

# Hertfordshire Constabulary HQ


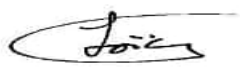


Written Scheme of Investigation for Archaeological Trial  
Trenching Evaluation

Hertfordshire Constabulary

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### Quality information

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# 1. Introduction

- 1.1 AECOM (the Archaeological Consultant) has been commissioned by Hertfordshire Constabulary (the Client) to design the archaeological evaluation of the redevelopment of the Hertfordshire Constabulary HQ (the Proposed Scheme).
- 1.2 The Proposed Scheme will be undertaken across three phases of work. This Written Scheme of Investigation (WSI) comprises the archaeological evaluations required for the Phase 1, 2 and 3 works.
- 1.3 There have been no previous archaeological investigations within the boundary of the Proposed Scheme.
- 1.4 The works specified in this document will be undertaken by a competent and suitably qualified Archaeological Contractor (the Archaeological Contractor) who will be a Registered Archaeological Organisation with the Chartered Institute for Archaeologists.
- 1.5 This WSI sets out the methodology, specification and protocol to be adhered to during the completion of the archaeological fieldwork and preparation of the fieldwork report which will be completed by the Archaeological Contractor.
- 1.6 In addition, the requirements and responsibilities of the Archaeological Contractor, the Archaeological Consultant, the Principal Contractor (G&L Property Maintenance for Phase 1 works) and the Client have been set out to assist the Archaeological Contractor in the completion of the archaeological works.
- 1.7 This WSI has been produced by the Archaeological Consultant on behalf of the Client and will be sent to the Senior Historic Environment Advisor for Hertfordshire County Council for review and approval prior to the commencement of works.

## 2. Background Information

### Proposed Scheme Location

- 2.1 The Proposed Scheme consists of the existing buildings and amenities of the Hertfordshire Constabulary HQ and is centred on NGR TL 23076 11373 (Figure 1). The Proposed Scheme sits on the south western edge of Welwyn Garden City, between Stanborough Park and the Gosling Sports Park. The wider landscape is characterised by the River Lea, urban development, residential areas, green areas, and the A1(M) motorway.

### The Proposed Scheme

- 2.2 The Proposed Scheme consists of three phases of development. This WSI covers the three phases of the Proposed Scheme, particularly the Phase 1 aspects: the Memorial Garden, Dog Unit and Haul Road (Figure 1). The scope of archaeological evaluations for Phases 2 and 3 may require addendums to this WSI or separate WSI documents.
- 2.3 The Phase 1 Works consist of works to an access haul road, construction of a memorial garden and balance pond, the construction of a Dog Unit Facility and the removal of the existing prefabricated Dog Kennel Unit. The depth of the proposed foundations for the new Dog Unit Facility are expected to be between 1.5 and 2.5m below ground level (bgl).
- 2.4 The Phase 2 Works consists of a temporary canteen (non-intrusive), and the demolition of the main administration building, the Robertson building and the Braughing building. The new HQ buildings will be constructed, with a new carpark installed and landscaping set out.
- 2.5 The Phase 3 Works consist of the construction of an additional new office building (Decant building), Demolition of the Hitchin, Hertford, Dacorum building and installation of a car park, removal of the Odsey temp and alteration to the adjacent carpark layout (none-invasive).
- 2.6 The above phasing is to be submitted to Welwyn and Hatfield Council as a Section 73 amendment to the Planning Permission 6/2021/2125/MAJ.
- 2.7 It is assumed that the construction compounds are all to be located on existing hard standing and that any utility diversions have been undertaken prior to the archaeological evaluation.

### Geology and Soils

- 2.8 The British Geological Survey (BGS) web-based *Geology of Britain Viewer* (accessed August 2022) indicates that the bedrock geology of the Proposed Scheme consists of Lewes Nodular Chalk Formation and Seaford Chalk formation, formed during the Cretaceous period. The superficial geology is recorded as Kesgrave Catchment Subgroup Sand and Gravel formed during the Quaternary period. Immediately to the south west of the Proposed Scheme in Stanborough Park around the River Lea is an area of Alluvium Clay, Silt Sand and Gravel also formed during the Quaternary period.
- 2.9 The Soils Map indicates that the soils within the Proposed Scheme consist of freely draining slightly acid loamy soils. Immediately to the north west of the Proposed Scheme, the soils are recorded as slightly acid loamy and clayey with impeded drainage.

### Desk-Based Assessment

- 2.10 Due to the lack of a Desk-Based Assessment covering the area of the Proposed Scheme, the following archaeological background and previous archaeological investigations information has been sourced directly from the Hertfordshire Historic Environment Records (HER). The study area for all categories of assets and events is 1km around the Proposed Scheme. The information is mapped in Figures 2a-d and listed in Appendices B and C.

## Archaeological Background (Figure 2a and Figure 2b)

2.11 There are no designated or non-designated assets within the boundary of the Proposed Scheme. Within the 1km study area around the Proposed Scheme, there are four Grade II listed buildings, part of one locally listed park and garden, 37 non-designated assets, and 20 previous archaeological events. There are no Scheduled Monuments or other types of listed buildings, conservation areas, or registered monuments.

### Mesolithic to Bronze Age (10,000 BC – 700 BC)

2.12 There are four assets of Mesolithic to Bronze Age date within the study area. All are recorded as find spots. Prehistoric worked flints were found in 1930 during road construction at Attimore Road [MHT 2145]. A Neolithic Axe [MHT 2806] was found in 1970 in one of the spoil heaps from the creation of the Stanborough Lakes and a flint scraper [MHT 11762] of the same date was found on the ground in Stacklands in 1991. A Late Bronze Age Axe [MHT 642] was recovered from 74 Woodhall Lane and is described as a socketed axe with a square socket loop, possibly in the British Museum.

2.13 There is a low potential for finds of Mesolithic to Bronze Age date within the boundary of the Proposed Scheme.

### Iron Age (700 BC – 43 AD)

2.14 There are three assets of Late Iron Age date within the study area. Immediately to the west of the Proposed Scheme, on the opposite side of the A6129 Stanborough Road, are records for a large Late Iron Age palisaded enclosure [MHT 161] in the vicinity of Stanborough School. A boundary ditch, coin of Claudius and La Tene III brooches have been found. Through several investigations (monitoring and evaluations, see Previous Archaeological Investigations section below), the enclosure has been described as palisaded and occupied in the Late Iron Age. It appears to have gone out of use by the Early Roman period but there is some continuation of use with the internment of several urned cremations of Early Roman Date (see Roman section below). Monitoring of various additions and alterations to the school have suggested that much of the land was terraced when the school was built, removing any further evidence of the palisaded enclosure or internal features.

2.15 A short distance to the north west is a Late iron Age cremation cemetery [MHT 163] recorded at 61-63 Attimore Road. Four cremation groups are recorded consisting of urns, bowls, and plates dating to the early 1<sup>st</sup> century AD, with four La Tene III brooches and fragments of a small metal mirror. It is possible that this cemetery relates to the palisaded settlement described above.

2.16 Further cremations have been found at Newfields [MHT 2804], just to the south of Attimore Road. Little detail is given regarding these cremations other than that they feature 'Belgic pottery'.

2.17 There is a moderate potential for finds of Iron Age date within the boundary of the Proposed Scheme, although it is likely that previous development of the area has removed any surviving remains.

### Roman (43 AD – 450 AD)

2.18 There are five assets of Roman date. An Early Roman cremation group is recorded just outside of the ditch of the Later Iron Age palisaded enclosure discussed above [MHT 161]. These are thought to date to the 2<sup>nd</sup> century AD although no further detail is provided.

2.19 During the excavation of Stanborough boating lake, a small fragment of Samian pottery was found beneath a layer of peat [MHT 2799]. Roman tiles [MHT 11764] were also found at Stanborough Park in the 1970s; no further description is given. A coin of Hadrian was found at 178 Hanside Lane [MHT 1571].

2.20 The supposed Roman road from Verulamium (modern St Albans) to Ware [MHT 4661] runs through the study area. The location of this Roman road was hypothesised in the 18<sup>th</sup> century and the presence (or absence) of the road has not been confirmed by excavation and therefore remains doubtful.

2.21 There is a low potential for finds of Roman date within the boundary of the Proposed Scheme.



### **Early Medieval (450 AD – 1066 AD)**

- 2.22 There are no assets recorded of early medieval date within the study area.
- 2.23 There is a negligible potential for finds of early medieval date within the boundary of the Proposed Scheme.

### **Medieval (1066 AD – 1540 AD)**

- 2.24 There are no assets recorded of medieval date within the study area, although some designated buildings are thought to have medieval origins suggested by documentary sources as well as the Woodhall manorial estate and deer park (see post-medieval section below).
- 2.25 There is a negligible potential for finds of medieval date within the boundary of the Proposed Scheme.

### **Post-medieval (1540 AD – 1900 AD)**

- 2.26 There are four listed buildings and 16 non-designated assets of post-medieval date within the study area.
- 2.27 The Barn Theatre **[1348120]** is a Grade II listed building and consists of a range of former farm buildings, weatherboarded with slate roofs. It includes a 17<sup>th</sup> century aisled barn that is thought to have been brought from elsewhere and is now used as a theatre. It was converted to its present use in 1931 and is located nearly 1km to the north of the Proposed Scheme.
- 2.28 The site of the 17<sup>th</sup> century Upper Handside Farm **[MHT 16976]** is situated to the north of the Proposed Scheme. It was demolished to make way for the new Garden City leaving only a 17<sup>th</sup> century cart shed **[MHT 10870]**. The latter was converted into a meeting room in 1923.
- 2.29 Hand Side Farmhouse **[1101113]** is a 19<sup>th</sup> century Grade II listed building. It consists of two storeys with a hipped Welsh slate roof and one brick chimney stack. It is located approximately 1km to the north of the Proposed Scheme.
- 2.30 Woodhall Farm sits to the south east of the Proposed Scheme. This is a manorial site of a 17<sup>th</sup> century house **[MHT 10585, MHT 18698]** existing as earthworks and documentary evidence. Its sits within the medieval deer park **[MHT 18114]** which was revived in the later 17<sup>th</sup> century. The deer park also encompasses the area of the Proposed Scheme. At the north eastern end of the deer park and to the north east of the Proposed Scheme sits the site of Woodhall Lodge Farm **[MHT 16282]**. This post-medieval farmstead features on the 1880 OS Map as a substantial farmstead at the end of an avenue with ranges of bars around a rectangular yard and with a large pond. It has the same form on the earlier 1838 tithe map.
- 2.31 Woodhall Farm Cottage **[1348179]** is a Grade II listed building to the south east of the Proposed Scheme. It is a small 16<sup>th</sup> century red brick, two-storey cottage.
- 2.32 Bush Hall House **[1173083]** is a Grade II listed building 1km to the south east of the Proposed Scheme. It is a 19<sup>th</sup> century former mill house constructed of red brick over three storeys and is now disused.
- 2.33 Bush Hall, Mill Green, Hatfield, **[MHT 13336]** is a 17<sup>th</sup> century farmhouse to the south of the Proposed Scheme. It was converted into a country residence in the mid 18<sup>th</sup> century and is now a hotel. The building itself is a little more than 1km from the Proposed Scheme but the ground in which it sits and are included in the record partially fall within the 1km study area.
- 2.34 There are two non-designated railway bridges to the east of the Proposed Scheme **[MHT 5599, MHT 5600]**. Both date from the mid to late 1800s and are built of brick with a number of arches. They underwent some reconstruction in the 1870s and 1890s.
- 2.35 There are three non-designated road bridges within the study area, two to the west **[MHT 5218]** and north **[MHT 5107]** of the Proposed Scheme on the A6129 Stanborough Road and one to the west **[MHT 5219]** on the B197. The bridge on the A6129 to the west **[MHT 5218]** was built in 1820 of brick with two low arches. It carries Old Stanborough Lane over the River Lea where it joins with the A6129. It is likely that this bridge replaced earlier structures, although this has not been confirmed. **[MHT 5107]** to the north was built in 1850 in brick with three arches. A newer bridge runs alongside to carry one lane of traffic and there is a pedestrian bridge to the

- north. **[MHT 5219]** is a road bridge over the River Lea re-built and reinforced in 1926. The original construction date of this bridge is not noted.
- 2.36 The site of Stanborough Farm **[MHT 31018]** is recorded immediately to the south west of the Proposed Scheme. This post-medieval farmstead was located in the hamlet of Stanborough on the Great North Road. It was demolished in the 1960s during improvements to the A1.
- 2.37 To the north east of the Proposed Scheme is the site of the brickworks **[MHT 10940]** on the Salisbury Estate. These works were the main source of sand and gravel for the construction of the new Garden City. They were also used for earth moving training by RAF Mill Green in the 1940s. They first appear on the 1898 OS Map.
- 2.38 The site of a milestone **[MHT 18696]** is recorded on the Great North Road, Hatfield. It is shown on the 1878 / 1879 OS Map and reads 21 miles from London. A post-medieval post box (wall box) **[MHT 5286]** in the wall of Stanborough Lodge Farm is also recorded. No further details are given.
- 2.39 The Hatfield Parish Tithe map of 1839 shows the Proposed Scheme to be located in agricultural fields owned by the Marquess of Salisbury and tenanted by Frederick and John Farr as well as Charles Townsend. The Ordnance Survey maps of 1884 shows little changed as it remained within open fields.
- 2.40 There is a low potential for significant finds of post-medieval date within the boundary of the Proposed Scheme.

#### **Modern (1900 AD onwards)**

- 2.41 Welwyn Garden City **[MHT 9599, 9546]** is locally listed. It is the world's second garden city, founded in 1920 by a private company under the guidance of Ebenezer Howard, who had been responsible for the first at Letchworth. The architects and planners were Louis de Soissons and Frederic Osborn. Distinct commercial, civic and industrial zones were laid out surrounded by housing. Long straight vistas – The Parkway and Howardsgate – incorporated ornamental spaces in the middle of the town. The Garden City is more than 1km to the north of the Proposed Scheme, but The Parkway vista crosses into the 1km study area, terminating on the other side of the roundabout immediately north of the Proposed Scheme.
- 2.42 The site of Parkway School **[MHT 18262]** is to the north east of the Proposed Scheme. Built in 1934 for the new Garden City, it was rebuilt to the same plan after a fire in 1939. It was closed in 1986 and demolished in 2011 [EHT 7247, EHT 7246].
- 2.43 The site of Lea Valley Lido **[MHT 17440]** sits in Stanborough Park to the south west of the Proposed Scheme. 'Lido on the Lea' opened in 1935 for the new Garden City and was later known as 'Splashlands'. It was one of three open air pools built for residents of the new Garden City and it is shown on the 1938 OS Map.
- 2.44 The 1925 Ordnance Survey map show little change from the 19<sup>th</sup> century maps aside from the loss of some field boundaries. Welwyn Garden City had been established to the north by this point but did not encroach on the location of the Proposed Scheme. Despite continued growth of Welwyn throughout the 20<sup>th</sup> century, the boundary of the Proposed Scheme remained unchanged until the second half of the century when Welwyn finally reached it. The current Hertfordshire Constabulary Headquarters buildings were largely erected in the 1970s and 1980s.
- 2.45 There is a low potential for significant finds of modern (20<sup>th</sup> century) date within the boundary of the Proposed Scheme.

#### **Unknown**

- 2.46 Several assets of unknown date exist within the 1km study area and are primarily cropmarks. To the west of the Proposed Scheme are cropmarks of a linear features **[MHT 2516, MHT 6125, EHT 2507]**. They are roughly parallel and are aligned north east – south west.
- 2.47 Further cropmarks are present to the south of the Proposed Scheme **[MHT 7946, MHT 10584, MHT 18387]**. These comprise a possible trackway, linear ditches, two ring ditches recorded as

likely plough-raised barrows (and could therefore be Bronze Age), pits and other possible cut features the nature of which is unknown.

- 2.48 To the east of the Proposed Scheme are two ponds. **[MHT 11238]** is a series of fishponds and dams on a stream to the west of Chequers Road. The origin of these ponds is unknown although they are within the park of Woodhall and it is speculated they may relate to the manorial estate. **[MHT 11239]** is an artificial pond, dam and associated earthworks to the north of Woodhall Farm it is possibly a 20<sup>th</sup> century water management feature or may be part of a water garden relating to the 17<sup>th</sup> – 18<sup>th</sup> century grounds of Woodhall manorial estate.

### Previous Archaeological Investigations (Figure 2c)

- 2.49 There have been a series of previous investigations in the vicinity of the Iron Age palisaded enclosure **[MHT 161]** at Stanborough School. In 1997 and 1998, an evaluation excavated part of the Iron Age enclosure ditch, recovering large quantities of pottery **[ET 3959, EHT 3960, EHT 4166, EHT 4359]**. Watching briefs **[EHT 4752, EHT 4757]** for developments to the school in 1999 did not record any further archaeological finds, features or deposits. They did record evidence for the truncation of the ground, presumably when the school was constructed. Three evaluations in 2019, 2020 and 2021 **[EHT 8686, EHT 8808, EHT 8951]** similarly did not record any further archaeological finds, features or deposits. Two watching briefs a short distance to the west of the school in 2004 and 2006 **[EHT 1360, EHT 5441]** revealed that the ground in this area had been heavily truncated and no archaeological finds, features or deposits. Overburden was noted, representing dumps from the construction of Osborn Road.
- 2.50 A Level II building recording **[EHT 7247]** was undertaken in 2011 on the Parkway School prior to its demolition. Five geotechnical test pits **[EHT 7246]** were also undertaken and found modern made ground to a maximum depth of 0.40m above natural boulder clay. No archaeological features, finds or deposits were recorded.
- 2.51 A geophysical survey at Sir John Newsom and Creswick Schools **[EHT 6878]** on the playing field. This was covered in ferrous debris and drains. There were a few possible anomalies suggesting linears or pits but nothing conclusively archaeological.
- 2.52 Aerial photography of various ring ditches around Stanborough is recorded **[EHT 1860, EHT 1861, EHT 1863]**. These correlate with the cropmarks discussed in paragraph 2.47 above **[MHT 7946, MHT 10584, MHT 18387]**, some of which may represent Bronze Age barrows.
- 2.53 Further aerial photo records **[EHT 2507]** cover the linear ditches discussed in paragraph 2.46 above **[MHT 2516, MHT 6125]**.
- 2.54 Fieldwalking was undertaken in 1974 **[EHT 7866]** along the route of the A1 improvement. No archaeological features were noted.
- 2.55 An evaluation at Longcroft Lane in 1993 **[EHT 4150]** consisted of 21 trial trenches ahead of new housing. Various depths of modern overburden and clay natural were recorded but no archaeological finds, features or deposits.

### Historic Landscape Characterisation (Figure 2d)

- 2.56 The Historic Landscape Characterisation shows the area of the Proposed Scheme to be predominately built-up urban development. To the south east, south and south west are areas of piecemeal enclosure, enclosed meadow, irregular enclosure, 20<sup>th</sup> century enclosure, industrial areas and mortorway/railway.

## 3. Aims and Scope of Archaeological Works

- 3.1 This WSI sets out the methodology and protocols for a programme of archaeological work that comprises:
- archaeological Watching Brief of geotechnical investigation pits on the route of the haul road;
  - archaeological Watching Brief of the removal of concrete slabs and building demolition; and,
  - archaeological Trial Trench Evaluation of the three Phase areas.
- 3.2 The scope of the archaeological works is to be agreed in consultation with the Senior Historic Environment Advisor for Hertfordshire County Council.

### Archaeological Watching Brief – Geotechnical Investigations

- 3.3 The Archaeological Contractor will undertake a watching brief of the geotechnical investigation (GI) trial pits along the route of the haul road. The general aims are to mitigate the impact of the proposed GI works on potential archaeological and paleoenvironmental remains through archaeological monitoring and to inform the scope of further archaeological evaluation and mitigation.
- 3.4 The broad objectives of the archaeological watching brief will be:
- to identify and record any archaeological remains or deposits present within the selected GIs;
  - to minimise or mitigate the impact to significant archaeological remains through avoidance;
  - to assess the depth of topsoil subsoil and any made ground overlying deposits within which archaeological remains may occur;
  - to record the character and sequence of the deposits within each GI intervention (using the GI Contractor logs); and,
  - to inform the trial trenching strategy specifically on the haul road.
- 3.5 Depending on the results of the GI monitoring and a review of GI logs, some or all of the trenches along the haul road (described below) may be descope.

### Archaeological Watching Brief – Building Demolition and Foundation Removal

- 3.6 The Archaeological Contractor will undertake a watching brief of the demolition of structures across the Proposed Scheme and the removal in some instances of their foundations. The general aims are to mitigate the impact of the on potential archaeological remains through archaeological monitoring and excavation if required.
- 3.7 The aims align with those set out in the sections above and below.

### Archaeological Trial Trenching

- 3.8 The scope of the archaeological trial trenching is based on a 4% coverage across the three areas totalling 32 trenches (Figure 3), with a 1% contingency (by sqm.).
- 3.9 The size and angle of each trench has been customised to the confined spaces in which the development is taking place. The trenches and their dimensions are listed below in Table 1.

## 3.10

**Table 1 List of Trenches, locations, and dimensions.**

Location	Trench Numbers	Dimensions
Phase 1 Memorial Garden	TR001 – TR002	30m x 2m
Phase 1 Dog Unit	TR003 – TR004	30m x 2m
Phase 1 Haul Road	TR005 – TR013	30m x 2m
Phase 2	TR014 – TR 025	30m x 2m
Phase 2	TR026 – TR027	30m x 2m
Phase 2	TR028	30m x 2m
Phase 3	TR029 – TR030	30m x 2m
Phase 3	TR031 – TR032	30m x 2m

- 3.11 Depending on the results of the GI investigations along the haul road, some or all of the trenches in that area may be descoped (affected trenches are TR005 – TR013).
- 3.12 The aim of the archaeological trial trenching evaluation is to provide further information on the archaeological resource within the Proposed Scheme boundary.
- 3.13 The general objectives of the archaeological trial trenching are to:
- assess the presence or absence of surviving archaeological remains;
  - assess the location, nature, extent, date, condition, state of preservation, significance and complexity of any archaeological remains;
  - assess the likely range, quality, and quantity of artefactual and environmental evidence present;
  - inform strategy for any required mitigation via recording, preservation and/or management of identified assets;
  - interpret the archaeology of the Proposed Scheme within its local, regional and national archaeological context; and,
- 3.14 The presence or absence, nature and significance of archaeological deposits identified during the archaeological evaluation will be utilised to guide further mitigation and research specifications and to inform the requirement for and scope of any archaeological mitigation that may be required.
- 3.15 The fieldwork will be carried out in accordance with the Chartered Institute for Archaeologists (CIfA) *Standards and Guidance for Archaeological Field Evaluation (2020a)* and *Code of Conduct (2019)*.
- 3.16 The Welwyn Hatfield Local Plan (2005) is currently in the process of being replaced by a Local Development Framework. The evaluation will therefore adhere to the relevant policies as set out in the Local Plan (2005) in relation to the historic environment.

## 4. Methodology of Archaeological Works

### General Requirements

- 4.1 All archaeological works will be carried out in accordance with this WSI and any further instructions from the Principal Contractor. This WSI takes account of the guidance provided by the Chartered Institute for Archaeologists *Code of Conduct* (2019), the *Standard and Guidance for Archaeological Field Evaluation* (ClfA, 2020a) and other current and relevant good practice and standards and guidance (refer to Appendix A).
- 4.2 The Archaeological Contractor will undertake the works according to this WSI and any subsequent written variations. No variation from or changes to the WSI will occur except by prior agreement with the Archaeological Consultant and in consultation with the Senior Historic Environment Advisor for Hertfordshire County Council.

### Archaeological Watching Brief – Geotechnical Investigations

- 4.3 The Archaeological Contractor will record the date, time and duration of all archaeological monitoring site visits until the work is completed and will ensure that all site records and finds are kept secure at all times, conserved and archived to the required standards (Appendix A).
- 4.4 The GI investigations will be excavated by the GI Contractor using an appropriate mechanical excavator. The GI contractor will be responsible for identifying the presence of services and ensuring it is safe to excavate.
- 4.5 Excavation GI trial pits / trenches will proceed with a toothless ditching bucket under direct archaeological supervision, in level spits.
- 4.6 The GI Contractor will provide a suitable and safe position from which the Archaeological Contractor can effectively view the excavation of the GI trial pits / trenches. If archaeological remains are encountered, the machine excavation will cease to allow the remains to be inspected and recorded as far as safely practicable. It is not proposed that the Archaeological Contractor should enter excavation trenches to investigate archaeological remains. All recording should be carried out from a safe position and follow the site rules as set out by the Principal Contractor and the GI Contractor.
- 4.7 Archaeological recording will consist of:
  - where safe and practicable, a scaled drawn record of representative exposed sections;
  - photographs of exposed deposits within the GI pits / trenches, with an appropriate scale, and sufficient further photographs to establish the setting of the groundworks undertaken; and,
  - a record of the datum (either m above Ordnance Datum or m below ground level) levels of any archaeological deposits to be provided by the GI Contractor.
- 4.8 The GI Contractor will also provide all GI logs to the Archaeological Contractor.
- 4.9 Where no archaeological remains are encountered, a photographic record will be taken of the trial pit or trench and a written description with a sketch section will be produced. Particular reference should be made of the depth of made ground.
- 4.10 If in the opinion of the monitoring archaeologist/s, archaeological remains of high significance are encountered, or if they include evidence for funerary activity, work will cease and the Archaeological Contractor will immediately notify the Principal Contractor, the Archaeological Consultant and the Senior Historic Environment Advisor for Hertfordshire County Council. The Principal Contractor will instruct the GI Contractor to relocate the GI intervention.
- 4.11 Should it be determined that the GI intervention cannot be relocated, then the excavation will need to be made safe to enable the Archaeological Contractor to enter and carry out hand



excavation of the feature/s prior to the GI works proceeding and in consultation with the Senior Historic Environment Advisor for Hertfordshire County Council and the Archaeological Consultant. In this event, the method for hand excavation detailed below will be followed.

- 4.12 Any required environmental sampling, removal of human remains, and artefact collection and storage will follow the procedures set out below.

## Archaeological Watching Brief – Building Demolition and Foundation Removal

- 4.13 The Archaeological Contractor will undertake a Watching Brief of the break up and removal of any foundation slabs beneath the buildings, following their demolition. Any intrusive works below the foundation slab/s will also be subject to a Watching Brief.
- 4.14 The demolition and removal of the foundation slabs will be undertaken by the Principal Contractor. The Principal Contractor will ensure a safe observation location of the archaeologist to conduct the Watching Brief from for the duration of the works.
- 4.15 The Principal Contractor will provide safe access / egress into the excavation/slab removal areas for an archaeologist to record any identified archaeological features – e.g. making any rubble safe around the area.
- 4.16 The Principal Contractor will ensure the safe identification and handling of any asbestos material arising from the demolition of the buildings and provide the archaeologist conducting the Watching Brief with any required specialist PPE for asbestos.
- 4.17 If archaeological remains are identified throughout this Watching Brief, then the procedures set out under the Archaeological Trial Trenching section below will be followed, in regards to artefact handling, sampling and recording of features / deposits etc.
- 4.18 The Principal Contractor will ensure a safe observation location for the archaeologist throughout these works.

## Archaeological Trial Trenching

### Specific Requirements for the Principal Contractor

- 4.19 The Principal Contractor will arrange all access requirements with the landowner and inform the Archaeological Contractor of any access protocols that must be followed. Designated access routes for access and egress will be adhered to at all times.
- 4.20 The archaeological works shall not extend beyond the specified extent shown on Figure 3. The Principal Contractor will notify the Archaeological Consultant immediately of any areas that cannot be excavated and will provide clear explanation for the situation.
- 4.21 The Principal Contractor will provide the Archaeological Contractor with any available details for known overhead or buried services. It will remain the responsibility of the Archaeological Contractor to identify and avoid any buried or overhead services on the Proposed Scheme. Utility plans should be dated no older than three months and updated searches for services may need to be carried out by the Principal Contractor. Refer to the Health and Safety section of this WSI for further details.
- 4.22 The Principal Contractor is responsible for providing:
- Suitable welfare facilities
  - Mechanical excavator(s) suitable to cleanly excavate trial trenches, with driver(s). The machines will need to be fitted with a toothless ditching bucket to reduce each trench under the supervision of the Archaeological Contractor.
  - Appropriate safety fencing and edge protection for each trench.
  - A PAS128 survey and information prior to the start of works.
  - Information regarding access and egress – both to and within the proposed scheme.

- Access to the excavation / slab removal areas for an archaeologist to record any identified archaeological features – e.g. making any rubble safe around the area.
  - Georeferenced Ordnance Survey mapping for the works area and the Proposed Scheme layout.
- 4.23 The Principal Contractor will provide the Archaeological Contractor with any available details for site specific hazards including the presence of contaminated land or the threat of unexploded ordnance, and will brief the Archaeological Contractor on the mitigation measures.
- 4.24 Access to the site and instruction for suitable and safe access / egress will be arranged by the Principal Contractor and communicated to the Archaeological Contractor.
- 4.25 The Principal Contractor will allow for adequate time for the trenches to be archaeologically investigated and any surviving archaeological remains to be excavated and recorded.

### Specific Requirements for the Archaeological Contractor

- 4.26 The Archaeological Contractor shall prepare and submit a separate method statement, programme and risk assessment for each of the elements of investigation prior to the commencement of the fieldwork. The method statements will be submitted to the Archaeological Consultant, the Principal Contractor and the Senior Historic Environment Advisor for Hertfordshire County Council for comment and approval.
- 4.27 To ensure the successful completion of the archaeological evaluation, the Archaeological Contractor will:
- provide a method statement and risk assessment inclusive of a safe method of working (see the Health and Safety section of this WSI);
  - provide suitably qualified and competent staff who have valid Construction Skills Certification Scheme (CSCS) cards. In addition, the project manager should ideally be a named Member of the Chartered Institute for Archaeologists (MCIfA) who is adequately qualified to manage the required archaeological work in line with the guidance set out in the ClfA Code of Conduct (2021) or can demonstrate an equivalent level of competence;
  - provide and monitor/maintain safe access into the trial trenches. No staff are to enter any trench if it is declared unsafe by any competent person or the archaeological site supervisor;
  - provide suitably qualified archaeologists, experienced in archaeological investigation, recording and the nature of archaeological deposits which are expected on this site;
  - work with the Principal Contractor and the Archaeological Consultant to safely complete the archaeological site works;
  - provide all hand tools and recording materials required to complete the archaeological evaluation; and
  - ensure that during the archaeological trial trench evaluation the extent of any surviving archaeological deposits are mapped, and that any surviving archaeological remains are hand cleaned, defined and sample excavated, sufficient to determine their type, plan, form and relationships and that these are recorded. The archaeology should be characterised, and the significance and extent of the archaeology encountered, determined.
- 4.28 The Archaeological Contractor is required to make a photographic record of the access routes and trench locations before and after the trenching works in each location.

### Ecological Considerations

- 4.29 Consideration has been given to bats that may use the site. As the trenching will not impact on any trees that might be suitable for bat roosts or habitat that is used for foraging and commuting, it is concluded that there will be no impact on bats. Additionally, the works will be undertaken during the day.
- 4.30 The trenches have been designed to avoid buffer zones around trees on the site. This has been determined to be the canopy plus 5m and is capped at 15m from the trunk of the tree.
- 4.31 All ecological considerations outweigh the location of the trenches. Trenches shall be relocated or shortened, if necessary, to observe the ecological and landscape considerations. However,



the trench location design has taken these considerations into account as far as possible at this stage.

### Utilities Constraints

- 4.32 It is the responsibility of the Principal Contractor to ensure an up-to-date PAS128 survey is undertaken prior to the start of the archaeological works and to ensure the information is provided to the Archaeological Contractor for inclusion in their RAMS documentation. It is the responsibility of the Archaeological Contractor to ensure it is safe to proceed prior to the start of excavation using a CAT Scan. Refer to the Health and Safety section of this WSI.

### Machine Excavation

- 4.33 Excavation of trenches will proceed with a toothless ditching bucket under direct archaeological supervision, in level spits until one of the below horizons is reached (whichever is encountered first);
- the top of the first archaeological horizon;
  - undisturbed natural deposits; or,
  - the base of the impact of the haul road construction (understood at the time of writing to be 750mm / 75cm).
- 4.34 All trial trenches will be excavated at the locations indicated in Figure 3. The trenches shall be positioned to an accuracy of  $\pm 100$ mm of the specified trench location using survey-grade GPS or equivalent metric-survey equipment.
- 4.35 Each trench location will be scanned by the Archaeological Contractor using a Cable Avoidance Tool (CAT scanner) and Genny prior to and during the excavation (mechanical excavation and hand excavation) to ensure that no live services are present.
- 4.36 Each trench will be opened under direct archaeological supervision using an appropriate mechanical excavator fitted with a toothless ditching bucket. Where necessary recent concrete or tarmac surfacing will be broken out and stored separately from other arisings.
- 4.37 If necessary to achieve the archaeological aims of each trench, they may need to be stepped to ensure stability and safety of the excavation and that safe access/egress and working conditions are maintained.
- 4.38 The arisings from the archaeological works will be stored adjacent to each trench (within a safe working distance) and will be separated according to material (i/e/ topsoil separated from subsoil).
- 4.39 The excavation will proceed under direct archaeological supervision, in broadly level spits of no more than 200mm, until either the top of the first archaeological horizon or undisturbed natural deposits are encountered. Particular attention should be paid to achieving a clean and well-defined horizon with the machine. It is not anticipated that entire trenches will require hand cleaning. Under no circumstances should the machine be used to cut arbitrary trenching down to natural deposits/ the surface achieved through machine excavation will be inspected for archaeological remains. The mechanical excavator will not traverse any stripped areas.
- 4.40 If important concentrations of artefacts suggestive of significant activity are uncovered during machining, these should be left *in situ* in the first instance and investigated using hand tools only.
- 4.41 Machined surfaces will be cleaned by hand sufficiently to allow acceptable definition of the archaeological remains. Following cleaning, all archaeological remains will be planned, to enable the selection of features and deposits for sample excavation by the Archaeological Contractor.
- 4.42 The trenches will be clearly demarcated and secured with appropriate barrier fencing if required by the Archaeological Contractor or the Principal Contractor. Any required fencing will be provided by the Principal Contractor, to ensure that persons or plant cannot inadvertently traverse across the area of investigation which archaeological works are in progress. The

fencing will be regularly inspected and maintained by the Principal Contractor until works in each area have been completed.

4.43 Trenches will be fenced as required on the following criteria:

- 0.50m depth – cones and tape.
- 0.50m – 1.50m – fencing type to be determined based on site conditions and updated RAMS.
- >1.50m – HERAS type fencing.

4.44 The Principal Contractor will ensure that any field drainage pipes damaged during the excavation are repaired prior to backfilling and that the landowner or tenant has opportunity to inspect the repairs.

4.45 The Principal Contractor will ensure there is a suitable pump(s) available in the event of water in the trenches. They will also provide any required permits to allow pumping to take place. In the event of wet trenches, only essential personnel are to enter the trench at any time to limit any accidental trampling of archaeological features present.

4.46 Archaeological trial trenches that exceed a safe working limit will be stepped or battered (site-specific, but generally in excess of 1.2m in depth) to ensure the stability of the sides of the trenches. The Principal Contractor will provide a safe means of working to achieve the required depth. The Archaeological Contractor shall keep the Archaeological Consultant informed.

4.47 The Archaeological Consultant will make regular visits to the site during the valuation works and will enable the Senior Historic Environment Advisor for Hertfordshire County Council to visit as and when necessary, as well as any other necessary specialists, e.g. from Historic England.

## Hand Excavation

4.48 Any archaeological deposits / feature identified will be cleaned and hand excavated in an archaeologically controlled and stratigraphic manner, sufficient to meet the aims and objectives of the investigation. Archaeological remains may be lifted if required at the discretion of the Hertfordshire County Archaeologist. Hand excavation will initially be targeted to provide information on the form, function and date of the feature. Stratigraphic relationships between features will be investigated and recorded.

4.49 The following sampling strategies will be employed for hand excavation:

- a) **Linear features:** A minimum sample in length not less than 1m long, where the depositional sequence is consistent along the length. Multi-phase linear features with complex variations of fill type will be sampled sufficiently to understand the phasing and sequence of deposition. Where possible, one section will be located and recorded adjacent to a trench edge. If appropriate all intersections will be investigated to determine the relationships between features. All termini and corners will be investigated.
- b) **Discrete features:** Pits, post-holes, and other isolated features will normally be half-sectioned. A minimum requirement to meet the project objectives will be agreed in consultation with the Archaeological Consultant. If large pits or deposits (over 1.5m in diameter) are encountered, then the sample excavated should be sufficient to define the extent and maximum depth of the feature and to achieve the objectives of the evaluation but should not be less than 25%.
- c) **Structures:** Each structure will be sampled sufficiently to define the extent, form, stratigraphic complexity and depth of the component features and its associated deposits to achieve the objectives of the evaluation. All intersections will be investigated to determine the relationship(s) between the component features. The remains of all upstanding walls will be hand cleaned sufficiently to understand their dimensions, extent, composition, sequence, and relationships.
- d) **Flint scatters:** In particular, where these are associated with buried land surfaces, these will require hand cleaning and three-dimensional plotting prior to recovery.
- e) **Timber structures and artefacts:** These require expert recording and conservation until they are fully assessed.

## Recording

- 4.50 The perimeter of each trench and all archaeological remains within the trenches will be recorded in plan using metric survey-grade equipment or its equivalent.
- 4.51 A full written, drawn, and photographic record will be made of each trench, even when no archaeological features are identified. Hand drawn plans and sections / elevations of features / structures will be produced at an appropriate scale (normally 1:50 for plans and 1:10 or 1:20 for sections / elevations). A representative section of each trench will be drawn at a scale of no less than 1:50 but only after the features within the trench have been excavated. All plans and sections will include spot heights relative to Ordnance Datum in meters, correct to two decimal places.
- 4.52 Photography (digital, colour transparency and / or monochrome negative photographs) will be taken in line with current industry good practice and the requirements of the local authority (refer to Appendix A). In addition to records of archaeological features, a number of general site photographs will also be taken to give an overview of the site. Particular attention should be paid to obtaining shots suitable for displays, exhibitions and other publicity.
- 4.53 Photographic boards will be used for all photographs.

## Backfilling

- 4.54 The trial trenches will not be reinstated without the prior approval of the Archaeological Consultant (as a minimum) and the Senior Historic Environment Advisor for Hertfordshire County Council (if required). In exceptional circumstances backfilling will be permitted on health and safety grounds. The trenches will only be backfilled by machine when conditions are appropriate and with direct archaeological supervision. Arising will be returned strictly in the correct sequence and will be compacted.
- 4.55 Where services and drains are encountered during the archaeological works, these will be left *in situ* and retained on a suitable raised earth baulk. At the end of the investigations, they will be carefully covered with soil arisings from the excavations and consolidated using hand tools to avoid damage during the backfilling process.
- 4.56 The Archaeological Contractor will use their professional judgement to recommend in writing (by email) the abandonment of any trench in the event the conditions become unsuitable. They will make this recommendation to the Archaeological Consultant who will confirm it with the client and the Senior Historic Environment Advisor for Hertfordshire County Council. The Archaeological Consultant will provide written confirmation (by email) of the agreement to abandon any trench.
- 4.57 The Archaeological Contractor must seek the agreement of the Archaeological Consultant (and the Senior Historic Environment Advisor for Hertfordshire County Council if required) before closing / backfilling any trench. Remote approval via email can be sought to ensure efficiency of the works. The Archaeological Contractor will provide photographs of:
- the full length of the trench from each end;
  - an example of the section from topsoil to base of trench;
  - each feature excavated whether they were determined to be archaeological or not; and,
  - any other photographs deemed necessary to facilitate approval for closure.
- 4.58 The Archaeological Contractor will provide a short description with the photographs explaining the features within the trench, any artefact recovered from them, and confirming whether any samples have been recovered in line with the sampling strategy. The trench can only be backfilled with written approval by return email from the Archaeological Consultant (and the Senior Historic Environment Advisor for Hertfordshire County Council if required).

## Artefact Recovery

- 4.59 All artefacts will be collected, stored and processed in accordance with standard methodologies and national guidelines (refer to Appendix A) and in line with local authority requirements.

- 4.60 Except for modern artefacts, all finds will be collected and retained. The Archaeological Contractor will clarify the site-specific Selection Strategy in their Method Statement and will ensure that it is in line with ClfA (2020b) and relevant local authority guidelines. Each 'significant find' will be recorded three-dimensionally. Similarly, if artefact scatters are encountered, these should also be recorded three-dimensionally. Bulk finds will be collected and recorded by context.
- 4.61 All recovered artefacts will be stabilised, conserved, and stored in accordance with the current national conservation guidelines and standards (refer to Appendix A). if necessary, a conservator will visit the site to undertake 'first aid' conservation treatment. If waterlogged organic materials are encountered and appropriate cold storage facilities are not available on-site, the project manager will arrange the removal of the finds to nearby suitable facilities.
- 4.62 Artefacts will be stored in appropriate materials and conditions and monitored to minimise deterioration.

### Environmental Sampling

- 4.63 The Archaeological Contractor will include a site-specific environmental sampling strategy within their Method Statement, created by the Archaeological Contractor's Environmental Specialist. The Historic England Science Advisor will be consulted regarding the sampling strategy proposed by the Archaeological Contractor. The Archaeological Contractor's Environmental Specialist will ensure that the agreed sampling strategy is appropriately implemented and be consulted for specialist advice when required.
- 4.64 Any samples taken must come from securely stratified deposits using the methodologies outlined by Historic England (2011).
- 4.65 Appropriate provision will be made for the recovery of material suitable for scientific dating. Any samples taken must come from appropriately cleaned surfaces, be collected with clean tools, and be placed in clean containers. They will be adequately recorded and labelled, and a register of all samples will be kept. Once the samples have been obtained, they should be stored appropriately in a secure location prior to being sent to the appropriate specialist. Provision will be made for the ongoing processing and initial assessment of sampled material to provide timely feedback regarding quality of preservation and significance of specific deposits during the evaluation and to inform the ongoing strategy.
- 4.66 Samples will be taken from securely stratified, dateable deposits, with a low risk of contamination. A provisional sampling strategy is proposed in Table 2.

**Table 2 Provisional environmental sampling strategy for evaluation**

Potential Data	Method	Context Type	Sample Size (ltr)	Excavated Feature Sample
CPR	Bulk	Structural / occupation features	40	100%
		Pits (prehistoric)	40	50%
		Pits (Roman)	40	50%
		Pits (medieval)	40+	50%
		Pits (post-medieval)	40	50%
		Gully / ditch (settlement)	40	10%
		Gully / ditch (outfield)	40	5 – 10%
Waterlogged and organic remains	Bulk	All contexts	10 – 20	Layer (N/A)
Small bones	Bulk	All contexts	40	50%
Molluscs	Incremental	Deposit sequence	As advised by specialist	N/A
Pollen	Monolith	Deposit sequence	As advised by specialist	N/A

- 4.67 If large deposits of animal bone are encountered, the advice of the project specialist will be sought regarding recording and sampling. Animal bone groups (i.e. articulated human remains) will be assigned a number and documented using a suitable animal bone group sheet following Historic England guidance (2019). Assessment of biological remains will follow standard assessment procedures as laid out in Historic England guidance (2008; 2011; 2019).

## Finds Processing

- 4.68 Initial processing of finds (and if appropriate, other samples) will be carried out concurrent with the fieldwork.
- 4.69 The processing of finds will be finished shortly after completion of the investigations, the finds will be retained (according to the Selection Strategy), washed, marked, bagged and logged on a MS Access or GIS database (or equivalent), together with their locations according to the requirements set out in the Selection Strategy (e.g. 'significant finds' will be recorded on the OS National Grid (eastings, northings) and Ordnance Datum (height) to two decimal places).
- 4.70 The finds assemblage will be treated, labelled and stored in accordance with the appropriate Historic England guidance documents, local authority guidelines (if appropriate) and the Institute of Conservation guidelines (refer to Appendix A). The Archaeological Contractor will ensure that the processing of the assemblage is in accordance with the requirements of the recipient museum.
- 4.71 Each category of find or each material type will be examined by a suitably qualified archaeologist or specialist and the results incorporated into the fieldwork report.

## Human Remains

- 4.72 If human remains are discovered during the course of the trial trench evaluation, the remains shall provisionally, in accordance with current good practice, be covered, protected and left *in situ*.
- 4.73 The removal of human remains, if this is deemed necessary in consultation with the Archaeological Consultant and Senior Historic Environment Advisor for Hertfordshire County Council (using an assessment of the impact of the scheme on the remains), will only take place in accordance with a Ministry of Justice licence and under the appropriate Environmental Health regulations and the Burial Act (1857). In the event of the discovery of human remains, the Archaeological Contractor will arrange to contact H.M. Coroner and will notify the Archaeological Consultant, the Client and the Senior Historic Environment Advisor for Hertfordshire County Council immediately.

## Treasure

- 4.74 Any artefacts which are recovered that fall within the scope of the Treasure Act 1996 and Treasure (Designation) Order 2002 will be reported to the Archaeological Consultant immediately. Artefacts that are defined as Treasure according to the above legislation will be vested in the franchisee (e.g. The Duke of Cornwall is franchisee for Cornwall), or if none, the Crown. The Archaeological Contractor will contact H.M. Coroner and the Portable Antiquity Scheme's Hertfordshire County Finds Liaison Officer and will ensure that the Treasure regulations are enforced and that all the relevant parties are kept informed. A list of finds that have been collected that fall under the Treasure Act and related legislation will be included in the fieldwork report.
- 4.75 Artefacts that are classified as 'treasure' will be removed to a safe place but where removal cannot be achieved on the same working day as the discovery, suitable security measures must be taken to protect the finds from damage or unauthorised removal.

## 5. Monitoring, Progress Reports and Meetings

- 5.1 The archaeological evaluations will be subject to regular monitoring visits by the Archaeological Consultant who will have unrestricted access to the site, site records or any other information. The work will be inspected to ensure that it is being carried out to the required standards and that it will achieve the stated objectives.
- 5.2 Weekly written progress reports (via email each Monday by 10:00am) will be provided to the Archaeological Consultant by the Archaeological Contractor during the archaeological evaluation. In addition, the Archaeological Contractor will inform the Archaeological Consultant and the Principal Contractor on the progress of the fieldwork verbally upon request.
- 5.3 Progress meetings attended by the Principal Contractor, the Archaeological Consultant, the Senior Historic Environment Advisor for Hertfordshire County Council will be held on site during the course of the evaluation. Officers from Historic England will also be invited to attend, if appropriate. These meetings will be arranged by the Archaeological Consultant.

## 6. Completion of Fieldwork

- 6.1 The site will be left in a tidy condition and the Archaeological Contractor will ensure that all material brought onto site are removed.
- 6.2 At the end of the archaeological evaluations, or at the end of each phase of evaluations, the Archaeological Contractor will complete the following:
  - a) a completion statement submitted to the Archaeological Consultant and the Client within one working day of completing the fieldwork; and,
  - b) an OASIS entry. If appropriate the entry should include caveats about conclusion drawn in advance of assessment and / or analysis.
- 6.3 The OASIS entry may be updated and re-submitted no later than three months after the completion of the fieldwork report. The Archaeological Contractor is advised to ensure that adequate time and costings are built into their tenders to allow sufficient time to complete the form.



## 7. Deliverables

7.1 For each Phase of archaeological evaluation, the documents set out in this section of this WSI must be produced by the Archaeological Contractor.

### Archaeological Watching Brief – Geotechnical Investigations

7.2 The GI Contractor will provide their logs to the Archaeological Contractor at the earliest opportunity. The Archaeological Contractor will produce a fieldwork report on the GI watching brief within 4 weeks of the completion of the monitoring and/or receipt of the relevant GI logs. The fieldwork report will contain:

- a non-technical summary;
- a site location drawing;
- the archaeological and historic background;
- the methodology employed;
- the aims and objectives of the investigations;
- the results of the monitoring and a statement of potential for archaeological remains to exist within the Proposed Scheme;
- a location plan of the GI interventions, including original and relation positions, accurately positioned on an Ordnance Survey base map (at an appropriate and recognised scale);
- plans, sections and deposit sequence for each GI intervention monitored (illustrating the stratigraphic sequence of deposits and any noted archaeological features or remains at an appropriate and recognised scale);
- an interpretive deposit model of the Proposed Scheme;
- where appropriate, a list of all finds recovered and recorded, along with the appropriate GI identifying number, context and date;
- where appropriate, a complete list of all finds submitted as Treasure, if applicable;
- where appropriate, an appendix containing specialist assessment / analysis reports or their equivalent;
- where appropriate, an appendix illustrating specific finds and portraits of specific features or structures, as appropriate;
- a stratigraphic matrix for each GI intervention, if appropriate;
- an assessment / conclusion and a statement of potential with recommendations for post-excavation analysis and publication, if appropriate;
- where appropriate, a statement of the significance of the results in their local, regional and national contexts cross-referenced to research frameworks;
- the current and proposed arrangements for long term conservation and archive storage (including details of the accredited repository), if appropriate; and,
- digital photographs illustrating the site setting, work in progress and archaeological discoveries.

7.3 The report will be submitted to the Archaeological Consultant for review. Once it is of acceptable standard, the Archaeological consultant will provide copies to the Client and the Senior Historic Environment Advisor for Hertfordshire County Council.



## Archaeological Watching Brief (Building Demolition and Foundation Removal) and Trial Trenching Evaluation

### Method Statement

7.4 The Method Statement should include the following sections as a minimum (see ClfA 2020a for further information):

- a) A statement on the technical, research and ethical competences of the project team, including relevant professional accreditation;
- b) Site location (including map) and descriptions;
- c) Context of the project;
- d) Geological and topographical background;
- e) Archaeological and historical background;
- f) General and specific research aims of the project, with reference to Regional Research Frameworks;
- g) Methods;
- h) Details of how soil will be separated on site, where required;
- i) Collection and disposal strategy for artefacts, ecofacts, and all paper, graphic and digital materials;
- j) Arrangements for immediate conservation of artefacts;
- k) Details of backfilling, which shall include measures to ensure that any field drainage pipes damaged during the excavation are repaired prior to backfilling and that the landowner or tenant has opportunity to inspect the repairs;
- l) Post-fieldwork assessment and analysis of project data;
- m) Report preparation (including details of the section headings);
- n) Publication and dissemination proposals, as required;
- o) Copyright;
- p) Archive deposition, including wherever possible identification of a recipient museum or other repository and its requirements;
- q) Timetable;
- r) Staffing. Details on the expertise of the project team is also required. The project manager should be a named Member of the Chartered Institute for Archaeologists (MCIfA) who is adequately qualified to manage the required archaeological work or who can demonstrate an equivalent level of competence. The composition and experience of the project team should be described. Specialists should be identified where required (e.g. for finds and environmental work);
- s) A statement on compliance with relevant professional ethical and technical standards (including data standards);
- t) Health and Safety considerations;
- u) Environmental protection considerations; and
- v) Monitoring procedures.

### Fieldwork Report

7.5 It is anticipated that the Fieldwork Report will be delivered within six weeks of the completion of the fieldwork. If specialist reports are not available within that period, a draft report should be submitted detailing the missing information, and the revised submission date should be discussed with the Archaeological Consultant.

7.6 The Fieldwork Report will include the following as a minimum:

- a) a signed QA sheet detailing as a minimum - title, author, version, date, checked by, approved by;

- b) a non-technical summary;
  - c) a site location drawing;
  - d) the archaeological and historical background;
  - e) the methodology employed for the investigations;
  - f) the aims and objectives of the investigations including relevant research themes and agendas identified;
  - g) the results of the trial trench evaluation (to include full description, assessment of condition, quality and significance of the remains);
  - h) where human remains are encountered the report will include a statement that addresses the future retention of the material, including if appropriate, options for reburial;
  - i) an appendix containing specialist artefact, dating and environmental sampling reports;
  - j) an appendix illustrating specific finds and general working shots or portraits of specific features or structures as appropriate;
  - k) a list of all finds that fall within the scope of the Treasure Act and associated legislation;
  - l) a stratigraphic matrix for each trench (as appropriate);
  - m) assessment /conclusion and a statement of potential with recommendations for further work and analysis identifying specific research questions;
  - n) a statement of the significance of the results in their local, regional and national context cross referenced to relevant research agenda;
  - o) the current and proposed arrangements for long-term conservation and archive storage (including details of the recipient museum);
  - p) general and detailed plans showing the location of each trench accurately positioned on an Ordnance Survey base map (at an appropriate and recognised scale). Hatches will be used for archaeological drawings in all reports;
  - q) detailed plans and sections illustrating archaeological features (at an appropriate and recognised scale), including a long section of each trench that contains archaeological remains;
  - r) a section and plan of 'negative' trenches, i.e. those containing no archaeological remains;
  - s) colour photographic plates illustrating the site setting, work in progress and archaeological discoveries; and
  - t) a cross-referenced index of the project archive.
- 7.7 The Fieldwork Report will specifically comment on the level of preservation and will comment on the character of the overlying deposits and on the potential for extrapolating the results into adjacent areas.
- 7.8 Digital copies of the complete draft report (complete with illustrations and plates) in both Microsoft Word and PDF format will be submitted to the Archaeological Consultant for comment. When the draft report is of a sufficient standard, the Archaeological Consultant will submit a copy of the draft report to the Client and to the Senior Historic Environment Advisor for Hertfordshire County Council. In finalising the report, the comments of the Archaeological Consultant and the Senior Historic Environment Advisor for Hertfordshire County Council will be taken into account by the Archaeological Contractor.
- 7.9 The final report will be submitted to the Archaeological Consultant within two weeks of the receipt of comments on the draft report. The Archaeological Consultant will provide a final copy to the Client and to the Senior Historic Environment Advisor for Hertfordshire County Council.
- 7.10 A project archive including image files in JPEG or TIFF format and digital text files in Microsoft Word format, and illustrations in AutoCAD format or ArcView shapefile format will be submitted. A fully collated version of the Fieldwork Report will be included in PDF format.

## 8. Archive Preparation and Deposition

- 8.1 Archaeological material recovered from fieldwork is irreplaceable and data recorded in the course of archaeological investigations should be copied and additionally held securely in a separate location in line with current good practice (refer to Appendix A).
- 8.2 The Archaeological Contractor should compile a Data Management Plan in line with ClfA guidelines (2020b) and include it in their Method Statement.
- 8.3 The site records and assemblages (list of fieldwork interventions, notebooks / diaries, context records, feature records, structure records, site geometry (drawings), photographs and films, finds records and associated data files) will constitute the primary Site Archive. This is the key archive of the fieldwork project and the raw data upon which all subsequent assessment and analysis and future interpretation will be based. The archive will therefore not be altered or compromised.
- 8.4 The site archive should be quantified, ordered, indexed and made internally consistent, and in line with the Hertfordshire Archaeological Archive Standards (Hertfordshire Association of Museum 2018) and current good practice (refer to Appendix A). All finds and coarse-sieved, and flotation samples will have been processed and stored under appropriate conditions. The archive will also contain a site matrix, a summary of key findings and descriptions of artefactual and environmental assemblages. Arrangements should be made for the proper cataloguing and storage of the archive during the project life-cycle (it may be appropriate to liaise with an archive specialist). The content of an outline structure for a fieldwork archive is presented in MoRPHE, PPN3 Appendix 1, Product P1 and Product P3 (MoRPHE 2008).
- 8.5 The Archaeological Contractor will, prior to the preparation of the Archaeological Contractors Method Statement, liaise with the recipient museum to obtain agreement in principle to accept the physical, documentary, digital and photographic archive for long-term storage. The Archaeological Contractor will be responsible for identifying any specific requirements, archiving costs or policies of the museum in respect of the archive, and for adhering to those requirements.
- 8.6 The evaluation will have its own unique accession number, which will be obtained by the Archaeological Contractor from the recipient museum in advance of the preparation of the Archaeological Contractors Method Statement, to ensure that the project is recorded in accordance with the requirements of the local authority. The unique accession number will be recorded in the Archaeological Contractors Method Statement.
- 8.7 The archive of finds and records generated during the fieldwork will be removed from the Site at the end of each day and kept secure at all stages of the project until it is deposited with the recipient museum. The archive will be produced to current national standards (refer to Appendix A).
- 8.8 The deposition of the archive forms the final stage of this project. The Archaeological Contractor shall provide the Archaeological Consultant with copies of communication with the recipient museum and written confirmation of the deposition of the archive.

## 9. Health, Safety and Environment (SHE)

- 9.1 For each Phase of archaeological evaluation the documents set out in this section of this WSI must be produced by the Archaeological Contractor.
- 9.2 The works will be carried out under The Construction (Design & Management) (CDM) Regulations (Health and Safety Executive 2015).
- 9.3 The Archaeological Contractor will provide the Principal Contractor with details of their public and professional indemnity insurance cover.
- 9.4 Project staff are required to follow health and safety procedures and a risk assessment should be carried out by the Archaeological Contractor and submitted to the Principal Contractor prior to commencing work, to ensure the safety of workers on site.
- 9.5 The Archaeological Contractor will have their own Health and Safety policies compiled using national guidelines, which conform to all relevant Health and Safety legislation and good practice. A copy of the Archaeological Contractor's Health and Safety policy will be submitted along with their tender to the Principal Contractor, who will forward it on to the Client.
- 9.6 The Archaeological Contractor shall follow the instructions of Principal Contractor and comply with their site rules. Prior to the start of the archaeological works, all staff involved in the project will be required to complete the Principal Contractor's Health and Safety induction.
- 9.7 The Archaeological Contractor shall, at all times, adhere to the Principal Contractor's requirements and conditions with regards to working within the Proposed Scheme boundary and in the vicinity of buried or overhead utilities (such as power lines) in order to maintain a safe minimum working distance at all times.
- 9.8 All site personnel will wear full PPE compliant with the mandatory requirements of the Principal Contractor. Additional PPE will be provided by the Archaeological Contractor as required. Any visitors to the investigations will require a site induction in accordance with the Principal Contractor's health and safety requirements, and will have read and signed the Archaeological Contractor RAMS. The Archaeological Contractor will ensure that any visitors to the investigations are equipped with suitable PPE prior to entry to the site.

### Risk Assessment and Method Statement

- 9.9 The Archaeological Contractor will prepare a Risk Assessment and Method Statement (RAMS) that will be submitted to the Principal Contractor for approval, 20 working days prior to commencing the work. The RAMS may be issued back to the Archaeological Contractor with comments requesting amendments to be made to the document, before it is reissued, reviewed and approved. The Archaeological Contractor will not start work until the RAMS has been approved by the Principal Contractor.
- 9.10 If amendments are required to the RAMS during the works, the Principal Contractor and any other interested party must be provided with the revised document at the earliest opportunity.
- 9.11 The contents required of all RAMS are as follows:
  - a) Scope of Works
  - b) Project Specific Hazards / Risks / Environmental Factors
  - c) Reference Documents
  - d) Subcontracted and third-party workers
  - e) Areas of Work (access and egress)
  - f) Resources

- g) Plant and Equipment
  - h) Materials
  - i) Mandatory PPE
  - j) Task Specific PPE
  - k) Methodology of Works
  - l) Environmental Protection
  - m) HSE Hold Points
  - n) Attachments
  - o) Risk Assessment
  - p) Environmental Risk Assessment
  - q) Amendments Record
- 9.12 Briefing to those individuals involved in the work tasks will be delivered by the respective Site Manager or sub-contractor supervisor prior to works commencing. Site staff are to ask questions on anything that is unclear or requires repeating. At the end of each shift, any feedback will be provided to the work supervisor / Site Manager on the RAMS performance via the Task Hazard Assessment procedure with a view to this being incorporated into future revisions of the documents as necessary.
- 9.13 All site personnel will familiarise themselves with the following:
- Site emergency and evacuation procedures.
  - The site's health and safety coordinator.
  - The first aider.
  - The location of the nearest hospital and doctor's surgery.
- 9.14 All equipment that is used in the course of the fieldwork must be 'fit for purpose' and be maintained in a sound working condition that complies with all relevant Health and Safety regulations and recommendations.
- 9.15 The Archaeological Contractor will liaise with the Principal Contractor and other sub-contractors to ensure that the archaeological work is undertaken in an organised and professional manner.
- 9.16 All parties will have full regard for the safety of all personnel on site, including measures to ensure the safety of all.

## Mandatory Training

- 9.17 Mandatory training requirements for all site staff are:
- Construction Skills Certification Scheme (CSCS) card (or equivalent United Kingdom based scheme), appropriate to the role they are undertaking.
  - Asbestos in Soils Awareness training.
  - Manual Handling.
- 9.18 Site Supervisors (Principal Contractor and Sub-contractors) are to hold the following mandatory training:
- Site Supervisors Safety Training Scheme (SSSTS) or equivalent.
  - Construction Skills Certification Scheme (CSCS) card.
  - Asbestos in Soils Awareness training.
  - Manual Handling.
  - First Aid at Work (3-day course).

## On-Site Training

- 9.19 Toolbox Talks will be undertaken weekly, or as required following an incident, on relevant subjects and delivered by the Site Manager to all persons on site. The briefing will be held within the site welfare and following the talk the opportunity to raise health and safety concerns, improvement suggestions, good practices, etc. will be opened to all present.
- 9.20 Daily Site Briefings also provide a medium for employees to discuss Health and Safety issues and for training to be delivered as part of the delivery of key tasks. These are undertaken prior to any works being undertaken on site each day. The proposed works for the day is discussed and all controls / work procedures reinforced to ensure that all members of the site team understand their role. At the end of these briefings the workforce can then discuss the proposed work methods and other issues.

## Existing Services

- 9.21 Statutory utilities plans will be provided by the Principal Contractor to the Archaeological Contractor in advance of the site works. The Principal Contractor will be responsible for providing an up-to-date series of utilities plans and carrying out a PAS 128 B to D survey prior to the excavation of each trench.
- 9.22 The Principal Contractor will issue a permit to dig prior to the excavation of geoarchaeological boreholes and trial trenches.

## Access, Welfare and Security Provisions

- 9.23 The Principal Contractor will provide information to the Archaeological Contractor to confirm the most suitable points for access and egress, where relevant. The Archaeological Consultant will ensure these are clearly marked in the RAMS documentation and briefed to all site staff.
- 9.24 The Principal Contractor will supply welfare facilities at a suitable location for the archaeologist(s) to make use of as needed.
- 9.25 The Principal Contractor will provide a security assessment of the site to the Archaeological Contractor prior to the start of the archaeological works. The Archaeological Contractor will ensure the security arrangements are included in their RAMS documentation and briefed to all site staff. The Principal Contractor will provide any security requirements deemed necessary by the security assessment (e.g. 24/7 security guards).

## COVID-19

- 9.26 All work should be undertaken in line with current government advice, which, at the time of writing includes the Site Operating procedures (Construction Leadership Council 2021, and any subsequent updates).

## 10. Programme and Resources

- 10.1 The programme and key contacts for the project will be confirmed prior to the start of evaluation.
- 10.2 The Archaeological Contractor must ensure that they have adequate and appropriate management procedures in place to ensure that risks to the programme timetable (more extensive remains, better preserved deposits, exceptional finds, interruptions from periods of prolonged inclement weather and any delays due to the COVID-19 pandemic) can be identified at an early stage. These risks will be kept under constant review by the Archaeological Contractor to ensure that the aims and objectives are met within the agreed timetable and budget. The Archaeological Consultant and the Client will be notified at the earliest opportunity of any changes to the methodology or programme of work that arise from review.
- 10.3 Changes or variation to the programme will only be accepted after they have been agreed in writing with the Archaeological Consultant and the Client. The Archaeological Contractor shall give immediate warning to the Archaeological Consultant and the Client should any agreed programme date not be achievable.
- 10.4 In the event of significant, or important unanticipated archaeological discoveries (such as *in situ* flint scatters or human remains), the Archaeological Contractor will notify the Archaeological Consultant and the Principal Contractor immediately. Appropriate resources and associated timescales must be provided by the Archaeological Contractor and agreed upon with the Archaeological Consultant and the Principal Contractor to limit the risk to the programme whilst ensuring all necessary archaeological excavation and recording has been undertaken, to meet the aims and objectives of the evaluation. The Archaeological Consultant will inform the Senior Historic Environment Advisor for Hertfordshire County Council in the event of significant, or important unanticipated archaeological discoveries.

# 11. Confidentiality and Publicity

- 11.1 All communication regarding this project is to be directed through the Archaeological Consultant on behalf of the Client. The Archaeological Contractor will refer all inquiries to the Archaeological Consultant without making any unauthorised statements or comments. The Archaeological Contractor will not disseminate information or images associated with the project for publicity or information purposes without the prior written consent of the Client.
- 11.2 Publicity regarding the evaluation will be managed by the Archaeological Consultant on behalf of the Client.



## 12. Copyright

- 12.1 The Archaeological Contractor shall assign copyright in all reports, documentation and images produced as part of this project to the Client. The Archaeological Contractor shall retain the right to be identified as the author or originator of the material. This applies to all aspects of the project. It is the responsibility of the Archaeological Contractor to obtain such rights from sub-contracted specialists.
- 12.2 The Archaeological Contractor may apply in writing to use or disseminate any of the project archive or documentation (including images). Such permission will not be unreasonably withheld.
- 12.3 The results of the evaluation shall be submitted to the Client and the Hertfordshire County Council HER and will ultimately be made available for public access.

# 13. References

British Geological Survey (BGS) Accessed August 2022. Online geindex map. Available online at <http://mapapps2.bgs.ac.uk/geindex/home.html> . Accessed 23-Aug-22.

Burial Act (1857) <http://www.legislation.gov.uk/ukpga/Vict?20-21/81/contents>

ClfA (2020a) *Standard and Guidance for Archaeological Field Evaluation*. Chartered Institute for Archaeologists, Reading, June 2020 [https://www.archaeologists.net/sites/default/files/ClfAS%26GFieldevaluation\\_2.pdf](https://www.archaeologists.net/sites/default/files/ClfAS%26GFieldevaluation_2.pdf)

ClfA (2020b) *Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives*. Chartered Institute for Archaeologists, Reading, June 2020.

ClfA 2021 Code of Conduct. Chartered Institute for Archaeologists  
<https://www.archaeologists.net/sites/default/files/Code%20of%20conduct%20revOct2019.pdf>

Construction Leadership Council (2021) *Site Operating Procedures – Protecting Your Workforce During Coronavirus (Covid-19)*, Available online: <https://www.constructionleadershipcouncil.co.uk/wp-content/uploads/2021/01/Site-Operating-Procedures-Version-7.pdf>

Health and Safety Executive (HSE) (2015) *Construction (Design and Management) Regulations*. Available online: <https://www.hse.gov.uk/construction/cdm/2015/index.htm>

Hertfordshire Association of Museum 2018. *Hertfordshire Archaeological Archive Standards: A Countywide Standard for the Creation, Compilation and Transfer of Archaeological Archives in Hertfordshire*. Hertfordshire Association of Museum.

Historic England (2008) *Archaeological Conservation. Guidelines on how the detailed examination of artefacts from archaeological sites can shed light on their manufacture and use*. Historic England, Swindon.  
<https://historicengland.org.uk/advice/technical-advice/archaeological-science/archaeological-conservation/>

Historic England (2011) *Environmental Archaeology: A guide to the theory and practice of methods, from sampling and recovery to post-excavation*, 2<sup>nd</sup> edition, English Heritage Centre for Archaeology Guidelines No. 1.

Historic England (2015) *Geoarchaeology. Using earth sciences to understand the archaeological record*.

Historic England (2019) *Animal Bones and Archaeology. Recovery to archive*. Historic England Handbooks for Archaeology

MoRPHE (2008) Project Planning Note 3 *Archaeological Excavations*. Historic England *Management of Research Projects in the Historic Environment. The MoRPHE Project Manager's Guide*.

Schmidt, A., Linford, P., Linford, N., David, A., Gaffney, C., Sarris, A., & Fassbinder, J., (2016) *EAC Guidelines for the Use of Geophysics in Archaeology*.

Soilscapes (Accessed August 2022) *Online soil types viewer*. <http://www.landis.org.uk/soilscapes/>

Treasure Act 1996 (Revised 2017) <http://legislation.gov.uk/ukpga/1996/24/contents>

Treasure Act 1996 *Code of Practice (Revised) England and Wales*  
[https://www.gov.uk/government/uploads/attachment\\_data/file/77532/TreasureAct1996CodeofPractice2ndRevision.pdf](https://www.gov.uk/government/uploads/attachment_data/file/77532/TreasureAct1996CodeofPractice2ndRevision.pdf)

Treasure Act (designation) Order 2002 No. 2666 <http://www.legislation.gov.uk/uksi/2002/2666/contents/made>

Welwyn Hatfield District Plan (2005) Available online. <https://archive.welhat.gov.uk/districtplan>

# Appendix A Heritage Standards and Guidance

AAF 2007 Archaeological Archives. A guide to best practice in creation, compilation, transfer and curation. Archaeological Archives Forum

ACBMG 2004 Draft Minimum Standards for the Recovery, Analysis and Publication of Ceramic Building Material. 3<sup>rd</sup> edition. Archaeological Ceramic Building Materials Group  
<http://www.tegula.freeseerve.co.uk/acbmg/CBMGDE3.htm>

ADCA 2010 Dealing with architectural fragments. Association of Diocesan and Cathedral Archaeologists Guidance Note 3 <http://www.archaeologyuk.org/adca/documents/ADCAGuidanceNote3.pdf>

ADS 2011 Archaeology Data Service / Digital Antiquity Guides to Good Practice. Archaeology Data Service, University of York <http://guides.archaeologydataservice.ac.uk/g2gp/Main>

AEA 1995 Environmental Archaeology and Archaeological Evaluations. Recommendations concerning the environmental archaeology component of archaeological evaluations in England. Working Papers of the Association for Environmental Archaeology No 2ALGAO 2015 Advice Note for Post-Excavation Assessment. Association of Local Government Archaeological Officers, October 2015.  
[https://www.algao.org.uk/sites/default/files/documents/ALGAO\\_England\\_PXA\\_Advice\\_Note.pdf](https://www.algao.org.uk/sites/default/files/documents/ALGAO_England_PXA_Advice_Note.pdf)

AML 1994 A Strategy for the Care and Investigation of Finds. Ancient Monuments Laboratory, English Heritage

APABE/EH 2013 Science and the Dead: A guideline for the destructive sampling of human remains for scientific analysis. Advisory Panel on the Archaeology of Burials in England/English Heritage  
[http://www.archaeologyuk.org/apabe/Science\\_and\\_the\\_Dead.pdf](http://www.archaeologyuk.org/apabe/Science_and_the_Dead.pdf)

BABAO & Historic England 2018 The Role of the Human Osteologist in an Archaeological Fieldwork Project. British Association of Biological Anthropology and Osteoarchaeology & English Heritage.  
<https://historicengland.org.uk/images-books/publications/role-of-human-osteologist-in-archaeological-fieldwork-project/>

BABAO and IFA 2004 Guidelines to the Standards for Recording Human Remains. British Association for Biological Anthropology and Osteoarchaeology and Institute of Field Archaeologists. Institute of Field Archaeologists Technical Paper 7 (Reading) <http://www.babao.org.uk/assets/Uploads/HumanremainsFINAL3.pdf>

BABAO 2010 Code of Ethics. Working group for ethics and practice. British Association of Biological Anthropology and Osteoarchaeology <http://www.babao.org.uk/index/cms-filesystem-action/code%20of%20ethics.pdf>

BABAO 2010 Code of Practice. BABAO Working group for ethics and practice. British Association of Biological Anthropology and Osteoarchaeology <http://www.babao.org.uk/index/cms-filesystem-action/code%20of%20practice.pdf>

BABAO 2012 BABAO position statement on methods of reburial of human remains. British Association of Biological Anthropology and Osteoarchaeology <http://www.babao.org.uk/index/reburialissues>

Barber, B, Carver, J, Hinton, P and Nixon, T 2008 Archaeology and development. A good practice guide to managing risk and maximising benefit. Construction Industry Research and Information Association Report C672

Barnes, A 2011 'Close-Range Photogrammetry: a guide to good practice', in Archaeology Data Service / Digital Antiquity Guides to Good Practice. Archaeology Data Service, York  
[http://guides.archaeologydataservice.ac.uk/g2gp/Photogram\\_Toc](http://guides.archaeologydataservice.ac.uk/g2gp/Photogram_Toc)

Brickley, M and McKinley, JI 2004 Guidelines to the Standards for Recording Human Remains. IFA Professional Practice Paper No. 7, British Association for Biological Anthropology and Osteoarchaeology and Institute of Field Archaeologists, Reading <http://www.babao.org.uk/HumanremainsFINAL.pdf>

- Brickstock, RJ 2004 The Production, Analysis and Standardisation of Romano-British Coin Reports. English Heritage, Swindon <https://www.historicengland.org.uk/images-books/publications/production-analysis-and-standardisation-of-romano-british-coin/>
- Brown, A and Perrin, K 2000 A Model for the Description of Archaeological Archives. Information Management & Collections. English Heritage Centre for Archaeology/Institute of Field Archaeologists, Reading <http://www.english.gov.uk/archives/archdesc.pdf>
- Brown, DH 2011 Safeguarding Archaeological Information. Procedures for minimising risk to undeposited archaeological archives. English Heritage <https://www.historicengland.org.uk/images-books/publications/safeguarding-archaeological-information/>
- Brown, DH 2011 Archaeological Archives: A guide to best practice in creation, compilation, transfer and curation. 2nd edition. Institute of Field Archaeologists/Archaeological Archives Forum (Reading) [http://www.archaeologyuk.org/archives/aaf\\_archaeological\\_archives\\_2011.pdf](http://www.archaeologyuk.org/archives/aaf_archaeological_archives_2011.pdf)
- Buikstra, J.E. and Ubelaker D.H. (eds) 1994 Standards for Data Collection from Human Skeletal Remains. Arkansas Archaeological Survey Research Series 44, Fayetteville, Arkansas
- ClfA 2014 An introduction to providing career entry training in your organisation. ClfA Professional Practice Paper No. 11, Chartered Institute for Archaeologists, Reading [http://www.archaeologists.net/sites/default/files/node-files/2014.PPP\\_Training-toolkit-web\\_0.pdf](http://www.archaeologists.net/sites/default/files/node-files/2014.PPP_Training-toolkit-web_0.pdf)
- ClfA 2018 Policy statements (Equal opportunities in archaeology; Health and safety; The use of volunteers and students on archaeological projects; Environmental protection; Self-employment and the use of self-employed sub-contractors; The use of training posts on archaeological project). Revised August 2018. Chartered Institute for Archaeologists, Reading <https://www.archaeologists.net/sites/default/files/Policy%20statements%20revised%20Aug%202018.pdf>
- ClfA 2021 Code of Conduct. Chartered Institute for Archaeologists, <https://www.archaeologists.net/sites/default/files/Code%20of%20conduct%20revOct2019.pdf>
- ClfA 2020 Standard and guidance for the collection, documentation, conservation and research of archaeological materials. Chartered Institute for Archaeologists, Reading, October 2020 [https://www.archaeologists.net/sites/default/files/ClfAS%26GFinds\\_2.pdf](https://www.archaeologists.net/sites/default/files/ClfAS%26GFinds_2.pdf)
- ClfA 2020 Standard and guidance for commissioning work on, or providing consultancy advice on, archaeology and the historic environment. Chartered Institute for Archaeologists, Reading, October 2020 [https://www.archaeologists.net/sites/default/files/ClfAS%26GCommissioning\\_2.pdf](https://www.archaeologists.net/sites/default/files/ClfAS%26GCommissioning_2.pdf)
- ClfA 2020 Standard and guidance. Appendices. Chartered Institute for Archaeologists, Reading, December 2014 [https://www.archaeologists.net/sites/default/files/ClfAS%26GAppendices\\_2.pdf](https://www.archaeologists.net/sites/default/files/ClfAS%26GAppendices_2.pdf)
- ClfA, 2020. Standard and guidance for Archaeological Field Evaluation. Chartered Institute for Archaeologists, Reading, June 2020. Available online: [https://www.archaeologists.net/sites/default/files/ClfAS%26GFieldevaluation\\_2.pdf](https://www.archaeologists.net/sites/default/files/ClfAS%26GFieldevaluation_2.pdf).
- ClfA 2020 Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives. Chartered Institute for Archaeologists, Reading, June 2020. [https://www.archaeologists.net/sites/default/files/ClfAS%26GArchives\\_3.pdf](https://www.archaeologists.net/sites/default/files/ClfAS%26GArchives_3.pdf)
- CIRIA 2015 Environmental good practice on site (fourth edition). CIRIA C741. Construction Industry Research and Information Association
- Collett, L 2012 An introduction to drawing archaeological pottery. IfA Professional Practice Paper No. 10, Institute for Archaeologists, Reading
- Davey PJ 1981 Guidelines for the processing and publication of clay pipes from excavations. Medieval and Later Pottery in Wales IV, 65-87 Darvill, T and Atkins, M 1991 Regulating Archaeological Works by Contract. IFA Technical Paper No 8, Institute of Field Archaeologists, Reading
- Davis, M.J., Gdaniec, K.L.A., Bryce, M. and White, L. 2004, Study of the Mitigation of Construction Impacts on Archaeological Remains. Museum of London Archaeology Service (London)

Dawson, A and Hillhouse, S 2011 SPECTRUM 4.0: the UK Collections Management Standard. Collections Trust  
<http://www.collectionslink.org.uk/programmes/spectrum>

DCMS 2008 Treasure Act 1996 Code of Practice (2nd Revision) England and Wales.  
<https://www.gov.uk/government/publications/treasure-act-1996-code-of-practice-2nd-revision-england-and-wales>

English Heritage 2004 Dendrochronology. Guidelines on producing and interpreting dendrochronological dates (under review). English Heritage, <https://www.historicengland.org.uk/images-books/publications/dendrochronology-guidelines/>

English Heritage 2006 Guidelines on the X-radiography of Archaeological Metalwork. English Heritage, Swindon  
<https://www.historicengland.org.uk/images-books/publications/x-radiography-of-archaeological-metalwork/>

English Heritage 2008 Luminescence Dating. Guidelines on using luminescence dating in archaeology (under review). English Heritage, Swindon <http://historicengland.org.uk/images-books/publications/luminescence-dating/>

English Heritage 2008 Guidelines for the Curation of Waterlogged Macroscopic Plant and Invertebrate Remains. English Heritage, Swindon <https://www.historicengland.org.uk/images-books/publications/curation-of-waterlogged-macroscopic-plant-and-invertebrate-remains/>

English Heritage 2010 Waterlogged Wood. Guidelines on the recording, sampling, conservation and curation of waterlogged wood. 3<sup>rd</sup> edition. English Heritage, Swindon <https://www.historicengland.org.uk/images-books/publications/waterlogged-wood/>

English Heritage [Campbell, G, Moffett, L and Straker, V] 2011 Environmental Archaeology: A guide to the theory and practice of methods, from sampling and recovery to post-excavation. Second edition. English Heritage Centre for Archaeology Guidelines No. 1, Portsmouth <https://www.historicengland.org.uk/images-books/publications/environmental-archaeology-2nd/>

English Heritage 2012 MIDAS: the UK Historic Environment Data Standard Version 1.1. Best practice guidelines. Forum on Information Standards in Heritage (FISH) [http://heritage-standards.org.uk/wp-content/uploads/2015/10/MIDAS\\_Heritage\\_2012\\_update-\\_v5.doc](http://heritage-standards.org.uk/wp-content/uploads/2015/10/MIDAS_Heritage_2012_update-_v5.doc)

Eiteljorg, H, Fernie, K, Huggett, J and Robinson, D with Thomason, B 2011 'CAD: A Guide to Good Practice', in Archaeology Data Service / Digital Antiquity Guides to Good Practice. Archaeology Data Service, York  
[http://guides.archaeologydataservice.ac.uk/g2gp/Cad\\_Toc](http://guides.archaeologydataservice.ac.uk/g2gp/Cad_Toc)

FAME 2006 Employment Practice Manual. Federation of Archaeological Managers and Employers

FAME 2006 Health and Safety in Field Archaeology Manual. Federation of Archaeological Managers and Employers

Ferguson, L and Murray, D 1997 Archaeological Documentary Archives. IFA Professional Practice Paper 1, Institute of Field Archaeologists, Reading

Gillings, M and Wise, A 2011 'GIS Guide to Good Practice', in Archaeology Data Service / Digital Antiquity Guides to Good Practice. Archaeology Data Service, York [http://guides.archaeologydataservice.ac.uk/g2gp/Gis\\_Toc](http://guides.archaeologydataservice.ac.uk/g2gp/Gis_Toc)

Historic England 2015 Archaeometallurgy. Historic England, Swindon <http://historicengland.org.uk/images-books/publications/archaeometallurgy-guidelines-best-practice/>

Historic England 2016 Preserving Archaeological Remains. Decision-taking for Sites under Development. Historic England, London <https://historicengland.org.uk/images-books/publications/preserving-archaeological-remains/>

Historic England 2017 Land Contamination and Archaeology. Good Practice Guidance. Historic England, London <https://historicengland.org.uk/images-books/publications/land-contamination-and-archaeology/>

Historic England 2017 Organic Residue Analysis and Archaeology. Guidance for Good Practice. Historic England, London <https://historicengland.org.uk/images-books/publications/organic-residue-analysis-and-archaeology/>

Historic England 2017 Photogrammetric Applications for Cultural Heritage Guidance for Good Practice. Historic England, London <https://content.historicengland.org.uk/images-books/publications/photogrammetric-applications-for-cultural-heritage/heag066-photogrammetric-applications-cultural-heritage.pdf/>

Historic England 2018 3D Laser Scanning for Heritage. Advice and guidance on the use of laser scanning in archaeology and architecture. February 2018. Historic England, Swindon. <https://historicengland.org.uk/images-books/publications/3d-laser-scanning-heritage/>

Historic England 2018 Waterlogged Organic Artefacts. Guidelines on their Recovery, Analysis and Conservation. September 2018. Historic England, Swindon. <https://historicengland.org.uk/images-books/publications/waterlogged-organic-artefacts/>

Historic England 2018 Science for Historic Industries. Guidelines for the investigation of 17th- to 19th-century industries. October 2018. Historic England, Swindon. <https://historicengland.org.uk/images-books/publications/science-for-historic-industries/>

Historic England 2019 Piling and Archaeology. March 2019. 2nd edition. Historic England, Swindon <https://historicengland.org.uk/images-books/publications/piling-and-archaeology/>

Historic England [Baker, P & Worley, F.] 2019. Animal Bones and Archaeology: Recovery to archive. Historic England Handbooks for Archaeology. Historic England, Swindon. <https://historicengland.org.uk/images-books/publications/animal-bones-and-archaeology/>

Historic England 2019 Managing Lithic Scatters and Sites: archaeological guidance for planning authorities and planners. Historic England draft for consultation. <https://historicengland.org.uk/about/what-we-do/consultations/guidance-open-for-consultation/>

Hodgson, J 2001 Archaeological reconstruction: illustrating the past. IFA Professional Practice Paper 5, Institute of Field Archaeologists, Reading [https://www.archaeologists.net/sites/default/files/5%20Archaeological%20reconstruction\\_illustrating%20the%20ast.pdf](https://www.archaeologists.net/sites/default/files/5%20Archaeological%20reconstruction_illustrating%20the%20ast.pdf)

Icon 2014 Icon Professional Standards: The professional standards of the Institute of Conservation (Icon). Institute of Conservation, London <http://icon.org.uk/system/files/documents/professional-standards-2016.pdf>

Longworth, C and Wood, B 2000 Standards in Action Book 3: working with archaeology guidelines. Society of Museum Archaeologists/ Museum Documentation Association

McKinley, JI and Roberts, C 1993 Excavation and Post-excavation Treatment of Cremated and Inhumed Human Remains. Institute of Field Archaeologists Technical Paper No. 13, Reading

MGC 1992 Standards in the Museum Care of Archaeological Collections. Museums and Galleries Commission <http://www.collectionslink.org.uk/discover/site-information/484-standards-in-the-museum-care-of-archaeological-collections>

Mitchell, PD & Brickley, M 2017 Updated guidelines to the standards for recording human remains. ClfA Professional Practice Paper, British Association for Biological Anthropology and Osteoarchaeology and Chartered Institute for Archaeologists, Reading [http://www.archaeologists.net/sites/default/files/14\\_Updated%20Guidelines%20to%20the%20Standards%20for%20Recording%20Human%20Remains%20digital.pdf](http://www.archaeologists.net/sites/default/files/14_Updated%20Guidelines%20to%20the%20Standards%20for%20Recording%20Human%20Remains%20digital.pdf)

MPRG 2000 A Guide to the Classification of Medieval Ceramics. Medieval Pottery Research Group Occasional Papers No. 1

MPRG 2001, Minimum Standards for the Processing, Recording, Analysis and Publication of Post-Roman Ceramics. Medieval Pottery Research Group Occasional Paper No. 2 <http://www.medievalpottery.org.uk/docs/Standards.pdf>

Murphy, PL and Wiltshire, PEJ 1994 A Guide to Sampling Archaeological Deposits for Environmental Analysis. English Heritage, London

Nixon, T (ed) 2004 Preserving Archaeological Remains in situ. Proceedings of the 2nd Conference, 12–14 September 2001. Museum of London Archaeology Service (London)

Owen, J 1995 Towards an Accessible Archaeological Archive. The Transfer of archaeological archives to museums. Guidelines for use in England, Northern Ireland, Scotland and Wales. Society of Museum Archaeologists <http://www.socmusarch.org.uk/docs/towardsaccessiblearchive.pdf>

PCRG 2010 The Study of Later Prehistoric Pottery: General polices and guidelines for analysis and publication (3rd edition). Prehistoric Ceramics Research Group Occasional Papers 1 & 2

PCRG, SGRP & MPRG 2016 A Standard for Pottery Studies in Archaeology. Prehistoric Ceramics Research Group, Study Group for Roman Pottery, Medieval Pottery Research Group & Historic England, June 2016  
[http://romanpotterystudy.org/new/wp-content/uploads/2016/06/Standard\\_for\\_Pottery\\_Studies\\_in\\_Archaeology.pdf](http://romanpotterystudy.org/new/wp-content/uploads/2016/06/Standard_for_Pottery_Studies_in_Archaeology.pdf)

Phillips, T and Creighton, J 2010 Employing people with disabilities: good practice guidance for archaeologists. IfA Professional Practice Papers No 9, Institute for Archaeologists, Reading

RFG and FRG, 1993 Guidelines for the Preparation of Site and Assessments for all Finds other than Fired Clay Vessels. Roman Finds Group and Finds Research Group

Schofield, AJ (ed) 1998 Interpreting Artefact Scatters. Oxbow Monograph 4, Oxford

SGRP 1994 Guidelines for the Archiving of Roman Pottery. Study Group for Roman Pottery  
<http://www.romanpotterystudy.org/SGRPPublications/GuidelinesArchivingRomanPot.pdf>

SMA 1997 Selection, Retention, Dispersal of Archaeological Finds. Guidelines for use in England, Wales and Northern Ireland (Revised). Society of Museum Archaeologists  
<http://www.socmusarch.org.uk/docs/selectionretentiondispersalofcollections1.pdf>

Stanbridge, R 2005 Photogrammetry: A Practical Guide in The Building Conservation Directory.  
<http://www.buildingconservation.com/articles/photogram/photogrammetry.htm>

UKIC 1983 Packaging and Storage of Freshly Excavated Artefacts from Archaeological Sites. (United Kingdom Institute for Conservation, Conservation Guidelines No 2)

UKIC 1984 Environmental Standards for Permanent Storage of Excavated material from Archaeological Sites. (United Kingdom Institute for Conservation, Conservation Guidelines No 3)

UKIC 1990 Guidance for Conservation Practice. United Kingdom Institute for Conservation

UKIC 1990 Guidelines for the Preparation of Excavation Archives for Long-term Storage. United Kingdom Institute for Conservation Archaeology Section

UKIC 2001 Excavated Artefacts and Conservation. (United Kingdom Institute for Conservation, Conservation Guidelines No 1, revised)

University of Bradford and English Heritage 2009 Archaeomagnetism: Magnetic Moments in the Past.  
<https://www.bradford.ac.uk/archaeomagnetism/>

WAC 1989 The Vermillion Accord – Human Remains. Motion Approved at the First Inter-Congress on the Disposal of the Dead. World Archaeology Congress, Vermillion, South Dakota

Watkinson, DE and Neal V 2001 First Aid for Finds. RESCUE/United Kingdom Institute for Conservation

Willis, S 1997 (ed) Research Frameworks for the Study of Roman Pottery. Study Group for Roman Pottery

Young C 1980 Guidelines for the Processing and Publication of Roman Pottery. Department of the Environment

# Appendix B Gazetteer of Heritage Assets

Hertfordshire HER no.	Description	Period	Designation
1348120	The Barn Theatre. A range of former farm buildings, weatherboarded and with slate roofs, including a 17 <sup>th</sup> century aisled barn said to have been brought from elsewhere and which is in use as a theatre. Some exposed timber framing. Roof timbers still substantially intact but partly concealed. Converted to its present use in 1931.	Post-medieval	Grade II listed building
1101113	Hand Side Farmhouse. Early 19 <sup>th</sup> century former farmhouse. Used for a time as the New Town hostel. Two storeys, rendered, with hipped Welsh slate roof with one brick stack.	Post-medieval	Grade II listed building
1348179	Woodhall Farm Cottage, south of farmhouse. Small 16 <sup>th</sup> century red brick two-storey cottage.	Post-medieval	Grade II listed building
1173083	Bush Hall House. Former mill house now disused. Early 19 <sup>th</sup> century, red brick. Three storeys.	Post-medieval	Grade II listed building
MHT 161	Late Iron Age enclosure and Early Roman cremations, Stanborough School Welwyn Garden City. A Late Iron Age boundary ditch, pottery, a coin of Claudius and part of a La Tene III brooch found 1938. Excavations in 1953 revealed that the ditch was part of a large palisaded enclosure, probably a settlement. Finds from the ditch included large quantities of pottery, two urned cremation groups with Early Roman pottery and Samian. Evaluation in 1997 and 1998 provided a more accurate plan of the site. A concentrated dump of unworn 1 <sup>st</sup> century D pottery was found in the ditch, a possible termination deposit of c.AD 65. The assemblage found in 1953 was evidently part of this deposit. The enclosed settlement may have been abandoned, but some continued use of the site in the Early Roman period, probably into the 2 <sup>nd</sup> century is shown by the cremations (which were outside the enclosure) and a few shreds in the top of the ditch. Subsequent monitoring of groundworks for new school facilities found that much of the land had been terraced when the school was built and nothing more was revealed.	Late Iron Age to Early Roman	Non-designated
MHT 163	Late Iron Age cremation cemetery, 61-63 Attimore Road, Welwyn Garden City. Four cremation burial groups were found 2ft deep in the front gardens of 61 and 63 Attimore Road. They consisted of urns, bowls and plates dating to the early 1 <sup>st</sup> century along with four La Tene III brooches and fragments of a small metal mirror.	Late Iron Age	Non-designated
MHT 642	Findspot. Later Bronze Age Axe, 74 Woodhall Lane. It is described by Morris as a socketed axe with a square socket loop, possibly in the British Museum.	Late Bronze Age	Non-designated
MHT 1571	Findspot. Roman coin, 178 Hanside Lane. Coin of Hadrian.	Roman	Non-designated
MHT 2145	Findspot. Flints 31033 Attimore Road. Prehistoric worked flints found in 1930 during road construction.	Prehistoric	Non-designated
MHT 2516 EHT 2507	Cropmark of a linear ditch, Stanborough, Hatfield.	Unknown	Non-designated
MHT 2799	Findspot. A small fragment of Samian pottery was found underneath a layer of peat excavated during the construction of the Stanborough boating lake.	Roman	Non-designated
MHT 2804	Late Iron Age cremations, Newfields. 'Belgic pottery' has been found at Newfield Welwyn Garden City.	Late Iron Age	Non-designated
MHT 2806	Neolithic Axe, Stanborough Lake. Part of a polished flint Neolithic axe was found in 1970 on one of the spoil heaps from the new Stanborough lakes.	Neolithic	Non-designated



MHT 4661	Supposed Roman road from Verulamium to Ware. The Viatores' proposed Roman road 214 runs from Verulamium to Ware, via Welwyn. The inspiration for the Viatores' search for this route was 18 <sup>th</sup> century antiquarian speculation. None of the route has been confirmed by excavation and it remains doubtful.	Roman	Non-designated
MHT 5107	Twentieth mile bridge. Road bridge, carrying road to Longcroft Green. Built in 1850 in brick with three arches over two tracks each. Has a stone stringcourse and coping. Width 5.5m. A new bridge runs alongside to carry one lane of traffic, opened 1968. A pedestrian bridge has been built on the north side.	Post-medieval	Non-designated
MHT 5218	Road bridge, Old Stanborough Lane. Road bridge carrying the Old Stanborough Lane over the River Lea. Brick was two low arches with stone cutwater on north side, stone coping and stone dated 1820. Demolished in 1966 and new bridge built alongside in 1931 of steel girders. The present bridge is built of brick and concrete. The 1820 bridge may itself have replaced older structures.	Post-medieval	Non-designated
MHT 5219	Road bridge Stanborough. Road bridge over the River Lea. Rebuilt in 1926 and reinforced with concrete girders. Has a stone parapet with a bronze plaque dated 1927.	Post-medieval	Non-designated
MHT 5286	Wall box, Stanborough Lodge Barn, Stanborough Green. Post box.	Post-medieval	Non-designated
MHT 5599	Railway bridge over River Lea, Hatfield. Brick parapet. East side has three arches, height 40ft, west side carrying Hatfield-Luton branch has five arches, height 40ft. embankment north and south. Built 1850. Main line bridge reconstructed 1876. Luton line reconstructed 1895.	Post-medieval	Non-designated
MHT 5600	Railway bridge, Stanborough Park. Brick piers, east side has one arch, height 20ft, west side has five arches. Built 1850. Reconstructed 1868 and 1895.	Post-medieval	Non-designated
MHT 6125 EHT 2507	Cropmarks of linear ditches, Stanborough, Hatfield. Cropmarks of four roughly parallel linear ditches aligned NE-SW. Another ditch on the same alignment lies to the south-east (MNT 2516)	Unknown	Non-designated
MHT 7946	Cropmarks of a trackway and linear ditches, Hatfield. Discontinuous cropmarks of a trackway approx. 260m long. Two short lengths of linear ditch, max lengths 48m and 60m.	Unknown	Non-designated
MHT 9599 9546	Welwyn Garden City. The world's second Garden City founded in 1920 by a private company under the guidance of Ebenezer Howard, the man responsible for the first at Letchworth. The architects and planners were Louis de Soissons and Frederic Osborn. Distinct commercial, civic and industrial zones were laid out surrounded by housing. Long straight vistas – The Parkway and Howardsgate – incorporated ornamental spaces in the middle of the town. Locally listed.	Modern (20 <sup>th</sup> century)	Non-designated
MHT 10584	Cropmarks of ring ditches, Stanborough Bury, Hatfield. Cropmarks of two ring ditches, probably plough-raised barrows near Stanborough Bury.	Unknown	Non-designated
MHT 10585	Manorial site and approximate site of 17 <sup>th</sup> century house, Woodhall Farm, Hatfield. Earthworks and documentary evidence	Medieval & Post-medieval	Non-designated
MHT 10870	Backhouse Room, Handside Lane. A 17 <sup>th</sup> century timber-framed one-aisled structure that was the cart shed of the Upper Handside Farm (MHT 16976). Converted onto a meeting room 1923. It has two dormer windows at the rear and the remains of an external brick chimney, the brick plinth and weatherboard infill are modern, with some flint infill at one side. Inside, the support and roof timbers are visible. Upper Handside Farm was demolished during the building of the Garden City.	Post-medieval	Non-designated
MHT 10940	Site of twentieth mile pit, Stanborough Lane. A brickworks on the Salisbury Estate, named after the adjacent railway bridge. The works were the main source of sand and gravel for the construction of the new Garden City. Used for training in earthmoving by RAF Mill Green in the 1940s. Brickworks first appear on OS map 1898.	Post-medieval & Modern (20 <sup>th</sup> century)	Non-designated
MHT 11238	Site of post-medieval pond and other earthworks west of chequers. A series of possible fish ponds with dams lie along the stream west of Chequers road and Sir John Newson school. 1878 OS maps shows area as marshy with no dams or ponds marked. 1838 tithe map shows a triangular pond, more than 200m long and	Unknown	Non-designated

	40m wide at its southern end. At this south end was a small marshy areas from which ran the existing stream which rises within the area of the pond. Within Woodhall Park and may relate to Woodhall itself.		
MHT 11239	Artificial pond, dam and associated earthworks north of Woodhall Farm. Possibly 20 <sup>th</sup> century water management or a water garden in the 17 <sup>th</sup> -18 <sup>th</sup> century grounds of Woodhall.	Unknown	Non-designated
MHT 11762	Findspot. Neolithic scraper, Stacklands, Stanborough. Found on the ground in Stacklands, June 1991.	Neolithic	Non-designated
MHT 11764	Findspot. Roman tiles found at Stanborough Park, 1970s.	Roman	Non-designated
MHT 13336	Bush Hall, Mill Green, Hatfield. 17 <sup>th</sup> century farmhouse turned into a country residence in the mid 18 <sup>th</sup> century, now a hotel.	Post-medieval	Non-designated
MHT 16282	Site of Woodhall Lodge Farm. Post-medieval farmstead shown on the 1880 OS map as a substantial farmstead at the end of an avenue with ranges of barns around a rectangular yard and with a large pond to the north. It has the same form on the 1838 tithe map.	Post-medieval	Non-designated
MHT 16976	Site of Upper Handside Farm, The Old Drive. The farmhouse, a square building with a small rear extension, stood within a landscaped garden to the west of the farm buildings, which surrounded two irregular yards. It was demolished to make way for the new Garden City leaving only a 17 <sup>th</sup> century cart shed (MNT 10870).	Post-medieval	Non-designated
MHT 17440	Site of Lea Valley Lido, Stanborough Park. Opened in 1935 and 'Lido on the Lea', later known as Splashlands. One of three open air pools built for residents of the new Garden City. Shown in detail on the 1938 OS map.	Modern (20 <sup>th</sup> century)	Non-designated
MHT 18114	Site of Woodhall Park. Medieval deer park in the manor of Hatfield Woodhall, revived in the alter 17 <sup>th</sup> century.	Medieval & Post-medieval	Non-designated
MHT 18262	Parkway School. 1934 school for the new Welwyn Garden City, rebuilt to the same plan after a fire in 1939. Closed in 1986 and demolished in 2011.	Modern (20 <sup>th</sup> century)	Non-designated
MHT 18387	Cropmarks of possible pits and cut features, south of Stanboroughbury Farm.	Unknown	Non-designated
MHT 18696	Milepost. Site of milestone, Great North Road, Hatfield. Documentary evidence. 21 miles from London. Shown on 1878/1879 OS map.	Post-medieval	Non-designated
MHT 18698	Post-medieval farmhouse with 16 <sup>th</sup> century farmhouse, associated with medieval and alter deer park and country house.	Post-medieval	Non-designated
MHT 31018	Site of Stanborough Farm. Post-medieval farmstead at the hamlet of Stanborough on the Great North Road. Demolished in the 1960s during improvements to the A1.	Post-medieval	Non-designated

# Appendix C Gazetteer of Previous Heritage Events

Hertfordshire HER event no.	Event Type	Description
EHT 1360	Watching Brief on land opposite 96 – 102 Lemsford lane, Welwyn Garden City, 2006	Monitoring of groundworks for new housing on the site of a workshop. The ground had been heavily truncated and no archaeological finds, features or deposits were present. Part of the area appeared to be undisturbed and consisted of topsoil over a clay subsoil, above natural hoggin. Report: Kaye, D. (2007) <i>Land opposite 96-102 Lemsford Lane, Welwyn Garden City, Herts: archaeological monitoring report, watching brief RNO2297</i>
EHT 1860	Air photo of ring ditches	Air photo of ring ditches. Report: Air Photo Services (1994) <i>Ring ditches, Stanborough, Welwyn Garden City</i>
EHT 1861	Air photo of ring ditches	Air photo of ring ditches. Report: Air Photo Services (1994) <i>Ring ditches, Stanborough, Welwyn Garden City</i>
EHT 1863	Air photo of ring ditches	Air photo of ring ditches. Report: Air Photo Services (1994) <i>Ring ditches, Stanborough, Welwyn Garden City</i>
EHT 2507 MNT 2516 MHT 6125	Air photo of cropmarks of linear ditches, Stanborough	Air photo of cropmarks of linear ditches. Report: CUCAP <i>Cropmarks of linear ditches, Stanborough, Hatfield</i>
EHT 3959	Photo of Late Iron Age enclosure ditch, Stanborough	Photograph of a section through the Late Iron Age enclosure ditch excavated at Stanborough School in 1997. Finds from the ditch included large quantities of potter, some is visible in the section photo.
EHT 3960	Photo of Late Iron Age enclosure ditch, Stanborough	Photograph of a section through the Late Iron Age enclosure ditch excavated at Stanborough School in 1997. Finds from the ditch included large quantities of potter, some is visible in the section photo.
EHT 4150	Evaluation at Longcroft Lane, Welwyn Garden City, 1993	21 evaluation trenches dug on open land in advance of new housing, in a long strip between Longcroft Lane and the railway line. Various depths of recent overburden and clay natural were recorded, but no archaeological finds, features or deposits. The overburden represented dumps left during the construction of the new road, Osborn Way. Report: Walker, C. (1993) <i>Longcroft Lane, Welwyn Garden City: an archaeological evaluation, field evaluation RNO51</i> Anon. (1993) <i>Archaeological assessment of land at Longcroft Lane, Welwyn Garden City, Herts., desk-based assessment, RNO404</i>
EHT 5441	Watching brief at Oaklands College, Lemsford Lane, Welwyn Garden City, 2004	Groundworks for new housing revealed that construction of the college buildings had removed the original ground surface and cut into the natural gravel. Made ground overlay natural across the site, and there were not archaeological finds, features or deposits. Report: Upson-Smith, T. (2005) <i>Archaeological watching brief, Lemsford Lane, Welwyn Garden City, Hertfordshire, RNO1670</i>
EHY 6878	Geophysical survey at Sir John Newsom and Creswick Schools, Welwyn	Geophysical magnetometry survey of playing field on the south side of the school in advance of the construction of housing. The field was covered with ferrous debris and drains, and although a few

		anomalies suggested possible linears and pits, there was nothing conclusively archaeological. The geology is glacial gravel over chalk. Report: Anon. (1998) Specialist archaeological field evaluation (at Sir John Newsom School and Creswick School sites, Welwyn Garden City), geophysical survey RNO2699
EHT 7246	Geotechnical test pits at Parkway School, Welwyn Garden City, 2007	Five test pits across the Parkway Centre site found modern made ground in each pit to a maximum depth of 0.40m above natural boulder clay. Topsoil was found only in one pit, and it was apparent that the overburden had been stripped before the school was built. Report: Smith, M. (2011) <i>Archaeological desk-based assessment, the Old Parkway School, parkway, Welwyn Garden City, Hertfordshire RNO2922</i>
EHT 7247	Building recording at the Parkway Centre, Parkway, Welwyn Garden City, 2011	Recording of the 1934 school buildings before demolition and replacement with housing. Report: Letch, A. (2011) <i>The Parkway Centre (former Parkway School), Welwyn Garden City, Hertfordshire, Level II historic building survey RNO2924</i>
EHT 8686	Evaluation at Stanborough School, Welwyn Garden City, 2019	No description recorded
EHT 8808	Excavation at Stanborough School, Lemsford Lane, Welwyn Garden City, 2020	No description recorded
EHT 8951	Evaluation at Stanborough School, Lemsford Lane, Welwyn Garden City, 2021	Two small trial trenches within footprint of the temporary classrooms as mitigation. No further details recorded.
EHT 4166	Evaluation at Stanborough School, Welwyn Garden City, 1997	No description recorded. Report: Hunn, J.R. (1997) <i>An interim report on an archaeological evaluation at Stanborough School, Welwyn Garden City, Hertfordshire RNO67</i>
EHT 4359	Evaluation at Stanborough School, Welwyn Garden City, 1998	No description recorded. Report: Hunn, J.R. (2009) <i>Excavations on a first-century enclosure at Stanborough School, Welwyn Garden City</i>
EHT 4752	Watching brief at Stanborough School, Welwyn Garden City, 1999	Monitoring of groundworks for three new buildings at the school, in the areas of a known Late Iron Age enclosure, found that part of the ground (the new technology block) has been truncated, probably by terracing when the school was built. No archaeological finds, features or deposits in the area of the other two buildings were observed either. The subsoil was natural clayey silt Report: Hunn, J.R. (1999) <i>Report on a watching brief at Stanborough School, Welwyn Garden City, Herts. RNO601</i>
EHT 4757	Watching brief at Stanborough School, Welwyn Garden City, 1999	Monitoring of groundworks for a new sports pitch recorded no archaeological finds, features or deposits. Topsoil lay above gravelly subsoil. Report: Hunn, J.R. (1999) <i>Watching brief report on the new all weather pitch at Stanborough School, Welwyn Garden City, Herts. RNO606</i>
EHT 7866	Fieldwalking on the proposed Stanborough-Roestock A1 improvement loop, 1974	Fieldwalking along the route, with notes made field by field and using advice from the County Archaeologist. Not all the fields could be examined in detail for various reasons. Report: unpub. Hatfield and District Archaeological Society 1974 (map and notes on cards for fieldwalking along Stanborough-Roestock A1 improvement loop)

# Appendix D Figures

**Figure 1 Site Location**

**Figure 2a Designated Heritage Assets**

**Figure 2b Non-Designated Heritage Assets**

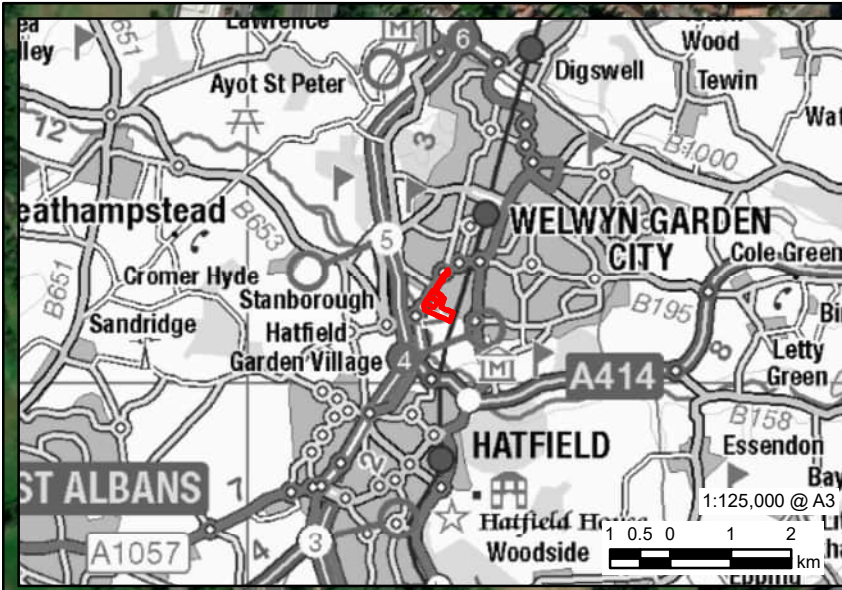
**Figure 2c Previous Archaeological Events**

**Figure 2d Historic Landscape Characterisation**

**Figure 3 Trench Locations**

**Figure 4 Proposed Scheme Design**





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**LEGEND**  
Red Line Boundary

**NOTES**  
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**ISSUE PURPOSE**  
For Information

**PROJECT NUMBER**  
60600329

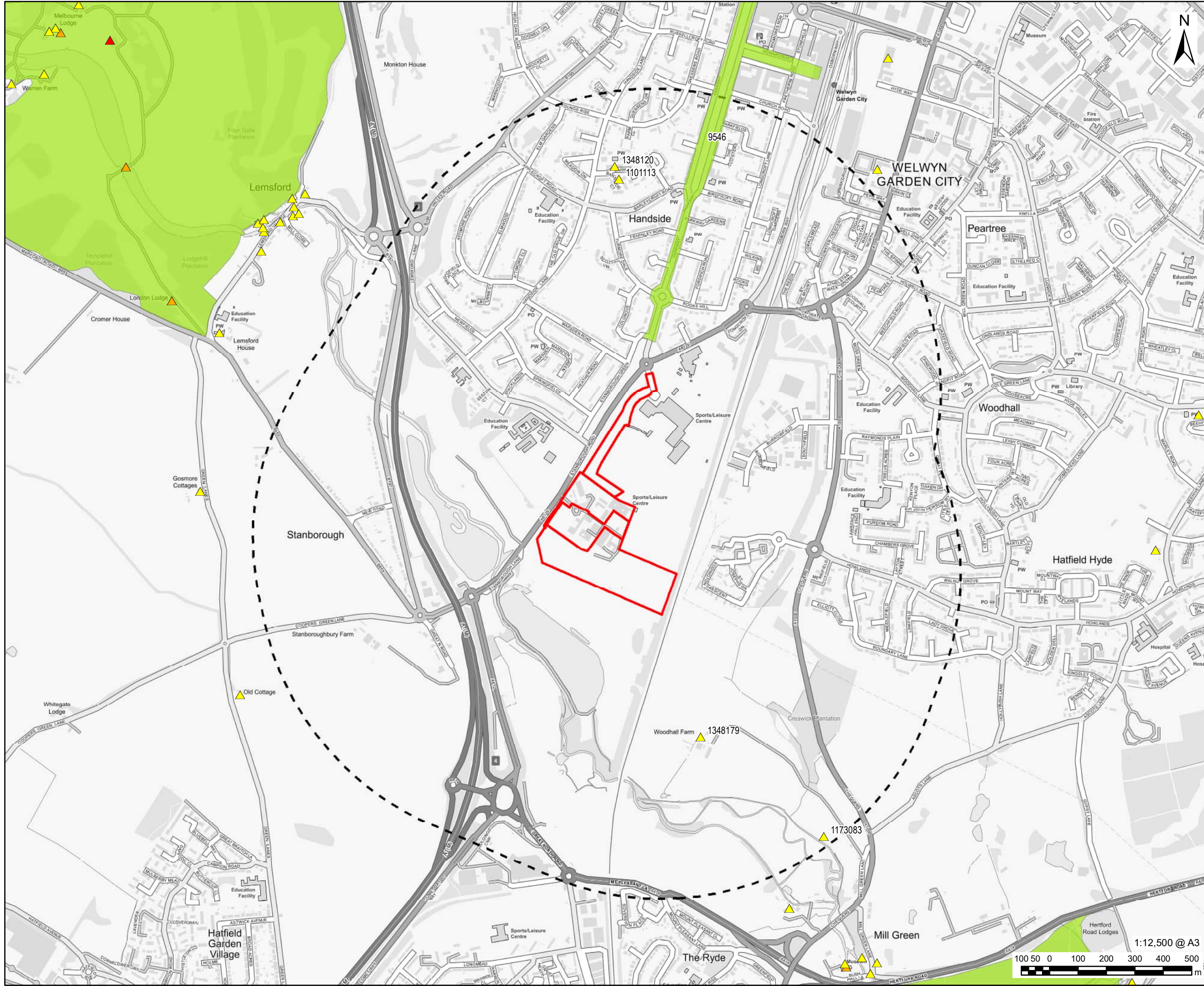
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Site Location

**FIGURE NUMBER**  
Figure 1



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- LEGEND**
- Red Line Boundary
  - 1km Study Area
  - Registered Park and Garden
  - Listed Building**
  - ▲ Grade I
  - ▲ Grade II\*
  - ▲ Grade II

**NOTES**

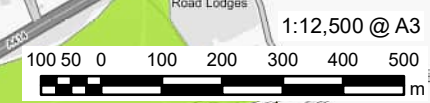
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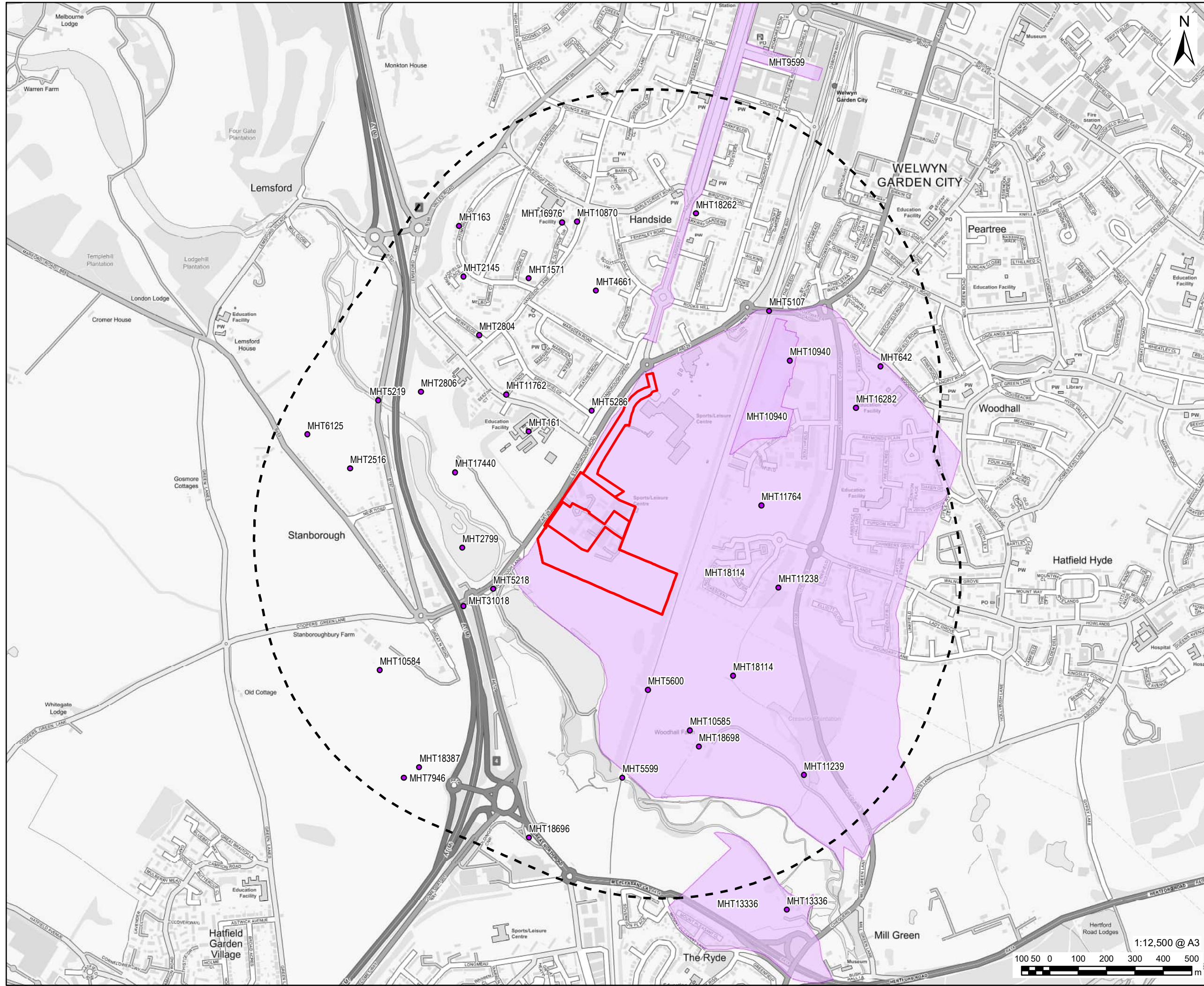
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Designated Assets

**FIGURE NUMBER**  
Figure 2a



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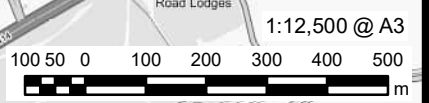
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LEGEND  
 Red Line Boundary  
 1km Study Area  
 Monument

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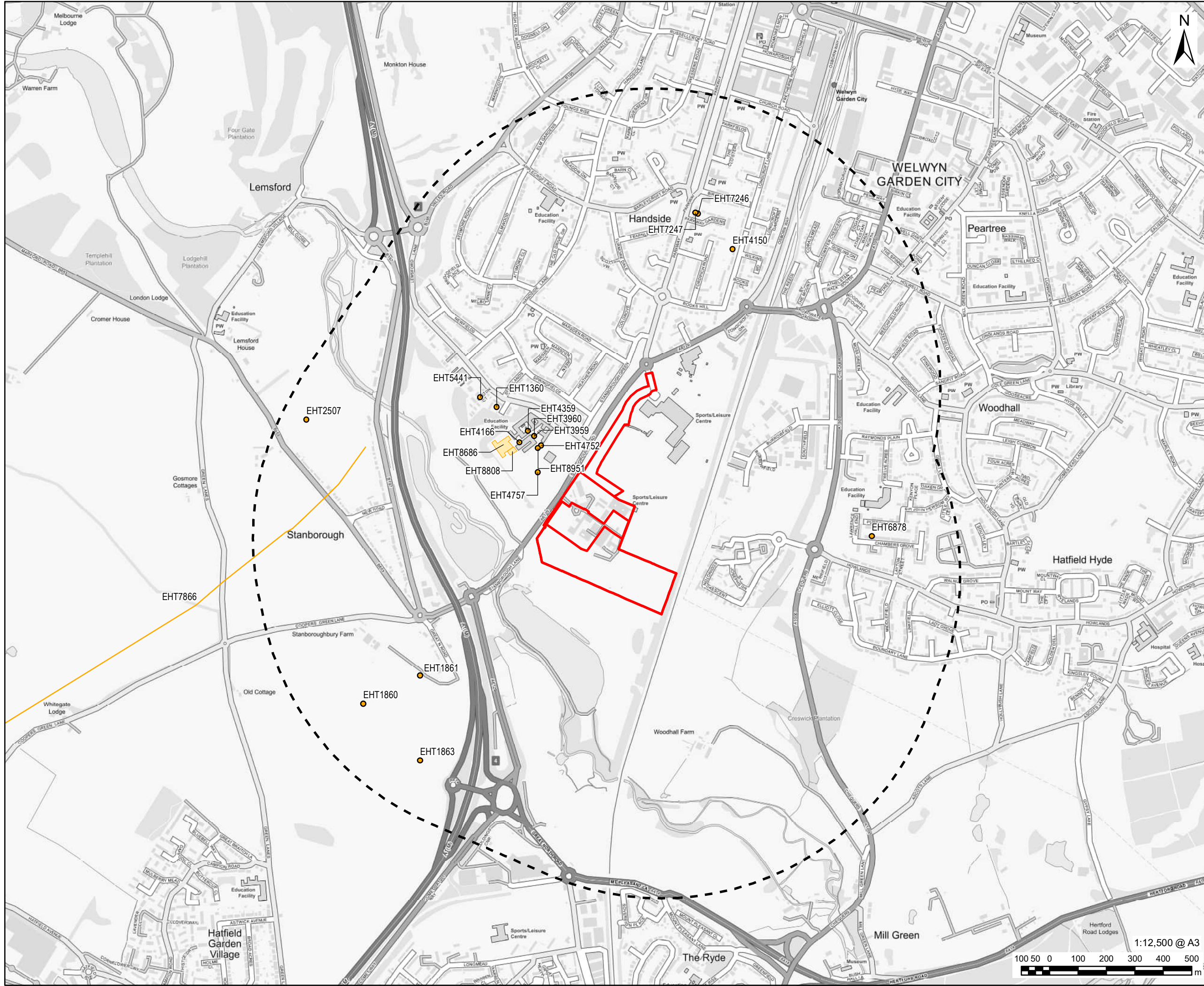
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 Non-Designated Assets

FIGURE NUMBER  
 Figure 2b



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**LEGEND**

- Red Line Boundary
- 1km Study Area
- Event

**NOTES**

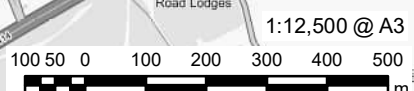
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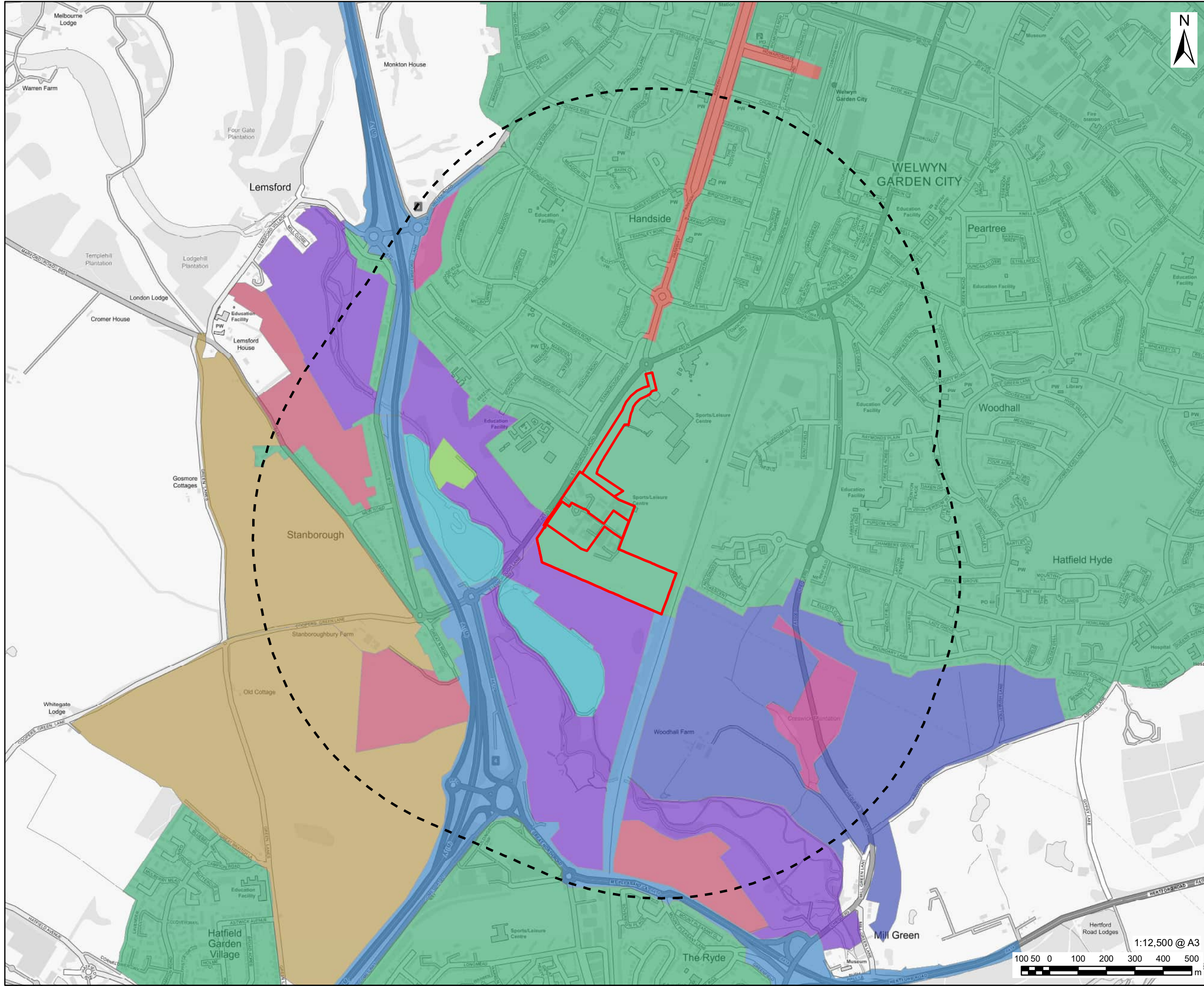
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Events

**FIGURE NUMBER**  
Figure 2c



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- LEGEND**
- Red Line Boundary
  - 1km Study Area
  - Historic Landscape Character Area**
  - 18th-20th Century Woodland Plantation
  - 20th Century Enclosure
  - Built-Up Areas - Urban Development
  - Enclosed Meadow
  - Industrial
  - Irregular Enclosure
  - Leisure / Recreation
  - Motorway, Railway
  - Piecemeal Enclosure By Agreement
  - Restored Land

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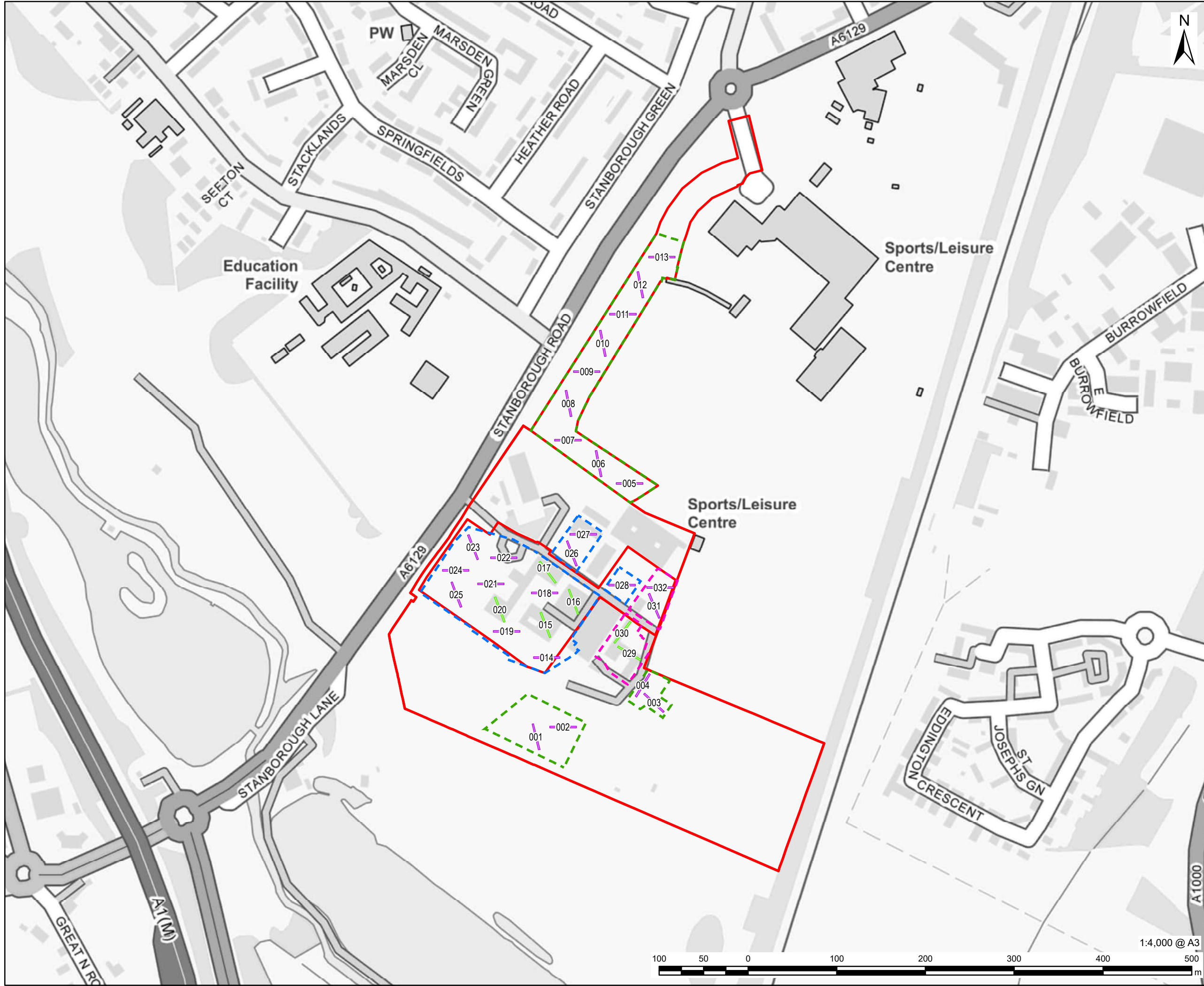
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**FIGURE TITLE**  
Historic Landscape Character Areas

**FIGURE NUMBER**  
Figure 2d

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**PROJECT**  
Hertfordshire Constabulary  
HQ

**CLIENT**  
Hertfordshire Constabulary

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**LEGEND**

- Red Line Boundary
- Phase**
- 1
- 2
- 3
- Trial Trench**
- Not in a Building
- In a Building

**NOTES**

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**ISSUE PURPOSE**  
For Information

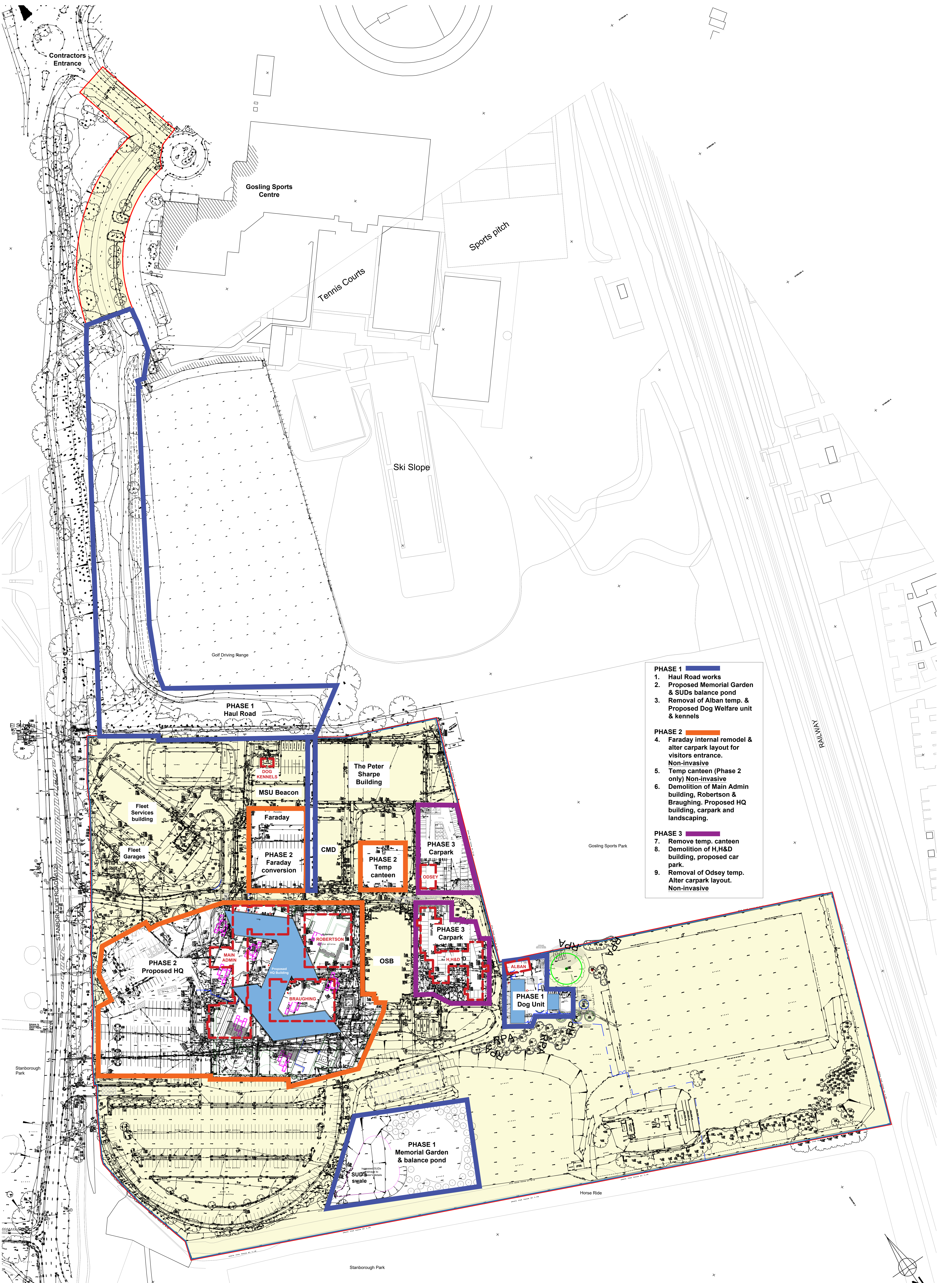
**PROJECT NUMBER**  
60600329

**FIGURE TITLE**  
Trial Trenching

**FIGURE NUMBER**  
Figure 3

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- PHASE 1**
- Haul Road works
  - Proposed Memorial Garden & SUDs balance pond
  - Removal of Alban temp. & Proposed Dog Welfare unit & kennels
- PHASE 2**
- Faraday internal remodel & alter carpark layout for visitors entrance. Non-invasive
  - Temp canteen (Phase 2 only) Non-invasive
  - Demolition of Main Admin building, Robertson & Braughing. Proposed HQ building, carpark and landscaping.
- PHASE 3**
- Remove temp. canteen
  - Demolition of H,H&D building, proposed car park.
  - Removal of Odsey temp. Alter carpark layout. Non-invasive



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