BAA Archaeology Framework

BAA plc

Longford Flood Alleviation Scheme
London Borough of Hillingdon

ARCHAEOLOGICAL MONITORING
INTERIM REPORT

REF 95015\260.1

FRAMEWORK ARCHAEOLOGY
August 2005

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Longford Flood Alleviation Scheme
London Borough of Hillingdon

ARCHAEOLOGICAL MONITORING: INTERIM RESULTS

1 INTRODUCTION

1.1 Project Background

1.1.1 Framework Archaeology (FA) was asked by BAA to provide archaeological monitoring during construction of a Flood Alleviation Scheme to the north west of Longford (Figure 1), in response to a planning condition of the development proposal. In agreement with their advisor, English Heritage, Hillingdon Borough Council decided on a programme of archaeological monitoring as the appropriate response to this planning condition (Framework Archaeology January 2005).

1.1.2 The area of development falls entirely within the study area of the Strategic Cultural Heritage Audit of Heathrow Airport, undertaken for BAA plc by FA in 2000 in relation to possible future development at the Airport (Framework Archaeology June 2000).

1.1.3 The Flood Alleviation Scheme (FAS) is designed to manage the flood risk to properties in the village of Longford. It entails the construction of a dry floodway on the north bank of the River Colne together with the installation of raised flood defences on the west bank of the Longford River near Spelthorne Farm and adjacent to the Longford River Off-take Structure on its eastern bank (Figure 2).

1.2 Archaeological Background

1.2.1 The Site is situated on the opposite side of the river from the historic village of Longford (Figure 1 and Image 1). It forms a small element of a much larger prehistoric and ancient landscape of the Middle Thames Valley. There is emerging evidence that, at least in the pre-Roman period, the part of the Taplow Terrace between the Rivers Colne and Crane, within which Heathrow is almost centrally placed, forms a distinctive and well-defined element of that ancient landscape.

1.2.2 Cropmarks indicating the presence of buried archaeological remains had been previously documented for the Site. These included a number of enclosures or field boundaries of probable prehistoric or later date.

1.2.3 Part of the Stanwell Cursus was excavated immediately to the south during investigations at Terminal 5 (PSH02 Area 15), and the monument could be extrapolated to continue into the area of the Scheme (Figure 2). A number of other archaeological features of Saxon, medieval and later date, including pits, ditches and a sunken-featured building, had been excavated to the east of Longford during investigations at Terminal 5 (PSH02, Area 14). Well-preserved waterlogged deposits were also recorded within a palaeochannel of the River Colne to the south of the site, including a pit lined with wooden planks of probable medieval date.

2 SCOPE OF WORKS

2.1.1 This report presents a summary of results of the fieldwork as understood prior to formal assessment. The assessment will form part of a wider programme of post-excavation of all sites within the Terminal 5 works investigated by Framework Archaeology. A short report of the findings made will be submitted for publication in the *London Archaeologist* within the current year.

2.1.2 All archaeological monitoring and recording was undertaken in accordance with a project design (FA 95015\260) submitted to BAA prior to the commencement of works, which stated that all topsoil and subsoil stripping activities should be supervised by a qualified archaeologist. Where encountered, all archaeological remains were investigated and recorded to determine their nature, date and extent (Figure 2).

2.1.3 All works on the site fell within the Construction Design Management (CDM) regulations. Laing O'Rourke acted as principal contractors. Monitoring and investigation commenced in January 2005 and was completed in April of that year.

3 RESULTS

3.1 Methodology

3.1.1 Prior to formal drainage of the Site, it was inundated by *c.* 0.3m of water, resulting from its proximity to the River Colne, seasonal wet weather conditions, and poor soil drainage. In the initial stages this necessitated a

strategic approach for the removal of the overburden which involved the sacrificial allocation of haul strips across the Site. Although all haul areas were re-stripped following drainage, it was clear that all archaeological potential had been destroyed by wheel rutting in these areas.

3.2 Geography and Topography

3.2.1 The site is situated on the eastern edge of the Colne Valley (NGR TQ 048 770), a tributary of the River Thames, at a height of *c.* 22.25m above Ordnance Datum (aOD). The area subject to archaeological monitoring was 1.3 ha. Prior to the commencement of works the land was under low grade pasture.

3.2.2 Topsoil stripping of the Site revealed a geological sequence of natural terrace gravels, (Taplow Terrace and Colney Street Gravel) overlain by alluvial clays. All archaeological features were cut through the alluvium, supporting an early post-glacial date for its deposition.

3.2.3 The topography of the Site was predominantly flat, with one notable low rise of gravel to its north-east, formed by past braiding of the river. This was represented by a shallow 'palaeochannel' enclosing a gravel 'island' to the east of the site (Figure 3).

3.2.4 Along the riverbank the alluvium was in places directly overlain by tufaceous material. Similar deposits have been recorded in other locations in the Colne Valley, where they commonly predate large-scale tree clearance and are considered, therefore, to be of a pre-Bronze Age date. Re-worked tufa of Roman date, however, was recorded during the excavations at nearby Perry Oaks. The stratigraphic position of the deposits at the Longford Site suggests that they were produced by a similar process.

3.2.5 Modern overburden consisted of poor grade topsoil, directly overlying alluvium and tufa deposits to a maximum thickness of 0.2m. Modern subsoil was largely absent.

3.3 Archaeological Remains

Introduction

3.3.1 This report represents a preliminary assessment of the results of the investigation. All dating at this stage is based on spot-dating and is therefore provisional. Figures quoted may be subject to revision following further detailed and environmental analysis.

3.3.2 The artefact assemblage is very small (Appendix 1). Only 22 sherds of pottery and 78 fragments of animal bone were recovered from the entire site. Subsequently, in many cases phasing has relied on stratigraphic relationships. It is anticipated that a programme of absolute dating will allow the establishment of a more secure site chronology.

3.3.3 The waterlogged conditions, however, resulted in good preservation of environmental material from a variety of contexts, and an extensive strategy of environmental sampling was implemented (Appendix 2).

3.3.4 The main phases of activity represented at Longford are Bronze Age into Iron Age, with marginal representation of features provisionally dated to the Neolithic, Romano-British and post-medieval period. Figure 3 summarises the archaeological phases as presently understood.

Earlier prehistory

3.3.5 Three short undated gully fragments on a NW-SE alignment were stratigraphically early and possibly represented the earliest phase of land divisions at the Site. Their alignment differs slightly from the more substantial NW-SE Middle Bronze Age field boundaries, which in at least one instance were observed to cut across them. One gully cut a tree-throw hole, possibly indicating an earlier phase of woodland clearance, and another was cut by a cremation burial of probable Bronze Age date. Three tree-throw holes situated in the area of the gravel rise contained worked flint of Neolithic date.

3.3.6 No evidence of features associated with the Stanwell Cursus was recognised. The extrapolated alignment of the monument appeared to coincide with the area of modern landfill, and it is likely that any relevant features were destroyed by modern excavation.

Middle to Late Bronze Age

3.3.7 Eight human cremation burials were excavated. All were placed in shallow pits without urns or artefacts, and in all cases only a small quantity of human bone was present in the fills. A group of four burials clustered in the centre of the gravel 'island' appeared, on spatial evidence, to be associated with an arc arrangement of four postholes, as do three pits, two of which flank one of the cremation burials. The remaining four burials had no obvious spatial association with each other. The northernmost cremation pit cut one of the gully fragments mentioned above. The cremation burials have been tentatively dated to the Middle to Late Bronze Age and it is hoped that a

programme of radiocarbon dating will establish their more precise position in the sequence of activity on the Site.

3.3.8 The inception of the Bronze Age field divisions in the flood plain is represented by the stratigraphically earliest NW-SE boundary ditch that traversed the central part of the Site (SG 725032, Figure 3). The ditch had been recut (SG 725031) and numerous later ditches lying parallel and perpendicular to it shared the orientation of the projected field system. The date of this ditch is uncertain, but the first field systems in the Heathrow area are generally dated to the Middle Bronze Age. Its western end was cut by a waterhole containing Deverel-Rimbury pottery, indicating that the boundary had silted prior to the digging of the waterhole. The waterhole produced a well-preserved wooden post (Image 3) with three distinct perforations of an unknown, but most likely structural function.

3.3.9 Close to the edge of the river the ditch was observed to underlie tufaceous deposits (Figure 3, Image 2). As this stratigraphic position is counter to the traditional interpretation that tufaceous deposits formed during the cleaner water conditions of the pre-agricultural earliest Holocene, it is assumed that those exposed at Longford were redeposited at a late date. Although there was no artefactual evidence to support this, similar tufaceous deposits containing Roman pottery were encountered at the PSH02 site to the south-east.

3.3.10 Possibly contemporary with the early boundary ditch was a small ditched enclosure within which lay 23 postholes, a waterhole and a pit. Eight of the postholes appeared to form a small roundhouse, 5m in diameter, probably with a south-east facing entrance. The other postholes probably represented modifications to the structure. A small quantity of Middle Bronze Age pottery was recovered from the pit and the waterhole.

3.3.11 One of the undated cremation burials was situated within the enclosure, and two others lay outside to the south-west. It is as yet unclear whether they were contemporary and associated with the enclosure, but the consistent spatial association of arc-like posthole arrangements with cremation burials is notable.

3.3.12 The north-eastern side of the enclosure may have been constructed at the same time as the structures, or added while they were in use, since it closely traces and respects their position. This boundary was later carefully recut, again suggesting more than one phase of site use. The opposing south-western and south-eastern sides of the enclosure may have been added,

during this time, effectively enclosing the structures on all sides. Both boundary ditches were recut and in the latest phases there may have been up to three entrances on the side nearest the river. The absence of domestic debris within the enclosure seems to suggest that it did not have a domestic function.

3.3.13 The latest ditches effectively incorporated the enclosure into the field system, which became more elaborate at this time, with the addition of at least nine new divisions. All show evidence of recutting into the Late Bronze Age, as did the waterhole in the enclosure.

Late Bronze Age into earlier Iron Age

3.3.14 Evidence from this period is limited but suggests that the main field boundaries retained some significance after they had finally silted up, as four pits/waterholes were cut into their fills. The cutting of pits or waterholes into established boundaries may have signified a reinforcement of territorial claims and the boundaries may, at this stage, have still been defined by above ground features such as hedgerows. In view of an overall lack of features of this date, the repeated positioning of features along the lengths of these ditches can be assumed to be deliberate rather than coincidental.

3.3.15 An interpretation that sees these later features as an extension, albeit modified, of the earlier funerary site activities is supported by the presence of two poorly preserved, partial inhumation burials, one human and one bovine, in two of the pits. These remains may have served a similar function to the cremation burials, a practice of territorial marking, broadened during this period to include interment of animals.

3.3.16 A shallow pit containing a high concentration of burnt flint and charred remains, associated with two stake holes, was situated close to the Iron Age pit group containing the human remains. Although undated, it has been assigned to this phase on spatial evidence but its function is unclear. Another isolated pit of this date lay to the south-east of this group.

Romano-British

3.3.17 A single feature of this date, a NNE-SSW aligned boundary ditch traversing the western half of the site, probably represented part of the Romano-British field system exposed during the Perry Oaks and PSH02 excavations.

Post-medieval

3.3.18 Three features of early post-medieval date were recorded. A ESE-WNW

aligned boundary ditch lay in the northern part of the Site, and two pits in the southern part. These represented a late phase of land division, apparently respecting the Romano-British alignment, and marginal riverside activity, most likely associated with the village of Longford.

4 DISCUSSION

4.1.1 In absence of reliable ceramic dating and prior to a programme of absolute dating, the current phasing reflects relative dating based mainly on stratigraphic relationships. A number of issues will be explored at formal assessment and analysis stage.

4.1.2 More precise dating of the first field boundaries that marked the inception of territorial land divisions and the nature of their relationship with the funerary and enclosure activities are key to the interpretation of the Site. Absolute dates for the cremations, environmental remains within the enclosure and the waterhole post-dating the early field ditch will be sought through radiocarbon dating.

4.1.3 The cremation burials may represent a tradition of land claims derived through ancestry, which in the later prehistoric periods may have persisted through the inhumation of human and animal remains on the alignment of the earlier boundary ditches.

4.1.4 The function and date of the Middle Bronze Age enclosure must be more firmly established, but it seems reasonable to suggest that it may have played a role in funerary ceremonies. The consistent spatial association of arc-like posthole arrangements with cremation deposits is significant.

4.1.5 Within a more firmly established site chronology, the extensive environmental assemblage, derived largely from waterlogged deposits, has the potential to significantly enhance our understanding of the earlier prehistoric landscape and riverine environment. The presence of tufaceous deposits of an apparent late date raises interesting questions with regard to local riverside activity at this time. Due to the reworked nature of the deposits, however, they are not thought to be suitable for radiocarbon dating.

5 REFERENCES

Framework Archaeology, *Longford Flood Alleviation Scheme: London Borough of Hillingdon, Specification and Project Design for Archaeological Monitoring,* Unpublished Client

Report, January 2005, FA reference 95015\260

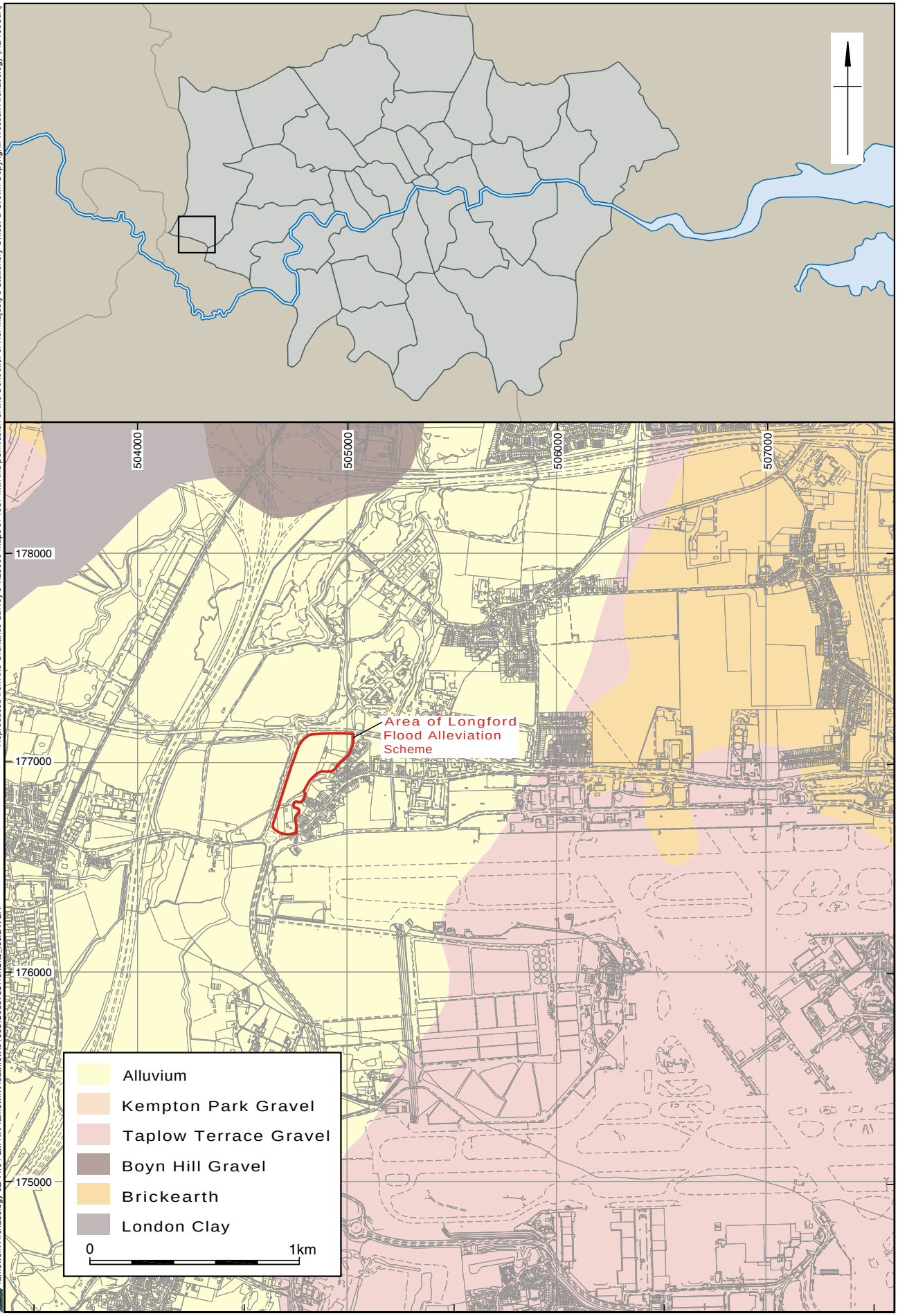
Framework Archaeology, *Strategic Cultural Heritage Audit of Heathrow Airport* Unpublished Client Report, June 2000

APPENDIX 1: FINDS QUANTIFICATION

Material	Count Of Number of Objects
Animal Bone	78
Burnt Flint, Unworked	80
Burnt Stone	3
CBM	8
Fired Clay	3
Flint	42
Human Bone	35
Iron	2
Pottery	22
Stone	5
Wood	23
TOTAL	**301**

APPENDIX 2: QUANTIFICATION OF ENVIRONMENTAL SAMPLES

Sample Collected for	Sample Type	Count Of Sample Type	Processed
Charred Remains	Bulk	45	yes
Cremated Bone	Bulk	19	yes
Cremated Bone	Series	3	no
Insects	Bulk	2	no
Other	Bulk	5	no
Palynology	Kubiena Tin	1	no
Palynology	Monolith	10	no
Palynology	Series	1	no
Soil Micromorphology	Kubiena Tin	1	no
Soil Micromorphology	Monolith	1	no
Species	Bulk	1	no
Species	Wood	4	no
Waterlogged Remains	Bulk	9	yes
Waterlogged Remains	Increment	36	yes
TOTAL		**138**	



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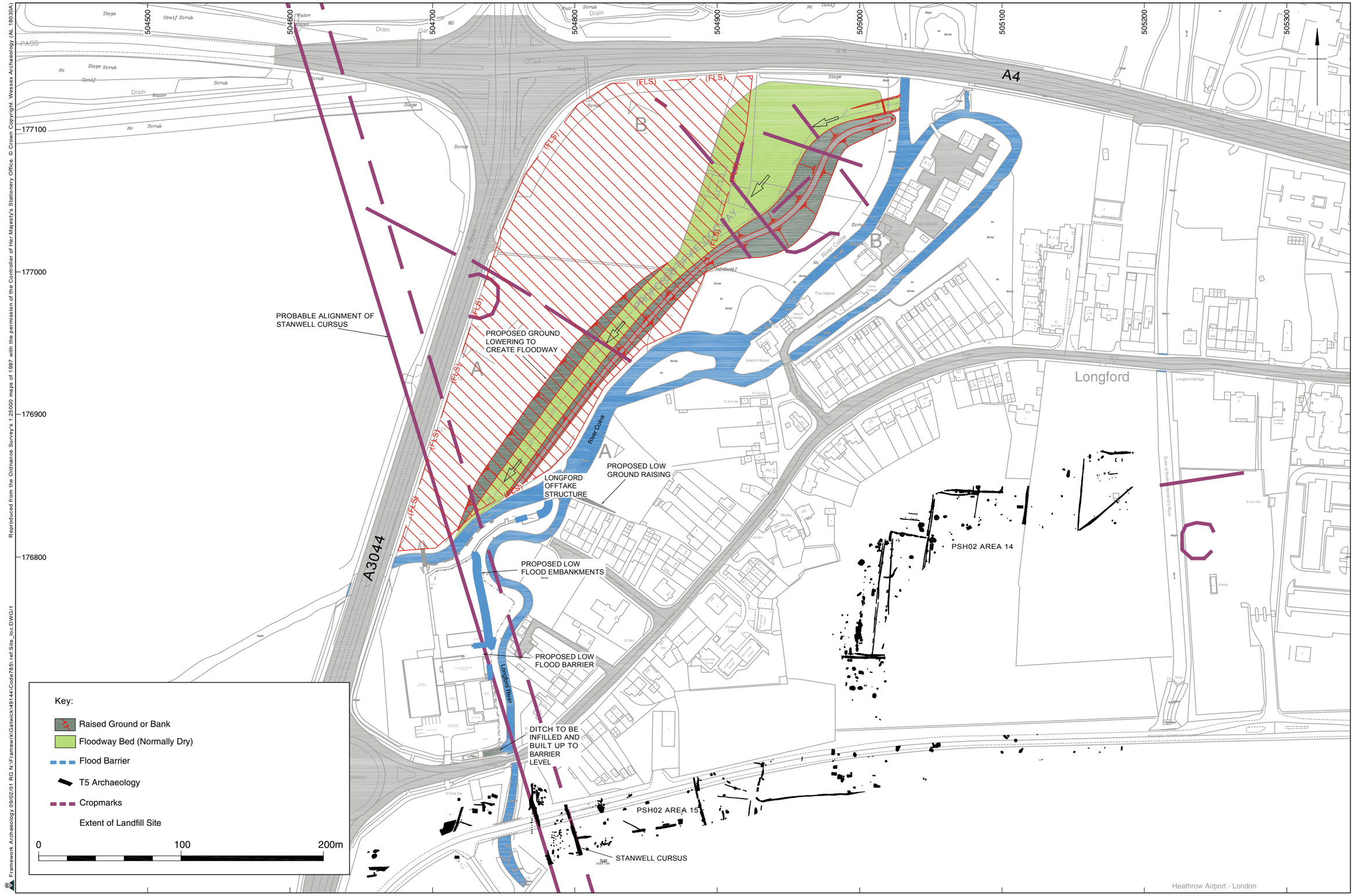
Site location and geology

Figure 1



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Area of Proposed Archaeological Monitoring

Figure 2