

LAND AT WESTBROOKE ROAD, LINCOLN

SCHEME OF ARCHAEOLOGICAL MONITORING AND RECORDING

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CLC planning ref.:	2014/0510/F
PCAS Job No.:	1268
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Report prepared for

Chestnut Homes Ltd.

by

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Summary

A selective programme of archaeological monitoring and recording was carried out during groundworks associated with the construction of a new housing estate on land off Westbrooke Road in the city of Lincoln.

The development site lies to the south-west of the city centre and consequently some distance from the main areas of occupation in Lincoln during the Roman and medieval periods. There are, however, a series of Roman pottery kilns, located during 20th century excavations, the closest being c.350m to the north-west of the development site at Oak Farm. Although situated outside of the Roman city walls and unlikely to represent major settlement, the extent of the kilns and any associated features is currently unknown. The development site off Westbrooke road was therefore considered to have potential for underlying archaeological remains.

No features or finds of archaeological interest were observed during the programme of archaeological monitoring. Deposits encountered were mainly of modern re-deposited material, subsoils or natural sand. The cut of an infilled modern or late post-medieval drainage channel or dyke was observed.

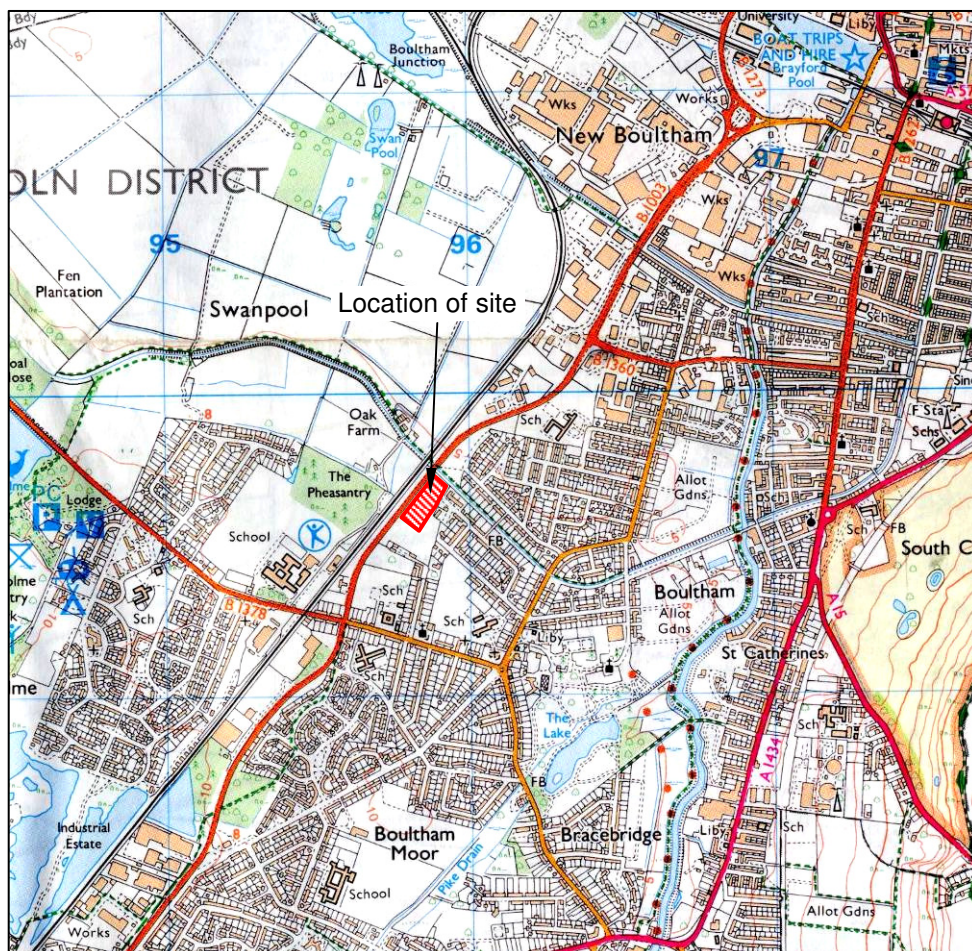


Figure 1: Location plan of the development site at scale 1:25,000. The site is marked in red. OS mapping © Crown copyright. All rights reserved. PCAS licence no. 100049278.

1.0 Introduction

Pre-Construct Archaeological Services Ltd. (PCAS) was commissioned by Chestnut Homes Ltd. to carry out a scheme of archaeological monitoring and recording on selected development groundworks associated with the construction of a new housing estate on land at Westbrooke Road in the city of Lincoln.

The development site is situated at the western edge of the modern city of Lincoln, within the valley of the River Witham. Although it lies well outside the historic city, it falls within the agricultural and industrial hinterland of the Roman settlement, and Roman pottery kilns have been discovered at Oak Farm, to the west of the site. The Heritage Officer for the City of Lincoln Council advised that, due to the potential for significant archaeological remains to be encountered during the groundworks, a scheme of archaeological monitoring was necessary to ensure any encountered archaeological remains were identified and recorded.

2.0 Site Location and Description (figs. 1 & 2)

The Westbrooke Road residential development is situated at the western edge of the modern city of Lincoln, within the area of relatively recent suburban development extending out of the historic city: the city centre lies approximately 1.5km to the north-east.

The development site lies within the eastern edge of the Swanpool and Skewbridge Character Area, described in the Townscape Assessment as *'predominantly an area of flat, low-lying drained flood plain south of the River Witham... Skewbridge is a transitional area between the city and its rural hinterland. This close connection of countryside and town is an important characteristic of Lincoln, contributing to the city's rural setting and maintaining a relationship between the market centre and its rural hinterland that has existed for almost two millennia.'* The Townscape Assessment also notes that *'Despite being close to the city centre, the Character Area is quite isolated due to the relatively impermeable boundaries of the Main Drain, the railway and Tritton Road to the north and east, limited access from Skellingthorpe Road to the south, and the city boundary and ring road to the west. As a result of this and its low-lying position, it has remained largely undeveloped'* (CLC, 2007).

The site covers an area of 1.53 hectares and is broadly rectangular in shape; its central National Grid Reference is SK 95854 69651. Before construction works commenced, it was principally unmanaged grassland with some wooded areas, including a belt of trees along the site boundary with Tritton Road; a small cluster of trees on the site had been removed before archaeological monitoring commenced. The site is bordered to the north-west by Tritton Road, but could not be accessed from this side; beyond Tritton Road and the railway line which runs parallel to it is the wood known as The Pheasantry and the open farmland of Oak Farm. The Pheasantry is described in the Townscape Assessment as including *'pine, birch and oak, some of which are of a considerable age. There are grassy open areas in the north-eastern part of the site. These areas grade into taller vegetation such as gorse and bramble. Five old oak trees can be found on the western edge'* (CLC, 2007). The north-eastern boundary of the site is formed by the Catchwater Drain; to the south-east, it is bounded by the side and rear boundaries of properties within an adjoining residential area along Western Avenue, Westbrooke Close and Westbrooke Road, from whose north-west end it is accessed. The south-west side of the site is separated by a hedge of deciduous trees, chiefly willow (typical of wet, low-lying land), from an area of overgrown grassland and shrubs, possibly a derelict park or garden.

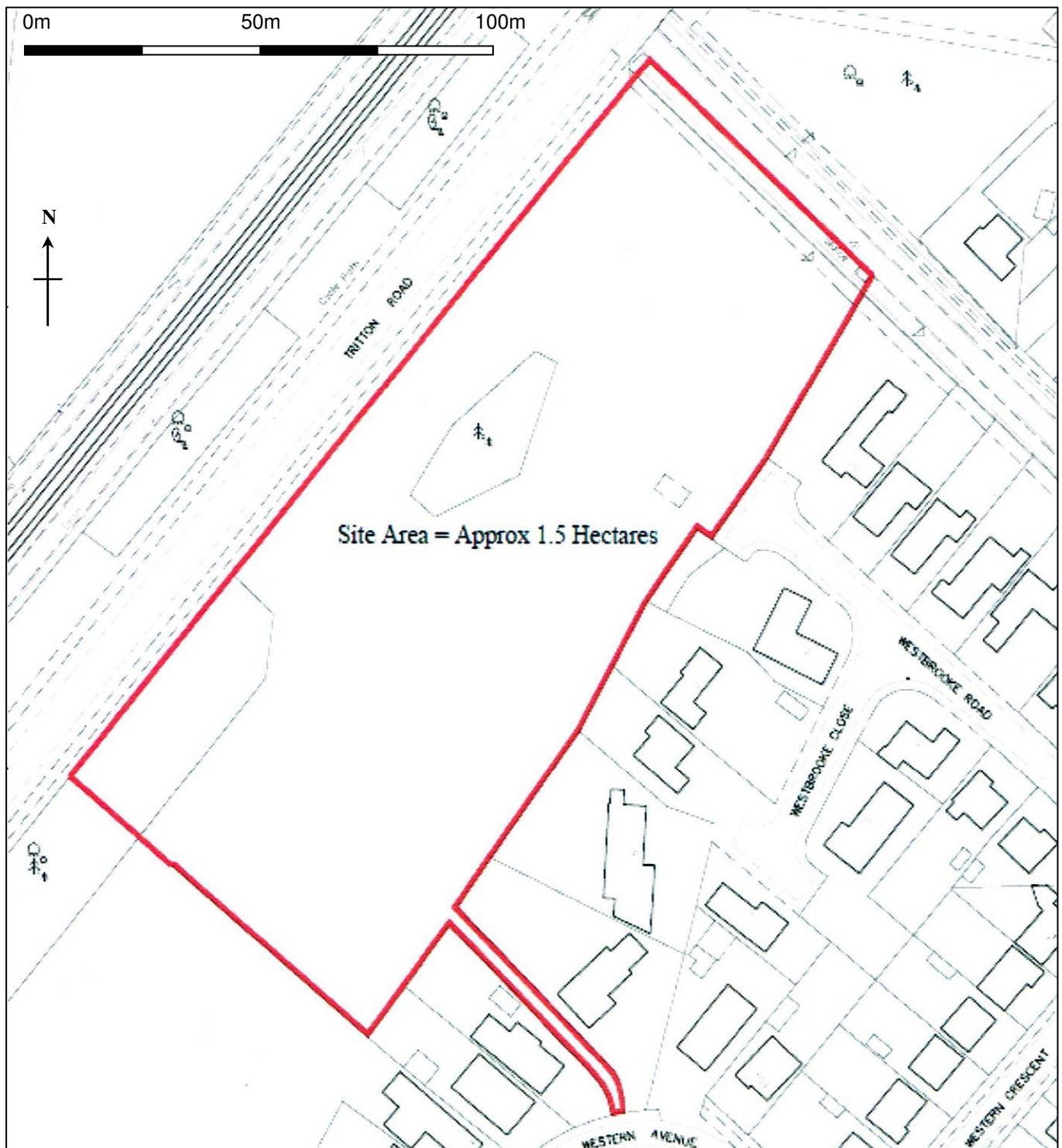


Figure 2: Location plan of the site at scale 1:1250. The application area is outlined in red; before the commencement of construction works, it was occupied only by a small stand of coniferous trees near the centre. Plan supplied by client.

3.0 Topography and Geology

The site lies within the flood plain of the River Witham, slightly above the 5m OD contour line which marks the historic fen-edge. The Townscape Assessment notes that the Swanpool and Skewbridge Character Area is chiefly a *'drained agricultural landscape, characterised by a rectilinear pattern of fields defined by shallow open wet drainage dykes and/or overgrown hedgerows that are associated with the area's drainage and enclosure during the early part*

of the 19th century' and that several large drains run through the Character Area, including the Catchwater Drain, which intercepts water flowing off higher land to the south, and the Main Drain, which acts as the principal conduit for water gathered from the area's many smaller field drains (CLC, 2007). Before construction works commenced, the site was generally level, but dipped down at its south-east corner.

The British Geological Survey records that the site lies on drift geology of sand and gravel river terrace deposits laid down along the valleys of the River Witham and the River Till (later canalised as the Foss Dyke). The underlying solid geology is recorded as undifferentiated Scunthorpe and Charmouth Mudstone (bgs.ac.uk).

4.0 Planning Background

Following amendments to a scheme initially conceived to consist of 60 new dwellings, full planning permission was granted by City of Lincoln Council in April 2015 for the construction of 52 dwellings, with vehicular access from Westbrooke Road (planning ref. 2014/0510/F).

Condition 3 of the planning permission required the implementation of an appropriate programme of archaeological work prior to development, including fieldwork, post-excavation analysis, report writing and the deposition of a report with the City Council's Heritage Team and the site archive with The Collection (City and County Museum). A programme of archaeological monitoring and recording, to include the monitoring of all groundworks for the access road and the drainage system on the north side of the site, with monitoring of the construction groundworks of a sample of one third of the house plots, was agreed with the Heritage Officer for the City of Lincoln Council.

5.0 Archaeological and Historical Background

A search of the Lincoln Heritage Database was commissioned for a study area of 1km radius around the central NGR of the site in advance of the commencement of the monitoring programme (Lane, 2014). As this area proved to contain well over 300 monument records, a selection has been reproduced in Appendix 2; event records have been included in full.

There is very little evidence for a prehistoric presence in the study area, which was probably wetland during this period, suitable only for transient activities such as fishing, wildfowling, reed gathering and the use of watercourses for transport: only two finds of Neolithic struck flints have been made within the 1km study radius.

From the Iron Age throughout the period of Roman occupation, the Boultham Moor area would have been occupied by scrubby woodland on poor, sandy soil, of no value for cultivation but with the potential for utilisation for grazing, firewood collection and charcoal manufacture, and the extraction of gravel and sand for construction projects (CLC, 2007).

During the later Roman period, a pottery industry grew up in the area. A group of four Roman pottery kilns were excavated in the early 1960s at Oak Farm, to the north-west of the development site, with the closest recorded kilns to the site less than 350m away (LHD refs. 1588-1592). These kilns were all found close at around 5mOD, at a similar level to the development site. A possible Roman clay extraction pit later reused as a medieval fish pond has been identified to the northwest of the kilns, and further clay extraction pits may be located in the surrounding area (LHD ref: 8439).

Occupation in Lincoln appears to have withdrawn back inside the old Roman town walls in the Saxon period, and there is no evidence that Roman exploitation of the Boultham Moor woodlands continued between the 5th and 9th centuries AD (RAZ 8.4); no Saxon artefacts or features have been recorded within 1km of the development site.

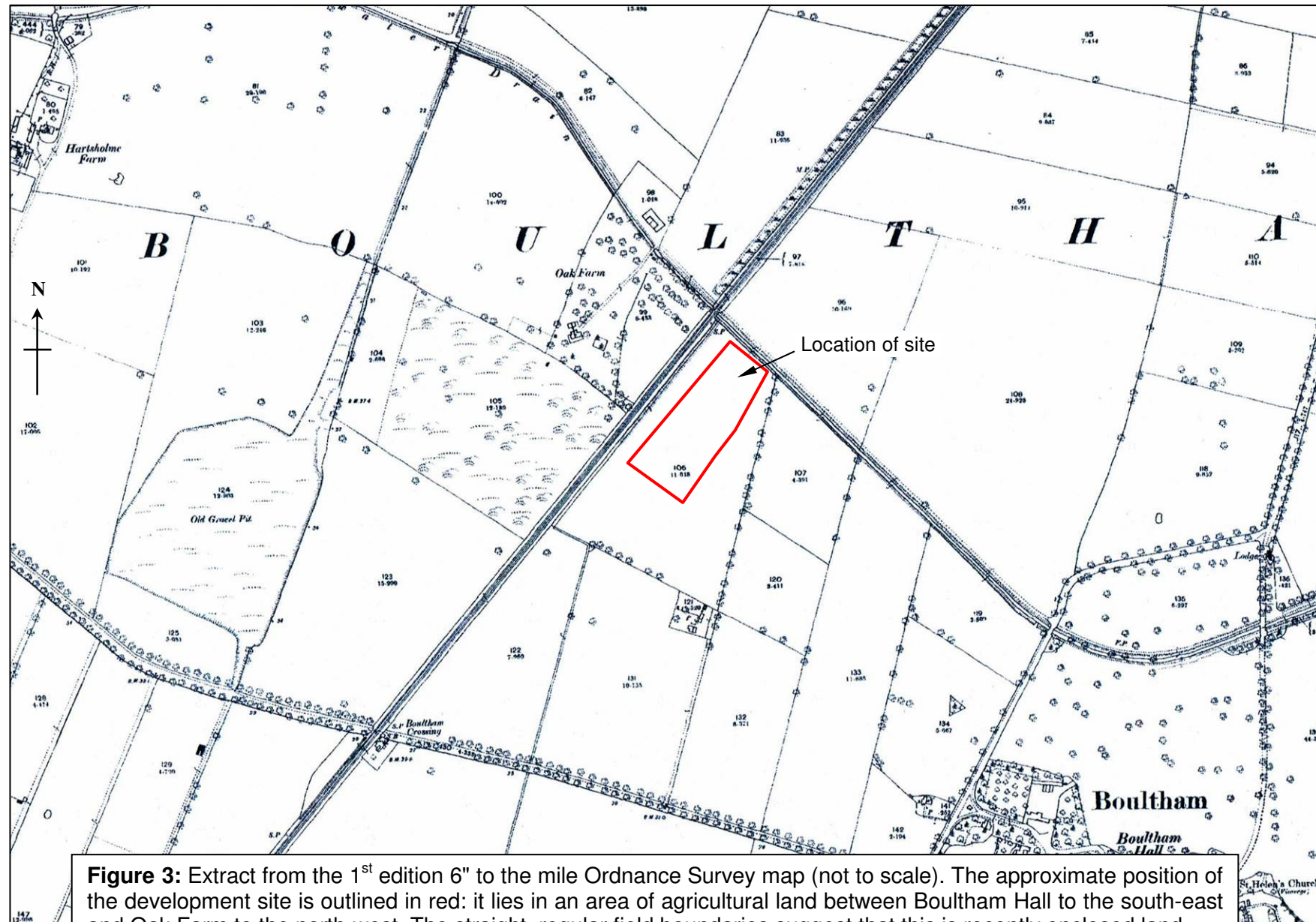


Figure 3: Extract from the 1st edition 6" to the mile Ordnance Survey map (not to scale). The approximate position of the development site is outlined in red: it lies in an area of agricultural land between Boultham Hall to the south-east and Oak Farm to the north-west. The straight, regular field boundaries suggest that this is recently enclosed land.

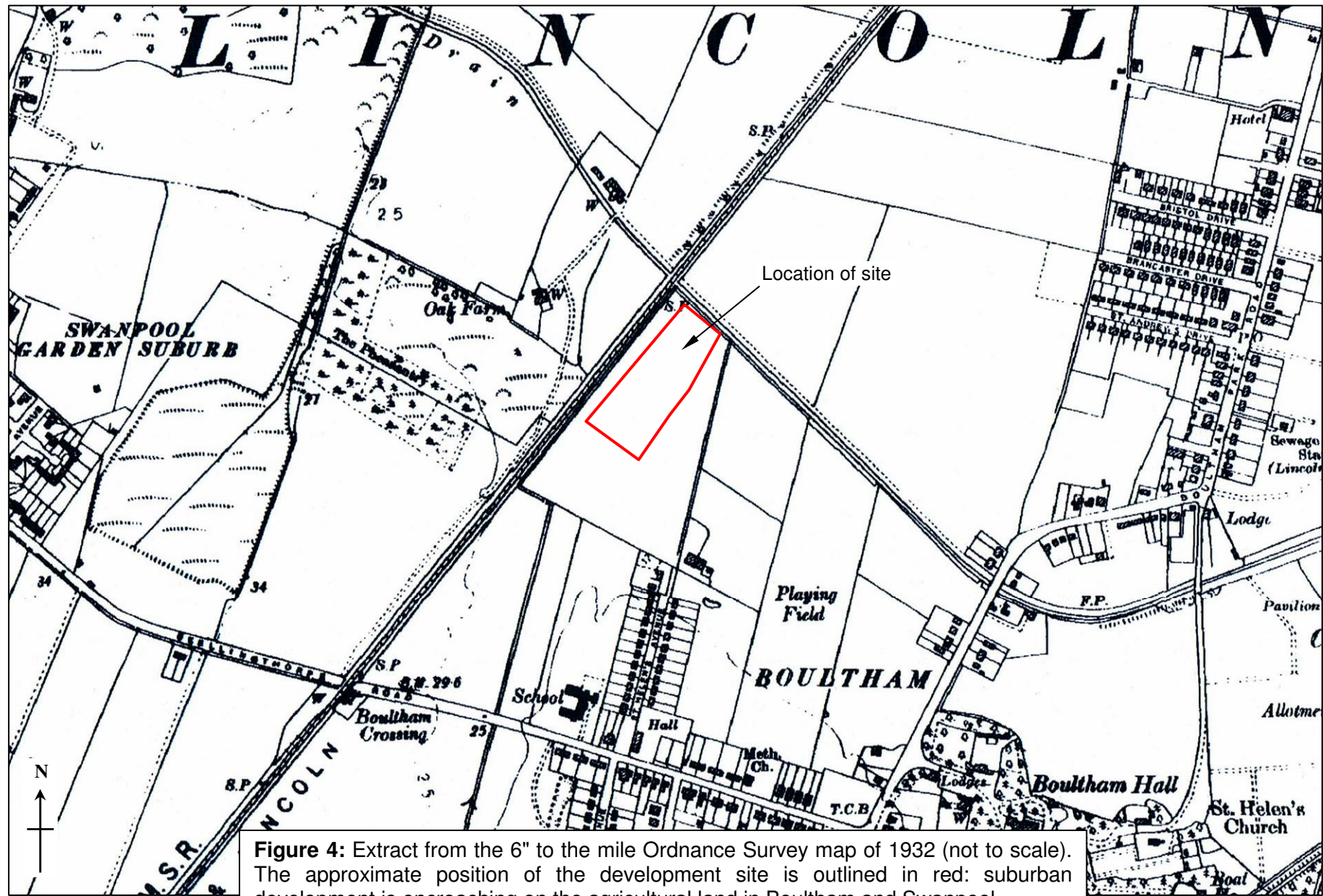


Figure 4: Extract from the 6" to the mile Ordnance Survey map of 1932 (not to scale). The approximate position of the development site is outlined in red: suburban development is encroaching on the agricultural land in Boultham and Swanpool.

With the increasing prosperity of the city between 850-1350 AD, the Boultham woodlands were being used for pig grazing, the production of firewood, timber for construction, charcoal, bark for tanning, potash for use in the cloth industry and possibly peat cutting: all these uses are likely to have continued up to the Industrial Revolution. Skellingthorpe Road was probably established during this period, linking Bracebridge to Skellingthorpe via the medieval settlement of Boultham (CLC, 2007).

With the exception of the Pheasantry, which occupied a plot in the south-eastern corner of the area and still exists in the current landscape, much of Skewbridge Character Area was enclosed during the Early Industrial Period. Between 1804 and 1816, wetland was drained by Lord Monson, who then enclosed the land and established tenant farmers. The Lincoln West Drainage Scheme, as it was known, included the construction of the Main and Catchwater Drains as well as the raising of the banks along sections of the Fosdyke. Oak Farm, directly to the west of the site, survives as Oak Farm Hall with the modern farm now located further north. Footpaths and tracks leading to fields and farms also largely survive from the nineteenth century. The majority of the current field boundaries are the same as those shown on the 1889 OS map (fig. 3) and their mainly straight boundaries and regular pattern suggest that they date from the original period of enclosure following the Lincoln West Drainage Scheme of 1804-16 (*ibid.*).

The railway line running along the eastern edge of the area was built by the Midland Railway Company, and initially formed part of the first railway to reach Lincoln in 1846, running from Nottingham via Newark (*ibid.*). The expansion and development of the Lower City away from the waterside areas began in the early 20th century, rapidly increasing in the inter- and post-war period. The development of Boultham Hall from a small medieval village and post-medieval private estate on the outskirts of Lincoln into a suburb of the city began in the interwar period (fig. 4), with further construction following WWII. Western Avenue dates from the 1960s, while Westbrooke Road is a late 20th century development.

5.1 Lincoln City Research Agenda Zones

Prehistoric Era (10,000 BC-AD 60): The development site does not lie within a RAZ for this Era.

Roman Military Era (AD 60-90): RAZ 6.23, Birchwood Area and Boultham Moor. Nothing is known about this area of higher ground in the Roman Military period. It would have always been an area of scrubby woodland on poor, sandy soils, as it was in the Iron Age and in the Roman Colonia Era: this woodland would have been a valuable resource and may have been the location of, or the stimulation for, woodland industries such as smelting or pottery manufacture. It is conceivable that such operations were in operation during the Roman Military occupation and they may even have been started by the conquerors, although the evidence found to date suggest that they did not begin until later in the Roman period.

Roman Colonia Era (AD 90-410): RAZ 7.3, Industrial Belt South-West of the City. The area of what was probably scrubby woodland on the poor soils above the waterlogged basin may have been an important industrial resource for the *colonia*: the trees, if coppiced and managed, would have provided fuel both for fires in the city and also for woodland industries. The only industry for which we have any evidence as yet is pottery manufacture, although charcoal burning might also be expected and perhaps even iron-working. Gravel and sand would have been dug for construction projects in the city and neighbourhood, and, along with clay extraction for pottery manufacture, this digging would have had a marked effect on the local topography. The pits created by such quarrying are likely to be the most frequently encountered archaeological features in this RAZ, even though features of this date may be hard to distinguish from similar features of later periods.

Early Medieval Era (410-850): RAZ 8.4, Land Around City Potentially Usable for Settlement and Agriculture. We have no information at all about the use to which the land

surrounding the city was put in the Early Medieval Era. The woodlands in the Birchwood and Boultham Moor areas would still be available, although we have no evidence that the Romans' extensive exploitation of this resource continued under their successors. The Anglo-Saxon culture, however, was very much at home with woodland management and exploitation and so it is unlikely that such a valuable resource would have been abandoned. Evidence for early and middle Saxon utilisation of these woodland resources is likely to exist, and, although it may be hard to find, it will be especially valuable when recovered.

High Medieval Era (850-1350): RAZ 9.6, Woodlands and Wood Pasture to the South-West. In the High Medieval Era, as in previous Eras, the woodlands to the south-west of the city were an important economic resource for the city as well as for the parish of Boultham in which they lay: not only as woodland pasture but as a source of firewood, timber for construction, charcoal, bark for tanning and possibly potash (used in Lincoln's dyeing industry) from the burning of bracken. The archaeological remains of these various woodland industries are likely to be fragile, and will consist of a variety of hearths and other structures.

Early Modern Era (1350-1750): RAZ 10.6, Woodlands and Wood Pasture to the South-West. As in previous Eras, the woodlands to the south-west of the city were an important economic resource for the city as well as for the parish of Boultham in which they lay: not only as woodland pasture but as a source of firewood, timber for construction, charcoal and bark for tanning, although with the collapse of the cloth trade in the city, the bracken may have been grown on Boultham's poor soils as a source of potash would have become less important.

Industrial Era (1750-1945): RAZ 11.12, Woodlands and Wood Pasture to the South-West. As in previous Eras, the woodlands to the south-west of the city would have been an important economic resource for the city as well as for the parish of Boultham in which they lay; during the Industrial Era, however, charcoal-burning and other more traditional industries will have given way to gravel extraction. The farms called Hartsholme Farm, Oak Farm and Swanpool Farm, north of Skellingthorpe Road, seem to be typical post-enclosure farming establishments, and they should be compared and contrasted with more complex farms of the Stone's Place type. All of these establishments should also be compared and contrasted with the enclosure farms created in the Lincoln city fields in 1803.

6.0 Methodology

Excavation of groundworks was carried out using tracked 360° excavators, of various sizes and fitted with a variety of buckets according to the scope of the works required; excavation of footing trenches was typically carried out with a 0.7m wide toothless bucket and continued until natural sand was reached (plate 1).

All deposits seen were recorded on standard PCAS context recording sheets, and the progress of the groundworks noted on standard PCAS site diary sheets. Sample sections were drawn at scale 1:20 at intervals along the excavated trenches and plotted on location plans of individual house plots and an overall base plan of the site. A digital photographic record was maintained: selected images are reproduced as colour plates in this report.



Plate 1: General working shot at the beginning of house plot excavations: work in progress on the garage of HP1, looking NW towards Tritton Road.

The archaeological monitoring began on 3rd August 2015 and was completed on 6th January 2017; monitoring was carried out serially by Dave Bower, Leigh Brocklehurst, James Coles, Rebecca Dickinson, Ben Hobbs, Richard Mandeville, Michael Rowe, Rachel Savage and Julian Slep. Weather and ground conditions were generally good on the majority of occasions when monitoring was carried out, although wet weather in the spring of 2016 created challenging conditions for construction.

7.0 Results (figs. 5-7)

Natural deposits of mainly mixed geological sands were encountered within the development excavations in areas of the site at average depths of 0.40m. In footings and other excavations in the north-west of the site the natural sands were observed at depths of around 1.3m, likely due to build-up of re-deposited material in this area.

The deposits covering the geological sands across the site consisted of sand silt subsoils, **202**, etc. and undisturbed and also re-deposited topsoil, **101**, **202**, etc. (separate contexts numbers reference these deposits in the archive, although they are consistent across the site). The field had been arable land at least from the mid to late 19th century; no disturbance for building having taken place on the land until the current development. The upper deposits contained no finds of archaeological interest and the deposits observed in section revealed no archaeological features.

Excavations in the area of new apartments at the north-east corner of the site revealed the line of a major drain or dyke, **2003**, at least 2m wide and over 2m deep, running in a projected curve north-west to south-west (plate 2). This direction appears to be away from the line of the Catchwater dyke approximately 35m to the north-east, although it may have fed a supplementary drain running along the north-west boundary of the site.

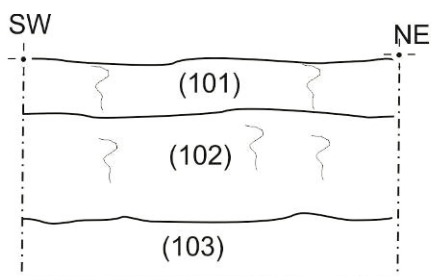
The fill of this feature was dark grey sand silt clay, **2004**, indicating it had not been active for many years, although some of the upper part of the fill could be tentatively be identified as re-deposited material in nearby deposit **2001**. No dating evidence came from the lower part of the fill of the dyke (the base was not exposed during the monitoring) although there were individual modern bricks and a land drain within the upper part of fill, around 0.50m down from the current ground surface. The dyke is not marked on the 1889 OS map of the area, nor on later maps up to the present. This may either suggest the original dyke has an early to mid 19th century date at the latest and silted up before the 1880's, or that it was not as important a drainage feature as the Catchwater dyke.



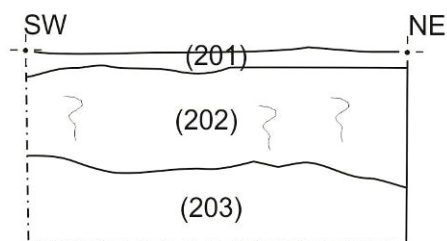
Plate 2: South-west facing section of dyke feature **2003**

The excavation of the lagoon area to the north-west of the site held a fairly high expectation of encountering archaeological evidence, both with the location towards the area of previously discovered Roman kilns and the increased depth of excavation of the feature. The results, however merely identified re-deposited soils of an average depth of 1.2m covering the underlying geological sands and clays (plates 3 and 4). This may indicate a previous disturbance to this depth in this area.

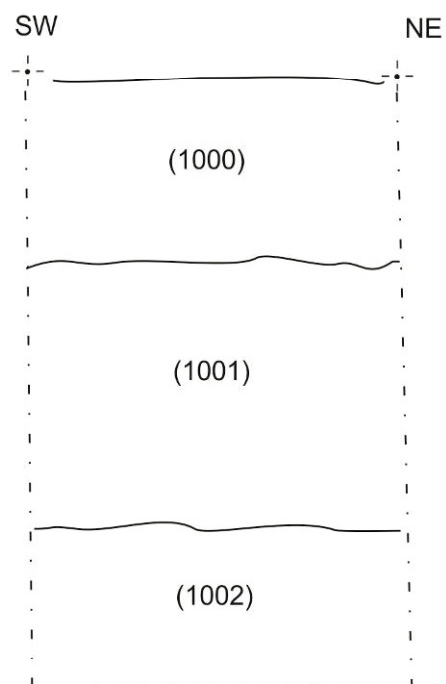




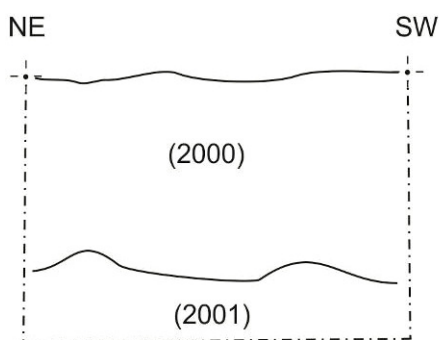
Dwg 3: South-east facing section Plot 1



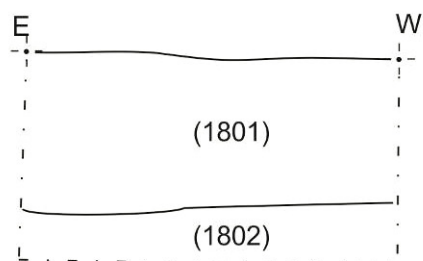
Dwg 4: South-east facing section Plot 2



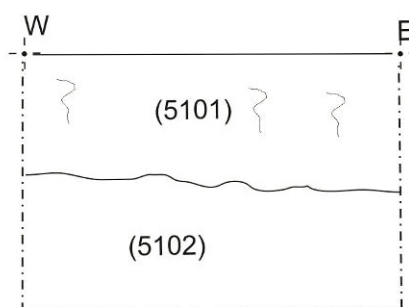
Dwg 8: North-west facing Lagoon



Dwg 9: North-west facing section Apartment block



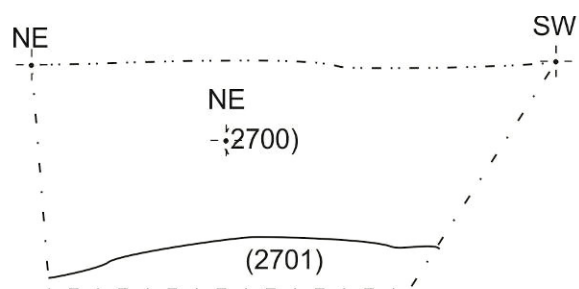
Dwg 12: North facing section Plot 15



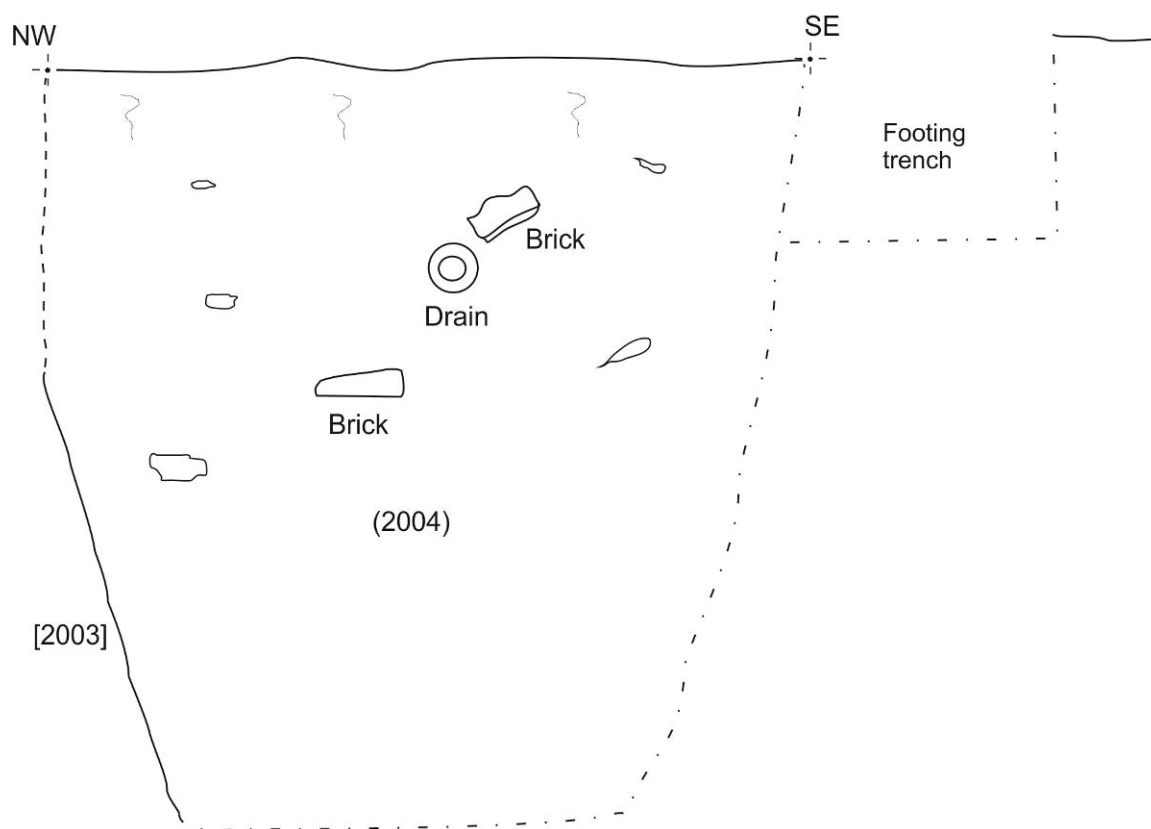
Dwg 16: South-west facing section Plot 51



Figure 6: Section drawings at scale 1:20. Drawings are located on Figure 5.



Dwg 18: North-west facing section, Plot 27



Dwg 36 south-west facing section, Dyke feature 2003

Figure 7: Section drawings at scale 1:20. Drawings are located on Figure 5.



Plate 3 (above): Area of Lagoon excavation facing south-west

Plate 4 (right): North-west facing section no. 8 of Lagoon area



8.0 Conclusion

The paucity of archaeological evidence observed during monitoring of the groundworks at Westbrooke Road may indicate the absence of historic settlement or agricultural land use in the area of development. No features other than an undated (though likely late post-medieval) drainage dyke were encountered, and no pottery sherds were recovered.

The description of this land zone in the Lincoln City Research Agenda is scrubby woodland on poor, ill-drained sandy clay soil, likely utilised from at least the Iron Age. The woodland in this area may have provided resources for various industries associated with the later Roman Colonia, including the range of pottery kilns located to the north-west at Oak Farm and near the line of the Catchwater drain.

Other industries that possibly would have been located in the area using the natural resources would have been charcoal manufacture and quarrying for sand and gravel and clay extraction for the pottery industry. Excluding quarrying, such industries may leave little evidence. The woodlands and scrubby vegetation of the area would have been utilised in the Saxon and medieval periods as woodland management was undertaken in these periods and the land would have retained its valuable resources.

9.0 Effectiveness of Methodology

The methodology employed during this project achieved its primary objective, ensuring that any archaeological remains that might have been present on the site would not have been destroyed unrecorded, while causing the minimum of disruption to the construction process.

10.0 Acknowledgements

PCAS Ltd would like to thank Chestnut Homes Ltd. for this commission and Daniel Evans Construction (contractors) for their co-operation during the project.

11.0 Site Archive

The project archive, consisting of the site recording and this report, is currently held at the offices of PCAS Ltd. in Saxilby, Lincolnshire while being prepared for deposition, and will be deposited with the Lincoln City and County Museum ('The Collection') within 6 months of the completion of the report. Following deposition, the archive will be available for public consultation under the LCNCC accession number 2014.151.

12.0 Bibliography

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Lane, A., 2014, *Archaeological Monitoring and Recording: Land at Westbrooke Road, Lincoln, LN6 7TB*. Unpublished project specification for Pre-Construct Archaeological Services Ltd. on behalf of Chestnut Homes Ltd.

Ordnance Survey, 2006, *Lincoln, Sleaford, Metheringham and Navenby: Explorer 1:25 000 Series*. Ordnance Survey, Southampton.

Appendix 1: Context Summary

Context No.	Type	Description	Finds/Dating
House Plots 1-2			
101	Layer	Dark brown sandy silt topsoil with no inclusions, 0.15m deep, within HP 1 and the garage foundations of HPs 1 and 2.	Modern.
102	Layer	Mid- to dark brown silty sand with rare pebbles, 0.28m deep, below topsoil 101.	
103	Natural	Natural coarse sand, mixed yellow and orange, with no inclusions, below layer 102.	Geological.
HP 2			
201	Layer	Topsoil in HP 2: as 101, 0.08m deep.	Modern.
202	Layer	Subsoil below topsoil 201, 0.24m deep: as 102 but more disturbed by rooting.	
203	Natural	Natural coarse sand below layer 202: mixed yellow and orange with some iron-panning.	Geological.
HP 33			
330	Layer	Mixture of pebbles, hardcore, gravel, sand and redeposited topsoil – partly mixed, partly banded – up to 0.36 m deep, overlying topsoil 331 on E side of HP 33. Modern spread deriving from construction materials storage and plant movement	Modern.
331	Layer	Friable to loose dark grey silty medium sand topsoil, up to 1.26m deep; disturbed by tree roots throughout.	Modern.
332	Layer	Natural drift geology: light yellowish-grey friable medium sand, mottled mid-reddish-brown in places.	Geological.
HPs 36-37			
360	Layer	Modern spread, same as 330, 11m ⁺ x 9m ⁺ x 0.36m, overlying topsoil 361 on E side of HPs 36 and 37.	Modern.
361	Layer	Friable to loose dark grey silty medium sand topsoil, 0.30m deep; lower horizon very irregular due to tree root disturbance, which becomes increasingly heavy towards N.	Modern.
362	Layer	Friable medium sand natural, mottled light grey/light yellowish-brown/mid-reddish-brown.	Geological.
HP 15			
1501	Layer	Dark brown-grey silt sand subsoil	-
1502	Natural	Soft yellow sand	Geological
HP 18			
1801	Layer	Same as 1501	-
1802	Natural	Same as 1502	Geological
HP 21			
2100	Layer	Mixed grey brown sand silt; re-deposited topsoil	Modern
2101	Layer	Dark brown sand silt topsoil	Modern
2102	Natural	Mottled brown-grey sand	Geological
HP 24			
2400	Layer	Disturbed topsoil, up to 0.20m thick	Modern
2401	Layer	Buried topsoil, mid to dark grey-brown, 0.30m thick	Modern
2402	Natural	Yellow/orange sand substrate	Geological
HPs 27-31			
2700	Layer	Mixed overburden containing rubble and refuse. 0.56m to maximum 1.3m depth on NW side of site	Modern
2701	Natural	Mottled light grey sand- drift deposit	Geological
Parking area adjacent HP 18			
2800	Layer	Loose yellow sand silt containing sandstone fragments	Modern
2801	Layer	Grey brown sand silt topsoil, similar to or same as other topsoil contexts across the site	Modern
2802	layer	Dark brown compact silt clay- probable subsoil	-
2803	Natural	Mottled yellow/orange/brown loose fine sand below 2802- natural deposit	Geological

Context No.	Type	Description	Finds/Dating
HP 42			
4201	Layer	Mixed material from spoil movement, overlying mid brown mottled silt/sand deposit.	Modern
4202	Natural	Yellow/pink mottled orange sand; no inclusions	Geological
HP 48			
4801	Layer	Mid-dark brown silt sand subsoil; occasional pebbles, roots. Interface with 4802 clear but irregular in places.	-
4802	Natural	Yellow/orange mixed coarse sand, no inclusions. Animal burrowing present.	Geological
HP 51			
5101	Layer	Same as 4801	-
5102	Natural	Same as 4802	Geological
HP 52			
5201	Layer	Mid brown silt sand subsoil. Clear interface with 5202	-
5202	Natural	Yellow/orange mixes coarse sand	Geological
Lagoon area			
1000	Layer	Mid grey-brown topsoil, likely re-deposited	Modern
1001	Natural	Soft loose yellow sand	Geological
1002	Natural	Pale yellow-grey loose sand	Geological
Apartment blocks			
2000	Layer	Mixed pale grey-brown and mid brown and silt, re-deposited topsoil	Modern
2001	Layer	Mixed dark brown and orange sand/silt, re-deposited material from adjacent dyke and topsoil	Modern
2002	Layer	Topsoil deposit with turf and mixed vegetation	Modern
2003	Cut	Steep-sided cut for large dyke or drain channel. Curve runs NW to SW as possible feed channel to extant drain/dyke to north of site.	Modern
2004	layer	Mid to dark grey-brown sand silt fill of 2003 containing occasional bricks	Post-medieval

Appendix 2: Lincoln Heritage Database extracts

Table 1: Monuments in the immediate area of the development site

Ref. no.	Name	Period	NGS	Easting	Northing	Description
293	Roman gullies at Swanpool	ROM	SK	495476	370173	A series of gullies and ditches cut into the natural sand. They had a fill of dirty sand and pottery wasters. Some appear to have been recut, perhaps by water action. Their function was unclear.
294	Roman kiln at Swanpool	ROM	SK	495473	370174	Remains of the base of a pottery kiln, sharing a common stoke-hole with another, later, kiln to the east (MON295).
295	Roman kiln at Swanpool	ROM	SK	495475	370174	Remains of the base of a pottery kiln, sharing a common stoke-hole with another, earlier, kiln to the west (MON294).
1585	Roman pottery kiln, Oak Farm Swanpool	ROM	SK	495000	370400	A suspected Roman pottery kiln was visited and Roman pottery was retrieved from the site
1586	Roman pottery kiln, Hartsholme Farm, Swanpool	ROM	SK	495400	369950	Kiln excavated in 1945
1587	Roman pottery kiln, Hartsholme Farm, Swanpool	ROM	SK	495340	369930	Kiln part-excavated in 1961
1588	Roman pottery kiln, Oak Farm, Swanpool	ROM	SK	495570	369890	Kiln 1 of four excavated in 1963.
1589	Roman pottery kiln, Oak Farm, Swanpool	ROM	SK	495570	369890	Kiln 2 of four excavated in 1963.
1590	Roman pottery kiln, Oak Farm, Swanpool	ROM	SK	495570	369890	Kiln 3 of four excavated in 1963.
1591	Roman pottery kiln, Oak Farm, Swanpool	ROM	SK	495570	369890	Kiln 4 of four excavated in 1963.
1592	Roman pottery kiln, Catchwater Drain, Oak Farm, Swanpool	ROM	SK	495570	370070	Surface indications and finds of pottery from a probable kiln site
6401	Hartsholme Farm, Hartsholme Drive, Boultham	MOD	SK	495076	370032	Situated on track north of Hartsholme Drive. On 1847 plan (Hardy), 1887 and 1932 OS maps. Pre-1848 Messrs Slack and Ellis; 1853 William Pask; pre-1874 John Thirman; 1885 G and T Brown; 1890s J D Armstrong; 1904 W T Harding; C T Westmoreland 1909-1960. Possibly the site of a medieval monastic community associated with Haw Hill (MON461). Owned by Major R G Ellison in 1885 (Lincs Chronicle 17/03/1885)
6405	Oak Farm, Boultham	MOD	SK	495698	369756	The farmhouse now appears to be Oak Farm Hall with modern Oak Farm situated further to the north at SK 495818 369870. Pre 1886.

Ref. no.	Name	Period	NGS	Easting	Northing	Description
6549	Catchwater Drain Railway Bridge, Catchwater Drain / Tritton Road	MOD	SK	495854	369781	Carried Midland / LMS Railway over Catchwater Drain on west side of Tritton Road. The present bridge is modern, with abutments of stone and concrete. The stone appears to have been reused, perhaps from the older structure.
7677	Westwood Drive	MOD	SK	495281	369852	Residential street (cul-de-sac) off Hartsholme Drive and Almond Avenue, laid out by F R Eccleshare Ltd. Not part of the Conservation Area.
7928	11 Westwood Drive	MOD	SK	495194	369898	Detached house built by F R Eccleshare Ltd
8438	Roman pottery kiln, Hartsholme Farm, Catchwater Drain	ROM	SK	495370	370140	Roman pottery kiln
8439	Roman clay pit?, Swanpool	ROM	SK	495220	370580	Possible Roman clay pit, later used as a medieval fish pond (?)
8838	Well, Oak Farm	MOD	SK	495700	369763	Well/water pump on the east side of the farmhouse, now called Oak Farm Hall. Marked as "W" on the 1907-1932 OS maps, and "P" on the 1950 OS.
8839	Well, Oak Farm	MOD	SK	495683	369760	Well on the west side of the farmhouse, now called Oak Farm Hall. Marked as "W" on the 1907 OS map
8967	Well, Oak Farm	MOD	SK	495786	369886	Well near farm buildings close to the Catchwater Drain. Marked as "W" on 1907-1937 OS maps. The buildings have now been removed

Table 2: Events within 1km of the development site

Ref. no.	Site name	NGS	Easting	Northing	Description
1	Quorn Drive	SK	496450	369730	Archaeological monitoring and recording (watching brief) during laying of water main pipes. Modern limestone hardcore bedding for the road surface lay directly on natural sand. No archaeological deposits were found.
87	Earls Park, Boutham Park Road	SK	496630	369697	Archaeological monitoring and recording (watching brief) on groundworks for housing development. Owing to waterlogging and late notification to CLAU of commencement of work, resulting in site being open to weather and effects of groundworks, no archaeological deposits were observed. Several fragments of apparently Roman pottery, however, were recovered from spoil heaps.
309	Swanpool, Oak Farm	SK	495440	369870	A suspected Roman pottery kiln was visited and Roman pottery was retrieved from the site
331	21 Hartsholme Drive	SK	494940	369652	Casual finds were made of three or four sherds of Roman pottery. They were probably associated with the nearby Swanpool kilns
556	Swanpool	SK	495413	370251	Roman pottery was found in the Swanpool area by J Peasvill of Nocton Fen
565	St Helens cemetery, Boutham	SK	496469	369081	Roman pot was found here in the cemetery
569	St Helens cemetery, Boutham	SK	496469	369081	Roman and late medieval pottery and part of a medieval bronze buckle was found in the churchyard whilst digging graves. (Roman pot probably from nearby kiln site)
591	Plot 6, Acorn Close, Altham Terrace	SK	496747	369435	Trenches 1m deep revealed 0.25m topsoil sealing 0.25m dark orange sand overlying medium brown/orange sand with no inclusions. On the site of the former waterworks
869	Swanpool Kiln 1987	SK	495475	370174	Excavation site during construction of Anglian Water Authority pipeline. Fifteen areas were investigated. (Events 870-884)
870	Swanpool Kiln 1987	SK	495400	370194	Area 1 of fifteen. Trench 1
871	Swanpool Kiln 1987	SK	495410	370192	Area 2 of fifteen. Trench 2
872	Swanpool Kiln 1987	SK	495413	370190	Area 3 of fifteen. Trench 3
873	Swanpool Kiln 1987	SK	495419	370189	Area 4 of fifteen. Trench 4
874	Swanpool Kiln 1987	SK	495418	370195	Area 5 of fifteen. Trench 5
875	Swanpool Kiln 1987	SK	495426	370196	Area 6 of fifteen. Trench 6

Ref. no.	Site name	NGS	Easting	Northing	Description
876	Swanpool Kiln 1987	SK	495432	370201	Area 7 of fifteen. Trench 7
877	Swanpool Kiln 1987	SK	495434	370192	Area 8 of fifteen. Kiln or burnt area
878	Swanpool Kiln 1987	SK	495442	370192	Area 9 of fifteen. Trench 9
879	Swanpool Kiln 1987	SK	495449	370192	Area 10 of fifteen. Trench 10
880	Swanpool Kiln 1987	SK	495459	370192	Area 11 of fifteen. Trench 11
881	Swanpool Kiln 1987	SK	495466	370192	Area 12 of fifteen. Trench 12
882	Swanpool Kiln 1987	SK	495471	370200	Area 13 of fifteen. Trench 13
883	Swanpool Kiln 1987	SK	495478	370201	Area 14 of fifteen. Trench 14
884	Swanpool Kiln 1987	SK	495580	370120	Area 15 of fifteen. Section area
885	Skewbridge Area	SK	495499	370434	Excavation site
886	Skewbridge Area	SK	496132	370154	Trial pit 1 of four. TP33
1373	Hartsholme Farm	SK	495440	369870	Surface indications of a probable kiln site
1374	Hartsholme Farm	SK	495340	369930	Limited excavation of a kiln
1375	Hartsholme Farm	SK	495420	369950	Limited excavation of a kiln. 3 probable kilns located by geophysical survey nearby
1376	Oak Farm, Swanpool	SK	495570	369890	Kilns 1-4 excavation
1377	Catchwater Drain, Oak Farm, Swanpool	SK	495600	370070	Surface indications of a probable kiln site
1378	Catchwater Drain, Hartsholme Farm	SK	495500	370100	Concentration of pottery suggestive of more than one kiln
1379	Catchwater Drain, Hartsholme Farm	SK	495370	370140	Limited excavation of a kiln
1616	21 Hartsholme Drive	SK	494948	369663	Roman pottery
1669	St Helens Churchyard	SK	496469	369081	Roman pottery sherds from the Roman kiln

Ref. no.	Site name	NGS	Easting	Northing	Description
3043	Boultham Pottery kilns	SK	495280	369092	Kilns found during the construction of a railway cutting, at 4-5 ft. (1.22m-1.52m) below surface. Much of the pottery was dark grey, 3rd. Cent. forms, but also more ornamental wares, such as 1st. Cent. vessel by CAMARO, wares of Castor type with scroll work and hunting scenes in barbotine; also many wasters.
3044	Boultham Pottery kiln	SK	496410	369102	Numerous wasters found behind St. Helens Church in Boultham Park.
3045	Boultham Pottery kiln	SK	496410	369102	At the 1938 Boultham cemetery, close to the (Boultham) kilns, considerable quantities of waste pottery and "seconds" were recovered when digging graves, including grey ware, mainly in forms of the 3rd and 4th centuries.
3140	Swanpool pottery kilns	SK	495080	369998	Hartsholme Farm, Swanpool. Set of kilns producing late 3rd. & early 4th.century wares - cooking pots, dishes, flagons, beakers, many painted with scroll patterns.
3141	Swanpool pottery kilns	SK	495080	369998	Beehive updraught types. Grey wares, with some colour-coated wares. Decorated shallow bowls.
4182	Level crossing	SK	495454	369284	The level crossing was recorded and photographed as part of 1998 Industrial Archaeology Survey project
4184	Road bridge	SK	496260	369404	The bridge was recorded and photographed as part of 1998 Industrial Archaeology Survey project
4185	Road bridge	SK	496515	369405	The bridge was recorded and photographed as part of 1998 Industrial Archaeology Survey project
4256	Pumping Station	SK	496620	369600	The building was recorded and photographed as part of 1998 Industrial Archaeology Survey project.
4258	Road Bridge	SK	496170	368729	The bridge was recorded and photographed as part of 1998 Industrial Archaeology Survey project.
4515	Railway Bridge	SK	495854	369781	The bridge was recorded and photographed as part of 1998 Industrial Archaeology Survey project
4584	101 Westwick Gardens	SK	495885	368682	Post-medieval pottery found in rear garden of property during surface pipe replacement.
7201	Oak Farm, Swanpool	SK	495784	370459	Roman greyware rims and body sherds, found on newly ploughed land near Oak Farm, Swanpool.
7644	32 Hunt Lea Avenue	SK	496130	369645	Observations were made of the foundation trenches for a rear extension. C.200mm of garden soil/topsoil overlay natural sand. The sand was orange/yellow with black patches. No archaeological deposits were seen and no finds reported.
9449	Oak Farm	SK	495816	370364	Field-walking as part of an Archaeological Appraisal for Lincoln Business Park potential sites (two partly outside City boundary). Area three of three. A dense scatter of Romano-British pottery was recorded close to the Catchwater drain.
9771	Land off Hall Drive	SK	496541	369146	Archaeological monitoring and recording (watching brief) during groundworks for the construction of a residential development. There were eight plots (Plots 1-8) but only five were monitored.
9772	Land off Hall Drive	SK	496523	369158	Archaeological monitoring and recording (watching brief) during groundworks for the construction of a residential development. There were eight plots (Plots 1-8) but only five were monitored. Plot 1; topsoil overlay silty sand, a buried soil and natural orange sand.

Ref. no.	Site name	NGS	Easting	Northing	Description
9773	Land off Hall Drive	SK	496549	369165	Archaeological monitoring and recording (watching brief) during groundworks for the construction of a residential development. There were eight plots (Plots 1-8) but only five were monitored. Plot 2; topsoil overlay natural orange sand. A modern land drain was cut from below topsoil. No archaeological deposits or features were recorded.
9774	Land off Hall Drive	SK	496551	369151	Archaeological monitoring and recording (watching brief) during groundworks for the construction of a residential development. There were eight plots (Plots 1-8) but only five were monitored. Plot 3; topsoil overlay natural orange sand. No archaeological deposits or features were recorded.
9775	Land off Hall Drive	SK	496549	369136	Archaeological monitoring and recording (watching brief) during groundworks for the construction of a residential development. There were eight plots (Plots 1-8) but only five were monitored. Plot 4; topsoil overlay natural orange sand. No archaeological deposits or features were recorded.
9776	Land off Hall Drive	SK	496549	369126	Archaeological monitoring and recording (watching brief) during groundworks for the construction of a residential development. There were eight plots (Plots 1-8) but only five were monitored. Plot 5; not monitored
9777	Land off Hall Drive	SK	496551	369111	Archaeological monitoring and recording (watching brief) during groundworks for the construction of a residential development. There were eight plots (Plots 1-8) but only five were monitored. Plot 6; not monitored
9778	Land off Hall Drive	SK	496557	369087	Archaeological monitoring and recording (watching brief) during groundworks for the construction of a residential development. There were eight plots (Plots 1-8) but only five were monitored. Plot 7; topsoil overlay natural orange sand. No archaeological deposits or features were recorded.
9779	Land off Hall Drive	SK	496531	369105	Archaeological monitoring and recording (watching brief) during groundworks for the construction of a residential development. There were eight plots (Plots 1-8) but only five were monitored. Plot 8; not monitored
10482	St Helens Church	SK	496482	369100	Find of Roman pottery sherds on ground surface close to the church (information given verbally to Heritage Officer by finder and family at Priory Centre Heritage day 19/06/2008)
10628	Boultham Park Road	SK	496584	369740	Find in a garden of Roman coin, a <i>dupondius</i> of Marcus Aurelius, AD161-180, and a disturbed skeleton (nd). Exact location not recorded in Archaeological Notes
10671	4 Park Lodge	SK	496188	369157	Find of a Roman coin; a bronze <i>Antoninianus</i> . Illegible.
10929	38 Harris Road	SK	496039	368810	Voluntary observation of foundation trenches for a rear extension. Top soil was 0.8m thick; below was natural mixed sand and pebbly stones/gravel to limit of excavation of 1m. A few pieces of modern pottery were noted. No archaeological features were observed.
10971	Former Council Depot	SK	496278	369046	Archaeological monitoring and recording (watching brief) of six geotechnical test pits in advance of the conversion of a barn, and the erection of flats, bungalows, shop and glasshouse. No archaeological deposits were observed. Generally topsoil overlay subsoil and natural sands and gravels.

Ref. no.	Site name	NGS	Easting	Northing	Description
10972	Former Council Depot	SK	496216	369057	Archaeological monitoring and recording (watching brief) of six geotechnical test pits in advance of the conversion of a barn, and the erection of flats, bungalows, shop and glasshouse. Test pit 1. 0.7m x c2.75m, against the east wall of a stable. Topsoil 0.3m thick overlay construction material for the stable. No archaeological deposits were observed
10973	Former Council Depot	SK	496243	369072	Archaeological monitoring and recording (watching brief) of six geotechnical test pits in advance of the conversion of a barn, and the erection of flats, bungalows, shop and glasshouse. Test pit 2. 0.7m x c2.75m. Asphalt and hardcore 0.45 thick overlay sandy soil 0.55m thick, which overlay gravels. No archaeological deposits were observed
10974	Former Council Depot	SK	496231	369047	Archaeological monitoring and recording (watching brief) of six geotechnical test pits in advance of the conversion of a barn, and the erection of flats, bungalows, shop and glasshouse. Test pit 3. 0.7m x c2.75m x 2m deep. Topsoil 0.30m thick overlay sandy soil 0.40m thick, which overlay gravelly sand with clay patches. No archaeological deposits were observed
10975	Former Council Depot	SK	496247	369029	Archaeological monitoring and recording (watching brief) of six geotechnical test pits in advance of the conversion of a barn, and the erection of flats, bungalows, shop and glasshouse. Test pit 4. 0.7m x c2.75m x 1.8m deep. Brick rubble and soil overlay a layer of orange sand, which overlay topsoil and subsoil, both 0.35m thick, which overlay natural sands and gravels at 1m depth. No archaeological deposits were observed
10976	Former Council Depot	SK	496264	369040	Archaeological monitoring and recording (watching brief) of six geotechnical test pits in advance of the conversion of a barn, and the erection of flats, bungalows, shop and glasshouse. Test pit 5. 0.7m x c2.75m x 2.1m deep. Topsoil overlay subsoil to depth of 1.1m over natural sands and gravels with clay patches. No archaeological deposits were observed
10977	Former Council Depot	SK	496265	369075	Archaeological monitoring and recording (watching brief) of six geotechnical test pits in advance of the conversion of a barn, and the erection of flats, bungalows, shop and glasshouse. Test pit 6. 0.7m x c2.75m x 2.4m deep. Topsoil 0.6m thick overlay a clayey sand, which graduated into natural sands and gravels. No archaeological deposits were observed
11201	Former Boultham Dairy Site	SK	496750	370026	Archaeological evaluation in advance of development consisting of six trial trenches, Trenches 1-6. Modern surfaces overlay dumps, up to 1.5m thick, of modern building rubble, leather waste and rubber tyres, suggesting use as a rubbish tip. Below was a layer of organic peat, suggesting a waterlogged marshy environment unsuitable for agriculture or settlement. There were no finds or archaeological features.
11203	Former Boultham Dairy Site	SK	496740	369979	Archaeological evaluation in advance of development consisting of six trial trenches, Trenches 1-6. Trench 2 30m x 2m x 1.2m deep. Reinforced concrete surface overlay hardcore, which overlay grey silt containing much 20th-century leather waste and rubber tyres. Below was dark brown peat. No archaeological features were recorded.

Ref. no.	Site name	NGS	Easting	Northing	Description
11204	Former Boultham Dairy Site	SK	496677	370010	Archaeological evaluation in advance of development consisting of six trial trenches, Trenches 1-6. Trench 3 30m x 2m x 1.2m deep. Tarmac overlay mixed dumps containing modern material. Below was dark brown peat. No archaeological features were recorded.
11205	Former Boultham Dairy Site	SK	496717	370027	Archaeological evaluation in advance of development consisting of six trial trenches, Trenches 1-6. Trench 4 9m x 2m x 1.2m deep. Reinforced concrete overlay grey silt containing modern building material. Below was dark brown peat. No archaeological features were recorded.
11229	Parklands Hotel	SK	496151	369134	Level 1 Photographic Survey

Appendix 3: OASIS Summary

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Land at Westbrooke Road, Lincoln - Pre-Construct Archaeological Services Ltd

OASIS ID - preconst3-279408

Versions

View	Version	Completed by	Email	Date
View 1	1	Mrs. R. D. Savage	rachel@pre-construct.co.uk	16 March 2017
View 2	2	Rachel Savage	Rachel@preconstruct.co.uk	20 March 2017
View 3	3	Mrs. R. D. Savage	rachel.savage@pcas-archaeology.co.uk	6 April 2017

Completed sections in current version

Details	Location	Creators	Archive	Publications
Yes	Yes	Yes	Yes	1/1

Validated sections in current version

Details	Location	Creators	Archive	Publications
No	No	No	No	0/1

File submission and form progress

Grey literature report submitted?	Yes	Grey literature report filename/s	preconst3-279408_1.doc [2,963.50kb]
Report release delay specified?	Yes	Release delay	Release into ADS library once signed off
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