



making sense of heritage

Site 28  
A453 Widening Scheme  
M1 Junction 24 to A52 Nottingham  
Nottinghamshire

Archaeological Post-Excavation Assessment Report and  
Proposed Publication Synopsis



Ref: 86081.01  
April 2013



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# Site 28 A453 Widening Scheme M1 Junction 24 to A52 Nottingham Nottinghamshire

## Archaeological Post-excavation Assessment Report and Proposed Publication Synopsis

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## **Site 28 A453 Widening Scheme M1 Junction 24 to A52 Nottingham Nottinghamshire**

### **Archaeological Post-excavation Assessment Report and Proposed Publication Synopsis**

#### **Summary**

Wessex Archaeology was commissioned by Laing O'Rourke Infrastructure to undertake an archaeological excavation in advance of the upgrading of the A453 between Junction 24 of the M1 and the A52 at Clifton, Nottinghamshire (NGR 453930, 333650; hereafter 'the Site'). The Site has previously been subject to evaluation by desk-based assessment, geophysical survey and trial trenching, and additional work has also taken place to the north and south of the Site (ULAS 2006, 2007a-c; Stratascan 2007; Wessex Archaeology 2012a); revealing a late Iron Age/Romano-British enclosure with an outlying field system.

The excavation took place between 28th August and 12th October 2012 and revealed a multi-phased Site, which had been continuously occupied from the late Iron Age to the 3rd century AD. The Site comprised a large late Iron Age Enclosure that continued in use into the 1<sup>st</sup> Century AD; a crouch burial was also revealed that was assumed to fall within this phase.

The Romano-British phases of the Site comprised the footprint of a timber and stone farm building/villa with evidence for grain processing within the fills of its beamslots and postholes. An extended human burial, pits and gullies were also recorded. The remains represented a rural Romano-British enclosed farmstead rather than a highly Romanised site.

A typical assemblage of Romano-British pottery, ceramic building material and animal bone was recovered, as well as a few relatively high status items including decorated samian ware and a fragment of a jet bracelet. Charred cereal remains and a quernstone were recovered from the footprint of the structure and it is likely that grain processing took place within it.

Further work is required in order to fully understand and refine the date, phasing and nature of the occupation and activity at the Site and to consider the results in an appropriate local and regional context. It is recommended that further analysis is conducted on the stratigraphic evidence, pottery, metalwork, human bones and charred plant remains, and that four samples are submitted for radiometric dating.

It is proposed that a final report of the results should be submitted for publication in the *Transactions of the Thoroton Society of Nottinghamshire*.

The project archive has been compiled into a stable, fully cross-referenced and indexed archive. It is currently held at the offices of Wessex Archaeology in Sheffield, under the project code 86081, and will be transferred to the Nottingham City Museum Service in due course under accession number **NCMG 2013-9**.



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**Acknowledgements**

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The fieldwork was carried out by Sam Fairhead, Mike Keech, Chris Hirst, Matt Weightman, Dane Wright, Phil Roberts, Kirsty Squires, Phillip Maier, Linzi Harvey, Ashley Tuck, John Buttery and Charles Hay. The report was compiled by Sam Fairhead and Andrea Burgess with illustrations by Chris Swales.

The artefacts were assessed by Rachel Seager Smith and Lorraine Mephram, animal bone by Lorrain Higbee, human bone by Diana Mahoney Swales and environmental samples by Sarah Wyles. The project was managed for Wessex Archaeology by Andrew Norton.



# **Site 28 A453 Widening Scheme M1 Junction 24 to A52 Nottingham Nottinghamshire**

## **Archaeological Post-excavation Assessment Report and Proposed Publication Synopsis**

### **1 INTRODUCTION**

#### **1.1 Project background**

- 1.1.1 Wessex Archaeology was commissioned by Laing O'Rourke Infrastructure (hereafter 'the Client') to undertake an archaeological excavation in advance of the upgrading of the A453 between Junction 24 of the M1 and the A52 near Clifton, Nottingham ('the Site'; **Figure 1**). The Site has previously been subject to evaluation by desk-based assessment, geophysical survey and trial trenching, and additional work has also taken place to the north and south of the Site (ULAS 2006, 2007a-c; Stratascan 2007; Wessex Archaeology 2012a); revealing a Late Iron Age/Romano-British enclosure with an outlying field system.
- 1.1.2 Following the evaluations University of Leicester Archaeology Services (ULAS) produced a design brief outlining the requirement for a c. 0.72ha (subsequently enlarged to 0.76ha) topsoil strip and excavation, focussed on the Romano-British enclosure and associated features (ULAS 2012). A Written Scheme of Investigation (WSI) was approved by the Client, Nottinghamshire County Council's Archaeological Advisor (the 'Curator') and the University of Leicester Archaeological Services (the 'Consultant'). The WSI (Wessex Archaeology 2012b) was prepared in accordance with current industry best practice and the Institute for Archaeologists' Code of Conduct (IfA 2008 and 2010).
- 1.1.3 This Assessment Report summarises the results of the excavations and presents assessments of the evidence, the potential for further analysis and publication proposals. It has been compiled in accordance with MAP2 and MoRPHE guidelines (English Heritage 1991 and 2006).

#### **1.2 The Site**

- 1.2.1 The Site is situated c. 500m to the south and west of the outskirts of Clifton, Nottinghamshire (NGR 453930, 333650), and is bounded by the A453 to the west, the Lark Hill Retirement Village to the north and agricultural fields to the east and west (**Figure 1**).
- 1.2.2 The Site is located at c. 75m AOD and is 0.76ha in area. The underlying geology comprises Mudstone of the Branscombe Mudstone Formation, overlain by Thrussington Member Diamicton (<http://mapapps.bgs.ac.uk/geologyofbritain/home.html>).

## **2 ARCHAEOLOGICAL BACKGROUND**

### **2.1 Introduction**

- 2.1.1 In the 30 years since the A453 improvements were first added to the National Trunk Road Programme there have been numerous archaeological studies, including desk-based assessments. These have since been collated into a single study and the following information is summarised from the detailed cultural heritage assessment (ULAS 2007c) and the excavation brief (ULAS 2012).

### **2.2 Prehistoric and Roman**

- 2.2.1 The Site lies close to the confluence of the River Soar and River Trent, an area utilised for settlement throughout the prehistoric periods; flint artefacts and cropmarks are common in this area. A fortified Iron Age site was formerly located at Brands Hill c. 850m west of the Site and several nearby Roman sites have Iron Age origins.
- 2.2.2 There is a dense pattern of settlement sites from the Roman period along the Trent Valley, which tend to be identified initially through the presence of cropmarks and pottery scatters. Cropmarks of sub-rectangular enclosures are known in the area around the Site, possibly indicating settlement, industry or farming. More substantial remains are known from the scheduled monuments in the vicinity: Glebe Farm Roman Villa (ref. SM35602; 2km to the south-west), Red Hill Roman complex (ref. NT141; 4.6km to the south-west), and Lockington Villa and settlement (refs LE140, LE126; 5.8km to the south-west).

### **2.3 Anglo-Saxon**

- 2.3.1 All of the villages adjacent to the Site appear in the Domesday Book (of AD1086) and are likely to have an Anglo-Saxon origin; the nearest sites with clear evidence for Anglo-Saxon activity lie some 5km west, between the Radcliffe on Soar power station and the M1.

### **2.4 Medieval, post-medieval and modern**

- 2.4.1 The Trent Valley provided fertile, arable land for agriculture during the earlier part of the medieval period, but some of this land reverted to pasture during the population declines of the 14<sup>th</sup> century. Extensive cropmarks of the remnants of ridge and furrow agriculture are visible through the valley, including the Site, but it is not clear whether this dates to the medieval or post-medieval periods.
- 2.4.2 Nearby post-medieval sites reflect the growing industrialisation of the Trent Valley. Roads, mines, tramways, quarries and mills lie in close proximity to the Site, as well as the Ratcliffe on Soar power station, built in the 1960s.

### **2.5 Recent investigations in the area**

- 2.5.1 The archaeological potential of Site 28 was indicated by cropmarks in the surrounding area and confirmed by geophysical survey of Site 28. To the north of the Site lies a possible prehistoric ring ditch and other linear and discrete features as well as an anomaly suggestive of a bank or earthwork (site 11; Stratascan 1993).
- 2.5.2 Survey of the Site itself revealed a large enclosure with internal linear features and a scatter of possible pits (Stratascan 2007; **Figure 1**). The clear results for this area meant that only limited trial trenching was required (ULAS 2007b) prior to open-area excavation. A limited programme of trial trenching was also carried out to the south of the enclosure in order to establish the southern limit of archaeological remains and to define the area for

detailed excavation. Only one of the four trial trenches contained archaeological remains; a Romano-British ditch that extended northwards towards the large enclosure (Wessex Archaeology 2012a).

- 2.5.3 Trial trenching and excavation to the north-east of the Site at Grove Farm (prior to the construction of the Lark Hill Retirement Village) investigated the north-eastern corner of the large enclosure, with finds dating to the Iron Age and Roman periods (ULAS 2007a). Subsequently, three trial trenches confirmed the survival of the enclosure ditch, the presence of a possible rectangular building to the south-east and field boundaries to the north-west (ULAS 2007b). Further extensive cropmarks 150m south-east of the Site appeared to represent another Iron Age/Romano-British enclosure or possibly a double-ditched trackway, but trial trenching has suggested a geological origin for these features (ULAS 2007b).

### **3 METHODOLOGY**

#### **3.1 Aims and objectives**

- 3.1.1 The aims and objectives of the excavation were:

- To mitigate the impact of the road scheme;
- To determine the location, extent, date, character, condition, significance and quality of any archaeological remains within the development Site;
- To excavate and record significant archaeological deposits, which will be affected by groundworks associated with the development;
- To integrate the results into the wider cultural and environmental context and with specific research aims;
- To analyse the Site records, artefacts and ecofacts and produce an archive, report and publication of the results.

#### **3.2 Fieldwork methodology**

- 3.2.1 The excavation area (**Figure 1**) was located by means of a RTK GPS system and tied into the Ordnance Survey National Grid (to within 0.1m).
- 3.2.2 Topsoil and overburden was removed using a mechanical excavator (16ton) fitted with a toothless ditching bucket, working under the supervision of an experienced archaeologist. Topsoil was removed in a series of level spits down to the level of the upper archaeological horizon, or the level of the natural geology, whichever was reached first.
- 3.2.3 The exposed surfaces were hand-cleaned where necessary to clarify the extent of revealed archaeological remains. Archaeological features and deposits were investigated and stratigraphically excavated by hand.
- 3.2.4 A sufficient sample of each layer/feature type was excavated in order to establish the date, nature, extent and condition of the archaeological remains but the percentage of any feature or group of features excavated was dependent on a number of factors. These included the achievement of the aims and objectives of the project, the significance or potential of the archaeological features/deposits, the stratigraphic record, health and safety considerations, and the requirements of the Curator.

### **3.3 Recording**

- 3.3.1 All archaeological features and deposits encountered were recorded using Wessex Archaeology's *pro forma* recording sheets and a continuous unique numbering system. A stratigraphic matrix was compiled to record the relationships between features and deposits.
- 3.3.2 All investigations were located in relation to the Ordnance Survey grid, and other plans, sections and elevations of archaeological features and deposits were drawn as necessary at 1:10, 1:20 and 1:50 as appropriate. All drawings were made in pencil on permanent drafting film.
- 3.3.3 The spot height of all principal features and levels was calculated in metres relative to Ordnance Datum, correct to two decimal places. Plans, sections and elevations were annotated with spot heights as appropriate.
- 3.3.4 Photographs were taken of all archaeological features to produce a photographic record consisting of 35mm monochrome prints and colour slides; digital images supplement the photographic record.

### **3.4 Specialist strategies**

#### *Artefacts*

- 3.4.1 Finds were treated in accordance with the relevant guidance (UKIC 2001; MGC 1991; English Heritage 2005), except where superseded by statements made below.
- 3.4.2 All artefacts from excavated contexts were recorded by context and retained, except those from features or deposits of obviously modern date. No finds were, however, discarded without the prior approval of the Consultant and Curator.
- 3.4.3 All retained artefacts were, as a minimum, washed, weighed, counted and identified. Any artefacts requiring conservation or specific storage conditions were dealt with immediately in line with *First Aid for Finds* (Watkinson and Neal 1998).

#### *Human Remains*

- 3.4.4 The remains of two individuals were discovered and a Ministry for Justice licence for the removal of human remains was obtained. Excavation and recording was carried out in accordance with the conditions of the licence and professional standards (McKinley and Roberts 1993) and under the supervision of a qualified osteologist.

#### *Environmental*

- 3.4.5 Bulk environmental soil samples for plant macro-fossils, small animal and fish bones and other small artefacts were taken from appropriate well-sealed and dated/datable archaeological deposits. The collection and processing of environmental samples was undertaken in accordance with English Heritage guidelines (2011).

## 4 ARCHAEOLOGICAL RESULTS

### 4.1 Introduction

- 4.1.1 The results of the excavations are summarised below by phase with descriptions of significant features and contexts. Illustrated context and feature numbers are given in bold.
- 4.1.2 The excavations revealed stratigraphic and artefactual evidence of four separate phases of activity at the Site (**Figure 2**). An absence of closely datable material from discrete features, however, made phasing problematic at this stage and many pits and gullies remain unphased.
- Phase 1 consists of three Iron Age/Romano-British ditches forming a large enclosure covering the north-west half of the Site. No features could be conclusively associated with this phase except, possibly, a crouched inhumation just inside the eastern edge of the enclosure;
  - Phase 2 mainly comprises the re-use of the enclosure during the Romano-British period to form a smaller oval enclosure around a farm building used for grain storage or processing, and the construction of a small gully-defined corral;
  - Phase 3 represents the later Romano-British addition of a rectangular enclosure to the south of the Phase 2 building (which probably remained in use during this phase) and the construction of an additional boundary to the north. Also within this phase were several pits containing Romano-British pottery and fragments of ceramic building material;
  - Phase 4 includes all subsequent activity from medieval/post-medieval furrows to modern services.

### 4.2 Natural deposits

- 4.2.1 The natural geology varied across the Site from a dark brownish-red clay to a yellow brown sand with large areas of glacial gravels. The natural deposits were typically encountered at about 0.4m below ground level.

### 4.3 Phase 1: Iron Age/early Romano-British

- 4.3.1 The earliest enclosure consisted of three ditches (**1267**, **1392** and **1266**), which formed the square enclosure identified from geophysical survey (**Figures 1** and **2**).
- 4.3.2 Ditch **1267** ran east from the western edge of the Site for 48m and terminated after a slight curve to the north-east. After a gap of 4m the enclosure continued as ditch **1392** which ran south-west to north-east for another 48m and into the edge of excavation. The 4m gap between these two ditches formed a south-facing entrance to the enclosure.
- 4.3.3 Ditch **1266** ran from west to east across the northern end of the Site and formed the northern side of the enclosure. Ditches **1266** and **1392** continued beyond the limit of excavation, and intersected approximately 15-20m north of the Site to form the north-east corner of the enclosure (where they have been excavated as part of a different investigation; ULAS 2007a). The enclosure boundary ditch was typically 2.5m wide and 0.7-0.9m deep (**Figure 3**) and notably larger than other ditches across the rest of the Site.
- 4.3.4 Aside from the enclosure only a crouched inhumation (**SK2**) can be placed in this phase with any confidence. The burial was located 3m inside the eastern boundary of the enclosure (**Figure 2**).

4.3.5 **SK2** was the burial of an adult male. No grave cut was visible and the burial had been heavily truncated by ploughing with the lower half of the skeleton missing (**Figure 4; Plate 2**). **SK2** lay outside the Iron Age enclosure and is assumed to be similarly dated. However, crouched inhumations are common to both the Iron Age and Romano-British periods and the phasing of this burial is not certain.

#### 4.4 Phase 2: Early-Middle Romano-British

4.4.1 The Romano-British activity could not be easily divided into clear phases from the stratigraphic and artefactual evidence. However, the pottery recovered from ditch **1268** was predominantly middle Roman in date. Ditch **1268** had a regular 'V'-shaped profile and formed an enclosure to the south of Phase 1 ditch **1267**, which presumably continued in use at this time (**Figure 2**).

4.4.2 Ditches **1266** and **1392**, forming the north and east sides of the Iron Age enclosure also continued in use into the Roman-British period but were infilled by the middle Roman period (**Figure 2**).

#### 4.5 Phase 3: Late Romano-British

4.5.1 The next phase of activity included a smaller enclosure which re-used the line of the southern Phase 1 enclosure ditch, with the addition of a 'funnel' entrance created by ditches **1269/1390**, a rectangular structure (**1391**) containing a possible grain oven (**1325**) and a working hollow (**1394**). At the south-east corner of this enclosure was a small 'corral' (**1270**) formed by shallow gullies with post holes in the base (**Figure 2**).

4.5.2 Ditches **1271** and **1272** followed the alignment of the Phase 1 enclosure ditch, cutting into the upper fills. The ditches were typically 0.5m deep and 1.4m wide and represented the maintaining of the southern extent of the Iron Age enclosure.

4.5.3 A smaller enclosure (**1391**) measuring 12m by 20m was located on the inside of ditch **1271/2**. At its southern end enclosure **1391** cut the Phase 1 enclosure ditch. The outline of the structure was formed by a series of gullies typically 0.5m deep and 1m wide, although these may also represent beam slots. Later furrows ran through the enclosure and the construction of a concrete based modern farm building had disturbed the area, making interpretation of the eastern side difficult. Inside the rectangular structure were two groups of internal features (**1393** and **1394**; **Figure 5**).

4.5.4 Feature group **1393** was located in the northern half of structure **1391**. It comprised a short section of stone 'wall' (**1357**) set within a pit (**1325**) and a number of beamslots, postholes and other small pits (**Plate 3**). Stone structure **1357** was poorly preserved but its location within pit **1325** suggests that the pit was a grain oven. Several of the features in group **1393** were lined with a greenish deposit containing large quantities of charred cereal grains. The upper fills of many of these features contained Romano-British pottery and a partial quernstone had been deposited in the backfill of the possible oven (**Plate 4**).

4.5.5 The second group of features (**1394**; **Plate 3**) consisted of an irregular shallow depression with postholes in its base, possibly forming a sunken working area 0.1m deep, 6m long and up to 2.2m wide. Like **1393** it contained significant amounts of charred cereal grains.

4.5.6 A small group of pits of varying dimensions (**1136**, **1282** and **1185**) was identified between enclosure **1391** and enclosure ditch **1269**.

4.5.7 Ditch **1265** was located in the northern part of the Site and was similar in profile to the Phase 2 ditch **1268**, possibly suggesting contemporaneity and a later date for **1268**. Ditch



**1265** cut the northern side of the Phase 1 enclosure and, after a gap forming a possible entranceway, continued south-east as ditch **1048** to form the southern boundary of a northern enclosure. A supine inhumation (**SK1**) was found within this entrance, and was likely to be of a similar phase (**Figure 2**). **SK1** was the burial of an adult of indeterminate sex, like **SK2**, no grave cut was visible and the burial had been heavily truncated by ploughing. In this case the upper half of the skeleton was missing (**Figure 4; Plate 5**).

4.5.8 Ditches **1265** and **1048** also enclosed four probable rubbish pits (**1095, 1122, 1085 and 1054**) which contained relatively large amounts of middle-late Romano-British pottery (**Figure 2**).

4.5.9 Several features contained fragments of ceramic building material from a substantial Romanised building but reasonably large amounts were found in only two places – the backfill of oven **1325** and pit **1165**. Some of this material could be demolition debris from the building, but specialist assessment suggests that it was more likely to have been imported as hard-core.

4.5.10 Based on pottery evidence some additional features outside of the main enclosure can also be tentatively attributed to this phase, such as pit **1196** and gullies **1365** and **1321**. The latter contained fragments of non-metallurgical slag that may indicate the presence of hearths in the area beyond the edge of excavation. Gully **1365** appears to be a continuation of a feature recorded in a trial trench 5m to the south (Trench 2, Wessex Archaeology 2012a).

#### **4.6 Phase 4: Post-medieval and modern**

4.6.1 The remains of post-medieval ridge and furrow agriculture were present in the form of furrows running north/south across the Site and truncating many earlier features.

4.6.2 A few areas of modern disturbance formed the final phase of activity on the Site, including the concrete and brick footings of a modern agricultural structure encountered within the topsoil; coincidentally built on the site of the Romano-British structures (not illustrated).

#### **4.7 Features of uncertain date**

4.7.1 It has not been possible to phase undated discrete features and gullies which were revealed throughout the Site (**Figure 2**).

### **5 ARTEFACTUAL EVIDENCE**

#### **5.1 Introduction**

5.1.1 Approximately 40kg of artefacts were recovered from the excavated features and deposits, although only animal bone and pottery occurred in any quantity (**Table 1**).

5.1.2 The pottery has provided the primary dating evidence, but, where appropriate, this has been combined with information from other chronologically diagnostic artefact types (e.g. glass, ceramic building materials) allowing broad spot-dates to be assigned on a context by context basis. All the artefacts survived in good condition; the bulk of the assemblage was of late Iron Age and Romano-British (1<sup>st</sup> century to the end of the 4<sup>th</sup> century AD) date, but small quantities of middle/late Iron Age pottery also being present.

**Table 1: Artefact totals by material type**

Material	Count	Weight (g)
Animal bone	1049	14908
Ceramic building material	48	3674
Flint	7	42
Glass	4	53
Jet	5	2
Metalwork - iron	4	52
Pottery	1320	19519
Shell	4	4
Non-metallurgical slag	9	404

## 5.2 Pottery

5.2.1 The pottery was predominantly of Romano-British date, with just nine middle/late Iron Age pieces being identified. As part of this assessment, the sherds from each context were sub-divided into broad ware groups (e.g. Romanised greywares) or known fabric types (e.g. South-east Dorset Black Burnished ware) and quantified by the number of pieces present. A breakdown of the assemblage by ware type is shown in **Table 2**. Spot-dates, used to inform the stratigraphic phasing, were then assigned to each fabric group and, in combination with any dating evidence provided by other artefact types, to the context as a whole.

**Table 2: Pottery ware types**

Period	Ware	Count	Weight (g)
Middle/Late Iron Age	Quartzite-tempered ware	9	183
Romano-British	Black sandy wares	134	1426
	Central Gaulish samian	12	143
	Derbyshire ware	42	582
	Grog-tempered ware	65	579
	Other sandy wares	223	2717
	Oxidised ware	119	1109
	Romanised greyware	549	9730
	Sand and grog-tempered ware	15	228
	Shelly ware	95	1910
	South-east Dorset BB1	19	162
	Unassigned colour-coated wares	4	24
	Whiteware	13	36
	Whiteware mortaria	21	690
Total		1320	19519

5.2.2 The assemblage survived in good condition. Pieces were generally large and only slight surface abrasion and edge damage were apparent, mainly confined to the softer, more lightly-fired fabrics, although some of the sherds tempered with calcareous inclusions



were leached. The mean sherd weight was 14.8g (in general, mean weights of between 10g to 20g are expected for Romano-British assemblages) and with fresh breaks discounted the total number of sherds falls to 771 and the mean weight rises to 25.3g, highlighting the exceptionally well-preserved nature of this assemblage. Approximately 150 rims (groups of joining sherds were counted as a single rim) were present, representing some 11% of the total number of sherds (19% of the lower total obtained by counting the freshly broken sherds as single pieces).

- 5.2.3 The pottery was recovered from 97 contexts in 61 features or feature groups. However, the sherds occurred in relatively small groups; fewer than ten sherds were found in 31 features, while only six features (ditch **1390**, pit **1185**, enclosure ditch **1272**, building **1391**, grain processing area **1393** and enclosure ditch **1268**) contained more than 50 sherds. Although some semi-complete vessels were present in these largest groups, overall only 28 forms represented by rims were identified, limiting the potential of full vessel form analysis.

#### *Middle/late Iron Age*

- 5.2.4 The nine sherds of this date were all found in a single excavated section of ditch **1267**, and included three joining sherds from an externally burnished, flat, jar-type base and at least three other jar body sherds with deep oblique/vertical external scoring, characteristic of the Middle Iron Age East Midlands scored ware tradition (Elsdon 1992). The fabric of these pieces is known from other parts of the *Margidunum* hinterland (McSloy forthcoming a, fabric QT), but was very hard, perhaps suggesting a slightly later date.

#### *Romano-British*

- 5.2.5 Overall, the assemblage comprised a standard range of utilitarian fabrics and vessel forms occurring widely on contemporary sites in the region. Imports were limited to small quantities of Central Gaulish samian, predominantly of 2<sup>nd</sup> century AD date and including pieces from form 33 and 35 cups as well as form 18/31series and form 36 dishes. One body sherd from a decorated form 37 bowl was identified but it is too incomplete to merit specialist description of the decoration. Amphorae were entirely absent, probably more as a result of the relatively small assemblage size than any absence of desire for, access to, or lack of funds to purchase the 'exotic' contents of these vessels or even the empty containers themselves. Mortaria were limited to whiteware products of the 2<sup>nd</sup> to 3<sup>rd</sup> century AD Mancetter-Hartshill industry; these sherds represented 1.6% of the total number, directly comparable with their proportion in the assemblage from recent excavations in the *Margidunum* hinterland (McSloy forthcoming b). A flange fragment from pit **1122** carried a retrograde stamp probably by Mossius (AD 145–185).
- 5.2.6 Sherds from at least one vessel in a buff/yellow fabric with a few fine quartz and red ferrous inclusions and a reddish-brown colour-coat were found in pit **1136**. Similar wares identified elsewhere in the area (McSloy forthcoming b, fabric CCm), have been interpreted as atypical Lower Nene Valley products. Indented beakers formed part of the earliest range of colour-coated wares made by this industry, reaching a *flourit* of popularity by the middle of the 3<sup>rd</sup> century AD before a marked decline during the later 3<sup>rd</sup> and early 4<sup>th</sup> century AD (Perrin 1999, 93). The unsourced oxidised wares also included three semi-complete vessels; an indented beaker (ditch **1390**), a bag-shaped beaker with rouletted decoration (pit **1185**) and the base and lower walls of a white-slipped, globular-bodied flagon (pit **1095**). The whiteware sherds consisted only of small, featureless, plain bodies and flakes probably from the Mancetter-Hartshill and/or Lower Nene Valley industries.
- 5.2.7 The bulk of the assemblage, however, comprised a range of unoxidised sandy fabrics, here divided into three basic groups although the potential for far greater sub-division

related to specific production centres remains. 'Romanised greywares' described a range of hard-fired, fine to medium-grained fabrics, pale to mid grey, sometimes blue-grey in colour), while the 'Black sandy wares' were generally slightly coarser and darker grey or black, with common sand and rare polycrystalline sandstone inclusions. The 'Other sandy wares' included both handmade and wheelthrown products, often in brownish fabrics. The range of vessel forms, often with 'Belgic' affinities and rooted in the Iron Age traditions of the area (e.g. bead rim jars, sometimes lid-seated, upright-necked, cordoned jars/bowls, long-necked carinated bowls and a globular-bodied cordoned beaker) suggested that these wares were predominantly of later Iron Age/early Roman date (up to c. AD 70). These appear to have been used alongside a range of grog-tempered and shelly wares although the majority of these sherds derived from just three vessels – a grog-tempered jar with simple, inturned rim (56 sherds, 340g; enclosure ditch **1271**), a long-necked carinated jar with a flat-topped rim (33 sherds, 1085g; enclosure ditch **1267**) and a lid-seated, triangular rimmed jar (12 sherds, 100g; ditch **1390**), both in shell-tempered fabrics.

- 5.2.8 The 'Other sandy wares' also included a bowl based of samian form 36 (enclosure ditch **1266**) and Derbyshire ware-style cup-rimmed jar (ditch **1269**) indicating that some continued into the middle Roman period. South-east Dorset Black Burnished wares were also reaching the area from the mid-late 2<sup>nd</sup> century AD, the only recognisable forms being an everted rim jar (structure **1394**) and a flat-flanged bowl/dish (layer **1071**), both part of the standard repertoire of this industry. No rims were present amongst the distinctive, hard-fired, pimply Derbyshire ware fabric (Tomber and Dore 1998, 125) also of middle Roman date. The Romanised greywares and Black sandy wares were predominantly of mid/late 2<sup>nd</sup> to 4<sup>th</sup> century AD date, common forms including the full range of straight-sided bowls/dishes, wide-mouthed, necked bowls, everted and flared rim jars, narrow-necked jars with everted, moulded or triangular rims and Derbyshire ware-style cup-rimmed jars.
- 5.2.9 The composition of the assemblage broadly confirmed to that expected from relatively small-scale, rural farming communities in the *Margidunum* hinterland (e.g. McSloy forthcoming b). The assemblage was dominated by relatively coarse, utilitarian vessels fulfilling a wide variety of food preparation, serving and storage roles, alongside a smattering of finer table and specialist wares. No particular indications of status or functional specialisation were apparent. However, the samian form 36 sherd from the northern side of building **1391** had part of a perforation drilled after firing, indicative of a staple repair in antiquity, while five other sherds carried traces of a pitch/resin-derived (probably birch bark tar) adhesive on and/or adjacent to their broken edges, indicative of their repair with glue (Marter Brown and Seager Smith 2012). These vessels comprised a samian form 33 cup (pit **1054**), a jar body sherd (pit **1085**) and a slightly everted jar rim (ditch **1390**), both in Romanised greyware, as well as Mancetter-Hartshill mortaria sherds and the oxidised ware bag-shaped beaker mentioned above, both from pit **1185**. Such repairs are increasingly recognised in Romano-British ceramic assemblages, and need not imply any particular impoverishment among the inhabitants of the Site, or that ceramics were even periodically in short supply (cf Marsh 1981, 227), although these examples of glued repairs are the most northerly occurrence of the practice to date.

### 5.3 Ceramic building material

- 5.3.1 With the exception of eight small, featureless scraps, which could not be dated, all the ceramic building material was of Romano-British date and included pieces from *tegula* and *imbrex* roof tiles and the small, thinner types of brick (*bessalis*, *pedalis* or *lydion*), used in hypocausts and as lacing and bonding courses in walls. The brick and tile survived in a highly fragmented state (mean fragment weight 76.5g; see Brodribb 1987,

11, for the weight/size of complete roof tiles) and was recovered in small quantities from 21 individual features, only two of which (pits **1165** and **1325**; **Plate 4**) contained more than 500g. These factors suggest that this material was brought to the area in pieces, perhaps as hard-core, rather than providing direct evidence for a substantial Romanised structure in the immediate vicinity.

#### **5.4 Worked flint**

- 5.4.1 A handful of struck flint flakes were recovered from contexts across the Site. Although residual in these contexts, the flints are indicative of low-level later prehistoric activity in the vicinity.

#### **5.5 Metalwork**

- 5.5.1 Metal objects occurred in only very small quantities and no coins were recovered. Although heavily corroded, three of the iron objects are probably nails (from working hollow **1394** and two unstratified contexts), while the fourth (from grain processing area **1393**) remains unidentified at this stage; associated pottery suggests all are of Romano-British date.

#### **5.6 Non-metallurgical slag**

- 5.6.1 All nine pieces were of a lightweight, light-coloured, vesicular, slag-like material and were from gully **1321**. This material, known variously as 'Midland Grey' or 'Iron Age Grey', has been found on other sites in the area (e.g. Starley forthcoming) but is not necessarily of industrial or metallurgical origin, being more likely to derive from other high-temperature pyrotechnical activities, such as the conflagration of daub-built structures or the materials within a hearth.

#### **5.7 Jet**

- 5.7.1 Part of a small (50mm internally; <20% present) jet bracelet with a plain, oval cross-section was recovered from working hollow **1394**. Plain bracelets were worn throughout the Roman period, but associated pottery suggested a date in the later 2<sup>nd</sup> – 4<sup>th</sup> century AD for this example.

#### **5.8 Oyster shells**

- 5.8.1 Fragments of oyster shell were found alongside other artefacts of middle Romano-British date in pit **1196**.

#### **5.9 Quernstone**

- 5.9.1 Approximately one quarter of a rotary quernstone was recovered from the backfill of the possible grain oven **1325** (**Plate 4**). The original diameter would have been approximately 0.70m, and the stone has a maximum thickness of 70mm. The stone is gritstone, probably millstone Grit. Part of the central perforation survives, there are traces of pecking on the upper surface, and the lower surface has concentric grooves and is slightly polished through use.

#### **5.10 Human bone**

- 5.10.1 The human burials consist of one supine extended and one flexed adult inhumation. The two skeletons were recovered from discrete graves cut into natural deposits (**Figures 2 and 4**).
- 5.10.2 The skeletal remains were examined to determine preservation, completeness, age and sex where possible, as well as potential for further analysis in accordance to the

professional guidelines for producing assessments for human bone recovered from archaeological sites (English Heritage 2004). Because of the poor preservation and condition of these skeletal remains osteological analysis was limited to age estimations from dental attrition patterns (Miles 1963), sex estimations from sex diagnostic features of the skull, and visual recognition of skeletal pathologies.

- 5.10.3 **SK1** was in poor condition, with eroded cortical bone, and was less than 50% complete. All that remained was fragments of the left and right pelvis and bilateral femora, tibiae and fibulae. These bones were highly fragmented and exhibited cortical erosion consistent with Grade 3 on the scale devised by McKinley (2004, 17) i.e., *'Most of the bone surface affected by some degree of erosion (by root action); general morphology maintained but detail of parts of surface masked by erosive action'*.
- 5.10.4 **SK2** was also in poor condition, exhibiting Grade 3 cortical erosion. This skeleton was more complete (50-74%) with the majority of the skull and upper body present. The skeleton had been truncated from the 2nd lumbar vertebrae, removing the lower lumbar vertebrae, pelvis and lower limbs. However, the complete calcaneus of the right foot was undisturbed. The right arm had been slightly displaced due to post-depositional disturbance.
- 5.10.5 Due to the lack of skull and fragmentary and eroded nature of the pelvis it was not possible to assign age to **SK1**, save for being over 18 years at age of death (distal femoral epiphyses fused to diaphysis) and of undeterminable sex. Dental attrition patterns (Miles 1962) and cranial suture closure (Meindl and Lovejoy 1985) observed in **SK2** indicate this individual to be a 'senior adult' i.e. 45+ years of age at death. Dental pathologies within this individual may be contributory to the high level of occlusal wear observed on the teeth. The cranium and mandible displayed a number of features which indicate this individual to be male.
- 5.10.6 **SK1** exhibited slight degenerative joint disease of the left hip, manifest as osteophyte (new bone) formation on the margins of the femoral head. **SK2** presented evidence for dental calculus, severe dental caries, slight periodontal disease and dental abscesses. The anterior teeth were severely worn exposing the dentine and possessing no surviving enamel on the occlusal surfaces. This individual exhibits severe cribra orbitalia (porosity in the orbits commonly associated with anaemia or vitamin B12 deficiency), thickening of the cortical bone of the cranial vault and moderate maxillary sinusitis. The post-cranial joints were moderately eroded and none of the non-spinal joints exhibited degenerative joint disease. Slight marginal osteophyte formation, Schmorl's nodes and vertical new bone (syndesmophytes) bridging the vertebral bodies of lumbar and thoracic vertebrae were observed.

## 5.11 Animal bone

### *Introduction*

- 5.11.1 A total of 1013 fragments (13.369kg) of animal bone were recovered, once conjoins are taken into account the figure falls to 870 fragments. Most (86%) of the bone was collected by hand during the normal course of hand-excavation, while the rest was retrieved from the sieved residues of bulk soil samples that were processed by wet-sieving. The assemblage includes material of late Iron Age and Romano-British date.

### *Preservation condition*

- 5.11.2 Bone preservation is generally good to fair. A small proportion of bones from some ditches are more poorly preserved than other fragments from the same contexts. Differences in

the preservation state of bone fragments from single contexts are generally an indication of the presence of residual material.

- 5.11.3 Gnaw marks were recovered on a small number (2%) of bone fragments. Interestingly most of the gnawed bones are also from ditches.

**Table 3: Number of identified specimens present (NISP) by period**

Species	Late Iron Age/ Early Romano- British	Romano- British	Undated / Un- stratified	Total
cattle	22	54	13	89
sheep/goat	16	18	6	40
pig		4		4
horse		4	2	6
dog	6			6
red deer		6		6
duck		1		1
<b>Total identified</b>	<b>44</b>	<b>87</b>	<b>21</b>	<b>152</b>
<b>Total unidentified</b>	<b>129</b>	<b>244</b>	<b>71</b>	<b>444</b>
<b>Overall total</b>	<b>173</b>	<b>331</b>	<b>92</b>	<b>596</b>

*Species represented*

- 5.11.4 The assemblage is dominated by bones from livestock species (**Table 3**). Together cattle, sheep and pig bones account for 88% of identified fragments. Cattle is the most common species overall, followed by sheep and then pig. Other identified species include horse, dog, red deer and duck.

*Phase 1: late Iron Age/early Romano-British*

- 5.11.5 A total of 173 bone fragments were recovered from late Iron Age/early Romano-British contexts.
- 5.11.6 Only 25% of fragments are identifiable to species and skeletal element, and most of these belong to cattle (50%) and sheep (36%). Both of these species are represented by a range of body parts, which suggests that livestock were slaughtered and butchered on the Site for consumption locally. Based on the limited age information available it would appear that livestock were culled as young adult and adult animals, which suggests that both cattle and sheep were managed for a range of commodities. Evidence to support the theory that cattle were managed for secondary products includes a calf mandible from one of the ditches.

- 5.11.7 Dog bones were recovered from ditch **1267**. The identified bones are probably all from one individual and include a several long bones from the hindquarters and a loose canine tooth.

*Phases 2-3: Romano-British*

- 5.11.8 The Romano-British assemblage includes 331 fragments, of which only 26% are identifiable to species and skeletal element. Most of the animal bone is from broadly dated Romano-British contexts; indeed the number of fragments recovered from tightly dated contexts is so low that inter-site comparisons between phases are not possible. The



Romano-British component of the assemblage includes cattle, sheep, horse, deer and duck.

- 5.11.9 As with the earlier phase, the range of cattle and sheep body parts indicates that livestock were slaughtered and butchered on Site for consumption locally, and the limited age information appears to suggest that livestock were primarily managed for secondary products and that meat production was a less important consideration. In the case of cattle, it is likely that due to the expansion and intensification of arable cultivation during this period (see for example Thomas and Stallibrass 2008, 10; Ven der Veen and O'Connor 1998, 132), that large numbers of mature cattle were needed to provide manure and traction.
- 5.11.10 All of the red deer remains are from ditch **1272** and all are fragments of antler. One of the pieces of antler is from the lower part of the beam and includes the burr, which indicates that the antler was shed naturally and then collected. Saw marks were noted on the beam and around the base of the brow and bez tines indicating that the antler had been reduced into smaller-sized pieces for the purpose of object manufacture (see for example MacGregor 1985, 68-9, Figure 42).

## 6 ENVIRONMENTAL EVIDENCE

### 6.1 Introduction

- 6.1.1 A total of 41 bulk samples was taken from a range of features. These were processed for the recovery and assessment of charred plant remains and wood charcoal.

### 6.2 Charred plant remains

- 6.2.1 Bulk samples were processed by standard flotation methods; the flot retained on a 0.5mm mesh, residues fractionated into 5.6mm, 2mm and 1mm fractions and dried. The coarse fractions (>5.6mm) were sorted, weighed and discarded. Flots were scanned under a x10 – x40 stereo-binocular microscope and the preservation and nature of the charred plant and wood charcoal remains recorded (**Appendix 1**). Preliminary identifications of dominant or important taxa are noted below, following the nomenclature of Stace (1997) for wild plants, and traditional nomenclature, as provided by Zohary and Hopf (2000) for cereals.
- 6.2.2 The flots varied in size and there were low to high numbers of roots and modern seeds that may be indicative of stratigraphic movement and the possibility of contamination by later intrusive elements within some samples. Charred material comprised varying degrees of preservation.

#### *Phase 1: late Iron Age/ early Romano-British*

- 6.2.3 The samples from enclosure ditch **1267** contained moderate quantities of cereal remains, including grain fragments of barley (*Hordeum vulgare*) and hulled wheat, emmer or spelt (*Triticum dicoccum/spelta*), and glume bases of hulled wheat. Some of the glume bases were identifiable as being those of spelt (*Triticum spelta*). The few weed seeds observed included seeds of vetch/wild pea (*Vicia/Lathyrus* sp.) and oat/brome grass (*Avena/Bromus* sp.).

### *Phases 2-3: Romano-British*

- 6.2.4 Large charred plant assemblages were recorded from eight of the 24 samples of Romano-British date. These were from three pits in grain processing area **1393**, (including the possible oven **1325**), two contexts in hollow **1394**, pit **1136** just to the east of the building and gully **1337** in the south-eastern corner of the Site. The high numbers of cereal remains observed within these features again included grain fragments of hulled wheat and barley and glume bases and spikelet forks of hulled wheat, some of which were identifiable as being those of spelt.
- 6.2.5 The weed seeds in these assemblages included seeds of vetch/wild pea, oats/brome grass, black-bindweed (*Fallopia convolvus*), docks (*Rumex* sp.), brassicas (*Brassica* sp.), sedge (*Carex* sp.), goosefoot (*Chenopodium* sp.), persicaria (*Persicaria* sp.), meadow grass/cat's-tails (*Poa/Phleum* sp.), field madder (*Sherardia arvensis*), medick/clover (*Medicago/Trifolium* sp.), knot grass (*Polygonum* sp.) runch (*Raphanus raphanistrum*) and hemp-nettle (*Galeopsis* sp.). There were also a few seeds of blinks (*Montia* sp.), rye-grass/fescue (*Lolium/Festuca* sp.) and scentless mayweed (*Tripleurospermum inodorum*) in a few of the other Romano-British samples.
- 6.2.6 Other charred material in the samples from Romano-British features included fragments of stems and roots, possibly including those of heather, tuber fragments, a few fragments of hazelnut (*Corylus avellana*) shell, a possible celtic bean (*Vicia faba*) and a triangular capsule fragment.

### *Summary*

- 6.2.7 The assemblages are similar to those recorded from other Late Iron Age and Romano-British sites in the area, such as Dunston's Clump (Jones 1987; Monckton 2006), *Margidunum* (Cotswold/Wessex Archaeology 2011) and Gamston (Moffett 1992). The presence of spelt and barley is typical of the crops grown in this area for this period. The weed seeds are typical of species indicative of arable habitats, such as field margins, and grassland. The presence of charred rooty/stem material is consistent with the use of turves probably for fuel as seen at *Margidunum*.

## **6.3 Charcoal**

- 6.3.1 Wood charcoal was noted from the flots of the bulk samples and is recorded in **Appendix 1**. Fragments greater than 4mm were only recovered in small quantities.

## **7 STATEMENT OF POTENTIAL**

### **7.1 Stratigraphic evidence**

- 7.1.1 The archaeology exposed on the Site is fairly well understood though further stratigraphic analysis will be required in order to better understand the sequence of activity at the Site and its duration, and for example confirming whether the Phase 3 structures originated earlier in the Romano-British period.
- 7.1.2 Further artefactual and environmental analysis and scientific dating may also provide data to allow fine tuning of the phases presented in this assessment, with the aim of providing a more detailed and coherent overview of the nature, development and decline of activity at the Site. It is anticipated that this will, at least, involve dating and clarifying the phasing of the two human burials.

- 7.1.3 The results of the trial trench evaluation to the south (Wessex Archaeology 2012a) will be incorporated into the Site phasing. Once the phasing and nature of the activity carried out at the Site has been explored fully, the results of the trial trenching and excavations to the north-east of the Site at Grove Farm, conducted prior to the construction of the Lark Hill Retirement Village, will be considered. This work focussed upon the north-eastern corner of the Phase 1 enclosure and also identified a possible rectangular building to the south-east. These data have the potential to contribute significantly to understanding Site 28.
- 7.1.4 Finally, further analysis will also re-consider the previous cropmark and geophysical survey interpretations in order to determine whether any potential continuations of dated and phased features from Site 28 can be established, and to consider the activity and phasing of the Site in a wider landscape context.

## **7.2 Artefactual evidence**

- 7.2.1 The relatively small finds assemblage contains no items of particular intrinsic interest. Chronological evidence from the pottery indicated that activity spanned the entire Romano-British period, but the range of material culture is relatively restricted, with only the pottery and animal bone occurring in any quantity. The pottery also provides evidence for sources of supply and the types of vessels used, while extending the known geographic range of the recently identified practice of repairing pots with glue, but there is only limited additional structural evidence (ceramic building materials, nails), evidence for craft/industrial activities (quern, non-metalworking debris) or economy (animal bone, oyster shell).
- 7.2.2 There is potential for further pottery analysis to allow the subdivision of the broad fabric groups in this assessment. This, and comparison with contemporary assemblages, will further refine the divisions within the Romano-British period and therefore offers potential to contribute to refining the Site phasing.

## **7.3 Animal bone**

- 7.3.1 The assemblage is small and offers limited potential to provide more detailed information about Late Iron Age and Romano-British animal husbandry regimes. No further analytical work is required but it is recommended that the report should be updated if any changes are made to the Site phasing and included as part of any future publication of the fieldwork results.

## **7.4 Human bone**

- 7.4.1 Even though the skeletal remains are not very well preserved, useful information concerning burial practices can be acquired from these graves.
- 7.4.2 Radiocarbon (or AMS) dating of the skeletons is feasible and will provide valuable information regarding the nature of burial practices in a more specific time-frame than is attainable from the archaeological evidence.
- 7.4.3 The old age and severe dental pathologies associated with the crouched inhumation (**SK2**) may be related to the nature of crouched burial in Iron Age/ Romano-British cemeteries in association with concepts of age, gender and health. The supine extended position of **SK1** is typical of Roman burials and often associated with 'Christian' burial, whereas the north-south orientation of this burial and the same orientation and crouched position of **SK2** are typically interpreted as representing non-Christian 'Pagan' burial. The presence of both body positions may represent religious segregation within the excavated



area, or different periods of burial, and therefore different periods of occupation within the immediate area.

- 7.4.4 Comparisons of the age, sex, pathology, stature, metrics and non-metric traits with others of similar temporal and geographic features would contribute to the current understanding of rural burial practices in England during the Iron Age/Romano-British period.

## **7.5 Environmental evidence**

- 7.5.1 The charred plant remains have the potential to provide information to assist in determining the nature of the settlement, the local environment, species range, crop-processing and any local agricultural techniques during the Romano-British period. There is also the potential to augment this data to a more limited extent with information on material from the possible Iron Age features.
- 7.5.2 These plant assemblages would provide a comparison with other sites of a similar period in the vicinity.
- 7.5.3 The wood charcoal remains provide no potential to obtain detailed information on the range of species present, and the management and exploitation of the local woodland resource during the Iron Age and Romano-British periods due to the paucity of remains recovered.

## **8 RESEARCH AIMS**

### **8.1 Reappraisal of the project aims**

- 8.1.1 The five aims of the project were:
- To mitigate the impact of the road scheme;
  - To determine the location, extent, date, character, condition, significance and quality of any archaeological remains within the development Site;
  - To excavate and record significant archaeological deposits, which will be affected by groundworks associated with the development;
  - To integrate the results into the wider cultural and environmental context and with specific research aims;
  - To analyse the Site records, artefacts and ecofacts and produce an archive, report and publication of the results.
- 8.1.2 Each of these aims have been progressed during the investigation and assessment process and all are considered achievable.
- 8.1.3 The extent, date, character, condition, significance and quality of the archaeological remains within the Site has been investigated and assessed. The stratigraphic evidence and the finds and environmental assemblages - specifically the pottery, human bone and charred plant remains - all offer potential for further clarifying and refining the date, character and significance of the Site.

## 8.2 Updated aims

8.2.1 The significance and potential of the archaeology of the Trent Valley has been appraised in two recent research agendas (Cooper 2006, Knight *et al* 2012) that provide a framework for updating the project aims, with specific reference to aims above. The Site has potential to address to the following regional research aims:

- To enhance knowledge of pottery industries during the Late Iron Age and Romano-British periods through further pottery analysis and publication (Research Objective 5B regarding the dissemination and synthesis of information on Roman finds; Knight *et al* 2012, 73);
- To enhance knowledge of Late Iron Age and Romano-British burial practises and obtain radiometric dates (Research Objective 5D regarding the application of scientific analysis to human remains; *ibid.* 75);
- To enhance knowledge of subsistence, diet and health at late Iron Age and Romano-British enclosed farmsteads through further analysis of human skeletal remains and charred cereal grains (Research Objective 5E regarding the integration of specialist studies of material relating to subsistence, diet and health; *ibid.* 76);
- To enhance knowledge of rural Iron Age and Romano-British settlements and landscapes through further analysis and the publication of the Site (Research Objective 5H regarding the investigation of the landscape context of rural settlements; *ibid.* 79).

## 9 RECOMMENDATIONS

### 9.1 Summary

9.1.1 The archaeological investigations and post-excavation assessments have established that this is a significant multi-phased Site, which was continuously occupied from the late Iron Age into the Romano-British period. It was a rural Romano-British enclosed farmstead rather than a highly Romanised site.

9.1.2 Further work is required in order to fully understand the date, phasing and nature of the occupation and activity at the Site and to consider the results in an appropriate local and regional context. It is recommended that further work is required on the stratigraphic evidence (including research), pottery, metalwork, human bones and charred plant remains, and that three samples are submitted for radiometric dating. Each of these pieces of work will result in the preparation of illustrated text to be submitted for publication in the *Transactions of the Thorton Society of Nottinghamshire*.

### 9.2 Stratigraphic and other archaeological evidence

9.2.1 The Site phasing and interpretation should be refined following receipt of detailed artefactual and environmental analysis and scientific dating.

9.2.2 The results of the archaeological investigations conducted at the adjacent site (Grove Farm) should be considered and any significant and relevant results should be integrated into the final Site 28 report. Similarly, the results of previous desk-based assessments, cropmark interpretations and geophysical surveys covering Site 28 should be reviewed and incorporated where relevant.

- 9.2.3 Additional research regarding similar and/or nearby archaeological sites should be researched sufficient to place the Site in an appropriate local and regional context.

### **9.3 Pottery**

- 9.3.1 Detailed analysis of the whole assemblage, and that from trial trenches to the south, should be conducted in order to subdivide the broad fabric groups and compare with contemporary assemblages to further refine the divisions within the Romano-British period.
- 9.3.2 The assemblage should be considered and discussed in the context of feature groups and in other assemblages from contemporary sites in the area. In addition to research in published reports, this should include the request of pottery analysis records for the work carried out at the adjacent site (the Lark Hill Retirement Village).

### **9.4 Other artefacts**

- 9.4.1 X-radiography is recommended for the iron, but no further analysis is proposed for any of the other material types. The assessment reports will be modified and augmented to take account of any changes to the Site phasing that occurs.

### **9.5 Human remains**

- 9.5.1 Radiometric dates for the two burials will allow interpretation within an accurate and specific time-frame.
- 9.5.2 Further analysis should be carried out sufficient to enable comparisons of the age, sex, pathology, stature, metrics and non-metric traits with others of similar temporal and geographic features.

### **9.6 Charred plant remains**

- 9.6.1 It is recommended that nine samples are analysed. These derive from a range of features including the Phase 1 enclosure ditch, the Phase 2 grain processing features, Phase 2 pit **1136** and unphased gully **1337**. The samples proposed for analysis are indicated with a "P" in the analysis column in the table in **Appendix 1**.

### **9.7 Radiometric dating**

- 9.7.1 It is recommended that samples from both human burials are submitted for radiocarbon or AMS dating, as appropriate, depending on suitability of the bone.
- 9.7.2 It is also recommended that a charred grain from each of the Phase 1 and 2 enclosure ditches is submitted for radiometric dating if the source contexts are considered secure and suitable. Phase 1 is currently not well-dated and a scientific date for the earliest enclosure may be able to suggest whether Phase 1 is pre or post Roman conquest and also confirm contemporaneity (or not) with the Phase 1 human burial. Phase 2 is currently dated to a broad period by ceramics. An absolute date for this phase would contribute to the phasing of both burials and may shed some light on the duration of activity during each phase.
- 9.7.3 Notwithstanding the broad date-range of radiocarbon dates for the Roman period, scientific dates for the burials and from contexts containing pottery will contribute to an understanding of the pottery assemblage as a whole and contribute to the regional dataset.

## 9.8 Publication

- 9.8.1 The Site is of sufficient significance to warrant publication in a regional journal in order that the results are disseminated to a wide audience. It is proposed that the *Transactions of the Thoroton Society of Nottinghamshire* is the most appropriate journal for this purpose.
- 9.8.2 The publication report will comprise a fully illustrated account of the investigations, including a summary background to the project, methodology, results and discussion.
- 9.8.3 It is proposed that, in accordance with the journal's Notes for Contributors, the article will be about 7,200 words in length, equating to approximately eight pages of text at 900 words per page, and four and a half pages of illustrations comprising five Site drawings, three plates and ten pottery illustrations.
- 9.8.4 This proposal will be updated following the assessment of other sites on the scheme (i.e Sites 7 and 12).

**Table 4: Details of proposed publication**

<b>Description</b>	<b>No Words</b>	<b>No pages</b>
Introduction, background, method	450	0.5
Results	1350	1.5
Artefacts	1350	1.5
Human burials	900	1
Animal bone	450	0.5
Environmental remains	450	0.5
Radiometric dating	450	0.5
Discussion	900	1
Bibliography	900	1
Site location and plan		0.5
Plan of building		0.5
Plan of burial x 2		0.5
Sections x 4		1
Plate of site		0.5
Plates of human remains x 2		0.5
Pottery illustrations x 10		1
Total	7200	12.5

- 9.8.5 Details of the journal's requirements for articles are available online at <http://www.thorotonsociety.org.uk/publications/tts/notesforcontributors.pdf>

## 10 RESOURCES AND PROGRAMME

### 10.1 Named project team

Project manager	Andrew Norton BA MIfA
Main author	Sam Fairhead
Artefacts	Lorraine Mepham and Rachel Seager Smith
Human bone	Diana Mahoney Swales
Animal bone	Lorrain Higbee
Environmental	Sarah Wyles
Illustrator	Chris Swales

### 10.2 Task list

**Table 5: Publication tasks**

<b>Task</b>	<b>Description</b>	<b>Grade</b>	<b>Days</b>
1a	Review stratigraphic and archaeological evidence	PO	1
1b	Research local and regional context	PO	2
1c	Prepare report	PO	4
2	Detailed pottery analysis and report	SPO	7
3	Review other artefacts and report	PM	1
4	Detail human burial analysis and report	Ext	2
5	Review animal bone report	SPO	1
6a	Extract charred plant remains (9 samples)	EO	2.5
6b	Analysis and reporting of charred plant remains	SPO	5
7	Radiometric dating (4 samples)	Ext	4
8a	Pottery illustrations (up to 30 vessels)	SPO	3
8b	Site illustrations	PO	3
9	Collate and finalise publication report	PO	2
10	QA and submit to journal	PM	1
11	Publication	Pages	12.5
12	Archive preparation and deposition	PO	0.5

### 10.3 Management structure

- 10.3.1 Wessex Archaeology operates a project management system. The team is headed by a Project Manager, who assumes ultimate responsibility for the implementation and execution of the project, and the achievement of performance targets (academic, budgetary or scheduled).
- 10.3.2 The Project Manager will define and control the scope and form of the post-excavation programme and will have a major input into the writing of the publication report. The Project Manager may delegate specific aspects of the project to other key staff, who will both supervise others and have a direct input into the compilation of the report. They may also undertake direct liaison with external consultants and specialists who are contributing to the publication report, and the museum named as the recipient of the project archive.

#### **10.4 Performance monitoring and quality standards**

- 10.4.1 The Project Manager will ensure that the report meets internal quality standards as defined in Wessex Archaeology's guidelines. The overall progress and quality will be monitored internally by the Director of Heritage and Archaeology, Chris Moore.
- 10.4.2 Communication between all team members will be facilitated by project meetings at key points during the project.
- 10.4.3 In addition to internal monitoring and checking, quality standards will be maintained by internal and/or external academic advisers, as appropriate. These referees will appraise the academic quality of the report prior to the submission of a draft publication text to the Consultant and Curator for approval.

#### **10.5 Programme**

- 10.5.1 The analysis programme will commence immediately on approval of the proposals by the Consultant and Curator. Subject to instruction by the Client, it is anticipated that a draft publication text and illustrations would be available by the end of August 2014. Subject to approval it is anticipated that the finalised text and illustrations can be submitted to the editor of the *Transactions of the Thoroton Society of Nottinghamshire* prior to the editor's final submission date of the end of September; subject to acceptance by the editor it is anticipated that the article would be published in the 2015 volume of the Journal.
- 10.5.2 The finds and archive will be prepared and deposited with the Nottingham City Museum Service on completion of the analysis programme; it is anticipated that this will take place by the end of December 2014. The Consultant and Curator will be informed when the archive has been deposited.
- 10.5.3 Wessex Archaeology understands that submission of the article to the editor of the journal for publication and deposition of the finds and archive will represent the completion of the programme of archaeological work.

### **11 ARCHIVE STORAGE AND CURATION**

#### **11.1 Museum**

- 11.1.1 The archive will be deposited with Nottingham City Museum Service under accession number **NCMG 2013-9**. An OASIS form will be submitted at the time of deposition.

#### **11.2 Archive**

- 11.2.1 The project archive has been compiled into a stable, fully cross-referenced and indexed archive in accordance with guidelines (Brown 2007). The archive is currently held at the offices of Wessex Archaeology in Sheffield, under the project code 86081.

#### **11.3 Discard Policy**

- 11.3.1 No recommendations for discard of materials or artefacts have been made and none are anticipated.



## **11.4 Copyright**

- 11.4.1 This report, and the archive generally, may contain material that is non-Wessex Archaeology copyright (e.g. Ordnance Survey, British Geological Survey, Crown Copyright), or the intellectual property of third parties, which we are able to provide for limited reproduction under the terms of our own copyright licences, but for which copyright itself is non-transferrable by Wessex Archaeology. Users remain bound by the conditions of the Copyright, Designs and Patents Act 1988 with regard to multiple copying and electronic dissemination of the report.
- 11.4.2 Wessex Archaeology retains full copyright of any report under the Copyright, Designs and Patents Act 1988 with all rights reserved; excepting that it hereby provides an exclusive licence to the Client for the use of the report by the Client in all matters directly relating to the project as described in the specification. Any document produced to meet planning requirements can be copied for planning purposes by the Local Planning Authority.
- 11.4.3 Wessex Archaeology will assign copyright to the Client upon written request but retains the right to be identified as the author of all project documentation and reports as defined in the Copyright, Designs and Patents Act 1988 (Chapter IV, s.79).



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## 13 APPENDICES

### 13.1 Appendix 1: Assessment of the charred plant remains and charcoal

Key: A\*\*\* = exceptional, A\*\* = 100+, A\* = 30-99, A = >10, B = 9-5, C = <5; Analysis: P = plant

Feature	Context	Sample	Vol (L)	Flot size	Roots %	Grain	Chaff	Cereal Notes	Charred Other	Notes for Table	Charcoal > 4/2mm	Other	Analysis
Late Iron Age/Romano-British													
Boundary Ditch/Gully Group 1266													
1009	1008	12	25	25	25	-	-	-	C	Vicia/Lathyrus, stem	0/1 ml	coal	
Boundary Ditch Group 1267													
1227	1228	14	15	40	50	C	A	Hulled wheat grain frags, glume base frags including those of Spelt	C	Vicia/Lathyrus	0/1 ml	-	P
1205	1206	16	25	60	25	B	C	Hulled wheat and barley grain frags, glume bases	C	Avena/Bromus	1/1 ml	-	
Ditch													
1303	1302	18	15	30	15	-	-	-	-	-	0/1 ml	-	
Romano-British													
Structure Group 1393 - Pits													
1080	1079	29	10	80	40	A*	C	Hulled wheat and barley grain frags, glume bases	A	Vicia/Lathyrus, Avena/Bromus, Fallopia, Rumex, Brassica, Carex, Chenopodium, Persicaria, ?heather stems, roots	3/5 ml	coal	P
1082	1081	30	20	80	30	A	A*	Barley and hulled wheat grain frags, glume bases and spikelet forks including those of Spelt	B	Vicia/Lathyrus, Avena/Bromus, ?Vicia faba, roots	1/2 ml	coal	P
1096	1097	2	2	15	40	C	C	Hulled wheat grain frags, glume base frags	-	-	0/1 ml	-	
1379	1378	9	1.75	3	10	-	C	Glume base frags	-	-	-	-	
1386	1387	27	18	50	30	C	C	Hulled wheat grain frags, glume bases and spikelet forks	-	roots	0/<1 ml	coal	
Structure Group 1394 - Sunken building													



Feature	Context	Sample	Vol (L)	Flot size	Roots %	Grain	Chaff	Cereal Notes	Charred Other	Notes for Table	Charcoal > 4/2mm	Other	Analysis
1343	1352	40	20	90	30	A*	A*	Hulled wheat and barley grain frags, glume bases and spikelet forks including those of spelt, rachis frags	A	<i>Avena/Bromus, Vicia/Lathyrus, Brassica, Chenopodium, Carex, Rumex, Sherardia, Poa/Phleum</i> , roots	1/2 ml	coal	P
1355	1354	41	20	100	25	A*	A*	Hulled wheat and barley grain frags, glume bases and spikelet forks including those of spelt	A	<i>Avena/Bromus, Vicia/Lathyrus, Brassica, Rumex, Medicago/Tritolium</i> , tuber, roots	1/1 ml	coal	P
Enclosure Ditch Group 1265													
1023	1021	11	10	10	60	C	C	Indet. grain frags, glume bases	-	stem/roots	0/<1 ml	-	
Enclosure Ditch Group 1271													
1208	1210	17	25	60	5	C	B	Indet. grain frags, glume bases	C	<i>Avena/Bromus, Montia</i>	1/1 ml	-	
1301	1300	19	25	20	30	B	C	Hulled wheat and barley grain frags, glume bases	B	<i>Corylus avellana</i> shell frag, ?tuber, <i>Vicia/Lathyrus, Brassica, Medicago/Tritolium, Lolium/Festuca</i>	0/<1 ml	-	
Enclosure Ditch Group 1272													
1299	1298	10	25	15	20	C	C	Indet. grain frags, glume bases	C	<i>Avena/Bromus</i> , stem/roots	0/<1 ml	-	
Enclosure/Boundary Ditch Group 1268													
1130	1131	38	15	30	10	C	-	Indet. grain frags	C	<i>Vicia/Lathyrus</i> , stems/roots	1/2 ml	coal	
Enclosure Ditch/Gully Group 1269													
1138	1139	26	14	15	65	C	-	Hulled wheat grain frags	-	-	-	-	
Gully Group 1270													
1360	1361	39	20	25	10	C	C	Indet. grain frags, glume base	C	<i>Avena/Bromus</i> , stems/roots	1/1 ml	coal	
Gully Group 1390													
1046	1047	28	20	60	40	B	-	Hulled wheat and barley grain frags	C	<i>Avena/Bromus</i> , ?tuber, roots/stems	2/1 ml	coal	
Pits													
1085	1083	20	7	15	20	C	B	Hulled wheat and barley grain frags, glume bases	-	stems/roots	0/<1 ml	coal	
1095	1094	22	9	15	20	C	A	Barley grain frags, glume base fragments, awn fragment	C	<i>Rumex, Poa/Phleum, Avena/Bromus</i> , stem/roots	<1/1 ml	-	
1122	1120	21	9	40	20	C	C	Indet. grain frags, glume bases including those of Spelt	C	<i>Fallopia</i> , triangular capsule frag, roots	0/<1 ml	coal	



Feature	Context	Sample	Vol (L)	Flot size	Roots %	Grain	Chaff	Cereal Notes	Charred Other	Notes for Table	Charcoal > 4/2mm	Other	Analysis
1136	1137	32	10	70	30	A	A	Barley and hulled wheat grain frags, glume bases including those of Spelt	B	<i>Avena/Bromus, Polygonum, Vicia/Lathyrus</i> , tuber, roots	0/1 ml	coal	P
1325	1326	8	15	175	20	A*	A**	Barley and hulled wheat grain frags, glume bases and spikelet forks including those of Spelt	C	<i>Avena/Bromus, Chenopodium, Polygonum</i> , roots	1/2 ml	coal	P
	1326	31	20	180	40	A*	A*	Barley and hulled wheat grain frags, glume bases and spikelet forks including those of Spelt	A	<i>Vicia/Lathyrus, Avena/Bromus, Rumex, Raphanus</i> , cf. <i>Galeopsis</i> , roots	1/4 ml	coal	P
Ditches													
1337	1336	36	20	25	20	A	A	Hulled wheat and barley grain frags, glume bases including those of Spelt	B	<i>Avena/Bromus, Rumex</i> , stems	0/1 ml	-	P
1340	1341	33	20	20	50	C	-	Hulled wheat grain frags	-	-	0/1 ml	-	
Gully													
1368	1367	37	8	15	10	C	-	Hulled wheat grain frags	C	<i>Avena/Bromus, Tripleurospermum</i> , stems/roots	1/1 ml	-	
Grave													
1018	1024	1	5	15	50	-	-	-	-	-	-	-	
1245	1246	3	15	35	40	-	-	-	-	-	-	coal	
1245	1246	4	20	40	25	C	-	Hulled wheat grain frags	-	-	-	coal	
1245	1246	5	9	15	30	-	-	-	-	-	-	-	
Pits													
1123	1124	23	15	15	20	C	A	Hulled wheat and barley grain frags, glume bases	-	roots/stems	1/1 ml	-	
1185	1186	25	9	15	50	-	C	Glume base	-	-	-	-	
1216	1217	6	7	40	40	C	B	Hulled wheat grain frags, glume base frags and spikelet forks including those of Spelt	C	<i>Avena/Bromus, Raphanus</i>	0/<1 ml	coal	
1259	1258	35	20	30	20	B	B	Hulled wheat and barley grain frags, glume bases	C	<i>Avena/Bromus</i>	1/1 ml	coal	
1329	1328	7	1	4	10	-	-	-	-	-	-	coal	
Posthole													



Feature	Context	Sample	Vol (L)	Flot size	Roots %	Grain	Chaff	Cereal Notes	Charred Other	Notes for Table	Charcoal > 4/2mm	Other	Analysis
1167	1168	15	8	45	10	B	C	Hulled wheat grain frags, glume bases frags	C	<i>Chenopodium</i>	<1/<1 ml	coal	
Ditches													
1213	1214	13	15	30	40	C	A	Hulled wheat grain frags, glume base frags and spikelet forks including those of Spelt	C	<i>Raphanus, Galium, Vicia/Lathyrus</i>	-	-	
1320	1319	24	25	40	25	C	-	Barley grain frag	-	-	0/1 ml	coal	
Gully													
1321	1322	34	20	40	20	B	C	Hulled wheat and barley grain frags, glume bases	C	<i>Avena/Bromus, Corylus avellana</i> shell frags, stems	0/1 ml	-	



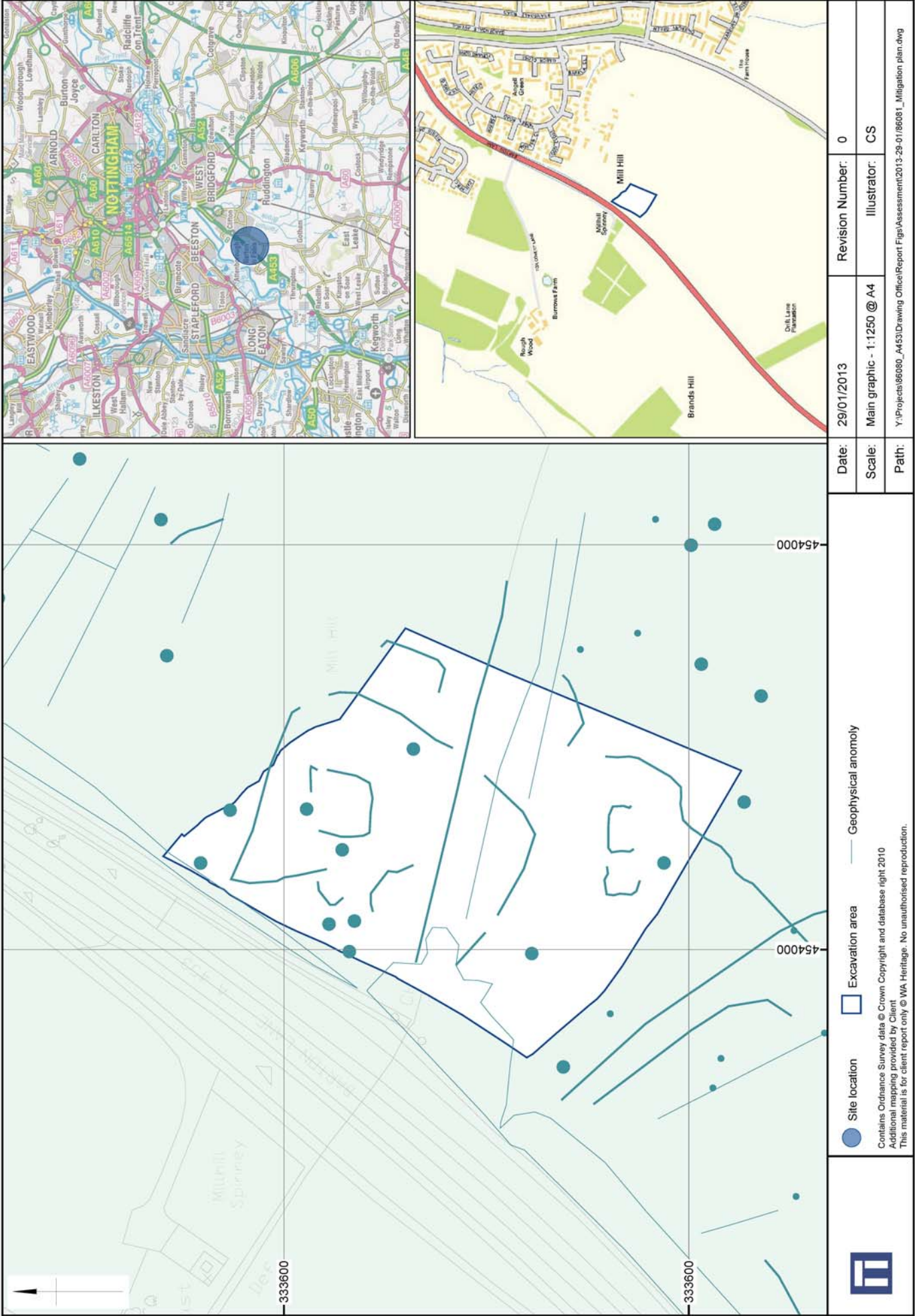


Figure 1



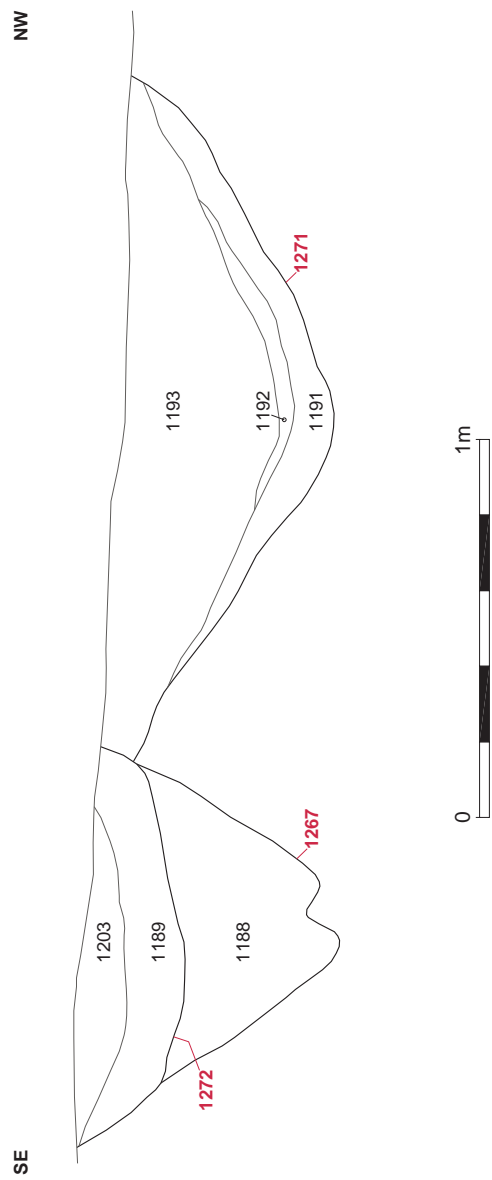
Phased plan of excavation area

Figure 2

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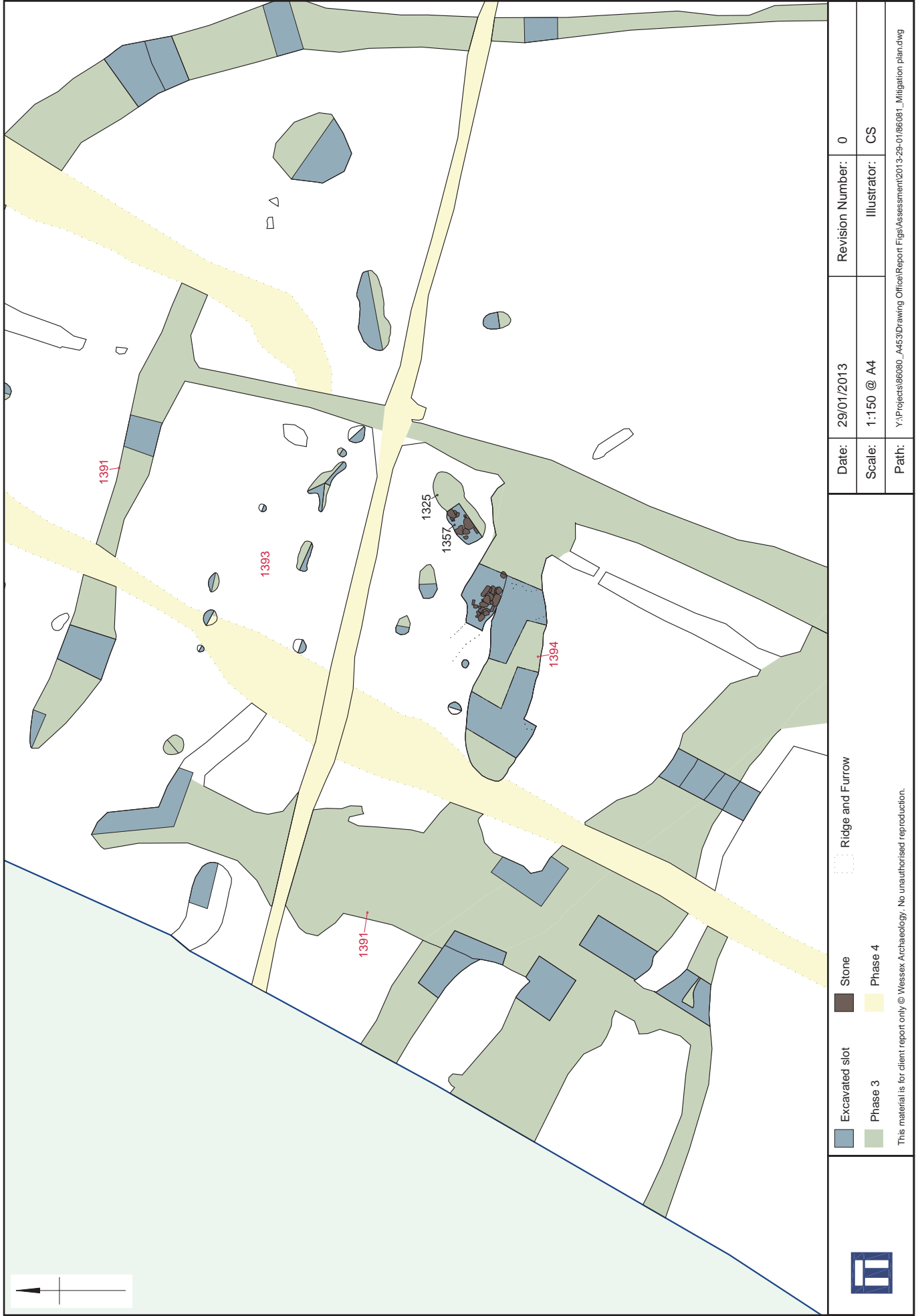
Section through enclosure ditches 1267, 1271 and 1272

Figure 3



Plan of human burials SK1 and SK2

Figure 4



Plan of Phase 3 structures 1391, 1393 and 1394 Figure 5



Plate 1: General view of Site showing typical ground conditions during excavation



Plate 2: Skeleton 2, crouched burial of a senior adult male


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Plate 3: Working hollow **1394** and possible corn-drying oven **1325**, facing west



Plate 4: Detail showing quern and ceramic building material in the backfill of **1325**



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Plate 5: Skeleton 1, extended burial of an adult of indeterminate sex

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