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## Northamptonshire Archaeology

**A Romano-British Ditch  
at Shefford Lower School  
Shefford  
Bedfordshire**

**August 2007**

**Accession no. BEDFM 2007.618**



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September 2007

Report 07/137

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**QUALITY CONTROL**

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(Front page illustration: General view of northern half of trench, facing north)

**OASIS REPORT FORM**

<b>PROJECT DETAILS</b>		
Project title	Shefford Lower School, Shefford, Bedfordshire	
Short description (250 words maximum)	An archaeological trial trench was excavated by Northamptonshire Archaeology on a playing field at Shefford Lower School, Shefford, Bedfordshire. A Romano-British ditch, possibly a field boundary or enclosure ditch, crossed the trench on a north-east to south-west alignment. The ditch fills contained a small quantity of Roman tile and an opaque blue glass globule, possibly a fragment of decoration from a 1st century AD glass vessel.	
Project type	Trial trench evaluation	
Previous work (reference to organisation or SMR numbers etc)	None	
Future work (yes, no, unknown)	Unknown	
Monument type and period	None	
Significant finds (artefact type and period)	None	
<b>PROJECT LOCATION</b>		
County	Bedfordshire	
Site address	Shefford Lower School, School Lane, Shefford, Bedfordshire	
OS NGR	TL 1379 3872	
Area	160m <sup>2</sup>	
Height aOD	c 45m	
Land use	School playing field	
<b>PROJECT CREATORS</b>		
Organisation	Northamptonshire Archaeology	
Project brief originator	Bedfordshire County Council	
Project Design originator	Anthony Maull, Northamptonshire Archaeology	
Director/Supervisor	Simon Carlyle, Northamptonshire Archaeology	
Project Manager	Anthony Maull, Northamptonshire Archaeology	
Sponsor or funding body	Porter Consulting and Management Services Ltd	
<b>PROJECT DATE</b>		
Start date	17th August 2007	
End date	17th August 2007	
<b>ARCHIVES</b>	<b>Location</b>	<b>Content (eg pottery, animal bone etc)</b>
Accession no. BEDFM2006.749		
Physical		
Digital		
<b>BIBLIOGRAPHY</b>		
Journal/monograph, published or forthcoming, or unpublished client report (NA report)		
Title	A Romano-British Ditch at Shefford Lower School, Shefford, Bedfordshire	
Serial title and volume	07/137	
Author(s)	Simon Carlyle	
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Date	September 2007	

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Fig 2: Trench location plan

Fig 3: Trench plan and section

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Plate 1: Ditch [7], facing east

**A ROMANO-BRITISH DITCH  
AT SHEFFORD LOWER SCHOOL  
SHEFFORD  
BEDFORDSHIRE**

**AUGUST 2007**

**Accession No. BEDFM 2007. 618**

***Abstract***

*An archaeological trial trench was excavated by Northamptonshire Archaeology on a playing field at Shefford Lower School, Shefford, Bedfordshire. A Romano-British ditch, possibly a field boundary or enclosure ditch, crossed the trench on a north-east to south-west alignment. The ditch fills contained a small quantity of Roman tile and an opaque blue glass globule, possibly a fragment of decoration from a 1st century AD glass vessel.*

**1 INTRODUCTION**

In August 2007, an archaeological evaluation was carried out by Northamptonshire Archaeology (NA) on a playing field at Shefford Lower School, Shefford, Bedfordshire (TL 1379 3872; Fig 1). The work was commissioned by Porter Consulting and Management Services Limited, who are proposing to submit a planning application to Mid Bedfordshire District Council for the construction of a pre-school building on the site.

The site lies within an area of significant archaeological interest and sensitivity so, following consultation with the Bedfordshire County Council Heritage and Environment Section (BCCHEs), it was agreed that there should be an archaeological assessment in order to mitigate against the impact of the development on buried archaeological remains. This is in accordance with *Planning Policy Guidance: Archaeology and Planning (PPG16)*, section 30.

The evaluation was carried out to the requirements of the brief for archaeological field evaluation issued by BCCHEs (2007) and the specification prepared by NA (2007).

The specific aims of the project were to:

- Establish the date, nature and extent of activity or occupation on the development site, recovering artefacts to assist in the development of type series within the region and to recover any possible palaeoenvironmental deposits to determine local environmental conditions
- Place the archaeology of the site within its local, regional and national archaeological context.
- Define any potential constraints for further archaeological fieldwork including areas of disturbance, service locations etc

The national framework for research is set out by English Heritage (EH 1997). The broad research frameworks for the eastern counties of England are set out by Brown and Glazebrook (2000); this does not as yet include Bedfordshire, although it is envisaged it will be included in future revisions. A research framework for Bedfordshire currently exists in draft form (Oake in prep). This report complies with the framework for archaeological reports set out in Appendix 7 of *Management of Archaeological Projects 2* (EH 1991).

## 2 BACKGROUND

### 2.1 Topography and geology

The proposed development site, which covers an area of approximately 160m<sup>2</sup> and lies at approximately 45m aOD, is situated on level ground in the south-east corner of a playing field at Shefford Lower School, Shefford, Bedfordshire. In its wider setting, the site is located close to the western margins of the town, between the A507 and Ampthill Road, on the north-facing slope of an east to west ridge that lies between the River Flit to the north and a small tributary stream to the south.

The underlying geology is Lower Greensand with superficial deposits of Boulder Clay; alluvium and gravel deposited by the River Flit occur to the north of Ampthill Road (BGS 1996). The soils are of the Evesham 3 (411c) soil association, comprising slowly permeable calcareous clayey and fine loamy over clayey soils (SSEW 1983).

### 2.2 Historical and archaeological background

The proposed development site is situated within an archaeological sensitive area which has been subject to archaeological investigation since the early 19th century, when Thomas Inskip, a local antiquarian, located a Roman cremation cemetery in the area now occupied by Shefford Lower and Middle Schools. The finds included a wide range of artifacts, including high quality pottery, glass vessels and coins. Subsequent investigations identified a rectangular stone building, initially described as a temple. During the building of the school in 1940s, the 'temple' was re-interpreted as a probable villa building with a hypocaust (Simco 1984). Between 1993 and 2005 the area has been subject to various archaeological investigations (Albion 2001, 2003 and 2005; Archaeological Solutions 2003; BCAS 1993, 2000a, b and c).

The following section comprises a summary of Bedfordshire Historic Environment Record (HER) listings in the immediate vicinity of the site and its hinterland for a distance of approximately 1km (Fig 1).

Prehistoric finds from the Shefford area include the discovery of a flint scatter (HER 3508) and a Bronze Age beaker (HER 380) to the north and west of the development area. Excavations at 77-81 Ampthill Road, immediately to the north of the proposed school building, found Neolithic/Bronze Age flint in association with residual late Bronze Age/early Iron Age pottery (Albion 2001).

Extensive areas of cropmarks have been mapped from aerial photographs, in areas to the north-west (HER 13995), north (HER 3525 and 15369), south-east (HER 11766) and south (HER 602 and 3524) of the proposed development area. The cropmarks relate to ring ditches, enclosures and settlement activity dating to the Bronze Age, Iron Age and Roman periods. Additionally, the surviving earthworks of a possible Iron Age hillfort (HER 2862) are also known to the north of the village.

Evidence for the Roman period is well represented, especially within the immediate confines of the school and its surrounding area. As mentioned above, the proposed development site lies in close proximity to a villa, which has been dated to between the 1st to 5th centuries AD. Evaluations in the area and subsequent excavation have also identified activity ranging from the Iron Age through to the medieval period (Albion 2005). Several Roman roads have also been listed in the area (HER 717, 5342 and 10480) in the Viatores' *Roman Roads in the South-East Midlands* (1964), although these are presently unproven.

The medieval period is represented by the historic centres of Shefford (HER 17106) to the north-east, Campton (HER 17107) to the south-west and Polehanger Green (HER 5501) to the south. The latter is shown on Jeffrey's map of 1765 and is depicted with a series of extensive earthworks, now levelled (HER 1775). Surviving woodland, possibly of medieval date, is also known at Campton plantation to the west of the development area, north of the Ampthill Road. A number of post-medieval and 19th century buildings and sites, including parkland, mills, old sand-pits, cemeteries, a public house and gas works have also been listed in the area. Details are given in Table 1 below.

*Table 1: HER sites in the Shefford area*

HER no.	NGR	Description
379	TL 137 387	Group number given to archaeological work around Shefford Upper and Lower Schools.
380	TL 1338 3847	Bronze Age beaker found between Shefford and Campton. Described as Type A-C, long necked beaker, late Neo-BA 2100-1650BC.
602	TL 1338 3860	Undated circular cropmark.
717	TL 1305 4000 to 1370 3890	Course of Roman road, listed in <i>Viatore's</i> , SE Midlands 1964, but not proven.
939	TL 3890 3960	Post-medieval brick built windmill, ceased working in 1880 and partly demolished.
1775	TL 141 382	Extensive earthworks (now levelled) and buildings visible on Jeffrey's map of 1765 in vicinity of Polehanger Farm (Polehanger Green) in parish of Meppershall.
2633	TL 1475 3945	Site associated with Shefford mill, medieval/post-medieval, stone built, now demolished.
2862	TL 1415 3985	Surviving earthworks of a possible hillfort.
2885	TL 1366 3942 to 1376 3943	Described as 'Old Sand Pits', visible on 1 <sup>st</sup> and 2 <sup>nd</sup> edition OS maps.
3508	TL 1397 3910	Find spot of worked flints.
3524	TL 1364 3865	Cropmark, possible ring ditch.
3525	TL 138 395	Cropmark, probable field boundaries.
5342	TL 1190 3830 to 1480 3900	Course of Roman road, listed in <i>Viatore's</i> , SE Midlands 1964, but not proven.
5448	TL 140 383	Possible site of Polehanger Mill, medieval with evidence of ploughing up to 'old building'.
5501	TL 140 380	Polehanger Green, hamlet, visible on Jeffrey's map of 1765, traces of buildings around green.

6805	TL 144 389	Site of post-medieval gas works.
6992	TL 133 396	Chicksands Park, post-medieval parkland.
8963	TL 1335 3880	Shefford Cemetery, opened in 1910.
10480	TL 140 395	Course of Roman road, listed in <i>Viatore's</i> , SE Midlands 1964, but not proven.
11766	TL 147 385	Cropmarks SE of Shefford.
15194	TL 1365 3932	Quaker burial ground.
15369	TL 1390 3980	Cropmarks NW of Shefford.
16378	TL 14803900	Site of Woolpack Inn public house.
17106	TL 144 392	Area of medieval settlement, historic core of Shefford.

### 3 EXCAVATION METHODOLOGY

A single 10.1m long trench was excavated within the footprint of the proposed building, using a JCB-type mechanical excavator fitted with a 1.8m wide toothless ditching bucket. The trench was positioned in accordance with the trench plan approved by BCCHEs. The topsoil and subsoil were removed under archaeological supervision to reveal significant archaeological remains or, where these were absent, the natural substrate. The topsoil and subsoil were stacked separately, on either side of the trench. All procedures complied with Northamptonshire County Council Health and Safety provisions and Northamptonshire Archaeology Health and Safety at Work Guidelines.

The trench was cleaned sufficiently to define any features and the features were then sample-excavated by hand to determine their date and character. The excavated area and spoil heaps were scanned with a metal detector to ensure maximum finds retrieval.

All archaeological deposits encountered during the course of the evaluation were fully recorded, following standard NA procedures. All archaeological features and deposits were given a separate context number and were described on *pro-forma* context sheets to include details of the context, its relationships and interpretation. Artefacts and ecofacts were collected by hand and retained, receiving appropriate care prior to removal from site (Watkinson and Neal 1998). Unstratified animal bones and modern material were not retained. Samples were taken for flotation from dateable contexts with the potential for the recovery of charcoal and carbonised or water-logged plant remains.

The trench was planned at a scale of 1:50 and the location of the trench was surveyed and related to the Ordnance Survey National Grid. Sections or profiles through features were drawn at a scale of 1:10 or 1:20, as appropriate, and related to Ordnance Datum. A full photographic record comprising both 35mm black and white negatives and colour transparencies was maintained, supplemented with digital images. On completion of archaeological recording and with the agreement of BCCHEs, the trench was backfilled. The field data has been compiled into a site archive with appropriate cross-referencing.



Monitoring of the programme of fieldwork was carried out by BCCHES. All works were conducted in accordance with the *Standards and Guidance for Archaeological Field Evaluation* (1994, revised 2001) and the *Code of Conduct* of the Institute of Field Archaeologists (1985, revised 2006). In addition, all works complied with the guidelines detailed in *Standards for Field Archaeology in the East of England* (Gurney 2003).

## 4 EXCAVATION RESULTS

The trial trench, which was 10.1m long and 1.8m wide, was positioned along the centre line of the footprint of the proposed building, on a north to south alignment (Fig 2).

The natural substrate (4) was glacial till (Boulder Clay), a light to mid brownish yellow clay with light greyish blue veins, containing shattered flint nodules and chalk flecks. It occurred at approximately 0.5m below ground level. In the southern half of the trench there was a slight, irregular depression in the natural substrate, possibly created by a tree throw, that had in-filled with a greyish brown clayey silt (3). This deposit was up to 0.25m thick and petered out near the centre of the trench.

Crossing the southern end of the trench on a north-east to south-west alignment and cutting deposit (3), was a ditch [7] (Fig 3; Plate 1). It measured approximately 1.6m wide, 0.88m deep and it had a steep-sided U-shaped profile which splayed out near the top. The primary fill was soft mid brownish grey clayey silt (6) with frequent orangey brown mottles, numerous snail shells and occasional pebbles. Several fragments of Roman ceramic tile and an opaque blue glass globule were recovered from this deposit. The upper fill (5) was mid greyish brown clayey silt with occasional pebbles and snail shells; it also contained Roman ceramic tile, as well as a residual flint flake.

The ditch was sealed by the subsoil (2), which was *c* 0.3m thick and comprised mid brown slightly sandy clayey silt. The topsoil (1) was approximately 0.23m thick and consisted of dark brownish grey organic slightly sandy silt. Both deposits contained occasional pebbles, and a fragment of medieval tile and a flint flake were recovered from the subsoil. Two narrow, parallel bands of mixed clay visible in the machined surface of the trench were modern machine-dug slots excavated for land drains.

## 5 FINDS

### 5.1 Worked flint by Yvonne B Wolfram-Murray

Two complete flint flakes (SFs 2 and 3) were recovered during the course of the evaluation. Both are residual finds, as one came from the subsoil (2) and the other from the fill (5) of a Romano-British ditch [7]. The flakes are struck from a vitreous flint and are light to mid brownish grey in colour. The much worn cortex on flake SF2 almost covers the dorsal surface and is a mid brownish white colour; the ventral surface is lightly patinated and shows some miscellaneous retouching and edge damage. Flint SF3 is more heavily patinated. Neither of the flakes is diagnostic and no date can be given.

## 5.2 Ceramic tile by Pat Chapman

There are eleven fragments of tile weighing 1336g. Ten of these are Roman roof tile by their fabric, two from the subsoil (2), and six from the upper fill (5) and two from the lower fill (6) of a probable Romano-British ditch [7]. One other tile fragment from the subsoil (2) might be medieval in date.

### *Roman*

The flat body sherds are between 15mm and 25mm thick; one large piece has a gouge 90mm long, 3mm wide and 1mm deep on the top that might have been made during manufacture. One fragment, possibly by design for incorporation into a tessellated pavement, is almost an equilateral triangle with two sides measuring 60mm and one 64mm. Five of the pieces are curved, which suggests that they are part of the curved *imbrex* type tile. The curved tiles are between 10mm and 18mm thick.

The fabric is hard fine silty sand with occasional inclusions of quartz up to 3mm, flint up to 4mm and grog up to 2mm. The tiles are a pale or slightly reddish orange colour, one with a black core, one grey and one reddish. The underside of some tile is sandy, presumably from the drying floor.

One small broken fragment of fired clay, from the upper fill (5) of ditch [7], weighs 12g. It is flat, 7mm thick, hard and slightly coarse with dense quartz, flint and grog and pale brown in colour. This sherd has been subject to high temperature, but could be a fragment from anything.

### *Medieval*

The remaining tile fragment, 12mm thick from the subsoil (2), was part of a hard coarse red brown tile, and could be a residual fragment of a medieval roof tile.

## 5.3 Glass by Simon Carlyle

A small, roughly spherical, opaque glass globule was recovered from the primary fill (6) of ditch [7]. It is light blue, almost turquoise in colour, and has a smooth, semi-lustrous surface. There is no hole or piercing, although on one side there is a small circular scar. It weighs less than 0.1g and has a maximum diameter of 3.16mm. When viewed with the scar to the side, the globule appears to be slightly flattened, suggesting that it may have been applied to a glass surface when in a molten state. The scar would have been formed when the globule broke off from the surface to which it had been attached.

Due to the small size of the fragment it is not possible to be certain, but the opaque glass globule found at Shefford may have been broken from a 1st-century glass vessel. Opaque glass blobs and chips were applied to several blown vessel forms in the second and third quarters of the 1st century AD (Price and Cottam 1998). The blobs were often marvered to create flattened blobs of opaque glass on the vessel surface, although protruding unmarvered blobs were also applied. This form of decoration fell out of use in the late 1st century AD, although blobs of translucent glass were occasionally applied to some drinking vessel forms in the 4th century AD.

#### **5.4 Animal bone** by Simon Carlyle

A small quantity of animal bone (7 fragments, 63g) was recovered from the upper fill (5) of a Romano-British ditch [7]. The bone was washed prior to assessment. Fragmentation was average, largely comprising old breaks, and surface condition was reasonable. One example of gnawing was noted. The fragments were too small to allow identification to species, but they derive from common, small- to medium-sized ungulates (hoofed animals). A single oyster shell was also recovered.

In addition, the residue from a soil sample taken from the primary fill (6) of the ditch [7] contained large quantities of snail shell and very small fragments of animal bone, possibly the remains of a small rodent, such as a vole or a shrew. The species present in the sample residue are representative of the fauna to be expected in a ditch in an open, agricultural setting.

Analysis has shown that preservation is generally good, particularly with respect to snail shell and bone. The assemblage is too small to speculate on aspects of the site's economy in terms of animal resources and husbandry practices.

#### **5.5 Environmental evidence** by Simon Carlyle

A 40 litre soil sample was taken from the primary fill (6) of a Romano-British ditch [7]. The sample was sub-sampled (20 litres) and processed using a siraf tank fitted with a 500-micron mesh and flot sieve. The resulting flots were dried and analysed using a microscope (10x magnification). The sample contained very small quantities (0.15 items per litre of soil; 3 items in total) of charcoal, fragments of which were too small to permit identification. Two charred weed seeds were also recovered.

The almost total absence of charcoal and charred plant material suggests that the ditch lies at some distance from areas of habitation and that crop processing is not being carried out nearby.

### **6 DISCUSSION**

A Romano-British ditch, possibly a field or enclosure boundary ditch, was identified in the trial trench. Although the ditch contained a fragment of Roman vessel glass and pieces of Roman tile, it contained no pottery and only a small quantity of charcoal, which suggests that the ditch is peripheral to the main area of any settlement. Given the apparent absence of evidence for domestic activity in the area, it is possible that the tile may have come from an agricultural building, such as a barn. The findings of the evaluation would seem to confirm the results of the geophysical survey carried out by GSB (1996), which found little evidence for archaeological remains in the area to the south and south-east of the school. It is likely that the focus of settlement lies to the north, beneath the houses and gardens on the south side of Ampthill Road.

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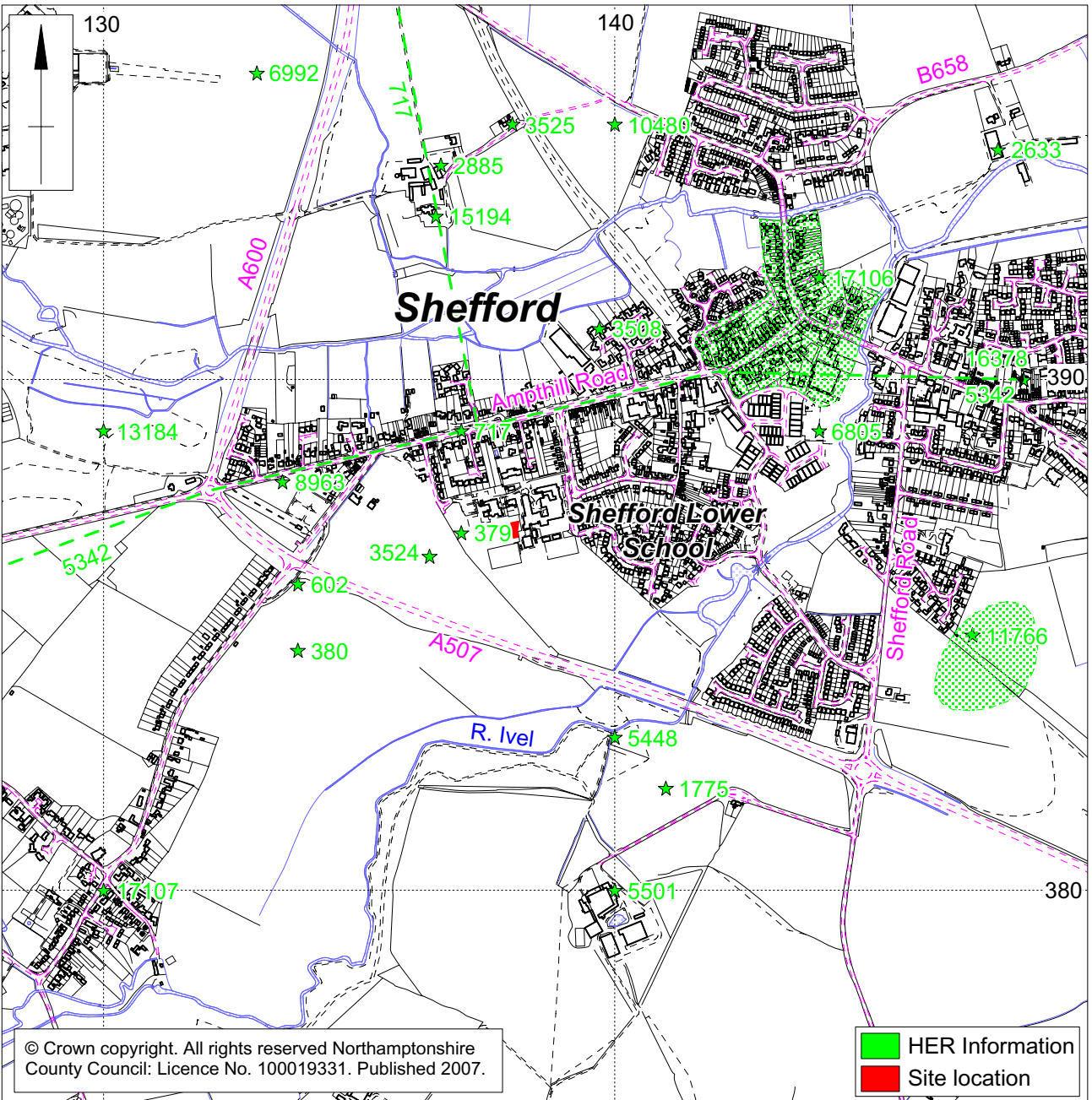
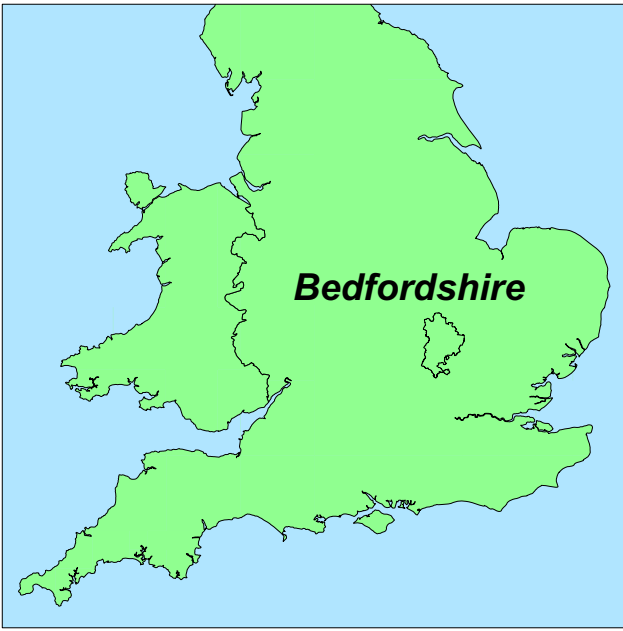
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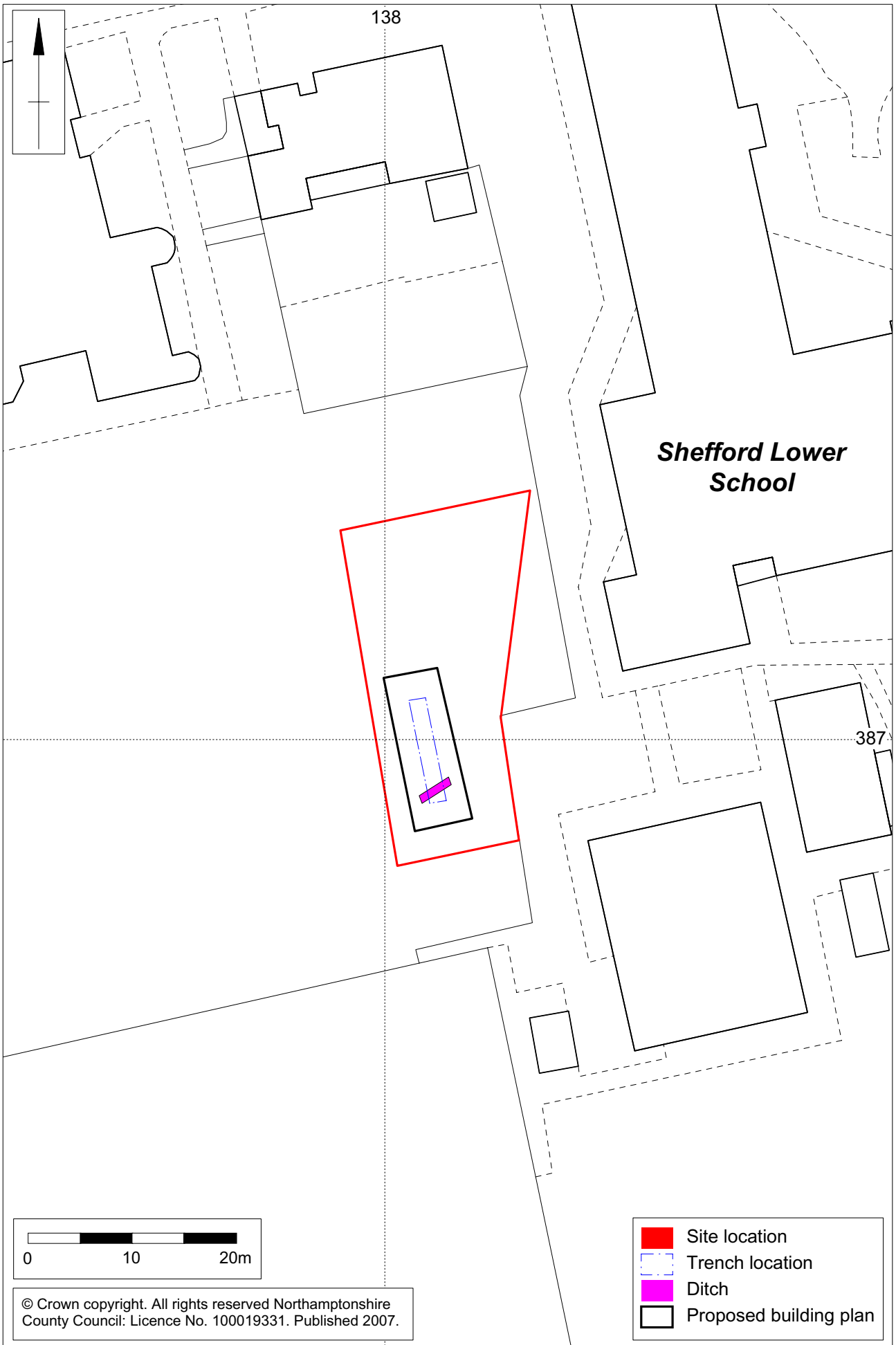
### **Maps**

SSEW 1983 *Soils of Eastern England, Sheet 4*, 1:250,000, Soil Survey of England and Wales



Scale 1:12,500

Site location & HER information Fig 1



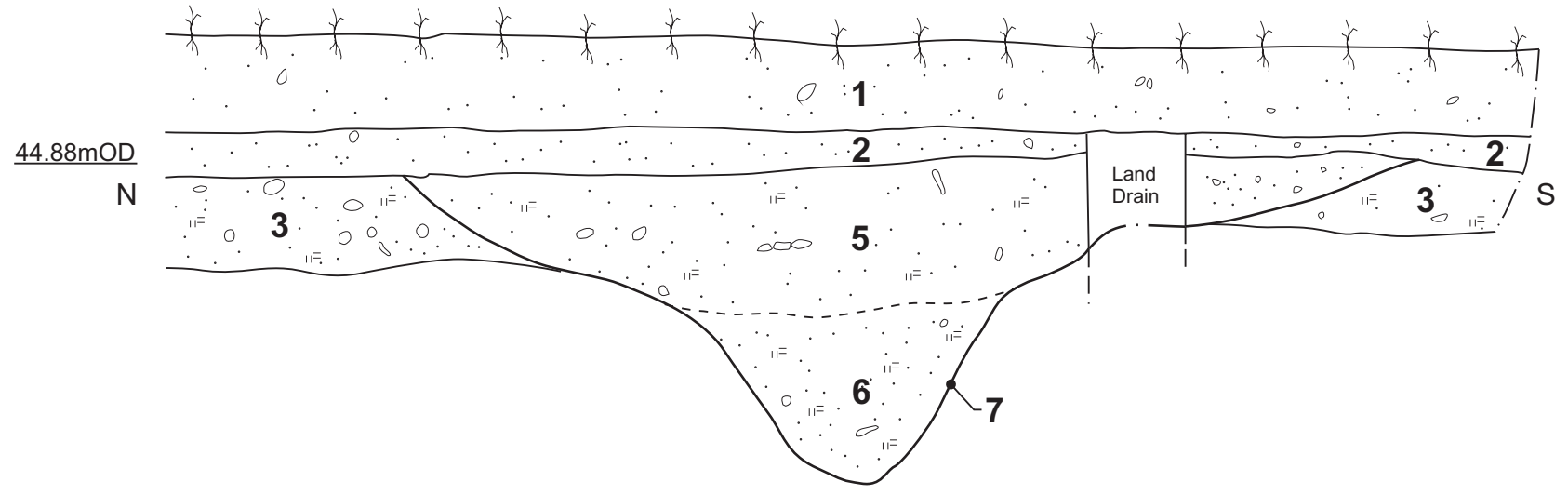
Scale 1:500

Trench location plan Fig 2

### Trench Plan



### Section 1



 Clay

Trench and section plan Fig 3





Plate 1: Ditch 7, facing E