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MAP
ARCHAEOLOGICAL PRACTICE Ltd.

Norton Community Primary School
Grove Street
Norton
Malton
North Yorkshire

SE 7952 7121

MAP 10.66.2012
Archaeological Watching Brief Assessment Report

**MAP
ARCHAEOLOGICAL PRACTICE LTD**

**Norton Community Primary School
Grove Street
Norton
Malton
North Yorkshire**

SE 7952 7121 (centre)

**Archaeological Watching Brief
Assessment Report**

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Date: 14/05/2012	Date: 14/05/2012

Acknowledgements

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**Norton Community Primary School
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Summary

The subject of this Assessment Report is the Third Century pottery kiln and associated ditches that were excavated and recorded by an Archaeological Watching Brief that was carried out during the construction of new buildings at Norton Community Primary School, Grove Street, Norton, North Yorkshire.

The Groundworks revealed a 3rd century pottery-manufacturing kiln, and a number of ditches, that were demonstrably later than the kiln.

A large and significant assemblage of Romano-British pottery was recovered, as well as a quantity of animal bone fragments.

1. Introduction

- 1.1 This report sets out the results of an Archaeological Watching Brief that was carried out by MAP Archaeological Practice during construction work during March and April 2012 at Norton Community Primary School, Grove Street, Norton, North Yorkshire (Figs. 1 - 3: SE 7952 7127).
- 1.2 The Watching Brief was carried out in accordance with a Written Scheme of Archaeological Investigation that was prepared in August 2011 by North Yorkshire County Council / Jacobs (NYCC / Jacobs 2011 – Appendix 9).
- 1.3 The MAP site code for the project was 10-66-2012.

- 1.5 All work was funded by North Yorkshire County Council.
- 1.6 All maps within this report have been produced from the Ordnance Survey with the permission of the Controller of Her Majesty's Stationery Office, Crown Copyright, licence No. AL 50453A.

2. Site Description

- 2.1 The development area was within Norton Civil Parish, and was approximately 400m² in size (Figs. 1 & 2). Area A lay immediately to the south of the existing school buildings. Area B, where the kiln was revealed, was situated in the north-eastern part of the grounds of Norton Community Primary School, the area having been previously occupied by a canteen building and part of the school playground.
- 2.2 The site has an elevation of c. 23.50m AOD to the north, and occupies part of the gravel terrace on the southern side of the River Derwent, which is situated c. 300m to the north.

3. Geology and Soils

- 3.2 The site lies on soils of the Landbeach Association, which consist of permeable calcareous and non-calcareous loamy soils, overlying chalky glaciofluvial and river terrace drift (Mackney, 1984, 194).

4. Historical and Archaeological Background

- 4.1 A Roman fort and *vicus* (civilian settlement) was situated at Malton, c. 600m north of the site, on the northern side of the river Derwent. Roman settlement spread southwards across the river to cover much of what is now the northern part of the modern town of Norton.
- 4.2 Successive building works associated with the growth of the modern town, particularly in the mid-19th and mid-20th centuries, revealed substantial Roman remains (Wenham, 1974).

- 4.3 Roman buildings were identified in 1946 during the construction of the Eastfield estate (Hayes, 1988). The discovery of 3rd century pottery kilns and associated buildings at the Model Farm Estate in 1949, are especially pertinent to this report (Hayes and Whitley, 1950; Hayes 1988).
- 4.4 To the south Norton Community Primary School, Roman inhumation and cremation burials were found during the building of St Peter's Church in 1891, and of the Church Hall in 1937 (Robinson, nos. 306-309).
- 4.5 Part of the Roman road linking Malton and Settrington was recorded at Bright Steels, Wood Street, c. 75m north-east of the site (MAP 1994). Also on Wood Street, well-preserved Roman deposits consisting of surfacing, 'occupation' levels and a massive road-side ditch were recorded during an evaluation at Wood Street Garage (no. 27 Wood Street) in December 2007 (MAP 2008).
- 4.6 In 2008, an Archaeological Recording Brief was carried out by MAP Archaeological Consultancy during the construction of a new classroom immediately north of the present site. An assemblage of Romano-British pottery sherds, including much of a Dressel 20 amphora, was recovered and a relatively deep layer of soil, partly Aeolian and partly agricultural in origin, was noted (MAP 2008). Similar soils were noted during a Watching Brief carried out by York Archaeological Trust (YAT 2008).
- 4.7 The medieval settlement at Norton had pre-conquest origins, and was focused on the area of Commercial and Church Streets, with Wood Street functioning as a 'back street' giving access to the rear of the properties. The area now occupied by Grove Street and the Primary School was outside the area of medieval settlement, within one of the Open Fields known as Low Field.
- 4.8 Norton greatly expanded in the 19th century, initially under the stimulus of river-borne trade from the Derwent Navigation, and subsequently from the coming of the railway. 20th century expansion saw the founding of the present the Primary School in 1912, and the creation of social housing, particularly in the middle part of the century. Since the Second World War, there has been considerable residential development, both social and private,

with industry concentrated at the Industrial Estate at the eastern edge of the town as well as the steel finishers on Wood Street.

5. Aims and Objectives

5.1 The aims of the archaeological recording works were to ensure that any archaeological remains that had not been identified by previous investigations, were identified during the course of construction, and to mitigate the impact of the construction of the scheme on any such remains by making a record of them. More specific aims and objectives were:

- to identify, investigate and record any such archaeological remains to the extent possible by the methods set out in the WSI;
- to determine (so far as Possible) the stratigraphic sequence and dating of the deposits or features identified;
- to establish any ecofactual or environmental potential of an archaeological deposits or features, and
- to disseminate the results through deposition of an ordered archive at the local museum, the deposition of a detailed report at the North Yorkshire Historic Environment Record, and reporting at a level of detail appropriate to the significance of the results.

6. Methodology

6.1 Watching Brief

6.1.1 The Watching Brief was carried out on the ground-works associated with the construction of a new classroom (Area A), plus the new canteen and toilet buildings, and the removal and installation of services (Area B).

6.1.2 The footprints of the new buildings were stripped of modern tarmac, hardcore, and underlying soils, by an 8 tonne 360° tracked mechanical excavator, fitted with a toothless bucket, operating under archaeological supervision. The

perimeters of the new buildings were excavated more deeply to create ring-beam foundations.

6.1.3 All features were sectioned and recorded, with segments excavated across linear features, in order to determine their function, form and relationships.

6.1.4 All work was carried out in line with the Institute of Field Archaeologists Code of Conduct (IFA 1998).

6.1.5 All artefacts were retained for specialist analysis.

6.1.6 Eight soil samples were taken from fills of the kiln and ditches for general biological analysis (Appendix 7).

6.2 On-site Recording

6.2.1 All archaeological deposits were recorded according to correct principles of stratigraphic excavation on MAP's *pro forma* context sheets which are compatible with the MoLAS recording system. A total of 34 separate contexts were recorded, 18 concerning the kiln, 10 relating to ditches and the remaining 6 being assigned to overlying deposits such as ploughsoils and tarmac surfaces.

6.3 Plans and Sections

6.3.1 The full extent of archaeological deposits were recorded in plan at a scale of 1:20 on drawing film. Sections of features and individual layers were drawn at 1:10, also on drawing film, and included an OD height. There were 80 plan and 122 section drawings.

6.4 Photographic Record

6.4.1 The photographic record comprised monochrome prints, and colour transparencies, in 35mm format, and a series of high-resolution digital images, recording all archaeological features encountered. There were 44

exposures in monochrome print and 32 in colour transparency, and 72 digital images.

6.5 Finds

6.5.1 Finds were processed in accordance with English Heritage Guidelines (EH 1995). All finds were cleaned, identified, assessed, dated (where possible), marked (where appropriate), and properly packed and stored according to national guidelines.

6.5.2 The finds assemblage consisted of 2006 pottery sherds (weighing 51.780kg) and 123 fragments of animal bone.

7. Results

7.1 The Kiln (Figs. 3-7)

7.1.1 The kiln (011) comprised three elements: flue, kiln chamber and stoke-hole (Pl. 1). These three parts occupied a north to south-aligned tadpole-shaped pit (029), which was 3.75m long, 1.26m wide and 1.14m deep. Pit 029 was truncated on the south and east sides by two later ditches (009/010 and 021 see below).

7.1.2 Flue (Figs. 3-7)

The flue was the stratigraphically earliest element of the kiln structure, and had survived substantially intact apart from the collapse of the roof. It was 1.50m long, 0.44m wide and around 0.60m high. The flue had a floor (034 - Pl 2) made up of three limestone slabs, two of which were laid along the flue, the other across the flue entrance. The slabs were bonded together with dark grey clay. The entrance into the flue from the stoke-hole was walled for a length of c.0.60m with clay-bonded flat limestone slabs (026 - Pls. 3 and 4); the remainder was lined (and butted) by the continuation of the clay lining that covered the kiln chamber. The roof of the flue (Pl. 5) was composed of thin limestone slabs that had originally rested on pads of scorched red clay laid on top of the side-walls, but which had collapsed inwards.

The flue channel (or 'tunnel') was filled by a homogenous deposit of very dark grey 'ashy' silty sand (030), which continued both northwards into the kiln chamber (as 027) and southwards into the stoke-hole (as 019). Fill 030 contained 3rd century sherds (Appendix 5), fragments of carbonised heather roots (Appendix 7) and pieces of fuel ash slag caused by the high temperature interaction of the lining with the fuel itself (Appendix 8). A layer of yellowish red silty sand (018) lay above the flue structure, and this was overlain by a layer of dark greyish brown silty sand (017) that extended southwards into the stoke-hole. Both Fill 017 and 018 contained 3rd century sherds (Appendix 5).

7.1.3 Kiln Chamber (Figs. 3-7)

The kiln chamber consisted of a roughly circular structure, 0.75m wide at the base and 1.05m wide at the top. The lining (028 – Pl. 6) consisted of a 0.12m thick deposit of clay that was reduced to dark grey on the interior, the remainder being oxidised to yellowish red. The lining extended into the northern part of the flue, where it slightly over-lapped the flue walls. There were two opposed slots in each side of the Kiln at right-angles to the flue (Pl. 7). The lining above the entrance of the flue into the kiln chamber appeared as a separate pad of clay (031), but whether this was a separate element of the clay lining, or simply a block that had slumped off the original lining, is uncertain.

The floor of the kiln existed as a hardened circular deposit of dark grey coarse sand and fine gravel (Pl. 8 - 032), with a patch of dark reddish brown sand (033) on its southern side. The kiln floor was overlain by a layer of dark grey sand with limestone cobbles throughout (027), which had two flat slabs at the top, possibly forming a secondary, raised floor (Pl. 9). Fill 027 contained 3rd century sherds (Appendix 5) as well as carbonised heather and cereal grains (Appendix 7). A deposit of pale brown sandy silt (016) lay above Deposit 027, and was itself overlain by a dark silt layer (015) that contained limestone rubble. The upper part of the kiln was occupied by two layers of dark silty sand (012 and 014) that were separated by a dump of yellowish red sand (013). Fills 012, 013, 014, 015 and 016 all contained 3rd century sherds (Appendix 5). Fill 012 contained carbonised cereal grain (Appendix 7),

possibly from the dumping of waste from cereal processing. Fills 014 and 016 both contained carbonised heather fragments (Appendix 7) suggesting the use of peat turves for fuel.

7.1.4 **Stoke-hole** (Figs. 3-7)

The stoke-hole was severely truncated to the extent that both the southern and western sides had been cut away by later ditches (Pl. 10). The basal fill consisted of the very dark grey fine silty sand (019) that was common to the flue and the lower part of the kiln chamber. Fill 019 contained 3rd century sherds (Appendix 5). Environmental evidence confirmed the use of heather or turves for fuel, as well as some carbonised cereal grains that may have come from dumping waste (Appendix 7). Deposit 019 contained pieces of Fuel ash slag (Appendix 8). The upper part of the stoke-hole was filled with the southward continuation of Deposit 017.

7.1.5 **Ditches 009/010 and 025** (Figs. 3, 8-9)

These two ditches ran roughly parallel on a curvilinear south-east to north-west alignment, and had similar broad-U profiles, measuring around 1.50m wide and between 0.60m and 0.70m deep (Pls. 11 and 12). Ditch 009 cut into the southern end of Kiln 011, and was filled with dark greyish brown silty sand with frequent gravel inclusions (008); it had been re-cut on its southern edge. The re-cut (010) was filled with homogenous dark greyish brown silty sand (007). Ditch 025 was also filled with homogenous dark silty sand (024). Fills 007 and 024 contained 3rd century sherds (Appendix 5) and animal bone fragments (Appendix 6). An environmental sample from Fill 007 contained carbonised heather, cherry charcoal and grass seed (Appendix 7).

7.1.6 **Ditch 021** (Figs. 3, 8-9)

Ditch 021 cut through both Kiln 011 and Ditch 009/010, running on a north-west to south-east alignment (Pls 13 and 14). As it was not present beyond the southern edge of Ditch 009/011 it either terminated or, as is perhaps more likely, continued south-eastwards as Re-cut 009. Ditch 021 had a U-shaped profile and measured approximately 1.20m wide and 0.85m deep. The ditch

was filled with homogenous dark greyish brown silty sand (020), which contained late 3rd century sherds (Appendix 5) and animal bone fragments (Appendix 7).

7.1.7 Ditch 023 (Fig. 3)

Ditch 023 was present within the foundations of the toilet block west of the new canteen block. The ditch was aligned from north to south and was 1.30m wide and c. 0.30m deep (PI 15). Its form and anomalous alignment compared to the Romano-British ditches suggest that it was a furrow.

7.2 Watching Brief (Area A)

7.2.1 The foundations for the new classroom at Area A were relatively shallow and did not penetrate the reddish brown silty sand subsoil (003). No archaeological features were revealed but eighteen Roman and medieval pottery sherds were recovered from Context 003 (Appendix 5).

7.2.2 The service trench uncovered the line of Ditch 010 north of the excavated area (Fig. 3)

8. Discussion

8.1 The Watching Brief at Norton Primary School identified a sequence of archaeological features, the earliest of which was represented by the late 2nd / early 3rd century pottery kiln. The kiln was cut through by the northern element of a pair of parallel boundary ditches; this ditch was then cut from the north by another ditch on a different alignment. The latest feature is interpreted as a furrow relating to the medieval arable cultivation of the area.

8.2 The Kiln was a relatively simple single-flued structure of a type last recorded in Norton in 1949 at Grove Bungalow, which is c. 120m to the south of Norton Primary School. The Grove Bungalow kiln was similar in form to the Primary School example. Both kilns had the simple plan of a stoke-hole connected by a stone-lined flue to a sub-circular clay-lined firing chamber. Both examples had oval slots within the kiln wall, opposite each other and at right-angles to

the flue, which may have acted as supports for kiln furniture. Another detail common to the two kilns was a secondary raised floor. At Norton Primary this took the form of a surface of two flat slabs associated with a number of pottery vessels, including indented beakers. The purpose of such raised floors is uncertain, but the intention may have been to give an increased through-draft by narrowing the aperture between the flue and kiln chamber.

- 8.3 The Norton Primary School kiln is dated by the pottery it produced (BB1 copies, highly fired greyware cooking pots and jars, and calcite-gritted forms) to the late 2nd century. The last firing of the Grove Bungalow kiln had an archaeomagnetic date of the late 3rd to early 4th century. Although the Grove Bungalow kiln showed signs of repair and re-use, it is doubtful that its use stretched back a century or so to overlap with the Norton Primary kiln. A radio-carbon date is forthcoming, and assuming that it supports the stylistic dating of the pottery forms, the Norton Primary kiln appears to belong to the early phase of pottery manufacture in Norton.
- 8.4 An important detail concerning the kiln was that the fuel used to fire it appears to have been heather and peat turves from either a wetland or heathland environment. Other carbonised remains (carbonised cereal grain) found in association with kiln point to the dumping of waste from cereal processing, although such waste can of course also be used as fuel. Animal bone within the kiln illustrates the dumping of domestic waste within the disused kiln.
- 8.5 After the kiln had been abandoned, some time in the 3rd century two parallel ditches were laid out across the area, the northernmost of which cut through the southern end of the stoke-hole. In the later part of the 3rd century another ditch was dug through the western side of the kiln to join the earlier ditch. The laying out of these ditches represents a new regime of land-use.
- 8.6 In conclusion, the recording of the pottery kiln at Norton Primary School has provided important information concerning the local pottery industry. The range of kiln products has been identified, and light has been shed on a neglected pottery form (the BB1 copies), and decorated 'smith pots' and a

vessel with an applied human arm identified. Also important was the recognition of calcite-gritted jars as Norton products. The Norton pottery industry has regional (if not national) significance because it was traded across the Northern frontier. The significance of this factor is reflected in the recommendations below.

9. Recommendations

- 9.1 The results of the excavation and ceramic research should be made available to a wider forum by being published in a suitable journal. Further comparative research is required on the type and form of the kiln to set it in a wider context, aided by the incorporation of the forthcoming AMS date. With such relatively straightforward stratigraphy it is not anticipated that the further ceramic research recommended below will add to the interpretation of the results.

- 9.2 Further recommended work on the pottery takes the form of an archive report to be followed by a publication report (Appendix 5). The archive report will comprise a ceramic catalogue, with detailed descriptions of various fabrics and forms, quantification by weight, sherd count and estimated vessel equivalents. The publication report will concentrate on the BB1 and other forms not previously known or not fully published from other kilns, by means of a fabric table, a catalogue of illustrated vessels and a discussion of the assemblage. One hundred vessels will need to be illustrated either by line drawing or photographs. Reports will be required on the Samian stamp and the graffito.

- 9.3 No further analysis is recommended for the animal bone, carbonised plant remains or fuel ash slag residues.

10. Bibliography

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- YAT 2008 Norton Primary School, Grove Street, Norton, Malton, North Yorkshire. Watching Brief Report.

11. List of Project Contributors

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Editor: Paula Ware

Finds Processing: Zara Burn



Figure 1. Site Location.



Figure 2. Archaeological Watching Brief Area.

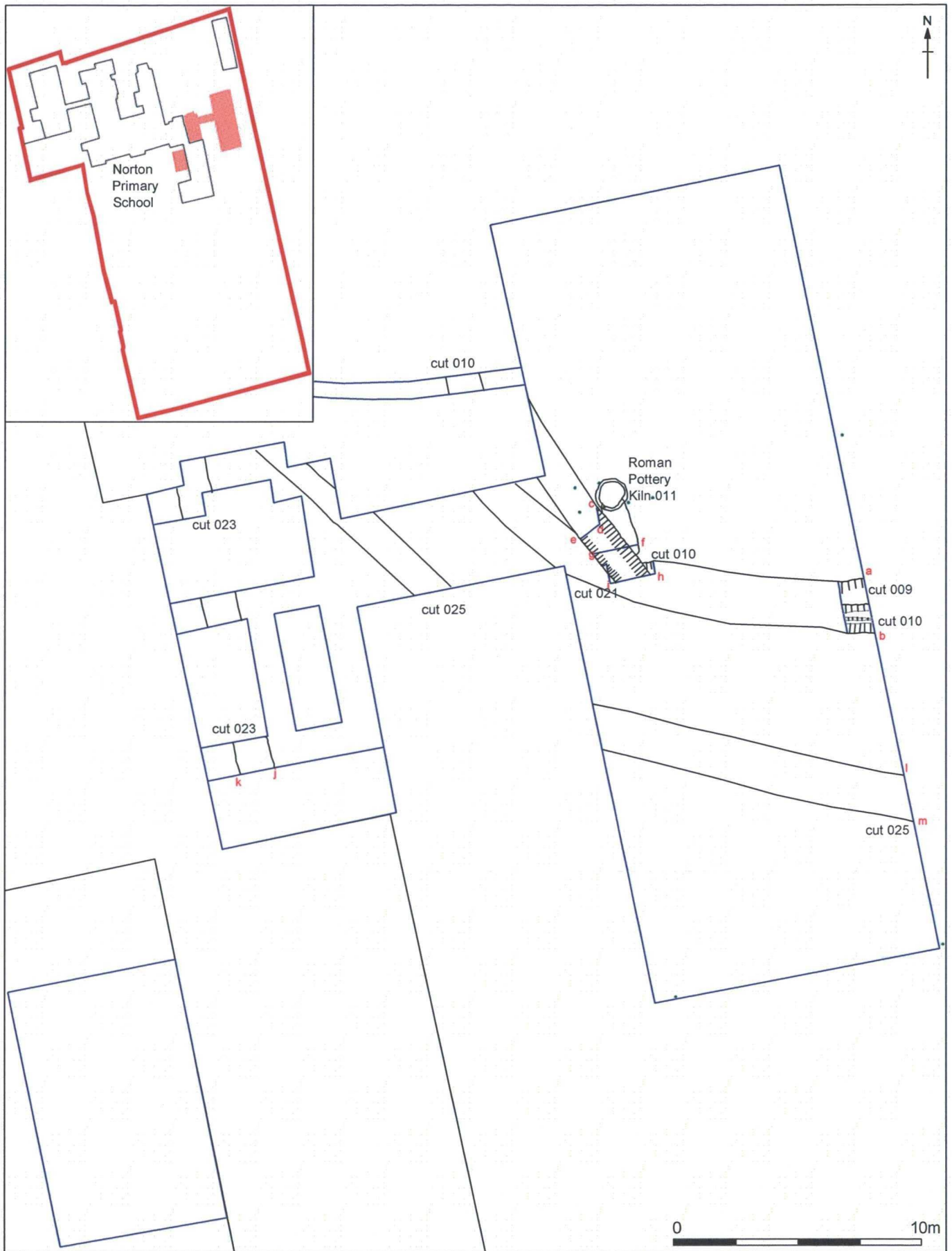


Figure 3. Overall Plan of Archaeological Features.

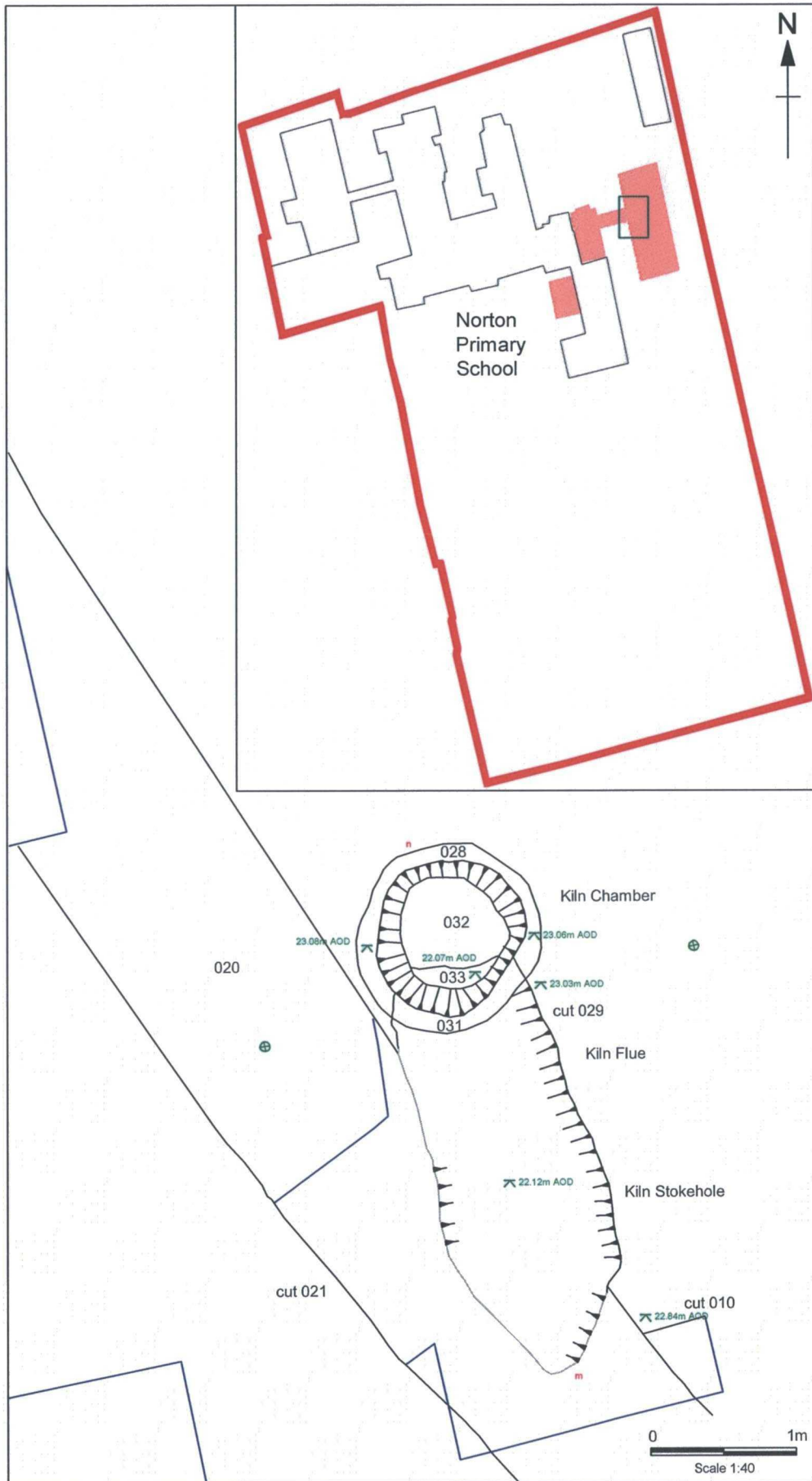


Figure 4. Plan of Kiln Fully Excavated (cut 029).



Figure 5. Plan of Kiln Cut 029 and Flue Floor/Base 034.

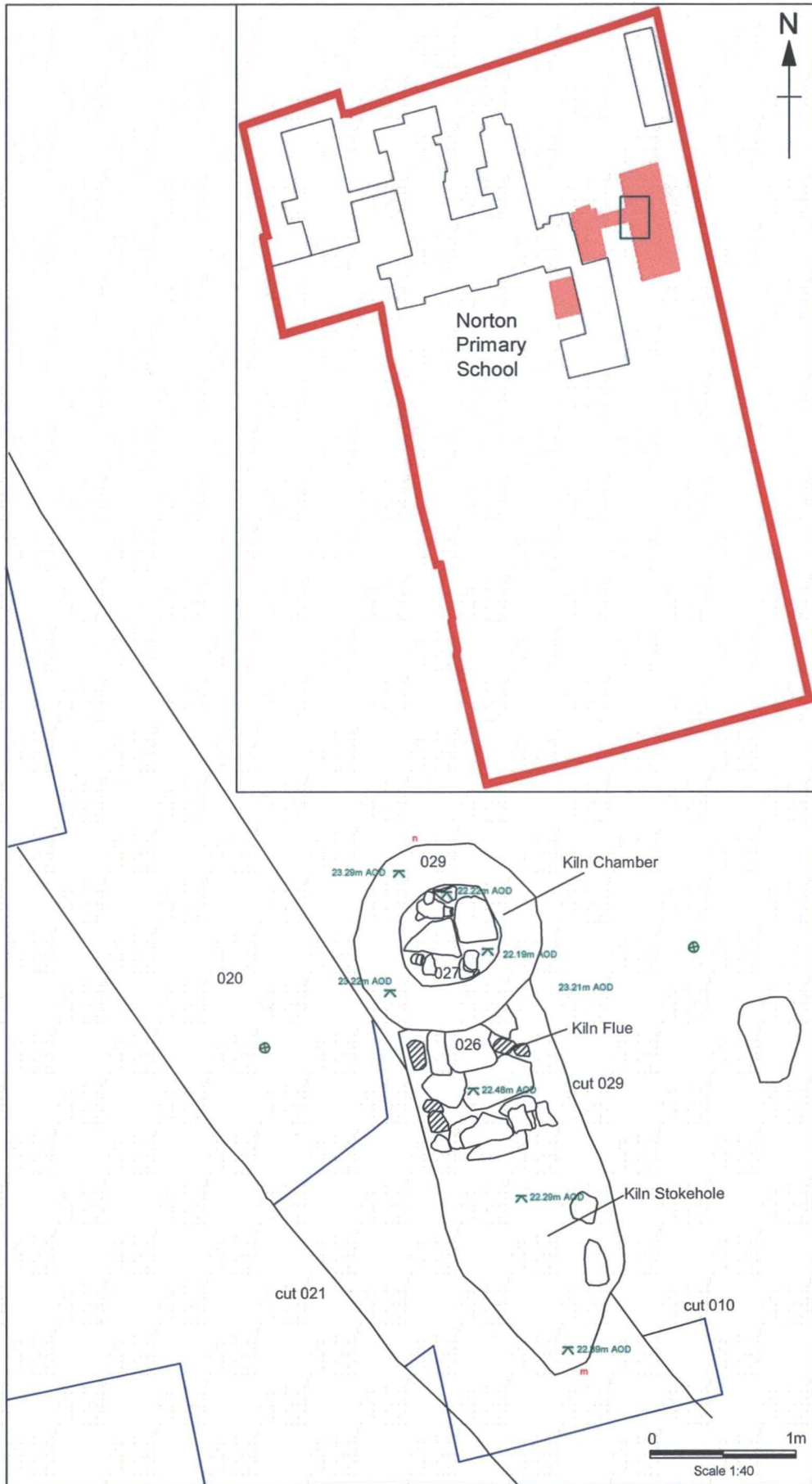


Figure 6. Plan of Kiln Deposit 027 and Flue Structure 026.

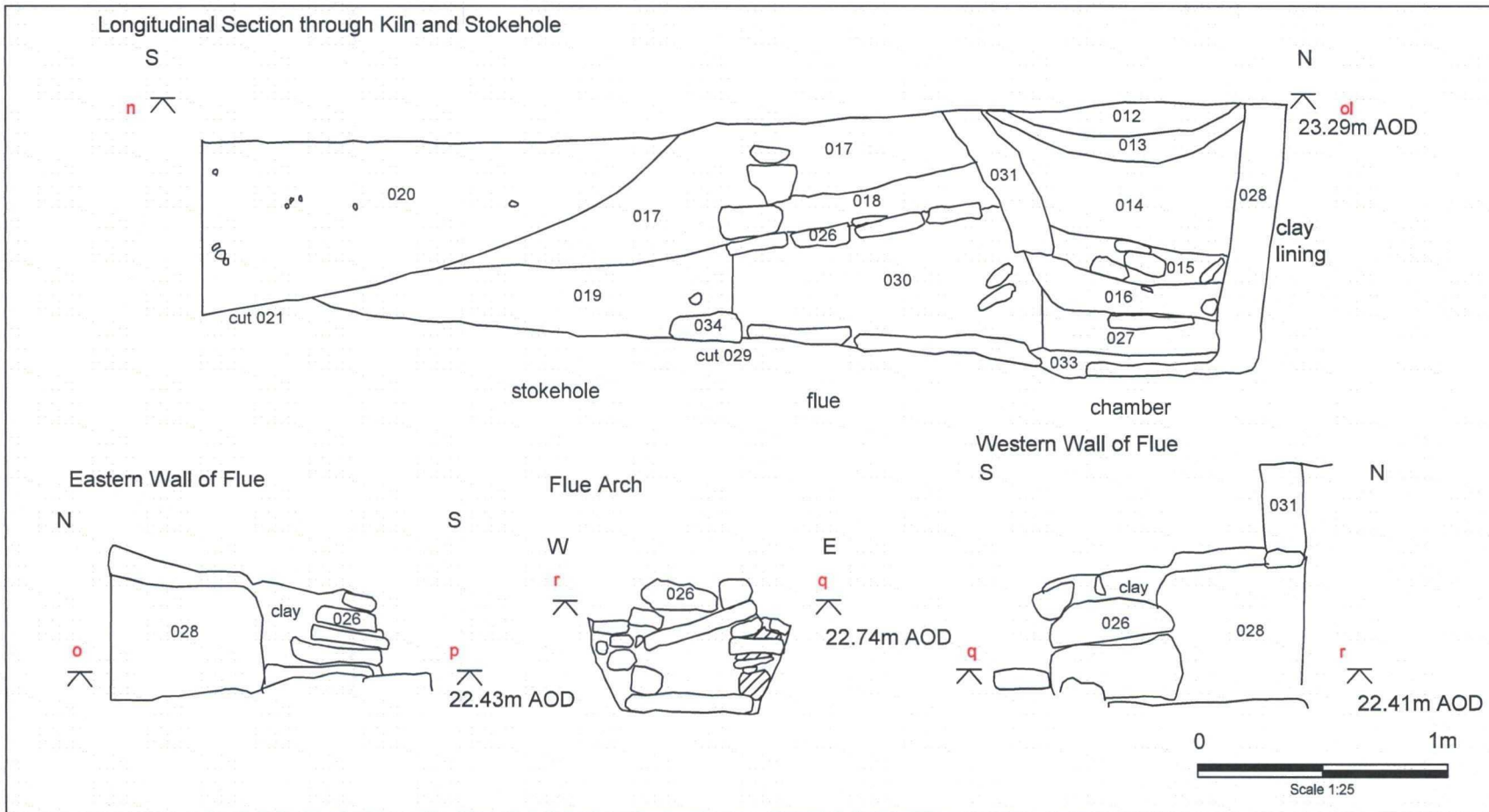


Figure 7. Kiln Sections.

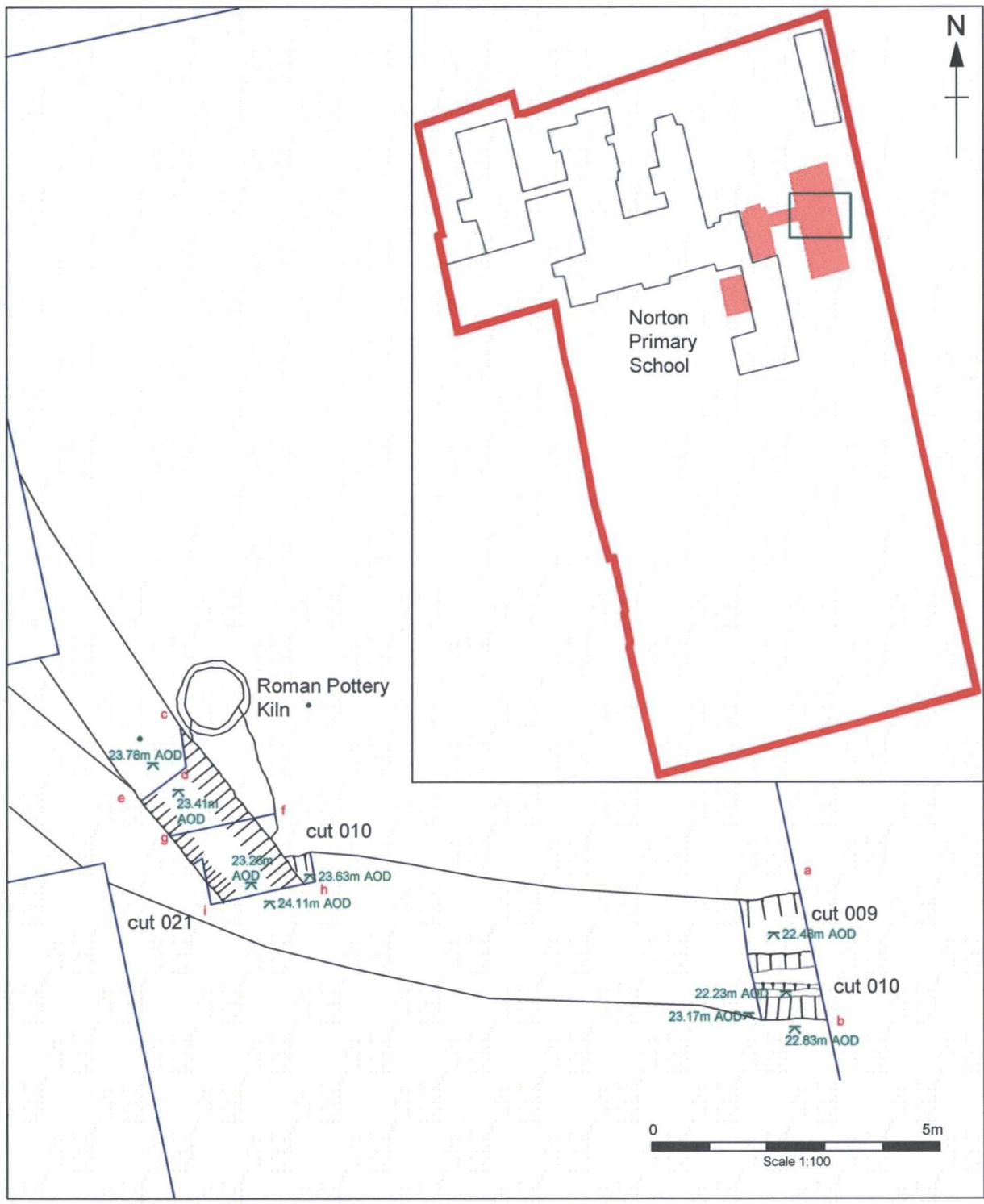


Figure 8. Ditches 009, 010 and 021.

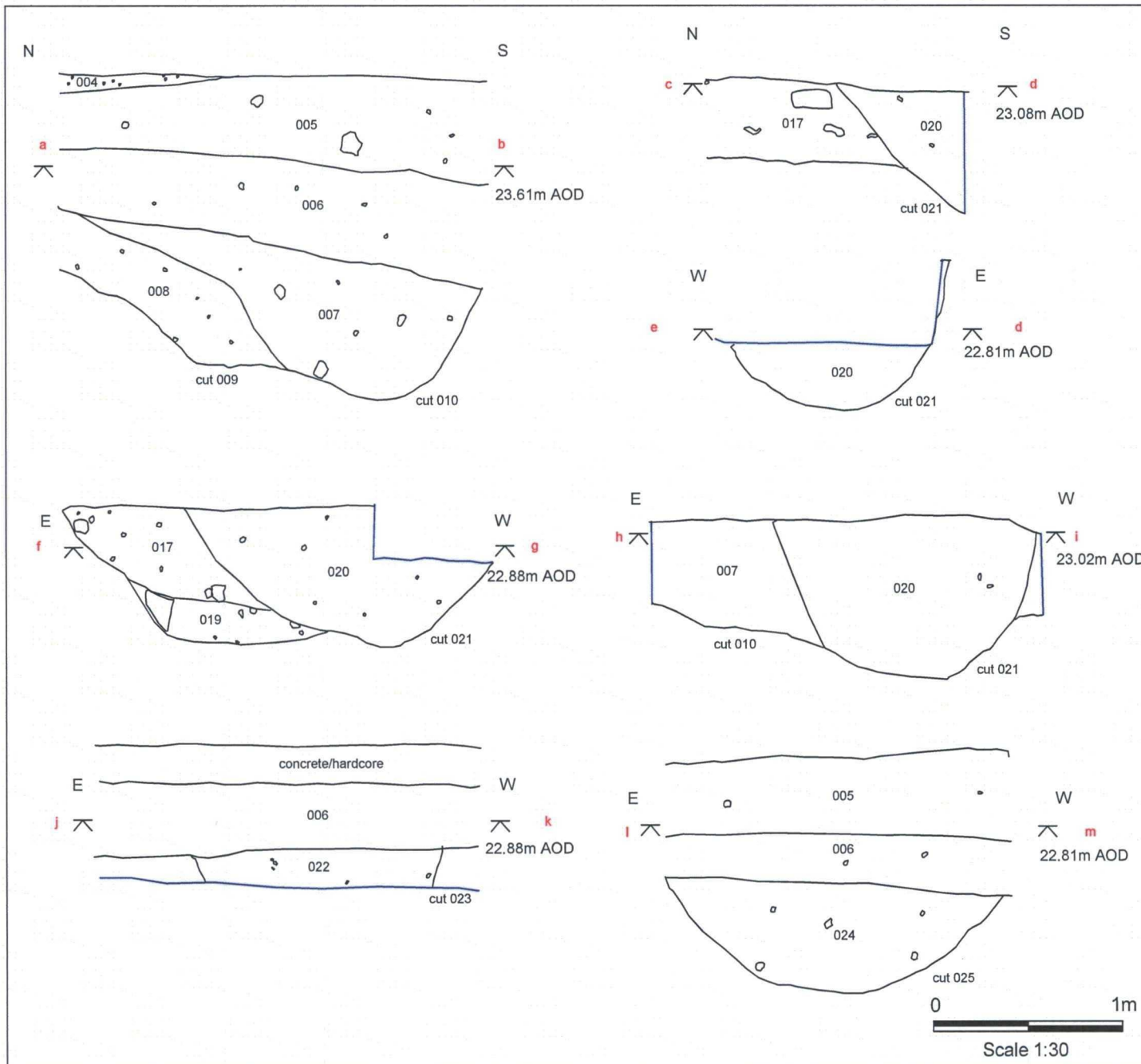


Figure 9. Ditch Sections.