

**An archaeological watching brief on
geotechnical boreholes and test-pits
(Phase 4)**

Colchester Garrison PFI site

August 2001

**on behalf of
RMPA Services Ltd**

NGR: TL 994 233 (c)
Project code: 01/8c
Colchester Museum accession code: 2001.168



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CAT Report 154
October 2001

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Figure

Fig 1 Location plan of geotechnical boreholes and test-pits
August 2001.

1 Summary

An archaeological watching brief was carried out during hand-digging of geotechnical boreholes and test-pits at the Garrison PFI site (Phase 4), Colchester, Essex. No features or finds of archaeological significance were revealed.

2 Introduction

- 1.1 This is a report on an archaeological watching brief carried out by the Colchester Archaeological Trust (CAT) for W S Atkins Consultants Ltd on geotechnical boreholes and test-pits within the Garrison PFI site (Phase 4). The investigation to test the ground was carried out between the 20th and the 29th of August 2001 and is part of on-going works to prepare for the the start of the rebuilding of the Garrison. Three previous watching briefs on boreholes and test-pits in the Garrison have been undertaken by CAT for W S Atkins Consultants Ltd in 2000 (see Crossan 2000a, Crossan 2000b, and Orr 2000b).
- 1.2 The development area is located 1km to the south of the modern town centre. The 304 hectare irregular block of land is enclosed by Layer Road and Butt Road and married quarters to the west; by Mersea Road, Monkwick and the cemetery to the east; by Berechurch Hall Road to the south; and by Southway and Artillery Barracks Folley to the north. Berechurch Road bisects the site from north-east to south-west. The development site includes the built-up areas and recreational areas of the Garrison as well as MoD-owned arable and grass fields.
- 1.3 The site lies between 27m and 35m AOD. The PFI scoping exercise (pp 2-4) records that 'the site is underlain by the Recent and Pleistocene Glacial Sands and Gravels which comprise sandy flint gravels with quartz and occasional quartzites. In the south-western part of the site, the Glacial Sands and Gravels are overlain by Recent and Pleistocene Brickearth or Loam which is composed of brown clay containing variable amounts of sand, silt and pebbles... The solid geology underlying the site comprises London Clay, the thickness of which is estimated to be between 40m and 50m... Beneath the London Clay are the Lower London Tertiaries comprising sands, silts and clays with a probable thickness of 10m to 20m. The Chalk underlies the Lower London Tertiaries approximately 70m below ground level.'
- 1.4 This report follows the standards set out in the Borough Council's *Guidelines on standards and practices for archaeological fieldwork in the Borough of Colchester* (1996) and *Guidelines on the preparations and transfer of archaeological archives to Colchester Museums* (1996), and the IFA's *Standard and guidance for an archaeological watching brief* (1999).
- 1.5 Fourteen boreholes and 72 test-pits were excavated in August 2001 by contractors for W S Atkins Consultants Ltd over the entire Garrison PFI site. This was part of a land-quality statement site investigation, the purpose of which was to establish whether the ground had been contaminated and to locate services. The Archaeological Officer for Colchester Borough Council required an archaeologist to be present to carry out a watching brief. CAT Field Officer Kate Orr carried out the work.

3 Archaeological background

The Garrison PFI site is located within the major Iron Age settlement of Camulodunum and on the edge of the Roman legionary fortress and later town of Colonia Claudia Victricensis. Part of the area is of national archaeological importance; among the sites contained within it are the Iron Age Berechurch Dyke, cropmarks of features of probable late Iron Age or Roman date, Iron Age and Roman cemeteries, Roman kilns and a possible Roman road, as well as the Scheduled Ancient Monument site of the medieval abbey of St John. The line of Civil War siege defences are thought to run across the northern section of the site. Second World War sites can also be found within the development area.

4 Aims and objectives

The aim of the watching brief was to identify and record any archaeological features, finds or deposits revealed by the groundworks.

5 Methods

- 5.1 Seventeen boreholes and 30 test-pits were dug. The majority of the boreholes and test-pits were excavated by hand by the pitting crew to 1.2m depth and subsequently machine-excavated or -bored. The machine excavation was not covered by the watching brief.
- 5.2 Eighty per cent of the hand-digging phase of the trenches was monitored. This consisted of examining the spoil heaps and entering the trenches where possible to examine the sides.
- 5.3 Only 7 boreholes were monitored as they were too narrow to be able to see any features. Figure 1 shows the location of trenches and boreholes monitored.
- 5.4 Changes in soils in each test-pit were recorded and given numbers (Layer 1 or L1, L2, L3, etc).
- 5.5 Finds were bagged according to context; washed and marked; and analysed by specialists.

6 Results

Boreholes and test-pits are listed in chronological order below. Test-pit 204 (Flagstaff House) was not dug because it was within the Scheduled Ancient Monument area of St John's abbey.

Test-pit 201 - Meeanee Barracks car park, 28/08/01

2m x 500mm in size.

L1 - reinforced concrete and sand and gravel sub-base, 0-300mm.

L2 - brick hardcore, 300-600mm.

L3 - soft dark brown sandy loam with modern brick, 600mm-1.2m.

Test-pit 202 - Hyderabad Barracks, 22/08/01

2m x 750mm in size

L1 - turf and dark brown sandy silt topsoil containing one brown-glazed jug handle and a clay-pipe stem, 0-250mm.

L2 - layer of modern brick, 250-400mm.

L3 - made-up ground of mid brown silty sand with brick flecks and bricks, 400mm-1.2m.

L4 - yellowy brown natural sand.

Concrete was recorded at the southern end of the trench at 250mm depth.

Test-pit 203 - cricket pitch, 28/08/02

2m x 500mm

L1 - turf and grey brown silty loam topsoil with root activity, includes a clay-pipe stem, 0-330mm.

L2 - mid brown silty loam with Roman greyware and peg-tile, 330-800mm.

L3 - reddish sandy clay and gravel natural, 800mm-1.2m.

Test-pit 204 – Flagstaff House - not dug

Test-pit 205 - Flagstaff House, 24/08/01

2m x 400mm

L1 – tarmac and sand and gravel sub-base, 0-280mm.

L2 - mid brown sandy loam containing bone, post-medieval pottery, and Roman tile and peg-tile, 280mm-1.2m.

Test-pit 206 - Le Cateau Barracks, 29/08/01

2m x 500mm

L1 - turf and grey/brown silty loam topsoil, containing two pieces of peg tile and a bullet. 0-300mm.

L2 - mid brown silty loam topsoil with peg-tile, two pieces of Roman grey ware pottery and slate, 300mm.

The rest of the trench was not monitored.

Test-pit 207 - Le Cateau Barracks, 29/08/01

2m x 500mm

L1 - mid brown silty sand topsoil with tree-root activity, 0-550mm.

L2 - reddish brown clayey sand natural subsoil, 550mm-1.2m.

Test-pit 208 - Cavalry Barracks stables, next to tarmac car park, 24/08/01

2m x 600mm

L1 - turf and dark brown loam topsoil with Roman roof-tile, 0-100mm.

L2 - layer of tarmac and bitumen, 100-200mm.

L3 - mid dark brown sandy loam topsoil containing Roman tile, 200-900mm.

L4 - reddish-brown natural sandy silt, 900mm-1.2m.

Test-pit 209 - Cavalry Barracks, 28/08/01

2m x 300mm

L1 - tarmac and sand and gravel sub-base, 0-300mm.

L2 - mid brown silty sand with gravel and tile flecks, 300-700mm.

L3 - mid brown sandy silt and gravel, 700mm-1.2m.

Test-pit 210 - Goojerat Barracks, 28/08/01

2m x 500mm

L1 - turf and stony grey-brown loamy topsoil, 0-300mm.

L2 - sandy grey-brown loam, 300-550mm.

L3 - reddish-brown natural sand and gravel, 550mm-1.2m.

Test-pit 211 - Goojerat Barracks parade ground, 28/08/01

2m x 500mm

L1 - tarmac and sub-base with concrete and brick hardcore, 0-500mm.

L2 - modern orange sand with brick and asphalt flecks, 500mm-1.2m.

Test-pit 212 - Sobraon Barracks, 24/08/01

2m x 500mm

L1 - red sand with modern brick, 0-750mm.

L2 - natural red sand, 750mm-1.2m.

Test-pit 213 - old military hospital site, Circular Road South, 20/08/01

2m x 750mm

L1 - turf and topsoil, 0-150mm.

L2 - light brown sandy material with modern brick rubble, slate and concrete (modern made-up ground), 150mm-1.2m.

L3 - natural yellow sand, 1.2m-1.4m.

Large slabs of concrete were observed at 220mm depth. Brick foundations to the old hospital were observed between 450mm and 1.2m depth.

Test-pit 214 - old military hospital site, Circular Road South, 21/08/01
2m x 750mm

L1 - mid brown clayey loam with frequent stones, 0-260mm.

L2 - reddish brown sandy loam with stones and modern brick, 260mm-1.2m.

Test-pit 215 - old military hospital site, Circular Road South, 20/08/01
2m x 750mm

L1 - turf and mid brown silty loam topsoil with frequent small stones, 0-500mm.

L2 - mid brown sandy silt with small stones, 500-990mm.

L3 - natural sand and gravel, 990mm-1.2m.

Test-pit 216 - next to the swimming pool, Circular Road South, 21/08/01
2m x 750mm

L1 - turf and dark brown sandy loam topsoil and made-up ground with clay pipe and animal bone, modern pottery and brick flecks, 0-900mm.

L2 - yellow natural sand and gravel, 900mm-1.5m.

Test-pits 217-219 - arable field east of Berechurch Road, 22/08/01
Not monitored

Test-pit 220 - arable field In the the south-east corner of the site, 23/08/01
2m x 750mm

L1 - turf and mid brown silty topsoil, 0-220mm.

L2 - yellow brown silt becoming very hard at the base, 220mm-1.2m.

Test-pit 221 - arable field in the south-east corner of the site, 22/08/01
2m x 750mm

L1 - turf and grey-brown silty loam topsoil, 0-300mm.

L2 - reddish brown silt with brick flecks, 300mm-1m.

L3 - reddish brown coarse sand, 1-1.2m.

Test-pit 222 - arable field in the south-east corner of the site, 22/08/01
2m x 750mm

L1 - long grass and silty clayey loam topsoil, 0-340mm.

L2 - orange-brown clayey silt, 340-400mm.

L3 - orange sand, 400-680mm.

L4 - natural yellow and grey sand, 680mm -1.2m.

Test-pit 223 - arable field in the south-east corner of the site, 22/08/01
2m x 750mm

This trench was on the site of the western bank of Berechurch Dyke, an Iron Age defensive feature.

L1 - grey-brown silt topsoil, 0-300mm.

L2 - orange-brown silt with possible worked flint, 300mm-1m.

L3 - reddish brown coarse sand, 1m-1.2m.

Test-pit 224 - Roman Barracks sports pitch, 23/08/01
2m x 1m
L1 - grass and grey-brown silty topsoil, 0-280mm.
L2 - undisturbed light brown silty loam, 280-660mm.
L3 - reddish orange sand, 660mm-1.2m.

Test-pit 225 - Roman Barracks sports pitch, 23/08/01
Not monitored

Test-pit 226 - Roman Barracks sports pitch, 23/08/01
Not monitored

Test-pit 227 - Roman Barracks sports pitch, 23/08/01
2m x 750mm
L1 - grass and grey brown silty topsoil, 0-280mm.
L2 - undisturbed light brown silty loam, 280-660mm.
L3 - reddish-orange sand, 660mm-1.2m.

Test-pit 228 - Roman Barracks sports pitch, 23/08/01
2m x 750mm
L1 - grass and grey/brown silty topsoil, 0-300mm.
L2 - undisturbed orange-brown silt, 300mm-1m.
L3 - reddish-brown natural sand and gravel.

Test-pit 229 - arable field in the south-east corner of the site, 23/08/01
2m x 750mm
L1 - turf and mid brown silty loam topsoil with tile flecks, 0-250mm.
L2 - orange-brown silty clay, 250-450mm.
L3 - orange silt, 450-650mm.
L4 - natural orange sand, 650mm-1.2m.

This trench was largely undisturbed and showed no sign of remains of the rifle ranges that existed here.

Test-pit 230 - Cavalry Barracks, 24/08/01
2m x 600mm
L1 - turf and mid-brown sandy loam topsoil with small stones, 0-640mm.
L2 - lighter brown silty loam with occasional modern pottery and slate, Roman tile and modern brick flecks, 640mm-1.2m.

Boreholes 201-202 - not monitored

Borehole 203 - Meeanee Barracks, 21/08/01
350mm x 400mm
L1 - turf and dark brown sandy silt topsoil with small stones, and modern pottery and brick, 0-450mm.
L2 - dark brown sandy silt, 450-700mm.
L3 - reddish-brown natural sand, 700mm-1.2m.

Borehole 204 - Hyderabad Barracks car park, 22/08/01
400 x 300mm
L1 - tarmac and modern sand and gravel sub-base, 0-180mm.

L2 - light brown clay with flecks of asphalt, 180mm-1m.
L3 - natural sandy clay and gravel.

Boreholes 205-208 - not monitored

Borehole 209 - old military hospital site, 20/08/01

430 x 350mm

L1 - turf and dark brown clayey loam topsoil, 0-200mm.

L2 - mid brown sandy loam made-up ground with stones, modern brick and concrete, 200-450mm.

L3 - natural sand and gravel, 450mm-1.2m.

Borehole 210 - behind the swimming pool, Circular Road South, 20/08/01

430mm x 350mm

L1 - turf and dark sandy loam topsoil, 0-200mm.

L2 - topsoil mixed with orange sand, contains modern pot, 200-500mm.

L3 - natural orange sand, 500mm-1.2m.

Borehole 211 - arable field east of Berechurch Road, 20/08/01

430mm x 350mm

L1 - long grass and greyish silty topsoil, 0-370mm.

L2 - orange silt, 370mm-1.2m.

Boreholes 212-214 - not monitored

Borehole 215 - Hyderabad Barracks, 22/08/01

300mm x 400mm

L1 - turf and dark brown sandy silt topsoil with brick flecks, 0-280mm.

L2 - layer of brick, 280-300mm.

L3 - sandy silt merging into natural orange sand, 300mm-1.2m.

Borehole 217 - ammunition store, Abbey Field, 20/08/01

300 x 400mm

L1 - turf and sandy loam topsoil, 0-200mm.

L2 - dark brown sandy loam with two Roman grey ware sherds, 200mm-1.2m.

7 Conclusions

The archaeological watching brief did not reveal any features or finds of archaeological significance. The majority of the finds from the test-pits were post-medieval in date, with a notable lack of medieval artefacts. A small amount of Roman pottery or tile was retrieved from 5 out of the 37 boreholes and test-pits monitored. These were in areas where Roman cemeteries or other finds are known, ie the Abbey Field, Cavalry Barracks, Le Cateau Barracks, the cricket pitch and Flagstaff House. The Roman pottery did not come from any defined features and was mixed in with post-medieval and modern material, indicating that archaeological remains had been disturbed.

8 Archive deposition

A copy of this report and the finds will be deposited permanently with Colchester Museum under accession code 2001.168.

9 Acknowledgements

The Trust is grateful to RMPA Services Ltd for commissioning the work and for their co-operation in the course of the fieldwork, and to W S Atkins Consultants Ltd for their help and co-operation.

10 References

- Cotter, J, 2000 *Post-Roman pottery from excavations in Colchester, 1971-85 (CAR 7)*
- Crossan, C, 2000a A watching brief on a borehole survey at Colchester Garrison Phase 1 (CAT Report 84)
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- Orr, K, 2000a Archaeological desk-based assessment of the Colchester Garrison PFI site (CAT Report 97)
- Orr, K, 2000b Report on a watching brief of geotechnical test-pits at the Garrison PFI site Phase 3 (CAT Report 110)
- Symonds, R P, & Wade, S, 1999 *Roman pottery from excavations in Colchester, 1971-86 (CAR 10)*
- W S Atkins Planning Consultants, 2000 *Colchester PFI environmental impact assessment scoping exercise*

Kate Orr, September 2001

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Appendix: list of finds by context

by Howard Brooks

Colchester Museum accession code 2001.168

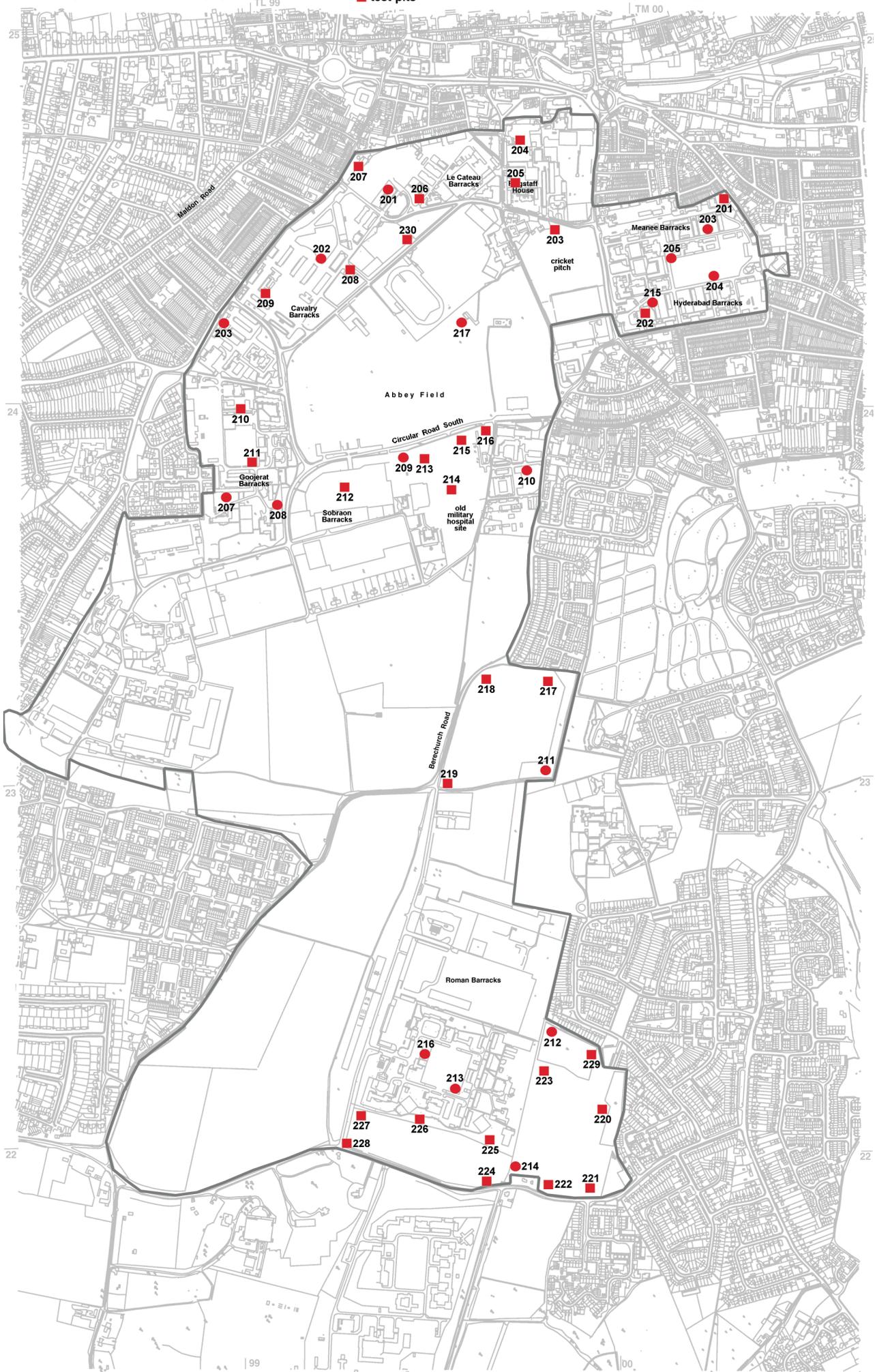
Bore hole/ test-pit	Layer	Quantity	Wt	Descriptions	Discard
TP202	-	1	3	Clay tobacco-pipe stem fragment: 8mm diameter, 3mm bore.	
TP202	-	1	49	Handle of fabric 40 pot, 17th-18th century.	
TP203	L1	1	6	Clay tobacco-pipe stem fragment: 10mm diameter, 2mm bore.	
TP203	L2	1	135	Roman heavily abraded rim (in 2 pieces) and one sherd of storage jar in fabric HZ.	
TP203	L2	1	23	Peg-tile fragment.	✓
TP203	L2	2	31	Roman grey ware sherd including rim fragment in fabric GX.	
TP205	-	4	111	Animal bones.	
TP205	-	2	16	Fabric 40 post-medieval red earthenware fragments, probably 17th-18th century.	
TP205	-	1	11	Peg-tile fragment?	✓
TP205	-	3	86	Peg-tile fragments.	✓
TP205	-	1	140	Roman brick fragment.	
TP206	L2	1	7	Orange fabric sherd or tile fragment, undated.	
TP206	L1	2	33	Peg-tile fragment.	✓
TP206	L2	5	138	Peg-tile fragments.	✓
TP206	L2	1	4	Roman grey ware sherd in fabric GX.	
TP206	L2	2	94	Roman <i>tegula</i> flange fragments.	
TP206	L2	1	1	Tiny cinder.	✓
TP208	-	1	35	Peg-tile fragment.	✓
TP208	-	1	241	Roman <i>tegula</i> flange fragment.	
TP208	-	1	161	Roman <i>tegula</i> fragment.	
TP216	-	1	34	Animal bone.	
TP216	-	6	20	Clay-pipe stem fragments: diameter 8mm-11mm, bore 1.5mm-3mm - one is stamped CORK.	
BH217	-	2	5	Sherds of Roman grey ware in fabric GX.	
BH217	-	1	1	Tiny coal fragment.	✓

Post-medieval pottery fabric descriptions after Cotter 2000 (*CAR 7*). Roman pottery identified by Stephen Benfield (descriptions after Symonds & Wade 1999 (*CAR 10*)).

Fig 1 Boreholes and test-pits
August 2001 (Crown Copyright).

● boreholes
■ test-pits

1km



**Essex Sites and Monuments Record/
Essex Archaeology and History**

Summary sheet

Site name/address: Garrison PFI site, Colchester, Essex	
Parish: Colchester	District: Colchester
NGR: TL 994 233(c)	Site code: 2001.168
Type of work: Watching brief on geotechnical boreholes and test-pits (Phase 4)	Site director/group: Colchester Archaeological Trust
Date of work: August 2001	Size of area investigated: 300 ha.
Location of finds/curating museum: Colchester Museum	Funding source: RMPA Services
Further seasons anticipated? Yes, evaluation and possible further investigations	Related SMR nos: 2547, 2548, 2398, 11892, 11893, 11894, 113231
Final report: CAT Report 154 and summary in <i>EAH</i>	
Periods represented: Roman, post-medieval, modern	
<p>Summary of fieldwork results:</p> <p>An archaeological watching brief was carried out during hand-digging of geotechnical boreholes and test-pits at the Colchester Garrison PFI site. No features or finds of archaeological significance were revealed.</p> <p>The majority of the finds from the test-pits were post-medieval in date, with a notable lack of medieval artefacts. Roman pottery or tile was retrieved from 5 out of 37 boreholes and test-pits monitored. This did not come from any defined features and was mixed in with post-medieval and modern material, indicating that archaeological remains had been disturbed.</p>	
Previous summaries/reports: CAT Reports 84, 86, 97 and 110	
Author of summary: Kate Orr	Date of summary: September 2001