

### Archaeological trial trench evaluation on land at Whitworth Way, Wilstead Bedfordshire May 2018

Report No. 18/71 Planning Ref. 15/02712/MAO

Project Manager: Liz Muldowney

Author: Liam JS Powell Illustrator: Joanne Clawley





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Pottery: Paul Blinkhorn BTech

Ceramic building materials: Paul Blinkhorn

Faunal remains: Sander Aerts BA MA

Other artefacts: Liz Muldowney

### **OASIS REPORT FORM**

PROJECT DETAILS	Oasis ID: molanort- 319219
Project title	Archaeological trial trench evaluation on land at Whitworth Way, Wilstead, Bedfordshire, May 2018

MOLA Northampton was commissioned by Bellway Homes Ltd to carry out archaeological trial trenching on a proposed development site at Whitworth Way, Wilstead, Bedfordshire. Six 50m x 1.8m trenches were excavated, four of which contained archaeological features primarily concentrated towards the centre of the site and along the north-east edge of the site. The archaeological results largely conformed to the results of a prior geophysical survey of the site. The archaeological remains at the site can be broadly described as comprising a series of linear boundary ditches and associated gullies, the majority of which can be firmly dated by artefactual evidence as medieval, most likely originating from the 12th century. Trenches 4 and 5 revealed a concentration of medieval agricultural activity close to the centre of the site, including a substantial boundary ditch with possible evidence of re-cutting. Trench 3 also revealed a large boundary ditch of likely medieval origin, corresponding with both geophysical data and cartographic evidence of a pre-modern boundary, respecting the alignment of the existing field boundary to the north-east. The full extent and stratigraphic sequence of this feature is not clear. A single linear gully investigated near the eastern corner of the site in Trench 6 could not be dated or characterised further.

rench 6 could not be	e dated or characterised fur	tner.				
Project type	Trial trench evaluation					
Previous work		Detailed magnetometer survey, MOLA (Walford 2015)				
LIENIOUS WOLK		Desk-based assessment, EDP (Gilmore 2015)				
Future work	Not known					
Manument type	Field boundary – 12th centur	γ				
Monument type and period	Ditches – 12th century					
and period	Possible pits – 12th century					
Significant finds	Pottery, 53 sherds, of which					
	Leaf-shaped flint arrowhead	(unstratified)				
PROJECT LOCATION						
County	Bedfordshire					
Site address	Land south and west of Whit	worth Way, Wilstead				
OS co-ordinates	TL 06729 43327					
Area hectares	6.25ha					
PROJECT CREATORS	S					
Organisation	MOLA (Museum of London A	Archaeology) Northampton				
Project brief	Podford Porough Council His	etorio Environment Team				
originator	Bedford Borough Council Historic Environment Team					
Project Design	MOLA (Museum of London /	Archaeology) Northampton				
originator	MOLA (Museum of London Archaeology) Northampton					
Project Supervisor	Liam JS Powell (MOLA Northampton)					
Director/Managers	Liz Muldowney (MOLA Northampton)					
Sponsor or funding	Bellway Homes Ltd					
body	Deliway Hornes Ltd					
PROJECT DATE						
Start date	8 May 2018					
End date	14 May 2018					
ARCHIVES	Location	Content (eg pottery, animal bone etc)				
		Pottery (53 sherds), worked flint (1 arrowhead)				
Physical	The Higgins Art Gallery &	animal bone, Niedermendig lava quern (3				
	Museum, Castle Lane,	fragments), clay tobacco pipe (1 fragment)				
Paper	Bedford, MK40 3XD	Pro-forma sheets, plans, sections digital				
	BEDFM 2018.19	photograph contact sheets				
Digital		Report, map and site data, digital images				
BIBLIOGRAPHY		ed or forthcoming, or unpublished client report				
Biblio Git/ii iii	(MOLA report)					
Title	Archaeological trial trench evaluation on land at Whitworth Way, Wilstead,					
	Bedfordshire, May 2018					
Report No.	MOLA Northampton report 1					
Author(s)		Liam JS Powell (MOLA Northampton)				
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Date	11 June 2018					

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Fig 15

Early Neolithic flint arrowhead, both faces,  $1 \times 2 \text{cm}$  scale

# Archaeological trial trench evaluation on land at Whitworth Way Wilstead, Bedfordshire May 2018

### **ABSTRACT**

MOLA Northampton was commissioned by Bellway Homes Ltd to carry out archaeological trial trenching on a proposed development site at Whitworth Way, Wilstead, Bedfordshire. Six 50m x 1.8m trenches were excavated, four of which contained archaeological features primarily concentrated towards the centre of the site and along the north-east edge of the site. The archaeological results largely conformed to the results of a prior geophysical survey of the site.

The archaeological remains at the site can be broadly described as comprising a series of linear boundary ditches and associated gullies, the majority of which can be firmly dated by artefactual evidence as medieval, originating from as early as the 12th century. Trenches 4 and 5 have demonstrated a concentration of medieval agricultural activity close to the centre of the site, including a substantial boundary ditch with possible evidence of re-cutting, although no discrete features indicating domestic occupation were present. Trench 3 has also identified a large boundary ditch of likely medieval origin, corresponding with both geophysical data and cartographic evidence of a pre-modern boundary, respecting the alignment of the existing field boundary to the north-east. A single linear gully investigated near the eastern corner of the site in Trench 6 could not be dated or characterised further.

### 1 INTRODUCTION

MOLA was commissioned by Bellway Homes Ltd to undertake a programme of archaeological trial trench evaluation on land at Whitworth Way, Wilstead, Bedfordshire (NGR TL 06729 43327, Fig 1), comprising the supervised mechanical excavation of six  $50 \text{ m} \times 1.8 \text{ m}$  trenches.

Bellway Homes Ltd was granted outline planning consent (Bedford Borough Council (BBC) Planning Ref. 15/02712/MAO) by Inspector appointed by the Secretary of State for Communities and Local Government Paul Jackson on 29 March 2018, subsequent to an appeal (BBC Appeal Ref. APP/K0235/W/16/3147287) against previous refusal, for a residential development comprising up to 70 dwellings, provision of new internal access roads and footpaths, public open space and landscaping, surface water attenuation and associated infrastructure at the site.

Section 12 of the *National Planning Policy Framework* (DCLG 2012) requires that local planning authorities enact positive strategies for the conservation and enjoyment of the historic environment. The *NPPF* states that opportunities to capture evidence from the historic environment, to record and advance the understanding of heritage assets, and to make this publicly available, are a requirement of development management. Archaeological monitoring and mitigation works are therefore required by the *NPPF* to ensure that any archaeological remains within the area of proposed ground works are appropriately located, defined, characterised, and

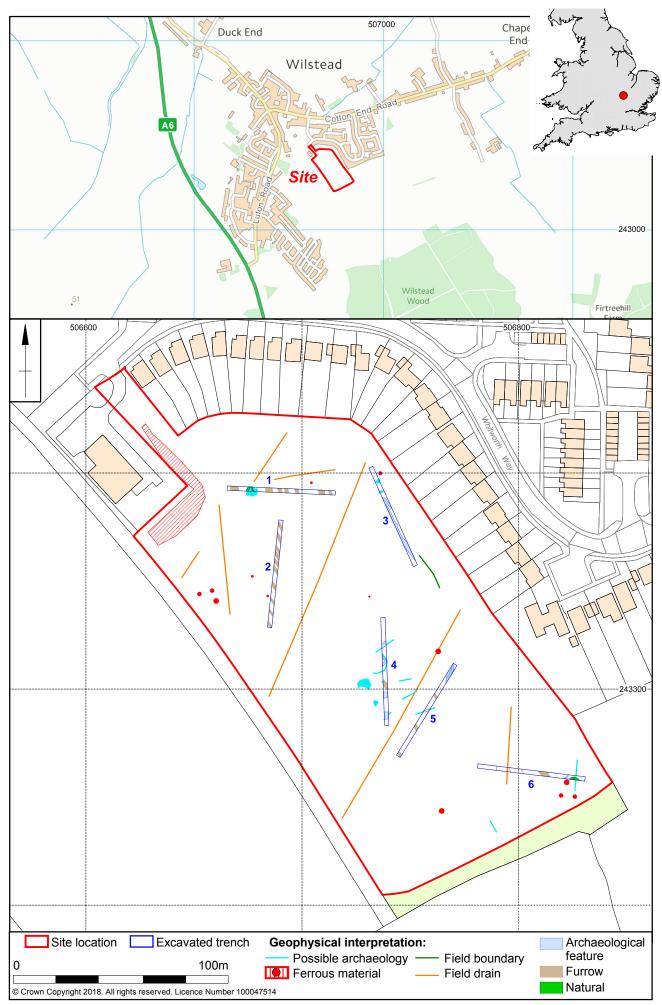
recorded in a manner proportionate to the significance of a heritage asset and to impact of the proposal, particularly where a heritage asset is to be lost.

Condition 20 of Bedford Borough Council (BBC) Planning Ref. 15/02712/MAO for the proposed development states that:

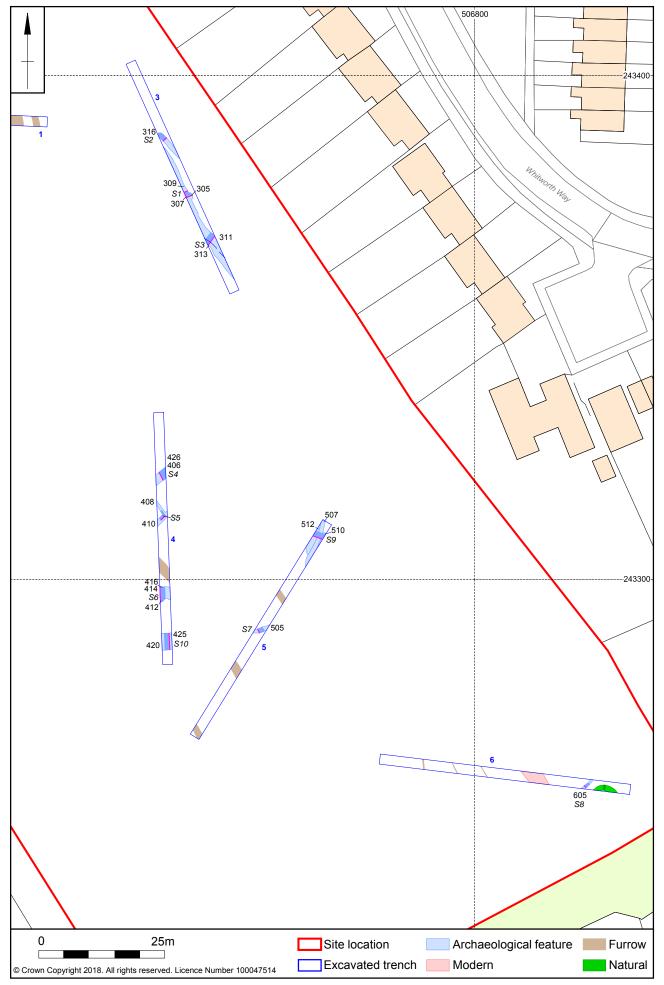
No development shall commence until a programme of archaeological work, in accordance with a Written Scheme of Investigation for evaluation and where necessary excavation, has been submitted to and approved in writing by the Local Planning Authority. The development shall take place in accordance with the approved scheme and programme. The Written Scheme of Investigation shall include an assessment of significance and research questions and shall include:

- A programme and methodology of site investigation and recording.
- A programme for post investigation assessment.
- Provision to be made for analysis of the site investigation and recording.
- Provision to be made for publication and dissemination of the analysis and records of the site investigation.
- Provision to be made for archive deposition of the analysis and records of the site investigation; and
- Nomination of a competent person or persons/organisation to undertake the works set out within the Written Scheme of Investigation.

A Written Scheme of Investigation (WSI) was prepared by MOLA (MOLA 2018) to specify the aims and objectives, methodology, resources, observed standards, and programme of works for an archaeological trial trench evaluation as required by section 12 of the *NPPF*. The archaeological works were undertaken in compliance with a brief issued by Bedford Borough Council Senior Archaeological Officer (Clarke 2018), pursuant to the fulfilment of BBC planning Ref15/02712/MAO, Condition 20.



Scale 1:1750



Scale 1:750 Excavated features Fig 2

### 2 BACKGROUND

### 2.1 Location, geology and topography

The proposed development site comprises a 6.25ha field of arable agricultural land south and west of Whitworth Way, Wilstead, Bedfordshire, MK45 3EF, at the southeast edge of the village, approximately 6.5km south of the centre of Bedford (Fig 1). It is bounded to the north and east by gardens to the rear of domestic properties on Whitworth Way and to the south and west by further arable agricultural land. A large Telephone Exchange installation is situated directly adjoining the north-west corner of the site.

The site is roughly flat, undulating unevenly between 38.3 and 39.6m above Ordnance Datum (aOD).

The geology of the site has been mapped as sedimentary mudstone belonging to Stewartby and Weymouth Members of the Oxford Clay Formation, formed *c*157–166 million years. No superficial geological deposits have been recorded at this location (BGS 2018).

### 2.2 Historical and archaeological background

The following historical and archaeological background is derived from the WSI (Sharrock 2018) and summarised from a desk-based assessment (DBA) produced by The Environmental Dimension Partnership Ltd (EDP) (Gilmore 2015). That document included information abstracted from the Bedfordshire Historic Environment Record (BHER), for a 1km search radius surrounding the proposed area of development (received by EDP 21 July 2015).

### 2.2.1 Designated heritage assets

Historic England's National Heritage List for England (NHLE) is a register of all nationally designated (protected) historic buildings and sites in England, such as scheduled monuments, listed buildings and registered parks and gardens.

No NHLE, National Monument Record (Historic England) or nationally designated sites are recorded as being within the boundary of the proposed development area.

### 2.2.2 Previous archaeological investigations

A geophysical survey, comprising a detailed magnetometer survey, carried out by MOLA in 2015 did not definitively identify any archaeological anomalies (Walford 2015). The results indicated likely variation in the underlying geological clays, although some faintly identifiable anomalies were interpreted as possible, poorly resolved traces of discrete and linear archaeological features.

No other previous archaeological investigations are known to have taken place within the boundary of the proposed development area.

### 2.2.3 Prehistoric (500,000-800 BC)

Bedfordshire Historic Environment Record records two potentially prehistoric, rectangular enclosure ditches (HER MBD7142) located approximately 700m west of the proposed development area, at the western edge of Wilstead Village. Surviving earthworks have likely been significantly impacted by medieval ridge and furrow ploughing (HER MBD662) and the modern A6 road.

A magnetic susceptibility and fluxgate gradiometer survey (EBB568) was conducted in 1991 by Pre-Construct Geophysics Ltd along the route of the Willington to Steppingly gas pipeline, to the south and east of the site. A possible prehistoric enclosure was identified approximately 1.5km east of the proposed development site and a relatively small number of discrete and linear anomalies of unknown date were

recorded along the length of the survey area south passing west along the northern edge of Wilstead Wood (Bunn and Palmer-Brown 2002a, 8–9; 2002b, 5–6).

### 2.2.4 Iron Age to Late Romano-British (800 BC-AD 410)

An Iron Age to Romano-British farmstead (MBD18199 and MBD18200) was identified during a trial trench evaluation (EBD129) undertaken in 1999 and subsequent excavation (EBD719) was undertaken in 2001 in advance of a housing development to the west of Luton Road, approximately 440m west of the proposed development site. Excavations revealed evidence of several phases of agricultural settlement activity, with distinct settlement foci including timber structural remains identified and securely dated as, variously, Early to Middle Iron Age (800–100 BC), Late Iron Age (100 BC–AD 43), Early Roman (AD 43–150), and Middle to Late Roman (AD 150–410). A centrally-positioned 'depression' is recorded as a feature associated with ritualistic sheep sacrifice, although an alternative interpretation of this feature as a site of animal slaughter for purposes of food-production has been suggested (Gilmore 2015).

### 2.2.5 Early medieval/Saxon (AD 410-1066)

Post-Roman settlement activity in Wilstead appears to have been more sporadic and widely dispersed. The trench evaluation (EBD129) and subsequent excavation (EBD719) at Luton Road identified a Saxo-Norman settlement, established away from earlier pre-Roman and Romano-British settlements, and comprising two distinct domestic foci separated by a boundary ditch. It is likely that this represents a shift of the focus of occupation at Wilstead during this period towards a larger dispersed settlement associated with the medieval manor of Wilshamstead (Leslie 2012, 5) recorded in *Domesday* as a relatively large manor of 23 households (Palmer 2018). This shift in focus of occupation and relatively large size of the manor recorded in *Domesday* suggests that the village was already well established prior to the survey, and is likely Anglo-Saxon in origin (Winter 2011, as cited in Leslie 2012, 16).

### 2.2.6 Medieval (AD 1066-1500)

The proposed development site lies outside the historic core of Wilstead village, in open fields. Medieval ridge and furrow earthworks (MBD662) have been recorded at locations around the village, including an area immediately to the south of the site. The core fabric of All Saints Church (NHLE UID 1321582) dates to the 14th century, with later repairs and alterations from the 19th century onwards.

Human and animal bone was noted during a watching brief in 1998 during construction work in the garden of the neighbouring vicarage, along with some sherds of 11th- to 12th-century pottery (MBD16088), potentially suggesting indicating earlier occupation and burial in this area.

### 2.2.7 Post-medieval to modern (AD 1500–present day)

The earliest available cartographic record of the site, an 1809 map of Wilshamstead Parish, indicates that the area of the proposed development site had been enclosed prior to that date, and was crossed by a field boundary running down the north-east side of the site, dividing a narrow strip of land from a larger field to the south-west. The First Edition Ordnance Survey map (OS 1883) shows that this dividing boundary had been removed to create a single larger enclosure, and that two ponds had been dug at the northern end of the field in an area now occupied by mature trees and vegetation (MOLA 2018, 3).

While the village of Wilstead contains non-designated buildings and sites of demolished structures dating from the 17th century (Leslie 2012, 17), no post-medieval heritage assets are recorded within the boundary of the proposed development site, and it is likely that the site itself has remained as agricultural land

throughout the post-medieval and modern periods, comprising a single enclosed field from the 19th century through to the present day.

### 3 AIMS AND METHODOLOGY

With due regard to the ClfA Standard and guidance: archaeological field evaluation (ClfA 2014a), the principle aim of an archaeological trial trench evaluation is to determine the presence or absence of archaeological remains and to record the location, extent, date, character, condition, significance, and quality of any surviving archaeological remains within the proposed development site, and to determine and understand the nature, function and character of an archaeological site in its cultural and environmental setting, using appropriate methods and practices, and in compliance with the Code of conduct and other relevant by-laws of ClfA.

In order to examine the archaeological resource within the proposed development area the objectives of the investigation were;

- To establish and record the date, extent, character, state of preservation and depth of burial of all archaeological deposits at the development site;
- To establish the date, nature and extent of archaeological activity or occupation at the development site;
- To establish the relationship of any archaeological deposits within the wider contemporary landscape;
- To recover any artefacts that may assist in the development of type series within the region;
- To recover palaeo-environmental remains that may assist in determining the local environmental conditions:
- To create a permanent archive and record of the archaeological information collected during the course of the fieldwork and analysis, and;
- To inform any mitigation strategy required to record the archaeological deposits identified.

### 3.1 Research framework

The research objectives for this scheme of investigation were informed by national research frameworks and the regional research agenda established by Oake *et al.* (2007), Glazebrook (1997), Brown and Glazebrook (2000), and Medlycott (2011).

### 3.2 Methodology

The works were carried out in accordance with the approved Written Scheme of Investigation (WSI) (MOLA 2018), as well as with national standards given the Chartered Institute for Archaeologists Code of Conduct (CIfA 2014a), and Standard and guidance for archaeological field evaluation (CIfA 2014b). All works were carried out in accordance with the Historic England procedural document Management of Research Projects in the Historic Environment (MoRPHE) (HE 2015). All site recording procedures were carried out in accordiance with standard MOLA practice, as detailed in MOLA Northampton's in-house manual (MOLA 2014) which is issued to all staff.

MOLA ensured that all constraints on archaeological fieldwork at the proposed site of development were identified and that appropriate measures to avoid damaging or illegal impacts were enacted prior to commencement of any and all works for which

MOLA is legally responsible. MOLA undertakes as standard practise a service search of underground service including phone and internet, electrical, gas, and clean and waste water within the investigation area and immediately surrounding vicinity. Cable Avoidance Tool and Signal Generator (CAT & Genny) equipment was used by an appropriately trained member of MOLA staff to assist in identifying live underground services on site prior to commencement of excavation works. No underground services were identified.

Archaeological mitigation comprised the continuous observation of removal of overburden, followed by the investigation and recording of archaeological feature revealed in six trenches, each measuring 50m length x 1.8m width, providing representative sample coverage of approximately 2% of the total area of the proposed development site.

The layout of trenching works was been designed to target areas of higher archaeological potential within the proposed development area (Fig 2), as identified by the geophysical survey carried out by MOLA (Walford 2015), and to test a representative sample of areas with no identified geophysical anomalies as a control against the results of the geophysical survey.

The trenches were set out prior to commencing excavation using a Leica Viva Survey Grade RTK Global Positioning System (GPS) using SMARTNET real-time corrections, operating to a 3D tolerance of  $\pm$  0.05m to Ordnance Survey National Grid and Datum.

Removal of topsoil and subsoil deposits was undertaken by a mechanical excavator equipped with a toothless grading bucket measuring 1.8m width under the direction and supervision of suitably qualified and experienced MOLA archaeological field staff. Excavation proceeded carefully in spits, terminating at the upper surface of any archaeological deposit or geological horizon, whichever was encountered first. Spoil from excavated deposits was visually scanned for the purposes of artefact retrieval.

Topsoil and subsoil was stored separately on either side of the trench, at least 1m from the trench edges. The soil bunds were compacted with the excavator bucket to seal them against erosion. The trenches were not backfill subsequent to completion of investigation works, in accordance with the requirements of the client.

Excavation did not proceed beyond safe working depths. Excavation of one feature in Trench 4, which measured 1.10m depth below ground level (bgl) was excavated as a stepped slot measuring 0.5m width, set back 0.5m from the edge of the trench to provide a safe working area.

Each trench was cleaned sufficiently to enhance the definition of features. Discrete features were half-sectioned where safe to do so, and slots excavated through linear features were a minimum of 1m in width, except where considerations of safe working conditions precluded this.

All archaeological deposits and artefacts encountered during the course of evaluation were fully recorded following standard MOLA fieldwork procedures (MOLA 2014). All archaeological features were given a separate context number (Appendix 1). Deposits were described on pro-forma context sheets to include details of the context, its relationships, interpretation and a checklist of associated finds.

Archaeological features were plotted on trench plans at a scale of 1:50. Trenches not containing archaeological features were planned at a scale of 1:100. Sections or profiles through features and areas of complex stratigraphy were drawn at a scale of 1:10 or 1:20 as appropriate. All levels are related to Ordnance Datum.

A full photographic record was maintained by high resolution digital photography of 18.1 megapixels. Overall shots of the site were taken prior to excavation. Overall

shots and representative shots of the stratigraphic profile of each trench were taken together with detailed shots of individual features and feature groups as appropriate. All photographs, except general site shots or specific shots for publication include a north arrow and suitable photographic scale.

Finds were collected from individual deposits and appropriately packed and stored in stable conditions, by context. Artefacts were collected by hand and retained, receiving appropriate care prior to removal from site (ClfA 2014c; Walker 1990; Watkinson and Neal 2001). Unstratified animal bones and modern material were not collected.

### 4 RESULTS

The following section provides a summary of the information held in the site archive. Detailed descriptions of individual archaeological contexts can be found in the context tables appended at the end of this document.

### 4.1 General stratigraphy

The soil stratigraphy recorded across all six trenches represented a broadly homogeneous stratigraphic sequence (Fig 3). The field comprising the proposed development area had been ploughed and harrowed by the client prior to commencement of works in order to clear vegetation to facilitate access to the site.

In all trenches, the geological horizon was typically encountered at 0.40–0.60m bgl, and geological material exposed across the trenches was characteristic of Stewartby and Weymouth Members of the Oxford Clay Formation, comprising a firm, mid-yellow-orange clay with some localised variation in consistency and composition. This was overlaid by a firm, mid-yellow-brown clay subsoil, typically measuring around 0.15–0.30m thick. The topsoil comprised a friable, dark brown, silty clay agricultural soil layer, generally measuring around 0.25–0.30m thick

Remnant post-medieval/modern plough furrows were visible across the entirety of the site, containing fill material essentially indistinguishable from the overlying a firm, mid-yellow-brown clay subsoil layer. All furrows were aligned north-west to southeast, in parallel and roughly evenly spaced, and respecting the alignment of the existing field boundary hedgerows. A hand-excavated investigatory sample intervention into one furrow in Trench 1 confirmed the shallow, U-shaped profile characteristic of remnant plough furrows. The edges of furrows were not always clearly visible in plan due to diffusion of material resulting from repeated ploughing and the tendency of the site to flood and remain waterlogged for extended periods. As such, the remnant furrows marked on trench plans (Fig 2) are representative and characteristic, not comprehensive of post-medieval/modern ploughing activity across the site.



South-facing representative section of Trench 5, illustrating typical soil stratigraphy at the site, 1 x 1m scale, looking north Fig 3

### 4.2 Trial trenches

### 4.2.1 Trenches 1 and 2

Trenches 1 and 2, located at the north-western end of the site, contained no archaeological features. An area of possible archaeological potential identified by the geophysical survey (Walford 2015), located approximately 10m from the west end of Trench 1, was found to be a patch of heat-effected geological clay, likely associated with a burned-out tree root system. Two hand-excavated investigatory slots into this burned material demonstrated that no clear edge was present that would indicate an anthropogenic archaeological feature.

A single unstratified Early Neolithic flint arrowhead (see Section 5.1 of this document) was recovered from spoil from subsoil (102) during excavation of Trench 1.

### 4.2.2 Trench 3

Trench 3, located near the north-east edge of the site, positioned on a north-west to south-east alignment, revealed a series of parallel or near-parallel linear ditches on a north-west to south east alignment (slightly off-set to that of the trench), appearing to respect that of the existing north-eastern field boundary hedgerow.

A 1.75m long slot was excavated at the terminal end of a ditch terminus [316] (Figs 4 and 7) measuring 0.84m width x 0.18m depth, slightly to the north-west of the centre of the trench. It contained an upper sedimentary fill (314), from which a single fragment of clay pipe was recovered near the surface, and a thin lower fill (315), at the north-east edge of the feature, possibly representing slight collapse of the edge of the ditch early on in its life-cycle, before the sides stablised. The diffuse lower horizon of the feature may indicate that it is in fact part of a wider feature, the extent of which may be been obscured by remnant post-medieval/modern plough furrows on the same or similar alignment, and the acute oblique angle at which the feature was intercepted by the trench.



Ditch terminus [316], 1 x 1m scale, looking south-east Fig 4

A 1.17m long investigatory slot was excavated at the point of intersection between two possible ditch termini [307] and [309] measuring 0.27m and 0.15m deep respectively, and a shallow pit [305] measuring 0.15m deep (Figs 5 and 7). All contained similar sedimentary fills (306), (308) and (304) respectively, with some diffusion resulting from repeated flooding of the site leaving the ground waterlogged for extended periods. As a result, the relationship between these features was unclear, but deposition patterns of chalk, the inclusions and slight colour variation in the fills suggested that both pit [305] and linear ditch [309] were cut by the deeper linear ditch [307]. No relationship between pit [305] and [309] could be ascertained.

A small assemblage of 12th to 14th-century Medieval Shelly Ware pot and fragmentary horse bone were recovered from the fill (304) in pit [305]. A single sherd of Sandy Ware pot dated to the 12th–13th century was recovered from the fill (308) of ditch terminus [309].



Ditch termini [307] (left) and [309] (right) and pit [305] (bottom), 1 x 1m scale, looking south-west Fig 5

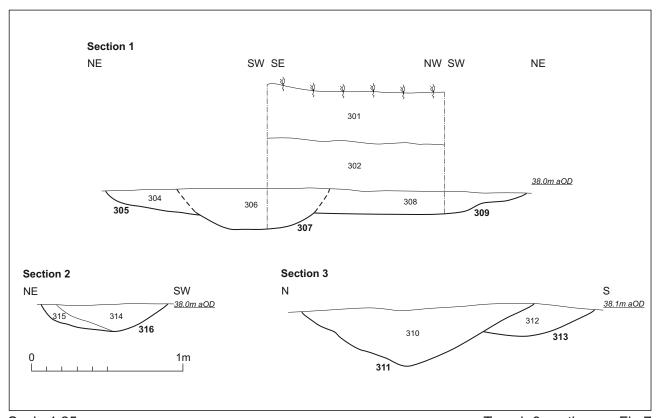
A further 1m long slot was excavated into the linear feature corresponding with ditch [309] towards the south-eastern end of Trench 3. At this point of intervention, two parallel, intercutting ditches were identified (Figs 6 and 7); a wide V-shaped ditch [311], measuring 1.55m wide x 0.41m deep and containing a single firm, mid-grey-brown, silty clay fill (310), truncated the north-eastern side of a shallower gully [313] This ditch measured 0.75m wide x 0.22m deep, and contained a similar firm, mid-grey-brown silty clay fill (312), free of inclusions. No artefacts were recovered from this earlier fill.



Ditches [311] (left) and [313] (right), 1 x 1m scale, looking southeast Fig 6

The linear feature(s) visible in plan, corresponding to ditches [307], [309], [311] and [313] continued south-east along roughly the same straight alignment, beyond the south-east limit of Trench 3. Interpreted as a single sequence of parallel, intercutting/re-cut linear ditches, and projected along a south-east alignment, ditches [307], [309], [311] and [313] (and potentially ditch [316]) appear to correspond with a geophysical anomaly near the north-east edge of the site, interpreted as a field boundary (Walford 2015). This is corroborated by the 1809 Wilstead Parish map identifying a field subdivision at this location and on this alignment which had been removed by the time of the 1883 First Edition Ordnance Survey (MOLA 2018, 3).

The pottery recovered from investigatory slots into this sequence reliably dates the features to the 12th century onwards. It is likely, then that the linear features present in Trench 3 represent a medieval linear field boundary, with evidence of repeated ditch re-cutting. A single fragment of clay tobacco pipe recovered from high up in the fill (308) of the ditch terminus [309] may have been intrusive material resulting from bioturbation, or might indicate post-medieval re-establishment of the medieval boundary in the 18th or early 19th century.



Scale 1:25 Trench 3 sections Fig 7

### 4.2.3 Trench 4

Trench 4, located near the centre of the site, revealed a relatively high density of archaeological features, confirming several geophysical anomalies identified as being of archaeological potential.

At the southern end of Trench 4, a large linear feature was identified, comprising a boundary ditch [425] measuring 3.35m width x 1.10m depth, and a possible later recut [420] of the same ditch measuring 2.50m width x 0.54m depth (Figs 8 and 11), likely representing a significant enclosure ditch. This appears to correspond with a linear anomaly identified by the geophysical survey (Walford 2015), although aligned east to west rather than north-east to south-west. The initial ditch had a wide, U-shaped profile with a slight step at the southern edge. Sedimentary fills (423) and (424) indicate that the ditch was allowed to silt up as a result of erosion and rain wash of the sides of the ditch over an extended period. A thin band of charcoal rich material (422) tipped from the northern edge of the ditch is indicative of domestic refuse disposal, and a 'tip-line' of comparatively sterile, re-deposited material from the northern edge may indicate a slumping or partial collapse event, possibly of a bank earthwork on the northern edge of the ditch. A further, sedimentary fill (421) typically measuring 0.50m thick indicates ongoing erosion of the ditch's partially stabilised sides throughout its use-period.

The steep profile of the upper fills of this feature indicates that the ditch was possibly re-cut [420] later on during its use-period. A further, thin, very dark band of charcoal-rich material (419) tipped from the northern edge indicates ongoing intentional refuse deposition into the ditch throughout its use period, possibly indicating the feature's use as an enclosure related to a domestic or agricultural settlement. A further sedimentary fill (418) yielded a comparatively large assemblage of 12th- to 13th-century pot sherds, with residual sherds of Roman pottery. The upper fill (417) extended south, over what was likely the original profile of the re-cut [420], and was comparatively firmly compacted. This may have been formed as a final tertiary fill after the ditch had fallen into disuse, as the result of remnant bank material from the north side of the ditch being backfilled/ploughed into the remnant ditch as the process of land enclosure progressed and post-medieval/modern ploughing technologies developed.



Ditch [425] and possible re-cut [420], 1 x 2m scale, looking southeast Fig 8

A linear ditch [406] measuring 1.90m width x 0.43m depth was identified towards the northern end of the trench, aligned north-east to south-west, corresponding with an identified geophysical anomaly at this location. A 1m long investigatory slot was excavated, revealing a single sedimentary fill (405) (Figs 9 and 11). This was cut on the north-west side by a parallel recut [426], which also contained a single sedimentary fill (404). An assemblage of two sherds of 11th- to 12th-century T1 (2) type St. Neots Ware and ten sherds of 12th- to 14th-century Coarse Sandy Ware, along with fragmentary animal bone, was recovered from the fill (404), with a greater density of finds near the base of the feature.



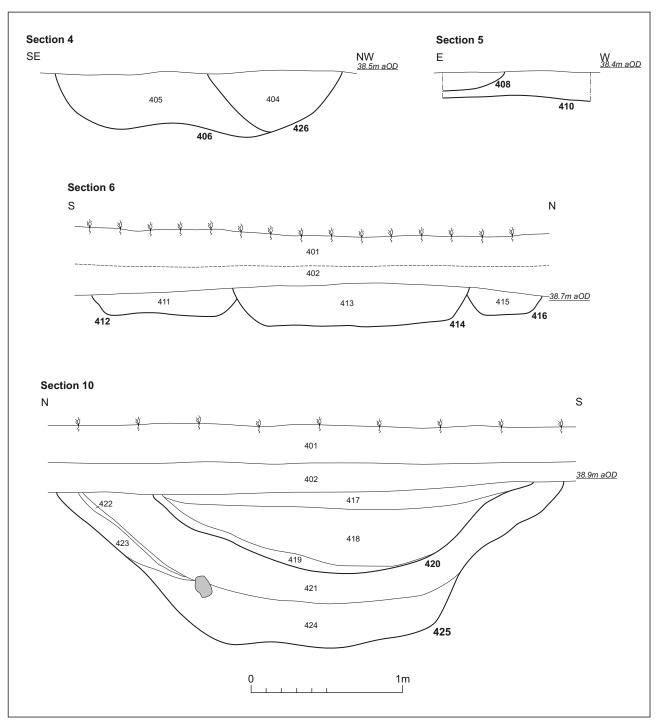
Ditch [406], 1 x 1m scale, looking south-west Fig 9

To the south, near the centre of Trench 4, two small gullies were identified, intersecting at a near-right angle (Figs 10 & 11). A shallow gully [408] measuring 0.72m width x 0.12m depth contained a single sedimentary silty clay fill (407), from which a small assemblage of T1 (2) type St. Neots Ware and 12th- to 13th-century Developed Stamford Ware and Sandy Ware, along with some fragmentary animal bone was recovered. This was cut through the top of a slightly deeper, narrower gully [410], measuring 0.50m width x 0.19m depth, which also contained a single sedimentary fill, from which a single sherd of Coarse Sandy Ware was recovered. A geophysical anomaly at this location had previously been identified as a possible single curvilinear feature, but upon investigation, this appeared clearly to be two intersecting features, with gully [410] continuing north-east beyond the point of intersection and the eastern limit of Trench 4.



Gullies [408] and [410], 1 x 1m scale, looking south-east Fig 10

To the south of the centre of Trench 4, a wide, flat-based shallow ditch [414], measuring 1.57m width x 0.27m depth, and containing a single sedimentary fill (413), from which a small assemblage of Medieval Shelly Ware and Coarse Sandy Ware was recovered, was cut through two shallow depressions identified as possible pits [412] and [416]. Each depression/pit contained a single sedimentary fill (411) and (415) respectively. However, no artefacts were recovered from either depression, and the edges of all three features at this location were diffuse and unclear. The nature of these features can therefore not be definitively characterised.



Scale 1:25 Trench 4 sections Fig 11

### 4.2.4 Trench 5

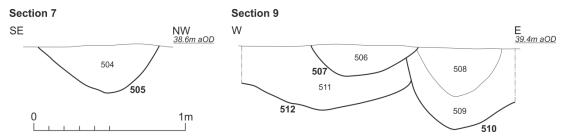
Trench 5 was located slightly to the south-east of Trench 4, near the centre of the site. It revealed a lower density of linear features than in Trench 4.

Near the centre of the trench, corresponding with an identified geophysical anomaly, a V-shaped ditch [505] on a north-east to south-west alignment was identified, measuring 0.80m width x 0.30m depth (Figs 12 and 13). This feature appeared to be on the same alignment as ditch [425]/re-cut [420] in Trench 4, and prior to excavation had appeared to be the same feature. Although, following investigation, these appear to have very different profiles; this ditch may be related to the potential ditch re-cut [420]. It contained a single, dark grey silty clay sedimentary fill (504), which produced a comparatively high density of Medieval Shelly Ware and Sandy Ware pot sherds, and two fragments of Niedermendig lava quern. Querns of this type, used for grinding flour, have been produced from quarries in the west of Germany since the Neolithic and have been found in the British Isles from the Roman occupation onwards (see Section 5.5.1 of this document). However, evidence of their use continues into the medieval period, and given the firm 12th-century date for this feature provided by the pottery, it is likely that the quern originally dated from the Saxon to early medieval period.



Ditch [505], 1 x 0.5m scale, looking south-west Fig 12

At the north-east end of the trench, a series of intercutting/re-cut ditches [507], [510] and [512] on a parallel, north-north-east to south-south-west alignment were identified (Fig 13). These did not correspond with any previously identified geophysical anomalies. As the eastern edge of ditch [510] and the western edge of ditch [512] both extended beyond the limit of Trench 5, it was not possible to excavate a full profile across all three ditches. All three ditches contained clay heavy sedimentary fills, of which two separate phases of sedimentation (508) and (509) were clearly identifiable in ditch [510]. The lower of these two fills, (509), contained mixture of Medieval Shelly War, Coarse Sandy War and Sandy Ware pot sherds, large mammal bone, and a further single fragment of potentially Anglo-Saxon to medieval Niedermendig lava quern. The re-cut profile of these linear features likely indicates intentional re-establishment of a field boundary or enclosure over an extended period.

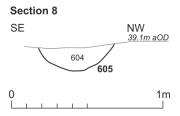


Trench 5, Section 7 and Section 9 Fig 13

### 4.2.5 Trench 6

Trench 6, located in the south-east corner of the site, revealed a north-east to south-west orientated linear gully [605] of unknown date (Fig 14). It measured 0.50m width x 0.15m depth with a U-shaped profile, and contained a single sedimentary silty-clay fill (604), from which no artefacts were recovered.





Gully [605], 1 x 0.4m scale, looking south-west Fig 14

Approximately 15m to the west, near the centre of Trench 6, a large, linear feature measuring approximately 4m width was clearly visible in plan. As this feature was visible in the section of the trench, cutting through subsoil (602), it was determined to be a post-medieval feature at the earliest, and was therefore not investigated further. Given the location and the north-west to south-east orientation of this feature, it is possible that it corresponds with the field boundary identified by the geophysical survey (Walford 2018), and that in the 1809 Wilstead Parish map. A curvilinear variation at the east end of the trench was investigated and determined to be a

naturally-occurring erosive channel occurring at the interface between variations in geology.

### 5 FINDS

### **5.1 Worked flint** by Yvonne Wolfram-Murray

One leaf-shaped arrowhead SF1 was recovered from the subsoil (102). The arrowhead measures  $68mm \log x 26mm$  wide x 5.5mm thick. The raw material is a good quality dark grey-brown vitreous flint, not manufactured of the locally occurring river gravels. The surface of the arrowhead is blue-white patinated. The artefact had been exposed to heat, indicated by thermal cracks, the sheen of the fresh brake and the patination.

The arrowhead is kite-shaped in plan. It was pressure flaked bi-facially, the invasive retouch covering the entire surfaces. The edges were worked over with small, regular semi-abrupt retouch. One end has the very tip missing; the other end has a small, older patinated break. Leaf-shaped arrowheads date to the early Neolithic.



Early Neolithic flint arrowhead, both faces, 1 x 2cm scale Fig 15

### **5.2 Pottery** by Paul Blinkhorn

The pottery assemblage comprised 53 sherds with a total weight of 1240g (Table 1). It comprised almost entirely medieval wares of the 12th – 13th century, other than two residual Romano-British sherds and a single post-medieval example. They were recorded using the conventions of the Bedfordshire County Archaeology Service type-series (eg Baker and Hassall 1977), as follows:

B01A:	T1 (2) type St. Neots Ware	11th-12th C	3 sherds	33g
B07:	Medieval Shelly Ware 12th-1	4th C	11 sherds	261g
C12A:	Developed Stamford Ware	mid 12th-mid 13th C	1 sherd	9g
C59a:	Coarse Sandy Ware	12th-13th C	17 sherds	192g
C59b:	Sandy Ware	12th-13th C	8 sherds	719g
P01:	Glazed Red Earthenware	16th C?	1 sherd	9g
RB:	All Romano-British	1st-early 5th C	2 sherds	17g

All the wares are types which are well-known in the region. The pottery occurrence by number and weight of sherds per context by fabric type is shown in Table 1. Each date should be regarded as a *terminus post quem*.

The assemblage is in very good condition, with many of the sherds large and fresh. It mostly consists of unglazed jars and bowls, with the majority of the latter in Shelly Ware (fabric BO7). Rim sherds from such vessels occurred in contexts (304), (310), and (509). A large fragment of a Sandy Ware bowl (fabric C59b) also occurred in context (509). It is 25% complete, and has a thumbed "piecrust" rim and two incised wavy lines on the outer surface, which is also fairly heavily sooted. The same context also produced a very unusual fragment of what is either a very long, wide, tubular spout or the neck of a flagon. Also worthy of note is a fragment of a Sandy Ware curfew (fire-cover) from context (404). It is fairly heavily scorched on the inner surface. The only other vessel type represented is fragment of C12A, from a glazed jug typical of the tradition.

Table 1: Quantification of pottery by number and weight (g) of sherds per context by fabric type

Contex	ct	304	308	310	404	407	409	413	418	504	509	602	
Cut		305	309	311	426	408	410	414	420	505	510	-	
Туре		pit	ditch	ditch	ditch	ditch/gully	ditch	ditch	ditch	ditch	ditch/gully	ditch	Total
RB	No								2				2
KD	Wt								17				17
D01 A	No				2	1							3
B01A	Wt				28	5							33
D07	No	2		1				1	1	4	2		11
B07	Wt	65		66				3	7	30	90		261
C40A	No					1							1
C12A	Wt					9							9
0500	No				10		1			5	1		17
C59a	Wt				141		4			40	7		192
050h	No		1	1		2		1	4	6	3		18
C59b	Wt		9	2		16		2	50	185	475		739
D04	No											1	1
P01	Wt											9	9
Date (c	entury)	12thC	12thC	12thC	12thC	M12thC	12thC	12thC	12thC	12thC	12thC	16thC	

### **5.3** Ceramic building materials by Paul Blinkhorn

A single fragment of tile weighing 132g occurred in context (418). It is in a grey sandy fabric with reddish-orange surfaces. Its date is uncertain. It does not appear to be medieval and, as residual Roman pottery also occurred in that context, it may be of such a date.

### **5.4** Faunal remains by Sander Aerts

A small assemblage (429 grams) of mammal bones was hand collected over the course of the excavation from six different contexts (Table 2). The bones were manually washed and analysed to assess the species assemblage, preservation and taphonomy.

The bones were identified using Schmid (1972), and unidentifiable bones were attributed to a size category where possible: large mammal (cattle, horse), medium mammal (sheep/goat, pig, large dog) and small mammal (small dog, cat, etc.).

### 5.4.1 Results

A total of four bones could be identified to species (12%) and 19 were assigned to a size category (56%). The animal bone is in a relatively poor state of preservation, as it is highly fragmented and the surfaces are worn. For this reason, it was impossible to identify butchering or gnawing marks.

Bones of large mammals dominate the assemblage. A cattle tooth was found in fill (407) of ditch/gully [408]. Fill (304) of pit [305], fill (404) of ditch [426], and fill (509) of ditch/gully [510] contained a horse tibia, scapula and metacarpus respectively. Only a few fragments of sheep/goat sized long bone fragments were found in fill (308) of ditch [307] and fill (407) of ditch/gully [408], of which the first shows traces of burning.

Table 2: Quantification of faunal remains by number of bones per context by species and total weight (g) of bones per context

Context		304	308	404	407	504	509	
Cut		305	308	426	408	505	510	
Туре		pit	ditch	ditch	ditch/gully	ditch	ditch/gully	Total
Cow	No				1			1
Horse	No	1		1			1	3
Large mammal	No	4		6	1	2	4	17
Medium mammal	No		1		1			2
Unidentified	No	2		9				11
Weight		123	1	76	53	24	152	429

### 5.4.2 Conclusions and recommendations

The animal bone assemblage is not sizeable enough to provide interpretative value, apart from the suggestion that horse and cattle were the most common animals on site. Only common domesticates were found, and a small bone fragment showed signs of burning. It is likely that the assemblage comprises fully of domestic refuse. There are opportunities for zooarchaeological analysis if further works were to take place on the site, as some of the remains were identifiable.

### **5.5** Other artefacts by Liz Muldowney

Three fragments of Niedermendig lava quern and a clay tobacco-pipe (CTP) stem were recovered from linear ditch and/or gully features in Trenches 3 and 5 (Table 3).

Table 3: Quantification of lava quern and clay tobacco pipe by number and weight (g) of artefacts per context by fabric type

Context		314	504	509	
Cut		316	505	510	
Туре		ditch terminus	ditch	ditch/gully	Total
Niedermendig lava	No	-	2	1	3
quern	Wt	-	135	195	330
Clay tobacco pino	No	1	-	-	1
Clay tobacco pipe	Wt	<1	-	-	<1
Date (century)		18th– 19thC	?Anglo-Saxon or medieval	?Anglo-Saxon or medieval	-

### 5.5.1 Niedermendig lava quern

Small fragments of lava quern were recovered from fills (504) in ditch [505] and (509) in ditch/gully [509] in Trench 5. One had the remains of a smoothed grinding surface, but all three were small. It was not possible to determine the original form of the quern or querns. The lava quern stone is generally derived from quarries in Germany and is found in Britain from the Roman period onwards, but is most likely to date from the Anglo-Saxon to medieval period.

### 5.5.2 Clay tobacco-pipe

A small fragment of 7mm diameter clay tobacco-pipe (CTP) stem, weighing less than 1 gram, was recovered from fill (314) in ditch [316]. The bore measured 2mm in diameter and was positioned off-centre. CTP can date from the 17th century onwards, but the narrowness of the stem bore probably indicates an 18th- or 19th-century date for this example.

### 6 DISCUSSION

### 6.1 Summary

The archaeological trial trench evaluation conducted by MOLA on land at Whitworth Way, Wilstead, Bedfordshire, comprised the excavation of six trenches each measuring 50m x 1.8m, identifying a series of linear archaeological features, primarily concentrated towards the centre of the site around Trenches 4 and 5 and along the north-east edge of the site. The geophysical survey (Walford 2015) carried out by MOLA prior to excavation works at the site, although inconclusive in its results and interpretation, has been demonstrated to be reasonably accurate, with archaeological features corresponding to geophysical anomalies and features in Trenches 3, 4 and 5. Upon investigation, a geophysical anomaly in Trench 1 was determined as having been caused by a naturally-occurring burning process, while in areas where no geophysical anomalies were identified there was generally no archaeology present, excepting a series of intercutting/re-cut linear features at the north-eastern end of Trench 5.

The archaeological remains at the site can be broadly described as comprising a series of linear boundary ditches and associated gullies, the majority of which can be firmly dated by artefactual evidence as medieval, originating from as early as the 12th century. Trenches 4 and 5 have demonstrated a concentration of medieval agricultural activity close to the centre of the site, including a substantial boundary ditch [425] with possible evidence of a recut [420], although no discrete features indicating domestic occupation were present. Trench 3 has also identified a large boundary ditch of likely medieval origin, corresponding with both geophysical data

and cartographic evidence of a pre-modern boundary, respecting the alignment of the existing field boundary to the north-east. The full extent and stratigraphic sequence of this feature is not clear. A single linear gully investigated near the eastern corner of the site in Trench 6 could not be dated or characterised further.

### 6.2 Objectives and research agendas

Pursuant to the research objectives specified in Section 3 of this document, informed by national research frameworks and the regional research agenda established by Oake *et al* (2007), Glazebrook (1997), Brown and Glazebrook (2000) and Medlycott (2011), this trial trench evaluation has identified archaeological evidence of medieval settlement and agricultural activity at the site. Given the location of the site outside the historic core of the village (see Section 2.2.6 of this document) it is likely to represent discrete agricultural activity peripheral to the main settlement.

No strong evidence was found of earlier medieval or pre-medieval occupation or activity at the site, although the potential for it cannot be precluded on the basis of this trial trench evaluation. An unstratified Early Neolithic leaf-shaped flint arrowhead SF1 may be residual evidence of prehistoric activity at the site, and the quality of the material from which it is made indicates importation from another location, although no firm conclusions can be drawn from this incidental material. Similarly, while Niedermendig lava querns have been identified in the British Isles as dating from the Roman occupation, and have been produced from quarries in Germany as early as the Neolithic, the fragments of stones of this type found in linear features in Trench 5 are likely of Saxon or early-medieval origin given the date of pot sherds found in the same contexts.

Due to the scope of an archaeological trial trench evaluation, the full extent and character of the linear features at the site could not be established. It is reasonable to assume that the archaeological remains would extend for an unknown distance beyond the limit of the trial trench excavation in all directions. The currently proposed development scheme (Planning Ref. 15/02712/MAO) would therefore impact on *in situ* archaeological remains, including medieval features, most notably in the central area around Trenches 4 and 5, and the north-east edge of the site.

### 7 BIBLIOGRAPHY

Baker, E and Hassall, E, 1979 The Pottery, in D Baker, E Baker, J Hassall and A Simco, 1979 Excavations in Bedford 1967-1977, *Bedfordshire Archaeological Journal* **13**, 147-239

BGS 2018 The British Geological Survey GeoViewer. British Geological Survey <a href="http://www.bgs.ac.uk/geoindex/home.html">http://www.bgs.ac.uk/geoindex/home.html</a> [accessed 22 May 2018]

Brown, N, and Glazebrook, J (eds) 2000 Research and Archaeology: A Framework for the Eastern Counties 2: Research Agenda and Strategy, East Anglian Archaeology, Occasional Papers, 8

Bunn, D, and Palmer-Brown, C 2002a Willington to Steppingly gas pipeline, Bedfordshire: magnetic susceptibility and fluxgate gradiometer surveys, Pre-Construct Geophysics report, 1, available at <a href="http://archaeologydataservice.ac.uk/library/browse/issue.xhtml?recordId=1119522">http://archaeologydataservice.ac.uk/library/browse/issue.xhtml?recordId=1119522</a> &recordType=GreyLitSeries [accessed 22 May 2018]

Bunn, D, and Palmer-Brown, C 2002b Willington to Steppingly gas pipeline, Bedfordshire: magnetic susceptibility and fluxgate gradiometer surveys, Pre-Construct Geophysics report, 2, available at <a href="http://archaeologydataservice.ac.uk/library/browse/issue.xhtml?recordId=1119522">http://archaeologydataservice.ac.uk/library/browse/issue.xhtml?recordId=1119522</a> &recordType=GreyLitSeries [accessed 22 May 2018]

CIfA 2014a Code of Conduct. Chartered Institute for Archaeologists

ClfA 2014b Standard and guidance for archaeological field evaluation. Chartered Institute for Archaeologists

ClfA 2014c Standard and Guidance for the Collection, Documentation, Conservation and Research of Archaeological Materials. Chartered Institute for Archaeologists

Clarke, L, 2018 Brief for a programme of archaeological field evaluation at land to the south and west of Whitworth Way, Wilstead, Bedfordshire, Bedford Borough Council

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

Gilmore, R, 2015 Land to the south and west of Whitworth Way, Wilstead: Archaeological and Heritage Assessment, The Environmental Dimension Partnership report

Glazebrook, J (ed) 1997 Research and Archaeology: a Framework for the Eastern Counties 1: Resource Assessment, East Anglian Archaeology, Occasional Papers, 3

HE 2015 Management of Research Projects in the Historic Environment (MoRPHE), Historic England

Leslie, I, 2012 Land at 32-34 Bedford Road, Wilstead, Bedfordshire: Archaeological Trial Trench Evaluation, Albion Archaeology report

Medlycott, M, 2011 Research and Archaeology Revisited: a revised framework for the East of England, East Anglian Archaeology, Occasional Papers, **24** 

MOLA 2014 Archaeological Fieldwork Manual, MOLA (Museum of London Archaeology) Northampton

MOLA 2018 Written scheme of investigation of archaeological trial trenching at Whitworth Way, Wilstead, Bedfordshire, MOLA (Museum of London Archaeology) Northampton

Oake, M, Luke, M, Dawson, M, Edgeworth, M and Murphy, P, 2007 Bedfordshire Archaeology. Research and Archaeology: Resource assessment, Research Agenda and Strategy, Bedfordshire Archaeology Monograph, **9** 

Palmer, JJN, 2018, *Dunton [Bassett]: Open Domesday,* available online at <a href="http://opendomesday.org/place/TL0643/wilshamstead/">http://opendomesday.org/place/TL0643/wilshamstead/</a>, [accessed 22 May 2018]

Schmid, E, 1972 Atlas of animal bone, Elsevier

Walford, J, 2015 Archaeological geophysical survey of land to the south and west of Whitworth Way, Wilstead, Bedfordshire, MOLA (Museum of London Archaeology) Northampton report, **15/154** 

Walker, K, 1990 Guidelines for the preparation of excavation archives for long-term storage, United Kingdom Institute for Conservation

Winter, M, 2011, 1 Luton Road, Wilstead, Bedfordshire - Archaeological Evaluation, The Heritage Network Ltd report

Watkinson, D, and Neal, V, 2001 First Aid for Finds. United Kingdom Institute for Conservation

MOLA Northampton June 2018

### **APPENDIX 1: CONTEXT INVENTORY**

Trench 1 OS NGR: 7			ΓL 06689 43391 Heig		
Length: 5 m Width: 1.8m		Width: 1.8m	Depth: 0.47–0.52m Align	ment: W-E	
Context	Турє	)	Description	Dimensions	Artefacts/ Samples
101		er – topsoil	Friable dark brown silty clay.  Occasional ~3% poorly sorted small to medium <0.10m angula (fragmentary) patinated flin gravels and cobbles. Occasiona ~1% poorly sorted small to medium <0.08m rounded pebbles.	r t t d	-
102	Laye	r – subsoil	Firm mid yellow-brown clay.  Occasional ~3% poorly sorter small to medium <0.10m angula (fragmentary) patinated flin gravels and cobbles. Occasiona ~1% poorly sorted small to medium <0.08m rounded pebbles.	r t il o	SF1 flint arrowhead
103	Natu	ral – geology	Firm mid yellow-orange clay.  Occasional ~1% poorly sorted small to medium <0.08n rounded pebbles. Very occasional <1% degraded chall flecking.  Scarred by post medieval/modern plough furrows, NW–SE.	n y K	-

Trench	2	OS NGR: 1	ΓL 06687 43353 He	ight aOD: 39.1m	
Length: 5	0m	Width: 1.8m	Depth: 0.40-0.45m Alig	gnment: N-S	
Context	Туре	)	Description	Dimensions	Artefacts/ Samples
201	Laye	er – topsoil	Friable dark brown silty clay.  Occasional ~3% poorly sort small to medium <0.10m angu (fragmentary) patinated fi gravels and cobbles. Occasion ~1% poorly sorted small medium <0.08m round pebbles.	llar lint nal to	-
202	Laye	er – subsoil	Firm mid yellow-brown clay.  Occasional ~3% poorly sort small to medium <0.10m angu (fragmentary) patinated fl gravels and cobbles. Occasior ~1% poorly sorted small medium <0.08m round pebbles.	llar lint nal to	

203	Natural – geology	Firm mid yellow-orange clay.	-	-
		Occasional ~1% poorly sorted small to medium <0.08m rounded pebbles. Very occasional <1% degraded chalk flecking. Very occasional <1% loose midorange gravelly sandy loam patches ~20% poorly sorted small to medium <0.10m angular (fragmentary) patinated flint gravels and cobbles.		
		Scarred by post- medieval/modern plough furrows, NW–SE.		

Trench	3	OS NGR: 1	ΓL 06741 43382	Heigh	t aOD: 38.7m	
Length: 5	0m	Width: 1.8m	Depth: 0.55-0.60m		ent: NW-SE	
Context	Туре	)	Description		Dimensions	Artefacts/ Samples
201	, and the second	r – topsoil	pebbles.	sorted angular d flint casional mall to rounded	50m length 1.8m width <0.30m thickness	-
202	Laye	r – subsoil	Occasional ~3% poorly small to medium <0.10m (fragmentary) patinate gravels and cobbles. Occ ~1% poorly sorted simedium <0.08m in pebbles.	sorted angular d flint casional	50m length 1.8m width <0.35m thickness	-
203		ral – geology	rounded pebbles. occasional <1% degrade flecking. Very occasional <1% loc orange gravelly sandy patches ~20% poorly small to medium <0.10m (fragmentary) patinate gravels and cobbles.  Scarred by medieval/modern furrows, NW–SE.	sorted <0.08m Very ed chalk ose mid- / loam sorted angular	-	-
304	305	osit – fill of pit	Firm mid-brown clay.  Very occasional <1% dechalk flecking.	egraded	0.75+m length 1.15m width 0.15m thickness	Pottery Animal bone

205	Cut wit	Cub siroular/ougl nit	1 15 10	
305	Cut – pit	Sub-circular/oval pit.	1.45m length 1.15m width	-
		Gently-sloping concave sides.	0.15m depth	
		Gradual break of slope to	·	
000	5 " "	slightly concave base.	0.44: 1	
306	Deposit – fill of ditch 307	Firm mid-brown clay.	0.41+m length 0.60+m width	-
	ditori 507	Very occasional <1% charcoal	0.27m thickness	
	Sedimentary fill	flecking. Very occasional <1%		
		degraded chalk flecking. Very occasional <1% small <0.02m		
		rounded pebbles.		
307	Cut – ditch	Linear NW–SE ditch.	>20m length	-
	(terminus?)	<b></b>	>0.60m width	
		Moderately-sloping concave sides. Moderate break of slope	0.27m depth	
		to slightly concave base. Flat		
		along axis.		
308	Deposit – fill of	Firm mid-grey-brown clay.	0.86+m length	Pottery
	ditch 307	Very occasional <1% charcoal	0.55+m width 0.15m thickness	Animal bone
	Sedimentary fill	flecking. Very occasional <1%	O. TOTH UNIONIESS	
		degraded chalk flecking. Very		
		occasional <1% small <0.02m		
309	Cut – ditch	rounded pebbles.  Linear NW–SE ditch.	>10m length	-
	(terminus?)		>0.55m width	
		Gently-sloping slightly concave	0.15m depth	
		sides. Gradual break of slope to slightly concave base. Flat along		
		axis.		
310	Deposit - fill of	Firm mid-grey-brown silty clay.	1.00+m length	Pottery
	ditch 311	Very occasional <1% poorly	1.55m width 0.36m thickness	
	Sedimentary fill	sorted small <0.02m angular	0.50111 trilcki1e55	
		(fragmentary) patinated flint		
		gravels. Very occasional <1%		
		small <0.02m rounded pebbles. Very occasional <1% degraded		
		chalk flecking.		
311	Cut – ditch	Linear NW–SE ditch.	>20m length	-
		Gently-sloping slightly concave	1.55m width 0.41m depth	
		sides. Moderately sharp break of	J. T. M. GOPUT	
		slope to V-shaped base. Flat		
312	Deposit – fill of	along axis, slightly uneven.  Firm mid-grey-brown silty clay.	1.00+m length	_
J 12	ditch 313	Timi mid-grey-brown siny cidy.	0.75m width	_
			0.18m thickness	
212	Sedimentary fill	Lincor NIM SE ditable with	>2m longth	
313	Cut – ditch/gully	Linear NW–SE ditch/gully.	>3m length 0.75m width	
		Gently-sloping slightly concave	0.22m depth	
		sides. Gradual break of slope to		
		slightly concave base. Flat along axis.		
314	Deposit - fill of	Firm dark brown-grey silty clay.	1.75+m length	Clay pipe
	ditch 313		0.74m width	• • • • • • • • • • • • • • • • • • •
	Sedimentary fill	Occasional ~2% small <0.02m rounded pebbles Very	0.18m thickness	
	Sedimentary fill	rounded pebbles Very occasional <1% charcoal		
		flecking.		
	1		<u> </u>	l

315	Deposit – fill of ditch 313	Firm mid-grey-brown clay.	1.75+m length 0.46m width	-
	Primary/sediment	Very occasional <1% charcoal flecking.	0.11m thickness	
	ary fill	necking.		
316	Cut – ditch/gully (terminus)	Linear NW-SE ditch.	>5m length 0.84m width	-
		Gently-sloping slightly concave sides. Gradual break of slope to	0.18m depth	
		slightly concave base. Flat along axis.		

Trench	4 OS NGR:	TL 06738 43309 Heigh	t aOD: 39.6m	
Length: 5	0m Width: 1.8m	Depth: 0.38-0.40m Alignm	nent: N-S	
Context	Туре	Description	Dimensions	Artefacts/ Samples
401	Layer – topsoil	Friable dark brown silty clay.  Occasional ~3% poorly sorted small to medium <0.10m angular (fragmentary) patinated flint gravels and cobbles. Occasional ~1% poorly sorted small to medium <0.08m rounded pebbles.	50m length 1.8 m width <0.16m thickness	-
402	Layer – subsoil	Firm mid yellow-brown clay.  Occasional ~3% poorly sorted small to medium <0.10m angular (fragmentary) patinated flint gravels and cobbles. Occasional ~1% poorly sorted small to medium <0.08m rounded pebbles.	50m length 1.8m width <0.20m thickness	Pottery
403	Natural – geology	Firm mid yellow-orange clay.  Occasional ~1% poorly sorted small to medium <0.08m rounded pebbles. Very occasional <1% degraded chalk flecking.  Very occasional <1% loose midorange gravelly sandy loam patches ~20% poorly sorted small to medium <0.10m angular (fragmentary) patinated flint gravels and cobbles.  Scarred by postmedieval/modern plough furrows, NW—SE.	-	-
404	Deposit – fill of ditch 406 Sedimentary fill		1.00+m length 0.90m width 0.40m thickness	Pottery Animal bone

405	Deposit – fill of ditch 406	Firm mid-brown-grey silty clay with mid-orange mottling.	1.00+m length 1.42m width 0.36m thickness	-
	Sedimentary fill	Occasional ~3% poorly sorted small <0.03m angular (fragmentary) patinated flint gravels. Occasional ~1% midorange sandy patches.	0.50m thickness	
406	Cut – ditch	Linear NE–SW ditch.  Steep slightly concave sides. Moderate break of slope to irregular concave base. Flat along axis, uneven.	>2.5m length 1.42m width 0.43m depth	-
407	Deposit – fill of ditch/gully 408  Sedimentary fill	Firm mid-grey-brown silty clay.  Occasional ~3% poorly sorted small <0.03m angular (fragmentary) patinated flint gravels. Occasional ~1% poorly sorted small to medium <0.06m rounded pebbles. Occasional ~1% charcoal flecking.	1.25+m length 0.41m width 0.12m thickness	Pottery Animal bone
408	Cut – ditch/gully	Linear NW-SE ditch/gully.  Moderately-sloping slightly concave sides. Moderate break to slightly concave base. Flat along axis.	>2m length 0.72m width 0.12m depth	-
409	Deposit – fill of ditch 410  Sedimentary fill	Firm mid-grey-brown silty clay.  Occasional ~1% poorly sorted small <0.03m angular (fragmentary) patinated flint gravels. Occasional ~1% poorly sorted small to medium <0.06m rounded pebbles. Very occasional <1% charcoal flecking.	0.93+m length 0.50m width 0.19m thickness	Pottery
410	Cut – ditch	Linear NE-SW ditch.  Moderately-sloping slightly concave sides. Moderate break to slightly concave base. Flat along axis.	>2m length 0.95m width 0.19m depth	-
411	Deposit – fill of pit 411 Intentional backfill?	Firm mid-grey-brown silty clay.  Occasional ~1% poorly sorted small to medium <0.06m rounded pebbles. Very occasional <1% charcoal flecking.	0.60+m length 0.97m width 0.17m thickness	-
412	Cut – pit	Circular/sub-circular/oval pit.  Gently-sloping concave sides. Gradual break of slope to uneven base.	>0.60m length 0.97m width 0.17m depth	-
413	Deposit – fill of ditch 410  Sedimentary fill	Firm mid-grey-brown silty clay.  Occasional ~3% charcoal flecking. Occasional ~1% poorly sorted small to medium <0.06m rounded pebbles.	1.00+m length 1.57m width 0.29m thickness	Pottery

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414	Cut – ditch	Linear E-W ditch.  Gently-sloping slightly concave sides. Gradual break of slope to	>1.80m length 1.57m width 0.27m depth	-
		wide, flat base. Flat along length.		
415	Deposit – fill of pit 416	Firm mid-brown-grey silty clay.  Occasional ~1% poorly sorted	0.61+m length 0.50m width 0.18m thickness	-
	Intentional backfill?	small to medium <0.04m rounded pebbles. Very occasional <1% charcoal flecking.	o. Tom unouress	
416	Cut – pit	Sub-circular/oval pit.	>0.61m length	-
		Gently-sloping concave sides. Gradual break of slope to slightly concave base.	0.50m width 0.18m depth	
417	Deposit – fill of ditch recut(?) 420	Firm mid-grey-brown silty clay.  Moderate ~10% small <0.05m	1.00+m length 2.40m width 0.10m thickness	-
	Tertiary fill	angular stone and flint gravels.		
418	Deposit – fill of ditch recut(?) 420	Firm mid-grey silty clay with dark grey and mid-yellow grey silty clay mottling.	1.00+m length 2.15m width 0.40m thickness	Pottery Animal bone CBM?
	Sedimentary fill			
		Occasional ~2% charcoal flecking. Occasional ~1% poorly		
		sorted small to medium <0.06m rounded pebbles.		
419	Deposit – fill of	Firm very dark grey silty clay.	1.00+m length	-
	ditch recut(?) 420  Refuse deposit	Frequent >20% charcoal flecking.	1.60m width 0.08m thickness	
420	Cut – ditch	Linear E–W ditch.	>1.80m length	-
	Recut?	Gently-sloping concave sides, eroded top at S edge. Gradual break of slope to slightly concave base. Flat along axis.	2.50m width 0.54m depth	
421	Deposit – fill of ditch 425		1.00+m length 3.20m width	-
	Sedimentary fill	Occasional ~1% poorly sorted small to large <0.25m rounded pebbles and cobbles. Very occasional <1% charcoal	0.70m thickness	
422	Deposit – fill of	flecking.  Firm very dark grey silty clay.	1.00+m length	_
	ditch 425	Frequent >20% charcoal	0.80m width 0.04m thickness	
423	Refuse deposit  Deposit – fill of	flecking.  Firm light-brown-grey sandy clay	1.00+m length	_
720	ditch 425	loam	1.00m width 0.18m thickness	-
424	Sedimentary fill	Firm mid arou brown aller alere	0.50+m longth	_
424	Deposit – fill of ditch 425	Firm mid-grey-brown silty clay with mid-grey and mid-brown silty clay mottling.	0.50+m length 12.10m width 0.50m thickness	-
	Sedimentary fill			
		Occasional ~1% poorly sorted small to large <0.25m rounded pebbles and cobbles. Very occasional <1% charcoal		
		flecking.		

425	Cut – ditch	Linear E–W ditch.	>1.80m length 3.35m width	-
	Enclosure	Moderately-sloping sides, near- straight at N edge, slightly stepped at S edge. Moderate break of slope to near-flat base. Flat along axis.	1.10m depth	
426	Cut – ditch	Linear NE–SW ditch.	>2.5m length 1.90m width	-
	Recut of ditch 406	Steep concave sides. Moderate break of slope to concave base. Flat along axis, uneven.	0.40m depth	

Trench	5	OS NGR: TL 06757 43289 Height aOD: 39.7m				
Length: 50m		Width: 1.8m Depth: 0.54-0.58m Alignme		ent: NE-SW		
Context	Турє	<b>)</b>	Description		Dimensions	Artefacts/ Samples
501	Laye	r – topsoil	pebbles.	sorted angular d flint casional mall to ounded	50m length 1.8m width <0.32m thickness	-
502	Laye	r – subsoil	Firm mid yellow-brown cl Occasional ~3% poorly small to medium <0.10m (fragmentary) patinate gravels and cobbles. Occ ~1% poorly sorted si medium <0.08m r pebbles.	sorted angular d flint casional	50m length 1.8m width <0.29m thickness	-
503	Natu	ral – geology	Firm mid yellow-orange of Occasional ~1% poorly	sorted <0.08m Very	-	-
504	ditch	osit – fill of 505 mentary fill	Firm dark grey silty cl mid-orange silty clay mot Moderate ~5% small charcoal fragments and f Occasional ~3% small angular (fragmentary) gravels.	<0.01m lecking.	1.00+m length 0.80m width 0.31m thickness	Pottery Animal bone Lava quern
505	Cut -	- ditch	Linear NE-SW ditch.  Moderately-sloping concave sides. Moderate of slope to rounded V-base. Flat along axis.		>3m length 0.80m width 0.30m depth	-

506	Deposit – fill of ditch/gully 507	Firm mid-grey clay.  Occasional ~1% small <0.03m	1.00+m length 0.71m width 0.21m thickness	Pottery
	Sedimentary fill	rounded pebbles. Very occasional <1% charcoal flecking.	C.Z IIII allowiedd	
507	Cut – ditch/gully	Linear N–S ditch/gully.  Moderately-sloping concave sides. Gradual break of slope to concave base. Flat along axis.	>2.00m length 0.71m width 0.21m depth	-
508	Deposit – fill of ditch/gully 510  Sedimentary fill	Firm mid-grey clay.  Occasional ~1% small <0.03m rounded pebbles. Very occasional <1% charcoal flecking.	1.00+m length 0.56m width 0.32m thickness	-
509	Deposit – fill of ditch/gully 510  Sedimentary fill	Firm light orange-grey clay.  Occasional ~1% small <0.03m rounded pebbles. Very occasional <1% charcoal flecking. Very occasional <1% degraded chalk flecking.	1.00+m length 0.72+m width 0.53m thickness	Pottery Animal bone Lava quern
510	Cut – ditch	Linear N–S ditch.  U-shaped. Steep concave sides.  Moderate break of slope to concave base. Flat along axis.	>7.5m >0.72m width 0.53m thickness	-
511	Deposit – fill of ditch/gully 512 Sedimentary fill	Firm mid-yellow-grey clay.  Occasional ~1% small <0.06m rounded pebbles. Very occasional <1% charcoal flecking. Very occasional <1% degraded chalk flecking.	1.00+m length 1.12+m width 0.43m thickness	-
512	Cut – ditch	Linear N-S ditch.  Shape of sides unknown.  Gradual break of slope to concave base. Flat along axis.	>6.0m >1.12m width 0.43m thickness	-

Trench	Trench 6 OS NGR: TL 06806 43261 Height aOD: 39.8m						
Length: 5	Length: 50m Width: 1.8m		Depth: 0.50-0.60m Alignm		ent: W-E		
Context	Туре	)	Description		Dimensions	Artefacts/ Samples	
601	Laye	r – topsoil	Friable dark brown silty of Occasional ~3% poorly small to medium <0.10m (fragmentary) patinated gravels and cobbles. Occ ~1% poorly sorted sr medium <0.08m r pebbles.	sorted angular d flint casional mall to	50m length 1.8m width <0.30 m thickness	-	
602	Laye	r – subsoil	Firm mid yellow-brown classics of the control of th	sorted angular d flint casional mall to	50m length 1.8m width <0.30m thickness	-	

603	Natural – geology	Firm mid yellow-orange clay with firm mid-grey silty clay patches towards W end.	-	-
		Occasional ~1% poorly sorted small to medium <0.08m rounded pebbles. Very occasional <1% degraded chalk flecking.		
		Scarred by post- medieval/modern plough furrows, NW–SE.		
604	Deposit – fill of ditch/gully 605	Occasional ~5% small <0.05m	1.00+m length 0.50m width 0.15m thickness	-
	Sedimentary fill	angular (fragmentary) flint gravels. Occasional ~2% small <0.05m rounded pebbles.		
605	Cut – ditch/gully	Linear N–S ditch.  Moderately-sloping concave sides. Gradual break of slope to concave base. Flat along axis.	>2m length 0.50m width 0.17m depth	-





