A watching brief at Colchester new garrison (Phase 2), Colchester, Essex October 2006-September 2007

report prepared by
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on behalf of
RMPA Services and the MoD

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1 Summary

During 2002-3, large-scale evaluation (over 12km of trial-trenching) and excavation (approximately 3 hectares over three areas) was carried out in advance of the construction of the new garrison at Colchester. These works were designed to identify and record the most significant areas of archaeology within the new garrison development area. The sites included a ditch-enclosed Middle Iron Age site, with the first round-house to be excavated within Colchester; elements of Late Iron Age landscape with settlement-related activity, including a relatively rich burial; and paddocks, trackways, burials and a barn of a Roman farm and associated landscape. Collectively the works comprise the largest single intrusive investigation (covering an area of 101 ha) to have taken place within the oppidum.

A watching brief was held during construction work in 2004-5 in concert with Phase 1 of the new garrison construction programme, which largely affected former farmland and public open space areas between the existing military barracks. The watching brief was intended to provide supplementary information on the archaeological landscape within the oppidum *and to provide a mechanism to identify and record any significant remains that had not previously been identified. Although the watching brief revealed 72 archaeological features and a number of stray finds, no further settlement areas were identified. Some of the features identified, principally Roman linear ditches, were parts of field ditches and trackways which were already known as cropmarks or revealed in previous evaluations or excavations, whereas others were important new additions to the previously-known network of fields and trackways within the* oppidum *of Camulodunum. Other features included a Roman burial and a number of undated or modern features.*

Phase 2 of construction work on the new garrison commenced in May 2006 and was accompanied by a watching brief during groundworks. This watching brief met the same criteria as Phase 1. Thirty-four archaeological features and a small number of stray finds were identified. As with Phase 1, some of the features identified were Roman linear ditches known from cropmarks or excavation, whereas others are new additions to our knowledge of the oppidum *of Camulodunum and later landscapes. Six World War II air-raid shelters were identified and fully recorded, as well as a number of undated and modern features. The overall results of the Phase 1 and Phase 2 watching brief have confirmed the archaeological potential of the remains that were discovered during the project evaluation and excavations.*

The low number of archaeological features recorded during the two phases of the watching brief (totalling 31 months of monitoring) does not necessarily indicate a low level of human activity in the areas monitored. Contributing factors could be poor ground conditions, machining techniques, and insufficient depth of ground-reduction. Trench sheeting and other safety measures, such as battering and stepping back, meant that it was often impossible to follow the orientation of features beyond the edges of the excavations.

2 Introduction (Figs 1-3)

2.1 This is the archive report on an archaeological watching brief conducted during the construction of Phase 2 of the new garrison at Colchester. Phase 1 took place between February 2004 and August 2005 (CAT/RPS Report 357).

2.2 The watching brief was carried out between October 2006 and September 2007 by the Colchester Archaeological Trust (CAT) under the archaeological project management of RPS Planning (RPS) and was conducted on behalf of RMPA Services and the MoD. Post-excavation work was carried out between April and September 2008.

2.3 Work described here was informed by or carried out according to three documents specific to this project. These documents were prepared by RPS Planning in association with CAT and were approved by the development control archaeologists of Colchester Borough Council (CBC). *Colchester Garrison PFI archaeological project strategy proposal* (RPS 2002) provided the overall strategy for the implementation of Stage 1 evaluations, Stage 2 excavations and the Stage 3

watching brief. Stages 1 and 2 were completed in 2002 and 2003 respectively. A *Research design for archaeological excavations and watching brief at the new garrison, Colchester* (RPS/CAT 2002) provided the aims of the archaeological project within a site-specific, regional and national research framework. These reports were supplemented by a detailed method statement for the implementation of the Stage 3 works entitled *Written Scheme of Investigation (WSI) for an archaeological watching brief at the new garrison, Colchester Garrison* (RPS 2003; the Appendix).

2.4 Other sources consulted include *Guidelines on standards and practices for archaeological fieldwork in the Borough of Colchester* (CM 2002) and *Guidelines on the preparation and transfer of archaeological archives to Colchester Museums* (CM 2003), English Heritage's *Management of Archaeological Projects* (MAP 2), the Institute of Field Archaeologists' *Standard and guidance for an archaeological watching brief* (IFA 2001a) and *Standard and guidance for the collection, documentation, conservation and research of archaeological materials* (IFA 2001b). Other documents used include *Research and archaeology: a framework for the Eastern Counties 1. Resource assessment* (EAA **3**), *Research and archaeology: a framework for the eastern Counties 2. Research agenda and strategy* (EAA **8**), and *Standards for field archaeology in the East of England* (EAA **14**).

2.5 The development of the Colchester Garrison PFI site involves the building of a new 101-ha garrison between the existing Kirkee McMunn Barracks, Goojerat Barracks and Roman Barracks, the demolition and refurbishment of existing barracks, and the redevelopment of the areas released by demolition, primarily for residential use. This linked 'Alienated Land' project by Taylor Wimpey is reported on separately (CAT Reports 404 and 412 and CAT/RPS Reports 428 and 456). The construction process was considered likely to impact upon low levels of archaeological resources throughout the new garrison, as defined by the evaluation process. In response to the proposed development, an appropriate programme of archaeological watching brief was agreed between the MoD, RMPA Services, RPS Planning (the archaeological project managers), CAT (the archaeological contractor), the Colchester Borough Council Archaeological Officer (CBCAO), and English Heritage. The preceding stages of archaeological evaluation, upon which the scope of the watching brief is based, comprised desk-based assessment (CAT Report 97), fieldwalking, magnetometer survey (CAT Report 184), trial-trenching (CAT Reports 197, 203, 205, 206 and 207), area excavation (Areas 2, 6, 10; CAT/RPS Report 292), and the Phase 1 watching brief (CAT/RPS Report 357). A brief summary of the evaluation, excavation and Phase 1 watching brief results is provided in section 4 below.

2.6 The Phase 2 new garrison development site (see Fig 2a) was largely brown field, with smaller areas of open green field, and included redevelopment of former Garrison areas including Kirkee McMunn Barracks and the northern area of Roman Barracks.

2.7 RPS Planning maintained regular contact with the new garrison development team throughout the groundworks phases, including RMPA Services, the Principal Contractors Sir Robert McAlpine Ltd (SRML) and their construction sub-contractors. CAT and RPS Planning maintained regular contact via site meetings. These communications ensured that all aspects of the groundworks that might impact below-ground archaeological remains were monitored within a safe working environment and that archaeological recording did not delay the construction programme. The Phase 2 development is divided numerically into areas for development purposes. These are different to the alphabetic area designations used at the earlier stages of the project, including for archaeology. To avoid confusion in cross-referencing the various archaeological reports for the overall project, the original system of areas is maintained in this report. Figures 1 and 2a-2b show how the two systems relate to one another and the archaeology mitigation areas. In summary, the areas equate as follows (see Figs 1 and 2a-2b).

development Area 1 = archaeology Areas C (part), D, and YP (part - includes excavation Area 2)
development Area 2 = archaeology Areas C (part) and YP (part)
development Area 3 = archaeology Areas E (part), F (part) and C (part)

development Area 4 = archaeology Area F (part)
development Area 5 = archaeology Areas E (part) and F (part - includes excavation Area 6)
development Area 6 = archaeology Areas DR (includes excavation Area 10) and RO (part)
development Area 7 = archaeology Areas E (part), F (part) and YP (part)
development Area 8 = archaeology Areas GJ (part) and KR (part)
development Area 9 = archaeology Area KR (part
development Area 10 = archaeology Area KR (part)
development Area 11 = archaeology Area G (part)
development Area 12 = archaeology Area RO (part)
development Area 13 = archaeology Area G (part), and Areas M, P, and R
development Area 14 = archaeology Areas D (part), F (part) and KR (part)

2.8 Construction methodology for the site-wide topsoil-stripping in Phase 1 generally used bulldozers, with subsequent reductions often made using 360° tracked excavators. Service trenches, foundations and other facilities were excavated using 360° tracked excavators with toothed buckets. In Phase 2, there was less emphasis on open-area stripping, with most of the work concentrated on building foundations, services and roads. Archaeologists were afforded safe access to all areas of intrusive works by the construction contractors to enable examination for archaeological features. Archaeological features were excavated and recorded in accordance with the procedures set out in the Written Scheme of Investigation (see Appendix).

2.9 As a result of the construction methodology, ground conditions during both phases of the watching brief were not readily conducive to the observation or recording of archaeological features in any significant number.

3 Site location and description (Fig 1)

3.1 The Colchester Garrison PFI site occupies an extensive area on the eastern flank of a plateau capped with Pleistocene gravels and sand clay/silt. In terms of the modern town, the site lies between the suburbs of Shrub End and Blackheath.

3.2 The view to the north is of the southern flanks of the modern town, which overlies the remains of the Roman town. To the south, the Garrison extended as far as Maypole Green, with views down to Friday Woods and on to the Roman River valley.

3.3 In general, ground-level slopes gently down from north to south, from 34.4m south of Le Cateau Barracks to 32.9m near Roman Barracks. The only exceptions to this gentle slope are a dip down to the north at the extreme north end of the project area (at St John's abbey), where ground-level drops to 22.8m, and at the south end of the project area, where the ground rises slightly to 34.7m on Berechurch Road before falling to 33.2m on Berechurch Hall Road (the southern limit of the project area).

3.4 Drift geology of the area is predominantly sands and gravel. This is occasionally in a clay matrix, and is capped by cover loam to a depth of approximately 0.3m.

3.5 The centre of the watching brief area (south edge of Area F) is at NGR TL 9930 2300.

4 Archaeological background

4.1 The site in its broader context

4.1.1 The archaeological and historical setting of the new garrison development site has already been comprehensively explored in *An archaeological desk-based assessment of the Colchester Garrison PFI site* (CAT Report 97), and will only be summarised here.

4.1.2 The new garrison watching brief site, like much of the land south and south-west of Colchester's modern town centre, lies within the area of the *oppidum* of Camulodunum. The only above-ground traces of this *oppidum* are the linear banks and ditches of the defensive dyke system that surrounded it (EHER nos 11631-

11638). The Garrison site occupies the eastern edge of the *oppidum*, and one of the defensive dykes (the Berechurch Dyke; EHER no 11633) crosses the extreme south-eastern edge of the Garrison site (on the east edge of Roman Barracks).

4.1.3 As presently understood, the *oppidum* had two main centres of activity: at modern Gosbecks Farm (2km south-west of the Garrison), which at first was the centre of a farmstead, possibly the home of Cunobelin (Crummy 2001) and later a Roman sanctuary (EHER nos 11643-11652); and Sheepen (2km north-west of the Garrison), which was the industrial and trading centre of the pre-Roman settlement (EHER nos 11673-11681). Apart from these two large centres, it is likely that there were several smaller domestic and farming sites in the *oppidum*. One of these may have been identified by the field boundaries, paddocks and other features recorded at the Kirkee McMunn Barracks site in 1994 (Shimmin 1998, figs 8, 11). A large area of cropmarks is recorded over the southern part of the Garrison site. Geophysical survey has confirmed and added to the pattern of linear cropmark features (CAT Report 184). An informed interpretation based on previous work indicates that they are late prehistoric to Romano-British in date, and represent the trackways, paddocks and field boundaries of a rural settlement of that period.

4.2 Previous archaeological investigation at the new garrison site

4.2.1 Following on from the desk-based assessment (CAT Report 97), Stage 1 evaluation in 2002 included extensive fieldwalking and magnetometer surveys (CAT Report 184), and approximately 12km of trial-trenching (CAT Reports 197, 203, 205, 206 and 207). Approximately 3 hectares of open archaeological excavations were undertaken for Stage 2 of the archaeological project in 2003. A watching brief was undertaken as Phase 1 of Stage 3 in 2004-5 (CAT/RPS Report 357). The watching brief described here is Phase 2 of Stage 3 of archaeological investigation at the new garrison site.

4.2.2 The Stage 1 evaluation (2002) (CAT/RPS Report 292)

The extensive Stage 1 evaluations are summarised below and included fieldwalking survey, geophysical survey and approximately 12km of trial-trenching in 2002.

Neolithic to Middle Bronze Age evidence

Evidence for early prehistoric activity was notably sparse and there was a very low incidence of the ubiquitous flint tools and flakes associated with Mesolithic, Neolithic and Early Bronze Age activities. An isolated pit in Area M produced a little possibly Neolithic pottery, and several soft hammer flint flakes of probable Neolithic date. The pit resembled a waterhole or well with fills of relatively low-grade inorganic sediments containing a small artefact assemblage, apparently in a secondary context. The primary fill was not encountered.

As only one feature of Neolithic date was located within the 12km of trial-trenches, Neolithic-period activity is clearly at a very low level.

Late Bronze Age/Iron Age settlement and field boundaries

Evidence for Late Bronze Age/Early Iron Age activity, both in terms of landscape divisions and settlement areas, was also found to be at a low level. This is demonstrated by occasional pits and residual pottery and flint recovered from later features. Areas of higher concentrations of Late Bronze Age/Early Iron Age pottery, indicative of associated settlement, were encountered within Areas R and E.

The features contained relatively low-grade inorganic sediments incorporating isolated sherds/flints or groups of sherds apparently in a secondary context. All of the listed features had been subject to plough truncation.

Middle Iron Age landscape boundary, field system and isolated pits

Middle Iron Age features and finds were found sparsely across the site. Isolated pits have been identified in Area C and Area E. Middle Iron Age pottery has also been found residually in Area F. Area C produced a substantial north-south aligned ditch, 2.8m in width and 1.3m in depth, extending for 13.1m through the trench which produced an assemblage of Middle Iron Age pottery in addition to burnt flint. This area of high potential was targeted for excavation in Stage 2 (Area 2; see below, section 4.2.3).

Middle Iron Age pottery in fresh condition was recovered from a gully or ditch and post-hole in Area R, close to an east-west aligned cropmark with which the gully was possibly associated. A further similar sherd of Iron Age pottery was recovered from within a ditch in Area R, again close to the line of a linear cropmark feature. The cropmarks within Area R (west) are of particular interest since at least two phases of landcape are represented by the major curvilinear north-east to south-west aligned track or droveway cutting through or cut by a north-south/east-west orientated coaxial field system. The pre-Late Iron Age pottery within linear features similarly aligned to the field system indicates the possibility that this north-south/east-west field system is of pre-*oppidum* date, whilst the major curvilinear track is likely to be associated with the *oppidum* (although dating from the Area 10 excavation now suggests that it may be solely Roman; CAT/RPS Report 292). Area RO included an intersection of the major curvilinear track with ditches potentially belonging to an earlier landscape. Further north-south and east-west orientated but undated features within Areas M and C may also relate to a pre-*oppidum* landscape of possible Middle Iron Age date.

The Middle Iron Age features contained relatively low-grade inorganic fills, although one ditch in Area C contained a charcoal-rich sediment which might derive from hearth clearance.

Late Iron Age/Romano-British major curvilinear track or droveway

The major landscape feature to be examined during the evaluation trenching comprised a major double-ditched curvilinear track or droveway, identified by aerial photography and geophysical survey extending from south-west to north-east through Areas R, P, RO, DR (development Area 6) and Area Q (now part of the Alienated Land development by Taylor Wimpey). The major curvilinear track was intersected by ten evaluation trenches, but few finds were present within the excavated segments. Small sherds of probable Iron Age pottery were recovered from four ditch segments, and, as a result, it appeared likely that the major curvilinear track was contemporary with the Late Iron Age *oppidum* as a line of communication through its eastern area. As mentioned above, new dating now suggests a Roman date for the track. A connecting trackway was confirmed by trenching in Areas M and P. This area of high potential was targeted for excavation in Stage 2 (Area 6; section 4.2.3 below). Several undated ditches in Areas RO, M and P are aligned at right-angles to the major curvilinear track and may represent contemporary field boundaries.

Any metalling or rutting between the flanking ditches of these tracks and trackways and evidence for banks had been removed by ploughing, which had also reduced the original depth of the ditches. The ditches were filled with low-grade homogeneous sandy silt deposits. A trackway extending at right-angles from the major curvilinear track has been impacted by development Area 6 and was the subject of an excavation in 2003 (excavation Area 10) to mitigate the impact (see section 4.2.3 below).

Probable Late Iron Age/Roman rectilinear enclosure

A sub-rectangular enclosure with a central possible pit was noted as a cropmark in the area of the Musket Club (Area T). The previously plotted cropmark was identified on an oblique aerial photograph and was re-rectified for the purposes of the evaluation. Evaluation trench 1 was positioned to intersect the defining ditch of the feature within an area of tarmac within the part-tarmac and part-brick car-park adjacent to the Musket Club. The possible pit was not found in the trench, although its original position was indicated by a wide dip within the underlying terrace gravels. Subsequent investigations for Stage 2 of the archaeological project in 2004-5 (CAT Report 311) provided further evidence of its form and date. The presence of a central pit-like feature (not impacted) indicates that the site may have been a mortuary enclosure, as found locally at Stanway and dated to the Late Iron Age (Crummy *et al* 2007).

Late Iron Age/Roman farm and coaxial field system

Field divisions on a north-east to south-west and north-west to south-east alignment within Areas C, DR, F and G appear to be directly associated with a previously-known early Romano-British settlement at the Kirkee McMunn Barracks site. Whilst

similar in form to the earlier prehistoric fields, the scale is far greater and is best regarded as a type described by English Heritage (1988) as a 'coaxial field system'. The evidence of farm buildings located in the south-east corner of Kirkee McMunn Barracks (development Area 9) included significant occupation finds material within coaxial ditches on the same alignment as the ditches within Areas C, DR, F and G, and a Romano-British hypocaust (under-floor heating system) pit containing box flue tile and Romano-British tile categories indicative of a Romanised farmstead (Shimmin 1998). Fragments of Romano-British landscape were also represented by coaxial ditches in Areas C and YP. The dating evidence within these ditches was, however, limited to Romano-British tile.

The elements of the Late Iron Age/early Romano-British landscape are particularly clearly defined within areas adjacent to Kirkee McMunn Barracks by two north-east to south-west aligned trackways crossing evaluation Areas E and F. These trackways together are approximately 12m in width. A linked north-west to south-east aligned trackway was recorded within Area F, where the ditches were approximately 4m apart. The position of this trackway was confirmed by geophysical survey and as cropmarks and clearly extends to the south-east where it was intercepted in Area G. A further, wider north-east to south-west aligned track (here called the Kirkee McMunn track) connected with this trackway within Area F as a route between the south-west of the *oppidum* and the Roman town to the north. Further ditches within Areas E, F and G were probably elements of this landscape. Fragments of amphora of the Late Iron Age period were found in Area F, adjacent to one of the trackways. The dating for this landscape is based on the pottery, including grog-tempered wares typical of the Late Iron Age in combination with early Romano-British pottery and tile. These finds were typically found to be concentrated within ditches adjacent to the Kirkee McMunn Barracks site. Furthermore, fragments of Romano-British tile from these track ditches included box-flue tile that may derive from the Romano-British hypocaust from the Kirkee McMunn Barracks site.

Less well-defined evidence of contemporary fields within Areas M, P and R suggests that this area was also farmed during the Late Iron Age to late Roman period. However, the variable alignments of these features may indicate a less formally structured landscape character than that which was laid out immediately adjacent to the settlement at the Kirkee McMunn Barracks site. Excavation Areas 6 and 10 were specifically designed to excavate key elements of the Late Iron Age to Romano-British landscape in order to provide high-quality data to address the project aims (CAT/RPS Report 292).

The site of the Romano-British building investigated in 1994 (Shimmin 1998) was subsequently covered by Garrison buildings that are to be retained by the present development, and the major archaeological feature of this phase is not at significant risk. Nevertheless, the area of the known Iron Age-Roman site was flagged as a sensitive area, and any groundworks this area were subject to an enhanced level of watching brief and recording.

World War I and II training and defence

The three World War II concrete and brick pill-boxes and concrete gun emplacement adjacent to Berechurch Road (southern extent of Area F) and on the edges of Areas G and P respectively will be unaffected by the development. The line of a World War II tank-trap ditch was recorded extending from east to west through Areas DR and G and was detected by both aerial photography and geophysical survey as a negative feature. In addition to these, several military features were encountered during the trial-trenching. These comprised both linear trenches, sometimes revetted, and horseshoe-shaped ditches whose upcast was presumably intended to protect military positions. These features were concentrated within Area F (east), which is identified as having been a focal area for military training during World War I. Military bunkers were identified within Roman Barracks. These features were in a poor state of preservation. The features within Area F, including practice communication trenches and a fire trench, required munitions clearance ahead of the new garrison development. An archaeological watching brief was conducted under the management of RPS Planning for this process (see Appendix; CAT Report 246).

4.2.3 The Stage 2 excavations: Areas 2, 6, 10 (2003) (Fig 1; CAT/RPS Report 292)
The excavations followed extensive Stage 1 evaluations, including approximately 12km of trial-trenching in 2002. Collectively the works comprise the largest single intrusive investigation (covering an area of 101 ha) to have taken place within the Late Iron Age *oppidum* of Camulodunum.

Following the evaluations, excavations were carried out in three areas, ie Areas 2, 6 and 10. In **Area 2**, there was an impressive Middle Iron Age enclosure with an internal round-house, at the centre of which was a pottery vessel (a placed deposit). A hollow way track led to the enclosure from the east. The enclosure was put out of use before a ditched trackway was constructed through it by the early Roman period. **Area 6** was dominated by trackways and field boundaries associated with the *oppidum* field layout. Fringe activities from the Roman farmstead at the adjacent Kirkee McMunn Barracks site, including burials and a stock corral or barn, spilled out into this area. **Area 10** contained Iron Age cremation burials and structures and a complex sequence of Late Iron Age/Roman trackways and field boundaries.

Settlement before the Early Iron Age
There is limited evidence for habitation and farming before the Early Iron Age, and it is probable that the area was predominantly wooded until then.

The Early-Middle Iron Age
The Early Iron Age burials, 4-post structures and artefacts that were found in excavation Area 10 suggest an intensification of settlement and farming, at least in the eastern area of the new garrison site. A significant Middle Iron Age moderate-status enclosed round-house was excavated in Area 2 and this, combined with a residual pottery scatter in Area 6 (indicating manuring and therefore arable farming), suggests that wider tracts of land were now open than had been the case previously. The Area 2 enclosure is similarly dated to later Middle Iron Age round-house enclosures recently excavated at the Stanway and Abbotstone sites (Crummy *et al* 2007; CAT Report 312). Taken collectively, these moderate-status enclosures suggest that the area was not a blank canvas on which the later *oppidum* of Camulodunum was imposed, but rather was already a relatively productive agricultural landscape, albeit fairly sparsely populated.

Late Iron Age settlement
Late Iron Age settlement appears to have centred on the farmstead at the Kirkee McMunn Barracks site. This is probably the same location as the later Roman farmstead at the Kirkee McMunn Barracks site. Widespread associated farmland is probably demonstrated by several field boundaries that were probably originally Late Iron Age but were recut in the Roman period and by manuring pottery scatters in Areas 6, 2 and 10.

Roman period
These field systems were extended and augmented to form a trackway-dominated (and therefore probably predominantly pastoral landscape) following the Roman invasion and institution of the Roman colony. The Roman farmlands appear to have been at least partially managed from a farmstead that appears to have been placed at or close to the site of its Iron Age predecessor, at the Kirkee McMunn Barracks site.

It is unclear whether this tract of land was confiscated for allocation to the colonists. The continued use of the farmstead at the Kirkee McMunn Barracks site in the Roman period may indicate that the area continued to be farmed by descendants of the Late Iron Age farmers.

The Roman field ditches within all areas of the new garrison site had silted up by or in the 3rd century. This phenomenon corresponds with the apparent abandonment of the farmstead at the Kirkee McMunn Barracks site and the similar abandonment periods of farmsteads to the south-west and south of the Roman town, ie at the Abbotstone and Stanway sites and Area E of the 'Alienated Land' scheme (Crummy *et al* 2007; CAT Reports 203, 312). It appears possible that the civil war and 'barbarian' raiding of the late Roman period caused the farmers to retreat to within the safety of the town wall, abandoning their farms and allowing the ditches to silt up.

Late Roman, Anglo-Saxon and medieval activity
There was virtually no trace of 4th-century, Anglo-Saxon or medieval activity within the sample excavation areas, although post-medieval ditches in Area 2 may have medieval origins. This does not necessarily mean that the landscape reverted to forest, since the gravel plateau is so well drained that archaeologically traceable drainage ditches may simply not have been required.

4.2.4 The Stage 3 watching brief: Phase 1 (2004-5) (CAT/RPS Report 357)
Settlement before the Early Iron Age
The Phase 1 watching brief was conducted in 2004-5 in concert with the Phase 1 construction programme which largely affected former farmland and public open space areas between the former and existing military barracks. The evidence from the watching brief is varied. A total of 72 archaeological features was found and a number of stray finds were recovered. From the earlier prehistoric period, the evidence consists entirely of worked flints. The earliest flint artefacts are Mesolithic microliths from Areas C and E. A number of other flints, ie single-piece sickle and knife fragments, are Neolithic (also from Areas C and E). These flints demonstrate human activity in this area, before the start of any continuous occupation.

The Late Iron Age and Roman periods
In the later prehistoric and Roman periods, the watching brief evidence has generally confirmed the system of trackways and fields already known from cropmarks, geophysical survey, evaluation and excavation. However, there are two areas in which further details have been added. First, a previously-unknown trackway has been identified in Area RO (Fig 4), apparently heading towards an unknown destination in the area of Roman Way Camp (Area S). Although the junction has not been found, it seems to link into the major curvilinear track, which leads ultimately to the Roman town, and it must have been a route to a Roman farm or settlement of some kind that is otherwise unknown to us. The second area is the probable extension of another major track (the Kirkee McMunn track) leading from Kirkee McMunn Barracks towards Ypres Road and the area of the earlier Middle Iron Age enclosure (ie across Areas KR, E, F and C; Fig 6). This track provides more emphasis than was previously evident for a rather 'banded' arrangement to the field system in the *oppidum*, with sets of fields marked out between major tracks, and the whole field system following the general sweep of the major curvilinear track north towards the Roman town (Figs 7-8). It is clear that the Roman landscape was generally orientated north-east/south-west and north-west/south-east in most of the new garrison site Phase 1 areas but kinked to the north, closer to the Roman town, to follow a north/south and east/west alignment in common with the Roman town itself.

The Anglo-Saxon and medieval periods
There is no watching brief evidence for activity in the Anglo-Saxon or medieval periods. There were a few medieval sherds from Areas YP and Q, but not in significant locations or quantities.

World Wars I and II Army-related activity
Watching brief finds have confirmed the main post-medieval land use as Army-related. A large and interesting group of WW I Army practice trenches was recorded in Area F in a separate watching brief (CAT Report 246). By comparison, the watching brief material is rather sparse. There was a large group of material dumped into a pit in Area KR (some actually stamped with the dates 1917 and 1918), and an Army practice 'fox hole' was also recorded in Area KR (ie both these contexts are in the Kirkee McMunn Barracks area). Practice 'sappers' tunnels' were also encountered during the construction works in Area F (East).

5 Aims

5.1 The project aims and objectives, in addition to the full archaeological background, are given in the *Research design for archaeological excavations and watching brief at the new garrison, Colchester* (RPS/CAT 2002) and within the WSI (see

Appendix). This document was specifically designed to provide a sound basis for the fieldwork and post-fieldwork practice for the watching brief over the entire area of the new garrison development.

5.2 The over-arching research themes, as stated in the research design, are to:

1) inform how the landscape was used and to what level of intensification, prior to the establishment of Camulodunum,
2) elucidate the nature of spatial organisation within the *oppidum*, and
3) address the question of the effect of the establishment of the Roman town on the agricultural hinterland.

The Project Aims and Objectives are as follows:
Over-arching Research Objective: To characterise the nature of landscape utilisation and change from the Neolithic (or earlier) to the Romano-British period.

Project Aim 1. What was the nature of small-scale agricultural Neolithic and Early-Middle Bronze Age activities within the site, and, in particular, can ritual and/or settlement areas be identified?

Project Aim 2. What was the nature of later Bronze Age/Early Iron Age activities and, in particular, is there evidence of the emergence of more permanent settlements and field systems within the development site?

Project Aim 3. What was the nature of the Middle Iron Age settlement within the area of the later *oppidum*, and are there indications of landscape division and settlement that might explain to the origins of the *oppidum*?

Project Aim 4. To elucidate the nature of spatial organisation within the *oppidum*, establish how this relates to general agricultural settlement expansion at this time and establish what inferences can be made from the distribution of coins.

Project Aim 5. To clarify the form/function and duration of the trackways with respect to the *oppidum* and to establish which elements of the social landscape they connected.

Project Aim 6. To establish the role of the Berechurch Dyke with regard to the chronology of the layout of other internal *oppidum* features such as the major curvilinear track and the coaxial track/field systems.

Project Aim 7. To establish whether there are any surviving remains of the cropmark enclosure or associated external features within the development site footprint, and to characterise the function of the enclosure within the *oppidum* complex.

Project Aim 8. To clarify the date, form and function of the coaxial field system, to establish the nature of its development within the *oppidum* and/or the Roman town's hinterland and to establish the evidence for association with the farmstead at the Kirkee McMunn Barracks site.

Project Aim 9. What was the nature of the Anglo-Saxon and medieval landscape within the development site and what was the relationship of the landscape to Anglo-Saxon and medieval Colchester?

Project Aim 10. To record and contextualise any modern military features within the new garrison site for which there are insufficient current records.

6 Monitoring locations and results of Stage 3 Phase 2 watching brief

Areas 5, 7, 8, 9, 10, 11, 12

Note - all features are prefixed WB, ie WBF80.

6.1 Development Area 5 (Figs 1-4)

Development Area 5 encompassed the southern parts of Area E and Area F and a thin strip on the extreme eastern edge of Area KR, and was bounded by

development Areas 3, 4 and 9, with Stage 2 Area 6 immediately to the south. Previous archaeological work here included fieldwalking and geophysical survey in 2001 (CAT Report 184); Stage 1 evaluation trenching in 2002 (CAT Reports 203 and 205); and Phase 1 of the Stage 3 watching brief (CAT/RPS Report 357). Technically, development Area 5 was a 'finished' area and intrusive development works during Phase 2 of the Stage 3 watching brief were limited to the excavation of a cable trench for a perimeter security camera system. This work took place in March 2007 and no archaeological features were identified during the scope of the work.

6.2 Development Area 7 (Figs 1-5, 7)

Development Area 7 encompassed the north-east corner of Area KR, the south part of Area GJ, the north-west corner of Area YP and the northern parts of Areas E and F, and was bounded by development Areas 1, 2, 3 and 8, with its northern edge defined by Goojerat Barracks. Previous archaeological work here included partial geophysical survey in 2001 (CAT Report 184); Stage 1 evaluation trenching in 2002 (CAT Reports 203, 205 and 206); and Phase 1 of the Stage 3 watching brief (CAT/RPS Report 357). The intrusive development works of this area included the site-wide topsoil-strip of the former football pitch south of Somme Road and the removal of Goojerat Barracks assault course and small-arms range which took place between October and November of 2006. At the same time, redundant Garrison buildings in this area were demolished and the surface of Somme Road was removed. Service trenches were excavated continuously from October 2006 to June 2007. Groundworks for construction of the new accommodation blocks H and I, along with associated infrastructure, took place between November 2006 and February 2007. The archaeological features recorded during the watching brief in this area were identified between October 2006 and February 2007.

6.2.1 Description of archaeological contexts and finds

The archaeological material recorded in development Area 7 consisted of five concrete-constructed air-raid shelters (WBF82, WBF83, WBF84, WBF85, WBF103), all in varying states of preservation. These were dated to World War II or the years immediately prior to World War II.

WBF82 was located in a grassed area to the north-west of the Goojerat Barracks small arms range (GOO 24), on an east-west alignment, with two entrances, one at the north-east corner and the other at the south-west. The central chamber was approximately 0.5m below modern ground-level and the entrances appeared to have been demolished level to the roof of the central chamber. The north-east entrance was partially demolished and survived to a length of 4.35m by 1m wide. Six surviving steps led down into a short corridor, 70cm wide, which terminated in a recess (approximately 87cm deep by 70cm wide) with a centrally-positioned hole (10cm in diameter) in the roof. This is interpreted as an exhaust vent for waste gases. The floor was poured concrete with four 60cm by 60cm-square slabs set into it. Iron hinges and simple latches were screwed into the doorways, although no doors were present. The south-west entrance was more heavily damaged, surviving only to a length of 3.6m by 1m wide, but clearly showed the entrance to have been sloped. Three intact steps led into a corridor that was identical to the east end. Both corridors gave access to a central chamber measuring 7.4m by 1.85m by 2.45m high externally with an internal measurement of 1.54m at its widest point. The chamber was unpainted and had been formed by pouring concrete into wooden shuttering. Concrete benches extended along the external wall on either side, 46cm high by 35cm deep, and three more exhaust vents were located at equal distances within the roof. Twelve 60cm by 60cm-square floor slabs extended down the centre of the chamber.

WBF83 was located 35m east of WBF82 approximately 0.6m beneath a grassed section of the Goojerat Barracks assault course (GOO 25). This had been heavily truncated at some point, leaving only 0.9m of the lower portion of the eastern end of the central chamber and part of the north-east entrance. Enough remained to show the alignment as east-west. The surviving remains of the north-east entrance measured 3.95m by 1m wide with an internal width of 70cm. The three remaining

steps led into a corridor terminating in a recess (87cm deep) with four 60cm by 60cm-square concrete slabs set into the floor. The dimensions and characteristics of the central chamber matched those of WBF82, as far as can be ascertained from the partial remains.

WBF84 was also beneath GOO 25 at approximately the same depth. As with WBF83, the remains of this air-raid shelter were heavily truncated, having been demolished down to a remaining height of about 1.1m of the west end of the central chamber and part of the south-west entrance. This was on the same east-west alignment as WBF82 and WBF83 and formed a straight line with them. The surviving remains of the south-west entrance measured 4.2m by 1m wide with an internal width of 70cm. The five remaining steps led into a corridor terminating in a recess (87cm deep). The floor of this corridor had four 60cm by 60cm-square concrete slabs set into it. The dimensions and characteristics of the central chamber matched those of WBF82 and WBF83.

WBF85 was located 14m north of WBF82, staggered slightly to the east, approximately 0.2m beneath a grassed area north of GOO 24. This was aligned east-west with an entrance at the south-west corner. An entrance at the north-east corner was missing but the remainder of the air-raid shelter was intact. The surviving dimensions of the south-west entrance were 4.35m long by 1m wide with six steps that led into a corridor (70cm wide) ending in a recess (87cm deep), and had a floor with four 60cm by 60cm-square concrete slabs set into it. The central chamber was identical to WBF82 and was filled with paint tins and oil cans. Two instances of graffiti were recorded within WBF85:

BAT.

1ST. R.U.R

J.J. RYAN
GENERAL.

ROYAL
1724 ULSTER
RIFLES

KOREA.

MONTY'S ARMEY

This was written in red pencil on the interior of the north wall of the central chamber and a white-painted '**?**' was on the interior of the east entrance.

WBF103 was located approximately 0.5m beneath a grassed area just north of GOO 25, 57m east of WBF85 and 14m north of the remains of WBF84, staggered slightly to the east, and lying on an east-west alignment. Although damaged, entrances were present at the north-east and south-west ends of the central chamber. The surviving remains of the north-east entrance measured 4.25m long by 1m wide with five steps that led into a corridor (70cm wide) ending in a recess (87cm deep), and a floor with four 60cm by 60cm-square concrete slabs set into it. The south-west entrance survived to a length of 4.1m and was identical to that of the north-east. The central chamber was identical to that of WBF82.

A modern rubbish-pit (WBF98) was also recorded. This contained modern material, mainly scrap metal and glass bottles and probably dates to World War I or after. An undated feature was ditch WBF110. This was a shallow ditch, 0.75m in depth by 1.2m wide and rounded in profile, aligned north-west to south-east. The ditch consisted of two fills, the upper a brown silty clay which contained fragments of peg-tile and an orangey-brown sandy silt below this.

Table 1: development Area 7 contexts and finds.

Context	Interpretation	Finds types	Context date
WBF82	air-raid shelter		World War II
WBF83	air-raid shelter		World War II
WBF84	air-raid shelter		World War II
WBF85	air-raid shelter		World War II
WBF98	rubbish-pit		modern
WBF103	air-raid shelter		World War II
WBF110	ditch	Peg-tile (not retained)	probably post-medieval

6.2.2 Development Area 7 interpretation (Figs 5, 7, 10-14)

The undated ditch recorded in the far north-western corner of development Area 7 is most likely post-medieval or modern, based upon the observed peg-tile. The five air-raid shelters recorded in this area are an interesting addition to the military history of Colchester. Other excavations at Colchester Garrison have recorded air-raid shelters, which have led to in-depth analysis of these structures (CAT Reports 319 and 467). These two reports categorised 24 military air-raid shelters at Colchester into four basic types and identified a further 24 air-raid shelters from map evidence. The five recorded on development Area 7 complement these. The air-raid shelters are not exactly the same as those recorded at Area C2 (Napier Road), Area J1 (formerly Le Cateau Barracks) or Area P1 (Berechurch Road) of the linked Alienated Land project but combine aspects of each. The central chambers of the air-raid shelters recorded during the watching brief were identical to those of Type 2a, a subterranean shelter typically located near to married quarters and used by the families of troops. However, the entrances were of a design associated with that of Type 1, a partially below-ground shelter with sloped entrances that seem to have been intended as daytime shelters. It would appear that the shelters recorded during the watching brief represent a fifth type.

Map evidence showing the Assaye Married Quarters (later replaced by GOO 22) suggested the presence of air-raid shelters in this location. The fact that the five air-raid shelters form two parallel lines, with large gaps between those recorded, is a strong indication that there may have been additional shelters that were removed prior to the watching brief. Three additional shelters could easily have been accommodated within the two lines, and their total removal explained by the construction of the assault course GOO 25. It should be noted that a proposed shelter to the east of WBF82 would lie exactly beneath a tree with a preservation order that was protected from the soil-strip. This tree stands on top of a mound that is almost identical in size and shape to the tree-topped mounds concealing the air-raid shelters found at Area C2. It would appear likely that, when GOO 25 was constructed, WBF83 and WBF84 were bulldozed to ground-level and partially removed, and the areas around the perimeter of the assault course raised up. This theory is supported by two facts: firstly, that the shelters furthest from the assault course survived predominantly intact with a good coverage of topsoil; and secondly, that excavations at Goojerat Barracks in December 2007 (part of the linked Alienated Land project) revealed the surface of Burma Road, contemporary to the Assaye Married Quarters and World War II at 0.7m below modern ground-level (CAT/RPS Report 456). This suggests significant post-war landscaping. The white-painted '**?**' on WBF85 is reminiscent of identification numbers painted on the entrances of the air-raid shelters on Area P1 at Berechurch Road and may denote a post-war cataloguing of the Garrison's defences.

The remaining feature is of the modern Army period, ie a large rubbish-pit (WBF98).

6.3 Development Area 8 (Figs 1-5, 7)

Development Area 8 included the northern part of Kirkee McMunn Barracks (Area KR) and the Logistics Support Unit (Area LSU) and was bounded by development Areas 7, 9 and 10 and the westernmost projection of Area 3. It was not possible to carry out fieldwalking or geophysical survey in 2002, and previous archaeological work was limited to a programme of trenching in the Stage 1 evaluation of 2002 (CAT Report 205) and Phase 1 of the watching brief (CAT/RPS Report 357). The intrusive development works in this area included a substantial tree-felling programme prior to the start of a topsoil-strip of grassed areas north and south of Reed Hall House, north of building KIR 15, west of St Barbara's Road, south of

building KIR 03 and north-west of building KIR 06. This started in October 2006 and was completed in November of the same year. During the same period, a major programme of demolition was carried out along with the removal of roads, parade grounds and sundry areas of hardstanding, including the car-park to the south of building LOG 08. Foundations for buildings D07, H04-H06 and K11 were started in November 2006 and continued into December when building work commenced. Large open-area car-parks were constructed to the north of Reed Hall House in January 2007, and in February more car-parks were constructed in the north-west corner of the site, adjacent to building LOG 08. A new access road was started in the same month, following the alignment of the southern edge of development Area 8. During May 2007, prior to refurbishment, the grassed areas and hardstanding around building KIR 15 were stripped and replaced. A continual programme of service trench excavation was carried out during October 2006 and June 2007. The archaeological features recorded during the watching brief in this area were identified between November 2006 and February 2007.

6.3.1 Description of archaeological contexts and finds

The archaeological material recorded in development Area 8 comprised ten modern Army-related features and one probable natural feature. WBF86 was located beneath the car-park to the south of LOG 08 and was a very large rubbish-pit containing vehicle parts, carbon rods and batteries, probably dating to World War II or after. South of this was a smaller rubbish-pit (WBF101), containing scrap metal and glass bottles, probably of a similar date to WBF86. Immediately to the east of these features was a third pit (WBF109) containing broken china – mugs, plates and teapots – and also tin plates and mugs. The china was all stamped 1942-44:

G VI R
MYOTT, SON & Co
1942

G VI R
DUNN, BENNETT & Co LTD
1943

G VI R
HOLLINSHEAD & KIRKHAM
1943

G VI R
WADE HEATH
1943

G VI R
CLOKIE & Co LTD
1944

G VI R
NEW HALL POTTERY
1944

G VI R
SWINNERTONS LTD
1944

West of LOG 08, beneath a grassed area running alongside St Barbara's Road, two concentrations of rubbish-pits were located (WBF89 and WBF90). These were filled with post-World War II building debris and rubbish. Beneath the demolished LOG 10 was another large rubbish-pit (WBF97), containing scrap metal and broken bottles. This is dated to World War I and after.

WBF87 and WBF96 were located beneath the grassed area to the south of Reed Hall House. WBF87 was a small, shallow rubbish-pit containing the remains of a copper-alloy pitcher and an iron crucible and is dated to World War I or after. WBF96 was a small rubbish-pit filled with stoneware ginger beer bottles, glass beer and mineral water bottles, and ceramics. This is dated to World War I or after.

South of KIR 03, a concentration of three large rubbish-pits (WBF88) was recorded. Substantial burnt material was found within the fill as well as glass bottles and ceramics; one ceramic plate was stamped 1911.

The final Army-related feature was an intact air-raid shelter (WBF102) located to the north-west of LOG 08. Unlike the air-raid shelters located in development Area 7, this was aligned just off east-west, with two sloping entrances that roughly faced south. It was partially below ground and completely obscured by vegetation, with the western exterior wall faced with unmortared limestone blocks. Both entrances were identical, being 4.75m long by 1m wide. Six steps led down into a corridor (70cm

wide) that terminated in a recess (87cm deep) and had a floor of concrete with four 60cm by 60cm-square slabs set into it. A green-painted wooden door that opened inwards and had a simple iron latch was located 75cm from the base of the steps. A second wooden door (this one painted cream or possibly faded white), opening towards the steps, was located at the front of the recess. There was a third wooden door (also cream/faded white) which opened into the corridor, and this sealed the central chamber. The internal doors were identical with simple iron latches mounted on iron fingerplates and a 'NO SMOKING' sign affixed to the internal side of the door at the west end of the central chamber. A rudimentary toilet consisting of a straight-sided metal cylinder with an attached hinged wooden seat and lid occupied the recess. The toilet had a metal pipe connected at the rear, which rose vertically through a centrally-located hole in the roof (10cm in diameter).

The central chamber measured 7.4m long by 1.85m wide externally with an internal measurement of 1.54m at its widest point. The chamber was painted white and two concrete benches ran along the external walls on either side, 46cm high by 35cm deep. Three equally-spaced exhaust vents were located within the roof and the floor contained twelve 60cm by 60cm-square concrete slabs. Two instances of graffiti were recorded within the chamber: the first was the word 'FULL' written in pencil; the second was the phrase 'WHAT NO BEDS' written in chalk.

A possible tree-throw pit or natural feature (WBF100) was recorded within a foundation pad for building H05.

Table 2: development Area 8 contexts.

Context	Interpretation	Context date
WBF86	rubbish-pit	World War II
WBF87	rubbish-pit	World War I
WBF88	3 rubbish-pits	modern
WBF89	rubbish-pit	modern
WBF90	rubbish-pit	modern
WBF96	rubbish-pit	World War I
WBF97	rubbish-pit	World War I
WBF100	tree-throw pit?	undated
WBF101	rubbish-pit	World War II
WBF102	air-raid shelter	World War II
WBF109	rubbish-pit	World War II

Table 3: development Area 8 unstratified finds.

Finds nos	Finds
5 (SF 1)	steel 'Brodie' helmet, probably a Mark II
6 (SF 2)	steel/tin military water bottle

6.3.2 Development Area 8 interpretation (Figs 5, 7, 15-16)

The number and size of the rubbish-pits recorded in development Area 8 are a good indicator of just how long the Army has occupied the site, charting Kirkee McMunn Barracks' history from a camp of wooden huts in 1914 through to the construction of brick barracks in the 1930s. The rubbish-pits in the north-west corner of Kirkee McMunn Barracks (around building LOG 08) are identical to the large concentration of pits found beneath the floor of LOG 08 during Phase 1 of the watching brief. The number of these pits and the area they cover perhaps suggest that this was not merely the dumping ground for Kirkee McMunn Barracks but was a general dump for the whole Garrison. The potters' stamps on the ceramics from rubbish-pit WBF109 are also good evidence for the social history of World War II and the impact that a policy of 'Total War' had on the economy of Great Britain. Six of the seven stamps identified come from potteries in Stoke-on-Trent, with the seventh (Clokie and Co. Ltd) from Yorkshire. All the ceramics were basic white slipped porcelain and ironstone for dining and tableware, which came from a variety of manufacturers, including Myott, Son and Co., a firm famous for its Art Deco designs; Dunn, Bennett and Co. Ltd, manufacturers of quality earthenware and ironstone

ceramics for both the domestic market and export to the United States; and New Hall Pottery, a factory established in the 18th century which was a huge supplier of dinner and tablewares to the armed services (Bunt 1956). The diversity of these suppliers indicate the massive demand for crockery that accompanied the enlistment of millions of men and women during World War II and show how the country's industries adapted to meet this demand.

The air-raid shelter to the north of LOG 08 (WBF102) is principally the same design as those from development Area 7, ie Type 5. It is set partially below ground and, although both entrances face south, this fact reflects the modular construction of the shelters that allowed the entrances to be positioned closest to the buildings they were serving. A similar design (although of Type 1) was observed at Area C2, Napier Road (CAT Report 467, fig 9). Although the shelters in development Area 7 clearly served the Assaye Married Quarters, it is more likely that WBF102 was built to act as a daytime shelter for staff working in the Logistic Support Unit (building LOG 08) immediately to the south.

The unstratified finds from development Area 8 reflect the Army presence in the area in the same way as the pottery stamps. The steel 'Brodie' helmet, probably a Mark II, and the standard issue steel/tin water bottle, exposed by stripping around building KIR 15, date from World War II or after.

An undated feature (WBF100) was a probable tree-throw pit.

6.4 Development Area 9 (Figs 1-6)

Development Area 9 occupied the south-east portion of Kirkee McMunn Barracks (Area KR) and was bounded by development Areas 8, 3, 5, 14 and 10. As with development Area 8, it was not possible to carry out fieldwalking or geophysical survey in 2002, and previous archaeological work was limited to a programme of trenching in the Stage 1 evaluation of 2002 (CAT Report 205) and Phase 1 of the Stage 3 watching brief (CAT/RPS Report 357). The intrusive development works in this area commenced in October 2006 with a topsoil-strip of grassed areas to the west of building MUN 06 and south of building MUN 10 and the removal of parade grounds and hardstanding. This ended in November 2006. A rolling programme of building demolition had started in October 2006 with the demolition of MUN 10 and ended in January 2007 with the removal of basements beneath building MUN 05 and building KIR 09. Service trenches were excavated continuously throughout the period November 2006-June 2007 with a brief period of works in September 2007. The excavation of foundation pads for buildings K03 and K12 started in December 2006 with buildings K10, I04 and I05 following in January 2007. At about the same time, the temporary security fence east of building MUN 28 was removed and the concrete floors of MUN 06 and MUN 07 (buildings which were retained) were broken out and replaced. From March 2007 onwards (apart from service trenches), work was concentrated on construction. The archaeological features recorded in this area were identified between November 2006 and February 2007.

6.4.1 Description of archaeological contexts and finds

Three ditches and a single pit were identified in this area of the watching brief. Two ditches and a pit were recorded north-west of MUN 28, the site excavated and recorded by CAT in 1994 (Shimmin 1998). It is likely that these features are contemporary with either the Late Iron Age farmstead at the Kirkee McMunn Barracks site, or the later Roman farmstead. A ditch (WBF93), approximately 2m wide by 0.7m deep, appears to be the same feature as WBF95 which was identified 22m to the north. Both contained fragments of Roman ceramic building material, with WBF93 containing one sherd of Gaulish samian dated mid to late 2nd century and one sherd from a storage jar dated to the Late Iron Age or the early Roman period. WBF95 also contained one small flint blade and some daub fragments. A small pit (WBF94), 1.1m wide by 0.4m deep, to the north-east of WBF93, was undated but had fragments of daub and ceramic building material in the fill and is probably associated with the farmstead site at the Kirkee McMunn Barracks site. A third ditch (WBF108), to the west of MUN 07, was undated but is on the same alignment as WBF93/WBF95.

Table 4: development Area 9 contexts and finds.

Context	Interpretation	Finds no	Finds types	Context date
WBF93	ditch (same as WB95?)	1, 2	One sherd from Late Iron Age-early Roman storage jar; one sherd samian, mid to late 2nd century; Roman ceramic building material	Late Iron Age/ Roman
WBF94	pit			probably Roman
WBF95	ditch (same as WB93?)	3, 4	Small flint blade; daub fragments; Roman ceramic building material	Late Iron Age/ Roman
WBF108	ditch			Late Iron Age/ Roman

6.4.2 Development Area 9 interpretation (Figs 5-6, 9, 17)

Leaving aside the obviously residual flint blade from WBF95, it is tempting to state that all three of the ditches date to the 2nd- or 3rd-century farmstead site at the Kirkee McMunn Barracks site and that the Late Iron Age sherd is residual. However, this ignores the fact that projections of these ditches form a rough rectangle with the Late Iron Age ditches excavated in 1994 and which are on an entirely different alignment to the north-east/south-west and north-west/south-east ditches that fit with both the Roman hypocaust of the farmstead and the associated wider Roman landscape (see Figs 6 and 9). It is, therefore, possible that they formed a field/compound in the early *oppidum* as opposed to the Romano-British coaxial field system and were re-cut or simply infilled as the new field layout evolved during the early Roman period.

Based on its proximity to the ditch WBF93 and the fragments of ceramic building material within its fill, WBF94, although undated, was probably Late Iron Age or Roman in date.

6.5 Development Area 10 (Figs 1-4)

Development Area 10 occupied the remainder of Kirkee McMunn Barracks (Area KR) and was bounded by development Areas 8, 9 and 14. As with the rest of Kirkee McMunn Barracks, the only previous archaeological work carried out here was Stage 1 evaluation trenching in 2002 (CAT Report 205) and Phase 1 of the watching brief (CAT/RPS Report 357). Removal of the parade ground and hardstanding commenced in October 2006, followed in December 2006 by the demolition of buildings KIR 08 and KIR 27. Foundations for building G07 were excavated in January 2007, and service trenches were dug from October 2006 through to June 2007. No archaeological features were identified during the scope of this work.

6.6 Development Area 11 (Figs 1-4)

Development Area 11 encompassed the majority of Area G and was bounded by development Area 13 to the south, Berechurch Road to the north-west and Roman Way to the east. Archaeological work in this area included the fieldwalking and geophysical survey in 2002 (CAT Report 184), followed by Stage 1 evaluation trenching in 2002 (CAT Report 207) and Phase 1 of the watching brief (CAT/RPS Report 357). The site was stripped during Phase 1 of the watching brief, so work started in October 2006 on excavation of the foundation pads for buildings D01, D02 and E01. Construction commenced on these buildings in December 2006. During February to March 2007, a service trench was dug parallel to Roman Way. No archaeological features were recorded during the scope of this work.

6.7 Development Area 12 (Figs 1-4, 8)

Development Area 12 encompassed the northern two-thirds of Roman Barracks (Area RO) and extended across Roman Way to include an eastern strip of Area P and the south-east corner of Area G. The southern third of Roman Barracks has been designated Area S2 (North) and is part of the linked Alienated Land project. It

was not possible to fieldwalk or undertake a geophysical survey in the majority of this area, and previous archaeological work was limited to Stage 1 evaluation trenching in 2002 (CAT Report 207) and Phase 1 of the watching brief (CAT/RPS Report 357). Service trenches were excavated continuously in this area from October 2006 to May 2007, but the majority of the work did not start until the completion of a new security fence separating Roman Barracks from Area S2 (North). All buildings not retained were demolished in November and December 2007, and, after the removal of the vehicle depot hardstanding in January 2007, excavation of the foundation pads for the new buildings was started. In December 2006, a service trench was excavated along the extreme western edge of development Area 12 extending into development Area 11. The archaeological features recorded during the watching brief in this area were identified between October 2006 and March 2007.

6.7.1 Description of archaeological contexts

The features identified in this area were a combination of undated ditches and modern Army-related features. WBF80 was a 0.9m wide by 0.35m-deep ditch with a rounded profile on a north-east to south-west alignment. Near to this was WBF81, a 1.4m wide by 0.4m-deep ditch with a north-north-east/south-south-west alignment. It was not possible to ascertain any relationship between these two features. WBF91 was a ditch aligned north-east to south-west which possibly formed a field with trackway WBF70 from Phase 1 of the watching brief. Ditch WBF99, 1.3m wide and aligned north-west to south-east, also appeared to be a continuation of ditch WBF70. Ditch WBF112 was parallel to ditch WBF99 and possibly formed a field with it and WBF91. Ditches WBF92, WBF106 and WBF111 were all on the same alignment as WBF81 with WBF113 at right-angles to each of them. Ditches WBF105 and WBF107 were identified as two lengths of the same feature which was aligned north-north-west/south-south-east.

A modern Army feature (WBF104) was the corrugated iron, wood and sandbag remains of a possible practice firing position or slit trench, or a World War II-era Anderson-style air-raid shelter.

Table 5: development Area 12 contexts.

Context	Interpretation	Context date
WBF80	ditch	undated
WBF81	ditch	undated
WBF91	ditch	undated
WBF92	ditch	undated
WBF99	ditch	undated
WBF104	Anderson-style air-raid shelter?	World War II
WBF105	ditch	undated
WBF106	ditch	undated
WBF107	ditch	undated
WBF111	ditch	undated
WBF112	ditch	undated
WBF113	ditch	undated

6.7.2 Development Area 12 interpretation (Figs 8-9, 18)

Although all of the linear features recorded within development Area 12 are undated, they do appear to form convincing patterns with the known landscape. WBF91, WBF99 and WBF112 appear to complement the major curvilinear track extending south-west to north-east through Areas R, P and RO and Area 10 and dated to the Late Iron Age/early Roman period. There are also fragments of two other field systems. Ditches WBF81, WBF92, WBF106, WBF111 and WBF113 potentially formed a regular coaxial field system on a similar alignment to the pre-*oppidum* landscape identified in Stage 1 trial-trenching in Area R and to Berechurch Dyke to the east. Evidence for a third field system is provided by ditches WBF80 and WBF105/WBF107.

The remains of the modern Army feature WBF104, although too badly damaged during excavation to say for certain, are reminiscent of the Anderson-style air-raid shelters recorded in Roman Barracks during Stage 1 trial-trenching.

7 Finds

7.1 Finds

by Chris Lister

Note: this table lists all finds from the Phase 2 watching brief. However, for detailed comment on small finds, Late Iron Age and Roman pottery, see sections 7.2 to 7.3 below.

Table 6: finds.

Finds no	Context	SF	Location	Qt	Wt (jn g)	Description	Finds date
1	F93 Sx 2		Area 9	1	6	tile	Roman
2	F93 Sx 1		Area 9	1	39	brick	Roman
2	F93 Sx 1		Area 9	1	41	tile	Roman
2	F93 Sx 1		Area 9	1	62	pot	Late Iron Age
2	F93 Sx 1		Area 9	1	15	pot	Roman
3	F95 Sx 1		Area 9	3	7	daub	
4	F95 Sx 2		Area 9	1	27	brick	Roman
4	F95 Sx 2		Area 9	1	2	flint blade	
5	U/S	1		1	883	military 'Brodie' helmet	
6	U/S	2		1	463	military water bottle	

7.2 The small finds

Development Area 8

Both of these finds were recovered from disturbed soil around building KIR 15.

1 Steel military helmet badly corroded with an area of red and blue paint to one side, probably originally an emblem; a 'Brodie' helmet, probably a Mark II.
2 Steel/tin military water bottle with missing cap.

7.3 Late Iron Age and Roman pottery

by Stephen Benfield

Only two pottery sherds of this period were recovered:
F93 Sx 1, finds number 2
Central Gaulish (Lezoux) plain samian, rim sherd, burnt, from a Dr. 31 bowl, mid-late 2nd century. *CAR* **10**, Fabric BA(CG).

Sherd from a large storage jar, heavily tempered with grog and organic material, abraded, Late Iron Age to early Roman.

8 Discussion (Figs 9 and 19)

The nature of the watching brief evidence

8.1 Archaeological finds and features observed during Phase 2 of the Stage 3 watching brief are necessarily fragmentary, due to the nature of the construction activities, and, with the exception of six air-raid shelters and one practice bunker, consist almost entirely of cut features such as pits and ditches. The feature types can be classified as below.

Table 7: breakdown of watching brief features.

	undated or natural features	post-medieval or modern features	pre-modern features
Total	12	18	4
% of total contexts	35%	53%	12%

8.2 A high proportion of the features are Army-related (53%) or undated (35%), with only a low proportion of pre-modern features (12%). These pre-modern features are primarily fragments of Late Iron Age or Roman field ditches, the discovery of which has either confirmed the course of previously known trackways or ditches or has filled in gaps in the field system.

8.3 It is convenient to discuss the results of the watching brief in relation to the Project Aims and Objectives, as defined in *Research design for archaeological excavations and watching brief at the new garrison, Colchester* (RPS/CAT 2002).

Over-arching Research Objective: *To characterise the nature of landscape utilisation and change from the Neolithic (or earlier) to the Romano-British period.*

The evidence from Phase 2 of the watching brief is very sparse. From the **earlier prehistoric** period, the evidence consists of a single flint blade from development Area 9 at the extreme periphery of the focus of Mesolithic and Neolithic activity identified in Stages 1 and 2 of the project.

In the **later prehistoric** and **Roman** periods, the watching brief evidence has generally confirmed the system of trackways and fields already known from cropmarks and previous geophysical survey, evaluation and excavation. Observations in development Area 9 have added to the Late Iron Age/Early Roman field system centred on the famstead at the Kirkee McMunn Barracks site. To the south of the project area, at development Area 12 (Roman Barracks), further evidence has confirmed the previously-unknown trackway apparently linked to the major curvilinear track that leads ultimately to the Roman town and, although undated, evidence of two other field systems was found. At least one of these potentially pre-dates the *oppidum* landscape.

There was no Phase 2 watching brief evidence for activity within the **Anglo-Saxon** or **medieval** periods.

Watching brief finds have confirmed the main **post-medieval** land use as Army-related. A large number of rubbish-pits were found in Kirkee McMunn Barracks dating variously to World Wars I and II and after. Passive air defences, ie air-raid shelters, were discovered in development Areas 7 and 8, and a probable practice trench was discovered in Roman Barracks.

Project Aim 1. *What was the nature of small-scale agricultural Neolithic and Early-Middle Bronze Age activities within the site, and, in particular, can ritual and/or settlement areas be identified?*

Although human activity in the Mesolithic and Neolithic periods is evident from the flint blade recovered from development Area 9, it is not possible to say if this activity was hunting or farming. Finds from Stages 1 and 2 and Phase 1 of the watching brief have indicated probable Mesolithic hunting in a wooded environment with later, transient, Neolithic farming activities, but this is supported by a relatively low concentration of finds and features.

Project Aim 2. *What was the nature of later Bronze Age/Early Iron Age activities and, in particular, is there evidence of the emergence of more permanent settlements and field systems within the development site?*

No settlements or other significant sites were encountered during Phase 2 of the watching brief and there is nothing to add to the information compiled for the period in the Stage 2 archaeological report (CAT/RPS Report 292). The Stage 2 report noted that evidence for occupation and farming was sparse apart from the locality of Area 10 (DR1/development Area 6), which produced burials, structures and a

pottery scatter. Together these indicate open farmland in the period in the eastern area of the Garrison site. It seems once more that the areas closer to the rivers may have been favoured in these periods and it is therefore unsurprising that the ridge to the south of the River Colne in the northern area of the former Garrison site (Alienated Land Area J1) has now provided firm evidence for settlement. This adds to the previously known settlement area at Sheepen adjacent to the river.

Project Aim 3. *What was the nature of the Middle Iron Age settlement within the area of the later* oppidum, *and are there indications of landscape division and settlement which might allude to the origins of the* oppidum*?*

The watching brief provided no definite evidence for Middle Iron Age settlement, but it is possible that two ditches in development Area 9 and five undated ditches in development Area 12 are fragments of a pre-*oppidum* field system that has previously been speculated upon (CAT/RPS Report 292; Fig 9). This states that there are two forms of landscape visible among the cropmarks and excavated field ditches in the *oppidum*. The first (Landscape Form 1) appears to be a pre-*oppidum* layout with fields orientated more or less north to south. The second (Landscape Form 2) was associated with the layout of the *oppidum* and is orientated much more south-west to north-east in its main axes, with subsidiary trackways and fields at right-angles to that.

Although undated, the seven ditches identified during the watching brief share the same alignment as those of Landscape Form 1, and it is highly possible that they date to the same period. Berechurch Dyke is included in this landscape, as is the probable mortuary enclosure ditch at the Musket Club (Area T) and the potential Early Iron Age field boundaries in excavation Area 10. However, it should be noted that the Middle Iron Age enclosure at Ypres Road (excavation Area 2), also considered to be part of Landscape Form 1, is actually aligned closer to (although cut by) that of Landscape Form 2.

However, the lack of dating evidence from the ditches in development Area 12 and the Roman evidence from development Area 9 means that it is not possible to state definitively that there was any Middle Iron Age settlement within the area of the *oppidum* based solely on the alignment of the ditches recorded during the watching brief. Whilst there is clearly evidence of activity of some date, and at a different alignment to that of the major Roman curvilinear track and associated coaxial field system, caution should be utilised when attempting to assign dates to these landscape alignments.

Project Aim 4. *To elucidate the nature of spatial organisation within the* oppidum*, establish how this relates to general agricultural settlement expansion at this time and establish what inferences can be made from the distribution of coins.*
Project Aim 5. *To clarify the form/function and duration of the trackways with respect to the* oppidum *and to establish which elements of the social landscape they connected*.

Elements of the trackways have been recorded over only a small part of the Phase 2 watching brief area, specifically in development Area 12, and have mainly confirmed the route of a previously-known tracks and trackways.

Without dating evidence, it is impossible to say whether these ditch fragments are re-cut versions of earlier ditches or indeed Roman in origin, although dating evidence from other parts of the trackways suggest they probably extend and augment an earlier field pattern. No Late Iron Age or Roman coins were found during the Phase 2 watching brief and very little pottery was recovered. This could be indicative of the rural nature of the area in those periods. It is possible that the ditch fragments from development Area 12 do not actually constitute an earlier landscape form, but, instead, represent a shift in the Roman landscape caused by the presence of Berechurch Dyke. As the major curvilinear track extends north-eastwards through development Areas 13, 12 and 6, the available land between it and the dyke narrows into a funnel. It is possible that, in order to apportion land within this irregularly-shaped area, it became necessary to alter the alignment of the boundary ditches, thus giving the impression of a different landscape form.

Project Aim 6. *To establish the role of the Berechurch Dyke with regard to the chronology of the layout of other internal* oppidum *features such as the major curvilinear track and the coaxial track/field systems*.

No evidence from Phase 2 of the watching brief is relevant to this project aim.

Project Aim 7. *To establish whether there are any surviving remains of the cropmark enclosure or associated external features within the development site footprint, and to characterise the function of the enclosure within the* oppidum *complex.*

No evidence from Phase 2 of the watching brief is relevant to this project aim.

Project Aim 8. *To clarify the date, form and function of the coaxial field system, to establish the nature of its development within the* oppidum *and/or the Roman town's hinterland and to establish the evidence for association with the probable villa-type farmstead at the Kirkee McMunn Barracks site.*

The coaxial field system
(See comments in Over-arching Research Priority and Project Aim 5, above.) Little information from Phase 2 of the watching brief can be added to what has already been said in CAT/RPS Report 357, and consequently the response to Project Aim 8 has not changed. It is quoted fully here, below.

The association with the Kirkee McMunn Barracks site
by Howard Brooks and Rob Masefield

The major additional information provided by the watching brief is that the route between the Kirkee McMunn Barracks site and the Roman town now seems clearer than before. Assuming that a Roman farmer from the farmstead at the Kirkee McMunn Barracks site wishing to take a cart to town would not head south until he picked up the major curvilinear track and head north again, it was suggested that there was some more direct link (and a speculative route was shown on figure 42 of CAT/RPS Report 292). It now seems that there were two major tracks leading north-east towards the town, ie the major curvilinear track identified in Areas R, P, RO and Q, and a newly-identified track (the Kirkee McMunn track) extending from south-west to north-east through the Kirkee McMunn Barracks site and through Areas E and F. They seem to have headed towards a northerly trackway extending south-east through Areas Q and C, which they joined at T-junctions. This trackway also cut across the Area 2 Middle Iron Age enclosure at the north edge of Area C.

From that point, the Kirkee McMunn track may have joined with the newly-discovered Roman route in Alienated Land Area J1/the western area of the Abbey Field (ie to the south and west of the Roman circus), here called the Area J1 track. Still further to the north-west, this route connected with the main route into Colchester from the south-west (and leading to London to the south-west). The road was associated with burials in the Garrison development Area J1, and it is interesting to note that another probable burial was found close to its projected line within the new garrison site. Interestingly, an antiquarian discovery of a Roman lead coffin is also recorded in this area (UAD no 1055; CAT Report 361).

As stated above, the majority of dated ditches located during the Phase 1 watching brief are 1st- to 3rd-century Roman. This provides further confirmation of agricultural intensification in the Roman period and for a lack of maintenance of the landscape in the late Roman (4th-century) period. It is speculated that this is associated with a depopulation of the landscape in the late 3rd-4th century, potentially due to civil war and barbarian raiding. At this time, the occupants of the landscape may have moved their homes into the walled town for safety. It is, however, quite likely that they continued to farm the land, albeit with less emphasis on its maintenance, as indicated by the lack of 4th-century use of farmland ditches.

Further, additional details of the Roman use of the landscape adjacent to the known Roman farmstead at the Kirkee McMunn Barracks site include a Roman clay floor sealing an earlier hearth and pit, and a separate outlying storage pit and possible displaced pottery grave good. Two ditches and a pit are placed on the

periphery of the farmstead site. These have added detail to our understanding of the Kirkee McMunn Barracks site.

Project Aim 9. *What was the nature of Anglo-Saxon and medieval landscape within the development site and what was the relationship of the landscape to Anglo-Saxon and medieval Colchester?*

No evidence from Phase 2 of the watching brief addresses this project aim. Again, the negative evidence supports the notion that either the landscape was allowed to revert to woodland in the post-Roman period or, and more probably, that the well-drained nature of the landscape and pre-existing field system meant that few new ditches were dug and new alignments of fields were not required.

Project Aim 10. *To record and contextualise any modern military features within the new garrison site for which there are insufficient current records*.

The principal areas of modern and Army-related features and finds were development Areas 7 and 8. Throughout both these areas, large rubbish-pits contained a variety of finds including ceramics with dates ranging from 1911 to 1944, as well as military equipment. Six air-raid shelters were recorded, bringing the known total of air-raid shelters excavated or surveyed on the Colchester Garrison site to 36 (with an additional 17 identified from map evidence).

The remains of a practice trench were recorded in development Area 12 (Roman Barracks).

9 Archive deposition

The finds, paper and digital archive are held by CAT at 12 Lexden Road, Colchester, Essex, CO3 3NF, but will be permanently deposited with Colchester and Ipswich Museums under accession code 2004.121.

10 Acknowledgements

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The fieldwork was carried out by CAT team members and their contribution to the project is acknowledged.

11 Abbreviations

CAT	Colchester Archaeological Trust
context	specific location on an archaeological site
EHER	Essex Historic Environment Record
EOD	explosive ordnance disposal
in situ	in its original position
intrusive	an incongruous later find in an earlier feature
LBA	Late Bronze Age
LIA	Late Iron Age
MIA	Middle Iron Age
redeposited	not *in situ*
residual	an earlier find in a later context (eg Roman coin in Victorian pit)
RPS	RPS Planning
SRML	Sir Robert McAlpine Ltd

12 References

Bunt, Cyril G E	1956	*British potteries and potters today*
CAR **10**	1999	*Colchester Archaeological Report* **10**: *Roman pottery from excavations in Colchester, 1971-86*, by R P Symonds and S Wade, ed by P Bidwell and A Croom
CAT Report 97		An archaeological desk-based assessment of the Colchester Garrison PFI site, unpublished CAT archive report, by K Orr, 2000
CAT Report 184		An archaeological evaluation by fieldwalking and geophysical survey at Colchester Garrison PFI site, Colchester, Essex, January-March 2002, unpublished CAT archive report, by H Brooks, 2002
CAT Report 197		An archaeological evaluation by trial-trenching on Area C at Colchester Garrison PFI site, Colchester, Essex, May-June 2002, unpublished CAT archive report, by H Brooks, 2002
CAT Report 203		An archaeological evaluation by trial-trenching on Areas E and F at Colchester Garrison PFI site, Colchester, Essex, May-June 2002, unpublished CAT archive report, by H Brooks, 2002
CAT Report 205		An archaeological evaluation by trial-trenching on Area KR at Colchester Garrison PFI site, Colchester, Essex, June-July 2002, unpublished CAT archive report, by H Brooks, 2002
CAT Report 206		An archaeological evaluation by trial-trenching in Areas A, B, D, GJ, H, J, N, V and YP of the Colchester Garrison PFI site, June-July 2002, unpublished CAT archive report, by H Brooks, 2002
CAT Report 207		An archaeological evaluation by trial-trenching on Areas DR, G, M, P, Q, R, RO, S and T at the Colchester Garrison PFI site, Colchester, Essex, May-September 2002, unpublished CAT archive report, by H Brooks, 2002
CAT Report 246		An archaeological watching brief on munitions clearance at Colchester Garrison, Essex, July-October 2002, unpublished CAT archive report, by S Tyler and H Brooks, 2003
CAT Report 311		An archaeological excavation and watching brief at the Musket Club, Homefield Road, Colchester, Essex, December 2004-February 2005, unpublished CAT archive report, by H Brooks, 2005
CAT Report 312		Excavations at Abbotstone field, Bell House Pit, Tarmac Colchester Quarry, Warren Lane, Colchester, Essex, 1999-2001, unpublished CAT archive report, by L Pooley, 2005
CAT Report 319		A survey of a group of air-raid shelters at Area C2 of the Garrison Urban Village, Napier Road, Colchester, Essex, April-May 2004, unpublished CAT archive report, by K Orr and C Lister, 2005
CAT Report 361		Assessment report on the archaeological investigations carried out on Areas C1, C2, E, J1, O, Q and S1 of the Alienated Land, Colchester Garrison, including the Time Team trenches and the Alienated Land watching brief, 2004-5, unpublished CAT archive report, by L Pooley, B Holloway, P Crummy and R Masefield, 2006
CAT Report 404		Stage 1b archaeological evaluation, Alienated Land Area S2 (south), Colchester Garrison, Colchester, Essex, January 2007, unpublished CAT archive report, by H Brooks and B Holloway, 2007
CAT Report 412	in prep	Report on the archaeological investigations carried out on Areas C1, C2, E, J1, O, Q and S1 of the Alienated Land, Colchester Garrison, including the Time Team trenches and the Alienated Land watching brief, May 2004-January 2005, unpublished CAT archive report

CAT Report 467		A survey of three groups of air-raid shelters at Areas C2, J1 and P1 of the Garrison Urban Village, Colchester, Essex, April 2004-May 2007, unpublished CAT archive report, by C Lister, 2008
CAT/RPS Report 292		The Colchester Garrison PFI project, Colchester, Essex: a report on the excavation of Areas 2, 6 and 10, August-November 2003, unpublished CAT/RPS archive report, by H Brooks (CAT) and R Masefield (RPS), 2006
CAT/RPS Report 357		A watching brief at Colchester new garrison (Phase 1), Colchester, Essex, February 2004-August 2005, unpublished CAT archive report, by H Brooks (CAT) and R Masefield (RPS), 2006
CAT/RPS Report 428		Assessment report on Stage 2 archaeological excavations on Alienated Land Area S2 (south), Colchester Garrison, Colchester, Essex, February-March 2007, unpublished CAT archive report, by H Brooks, B Holloway and R Masefield (RPS), 2007
CAT/RPS Report 456		Stage 1b archaeological evaluation, Alienated Land Area L/N, Colchester Garrison, Colchester, Essex, October 2007, unpublished CAT archive report, by H Brooks, R Masefield (RPS) and B Holloway, 2008
CM	2002	*Guidelines on standards and practices for archaeological fieldwork in the Borough of Colchester*
CM	2003	*Guidelines on the preparation and transfer of archaeological archives to Colchester Museums*
Crummy, P	2001	*City of Victory - the story of Colchester, Britain's first Roman town*
Crummy, P, Benfield, S, Crummy, N, Rigby, V, & Shimmin, D	2007	*Stanway: an élite burial site at Camulodunum*, Britannia, Monograph, **24**
EAA **3**	1997	*Research and archaeology: a framework for the Eastern Counties 1. Resource assessment*, East Anglian Archaeology, Occasional Papers, **3**, ed by J Glazebrook
EAA **8**	2000	*Research and archaeology: a framework for the Eastern Counties 2. Research agenda and strategy*, Eastern Anglian Archaeology, Occasional Papers, **8**, ed by N Brown & J Glazebrook
EAA **14**	2003	*Standards for field archaeology in the East of England*, East Anglian Archaeology, Occasional Papers, **14**, ed by D Gurney
English Heritage	1988	*Coaxial field systems*, by F Raymond
IFA	2001a	*Standard and guidance for an archaeological watching brief*
IFA	2001b	*Standard and guidance for the collection, documentation, conservation and research of archaeological materials*
MAP 2	1991	*Management of archaeological projects*, 2nd edition (English Heritage)
RPS	2002	*Colchester Garrison PFI archaeological project strategy proposal*
RPS	2003	*Written Scheme of Investigation (WSI) for an archaeological watching brief at the new garrison, Colchester Garrison*
RPS/CAT	2002	*Research design for archaeological excavations and watching brief at the new garrison, Colchester*
Shimmin, D	1998	'A Late Iron Age and Roman occupation site at Kirkee McMunn Barracks, Colchester', in *Essex Archaeology and History*, **29**, 260-69

13 Site context data

Note: The feature numbers for Phase 2 of the watching brief continue from Phase 1 and start at WBF80 (WBF78 and WBF79 were omitted). However, finds numbers for Phase 2 start at number 1.

Context	Interpretation	Location	Finds	Context date
WBF80	Ditch	Area 12		undated
WBF81	Ditch	Area 12		undated
WBF82	Air-raid shelter	Area 7		World War II
WBF83	Air-raid shelter	Area 7		World War II
WBF84	Air-raid shelter	Area 7		World War II
WBF85	Air-raid shelter	Area 7		World War II
WBF86	Pit	Area 8		World War II
WBF87	Pit	Area 8		World War I
WBF88	3 pits	Area 8		modern
WBF89	Pit	Area 8		modern
WBF90	Pit	Area 8		modern
WBF91	Ditch	Area 12		undated
WBF92	Ditch	Area 12		undated
WBF93	Ditch	Area 9	ceramic building material, Late Iron Age/Early Roman pot, Roman pot (2nd century)	Late Iron Age/Roman
WBF94	Pit	Area 9		probably Roman
WBF95	Ditch	Area 9	ceramic building material, daub, flint blade	Late Iron Age/Roman
WBF96	Pit	Area 8		World War I
WBF97	Pit	Area 7		World War I
WBF98	Pit	Area 7		modern
WBF99	Ditch	Area 12		undated
WBF100	Tree-throw pit?	Area 8		?
WBF101	Pit	Area 8		World War II
WBF102	Air-raid shelter	Area 8		World War II
WBF103	Air-raid shelter	Area 7		World War II
WBF104	Anderson-style air-raid shelter?	Area 12		World War II
WBF105	Ditch	Area 12		undated
WBF106	Ditch	Area 12		undated
WBF107	Ditch	Area 12		undated
WBF108	Ditch	Area 8		Late Iron Age/Roman
WBF109	Pit	Area 8		World War II
WBF110	Ditch	Area 7		probably post-medieval
WBF111	Ditch	Area 12		undated
WBF112	Ditch	Area 12		undated
WBF113	Ditch	Area 12		undated

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14 Appendix: Written Scheme of Investigation (WSI) for an archaeological watching brief at the new garrison, Colchester Garrison PFI

WRITTEN SCHEME OF INVESTIGATION (WSI) FOR AN ARCHAEOLOGICAL WATCHING BRIEF AT THE NEW GARRISON, COLCHESTER GARRISON PFI.

July 2003

Prepared by:
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July 2003

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Planning Application No. F-COL-01-0011
Proposed Construction of the New Garrison, Colchester, Essex.

WRITTEN SCHEME OF INVESTIGATION (WSI) FOR AN ARCHAEOLOGICAL WATCHING BRIEF AT THE NEW GARRISON, COLCHESTER GARRISON PFI.

January 2003

Prepared by RPS in association with CAT on behalf of RMPA Services and MoD

1 Introduction

1.1 This written scheme of investigation (WSI) is for an archaeological watching brief to take place in during the construction of the 'New Garrison' at Colchester. The WSI has been prepared by RPS Planning, Transport and Environment in association with Colchester Archaeological Trust (CAT) on behalf of RMPA and the MoD. The WSI mirrors standards and practices contained in *Guidelines on Standards and Practices for Archaeological Fieldwork in the Borough of Colchester* (Colchester Borough Council's 1996. revised 1999). The document has been produced in accordance with a research design prepared by RPS in association with CAT and approved by Colchester Borough Council (CBC), entitled *'Research Design for Archaeological Excavations and Watching Brief at the New Garrison, Colchester'* RPS/CAT 2002.

1.2 The projects' aims and objectives, in addition to the full archaeological background, are provided within the *research design*, which should be read in conjunction with this WSI. This document is specifically designed to provide a sound basis for the fieldwork and post fieldwork practice for the watching brief over the entire area of the New Garrison development (Figure 1). The site is largely open green field although brown field areas, in particular much of Kirkee McMunn Barracks, are also subject to a degree of re-development. The watching brief will exclude those areas previously the subject of archaeological excavation (Areas 2, 6 and 10, shown on Figure 1, which also shows the New Garrison proposal). This WSI sets out proposals for the archaeological watching brief works including treatment of finds, production of a report, and deposition of the archive.

1.3 The proposed development of the Colchester Garrison PFI site involves the building of a new 101hectare garrison between the existing Kirkee & McMunn, Goojeraat, and Roman Barracks, the demolition and refurbishment of existing barracks, and the redevelopment of the areas released by demolition, primarily for residential use. The construction process is likely to impact upon low levels of archaeological resources throughout the New Garrison as defined by the evaluation process. In response to the proposed redevelopment, an appropriate programme of archaeological watching brief was agreed between MoD, RMPA Services, RPS (the project archaeological consultants), Colchester Archaeological Trust (CAT), Colchester Borough Council Archaeological Officer (CBCAO), and English Heritage. The preceding stages of archaeological evaluation, upon which the scope of the watching brief is based, comprised desk-top assessment (CAT Report 97 – 2000), fieldwalking, magnetometer survey (CAT Report 184 – 2002) and trial trenching (CAT Reports 197, 203, 205, 206 and 207 - 2002).

1.4 *Colchester Garrison PFI archaeological project strategy proposal* (RPS 2002) defines a number of mechanisms to manage the archaeological resource during the redevelopment programme including instigation of a structured watching brief. A brief summary of the evaluation results within the New Garrison area is provided in section 3 below.

1.5 This method statement is in accordance with the research design developed in consultation with CBC and complies with the guidelines laid down in *Planning Policy Guidance on Archaeology and Planning (PPG 16)* and with the Institute of Field Archaeologist's the *Standards and Guidance for an Archaeological Watching Brief* (IFA

1994 revised Sept 1999). CAT (the contractor) will liaise closely with RPS (the Archaeological Project Managers), RMPA (the Project Managers) the MoD with respect to all important matters concerning the co-ordination and management of the project. CBC will be kept fully informed of all archaeological developments.

2 Site location and description

2.1 The Colchester Garrison PFI site occupies an extensive area on the eastern flank of a plateau capped with Pleistocene gravels and sand clay/silt. In terms of the modern town, the site lies between the suburbs of Shrub End and Blackheath.

2.2 The view to the north is of the southern flanks of the modern town (overlying the Roman town). To the south, the garrison stretches as far as Maypole Green, with views down to Friday Woods and on to the Roman river valley.

2.3 In general, ground level slopes gently down from north to south, from 34.4m south of Le Cateau Barracks to 32.9m near Roman Barracks. The only exceptions to this gentle slope are a dip down to the north at the extreme north end of the project area (at St John's Abbey), where ground level drops to 22.8m, and at the south end of the project area where ground rises slightly to 34.7m on Berechurch Road before falling to 33.2m on Berechuch Hall Road (the southern limit of the project area).

2.4 Drift geology of the area is predominantly sands and gravel. This is occasionally in a clay matrix, and is sometimes capped by cover loam.

3 Archaeological background

3.1 The site in its broader context

3.2 The archaeological and historical setting of the proposed New Garrison development area has already been comprehensively explored in *An archaeological desk-based assessment of the Colchester Garrison PFI site* (CAT Report 97, by Kate Orr, 2000), and will only be summarised here.

3.3 The New Garrison watching brief site (like much of the land south and south-west of Colchester's modern town centre) falls within the area of the pre-Roman *oppidum* of Camulodunum. The only above-ground traces of this *oppidum* are the linear banks and ditches of the defensive dyke system that surrounded it. The Garrison area occupies the eastern edge of the *oppidum*, and one of the defensive dykes (the Berechurch Dyke) crosses the extreme south-eastern edge of the Garrison (on the east edge of Roman Barracks).

3.4 As presently understood, the *oppidum* had two main centres of activity: at modern Gosbecks Farm (2km south-west of the Garrison), which was a Late Iron Age (LIA) and Roman rural farmstead (and possibly the home of Cunobelin); and Sheepen (2km north-west of the Garrison), which was the industrial and trading centre. Apart from these two large centres (above), it is likely that there were a number of smaller domestic and farming sites in the *oppidum*. One of these may have been identified by the field boundaries, paddocks and other features recorded at Kirkee & McMunn Barracks in 1994 (Shimmin 1998: figs 8, 11). A large area of cropmarks is recorded over the southern part of the Garrison area. Geophysical survey has confirmed and added to the pattern of linear cropmark features (CAT Report 184, 2002). An informed interpretation based on previous limited excavation would indicate that they are late prehistoric and/or Romano-British in date, and represent the trackways, paddocks and field boundaries of a rural settlement of that period.

4 Summary of evaluation findings

4.1 The archaeological remains are characteristically extensive and occur at low densities, especially in comparison with other areas of the oppidum. The results of trial trenching provide basic indices that highlight this point. Pre-modern archaeological features comprised 10.8% of the excavated contexts across the site. This data can also be presented to highlight contrasts in archaeological survival between the built barracks and the open fields. Only 2.1% of excavated context inside the built up areas relate to pre-modern archaeological features, in contrast with 16.6% for the open areas.

4.2 The condition of the relatively faint archaeological traces across the entire Garrison is also poor, fragmented and truncated. This condition reflects the historic and ongoing erosional effect of ploughing and construction on what are, with the exception of those within the historic suburbs, predominantly ephemeral non-settlement archaeological features resulting from low intensity activities. Apart from the archaeological remains of the historic sub-urban fringe, there was a general paucity of dating evidence.

4.3 The distribution of the prehistoric and 20th century military remains broadly relate to the location of the New Garrison, whilst the Romano-British and medieval suburban remains are entirely within areas adjoining the modern town proposed for construction of the Urban Village.

4.4 A number of phases or sub-phases of archaeology are tentatively identified extensively across the entire Garrison site. The following phases represent specific events spanning a c. 5,000 year timescale from the Neolithic to the present. The relevant data is fully described in the technical reports. Many of the categories of evidence have been targeted by detailed archaeological excavations and thus some of the specific areas of interest will have been entirely or partially dealt with via excavations prior to the construction phase.

4.5 Neolithic evidence

Area	Ref No	Feature	Artefacts
M	MF105	Pit	Neolithic flint assemblage

Table 1 Neolithic pit baseline evidence

4.6 Evidence for early prehistoric activity at the Garrison site is notably sparse and there is a very low incidence of the ubiquitous flint tools and flakes associated with Mesolithic, Neolithic and early Bronze Age activities. An isolated pit MF105 found in Trench 1 in Area M produced a low incidence of possibly Neolithic pottery and several soft hammer flint flakes of probable Neolithic date and will be targeted by excavation within Mitigation Area 1. The pit resembled a waterhole or well. Its fills comprised relatively low-grade inorganic sediments containing a small artefact assemblage, apparently in a secondary context. The primary fill was not encountered. Truncation by modern ploughing is presumed to have had a relatively limited impact on survival. As only one feature of Neolithic date was located within the 12km of trial trenches for the Colchester Garrison PFI, Neolithic period activity is clearly at a very low level. It is possible that further features will be encountered during watching brief but these are more likely to be isolated landscape features rather than settlement foci based upon the evaluation results.

4.7 Late Bronze Age/Iron Age settlement and field boundaries

Area	Ref No	Feature	Artefacts
E, M, P, Q, R	EL203, MF402,	Subsoil (E)	Flint tempered

	PF508, RF603, RF605-608, and RF704	Isolated pits (M, P and R) Pit clusters (R) Ring gully (R)	Pottery Worked flints

Table 2 Late Bronze Age/Iron Age settlement and field boundaries

4.8 Evidence for Late Bronze Age/ Early Iron Age activity, both in terms of landscape divisions and settlement areas, is at a low level demonstrated by occasional pits such as MF402, and PF508, and residual pottery and flint recovered from later features. Areas of higher concentrations of Late Bronze Age/ Early Iron Age pottery, indicative of associated settlement were encountered within Area R. Layer EL203 within Area E Trench 2 produced several flint tempered sherds including a fragment of a large straight sided jar of early Iron Age date within a surviving subsoil remnant of the period.

4.9 The features contained relatively low-grade inorganic sediments containing isolated sherds/flints or groups of sherds apparently in a secondary context. All of the listed features have been subject to plough truncation. A fragment of subsoil of the general period had survived truncation within Area E, although such a situation is exceptional. Occasional pits and ditches of the period are likely to be encountered during the watching brief but significant settlement areas are not expected based on the evaluation results.

4.10 Middle Iron Age landscape boundary, field system and isolated pits

Area	Ref	Feature	Artefacts
C, F, R, RO and M	CF605, CF703, CF702, CF1105, EF403, R110, RF1101, RO807/809, cropmarks	Landscape ditch Isolated pits Field system	Pottery Burnt flint

Table 3 Middle Iron Age landscape boundary, field system and isolated pits

4.11 Middle Iron Age features and finds were found sparsely across the proposal site. Isolated pits have been identified within Area C (CF605, CF1105) and Area E (EF403). Middle Iron Age pottery has also been found residually within Area F (FF2701). Trench 7 within Area C produced a large north-south orientated ditch CF703, 2.84m in width and 1.3m in depth, running for 13.11m through the trench. The ditch produced an assemblage of Middle Iron Age pottery in addition to burnt flint. The relatively substantial form of the ditch suggests that it may have formed a landscape boundary rather than a simple field division. The finds within this feature and from a single nearby pit CF702 hint at the possibility of associated settlement. The feature, and the area surrounding it, are considered to have the highest potential, of features to be impacted by development, to contribute to the Middle Iron Age project aims and are to be investigated by means of full excavation ahead of the construction phase (mitigation Area 2).

4.12 Middle Iron Age pottery in fresh condition was recovered from a gully or ditch and post hole within Area R trench 1 (R110) close to an east-west orientated cropmark with which the gully may be affiliated. A further similar sherd of Iron Age pottery was recovered from within a ditch (RF1101) within Trench 11, again close to the line of a linear cropmark feature. The cropmarks within Area R (west) are of particular interest since at least two phases of landscape are represented by a major north east/ south west orientated trackway cutting through or cut by a north south/ east west orientated coaxial field system. The pre Late Iron Age pottery within linear features similarly aligned to the field system indicate the possibility that this north-south/ east-west field system is of pre-

oppidum date whilst the major curvilinear trackway is considered likely to be associated with the oppidum. Area RO Trench 8 included an intersection of the main trackway with ditches RO807/9, the latter potentially belonging to an earlier landscape. Further north-south and east-west orientated, but undated features within Area M and Area C may also relate to a pre-oppidum landscape of potential Middle Iron Age date.

4.13 The Middle Iron Age features contained relatively low-grade inorganic fills although ditch CF703 contained a charcoal rich sediment potentially derived from hearth clearance. Truncation by modern ploughing is presumed to have had a relatively limited impact upon the survival of the large ditch but will have substantially reduced the depth of less robust pits and ditches which are more typical. It is considered possible that further such Middle Iron Age features including landscape elements may be encountered in low density during the watching brief. However the close dating of such features may prove problematical given the paucity of dating evidence from the evaluation

4.14 Late Iron Age/Early Romano-British curvilinear droveways

Area	Ref No	Feature	Artefacts
DR, M, P, R, RO	DRF101/2, DRF303, DFR403-4, MF301/ 3, MF704, PF304, PF405, PF501, PF507, RF106-7, RF301, RF1004-5 and RO801 and 804.	Main NE/SW curvilinear trackway Auxiliary NW/SE connecting trackway	Low incidence of pottery sherds of late prehistoric date from DRF102, MF704, RF1005 and RO801,

Table 4 Late Iron Age/Early Romano-British curvilinear droveways

4.15 The major landscape feature to be examined during the trenching exercise comprised a double ditched trackway, identified by aerial photography and geophysical survey running from south-west to north-east through Areas R, P, ROM, DR1 and Q. The track has been dissected by 10 evaluation trenches but despite this few finds were present within the excavated segments. Small sherds of probable Iron Age pottery were recovered from four ditch segments and it appears likely that this feature is contemporary with the Late Iron Age oppidum as a line of communication through its eastern area. A connecting track was confirmed by trenching within Areas M and P (MF301/3 and PF501). The main trackway was 7m in width within Area DR with the individual ditches c.2m in width and 0.5m in depth. The width of the track within Area R was 12.2m with ditches here 2m in width and 0.6m in depth. The auxiliary track within Area M was 12.2m wide with flanking ditches 1.2m in width. Several undated ditches within Areas RO, M and P are orientated perpendicular to the main trackway and may represent contemporary field boundaries.

4.16 Any metalling or rutting between the flanking ditches of these trackways and evidence for banks has been removed by ploughing which has also reduced the original depth of the ditches. The ditches were filled with low-grade homogenous sandy silt deposits. The trackway will be impacted in numerous locations by the proposed development. Mitigation Area 10 is designed to provided a controlled sample excavation of the feature in order to achieve the project aims. However complimentary data may be provided by the watching brief.

4.17 Probable Late Iron Age/Roman rectilinear enclosure

Area	Ref	Feature	Artefacts
T	Cropmark	Enclosure	Residual Romano-British pottery

Table 5 A probable Late Iron Age rectilinear enclosure.

4.18 A sub-rectangular enclosure with a central possible pit was noted as a cropmark within the area of the Musket Club (Area T). The previously plotted cropmark was identified on an oblique aerial photograph and was re-rectified for the purposes of the evaluation. Evaluation Trench T1 was positioned to intersect the defining ditch of the feature within an area of tarmac within the part tarmac and part brick car park adjacent to the Musket Club. The feature was not found to be preserved within the trench although its original position may be indicated by a wide dip within the underlying terrace gravels. The cropmark enclosure is paralleled by numerous rectilinear settlement enclosures within southern Britain of Late Iron Age or Romano-British date. The presence of a central pit-like feature probably indicates that the site was utilised as a mortuary enclosure as found locally at Stanway and dated to the Late Iron Age. Excavation of the impacted area of the enclosure feature will mitigate the effects of the development. In addition to the excavation further ground disturbances to the north of the enclosure position will be monitored during the watching brief phase.

4.19 Late Iron Age/Roman farm and coaxial field system

Area	Ref No	Feature	Artefacts
C, DR, E, F, G, M and P	CF1101, CF1504, CF1601, CF1602, CF1606, CF1607, CF1608, EF101, EF103, EF203/4, EF301/2, EF303, EF401, EF601, EF603, EF702/3, DFF109-110, FF1101-2, FF1202-3, FF2201, FF2703, FF2712, FF2705, FF2801-2, FF2803 (pit), GF904/6, GF902/5, GF1003/6, GF1201/2, GF1302-5, GF1401/4, MF102/4, MF305/8 and 309, P104, R203/5, YPF407/9.	Trackways Field ditches	Pottery sherds, Romano-British tile

Table 6 Late Iron Age/Roman farm and coaxial field system baseline evidence

4.20 Field divisions on a north-east/ south west and north-west/ south east alignment within Areas C, DR, F and G appear to be directly associated with a previously known early Romano-British settlement at Kirkee McMunn Barracks. Whilst similar in form to the earlier prehistoric fields, the scale is far greater and is best regarded as a type described by English Heritage (1988b) as Coaxial Field System. The farm buildings included significant occupation finds material within coaxial ditches on the same alignment as those within the Areas C, DR, F and G, and a Romano-British hypocaust (under-floor heating system) pit containing box flue and Romano-British tile categories (Shimmin 1998) indicative of a small villa-type farmstead. Romano-British trackway ditches within Trench 16 of Area C comprise CF1601 and CF1602, spaced 6m apart. A parallel early Romano-British ditch within Trench C11, CF1101, appears to form a component of this landscape. Further fragments of Romano-British landscape represented by coaxial ditches CF1504 and CF1606-8 within Trenches C15 and C16. Area YP to the north west of Area C produced two ditches potentially associated with the Late Iron Age or Romano-British landscape within Trenches 3, 4 and 5 (features YPF407 and YPF509). The dating evidence within these ditches was however limited to Romano-British tile.

4.21 The elements of the Late Iron Age/ early Romano-British landscape are particularly clearly defined within areas adjacent to Kirkee McMunn barracks. Two north-east/south-west orientated trackways dissect evaluation Areas E and F. The ditches of the western track were excavated within Trenches E1, 2, 3 and 4 and F22 as EF101, 203, 204,

301/2, 401 and FF2201. The ditches of the eastern track were excavated within Area F as FF1001, FF1202/3 and FF2705. These trackways are approximately 12m in width. A linked north west/ south-east orientated track was recorded within Area F Trench 27 as ditches FF2703 and FF2712 where the ditches were approximately 4m apart. This track is demonstrated by geophysical survey and as cropmarks and clearly extends to the south-east where it was intercepted within Trenches G12, G13 and G14 within Area G (Ditch segments GF1201/2, GF1302-5, and GF1401/2). A further north-east/ south-west orientated track connected with this trackway within Area F as a routeway leading to the south-west. The track was excavated within Trench F28 as FF2801/2 and was 9m in width. Further ditches within Areas E and F included EF103, EF303 and EF1102 whilst probable elements of this landscape within the northern area of Area G included north east/ south-west orientated ditch GF1003/6 within Trench G10, and north-west/ south-east orientated ditches GF904/6 and GF902/5 within Trench G9. Fragments of amphora of the Late Iron Age period were found within pit FF2803 within Trench F28, adjacent one of the trackways. The dating for this landscape is based upon pottery including 'grog tempered wares' typical of the Late Iron Age in combination with early Romano-British pottery and tile. These finds were typically found to be concentrated within ditches adjacent to Kirkee McMunn Barracks. Furthermore Romano-British tile finds from these trackway ditches included box-flue tile, which almost certainly derived from the Romano-British hypocaust within Kirkee McMunn Barracks.

4.22 Less well-defined evidence of contemporary fields within Areas M, P, and R (ditches MF102/4, MF305/8, MF309, P104 and R203/5) suggest that this area was also farmed during the oppidum period. However the variable alignments of these features may indicate a less structured landscape character than was laid out immediately adjacent to the Kirkee McMunn settlement. Mitigation Areas 6 and 10 are specifically designed to intersect key elements of the late Iron Age and Romano-British landscape in order to provide high quality data to address the project aims. Such elements are also likely to be encountered during the watching brief and may be of value as supplementary information to the excavation findings.

4.23 The Romano-British building investigated in 1994 has subsequently been covered by Garrison buildings that are to be retained and the major archaeological feature of this phase is not at significant risk. The investigations by Colchester Archaeological Trust (Shimmin 1998) suggest that remains of this farm survive beneath the existing buildings, but these will have already been partly truncated as a result. Nevertheless the area of the known Roman site has been flagged as a sensitive area and any intrusive groundworks in this area will be subject to an enhanced level of watching brief and recording.

4.24 World War I and II training and defense

Area	Ref	Feature	Artefacts
C, DR, F, G, P, Q, RO	Pill box refs in DBA Tank trap ref. CF401, CF403-4, CF1401, FF103, FF104/5/6, FF301, FF401-5, FF407/8, FF504/5/7/9-11/16-19, FF601/2/3/5/6/8/10/11/12/13/16-19/21, FF701-3/5-9/11-13, FF801-5/7, FF1803,	Pill boxes Tank trap Practice trenches Bunkers	

	FF3301-11, ROF301, ROF403/4/8		

Table 7 World War I and II training and defense baseline evidence

4.25 There are three World War II concrete and brick pillboxes and a single concrete gun emplacement within the proposal site. These are located at the southern extent of Area F adjacent to Berechurch Road and on the edges of fields G and P respectively and will be unaffected by the development. The line of a World War II tank trap ditch is recorded running from east to west through Areas DR and G and was detected by both aerial photography and geophysical survey as a negative feature. In addition to these a number of military features were encountered during the trial trenching. These comprised both linear trenches, sometimes revetted and horseshoe shaped ditches whose upcast was presumably intended to protect military positions. These features were concentrated within Area F (east) that is identified as a focal area for military training during World War I. Military bunkers were identified within Roman Barracks (ROF301 and 403/4/8). The condition of these features is poor. Further such features are likely to be encountered during the course of the watching brief and may require a level of recording.

5 Aims

5.1 The watching brief operation provides a precautionary measure to recover archaeological information that supplements the results of the targeted Mitigation investigations. The intention is to enhance the existing record, as can be reasonably and safely achieved within the construction operations. Whereas the Mitigation excavations are targeted on areas of significant archaeological remains, including the best surviving areas of trackways and field systems, which will be impacted by the redevelopment of the garrison, the watching brief may provide useful corroborative evidence in other areas. The watching brief operates as a mechanism restricted by the necessary construction operations, to recover supplementary information regarding the nature, date, function and importance of the archaeological sequence within the New Garrison.

5.2 Investigation of archaeological features will be kept to a minimum, following basic recording in plan, where the features or feature type have been previously recorded within the specifically designed open area excavations.

5.3 The overarching research themes, as stated in the research design are to:

1. inform how the landscape was used and to what level of intensification, prior to the construction of Camulodunum,
2. to elucidate the nature of spatial organisation within the oppidum and
3. to address the question of the effect of the establishment of the Roman town on the agricultural hinterland.

5.4 The Project Aims and Objectives are as follows:

5.5 **Overarching Research Objective**: To characterise the nature of landscape utilisation and change from the Neolithic (or earlier) to the Romano-British period.

5.6 **Project Aim 1**. What was the nature of small-scale agricultural Neolithic and early-middle Bronze Age activities within the site, and in particular can ritual and/or settlement areas be identified?

5.7 **Project Aim 2**. What was the nature of later Bronze Age/ early Iron Age activities and in particular is there evidence of the emergence of more permanent settlements and field systems within the proposal site?

5.8 **Project Aim 3**. What was the nature of the Middle Iron Age settlement within the area of the later oppidum and are there indications of landscape division and settlement which might allude to the origins of the *oppidum*?

5.9 **Project Aim 4** – To elucidate the nature of spatial organisation within the oppidum, establish how this relates to general agricultural settlement expansion at this time and establish what inferences can be made from the distribution of coins.

5.10 **Project Aim 5** - To clarify the form/function and duration of the trackways with respect to the *oppidum* and to establish which elements of the social landscape they connected.

5.11 **Project Aim 6** – To establish the role of the Berechurch Dyke with regard to the chronology of the layout of other internal oppida features such as the curvilinear trackways and the co-axial track/ field systems.

5.12 **Project Aim 7** - To establish whether there are any surviving remains of the cropmark enclosure or associated external features within the proposal site footprint, and to characterise the function of the enclosure within the *oppidum* complex.

5.13 **Project Aim 8** – To clarify the date, form and function of the co-axial field system, to establish the nature of its development within the oppidum and/or the Roman town's hinterland and to establish the evidence for association with the probable villa at Kirkee McMunn Barracks.

5.14 **Project Aim 9** – What was the nature of Saxon and medieval landscape within the development site and what was the relationship of the landscape to Saxon and medieval Colchester.

5.15 **Project Aim 10** – To record and contextualise any modern military features within the New Garrison site for which there are insufficient current records.

6 Method Statement

6.1 All works will be undertaken by a team of professional archaeologists. The proposed team structure is given in Appendix 1.

6.2 All work will be according to CAT *Policies and Procedures* (2000), and will be informed by *Management of* Archaeological *Projects* (English Heritage 1991), and *Guidelines on Standards and Practices for Archaeological Fieldwork in the Borough of Colchester* (Colchester Borough Council 1996, revised 1999). The Code of Conduct of the Institute of Field Archaeologists (IFA) will be followed.

6.3 For purposes of deposition of the archive, a museum accession code will be obtained through Colchester Museum. This will be used this as the site code.

6.4 CAT staff will monitor contractors plant operations in areas where archaeology may be exposed, whether digging of service trenches/foundations or stripping ploughsoil and overburden. Machine stripping of the topsoil/ploughsoil using a toothless ditching bucket is preferred but will only be undertaken by the contractors where practical. Toothed buckets will be used within areas of hard-standings and for previously disturbed areas. Foundation trenches will normally be excavated using toothed buckets. In such cases archaeology will be recorded within the trench sections. The exposure of the 'natural'

terrace gravels will be variable according to formation levels and variable depths of topsoil and subsoil across the area. It is unlikely that all subsoil deposits, as identified by the trial trenching exercise within the New Garrison Areas C, DR1, E and F will always be removed for the purposes of construction of hard-standings, roads, car parks and buildings. In the case of the construction of buildings, particularly within Area C, where the subsoil is particularly deep, the archaeology may in some instances only be impacted upon within foundation and service trenches.

6.5 The topsoil stripping will be undertaken using 360 degree tracked mechanical excavators. CAT will not be operating machinery in the watching brief areas, and have no responsibility for checking service locations.

6.6 The exposed sub-soil features or archaeological horizon will be examined for any significant archaeological deposits or negative features. A working area will be defined and fenced for the duration of any subsequent archaeological recording works (see para 6.2).

6.7 **Surveying and planning.** Following the site stripping archaeological features will be planned in relation to the contractor's theodolite or EDM survey points using a total station. The data will be input directly onto CAD and the OS tiles. Site grids and planning by hand will not be necessary for large open areas although hand drawn detail plans, usually at 1:20 will be prepared on site where complex archaeology is encountered. These plans will be prepared on site and scanned in, vectorised and imported via CAT's CAD programme onto the OS grid based plan. Records may be prepared in relation to the site construction plans as an interim measure but these must subsequently be referenced to the OS grid. Full liaison will be maintained between the CAT monitoring archaeologists and contractors surveyors to ensure accurate planning of archaeological features and deposits. The equipment used will have up to date calibration certificates and will be checked in the field for accuracy. All archaeological plans and sections will be related to the site grid by means of co-ordinates. Temporary benchmarks will be surveyed with respect to an Ordnance Survey datum and all features and deposits will be recorded relative to their OD height. The TBM's will be shown on the site location plans. All plans will show grid points and spot levels and will be fully indexed and related to adjacent plans. It is not anticipated that single context recording will be appropriate. A uniform site plan will be produced showing all site features.

6.8 All significant deposits will be planned, and their profiles or sections recorded where appropriate. Detailed site plans will be undertaken at an appropriate scale (1:20, 1:50 or 1:100 dependent upon the complexity and form of the archaeology. Sections will be drawn at 1:20), unless circumstances indicate that other scales would be appropriate. A record or index will be maintained of all site drawings and these will form part of the project archive. All site drawings will contain the following information: site name; site number and code; scale; plan or section number; orientation, date and compiler.

6.9 Metal detectors will be used to scan key deposits.

6.10 **The sampling strategy**. Excavation of all revealed features may not be practicable within the time and resource constraints of a watching brief. Hand excavation of archaeological features, contexts, layers or deposits will normally be restricted to the resolution of stratigraphic relationships, although limited hand cleaning may be necessary to define the extent of archaeological deposits. A flexible approach to the sampling strategy is regarded as key for the beneficial use of the watching brief resources. These resources will be deployed to directly contribute to the project aims and objectives. Excavation sampling will be targeted upon potentially significant finds and/or environmentally rich ditch segments, based upon visual examination of the

exposed archaeological deposits. Intersections of ditches and ditch terminals will also be targeted as appropriate. Tree throw holes and other 'natural' features will normally not be sampled unless they contain surface finds/environmental remains.

6.11 Individual records of excavated contexts, layers, features or deposits will be entered on pro-forma record sheets. Registers will be compiled of finds and samples.

6.12 The photographic record will consist of general site shots, and shots of significant archaeological features and deposits. Standard "record" shots of contexts will be taken on a digital camera. Colour transparencies will still be used for overall site shots and all important contexts. All photographic records will include information detailing: site code; date; context(s); section number; a north arrow and a scale. The colour transparencies will be mounted using appropriate cases. All photographs will be listed and indexed on context record sheets.

6.13 A Home Office license for dealing with burials will be sought as a matter of course, and it is anticipated that these will be excavated or recovered by CAT in the normal way. In the unlikely event that recent burials are encountered, then RPS and the Client will inform the Police and/or coroner. In the case of recent remains, the coroner will be informed, and both the client and CBCAO will be informed. Animal and human burials, including cremations, will be fully excavated. Other structured or placed deposits will be recorded and retained as "small finds".

6.14 All finds of potential treasure will be removed to a safe place, and the coroner informed immediately, in accordance with the rules of the Treasure Act 1996. The definition of treasure is given in pages 3-5 of the Code of Practice of the above act. This refers primarily to gold or silver objects.

6.15 In the event that masonry or brick structures are encountered, these will be excavated in sufficient detail to establish their construction sequence and sequence of repairs or extensions.

Environmental Sampling

6.16 The environmental sampling policy is as follows. CAT is advised by Peter Murphy (EH Regional Advisor in Archaeological Science). In consultation with Val Fryer and RPS, CAT will bulk sample any potentially rich environmental layers or features. These will be assessed by Val Fryer, and future sampling policy will follow her advice. If any complex or outstanding deposits are encountered, then PM and/or VF will be asked onto site to advise.

6.17 In addition to retrieving environmental evidence (above), bulk sampling will be used to collect charcoal for C14 dating where the research aims of the project may be advanced. This will help to date features such as field ditches where ceramic evidence is not forthcoming.

6.18 A strategy of pollen analysis has been agreed with Patricia Wiltshire and will be amended in consultation with RPS in the field, as necessary. The aim will be to identify suitable stratigraphic contexts from which soil columns or bulk samples can be extracted for pollen analysis. Over the length of the project this will enable an assessment to be made of the local environmental background, even if only at a basic level. Patricia Wiltshire (or colleague) will visit site and extract samples for analysis. Based on these test samples, the viability of further sampling on the site will be assessed by PW, and her advice will be followed. Clearly, if the test samples are unproductive, there will be no justification for further sampling.

6.19 Sampling procedures will be informed by *A guide to sampling deposits for environmental analysis* (Murphy & Wiltshire 1994).

Treatment of Finds and Samples

6.20 All finds and bones will be recorded, collected and labelled according to their individual stratigraphical context. Finds from each archaeological context will be allocated an individual finds tray and waterproof labels will be used for each tray to identify unique individual contexts. Each label will be marked with the appropriate context number in waterproof ink and will be securely attached to each tray.

6.21 Unstratified finds will only be collected where they contribute significantly to the research aims or are of intrinsic interest. Conservation advice may be necessary on site prior to lifting of and initial treatment of fragile objects. All finds and samples will be exposed, lifted, cleaned, conserved, marked, bagged and boxed according to the United Kingdom Institute for Conservation's *Conservation Guidelines No.2,* the Council for British Archaeology's *First Aid For Finds* (Second Edition, 1987) and the Institute of Field Archaeologist's *Guidelines for Finds Work* (1992). Iron finds may require X-rays prior to conservation and similarly residues on pottery may require study ahead of any conservation which may be appropriate. Treasure Act procedures will be followed and any finds of "treasure" will be reported to the Coroner.

7 Works Review Mechanism, Operational Protocol and Monitoring

7.1 The complex construction process of the New Garrison will require constant reappraisal of the archaeological input and resource level during the course of the works. In order to achieve appropriate archaeological response to the construction programme, and variations that may occur, two weekly project meetings should be held. The meetings will include representatives from all or some of the following; the construction contractors, CAT, RPS (on all occasions), RMPA, MoD and CBC (as required). In addition weekly reviews will be undertaken by RPS and CAT to ensure appropriate use of resources for the coming week. Close contact will be maintained between the archaeologists and the contractors at all times.

7.2 **Operational Protocol:** The routine archaeological monitoring will not impede normal construction operations. In the event of an unexpected discovery, where arrangements for archaeological recording may be necessary, the following Operational Protocol will apply:

7.2.1 CAT monitoring archaeologist to immediately notify RPS, RMPA and SRML of any identified archaeology

7.2.2 CAT to define and fence area of archaeological interest

7.2.3 SRML to review construction activity and advise RPS of limitations on further archaeological recording actions, including Health and Safety arrangements

7.2.4 RPS, SRML and CAT to agree archaeological recording response

7.2.5 RPS to advise RMPA on the need to issue a Works Change Form

7.2.6 RPS to inform CBC of archaeological discovery and agreed recording works

7.3 **Monitoring.** A programme of monitoring of the project in the field shall be agreed in advance between CAT, RPS, MoD, RMPA, CBC and English Heritage and will be notified to all parties by RPS. Provision (through regular consultation) will be made for the CBC Archaeological Officers and the English Heritage's Regional Scientific Adviser to monitor the excavation as required, including the post fieldwork analysis and report preparation stages of the project.

7.4 A minimum period of two weeks notice shall be given to CBC prior to the commencement of the archaeological watching brief. The timing and frequency of each monitoring visit will be agreed in advance with CBC. The CBCAO will be given

opportunity to inspect all significant archaeological finds. It will be incumbent upon the archaeological organisations to ensure that there are no unnecessary delays to the construction process.

7.5 Any variation or modification to the project programme in terms of working or recording either on site or off will be fully discussed and agreed with RPS, MoD, RMPA and CBC in advance.

7.6 Any variations of the WSI shall be agreed between RPS, CBCAO and CAT prior to their being carried out.

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

8 Health and Safety

8.1 All work will be in accordance with procedures laid down in the *Safety Plan* (RPS 2003). RPS will submit a further Risk Assessment and Safety Plan for the project with the client prior to the commencement of the excavations and watching brief.

8.2 All the latest Health and Safety guidelines will be followed on site. CAT has a standard safety policy (CAT 1999), which will be adhered to. A CAT risk assessment will be prepared.

8.3 The archaeologists will work under the health and safety policies of the construction contractors in addition to the RPS Safety Plan and CAT risk assessment. The construction contractor's foreman will always be made aware of the presence of an archaeologist/s on site.

8.4 No personnel will work in deep or unsupported excavations or on their own in remote areas of the site. The sides of all excavations or trenches deeper than 1.4 metres will be stepped or battered. Due to the difficulty of working in shored trenches, shoring will be avoided wherever possible. Safety helmets will be worn by personnel in deep trenches or other potentially unsafe positions. All deep trenches shall be fenced off and will be clearly indicated by "deep excavation" signs.

8.5 The archaeologist(s) will not enter an area under machine excavation without alerting the machine driver to his/her intention.

8.6 The archaeologist(s) shall remain alert and take due care not to impede the progress of moving machinery. He/she shall stand well back from the turning circle of an excavator' buckets and cabs.

8.7 Spoil will be stored at a safe distance away from trench edges.

8.8 CAT will provide suitable accommodation for staff to shelter from inclement weather and during breaks. Hand washing facilities will be provided.

8.9 CAT will provide any necessary protective footwear, high-visibility jackets, and safety helmets. All staff and visitors to the site will be expected to wear full PPE at all times.

8.10 A procedure of signing in and out for staff with the RPS manager, at the contractor's site office, will be adopted.

9 Resourcing

9.1 Approximately 30% of the new garrison consists of buildings or roads – this equates to approximately 30 hectares. In the evaluation stage, the machine stripping of 400m2 was achieved in a good day (a rate of 1 hectare in 25 days). Assuming that stripping of open areas can be achieved at twice the speed, to strip 30 hectares would take 30 x 12.5 days = 375 working days. Even allowing for five machines working separately, this is still 75 days work (effectively three months).

9.2 **Machine watching**. The necessary resourcing of the watching brief will clearly depend on how many machines the contractors work at any one time, and how fast they can complete the stripping. However, if the above estimate is reasonable/viable, then there may need to be up to five archaeologists machine watching for 75 days (3 months) during the ground stripping phase.

9.3 **Service trench inspection**. This will depend on the duration of the construction period. Suggested resource - one person, intermittent presence, for the duration.

9.4 **Feature Density:** The number of features, which will be exposed in the area strips, is calculated as follows. In evaluation area M, there were 17 archaeological features (not counting undated and natural features) in 987m2, or one feature in every 58m2 of ground. This is 172 features per hectare, or 517 per 30 hectares. It will not be appropriate to excavate all these fully, but a sufficient resource must be allowed for appropriate recording and/or excavation where the project aims would be enhanced beyond the level of findings from the pre-construction phase excavations.

10 Finds

10.1 All finds will be retained from each archaeological context excavated. Policies for later disposal of any finds will be agreed with MoD, RPS, CBCAO and Colchester Museum. All non 'treasure' finds will remain MoD property unless otherwise agreed.

10.2 All finds, where appropriate, will be washed.

10.3 A policy of marking for pottery and other finds will be agreed with Colchester Museum. Marking will include the site code and context number.

10.4 All lifting, conservation or other on-site treatment of delicate finds will be done by Anne-Maria Bojko of Colchester Museums. It is anticipated that site staff will lift robust items such as intact cremations.

10.5 The site archive will be presented to Colchester Museums in accordance with the requirements for conservation and storage as outlined in *Guidelines on the Preparation and Transfer of Archaeological Archives to Colchester Museums* (Colchester Borough Council 1996).

10.6 All finds of *potential* treasure will be removed to a safe place, and the coroner informed immediately, in accordance with the rules of the Treasure Act 1996. The definition of treasure is given in pages 3-5 of the Code of Practice of the above act. This refers primarily to gold or silver objects.

10.7 Finds work will be to accepted professional standards and adhere to the Institute of Archaeologists' published booklet Guidelines for Finds Work.

10.8 Agreement with the landowner will be sought for deposition of the finds and paper archive. Arrangements for the finds to be viewed by the landowner will be made if he/she wishes.

10.9 The following specialists have been/ will be approached (if necessary) for artefact and environmental analysis:

- Sue Anderson – Human Bone
- Julie Curl - animal bone;
- Nick Lavender/Nigel Brown– prehistoric pottery
- Valerie Rigby/Stephen Benfield late Iron Age and Roman pottery;
- Dr Paul Sealey - Amphoras
- Joanna Bird - Samian
- Ernest Black – Roman Brick/tile
- Dr Hilary Cool – Roman glass
- Dr John A Davies – Roman coins
- Nina Crummy – Small finds
- Sue Tyler- Saxon Pottery
- Helen Walker – Medieval and Post-Medieval pottery
- Hazel Martingell - Lithics
- Lynn Keys – Metalworking residues;
- Pat Wiltshire- pollen analysis
- Peter Murphy - Environmental
- Val Fryer- Archaeo-botanist
- Jackie Makinley- Cremations.

11 Post Fieldwork Assessment

11.1 MAP 2 (Management of Archaeological Projects:2 (English Heritage 1991) stipulates that towards following a fieldwork programme, an assessment will be undertaken to determine a suitable post fieldwork project design. The volume and diversity of the recovered materials, the potential importance of the finds and the resultant publication and archiving requirements will be taken into consideration.

11.2 The post fieldwork project assessment will ensure that the following requirements are fulfilled:

(a) provision of adequate finance;
(b) adequate level of human and technical resources;
(c) nomination of relevant specialists;
(d) pre-determined levels of analysis; and
(e) clearly defined project management structure.

11.3 Fully integrated and structured site matrices will be produced such that the site may be accurately and comprehensively phased. The completed matrix will be incorporated into the final excavation and any other subsequent report.

11.4 The assessment stage should include an updated project design in accordance with the recommendations of MAP 2 Stage 3. The updated project design will set out post fieldwork proposals for the approval of the client and to meet the requirements of MAP 2. No further post fieldwork analysis will begin until this process has been fully undertaken.

11.5 The assessment report will include quantification's of archaeological contextual/ structural categories, finds/ industrial categories and environmental categories. Special regard will be given to the state of preservation, density of material and their significance. The individual elements of the project will be assessed with regard to their potential to contribute to the original project aims and for their potential to address any

further research areas that may have come to light during the excavation or assessment phase.

11.6 Assessment may include technological residues analysis and the completion of any bulk processing or sub-sampling of the bulk samples that had not been undertaken in the field (it is the intention to complete the majority of the bulk sampling during the fieldwork). A cost effective strategy for scientific dating will be considered at the assessment stage. The assessment report will also include detailed illustrations of the site and a text outlining methodologies, results, discussion and initial conclusions. The report will be deposited with CBC no later than 6 months following the completion of the fieldwork. Specialists will be given written instruction of the duration of the assessment phase.

11.7 This report will include:

- A concise non-technical summary of the project results
- Contents list, explanation of the proposed development,
- The aims and methods adopted in the course of the watching brief
- Archaeological and historical background.
- Location plan of the site(s), and trenches.
- Text report giving detailed results with a suitable conclusion & discussion.
- Sufficient plans and illustrations to back up the text report
- Sections and drawings of all excavated features showing depth of deposits including present ground level with Ordnance Datum, and a scale.
- All specialist reports and assessments.
- An assessment of the archaeological potential of the site it contribute to the project aims
- Location of the archive and proposals for deposition.
- Project timescale and staff structure
- Acknowledgements and references
- Tabulated lists of contexts and finds.
- The appropriate part of this WSI as an appendix

12 Analysis, Publication and Dissemination

12.1 Following agreement with RPS, MoD, RMPA, CBC and English Heritage on the recommendations of the assessment the final analysis stage will be undertaken. The consultations will include agreement regarding scientific dating methods and the targeted phases or elements.

12.2 Two objectives will be met:
(i) the production of a research archive and final report; and
(ii) the production of a report for publication.

12.3 Adequate resources will be allocated to facilitate these functions. As MAP 2 points out, the resources will include provision for frequent reviews of the extent to which the objectives are being met, bearing in mind that the process of synthesis can often lead to a revision of the original stated aims.

Final Report

12.4 Appendix 7 of MAP 2 sets out the guidelines for the preparation of published reports. It is important to note that archaeological fieldwork reports may fulfil several different functions. In particular, evaluation reports are primarily intended to inform and guide the decision-making processes of local planning authorities, in contrast to interim, archive or publication reports. The report will describe and explain the results of the excavation

and will realize the objectives outlined in the post excavation assessment and updated project design to meet the full potential of the site to contribute to archaeological knowledge. A full analysis of the sites phases will be included. The report will conform to MAP Appendix 7 and will form the basis of the publication within an approved archaeological journal. The contents of this report will include the following:

- A list of contents and figures used in the report;
- An explanation of the development and the reasons for the excavation;
- A non-technical summary that explains the main issues in layman's terms;
- A general introduction to the project, including details of the site location, the planning applicant, the archaeological contractor, project staff and the author(s) of the report;
- The aims and objectives of the project;
- The methodology used in the project;
- A description of the historical and archaeological background and context of the proposal site;
- A description of the geology and topography of the proposal site and the results of any previous archaeological fieldwork in the vicinity;
- The methods used to excavate the site;
- Specialists reports on the finds and environmental projects including significant dating evidence (including scientific dating), discussion and illustrations (including finds illustrations);
- A detailed description of the results, with a detailed discussion and interpretation on the reliability of the findings;
- Details of the project timetable with details of the project manager and staff structure;
- Details of the location of the project archive and finds at the time of the compilation of the report, and the proposed date of their eventual deposition;
- Sufficient illustrations to support the text including figures to show the location of the site in a national, regional and local context, detailed plans of the entire site and specific site areas, structures or areas of interest, selected sections drawings to illustrate the main findings and sufficient interpretative drawings to illustrate the main findings. Phase drawings will be produced as appropriate. The national grid will be shown on the plans;
- Discussion and conclusions such that the site may be placed within its regional context;
- The project brief and project design and WSI will be included in the excavation report as appendices; and
- Tabulated lists of contexts and finds, matrices and acknowledgements, a bibliography and a glossary of terms for the non-specialist.

12.5 Copies of the final report will be issued to the RPS, MoD, RMPA, CBC (two copies – one for the UAD), the Essex County Council Heritage Conservation Record and English Heritage. A copy of the report will also be deposited with the finds and archive at Colchester Museum.

12.6 A full report on the project will be published in an appropriate journal, yet to be decided. If the report is concise, it may be appropriate to publish it in *Essex Archaeology & History*. However, longer reports may be need to be published in a different format, perhaps the new CAT in house *Journal*. In any case, a short summary of the work will be submitted to *Essex Archaeology & History* for inclusion in the annual round-up. Appendix 7 of MAP 2 sets out the guidelines for the preparation of published reports. A publication grant will be provided to the publishers in accordance with their requirements.

13 Archive and Finds Deposition

13.1 All retained artefacts will be cleaned, conserved and packaged in accordance with the requirements and guidelines of the United Kingdom Institute for Conservation's' *Conservation Guidelines No. 2,* the Council for British Archaeology's *First Aid for Finds* (Second Edition, 1987) and the Institute of Field Archaeologist's *Guidelines for Finds Work* (1992). Small finds will be boxed separately from the bulk finds. A full archive will be prepared to standards outlined in *Management of Archaeological Projects: **2*** (English Heritage 1991).

13.2 Artefacts and samples recovered during the archaeological excavation will be stored in a locked security store and will be taken away from the site at the end of each working week to be stored in a secure off-site location.

13.3 The full archive will be deposited at Colchester Museum, subject to MoD consent and subject to the guidelines and requirements of MAP 2, as soon as is practicable, and within six months of completion of publication text on the project. All requirements for archive storage as given in Colchester Borough Council's *Guidelines for the standards and practice of archaeological fieldwork in the Borough of Colchester*, will be followed.

13.4 Finds (and other retained materials) will be bagged and boxed in the manner recommended by Colchester Museums.

13.5 Plans will be presented on hanging strips to fit Colchester Museum storage systems.

13.6 Photographic archive is to be presented as follows: colour slides in hanging strips or in folders of archival quality, original digital data on CD Roms, hard copies of digital photos on high quality paper, or as otherwise requested by Colchester Museums.

13.7 CD Roms of material held on computers will be presented to Colchester Museums, along with bound copies of printouts.

13.8 Deposition of the archive will be confirmed in writing to CBCAO, and a summary of the contents of the archive shall be supplied to CBCAO.

13.9 All artefacts recovered from the archaeological watching brief shall be deposited at the Colchester Museums subject to MoD agreement. All recovered artefacts shall be fully catalogued, shall constitute one single deposit and shall be deposited within two years of the completion of the archaeological project.

13.10 Prior to the deposition of the artefacts with Colchester Museums the following procedures will have been completed:

- Notification of the fieldwork and approximate quantity of finds will be given to the museum ahead of the fieldwork phase. A 'notification form' will be supplied with the relevant details of the project at this stage;
- Where possible the site code/accession number and context number shall be marked on all finds;
- All finds packaging, including boxes and bags will be clearly marked with the assigned accession number;
- Transfer of ownership from the MoD to the museum will be agreed in principle prior to the fieldwork and a written transfer of ownership form will be forwarded to the museum ahead of deposition. However until otherwise agreed all non 'treasure' finds remain for the MoD to assess and dispose of;
- The archive will be deposited complete and will include a full index of contents;
- There may be a case for non retention of certain artefacts of low academic value. The selection of these will accord with SMA (1993, revised 1997); and

- Further guidelines and requirements of the Museums for the acceptance of finds and archive as outlined in the museums guidelines for the deposition of archives, will be adhered to.

13.11 A project's archive comprises every record relating to that project, from written records and illustrative material to the retained artefacts.

13.12 The archive (including artefacts) will be retained intact, will be prepared to the standards and requirements of Colchester Museum. The archive shall be deposited at the Colchester Museums within two years of the completion of the archaeological excavation. The accession number assigned for the artefacts will be used for the whole project archive.

13.13 The project manager will ensure that every element of the archive is kept clean and secure, and that it is stored in a suitable environment.

13.14 The archive comprising written, drawn, photographic and electronic media, will be fully catalogued, indexed, cross referenced and checked for archival consistency.

13.15 A copy of the archive (on microfiche) should be deposited with the NMR and SMR.

13.16 RPS will be responsible for monitoring progress and standards throughout the project, and will be kept regularly informed during fieldwork, post-excavation and publication stages

14 Staffing and timetable

14.1 The overall archaeological project will be managed by Ken Whittaker MIFA assisted by Robert Masefield AIFA (RPS). The archaeological contractor CAT will be managed by Philip Crummy. The excavation will be directed in the field by Carl Crossan. The experience of the project team are included in the appendix of this method statement.

14.2 The detailed programme of archaeological input during the course of the construction phase is yet to be determined.

15 References

Association of County Archaeological Officers	1993	*Model clauses on Archaeological Briefs and Specifications*
Brown N and Murphy P	1997	*In Glazebrook J (eds) Research Archaeology. A Framework for the Eastern Counties. 1. Resource assessment. EAA Occ. Paper No.3*
CAT	2002	*Colchester Garrison redevelopment: method statement and risk assessments for archaeological fieldwalking survey, geophysical survey, and evaluation trenching*
CAT	(revision of Feb 2000)	*Colchester Archaeological Trust Policies and Procedures.*
CAT	(revision of Aug1999)	*Site Safety Policy*

CAT Report 184	2002	*An archaeological evaluation by fieldwalking and geophysical survey at Colchester Garrison PFI site, Colchester, Essex: January-March 2002, by Howard Brooks*
CAT Report 197	2002	*An archaeological evaluation by trial-trenching on Area C at Colchester Garrison PFI site, Colchester, Essex: May-June 2002, by Howard Brooks*
CAT Report 203	2002	*An archaeological evaluation by trial-trenching on Area E/F at Colchester Garrison PFI site, Colchester, Essex: May-June 2002, by Howard Brooks*
CAT Report 205	2002	*An archaeological evaluation by trial-trenching on Area KR at Colchester Garrison PFI site, Colchester, Essex: June-July 2002, by Howard Brooks*
CAT Report 206	2002	*An archaeological evaluation by trial-trenching on Areas A, B, D, GJ, H, J, N, V and YP at Colchester Garrison PFI site, Colchester, Essex: June-July 2002, by Howard Brooks*
CAT Report 207	2002	*An archaeological evaluation by trial-trenching on Areas DR, G, M, P, Q, R, RO, S and T at Colchester Garrison PFI site, Colchester, Essex: May-September 2002, by Howard Brooks*
CAT Report 97	2000	*An archaeological desk-based assessment of the Colchester Garrison PFI site, by Kate Orr*
Colchester Museums (Colchester Borough Council)	1996, revised 1999	*Guidelines on Standards and Practices for Archaeological Fieldwork in the Borough of Colchester*
Colchester Museums (Colchester Borough Council)	1996.	*Guidelines on the Preparation and Transfer of Archaeological Archives to Colchester Museums*
Drury PJ	1978	*Excavations at Little Waltham 1970-71 CBA Research Report*
English Heritage	1988b	*Coaxial Field Systems; unpublished Monument Class Description Report*
English Heritage	2000	*Standard and guidance for archaeological field evaluations*
English Heritage	1991	*Management of Archaeological Projects*
English Heritage (Centre for Arch. Guidelines)	2002	*A guide to the theory and practice of methods, from sampling and recovery to post excavation*
Framework Archaeology	2000	*Perry Oaks Sludge Works, Western Perimeter Road, Heathrow, London. Project Design Update Note 2.*
Institute of Field Archaeologists	Various dates	*Model Briefs and Specifications for Archaeological Assessments*

Institute of Field Archaeologists	1992	*Guidelines for Finds Work*
Murphy & Wiltshire	1994	*A guide to sampling deposits for environmental analysis*
RPS	2002	*Colchester Garrison PFI archaeological project strategy proposal*
RPS	2002	*Colchester Garrison PFI Health and Safety Plan*
RPS	2002	*Research Design for Archaeological Excavations and Watching Brief at the New Garrison, Colchester*
Shimmin, D	1998	*'A late Iron Age and Roman occupation site at Kirkee McMunn Barracks, Colchester', Essex Archaeology and History,* ***29****, 260-69*
Wilkinson, DE and Neal V. (CBA)	1987 (Third ed. 1998)	*First Aid for Finds*

Appendix 1

TEAM STRUCTURE

RPS PROJECT MANAGEMENT TEAM

Archaeological Project Manager
Ken Whittaker

Assistant RPS Manager
Rob Masefield

List of CAT team members

Project Management
Philip Crummy
Howard Brooks

Site Managers
Stephen Benfield

Site staff
W Clarke, M Gorniak, B Holloway, B Hurrell, C Lister, K Orr, L Pooley, N Rayner, D Ross.

Metal detecting
Brian Hurrell

Finds consultants
Stephen Benfield (CAT) Prehistoric and Roman pottery
Joanna Bird (Guildford) Samian ware
Ernest Black (Colchester) Roman brick/tile
Francesca Boghi (NAU) Human bone
Howard Brooks (CAT) Medieval and Post Medieval Pottery
Dr Hilary Cool (Nottingham) Roman glass
Nina Crummy (Colchester): Small finds
Julie Curl (NAU): Faunal Remains
John Davis (Norwich Museum) Roman coins
Val Fryer (Norfolk) Environmental Archaeology
Dr Jen Heathcote (English Heritage): Regional Science Advisor
Hazel Martingell (Braintree): Lithics
Valerie Rigby (Hertfordshire) LIA ceramics
Patricia Ryan (Chelmsford) Medieval and later brick and tile
Dr Paul Sealey (Colchester Museum) Roman Amphoras
Sue Tyler (ECC) Saxon Pottery.
Helen Walker (ECC) Saxon, Medieval and post-medieval pottery.

Graphics
M McDonald, E Spurgeon

Report writing
H Brooks

RPS Experience

Name:	Kenneth Martin Whittaker
Office	Oxford
Position in company	Director of Archaeology. MIFA
Qualifications / Membership	B.Sc. (Hons)
Date of Birth:	14th June 1962
Areas of Expertise	Archaeology and Historic Environment

Ken has worked in various sectors of the cultural heritage profession, carrying out regulatory, managerial and commercial consultancy roles. Currently leads the archaeology section at RPS, a multi-disciplinary commercial planning and environmental consultancy. Main duties include managing teams drawn from various technical and design-led professions, such as planners, architects, landscape architects, ecologists and engineers. Recent work has focussed on archaeological risk assessment and project management, in some instances as Principal Contractor (CDM regs), for civil engineering projects (including road and rail construction) and major urban regeneration schemes. He previously worked at English Heritage where he provided Local Authorities in London with planning advice. He was also closely associated with developing heritage conservation policy in London and the Thames Estuary, sometimes in partnership with other statutory advisers, such as English Nature and the Environment Agency. He contributed to Regional Planning Guidance for the Thames Gateway, the Maritime Greenwich World Heritage Site Management Plan, the greater Thames Estuary Archaeological Research Framework and recently managed the production of the Tintagel Castle Conservation Plan. He was also closely involved in conservation-led regeneration projects on Thames-side brownfield sites, which promoted local community involvement in joint heritage and nature conservation initiatives. Since graduation in 1984 he has continued to develop expertise in Late Pleistocene and Holocene geoarchaeology and landscape development. Ken has established long-term partnerships with university sector and has been an expert witness in Public Inquiry proceedings.

Key Clients: RMPA Services Ltd, Ministry of Defence, Highways Agency, South West Regional Development Agency, Redrow Homes

Experience Includes:

- 2001 **Technical Director** RPS, Oxford
- 2000-2001 **Principal Archaeologist**, Gifford and Partners Ltd London
- 1999-2000 **Senior Archaeologist**, Gifford and Partners Ltd, London
- 1992-1999 **Archaeology Advisor**, English Heritage, London Region
- 1988-1992 **Deputy Area Officer**, Museum of London, London
- 1987-1988 **Senior Archaeologist**, Museum of London, London
- 1986-1987 **Archaeologist**, Museum of London, London
- 1985-1986 **Archaeobotanist**, English Heritage,

CURRICULUM VITAE

Name:	Robert B Masefield
Office:	RPS, Oxford
Position in Company:	Archaeological Consultant
Qualifications / Memberships:	BSc. MA. AIFA
Date of Birth:	15th October 1969

Area of Expertise:
Robert has 16 years experience as an Archaeologist. Expertise includes project management of major archaeological projects, directing archaeological excavations, evaluations and watching briefs and production of numerous reports for clients to English Heritage/County Council standards and journal publications for the above. In addition he has produced a

number of Environment Statement cultural heritage chapters. He is experienced in negotiations on behalf of clients with local authority Archaeologists and English Heritage and is an Associate member of the Institute of Field Archaeologists.

Key Clients:

Southern Water Technology Group	I O Group
Daventry International Freight Terminal plc	JJ Gallagher
Andrew Martin Associates	Oxford United Football
Notting Hill Housing Trust	GU Projects
National Power Plc	Deacon & Jones
Campbell Reith Hill	Balfour Beatty
RMPA Services	Wimpy/Bryant Home

Experience Includes:

- Supervising on the major excavation of a Roman Town at Heybridge Essex with additional post excavation archiving.
- Directing and reporting on major evaluations at Harlow Essex, (Neolithic, Bronze Age, Iron Age, Roman Saxon and medieval activity, including trenching within a Scheduled Monument), Ford Waste Water Treatment Works, West Sussex (Mesolithic, Bronze Age, Iron Age/Roman), Elstow Storage Depot/A6 widening, Bedfordshire (Iron Age/Roman), and Didcot West, Oxfordshire (Neolithic, Bronze Age, Iron Age and Roman).
- Directing and reporting on excavations including a deeply stratified urban site at Great Yarmouth (medieval), an urban site in the city of London (Roman/medieval), Harefield Middlesex (Saxon evidence), West Drayton, Middlesex (Iron Age trackway), Ford WTW West Sussex (Bronze Age, Iron Age/Roman settlement), Swalecliffe Waste Water Treatment Works (major Bronze Age well complex) and the A41 Aston Clinton Bypass Sites A-D (Bronze Age, Iron Age, Roman occupation and early Saxon settlement and cemetery)
- Environmental statement studies including Southern Water Technology Group (Bognor–Littlehampton, and Bexhall, Hastings), National Power/JJ Gallagher (Elstow Storage Depot) and Wimpy/Bryant Homes (Didcot West Expansion).
- Project Management duties on numerous watching briefs evaluation and excavation projects, including production of written schemes of investigation and research designs.

Details of CAT team members

Senior staff

Philip Crummy MA, FSA, MIFA
Philip is a very experienced field archaeologist, and the longest-serving director of excavations at any major archaeological organisation in Britain. Since joining CAT (or Colchester Excavation Committee as it was then, and Colchester Archaeological Unit soon after) as Site Director in the early 1970s, he has supervised or directed large urban projects including Lion Walk, Balkerne Lane, Butt Road, and Culver Street, as well as numerous small projects. Philip's publication record is outstanding, and includes sole or joint authorship of eight of the *Colchester Archaeological Report* series, principally volumes **1**, **3**, **6**, **9**, and **11**. He also produces major parts of the CAT annual magazine *The Colchester Archaeologist*. He has also contributed to *Britannia*, *Post-medieval Archaeology*, and several of the BAR series. His most recent work *City of Victory* is one of the local bestsellers in bookshops in Colchester. He lectures widely.

Stephen Benfield BA, Cert Archaeol (Oxon) (CAT) Prehistoric and Roman pottery
Steve's first involvement with Colchester archaeology was in 1985, working on a Manpower Services Commission sponsored project to assist in processing the enormous collection of Roman pottery from excavations in the town. He graduated from Reading University with a

degree in archaeology and subsequently studied for his post-graduate Certificate in Archaeology at Oxford. Returning to CAT, he has since worked on many CAT projects at various supervisory and directorial positions, including the major projects at Stanway Iron Age burial site and Gosbecks Roman temple/theatre complex. Stephen has also, through much hands-on experience, built up a considerable working knowledge of LIA and Roman ceramics. He now completes ceramic assessments and full reports for CAT, drawing on the unrivalled catalogues provided by the standard Colchester works *Camulodunum* (Hawkes & Hull 1947), *Roman Colchester* (Hull 1958) and now *CAR 10*, and by examining the fabric series held at CAT headquarters.

Howard Brooks BA (Hons) MIFA (CAT)
Howard's involvement in Essex archaeology goes back to 1970 when he dug at Sheepen, Colchester with Ros Dunnett. He worked for Colchester Archaeological Trust between 1976 and 1981, and again in 1985, and was involved at various levels of responsibility (up to Co-Director) in the excavation of deeply stratified urban remains in Roman Colchester and suburbs (*Colchester Archaeological Report 3* [1984]). Between 1985 and 1992 he worked for Essex County Archaeology Section, first in directing the fieldwalking and excavation project at Stansted Airport (forthcoming *East Anglian Archaeology*), and then in Development Control. Howard then left ECC to set up and run HBAS, the county's smallest contracting team, in which capacity he carried out over twenty field projects and wrote a dozen consultancy reports. He rejoined CAT in 1997, since when he has been involved with major excavations at the Old Post Office on Head Street, the Co-operative Stores on Long Wyre Street, and other major projects. He regularly contributes to *Essex Archaeology & History*, and teaches WEA and University evening classes on archaeology.

Finds specialists

Joanna Bird FSA (Guildford) Samian
Joanna is one of the country's top Samian specialists. Among her large corpus of work is a contribution to the blockbuster *Colchester Archaeological Report 10: Roman pottery from excavations in Colchester 1971-86.*

Ernest Black (Colchester) Roman brick/tile
Ernie is a Colchester schoolteacher with a wide interest in archaeology and the classical world. In this sense, he is following in the footsteps of A.F. Hall and Mike Corbishley who were also local schoolmasters. He has developed his specialism by large scale hands-on experience with Roman brick and tile, and has contributed to the *Archaeological Journal*, *Colchester Archaeological Report 6: Excavations at Culver Street, the Gilberd School, and other sites in Colchester 1971-85.*

Francesca Boghi, MSc (Norfolk Archaeological Unit) Human bone
Francesca has been the Norfolk Archaeological Unit's human bone specialist since 1998. Her previous experience includes work for the Calvin Wells laboratory at the University of Bradford, where she undertook the analysis of 79 skeletons from the medieval cemetery of Pennell Street, Lincoln, Lincolnshire and of a group of Romano-British cremations from Kempston, Bedfordshire. Since joining Norfolk Archaeological Unit she has analysed the medieval assemblage from the parish church of Brettenham, Norfolk (89 skeletons), the human remains from Norwich Whitefriars (thirty-three skeletons from the Carmelite Friary and thirty-seven from the Baptist Chapel of Friary Yard), the skeletal remains from a medieval well in Norwich and numerous other smaller assemblages of inhumations and cremated human remains from the county. In addition she contributes to local education programmes by providing short sessions on skeletal analysis and interpretation. Her professional qualification is an MSc from the University of Sheffield and Bradford in Osteology, Paleopathology and Funerary Archaeology. She is a member of the British Association of Biological Anthropologists and Osteoarchaeologists (BABAO).

Nigel Brown BA MIFA FSA FSA (Scot): (Essex CC) Prehistoric Pottery.
Nigel is the county's leading prehistoric pottery specialist, and is building a reputation farther afield. He has worked for the County Archaeology Section since 1980, contributes regularly to Essex Archaeology & History, and has directed several major excavations in Essex, principally the Bronze Age Farmstead at Loft's Farm (*Proc Prehist Soc* 54 [1988]), and North Shoebury project (*East Anglian Archaeology* 75). He also contributed to *Colchester Archaeological Report 6: Excavations at Culver Street, the Gilberd School, and other sites in Colchester 1971-85.*

Dr Hilary Cool FSA MIFA (Nottingham) Roman glass
A graduate of the University of Wales, Hilary is now a freelance glass and finds specialist, and has written many reports on glass from Colchester sites, including contributions to Colchester Archaeological Report 6: Excavations at Culver Street, the Gilberd School, and other sites in Colchester 1971-85, and Colchester Archaeological Report 9: Excavations on Roman and later cemeteries, churches and monastic sites in Colchester 1971-88 (1993). Among her major works is the internationally selling Colchester Archaeological Report 8: Roman vessel glass from excavations in Colchester 1971-85.

Nina Crummy (Colchester) Small finds
Nina first worked in the early 1970s as finds assistant on the major urban excavations in Colchester for the Colchester Excavation Committee (later the Trust). Over the next twenty years she built up an unrivalled working knowledge of small finds of all types. She has collaborated in most of the *Colchester Archaeological Reports*, and was principal author of the best-selling *Colchester Archaeological Reports* **2** (Roman small finds), **4** (*The coins from excavations in Colchester 1971-9*) and **5** (*The post-Roman small finds from excavations in Colchester 1971-85*). She recently worked for the Museum of London, and was instrumental in the recent transfer of and the massive improvement in accessibility to archaeological archives in London. She now works freelance on small finds reports for CAT, HBAS, and other bodies including Winchester Excavation Committee.

Julie Curl (Norfolk Archaeological Unit) Faunal Remains Specialist
Julie has over 16 years of experience in archaeology and in particular finds for the Norfolk Archaeological Unit and Norfolk Museums Service and currrently works as both a bone specialist and in graphics for the NAU. She has been producing faunal remains reports for many years and produces assessment and analysis reports for clients across the East Anglian region. She has her own extensive bone reference collection built up over many years. Her particular interests in faunal remains are animal husbandry and pathologies. She has also worked as a conservator, particularly on Pleistocene vertebrates and a wide variety of archaeology and natural history projects at the Norwich Castle Museum. Julie is also an extra-mural lecturer with the University of East Anglia, teaching Animal bones in Archaeology.

Dr John A Davies (Norwich Museum) Roman coins
John has, for some years, written reports on Roman coins from Colchester excavations. He specialises in barbarous radiates, and has contributed to *British Numismatic Journal* on that topic. Among his other publications is a contribution to *Colchester Archaeological Report 4: The coins from excavations in Colchester 1971-9,* and *Colchester Archaeological Report 9: Excavations on Roman and later cemeteries, churches and monastic sites in Colchester 1971-88 (1993).*

Val Fryer (Norfolk) Environmental Archaeologist BA, MIFA
Val has fifteen years experience in environmental archaeology, working for English Heritage, County Units and independent archaeological bodies across the United Kingdom and Southern Ireland. She has published reports in East Anglian Archaeology (including occasional papers), Proceedings of the Prehistoric Society, Medieval Archaeology and Norfolk Archaeology. She has also undertaken specialist work for various police authorities across

England and Northern Ireland. Val is a Member of the Institute of Field Archaeologists with special accreditation for environmental archaeology and she is also a Member of the Association of Environmental Archaeologists.

Dr Jen Heathcote (English Heritage): Regional Science Advisor
Jen Heathcote is a member of the Quaternary Research Association and the Association for Environmental Archaeology. She is the Regional Science Advisor (RSA) for the East of England, providing regionally-based advice on all aspects of archaeological science: geophysics, scientific dating, hydrology, geoarchaeology, analysis of biological remains and technological residues, artifact analysis and conservation. RSAs give advice to a range of organizations and also produce good practice standards and guidelines. Jen is actively involved in research, and applying new methodologies to site investigation and management.

Hazel Martingell BA, FAAIS (Braintree): Lithics
Hazel has for many years worked as a lithics illustrator and specialist, undertaking work for The British Museum, ECC Field Archaeology Unit and for London and Cambridge Universities, to name but a few. Since 1987 she has been self-employed and has excavated at a Middle Stone Age site at Gorham's Cave, Gibralter as well as writing and illustrating worked flint reports for CAT, ECC FAU, and the British Museum. Her impressive publication record includes reports on sites from around the globe. Closer to home she has published work in *Essex Hisory and Archaeology*, The *East Anglian Archaeology* Monograph series, *Antiquity* and *British Museum Occasional Papers*. Hazel is a fellow of the Association of Archaeological Illustrators and Surveyors and a founder member of the Lithics Study Group, London.

Peter Murphy BSc M Phil (UEA) Environmental
Peter needs no introduction, but I'll give one anyway. His first contact with Essex Archaeology was as a graduate at Southampton University where he processed and reported on environmental samples from the urban excavations in Colchester the mid 1970s. He joined the Centre for East Anglian Studies (University of East Anglia) in Norwich in 1977, and from that base has established himself as the father figure of East Anglian environmental studies. He has been involved at a personal level or as an advisor on virtually every major project in the east of England over the past twenty years where environmental studies are concerned, and has written and lectured widely. He covers East Anglia in general (Norfolk, Suffolk, Essex, Lincs, Cambs, Herts) but has a specific role for English Heritage in co-ordinating environmental matters in Midland Region (most of Southern England).

Valerie Rigby (Hertfordshire) LIA ceramics
Formerly working for the British Museum, Val is one of the country's leading authorities on later prehistoric ceramics in general, and traded wares in particular. She has published widely. Her major work include *Baldock : the excavation of a Roman and pre-Roman settlement, 1968-72* (*Britannia Monograph Series* 7, with Ian Stead). On a more local level, she has contributed to the magisterial *Colchester Archaeological Report 10: Roman pottery from excavations in Colchester 1971-88,* and to Ros Niblett's *Sheepen: an early Roman industrial site at Camulodunum* (CBA Research Report 57, 1985).

Patricia Ryan (Chelmsford) Medieval and later brick and tile
Pat has for many years been examining excavated collections of brick and tile from Essex sites, and contributing reports that are usually consigned to the gloomier parts of archive reports, or as footnotes in published texts. Her regular contributions to Essex Archaeology & History, therefore, under-represent the devoted study that Pat has put in over the years. Nobody knows more about local brick and tile, except for David Andrews, with whom she collaborated on significant sections of *Cressing Temple: A Templar and Hospitaller Manor in Essex* (1993).

Dr Paul Sealey (Colchester Museums) Amphoras
Paul has worked at Colchester Museum since the late 1970s. His PhD specialism was Roman amphoras, a topic on which he writes specialist reports for Colchester sites. His main areas of interest are prehistory and the Roman period, and he has developed a familiarity with those periods and their ceramics. He has published widely. His major works include *Amphoras from the 1970 excavations at Colchester Sheepen* (British Archaeological Report 142, 1985), contributions to Ros Niblett's *Sheepen: an early Roman industrial site at Camulodunum* (Council for British Archaeology Research Report 57, 1985). He regularly contributes to *Essex Archaeology & History.*

Sue Tyler (ECC) Saxon Pottery
Sue is the County authority on Saxon material, especially pottery. She has had several spells working with Essex County Archaeology Section, interrupted by a late-1980s spell in Hertfordshire. She has written reports on Saxon material for many Essex Projects, and contributes regularly to *Essex Archaeology & History*, including the Anglo-Saxon cemetery at Prittlewell (*Essex Archaeol Hist* 19 (1988)).

Helen Walker BSc (ECC) Medieval and post-medieval pottery.
Helen is Essex County Council Field Archaeology Group's medieval and post-medieval pottery specialist. Before joining ECC in 1985, she worked on finds in Carmarthen, and for Hampshire CC on projects in Winchester. Since 1985, she has contributed reports on ceramics to many other projects in the county. A regular contributor to *Essex Archaeology & History*, her principal publications include reports on the Rayleigh kiln dump, and George Street and Church Street, Harwich (*Essex Archaeology & History*, 21 [1990]), and North Shoebury (*East Anglian Archaeology* 75).

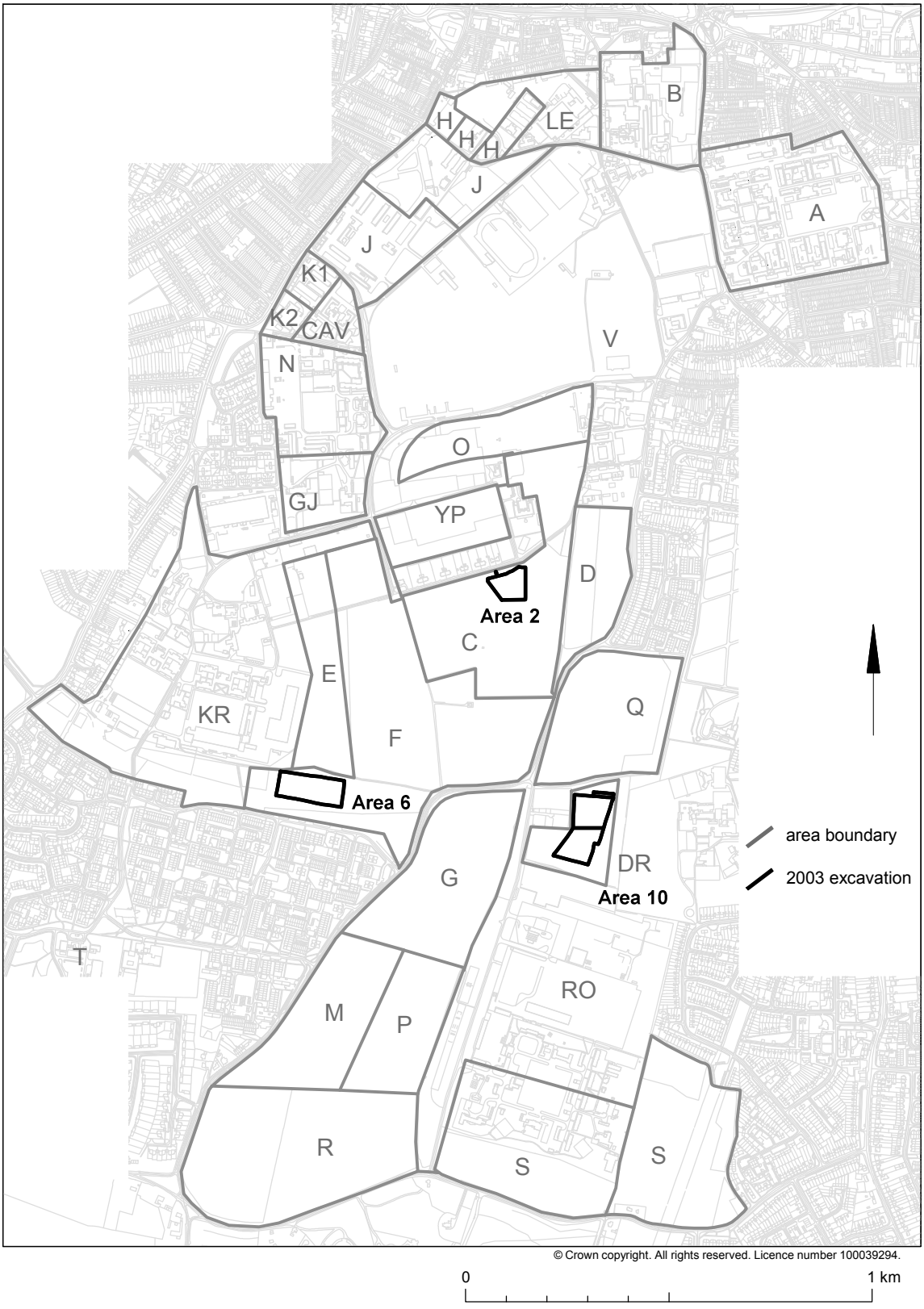


Fig 1 Colchester new garrison Phase 2 watching brief, showing area boundaries and 2003 excavations (Areas 2, 6 and 10).

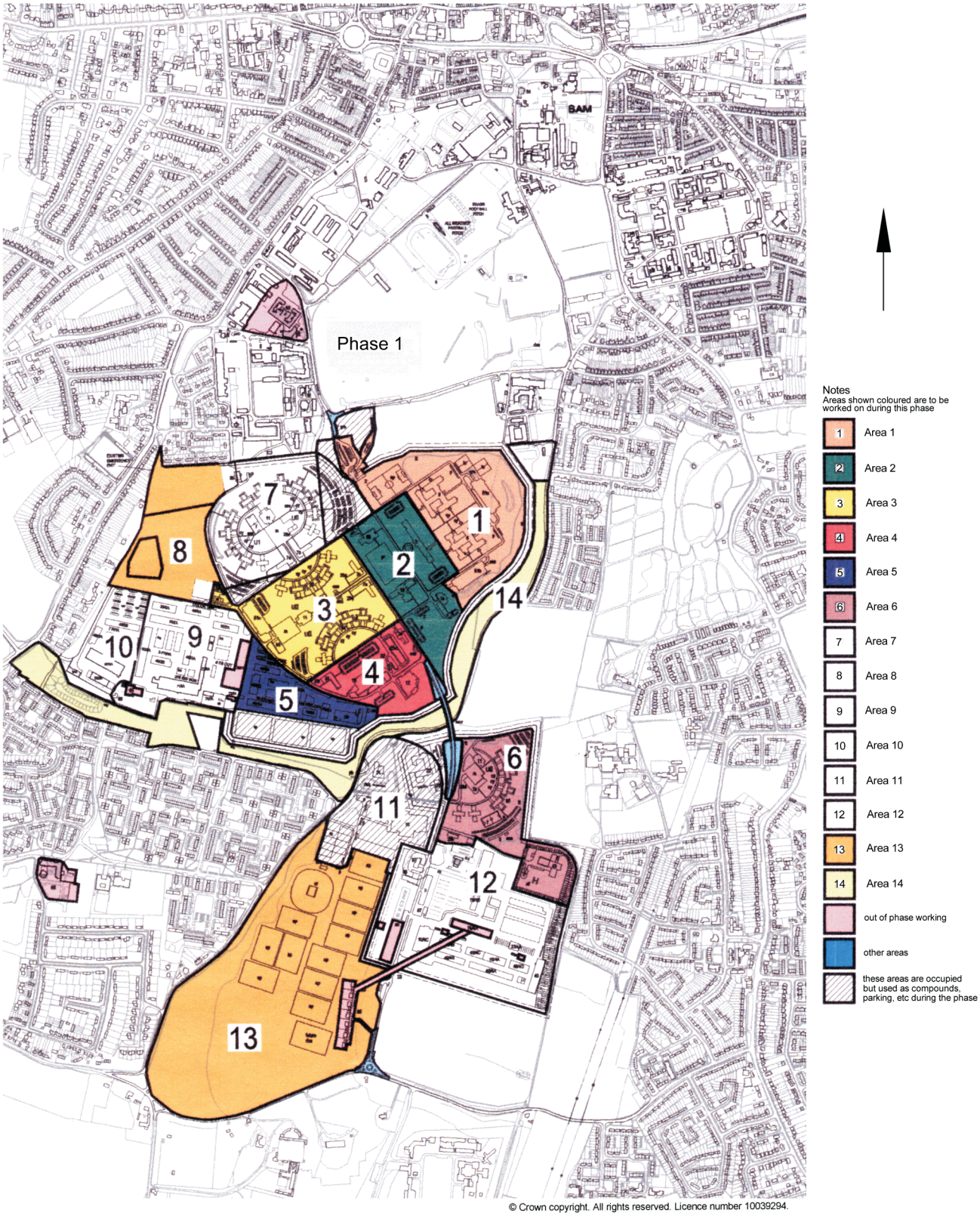


Fig 2a Colchester new garrison PFI project: development Phase 1 plan. (Not to scale.)

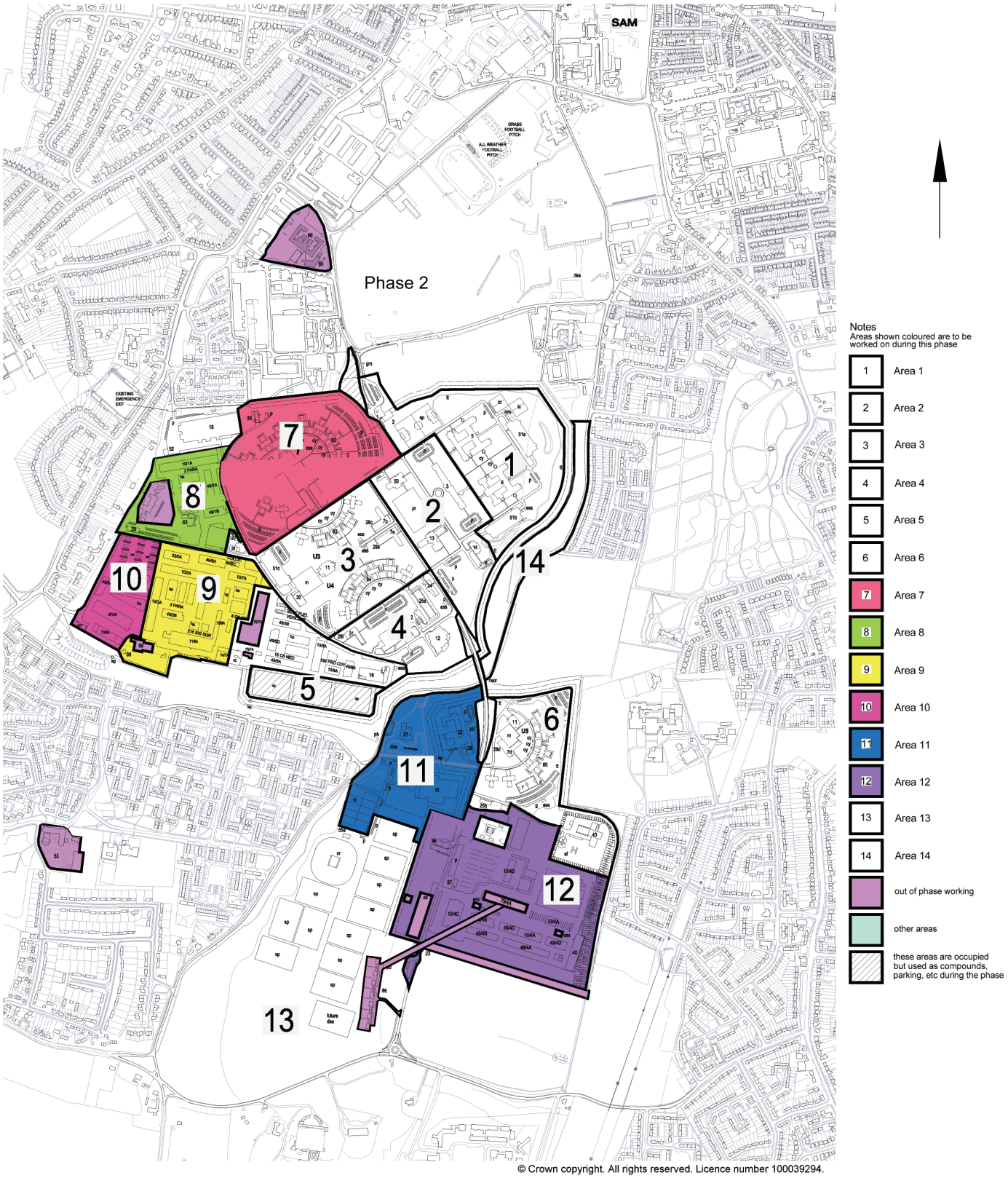
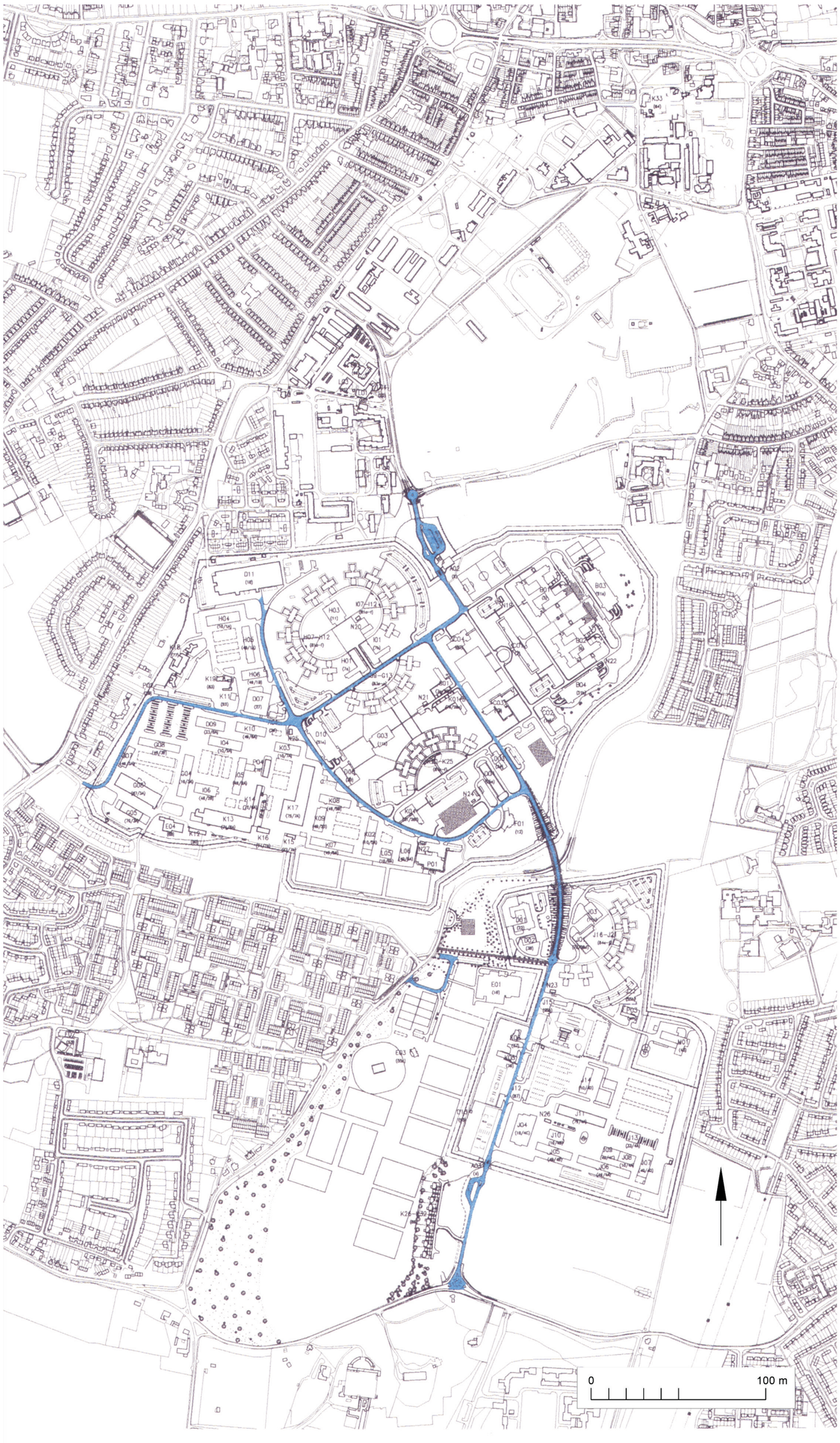


Fig 2b Colchester new garrison PFI project: development Phase 2 plan. (Not to scale.)



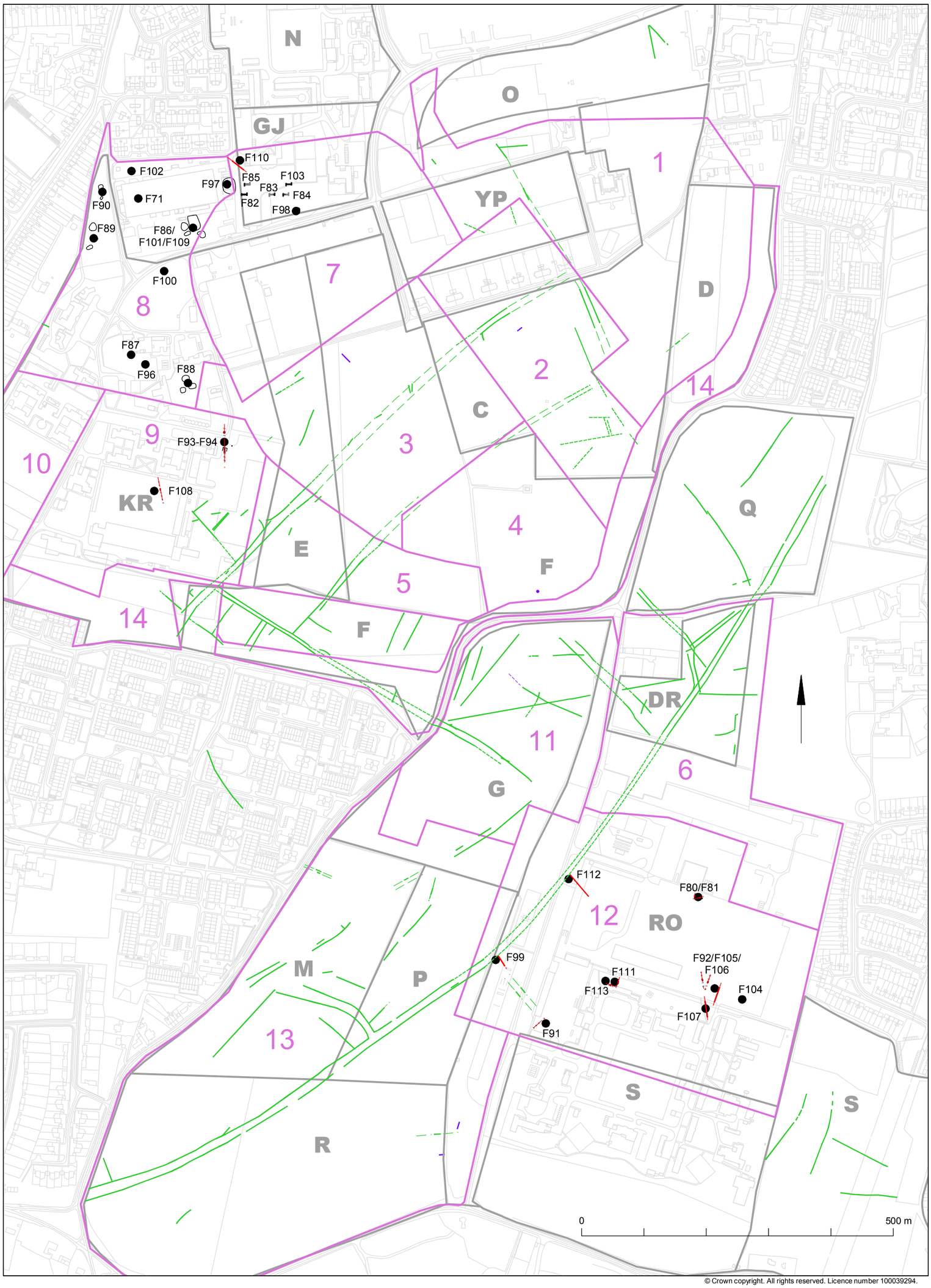
KEY TO GARRISON

A01 MAIN ENTRANCE
A02 GATEHOUSE
A03 HGV GATEHOUSE
A04 QRF/SCC
B01 OFFICERS' MESS
B02 SNCOs' MESS
B03 OFFICERS' MULTI-STOREY CAR PARK
B04 SNCOs' MULTI-STOREY CAR PARK
C01 BRIGADE AND GARRISON HQ
C02 COURTS MARTIAL CENTRE
C03 EDUCATION CENTRE
C04 BAND ACCOMMODATION
D01 MEDICAL RECEPTION STATION
D02 MEDICAL DISTRIBUTION CENTRE
D03 DETENTION CENTRE
D04 CENTRAL ARMOURY
D05 CENTRAL AMMUNITION STORE
D06 INVERTRON / SATS / BATES
D07 CENTRAL QM STORES
D08 NORTH WASHDOWN AREA
D09 DAILY INSPECTION BAY
D10 JR MULTI-STOREY CAR PARK
D11 LSU / ASU
D12 MT DRIVER TRAINING AREA
D13 RESPIRATOR TESTING CHAMBER
D14 ASSAULT COURSE
D15 POL
D16 30m FIRING RANGE
E01 P & RTC
E03 PAVILION
E04 EXISTING P & RTC
E05 TRIM TRAIL
E06-E22 SPORTS PITCHES
E23-E25 TENNIS COURTS
E26-E28 5-a-SIDE PITCHES
E30 CRICKET PITCH
F01 CENTRAL CLUB
F02 MUSKET CLUB / COMMUNITY CENTRE
G01 7RHA RHQ / QM (M)
G03 7RHA JR MESS
G04 7RHA COVERED PARKING
G05 7RHA WORKSHOP
G06 7RHA GUN GARAGING
G07 7RHA OFFICES / STORES
G08 7RHA OFFICES / STORES
G09-G13 7 RHA JRSLA
H01 2PARA RHQ
H02 2 / 3PARA QM(M)
H03 2 / 3PARA JR MESS
H04 2PARA COVERED PARKING
H05 2PARA OFFICES / STORES
H06 2PARA WORKSHOP / OFFICES / STORES
H07-H12 2PARA JRSLA
I 01 3PARA RHQ
I 04 3PARA COVERED PARKING
I 05 3PARA OFFICES / STORES
I 06 3PARA WORKSHOP / OFFICES / STORES
J01 13 RLC RHQ / QM(M)
J03 13 RLC JR MESS
J04 13RLC STOREHOUSE
J05-J07 13RLC OFFICES / STORES
J08 13RLC COVERED PARKING
J09 13RLC OFFICES / STORES
J10 13RLC COVERED PARKING
J11 13RLC WORKSHOP
J12 13RLC STORE
J13 13RLC DAILY INSPECTION BAY
J14 13RLC TTF / TFHE STORES
J15 13RLC ARMOURY
J16-J21 13RLC JRSLA
J22 13RLC GARAGES
K01 16CS MED RHQ / QM(M)
K02 16CS MED COVERED PARKING
K03 8CS COY COVERED PARKING
K04 215 SIG SQN HQ / QM(M)
K05 EOD OFFICES
K06 EOD GARAGE
K07-K08 16CS MED OFFICES / STORES
K09 16CS MED WORKSHOP / OFFICES / STORES
K10 MISC UNITS OFFICES / STORES
K11 ARMY YOUTH TRAINING
K12 216 SIG SQN STORES
K13 216 SIG SQN WORKSHOP / OFFICES / STORES
K14 216 SIG SQN OFFICES / STORES
K15 8CS COY STORES
K16 8CS COY DUTCH BARN
K17 8CS COY WORKSHOP / OFFICES / STORES
K18 KIRKEE MESS
K19 REED HALL HOUSE
K20-K25 BRIGADE & MISC JRSLA
K26-K32 SENIOR OFFICERS' HOUSING
K33 ABBEY HOUSE
L01 RMP / MDP OFFICES
L02 RMP ACCOMMODATION
L03 RMP GARAGE
L04 RMP DOG KENNEL
L05 RMP COVERED PARKING
L06 RMP WORKSHOPS / OFFICES / STORES
M01 PATHFINDER PLATOON
N01 PARADE GROUND
N02-N04 MUSTER AREAS
N05-N37 CAR PARKING
N19-N27 SUBSTATIONS
P01 CPU
P02 FM OFFICE & COMPOUND
P03 WASTE MANAGEMENT COMPOUND
P04 OFFICES

FLEXIBLE PAVEMENT TYPE 1
6.5m WIDE GENERALLY 6.7m WIDE OVER BRIDGE FOR FULL LENGTH OF ABUTMENT

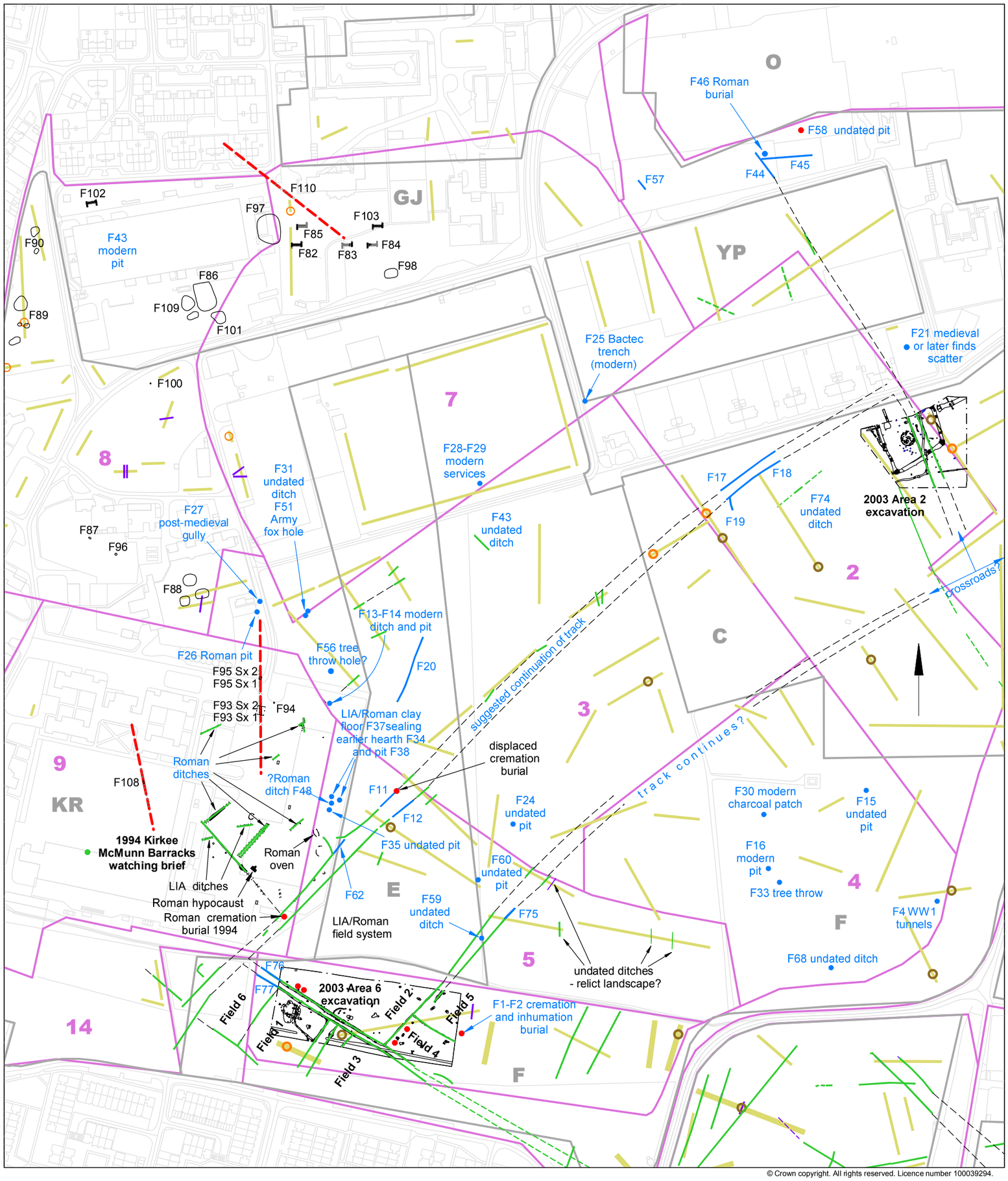
AREAS FOR FUTURE DEVELOPMENT

Fig 3 Colchester new garrison PFI project: detailed buildings layout plan.



new garrison development areas
new garrison soil-strip areas
previously-known ditches
Phase 2 ditches
undated ditch
watching brief feature reference

Fig 4 Results with cropmarks.



new garrison development areas
new garrison soil-strip areas
2002 evaluation trench
previously-known feature reference
2005-6 feature reference
Phase 2 ditches
prehistoric pottery
Roman pottery
Roman burial

0 200 m

Fig 5 Development Areas 7, 8 and 9.

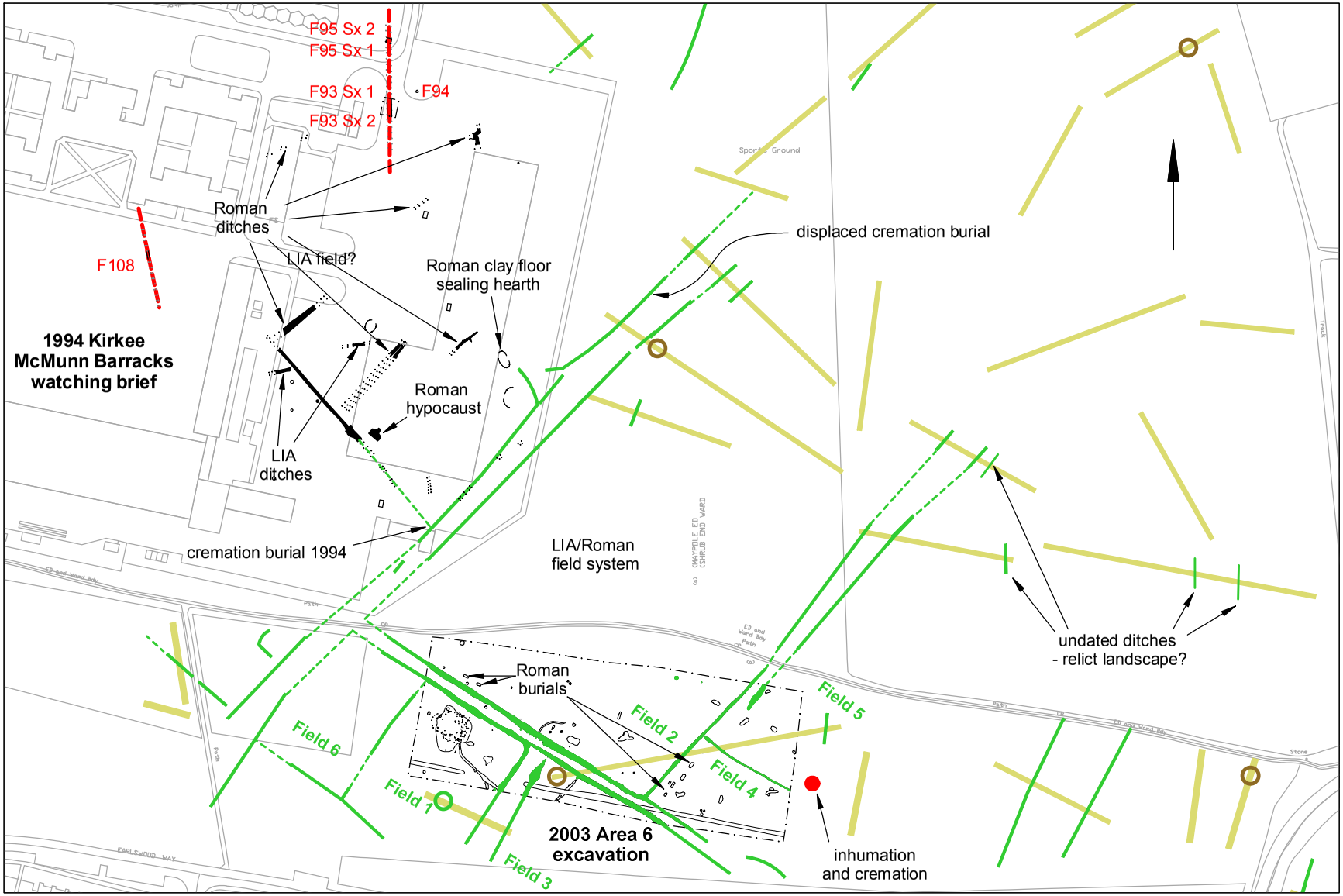


Fig 6 New discoveries in context of the farmstead at Kirkee McMunn Barracks.

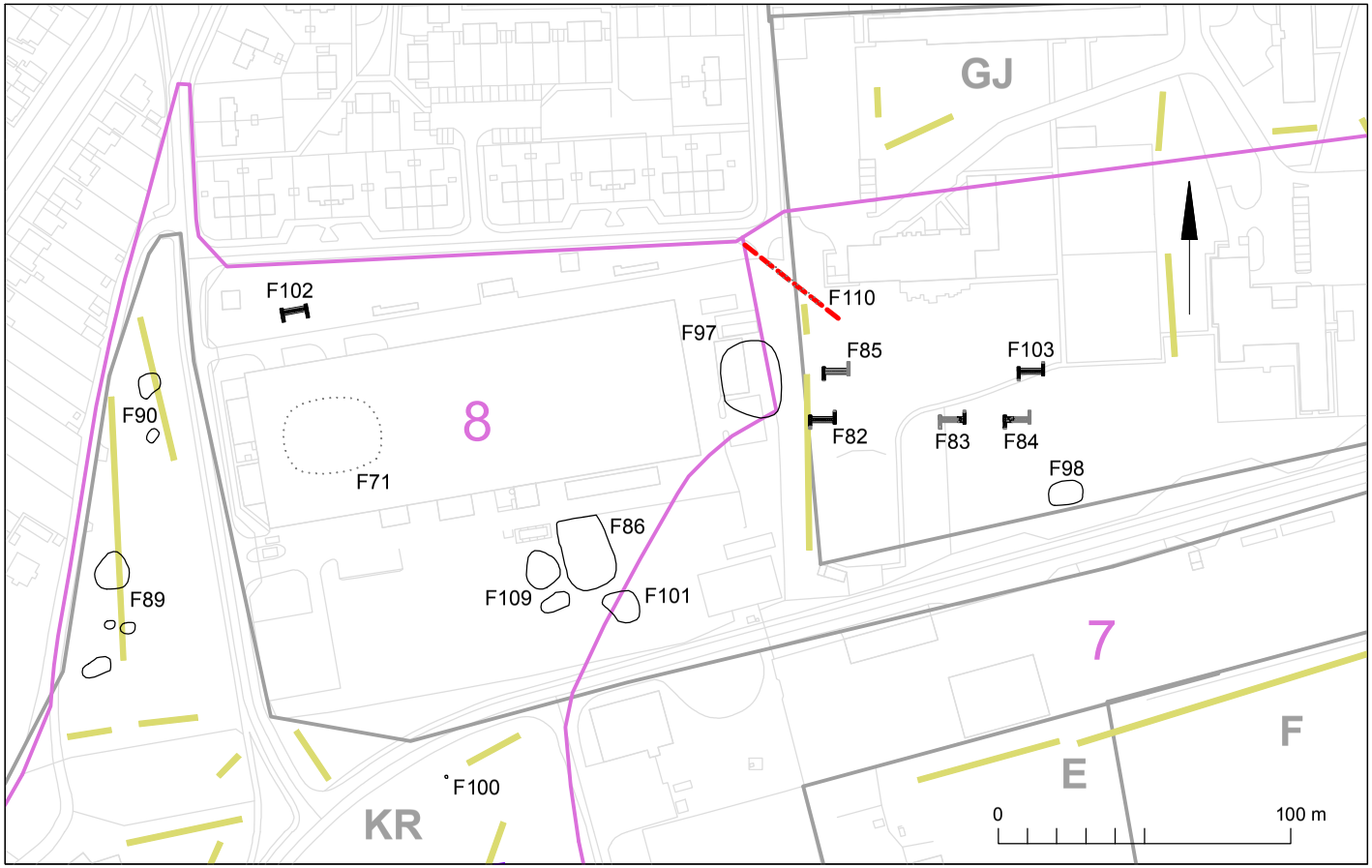


Fig 7 Detail of development Areas 7 and 8.

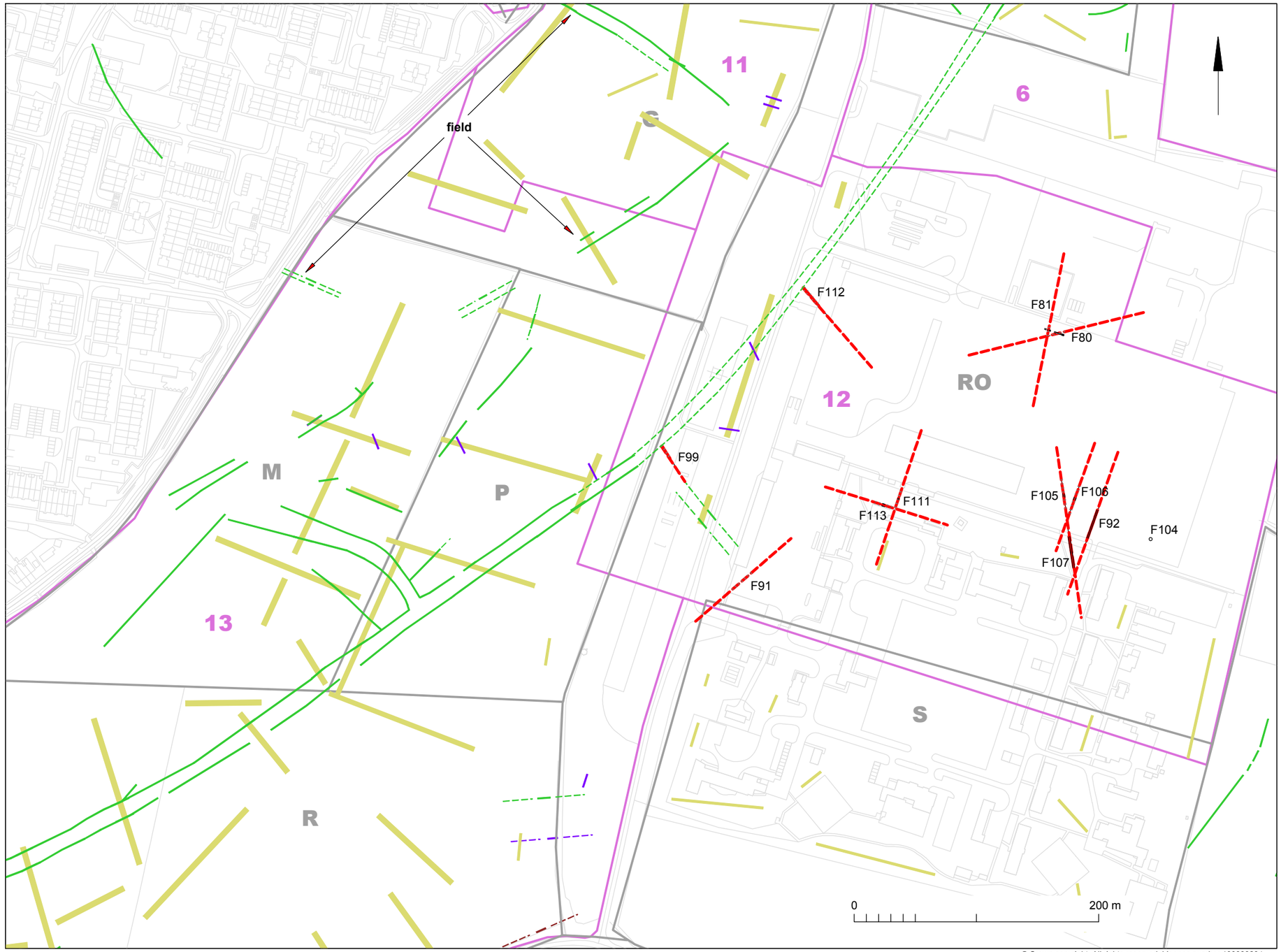
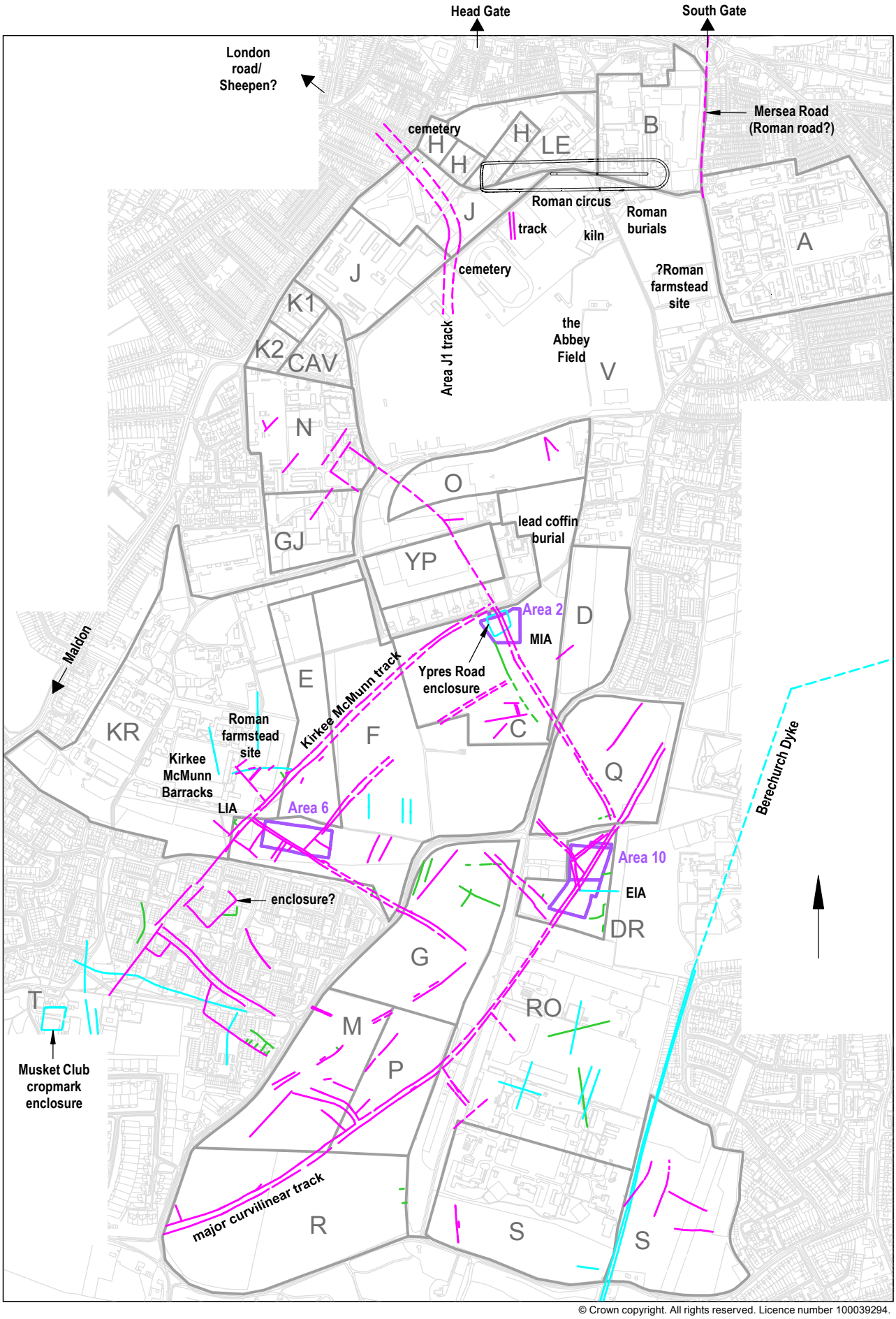


Fig 8 Detail of development Area 12.



Landscape Form 1
Landscape Form 2
Landscape Form 3
excavation

0 500 m

Fig 9 Late Iron Age/Roman landscape context.

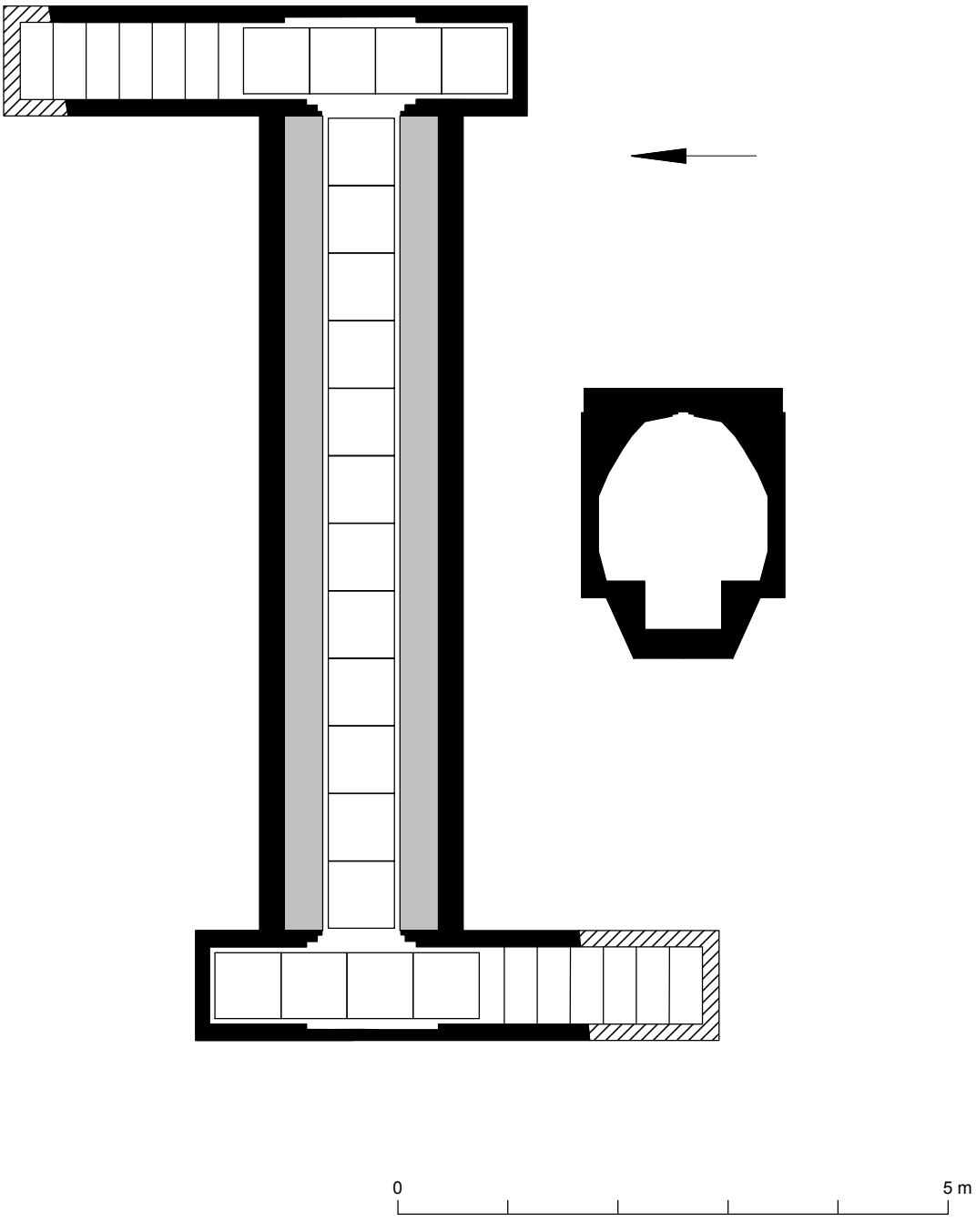


Fig 10 Development Area 7: air-raid shelter WBF82 - plan and cross-section.

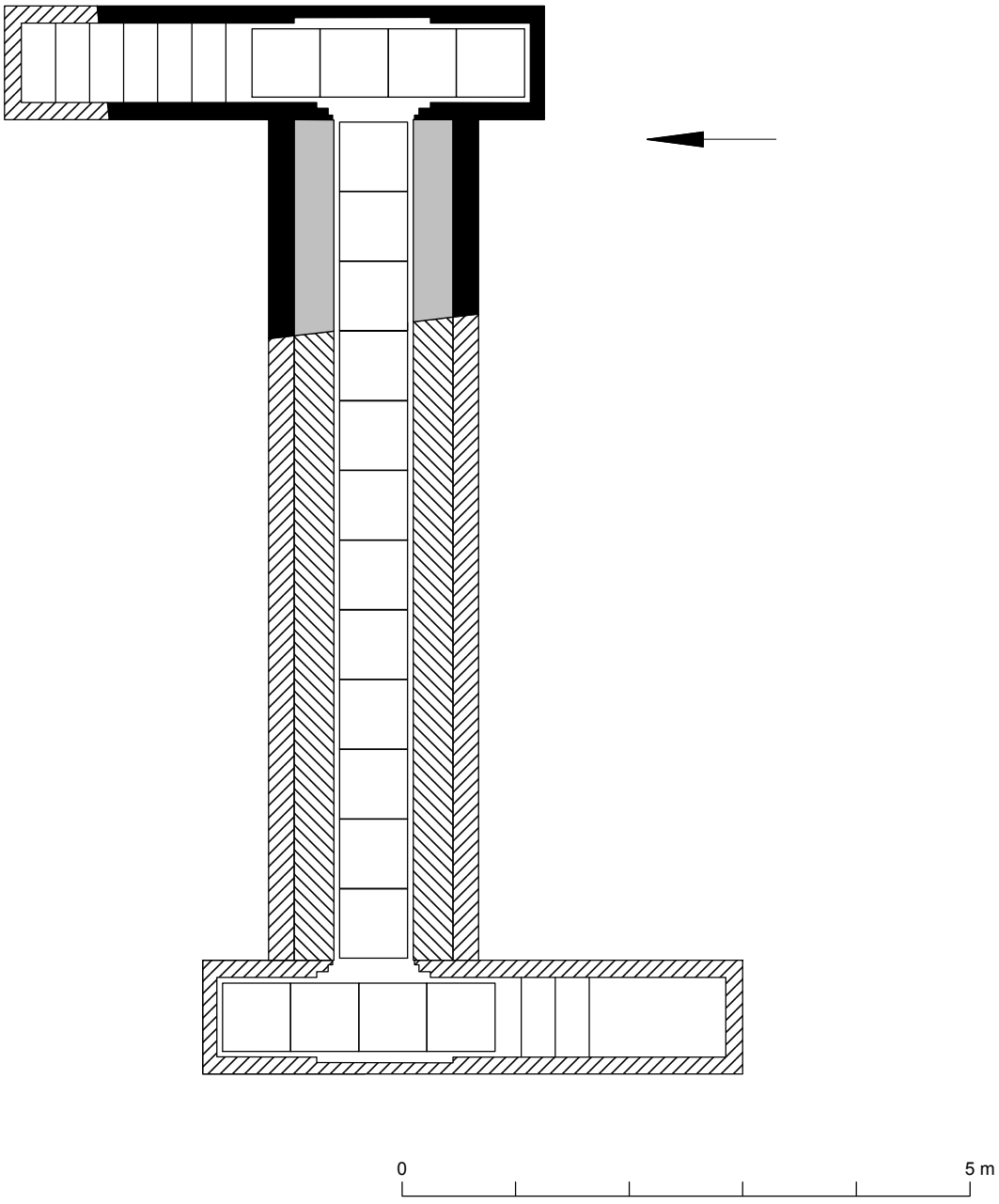


Fig 11 Development Area 7: air-raid shelter WBF83 - plan.

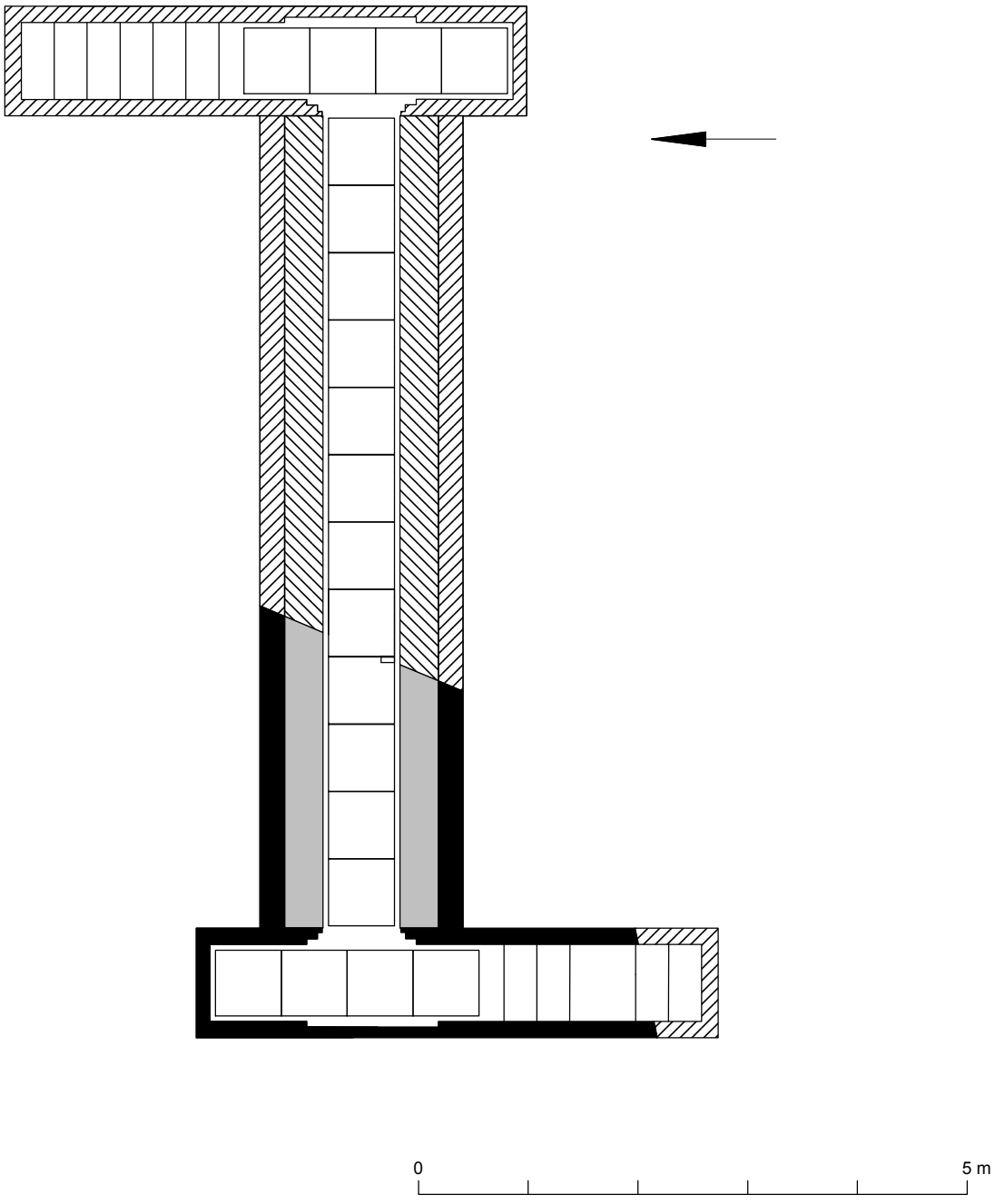


Fig 12 Development Area 7: air-raid shelter WBF84 - plan.

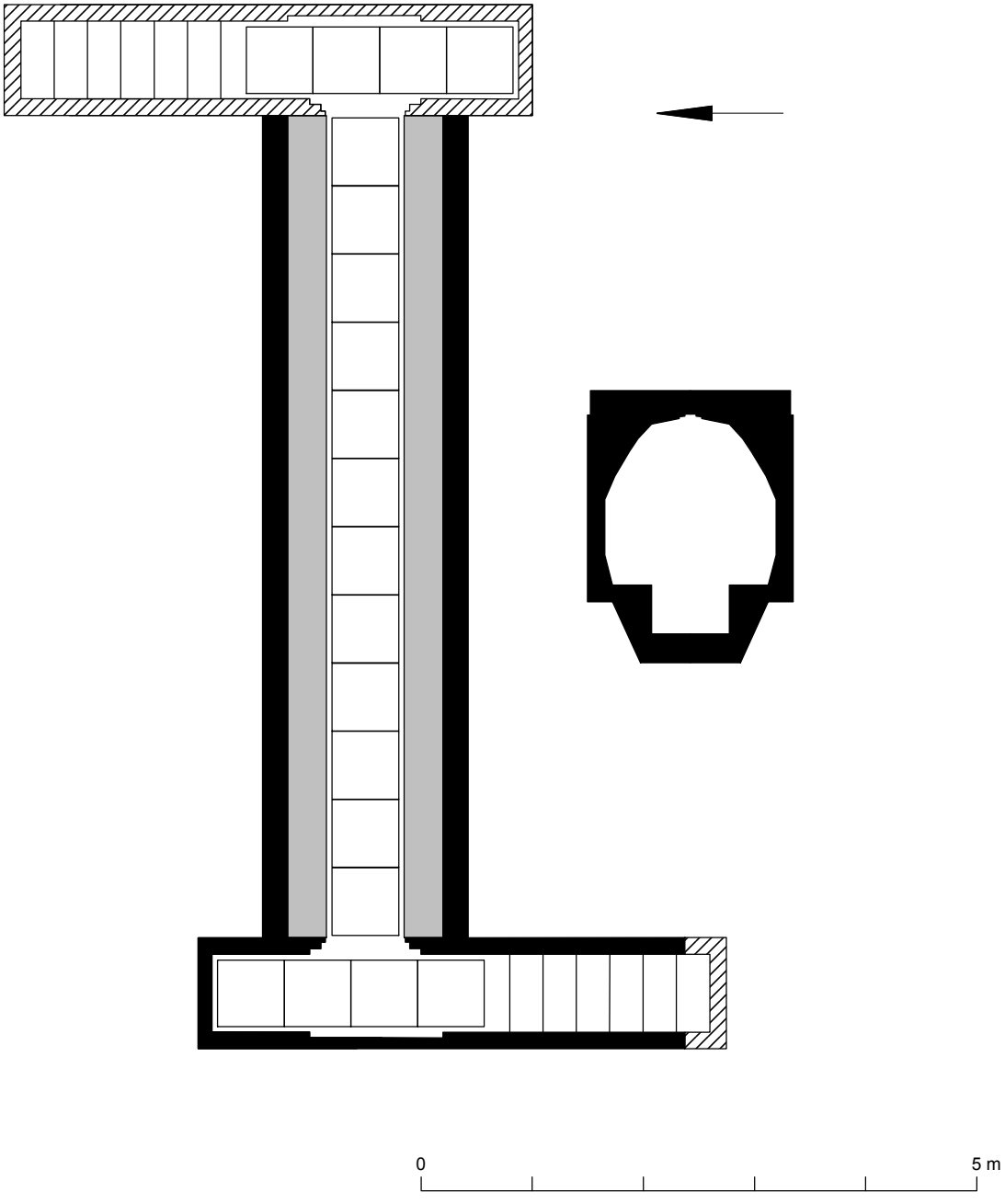


Fig 13 Development Area 7: air-raid shelter WBF85 - plan and cross-section.

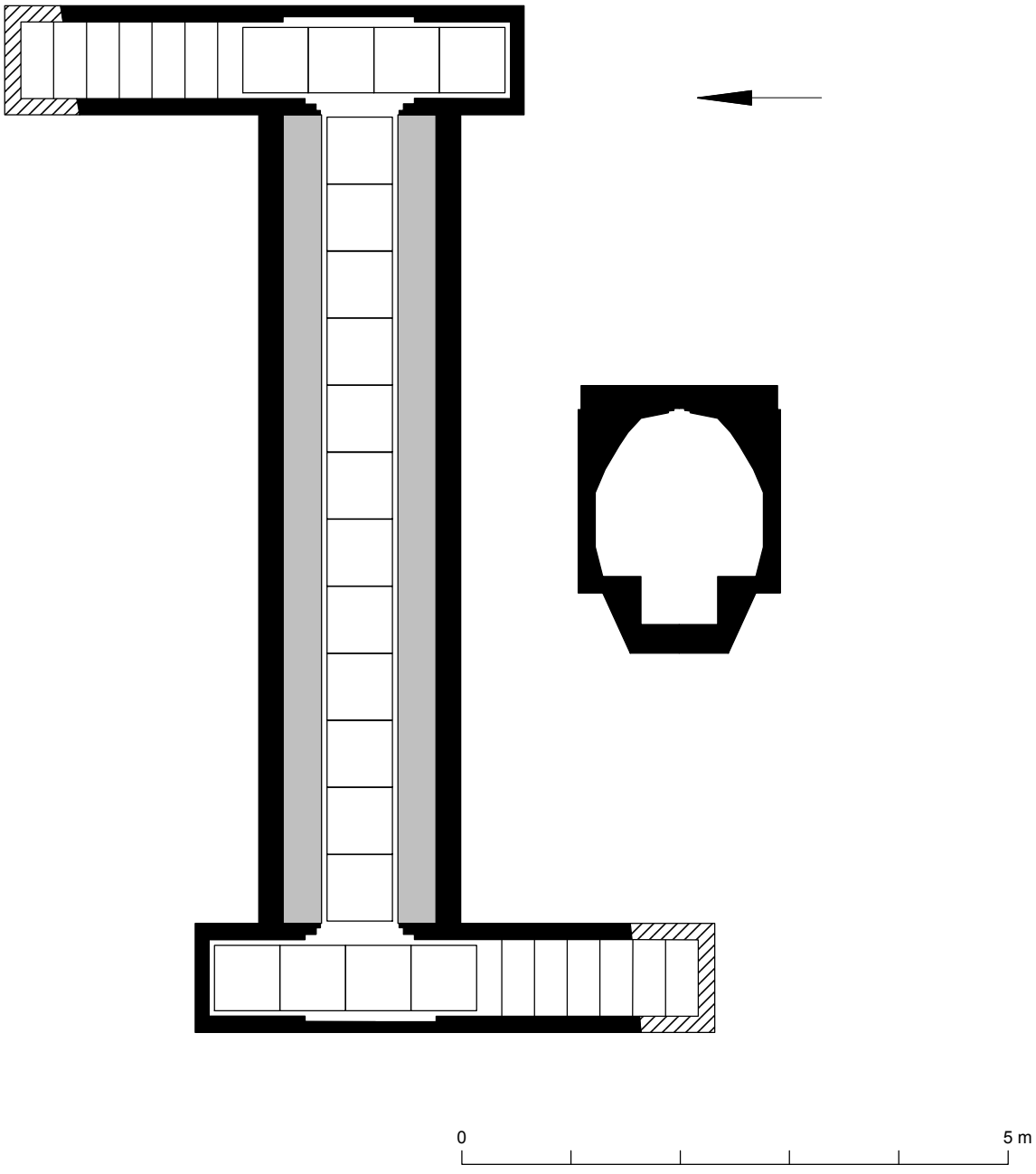


Fig 14 Development Area 7: air-raid shelter WBF103 - plan and cross-section.

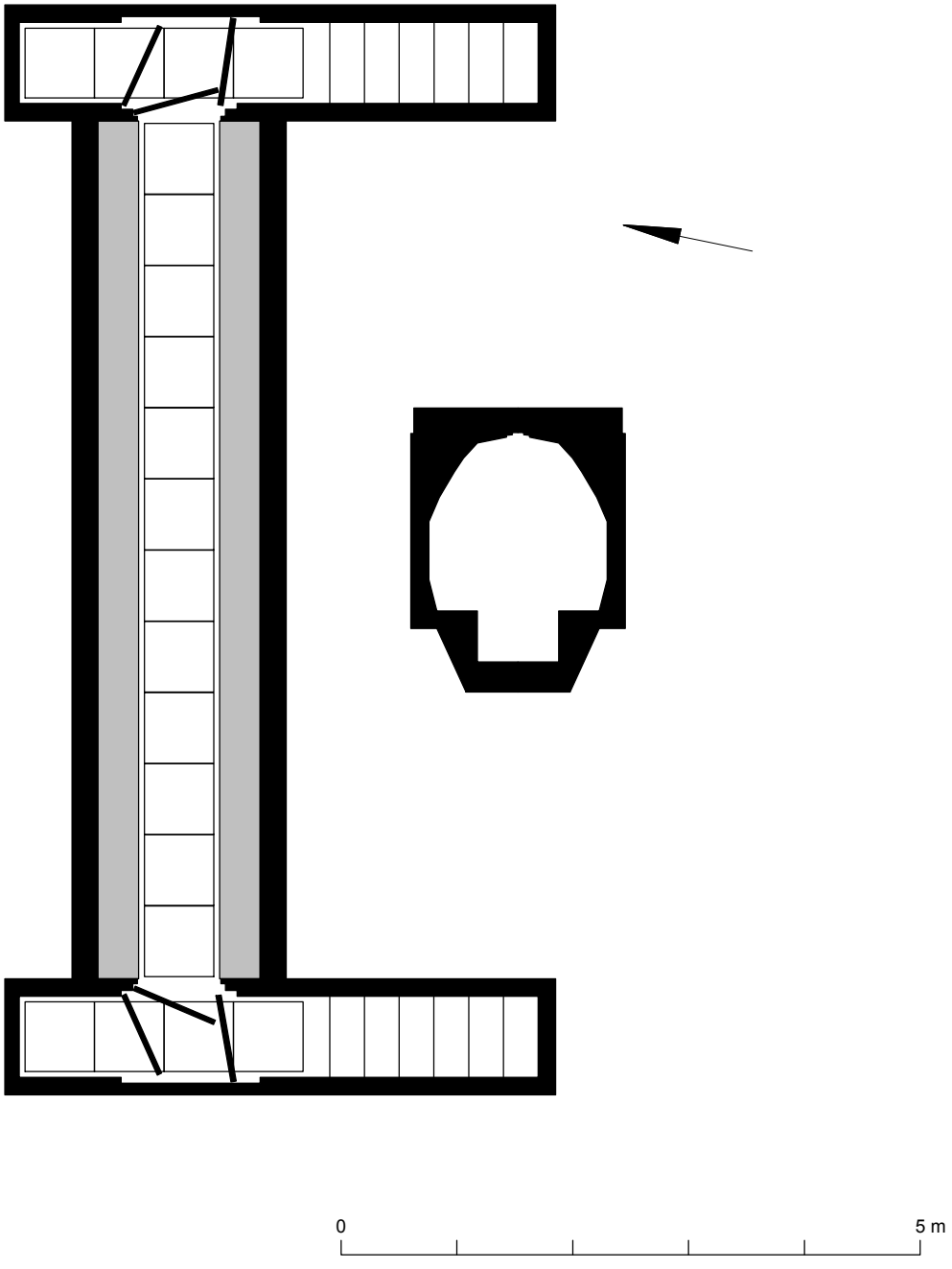


Fig 15 Development Area 8: air-raid shelter WBF102 - plan and cross-section.

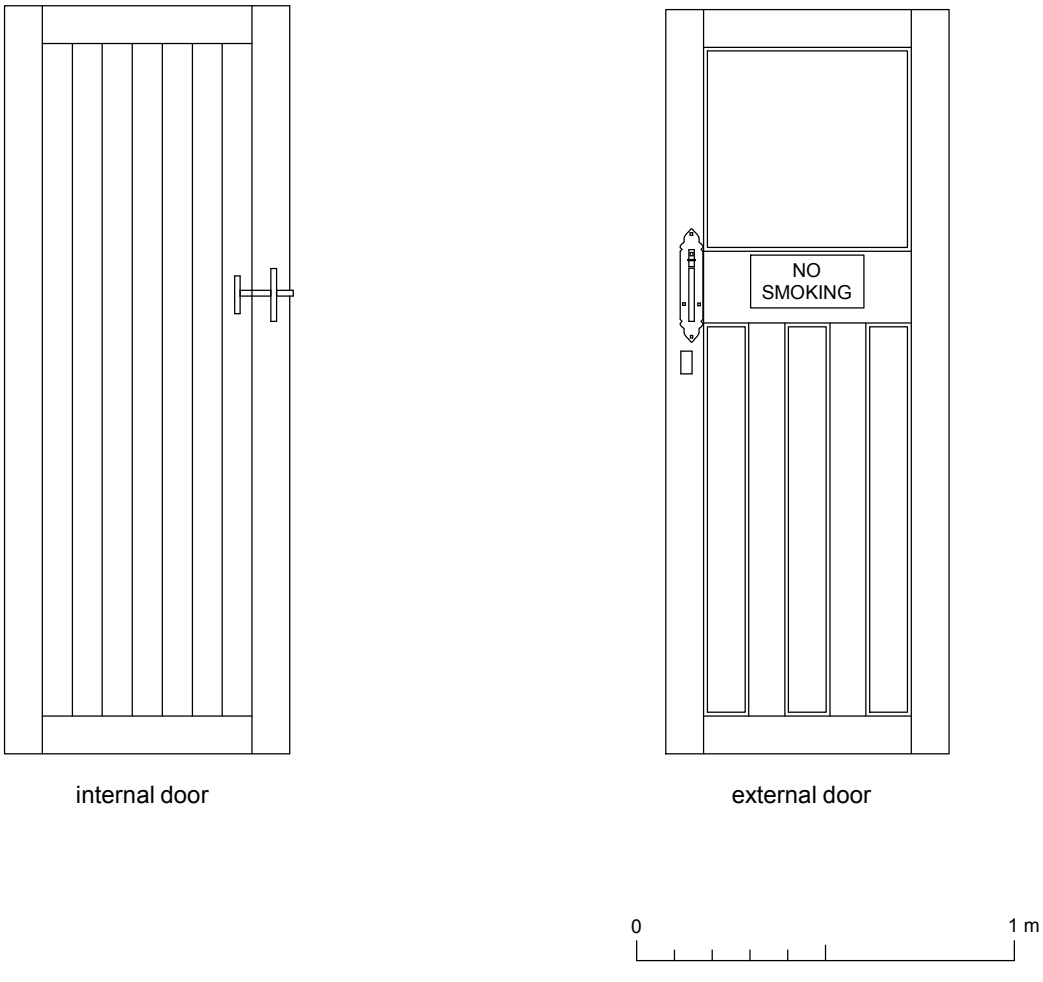


Fig 16 Development Area 8: air-raid shelter WBF102 - detail of doors.

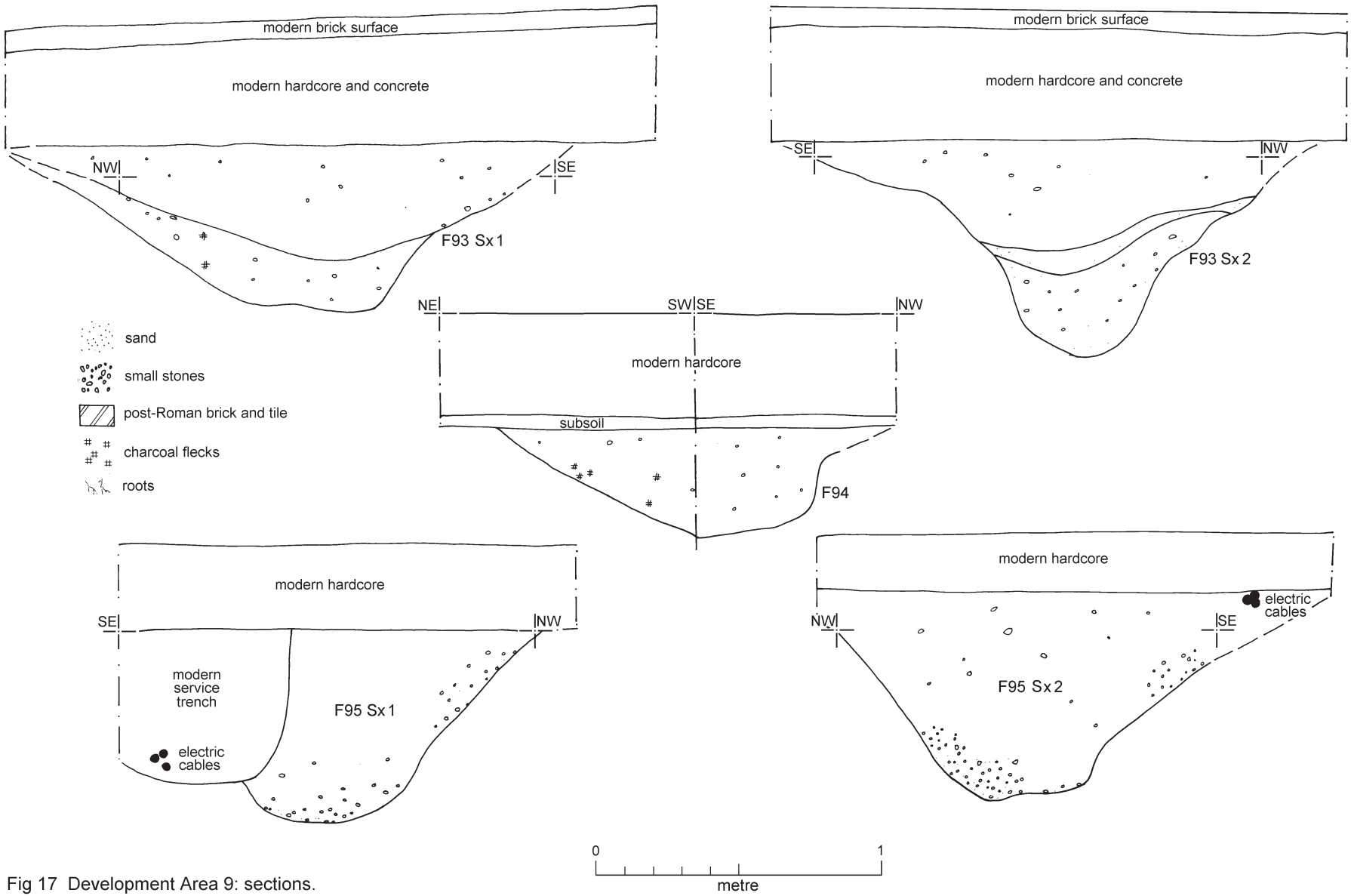


Fig 17 Development Area 9: sections.

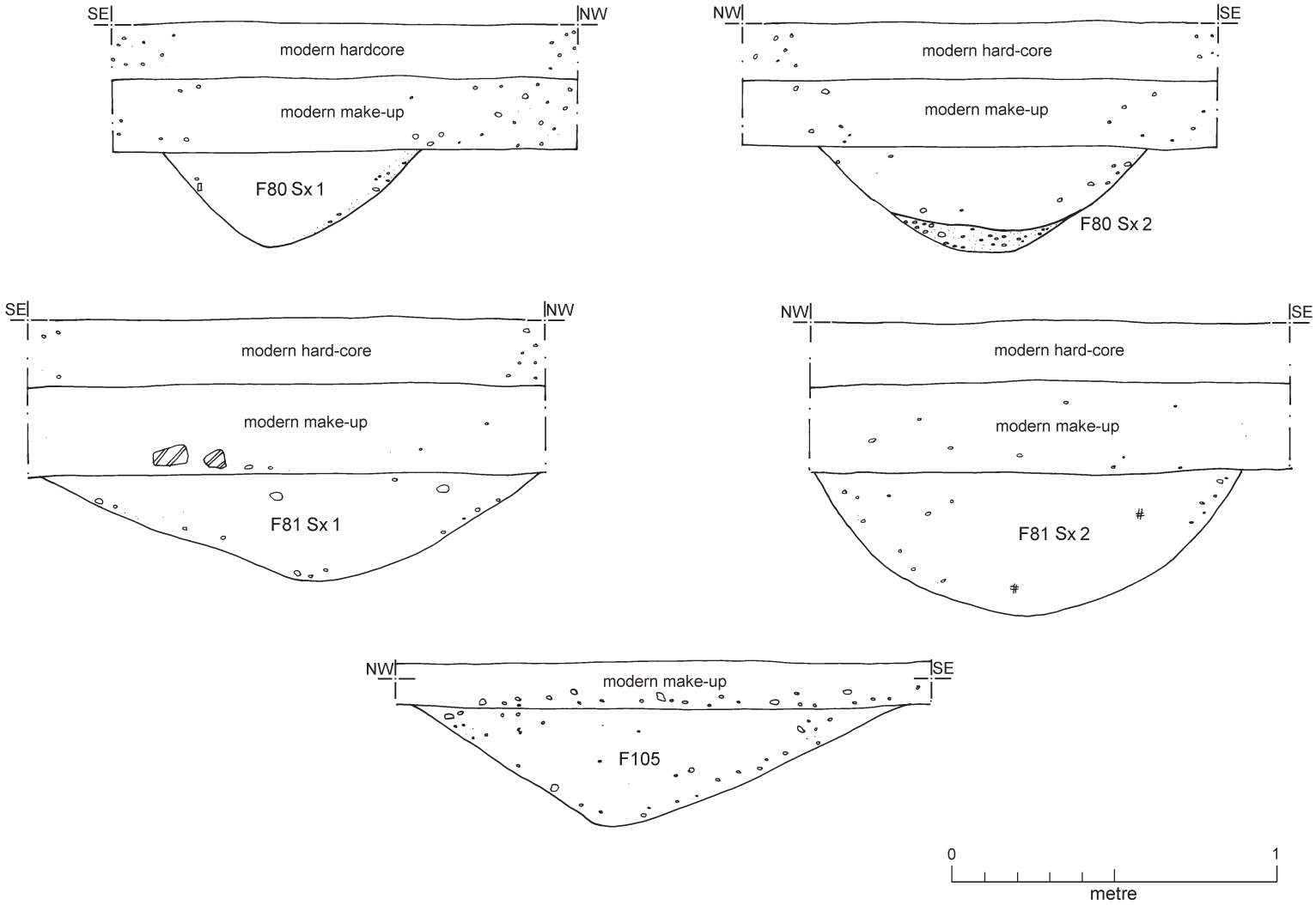
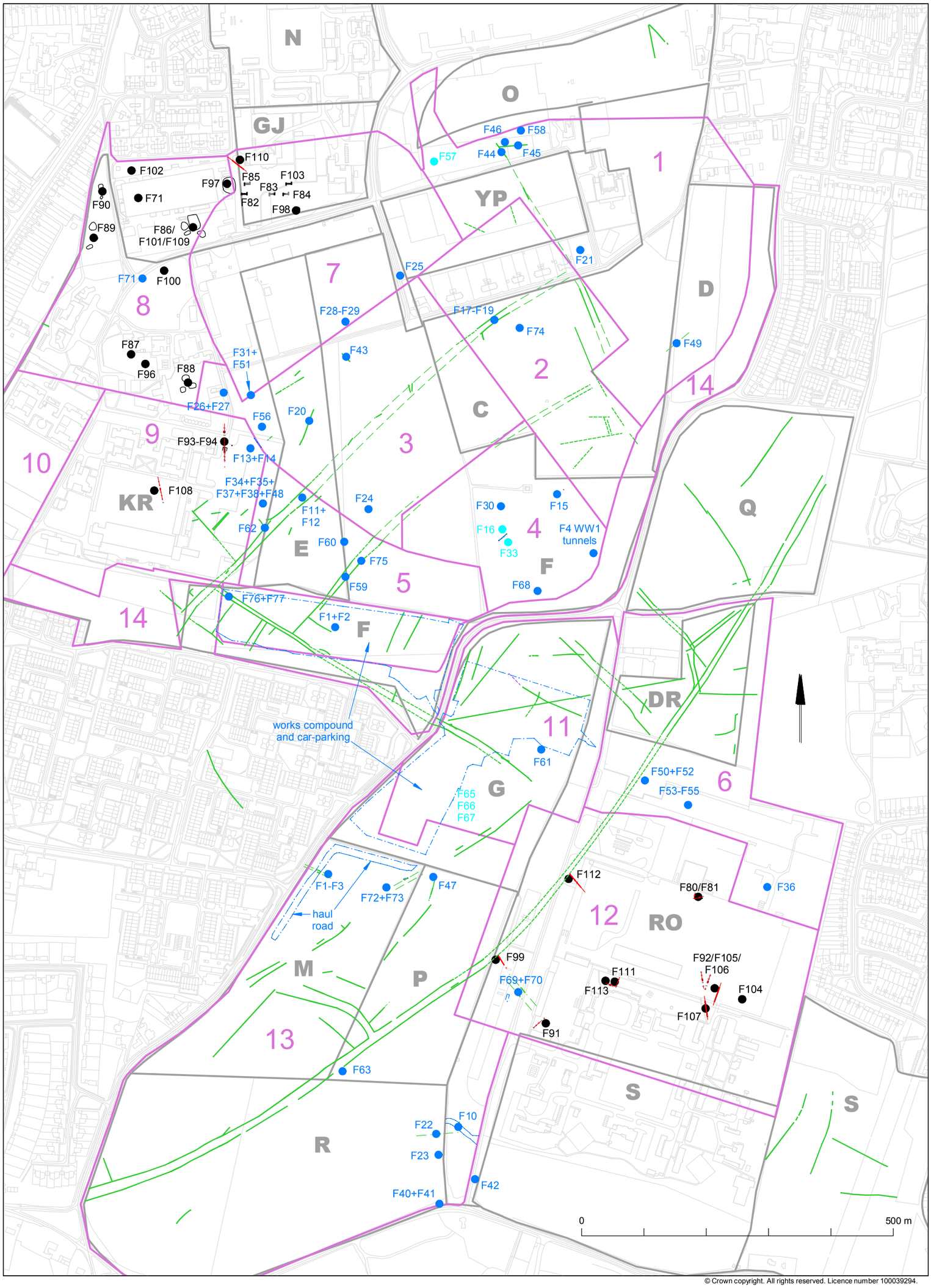


Fig 18 Development Area 12: sections.



new garrison development areas
new garrison soil-strip areas
previously-known ditches
Phase 2 ditches
Phase 1 watching brief feature reference
Phase 1 watching brief area
Phase 2 watching brief feature reference

Fig 19 Results from Phases 1 and 2.

Essex Historic Environment Record/
Essex Archaeology and History

Summary sheet

Site address: Colchester new garrison (Phase 2), Colchester, Essex	
Parish: Colchester	***District:*** Colchester Borough
NGR: TL 9930 2300 (centre)	***Site code:*** Museum accession code 2004.121
Type of work: Watching brief	***Site director/group:*** Colchester Archaeological Trust
Date of work: October 2006-September 2007	***Size of area investigated***: approx 3 km^2
Location of finds/curating museum: Colchester and Ipswich Museums	***Funding source:*** Developer
Further seasons anticipated? No	***Related EHER nos:*** 11631-11638, 11643-11652, 11673-11681
Final report: CAT Report 472 and summary in *EAH*	
Periods represented: Iron Age, Roman, modern	

Summary of fieldwork results:

During 2002-3, large-scale evaluation (over 12km of trial-trenching) and excavation (approximately 3 hectares over three areas) was carried out in advance of the construction of the new garrison at Colchester. These works were designed to identify and record the most significant areas of archaeology within the new garrison development area. The sites included a ditch-enclosed Middle Iron Age site, with the first round-house to be excavated within Colchester; elements of Late Iron Age landscape with settlement-related activity, including a relatively rich burial; and paddocks, trackways, burials and a barn of a Roman farm and associated landscape. Collectively the works comprise the largest single intrusive investigation (covering an area of 101 ha) to have taken place within the oppidum.

A watching brief was held during construction work in 2004-5 in concert with Phase 1 of the new garrison construction programme, which largely affected former farmland and public open space areas between the existing military barracks. The watching brief was intended to provide supplementary information on the archaeological landscape within the oppidum *and to provide a mechanism to identify and record any significant remains that had not previously been identified. Although the watching brief revealed 72 archaeological features and a number of stray finds, no further settlement*

areas were identified. Some of the features identified, principally Roman linear ditches, were parts of field ditches and trackways which were already known as cropmarks or revealed in previous evaluations or excavations, whereas others were important new additions to the previously-known network of fields and trackways within the oppidum *of Camulodunum. Other features included a Roman burial and a number of undated or modern features.*

Phase 2 of construction work on the new garrison commenced in May 2006 and was accompanied by a watching brief during groundworks. This watching brief met the same criteria as Phase 1. Thirty-four archaeological features and a small number of stray finds were identified. As with Phase 1, some of the features identified were Roman linear ditches known from cropmarks or excavation, whereas others are new additions to our knowledge of the oppidum *of Camulodunum and later landscapes. Six World War II air-raid shelters were identified and fully recorded, as well as a number of undated and modern features. The overall results of the Phase 1 and Phase 2 watching brief have confirmed the archaeological potential of the remains that were discovered during the project evaluation and excavations.*

The low number of archaeological features recorded during the two phases of the watching brief (totalling 31 months of monitoring) does not necessarily indicate a low level of human activity in the areas monitored. Contributing factors could be poor ground conditions, machining techniques, and insufficient depth of ground-reduction. Trench sheeting and other safety measures, such as battering and stepping back, meant that it was often impossible to follow the orientation of features beyond the edges of the excavations.

Previous summaries/reports: CAT/RPS Report 357	
Keywords: burial, ditch, *oppidum*, air-raid shelter	***Significance:*** *
Author of summary: Chris Lister	***Date of summary:*** September 2008