MAYLANDS GATEWAY
HEMEL HEMPSTEAD
HERTFORDSHIRE

ARCHAEOLOGICAL OBSERVATION AND RECORDING OF GEOTECHNICAL TEST PITTING

Albion archaeology

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Preface

Every effort has been made in the preparation of this document to provide as complete a summary as possible within the terms of the method statement. All statements and opinions in this document are offered in good faith. Albion Archaeology cannot accept responsibility for errors of fact or opinion resulting from data supplied by a third party, or for any loss or other consequence arising from decisions or actions made upon the basis of facts or opinions expressed in this document.

Acknowledgements

The project was commissioned by Simon Mortimer of CgMs Consulting Ltd. This report has been prepared by Ben Barker (Project Officer), and edited by Mike Luke (Project Manager). The fieldwork was undertaken by Ben Barker. The project was managed by Mike Luke of Albion Archaeology. Illustrations were prepared by Joan Lightning (CAD Technician) and Ben Barker. All Albion projects are under the overall management of Drew Shotliff.

Version History

Version	Issue date	Reason for re-issue
1.0	29/02/16	n/a

Key Terms

Throughout this report the following terms or abbreviations are used:

HEA	Hertfordshire County Council Historic Environment Advisor
HER	Historic Environment Record
NHLE	National Heritage List for England
PDA	Proposed development area
WSI	Written Scheme of Investigation

Non-Technical Summary

A development is proposed at Maylands Gateway, Hemel Hempstead (centred on NGR TL 0836 0766). The proposed development area (PDA) is in the vicinity of a number of heritage assets. Therefore, archaeological monitoring during the digging of geotechnical test pits was carried out. In addition to identifying and recording any archaeological features present, the monitoring aimed to locate any ground disturbance which might have destroyed archaeological features and to record the depths of overburden. In essence, the archaeological attendance was aimed to provide an initial insight into the archaeological potential of the PDA and to help inform any further archaeological works that might be required.

The archaeological observation and recording were undertaken between 16th and 19th February 2016, in accordance with an approved Written Scheme of Investigation. A total of 24 test pits were excavated. The presence of one undated possible archaeological feature was recorded towards the centre of the PDA. The archaeological monitoring has also shown that the depth to the archaeological horizon (undisturbed geology) varies greatly across the PDA. It has revealed that past usage of the site has undoubtedly had an impact on the potential for the survival of archaeological remains; in places, the ground has been truncated, whilst in others it has been preserved under a build-up of 'made' ground.

In summary, the eastern part of the PDA, comprising the paddocks, former Kodak sports ground and former caravan park, exhibited little sign of landscaping, except for an area of potential terrace build-up in the area of TP03. In contrast, the south-western part of the PDA, the former Lucas sports ground, appears to have been heavily landscaped. However, the impact of the terracing is likely to be mixed, with only slightly more evidence for truncation than ground-raising. The test pits revealed substantial truncation of the archaeological horizon is likely to be confined to the area of the western car park/compound and the northern halves of the two terraces.

The fact that only one possible archaeological feature was identified and no artefacts were recovered from the test pit arisings may be a function of a relatively low density of archaeological features within the PDA. However, it is also likely to have been influenced by the restricted area and nature of the test pits, which made the identification of features within narrow pits at depths in excess of 1.2m very difficult.

1. INTRODUCTION

1.1 Background

In connection with a proposed development at Maylands Gateway, Hemel Hempstead, a geotechnical investigation was undertaken during February 2016. During discussions with CgMs Consulting Ltd the Historic Environment Advisor (HEA) of Hertfordshire County Council requested that this work should be subject to archaeological monitoring.

The purpose of the monitoring was to record any archaeological features or deposits that might be present, to locate any ground disturbance which might have destroyed archaeological features and to record the depths of overburden. In essence the archaeological attendance aimed to provide an initial insight into the archaeological potential of the site and help to inform any further archaeological works that might be required.

Albion Archaeology was commissioned by CgMs Consulting Ltd to undertake the monitoring. All works were undertaken in line with an agreed Written Scheme of Investigation (Albion 2016).

1.2 Site Location, Topography and Geology

Maylands Gateway lies on the western outskirts of Hemel Hempstead on the north side of Breakspear Way (Figure 1). It is bounded by Buncefield Lane to the east, Wood Lane End to the north and an industrial estate and housing estate to the west. It is centred on TL 0836 0766.

The underlying solid geology of the area comprises Lambeth Group - Clay, Silt and Sand, sedimentary bedrock formed approximately 56–66 million years ago. The superficial geology is Clay-with-flints Formation – Clay, Silt, Sand Gravel.

For the purposes of this report the proposed development area (PDA) has been divided into three land parcels, reflecting former ownership/usage (Figure 1):

- Area A comprised *c.* 3ha of land in the north-eastern part of the PDA. This area is currently occupied by a stable and associated paddocks and exercise fields. The area was formerly in use as the Kodak Sports Ground, which included tennis courts, a bowling green and an area of hard-standing in the north.
- Area B comprised *c.* 2ha of land to the south-east, formerly used as a caravan park. Most of the infrastructure for the park had been levelled, but the circular road and gravelled pitches remain *in situ*.
- Area C comprised *c.* 8ha of the former Lucas Aerospace Sports Ground, located in the western part of the PDA. This was partially overgrown, but contained an area of hard-standing to the west and two terraced pitches, the southernmost one encircled by a grass running track.

1.3 Archaeological Background

The archaeological background to the site has been detailed in an archaeological assessment (AECOM 2015). It is summarised below.

A number of undesignated prehistoric heritage assets have been recorded within the environs of the site. These include find-spots of prehistoric flint implements (HER 540, 1303, 2276, 7315, 10812) and sub-surface remains of occupation sites (HER 9203, 11824).

The most significant heritage asset in the immediate environs is the Romano-Celtic temple complex at Wood Lane End (NHLE 1015490), 280m south-west of Woodwells Farm and *c*. 30m north of the site. The temple complex is one of a number of Roman sites in the area, including the villas at Gadebridge and Boxmoor, which are thought to have been connected by a series of interlinking roads and trackways. Excavation suggests it was constructed during the early part of the 2nd century AD, although 1st-century AD pottery hints at some form of earlier occupation. A number of other undesignated sites in the vicinity have produced evidence for Roman occupation and agriculture (HER 6823, 6824, 9204).

Evidence for medieval activity in the vicinity of the site is confined to former ridge and furrow (HER 9205) and the find-spot of a coin of Henry III (HER 11648). Similarly for the post-medieval period, the evidence recorded in the HER relates largely to rural farmsteads.

1.4 Project Objectives

The immediate objective of the archaeological works was to monitor excavation of the test pits with the aim of identifying, recording and characterising any archaeological features that were revealed. A record was also to be made of more modern deposits of "made ground", which might have a bearing on the potential of the site to preserve archaeological remains.

The archaeological background to the site suggested that there was potential for any surviving archaeological remains within the PDA to contribute to regional research themes associated with prehistoric and Roman settlement and landscape (Medlycott 2011).

2. METHODOLOGY

2.1 Introduction

The archaeological observation and recording was undertaken between 16th and 19th February 2016. A total of 24 test pits were excavated including 3 soakaway pits (Figure 1). The layout was designed by RPS to give even coverage across the site and was adapted with respect to on-site constraints (services, hard standing, machine access, etc.). The purpose of the geotechnical investigation was to identify and record the geological strata to facilitate appropriate foundation design for the proposed development.

2.2 Implementation

The test pits were opened by a mechanical excavator fitted with a two-foot wide digging bucket, operated by an experienced driver. The machine was under geotechnical supervision but with an archaeologist in attendance. The pits were usually less than 3m long and 0.6m wide; they were generally dug to a depth of 4.5m, as specified by the geologist. Archaeological recording used Albion Archaeology's *pro forma* sheets with all test pits drawn and photographed as appropriate. The spoil heaps were scanned for artefacts.

2.3 Archiving

The records generated during the project will be archived to the standards outlined in Historic England's *Management of Research Projects in the Historic Environment* (2015). Details of the project and its findings will be submitted to the OASIS database (ref. no. albionar1-242128) in accordance with the guidelines issued by Historic England and the Archaeology Data Service.

The integrated project archive will be prepared upon approval of this report, and will be deposited with Dacorum Museum (accession number applied for).

3. RESULTS

3.1 Introduction

Test pit locations are shown on Figure 1 and detailed in Table 1. The latter provides their depth, the depth to the top of the original ground surface (buried topsoil or truncated subsoil), depth to the potential archaeological horizon (undisturbed geology), and whether archaeological features were present. Representative sections are shown by area in Figures 2–5.

Test pit	Area	Approximate location (OS NGR)	Total depth (m)	Depth to original ground surface (m)	Estimated depth to archaeological horizon (m)	Archaeological remains present?
01	A	508396 207831	3.00	0	0.60	No
02	A	508430 207849	4.50	0	0.70	No
03	A	508377 207774	3.60	1.10	1.30	No
04	A	508500 207779	4.45	0	0.65	No
05	C	508175 207729	4.50	0	0.50	No
06	C	508260 207720	4.50	0	0.60	No
07	C	508326 207721	4.5?	0	0.60	No
08	A	508447 207733	4.50	0	0.60	No
09	A	508531 207724	4.50	0	0.75	No
10	C	508166 207662	4.50	Truncated	0.15?	No
11	C	508260 207659	4.50	1.70	2.50	No
12	C	508394 207665	4.50	0	0.50	Possible
13	B	508499 207660	4.50	0	0.50	No
14	B	508535 207686	4.50	0	0.50	No
15	B	508565 207665	4.50	0	0.35	No
16	C	508170 207601	4.50	Truncated	0.15?	No
17	C	508211 207602	4.50	0	0.50	No
18	C	508313 207618	4.50	Truncated	1.20	No
19	C	508438 207613	4.50	0	0.60	No
20	B	508514 207600	4.50	Truncated	0.20?	No
21	C	508252 207537	4.50	0	0.30	No
21a	C	508313 207550	3.10	2.60	3.10m+	No
22	C	508382 207538	3.00	0	0.60	No
23	C	Not dug	-	-	-	-
24	C	508259 207493	4.50	1.20	1.50	No

Table 1: Test pit location and depth summary

3.2 Deposit Sequence

3.2.1 Topsoil and Subsoil

The majority of the test pits were characterised by an average depth of 0.2–0.3m of topsoil. It was dark grey-brown silty clay with occasional small stones, rich in organic content. A topsoil layer was absent in TP10, TP16 and TP20 where it had been replaced by an artificial surface.

The subsoil was more variable but was generally 0.10–0.50m thick. It typically comprised a mid orange-brown silty clay with moderate small stones. It was

notably absent from those test pits where there was evidence of disturbance to the soil profile. The subsoil layer is likely to have been the product of a mixture of natural weathering and historical ploughing.

3.2.2 Hard standing

Existing hard standing was sampled in the former caravan park and Lucas sports ground (Areas B and C respectively). The hard standing for the caravan pitches (TP 20) consisted of 0.20m of grey angular gravel above a geotextile membrane. The western side of the Lucas sports ground contained an area of hard standing (TP 10 and 16), presumably a former car park or compound, that consisted of a 0.15m-thick layer of loose asphalt chippings above a geotextile membrane. In both instances, it is likely that the ground was reduced prior to the construction of the hard standing.

3.2.3 'Made' ground

A 0.10m-thick layer of dark blue-black coke-like material was identified below the topsoil within the running track to the south of Lucas sports ground (TP21A). This is likely to have been deposited to assist drainage of the athletics track.

More significant thicknesses of 'made' ground were identified in five test pits within the former Kodak and Lucas sports grounds (Areas A and C). It was 0.8–2.2m thick. Within Area A (TP03) the 'made' ground consisted of a mid orange-brown sandy silt with inclusions of modern brick, concrete and fragments of metal. The layer is likely to have been deposited as a levelling layer that was either imported to the site or reworked material incorporating demolition material from the former sports facilities.

The 'made' ground within Area C (TP11, TP18, TP21a and TP24) appeared to be artificially reworked geological deposits, consisting of mid yellow-brown silty clay with frequent small stones. It was identifiable by its disturbed structure, occasional chalk inclusions and clearly defined interface with the underlying geological strata. The precise nature of the 'made' ground will be detailed in the geotechnical report (RPS, forthcoming) but it is likely to have originated as fill from levelling activity associated with the construction of the two sports pitches.

3.2.4 Buried topsoil and subsoil

Buried topsoil and/or subsoil layers were identified in three test pits within the former Lucas sports ground (TP11, TP21a and TP24) and one in the Kodak sports ground area (TP03). The topsoil layers were generally comparable with those on the surface (*c*. 0.3m thick), although they are likely to have been subject to compaction. They consisted of dark brown-grey, humic deposits with a pungent aroma consistent with that of decaying organic material. The buried subsoils were less easy to detect but were evident as a weathered layer of the underlying geological deposit.

The buried deposits were identified at a depth of 1.2–2.5m below the existing ground surface within the former Lucas sports ground (Area C). It is likely that the original ground surface was, in places, buried during the levelling of the two

surviving pitches. Within the Kodak sports ground (TP03, Area A), only a 0.2m-thick remnant of buried subsoil existed below the 'made' ground (at *c.* 1.1m below the existing ground level), suggesting that the area had been partially stripped before being built up.

3.2.5 Undisturbed geology

The undisturbed geology consisted of a mid orange-brown clay with small to large flints above chalk bedrock. An intervening layer of weathered silty clay, often grey with orange mottles was present in about a third of the test pits. Whilst the chalk bedrock was reached in over half of the test pits, this situation was highly variable, often within a relatively short distance. Further details should be available in the RPS geotechnical report (forthcoming), which includes the data from the borehole logging, and is beyond the scope of this report

3.2.6 Archaeological features

Although the test pits were narrow, if archaeological features had been present within them they should have been visible at the interface between the subsoil and the clay-with-flints (the archaeological horizon). An estimate of this depth is given in Table 1 for reference in any future works. It should be noted that in areas where potential truncation has been noted, the archaeological horizon may have been lost completely, or simply reduced, depending on the impact of the previous groundworks. It is also possible that more recent archaeological features may be preserved at a higher depth within the subsoil horizon.

Only TP12 contained a possible archaeological feature (see Figure 6). It was observed as a disturbance to the geological strata at the eastern end of the test pit. The feature was at least 1m long, 0.6m wide and 0.5m deep, with a concave profile. Its fill was virtually identical to the mid-orange-brown silty clay subsoil and did not contain any artefacts or datable material. It is likely to have been a ditch, or a pit, that has been filled by natural silting. The small size of the test pit precludes the definite identification of this feature and any further interpretation.

4. ASSESSMENT OF IMPACT OF PREVIOUS ACTIVITY

This section attempts to assess the likely impact of previous land use on the potential survival of archaeological remains within the PDA. This assessment is based on the information available from observation of the geotechnical test pits and omits potential impacts from services, buildings, roads and sewers in areas that were not sampled by the test pits. The location of the test pits in relation to the site topography, and whether they exhibited evidence for truncation or 'made' ground, is shown in Figure 7.

4.1.1 Area A – The paddocks and former Kodak sports ground

The majority of the test pits within Area A, comprising the paddocks and former Kodak sports ground, exhibited profiles that had been minimally affected by previous land use.

TP1, TP2, TP4, TP8 and TP9 were located in areas currently under pasture and had consistent soil profiles that do not show any trace of artificial landscaping. The depth of topsoil and well-developed subsoil may, however, suggest that the area was previously impacted by medieval and later ploughing.

TP3 exhibited the one anomalous profile from Area A. It indicates that the ground along the south-western boundary of this area has been artificially built up to produce a level ground surface. It is possible that this build-up extends to the west where the Archaeological Assessment notes that the ground is between two to three metres higher than the ground level of the adjacent housing (AECOM, 2015, 5). Although the topsoil appears to have been stripped prior to the build-up, the presence of a residual subsoil suggests that the impact on the archaeological horizon may have been limited.

4.1.2 Area B – The former caravan park

The profiles of the geological strata within the former caravan park were highly varied; however, there was no apparent evidence for any substantial anthropogenic levelling activity. TP20 was the only test pit to be located within the area of caravan hard-standing. Whilst there was no trace of a surviving topsoil or subsoil, undisturbed geology was reached at a depth of only 0.20m below the current ground level. It is therefore likely that the impact of the caravan pitches has been slight and substantial archaeological features have the potential to survive in these areas. The impact of the roads and building foundations (not sampled) are likely to have been more substantial and detrimental to archaeological survival.

4.1.3 Area C – The former Lucas sports ground

The soil profiles of the test pits within the former Lucas sport ground suggest that the area has been substantially affected by landscaping activity. Contour lines shown on historic Ordnance Survey mapping indicate that the field was previously bisected by a dry valley, or 'swale', aligned north to south, with the land falling to the south. The same area is currently occupied by two level terraced sports pitches/athletics track, along with an incised parking/compound along the western boundary. The impact of the landscaping can be clearly seen

in the LIDAR data (Figure 7). The eastern part of the field appears to have been unaffected.

TP5, TP6 and TP7 confirm that there has been little impact to what appear to be typically natural soil profiles along the northern boundary of Area C. TP12, TP19 and TP22 along the eastern part of the field also appear to be undisturbed. This conclusion is further supported by the identification of a potential archaeological feature within TP12.

The most severe impact appears to have been in the car park/compound area along the western boundary of the PDA, sampled by TP10 and TP16. No trace of a residual topsoil, or subsoil, was identified in either of the test pits and the topography of the site suggests that the area has been substantially truncated. The probable impact on the archaeological horizon suggests that it is unlikely that any archaeological features, unless very substantial, survive in this area.

The upper terrace was sampled by TP11, TP17 and TP18. The westernmost test pit, TP17, exhibited a profile that appeared to be unaffected by levelling activity. Further to the east, the sequence within TP11 suggests that the area of the depression of the dry valley was built up without removing the existing topsoil first. TP18 was located in the south-east corner of the terrace. In contrast, this area appears to have been built up following the removal of both topsoil and subsoil layers. As such, the impact of the construction of the upper terrace can be regarded as mixed — with areas of reduction and build-up. On balance, on the basis of the limited information available, it is likely that the impact of the landscaping on the archaeological horizon is likely to have been at its greatest to the north and east of the terrace and is unlikely to have affected more than 50% of the levelled area.

The lower terrace, containing the athletics track, was sampled by TP21, TP21a and TP24. These test pits showed a similar mixed pattern to those in the northern terrace; TP21 contained no subsoil layer and is likely to have been reduced; whilst TP21a and TP24 contained ‘made’ ground above layers of buried topsoil. Whilst it is difficult to assess the potential impact of the terracing without knowledge of the original ground levels, it is clear that the archaeological horizon has been preserved along the southern and eastern boundaries of the area of the track.

5. CONCLUSION

The archaeological observation and recording of 24 geotechnical test pit recorded the presence of one undated possible archaeological feature towards the centre of the site (within TP12). It has also shown that the depth to the archaeological horizon (undisturbed geology) varies greatly across the PDA. It has revealed that past usage of the site has undoubtedly had an impact on the potential for the survival of archaeological remains; in places, the ground has been truncated, whilst in others it has been preserved under a build-up of 'made' ground.

In summary, the sampled areas of the eastern part of the PDA, comprising the paddocks, former Kodak Sports ground and former caravan park, exhibited little sign of landscaping, except for an area of potential terrace build-up in the area of TP3. The impact of previous land use in these areas appears to be slight. In contrast the south-western part of the PDA, the former Lucas sports ground, appears to have been heavily landscaped. However, the impact of the terracing is likely to be mixed with only slightly more evidence for truncation than ground-raising. The test pits suggest that substantial truncation of the archaeological horizon is likely to be confined to the area of the western car park/compound and the northern halves of the two terraces (Figure 7).

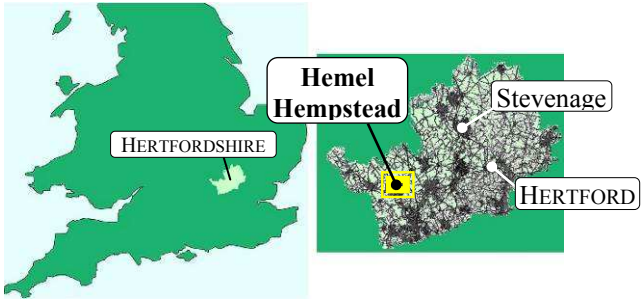
The fact that only one possible archaeological feature was identified and no artefacts were recovered from the test pit arisings may be a function of a relatively low density of archaeological features within the PDA. However, it is also likely to have been influenced by the restricted area and nature of the test pits, which made the identification of features within narrow pits at depths in excess of 1.2m very difficult.

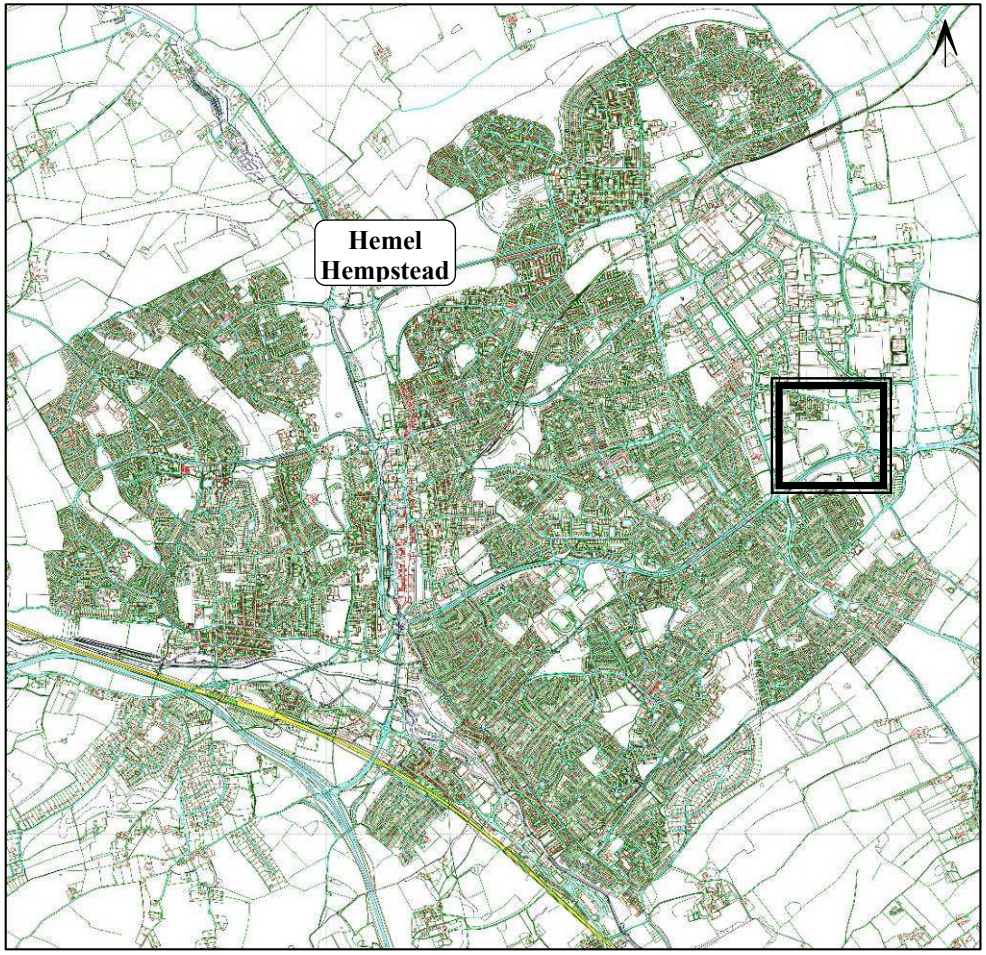
6. REFERENCES

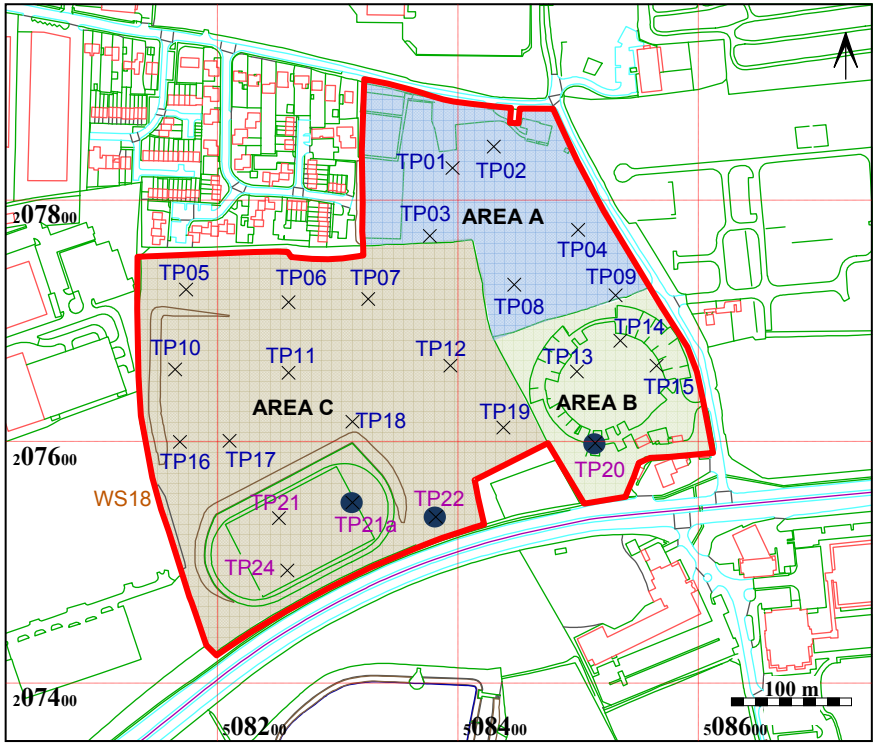
AECOM, 2015, *Archaeological Assessment Maylands Gateway, Hemel Hempstead*

Albion Archaeology, 2016, *Maylands Gateway, Hemel Hempstead, Hertfordshire: Written Scheme of Investigation for Archaeological Watching Brief on Geotechnical Investigations* Report 2016/34

Medlycott, M. (ed), 2011, *Research and Archaeology Revisited: A Revised Framework for the East of England*. East Anglian Archaeology Occasional Paper 24.







× = Geotechnical test pit
● = Geotechnical soakaway test pit

Figure 1: Site location plan

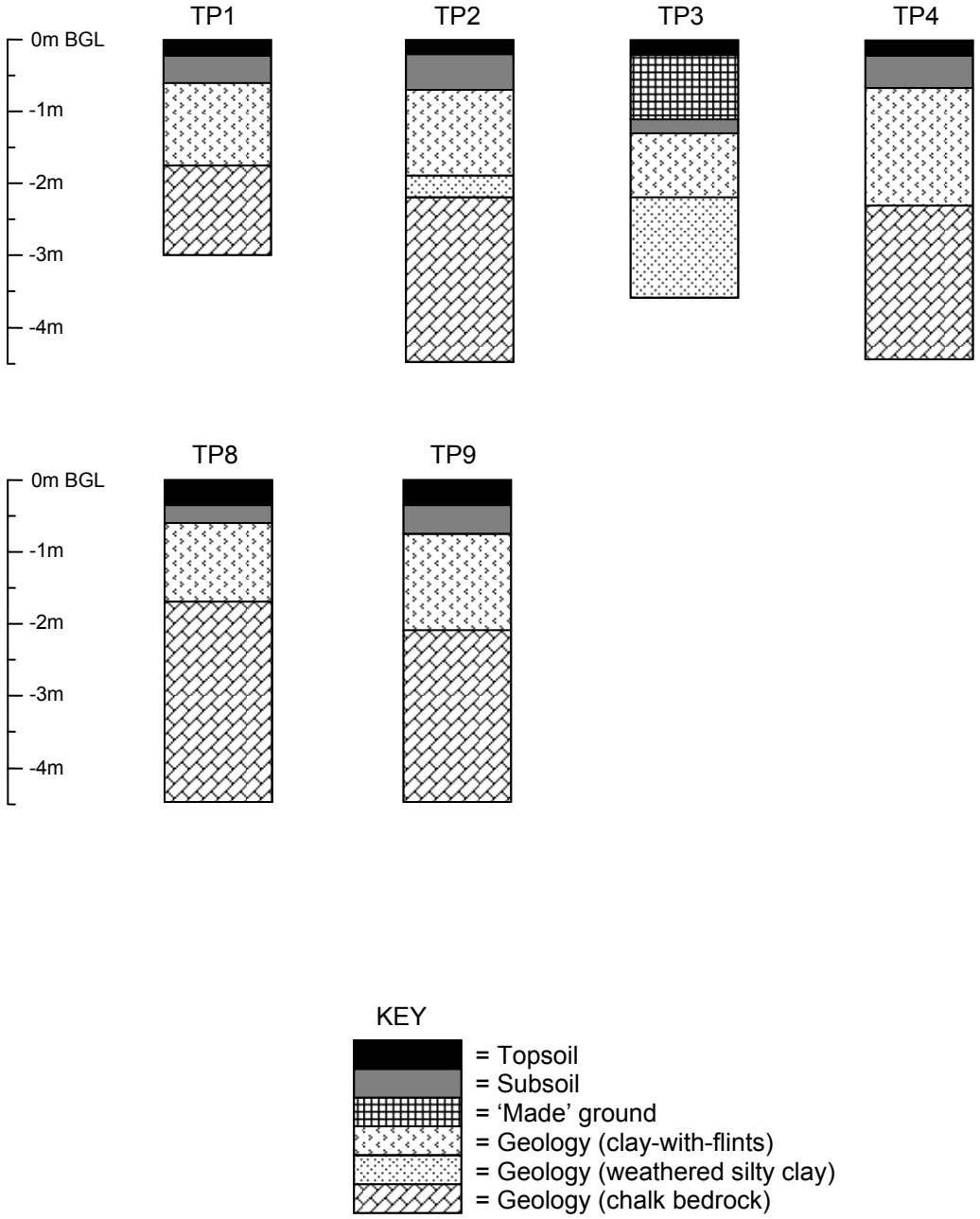


Figure 2: Representative test pit sections within Area A – paddocks and former Kodak sports ground

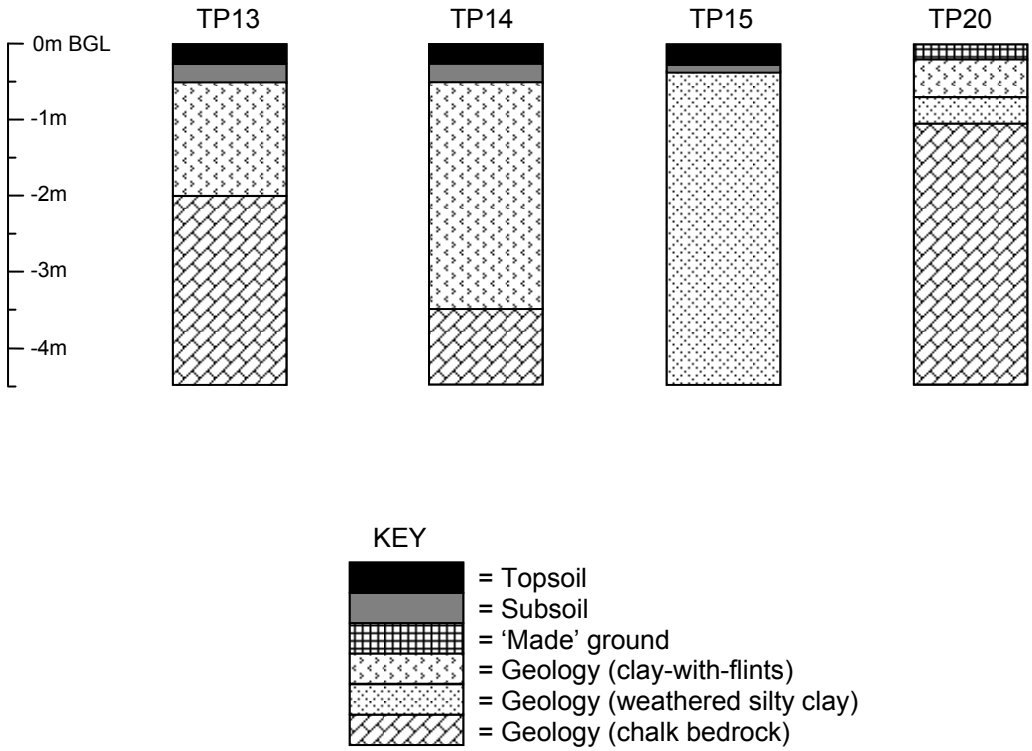


Figure 3: Representative test pit sections within Area B – the former caravan park

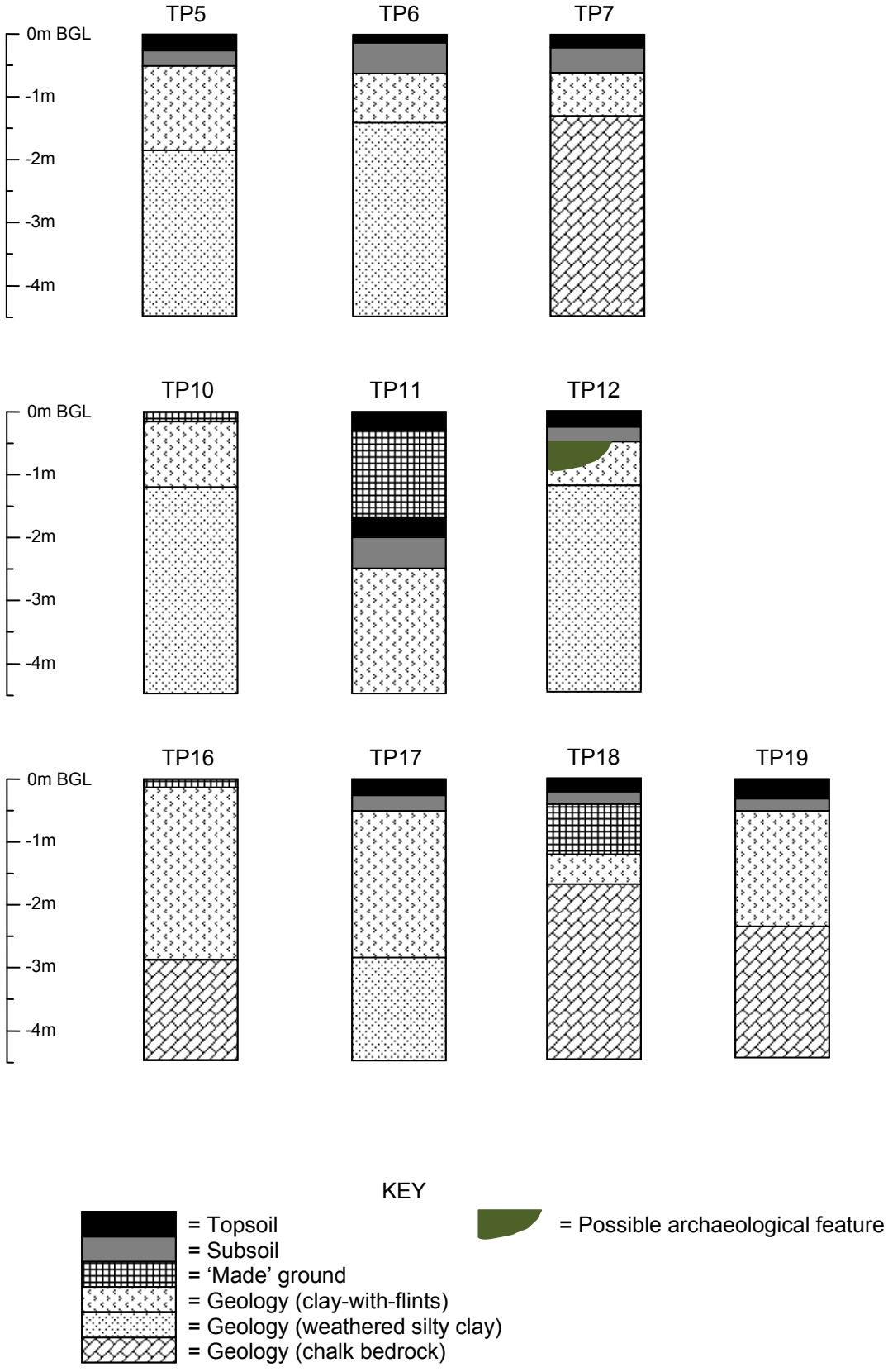


Figure 4: Representative test pit sections within Area C – the former Lucas sports ground (1 of 2)

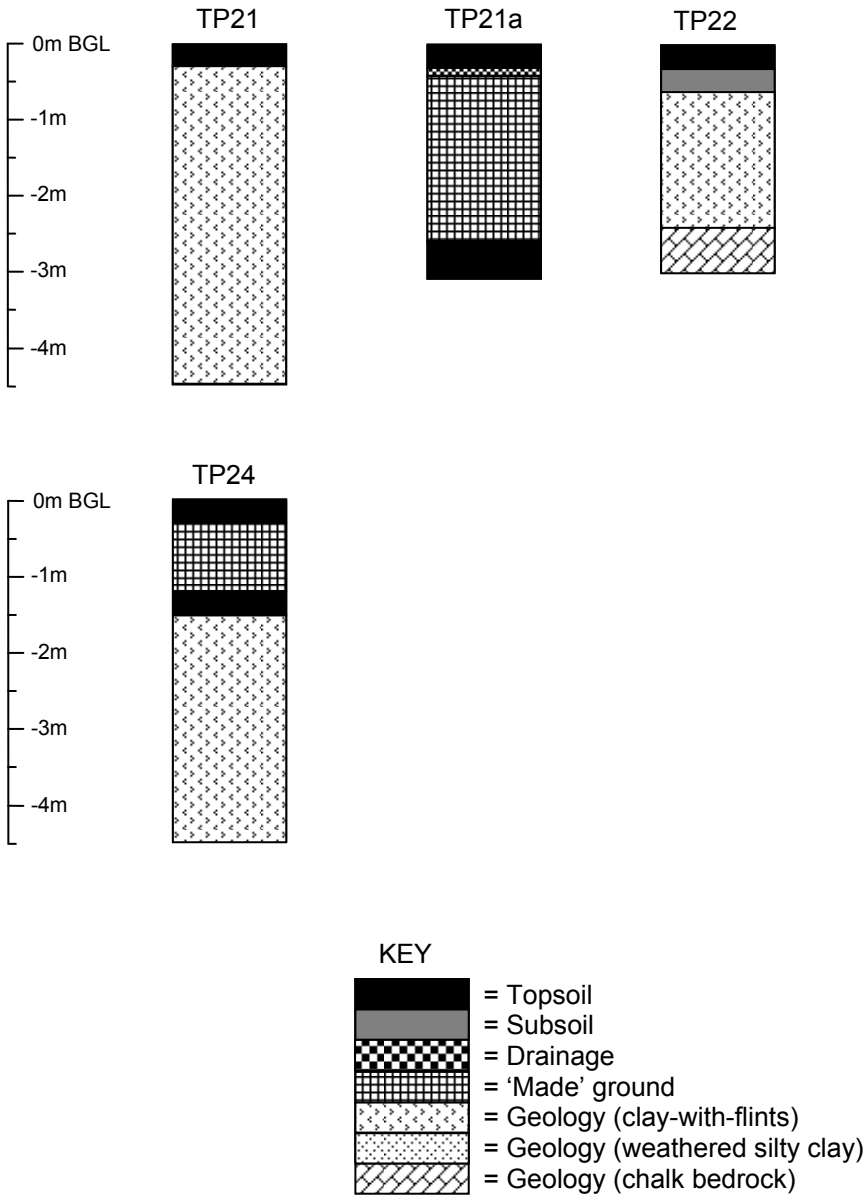
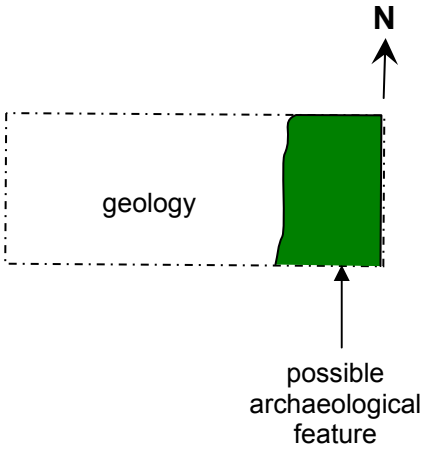
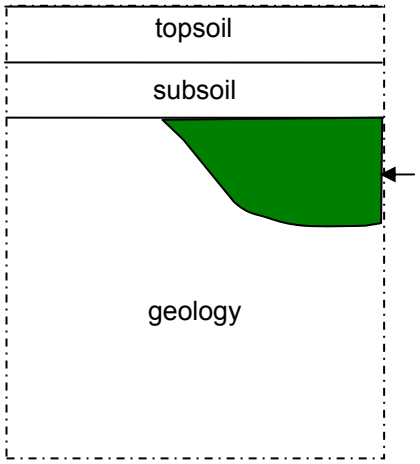


Figure 5: Representative test pit sections within Area C – the former Lucas sports ground (2 of 2)

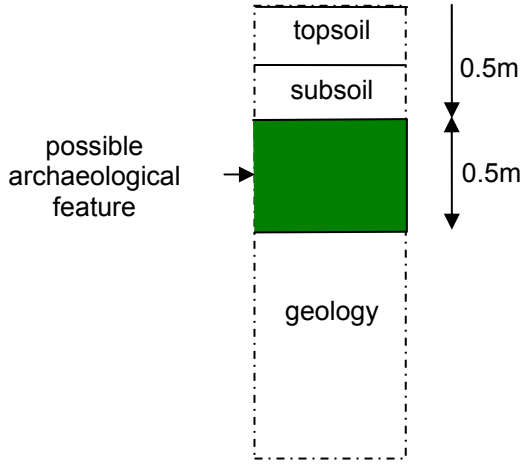
Feature as first seen
(looking west)



Plan



S-facing section



W-facing section

Possible feature in section
(looking north-west)

Figure 6: Possible archaeological feature in test pit 12

Figure 7: Location of test pits overlain on LIDAR digital surface map
LIDAR data from Open Government from Environment Agency (DSM 1m)
Source: https://houseprices.io/lab/lidar/map (accessed 24/2/16)

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