An Archaeological Watching Brief at The Cedars Primary School, High Street, Cranford, Hounslow, London







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Date: 21 August 2015

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Project reference: P4513 Report reference: 2204

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Archaeological watching brief at The Cedars Primary School, High Street, Cranford, London

Graham Arnold

Summary

An archaeological watching brief was undertaken at The Cedars Primary School, High Street, Cranford, Hounslow, London (NGR TQ 1050 7734). It was undertaken on behalf of Pick Everard (the Client), who intend to erect three single storey extensions to the main school building at Cedars Primary School, for which a planning application has been granted.

The site lies in an Archaeological Priority Area and a desk-based assessment carried out prior to the works identified a potential for prehistoric and Roman remains to survive on the site. Although there are no known sites on, or adjacent to the proposed development site it is located in a landscape which has yielded extensive evidence of prehistoric and Roman activity. These include settlement and occupation sites as well as evidence of agricultural activity.

Flint gravels and alluvial deposits were observed during the groundworks, overlaid with modern disturbance from the construction of the school, service trenches, and modern surfacing associated with the school grounds. No features of archaeological significance were recorded and it is concluded that archaeological assets recorded in the surrounding area do not extend into the site.

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Report

1 Background

1.1 Reasons for the project

An archaeological watching brief was undertaken at The Cedars Primary School, High Street, Cranford, London (NGR TQ 1050 7734). It was undertaken on behalf of Pick Everard (the Client), who intends to erect three single storey extensions to the main school building at Cedars Primary School, with associated hard and soft landscaping works, a soak away pit and other improvements to the vehicular and pedestrian access routes to the rear of the site for which a planning application has been granted by the London Borough of Hounslow Council (reference ref P/2014/3462).

A desk-based assessment for the site was prepared (Walsh 2014) prior to the watching brief. This collected and assessed relevant information on the history of the site and past land-use. This identified a moderate potential for the survival of archaeological remains of prehistoric and Roman date to exist on the site, as well as evidence for later agricultural activity.

The proposed development site is considered to include heritage assets and potential heritage assets, the significance of which may be affected by the application.

The project conforms to a Written Scheme of Investigation prepared by Worcestershire Archaeology (WA 2015), in accordance with English Heritage Greater London Archaeology guidelines (English Heritage 2014) and approved by Gillian King, Archaeological Advisor of English Heritage.

The project also conforms to the Standard and guidance for an archaeological watching brief (ClfA 2014) and the Greater London Archaeology Advisory Service: Standards for Archaeological Work (English Heritage 2014)

The event reference for this project, given by the service is P4513.

2 Aims

The overall aims and scope of the project were:

- To locate archaeological deposits and identify all archaeological remains present within the site, securing an accurate survey of them and thus recording the scale and extent of archaeological remains present;
- To investigate and record archaeological features and recover evidence for dating in order to support understanding of their chronological sequence and development.

More specifically, it was intended that archaeological observation should focus on (but not be limited by) the following localised aims and objectives:

- Recovery of prehistoric artefacts from stratified deposits and in residual contexts;
- Identification, full excavation with environmental sampling of prehistoric and Romano-British discrete features;
- Identification and sampling of palaeoenvironmental deposits;
- Consideration of archaeological features alongside evidence from investigations within the wider area in order to improve understanding of the landscape context.

Overarching landscape and settlement research themes appropriate for this area of Greater London include:

• earlier prehistoric seasonal occupation in the Thames Valley;

- later prehistoric activity within the landscape (ritual monuments, settlement sites and agricultural land-use);
- Romano-British settlement and agricultural economy;
- Medieval and Post-medieval agricultural landscape features;
- Patterns of environmental change and human impact on the landscape (as reflected in the palaeoenvironmental and geoarchaeological record).

3 Methods

3.1 Personnel

The project was undertaken by Richard Bradley (BA, MA, CAlfA) and Graham Arnold (BA, MSc); who joined Worcestershire Archaeology in 2008 and 2009 respectively and have been practicing archaeology since 2005 and 2002 respectively. The project manager responsible for the quality of the project was Tom Rogers (BA, MSc). Illustrations were prepared by Carolyn Hunt (BA, PG Cert. MClfA).

3.2 Documentary research

A Desk Based Assessment (Walsh, 2014) for the site was carried out prior to the groundworks taking place.

Documentary sources

Published and grey literature sources are listed in the bibliography.

3.3 Fieldwork strategy

A detailed specification has been prepared by Worcestershire Archaeology (WA 2014).

Fieldwork was undertaken between 23 January and 27 July 2015. The site specific reference number given by Worcestershire Archaeology Service is P4513.

Five trenches, amounting to just over 525m² in area, were excavated over the site area of 1.6ha. The location of the trenches is indicated in Figure 2.

The following trench areas monitored were:

- Trench 1 North-eastern extension ground beam foundations
- Trench 2 Drainage for south-western extension
- Trench 3 South-western extension ground beam foundations
- Trench 4 School hall entrance foundations
- Trench 5 Soak away chamber to north-west of the school entrance

Ground beams, drainage trenches and a soak away pit were excavated by a 360° tracked excavator, employing a toothless bucket and under archaeological supervision. Clean surfaces were inspected. Deposits were recorded according to standard Worcestershire Archaeology practice (WA 2012a).

3.4 Structural analysis

All fieldwork records were checked and cross-referenced. Analysis was effected through a combination of structural evidence, allied to the information derived from other sources.

3.5 Statement of confidence in the methods and results

The methods adopted allow a high degree of confidence that the aims of the project have been achieved.

4 The application site

4.1 Topography, geology and archaeological context

The following is summarised from the desk based assessment (Walsh 2014) undertaken prior to the ground works:

The development site lies on level ground which lies at a height of c 25.00m AOD. The underlying geology is mapped as London Clay Foundation overlain by superficial deposits of sand and gravel of the Taplow Gravel Formation (BGS 2014).

The site lies in a Greater London Archaeological Priority Area and the assessment identified a potential for prehistoric and Roman remains to exist on the site. Although there are no known sites on or adjacent to the proposed development site it is located in a landscape which has yielded extensive evidence of prehistoric and Roman activity. These include settlement and occupation sites as well as evidence of agricultural activity.

Cranford probably developed at a crossing of the River Crane during the early medieval period and was recorded as a manor in the Domesday Survey of 1086. The site probably lay away from the main areas of settlement, on or next to an open field called Twinton and later Quinten Field. It was enclosed in the post-medieval period but appears to have been undeveloped until the school was built on the site around 1980.

4.2 Current land-use

The site is a primary school with associated grounds, with a playground on the northeast side (trench 1), grassed area to the southwest (Trench 2 and 3) and hard standing entrance way to the north (Trench 4 and 5).

5 Structural analysis

The trenches and features recorded are shown in Fig 2. The results of the structural analysis are presented in Appendix 1.

5.1.1 Phase 1: Natural deposits

Natural flint gravels from the river terrace were recorded at a depth of 1.00m below the current ground level (104, 203, 304, 404, 502). This was overlain by a sterile alluvial clay, former subsoil and a disturbed former topsoil (103,202,303,403, 501).

5.1.2 Phase 2: modern deposits

Overlying the alluvial subsoil, was a disturbed compact blue grey clay with modern detritus and hydrocarbon staining (102, 302). This is thought to date from the construction of the school and was perhaps material brought in to build up or level the area. The natural substrate was cut by modern drainage and services. The blue-grey clay was overlain by modern hardcore and surfacing associated with the area's use as a school and the current development.

6 Synthesis

No significant archaeology was observed during the groundworks, showing that the heritage assets known to survive in the surrounding areas of the river terraces, including prehistoric settlements, do not extend into the footprint of the extensions or associated services as there was no indication of substantial truncation during the construction of the school.

7 Publication summary

Worcestershire Archaeology has a professional obligation to publish the results of archaeological projects within a reasonable period of time. To this end, Worcestershire Archaeology intends to

use this summary as the basis for publication through local or regional journals. The client is requested to consider the content of this section as being acceptable for such publication.

An archaeological watching brief was undertaken on behalf of Pick Everard at The Cedars Primary School, High Street, Cranford, Hounslow, London (NGR TQ 1050 7734). The site lies in an Archaeological Priority Area and a desk-based assessment carried out prior to the works identified a potential for prehistoric and Roman remains to survive on the site. Although there are no known sites on, or adjacent to the proposed development site it is located in a landscape which has yielded extensive evidence of prehistoric and Roman activity.

Flint gravels and alluvial deposits were observed during the groundworks, overlaid with modern disturbance from the construction of the school, service trenches, and modern surfacing associated with the school grounds. No features of archaeological significance were recorded and it is concluded that archaeological assets recorded in the surrounding area do not extend into the site.

8 Acknowledgements

Worcestershire Archaeology would like to thank the following for their kind assistance in the successful conclusion of this project, Andy Cleary, Site Manager, NeilCott Construction Ltd, John Clarke, Senior Project Manager of Pick Everard, the staff and children of The Cedars Primary School, and Gillian King, Archaeology Adviser, National Planning and Conservation: London English Heritage.

9 Bibliography

BGS 2014 Geology of Britain Viewer, http://mapapps.bgs.ac.uk/geologyofbritain/home.html, British Geological Survey,

DCLG 2012 National Planning Policy Framework, Department for Communities and Local Government

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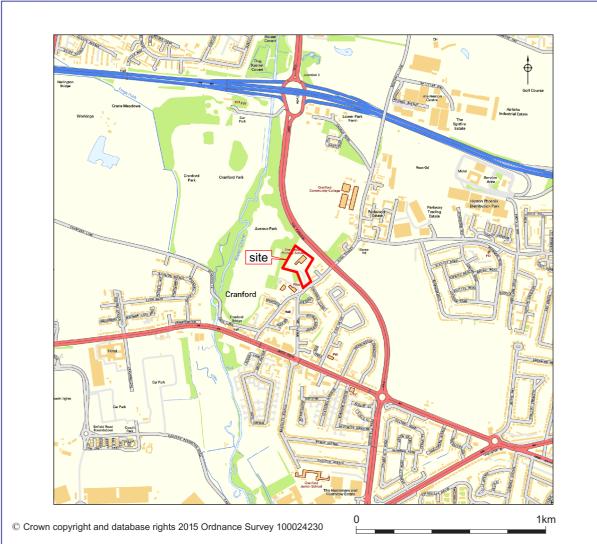
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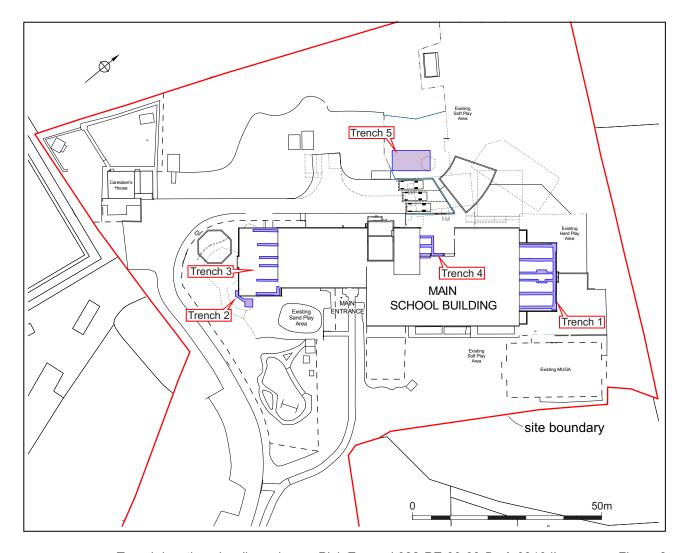
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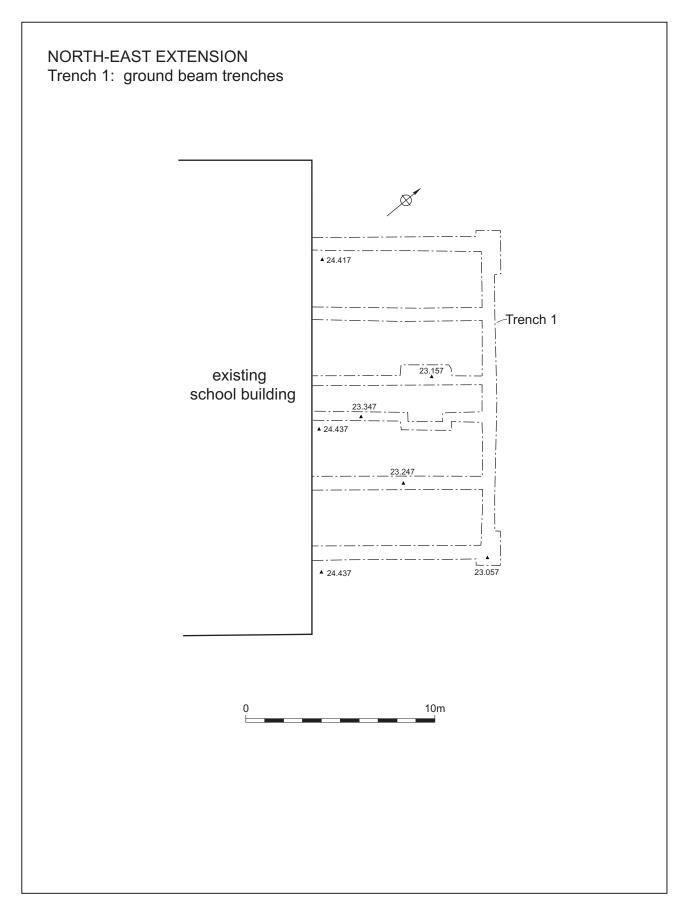


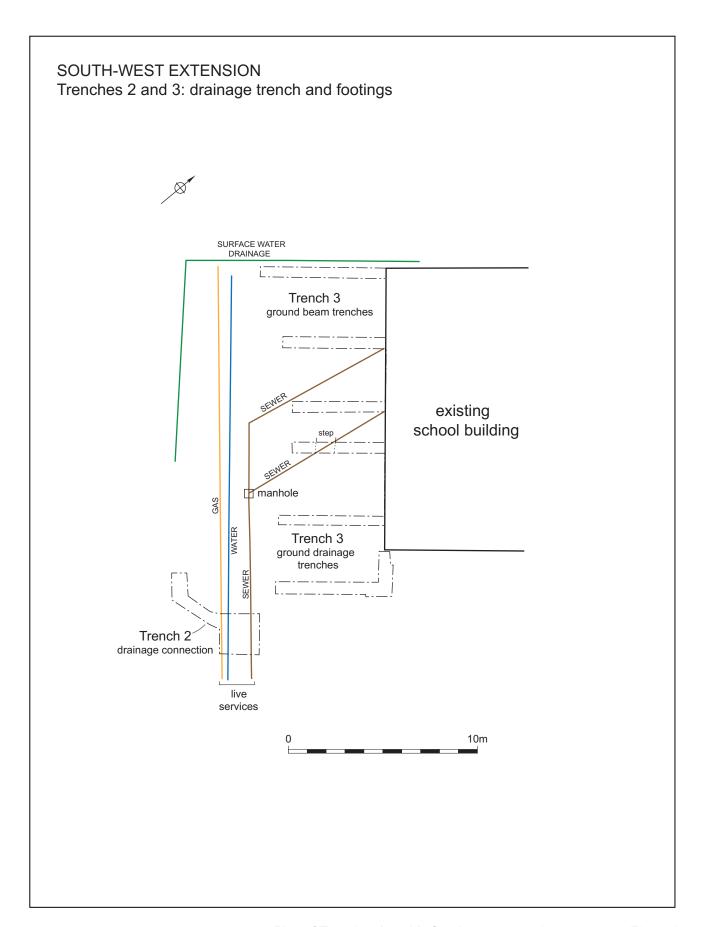
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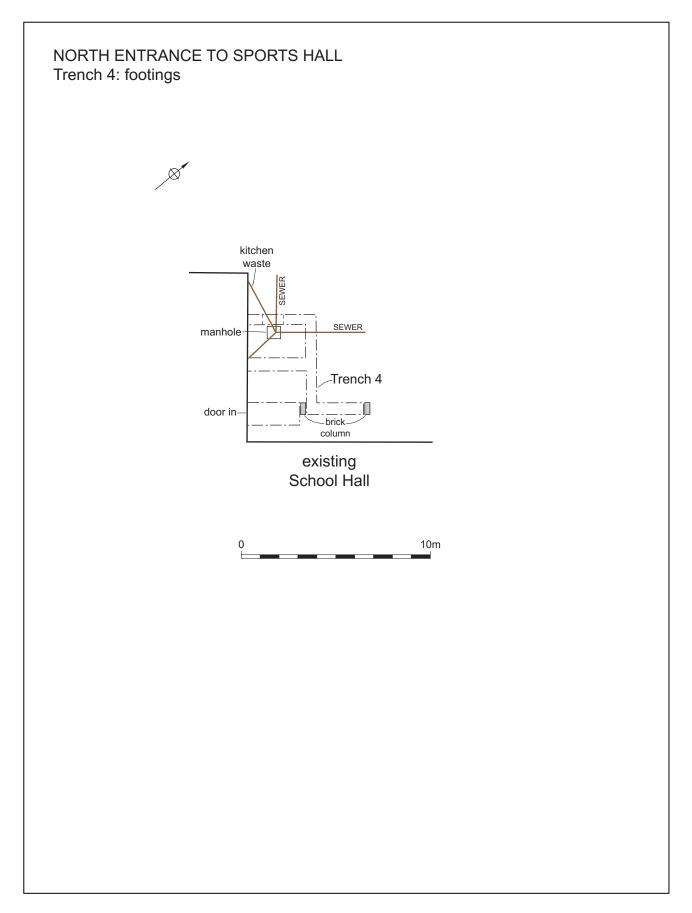


Trench location plan (based upon Pick Everard 038-PE-00-09-Dr-A-09104)

Figure 2







Plates



Plate 1 Ground beam excavations to the north-eastern extension in progress



Plate 2 Ground beam in Trench 1 cut by modern drainage



Plate 3 Example of stratigraphy in Trench 1 showing natural gravels, alluvial clay, disturbed material and modern surfacing deposits.



Plate 4 Trench 2 drainage for the south-western extension



Plate 5 Location shot of Trench 3 ground beam excavation for the south-western extension in progress



Plate 6 Example of section showing stratigraphy of Trench 3



Plate 7 Location shot of Trench 4 ground beam excavation at school hall entrance in progress



Plate 8 Example of stratigraphy in Trench 4 at school hall entrance



Plate 9 Trench 5 marked out in front of school entrance before works



Plate 10 Trench 5, excavated to full depth showing stratigraphy.

Appendix 1 Trench descriptions

Trench 1

Site area: NE Extension Ground beam trenches

Maximum dimensions: Length: 17.00m Width: 10.00m Depth: 1.20m

0.70m wide ground beam trenches

Main deposit description

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
100	Modern tarmac	Modern tarmac surface for playground	0 – 012m
101	Hardcore	Mid pinkish grey brown type 1 gravels and stone chippings with stone rubble and brick inclusions	0.12 – 0.34m
102	Disturbed clay - former topsoil	Compacted blue grey clay with modern detritus. Some hydrocarbon staining. Cut by modern drainage.	0.34 – 0.55m
103	Natural	Compacted mid orangey brown clay. Cleaner and lighter with depth. Occasional flint gravels. Natural clays – former alluvial subsoil	0.55 – 1.00m
104	Natural	Natural substrate - Compact orangey brown sandy flint gravels – river terrace	1.00 – 1.20m

Trench 2

Site area: SW Extension – Drainage trenching on grassy play area Maximum dimensions: Length: 5.00m Width: 5.00m Depth: 1.35m

0.70m wide ground beam trenches

Main deposit description

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
200	Topsoil	Dark grey brown clayey silt, including modern detritus	0 – 013m
201	Made ground	Mixed firm yellow brown clay and rubble across area. Seals natural clay and service cuts.	0.13 – 0.43m

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
		Includes modern bricks and plastic. Modern disturbed made ground	
202	Natural	Firm, compact natural mid orange brown clays. Occasional flint gravels. Cut by various service trenches for gas, water and sewerage. Natural clays – former alluvial subsoil	0.43 – 1.05m
203	Natural	Compact orangey brown sandy flint gravels – river terrace	1.05 – 1.35m

Trench 3

Site area: SW Extension – Ground Beam Foundation Trenches

Maximum dimensions: Length: 18.00m Width: 7.00m Depth:1.20m

Main deposit description

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
300	Modern tarmac	Modern tarmac surface for playground	0 – 0-0.09m
301	Hardcore	Mid pinkish grey brown type 1 gravels and stone chippings with stone rubble and brick inclusions	0.09 – 0.27m
302	Disturbed clay - former topsoil	Compacted blue grey clay with modern detritus. Some hydrocarbon staining. Cut by modern drainage.	0.27 – 0.65m
303	Natural	Compacted mid orangey brown clay. Cleaner and lighter with depth. Occasional flint gravels. Natural clays – former alluvial subsoil.	0.65 – 1.05m
304	Natural	Natural substrate - Compact orangey brown sandy flint gravels – river terrace	1.05 – 1.20m

Trench 4

Site area: Foundation trenches in school hall entrance

Maximum dimensions: Length: 13.00m Width: 12.00m Depth: 1.12m

Main deposit description

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
400	Modern paving slabs	Modern paving slab – Surface for entrance to school hall	0 – 0.06m
401	Hardcore	Soft loose mid brownish yellow sand with brick rubble. Overlying the clays. Late 20 th Century bedding /packing layer for surface on top.	0.06– 0.20m
402	Disturbed clay - former topsoil	Dark brown clay and gravel mix, some modern detritus inclusions. Disturbed ground from school construction.	0.20 – 0.30m
403	Natural	Dark orangey brown compacted clay with occasional flint gravel inclusions. Former subsoil of alluvial nature.	0.30 – 1.00m
404	Natural	Natural substrate - Compact orangey brown sandy flint gravels – river terrace	1.00 – 1.12m

Trench 5

Site area: Soak away pit to Northwest of school entrance

Maximum dimensions: Length: 10.00m Width: 5.50m Depth: 1.50m

Main deposit description

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
500	Topsoil and Modern surfacing	Soft, dark brown silty clay with frequent rooting and frequent inclusions of modern brick and concrete rubble from temporary hardcore road, overlying the topsoil.	0.00 – 0.40m
501	Natural	Firm mid orangey brown compacted clay with occasional tree rooting in NW side and cut by modern concrete posts.	0.30 – 1.00m
502	Natural	Natural substrate - Compact orangey brown sandy flint gravels – river terrace.	1.00 – 1.50m

Appendix 2 Technical information

The archive

The archive consists of:

- 6 Field progress reports AS2
- 1 Photographic records AS3
- 71 Digital photographs
- 1 Drawing number catalogues AS4
- 3 Scale drawings
- 5 Trench record sheets AS41
- 1 Copy of this report (bound hard copy)

The project archive is intended to be placed at:

Museum of London Archaeological Archive Mortimer Wheeler House 46 Eagle Wharf Road London N1 7ED