ARCHAEOLOGICAL WATCHING BRIEF REPORT:

GARAGES AND WORKSHOPS SITE MILL LANE, LINCOLN, LINCOLNSHIRE

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Report prepared for Quaybronze Ltd

by

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Summary

Allen Archaeological Associates was commissioned by Quaybronze Ltd to carry out an archaeological watching brief during groundworks for a residential development at Mill Lane in Lincoln.

The site is situated in a suburb of the Roman and medieval city that extended southwards along the line of the former Roman road, approximate to the modern High Street. A previous evaluation of the site identified Romano-British, Saxo-Norman and medieval deposits on the site, as well as the foundation of an early 19th century brick windmill and later Victorian cottages.

The current phase of work confirmed the results of the previous evaluation. A soil horizon of Roman date was identified, sealed by a probable late Roman or post-Roman flood horizon, which was in turn overlain by a deep soil. Previous investigations by AAA in the surrounding area have shown that this layer appears to have formed during the late Saxon and medieval periods. This deposit was cut by a number of probable quarry pits and sealed by a recent garden soil.

The remains of the brick foundations of the 19th century mill were also identified, as well as the foundations and two probable chimney stacks from late 19th century cottages that post-date the mill.

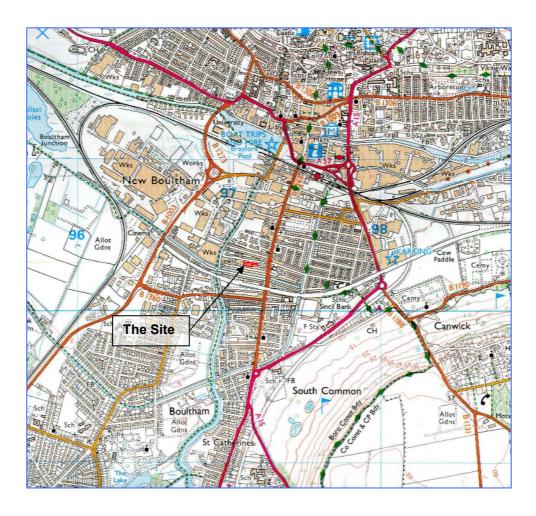


Figure 1: Location map at scale 1:25,000, with the site highlighted in red © Crown Copyright 2000. All rights reserved. License Number 100047330

1.0 Introduction

- 1.1 Allen Archaeological Associates (hereafter AAA) was commissioned by Quaybronze Ltd to carry out an archaeological watching brief during the groundworks associated with a residential development at Mill Lane in Lincoln, Lincolnshire.
- 1.2 The site works and reporting conform to current national guidelines, as set out in the Institute for Archaeologists 'Standards and guidance for archaeological watching briefs' (IfA 1999), the *Lincolnshire Archaeological Handbook: a manual of archaeological practice.* (Lincolnshire County Council 1998) and a specification prepared by this company (Allen 2008).
- 1.3 The archive will be submitted to The Collection, Lincoln and archived under the LCCM Accession Number 2007.206.

2.0 Site location and description

- 2.1 Lincoln is the administrative centre of the historic county of Lincolnshire, and is situated approximately 58km from the east coast of England. The site lies c.1km south-south-west of the city centre, to the west of the High Street and immediately to the north of Mill Lane. The site centres on NGR 97133 70305, and was formerly occupied by garages and workshops which were cleared and levelled prior to the commencement of excavation works on the site. The existing ground surface is at approximately 6m above Ordnance Datum.
- 2.2 The development area is divided into two parts by a small lane running south from Princess Street. To the west of this lane, the western part of the site is bounded to the north and west by residential properties with disused garages to the south. The eastern part of the site extends along the northern side of Mill Lane, and its northern limit is defined by the rear of properties fronting onto Princess Street (Figure 2).
- 2.3 The local geology consists of drift deposits of undifferentiated river terrace sand and gravel, overlying a solid geology of Lower Lias clay, shale and rare limestone (British Geological Survey 1973).

3.0 Planning background

- 3.1 Full planning permission was granted in September 2007 for a residential development comprising the erection of 5 dwellings, 4 apartments and associated alterations to an existing garage block (Planning Reference 2007/0152/F). Planning permission was granted subject to a number of conditions, including the requirement for a programme of archaeological investigation to fully characterise and understand the nature of the archaeological resource. The first stage of works comprised an archaeological evaluation by trial excavation that was undertaken in 2007 (Chavasse 2007). As a result of this phase of investigation, the City Archaeologist requested that an archaeological watching brief should be undertaken during all groundworks associated with the development, as a final mitigation stage.
- 3.2 The watching brief comprised the monitoring of all groundworks for the scheme by a suitably competent archaeologist, to record any archaeological remains exposed, effectively 'preserving the archaeology by record'. This approach is consistent with the guidelines that are set out in *Archaeology and Planning: Planning Policy Guidance Note 16* (Department of the Environment 1990).

4.0 Archaeological and historical background

- 4.1 There is no evidence for prehistoric activity in the vicinity of the site. Recent discoveries of worked lithic material during commercial developments at St Catherine's Road, some 800m to the south of the development, and at the Brayford Pool (c.800m to the north), indicates that there was early prehistoric activity in the Lincoln area (LAS forthcoming). Excavations in 1972 at 181-183 High Street, approximately 700m to the north of the site exposed the remains of a structure of possible late Iron Age, although a post-conquest date for these features is equally possible (Jones and Stocker 2003).
- 4.2 Romano-British activity in the region began with the imposition of a possible fort in the area of South Common, pre-dating the legionary fortress on the north side of the Witham Valley. The possibility of an early fort has been postulated due to the presence of a number of legionary tombstones of an early date found in this part of the city, largely around Monson Street, immediately to the north of the site (Jones 2002).
- 4.3 Following the abandonment of the legionary fortress in Lincoln in the latter part of the first century AD, the site was developed as a *colonia*, a settlement of retired legionary soldiers and their dependents, and an administrative centre. The city expanded rapidly beyond the confines of the former legionary fortress, and the area along the High Street, which follows the line of the Roman Ermine Street, developed as an industrial and residential suburb. The area of the current site was cut off from the suburbs to the north by a low-lying marshy area, until major landfill operations raised the ground surface in the 2nd and 3rd centuries, forming a continuous suburb of a kilometre or more from the river (Jones 2003). As with the suburbs to the east, west and north of the city, a number of burial areas have been identified in the lower suburb (*ibid.*).
- 4.4 Lincoln as a whole appears to have suffered a gradual decline in population and prosperity towards the end of the Roman period, leading to widespread abandonment and decay of much of the Roman city by the 5th century AD. In the area of the proposed development, there is little evidence of revival until the 9th or 10th century, with small quantities of pottery having been recovered from a number of sites across the lower city (Vince 2003a). From this period onwards the area along the High Street developed as the medieval suburb of Wigford, principally as an industrial quarter. The Witham ran along the west side of the suburb, with an extensive quayside developing along the riverside, probably for traffic from the Fossedyke. The area to the east of the suburb was gradually reclaimed during the middle ages (Vince 2003b).
- 4.5 Lincoln suffered widespread population decline and a downturn in commercial activity from the 13th century onwards, due to the effects of the loss of the cloth trade, followed by the Black Death in the mid 14th century. Revival of the fortunes of the city did not begin until the later 18th century, when the city developed an extensive heavy manufacturing industry. Rapid expansion of the urban area took place during the 19th century as rows of terraced houses were built to provide accommodation for the workers, a situation that occurred within the area of the proposed development (Stocker 2003).
- 4.6 Historical mapping for Lincoln shows housing along the High Street in 1817, with strip plots to the rear of the properties, including the area of the development (Mills and Wheeler 2004). This early map shows no evidence for Mill Lane at this time. By 1820 windmills had appeared on open ground to the west of the High Street, and although Mill Lane still did not appear on contemporary plans, it is likely that a track led from the High Street westwards to the nearest mill. A further map dated to 1839 does show a narrow strip that may be interpreted as a lane or track, however this is far from clear, with the first formal mention of Mill Lane to be found on a map dated 1842.
- 4.7 The large tower of an existing windmill, Crown Mill, lies to the north-west of the site closer to the river. Crown mill was built around 1835 as a five-sail mill. Passed to Henry Le Tall in 1871,

the mill was converted to run under steam power with roller flourmills prior to 1860 (Jones *et al* 2003). The present mill tower and its associated buildings have been converted into flats.

- 4.8 A windmill is first shown to exist within the proposed development area on the Ordnance Survey map of 1820 (Mills and Wheeler 2004). The windmill that stood on the site was used as a Subscription mill c.1848, a forerunner of the Co-operative movement. Milling began in November 1848 and it was reported that within a few months all other Lincoln millers were forced to reduce their prices to compete. The then owner of the larger tower mill in Princes Street (Crown Mill), Mr. Henry Lister filed for bankruptcy in 1849; possibly brought on by competition from the Subscription mill. It is believed that the Subscription mill was in use for only a short period of time (Tinley 1999).
- 4.9 Although used as a Subscription mill in 1848, the mill was not constructed for this purpose. The mill was still an upstanding structure by the time of J.S. Padley's revised 1851 map, but is not depicted on Padley's 1868 map. Instead, a block of four dwellings are shown to have occupied the area of the former mill (Mills and Wheeler 2004). From this, a date for the destruction of the windmill between 1851 and 1868 can be deduced, probably to make way for the Victorian housing.
- 4.10 An archaeological evaluation by trial trenching was undertaken on the site by AAA in October 2007 (Chavasse 2007). Five trenches were excavated following the demolition of existing garages and workshops, to the north of Mill Lane. Up to 2m of deposits were exposed by the trenching, dating from the Romano-British period to the present day. The sequence demonstrated that the site was probably waterlogged marginal ground during the Romano-British period that was used periodically for the disposal of refuse. Following a break in activity, agricultural use was indicated by the creation of a cultivation layer in the 9th/10th century that continued to be worked throughout the medieval period, and probably up to the 19th century. The remains of the 19th century mill foundations were exposed and structural remains for subsequent Victorian buildings with cellars were also encountered in the western part of the site.

5.0 Methodology

- 5.1 Prior to the commencement of below-ground works on the site, the existing buildings were demolished, and the site was cleared. All further ground works were monitored by a suitably qualified archaeologist, to determine and record the presence/absence of archaeological features as the work progressed.
- 5.2 Due to contamination on the application area, a large pit was excavated in the western half of the site prior to the excavation of the footings for the new development (See Section 6.2 below). This was monitored by Mike Daley on 26th June 2008. The foundation trenches were excavated using a tracked excavator fitted with a 0.6m wide toothed bucket and were monitored by Mike Daley and Maria Piirainen between the 20th of May and the 23rd of July 2008.
- 5.3 Where safe conditions allowed, exposed surfaces were examined and periodically cleaned, in order to determine the stratigraphic sequence. Due to the unstable ground conditions in some areas of the excavation however, it was not possible to access the foundation trenches.
- 5.4 A full written record of the fieldwork was maintained with plans and sections drawn at appropriate scales (1:20 and 1:50) and Allen Archaeological Associates context recording sheets used to record each individual context.

5.5 A photographic record was maintained throughout the watching brief, including general site shots and photographs of the sequence of deposits with appropriate scales and a north arrow, and a selection of these shots has been included in the report (Appendix 1).

6.0 Results (Figures 3 - 5)

6.1 Plots 1 – 4 (Figures 3 and 4)

- 6.1.1 The foundation methodology employed for Plots 1 4 entailed the excavation of a shallow strip foundation trench to accommodate a concrete ring beam, reinforced by driven piles. Prior to the groundworks in this area, a piling mat of crushed stone with an average thickness of 0.15m was deposited across the site.
- 6.1.2 In Plots 1 and 2, the foundation trenches were excavated to a depth of 0.3m to 0.4m below the piling mat, and exposed only a single modern deposit, 100, representing a former garden soil horizon with frequent modern demolition material.
- 6.1.3 Towards the middle of the southern foundation trench of Plot 3, the groundworks exposed the remnants of the 19th century mill foundations previously identified during the evaluation of the site (see Figure 3). The exposed portion of the structure, [127], was 1.25m long and survived to a depth of six courses of brickwork running on an approximate north south alignment. This segment of the mill foundations was located immediately to the north of the section identified in Trench 2 of the previous evaluation, and had been recorded running for c.3m north of the Trench, before being truncated by a later phase of development (Chavasse 2007). It appears therefore that the laying of the stone piling mat prior to the watching brief had sealed the remainder of this structure.
- 6.1.4 On the north side of Plot 4 layer 100 sealed the remnants of a brick and stone structure likely to represent the remains of a hearth and chimney stack, and the associated foundations of an east west aligned wall, 130. The probable chimney stack, 128, comprised five courses of roughly-dressed limestone blocks, in a yellow/grey sandy mortar, with a width of c.1.1m. An area of soot and scorched stonework at the base of this structure represents the former hearth or fireplace. The east and west sides of the fireplace were abutted by a single brick, each possibly representing the base of a brick surround, 131, although the fragmentary nature of the remains makes this interpretation far from certain.
- 6.1.5 To the east and west of the chimney stack and hearth, fragments of in situ roughly dressed limestone blocks suggested the continuation of the walls of the former building. To the east, the depth of the foundation trench excavations shallowed considerably, so the remainder of the wall footings were not observed in this area. It is likely that these structures represent components of 19th century cottages that formerly occupied the site, evidence for which was exposed during the archaeological evaluation stage (Chavasse 2007).
- 6.1.6 A further complex of structures, representing components of the former 19th century cottages, was identified in the southern part of the plot. Layer 100 sealed three surviving courses of a probable chimney stack, 137. The wall comprised two lower courses of artificial stone blocks with the upper course in roughly dressed limestone blocks; all of which were heavily stained by soot. The chimney stack was built off a compact foundation course of roughly dressed limestone blocks, 135, in a pale yellow/grey sandy mortar with limestone and brick rubble infill, 138. This deposit produced two fragments of 18th/19th century brick and a single residual fragment of 14th/15th century roof tile. An area of soot residue on 135 immediately to the south of the chimney stack indicated the extent of the former fireplace. To its west, a robber cut [139] was evident, suggesting the deliberate demolition of the structure. [139] contained three distinct demolition deposits, 140, 141 and 142, the latter of which produced three fragments of late

- 18th/19th century brick, which is more likely associated with the structure rather than its later demolition.
- 6.1.7 Immediately to the east of the fireplace, the north edge of 135 was abutted by a fragmentary brick structure, interpreted as part of a brick fire surround, similar to that tentatively identified around the fireplace in the northern part of the same plot.

6.2 Plot 5 (Figure 2)

6.2.1 Prior to commencement of the watching brief, an area of contaminated ground caused by oil spillage was identified in the area of Plot 5. The City Council required this to be completely removed prior to the development taking place. This necessitated the machine excavation of the majority of the plot, comprising an area 7.25m by 6.5m, and in excess of 2m deep. Due to the depth of the excavations and the nature of the contamination, it was not possible to enter this area on health and safety grounds. The steel shoring plates inserted to support the sides of the excavations also prevented any examination of the exposed sections. It was however possible to confirm the results of the previous evaluation (Chavasse 2007: Trench 5) in that much of this area was taken up by the cellars of earlier buildings.

6.3 Plots A1 – A4 (Figure 5)

- 6.3.1 The uppermost deposit throughout this part of the site was the former garden soil 100, which was between 0.2m and 0.45m deep. At the north-west corner of the site, 100 sealed a thin lens of chalk gravel, 124, which may represent building material dumped during the construction of nearby buildings. This in turn sealed a 0.1m to 0.2m deep grey/brown silty sand, 125. The formation process of this deposit was unclear; it may represent the truncated remnants of a former topsoil, or a layer of material dumped as a levelling deposit during the construction of the garages that previously occupied the site, or other adjacent buildings.
- 6.3.2 Throughout the remainder of Plots A1 A4, 100 sealed 101, a 0.9m deep layer of brownish grey silty sand up to 0.9m deep. This deposit was interpreted as a soil horizon that has formed over a long period, culminating in a cultivated soil that included periodic dumping of domestic waste. The only artefact recovered from this deposit was a single sherd of a 13th/14th century Lincoln Glazed Ware vessel from the south-west corner of Plot A1/A3. Trench 5 of the previous evaluation identified this deposit as two distinct layers, the lower of which produced pottery of 9th to 12th century date (Chavasse 2007).
- 6.3.3 Layer 101 was cut by a number of features. At the north side of the plot, features [106] and [116] were only apparent in the south facing section, and are most likely to represent pits or possibly the termini of ditches. To the east of [106], a possible ditch, [105] was recorded running across the foundation trench on a north-north-east to south-south-west alignment, although its continuation could not be observed to the south, due to the instability and collapsing of the foundation trenches making them unsafe to enter. In the southern part of the plot, another large feature, [118] was observed in both the north and south facing sections of the foundation trench. It was however not observed in any other part of the footings, and is likely to be either a pit, or a ditch that terminates within the site.
- 6.3.4 All the features discussed above (Section 6.3.3) had similar steep sided profiles and contained very similar fills, comprising very dark greyish brown silty sands, with occasional charcoal flecking. The only finds recovered from these features were three fragments of animal bone and a single sherd of 13th to 15th century roof tile from the backfill of pit [118].

- 6.3.5 Below 101 was an undated layer of laminated pale yellow fine sand, 102, up to 0.25m deep and interpreted as a naturally formed alluvial deposit. It was cut by a single wide, shallow sided pit or ditch terminus, [114], exposed in the northernmost section of the foundations. The feature contained a single natural silting deposit of grey/brown silty sand, 115, which produced a single sherd of 2nd century AD Samian ware pottery.
- 6.3.6 102 sealed layer 103, a thin, intermittent layer of brown/grey silty sand with occasional charcoal lenses (also recorded as 108, 111, 113 and 122). This layer was no more than 0.1m deep throughout the plot, and may be the remains of a cultivation horizon similar in its formation process to the later and much thicker deposit 101. A single sherd of Romano-British greyware of 3rd century AD date was recovered from this deposit towards the north side of the plot (context 111). In the south-west corner of the foundations, 103 sloped downwards to the north, representing the profile of the underlying ground surface. At this location, layer 103 was sealed by a lens of very pale fine grey sand, 121, possibly representing an accumulation of wind-blown sand against the natural incline of the ground, or against an object or barrier that has since disappeared or lies beyond the excavated footings.
- 6.3.7 The earliest deposit identified, sealed below layer 103, was 126, a mottled orange/yellow sand that reflected natural alluvial deposition. The deposit was undated and extended below the limit of excavation.

7.0 Discussion and conclusion

- 7.1 The watching brief identified a sequence of archaeological activity spanning the Romano-British to Victorian periods. The earliest activity was identified in Plots A1 and A2, in the eastern part of the development area. In this part of the site, a probable natural alluvial deposit was recorded at the base of the sequence, paralleled by a similar deposit recorded in the preceding evaluation. This was sealed by a thin soil horizon, 103, which was tentatively dated to the 3rd century AD, on the basis of a single sherd of pottery. A comparable deposit was identified during the previous archaeological evaluation which also produced 3rd century pottery (Chavasse 2007). A similar deposit was also recorded c.80m to the east during archaeological fieldwork off Mill Lane (Allen 2007a and 2007b). In this instance, the layer was interpreted as a having formed through the dumping of domestic waste and soil, and reworking through cultivation, however pottery dated this deposit to the 2nd century AD. The dating is very interesting and fits well with the suggestion that the suburb of Roman Lincoln expanded southwards beyond the site boundaries following deliberate ground raising of marshy ground to the north of the site in the 2nd and 3rd centuries (See Section 4.3 above).
- 7.2 The watching brief identified a single pit cutting this layer, which produced a single sherd of 2nd century pottery. The pottery is likely to be residual, based on the dating of the layer through which it is cut (layer 103). Following the formation of this soil horizon there appears to have been a period of abandonment, as indicated by the formation of alluvial deposit 102 across the site, an interpretation confirmed by the results of the previous evaluation (Chavasse 2007), and fieldwork further to the east, on the south side of Mill Lane (Allen 2007a and 2007b).
- 7.3 Archaeological activity following this period of abandonment is represented by the build-up of a substantial soil horizon, which contained only a single fragment of medieval pottery. Dating evidence from the earlier evaluation of the site, and from the fieldwork off Mill Lane further to the east suggested that this horizon represents a continued episode of soil cultivation and dumping of domestic waste from at least the 9th century AD, approximately through to the 15th century (*ibid*.).
- 7.4 A number of probable pits were cut through this deposit, only one of which produced any dating evidence: a single fragment of medieval roof tile. The lack of finds makes the dating and

interpretation of these features difficult, although the scarcity of finds makes it unlikely they represent rubbish pits, and they may perhaps be interpreted as quarry pits to provide sand for pottery, brick, tile or mortar making, for example. This theory does not apply to pit [116] however as the pit was not deep enough to reach the natural sand.

7.5 In the western part of the site, Plots 1 and 5 employed a piling and shallow ring beam foundation, and as a result, only the most recent deposits were recorded. Plot 3 exposed a component of the foundations of the former 19th century mill that occupied the site, and had previously been identified during the archaeological evaluation. Whilst the excavation of Plot 4 exposed the remnants of two probable fireplaces and chimney stacks from cottages that were built on the site following the demolition of the mill in the later 19th century. A large cellar associated with the late 19th century cottages was also recorded in Plot 5 during the excavation of an area of contaminated ground.

8.0 Effectiveness of methodology

8.1 The application of an archaeological watching brief has proven to be an appropriate level of mitigation for the scale of these works. It has generally confirmed the results and interpretations of the stratigraphic sequence previously identified during the archaeological evaluation of the site.

9.0 Acknowledgements

9.1 Allen Archaeological Associates would like to thank Quaybronze Ltd for this commission and for their cooperation during the fieldwork.

10.0 References

Allen, M., 2007a, Archaeological evaluation report: Trial trenching on land off 1-8 Mill Lane, Lincoln, Allen Archaeological Associates

Allen, M., 2007b, Archaeological watching brief: Land off 1-8 Mill Lane, Lincoln, Allen Archaeological Associates unpublished client report

Allen, M., 2008, Specification for an Archaeological Watching Brief: Garages and Workshops, Mill Lane, Lincoln. Allen Archaeological Associates unpublished client report

British Geological Survey, 1973, *Lincoln. England and Wales Sheet 114. Solid and Drift Geology. 1:50000 Series.* Keyworth, Nottingham: British Geological Survey

Chavasse P., 2007, Archaeological evaluation report: trial trenching on land at garages and workshop site, Mill Lane, Lincoln, Allen Archaeological Associates unpublished client report

DoE, 1990, Planning Policy Guidance Note 16 (PPG 16), Department of the Environment

IfA, 1999, Standards and guidance for archaeological watching briefs. Reading, Institute of Field Archaeologists

Jones, M.J., 2003, 'The Colonia Era. The archaeological account', in *The City by the Pool*, pp. 56 – 138, Oxbow Books, Oxford

Jones, M.J. and Stocker, D., 2003, 'Settlement in the Lincoln area in the Prehistoric Era. The archaeological account', in *The City by the Pool*, pp. 19 – 33, Oxbow Books, Oxford

L.C.C, 1998, *Lincolnshire Archaeological Handbook: a manual of archaeological practice*. Lincoln, Lincolnshire County Council, Built Environment Department.

Mills, D.R. and Wheeler, R.C., 2004, Historic town plans of Lincoln 1610 – 1920, Boydell Press, Lincoln

Stocker, D. (ed.), 2003, The City by the Pool, Oxbow Books, Oxford

Stocker, D., 2003a, 'The early medieval era – The archaeological agenda. An introduction to the Research Agenda Zone entries' in *The City by the Pool*, pp. 157 - 158, Oxbow Books, Oxford

Stocker, D., 2003b, 'Lincoln's Industrial Era (c.1750 – c.1945). Archaeological account', in *The City by the Pool*, pp. 338 - 362, Oxbow Books, Oxford

Tinley, R., 1999, Crown Mill Lincoln, Lincolnshire Past and Present No.36. Summer 1999

Vince, A., 2003a, 'Lincoln in the Early Medieval Era, between the 5th and 9th centuries. The archaeological account', in *The City by the Pool*, pp. 141 - 156, Oxbow Books, Oxford

Vince, A., 2003b, 'The New Town: Lincoln in the High Medieval Era (c.900 to c.1350). The archaeological account', in *The City by the Pool*, pp. 159 - 296, Oxbow Books, Oxford

11.0 Site archive

11.1 The documentary archive is currently in the possession of Allen Archaeological Associates. It will be submitted to The Collection, Lincoln within six months, where it will be stored under the unique archive Accession Number 2007.206.

Appendix 1: Colour Plates



Plate 1: General site location shot looking west-north-west along Mill Lane. Plots A1 – A4 are in the fenced area to the right.



Plate 2: General view of Plots 2 – 5, showing the excavated ring beam foundations and the steel pile sleeves in situ. Looking west.



Plate 3: Remnants of the foundations of the 19th century mill exposed in Plot 3. Looking north



Plate 4: North side of Plot 4, showing chimneystack 128 and wall foundation 130, looking north-north-east. The soot staining in front of the chimney shows the location of the former fireplace.



Plate 5: Chimney stack 137 and wall foundation 135 exposed along south side of Plot 4, looking south-south-west. Again, soot staining indicates location of the former fireplace.



Plate 6: General view of Plots A1 – A4 following completion of the groundworks, looking north-west from Mill Lane.



Plate 7: Probable pit [116], on north side of Plot A1/A3, looking north-northeast. At the base of the trench is alluvial deposit 102.



Plate 8: Feature [118], exposed on south side of Plot A1/A3, looking south-southwest. At the base of the trench is alluvial deposit 126.



Plate 9: South-west corner of Plot A1/A3, looking west-north-west. This shot shows layer 126 at the base of the sequence, overlain by soil horizon 103 sloping down to the north, over which is a possible wind-blown sand lens 121 and alluvial deposit 102.

Appendix 2: Pottery and Ceramic Building Material assessment

By Anne Boyle

Introduction

A small assemblage of Roman, medieval and early modern pottery and ceramic building material was recovered from the site, amounting to 11 fragments weighing 2,883 grams.

Roman pottery

Introduction

All the material was recorded at archive level in accordance with the guidelines laid out by Darling (2004) and to conform to Lincolnshire County Council's *Archaeology Handbook*. A total of two sherds from two vessels, weighing 21 grams were recovered from the site.

Methodology

The material was laid out and viewed in context order. Sherds were counted and weighed by individual vessel within each context. The pottery was examined visually and using x20 magnification. This data was then added to an Access database. An archive list of the pottery is included in Table 1.

Condition

Both sherds are in fairly fresh condition, as indicated by the average sherd weight of 10.5 grams.

Results

Table 1, Roman Pottery Archive

Cxt	Cname	Full name	Form	Comments	NoS	NoV	W (g)	Date
111	GREY	Miscellaneous Grey ware	J	Fe concretion	1	1	12	3 rd +
115	SAMLM	Les Martres-de-Veyre samian ware	38		1	1	9	Early 2 nd

Provenance

Pottery came from fills of natural hollow [110] and pit [114].

Range

Grey ware was produced in Lincoln at several sites during the Roman period, and this sherd may well have been manufactured locally. The imported samian ware is from Les Martres-de-Veryre and is likely to date from the height of export between 100 and 125 AD; this type is present in other assemblages from Lincoln and has recently been identified in some quantity at Danesgate (Barbara Precious *pers. comm.*)

Potential

The pottery should be retained; no further work is required.

Summary

A small assemblage of Roman pottery was recovered from two contexts. The pottery suggests Roman activity in the area during the 2^{nd} and 3^{rd} centuries AD.

Post-Roman pottery

Introduction

All the material was recorded at archive level in accordance with the guidelines laid out in Slowikowski *et al.* (2001) and to conform to Lincolnshire County Council's *Archaeology Handbook*. The pottery codenames (Cname) are in accordance with the Post Roman pottery type series for Lincolnshire, as published in Young *et al.* (2005). A single sherd, weighing 15 grams was recovered from the site.

Methodology

The material was laid out and viewed in context order. Sherds were counted and weighed by individual vessel within each context. The pottery was examined visually and using x20 magnification. This data was then added to an Access database. An archive list of the pottery is included in Table 2. The pottery dates to the medieval period.

Condition

The sherd is in fresh condition.

Results

Table 2, Post Roman Pottery Archive

Cxt	Cname	Full name	Form	NoS	NoV	W (g	Decoration	Part	Description	Date
101	LSW2	13 th to 14 th	Jug	1	1	15	Applied	BS	Fresh	13 th -14 th
		century Lincoln					vertical fe			
		Glazed Ware					strip			

Provenance

The sherd came from soil horizon 101.

Range

Lincoln Glazed ware was manufactured in the city and is extremely common in medieval assemblages from this area. Previous investigation on the site (LIML07) produced a much larger post-Roman assemblage, which included Late Saxon and Saxo-Norman material.

Potential

The pottery should be retained; no further work is required.

Summary

A single medieval sherd was recovered from the site.

Ceramic Building Material

Introduction

All the material was recorded at archive level in accordance with the guidelines laid out by the ACBMG (2001) and to conform to Lincolnshire County Council's *Archaeology Handbook*. A total of eight fragments of ceramic building material, weighing 2,847 grams were recovered from the site.

Methodology

The material was laid out and viewed in context order. Fragments were counted and weighed within each context. The ceramic building material was examined visually and using x20 magnification. This data was then added to an Access database. An archive list of the ceramic building material is included in Table 3.

Condition

The ceramic building material is in mixed condition; the average fragment weight is 356 grams. Some of the material is had mortar over broken edges which indicates re-use of these fragments.

Results

Table 3, Ceramic Building Material Archive

Cxt	Cname	Full name	Fabric	Sub form	NoF	W (g)	Description	Date
101	PNR	Peg, nib or ridge tile	Vitrified		1	58		13 th to 15 th
119	PNR	Peg, nib or ridge tile	Fabric 7		1	86	Soot; concretions	13 th to 15 th
138	BRK	Brick	Oxidised shale + fe	55mm	1	730	Mortar; strike marks; sand moulded	Late 18 th to 19 th
138	BRK	Brick	Oxidised + fe	70mm	1	494	Mortar including over breaks; odd marks on flat; sand moulded	Late 18 th to 19 th
138	NIB	Nibbed tile	Fabric 1 + fe?	Nib type 7	1	132	Flat roofer; fabric unusual and coarse; upper left hand corner	Early 14 th to 15 th
142	BRK	Brick	Oxidised + coarse shale + fe		1	95	Corner; flake; sand moulded	19 th
142	BRK	Brick	Near vitrified	60mm	1	327	Corner; mortar; sand moulded	Late 18 th to 19 th
142	BRK	Brick	OX/R/OF; fine + shale	55mm x 100mm	1	925	End; sand moulded; mortar; strike marks; patchy soot; abraded	Late 18 th to 19 th

Provenance

Brick and tile were recovered from four contexts. Medieval flat roofing tile was present in medieval cultivation soil 101, backfill of midden/pit [118] and the back fill of an early modern cellar [135]. Bricks of late 18th and 19th century date came from latter and from demolition backfill deposit 142

Range

The medieval roofing tile has fabrics and a nib type that can be paralleled on other sites from the city. All the brick fabrics have shale and iron present in them, and this is typical of the clays from Lincoln and the immediate area. It is likely that all the ceramic building material was manufactured locally. LIML08 produced a larger assemblage of brick and tile than previous investigations on the site (LIML07).

Potential

The medieval roofing tile although the early modern brick is suitable for discard. No further work is required on the brick or tile.

Summary

A mixed group of medieval and early modern roofing tile and brick was recovered from the site.

Spot dating

The dating in Table 4 is based on the evidence provided by the finds detailed above.

Table 4, Spot dates

Cxt	Date	Earliest Horizon	Latest Horizon	Comments
101	13 th to 14 th	MH4	MH8	Date on a single fragment of CBM
111	3 rd +	R	R	Date on a single sherd
115	Early 2 nd	R	R	Date on a single sherd
119	13 th to 15 th	MH4	MH10	Date on a single fragment of CBM
138	Late 18 th to	ЕМН	ЕМН	Date on CBM
142	Late 18 th to 19 th	ЕМН	ЕМН	Date on CBM

Abbreviations

ACBMG Archaeological Ceramic Building Materials Group

BS Body sherd

CBM Ceramic Building Material

CXT Context

NoF Number of Fragments NoS Number of sherds NoV Number of vessels W (g) Weight (grams)

References

~ 2001, Draft Minimum Standards for the Recovery, Analysis and Publication of Ceramic Building Material, third version [internet]. Available from http://www.geocities.com/acbmg1/CBMGDE3.htm

 \sim 2003, $Lincolnshire\ Archaeological\ Handbook\ [internet]$. Available at http://www.lincolnshire.gov.uk/section.asp?catId=3155>

Darling, M. J., 2004, 'Guidelines for the Archiving of Roman Pottery', *Journal of Roman Pottery Studies* 11, 67-74

Slowikowski, A. M., Nenk, B., and Pearce, J., 2001, *Minimum Standards for the Processing, Recording, Analysis and Publication of Post-Roman Ceramics*, Medieval Pottery Research Group Occasional Paper 2

Young, J., Vince, A.G. and Nailor, V., 2005, A Corpus of Saxon and Medieval Pottery from Lincoln (Oxford)

Appendix 3: Animal bone assessment

By Jennifer Wood

Introduction

A total of 3 (36g) fragments of animal bone were recovered by hand during archaeological watching brief works undertaken by Allen Archaeological Associates at the Garages and Workshop site on Mill Lane, Lincoln. The remains were recovered from undated pit [118].

Results

The remains were generally of a moderate overall condition, averaging grade 3 on the Lyman criteria (1996). No evidence of butchery, burning, pathology or gnawing was noted on any of the remains.

Table 1, Summary of Identified Bone

Context	Taxon	Element	Side	Number	Weight	Comments
	Large Mammal Size	Humerus	R	1	6	Shaft fragment
119	Cattle	Phalanx III	R	1	23	DLS=76mm, MBS=25mm,
	Sheep/Goat	Scapula	R	1	7	

The assemblage is too small to provide meaningful information on animal husbandry and utilisation.

References

Lyman, R L, 1996, *Vertebrate Taphonomy*, Cambridge Manuals in Archaeology, Cambridge University Press, Cambridge

Appendix 4: Context summary list and deposit model

Context No.	Туре	Description	Interpretation	OD Height	Deposit model code
100	Layer	Compact brownish grey silty sand, frequent inclusions of limestone fragments Seals 101	Modern ground surface comprising disturbed topsoil and residual demolition material	6.09m 5.90m	MODT
101	Layer	Loose mid brownish grey silty sand Cut by [105], [106], [116] and [118] Seals 115	Buried cultivation horizon, formed over several centuries	5.90m 5.01m	LMEDT ASCAB
102	Layer	Loose light orangey yellow sand Cut by [114] Seals 103	Naturally formed alluvial sand. Same as 120	5.10m 4.77m	SAXT LROMB
103	Layer	Intermittent band of grey brown silty sand Sealed by 102	Romano-British soil horizon Same as 108, 111, 113 and 122	5.17m 4.71m	MROMT MROMB
104			Void		
105	Cut	Pit or ditch with steep sides, aligned NNE-SSW Contains 123 Cuts 101	Pit or ditch - undated	5.87m 4.92m	TBD
106	Cut	Sub-oval pit steep sided Contains 107 Cuts 101	Cut of probable pit - undated	5.89m 4.87m	TBD
107	Fill	Loose very dark brown silty sand Fill of [106] Sealed by 100	Probable natural silting of pit [106]	5.89m 4.87m	TBD
108	Layer	Intermittent band of grey brown silty sand Sealed by 102	Romano-British soil horizon Same as 103, 111, 113, 122	4.87m 4.82m	MROMT MROMB
109	-	Number not used		-	-
110	-	Number not used		-	-
111	Layer	Intermittent band of grey brown silty sand Sealed by 102	Same as 103, 108, 113, 122	4.91m 4.82m	MROMT MROMB
112		Number not used			
113	Layer	Intermittent band of grey brown silty sand Sealed by 102	Same as 103, 108, 111, 122	4.91m 4.83m	MROMT MROMB
114	Cut	Cut of pit or ditch terminus with moderately shallow sides. Contains 115 Cuts 102	Cut of pit or ditch terminus of possible Roman date	5.07m 4.58m	MROMT MROMB
115	Fill	Fairly loose dark brownish grey silty sand Sealed by 102 Fill of [114]	Probable natural silting of pit [114]	5.07m 4.58m	MROMT MROMB
116	Cut	Cut of pit with steep sides, sharp break of slope to flat base Cuts 101 Contains 117	Cut of probable medieval pit	5.56m 4.92m	LMEDT LMEDB
117	Fill	Loose very dark brown silty sand, rare inclusions of charcoal and flecks of yellow sand Sealed by 125 Fill of [116]	Fill of pit [116], probable natural silting	5.56m 4.92m	LMEDT LMEDB
118	Cut	Cut of pit with moderate break of slope, slight concave sides Cuts 101 Contains 119	Cut of probable pit - undated	4.72m 5.75m	TBD

Context No.	Туре	Description	Interpretation	OD Height	Deposit model code
119	Fill	Loose very dark brown silty sand, rare inclusions of charcoal and flecks of yellow sand Sealed by 100 Fill of [118]	Fill of pit [118], probable natural silting	4.72m 5.75m	TBD
120	Layer	Loose light orangey yellow sand	Naturally formed alluvial sand. Same as 102	5.05m 4.71m	SAXT LROMB
121	Layer	Loose fine light greyish white sand Sealed by 120 Seals by 122	Thin natural layer of wind blown sand filling a slight natural hollow.	5.11m 4.71m	LROMB MROMT
122	Layer	Intermittent band of grey brown silty sand Sealed by 102	Romano-British soil horizon Same as 103, 108, 111 and 113	4.96m 4.65m	MROMT MROMB
123	Fill	Loose very dark brown silty sand, rare inclusions of charcoal and flecks of yellow sand Sealed by 100 Fill of [105]	Fill of pit or ditch [105], probable natural silting	5.87m 4.92m	TBD
124	Layer	Thin lens of pale grey chalk gravel Sealed by 100 Seals 125	Demolition deposit/dump of building material associated with nearby buildings	5.74m 5.67m	EMODT EMODB
125	Layer	Loose mid brownish grey, silty sand Sealed by 124 Seals 117	Possible former topsoil or dump of levelling material	5.69m 5.45m	EMODT EMODB
126	Layer	Mottled orangey yellow sand Cut by [110] and [112]	Naturally formed alluvial sand	5.01m 4.59m	TBD
127	Structure	Curved wall of handmade soft faced 18 th /19 th century bricks 0.59m wide. There was no discernable construction cut for this wall.	Foundation courses of the former mill	5.98m 5.57m	EMODT EMODB
128	Structure	Six courses of roughly dressed limestone blocks with occasional bricks. 0.60m high, 1.10m wide.	Probable chimneystack of a 19 th century cottage.	6.05m 5.40m	EMODT EMODB
129	Cut	Foundation cut 0.26m wide. Cuts deposit 101	Cut for wall foundation 130	5.40m 5.39m	EMODT EMODB
130	Structure	NNW - SSE aligned wall foundation of roughly dressed limestone blocks	Foundations of former 19 th century cottage wall	5.92m 5.40m	EMODT EMODB
131	Structure	Single bricks abutting south side of wall 130	Possible base of brick fire surround	5.40m 5.39m	EMODT EMODB
132 133			Void Void		
134	Structure	Foundation course of NNW	Void Foundations of former 19 th	5 30m	EMODT
135	Structure	 SSE aligned wall of roughly dressed limestone blocks 	century cottage wall	5.39m 5.37m	EMODI
136	Structure	Single width brick structure abutting north side of wall 135	Possible base of brick fire surround	5.39m 5.38m	EMODT EMODB
137	Structure	Course stone structure of artificial stone and roughly dressed limestone blocks. 0.98m wide 0.34m high.	Probable chimneystack of a 19 th century cottage	5.69m 5.38m	EMODT EMODB
138	Layer	Irregular brick and limestone rubble in pale yellow/grey sandy matrix	Rubble infill of wall foundation 135	5.39m 5.38m	EMODT EMODB
139	Cut	Steep sided cut with a concave base. Cuts 100 Contains 140, 141 and 142	Robber cut	5.98m 5.41m	EMODT EMODB

Context No.	Type	Description	Interpretation	OD Height	Deposit model code
140	Fill	Dark grey sandy silt with frequent CBM slate and limestone fragments. Fill of [139] Sealed by 100	Backfill of robber cut	5.81m 5.38m	EMODT EMODB
141	Fill	Dark grey mortar with frequent small stones Fill of [139] Seals 142 Sealed by 140	Backfill of robber cut	5.87m 5.41m	EMODT EMODB
142	Fill	Grey brown sandy silt with frequent CBM Fill of [139] Sealed by 141	Backfill of robber cut	5.98m 5.41m	EMODT EMODB

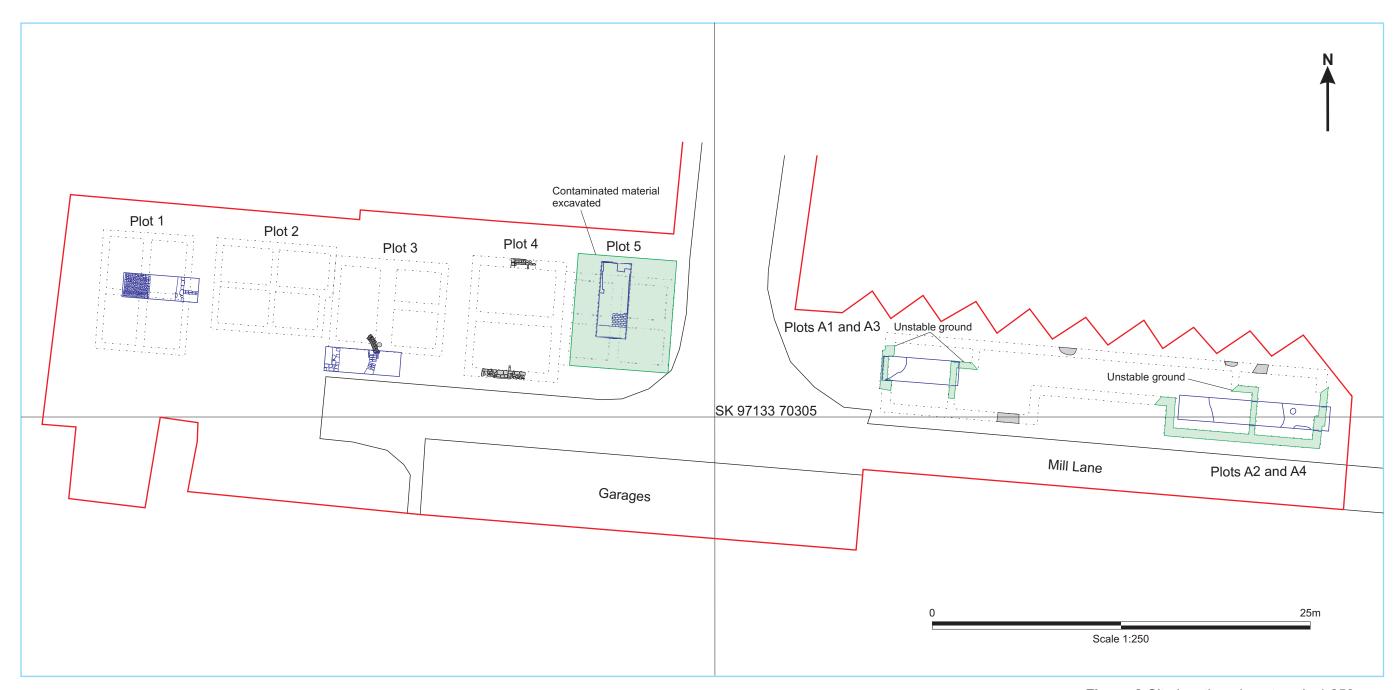
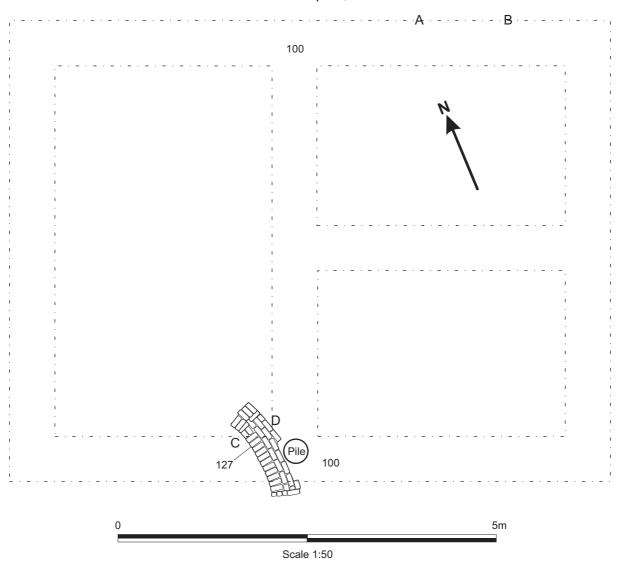


Figure 2:Site location plan at scale 1:250, with the development area outlined in red. Archaeological features are shaded grey, and the former evaluation trenches are shown in blue. Areas shaded green were unsafe to enter on health and safety grounds



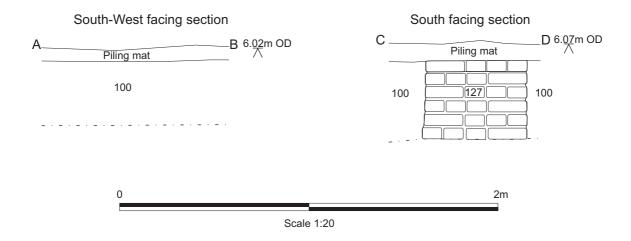
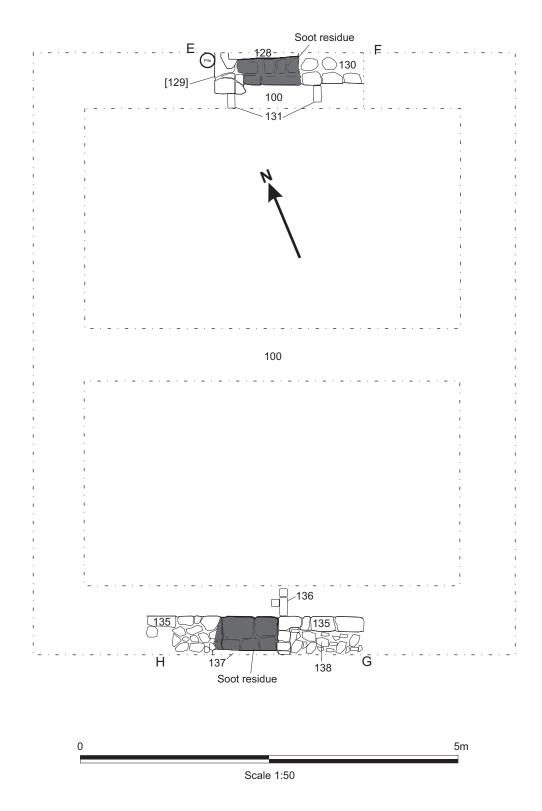
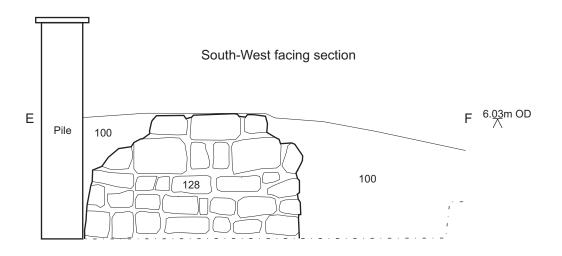


Figure 3: Plot 3 foundation plan at scale 1:50 with section drawings at scale 1:20

Plot 4 foundation trench plan, scale 1:50





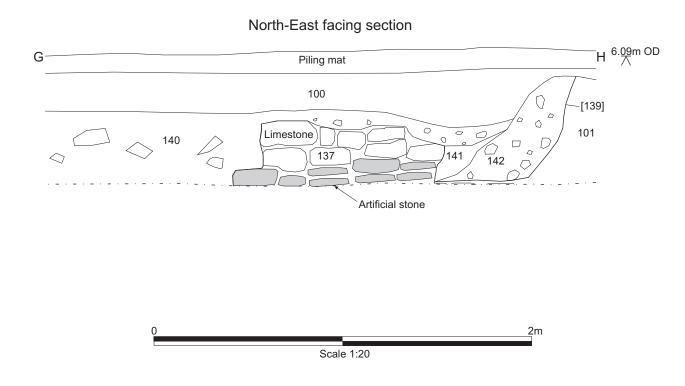
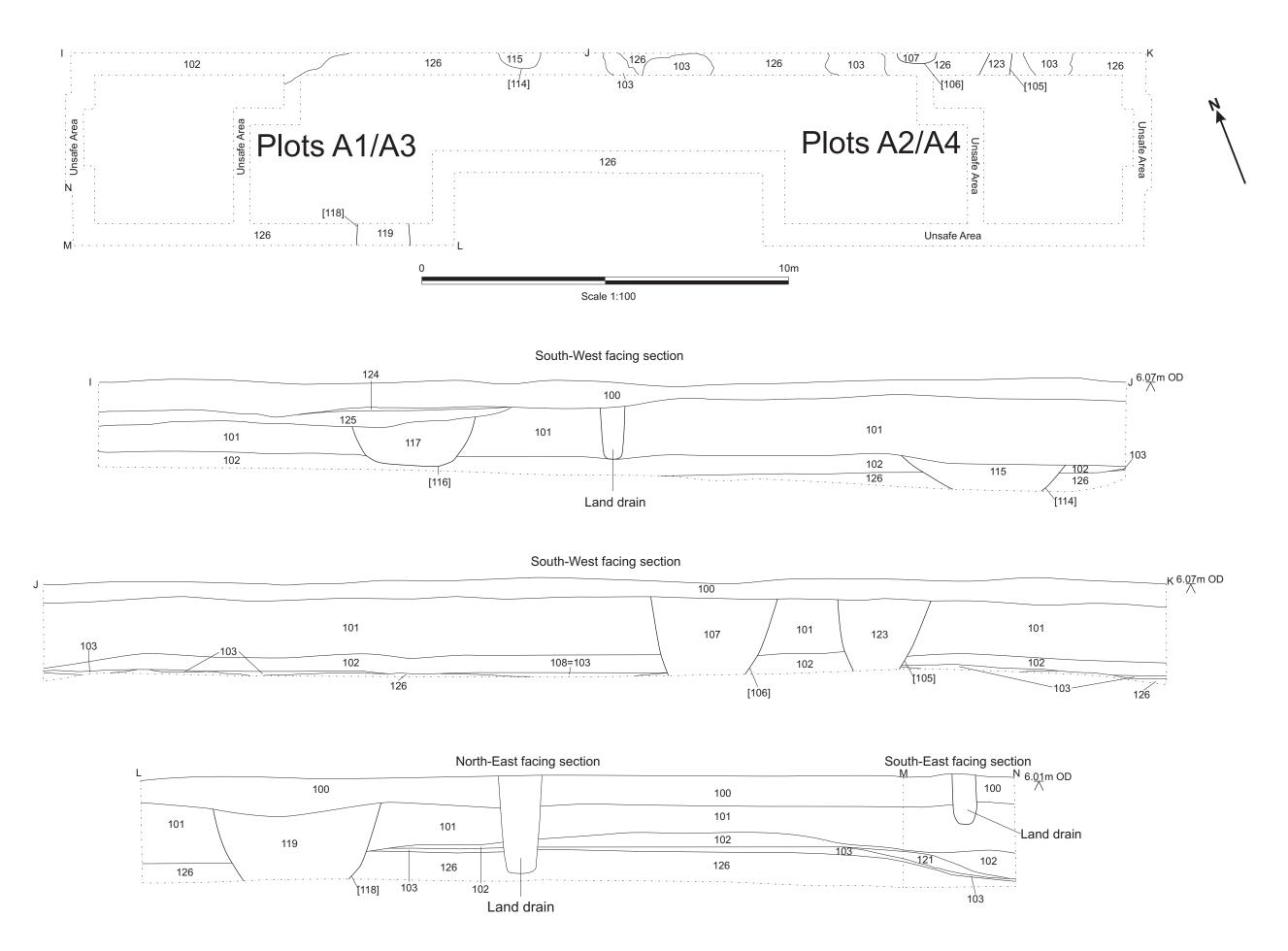


Figure 4: Plot 4 plan and sections at scales 1:50 and 1:20



Scale 1:50

Figure 5: Plots A1 - A4 foundation trenches at scale 1:100, with sections at scale 1:50