

**LAND AT NO. 50 BUNKERS HILL
LINCOLN**

ARCHAEOLOGICAL MONITORING AND RECORDING

Planning App. No.:	2014/0221/F
Planning Authority:	City of Lincoln Council
NGR:	SK 99863 72936
PCAS Site code:	LBHM 14
PCAS Job No.:	1279
Archive accession code:	LCNCC 2014.163

Report prepared for

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Summary

Pre-Construct Archaeological Services Ltd (PCAS) was commissioned by Ms. B. Richardson, to undertake a scheme of archaeological monitoring and recording on land at No. 50 Bunkers Hill, Lincoln (NGR: SK 99863 72936).

This work was undertaken to fulfil a condition attached to an approved planning application, by the City of Lincoln Council, for the construction of four new dwellings and garages (Planning Application No. 2014/0221/F).

The Bunkers Hill area is part of the North Lincoln Ribbon Development Character Area, which is identified as inter-war residential housing which developed along one of four major radial routes leading into Lincoln City centre in the Upper City. These routes follow the course of former Roman roads into the former Roman town and are likely to have been the focus for activity throughout the Roman period.

During the monitoring works, a deposit of limestone fragments was partially exposed and recorded. This may have been part of building footing and remains in situ, otherwise undisturbed by the development. Two stone constructed drains and a shallow gravel filled trench were also recorded. No dating evidence was recovered associated with any of the identified features and no artefacts were recovered.

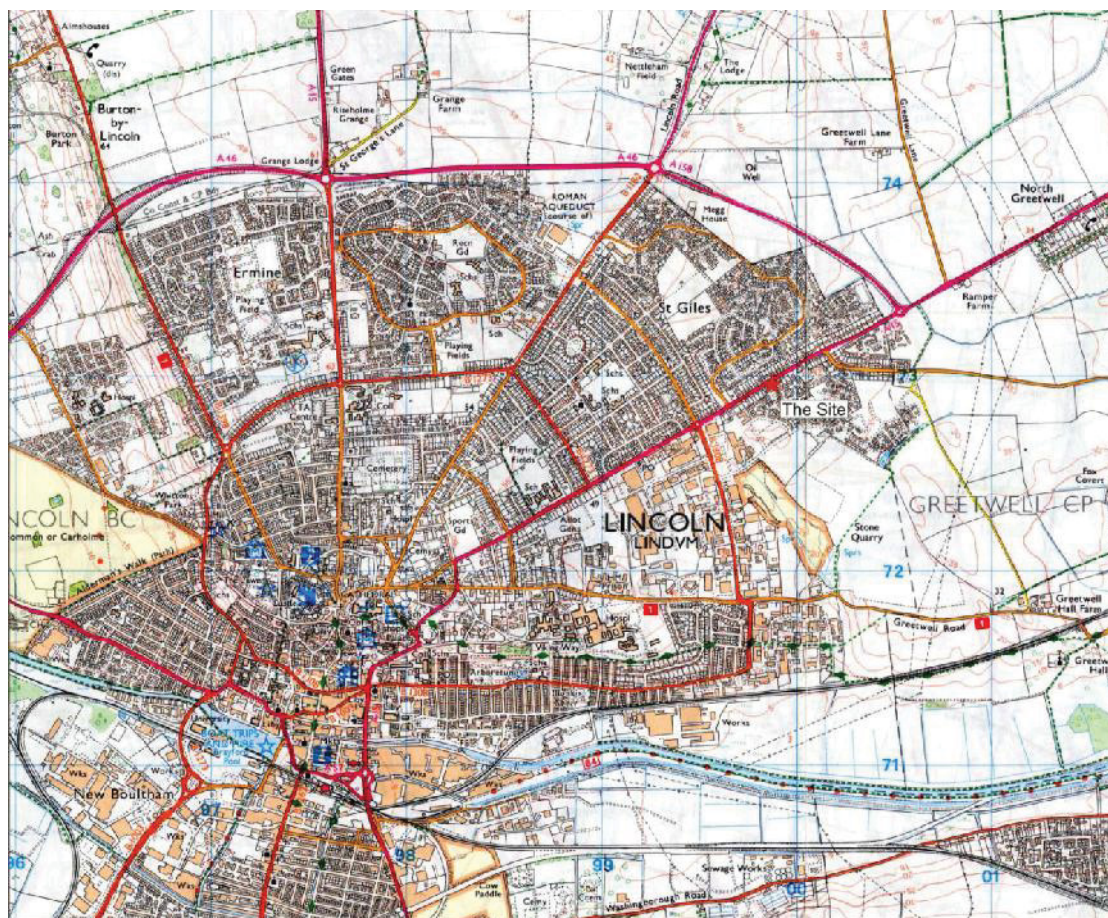


Fig. 1: Site location map. Proposed development site highlighted in red. Scale 1:25 000
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1.0 Introduction

Pre-Construct Archaeological Services Ltd (PCAS) undertook a scheme of archaeological monitoring and recording on land at No. 50 Bunkers Hill, Lincoln. This work took place intermittently between the 27/1/15 and 2/7/15.

The programme of archaeological work was undertaken in accordance with the recommendations of the *National Planning Policy Framework (2012)*, *Code of Conduct* (Institute for Archaeologists, 1994 as revised) and *Standards and Guidance for Archaeological Watching Brief* (Institute of Field Archaeologists, 2008 as revised) and the Lincolnshire County Council Archaeology Handbook (as revised 2012).

2.0 Site location and description (Figs. 1 & 2)

The development site lies in northeast Lincoln, on the A15 Bunkers Hill/Wragby Road which extends out from the city centre towards the A158 Wragby Road. No. 50 lies close to the modern cul-de-sac Poplars Grove, on the south side of Bunkers Hill.

The site measures c. 500m², and is approximately rectangular. It is located within a residential area, with the A15 Wragby Road/Bunkers Hill to the northwest and Poplars Grove to the southeast. The northeast side of the site is defined by a private road with recently redeveloped Nos. 48-48a adjacent to the southwest.

The approximate central National Grid Reference for the site is SK 99863 72936.

3.0 Geology and topography

The bedrock geology for the area is recorded as Great Oolite Group Sandstone, Limestone and Argillaceous Rocks. This is subdivided into more specific geologies, and for the development site the bedrock is Blisworth Limestone Formation – Limestone. This is described as pale grey – off white of yellowish limestones, with thin lenses of marl and mudstone. There are no recorded overlying drift deposits recorded. (<http://mapapps.bgs.ac.uk/geologyofbritain/home.html>).

Only clay was observed during the monitoring work to a depth of c. 1.5m below the existing ground level.

The development site lies in the Upper City, north of the River Witham on the limestone escarpment at around 40m OD.

4.0 Planning background

The National Planning Policy Framework (NPPF) came into force in March 2012. This places the responsibility for dealing with heritage assets affected by development proposals with the developer. Developers are required to 'record and advance understanding of the significance of any heritage assets to be lost (wholly or in part) in a manner proportionate to their importance and the impact, and to make this evidence (and any archive generated) publicly accessible' (NPPF, s141).

A planning application for the construction of four new dwellings on land at No. 50 Bunkers Hill was submitted to, and approved by the City of Lincoln Council in May 2014 (Planning Application No. 2014/0221/F).

The Heritage Officer for City of Lincoln Council advised that a scheme of archaeological monitoring was necessary during the development groundworks to identify and record any encountered archaeological remains, therefore a condition for archaeological mitigation was attached to the planning decision notice.

5.0 Archaeological and historical background

The archaeological; and historical background to the site has been outlined in detail in the Specification (PCAS 2014) and is reproduced here:

The development site within the Character Area of North Lincoln Ribbon Development character area has the following research agendas as classified by Lincoln Urban Archaeological Assessment (LARA):

- *Prehistoric Era (-10000 – 60)*; 5.9.1 Limestone Uplands, dry and relatively easily worked soils that would have been attractive farmland
- *Roman Military Era (60 – 90)*; 6.18 Legionary “prata” and “territorium”, areas of land surrounding the Roman fort which was dedicated to the provision of the incumbent legion; 6.19 Iron Age ditch system, a triple ditch system identified on aerial photographs which may have been utilised, altered or demolished by the Roman legion; 6.21 Roads beyond the Canabae.
- *Roman Colonia Era (90-410)*; 7.1 Roads entering the city; 7.23 The Greetwell Villa, likely the official residence of a local official; 7.25 The late pre-Roman Iron Age ditch system, the Iron Age banks and ditches being utilised by the Roman colonia into the 3rd century, perhaps marking the traditional boundary of the city.
- *Early Medieval Era (410-850)*; 8.1.3 Greetwell villa estate and potential wic, where human remains were encountered during quarrying in the 19th century potentially indicating a Roman site reused by the Saxon population to bury their dead, there may have also been a pre-Viking trading point in this area; 8.3.3 Triple boundary ditch, Iron Age feature presumably became redundant during this period; 8.4 Land around the city potentially usable for agriculture and settlement.
- *High Medieval Era (850 - 1350)*; 9.9.1 Lincoln common fields; 9.9.2 Fields of the parishes of Greetwell and Nettleham, openfields associated with the separate settlements in the parishes of Nettleham and Greetwell; 9.12.2 Intermediate distance roads which connected Lincoln to smaller towns in the surrounding area which lead to the rise of Lincoln as a central market, and their relationship to the Roman roads.
- *Early Modern Era (1350 – 1750)*; 10.9.1 The city’s arable fields which were concentrated to the north and east of the walled city; 10.9.2 Open fields of Nettleham and Greetwell parishes (north side of Bunkers Hill); 10.12.2 Intermediate roads; 10.41.2 Quarries in the cliff face east of the city, extensive quarrying through the medieval and post-medieval period, although the extent of the impact is as yet unconfirmed; 10.45.6 Nettleham mere and contiguous features.
- *Industrial Era (1750 – 1945)*; 11.7.1 Intermediate Roads; 11.17 City’s arable fields; 11.18 open fields of the parishes of Greetwell and Nettleham; 11.31 Middle class house building between the wars; 11.41.2 Stone and clay quarries in the cliff face east of the city, common rights lost with the enclosure of the open fields in 1803. (<http://www.heritageconnectlincoln.com/character-area/>)

A search of the Lincoln Heritage database has identified 34 archaeological monuments within a 1km radius of the development site. This includes the triple ditch

system that is thought to mark an Iron Age boundary, although late Bronze Age pottery has also been found in association with this feature. The complex extends through Greetwell and Nettleham; in Greetwell the feature has been mapped by geophysics c. 750m east of the development site, confirmed by archaeological evaluation (LHD ref: 953). Part of this triple ditch system, and a series of pits and postholes thought to be associated with it, were recorded c. 500m southeast of the site (LHD ref: 3484).

Bunkers Hill follows the line of the Roman road which left the 1st century fortress via the east gate, and extended to Wragby and beyond (Margary, 1973). The Roman fort and town lay over 2km to the west, in the area of the castle and cathedral. This area is understood to have been dedicated to the provisioning of the resident Roman legions during the occupation of the fort, and was likely used as agricultural land by the *colonia* which grew around the fort. Although roadside activities which may have included industrial processes and funerary practices were probably concentrated in those areas immediately adjacent to the fort and *colonia*, the proximity of the site to the route of the Roman road increases the potential of encountering evidence of roadside activities, agriculture, or even (though considered unlikely) the road itself. Archaeological investigations at Greetwell Quarry, c. 500m east of the site revealed evidence of 3rd-4th century Roman occupation, with small scale burial and industrial practices also evident (LHER ref: 52842).

Following the withdrawal of the Roman legions, the settlement at Lincoln that had sprawled outwards contracted back within the old town boundaries. The area northeast of Lincoln was used as agricultural land, either arable or as grazing for the sheep which supported the Lincoln Wool Trade in the early medieval period. As a consequence there are very few medieval monuments recorded within this area. The scatter of medieval and post-medieval artefacts recovered from the area supports this interpretation (LHER ref: 54248).

Historic mapping identifies a series of "old quarries" around Bunkers Hill. Quarrying activity for stone and clay on the northeast periphery of Lincoln is recorded from the medieval period, and continued until the enclosure of the Lincoln open fields in the early 19th century; evidence for this quarrying has been identified during archaeological investigations across this part of the modern city. The available mapping indicates quarries to the west and north of the site (Mills & White 2004), however the scars of medieval quarrying may have been backfilled by the time of the early OS mapping.

The Wragby road was turned into a toll road in the post-medieval period, the 1820 OS map notes a toll gate c. 200m north along Bunkers Hill, although records show it was destroyed in the 1860's. Bunkers Hill is named for the post-medieval farm which lay on the south side of the road. The exact location of this farm is unconfirmed, however it is thought to have been positioned to the northeast of the site, further along Bunkers Hill. The orchard attached to the farm may have stretched into the plot of No. 50. A well at the southern end of this orchard lay in the vicinity of No. 54 Bunkers Road (LHD ref: 8859).

The farm was demolished after the First World War, and the area developed for residential housing along either side of the Wragby road. The new properties fronted onto the road, with the areas behind being developed for residential, commercial or industrial purposes over the following 80yrs.

6.0 Methodology

The adopted methodology followed the scheme set out within the Specification (PCAS 2014):

Archaeological monitoring and recording took place during all groundworks for the new dwellings; specifically the excavations of footings and service trenches using a mechanical excavator with a toothless bucket. The monitoring was undertaken by suitably experienced archaeologists.

The basis for field recording was a measured plan supplied by the developer. Recorded features were plotted on a copy of this plan.

A written record of each stratigraphic horizon and archaeological feature was made on standard PCAS Watching Brief recording forms. These were supplemented by a drawn record consisting of measured plan and section drawings at appropriate scales (1:100 and 1:20).

Alongside the written and drawn record, a digital photographic record was maintained.

A narrative account of the daily progress was also maintained.

No artefacts were recovered and no deposits suitable for environmental sampling were identified.

7.0 Results (Fig. 2)

The monitoring scheme produced a site archive which consists of:-

Six Day Record Sheets which records the monitored work over six days.

Six Watching Brief Recording Sheets which records 11 contexts.

One Drawing Record Sheet which lists 12 individual drawings produced on four *permatrace* sheets.

One Photographic Register which lists 23 digital photographs.

The 11 contexts recorded consists of six layers (modern hardcore x 1, topsoil x 2, subsoil/natural substrate x1 and the natural substrate x2), one constructional deposit of pitched limestone fragments (drain), one small deposit of limestone fragments (possible 'French drain'), one deposit of limestone fragments (possible wall footing) and one cut and its single gravel fill of an unidentified linear feature.

Monitored excavations across most of the site revealed a similar sequence of deposits, consisting of up to c. 0.2m of modern imported hardcore and re-deposited material (007) sealing a heavily re-worked topsoil (001) & (008) which was up to 0.5m thick in places. Only at one location was possible subsoil (009) recorded. Otherwise the natural substrate (002) & (010) consisted of mottled grey-brown clay. The upper surface of the clay was observed to be heavily root disturbed and thus very diffuse with the overlying topsoil. Modern service trenches and possible demolition material was also observed, but for clarity are not reproduced here. Similarly sample section drawings which did not record any archaeological feature have also been omitted from this report.

At the location of House Plots 1 & 2 (see **Fig. 2** – [SECTION 1](#)) a shallow, poorly defined linear feature [006] was recorded cut into the top of the natural substrate

(002). This feature was c. 1.5m wide, up to 0.38m deep and appeared to extend, for over 15m and was aligned c. southwest - east-northeast. It had been back-filled with a mix of imported gravel and what appeared to be a sand-mortar mix (005), possibly indicating a poor, or degraded, concrete or a dry concrete mix. The feature remains enigmatic and was not resolved by the attendant archaeologist. However, the inclusion of imported gravel, and its relatively shallow depth may indicate that it was not very old and may relate to the modern use of the site prior to this re-development.

At the location of Garages 1, 2 & 4 (see **Fig. 2** – [SECTION 2](#)) a pitched stone drain [004] was observed cut into the top of the natural substrate (002). This was recorded as being 0.4m deep and 0.26m wide. It was aligned c. north-south and constructed of natural limestone fragments laid into a broad 'V' shaped trench and capped with a horizontal limestone fragment. No dating evidence was recovered from the excavated sections.

At the location of House Plots 3 & 4 (see **Fig. 2** – [SECTION 3](#)) another possible stone constructed/filled drain [003] was observed in the section of the excavated footings trench. This appeared to consist of natural limestone fragments deposited into a poorly defined trench, more like a 'French drain' than the constructed drain observed in the garage footings (see above). No dating evidence was recovered from the excavated section.

At the location of the soak-away pit (see **Fig. 2** – [SECTIONS 4 & 5](#)) a possible deep sub-soil or interface horizon (009) was recorded. This consisted of a mid yellowish grey-brown sandy clay material that was up to 0.65m thick and covered the area excavated by the soak-away pit, and overlay the natural substrate (010).

Additionally, within the pipe trench that feeds into the soak-away pit a deposit of natural limestone fragments (011) was also recorded. This appeared to be the edge of a feature as it did not extend into the excavated area. It consisted of un-worked limestone fragments, mostly, but not exclusively deposited horizontally within an area 0.4m deep and over 1m wide. It was aligned c. north-south, which is notably almost parallel with the stone drain [004]. The attendant archaeologists recorded that it had 'no obvious structure', but may have been 'the base of foundations of a previous building'. No dating evidence was recovered from this deposit. This feature was not further exposed and remains *in situ*.

8.0 Discussion and conclusion

The gravel-sand-mortar mix (005) fill of the linear feature [006] appears to be a dry concrete mix and thus likely to be early modern in date.

Conversely the pitched stone drain [004] may be of any date from the Roman period to the early modern period. No dating evidence was recovered during the monitoring work and as such the feature remains undated.

Similarly the stone filled feature [003] appears to be a 'French drain' even though it was not identified extending through any of the other trenches excavated for House Plots 3 & 4. It also remains undated.

The stone deposit (011) is clearly a substantial feature, and may well have been part of the footings of a building. However, as its full extent was not uncovered and no dating evidence was recovered from the excavated section it remains another undated and enigmatic feature. Nonetheless it survives *in situ*, unaffected by this development.

9.0 Effectiveness of methodology

The monitoring scheme has ensured that potential archaeological features exposed during the ground work were recorded.

10.0 Bibliography

Margary, I. 1973, *Roman Roads in Britain*, John Baker Books, London.

Mills, & White, 2004, *Historic Town Plans of Lincoln 1610 – 1920*, The Boydell Press, Woodbridge.

OS Explorer Map, 2006, *Sheet 272: Lincoln, Sleaford, Metherringham and Navenby*. Ordnance Survey, Southampton. (OS mapping © Crown copyright. All rights reserved. PCAS licence no. 100049278).

PCAS 2014. Specification for a Scheme of Archaeological Monitoring and Recording: Land to the rear of 50 Bunkers Hill, Lincoln. LN2 4QP. Unpublished document by PCAS.

<http://www.heritageconnectlincoln.com/>

<http://mapapps2.bgs.ac.uk/geoindex/home.html>

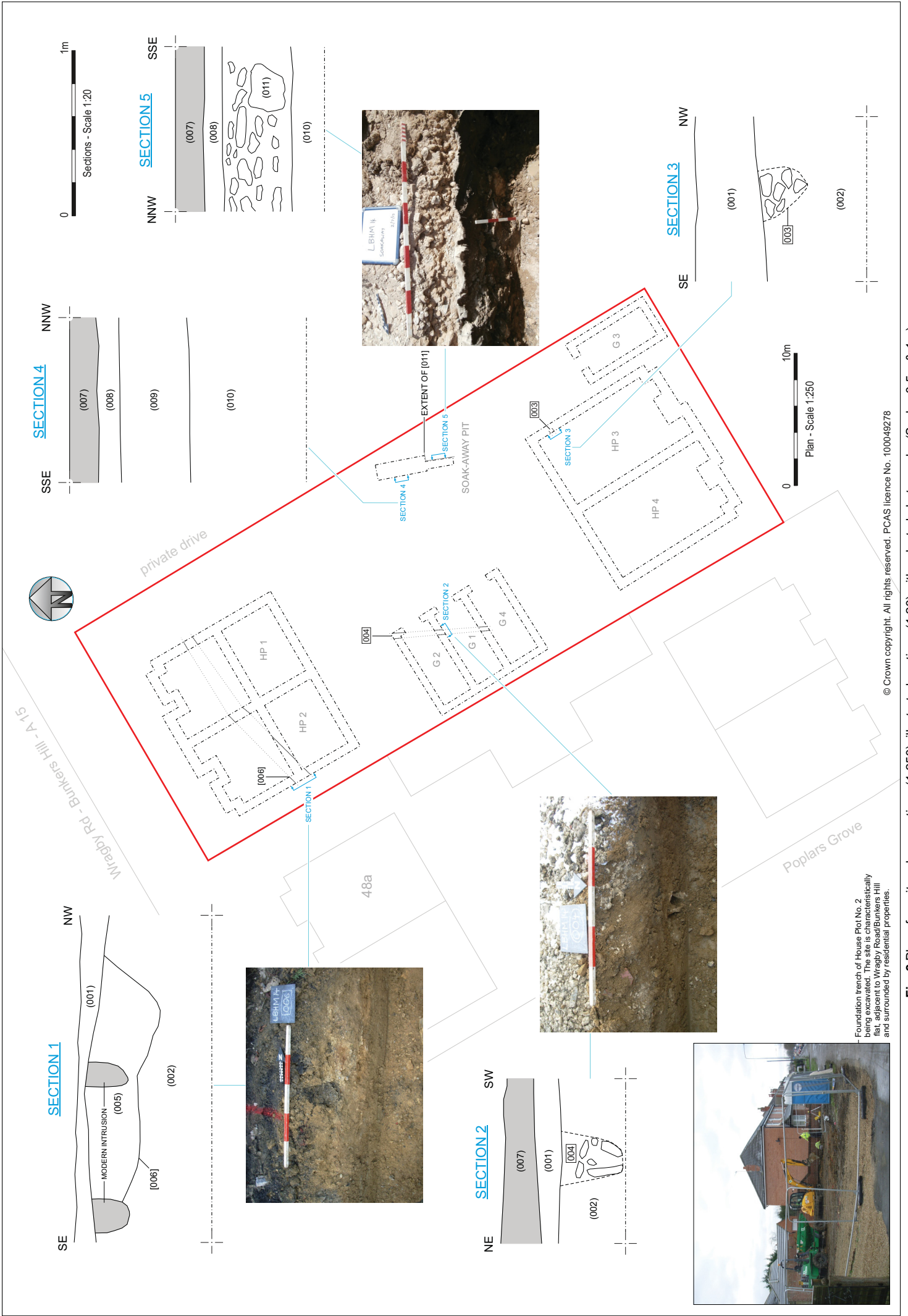
Search of Lincoln Heritage Database requested 31/7/14

11.0 Site Archive

The documentary and physical archive for this scheme is currently in the possession of Pre-Construct Archaeological Services Ltd. This will be deposited at The Collection, Lincoln within six months of completion of this report under the Lincolnshire Museums archive accession code LCNCC 2014.163.

Appendix 1: Context descriptions

Context	Type	Description	Finds/Dating
001	Layer	Topsoil – Dark grey-brown silty sandy loam. < 0.5m thick.	-
002	Layer	Natural substrate - mottled light brown/ grey-brown clay/sandy clay with diffuse horizon with over lying topsoil.	-
003	Construction/ deposit	Stone filled land drain? Deposit of unworked limestone fragments. 0.3m wide x 0.3m deep.	-
004	Construction/ deposit	Stone filled land drain? Deposit of unworked limestone fragments, consisting of pitched stones at base of cut with possible horizontal capping. 0.4m wide x 0.26m deep.	-
005	Fill of [006]	Small-medium pebbles in a light yellow/ yellowish white fine sand and lime mortar (?) matrix. 1.55m wide x 0.38m deep.	-
006	Cut	Unidentified feature. Linear, aligned c. ENE-WSW with moderately steep sides and an irregular-flattish base. 1.55m wide x 0.38m deep.	-
007	Layer	Modern deposit of hardcore. 0.2m deep.	-
008	Layer	Topsoil. Same as (001).	-
009	Layer	Subsoil/interface horizon. Mid yellowish grey-brown sandy clay. Diffuse horizon with underlying clay. 0.65m deep.	-
010	Layer	Natural substrate - mottled light brown/ grey-brown clay/sandy clay with diffuse horizon with over lying deposit (009).	-
011	Construction/ deposit?	Deposit of unworked limestone fragments. 0.4m deep x >1m long. Possible dry laid wall footings.	-



Foundation trench of House Plot No. 2 being excavated. The site is characteristically flat, adjacent to Wragby Road/Bunkers Hill and surrounded by residential properties.

Fig. 2 Plan of monitored excavations (1:250), illustrated sections (1:20) with selected photographs (Scales 0.5m & 1m)

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