



An archaeological excavation on the  
For **Gloucestershire** Simon Atkinson of Entec UK Ltd. on behalf of  
**Jeremy Moore Associates** COUNCIL

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Archaeology Service  
Environment Directorate

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## Site details

Site address: Gloucester Business Park, Brockworth, Gloucestershire.  
OS NGR: 387500 216400  
Site type: Excavation  
Client: Jeremy Moore Associates  
GSMR No: 28394  
Date of fieldwork: 11<sup>th</sup> July – 18<sup>th</sup> August 2006  
Recipient museum: Gloucester City Museum and Art Gallery  
Accession No: GLRCM2006.18  
Archived finds: Yes  
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## Summary

Gloucestershire County Council Archaeology Service was commissioned by Simon Atkinson of ENTEC UK Ltd. on behalf of Jeremy Moore Associates to carry out an archaeological excavation on a part of the old Brockworth airfield currently being redeveloped for housing. The archaeological work was carried out as a result of previous geophysical and trenching investigations which identified a possible Roman farmstead site. The main area of the farmstead will be preserved beneath a playing field, while this excavation took place in order to examine the periphery of the farmstead, which may be damaged due to drainage works.

The farmstead was founded in the 2<sup>nd</sup> – 3<sup>rd</sup> centuries probably as a primarily a stock-rearing farm. The excavation produced mainly ovine and bovine bone and no evidence of cereals. The farm buildings were not investigated, but an earlier evaluation had produced evidence of foundation trenches, beam slots, pits and postholes. Finds of unstratified ceramic box flue tiles, roof tiles and stone roof tiles indicate a farm of some importance. The excavation examined the south-western boundary of the farmyard, its internal subdivisions and an external inhumation burial. It fits within an area of dense Roman agricultural activity with two villas and two to three other farmsteads in the immediate area, perhaps focused on Ermine Street. There is little evidence of when this farmstead fell out of use. It is possible that features dated by pottery to the late Roman period may be sub-Roman in date. The Roman agricultural system may have continued through the Anglo-Saxon period until a major reorganisation, possibly as late as the 13<sup>th</sup>-14<sup>th</sup> century, when the old fields were swept away and open-field, predominately arable agriculture was imposed, possibly as a result of rising population pressures. One Roman ditch within the excavation area continued in use until the medieval period. The communal open field system had mostly fallen victim to piecemeal enclosure by the early 19<sup>th</sup> century.

## 1 Introduction

Gloucestershire County Council Archaeology Service was commissioned by Simon Atkinson of ENTEC UK Ltd. on behalf of Jeremy Moore Associates to carry out an archaeological excavation prior to the construction of housing and a playing field to the west and south of the Gloucester Business Park, Brockworth, Gloucestershire (OS NGR 387500 216400), in an area identified as the site of a Roman farmstead during an earlier evaluation of the area (Jones 2001). Planning permission has been granted by Tewkesbury Borough Council (Application 01/10875/1124/OUT) for the development, subject the condition that, 'No development shall start until there has been secured and implemented a programme of archaeological work in accordance with a written scheme of investigation which has been submitted to and approved by the Local Planning Authority.' in order to facilitate the preservation or recording of the archaeology within the site.

## 2 Site location (Figure 1)

The development area was located 5km southeast of Gloucester city centre, just below the Cotswold escarpment and adjacent to the M5 motorway and is centred on OS NGR 387500, 216400. Geologically, the site lies on Lower Lias Clay (Entec 2006). The development area lies directly to the north of the boundaries of the Cotswold Hills Environmentally Sensitive Area and the Cotswolds Area of Outstanding Natural Beauty, but does not comprise part of either area.

## 3 Cartographic background

Cartographic sources curated by the Gloucestershire County Council Archaeology Service (GCCAS) were examined.

### **3.1 Brockworth tithe map 1841**

The present excavation area appears to have been a series of enclosures, Upper Parsons Ground, Parsons Ground, The Bar and Horsiter. The shape of the field boundaries suggest that there was a track between The Bar and Parsons Ground. The enclosures may have been the result of the piecemeal enclosure of an earlier open-field system.

### **3.2 1<sup>st</sup> Edition Ordnance Survey 1884 (1:2500)**

The pattern of field boundaries is identical to that in the tithe map (3.1 above), however the possible track between The Bar and Parsons Ground is definite on this map

### **3.3 Ordnance Survey 1902-3 (1:2500)**

The pattern of field boundaries is identical to that in the 1<sup>st</sup> Edition Ordnance Survey map (3.2 above).

### **3.4 Ordnance Survey 1923 (1:2500)**

The pattern of field boundaries is identical to that in the Ordnance Survey 1902-3 map (3.3 above). An Airfield is present to the east of the present excavation area.

### **3.5 Ordnance Survey 1936 (1:2500)**

The pattern of field boundaries is identical to that in the Ordnance Survey 1923 map (3.4 above).

### **3.6 Ordnance Survey 1955 (10k)**

On this map the present excavation area is now part of the Airfield. No other features are recorded.

## **4 Previous archaeological work in the development area (GSMR 20733)**

### **4.1 Desk-Based Assessment (Entec 2000)**

This assessment covered the whole of the development area, which extends almost a kilometre to the southwest of the excavation area covering a total of 58 hectares. Three features were identified within the development area; the field name 'Great Park' at the eastern end of the area (GSMR 7478), perhaps implying the presence of an enclosed medieval deer park; a rifle range target butt, of presumed WW2 date, also in the eastern portion of the site; and a spread of stone and brick rubble with slag, on the site of a small building shown on the 1<sup>st</sup> Edition Ordnance Survey map. A study of the aerial photographs (1946-1955) showed ridge and furrow visible over much of the southern and eastern parts of the area.

### **4.2 Magnetic Gradiometry Survey (ArchaeoPhysica 2001)**

The post-medieval field system was identified, as was the earlier pattern of ridge and furrow upon which it was based. Of particular interest was a complex series of anomalies at the western edge of the area, interpreted as possibly a small Roman villa-type complex. This area was the subject of the present excavation. Also present were 2-4 possible prehistoric ring ditches.

### **4.3 Geophysical Survey (Noel 2001)**

This covered an area immediately to the south of the present excavation area. It identified the ridge and furrow, together with later spreads of rubble and several weak signals possibly representing ditches and pits.

### **4.4 Archaeogeophysical Survey (Bartlett 2001)**

This covered an area to the east of the excavation area and revealed nothing conclusive.

#### **4.5 Evaluation (Jones 2001)**

92 trenches were excavated over the whole development area, 15 within the area identified in the Magnetic Gradiometry Survey (4.2 above). The area of the supposed small villa was identified as a possible Roman farmstead dating from the 2<sup>nd</sup> - 4<sup>th</sup> centuries. Several phases of rectilinear enclosures containing foundation trenches, beam slots, pits and postholes were identified. The finds suggest that the buildings would have had tiled roofs and some may have been built wholly or partly of stone. The settlement may have been surrounded by a boundary ditch, although only the south side of this was found. Relevant details of this evaluation have been integrated into the results of the present excavation below.

### **5 Aims and objectives**

The general aims of the excavation were to:

- i) Recover a plan of the extent and structure of features and deposits of archaeological interest;
- ii) Recover potential dating evidence for features which are likely to be disturbed during the development;
- iii) Place the recorded features within their local and regional context.

### **6 Methodology**

The methodology is outlined in detail in the Written Scheme of Investigation (Entec 2006). The archaeological work was carried out in accordance with the 'Standards and Guidance for Archaeological Field Excavations' and 'Standards and Guidance for the Collection, Documentation, Conservation and Research of Archaeological Materials' produced by the Institute of Field Archaeologists (IFA 2001a and IFA 2001b). This report has been produced within the framework of The Management of Archaeological Projects (MAP2) (EH 1991), and in accordance with the requirements of the standard brief produced by the Senior Archaeological Officer of Gloucestershire County Council. Due to the small size of the excavation the assessment phase was dispensed with. The Archaeology Service is an Institute of Field Archaeologists, Registered Archaeological Organisation (IFA RAO 42).

Topsoil stripping was carried out using a 14-ton 360° tracked excavator, fitted with a smooth bladed ditching bucket, under archaeological supervision.

All archaeological features and deposits were cleaned, excavated and recorded in accordance with IFA and GCCAS standards and practises.

Black and white prints, colour transparencies (on 35mm film) and digital images were taken of all features.

Site and groundwork location plans indicating north and based on the Ordnance Survey 1:2500 map were prepared.

Due to the limited nature of the excavation, the post-excavation assessment report (phase 3 in MAP (English Heritage 1991)) was dispensed with and the project went straight to the analysis phase (Phase 4 in MAP (English Heritage 1991)). Specialists were commissioned to prepare reports on the different finds, the environmental sample and the burial.

The site archive will be temporarily stored at Shire Hall, Gloucester under a unique site code, GSMR 28394, issued by the Gloucestershire County Council Archaeology Service. It will eventually be deposited at Gloucester City Museum and Art Gallery under a unique accession number, GLRCM2006.18.

## 7 Results (Fig. 2)

The results of the excavation are outlined below, with the deposits discussed in stratigraphic order starting with the earliest. Cut numbers are shown in square brackets [] and other context numbers are shown in rounded brackets (). Tabulated context descriptions can be found in Appendix 1. The natural subsoil was yellow clay with occasional patches of sandier material. This was thought to be the underlying Lias Clay.

### 7.1 Phase 1 Prehistoric

Although no prehistoric features were encountered, three fragments of worked flint were recovered. Two were recovered during machining, from either the topsoil (7) or subsoil (8) and one from the fill of the first phase of the Holloway (26). They were all waste flakes with some abrasion, suggesting that they had all been in the ploughsoil for some time.

### 7.2 Phase 2 Roman (Fig. 3)

This phase covers at least 200 years of Roman occupation and possibly runs into the sub-Roman period. There are many sub-phases of activity within phase 2, but these can not be described chronologically as the ceramic assemblage (upon which most dating is based) cannot be dated more accurately (Appendix 2). The site exhibited evidence of considerable horizontal truncation, especially to the southeast.

#### 7.2.1 Major boundary ditch

A major linear feature was aligned northwest to southeast where it peters out, suggesting some post-Roman truncation in the eastern part of the site. Its earliest surviving phase was ditch [124/133], c.0.4m wide with steep sides and a flattish base. Its fill, (125/134), was an orangey brown silty clay with occasional gravel with no finds. It was cut by ditches [109/126] and [111/139]. At the northwestern end, this ditch had been recut as [80/95], 1.62m wide and 0.61m deep, filled by (81/96), a mid greyish brown silty clay with occasional gravel and charcoal flecks, dated by pottery to the 2<sup>nd</sup> to 4<sup>th</sup> centuries. This is the same feature as appears in Trench 17 of the evaluation as features [F1700] and [F1701] (Jones 2001) It appears to continue in use through the Saxon period and into the medieval (see 7.3.1 below). This ditch was cut by pit [98]. Recut [128] cuts through ditch [109/126] and was 2.1m wide and 0.3m deep. It was filled with a dark greyish brown silty clay with limestone fragments dated by 6 sherds of Roman pottery to the 3<sup>rd</sup> century or later. It could conceivably be dated to the sub-Roman or later period.

#### 7.2.2 Internal boundary ditches

Ditch [109/126] was c.0.6m wide and c.0.24m deep, aligned northeast to southwest. It terminated where it hit the major boundary ditch described above, cutting its first phase ([124/133]), but being cut by its subsequent phase [128]. Its fill, (110/127) was a mid brownish orange silty clay with rare gravel and one sherd of pottery dated to the 2<sup>nd</sup> – 4<sup>th</sup> century.

Ditch [111/139] was parallel to [109/126] and situated 7m to its northwest. It was 1.04m wide, 0.42m deep and was filled by contexts (112) and (113/140). The earliest fill was (112), a pale yellowish brown clay with occasional charcoal, dated by two sherds of pottery to the 2<sup>nd</sup> – 4<sup>th</sup> century. Above it was fill (113/140), a dark brown silty clay with occasional charcoal limestone fragments. It was dated by 24 sherds of pottery to the 3<sup>rd</sup> century or later. It was found to be cutting the first phase of the major boundary ditch ([124/133]) and perhaps extending a little further beyond it. It was cut by a later furrow [116], and cuts an earlier irregular feature, [114], which may have been an earlier, highly eroded ditch on the same alignment. This may be the same ditch as that identified in the evaluation, in two trenches, as [F1202/F1108]. Feature [114] was very irregular, 3m wide and 0.35m deep, situated adjacent to ditch [111], respecting both the major boundary ditch and the line of ditch [111]. Its fill,

(115), was a pale brown clay containing small fragments of limestone and dated by 15 sherds of pottery to the 4<sup>th</sup> century.

### 7.2.3 Burial (Fig.7)

Inhumation (83) was found within cut [82], a sub-rectangular pit 1.89m long, 0.63m wide and 0.25m deep, aligned northeast to southwest. Its backfill (84) was a mid to pale orangey brown silty clay with rare stones and occasional charcoal flecks, dated by 8 sherds of pottery to the 3<sup>rd</sup> century or later. The body (83) lay on its front in an extended position with its head to the north and its feet to the south. There were no grave goods present. Osteological analysis revealed that the body was probably male, aged 20-25 years. There was evidence of slight inflammation to the shins and muscular trauma on the right arm, indicative of activity-related strain (see Appendix 6). A sample was taken from around the body for environmental analysis. As well as 22g of human bone, probably from the body, the deposit contained a low level of organic matter, which included occasional seeds of buttercup (*Ranunculus acris/repens/bulbosus*) and unidentifiable fine herbaceous material. Little interpretation could be made of the organic material except that it is likely to have been introduced into the burial, from damp grassy surroundings in the vicinity, when it was cut into surrounding deposits. Calcareous soil conditions (prevalent on this site) normally provide good conditions for bone survival, but the poor preservation seen in this case may have resulted from seasonal wetting and drying of clays (Appendix 8).

### 7.2.4 Other features

A curvilinear gully, [78], was recorded at the northern edge of the site. Only 1.96m of its length and its terminus was visible. It was 0.64m wide and 0.15m deep. Its fill (79) was a greyish brown silty clay with rare gravel, dated by 12 sherds of pottery to the 4<sup>th</sup> century or later.

Pit [85] was oval, 1.44m long, 1.37m wide and 0.2m deep. Its fill (86) was a greyish brown silty clay with rare gravel. It was dated by eight sherds of pottery to the 2<sup>nd</sup> – 4<sup>th</sup> century.

Feature [89] was an oval pit, 1.3m long, 1.23m wide and 0.55m deep. Its fill (90) was a dark greyish brown silty clay containing some large fragments of limestone. It was dated by 13 sherds of pottery to the 3<sup>rd</sup> century or later.

Pit [91] was oval, 1.1m long, 0.7m wide and 0.22m deep. Its fill (92) was a greyish brown silty clay with rare gravel and was dated by one sherd of pottery to the 3<sup>rd</sup> to 4<sup>th</sup> century.

Cutting ditch [95] was pit [98], an oval feature 2m long, 0.95m wide and 0.29m deep. Its fill (99) was a mid greyish brown silty clay with occasional gravel and charcoal. It was dated by pottery to the 4<sup>th</sup> century or later.

Pit [122] was oval, 1.8m long, 1.05m wide and 0.18m deep. Its fill was (123) was a mottled orange/grey silty clay with rare gravel, dated by one sherd of pottery to the 3<sup>rd</sup> century or later.

## 7.3 Phase 3i Medieval (410-1400AD) (Fig. 4)

### 7.3.1 Major boundary ditch

The major boundary ditch described at 7.2.1 above, appears to have lasted as a boundary into the medieval period. Its latest fills were (136), a mid yellowish brown clay with occasional gravel and probably Saxon pottery and (94), a mid orangey greyish brown silty clay with occasional limestone fragments and pottery dated to the 12<sup>th</sup>-14<sup>th</sup> centuries.

### 7.3.2 Other features

Pit [76] was oval in shape, 2.08m long, 1.10m wide and 0.37m deep filled with (77) a dark greyish brown silty clay with occasional gravel. It was dated by two sherds of medieval pottery and also contained one residual Roman sherd. This feature cannot be dated by the



pottery any closer than Phase 3, but it is thought to be unlikely to have been dug in the middle of the open field, but as it is close to the phase 3i field boundary, it has been assigned to this Phase.

## **7.4 Phase 3ii Medieval (1100-1530AD) (Fig. 5)**

### **7.4.1 The holloway**

This is a large linear feature, aligned northwest to southeast and shown on all the pre-WW2 mapping as a track. The complex is over 8m wide and up to 0.76m deep. Its earliest phase is cut [25], dated by pottery to the medieval period, but also containing a small amount of residual Roman material. It was over 3m wide and 0.7m deep and on a similar alignment to the furrows, but is cut by one of them (furrow [43]) and by the 2<sup>nd</sup> phase of the holloway [27]. Its fill (26) was an orangey brown silty clay with rare stone. Holloway [27] was 4.3m wide and 0.76m deep, with a fill (28) which was a mid greyish brown silty clay with rocks at the base. The base appeared to have several ruts. The rocks may have been attempts to pave boggy patches. The datable material in (28) was Roman pottery, but stratigraphically it must date somewhere between the medieval period and the 20<sup>th</sup> century.

### **7.4.2 Agricultural features**

During the excavation, 33 furrows were recorded, aligned northwest to southeast, parallel with the earlier Roman boundary.

The subsoil layer and the 33 furrows present can be dated to the medieval period because they are the result of a system of agriculture called 'openfield'. Each furrow represents the boundary between two 'strips'. Each peasant in a community would be allocated a number of such strips distributed over 2-5 large open fields within the parish. The strips would be further collected into furlongs, which were planted and harvested and grazed communally.

Subsoil (8) was c.0.30m deep and was a pale orangey brown clay without many inclusions. The 33 furrows aligned northwest to southeast. All are wide and shallow and with fills very similar to subsoil (8). There was no evidence of furlongs or headlands. The only dated furrows were [102] (12<sup>th</sup>-15<sup>th</sup> century) and [116] (late medieval).

## **7.5 Phase 4 Post-medieval (1530-present) (Fig. 6)**

Five features could be dated to this phase, the last phase of the holloway [29], pit [19] and ditches [9], [11], [50] and [66].

### **7.5.1 The holloway**

Holloway [29] was the final phase of at least three successive phases of the holloway. [29] was 5.25m wide and 0.44m deep, aligned northwest to southeast. This was likely to be the trackway shown on the 1<sup>st</sup> Edition Ordnance Survey Map (1884). Its fill (30) was a dark brown silty clay with occasional modern ceramic building materials and land drain fragments.

### **7.5.2 Agricultural features**

Ditches [11] and [50] were very shallow, but both had very dark fills, containing residual Roman pottery. It is probable that they both represent the same field boundary feature, which would have split the field, shown on the 1841 Brockworth Tithe Map as Parsons Ground, into two parts. It cuts the furrows at a perpendicular angle, so post dates the openfield, and is not shown on any of the historic mapping, suggesting that either it fell out of use earlier than 1841 or was later but very short lived. Associated with this field boundary is ditch [9], again shallow and dark in colour. This appears to respect ditch [11]. In that it terminates just to the northwest of it, leaving space either for a small field gate or a bank/hedgerow.

Ditch [66] was shallow, but its fill was very dark in colour, containing pottery dated to the 19<sup>th</sup> century or later. It was a field boundary shown on the 1841 Brockworth Tithe Map, separating Upper Parsons Ground to the south, from Parsons Ground to the north.

### 7.5.3 Other features

Pit [19] was a large oval shaped pit, 14m long, 2.45m wide and 1.2m deep, aligned parallel to the furrows (northwest to southeast). It had a flat base and vertical sides. Its earliest fill (20) was a waterlogged pale grey silty grey with frequent organic remains. Fill (21) was a mid grey clay which was wet and contained occasional organic matter. Context (22) was a pale greyish brown silty clay with occasional fragments of limestone. It was dated by pottery as 18<sup>th</sup> century or later. (23) was the penultimate layer and was a mid greyish brown silty grey with occasional gravel. The latest layer (24) was a dark brown silty clay with frequent gravel.

This feature does not appear on any of the historic mapping and its purpose is unknown.

## 8 Discussion

It appears that a significant amount of horizontal truncation has taken place over the whole area of the excavation, especially the south-eastern part. This is probably the result of two factors, firstly the imposition of open-field agriculture with its ridge and furrow earthworks and secondly the levelling of the excavation area and its surroundings in the 20<sup>th</sup> century for the airfield. This has had a significant impact on the archaeological remains, especially the Roman features. The major boundary ditch, which probably represented the southwestern boundary of the farmyard has been heavily truncated and the presumed southeastern boundary has probably been totally destroyed. The single inhumation found was perhaps part of a small cemetery, any accompanying burials also having being truncated away.

### 8.1 Phase 1 (prehistoric)

Although the prehistoric period left no features on site, the discovery of three residual fragments of worked flint fits in with the pattern of prehistoric remains in the area. A scatter of Bronze Age flints were found in 1933 during excavations at Hucclecote Roman villa (GSMR 468) and five worked flint fragments were found 600m southwest of the present excavation area (GSMR 9755). Locally, no features earlier than the Bronze Age have been found and Bronze Age features have only been found at Hucclecote Roman Villa, consisting of a semi-circular ditch. At a 1998 excavation 1.2km northeast of the present excavation area (GSMR 20087), Bronze Age cremation burials were discovered. It is possible that settled prehistoric settlement in this area only began in the Bronze Age, at a very low density. Iron Age settlement has been found at GSMR 20087, consisting of several roundhouses, and at Brotheridge Camp (GSMR 420), a large Iron Age hill fort, 2.6km southeast of the excavation area, on the edge of the Cotswold escarpment.

### 8.2 Roman

Previous archaeological work on the site, including a desk based assessment (Entec 2000) and geophysical survey (ArchaeoPhysica Ltd 2001, Bartlett 2001 & Noel 2001) suggested the remains of a well-defined Roman settlement, marked by rectangular anomalies. The evaluation (Jones 2001) confirmed the existence of the settlement, dating from the 2<sup>nd</sup> to 4<sup>th</sup> centuries with well-defined boundaries. Several phases of enclosures containing foundation trenches, beam slots, pits, postholes and gullies were found, as well as roofing tiles and limestone masonry, suggesting a certain amount of stone building.

### 8.2.1 Farmstead remains

The present excavation stripped an area around the southwestern, southeastern and northeastern edges of this settlement, but only identified Roman remains along its southwestern edge. A south-western boundary ditch was identified, as well as pits, a curvilinear gully and two boundary ditches in its interior. Outside this boundary ditch there was only one Roman feature: an inhumation burial. Boundary ditches are commonly found around farms/small villas, for example at Barton Court Farm, Oxfordshire (Bedoyere 1993) and at Frocester Court Villa 16km southwest (Gracie & Price 1979). These are not defensive structures, but merely boundaries, separating the farmyard/garden from the agricultural land beyond. At both Frocester and Barton Court the interior of these enclosures have a large number of pits, ditches and buildings of different phases, but outside there were virtually no features.

Although some residual 2<sup>nd</sup> century material was found, only one feature was found to be dated to earlier than the 4<sup>th</sup> century. This was the northwestern portion of the south-western boundary ditch. This ditch has elements which continued in use into the Anglo-Saxon period and possibly into the medieval period.

The first phase of the south-western boundary ditch (recorded as [124], [133] and (104)) was traceable from its northwestern end until it met ditch [109/126], as a deep, narrow, relatively uneroded cut with no datable material. The lack of cultural material from its fill suggests that it may date to the earliest phase of Roman occupation. It was cut by the two internal ditches, [126] (2<sup>nd</sup>-4<sup>th</sup> century) and [139] (4<sup>th</sup> century or later), before being recut as [80] (2<sup>nd</sup>-3<sup>rd</sup> century), [95] (2<sup>nd</sup>-4<sup>th</sup> century), [135] (Saxon) and [128] (3<sup>rd</sup> century or later). Note that the small size of the recovered ceramic assemblage affects the accuracy of the dating (Appendix 2). The outer edge of this recut is much steeper than its inner edge, suggesting that any bank would have been on the outside. This would mean that it was dug to keep livestock in, not out. Exact dating is difficult, but its later phases appear to be late Roman, if not sub-Roman in date. To the southeast of its junction with ditch [109], it is firmly dated as medieval. This may suggest that it continued in use as a boundary feature until the 12<sup>th</sup>-14<sup>th</sup> century when the open field system was imposed and it was backfilled. The feature could date the origins of the open field system in this area. The latest finds in the ditch were pottery sherds dated to the 12<sup>th</sup>-14<sup>th</sup> century, while the earliest material found in any of the furrows was pottery dated to the 12<sup>th</sup>-15<sup>th</sup> century. Therefore the origins of the openfield may be dated to the 12<sup>th</sup>-15<sup>th</sup> century. Within this 400 year period, it is most likely to date to the 12<sup>th</sup>-13<sup>th</sup> century when population levels were reaching their maximum and arable production had to be maximised (Williamson 2003).

The two internal ditches, [109] and [111/139], were dated by pottery to the 2<sup>nd</sup>-4<sup>th</sup> century. Ditch [111/139] was found to be cutting eroded ditch (?) [114], dated to the 4<sup>th</sup> century, suggesting a very late Roman or even post Roman date for ditch [111/139].

### 8.2.2 The Grave

Inhumation (83) was, like most of the surrounding archaeological features, roughly dated to the late Roman period. It was northeast-southwest aligned, laid on its front in an extended position. North-south orientated burials are common in the Roman period in Gloucestershire, for example at Parliament Street, Gloucester (early Roman) (Holbrook et al 2002), at the Gloucester Business Park excavation at Hucclecote (1<sup>st</sup>-4<sup>th</sup> century) (Thomas et al 2003) and at the Frocester Villa (5<sup>th</sup> century) (Gracie & Price 1979). The location of the grave outside the farmyard boundary is also typical as burial within Roman settlement is rare. Individuals in this period were often buried in cemeteries or small groups, so it is possible that this individual was not originally on his own, and accompanying burials have been disturbed by later activity. Osteological analysis found that the body was that of a young adult male with

evidence of hard physical labour. The environmental sample taken from the grave was not very informative, only revealing the presence of buttercups in the surrounding environment.

### 8.2.3 The Roman Landscape (Fig. 8)

The farmstead remains examined in this excavation fit into a dense area of Roman agricultural activity.

Two villas are known in the immediate area:

1.1km north of the current excavation area lies Hucclecote Roman villa (GSMR 468, SM 188). This has been excavated in 1911 by Canon Baxeley and in 1933 by Clifford and Knowles. Of corridor plan, it measured c30m north-south by 15m east-west, with a corridor on the east side, additional rooms at the ends and wings and bath buildings projecting to the west. The centre block was thought to have been built c. AD150, and occupation may have been continuous until some time in the 5<sup>th</sup> century. A coin of Theodosius found beneath one of the mosaic pavements in the villa, proved it to have been laid after AD395. Excavations in 1958 to the south of the villa, prior to the building of a school, revealed stone footings, probably for half-timbered outbuildings belonging to the early life of the villa.

Great Witcombe Roman villa (GSMR 423, SM 28521) lies 3.3km southeast of the present excavation area. It was a large courtyard type where all the rooms were probably plastered and most windows glazed. The first room discovered had walls remaining to a height of 6 foot (1.8m), with 2-foot (0.6m) thick painted stucco *in situ*. Further excavations revealed a large bath block, with hypocausts, figured mosaics and fragments of white marble cornice. A low-lying room with its own water supply may have been a *Mithraeum*. The first phase of the main structure dates from c. AD250 and occupation is thought to have continued into the fifth century. A penannular bronze brooch may attest activity in the fifth century. On current evidence, mosaic specialists would prefer not to push the dates of any of the mosaics at Great Witcombe later than AD c.200.

It is possible that the farmstead within the current excavation was a sub-farm of one of these villa estates.

Smaller farmsteads and-or hamlets have also been discovered in the immediate locality:

The site of a Romano-British settlement (GSMR 4806) was found 1.2km southwest in 1969 during construction of the M5 motorway. The spread of occupation material consisted mainly of Samian and coarse pottery of the 2<sup>nd</sup> to 4<sup>th</sup> centuries. A T-shaped corn-drying oven of 3<sup>rd</sup> century or later type and a level of hard-packed cobblestones, possibly of a floor or courtyard were also recorded. In 1987 an excavation produced results interpreted as representing the boundary ditch of a large field, subdivided into a number of smaller enclosures. An apparently isolated burial dating to the 3<sup>rd</sup>/4<sup>th</sup> century was found at the entrance to the field. The increasing density of finds towards the southeast suggests that the focus of any settlement associated with the field system lay on the south side of the present M5 motorway.

Archaeological investigations took place along the proposed route of the Gloucester Business Park offsite link road (GSMR 20087), 1.2km northeast of the present excavation area, in 1998 by the Cotswold Archaeological Trust. In the 1st century AD a settlement that contained a number of probable mass-walled roundhouses was constructed. It was extensively reorganised in the early 2nd century when a series of ditched enclosures were linked to Ermin Street by a 320m long trackway. A small cemetery of 12 inhumations is noteworthy as it demonstrates that the Late Iron Age tradition of burial by crouched inhumation persisted into the 2nd century AD. The trackway and enclosures appear to have

survived as visible earthworks into the medieval period as their orientation influenced the alignment of medieval field systems.

Further chance finds of Roman material in the area include a tegula fragment found in sewer trench near 4 Kingscroft Road (GSMR 8075), 800m northwest of the current excavation area, and occasional finds including two Roman coarseware sherds, part of a broken quern-stone of conglomerate red sandstone, and one fragment each of a tegula and a red sandstone tile (GSMR 9756), 600m southwest of the excavation area. These finds may suggest the location of further settlements, or may simply be chance finds associated with manuring spreads.

These villas and farmsteads are clustered around Ermin Street (GSMR 7542, Margary 41b and 41c), lying 800m north of the present excavation area, running from Gloucester in the north-west to Silchester in the southeast, originally linking the forts at Kingsholm in Gloucester and Leaholme in Cirencester with the conquered territory in the east. Ermin Street is conventionally thought to have been constructed in the late AD 40s, shortly after the Roman settlement of the region. The present Hucclecote Road runs along the line of Ermin Street. Apart from some slight changes, the basic course of the Roman road between Elmbridge Road and the foot of Birdlip Hill is unlikely to have been different from the present one. The assumed southern ditch and part of the make up of the road have been discovered north of the northern pavement of the present road at two points in Hucclecote.

Figure 8 shows the distribution of Roman sites in the area. It is likely that those labelled 'Finds' are chance finds of pottery from manuring spreads rather than indicating the locations of farmsteads, as otherwise the density of farms may have been too great to be viable. The type of agriculture practised in this area is likely to have been mixed, but predominately livestock based. There was no evidence of arable production from the present excavation, which did though produce animal bone and an environmental sample that produced evidence of grassland weeds, but no evidence of cereals. The farmstead excavated at the Gloucester Business Park Link Road (GSMR 20087) also appears to have been predominately livestock based. The site maintained a breeding stock of cattle and sheep, while there was no evidence of cereal production (Thomas *et al* 2003). One of the farmsteads did produce a corn-drying kiln (GSMR 4806) suggesting that limited arable production did take place in the area.

### **8.3 Phase 3i (medieval)**

It is noticeable that the medieval furrows at Brockworth were on a similar alignment to the Roman ditches. This is a pattern repeated elsewhere in the locality. During excavations along the proposed route of the Gloucester Business Park offsite link road (GSMR 20087), 1.2km northeast of the present excavation area, a medieval agricultural regime in the form of ridge and furrow ploughing was found, respecting the alignment of an early Roman trackway. Excavations at Hucclecote Roman Villa (GSMR 468) in 1993 found a Roman fieldsystem with later medieval plough furrows conforming to it. The site of a Romano-British settlement (GSMR 4806) was found 1.2km southwest in 1969. The medieval ridge and furrow also followed the alignment of the Roman ditches. This suggests that a fieldsystem based on the Roman one is likely to have survived until the openfield system was imposed at some point in the Saxon or medieval periods. It also suggests a continuity of Roman property boundaries through the sub-Roman and early medieval periods. Formerly the collapse of Roman power and the influx of conquering Anglo-Saxons was thought to be cataclysmic, but more recent research is stressing continuity (Sawyer 1978). A large proportion of estates may have remained in tact, just as larger governmental divisions were perpetuated as diocesan and even possibly county boundaries. Indeed even central Roman government rights continue, such as those over salt production and at coastal and inland markets, designated by the Anglo-Saxon place-name component 'wick', a corruption of the latin *vicus*. The close

relationship between Roman towns and early Anglo-Saxon burials and the frequent finds of early Anglo-Saxon settlement on villa sites suggests that estates were transferred in their entirety to new Germanic lords (<http://le.ac.uk/archaeology/research/projects/eastmidsw/pdfs/30nottas.pdf>).

The major south-western boundary ditch has a medieval component dated to the 12<sup>th</sup>-14<sup>th</sup> century. It is possible that this is a result of the Roman fieldsystem continuing in use until this date, suggesting that the open filed system was not imposed until this date, as a result of rising population pressures. As Oliver Rackham (1986) said, 'The high-water-mark of openfield was at about the time of the Black Death...'. Roman, Saxon and early medieval field boundaries may have been obliterated by the later ridge and furrow. The first phase of the Holloway [25] may be an integral part of the layout of the openfield as this too is possibly dated to the medieval period.

#### **8.4 Phase 3ii (medieval)**

The subsoil layer and the 33 furrows present can be dated to the medieval period because they are the result of a system of agriculture called 'openfield', common from Saxon times into the 19<sup>th</sup> century. Each furrow represents the boundary between two 'strips'. Each peasant in a community would be allocated a number of such strips distributed over 2-5 large open fields within the parish. The strips would be further collected into furlongs, which were planted, harvested and grazed communally. The creation of these ridges and furrows often leads to significant horizontal truncation of the underlying archaeological features. The remains of ridge and furrow are very common in this area, with very faint traces of ridge and furrow 1km northeast (GSMR 11107) and a study of aerial photographs (dated 1946-1955) showed ridge and furrow visible over much of the southern and eastern parts of the development area (Entec 2000).

The tithe award map (1841) shows a fieldsystem which was the result of piecemeal enclosure of the openfield, apart from an area to the east of the excavation area known as 'Great Park' (GSMR 7478), which may have been a medieval deer park and so probably never subject to ridge and furrow agriculture.

#### **8.5 Post-medieval**

In the post-medieval period it is likely that the medieval openfield would have been increasingly subject to piecemeal enclosure. A post-medieval copper penny (18<sup>th</sup> – 19<sup>th</sup> century) was found in furrow [58], suggesting that the openfield system was still at least partially in operation at this date. The 1841 tithe award map shows the landscape towards the end of the enclosure process. Ditches [9], [11], [50] and [66] are all part of this process, but apart from a little residual Roman pottery, the only dating evidence was 19<sup>th</sup> century material from ditch [66].

The extension of the Brockworth Aircraft Acceptance Park (1914-18) and airfield (GSMR 21117) in to the excavation area would have resulted in the grubbing out of the field boundaries and probably levelling of any ridge and furrow earthworks. The final phase of the Holloway contained some early 20<sup>th</sup> century material, probably as a result of it being levelled for the airfield. There were no airfield remains visible in the excavation area.

## 9 Conclusions

Although this excavation concentrated on the periphery of a known Roman farmstead, it has revealed details of the farmstead, its surroundings and the subsequent development of the local landscape. The farmstead was probably founded in the 2<sup>nd</sup> – 3<sup>rd</sup> centuries as primarily a stock-rearing farm. The excavation produced mainly ovine and bovine bone and no evidence of cereals. It is likely that this farmstead was subsidiary to a larger estate, perhaps the Hucclecote Villa estate, and specialised in livestock production. The farm buildings were not investigated, but the earlier evaluation (Jones 2001) had produced evidence of foundation trenches, beam slots, pits and postholes. Finds of unstratified ceramic box flue tiles, roof tiles and stone roof tiles indicate a farm of some importance. It fits within an area of dense Roman agricultural activity with two villas and two to three other farmsteads in the immediate area, perhaps focused on Ermine Street. There is little evidence of when these farmsteads fell out of use. It is possible that features dated by pottery to the late Roman period may be sub-Roman in date. The Roman agricultural system may have continued through the Anglo-Saxon period until a major reorganisation, possibly as late as the 13<sup>th</sup>-14<sup>th</sup> century, when the old fields were swept away and open-field, predominately arable agriculture was imposed, possibly as a result of rising population pressures. One Roman ditch within the excavation area possibly continued in use until the medieval period. The communal open field system had mostly fallen victim to piecemeal enclosure by the early 19<sup>th</sup> century.

## 10 Acknowledgements

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## APPENDIX 1: CONTEXT DATA

No.	Type	Description	Date
1	Cut	Linear furrow, 0.85m wide, 0.24m deep	
2	Fill	Pale orangey brown clay	
3	Cut	Linear furrow, 0.83m wide, 0.29m deep	
4	Fill	Pale orangey brown clay	
5	Cut	Linear furrow, 0.96m wide, 0.35m deep	
6	Fill	Pale orangey brown clay	
7	Layer	Topsoil	
8	Layer	Subsoil, pale orangey brown clay	
9	Cut	Ditch, 1.10m wide and 0.17m deep	
10	Fill	Dark bluish grey silty clay with rare charcoal	
11	Cut	Ditch, 0.6m wide, 0.2m deep. Same as [130]	
12	Fill	Dark bluish grey clay with rare gravel. Same as (131)	Roman
13	Cut	Linear furrow, 1.32m wide, 0.26m deep	
14	Fill	Pale orangey brown clay	
15	Cut	Linear furrow, 1.42m wide, 0.34m deep	
16	Fill	Pale orangey brown clay	
17	Cut	Linear furrow 1.10m wide, 0.24m deep	
18	Fill	Pale orangey brown clay	
19	Cut	Oval pit, 14.7m long, 2.4m wide and 1.2m deep. Vertical sides	
20	Fill	Pale-mid grey silty clay with frequent organic remains. Waterlogged	
21	Fill	Mid grey clay with occasional organic remains. Damp	
22	Fill	Pale greyish brown silty clay with rare limestone lumps	18 <sup>th</sup> c.+ +
23	Fill	Mid greyish brown silty clay with rare gravel	
24	Fill	Dark brown silty clay with frequent gravel	
25	Cut	Hollow-way	
26	Fill	Orangey brown silty clay with occasional limestone lumps	Med ?
27	Cut	Hollow-way	
28	Fill	Mid greyish brown silty clay with occasional limestone lumps. Quite humic	3 <sup>rd</sup> c.
29	Cut	Hollow-way	
30	Fill	Dark brown silty clay with occasional gravel, CBM and land drain fragments	Modern
31	Cut	Linear furrow, 0.9m wide, 0.18m deep	
32	Fill	Pale orangey brown clay	
33	Cut	Linear furrow, 0.95m wide, 0.21m deep	
34	Fill	Pale orangey brown clay	
35	Cut	Linear furrow, 1.19m wide, 0.22m deep	
36	Fill	Pale orangey brown clay	
37	Cut	Linear furrow, 0.82m wide, 0.25m deep	
38	Fill	Pale orangey brown clay	
39	Cut	Linear furrow, 1.18m wide, 0.24m deep	
40	Fill	Pale orangey brown clay	
41	Cut	Linear furrow, 1.01m wide, 0.18m deep	
42	Fill	Pale orangey brown clay	
43	Cut	Linear furrow, 1.01m deep, 0.25m deep	
44	Fill	Pale orangey brown clay	
45	Cut	Linear furrow, 1m wide, 0.24m deep	
46	Fill	Pale orangey brown clay	
47	Cut	Pit, same as [19]	
48	Fill	Mid brownish grey clay, occasional limestone lumps	
49	Fill	Mid brownish grey clay, frequent limestone lumps, occasional gravel	
50	Cut	Ditch	
51	Fill	Pale creamy brown clay	3 <sup>rd</sup> -4 <sup>th</sup> c.
52	Cut	Linear furrow, 1.36m wide, 0.33m deep	
53	Fill	Pale orangey brown clay	
54	Cut	Linear furrow, 1.14m wide, 0.19m deep	
55	Fill	Pale orangey brown clay	
56	Cut	Linear furrow, 0.81m wide, 0.2m deep	
57	Fill	Pale orangey brown clay	

No.	Type	Description	Date
58	Cut	Linear furrow, 1.22m wide, 0.26m deep	
59	Fill	Pale orangey brown clay	Post-med
60	Cut	Linear furrow, 0.51m wide, 0.13m deep	
61	Fill	Pale orangey brown clay	
62	Cut	Linear furrow, 0.84m wide, 0.26m deep	
63	Fill	Pale orangey brown clay	
64	Cut	Linear furrow, 0.71m wide, 0.29m deep	
65	Fill	Pale orangey brown clay	
66	Cut	Ditch, 0.64m wide, 0.11m deep	
67	Fill	Dark brown silty clay, occasional gravel, rare charcoal	19 <sup>th</sup> c.+
68	Cut	Ditch, at least 0.90m wide, 0.42m deep	
69	Fill	Mid yellowish brown clay, rare charcoal and burnt limestone lumps	3 <sup>rd</sup> -4 <sup>th</sup> c.
70	Cut	Ditch, at least 0.90m wide, 0.35m deep	
71	Fill	Mid yellowish brown clay, rare charcoal and burnt limestone lumps	Med?
72	Cut	Ditch, at least 0.70m wide, 0.44m deep	
73	Fill	Mid yellowish brown clay, occasional charcoal	
74	Cut	Ditch, 1.75m wide, 0.47m deep	
75	Fill	Mid yellowish brown clay, rare charcoal and burnt limestone lumps	
76	Cut	Pit, oval, 2.08m long, 1.10m wide and 0.37m deep	
77	Fill	Dark greyish brown silty clay, rare gravel	Med ?
78	Cut	Gully, curvilinear, 0.64m wide and 0.15m deep	
79	Fill	Greyish brown silty clay, rare gravel	4 <sup>th</sup> c.
80	Cut	Ditch, 1.60m wide, 0.60m deep. Same as [93], [95], [128] and [135]	
81	Fill	Mid greyish brown silty clay, rare gravel	2 <sup>nd</sup> -3 <sup>rd</sup> c.
82	Cut	Grave, 1.89m long, 0.63m wide and 0.25m deep	
83	Fill	Skeleton, face down with head to north	
84	Fill	Grave fill, pale orangey brown silty clay, rare gravel, occasional charcoal	3 <sup>rd</sup> c.+
85	Cut	Pit, oval, 1.44m long, 1.37m wide and 0.20m deep	
86	Fill	Greyish brown silty clay with rare gravel	2 <sup>nd</sup> -4 <sup>th</sup> c.
87	Cut	Posthole or pit, oval, 0.80m long, 0.61m wide and 0.14m deep	
88	Fill	Greyish brown silty clay with rare gravel	
89	Cut	Pit, oval, 1.30m long, 1.23m wide and 0.55m deep	
90	Fill	Dark greyish brown silty clay, occasional small and large limestone lumps	3 <sup>rd</sup> c.+
91	Cut	Pit, oval, 1.10m long, 0.70m wide and 0.22m deep	
92	Fill	Greyish brown silty clay with rare gravel	3 <sup>rd</sup> -4 <sup>th</sup> c.
93	Cut	Ditch, 1.20m wide, 0.45m deep. Same as [80], [95], [128] and [135]	
94	Fill	Mid orangey greyish brown silty clay with occasional lumps of limestone. Same as (81), (97), (129) and (136)	12 <sup>th</sup> -14 <sup>th</sup> c.
95	Cut	Ditch, 1.62m wide and 0.61m deep. Same as [80], [93], [128] and [135]	
96	Fill	Mid yellowish brown silty clay with rare gravel and occasional charcoal. Same as (104)	Roman
97	Fill	Mid brownish grey silty clay with occasional gravel and frequent charcoal	2 <sup>nd</sup> -4 <sup>th</sup> c.
98	Cut	Pit, oval, 1.86m in diameter, 0.29m deep	
99	Fill	Mid greyish brown silty clay with occasional gravel and charcoal	4 <sup>th</sup> c.+
100	Cut	Field entrance, subrectangular, 6m long, 5.50m wide and 0.30m deep	
101	Fill	Mid brownish grey clay with frequent limestone lumps, moderate CBM and occasional waste iron	19 <sup>th</sup> c.+
102	Cut	Linear furrow, 1.2m wide, 0.42m deep	
103	Fill	Pale orangey brown clay	12 <sup>th</sup> -15 <sup>th</sup> c.
104	Fill	Pale orangey grey clay with rare gravel. Same as (96)	
105	Cut	Linear furrow, 0.53m wide, 0.14m deep	
106	Fill	Pale orangey brown clay	
107	Cut	Linear furrow, 0.51m wide, 0.12m deep	
108	Fill	Pale orangey brown clay	
109	Cut	Gully, 0.68m wide, 0.23m deep. Same as [126]	
110	Fill	Mid brownish orange silty clay with rare gravel. Same as (127)	2 <sup>nd</sup> -4 <sup>th</sup> c.
111	Cut	Ditch, 1.04m wide, 0.42m deep	
112	Fill	Pale yellowish brown clay, occasional charcoal	2 <sup>nd</sup> -4 <sup>th</sup> c.
113	Fill	Dark brown silty clay with occasional limestone and charcoal	3 <sup>rd</sup> c.+
114	Cut	Hollow, 3m wide, 0.35m deep	
115	Fill	Pale brown clay with occasional small lumps of limestone	4 <sup>th</sup> c.
116	Cut	Linear furrow, 1.3m wide, 0.05m deep	

No.	Type	Description	Date
117	Cut	Pit, oval, 0.89m wide, 0.09m deep	
118	Fill	Mid orangey brown silty sandy clay with occasional gravel	
119	Cut	Linear furrow, 0.63m wide, 0.34m deep	
120	Fill	Pale orangey brown clay	
121	Fill	Pale orangey brown clay	Late med+
122	Cut	Pit, oval, 1.04m wide, 0.18m deep	
123	Fill	Mottled orange/brown silty clay with rare gravel	3 <sup>rd</sup> c.+
124	Cut	Ditch, 0.42m wide, 0.20m deep. Same as [133]	
125	Fill	Orangey brown silty clay with occasional gravel. Same as (134)	
126	Cut	Ditch, 0.50m wide, 0.26m deep. Same as [109]	
127	Fill	Mid orangey greyish brown silty clay with occasional gravel. Same as (110)	
128	Cut	Ditch, 2.10m wide, 0.30m deep. Same as [80], [93], [95] and [135]	
129	Fill	Dark greyish brown silty clay with occasional limestone lumps. Same as (81), (94), (97) and (136)	3 <sup>rd</sup> c.+
130	Cut	Ditch, 0.86m wide, 0.27m deep. Same as [11]	
131	Fill	Mid brownish yellow silty clay, rare charcoal. Same as (12)	Roman
132		Unstratified finds from area A	19 <sup>th</sup> c.+
133	Cut	Ditch, 0.40m wide, 0.20m deep. Same as [124]	
134	Fill	Mid yellowish brown clay with occasional gravel. Same as (125)	
135	Cut	Ditch, 2.30m wide, 0.41m deep. Same as [80], [93], [95] and [128]	
136	Fill	Mid yellowish brown clay with occasional gravel. Same as (81), (94), (97) and (129)	Saxon?
137	Cut	Pit, oval, 1.40m long, 0.95m wide, 0.40m deep	
138	Fill	Mid brownish grey silty clay, rare charcoal, occasional gravel	
139	Cut	Ditch, c.1.40m wide, 0.0.37m deep	
140	Fill	Dark greyish brown clay, occasional gravel	3 <sup>rd</sup> c.+
141		Unstratified finds from area D	

## **APPENDIX 2: THE POTTERY** by J. Timby

### **1 Introduction**

The archaeological work resulted in a modest assemblage of 335 sherds weighing 3455g.

Most of the pottery, 77%, dates to the Roman period. In addition there are three putative Saxon sherds and a number of medieval and post-medieval fragments.

In general terms the sherds are quite fragmentary with an average sherd size of 9.7 g. Many of the pieces have abraded edges and several sherds have lost their surface finishes, including some of the grits from mortaria.

Pottery was recovered from 32 defined archaeological contexts. Just under 25% of the sherds came from unstratified collection; the remainder largely from negative features such as pits, ditches and furrows. Twenty-two contexts (69%) produced less than 10 sherds, which could have some impact on the accuracy of the dating.

For the purposes of this assessment the material was scanned macroscopically and sorted into fabrics which were quantified by sherd count and weight.

### **2 Roman**

In total 259 sherds were identified as potentially Roman and at least 21 contexts appear to be of Roman date. Further material occurred residually in later contexts.

The chronological emphasis is very much towards the later Roman period.

The assemblage comprises mainly local wares, in particular Severn Valley ware, accompanied by the standard regional imports to be expected for this area and period; in particular products from the Oxfordshire colour-coated industries and Dorset black burnished ware. The former includes several mortaria fragments and bowls (Young 1977, type C45 and C51); the latter jars, straight-sided dishes, a fish dish, grooved rim and flanged rim conical bowls.

Other wares include a number of grey micaceous ware sherd, mainly from jars, well known in the region but as yet unsourced, late Roman Malvernian ware and of particular note a small amount of later Roman shelly ware. This does not usually manifest itself on sites in the West Country until the last quarter of the 4<sup>th</sup> century and beyond. Sherds of these wares were recovered from gully context 79 and pit 99.

Continental imports were restricted to five sherds of Central Gaulish samian including four sherds from the base of a cup bearing a potters mark. There were no other fineware imports or amphorae present, again to be expected from a later Roman assemblage.

### **3 Saxon**

Three sherds have tentatively been identified as possible Saxon all from ditch 136. The pieces are exceptionally small and include one organic-tempered flake and one leached fabric which may conceivably be later Roman shelly ware or medieval. The results are slightly inconclusive and must be treated cautiously.

#### **4 Medieval**

Some 27 sherds of medieval date were identified. These were notably degraded in condition suggesting a ploughsoil environment.

Recognisable fabrics include Malvernian wares, Minety ware from North Wiltshire, and a coarse quartz-tempered ware of uncertain source. Featured sherds include a pod from a tripod pitcher in post-medieval context 101

#### **5 Post-medieval**

Post-medieval material accounted for 13% of the assemblage and was associated with three contexts, one being the unstratified group. Most of the wares were of 18<sup>th</sup>-20<sup>th</sup> century types include English stoneware, white china, glazed red earthenwares and Mocha ware.

#### **6 Potential and further work**

The profile of the pottery assemblage in chronological range and content is very much what one would expect from this locality. Previous work nearby at Hucclecote (Clifford 1933; Thomas *et al.* 2003) and Brockworth (Rawes 1981) has established extensive Roman settlement across this area presumably strung along Ermin Street.

Work at Brockworth by Rawes (1981) produced a pottery assemblage spanning the 2<sup>nd</sup> to later 4<sup>th</sup> century, as did the assemblage from Hucclecote Roman villa (Clifford 1933); by contrast assemblages from the Link road, Hucclecote did not appear to continue into the later 4<sup>th</sup> (Timby 2003).

The present assemblage is very small and a significant component of it is unstratified. For this reason no further work is recommended although a very short summary could be produced from the assessment if publication is envisaged.

Spot-dating table:

Context	Type	Roman	Saxon	Med	Pmed	nd	Tot No	Tot Wt	Date	cbm
10	ditch	0	0	0	0	1	1	>1	nd	0
12	ditch	1	0	0	0	0	1	10	Roman	0
22	pit	0	0	0	3	0	3	103	C18+	1
26	hollow-way	3	0	1	0	0	4	13	?Med	0
28	hollow-way	2	0	0	0	0	2	24	C3	0
51	ditch	1	0	0	0	0	1	8	IC3-C4	0
67	ditch	0	0	0	11	0	11	46	C19+	0
69	ditch	1	0	0	0	0	1	28	IC3-C4	1
71	ditch	0	0	1	0	0	1	8	?Med	1
77	pit	1	0	2	0	0	3	26	?Med	0
79	gully	12	0	0	0	0	12	62	IC4+	0
81	ditch	35	0	0	0	0	35	341	IC2-C3	0
84	grave	8	0	0	0	0	8	30	C3+	0
86	pit	8	0	0	0	0	8	30	C2-C4	0
90	pit	13	0	0	0	0	13	68	C3+	1fclay
92	pit	0	0	0	0	0	1	21	C3-C4	0
94	ditch	7	0	5	0	0	12	232	IC12-14th	0
96	ditch	5	0	0	0	0	5	223	Roman	0
97	ditch	29	0	0	0	0	29	129	C2-C4	0
99	pit	3	0	0	0	0	3	56	IC4+	0
101	field ent	0	0	1	7	0	8	86	C19+	0
103	furrow	0	0	5	0	0	5	5	IC12-15	0
110	ditch	1	0	0	0	0	1	8	C2-C4	0
112	ditch	2	0	0	0	0	2	20	C2-C4	0
113	ditch	15	0	0	0	0	15	83	C3+	0
115	feature	15	0	0	0	0	15	174	C4	0
121	furrow	11	0	5	0	0	16	86	late Med+	0
123	pit	1	0	0	0	0	1	2	C3+	0
129	ditch	6	0	0	0	0	6	71	C3+	0
131	ditch	2	0	0	0	0	2	22	Roman	0
132	us	43	0	7	23	0	73	1178	C19+	0
132	us	8	0	0	0	0	8	99	C3	3
136	ditch	17	3	0	0	0	20	108	?Saxon	0
140	ditch	9	0	0	0	0	9	55	C3+	0
<b>TOTAL</b>		<b>259</b>	<b>3</b>	<b>27</b>	<b>44</b>	<b>1</b>	<b>335</b>	<b>3455</b>		<b>6</b>

### APPENDIX 3: THE CERAMIC BUILDING MATERIALS

Context	Artefact material	Artefact type	No.	Box flue	Tegula	Imbrex	Other	Wt gms	date
4	Ceramic	CBM	1				1	2	?
6	Ceramic	CBM	1				1	2	?
22	Ceramic	Tile	1				1	158	Post-medieval
79	Ceramic	CBM	2				2	4	Roman
81	Ceramic	CBM	2	2			2	153	Roman
84	Ceramic	CBM	17				17	28	?
90	Ceramic	CBM	4	3			1	102	Roman
96	Ceramic	Brick	1				1	161	?
97	Ceramic	CBM	8					119	?
99	Ceramic	CBM	5	2			3	244	Roman
103	Ceramic	CBM	2	1			1	30	Roman
112	Ceramic	CBM	1				1	9	?
113	Ceramic	CBM	4	1+				75	Roman
121	Ceramic	CBM	3	1+				111	Roman
123	Ceramic	CBM	3					5	?
129	Ceramic	CBM	1					6	?
129	Ceramic	CBM	1		1			174	Roman
132	Ceramic	Tile	1	1				43	Roman
132	Ceramic	CBM	16	8	2	2	4	3370	Roman
136	Ceramic	CBM	1					5	?
140	Ceramic	CBM	1	1				6	Roman
141	Ceramic	CBM	1		1			186	Roman
		<b>Subtotal</b>	<b>77</b>					<b>4993</b>	

Most of the ceramic building materials recovered were Roman in date, but it was found impossible to tie them down to specific kiln sites or to more specific dates (Timby pers.com.). The most significant fact to come out of the table above is the preponderance of box flue tile fragments. This may suggest the location of a heated building in the immediate area. Roofing tile is rarer, but fragments of stone roof tile were also found (see Appendix 4), suggesting stone and tile-roofed structures in the area.



## APPENDIX 4: THE LITHICS

Context	Description	Number	Weight	Date
26	Flint flake	1	10g	Prehistoric
69	Burnt limestone fragment	1	291g	
132	Sandstone roof tile fragments	6	1572g	Roman?
132	Flint flake, possible limited retouching	1	5g	Prehistoric
141	Flint flake, possible limited retouching	1	2g	Prehistoric



Plate . Roman 'fish scale' roof tile fragment, context 132 (unstratified)

**APPENDIX 5: THE ANIMAL BONE**

<b>Context</b>	<b>Description</b>	<b>Number</b>	<b>Weight</b>	<b>Date</b>
10	Possibly Bovine	9	53	
26	Bovine (?) long bone fragments, one with possible evidence of butchery	7	60	
28	1 Ovine tooth, rest unidentifiable	3	21	
51	2 dog teeth, rest unidentifiable	6	14	
77	Bird longbone fragments	2	1	
79	Bovine Longbone fragments and some skull	37	517	
81	Bovine long bone fragment, Ovine teeth fragments	12	116	
90	Bovine?	2	27	
94	2 ovine tooth fragments, 1 long bone fragment	3	10	
94	Possible skull fragment	1	3	
97	8 Ovine tooth fragments	9	20	
99	8 Bovine (?) tooth fragments, rest unidentifiable	12	82	
101	Possible Ovine rib fragment	1	2	
103	3 Bovine teeth, rest unidentifiable	28	229	
110	Unidentifiable	2	3	
136	4 Bovine teeth, 2 Ovine teeth, Ovine and Bovine bone fragments	26	359	
140	Bovine tarsel?	3	30	
	<b>Subtotal</b>	<b>162</b>	<b>1547</b>	

## APPENDIX 6: THE HUMAN REMAINS by Malin Holst

### 1.0 INTRODUCTION

A single skeleton (83) was recovered, which had been interred in a prone extended position. It was lying with the head to the north and the feet to the south. It was the only grave found and lay to the west of a farm or small villa complex that dates to the 2<sup>nd</sup> to 4<sup>th</sup> century AD. It is therefore assumed that the skeleton dates to the Roman period.

Osteological analysis revealed that the skeleton was a male, aged between 20 and 25 years. He suffered from inflammation of the shins and showed evidence for activity related muscular trauma on the right arm.

### 1.1 AIMS AND OBJECTIVES

The aim of the skeletal analysis was to determine the age, sex and stature of the skeleton, as well as to record and diagnose any skeletal manifestations of disease and trauma.

### 1.2 METHODOLOGY

The skeleton was analysed in detail, assessing the preservation and completeness, as well as determining the age, sex and stature of the individual. All pathological lesions were recorded and described.

## 2.0 OSTEOLOGICAL ANALYSIS

Osteological analysis is concerned with the determination of the identity of a skeleton, by estimating its age, sex and stature. Robusticity and non-metric traits can provide further information on the appearance and familial affinities of the individual studied. This information is essential in order to determine the prevalence of disease types and age-related changes. It is crucial for identifying gender dimorphism in occupation, lifestyle and diet, as well as the role of different age groups in society.

### 2.1 PRESERVATION

The skeleton was in a very poor condition (Table 1). It had suffered from numerous post-mortem breaks, which meant that no single bone was complete and many bones had fragmented into numerous of pieces. However, little superficial erosion was observed.

Table 1 Summary of osteological and palaeopathological results

Preservation	Completeness	Age	Sex	Stature	Pathology
Very poor	30%	20-25	Male	-	Periostitis on tibiae, muscular trauma on right arm

Although the skeleton had been complete *in situ*, the poor bone preservation meant that only 30% of the skeleton survived (see Table 1).

## **2.2 MINIMUM NUMBER OF INDIVIDUALS**

No bone elements were duplicated, suggesting an MNI of one individual.

## **2.3 ASSESSMENT OF AGE**

Age was determined using standard ageing techniques, as specified in Scheuer and Black (2000a; 2000b) and Cox (2000). Age estimation relies on the presence of the pelvis and uses different stages of bone development and degeneration in order to calculate the age of an individual.

The teeth indicated that this individual was aged between 20 and 25 years. Dental wear is dependant on diet and is therefore less accurate than joint degeneration as an age indicator, however, no other ageing criteria survived in this case.

## **2.4 SEX DETERMINATION**

Sex determination was carried out using standard osteological techniques, such as those described by Mays and Cox (2000). Assessment of sex in both males and females relies on the preservation of the skull and the pelvis and can only be carried out once sexual characteristics have developed, during late puberty and early adulthood.

The general strong build of the individual together with the masculine shape of the single surviving cranial sexing criterion suggested that this was a probable male.

## **2.5 METRIC ANALYSIS AND NON-METRIC TRAITS**

It was not possible to measure this skeleton, as it was too fragmentary. As a result, stature could not be established.

Non-metric traits are additional sutures, facets, bony processes, canals and foramina, which occur in a minority of skeletons and are believed to suggest hereditary affiliation between skeletons (Saunders 1989). The origins of non-metric traits have been extensively discussed in the osteological literature and it is now thought that while most non-metric traits have genetic origins, some can be produced by factors such as mechanical stress (Kennedy 1989) or environment (Trinkhaus 1978).

No non-metric traits were observed.

## 2.7 CONCLUSION

Osteological analysis of the skeleton established that this individual was a young adult, probably of male sex.

## 3.0 PATHOLOGICAL ANALYSIS

Pathological conditions (disease) can manifest themselves on the skeleton, especially when these are chronic conditions or the result of trauma to the bone. The bone elements to which muscles attach can also provide information on muscle trauma and excessive use of muscles.

### 3.1 INFECTION

Evidence for infection was observed in this skeleton. The infection was characterised by superficial inflammatory lesions on the surfaces of both tibiae (shin bones). Tibiae are the most likely bones to show evidence for inflammation. The type of skeletal lesions (lamellar bone) on the skeletons' shin bones suggested that the inflammation was receding.

Inflammatory lesions on human bones can be indicative of infectious diseases, such as leprosy and syphilis, and of non-specific localised infection, such as varicose veins, leg ulcers or trauma. However, the lesions only form in the bone if the inflammation is chronic and long-standing (Roberts and Manchester 1995, 125). Evidence for infection was common before the introduction of antibiotics and is therefore frequently observed in populations derived from archaeological contexts.

### 3.2 TRAUMA

Occasionally, it is possible to infer trauma to the soft tissue on the bones, in the form of ligamentous or muscular trauma. This is expressed through the formation of bony processes (*enthesopathies*) at the site of ligament attachments. Additionally, it is possible to observe bone defects at the site of muscle insertions, which are the result of constant micro-trauma and are usually activity-related (Hawkey and Merbs 1995, 334).

The skeleton showed evidence for muscular strain to the attachment site of *teres major* on the right humerus, which is one of the rotator cuff muscles and medially rotates the arm, assists in extension and flexion, abduction and adduction.

### 3.3 CONCLUSION

The skeletal evidence suggests that this young man suffered from inflammation of the shins. Physical work also took its toll on the individual in the form of micro-trauma at the attachments of the muscles, which move the right upper arm.

#### 4.0 DENTAL HEALTH

Analysis of the teeth from archaeological populations provides vital clues about health, diet and oral hygiene, as well as information about environmental and congenital conditions. A total of 30 of the usual 32 permanent teeth were recovered.

Dental wear tends to be more common and severe in archaeological rather than modern populations. Severity of the dental wear was assessed using a chart developed by Smith (1984). Each tooth was scored using a grading system ranging from 1 (no wear) to 8 (severe attrition of the whole tooth crown). Dental wear was slight to moderate.

Calculus (dental plaque) is commonly observed in archaeological populations whose dental hygiene was not as rigorous as it is today. Calculus mineralises and forms concretions on the tooth crowns, along the line of the gums. Calculus was observed in a small number of teeth, and was slight.

It is possible that a bump or fall caused the infractions (dental chipping) of the first upper incisors. Wear on the chipped parts of the two teeth implies that these injuries had occurred some time before death. The individual exhibited slight overbite.

The dental health of this individual was relatively good, with no cavities and little calculus concretions on the teeth.

#### 5.0 MORTUARY PRACTICE

The single male skeleton had been interred in an oval grave. The man lay on his front in an extended position in a north to south orientation.

North to south orientation was common in early Roman burials in Gloucestershire, such as those at Parliament Street, Gloucester (Holbrook *et al* 2002, 396). Prone burial was not uncommon in the Roman period, though burial in such close proximity to a building was rare, as the dead were not permitted to be buried in settlements during the Roman period. It is possible that the man had been buried in the location prior to the farm being built, or perhaps this was not an ordinary burial, possibly suggested by the prone position of the skeleton.

Further Roman burials have been excavated in other parts of Gloucestershire. Six inhumations and two cremation burials were discovered at the domestic second to third century AD site at Totterdown Lane, Horcott, near Fairford (Pine and Preston 2004, 26). The inhumations were laid out supine and extended. The cemetery contained adult burials of both sexes, aged from seventeen to 45. At Ashchurch, five skeletons were found, all of whom were orientated north to south. These included two females, two males and one adolescent (Holst 2004).

At the Gloucester Business Park excavations at Hucclecote, twelve burials were found (Thomas *et al* 2003, 2). The cemetery was located near a domestic site, which is thought to have been in use from the first to the early fourth century AD. The burials were orientated north to south, like the skeletons examined here, but many were laid out in semi flexed positions (*ibid*, 16). The age range varied from late adolescent to mature adult and both sexes were represented.

## **6.0 DISCUSSION AND SUMMARY**

A single skeleton was excavated following its discovery beside a late Roman farm or villa. The skeleton had been interred on its front in an extended position. No other burials were found at the site.

Osteological analysis found that the skeleton was a young adult, probably of male sex, aged between twenty and 25 years. He had suffered from slight inflammation of the shins and muscular trauma on the right arm, indicative of activity-related strain.

## OSTEOLOGICAL AND PALAEOPATHOLOGICAL CATALOGUE

<b>Skeleton Number</b>	<b>83</b>																
Preservation	Very Poor																
Completeness	30% parts of all																
Age	20-25 young adult																
Sex	Male																
Stature	-																
Non-Metric Traits	-																
Pathology	Periosteal inflammatory lesions on tibiae																
Dental Health	30/32 teeth present, 13/30 teeth with calculus, infractions of both first maxillary incisors, slight overbite																
	Right Dentition								Left Dentition								
Present	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
Calculus	-	-	-	-	-	SI	-				SI	-	Sb	-	-	-	-
DEH	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Caries	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wear	2	3	4	2	2	3	4	5	5	4	3	2	2	4	3	2	
Maxilla	<b>8</b>	<b>7</b>	<b>6</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	
Mandible	<b>8</b>	<b>7</b>	<b>6</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	
Present	P	P	P	P	P	P	P	-	-	P	P	P	P	P	P	P	
Calculus	Fa	-	-	Fl	Fa	Sb	Fl	-	-	Fl	Sb	Fa	Fa	-	-	-	
DEH	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Caries	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Wear	2	3	4	2	2	3	4	5	5	4	3	2	2	4	3	2	



## APPENDIX 7: THE OTHER FINDS

Context	Material	Description	Number	Weight	Date
59	Copper	Coin (small find 1)			Post-medieval
79	Iron	Large headed nail, square sectioned (small find 2)			
86	Iron	Slag	1	1g	
101	Glass	Bottle base	1	92g	Post-medieval
110	Iron	Slag	1	26g	
121	Iron	Large headed nail, square sectioned (small find 3)			
132	Ceramic	Clay pipe stem and spring of bowl	1	3g	Post-medieval
140	Ceramic	Clay pipe stem (intrusive)	1	1g	Post-medieval

## **APPENDIX 8: THE ENVIRONMENTAL REMAINS** by Elizabeth Pearson

### **1 Summary**

One sample from a burial of Roman date was selected for analysis. Fragments of bone (presumably human) were recovered, and only poorly preserved unidentifiable fragments of herbaceous material and occasional seeds of buttercup were associated with these remains.

### **2 Project parameters**

The environmental project conforms to relevant sections of the Standard and guidance for archaeological excavation (IFA 2001a) and Environmental Archaeology: a guide to the theory and practice of methods, from sampling and recovery to post-excavation (English Heritage 2002)

### **3 Methods**

#### **3.1 Fieldwork and sampling policy**

Samples were taken by the excavator from deposits considered to be of potential for the recovery of environmental remains. One sample of 10 litres from a burial of Roman date was selected for analysis.

#### **3.2 Processing and analysis**

A sub-sample of 1 litre was processed by the wash-over technique in order to retrieve fragile organic remains as follows. The sub-sample was broken up in a bowl of water to separate the light organic remains from the mineral fraction and heavier residue. The water, with the light organic fraction was decanted onto a 300µm sieve and the residue washed through a 1mm sieve.

The remainder of the sample (approximately 9 litres) was processed by flotation followed by wet sieving using a Siraf tank in order to recover human bone, small animal bones, molluscs and seeds. The flot was collected on a 300µm sieve and the residue retained on a 1mm mesh.

The residue was fully sorted by eye and the abundance of each category of environmental remains estimated. The flot was fully sorted using a low power MEIJI stereo light microscope and plant remains identified using modern reference collections maintained by the Service, and a seed identification manual (Beijerinck 1947). Nomenclature for the plant remains follows the New Flora of the British Isles, 2<sup>nd</sup> edition (Stace 2001).

### **4 Results**

Small fragments of bone (22g) were recovered from the residue, which are likely to be mainly human and derived from the inhumation associated with this context, as the articulated bone was generally poorly preserved and fragmented when lifted during excavation. In confirmation of this, fragments of possible human phalange were noted, but the majority of the fragments are small and unidentifiable. Calcareous soil conditions (prevalent on this site) normally provide good conditions for bone survival, but the poor preservation seen in this

case may have resulted from seasonal wetting and drying of clays. The deposit contained a low level of organic matter, which included occasional seeds of buttercup (*Ranunculus acris/repens/bulbosus*) and unidentifiable fine herbaceous material. Little interpretation could be made of the organic material except that it is likely to have been introduced into the burial, from damp grassy surroundings in the vicinity, when it was cut into surrounding deposits.

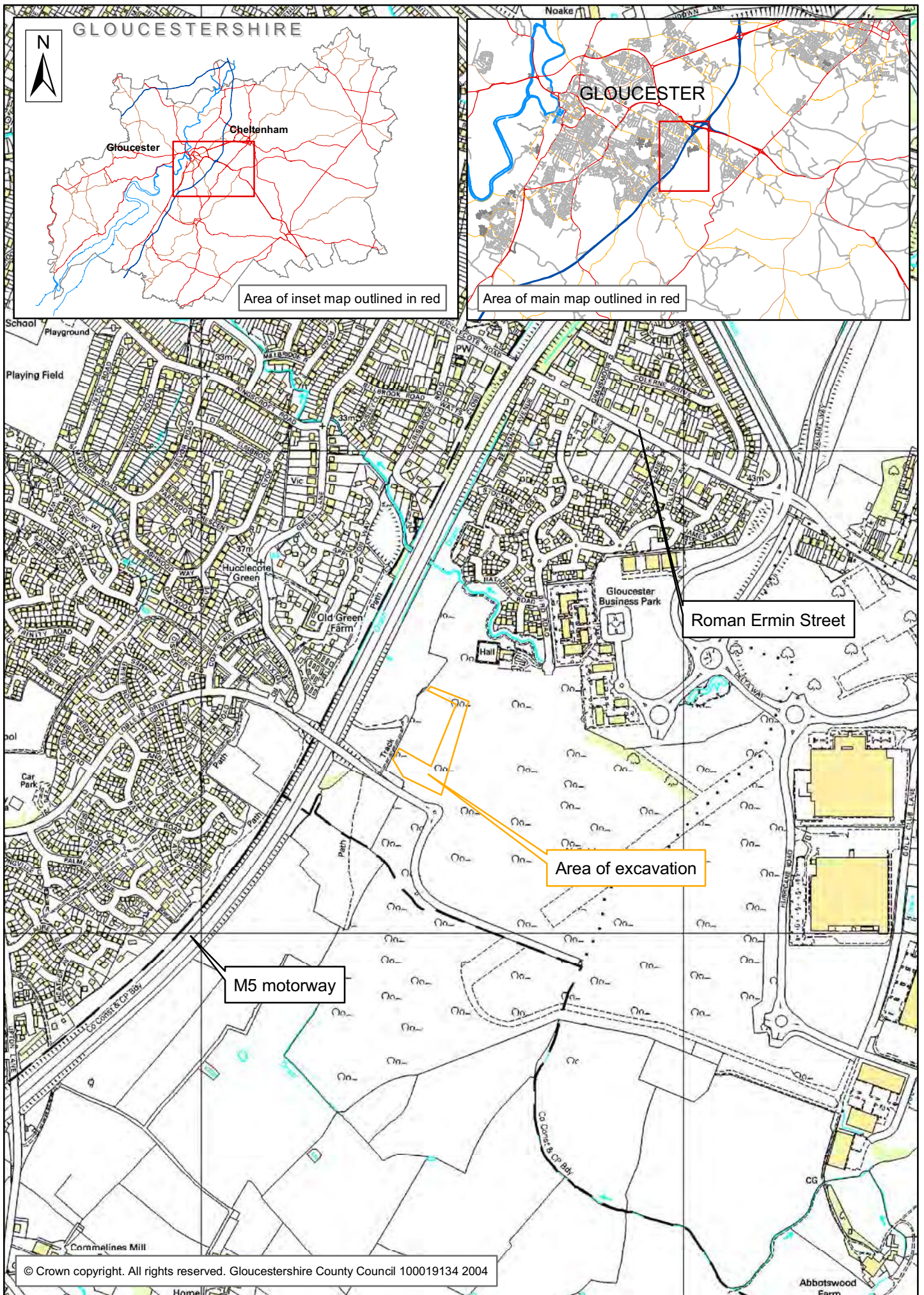


Figure 1: Site location plan (Scale 1:10000)

0 200 m



Figure 2: Site plan





Figure 3: Phase 2 Roman (with evaluation data)





Figure 4: Phase 3i medieval (410-1400AD)





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Figure 5: Phase 3ii medieval (1100-1539AD)







Figure 6: Phase 4 post-medieval (1530-2006AD)





Section 34

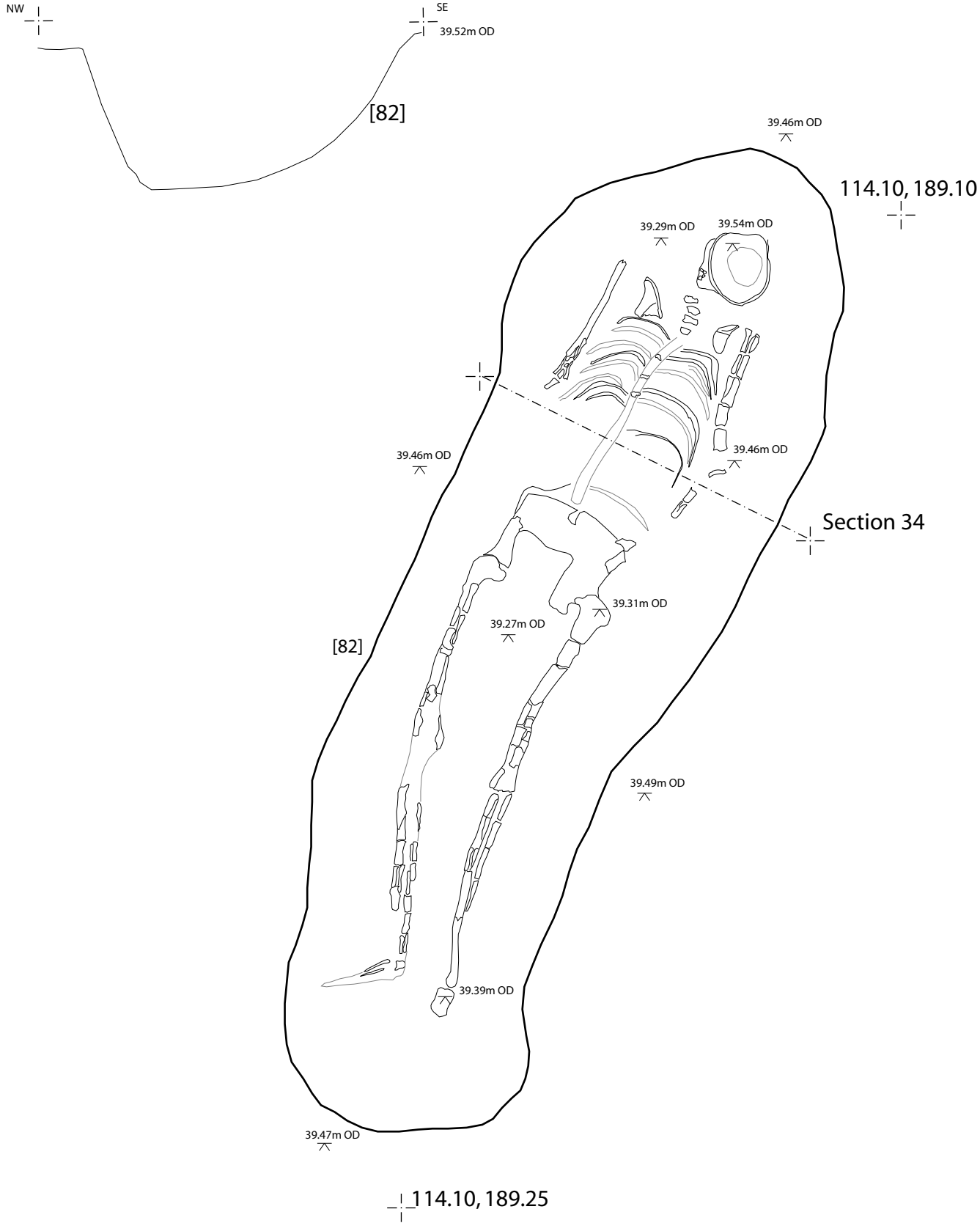


Figure 7: Skeleton (83)



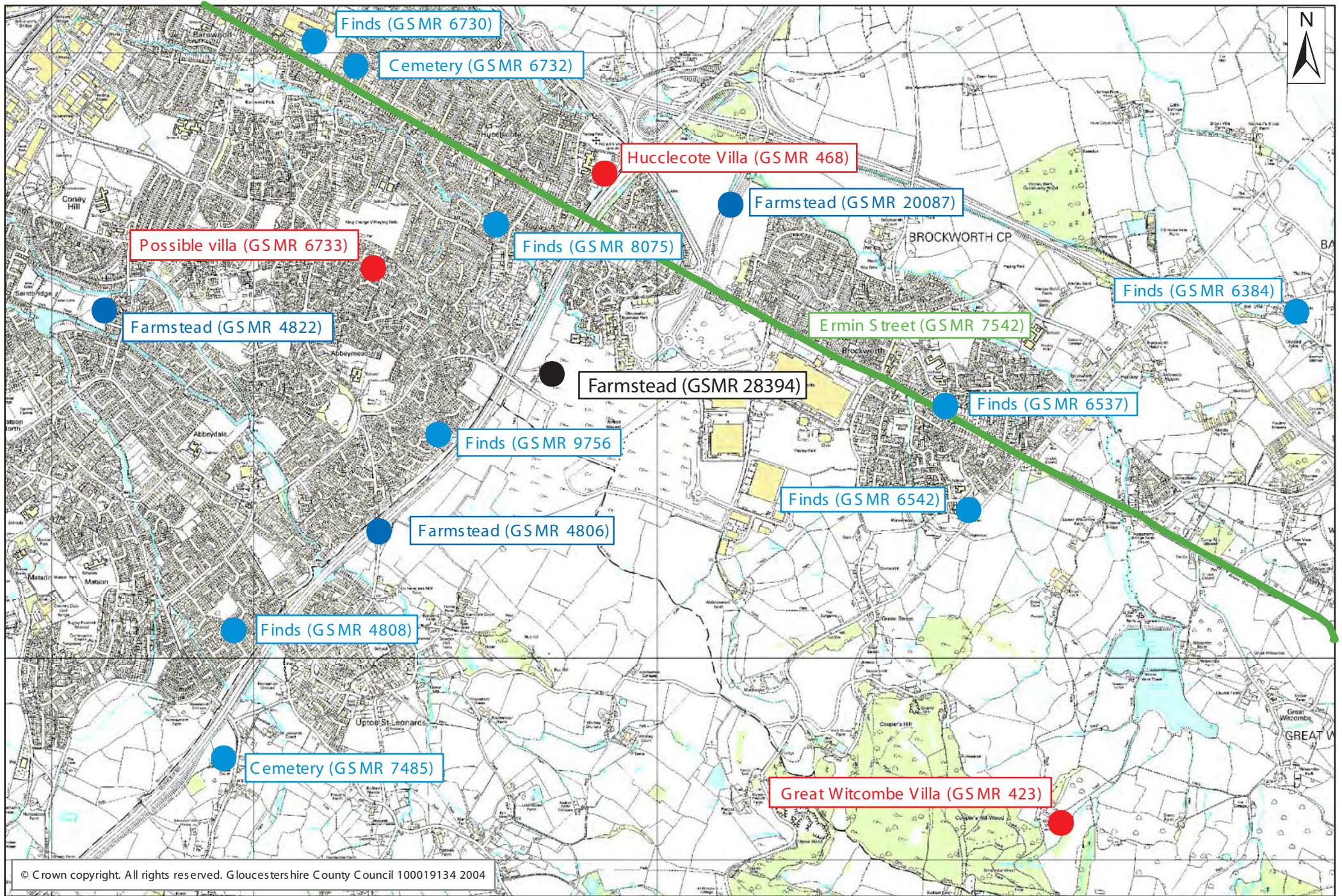


Figure 8: Roman landscape (Scale 1:24000)

0 500 m