Northamptonshire Archaeology

A watching brief and earthwork survey during electrical cable replacement at Grimsthorpe Castle, Edenham, Lincolnshire

Northamptonshire Archaeology
2 Bolton House
Wootton Hall Park
Northampton NN4 8BE
t. 01604 700493 f. 01604 702822
e. sparry@northamptonshire.gov.uk
w. www.northantsarchaeology.co.uk

Northamptonshire County Council

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Jim Brown

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October 2010

STAFF

Project Manager	Jim Brown BSc PGDip MIfA
Fieldwork	Jim Brown
Earthwork survey	James Ladocha BA
Illustration	Amir Bassir BSc
Pottery	Paul Blinkhorn BTech
Brick	Pat Chapman BA CMS AIfA
Other finds	Tora Hylton
Animal bone	Karen Deighton MSc

QUALITY CONTROL

	Print name	Signed	Date
Checked by	Pat Chapman		
Verified by	Tony Walsh		
Approved by	Andy Chapman		

***OASIS* REPORT FORM**

PROJECT DETAILS		
Project name	A watching brief and earthwork survey during electrical cable replacement at Grimsthorpe Castle, Edenham, Lincolnshire	
Short description (250 words maximum)	The replacement of electrical cables by Central Networks was monitored by Northamptonshire Archaeology in two trenches to the rear of the Grimsthorpe Castle estate yard buildings and in the field to the south of the A151, next to the village. The cable trench behind the farm revealed modern deposits and levelling layers overlying natural clay. Within the field next to the village, the trench cut earthworks associated with a possible demolition deposit within a rectangular hollow. The deposit produced post-medieval pottery and possible building debris, which included window glass and lead. An earthwork survey was undertaken, supplementary to the watching brief, which identified a possible garden enclosure and site of a former cottage of mid-16th to 18th century date.	
Project type	Watching brief	
Site status	None	
Previous work	None	
Current Land use	Pasture and farm buildings	
Future work	No	
Monument / period	Medieval ridge and furrow, post-medieval earthworks	
Significant finds	Pottery, window glass and lead	
PROJECT LOCATION		
County	Lincolnshire	
Site address	Grimsthorpe Castle, Edenham, Lincolnshire, PE10 0LY	
Study area	Two locations, Cable trenches *c*78m and *c*42m long by 0.3m wide	
OS location	TF 5044 3228	
Height OD	*c*46-50m above Ordnance Datum	
PROJECT CREATORS		
Organisation	Northamptonshire Archaeology	
Project brief originators	Louise Jennings, Lincolnshire County Council	
Project Design originator	David Leigh, Northamptonshire Archaeology	
Director/Supervisor	Jim Brown, Northamptonshire Archaeology	
Project Manager	Jim Brown, Northamptonshire Archaeology	
Sponsor	Central Networks	
PROJECT DATE		
Start date	August 2010	
End date	August 2010	
ARCHIVES	**Location (Accession no)**	**Content (eg pottery, animal bone etc)**
Physical	LCNCC 2010.104	Pottery and window glass
Paper		Site watching brief record, photographic record & background documentation
Digital		Final report PDF
BIBLIOGRAPHY	Journal/monograph, published or forthcoming, or unpublished client report	
Title	A watching brief and earthwork survey during electrical cable replacement at Grimsthorpe Castle, Edenham, Lincolnshire	
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August 2010

Abstract

The replacement of electrical cables by Central Networks was monitored by Northamptonshire Archaeology in two trenches to the rear of the Grimsthorpe Castle estate yard buildings and in the field to the south of the A151, next to the village. The cable trench behind the farm revealed modern deposits and levelling layers overlying natural clay. Within the field next to the village, the trench cut earthworks associated with a possible demolition deposit within a rectangular hollow. The deposit produced post-medieval pottery and possible building debris, which included window glass and lead. An earthwork survey was undertaken, supplementary to the watching brief, which identified a possible garden enclosure and site of a former cottage of mid-16th to 18th century date.

1 INTRODUCTION

Northamptonshire Archaeology undertook a watching brief for Central Networks at Grimsthorpe Castle, Edenham, Lincolnshire (Fig 1; TF 5044 3228). Work was undertaken during the replacement of electrical cables and a small substation located on the south-west (rear) side of the estate yard buildings and in the field directly south of the A151, which is the main road passing through Grimsthorpe village.

The Lincolnshire County Council Historic Environment Team was asked to act as archaeological advisers for Central Networks to ensure compliance with the Electricity Act 1989. It was indicated that all groundwork would require monitoring and that a contingency for additional work would be appropriate. Northamptonshire Archaeology prepared a specification for the work which laid out the details for an archaeological watching brief (Leigh 2010). This specification was agreed with the Historic Environment Officer, who was then kept appraised of the progress of the work.

2 BACKGROUND

2.1 Archaeological background

Grimsthorpe Castle is a Grade I Listed Building that dates from the 13th century, with later additions and alterations, being largely rebuilt *c*1541 by Charles Brandon, Duke of Suffolk (HER33660). The castle is now the seat of the 3rd Earl of Ancaster. An excellent brochure describes the history of the house and is illustrated in detail (Williams 2003). The south-east tower, thought to have been built in the 13th century, is called King John's Tower. The east, west and south fronts were originally Tudor. The north front was designed by Vanbrugh in 1722 and the west front was partly rebuilt by him, and wholly rebuilt in Tudor style in 1840. Serious damage by fire to the south wing was reported in 1960. There are a number of important features noted in the vicinity of the main building; statues on the east approach (HER38414), two gate piers on the east drive (HER38415), ornaments on the south terrace (HER38322), a fountain basin (HER37560) and an ice house to the north (HER33497).

Scale 1:10,000

Site location Fig 1

The Grimsthorpe Castle Estate is a Grade I registered Park and Garden over 1000ha in size. The parkland is of medieval origin, recorded in the Domesday Book of 1086 and also documented in 1516. The gardens were probably first laid out *c*1680 but were replaced by Stephen Switzer in 1711. They were depicted by William Stukeley in 1736 before a design for the updating of the park was created by Lancelot Brown in 1771 that expanded its area. Most of Switzer's design was replaced during the late 19th century. Recently two 19th-century ornamental ponds were rediscovered and surveyed within the grounds (Cope-Faulkner 2001). Gardens were also created 1960-1970 that replaced earlier designs.

A number of estate buildings are of significance. The former coach house has now been converted into a conference centre and restaurant for visitors to the main house (HER37561). It is likely to have been built in the early 18th-century by Sir John Vanbrugh, but has received considerable 19th-20th-century alterations. Cable trench 1 was located due south-east of the old coach house and south of the laundry cottages. The laundry cottages in the estate yard are of early 19th-century origin (HER37760).

In addition to the castle, estate buildings and parkland are the buildings and residences for the population who lived and worked on and around the estate, and also buildings which served the Edenham parish community and its visitors. A prominent building amongst these is the Black Horse Inn (HER37537), located directly opposite to the site of Cable trench 2. The inn is originally of 17th-century construction with extensive 18th to 19th-century alterations and additions. It is flanked by two stable blocks around a courtyard that opens onto the main road to its south (HER38315, 37538). A number of cottages also survive, a few have 17th-century or early 18th-century origins, but almost all have been altered in the late 18th-century or early 19th-century. The older cottages are timber-framed. Later modifications have improved the walls with coursed squared limestone and ashlar quoins. In general they are characterised by pantile roofs, crested ridge tiles, single ridge and gable brick stacks, ashlar bases on the gables and are single storey with attics. The cottages are built along the Main Street, which is the modern A151 through Grimsthorpe. These cottages comprise the 17th-century Old Post Office Cottage (HER37536) and Dairy (HER37535) both timber-framed, the early 18th-century Gardeners Cottage (HER38746), Rose Cottage (HER38707) and Heather Cottage (HER38430), the late 18th-century Ivy Cottage with its adjacent cottages (HER37534) and Butlers Cottage (HER38431), and the Grimsthorpe Lodge Cottage, built in 1897. There is also a 19th-century milestone by Home Farm (HER37540), and a 1935 design K6 telephone kiosk in the village (HER38084).

The immediate vicinity of the works, within 1km, contains several sites of archaeological interest. Most of these are identified by aerial photographic mapping and are recorded in the Lincolnshire Historic Environment Record. A possible barrow cropmark with encircling ditch is 1km south of the village (HER34742). A cropmark enclosure with a prominent linear feature attached to it is also recorded in fields 1km to the north-east, close to the East Glen River (HER34741). There is a further cropmark of unknown provenance located within the park, 700m west of the main house (HER33664). Extensive ridge and furrow is recorded throughout the parkland, a large proportion of this lies within the open fields of Edenham and one of these areas extends from the south side of Grimsthorpe (HER36195).

2.2 Topography and geology

The location of the cable replacements, within the parish of Edenham, lay to the east and north-east of Grimsthorpe Castle. Cable trench 1 was on the south-west (rear) side of the estate yard buildings, Cable trench 2 was in the field to the south of the A151, directly opposite the Black Horse Inn. The field is currently pasture and exhibits ridge

and furrow, as well as other earthworks. The site lies upon a gentle slope which drops toward the east as it approaches the East Glen River, between *c*46-50m above Ordnance Datum.

The underlying geology is Oxford Clay and Kellaway Beds (BGS 2001). Light yellowish-grey and greyish-blue natural clay was observed during the watching brief. The soil belongs to the Ragdale soil association derived from chalky till and comprising slowly permeable seasonally waterlogged clayey and fine loamy clay soils (LAT 1983).

3 WATCHING BRIEF STRATEGY

3.1 Objectives

The objectives of the archaeological works were to examine the archaeological resource within the proposed development area, specifically to:

- observe the groundworks connected with the cable replacement works and the new sub-station and all associated groundworks
- determine and record the date, extent, character, state of preservation and depth of burial of any archaeological deposits
- create a permanent archive and record of the archaeological information collected during the course of the fieldwork and analysis.

3.2 Methodology

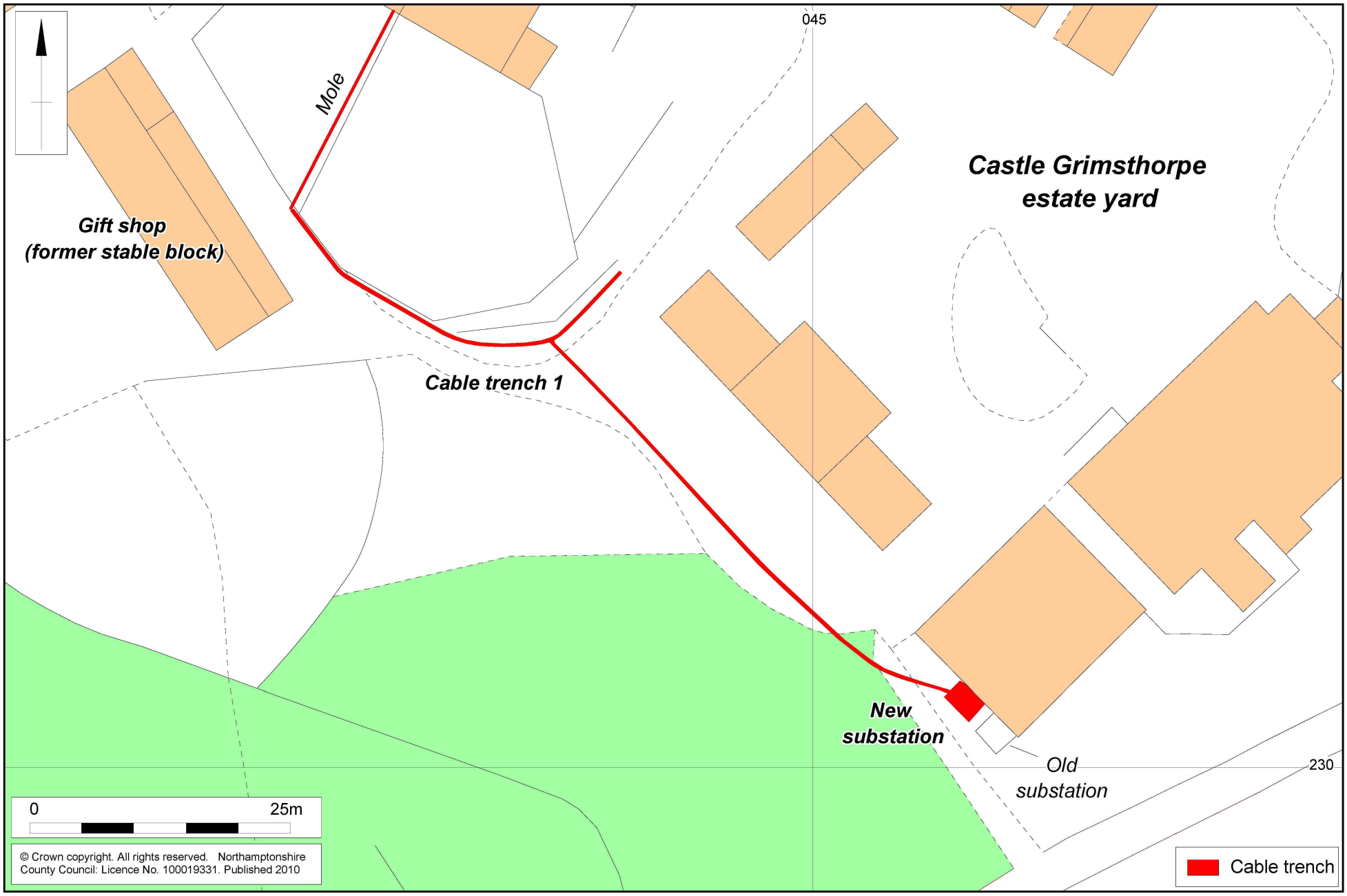
The full extent of both cable replacement trenches was observed. The locations were recorded in relation to the Ordnance Survey using measurements to fixed points along field boundaries and buildings.

The topsoil and subsoil was removed under archaeological supervision by mechanical excavator, fitted with toothless ditching buckets, 300mm and 600mm wide, to reveal significant archaeological remains or, where these were absent, the natural substrate. Archaeological deposits were cleaned and examined sufficiently to characterise, record and date their nature and extent. A collection of artefacts was retained for analysis. The location and extent of these deposits was planned in relation to surrounding earthworks visible at the ground surface using a combination of Leica 1200 GPS survey equipment and hand tapes.

Digital photographs were taken, supplemented with 35mm monochrome negatives, and colour transparencies for archive purposes. The photographic record is accompanied by *pro forma* watching brief record sheets that contain detailed information on each Cable trench and the archaeological deposits encountered. All photographs and paper archive records have been compiled in accordance with recognised best practise (Walker 1990) and the guidelines of Lincolnshire County Council, as described in the *Archaeology Handbook* (LCC 2009).

Northamptonshire Archaeology is an Institute for Archaeologists (IfA) registered organisation (RAO 48). All work was undertaken in accordance with current best archaeological practice as defined in the Institute of Archaeologists' *Code of Conduct* (IfA 2010), *Standard and Guidance for an archaeological watching brief* (IfA 2008), the procedural documents of English Heritage (EH 1991; 2009).

Scale 1:500



Cable trench 1 Fig 2

4 RESULTS

All contexts are listed in Table 1, below.

4.1 Cable trench 1

The cable trench to the rear of the estate yard buildings passed between the footprint of the new substation, through a grassed area and across a compact fissile limestone yard surface to the further, western, grassed verge (Fig 2). The remainder of the trench divided into two arms both following the rear garden boundary to the former laundry cottages (HER37760) within this grassed area. The trench did not extend as far west as the former coach house (HER37561) and its connection between the trench and the cottages was mole drilled below the rear garden.

The trench revealed several contextual changes of material, most of these deposits were largely redeposited natural mixed with silty clay, and a few carried recent material in the form of fragmented fissile limestone, tile, brick and salt-glazed drain pipe. It is likely that most if not all of these deposits were of modern origin and that potentially late post-medieval tile or brick is residual amongst the deposits. There was no pottery present for secure dating and the ceramic building materials were not whole enough to be informative of manufacture or to provide indicative dimensions, other than those from which a brick drain inspection pit was constructed.

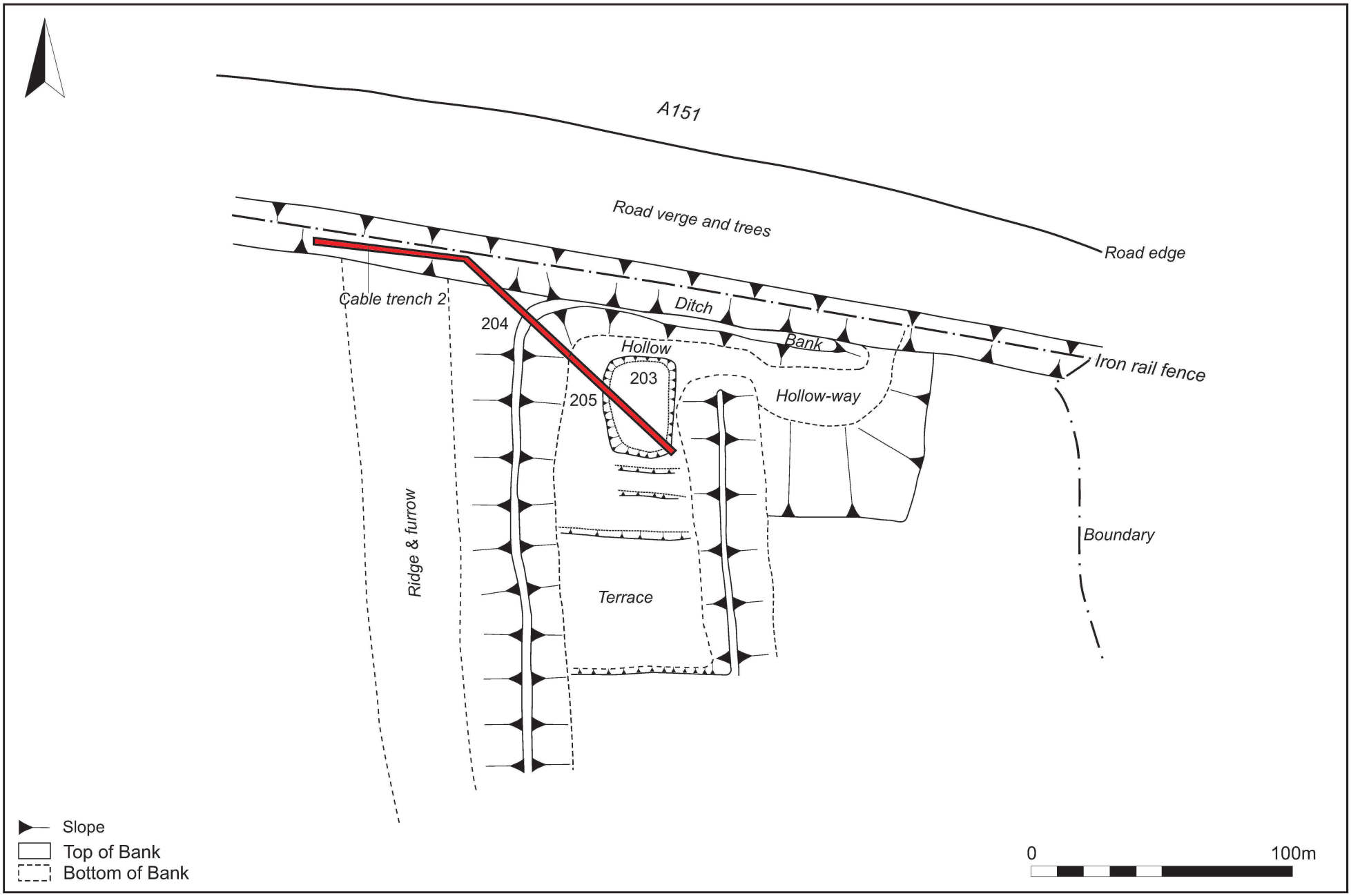
4.2 Cable trench 2

The cable trench revealed a short but clear sequence of deposits. At the west extent of the cable trench the natural Oxford Clay was overlain by cultivation soils (204) that formed ridge and furrow on a north-south alignment and contained a sherd of 13th-century Bourne 'A' ware. The highest ridge was 0.8m thick where it may have formed a boundary with a possible enclosure (Fig 3). Ridges to its west were smaller at around 0.4-0.5m thick. The cable trench clipped the north end of these ridges where they terminated at a former north field boundary ditch.

A level terrace in the eastern extent of the cable trench was formed by a sandy clay layer (205) that was up to 0.25m thick, which produced mid-16th-century pottery. Above this, in a limited area, was another post-medieval layer (203), filling a roughly rectangular hollow *c*10m long by 6.5m wide to a depth of 0.42m. The deposit produced post-medieval material that comprised late 17th-century pottery, 18th-century clay tobacco-pipe stems, animal bone, window glass, a piece of lead and a ferrous nail. Its scattered limestone content was reminiscent of local building material. The deposit may be a levelling layer of waste material used to fill the hollow or possible demolition from a small cottage.

4.3 Earthwork survey

Since the surrounding earthworks appeared relevant and informative to the deposit within the trench, they were surveyed into the Ordnance Survey (Fig 3). The overall pattern, whilst generally low-lying, is distinctly separate from the neighbouring ridge and furrow cultivation and forms fairly level ground, rising gently to the south. It forms a small roughly rectangular enclosure around the hollow, with low terraces rising on its south side, a bank and ditch bounding its north side and an entranceway to the north-east. At its north-east corner this entrance meets with a low curving hollow-way that turns through 90° to the north and slopes down towards the main road (A151). The form of the earthworks is suggestive of a small cottage enclosure with rear garden terraces. No such structure has ever been depicted by the Ordnance Survey since 1891, so it is likely to be earlier.



Scale 1:2000

Cable trench 2 and earthwork survey Fig 3

Table 1: Context index

Context	Type	Description	Maximum thickness/depth (mm)	Relationships
Cable trench 1				
101	topsoil	light greyish-brown loose silty clay loam	120	at surface overlies 102 overlies 105 overlies 110
102	modern layer	yellowish-grey clay containing brick fragments and stone	410	overlies 103
103	modern layer	bluish-grey and brown silty clay with charcoal flecks and root intrusions	180	overlies 105
104	yard surface	crushed and compacted fissile limestone	180	at surface overlies 112
105	modern layer	mottled dark greyish-brown and orange silty clay with frequent gravel <20mm diameter	350	overlies 113 slumps into 106
106	old cable trench	former electrical cable trench in substation footprint	500	cuts 108 cuts 109
107	fill	clean orange-yellow builders sand	370	fills 106
108	modern layer	yellowish-grey clay with frequent gravel <20mm diameter, fragmented brick, tile, limestone and salt-glazed pipe	620	overlies 109
109	post-med layer	firm greyish-blue silty clay with moderate charcoal smears	90	at base of substation
110	yard surface	same as 104 where grass encroaches from the west	160	overlies 111
111	modern layer	reddish-brown and orange silty loam, infrequent pebble flint, limestone fragemts, brick and charcoal smears	400	overlies 113
112	drain	narrow brick inspection chamber 185x140x240mm	240	cuts 102 cuts 103
113	natural	oxford clay	-	at base of cable trench
Cable trench 2				
201	topsoil	friable mid-greyish-brown silty sandy loam	380	overlies 202
202	subsoil	firm mottled mid-orange and yellowish-brown sandy clay	100	overlies 203 overlies 204
203	post-med layer	light greyish-brown silty loam with thin lens of scattered crushed limestone <60mm in diameter, no brick or tile	420	overlies 205
204	ridge and furrow	light orange and greyish-brown sandy clay loam, well sorted but infrequent stones <30mm in diameter	800	overlies 206
205	post-med layer	orange-yellow mottled sandy clay with charcoal flecks	250	overlies 204
206	natural	oxford clay		

5 FINDS

5.1 Pottery by Paul Blinkhorn

The pottery assemblage comprised twenty-five sherds with a total weight of 839g. It comprised a mixture of medieval and later wares, with the main period of activity dating to the 16th-17th centuries. Some of the material, specifically fabrics, MP, BOU and CIST could date to the mid-late 15th century.

Table 2: Pottery occurrence by number and weight(g) of sherds

Context/fabric		205	204	203	201	Totals
RB	No	-	-	2	-	2
	Wt	-	-	11	-	11
BOUA	No	-	1	-	-	1
	Wt	-	16	-	-	16
MP	No	1	-	3	3	7
	Wt	3	-	56	80	139
BOU	No	4	-	1	-	5
	Wt	142	-	157	-	299
CIST	No	-	-	1	-	1
	Wt	-	-	23	-	23
MY	No	1	-	1	1	3
	Wt	35	-	7	17	59
BL	No	-	-	1	-	1
	Wt	-	-	13	-	13
STSL	No	-	-	2	-	2
	Wt	-	-	17	-	17
LERTH	No	-	-	1	1	2
	Wt	-	-	109	30	139
BS	No	-	-	2	-	2
	Wt	-	-	23	-	23
Date		Mid-16th C	13th C	Late 17th C		

The material was recorded using the coding system of the City of Lincoln Archaeology Unit type-series (Young *et al* 2005):

BOUA: Bourne 'A' ware, 13th-14th century, 1 sherd, 16g
MP: Midland Purple ware, mid-15th-17th centuries, 7 sherds, 139g
BOU: Bourne 'D' ware, *c*1450-1637, 5 sherds, 299g
CIST: Cistercian ware, late 15th-17th centuries, 1 sherd, 23g
MY: Midland Yellow ware, mid-16th-18th centuries, 3 sherds, 59g
BL: Midland Blackware, late 15th-18th centuries, 1 sherd, 13g
BS: Brown Stoneware, late 17th-19th centuries, 2 sherds, 23g
STSL: Staffordshire-type slipwares, *c*1650-1800, 2 sherds, 17g
LERTH: Early modern black-glazed earthenwares, late 17th-19th centuries, 2 sherds, 139g

In addition, two very abraded residual sherds of Romano-British pottery were noted in layer (203). The pottery occurrence by number and weight of sherds per context by fabric type is shown in Table 2. Each date should be regarded as a *terminus post quem*.

The range of fabric and vessel types comprise mainly bowls, large jars, cups and dishes/plates, which is very typical of domestic assemblages from sites in the area. The sherds are fairly large and well-preserved, indicating that there was contemporary occupation in the immediate vicinity of these excavations. The sherd of Bourne 'A' ware is slightly abraded and the calcareous inclusions leached out, as would perhaps be expected from material deposited in a plough-soil horizon.

5.2 Brick by Pat Chapman

This brick, from topsoil (201), has been deliberately made as nearly half a brick, known as a half bat, but with an open channel, not a frog, running across it (Fig 4). It has been mould-made from fine red clay with a few yellow streaks and very occasional grog inclusions, with all the surfaces sandy except for the bottom. The brick measures 140 by 108 by 65mm (5½ by 4¼ by 2½ inches), which makes it slightly longer than half of the usual bricks, which are between *c*200-225mm long (8-9 inches), but with a normal width and thickness. The semicircular open-ended channel is 65mm wide by 28mm deep by 108mm long (2½ by 1 by 4½ inches). There is some fine white lime mortar still adhering to part of the channel.

It is unclear what function the brick would have provided, since ventilation for buildings such as barns is done by leaving gaps between the bricks, and ventilation bricks are perforated. The mortar could imply that it was designed to carry something, such as a pipe, but there is no sign that the brick itself has been mortared into a structure. It is probably 18th to early 20th century in date and was the only piece of ceramic building material discovered in the vicinity of Cable trench 2.

Plan view and profile of brick (scale 5cm) Fig 4

5.3 Other finds by Tora Hylton

There are fifteen individually recorded finds recovered, all of which are post-medieval in date. The finds were recovered from post-medieval layer (203), they comprise eleven fragments of glass, three clay-tobacco pipe stems, one piece of lead and an iron nail.

Glass

There are two sherds of vessel glass and nine small fragments of window glass. The fragments of vessel glass include an extremely abraded bodysherd from an 17th to 18th-century wine bottle and a curved rod in black glass which is probably a handle for a different object. All the pieces of window glass are clear pale green, they measure no more than 55mm by 40mm and with the exception of two sherds, all display signs of desiccation with laminating surfaces. Although the fragments are small, they do not appear to be quarry fragments from leaded windows, none of the fragments have grozed edges or marked shadows from the decaying window leads.

Window lead

There is a short length of cast H-sectioned window came, the piece is unmilled and is probably unused.

Clay tobacco-pipe stems

The stem fragments measure up to 45mm in length, two of the fragments have bore diameters of 6/64ths of an inch and one of 7/64ths of an inch, suggesting that they date between the 17th to 18th centuries.

Iron nail

The nail is incomplete with the terminal of the shank missing. The shank is square-sectioned with a flat sub-circular head and curved profile. It is 63mm long.

6 ANIMAL BONE by Karen Deighton

There is 184g of animal bone from a single post–medieval layer (203), dated by associated pottery. Where possible bone was identified to taxa with the aid of a bone atlas (Schmid 1972), and preservation was also recorded.

Results

A high level of fragmentation was observed but with little abrasion of the bone surfaces. No evidence for canid gnawing or butchery was apparent. The bone elements from a number of common domesticates were present. These were as follows:

- A pig anterior mandible with tusk indicating a male specimen and scapula fragment with fresh breaks.
- A sheep/goat fusing distal tibia, fused proximal radius and a maxillary molar
- A cattle acetabulum, iliac fragments and mandibular hinge
- A cat metatarsal
- A large ungulate rib
- Two indeterminate bone fragments

The mixed nature of the assemblage, both in terms of the bone elements present and the taxa represented, and its context, filling of a hollow, suggest its genesis to be domestic waste disposal. Little more can be added due to the small size of the assemblage.

7 SUMMARY

All of the earthmoving was monitored during the watching brief and a full archive record was produced for the archaeological remains that were encountered.

All deposits that were observed in Cable trench 1, to the south-west of the estate yard buildings, were demonstrably of modern origin. In most cases these represented levelling deposits and yard layers, or were the result of modern disturbances and the backfill of existing service lines.

Cable trench 2 encountered archaeological deposits that were dated by finds. There was ridge and furrow at its west end that produced 13th-century pottery. The east end of the cable trench cut earthworks that were associated with a post-medieval layer. No structural elements were encountered within the trench and the earthworks were surveyed onto the Ordnance Survey. The deposit may be a levelling layer for a former building, which had been robbed of its good building stone, or it may be the fill of a hollow cut for other means. The earthworks also indicate a small garden enclosure with low terraces to the rear of a potential building. The finds are of a domestic nature, including window glass and lead.

The layer contains pottery that first came into use in the late 15th or 16th century, but much of it continued in use into the 17th to 18th centuries when the bottle glass and clay-tobbacco stems were produced. Very little of the pottery was also used in the 19th-century. The most likely date range appeared to be mid-16th century to 18th century, with the late 17th century being the first potential date for demolition. Reference to early Ordnance Survey maps since 1888 show that there has never been a building recorded at this location.

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Northamptonshire Archaeology

Northamptonshire Archaeology
2 Bolton House
Wootton Hall Park
Northampton NN4 8BE
t. 01604 700493 f. 01604 702822
e. sparry@northamptonshire.gov.uk
w. www.northantsarchaeology.co.uk

REGISTERED ORGANISATION IfA

CHAS CONTRACTORS HEALTH & SAFETY ASSESSMENT SCHEME Accredited Contractor www.chas.gov.uk

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