

1EW03 - Enabling Works Central

AWHi Survey Report for Archaeological Recording at Land North of Nash Lee, Buckinghamshire

MDL:

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1 Summary of Archaeological Works

- 1.1.1 This report details the survey methodology for setting out and surveying Archaeological Recording conducted from end of February to mid-April 2021 near Wendover, Buckinghamshire (centred on NGR 484773, 208846). The site code for these works was 1C20NNLAR. The area of Archaeological Recording comprised parts of two arable fields, C22031 (0.20ha) and C22032 (0.50 ha) which in total comprised an area of 0.70ha. (Figure 1).
- 1.1.2 The land at Nash Lee was targeted to enable the construction of a haul road and two compounds that will be required prior to the main HS2 works. The road and compound will be required for National Grid works. During the main phase of works this area will be used by the HS2 rail alignment formation and associated earthworks and landscaping works during construction of a new footbridge to carry an existing Public Right of Way (PRoW), the Nash Lee overbridge, one attenuation pond and a satellite compound.
- 1.1.3 A medium density of archaeology was uncovered during the excavation, showing that the site was frequented mainly during the Iron Age.

2 Survey Methodology

2.1 Setting Out

- 2.1.1 Setting out is necessary for intrusive archaeological investigations including Archaeological Recording investigation.
- 2.1.2 The purpose is to position the targeted the areas prior to excavation and any uncovered archaeological features excavated within Archaeological Recording area on a location plan. The location, size and objectives are set out in the Project Plan (Document no: 1EW03-FUS-EV-PLN-CS03_CL17-000009) in agreement with the GWSI:HERDS. Each area was assigned a unique ID in accordance with the HS2 Ltd Asset Information Management System (AIMS).

2.2 Surveying

- 2.2.1 Seven Permanent Ground Markers (PGM) were established for the duration of the project shown in Figure 2, as per technical standards. The locations were established using the Trimble Access software on Trimble Tablet, TSC3 or TSC7 controllers and R10 or R8s GNSS antennae, calibrated on 16th March and 6th April 2020. The survey used reference stations provided by Ordnance Survey. The OS Net base stations used for the survey are in Table 1 below.

Table 1 List of OS Net base stations

Base Station	Easting	Northing	Height aOD (m)
GB_Amersham	499706.5497	198584.7029	87.673572
GB_PrincesRisbo	481016.7351	202913.2382	145.659487

- 2.2.2 At least 3 PGM's (Table 2) were reoccupied during each survey to check the accuracy of the equipment. The survey equipment was purchased or hired from Korec who certified the accuracy of the equipment and performed regular maintenance.

Table 2 List of PGM co-ordinates

Station	Easting	Northing	Height AOC (m)
STN01	484913.94	208885.43	111.432
STN02	484958.64	208858.57	111.390
STN03	485046.91	208724.45	113.562
STN04	485093.33	208694.72	114.243
ST05	485145.14	288672.50	115.063

- 2.2.3 All staff using the equipment were appropriately trained and the survey was undertaken in accordance with the sub-contractor's standards for surveying.
- 2.2.4 All excavation areas and interventions were located to a horizontal accuracy of +/-500mm in relation to the detail illustrated in the contract drawing(s). The corner points of area at modern ground surface level were surveyed with Real Time Kinematic (RTK) Global Navigation Satellite System (GNSS) equipment or other suitable automated equipment referenced from the PGM's.
- 2.2.5 Surface heights and levels across the area were recorded using RTK GNSS and related to PGMs. Ordnance Survey Bench Marks (OSBM) were not used. Levelling accuracy was within 10 mm/k: where 'k' is the total distance levelled in kilometres.
- 2.2.6 INFRA ensured that excavation limits, and significant archaeology detail was surveyed 'as dug' in relation to the project grid before leaving the site. Ground level height data were recorded for each intervention.

2.3 Site Location Plan: Archaeological Contexts

- 2.3.1 A 'site location plan', indicating site north was prepared at 1:5000. The location of the site plans is identified using OSGB co-ordinates, as required by technical standards.
- 2.3.2 Section drawings are located on the relevant plan and OSGB co-ordinates recorded using a GNSS system.
- 2.3.3 A record was made 'in plan' of all archaeological deposits as revealed in the investigation. These plans were normally based on digital survey data (digital planning methods were agreed in advance with the HS2 Ltd) supplemented where appropriate by hand drawn records on polyester based drawing film (at a scale of 1:10 or 1:20 unless otherwise agreed with HS2 Ltd). All hand drawn information was digitised (or preferably generated from the digital data in the

first instance). Final deliverables will be supplied in an Esri format and adhere to standards set out in the HS2 Ltd Cultural Heritage GIS Standard (HS2-HS2-GI-SPE-000-000004).

3 Standards and Guidance

3.1 Overview

3.1.1 HS2 Ltd has developed a robust suite of technical standards which supports existing archaeological guidance to ensure that works are delivered in a consistent and cohesive manner that reflects the Secretary of State's commitments to the historic environment.

3.1.2 To implement the GWSI:HERDS, the sub-contractor complied with and used for the development of historic environment works; the strategies, technical standards and guidance notes set out below in section 3.2.

3.2 References

3.2.1 All relevant HS2 standards, guidance and procedures in relation to the production of documents and digital materials were followed. This list is not exhaustive:

- HS2 Cultural Heritage GIS Specification (HS2-HS2-GI-SPE-000-000004)
- The BIM documents set out in High Speed Two Phase One Project Requirements Specification (PRS) (HS2-HS2-SA-SPE-000-000008) (section 2.1.4 Information Management).

3.2.2 The following documents provided background information:

- Historic Environment Physical Archiving Strategy (HS2-HS2-EV-STR-000-000018)
- Historic Environment Digital Data Management and Archiving Strategy (HS2-HS2-EV-STR-000-000019)
- Information Paper E8: Archaeology. (LWM-HS2-HY-PPR-000-000042)
- Project Plan for Archaeological Recording on Land North of Nash Lee, Buckinghamshire, (doc. ref.: 1EW03-FUS-EV-PLN-CS03_CL17-000009)
- AWHi Location Specific Written Scheme of Investigation for Archaeological Recording on Land North of Nash Lee, Buckinghamshire (doc. ref.: 1EW03-FUS_IFA-EV-REP-CS03_CL17-000001)
- GWSI:HERDS (HS2-HS2-EV-STR-000-000015)

4 Archive deposition

4.1.1 Following completion of the archaeological evaluation, the subcontractor will provide the contractor with the required data, metadata and digital material as specified in the Historic Environment Digital Data Management and Archiving Procedure (C262-ARP-EV-SPE-000-

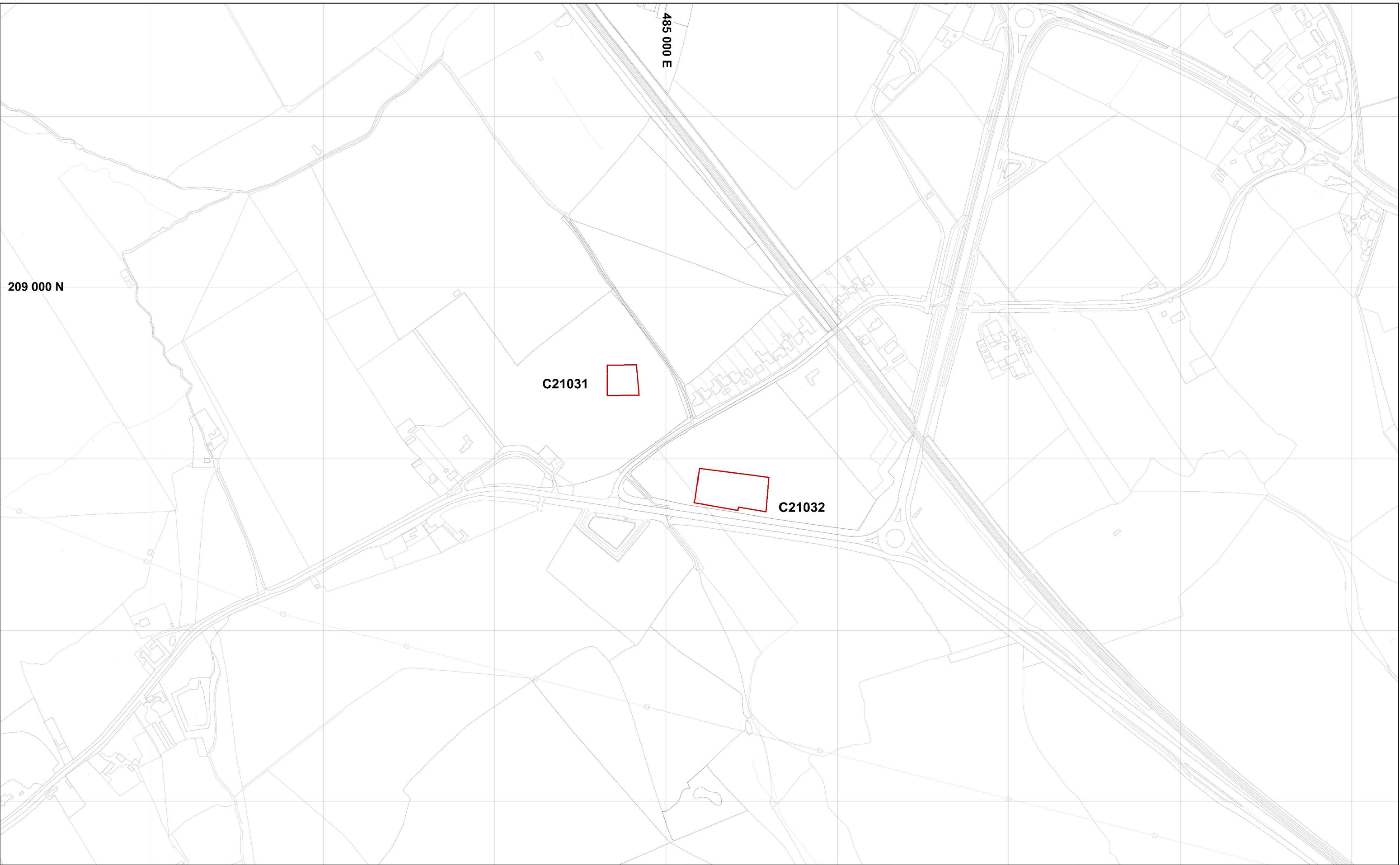
000003) and the Historic Environment Digital Data Management and Archiving Strategy (HS2 Ltd, 2015a).

- 4.1.2 The security and stability of the digital archive will be ensured from fieldwork through to deposition.
- 4.1.3 The survey data will be edited to ensure that the archive deposited into the public domain is fit for purpose both as a record of the archaeology removed by excavation and to enhance understanding about the site from which it came.
- 4.1.4 The report will be uploaded to the OASIS database as required by HS2.
- 4.1.5 File-level metadata requirements for spreadsheets and databases are specified in the *ADS Guidelines for Depositors* (2014) Spreadsheets, Databases and Statistics Guidelines. These guidelines include a metadata template that can be downloaded in XLS, ODS and CSV formats.

5 Glossary of terms

5.1.1 The following terms have been used in this report:

- **Archaeological contractor** – INFRA, the organisation undertaking the specific historic environment works for the *Contractor*.
- **Archaeological recording** - A form of archaeological investigation involving the excavation of an identified area to determine the character and date of any discovered archaeology
- **Contractor** – Fusion; the organisation undertaking the Enabling Works for Area Central on behalf of the Employer.
- **Employer** – HS2 Ltd, the organisation responsible for delivery of HS2 Phase One Scheme and all terms and conditions, policies, procedures, and payments
- **Generic Written Scheme of Investigation: Historic Environment Research and Delivery Strategy (GWSI: HERDS)** – the framework for delivering all historic environment investigations undertaken as part of the HS2 Phase 1 programme.
- **Location** – a specific HS2 worksite or group of worksites that are being addressed as a combined historic environment investigation programme of assessment, evaluation and investigation.
- **Location Specific Written Scheme of Investigation (LSWSI)** - specification document assembling one or more Project Plans within an area of land defined primarily for construction programme purposes. The LS-WSIs will be agreed with the Project Manager and would provide a costed and programmed approach to delivering outcomes.
- **Project Plan** – specification document for each specific package of activity (e.g. a survey, desk-based assessment, excavation, recoding project). The plans would respond to the Specific Objectives set out in the GWSI: HERDS and be delivered within an agreed budget.
- **Works** – the specific historic environment assessment, evaluation or investigation works at each location.



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Legend

 Site extent




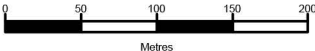
High Speed Two
Land North of Nash Lee
Figure 1. C21031 and C21032,
site location

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Legend

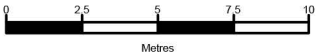

-  C21031 site extent
-  Archaeological feature
-  Control point

High Speed Two
Nash Lee C21031
Figure 2. Location of control points.
1 of 2.

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-  C21032 site extent
-  Archaeological feature
-  Control point

High Speed Two
Nash Lee C21032
Figure 3. Location of control points.
2 of 2.

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Scale at A3: 1:300

