

## **LAND ADJACENT TO 58, NETTLEHAM ROAD, LINCOLN**

### **RESULTS OF THE ARCHAEOLOGICAL MONITORING AND RECORDING**

NGR:	SK 98210 72479
Planning Ref.:	2014/0276/F
PCAS job no.	1301
Site code:	NETM 14
Archive acc. no.:	2014.180

Prepared for

Rob Bradley Building Design

by

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**Fig. 4:** Section 2 at 1:20 scale

### Non-Technical Summary

A scheme of archaeological monitoring and recording took place during the construction of a new house on land adjacent to no. 58 Nettleham Road, Lincoln.

Nettleham Road is one of the main radial routes out of the city of Lincoln, running north-eastwards through Nettleham and Dunholme to Market Rasen. No. 58 is situated a short distance outside the city centre, in the zone largely dominated by 19<sup>th</sup>-century development, which lies between the medieval city and the modern suburbs.

Monitoring proved negative archaeologically, with only a natural stratigraphic sequence being observed.



**Figure 1:** Site location plan at scale 1:25,000, with a detailed inset at scale 1:2500. The site is marked in red on both plans. OS mapping © Crown copyright. All rights reserved. PCAS licence no. 100049278.

## 1.0 Introduction

Pre-Construct Archaeological Services Ltd (PCAS) was commissioned by Rob Bradley Building Design to undertake archaeological monitoring and recording, as specified in the planning conditions for the construction of a 3-storey house and detached garage on Nettleham Road in the city of Lincoln.

This programme of work was recommended by the City of Lincoln Archaeologist to support a planning application for residential development.

The site itself lies outside of the Roman and medieval city, to the north-east and may lie on the course of a Roman coastal road, connecting Lincoln with the Lindsey Marsh. A metalled surface recorded further to the north-east during archaeological work on Nettleham Road may have located its course. The projected line of the Roman aqueduct that brought water from the Roaring Meg spring into the Upper City is known to have run along the opposite side of Nettleham Road, and there was a possibility that remains associated with this structure could have been encountered.

During the medieval and post-medieval periods, the site lay within agricultural land, which was gradually developed in the later Victorian and Edwardian periods, chiefly for prestige housing, but with some industrial activity in the form of stone quarrying.

This document follows current best practice and national guidance, including:

- NPPF, National Planning Policy Framework, 2012;
- IFA Code of Conduct (1994 as revised);
- IFA Standards and Guidance for Archaeological Watching Briefs (2008);
- IFA Standard and Guidance for Archaeological Excavation (revised 2008);
- Lincolnshire Archaeological Handbook (Lincolnshire County Council, 2012).
- Management of Research Projects in the Historic Environment (MoRPHE)

## 2.0 Site Location and Description (fig. 1)

Nettleham Road is one of the main radial routes out of the city of Lincoln, running north-eastwards through Nettleham and Dunholme to Market Rasen. No. 58 is situated a short distance outside the city centre, in the zone of largely 19<sup>th</sup>-century development between the medieval city and the modern suburbs, and lies on the east side of the street between its junctions with Lee Road and Mainwaring Road. It does not fall within a Conservation Area, but lies a short distance outside the city's Conservation Area no. 9, 'Newport and Nettleham Road' to the north-west (CLC, 2012).

The stretch of Nettleham Road on which the site lies runs along the east side of the 'Northgate and Church Lane' Character Area. The townscape assessment of the Character Area notes that it is;

*'an expression of the individual wealth generated during and subsequent to Lincoln's industrial expansion during the late 19<sup>th</sup> and 20<sup>th</sup> centuries... The majority of urban blocks are composed of large-scale detached houses built within spacious plots, resulting in a low overall building density... buildings are set back from the road towards the front and centre of their plots' although it also notes that 'Many of the extensive garden plots pertaining to the large Late Victorian/Edwardian and earlier residences have been subject to infill during the*

*Inter-war, Post-war and Modern periods. As a result many of the later housing plot boundaries incorporate elements of 19<sup>th</sup> century plot boundaries' (CLC, 2009).*

### **3.0 Topography and Geology**

The Northgate and Church Lane Character Area lies on top of the Lincoln Edge limestone ridge, directly to the north-east of the Roman and medieval walled cities. The site is at an approximate Ordnance Datum height of 55m above sea level.

The local solid geology of the area is undivided Lincolnshire Limestone: no overlying drift deposits are recorded (BGS, 1973).

### **4.0 Planning Background**

Planning permission was granted by the City of Lincoln Council on 27th June 2014 for the construction of a 3-storey dwelling and detached garage. Condition 6 of this planning permission required the implementation of an appropriate programme of archaeological work in accordance with a Written Scheme of Investigation approved by the City of Lincoln Council as Local Planning Authority. It further required the applicant to notify the Local Planning Authority of the intention to commence development works at least 7 days in advance. The programme of archaeological work was to be carried out in accordance with the approved WSI, after which this report was prepared for deposition with the City Council's Heritage Team and the Lincolnshire Historic Environment Record (HER) within six months of the completion of archaeological works; the project archive is to be deposited at The Collection within 12 months (planning application no. 2014/0276/F).

### **5.0 Archaeological and Historical Background**

A part of Nettleham Road may follow the course of the Roman coastal road leading north-east from Lincoln to Ludford and the east coast. The projection of the known line of the road south-westwards would meet the Upper City at the north-east corner of the defences, but it remains to be demonstrated if it left the city at the north or the east gate, or was fed by roads from both. A heavily rutted metalled surface was recorded at nine points between nos. 87 and 101, Nettleham Road and may be associated with a ditch feature found at 111, Nettleham Road (LHD ref. 714).

The Roman aqueduct carrying water into *Lindum Colonia* from the high ground to the north ran along part of the line of Nettleham Road, on the north-west side of the modern road. There is currently no evidence for its course to the south of no. 87, Nettleham Road (the most southerly observation of the aqueduct): excavation, resistivity and geophysical surveys on Nettleham Road closer to the city have failed to find it, and it is probable that its route diverged from that of the Roman road, perhaps heading for the East Bight water tower or towards the east or north gates (LHD ref. 951). The *Lindum Colonia* aqueduct is unique in Roman Britain in running within a buried ceramic pipe encased in a concrete jacket (much resembling a post-medieval drainage pipe) rather than an open canal. As the Upper City had no practical need of water transported from a spring three miles away, being well-supplied by wells and springs on the hillside, it has been suggested that the water from the aqueduct was not for public use, but had some specialised ritual function (LARA RAZ 7.17).

The Lincoln Heritage Database records the find of a late Roman flagon in Massey Road, which runs parallel to Nettleham Road to the east of the site, but its exact findspot is not known (LHD event ref. 4334).

It is likely that parts of the Roman infrastructure continued in use during the Early Medieval period, when the city experienced a decline. Land outside the city defences, including that within the Character Area, is likely to have been used for agricultural purposes; much of the

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land within the Character Area appears to have remained open during the High Medieval and Early Modern Eras, and was probably part of the city's North Field, one of three large fields used in common by the residents of Lincoln. In addition, to being used for farming, land was probably used for the extraction of stone from small-scale pits during the High Medieval and Early Modern eras. Small undulations in the ground within the Character Area may relate to localised areas of stone extraction. It is possible that some of the earliest houses in the Character Area, such as the nearby no. 66, Nettleham Road, were constructed from stone quarried from nearby pits (CLC, 2009). Evaluation trenching looking for indications of quarrying activity at 46, Lee Road, approximately 150m to the north of the present development site, found none (LHD event refs. 393-4).

During the Middle Ages and the post-medieval period, the site and its neighbourhood lay within Lincoln's open fields (LARA RAZ 9.9.1 and 10.9.1).

Towards the end of the Early Industrial Era and into the Post-railway Expansion period the area, with its availability of open land adjacent to the city centre, became the preferred location for the construction of large-scale private residences. Initial dwellings included the vicarage to St. Peter at Arches, which is now incorporated within the nursing home at no. 23, Nettleham Road, approximately 160m to the south-west of the site (HER ref. 3179). As Lincoln expanded and grew increasingly prosperous during the Late Victorian/Edwardian period, a growing number of large residences were built by the city's new entrepreneurial elite. The status of the houses is reflected in their large scale, the expansive size of their plots, and their often lavishly decorated form. Many of the extensive garden plots pertaining to the large Late Victorian/Edwardian and earlier residences were subject to infill during the Inter-war period, and nos. 50-58, Nettleham Road are among these. As a result, many of the later housing plot boundaries incorporate elements of 19<sup>th</sup>-century plot boundaries, which cumulatively preserve many of the original plot boundaries of Late Victorian/Edwardian houses (CLC, 2009).

Stone extraction also continued in the Nettleham Road area well into the 19<sup>th</sup> century, with two quarries marked on OS mapping of 1889 in the vicinity of the modern Lee Road, a short distance to the north of the site; a row of cottages further to the north, some of which still stand, are believed to have been housing for the quarry workers (LARA RAZ 11.41.4).

The street layout in the neighbourhood of the site was laid out in the early Edwardian period, with Mainwaring Road and Massey Road dating to 1904 and Manor Road to 1907 (LHD refs. 3748-9, 3752), but was largely developed for housing in the 1920s. No. 58, Nettleham Road was built in 1924, with a garage added in 1934 (LHD ref. 5779).

Programmes of archaeological monitoring during development works at nos. 33 and 35, Nettleham Road, directly opposite no. 58, found no trace of the Roman aqueduct and recorded no other remains earlier than the 18<sup>th</sup> to 19<sup>th</sup> centuries, with the exception of a single find of an early medieval lead alloy button (LHD event refs. 1655, 7054, 7098-7101). Archaeological monitoring during development on land adjacent to no. 48, Nettleham Road, four plots to the south of the present site, also recorded no archaeological features or finds (LHD event ref. 10234).

**a. Lincoln City Research Agenda Zones**

**Prehistoric Era (10,000 BC-AD 60): RAZ 5.9.1, Limestone uplands.** The areas of limestone heath north of the river crossing will have presented dry land and easily worked soils: if Iron Age field systems were present in the area, they may be expected here.

**Roman Military Era (AD 60-90): RAZ 6.16, *Canabae* outside east, north and west gates.** It is likely that the lengths of road leading from the east, north and west gates of the fortress will have been highly attractive to settlement, as the land here was more amenable to development than the hill-slope to the south. The possibility that *canabae* or *vici* (unofficial or



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official civilian settlements) developed along any or all of these roads in the military period has been little investigated and is a research priority. If investigation indicates that no such settlements were present, this may imply that the army was managing these approaches for themselves, perhaps for defence or logistic support.

**Roman *Colonia* Era (AD 90-410): RAZ 7.1, Roads entering the city.** All of the major roads of Roman Lincoln are thought to have been established during the military occupation. Evidence of changes in road use and maintenance are of particular interest, as is potential dating evidence for when the final repairs to roads were made.

**Roman *Colonia* Era (AD 90-410): RAZ 7.17, The aqueduct.** The projected line of the Roman aqueduct runs along the opposite side of Nettleham Road, but this RAZ has been drawn with a 50m buffer zone either side of the aqueduct to make sure that any associated features are incorporated into it.

**Early Medieval Era (410-850): RAZ 8.3.1, Central elements of former Roman city and Roman network.** The research goal for this neighbourhood is to ascertain what the Anglo-Saxons did with the massive remains of the Roman infrastructure: did they adapt stone buildings, demolish them or construct timber buildings in amongst them, and did they maintain or dig up paved roads?

**High Medieval Era (850-1350): RAZ 9.9.1, Lincoln common fields.** The city's open fields lay exclusively to its north and east. The fields will have contained ephemeral structures for shelter and storage, as well as earthwork and timber structures for agricultural purposes; boundary stones were probably placed, but these are likely to have been simple rough boulders, not easily identified in the urban environment. A number of windmills stood in the city fields: the locations of some named mills remain unknown.

**Early Modern Era (1350-1750): RAZ 10.9.1, The city's arable fields.** As 9.9.1 above.

**Industrial Era (1750-1945): RAZ 11.28, Newly built Victorian housing for the middle and upper classes.** Evidence for possible infrastructure surrounding large houses originally built in spacious grounds is of interest, including evidence of their garden layout.

**Industrial Era (1750-1945): RAZ 11.41.4, Stonepits north and north-east of the upper city.** There is no indication in the mapped evidence that these quarries were being exploited to feed limekilns, but future research work should accommodate this possibility.

## **6.0 Methodology**

Foundation trenches were excavated by a mechanical excavator, fitted with a toothed bucket, under the supervision of an archaeologist. These trenches were then inspected and cleaned where necessary.

As no archaeological features were encountered, representative block sections of the deposits revealed were recorded at 1:20 scale and then located on a 1:50 scale plan of the excavation area. Additionally, a written record of the stratigraphic sequence was made and augmented by a narrative style account, composed in the form of a site diary.

A digital photographic record was also maintained during the course of the archaeological works.

The monitoring of the groundworks was carried out on the 26/01/2015 by James Coles.

## **7.0 Results (figs. 2-4)**

Solid geology was revealed throughout the whole of the foundation trench at approximately 0.20m below the existing pre-excavation ground surface and was partly excavated to a depth of around 0.34m (context (002)). The deposit comprised a degraded and fragmental limestone, with irregular cracks and fissures (see fig 3, section 1 and colour plates 2-4). This strata represents a part of the Lincolnshire Limestone sequence, which has here clearly suffered much from the effects of both chemical and physical weathering, over an extended time period.

Partly infilling the cracks and fissures of the previously mentioned limestone, was a mid orange-brown clayey sand (context (003)). This was revealed periodically throughout the trench at depths of around 0.20m below the pre excavation ground surface. The deposit appeared sterile and is likely to represent part of the natural geological sequence. The formation process is thought to be post glacial lower energy deposition, which has infilled breaks and cracks in the solid geology, which have been caused by glacial and post-glacial processes.

The final deposit in the sequence overlay both of the previously described contexts and comprised a loosely compacted, 0.20m thick dark brownish-grey silty sand (context (001)). This deposit equates to an organic topsoil, associated with natural formation processes over an extended period of time.

## **8.0 Discussion and Conclusion**

The results of the archaeological monitoring exercise successfully identified a coherent stratigraphic sequence, which appeared to suggest that anthropogenic activity on the site had left little trace within the archaeological record. This conclusion does not of course indicate that the land has not been utilised, only that any uses have left little trace archaeologically.

## **9.0 Effectiveness of Methodology**

This programme of monitoring and recording was an appropriate method for gathering further information about the sites archaeological potential. The data produced by this monitoring exercise is considered sufficient to inform the planning and development process.

## **10.0 Project Archive**

The site records are currently in the custody of PCAS, but will be deposited with a printed copy of this report at The Collection, Lincoln, where it can be accessed using the accession number LCNCC 2014.180. A digital copy of this report will be uploaded to OASIS, where it will be accessible via the ADS website.

## **11.0 Acknowledgements**

Pre-Construct Archaeological Services would like to thank Rob Bradley Building Design for this commission.

## **12.0 References**

British Geological Survey, 1973, *Lincoln: England and Wales 1:50,000 Series sheet 114, Solid and Drift Provisional Edition*. BGS, Keyworth, Nottingham.



*Land adjacent to 58, Nettleham Road, Lincoln*

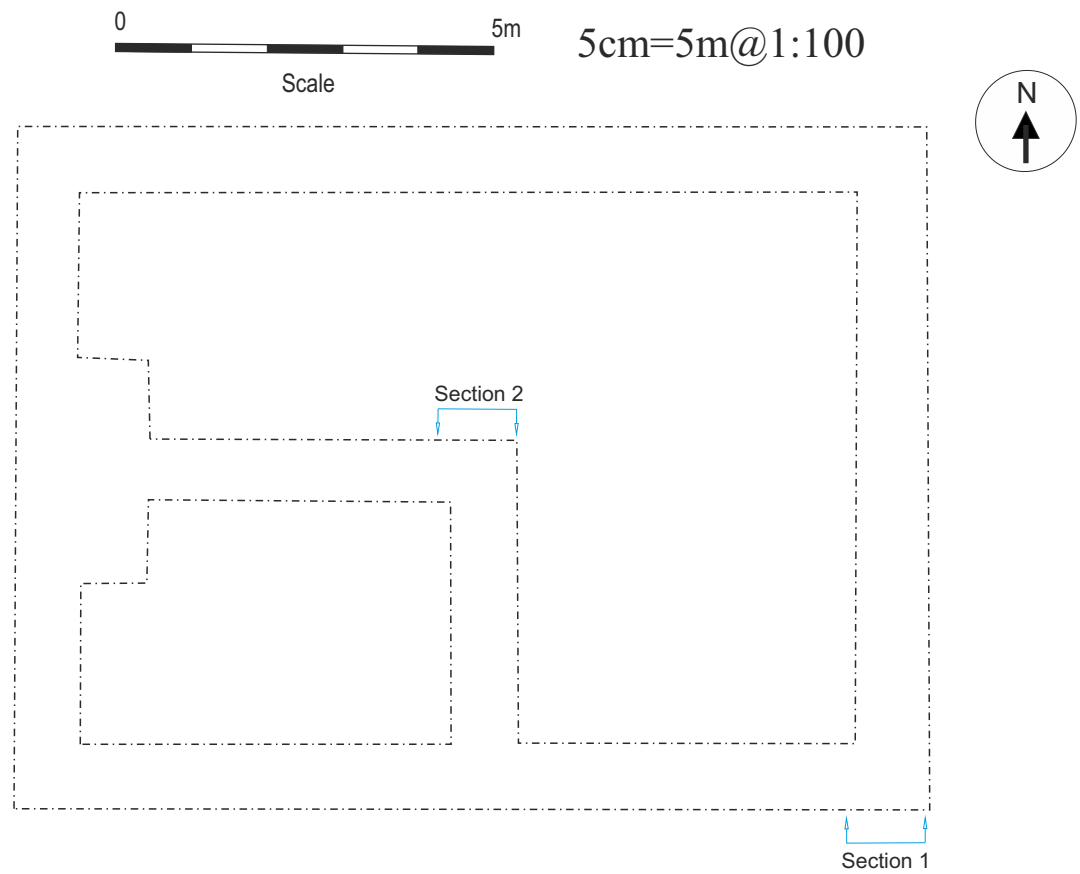
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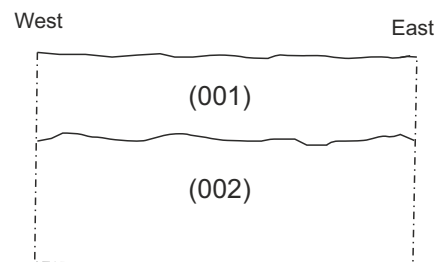
**Figure 2;** Trench plan showing section locations



**Figure 3;** Section 1



**Figure 4;** Section 2



## Appendix 1: Colour Plates



**Plate 1.** General view of site, looking southeast



**Plate 2.** Foundation trenches, partly excavated, looking east



**Plate 3.** North facing block section of foundation trench (fig; 3, section 1)



**Plate 3.** West facing block section of foundation trench (fig; 4, section 2)

## Appendix 2: Context Summary

Context No.	Type	Description	Finds/Dating
001	Layer	Dark brownish-grey silty sand	Topsoil
002	Layer	Degraded and fragmental limestone strata	Solid geology
003	Layer	Mid orange-brown clayey sand, infilling fissures	Peri-glacial deposition

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**OASIS ID: preconst3-232159**

### Project details

Project name	Archaeological monitoring on land adjacent to 58 Nettleham Road, Lincoln
Short description of the project	A scheme of archaeological monitoring and recording took place during the construction of a new house on land adjacent to no. 58 Nettleham Road, Lincoln. Nettleham Road is one of the main radial routes out of the city of Lincoln, running north-eastwards through Nettleham and Dunholme to Market Rasen. No. 58 is situated a short distance outside the city centre, in the zone largely dominated by 19th-century development, which lies between the medieval city and the modern suburbs. Monitoring proved negative archaeologically, with only a natural stratigraphic sequence being observed.
Project dates	Start: 26-01-2015 End: 26-01-2015
Previous/future work	No / No
Any associated project reference codes	NETM 14 - Sitecode
Any associated project reference codes	1301 - Contracting Unit No.
Type of project	Recording project
Current Land use	Other 5 - Garden
Monument type	NONE None
Significant Finds	NONE None
Investigation type	"Watching Brief"
Prompt	Planning condition

### Project location

Country	England
Site location	LINCOLNSHIRE LINCOLN LINCOLN Land adjacent to 58 Nettleham Road
Study area	429 Square metres
Site coordinates	SK 98210 72479 53.239956432693 -0.5282300894 53 14 23 N 000 31 41 W

Point

**Project creators**

Name of Organisation	Pre-Construct Archaeological Services Ltd
Project brief originator	Local Authority Archaeologist and/or Planning Authority/advisory body
Project design originator	Pre-Construct Archaeological Services Ltd
Project director/manager	Will Munford
Project supervisor	J. Coles
Type of sponsor/funding body	Developer

**Project archives**

Physical Archive Exists?	No
Digital Archive recipient	The Collection, Lincoln
Digital Archive ID	LCNCC 2014.180
Digital Contents	"none"
Digital Media available	"Images raster / digital photography", "Text"
Paper Archive recipient	The Collection, Lincoln
Paper Archive ID	LCNCC 2014.180
Paper Contents	"none"
Paper Media available	"Context sheet", "Diary", "Miscellaneous Material", "Plan", "Report", "Section"

**Project bibliography 1**

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