mm thick)	RB	1	596			Rom
				CBM	Rom	O/R F-MS	Base 19mm thick	RT	1	398			Rom
				Stone	Rom	septaria			1	86			
				Pot	Rom	GB	Dish/bowl base sherd		1	8			E2-3C
				Pot	Rom	GX			3	36			Rom
				Pot	Rom	DJ	Sherd with indications of circular motif on body made with close spaced fine indentation probably a spiral line (see Hull 1958 fig 65 no. 64)	Jar?	1	10		A	L1/2-3C?
				Abone			Medium mammal		1	4			
T12	F87 sx1	Robbed-out wall foundation	93	Stone	Rom	septaria	Small lumps		9	576			(Rom)
				Stone		chalk			3	64			
				Stone	Rom	greensand	Kent-type greensand. Small-medium pieces.		13	1686			(Rom)
				CBM	Rom	O/R F-MS	16 & 24mm thick	RBT	2	170			Rom
				Mortar			Lime mortar		1	30			
T12	F87 sx2	Robbed-out wall foundation	94	CBM	Rom	O/R F-MS		RBT	6	580			Rom
				Stone	Rom	greensand	Kent-type greensand. Some with traces of mortar from use in wall		21	3342			(Rom)
				Mortar	Rom		<i>Op sig</i>		1	66			Rom
				Pot	Rom	CZ	Beaker base		1	12			E/M2-3C
				Pot	Rom	BSW			1	8		(A)	Rom
T13	F88	metalling	91	Pot	Rom	CZ			1	2			E2-M/L3C
				Pot	Rom	EA	Small sherd with off-white fabric probably Nene rather than Cologne (Koln)		1	1			Prob 3C
				Pot	Rom	GB			1	18			E2-3C
				Pot	Rom	GX			3	12		(A)	Rom
				Pot	Rom	HZ			1	24		A	M1-2/E3C
				Pot	Rom	DJ	Small sherd possibly abraded CZ		1	1			M1/2-3CC
				Stone			Banded, vesicular sandstone or quartzite, slightly reminiscent of French burr (quartz) but		1	404			

Trench	Context	Context type	Find no	Find type	Find period	Fabric/ type	Description	Form	No	Wt/g	EVE (100=1 EVE)	Abr/ Burt	Find's spot date
							much finer, not worked						
				Pot	Rom	TZ			1	446		(A)	Rom M/L1-L2/E3C
				CBM	Rom	O/R F-MS			1	122			Rom
				Nails	Rom	fe	Two nails and one fragment. Length 70 & 55mm flat rounded head, Manning Type 1B						
				Pot	Rom	BACG			1	2			2C
				Pot	Rom	GB			2	14			E2-3C
				Pot	Rom	GX	Including jar rim		2	16	10	(A)	
				Pot	Med?	20?			1	12			C 13-14C
				Abone			Cow (1: 18g), large mammal (2: 12g) and unidentified (1: 1g)		4	31			
T13	F88/L13	Metalling / accumulation	101	Abone			Cow		1	44			
			102	Abone			Horse		1	22			
T13	F89	Robbed-out wall foundation	97	Pot	Rom	EA?	Overfired, probably EA or CZ, beaker base	beaker	1	30			M3-M/L4C
				Nail			Shaft piece		1				
				Mortar	Rom	Op sig			1	118			Rom
T13	F94	Robbed-out wall foundation	99	Pot	Rom	GX	Base sherd (broken recently into 3 pieces) from a jar/deep bowl, some slight abrasion, possibly 2C+		1	18		(A)	Rom (2C+?)
T13	F95	Pit	0	Stone	Rom	greensand	Kent-type greensand.		3	268			(Rom)
				CBM	Rom	O/R F-MS	Brick/tile edge pieces 35 & 30mm thick	RB	2	526			Rom
				Stone	Rom	septaria	Small chip		1	3			
				CBM	Rom	O/R F-MS	Small pieces/chips		3	34			Rom
T12	L8	Accumulation / buried topsoil	89	Pot	Rom	CZ	Rim from a Cam 391A beaker with one other small sherd	Cam 391A	2	2	5	A	E2-M/L3C
				CBM	med+	O/R F-MS		PT	2	64			med+
				CBM	med+	O/R F-MS	(14-15mm thick)	PT(?)	1	66			
				Stone	Rom	greensand	Kent-type greensand.		1	232			(Rom)
				Stone	Rom	greensand	Kent-type greensand.		1	40			(Rom)
				Abone			Sheep/goat		1	4			
			0	Pot	Rom	GX	Misc small sherds		3	18		(A)	Rom
				CBM	med+	O/R F-MS		PT	5	176			med+
				CBM	Rom	O/R F-MS		RI	2	150			Rom
				CBM	Rom	O/R F-MS		RBT	1	84			Rom
				Abone			Large mammal		2	10			
			92	Pot	Rom	GX			2	66			Rom
				Pot	Rom?	DJ?	Sandy wheel turned orange coloured fabric – not closely dated, presumed Roman		1	6			Rom? Possibly med or later
				CBM	med+	O/R F-MS		PT	3	84			med+

Trench	Context	Context type	Find no	Find type	Find period	Fabric/ type	Description	Form	No	Wt/g	EVE (100=1 EVE)	Abr/ Burt	Find's spot date
				Stone	Rom	greensand	Kent-type greensand.		1	146			(Rom)
T12	L9	Demolition	95	Pot	Rom	GX	Small rim sherds from a jar, beaded rim		1	6			Rom
				CBM	Rom	O/R F-MS		RBT	1	26			
				Stone	Rom	greensand	Kent-type greensand.		3	1586			(Rom)
T13	L12	demolition	98	Stone	Rom	greensand	Kent-type greensand.		2	376			(Rom)
				CBM	Rom	O/R F-MS	Small piece 35 mm thick	RB	1	104			Rom
				Pot	Rom	GX	Abraded slightly vesicular from burnt out organic material		1	3		(A)	Rom (1-2C?)
				Nail	Rom		shaft piece rectangular cross section		1				
			104	Pot	Rom	EA	base		1	38			M3-M/L4C

Appendix 4 Small finds list

SF	Context	Find nos.	Material	Object type	Description	no.	wt (g)	length mm	width mm	thickness mm	diameter mm	spot date
2	F84, Medieval/ post-Medieval pit	84	ae	coin	Copper alloy coin, very worn and complete illegible, under 25mm in diameter so generally after AD 260	1	8				23	Roman, mid 3rd century +
3	F88, Metalled surface	96	ag	coin	Base silver coin, radiate, probably of base-silver (barbarous radiate) (AD 260-295), clipped. Obverse: bearded radiate bust looking right, [...]PM[...]. Reverse: draped standing figure [... A]VG. Die axis 4.	1	1				14	Roman, 3rd century
4	F52, Roman ditch	46	fe	knife	Iron knife in three joining pieces, blade and handle incomplete, but blade appears to continue line of the handle and appears (from what has survived) to be more or less straight, handle oval in cross-section (15 by 9mm). Probably Manning 1982 Knife type 11 or 12 (p114)	1	58	115	26	10		Roman
5	F55, Post-medieval/ modern gully	51	fe	fitting	A-frame shaped iron object with mineralised wood on inside surfaces and cross bolt. It would have been fitted onto the point of a wooden fence post before being hammered into the ground, several of these have been found on the garrison site (Ben Holloway, pers comm).	1	428	147	67 (max) 20 (min)	35		Late post-medieval/ modern
6	F81, Post-medieval ditch	80	fe	sheet	Iron sheet fragments in several pieces	8	16	40	30		5	Post-medieval
7	F74, Possible inhumation	66	fe	hobnails	Five pieces of iron, under x-ray comprises 11 hobnails and a small iron nail.	5	32	34	18	12		Roman

Appendix 6 Stage 1b environmental results (All Roman features, except F84 which is a medieval/post-medieval pit)

Feature no.	F52	F53	F64	F74	F67	F73	F59	F84
Feature type	Ditch	Ditch	Inhumation? Pit?	Inhumation? Pit?	Pyre/bustum	Ditch	Ditch	Pit
Finds no.	47	48	58	67	69	71	77	88
Sample no.	14	15	16	17	18	19	20	21
Cereals and other potential crop plants								
<i>Avena</i> sp. (grain)							x	x
<i>Hordeum</i> sp. (grains)					xx	x	xx	x
<i>H. vulgare</i> L. (asymmetrical lateral grain)					x		x	
<i>Triticum</i> sp. (grains)				x	x		x	
<i>T. spelta</i> L. (glume base)							x	
Cereal indet. (grains)			x		xx		x	
Large Fabaceae indet.							xcffg	
Herbs								
<i>Anisantha sterilis</i> (L.)Nevski							xcffg	
<i>Anthemis cotula</i> L.							x	x
<i>Bromus</i> sp.					x	xcf		
<i>Centaurea</i> sp.								xcffg
<i>Chenopodium album</i> L.					x			
Small Fabaceae indet.							xx	
<i>Lapsana communis</i> L.							xcf	
<i>Medicago/Trifolium/Lotus</i> sp.		xcf	x		x	x	xxxx	x
<i>Plantago lanceolata</i> L.					x	x	xx	
Small Poaceae indet.	x				x	x	xxx	xx
<i>Prunella vulgaris</i> L.							x	
<i>Ranunculus</i> sp.					x			
<i>R. acris/repens/bulbosus</i>							xx	x
<i>Rumex</i> sp.	x				xx		xx	
<i>R. acetosella</i> L.					x			
<i>Stellaria media</i> (L.)Vill								x
<i>Vicia/Lathyrus</i> sp.					x	x	xxx	x

Wetland plants								
<i>Carex</i> sp.						x	x	x
<i>Eleocharis</i> sp.							x	x
Other plant macro-fossils								
Charcoal <2mm	x	x	xxx	xx	xxxx	xxxx	xxxx	xx
Charcoal >2mm	x	x	xx	x	xxxx	xx	xxxx	
Charcoal >5mm		x		x	xx	x	xx	
Charcoal >10mm				x	x	xx	x	
Charcoal >50mm						x		
Charred root/stem	x	x		x				
Indet. seeds		x	x			x	xx	x
Other remains								
Black porous material				x	x			x
Black tarry material	x	x						
Small coal frags.			x					
Vitreous material		x						
Sample volume (litres)	40	40	20	20	20	20	40	20
Volume of flot (litres)	<0.1							
% flot sorted	100%							

Key to Appendix 5 & 6

x = 1 – 10 specimens xx = 11 – 50 specimens xxx = 51 – 100 specimens xxxx = 100+ specimens
 cf = compare fg = fragment

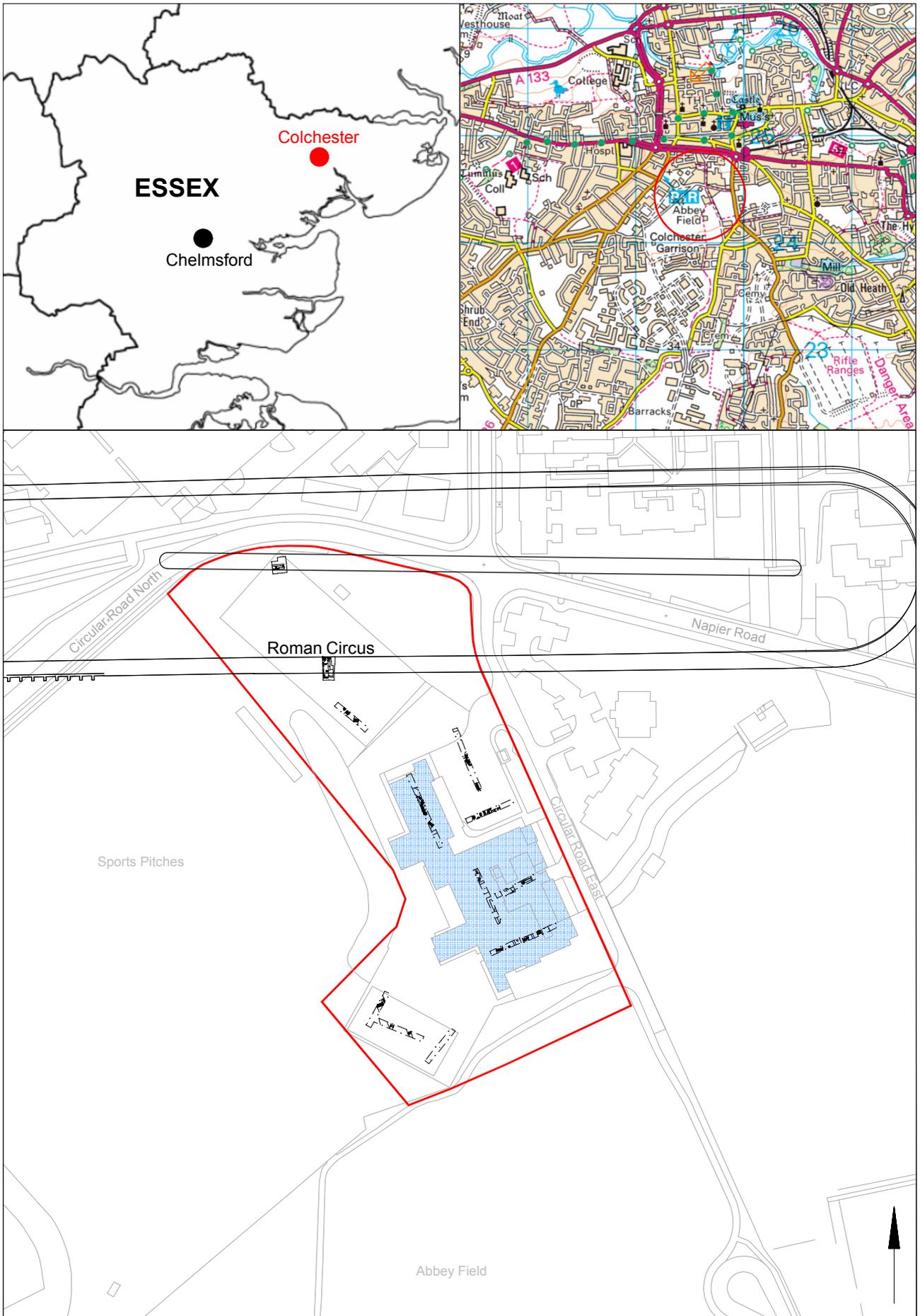


Fig 1 Site location

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0 100 m

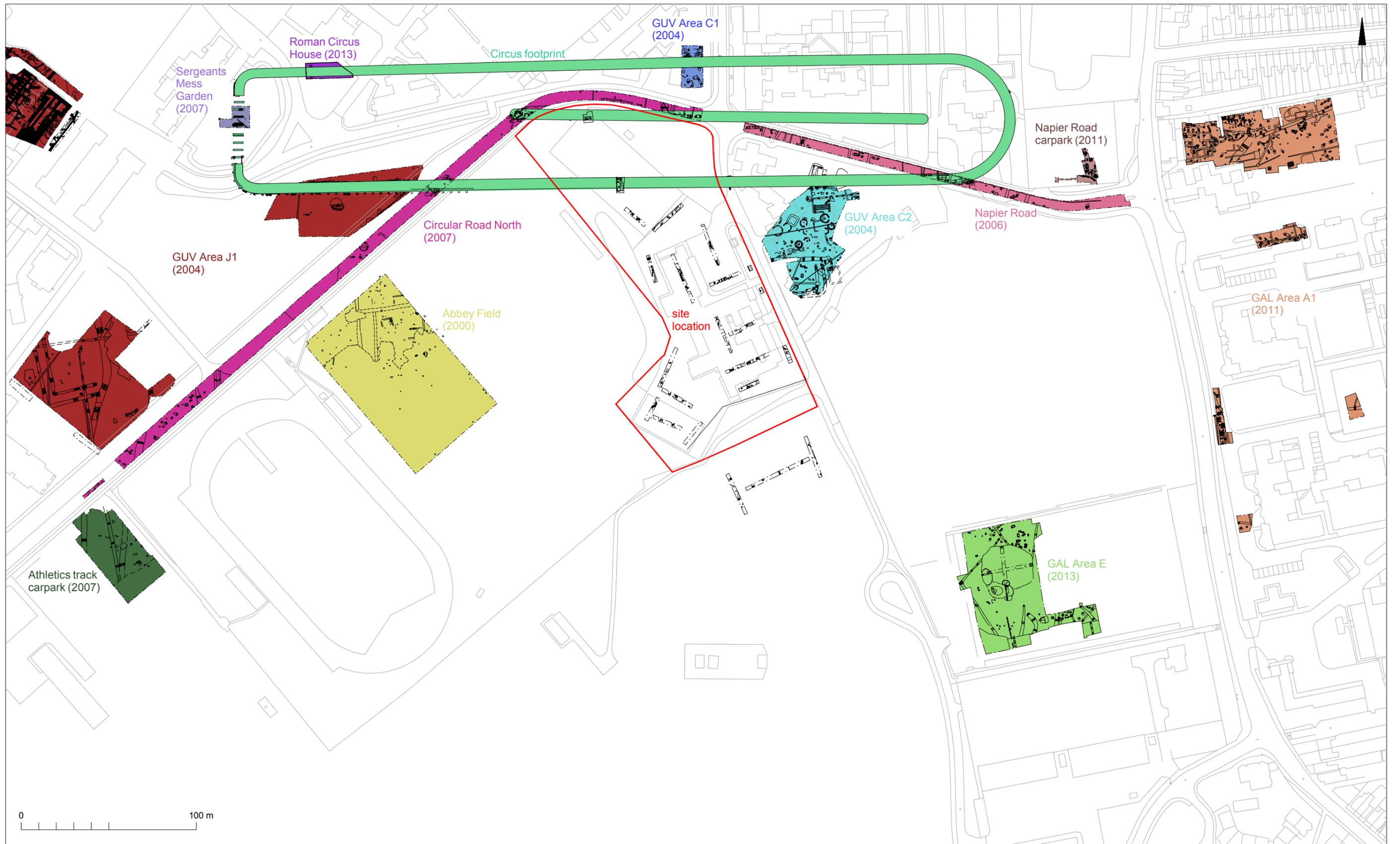


Fig 2 Arena site shown in relation to nearby archaeological sites.



Fig 3 Evaluation results.

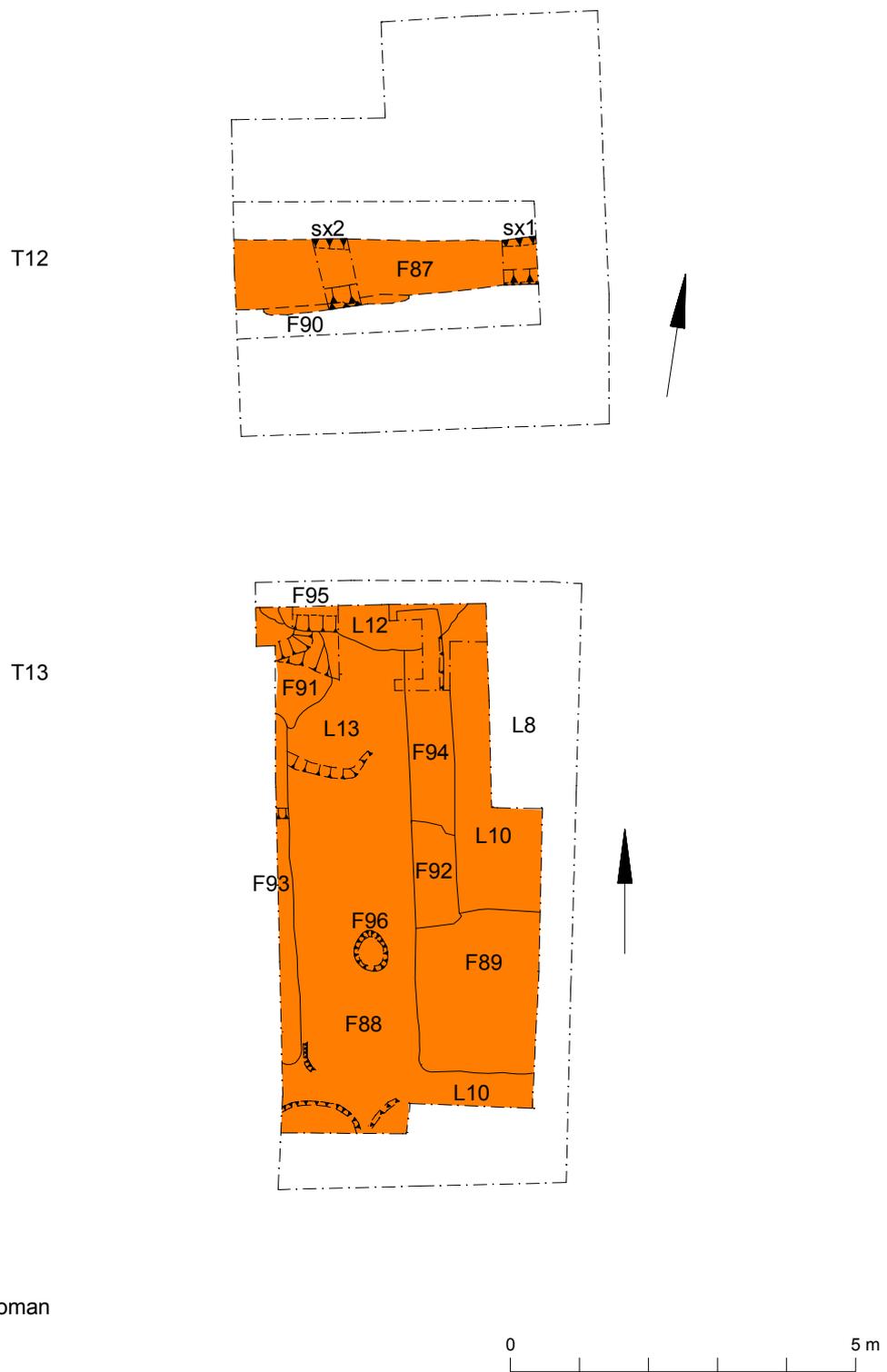


Fig 4 Detailed trench plans: T12 and T13 (Roman circus)
 (also see Fig 5)

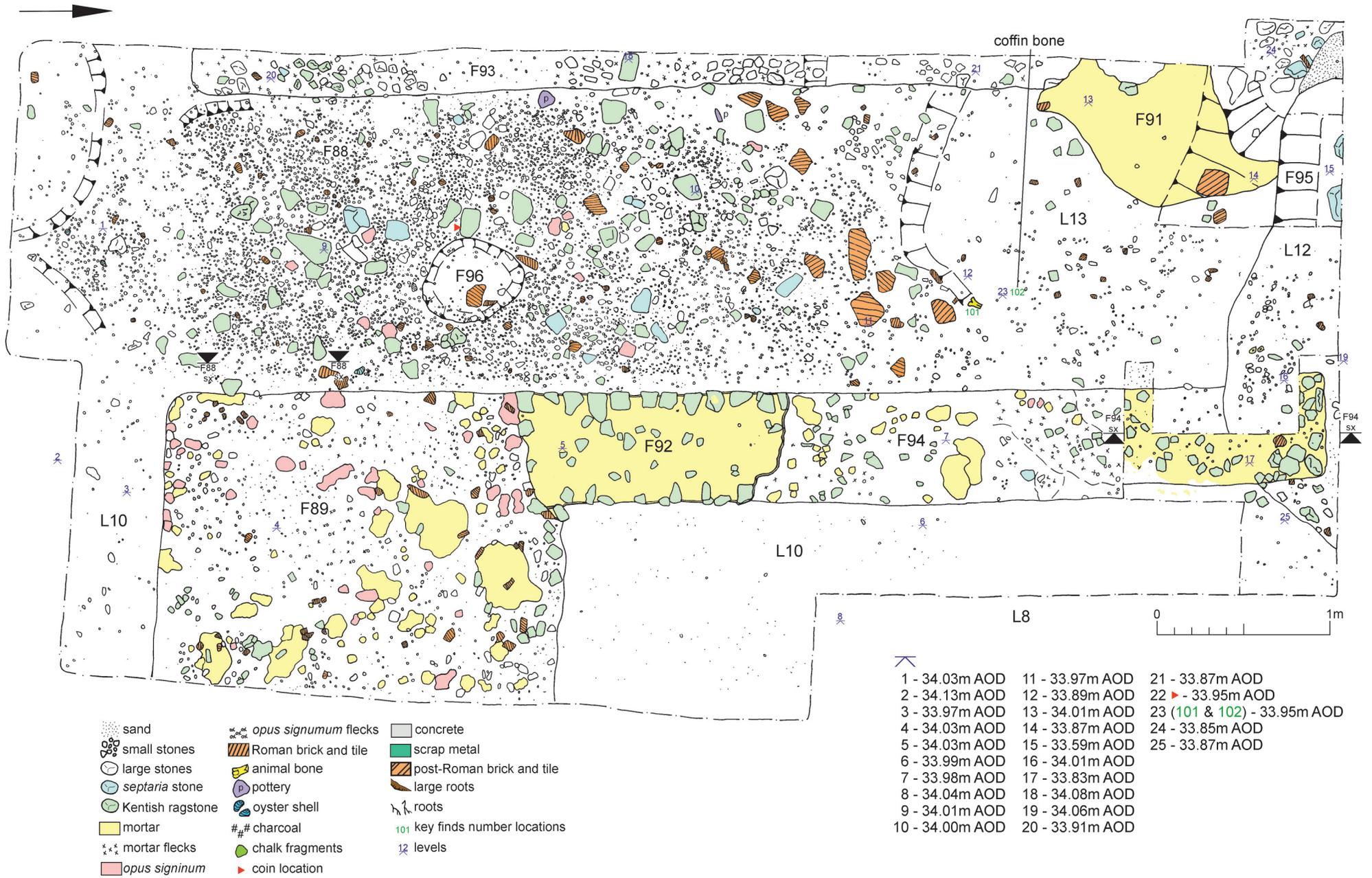


Fig 5 T13: circus plan.

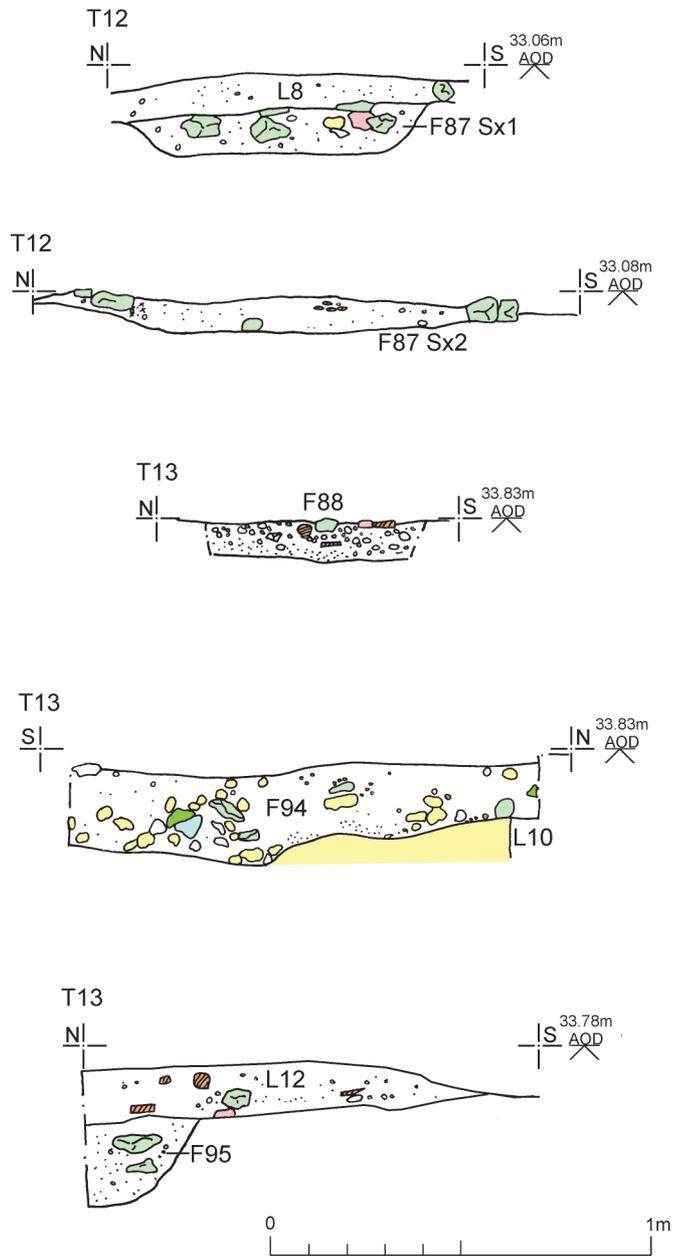


Fig 6 T12-T13: circus sections.

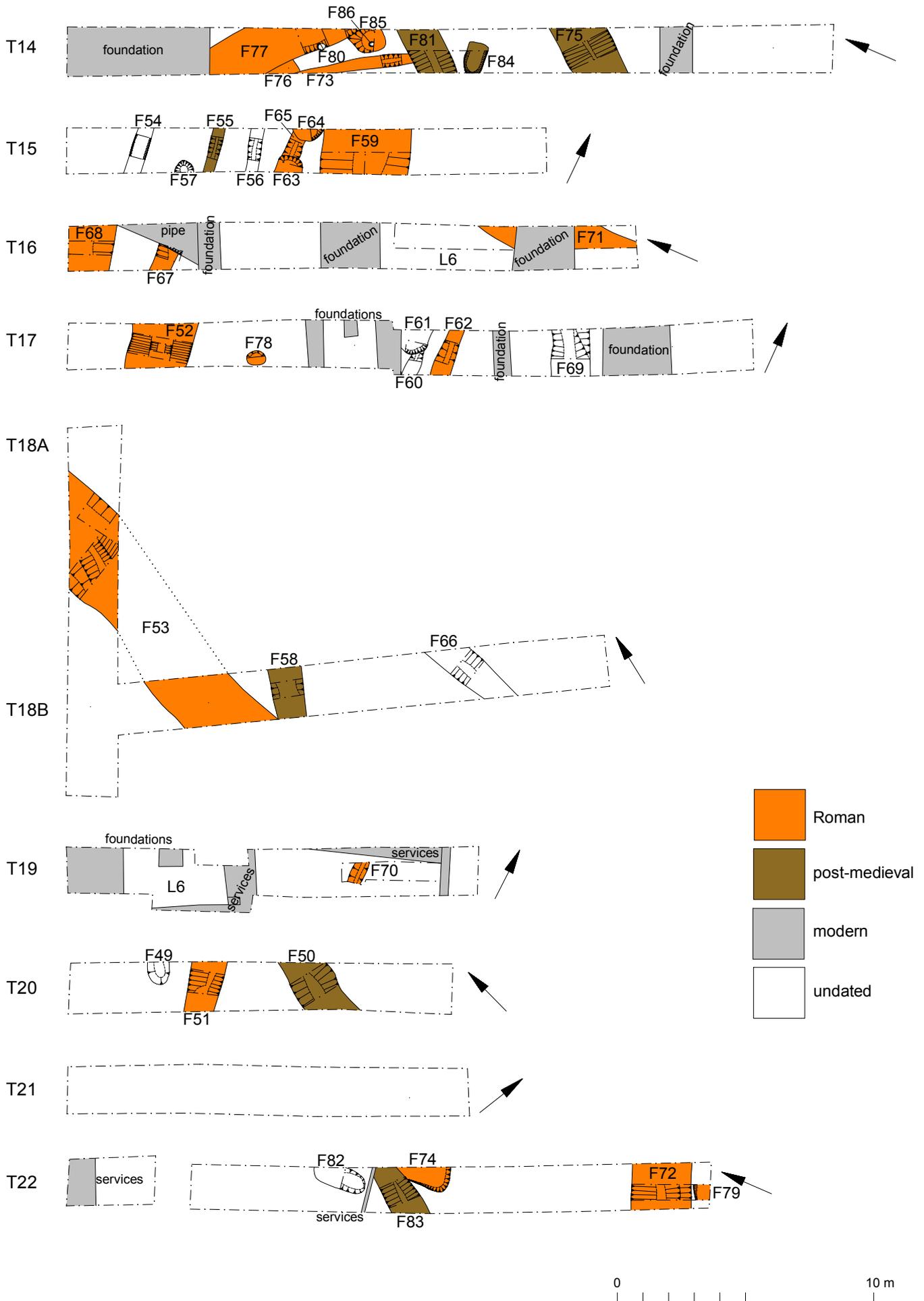


Fig 7 Detailed trench plans: T14-T22

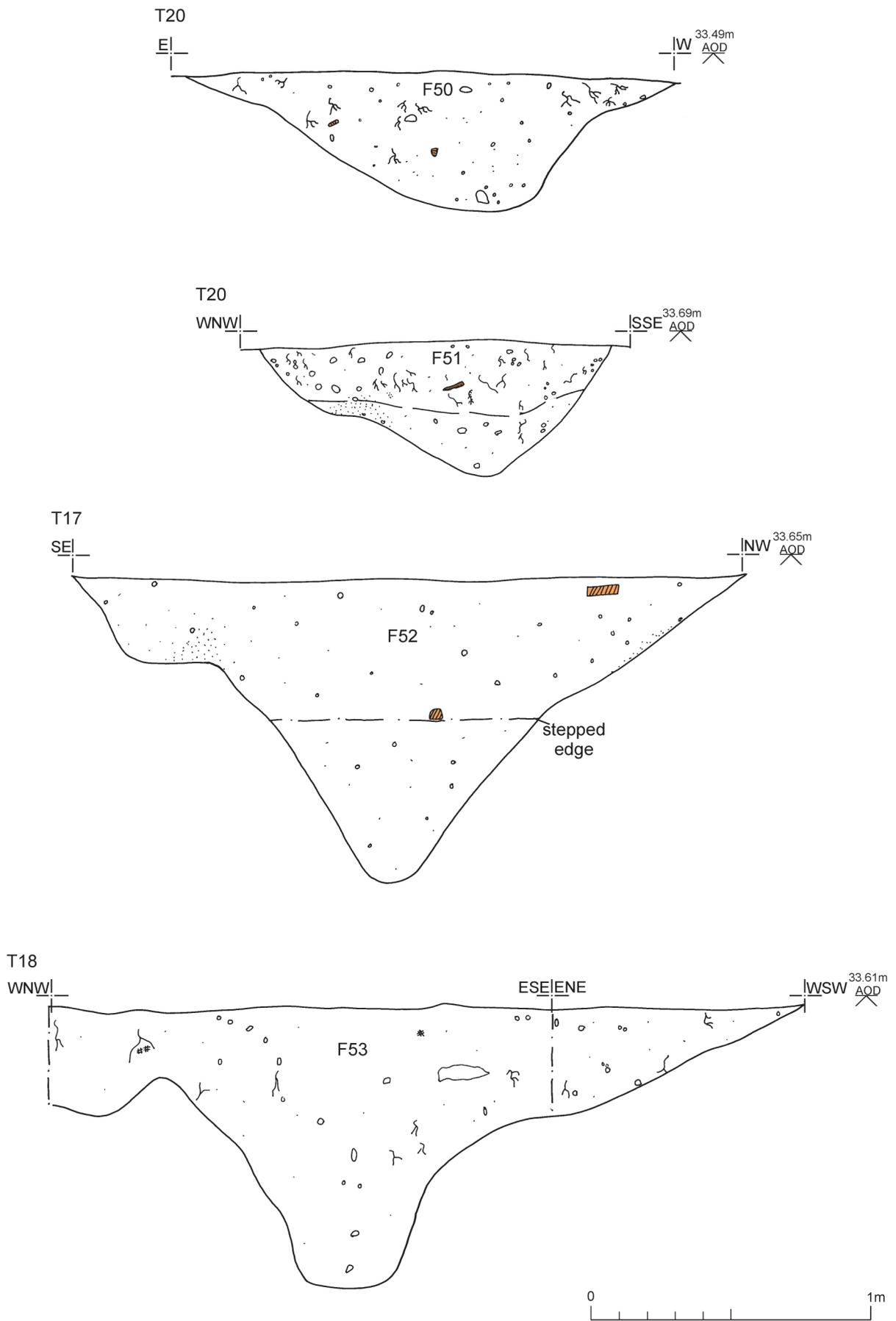


Fig 8 Feature sections.

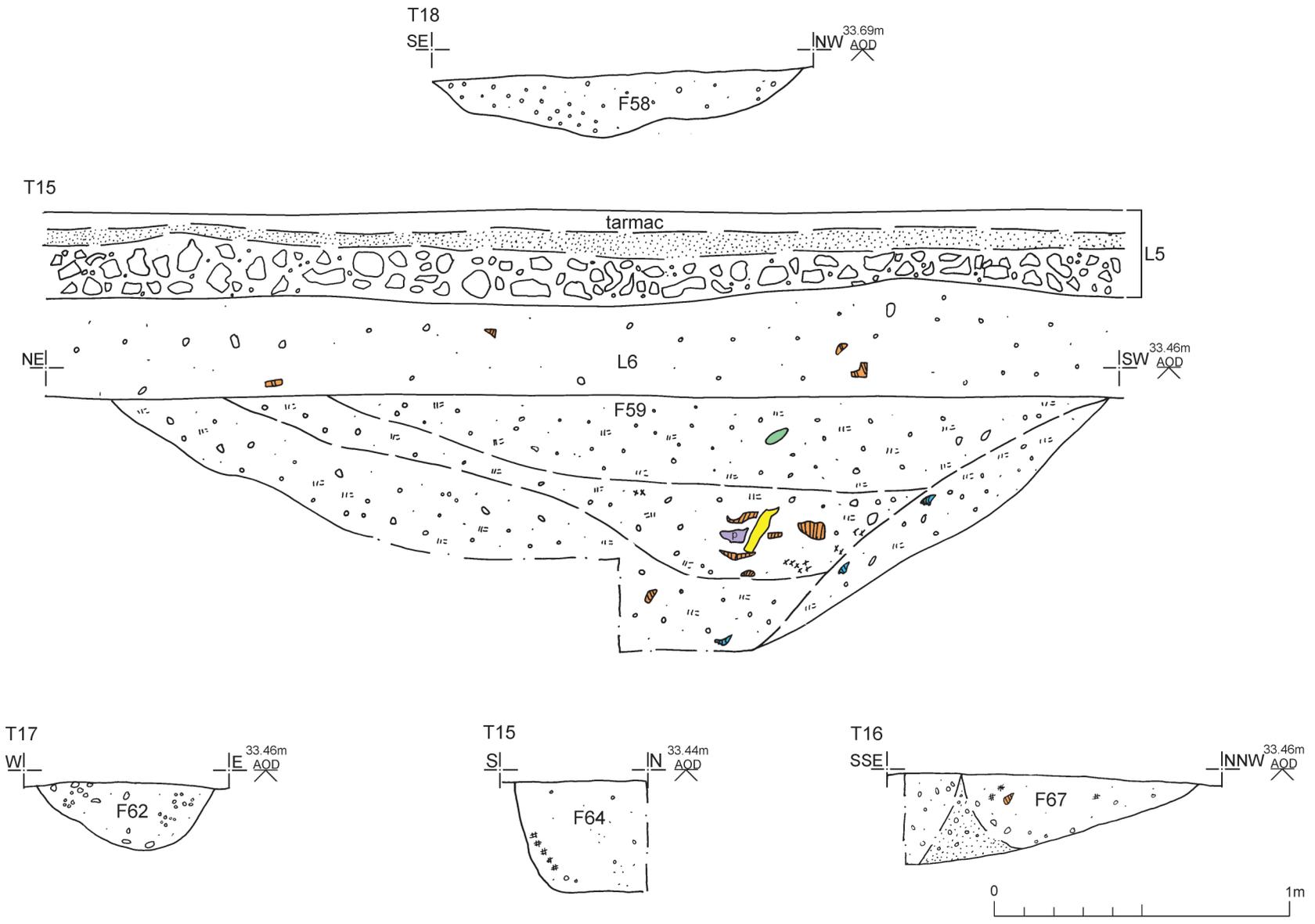


Fig 9 Feature sections.

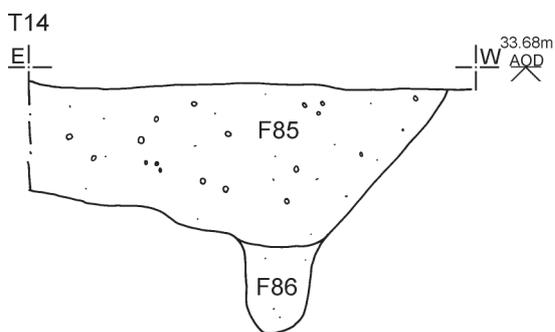
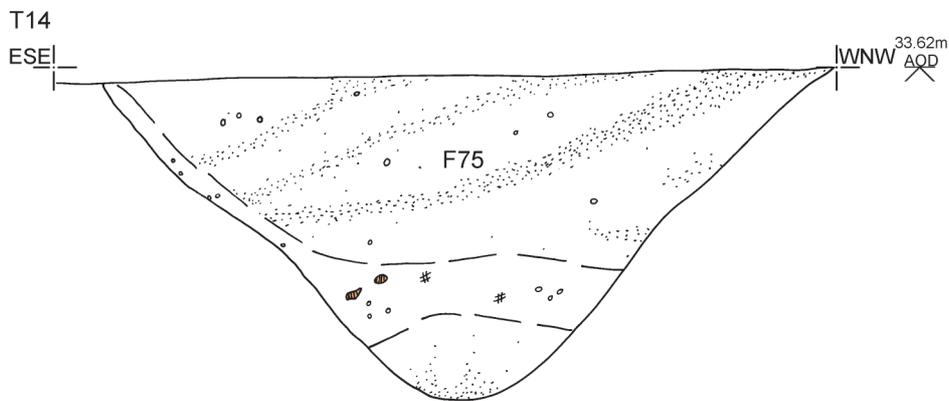
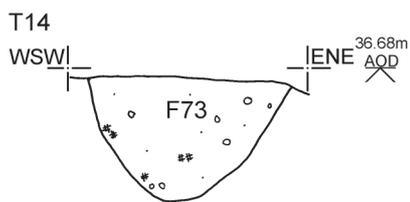
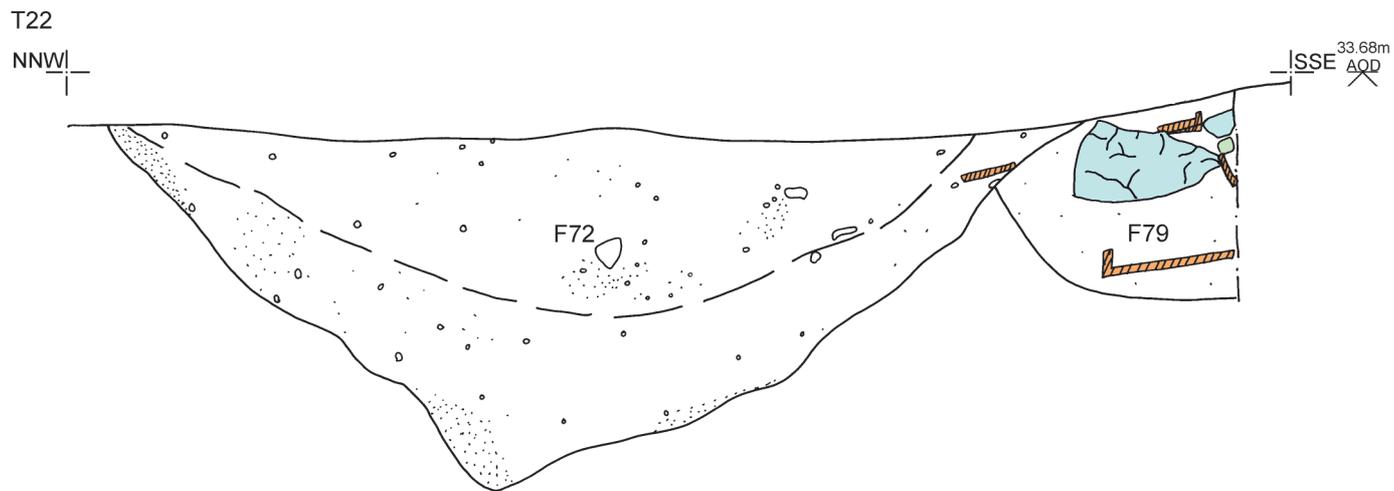


Fig 10 Feature sections.

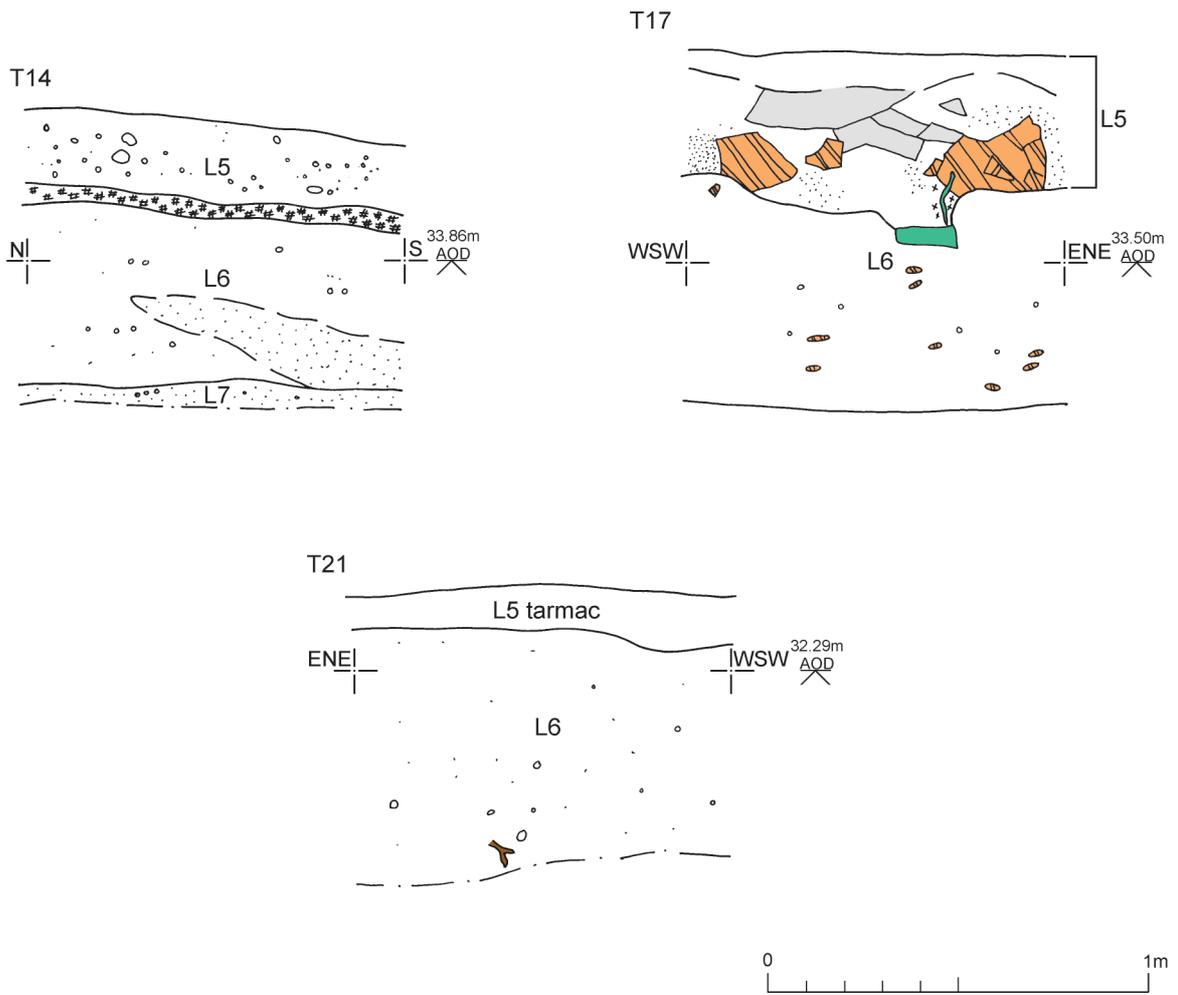


Fig 11 Representative sections.



Fig 12 Roman pottery and Roman CBM.



Fig 13 Roman CBM.

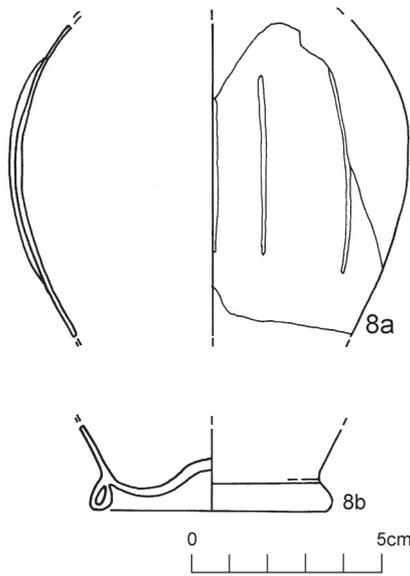


Fig 14 Roman CBM and glass.

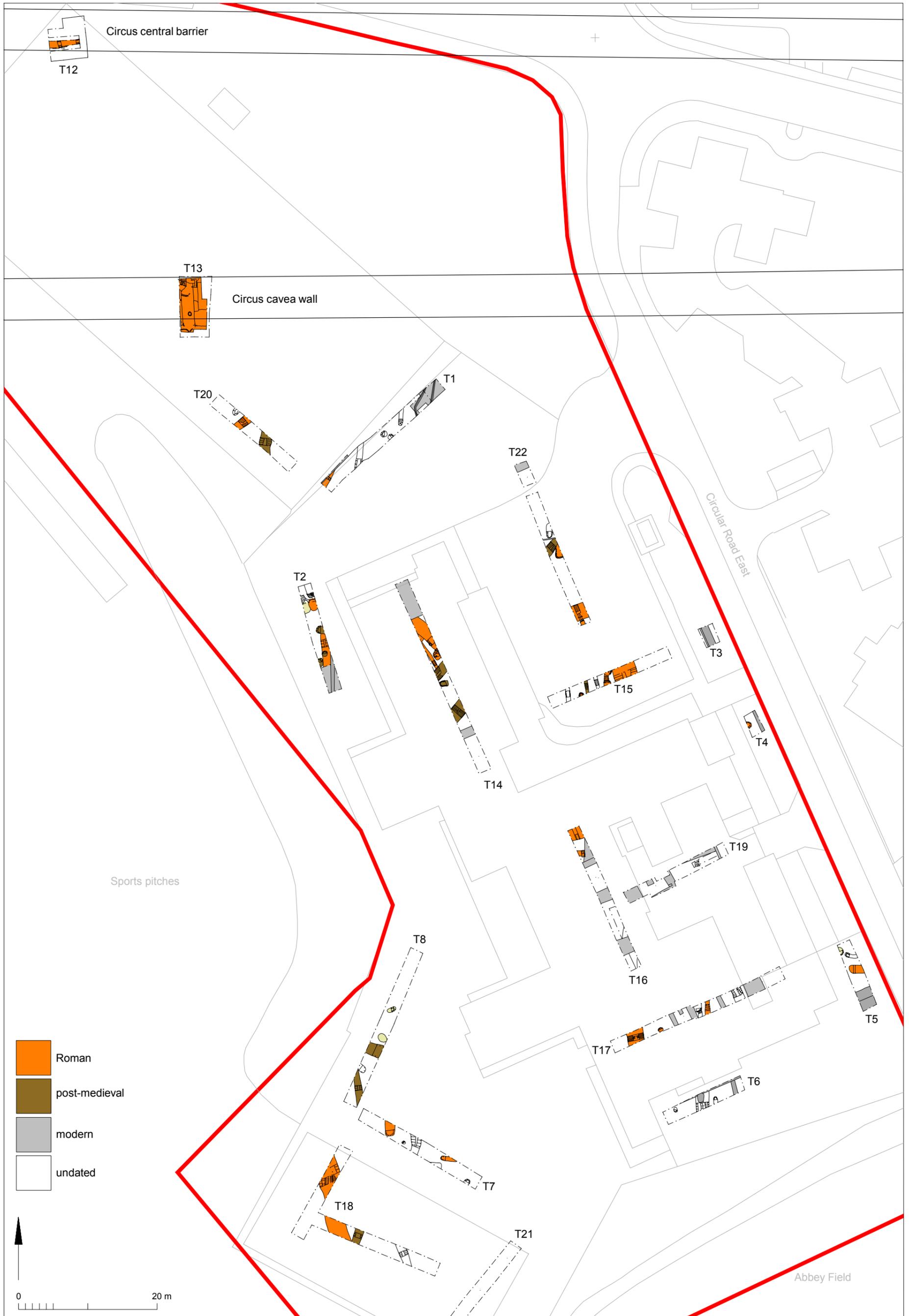


Fig 15 Stage 1a (T1-T11) and 1b (T12-T22) phased evaluation results (only results from within the current boundary of the proposed development site are shown)

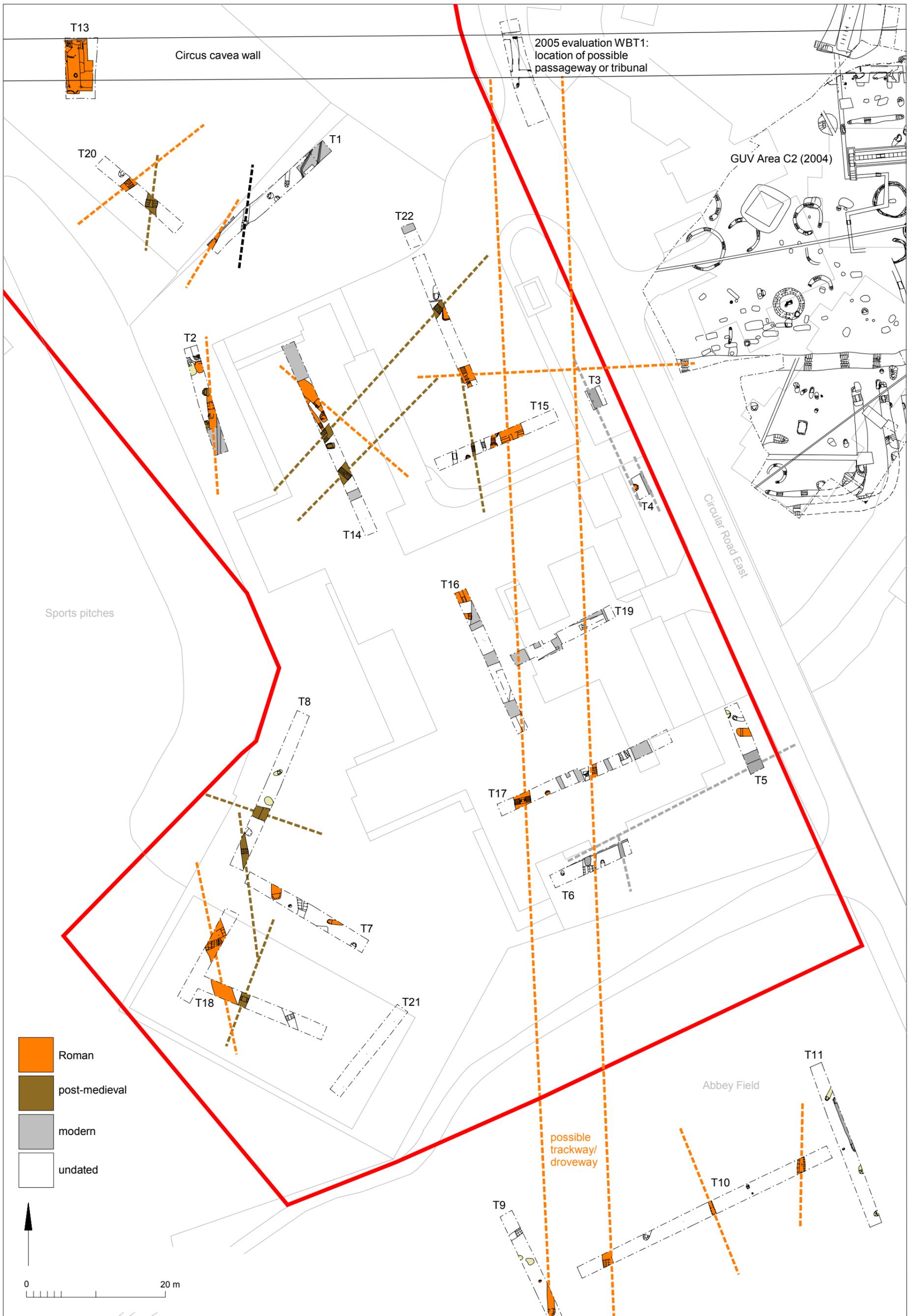


Fig 16 Ditch projections (dashed lines) from Stage 1a and 1b evaluations



Fig 17 Possible Roman burials (highlighted with a green circle) from Stage 1a and 1b evaluations

Essex Historic Environment Record/ Essex Archaeology and History

Summary sheet

Address: the former Arena Leisure Centre, Circular Road East, Colchester, Essex, CO2 7SZ	
Parish: Colchester	District: Colchester
NGR: TL 997 244 (centre)	Site code: CAT project ref.: 17/01f CHER ref: ECC3937 OASIS ref: colchest3-272946
Type of work: Evaluation	Site director/group: Colchester Archaeological Trust
Date of work: 23rd May-16th June 2017	Size of area investigated: 1.67ha
Location of curating museum: Colchester museum accession code COLEM: 2017.4	Funding source: RMPA Services Plc
Further seasons anticipated? Not known	Related CHER numbers:
Final report: CAT Report 1142	
Periods represented: Roman, post-medieval, modern	
<p>Summary of fieldwork results:</p> <p>An archaeological evaluation (eleven trial-trenches) was carried out on the former Arena Leisure Centre, Circular Road East, Colchester as part of Stage 1b pre-planning application work associated with the redevelopment of the site. Colchester's Roman circus (scheduled monument 35614) is located within the northern part of the development site with Roman burials, a kiln, ditches and pits having been recorded both on the site and in the immediate vicinity.</p> <p>Remains associated with the Roman circus were encountered in two of the evaluation trenches (T12-T13) at depths of 0.27-0.39m below current ground level. Trench T12 was positioned over the central barrier, and the shallow remains of a robbed-out wall foundation were identified. Trench T13 was positioned over the southern cavea. The remains of the robbed-out outer cavea wall foundation were identified along with the robbed-out and in situ remains of two north-south walls/wall foundations with metalling in between them. Significantly, these walls/wall foundations represent the remains of a passageway or vomitorium leading to the cavea seating area.</p> <p>The remaining nine trenches were located to the south of the circus. Twenty-one Roman features, predominantly of 2nd to 3rd century date, were identified: nine ditches, two ditches/gullies, five pits, four possible inhumation burials and one possible pyre site or bustum. Together with evidence from the stage 1a evaluation, it</p>	

has been possible to identify two parallel north/south ditches running through the site which probably formed a trackway or driveway leading to another passageway/vomitorium identified in 2005. Other ditches most likely formed field boundaries to the south of the east-west aligned circus. It is, however, notable that several of these ditches were aligned north-west/south-east and north-east/south-west rather than north-south and east-west, and these may belong to the Late Iron Age/early Roman landscape typical of the landscape to the south of Abbey Field principally identified by the New Garrison (Merville Barracks) project.

A total of 16 possible inhumation burials or burial related features (five in this current Stage 1b evaluation) have now been recorded during both stages of evaluation. However, as none were fully excavated, more work would be needed (where appropriate depending on development impact) to confirm their identification and ascertain the presence of human skeletal remains and any associated grave goods.

Post-medieval features consisted of four ditches and a pit. Four other ditches/gullies are of possible post-medieval/modern date, and a number of concrete beams and services were all associated with the demolished Arena building.

Previous summaries/reports: CAT Report 843

CBC monitor: Jess Tipper

Keywords: Roman circus

Significance: ***

Author of summary:
Laura Pooley

Date of summary:
August 2017

OASIS DATA COLLECTION FORM: England

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OASIS ID: colchest3-272946

Project details

Project name	Archaeological evaluation (Stage 1b) and monitoring at The Arena, Circular Road East, Colchester, Essex, CO2 7SZ
Short description of the project	Remains associated with Colchester's Roman circus were encountered in two trenches (T12-T13). Trench T12 was positioned over the central barrier revealing the shallow remains of a robbed-out wall foundation. Trench T13 was positioned over the southern cavea. The remains of the robbed-out outer cavea wall foundation were identified including the robbed-out and in situ remains of two north-south walls/wall foundations with metalling in between them. Significantly, these walls/wall foundations represent the remains of a passageway or vomitorium leading to the Circus cavea seating area. Nine trenches were located to the south of the circus. Twenty-one Roman features, predominantly of 2nd to 3rd century date, were identified: nine ditches, two ditches/gullies, five pits, four possible inhumation burials and one possible pyre site or bustum. Together with evidence from an earlier evaluation, it has been possible to identify two parallel north/south ditches running through the site which probably formed a trackway or driveway leading to another passageway/vomitorium in the circus 63m east of the current site. Other ditches most likely formed field boundaries to the south of the east-west aligned circus.
Project dates	Start: 23-05-2017 End: 16-06-2017
Previous/future work	Yes / Yes
Any associated project reference codes	17/01e - Contracting Unit No.
Any associated project reference codes	17/01f - Contracting Unit No.
Any associated project reference codes	35614 - SM No.
Any associated project reference codes	ECC3937 - HER event no.
Any associated project reference codes	COLEM: 2017.4 - Museum accession ID
Type of project	Field evaluation
Site status	Scheduled Monument (SM)
Current Land use	Vacant Land 1 - Vacant land previously developed
Monument type	CIRCUS Roman
Monument type	WALLS Roman
Monument type	WALL FOUNDATIONS Roman
Monument type	METALLING Roman
Monument type	DITCHES Roman
Monument type	PITS Roman
Monument type	INHUMATIONS? Roman
Monument type	DITCHES Post Medieval
Monument type	GULLIES Post Medieval
Monument type	PITS Post Medieval
Significant Finds	POTTERY Roman
Significant Finds	CERAMIC BUILDING MATERIAL Roman
Significant Finds	ANIMAL BONE Roman
Significant Finds	COINS Roman
Significant Finds	ARCHITECTURAL STONE Roman
Significant Finds	GLASS Roman
Significant Finds	IRON KNIFE Roman
Significant Finds	NAILS Roman
Significant Finds	POTTERY Medieval
Significant Finds	CERAMIC BUILDING MATERIAL Medieval
Significant Finds	POTTERY Post Medieval
Significant Finds	CERAMIC BUILDING MATERIAL Post Medieval
Significant Finds	CLAY TOBACCO PIPE Post Medieval
Methods & techniques	"Sample Trenches"
Development type	Urban residential (e.g. flats, houses, etc.)
Prompt	Planning condition
Position in the planning process	Not known / Not recorded

Project location

Country England
Site location ESSEX COLCHESTER COLCHESTER the former Arena Leisure Centre, Circular Road East
Postcode CO2 7SZ
Study area 1.67 Hectares
Site coordinates TL 9965 2444 51.882194141187 0.901179640525 51 52 55 N 000 54 04 E Point
Height OD / Depth Min: 33.4m Max: 33.65m

Project creators

Name of Organisation Colchester Archaeological Trust
Project brief originator CBC Archaeological Officer
Project design originator R. Masefield, RPS Group
Project director/manager Chris Lister
Project supervisor Nigel Rayner
Type of sponsor/funding body Developer

Project archives

Physical Archive recipient Colchester Museum
Physical Archive ID COLEM: 2017.4
Physical Contents "Animal Bones","Ceramics","Glass","Metal","Worked stone/lithics"
Digital Archive recipient Colchester Museum
Digital Archive ID COLEM: 2017.4
Digital Contents "Stratigraphic","Survey"
Digital Media available "Images raster / digital photography","Survey"
Paper Archive recipient Colchester Museum
Paper Archive ID COLEM: 2017.4
Paper Contents "Stratigraphic","Survey"
Paper Media available "Context sheet","Drawing","Miscellaneous Material","Photograph","Plan","Report","Section"

Project bibliography 1

Publication type Grey literature (unpublished document/manuscript)
Title The Roman Circus and other remains: archaeological evaluation and monitoring at the former Arena Leisure Centre, Circular Road East, Colchester, Essex, CO2 7SZ: May-June 2017
Author(s)/Editor(s) Pooley, L.
Other bibliographic details CAT Report 1142
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URL <http://cat.essex.ac.uk/all-reports.html>

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