

Foss Bank Service Station

Archaeological Evaluation

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Network Archaeology Ltd

for

Mr Nigel Harrison

on behalf of Mr M Wilkinson

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NON-TECHNICAL SUMMARY

Monitoring of an archaeological evaluation trench on land at Foss Bank Service Station, Carholme Road, Lincoln, Lincolnshire, was undertaken by Network Archaeology Ltd on the 23rd July 2009.

The service station is situated on the south side of Carholme Road, directly east of Harvey Street, west of 18 Carholme Road and to the north of Aqua House. Archaeological remains have been found in Lincoln that date from as early as the Mesolithic period. The city was the site of a *Corieltavi* settlement in the late Iron Age before being occupied by a military fort following the Roman conquest (60-90 AD), and subsequently become a thriving city through its Colonia era (90-410 AD). The development site lies just outside of the lower Roman walled city and may have been associated with agricultural or quayside deposits. Lincoln continued to prosper throughout the Medieval (410-1350) and Industrial (1750-1945) eras, when the development site would have lain near housing development for the expanding city as well as surrounding agricultural and quarrying activities. As such, the City of Lincoln Heritage team deemed an archaeological evaluation necessary (Heritage Team 2009).

Monitoring of the work revealed 19th and 20th century layers, deliberately deposited to raise ground level overlain by a recent brickyard surface. No archaeological features were present, and low levels of modern artefacts were recovered from the base of the trench.

1 INTRODUCTION

This report presents the results of archaeological monitoring, carried out in fulfilment of a scheme of archaeological works, undertaken during the excavation of an evaluation trench (Network Archaeology 2009). Network Archaeology Ltd, undertook the work for Harrison Estate Agents on behalf of Mark Wilkinson, proprietor of the Foss Bank Service Station.

1.1 The Development

An archaeological evaluation took place on the forecourt of Foss Bank Service Station (Figure 1). The trench was located at the eastern end of the property, 2.5m from the eastern boundary and 3.3m north of the garage building (Figure 1).

A trench measuring 1m wide, up to 1.20m deep and 5m long positioned away from modern services, was excavated by a JCB fitted with a 1m wide toothless ditching bucket.

The archaeological works took place on the 23rd July 2009, and was carried out by an experienced archaeological Project Supervisor.

1.2 Legislation, Regulations and Guidance

Planning Permission under application number 2009/0022/F for the “Erection of a two and three storey building to accommodate 11 apartments with associated car parking” was granted on the 20th April 2009, with conditions including Condition 8:

“No development, geotechnical investigation, site clearance or other enabling work shall take place on the site until details of the measures to be taken to evaluate, preserve and/or record the archaeological content of the site, which shall include a timescale for the investigation, have been submitted to and approved by the Local Planning Authority. All archaeological work shall thereafter proceed in accordance with the approved programme” (Heritage Team 2009, 1).

A scheme of archaeological works was produced by Network Archaeology Limited detailing the procedures for fulfilment of this condition. This was supplied to City of Lincoln Council Heritage Team for approval prior to the commencement of work (Network Archaeology 2009).

1.3 Aims

The objectives of the archaeological works were to:

- provide information on the depth and quality, below the modern surface, of surviving archaeological deposits which would be affected by any proposed groundwork;
- provide information which will allow for the assessment of the possible scale of development impact on any remains and other information which might influence development design so that such impact can be avoided or minimised;
- provide information that will allow the local planning authority to reconcile development proposals with their policy of preserving archaeological remains;
- provide site-specific archaeological information which (if necessary) would allow for the design and integration of timing and funding of any further archaeological work (or other mitigation strategy) which may be required in advance of, or during, any subsequent development programme;
- produce a project archive for deposition with The Collection (see Appendix 2);

- provide information for accession to the County Historic Environment Record (HER) (see Appendix 2) and the Lincoln Urban Archaeological Database (UAD) (see 8.2.15).

1.4 Limitations

Visibility of archaeological remains is always a significant factor during archaeological monitoring. Visibility is dependent on many factors including machine type, depth of trench, weather and geology.

In this instance, the trench was relatively small in relation to the size of the development because the positioning was constrained by services and access, which limited the potential for locating any archaeological remains. The trench did not reach a sufficient depth to expose remains earlier than the nineteenth century.

1.5 Field Records

Project Code

The project code for the Foss Bank Service Station evaluation is FBC 09.

Written Records

Network Archaeology Ltd uses a system of pro forma record sheets for on-site recording. This system is in a format acceptable to the IfA. All archaeological deposits during the evaluation were recorded.

A total of nine context numbers were issued during the work.

Drawn Records

Drawn records took the form of one 1:10 scale section drawing of the soil and masonry profile revealed in the side of the trench and one 1:50 scale plan drawing of the location of the evaluation trench and archaeological remains within it (Figure 2).

Photographic Records

A photographic record was maintained in colour slide, monochrome and digital formats

Survey

The surveying was achieved by means of tapes and a ground plan used to measure from the boundary of the property.

1.6 Artefacts and Sample Processing

In total, four fragments including pottery and clay pipe were removed from two contexts. This assemblage was deemed recent and assessed by Mike Wood, Network Archaeology Limited Project Manager.

Context	No.of bags	No.of frags	Weight (g)	Material
106	1	2	9	Clay pipe
106	1	1	41	Pottery
107	1	1	15	Pottery

1.7 Archive and Archive Deposition

The project archive has been prepared in accordance with the guidelines outlined in Management of Archaeological Projects (English Heritage 1991, Appendix 3) and to established professional standards (IfA 2008). The archaeological document archive will include all reports, fieldwork records, notebooks, plans, and photographs, as defined in Management of Archaeological Projects, second edition (English Heritage 1991, para. 5.4 & Appendix 3). An accession number (LCNCC : 2009.107) has been obtained in accordance with relevant national guidelines (UKIC 1990, MGC 1992) for a copy of the project archive to be deposited with Lincolnshire Museum Services. The completed report will also be uploaded onto OASIS, in accordance with their current policies.

1.8 Location and Topography

Foss Bank Service Station is located on the south side of Carholme Road, east of Harvey Street, west of 18 Carholme Road and to the north of Aqua House. The site is currently occupied by commercial buildings and areas of hard-standing, associated with the former service station. Foss Bank Service Station lies approximately 1km from the modern centre of the city of Lincoln, just north of the River Witham at c.5.3m above Ordnance Datum (Figure 1).

1.9 Geology, Soils and Land use

The immediate underlying natural geology of this site is that of alluvium, developed by the deposition of sediments from the River Witham's old flood plain (British Geological Survey 1973).

Natural deposits were not revealed in this evaluation, due to made ground underlying more recent deposits of tarmac capping a largely concreted area on the forecourt of the premises currently used as a service garage.

Prior to archaeological work being undertaken a specialist firm tested the ground directly over the fuel tanks for soil contamination.

1.10 Archaeological Background

Prehistoric Era (-10000 – 60 AD)

The development site would have lain on the Limestone Uplands surrounding Lincoln during the prehistoric period, just south of a long-distance route known as the Jurassic Way. This route may have been utilised in early prehistory as a track across the county, passing through a gap in the limestone ridge near the modern city (Jones *et al* 2003, 34). Evidence for prehistoric settlement within the Limestone uplands is limited. However, the Witham valley

itself has produced find spots of worked flint, pottery and preserved wooden artefacts from the Mesolithic to Bronze Age within the waterlogged sediments.

Roman Military Era (60-90)

Lincoln was the site of a military fort following the Roman conquest in what had been a former *Corieltauvi* settlement. The western side of the city including the development site may have been a suitable site for quayside development at this time (Jones *et al* 2003, 54-55).

Roman Colonia Era (90-410)

Lincoln became a thriving city during this period and the development site may have lain within riparian deposits, dark earth laid down by agricultural activity on the flood plain (Jones *et al* 2003, 54-55). Also during this period, cemeteries were positioned away from the city centre, with Roman burials previously discovered from Newland Street West (Jones *et al* 2003, 111), 100m northeast of Foss Bank Service Station.

Early Medieval Era (410-850)

The development site lies near the boundary between suspected further riparian dark earth deposits and the edge of the former Roman city and road network (Jones *et al* 2003, 158).

High Medieval Era (850-1350)

The area of the development site would have lain near housing developed in Newland suburb and may have been associated with common ‘diggings’ in the cliff faces northwest and south of the city. Although quarrying of local stone and clay had taken place in the Roman period, it was most prevalent during the medieval era as the city rapidly expanded and the demand for stone buildings escalated (Jones *et al* 2003, 296-302).

Early Modern Era (1350-1750)

This period has similar research agendas to the medieval period, concentrating on the development of housing in the Newland suburb and further quarrying northwest and south of the city (Jones *et al* 2003, 329-337).

Industrial Era (1750-1945)

From c.1850, terraced housing estates for the working class were developed in nearby Newport, Newland and Wigford. The boom in housing stock related directly to Lincoln’s growing industrial influence, particularly in heavy engineering, which dominated the labour force of the city into the modern era (Jones *et al* 2003, 362-369). During this period the development site was transformed from pasture in Padley’s 1848 map of Lincoln (Mills and Wheeler 2004, 76) to an unspecified plot of land within developing terraced housing by 1883 (Mills and Wheeler 2004, 94). This may have coincided with the deposition of silt and 19th century artefacts used to raise the ground level and identified in the evaluation trench.

Foss Bank Service Station was constructed in the early 1970s, and although the petrol pumps were removed in recent times, it remains an active garage. The tanks were filled with liquid concrete after the pumps were removed, and petrochemical contamination to the surrounding soil should be minimal.

2 RESULTS

Few archaeological remains were identified during the excavation of the trench. The deposits exposed appear to have been deliberately deposited in the last 150 years to create a surface conducive to building close to the low-lying flood plains (Figure 1). The depositional sequence exposed during the excavation of the foundation trench is summarised below.

Depth below ground surface	Context No.	Description	Interpretation	Height of deposit above Ordnance Datum	Date
0-0.03m	100	Tarmac	Occupation layer	5.55m	Late 20 th century
0.03-0.15m	101	Concrete	Material used to level ground before tarmac	5.52m	20 th century
0.15-0.26m	102	Loose, light greyish brown sand with frequent small angular stone inclusions	Hardcore levelling for concrete	5.40m	20 th century
0.26-0.33m	103	Red brick surface	Bricked forecourt	5.29m	Late 19 th /early 20 th century
0.33-0.35m	104	Loose sand	Brick surface sub-base	5.22m	Late 19 th /early 20 th century
0.35-0.50m	105	Industrial waste/clinker	Levelling deposit	5.20m	Late 19 th /early 20 th century
0.50-0.97m	106	Compact mid grey silty loam	Made ground	5.05m	19 th century
0.97-1.17m	107	Compact mid grey silty loam with frequent sub-rounded pebbles	Made ground	4.58m	19 th century
0.26m-0.72m	108	Rectangular red brick structure	Drain	5.29m	Late 19 th /early 20 th century

The concrete layer (101) relates to a modern working platform pre-dating the current tarmac (100) on the surface. This concrete sits on a layer of hardcore material (102) that has been deliberately levelled to create a flat base for the concrete to lie on.

Hardcore deposit (102) was placed atop an earlier phase of construction represented by a red brick surface (103), with a contemporary drain (108) located at the southern end of the evaluation trench. Engineering bricks were used for the surface, indicating use as an outdoor yard on account of their dense nature making them particularly resistant to the elements. This surface was not held within a mortar matrix, instead using soft builders sand (104) as a sub-base. Directly below the brick surface, was a levelling deposit consisting of mainly production waste including coal and grit (105). The drain located in the south of the trench consisted of a rectangular structure, 0.58m by 0.52m, one course of brick deep encasing a ceramic pipe. This structure extended vertically beyond the depth of excavation.

The earliest deposits revealed were made ground (106) and (107), composed of silty sand containing occasional mollusc fragments and 19th century domestic artefacts, including clay tobacco pipe, pottery and shards of bottle glass and animal bone (glass and bone not collected). These layers of made ground resembled redeposited river silts and may relate to

dredging of the nearby canal in the Victorian period. Excavation was halted at 1.2m, for health and safety reasons, at which point levelling deposit (107) extended across the base of the trench.

3 CONCLUSIONS

The aims of the evaluation have been achieved, in that the extent of archaeological remains within the excavation area have been assessed and established that they are of low significance.

The archaeologically rich city centre of Lincoln is such a short distance to the northwest of this site that one may expect the observation of significant archaeology to be potentially quite high. However, no archaeological remains or deposits were found to pre-date 1850, thus placing all material firmly in the Modern Era based upon Jones *et al*'s 2003 deposition model for the city.

The land is recorded as being pasture up to the late 19th century, at which point Lincoln grew at an astonishing rate to occupy much of the land to the west in the Carholme Road region. This land would not have been fit to build directly upon, due to its proximity to the Foss Dyke and its flood plain. A large quantity of made ground may have been required to raise the level of the land allowing safe development beside the canal. It is therefore concluded that deposits (106) and (107) demonstrate this made ground, with the possibility that this material came from dredging the canal on account of its silty nature and molluscan inclusions. The presence of 19th century artefacts within the made ground may relate to domestic waste discarded into the canal and subsequently redeposited with the dredged silt.

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4 STATEMENT OF INDEMNITY

Every effort has been taken in the preparation and submission of this report in order to provide as complete an assessment as possible within the terms of the brief and all statements and opinions are offered in good faith. Network Archaeology Ltd cannot accept responsibility for errors of fact or opinion resulting from data supplied by any third party, or for any loss or other consequences arising from decisions or actions made upon the basis of facts or opinions expressed in this report and any supplementary papers, howsoever such facts and opinions may have been derived, or as a result of unforeseen and undiscovered sites or artefacts.

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APPENDIX

APPENDIX A THE FINDS

Mike Wood BA (hons) MLitt MfA

Introduction

A small collection of recent material was recovered from a single evaluation trench on land at Foss Bank Service Station, Carholme Road, Lincoln. Two fragments of clay tobacco pipe, weighing a total of 9 grams, as well as two sherds of pottery weighing 56 grams were recovered, all dating to the 19th century.

Methodology

The assemblage has been examined in detail by eye, with attributes such as typology, condition and any decoration being noted in Table 1.

Assemblage

Context No.	Deposit	Material Type	Colour	Prov. Period	Count	Weight (gms)	Stem bore	Comments
106	Made ground	Clay Pipe	NA	Late 18 th -19 th century	2	9	5/64"	Undecorated stem fragments.
106	Made ground	Pottery	Pearl ware	Late 18 th -mid 19 th century	1	41	NA	Scalloped edged plate with an embossed thistle design
107	Made ground	Pottery	Transfer printed white ware	19 th -early 20 th century	1	15	NA	Blue and white Chinese design bowl

Table 1

Discussion

The pottery is typical of 19th century domestic tableware, and would have been commonly available in the city of Lincoln at this time. Two pieces of clay tobacco pipe stems were also recovered, both with bores of 5/64 inches, which tend to occur in pipes from the late 17th century onwards. In addition, the stems are relatively thin and well formed, which would suggest they were made in the late 18th or 19th century.

Recommendations for further work

All the artefacts are of relatively recent date and were retrieved from made-ground, therefore having been removed from their original contexts. As such, no further work is recommended.

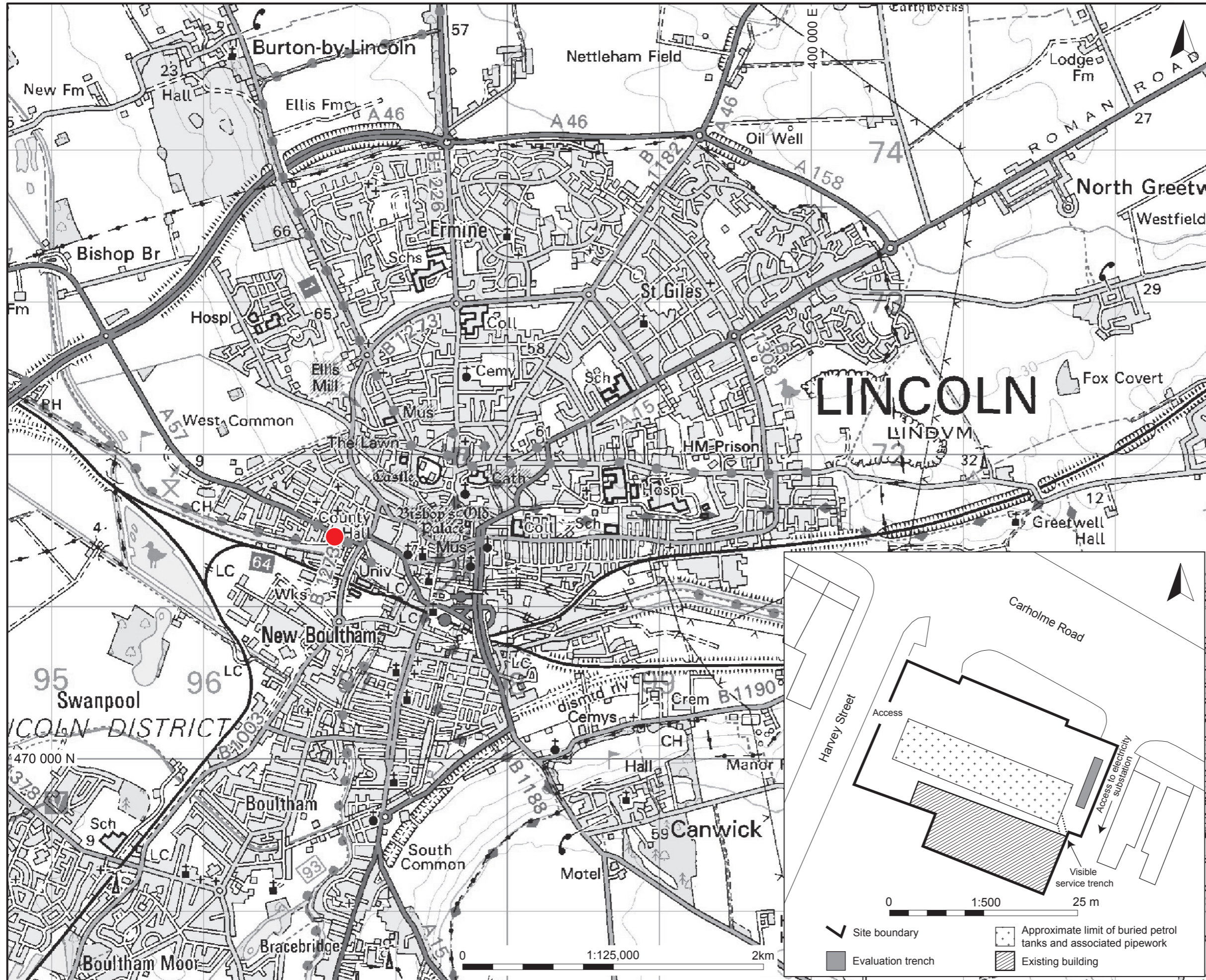
Storage and curation

There is no long-term value in retaining this material, and all is suitable for discard.

Reference:

Oswald, A, 1975 *Clay Pipes for the Archaeologist*, (BAR 14), Oxford

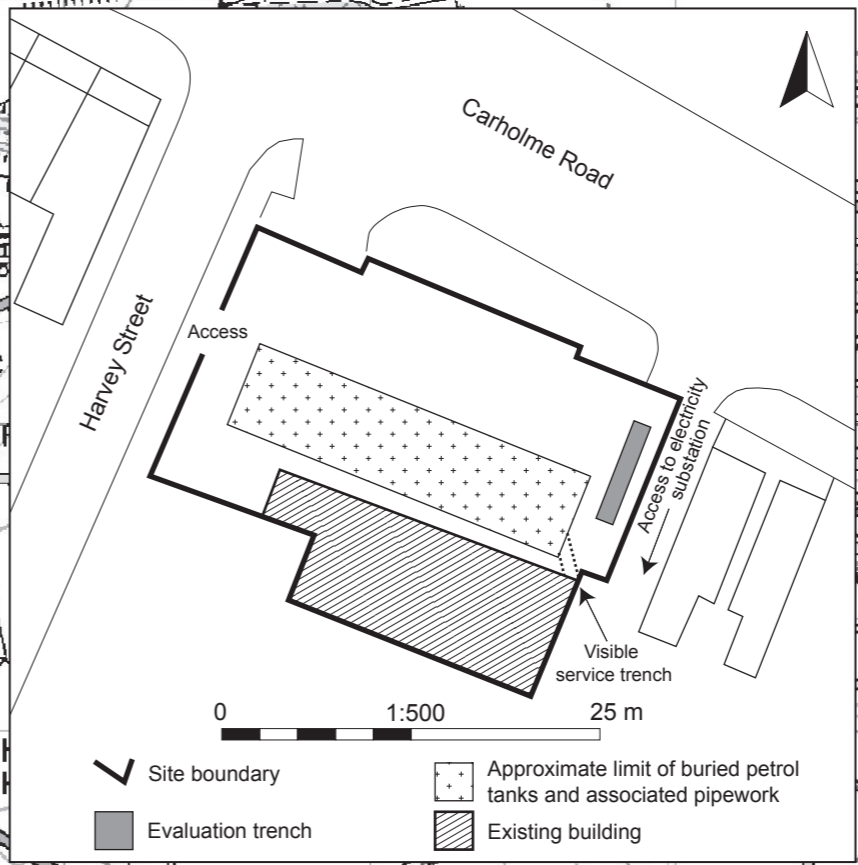
FIGURES



Key
● Site location



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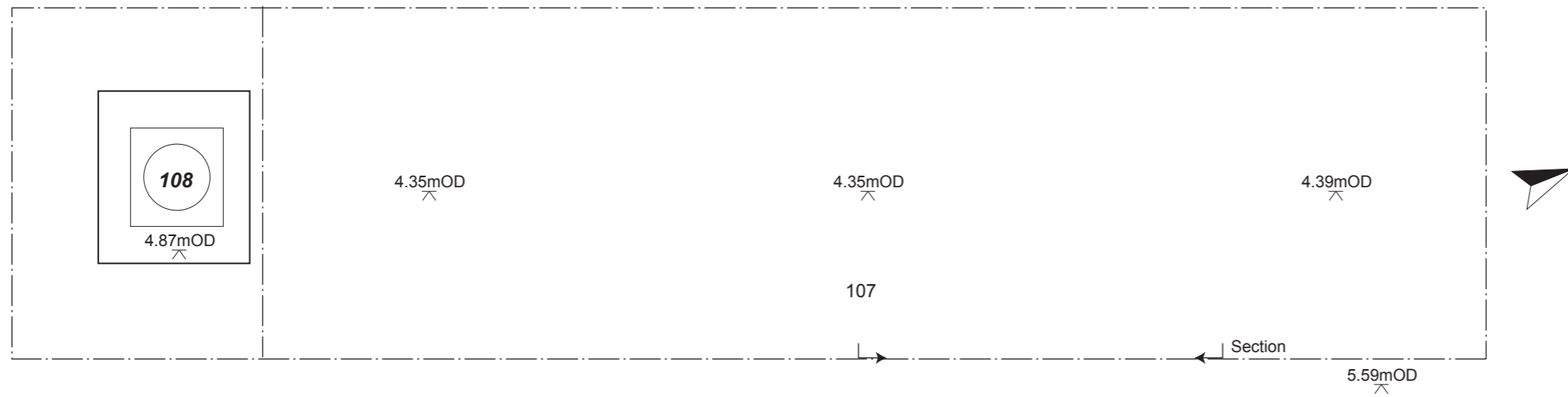
Ver	Date	Description	DM	Chk	MW App
0.1	27/7/09	Site location	JLH	CC	MW



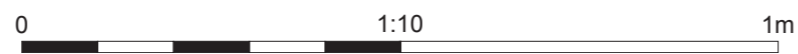
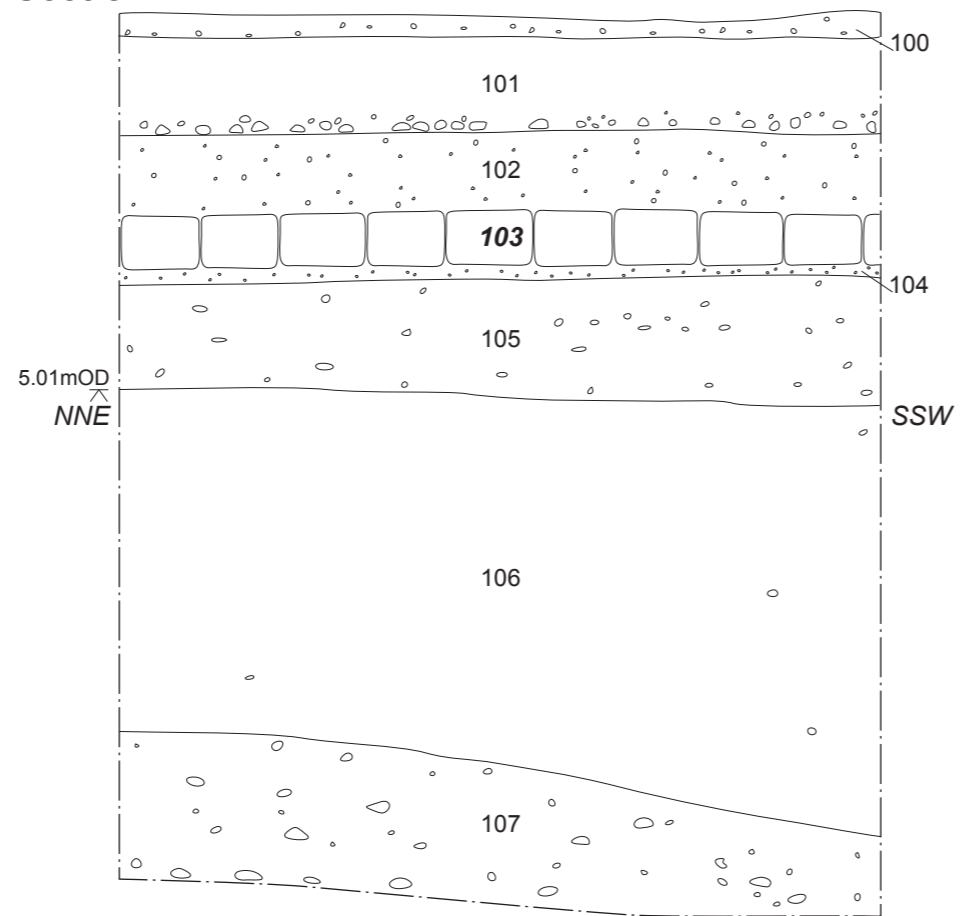
Fossbank Service Station, Lincoln

Figure 1: General location of site

Scale 1:125,000 and 1:500



Section



Key

- Limit of excavation
- Cut line
- Layer line
- 1234** Cut number
- 1233 Layer/fill number
- ⊙ Stones

0.1	27/7/09	Trench & section	JLH	CC	MW
Ver	Date	Description	DM	Chk	App



Fossbank Service Station, Lincoln

Figure 2: Plan of trench and section

Scale 1:20 and 1:10

PLATES



Plate 1 Excavated evaluation trench



Plate 2 West facing trench section



Plate 3 Location of trench on Foss Bank Service Station forecourt