1EW03 - Enabling Works Central

AWHi – Post-Excavation Assessment Report for Archaeological Recording at Doddershall DMV (C25089), Doddershall Embankment Buckinghamshire, AC250/24

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Executive summary

0.0.0 This document details the results of a programme of archaeological recording at Doddershall Deserted Medieval Village (Site code: 1C19DDHAR), hereafter referred to as 'the site', commissioned by the Contractor as part of the enabling works for High Speed Two, Phase 1. The fieldwork was undertaken between May 2020 and July 2021.

0.0.1 The site (Fig. 1) is located 0.2km to the north-east of the Grade II* Listed Doddershall House and its associated parkland, and 1.6km west of Quainton village, in Buckinghamshire (centred at NGR 472280 220440). It comprises a parcel of land (C25089) divided into two areas (DMV South and DMV North, which comprise a total of 2.21ha combined and lie to either side of an extant freight railway line and associated embankment, which bisects the site (Fig. 1).

0.0.2 Previous phases of geophysical and LIDAR survey and a programme of test pit evaluation (Fig. 2) undertaken in 2017-2018 confirmed a high density of archaeological remains which appeared likely to date to the 13th century and were thought to be associated with the deserted medieval village (DMV) of Doddershall.

0.0.3 The archaeological recording was targeted on the anticipated remains of the DMV revealed by the preceding investigations. The investigated areas were selected to mitigate construction impacts arising as part of the HS2 Phase 1 Central Scheme of Works.

0.0.4 Archaeological remains were present in both areas within land parcel C2509. Remains in DMV South were characterised by toft and croft strips, delineated by ditches and gullies. Two house platforms ponds, middens, and possible industrial features were recorded in the crofts. In the southern half of DMV North were ditches and trackways though to define the boundaries of the village, a hearth containing complete pottery jugs and a midden. In the northern half was a ditch defining the village's north-western boundary, scatters of midden material, rubble surfaces, one rubble wall and evidence of buried occupation soils.

0.0.5 The evidence suggests that the village was probably established in the 12th century, superseding an earlier, 11th century settlement. It expanded between the 13th and 15th centuries, until its final abandonment in the 16th century.

0.0.6 The results of the archaeological recording, including the stratigraphic, finds and environmental datasets, have the potential for further analysis in order to clarify the sequence and nature of the occupation and abandonment of the DMV

Part A – Factual report

1 Introduction

1.1.1 COPA was commissioned by Fusion (the Contractor) to undertake a programme of archaeological recording at Doddershall Deserted Medieval Village (the DMV) – site code 1C19DDHAR (Fig. 1). The archaeological recording comprised the investigation of one land parcel, comprising two areas (C25089) measuring c.2.21ha in total. It was preceded by a geophysical survey and LiDAR survey (Document No. P1C2-ETM-EV-REP-000-000008_P01) and a test pit evaluation (Document Nos 1EW03-FUS-EV-REP-CS04_CL20-007851; 1EW03-FUS-EV-REP-CS04_CL20-007852). A project plan (Document No. 1EW03-FUS-EV-PLN-CS04_CL20-000007) was subsequently prepared, which set out the need for archaeological recording in advance of the HS2 Phase One Central Scheme of Works. This summarised the results of the preceding test pit investigation and established the scope, aims and potential contribution to the Generic Written Scheme of Investigations: Historic Environment Research and Delivery Strategy (GWSI: HERDS; Doc. No. HS2-HS2-EV-STR-000-000015), as well as the objectives, techniques, deliverables and reporting mechanism for the archaeological recording.

1.1.2 The project plan informed the subsequent location specific written scheme of investigation (LSWSI; Document No. 1EW03-FUS_COP-EV-REP-CS05-000001), which in turn defined the scope and methodology of the programme of archaeological recording, which was prepared in accordance with the GWSI: HERDS, the Technical Standard: Specification for Project Plans and Location Specific Written Schemes of Investigation (Doc. No. HS2-HS2-EV-STD-000-000036), the Technical Standard: Specification for Historic Environment Investigations (Doc. No. HS2-HS2-EV-STD-000-000035), and relevant Chartered Institute for Archaeologists' (CIfA) Code of Conduct and Standard and Guidance for Archaeological Excavation (CIfA 2014a; CIfA 2014b). The Project Plan and LSWSI detailed the scope and the methodology for the archaeological works.

1.1.3 The archaeological recording targeted the remains of the DMV and any potential evidence of preceding early medieval, as well as post-abandonment remains. The presence of the remains of the DMV had been demonstrated by a desk-based assessment (DBA) (Document No. 1D037-EDP-EV-REP-040-000036), geophysical (Fig. 2) and LiDAR surveys and test pit evaluation. The archaeological recording was required to further identify the location, extent, survival and significance of any such remains. Excavation also sought to clarify details of the settlement layout, phasing and zoning of industrial, craft and economic activities, as well as how the site related to the wider early medieval and medieval period landscape. The locations of the excavation areas were selected to mitigate construction impacts arising as part of the HS2 phase 1 central scheme of works. The programme of archaeological recording was undertaken from 26/05/2020 to 09/07/2021.

1.1.4 The site lies within Community Forum Area CFA12: (Waddesdon and Quainton) and most of DMV South is located within Archaeological Character Sub Zone (ACSZ) 9, which is the site of the deserted medieval village of Doddershall. DMV North is located within Archaeological Character Sub Zone 10 and the south-eastern part is located within Archaeological Character Sub Zone 7. Both Archaeological Character Sub Zones 7 and 10 are associated with the outer estate of the medieval village and the 16th-century estate of Doddershall House.

1.1.5 This report provides an overview of the project background and fieldwork methodology and summarises the results of the archaeological recording, together with a summary of the artefactual and environmental evidence. It also presents a provisional interpretation of the fieldwork results and their archaeological significance and potential to contribute further to GWSI: HERDS specific objectives.

1.1 Project Background and Scheme Design

1.1.6 The High Speed Two (HS2) railway network has been proposed by the Government to provide a new link between London, the West and East Midlands, South Yorkshire and Manchester. Phase One of HS2 entails the construction of a new railway approximately 230km (143 miles) in length between London and Birmingham. Powers for the construction, operation, and maintenance of Phase One are conferred by the High-Speed Rail (London - West Midlands) Act 2017.

1.1.7 The overall framework within which archaeological work was undertaken is set out in the Environmental Minimum Requirements (EMR), in particular the Heritage Memorandum, the Code of Construction Practice (CoCP) for HS2 Phase One and the GWSI: HERDS. Accordingly, the nominated undertaker or the Enabling Works Contractor was required to implement appropriate and reasonable measures to identify, avoid or where practicable reduce impacts to the significance of heritage assets prior to the start of construction.

1.1.8 A Location Specific Written Scheme of Investigation for Archaeological Recording at Doddershall Deserted Medieval Village (DMV) (LSWSI; Document No. 1EW03-FUS_COP-EV-REP-CS05-000001) was prepared for this work.

1.1.9 Specific GWSI: HERDS objectives appropriate to the site were identified in the Project Plan for Doddershall Deserted Medieval Village (DMV) and are listed in section 1.5 of this report.

1.2 Site Location and scope

1.2.0 The site comprises one land parcel (C25089) divided into two areas, DMV South and DMV North, comprising a total of 2.21ha combined, which lie to either side of an extant (live) freight railway line and associated embankment (Fig. 1). DMV South measured c.1.64ha and DMV North measured c.0.57ha. The site is located to the north-east of the Grade II* Listed Doddershall House and its associated parkland, and 1.6km west of Quainton village, in Buckinghamshire (NGR472280, 220440). It was under

managed grass pasture at the time of the fieldwork, which was undertaken from 26/05/2020 to 09/07/2021.

1.2.1 Preceding investigations, comprising geophysical and LiDAR surveys (Document No. P1C2-ETM-EV-REP-000-000008_P01) and a Test Pit Evaluation undertaken in 2017-18 (Document No. 1EW03-FUS-EV-REP-CS04_CL20-007852), confirmed a high density of archaeological remains concentrated in the centre of the site. The majority of remains, which comprised possible ditches, pits and occupation or destruction deposits/surfaces, appeared likely to date to the 13th century and were thought likely to represent remains associated with the deserted medieval village (DMV) of Doddershall.

1.2.2 The fieldwork was undertaken in accordance with the project plan (Document No. 1EW03-FUS-EV-PLN-CS04_CL20-000007) and LSWSI (Document No. 1EW03-FUS_COP-EV-REP-CS05-000001) and adhered to CIfA's Code of Conduct (2014a), Standard and Guidance for Archaeological Excavation (CIfA 2014b) and the Management of Research Projects in the Historic Environment (MORPHE): Project Managers' Guide (Historic England 2015b).

1.2.3 The areas of archaeological recording were positioned in accordance with the project plan and LSWSI. However, ecological and physical constraints were subsequently identified at the start of machine excavation that resulted in some areas not being subject to archaeological excavation, in particular along the south-east, south-west and north-east sides of PA1 and PA2, the south-east end of PA3 and along the line of a new fence separating PA1 and PA2. No health and safety issues were encountered during the course of the archaeological recording.

1.3 General Aims

1.3.0 The archaeological recording was required to mitigate the impact of construction on the archaeological remains within the site. The general aim of the archaeological recording was to locate, identify, characterise, date and record the nature of the archaeological resource of the site ahead of the construction of HS2 Phase 1 Central.

1.3.1 The aims of the fieldwork, as stated in the LSWSI (Document No. 1EW03-FUS_COP-EV-REP-CS05-000001), were to:

- confirm the presence/absence, extent and depth of any surviving archaeological remains within the site;
- record any archaeological remains that may be present;
- determine the level of truncation from ploughing;
- determine the nature, date, condition, state of preservation, complexity and significance of any archaeological remains present, in particular those associated with the DMV as identified in the

Test Pit Evaluation;

- determine and understand the range, quality and quantity of artefactual and environmental evidence present; and
- contribute to the delivery of GWSI: HERDS specific objectives as specified in section 1.5.

1.4 Specific HERDS Objectives aims

1.4.0 For Land Parcel C25089 the Project Plan and LSWSI identified that the archaeological investigation may make a contribution to the following objectives set out in the GWSI: HERDS.

1.4.1 KC30: identify the location and form of Early and Middle Saxon settlement and investigate evidence for land use in the period;

- KC31: identify the location of Middle to Late Saxon settlement, explore processes of settlement nucleation and understand the development of associated field types and agricultural regimes;
- KC34: undertake research and investigation into medieval manorial complexes. What was their origin, development and impact on the landscape?;
- KC35: investigate the impacts on rural communities of social and economic shocks in the mid-14th century and thereafter in their contribution to the settlement's desertion;
- KC40: identify patterns of change within medieval rural settlement from the 11th to mid 14th century; and,
- Kc47: test and develop geophysical survey methods.

1.4.2 In addition to the above HERDS objectives there were a number of detailed site-specific objectives, which the work aimed to address. These were:

1.4.3 Gaining an understanding of the origin of the settlement including potential Prehistoric, Roman and early medieval precursors to the settlement and site land use during these periods.

1.4.4 Gaining an understanding of the early form of the settlement and any evidence for formal planning in the origins/growth of the village or determining if growth was more organic.

1.4.5 Gaining an understanding of the chronology of the settlement during its life leading to a comprehensive phasing plan for the development, decline and eventual abandonment of the settlement and ancillary land.

1.4.6 Gaining an understanding of the later use of the abandoned settlement and inclusion into the post-medieval rural landscape.

1.4.7 Gaining an understanding of the routeways into and around the settlement, represented by tracks and paths.

1.4.8 Gaining an understanding of structural building techniques.

1.4.9 Defining economic activity, agricultural regimes and local production on site.

1.4.10 Understanding the degree of regionally / nationally imported material (both produce and craft items) versus locally produced material.

1.4.11 Defining lifestyle parameters, diet and quality of life.

1.4.12 Gaining an understanding of population density and change through time

1.5 Methodology

1.5.0 The works were undertaken in accordance with a Location Specific Written Scheme of Investigation (LSWSI; Document No. 1EW03-FUS_COP-EV-REP-CS05-000001) in accordance with the GWSI: HERDS, the Technical Standard: Specification for Project Plans, and in accordance with technical standards (the Technical Standard: Specification for Historic Environment Investigations (Document No. HS2-HS2-EV-STD-000-000035) and relevant Chartered Institute for Archaeologists (CIfA) standards (CIfA 2014a; CIfA 2014b). The LSWSI detailed the scope and the methodology for the archaeological works. The LSWSI was also informed by the preceding project plan (Document No. 1EW03-FUS-EV-PLN-CS04_CL20-000007)).

1.5.1 This section briefly summarises the methodology utilised during the works. A more detailed description can be found in the LSWSI.

Setting Out

1.5.2 All spatial setting out and recording was undertaken in accordance with the Ordnance Survey National Grid and Ordnance Datum Newlyn (ODN) as defined by the OS Active Global Navigation Satellite System (GNSS) network and use of a virtual reference system.

1.5.3 All interventions were located to a horizontal accuracy of +/-500mm, with surface heights recorded using Real Time Kinematic (RTK) GNSS and related to PGMs. Levelling accuracy was recorded to within 10 mmÖk: where 'k' is the total distance levelled in kilometres.

Machine/Hand Excavation

1.5.4 All archaeological recording areas were mechanically excavated. The removal of overburden was undertaken using excavators fitted with toothless ditching buckets under the constant supervision of a suitably trained, competent and experienced archaeologist, until the first archaeologically significant horizon was reached, or when the absence of any such horizon was adequately demonstrated. Further use of mechanical excavation was only undertaken with the specific permission of the Contractor. All fieldwork was monitored by Fusion.

1.5.5 Excavated soil was deposited adjacent to the archaeological recording areas as set out in the Soil Resource Plan (Document No. 1EW03-FUS_COP-EV-PLN-CS05-000001) using mechanical excavators and dumpers. Topsoil and subsoil/overburden were stripped and stored separately.

1.5.6 A two-stage metal detecting survey was implemented by experienced staff to scan for metal finds, first following the mechanical stripping of the site areas and then also during the hand excavation of key archaeological features and deposits. In addition, the exposed archaeological surfaces were also subject to a number of analytical survey techniques including geophysical survey, multi spectral analysis aerial survey and photogrammetry. The methodology as defined in the project plan also evolved following intervention strategy discussions with the Contractor and following a review of multi-spectral data (for example, adopting the targeted test pitting of exposed occupation deposits).

1.5.7 In accordance with the project plan and the LSWSI, a sufficient number and proportion of features were hand excavated to meet the aims of the programme of archaeological recording. Linear features were sample excavated to a minimum of 10% of their lengths, with elements of these 100% sampled. Discrete features such as pits and postholes were sampled to a minimum of 50%, structural surfaces to a minimum of 25% and other structural components to a minimum of 50%. Other features and deposits of notable significance were 100% sampled.

1.5.8 Archaeological hand excavation and recording was undertaken to the general requirements as described in the GWSI: HERDS and the Technical Standard: Specification for Historic Environment Investigations (Document No. HS2-HS2-EV-STD-000-000035). The sampling strategy was guided by the CIfA Standard and Guidance for Archaeological Excavation (CIfA 2014b) and other relevant guidance documents, as detailed in the LSWSI.

Fieldwork Recording

1.5.9 A sufficient sample of each feature was excavated to meet the requirements of the GWSI: HERDS. To support the requirements of the GWSI: HERDS, a bespoke excavation strategy defined in a strategy document agreed by all stakeholders (Document No. 1EW03-FUS-EV-REP-CS05-007832) was employed. Archaeological recording included, as a minimum:

- a record of the full extent in plan of all revealed archaeological features and deposits based on

digital survey data, supplemented where appropriate by hand drawn records on polyester-based drawing film (at a scale of 1:10 or 1:20 unless otherwise agreed);

- the written record of individual context descriptions on appropriate pro-forma recording sheets;
- single context planning used only if appropriate;
- digital photographs and other appropriate drawn and written records; and
- sections, including the half-sections of individual layers or features drawn as appropriate to 1:10 or 1:20.

1.5.10 A 'site location plan' indicating site north and individual 'area plans' were prepared, showing the location of the archaeological remains excavated in relation to the investigation area (Figs 5a – 6e). Section drawings were located on relevant plans.

Environmental Sampling

1.5.11 In line with the Employer's Technical Standard: Specification for Historic Environment Investigations (HS2-HS2-EV-STD-000-000035), the following bulk soil sampling strategy was implemented. This strategy was based on the existing information about the site, gathered from non-intrusive surveys and the GWSI: HERDS objectives outlined above.

1.5.12 The purpose of sampling was to identify the range of environmental material present on the Site, their preservation, significance and distribution.

1.5.13 The area is known to contain evidence from the medieval period (11th century onwards) through the post-medieval period and into the modern period. Geophysical survey indicated the presence of the Doddershall DMV within the centre of the larger Doddershall site. The test pit evaluation appeared to confirm its presence and location. Sampling therefore targeted the following, where present, as a minimum:

1.5.14 archaeological features (pits, gullies, postholes, boundary ditches) associated with areas of settlement;

1.5.15 floors and other occupation / use surfaces where they survived and had not been truncated;

1.5.16 deposits representing the main phases of activity on site (to assess whether there were changes in rates of deposition, or material survival over time);

1.5.17 deposits representing industrial activity on site - potentially identified via metal detection survey pre-hand excavation and as ongoing metal detection of deposits during the work;

1.5.18 deposits and features associated with the disuse and abandonment of the site; and,

1.5.19 where deposits were investigated, and found to be undated, and where these had the potential to be of archaeological significance (e.g. potentially of earlier prehistoric or early medieval date, directly associated with the occupation/abandonment of the DMV or any other deposit types notable for artefactual scarcity) appropriate samples were taken for artefact recovery.

1.5.20 Samples were collected using 10 litre plastic buckets (with lids and handles), for the recovery of bulk 'disturbed' environmental samples (Table2). Labelling followed guidance set out in the Technical Standard: Specification for Historic Environment Investigations (Document No. HS2-HS2-EV-STD-000-000035).

Backfilling

1.5.21 Backfilling was undertaken in layers of 250mm, whilst being adequately compacted. The excavation areas were reinstated with arisings, comprising subsoil first then topsoil (i.e. reverse order of excavation) and the ground made good

1.6 Stakeholder Consultation

1.6.0 The archaeological recording was monitored by Dan Hounsell assisted by Hayley James and Csenge Markus (Fusion) including weekly site visits, and occasional site visits by Lucy Lawrence (Buckinghamshire County Council), Chris Welch (Historic England) and Nick Shepard (HS2). The post-excavation programme was monitored by Josh Cameron (Fusion) through weekly monitoring meetings, via Teams, throughout the life of the project.

1.7 Documentary History of the Site

1.7.0 The following section summarises information taken from the DBA (Document No. 1D037-EDP-EV-REP-040-000036). Doddershall was almost certainly present as a settlement by the late 11th century, appearing as 'Sortelai', that is Shortley, in Domesday Book (Open Domesday nd), when it may have had a population of around 60. Later documents indicate a typical, and apparently thriving, medieval village with its own open fields, woods and meadows, and by 1225 – early for England – a windmill. It is currently unknown if the village shrank, as many did, in the 14th century, but there were probably at least 35 houses here in the later 15th century. In the 1490s, the Pigott family, the lords of the manor, evicted at least 24 families in order to concentrate on profitable sheep farming. Even so, some families remained at Doddershall, and some buildings were depicted on a hand-drawn map of the area made in 1587, associated with a land dispute (Fig. 3).

1.7.1 This map depicts a number of roads and land parcels as well as the locations of buildings. Most of these are located on a roadside and associated with plots of land. A key element depicted on the map seems to be a distinct row of five houses, laid out in a broadly north-east-south-west arrangement with a road to the north-west, each located in its own plot. These plots, known as crofts, appear to be very regular,

suggesting a settlement that was, at least in part, laid out as a planned development, something seen in many villages between the 11th and 13th centuries. The houses apparently stand alongside a street, with their crofts out to a long rectangular space, perhaps a village green – again, perhaps indicative of a planned layout. Three other houses lie to the north-west, on roads looping south-west towards Doddershall Hall and its deer park.

1.7.2 A 1976 aerial photograph (Buckinghamshire HER 0343; Document No. 1D037-EDP-EV-REP-040-000036, fig. 1) depicts the earthworks at Doddershall showing a clearly planned unit defined most evidently by a common front boundary, and to a lesser extent by a shared rear boundary, running north-east from north-west of Doddershall House almost up to the line of the railway. It is unclear if any house plots were lost to the railway, although the line of the front boundary seems to run up to it and there are further plots beyond it to the north-east. A row of five plots, which may be the same as the those depicted on the late 16-century map fronted to the south-east onto what appeared to be a linear, village green-like compartment, which broadened slightly towards Doddershall House. South-east of the putative green, ditches defined squarish plots, which may or may not have been tofts. North of the railway the earthworks were far less distinct, bar a group of mounds of indeterminate purpose.

1.8 Geology and Topography

1.8.0 The British Geological Survey (BGS) records the underlying bedrock geology as Weymouth Member (mudstone), which is sedimentary bedrock formed approximately 157 to 164 million years ago in the Jurassic Period (BGS 2020). There are superficial deposits of alluvium (clay, silt, sand and gravel) formed up to 2 million years ago in the Quaternary Period in an environment dominated by rivers, overlain by slowly permeable, seasonally wet, slightly acid but base-rich loamy and clayey soils (Cranfield Online 2018).

1.9 Archaeological background

1.9.0 The information presented below has been derived from the Environmental Statement (ES), prepared in 2013 (ES Volume 5, CH001-012, ES 3.5.12.2.4 to 3.5.12.2.7), which included the results of a remote sensing survey (interpretation of aerial photographs, hyperspectral imagery and LiDAR imagery) of the site and its environs, as well as historic environment data from Buckinghamshire HER. The site has also been the subject to geophysical survey (Document No. P1C2-ETM-EV-REP-000-000008_P01) and a detailed desk-based assessment (Document No. 1D037-EDP-EV-REP-040-000036). A specialist report was also prepared by Dr. Paul Stamper in September 2018 (Document 1EW03-FUS-EVREP-CS04_CL20- 007840) which presents the current level of information available for the medieval village. Information from the report is reproduced below.

1.9.1 In fields c. 500m to the south-east of the Doddershall DMV site, a geophysical survey and trial trenching evaluation revealed a Roman period farmstead (Document No. 1EW03-FUS-EV-REP-CS05-007783).

This was followed in 2020 by a programme of Archaeological Recording, which is currently in post-excavation (Document No. 1EW03-FUS_COP-EV-REP-CS04_CL20-000009). At that site (Doddershall Railway Cottages; Fig. 1, Land Parcel C25087) very limited evidence of prehistoric activity was recovered, suggesting that the site witnessed only a transitory presence prior to the Late Iron Age/early Roman period. The prehistoric material was all residual in later features and the exact nature of prehistoric activity has not yet been fully characterised.

1.9.2 The first significant activity at the Doddershall Railway Cottages site, comprised the remains of a Late Iron Age/early Roman to Mid-Late Roman period farmstead that was laid out around a rectilinear enclosure system on a NNE-SSW/WNW-ESE alignment. It was probably established in the later 1st century AD, as no certain Late Iron Age material culture was discovered. However, some of the pottery that could not be phased with certainty has date ranges that also include the Late Iron Age.

1.9.3 At the Railway Cottages site, three boundaries of an early Roman settlement were identified. These boundaries defined an area of settlement c. 120m north/south, and approximately 140m east/west. Within the main enclosed area, Roman period features, comprising trackway ditches, pits, working surfaces, cultivation ditches, possible occupation areas and waterholes, were discovered as well as further ditches that subdivided the settlement. Occupation continued until the very end of the Roman period. The original western and southern boundaries were redefined, and mid-late Roman period activity did not extend beyond these in either direction. However, settlement expanded to the north-east during this time.

1.9.4 A larger proportion of the material culture from Doddershall Railway Cottages can be dated to the Mid-Late Roman period, and the greater number of features belong to this period. Evidence for iron smelting was also recovered from the site in the form of slags deriving from non-tapping or minimally tapping furnaces. Non-tapping iron smelting was widely used in England during the Iron Age, and the introduction of the tap furnace is considered to have arrived with the Roman Conquest, although the transition between these two industrial processes is poorly understood.

1.9.5 The discovery of a small assemblage of Anglo-Saxon pottery during the Archaeological Recording of the Railway Cottages site, could suggest that the settlement continued in use into the 5th century. A coin dating to the very end of the Roman period was also discovered as well as a worked bone pin beater of a type that is typically Anglo-Saxon was found.

1.9.6 Earthwork remains of the village were identified in the results of the geophysical and LiDAR surveys (Fig. 2). These demonstrated a potential for a high density of archaeological remains within the centre of the site, including the remains of banks and ditches, which almost certainly represent the remains of the medieval village. These earthworks exhibited some regularity and represent the remains of house platforms, toft and croft boundaries and tracks (although it is difficult to directly associate this with those depicted on the 1587 map). The remains of the settlement extend 250m east and at least 250m

south-west of the site. The ES noted that as well as the extant remains, the location of the site - an area subject to periodic, localised, low-level flooding - suggests potential for palaeoenvironmental deposits. The LiDAR survey indicated evidence of ridge-and-furrow cultivation in the southern part of the site, which extends to the south and south-east. The ridge and furrow to the south of the site is orientated east/west, whereas the adjacent field to the south-east had ridge and furrow orientated north-west/south-east.

1.9.7 Where the lost houses as depicted on the 1587 map referred to above lay, and whether the earlier village extended under the railway line is unknown. What is also unknown is at what point the village developed or was laid out; it could have been at any date between the 9th and early 11th century. In addition, also, where this first village stood in relation to that mapped some 600 years later, and indeed if there was some form of Saxon hamlet here before the village.

1.9.8 The results of the geophysical survey were reviewed and although a number of potential archaeological features were identified across the site, the results contributed little of significant additional information on the form of the medieval village. Some high ferrous readings, one north and one south of the railway may have indicated evidence of the remains of industrial activity.

1.9.9 After the abandonment of the village the area was part of an estate centred on Doddershall House, which is located 330m south-west of the site. The Grade II* Listed manor house has associated parkland to the south-west. The existing landscape probably derives from enclosure of the Site and the surrounding area from the 16th century onwards.

1.9.10 The landscape of the eastern part of the Doddershall estate was subject to alteration during the 19th century, due to the construction of two railway lines. Firstly, the Aylesbury and Buckingham Railway, which was built in 1868 and curved northwards to the west of Quainton. This is now disused and the remains lie to the south and east of the site. Then, in 1898, the Great Central London Extension was built. This bisects the site and is still in use

2 Stratigraphic Report

2.0 Results of Archaeological Recording

2.0.0 Archaeological remains were encountered across the majority of both DMV North and DMV South, which comprise the two parts of Area C25089, with a concentration of features within the centre of DMV North and the north-western half of DMV South. The results of the excavation are set out below as follows: DMV South Priority Area 1 (PA1); DMV South Priority Area 2 (PA2) and DMV North Priority Area 3 (PA 3), the locations and extent of the priority areas are shown on Fig. 4. The priority areas were initially defined in order to manage construction programme priorities. They also serve as useful if arbitrary spatial divisions with which to discuss the results of the programme of archaeological

recording. A range of archaeological features were uncovered across these areas. These predominately comprised ditches, structures, ponds, hollows, gullies and surfaces as well as some walls, banks, pits, paths, postholes and natural features such as tree-throws (Table 1). The detailed plans of the excavations (Figs 5 to 16) are presented as subdivisions of the overall plan for DMV Doddershall (Fig. 4).

2.0.1 Finds quantification is set out in Table 19. The finds primarily comprise pottery and animal bone, with smaller quantities of ceramic building material (CBM), fired clay, metalwork, slag and other industrial waste, worked bone and burnt stone, and a few fragments of glass and flint also recovered. Assessment of the environmental bulk soil samples collected from the site is summarised in Section 4 and quantified in Appendix 14.4. An assessment of the animal bone is set out in Section 4.1 and quantification provided in Appendix 14.4 and human remains are discussed in Section 5 and quantified in Appendix 14.4]

Table 1: Summary of results

WSIIntID	Excavated Features	Provisional Date
1C20CVDAR_C25089	Posthole x 26	Medieval
	Postpad x 1	Medieval
	Pond x 5	Medieval
	Bank x 2	Medieval
	Surface x 7	Medieval
	Path x 3	Medieval
	Track x 1	Medieval
	Hollow x 1	Medieval
	Wall x 11	Medieval
	Gully x 23	Medieval
	Hearth x 3	Medieval
	Ditch x 162	Medieval
	Ditch x 13	Post-medieval
	Wall x 2	Post-medieval
	Structure x 14	Post-medieval
	Drain x 2	Post-medieval
	Tree throw x 1	Post-medieval

WSIIntID	Excavated Features	Provisional Date
	Bioturbation x 1	Post-medieval
	Cremation pit x 2	Uncertain
	Pit x 12	Uncertain
	Posthole x 8	Uncertain
	Pond x 3	Uncertain
	Hollow x 2	Uncertain
	Surface x 4	Uncertain
	Trackway x 1	Uncertain
	Wall x 2	Uncertain
	Gully x 1	Uncertain
	Ditch x 6	Uncertain
	Tree throw x 12	Uncertain
	Bioturbation x 1	Uncertain
	Uncertain x 1	Uncertain

2.1 Site sequence and chronology

2.1.0 The stratigraphic sequence across the site comprised topsoil and an alluvial subsoil overlying the natural deposits.

2.1.1 The topsoil was typically characterised across the site as a dark brown loam and measured on average 0.1m thick. This was absent from several locations within the site, as it had already been removed as part of ecological soils translocation works prior to the implementation of the archaeological programme. The alluvial subsoil deposit was recorded as a mid grey-brown silty clay averaging a depth of 0.2m.

2.1.2 The underlying natural deposits included Quaternary alluvial sediments of silty clay measuring on average 0.25m thick; these sealed a gley-mottled, light orange-brown clay with rare, small gravel, which was observed in several sondages across the site.

2.1.3 The summary results for the programme of archaeological recording are discussed below. The site was divided into DMV South Priority Area 1 (PA1); DMV South Priority Area 2 (PA2); and DMV North Priority Area 3 (PA3). The results have been discussed across the site as a whole, but the designations (PA1, PA2 and PA3) have been used in order to orientate the reader.

2.1.4 The remains of the former medieval village were identified across each of the excavation areas, with most of the features and deposits concentrated in the central and northern parts of PA1. The remains of the village predominately comprised toft and croft partitions defined by ditches and gullies, with most of the features contained within the toft and croft layout. Several areas had initially been recognised as potential house platforms and the sequence of deposits in these areas numbered as HP1 -8. In PA1 and 2, two house platforms (tofts) were fully excavated, HP6 (Fig. 15) and HP7 (Fig. 16). In PA3, DMV North, investigation of HPs 2, 3, and 4 (Figs 5, 6 and 7) identified yards but no buildings. Features originally labelled as HP1 (Fig. 7) and HP8 (Fig. 11) also did not correspond with house platforms upon investigation, having no discernible structure. Occupation and disuse deposits, ponds, metalled surfaces and pits, were also recorded

2.2 Deposit survival, truncation, and bioturbation

2.2.0 No evidence of ridge and furrow cultivation was identified within the site as the area was probably only subject to shallow ploughing and was mainly used for grazing after the abandonment of the village. Most of the earthworks and features were fairly well preserved. There was however truncation of earlier features by those which were later as some areas of the site were re-worked on numerous occasions. One of the rubble surfaces recorded in PA3, DMV North, showed signs of late medieval or early post-medieval truncation, which possibly occurred before the complete desertion of the area. There was some bioturbation, mainly in the form of likely tree-throw pits, although many of these are of uncertain date and are isolated features which infrequently affected other archaeological features.

2.3 Period 1 – Prehistoric and Roman

2.3.0 No archaeological features or deposits demonstrably pre-dating the medieval period were identified during the archaeological recording. There was however a small amount of material which possibly represents limited presence in the landscape during the prehistoric and Roman periods. A small quantity of worked flint of prehistoric date occurred residually in later features. Representing subsequent Roman activity were three sherds of pottery from layer 25003 (Fig. 11) and two possible Roman metal objects, one a copper-alloy bead from subsoil deposit 20001 and the other an iron hobnail or stud also residual, from floor surface 20737, HP7 (Fig. 16). These finds suggest the area was peripheral during this period. The material may have been introduced via manuring

2.4 Period 2 – Medieval (9th–15th centuries)

2.4.0 The majority of features and deposits across the site can be phased to the medieval period. The earliest dating evidence consists of 70 Thetford ware sherds which date between the 9th and 11th century, but this material occurred alongside later pottery and was residual. It does however indicate the period of possible inception of the site, even if the focus of settlement was not within the excavated area but in

adjacent known areas of earthworks. Sherds were recovered from across the site, although most was included in deposits in the southern part (PA1 and PA2).

2.4.1 All the medieval features and deposits have been included in a single phase. Features in some cases were clearly re-cut and re-established over a period of time. However, it has proved difficult to associate earlier and later episodes on a site wide basis and identify clear chronological progression as the date ranges of the dateable artefactual material are broad. Elements have been grouped together where appropriate, for example where cuts seen in individual interventions were clearly part of the same feature seen in plan.

The earliest medieval use of the site

2.4.2 There were a number of smaller features in the south-west part of the site which may have related to the earliest medieval use of the site. A series of linear features contained pottery which generally can be regarded as within the earlier part of the medieval range. These features pre-dated Ditch CA (Figs 12 and 13; discussed further below), which also produced pottery with date ranges which could be consistent with the earlier part of the medieval range.

2.4.3 Located in the centre of the south-western edge of PA1 were several north-east/south-west aligned shallow linears (Fig. 12). Whilst broadly parallel, and c. 8-10m apart, they appeared to provide a sequence of plots, although the full form of these was not clear. Each of these linears either terminated with or was crossed by ditch CA and pre-dated it (Fig. 12). They appear to have existed prior to the croft/toft arrangement, in which the principal divisions appear to have been on the north-west/south-east orientation, and which are described below.

2.4.4 The most north-western linear was 20180 which had gradual to moderate concave sides and concave or sloping base (Fig. 12). It was 0.83-1.0m wide and 0.13-0.39m deep and contained pottery of possible 13th and 13-14th century date as well as fired clay and burnt stone. In this case, the ditch continued to the south-west of Ditch CA. Around 7m to the south-east of this, to the north-east of ditch CA was 20182, another shallow ditch or gully with irregular to moderate concave sides and an irregular concave base 0.47-0.90 wide and 0.16-0.26m deep. At its north-eastern end it turned through a right-angle towards the south-east before terminating after c. 2m. This contained possible 13th century and 13-15th century pottery with 14-15th century material in the upper fill, and copper-alloy object Ra. 2001 in context 20183.

2.4.5 South of 20182, and on the south-western side of Ditch CA was a slightly curvilinear ditch 20198. This also pre-dated Ditch CA which cut it at its north end, and it ran to the south-west, curving towards a more westerly course where it exited the excavated area. It had steep to concave sides to a U-shaped or concave base generally 1m wide and 0.13-0.30m deep. It contained 13-14th and 13-15th century pottery. It was also cut by hollow 20355/20357 which contained possible 13th and 13-15th century pottery. Another north-east/south-west aligned shallow linear 20349, was c. 9m to the south-east of

20182. Situated on the north-east side of ditch CA it was more ephemeral and had gentle sides and a curved base, being 0.13-0.30m wide and 0.05-0.06m deep. It contained 12-13th century pottery. It may have formed the southern side of a land parcel with 20182.

2.4.6 The most south-eastern linear in this group (20154) was c. 10m further to the south-east, situated on the north-east side of ditch CA, and cut by it at its southern end (Fig. 12). It had shallow to moderate sides with a concave or flat base, which varied between 0.5m and 1.2m wide and 0.16-0.3m deep. Its fills included pottery of the 12-13th, 13th and 13-15th century, and fired clay. This linear was also cut by a curvilinear gully, 20175, forming a trident shape. This had generally moderate concave sides and an irregular or flat base, c. 0.50 wide and 0.13-0.40m deep and it contained pottery of the mid 12-14th century and 13-14th century, and fired clay. The fills of this curvilinear gully were cut by oval posthole 20362, 0.45m long by 0.30m wide and 0.24m deep, which had moderate concave sides and a U-shaped base. These gullies contained charcoal, but material which was suspected to be slag did not prove to be industrial residue.

2.4.7 Further to the north, on the western edge of the excavation, located on the north side of ditch CC, was an irregular curvilinear ditch 20420/20556 (Fig. 11). This was mainly on a north-east/south-west alignment, with a turn to the north-west at its north end. It had moderately straight sides and a sloping or flat base, and was up to 2.61m wide and 0.49m deep. It contained pottery dated to the 12th-14th century and was cut by ditch CC, so also may have been an early element of the initial medieval settlement. The north-west arm of ditch 20420/20556 cut pit 20554 that is discussed in more detail further below.

2.4.8 In the north-western corner of the site was another pair of features which may also have been part of an earlier arrangement (Fig. 11). Gully 20437 ran for c. 5m on a north-west to south-east alignment and had moderate sides and a flat base, being 0.3m wide and 0.07m deep. Its south-eastern end lined up with a further, curvilinear, gully 20518/20443 located to the to the south-east and which could be a continuation. This curved round to the south for about 7m, had concave sides and a concave base, and was 0.46m wide and 0.17m deep. Gully 20437 contained no dateable material but was cut by Boundary ditch B. Gully 20518/20443 contained a small amount of 13th-15th century pottery. The nature and orientation of these features, the gap of c. 2m between them potentially representing an entranceway, suggests that they were not part of the developed grid structure of the established settlement.

Croft/toft boundaries

2.4.9 The structure of the site throughout the medieval period related to a grid of boundaries on a north-west to south-east and south-west to north-east alignment, which created the croft/toft strips with internal sub-divisions. This was apparent in a number of ditches running across the site, being identifiable in the separate excavated areas, for example ditches CC and BC (Fig. 11). At the north-west

and the south-east extent of the settlement there were ditches which appear to have delineated the boundaries of the occupied area.

2.4.10 On the south-east side of the site, boundary ditch C provided a clear limit to the extent of the medieval settlement (Fig. 13). It ran on a south-west to north-east alignment and was re-cut on more than one occasion. The original cut exited the site at the north-east end whilst at the south-western end it was obscured by later re-cuts, which continued the alignment to exit the site to the south. The original ditch had slightly concave or moderate stepped sides and a flat base, and was substantial, being up to 3m wide, although it was reasonably shallow at between 0.25 and 0.4m deep. The fills contained pottery of the 12th-13th and 13th-15th century, but the initial ditch cut the south-eastern end of Ditch CA, suggesting that some of the ditches which organised the internal settlement layout were the initial organising principle. At the southernmost end (Fig. 14), the original cut of the ditch appears to have resumed and continued for c. 8m before it exited the site (20129). This section of ditch C had moderate sides and a concave base and contained pottery which dated to the 12th-13th and 14th-15th century. The terminal (20234) appears to have been a clear end to the feature, and it is possible that there was originally a break/entrance between this point and where the north-eastern part of Boundary ditch C met earlier ditch CA; a terminal at this point may have been obscured by later re-cutting during the post-medieval period.

2.4.11 The ditches which appear to have formed the boundary on the north-west side of the site appear to have had a more complex history. A series of ditches ran on a north-east to south-west alignment. These were not continuous, but some iterations could be seen to be continuations across the excavated areas. Whilst the dimensions and relationships are not entirely clear on the 1587 (Fig. 3) map, it is probable that these ditches relate to the north-east-south-west roadway depicted to the north-west of the line of buildings.

2.4.12 At the south-western end of this group of linears in area PA1 (Fig. 11), Boundary ditch B consisted of a series of re-cuts which largely obscured the character of the original. The earliest cuts contained little dateable artefactual material. However, in what appears to be the latest cut represented by 20498, there was pottery dated to the 13th-15th century This iteration of the ditch had steep concave sides and a flat base and was reasonably substantial at 1.26m wide and 0.59m deep. This re-cut remained open to accumulate material into the early post-medieval period. There was pottery of the 15th-17th century in the uppermost fills.

2.4.13 One length of ditch, 20647 (Fig. 11), probably terminated at its south-western end, underneath undated layers 20214 and 20586, before running north-east; it seems to have continued as ditch 25310 (Fig. 15), and further north-east ditch BF, before terminating part way across the excavated area. Ditch 20647 may have been the earliest cut (Fig. 21, Section EE), as it ran along the south side of a series of ditches that cut each other. The profile of 20647 had gentle concave sides and a flat base and appears to have been in excess of 3m wide and 0.58m deep and contained no dateable artefacts. Ditch 25310 formed

the south-east edge of HP6 (see below; Fig. 15). It was a shallow-sided linear cut with slightly concave base, 1.8m wide and 0.30m deep. Ditch BF (25180), cut an earlier ditch (20449) which may have been the northern continuation of ditch BD (Fig. 10) suggesting, as on the south-eastern side of the settlement area, that the exterior boundaries may have been later than those subdividing the interior. Ditch BF (25180) was in line with the earliest iteration of Boundary ditch B but was not connected to it. It was steeply sided with a slightly concave base 1.08m wide and 0.28m deep. The ditch also cut deposit 25238, containing pottery of the 13-15th century, which overlay surface 25066 that seems to have been part of the HP6 deposits (this relationship is mentioned further below). The lower fills of Ditch BF contained pottery dated to the 14-15th century, although there was some possibly 18th century pottery in the upper fill. This may be intrusive or possibly suggests that there was at least a depression still extant during the post-medieval period, even if the boundary was not still in use. Ditch BF was cut midway along the north-west/south-east section by undated posthole 25099 and was covered in places by deposits 25079 and 25229 which also contained 15th-16th century pottery.

2.4.14 It was only in the north-west part of the excavation that there was no settlement activity beyond Boundary ditch B; to the north-east, if ditch BF was a continuation of this boundary, settlement spread beyond it to the north-west (see below).

2.4.15 Demarcation of the settlement area continued further north-east. Ditch BE (superseded by Ditch BH) ran on a south-east to north-west alignment close to the edge of the excavated area of PA2 before turning through a right-angle to the north-east (Fig. 10). The line of this is resumed as boundary ditch A in PA3 (Fig. 7), which provided a limit to settlement activity, with almost all features in PA3 occurring on its south-eastern side.

2.4.16 Ditch BE ran for nearly 40m (Fig. 10). It had moderate or occasionally irregular sides and a concave or flat base and was between 0.86m and 2.35m wide and 0.21-0.40m deep. It contained pottery assigned probably to the probable 13th century and 13-15th century. Ditch BH appears to have later re-established ditch BE. It was similarly aligned north-west/south-east with a right-angled return at the north-western end, which turned to the north-east. It had gentle convex or concave sides and a concave or flat base and was between 0.80m and 2.31m wide and 0.13-0.41m deep and this contained pottery dated to the 13th-15th century.

2.4.17 In the north-eastern part of the site in PA3 boundary ditch A had an irregular course broadly north-east to south-west (Figs 7, 8 and 9). Its course diverted to the north halfway along its length, seemingly to avoid or surround features on its southern side, suggesting they were pre-existing when it was constructed. It appears to have been recut in places on numerous occasions, particularly in the middle section where it was adjacent to a cluster of other features and deposits. The initial cut (represented by 10266 and 10299) contained pottery dated to the 13th-14th century. This was succeeded by a cut (represented by 10265) on the same line, the fills of which contained pottery dated to the 14th-15th century. This cut of the ditch had moderate to steep or concave sides and a flat or concave base and

was up to 2.56m wide and 0.24-0.68m deep. This was recut once again (represented by 10301) but only contained pottery with a broadly medieval date. The upper fills contained pottery of the 15th-16th century.

2.4.18 On the north-eastern edge of PA2 was ditch 25166. Only part of a short length was seen, running on a south-east to north-west alignment and turning a right-angle at its north-west end (Fig. 10). This was broadly in line with Ditch BF, and also in line with undated Ditch AC in the north-eastern part of the site (Fig. 8). Ditch 25166 had gentle concave sides and a concave base and was >0.73m wide and 0.29m deep. The lower fills contained pottery which dates to the 13th-15th century, whilst in the upper fill was material dated to the 15th-16th century. It is unclear if the north-east running return (and Ditch AC) was ever intended as a boundary, but it certainly respected the established pattern.

2.4.19 As mentioned above, the layout of the settlement was dominated by a grid of linear features on a north-west to south-east and south-west to north-east orientation, and this arrangement probably pre-dated the establishment of the outer boundaries. Some of these ditches may have provided a significant organising principle. One of these was a south-west to north-east aligned ditch CC/BC (Figs 10 and 11), which crossed areas PA1 and PA2. If ditch BC turned slightly to the east at its northern end, it may have been resumed in PA3 as Ditch AA (Figs 8 and 9). These are described further below.

2.4.20 In the southern extent of the site Ditch CA ran for c. 95m (exiting the excavated area at its north-west end) and established a north-west to south-east alignment (Figs 12 and 13). It overlay several earlier features (discussed above) but was cut by boundary ditch C to the south-east. The ditch profile was concave or moderately sloped with a rounded or concave base. It varied in width along its length but was generally 0.68-0.83m wide and 0.23-0.34m deep. It contained pottery of the 12th-14th and 13th-14th century and animal bone. At the north-western end, Ditch CA exited the south-western side of the excavation. In this area it had what appeared to be three narrow and shallow parallel cuts or recuts running alongside it over a course of c. 5m on its northern side (20371, 20373 and 20375; Fig. 12), which produced pottery dated to the 13th-15th century. At its south-eastern end it was recut along a length of c. 6om by undated ditch CH (Fig. 13). Ditch CH then turned through a right angle, heading towards the south-west and recutting boundary ditch C. It was generally moderate to steep sides and a flat base and was up to 2.8m wide and between 0.16 and 0.27m deep. It but contained some 13-15th century pottery in one intervention with some pottery identified as later medieval or later in another location. It is unclear whether Ditch CH was a later medieval or post-medieval re-cut.

2.4.21 Parallel with ditch CA c. 30m to the north lay Ditch CD (Figs 11 and 12). This ran for c. 6om in the centre of PA1. It was not entirely straight, bowing somewhat to the north in its southern half. It had moderate concave or straight sides and a concave or flat base, 0.8-2m wide and 0.13-0.45m deep and contained pottery with date ranges of 12-15th, 13-15th, 14-15th and 14-16th centuries AD. It appears to have been recut along part of its length emerging at its southern end as ditch 20398, although there was little indication of a difference in date. This ditch appears to have cut an earlier occupation deposit. Ditch CE

may have been a return, running towards the north-east, although it was unclear if there was a deliberate gap between these two boundaries. Ditch CE had gentle concave sides to a flat base, 4.41 wide and 0.48m deep, and it contained pottery of 14-15th century date. Between ditches CD and CA, and parallel to them, lay a short length of more ephemeral ditch (CG). It had concave sides and a concave base 0.6m wide and was 0.22m deep. It contained pottery of the 12th-13th and 14th-15th century. It may have formed a parcel of land with ditch CD and CF, but equally could have related to one of the potentially early features, ditch 20180, just to the south.

2.4.22 To the north-east in PA2, Ditch BB also ran parallel with ditches CA and CD (Fig. 12). At its north-western end (Fig. 11) it intersected with pond 25109, but the relationship was unclear. As it progressed towards the south-east it cut ditch BA (see below) before continuing for a further 30m and terminating just before the end of the excavation area. Ditch BB was variable in profile along its length with steep to moderate straight or concave sides and a concave or flat base, varying from narrow and shallow to wider and relatively deep, 0.2m to 2.8m wide and 0.05-1.14m deep. It was re-cut (25143 and 20251) where it had steep sides and a concave base and was 1.85-2.6m wide and 0.71-1.02m deep. Dateable material in the original linear and the recut covered the 13-15th century. Ditch BB appears to have continued as Ditch CB in the south-eastern corner of the excavation (Fig. 13). Its full width could not be ascertained due to a post-medieval recut (see below). It had moderate concave sides and a flat base, between 0.40-0.52m deep.

2.4.23 Around 15m to the north-east, ditch BD was also in a parallel orientation to these ditches (Figs 10 and 11), as well as the main element of ditches BE and its successor BH described above. Ditch BD had gentle concave sides and a concave or flat base and was up to 2.59m wide and 0.21-0.42m deep. It contained pottery dated to the 13th-15th century and may have been a continuation of ditch 20445/20449 to the north-west. This feature had shallow sides and a concave base, being 1.18-1.31m wide and 0.14-0.18m deep. It contained pottery dated to the mid 12th-14th century and was cut at its north end by Ditch BF.

2.4.24 A series of ditches also ran perpendicular to those described above. Ditch CC ran across PA1 (Fig. 11), continuing in its north-eastern part as ditch BC (Fig. 10). Ditch CC had sides which were moderately straight, concave or stepped, and a flat base, between 1.98m and 3.2m wide and 0.22-0.57m deep. A small amount of mid 12th-14th century pottery was present. It appears to have recut a linear on the same alignment, 20265. Ditch BC had concave or irregular sides and a concave or flat base and was 1-1.7m wide and 0.36-0.66m deep. It contained pottery of the 13th-15th and 14th-15th centuries, the latter in one of the primary fills. At its south-western end it cut the earlier pond 25109. The possible continuation of ditch BC in PA3, ditch AA, also ran on a north-east to south-west alignment and exited the excavated area at both ends. It had concave sides and base and was 0.68m to 1.67m wide and up to 0.7m deep (Fig. 18, Section DD) and it contained pottery dated to the 14th-15th century.

2.4.25 Running parallel to ditch BC, ditch BA also crossed PA2 on a north-east to south-west alignment, exiting the excavated area at both ends. It had no obvious continuations either to the north-east or south-west. The initial cut (25158 and 20481) had moderate or irregular sloping sides and a concave base and was more than 1.54m wide and 0.44-0.61m deep. It contained pottery dating to the 13th -15th century. It was recut (25160, 20459 and 20483) on the same alignment, with moderate or steep sides and a flat or concave base up to 3.27m wide and 0.18-0.54m deep. It also contained pottery dating to the 13th -15th century. In PA1, ditch CF (20523) was on a north-east/south-west alignment, parallel with and to the south-east of ditch CC (Fig. 11). It was offset slightly to the north of where an alignment with Ditch BA might have run. Ditch CF was cut at its north end by ditch CD and covered by the southern end of the extensive spread of deposits in the centre of the site. It had shallow sides and a concave base and was 0.98m wide and 0.92m deep. A short length of similarly orientated but undated ditch 20529, parallel to Ditch CF, was located c. 7m to the east. It had concave sides and a flat base and was at least 1.22m wide and 0.14m deep. It contained no dateable material but was covered by occupation spread 20527 (see below). This feature might indicate a further degree of subdivisio, but it was directly in line with the south-eastern side of Ditch BA, to the north-east, though there was little evidence for continuity. Subdivision is certainly suggested by undated gully 20244. This was located between ditches CC and CF and parallel with them. It had moderate concave sides and a concave base, 0.6-0.7m wide and 0.3m deep. It contained no dateable material but was situated beneath deposit 20225.

2.4.26 Further to the north, the sequence of parallel south-west to north-east boundaries continued, with parallel ditches AB and AC lying between ditch AA and boundary ditch A (Figs 7 and 8). Ditch AB, c. 20m to the north-west of AA, ran on a north-east to south-west course and exited the excavated area at both ends. It had moderate concave sides and a concave base and was 2.55m wide and 0.56m deep. The two fills contained no dateable material but it was covered by deposits which contained pottery dated to the 13th-15th centuries. Another 20m or so to the north-west was Ditch AC, which similarly exited the excavated areas at both ends. This had gradual straight sides to a concave or flat base, but it also contained no dateable material. In this case the overlying deposits were also undated. However, it seems that these boundaries delineated areas within the settlement in the same manner as to the south.

2.4.27 The sequence in which this grid pattern of boundaries came into existence is not entirely clear, and along with various re-cuts and re-establishments, it seems that it may have developed over some period. The relationship of ditch BD with ditch BC was unclear (Fig. 10), however, it appeared that, at its south-eastern end, ditch BD was cut by dich BA (Fig. 11). Ditch BA was in turn cut by Ditch BB.

2.4.28 On the north-western edge of the excavation, the settlement area extended beyond the area which was originally delineated by boundary Ditch B/Ditch 20647/Ditch BF (Fig. 10). Ditch BG ran south-east to north-west for c. 17m before turning through a right-angled return at its north end towards the north-east (ditch 25084). Together with ditch BF, situated to the south (and which cut it), Ditch BG

demarcated a space to the west into which House Platform 5 fitted. Ditch BG had variable sides with a generally concave base and was between 0.3 and 0.9m wide and 0.12-0.45m deep. It contained 13-15th and 15th-16th century pottery. Ditch BG was cut midway along the north-west/south-east section by undated posthole 25099 and was covered in places by deposits 25079 and 25229 which also contained 15th-16th century pottery.

2.4.29 Infilling within the larger boundaries also occurred in this area, with undated ditch BI, parallel with and slightly to the south-west to ditches BE and BH (Fig. 10). This ditch was steep on one side and moderate on the other or had even concave sides with a rounded base and was 0.85-1.12m wide and 0.27-0.30m deep. It contained no dateable material but was clearly on the same alignment as the adjacent features, including Ditch BD, and can be related to them.

2.4.30 In PA3, Ditch AG was one of the few features encountered to the north-west of Boundary ditch A (Fig. 6). Ditch AG ran on a north-west to south-east alignment for around 6m, with a terminal within the excavation at its south end and exiting the excavated area to the north. It had shallow sides and a concave base, being 1.7m wide and 0.41m deep and contained pottery dated to the 13th-15th centuries. It was later recut by 10048 which had shallow sides and a concave base, 1.7m wide and 0.20m deep, but contained no dateable material.

Paths and Tracks

2.4.31 There were a number of paths and tracks within the area of the settlement, each of them either related to the gridded ditch system or respecting the same alignments.

2.4.32 In north-eastern part of the site in PA3 there were at least three phases of tracks or surfaces designated Trackway A arranged on a north-west/south-east alignment (Figs 7 and 8). These deposits covered ditch AB and elements of it spread north to cover ditch AC. Most of the gravelly deposits contained no dateable material although deposit 10020 contained pottery which has been dated to the 13th-15th centuries. It appeared to have been constructed with some care and had a slight camber which would have assisted with drainage. To the north-west the trackway appears to have resumed as a metalled surface (10237) which ran north for a further 30m until it almost reached boundary ditch A. It comprised silty clay common medium-large angular and sub-angular stones and was in excess of 3m wide and 0.12m thick.

2.4.33 There was also a pathway (10016/10224) along the north edge of ditch AA (Fig. 8). It seems to have cut ditch AA, although they may have been broadly contemporary, as both contained pottery dated to the 14th-15th century. It was 1.5-2.2m wide and 0.09-0.13m deep. It comprised a limestone edging, which contained the metalled surface of small limestones or limestone rubble, flint nodules and grave.

2.4.34 Parallel with the north-western extent of ditch CA, running along its north flank, separated by less than a metre, was Path 20285 (Fig. 12). This ran for more than 10m, also exiting the excavation area and was

more than a meter wide, its construction cut having moderate sides and a concave base 0.18m deep. It had a kerb (20282/20284) of random uncoursed limestones, and over a sub-base of sandy clay with occasional small and fine gravels and sub-angular stones a surface of fine and small subangular limestones. It contained no dateable finds but is most coherent when regarded as being contemporary with Ditch CA along the side of which it ran.

House Platforms

2.4.35 A number of areas across the site were identified as either having distinct structural evidence or a density of features which implied similar use. In the northernmost part of the site, there was a focus of cut features and deposits located along the south-eastern side of boundary ditch A. As mentioned above, at one point boundary ditch A deviated to create a rectilinear space, implying that it was cut to avoid something; the deposits in this area were designated as HP2 (Fig. 4).

2.4.36 Several linear features subdivided the space on the southern flank of Boundary ditch A, oriented on the north-west to south-east and south-west to north-east axes in common with the broader layout of the site. The complex sequence of deposits in this area were originally designated as HP2, HP3, and HP4, but most likely represent yards associated with buildings which were outwith the excavated area. In the north-east corner, Ditch AL (Figs 5 and 6) seems to have formed two sides of a rectilinear enclosure with ditches on a north-west/south-east and south-west/north-east alignment, with the western side 10m long up to the point it exited the south-western edge of the excavation area, and at least 12m in length on its north side. In profile it had moderate straight or concave sides and a concave or flat base, and was 0.87-2.65m wide and 0.29-0.66m deep. It contained pottery dated to the 12th-14th and 14th-15th centuries.

2.4.37 Within and around the area defined by ditch AL there were a number of deposits. On the northern side of the ditch was 10230/10250, a deposit which was 3.68m wide and 0.34m deep. It consisted of silty clay with rare, rounded stones. It did not contain any dateable material but may well have its origins in the upcast from the ditch which had formed a bank along the northern extent. It seems to have spread over the ditch fills but was in turn sealed by deposits containing medieval pottery (Fig. 17, Section AA). This deposit largely filled the space between ditch AL and boundary ditch A. On the exterior of the western side of ditch AL, deposit 10230 lay along its length. This was an orange sandy clay with common gravel 3.2m wide but only 0.05m thick, and whilst it may have a had a similar origin, it is possible that both deposits formed the base of a path which ran along the side of ditch AL and between it and boundary ditch A. These deposits contained 13th-15th century pottery.

2.4.38 Also within the area defined by ditch AL, was Ditch AM. This was on a south-west/north-east alignment, but not parallel or perpendicular to the ditches of AM and is difficult to understand in relation to neighbouring features. It ran for at least 10m and at its west end it cut Ditch AL. The initial cut of ditch AM (10288) had moderate concave sides and a flat base and was at least 0.38m deep. It was

recut by 10293, which had moderate concave sides and concave base, 0.64m wide and 0.29m deep. It contained pottery of the 13th-15th centuries. In addition, there were deposits which covered most of the area within ditch AL. Deposits 10213 and 10244 seem to have spread (possibly after abandonment) to cover the ditch. These deposits contained pottery of the 14th – 15th century and were subsequently covered by post-medieval deposit 10206 (see below).

2.4.39 To the south-west there were several ditches which appear to delineate two adjacent rectilinear spaces. Ditch AJ represented the north side of one, with ditch AK forming an eastern boundary, and Ditch AF, its west side (Figs 6 and 7). Ditch AJ was a south-west to north-east aligned linear which had moderate concave sides and a flat or concave base 1.6-1.76m wide and 0.26-0.44m deep. It contained pottery which has been dated to the 14th-15th century. It appears to have been cut by boundary ditch A and, although the relationship was not entirely clear, this does support the suggestion that the boundary ditch was added after the interior layout of the settlement had developed (Fig. 17, Section BB). Ditch AJ cut a short length of ditch (10139) on a slightly different alignment, but which may have been a precursor. Ditch 10139 had moderate sloped sides and a concave base and was 1.4m wide and 0.47m deep but did not contain any dateable material.

2.4.40 Ditch AK, possibly forming the eastern extent of this area was a north-west to south-east aligned linear which ran for c. 2.5m before exiting the excavation at its southern end. It had moderate sloped sides and a concave base 0.5m wide and 0.16m deep. It was filled with silty clay with common gravels and larger stones, which may have represented the remnant of a wall foundation. It contained no dateable material. On the south-west side of this area was parallel ditch AF, which also provided the north-eastern boundary of another rectangular space to the south-west and is included in this group of contexts which was originally designated as House platform 3 (HP3, below). Wall AD (10192) ran parallel with ditch AF, c. 1.5m to its north-east. It was limestone block wall constructed of rough squared stones. This was constructed on a deposit which was continuous with other medieval deposits to the north-east. Wall AD appeared to form the south-western wall of a structure with the possible wall foundation in Ditch AK forming its north-eastern wall.

2.4.41 Between boundary ditch A, wall AD/10192 and possible wall foundation AK were a series of deposits which covered a large area. Adjacent to the south side of boundary ditch A was deposit 10280, which covered an area about 4m in length and c. 1.5m wide. This comprised silty clay with sparse small stones 0.21m thick and it may represent part of a remnant bank. It spread to cover the initial cut of boundary ditch A and was cut by the recut. Another area of potential bank material, 10262, was located adjacent to ditch AJ. It contained pottery of the 14th-15th century.

2.4.42 Deposit 10310 was located was across this area. It was early in the sequence and produced no dateable material but may represent a levelling layer. Its equivalent, 10205, which was located in the centre of this area contained pottery which was dated to the 13th-15th century. At the north edge of this spread, beside Boundary ditch A, it was covered by patches of metalled surfaces 10267, 10259 and 10260,

comprising in places random uncoursed limestone and cobbles. This may represent the remnants of a track or surface adjacent to the boundary ditch, akin to that to the east between Boundary ditch A and ditch AL referred to above.

2.4.43 House platform 2 (HP2) was located within the deviation of Boundary ditch A, which defined a rectilinear space c. 20m long (Fig. 7). There does not appear to have been anything structural within this space itself. Deposit 10099 within HP2 comprised silty clay with frequent sub-rounded and sub-angular stones and frequent charcoal, and covered an area greater than 6m long, 1.5m wide and 0.35m thick. It did not contain any dateable material. Deposit 10148 was also a spread of silty clay which covered an area in excess of 6m, was 2.7m wide and 0.35m thick. The deposits in this area have not been dated by finds or stratigraphic relationships and could have originated during the medieval period or later.

2.4.44 To the south of these deposits a group of linear features (ditches AE, AF, AH and AI) created a rectangular area c. 11m long and at least 5m wide, designated house platform 3 (Fig. 7), parallel with the deviation in Boundary ditch A on a north-east/south-west alignment.

2.4.45 The south-western gully AE (10126) was c. 6 m long and exited the excavation at its southern end. It had shallow concave sides and a flat base and was 0.39m wide and only 0.06m deep. It contained no dateable finds. At its north end it cut pit 10128 which was a sub-circular cut with shallow concave sides and a flat base, 1.1m in diameter and 0.14m deep. This suggests that there was an earlier episode of use in this area, but the pit contained no dateable material. Gully AH ran along the north side of HP3 on a north-east/south-west alignment over a distance of c. 4m. It was slightly irregular in plan and had shallow concave sides and a flat base and was 1.24m wide and 0.10m deep. It also contained no dateable material.

2.4.46 Gully AI ran for c. 9m, parallel to gully AH, creating a south side to the space. This linear had a moderate or straight sloped sides and a flat base, 0.5-0.55m wide and 0.15-0.19m deep. It did not contain dateable material but was cut by north-west/south-east ditch AF, on the east side of HP3. Ditch AF, which also seems to provide a western boundary for the rectangular space to the east was seen over a distance of c. 7m and exited the excavation at its southern end. It had moderate straight or concave sides and a flat or concave base, 1.02-1.3m wide and 0.2-0.33m deep. It contained pottery of the 13th-15th century.

2.4.47 Within HP3 there was a deposit 10092/10091 which was a silty clay with occasional pebbles which contained 14th-15th century and mid 15th-century pottery. This deposit was cut by the southern gully AI. Deposit 10092/10091 was covered by 10087, a silty clay with common small stones and gravel which also included 15th century pottery. The entire underlying area, which was cut by the gullies, comprised a widespread deposit 10123 but it is unclear at this point whether this was a natural alluvial material or a levelling deposit.

2.4.48 House Platform 6 (HP6) was located in the north-western part of the site and covered a sub-rectangular area roughly 14m long by 8m wide, with the building itself being c. 4m wide, and oriented with the long side north-east to south-west (Figs 10 and 15). In HP6 there were clear structural elements and associated deposits. These were situated within the angle of ditches BF (on the south side) and ditch BG (to the east) which is discussed above. Ditch BF seems to have cut deposits which underlay the features and deposits associated with HP6 but the chronological relationship is unclear between the ditch and structure. The cut features of HP6 overlay or cut deposit 25218, a silty clay with a few small sub-angular stones which contained pottery of the 13th-15th century. It may be a naturally derived accumulation or deliberately created as a base. Over the features were a series of deposits, particularly 25189 and related/identical contexts, which contained pottery of the 12th-15th century.

2.4.49 The structure was demarcated by a series of linear gullies, with two segments 25199 and 25080/25061 on the north side (separated by a large irregular pit 25201, see below), and gully 25276 forming the south-west and south sides. Gully 25199 had concave sides and a flat base and was 1.10m wide and 0.12m deep. Its single fill was a dark brown-black silty clay with abundant charcoal which produced pottery dated to the 14th-16th century. The northern extent of this gully was similar, 0.80m wide and 0.37m deep. This contained pottery dated to the 15th-16th century. Gully 25061 was cut by two postholes 25063 and 25072. The first of these was a circular cut with slightly concave sides and sloping base, 0.44m in diameter and 0.34m deep. It contained 13th-15th century pottery. Posthole 25072 was a circular cut with concave sides and a concave base, 0.3m in diameter and only 0.08m deep. It contained no dateable material. Both of these however, are clearly late in the sequence.

2.4.50 The south-west and southern length of gully ,25276, was shallow with a flat base and was 0.82m wide and 0.09m deep. The single fill of silty clay with common charcoal contained pottery dated to the 15th century. Gully 25106, a short section of linear, just to the south of ditch BG and to the north-west of posthole/pad 25101 may actually be a gully associated with the north-east end of building. Gully 25106 had concave sides and a flat base, 0.94m wide and 0.18m deep, but contained no datable material. It was however covered by a sequence of deposits containing pottery of the 13th-15th century. The underlying deposits were not dated.

2.4.51 Around the perimeter, located on the 'interior' of the various gullies described above there were a number of deposits of what appeared to be remnants of wall (25075), consisting of limestone rubble. It probably provided a sill for a cob wall, which implies that the gullies were not structural but may have provided drainage. The remnants of wall 25075 were generally 0.27m wide and 0.10m deep, and discontinuous patches of this structure occurred on all four-sides of the building. Like HP7 this probably provided the base for a timber superstructure of box-frame or cruck-frame type. In places it appears that this structure had been completely robbed out. Along the north (interior) side of the southern element of gully 25276 was a parallel linear cut, 25278. This was in line with the wall fragments (25075). Linear 25278 had a steep side and a flat base, 0.74m wide and 0.17m deep. It had no stratigraphic

relationship with the adjacent gully 25276. It may be a separate phase of that gully, or more likely given its alignment with other structural elements, a bedding trench; a segment of limestone walling is located immediately to its northern end. It did not contain any dateable material.

2.4.52 Linear cut 25253 was located along the interior of the south-western extent of gully 25276. It had shallow sloping sides and a flat base and was 0.56m wide and 0.06m deep. It was filled with an orangish brown silty clay and also aligned on wall fragments and postholes which suggests that it was a foundation trench. It contained no dateable material. However, this foundation trench appears to have been covered by occupation deposit 25189 which contained pottery with a broad date range of the 12th-15th century. However, this layer was cut by the exterior gully 25276, suggesting that the gully was created or developed later than the original construction.

2.4.53 The structure seems to have also utilised timber uprights on the line of the exterior wall. Within linear 25278 was posthole 25280. This was a sub-circular cut with steep sides and a concave base, 0.31m wide by 0.37m long and 0.22m deep but did not contain dateable material. Adjacent to a fragment of wall apparently forming the north-eastern end of the building was a large posthole, 25101, a circular cut 0.55m in diameter and 0.08m deep. It contained a limestone block, which was 0.38m long by 0.22m wide and 0.07m thick. Posthole 25257 at the south-west end of the building was located on the inner edge of the outer gully but had no stratigraphic relationship with it, although it may have been the southernmost of a row of posts creating an internal partition (discussed below). In addition, there is some evidence for repair, replacement or re-building in places. One of the wall bedding trenches on the south side of the building 25278 was cut by posthole 25280.

2.4.54 Some limestones (several of which were assigned to the wall context 25075), along with postholes, created internal supports for and possibly subdivision of the building. The interior space also appears to have been divided by a gully 25264, which may well have functioned as a beamslot. The feature was 4.16m long and ran between the northern and southern lines of the side gullies. It had shallow concave sides and a slightly concave base, 0.3m wide and 0.09m deep and it cut the same underlying deposit as the wall base.

2.4.55 Several postholes and post pads which may have been structurally significant were located roughly along the central line of the building, parallel with the side gullies/wall fragments (Fig. 15). This group included large posthole 25230, a sub-circular cut with asymmetrical sides and a flat base 0.75m long by 0.67m wide and 0.1m deep. This was lined with limestone packing and the fill contained pottery of the 13th-14th century. To the north-east pit 25013 was a circular cut with gradual sides and a concave base 0.8m in diameter and 0.09m deep. It contained no dateable material. In addition, post pad 25315 was also on this alignment but located halfway along sub-dividing beamslot 25264. It comprised a roughly hewn limestone block 0.44m long by 0.24m wide and was 0.21m thick. It was covered by the fill of the beamslot, and therefore appears to be an earlier element of construction. To the north-east of this was a further area of masonry (part of 25075). It seems that there was a combination of bases and post

holes for what seem to be large posts providing structural support to the centre of the roof, although it is unclear whether this was the original arrangement or whether some elements may represent replacements.

2.4.56 There were additional postholes and remnants of limestone (originally numbered as part of 25075), likely to represent post-pads located in the south-western half of the structure (to the west of gully 25264). These created two lines of smaller posts apparently oriented parallel with the north-west and south-east walls. The postholes were in general sub-circular with concave sides and concave or flat bases. The southern row of these comprised post-holes 25257, 25222, 25211,25292,25290,25288 which were between 0.14m by 0.18m and 0.07m deep and 0.29m by .032m and 0.16m deep. There were two additional postholes 25286 (0.2m by 0.15m and 0.15m deep) and 25214 (0.25 by 0.26m and 0.04m deep) either side of the line at the northern end. None of these contained any datable material but were all covered by deposits with material of the 13th-15th century and cut the same underlying deposits as were cut by the wall base. The northern row was comprised of postholes 25251, 25247, 25234, and 25236, supplemented by three sections of limestone originally recorded as part of 25257, and which were probably post-pads. The postholes were shallow, between 0.03m and 0.11m deep, and around 0.2m in diameter. They may represent supports for floor joists rather than relating to the building superstructure.

2.4.57 There were three more postholes, 25249, 25203 and 25209, to the north of the northern post row. These were parallel with the northern row and perpendicular/parallel to the side gullies. Posthole 25249 was a circular cut with steep sides and a concave base, 0.23m by 0.28m and 0.20m deep. Cut 25203 was similar but smaller at 0.16 by 0.15m by 0.05m. To the north, posthole 25209 was smaller again at 0.17m by 0.10 and only 0.04m deep. The only dateable material came from this last feature and was broadly dated to the medieval period. Further consideration needs to be given to whether these signify internal partitions to the stone wall-base building or relate to another structure. The southern row is quite close to the southern wall, so the functionality of these various elements needs further consideration.

2.4.58 Located between 25315 and 25013 (the possible central supports) and on the same mid-line, was hearth 25169. The cut was sub-oval with gentle sides and a concave base, 1.76m long and 0.87m wide and 0.2m deep. The hearth base comprised limestone and dark grey-red tile closely piled together, covering an area of 0.47m by 0.45m with pottery of the 14th-15th century. This was covered by what appears to be a heat affected deposit which contained pottery dating to the 15th-16th century. A further silty deposit with 14th-15th pottery and an iron object Ra. 2603 was then covered by a series of light red-grey tiles all stacked on top of each other, and which may have been a refurbishment of the hearth. The fill over this contained pottery of the 14th- possibly 15th century, and a lead ampulla probably dating to the 15th century as located in the subsoil to the south-east of the building. Immediately to the north-east of the hearth was a small, sub-circular pit, 25193, with steep sides and concave base, 0.27m in diameter and 0.21m deep. This contained copper-alloy bowl (Ra 2681).

2.4.59 Pit 25201 was located mid-way along the north side of the building, and it probably post-dated its use. This pit was a sub-oval cut with shallow sides and a concave base, 3.6m long and c. 1.7m wide and 0.2m deep which cut the subsoil. The fills contained notable quantities of charcoal and pottery of the 15th century and 15th-16th centuries. There was no direct relationship demonstrated with the gullies of the north side of the building which were located either side of this pit, but its size and shape would be incompatible with it being contemporary with the building. However, whilst the pottery in the fills is late in the sequence, it is in fact contemporary with some contained in those gullies. It could therefore be related to the abandonment of the building, the material re-deposited material from the later use of the building disturbed by its digging. A series of deposits seem to have spread from or over HP6 across the various neighbouring cut features within the angle of ditches BG and BF. The dating is scant although the upper layers contain later medieval material. Covering the area of the building, deposit 25131 (not illustrated) was silty clay with a few small sub-angular stones only 0.05m thick which contained pottery dated to the 13th-15th century, although this may be derived from the earlier deposits. Deposit 25079 contained pottery of the 15-16th century; 25082 contained 15th century pottery (Neither deposits illustrated). Posthole 25099, which cut ditch BG, was oval in plan with straight sides and a concave base 0.35 long by 0.21m wide and 0.17m deep. It may represent fencing associated with HP6.

2.4.60 In the area to the north of the structure of HP6 there was a further gully, 25113 (Fig. 15). This lay on a north-east to south-west alignment but was not parallel with the north wall of HP6. Gully 25113 contained pottery of the 13-14th century and given the difference in alignment and lack of clarity over its relationship with the building, might predate the construction of HP6. This gully was overlain by a series of silty clay deposits which covered the area to the north of the building. Deposit 25096 contained material of the 13th-15th century and was overlain by a buried soil, 25053 with material of a similar date. Over this was a series of deposits containing material dated to the 15th-16th century, which seem to relate to the period immediately after the disuse of the building. Deposits 25050 covered by 25046 and 25048 all contained pottery dated to the 15th-16th century. In addition, deposit 25050 was cut by a small pit 25052. This was an irregular ovoid cut with shallow sides and an irregular concave base, 1m long by 0.5m wide and 0.13m deep. This contained a dark orangey red silty clay fill with occasional charcoal, which also included pottery dated to the 15th-16th century. It seems to represent a firepit. This sequence was covered by further deposits including 25037 which contained further pottery of the same date and appears to represent a buried soil which built up at the end of the use of the settlement. A further deposit, 20067/25054, located to the south-east of HP6 and partly covering Ditch BF also contained pottery of the 14th-15th and 15th-16th centuries, so it seems clear that there was a considerable degree of activity across this part of the site which continued until the end of the medieval period.

2.4.61 House Platform 7 (HP7) was located c. 8m to the south of HP6, on a similar alignment with its long side running south-west to north-east and covering an area of c. 16m long by c. 6m wide (Figs 11 and 16). It

seems to have been located on slightly raised ground, which appears to have been the top of the natural clay formation. Some levelling appears to have been carried out with the addition of deposits up to 0.2m deep which were recorded to the north-west and south-east of the building footprint (20252 and 20765). The building was defined by a series of gullies and the north-eastern end was truncated by the extant ditch between PA1 and PA2 (which had a medieval origin). On the north side of the structure (20762; 20675) the profile had steep sides and a concave or flat base, up to 1.38m wide and 0.11-0.53m deep. The gully to the west (20580; 20575) had shallow or steep concave sides and a flat or concave base, 0.64-0.75m wide and 0.11-0.21m deep. The south side (20745; 20589; 20760) had concave sides and a flat base, 1.05-1.70m wide and 0.22-0.37m deep. The north-eastern end of the structure was probably in the unexcavated area which bisected the southern part of the site. There was a break in the north and south gullies at roughly the same point at the western end, suggesting possible opposed entrances. The gully on the north side produced pottery of the 13-15th century and the south site gully contained 13-14th century pottery.

2.4.62 Within the footprint defined by these gullies were a number of postholes and other structural elements. These appear to have provided support for a timber superstructure. The internal distance between the two long walls was c. 4.5m. Along the southern (interior) edge of the north side gully were three features 20677, 20732 and 20770. These were recorded as fragments of possible limestone rubble walling, up to 0.9m wide and 0.16m deep, but their spacing may be more indicative of post-pads. Similar structures also occurred along the north side (interior) of the southern gully (20731, 20591). A length of limestone rubble and blocks 20589, 2.08m wide and more than 10m long and standing to a height of 0.22m was situated in a foundation trench 20591, which had concave sides and flat base, being 0.37m deep. Wall fragment 20731 was at least 0.50m wide and 0.2m deep, but these elements of stone structure were discontinuous. There were no dateable finds closely associated with these features. It is notable that stone constructed features only occurred to the east of the two 'breaks' in the north and south gullies at the south-western end of the structure.

2.4.63 At the south-west end of the structure there were two postholes adjacent to each other located on the east (interior) side of the south-western gully (20766 and 20768). These were circular and oval cuts with shallow sides with a flat base, 0.80m by 0.61m and 0.15m deep and 0.45m by 0.24m and 0.07m deep respectively. These contained no dateable material, but 20766 cut 20768, and their location suggests some relationship with the surrounding gully. In addition, there were two further small postholes 20570 and 20695 positioned toward the centre of the western end. These were sub-circular cuts, both with steep sides. 20570 was 0.17m long and 0.11m wide. Posthole 20695, to the north, was larger being 0.45m long and 0.40m wide and was 0.32m deep. Neither posthole contained any dateable material. It is suggested that this was part of an arrangement of timber uprights perhaps creating a lean-to or open structure at the south-west end of the stone part of the building; the plan of the surrounding gully in this area is almost apsidal in appearance. In this context two areas of metalled surface should be noted, 20668 which was located in the area of the break in the north side gully, and 20592 which filled a similar

location on the south side. Both appear to have provided more hard-wearing surface in entrances into the structure.

2.4.64 A gully crossed the north-eastern part of the structure and may relate to a partition (20752; 20593; 20747; 20750). This gully generally had concave sides and a flat base and was 0.86-1.2m wide and 0.13-0.19m deep. A further feature (20690) was located in the north-eastern part of the structure, to the south of the gully, and apparently parallel with it; it may represent a beam slot as it was a linear with gentle concave sides to a concave base 0.31m wide and 0.12m deep. This might have provided a partition or screen. The single fill contained no dateable finds. There do not appear to have been any other internal structural elements such as post-holes.

2.4.65 Within the south-west part of the structure, adjacent to the south-west end of the southern side gully, was cut 20738. This was and oval shallow cut with fairly steep sides and a flat base, 1.54m long and 0.11m deep. The single fill was dark reddish blue silty clay with charcoal and burnt clay throughout, so this may represent a hearth. It was undated by finds. In the centre of the building was hearth 20694. This was an oval cut with sloped sides to an uneven base 1.4m long by 1.2m wide and 0.22m deep. Within it was a semi-circular arrangement of small-medium stone, and the fill was dark blackish grey clay silt with mid brownish red lenses, rare pebbles and flints, and charcoal, which contained pottery of the 13-15th century, including an almost complete pot. Hearth 20694 was situated on surface 20680, a silty clay deposit which appears to have formed the floor, and the adjacent floor was heat affected. The edge of the hearth was partially defined with stones, and almost complete medieval pot was excavated within it. Like another floor deposit 20737, it was stratigraphically later than several of the stone structural elements described above and 20680 seems to have been re-surfaced at least once (20749). Deposits both above these floors, and possible levelling deposits under the structure and cut by the gullies contained pottery dated to the 13th-15th century.

Other structures

2.4.66 Remnants of a number of other structures were identified across the site. On the southern edge of the site, about 15m to the south of HP7 and exiting the excavation was a short portion of limestone rubble wall 20233. This structure was fragmentary and there was no dateable associated material, but it overlay a deposit, 20506, which contained material of the 13-15th century. It is likely to represent part of the eastern extent of a building which extended to the west out of the excavated area. To the east of this structural fragment was a deposit (20689) which may represent an old land surface or even a pathway.

2.4.67 To the north-west, a single wall foundation Structure 25296, c. 4m long was oriented north-east to south-west, constructed of fine white roughly squared limestone blocks. It was parallel with the return of ditch 25166, and its southern end, it terminated at ditch BE. It was in line with HP6, located about 30m to its north-east. There were no directly associated dateable material although the location and

orientation suggest that it most likely related to the medieval activity, and it may represent the fragmentary remains of another building.

2.4.68 About 15m to the west of this wall fragment, and to the north of HP6, located near the north end of ditch BG, and in the area originally identified as HP5 was a group of fragments of another apparent wall, 25244. This comprised three fragmentary elements which appear to describe the two sides of a southern corner of a structure oriented north-west/south-east. It lies across the line of ditch BG at its northern end, perpendicular to it. It was constructed of limestone blocks with some flint and was 0.40m wide but only standing to 0.08m. It was associated with pottery of the 13th-15th century, but this was also present in overlying deposits. However, to the north of this possible walls was a surface (25083 and 25243) of rough limestone and flint rubble covering an area of c. 6m by c. 7m which contained 15th century pottery. It does appear that there may have been another building in this area but the plan and sequence in relation to other features is not clear. The surface does at least suggest the presence of a yard surface. It may also be related to a further linear scatter of stone which lay on a north-west/south-east alignment situated to the north, although this is also perpendicular to wall fragment 25296. These elements are probably too fragmentary to reconstruct any ground plans.

Ponds

2.4.69 There were also a number of ponds located within the land parcels. Pond 25109 was located in the centre of site to the south-east of HP6 and east of HP7. It was oval in plan, in excess of 13m in length, and about 7m wide with moderate concave sides and a flat base. It contained multiple fills, the bottom one of which contained apparently waterlogged plant material as well as charcoal. The upper fills produced pottery dated to the 12th-14th and 13th century onwards and was cut by ditch BC. Pit 20516, 60m to the south-east of HP7 may well represent another pond; it was certainly an artificial depression. It was an irregular cut with moderate sides and a flat base, c. 10 long by c. 7m wide and 0.26m deep. It contained pottery of 13th-15th and 14th-15th century date. Within it were three shallow pits, 20517, 20548 and 20600. These were between 1.0m and 1.4m long and 0.75m-1.1m wide and c. 0.2m deep, with moderately steep sides and a flat base. The fills contained moderate to abundant charcoal, but the burning does not appear to have occurred in situ. Pit 20517 contained pottery dated to the 13th-15th century. These pits were originally thought to have been related to some industrial use, as along with the charcoal rich fills they contained copper alloy scraps, but the fills did not produce any industrial residue. Almost all of the burnt material proved to be wood charcoal and as the burning was not in situ the larger pit/pond may have provided a convenient location for disposal of general waste.

2.4.70 Pond 20632 was irregular in plan with concave sides and a concave base, c. 8m in diameter, 0.35m deep. Deposits 20634 and 20635 are located on either side of pond 20632, spread over an area of 12.5m by 25m. It remains undated but may be a remnant bank, or upcast from the ponds. Pond 20217 was immediately to the south-east of 20632. It was irregular in plan with gentle concave sides and a flat base 9.3m across and 0.26m deep. In the corner formed by Ditch CA and Boundary Ditch C, a pond,

20643 was dug. This was an irregular oval in plan, c. 13m long and c. 8m wide, with steep sides and a flat base. None of these features produced any dateable material but are likely to be medieval in date given that they were situated within open land parcels and would have provided useful watering points within the network of land parcels.

Other discrete features

2.4.71 A number of smaller discrete features were scattered across the site. Whilst a few might be assigned to the medieval period, other undated features mentioned below are likely to also be associated with this period of the site's use. Pit 20554 was cut by the north end of ditch 20420/20556. It was circular in plan with steep sides and flat base, 1.14m in diameter and 0.25m deep. It in turn cut pit 20550 to the south-west, an oval cut with gentle sides and a concave base, 0.5m wide by 0.68m long and 0.14m deep. Neither of these features contained any dateable material but have been assigned to this phase on stratigraphic grounds because of their relationship with 20420/20556. As that feature may be early in the sequence, these pits may represent part of the earliest activity on the site.

2.4.72 Pit 10115 located within the area delineated by ditches AJ, AK and AF may also be early. It was a shallow circular cut with gradual sides and a concave base with a diameter of 0.5m and was 0.09m deep. It did not contain any dateable material but was the lowest element in the stratigraphic sequence covered by a series of deposits, a surface and bank deposit, the earliest of which contained pottery dated to the 13th-15th century. To the south, isolated pit 10207 was an oval cut with straight sides and a flat base, 2.45m long, 0.6m wide and 0.11m deep and contained a a parge proportion of a number of 13th-14th century pots.

2.4.73 Pit 25156 was located within the area described by ditches BG and was an oval cut with shallow sides and a flat base, 1.7m long and 0.95m wide and 0.15m deep. It cut an earlier undated deposit and contained pottery dating between the 13th and 15th centuries. Pit 20531 was immediately to the east of Ditch 20529. It was square in plan with steep sides and a concave base, 0.93m wide and 0.34m deep. Pit 20531 contained no datable material but was covered by spread 20527, and its proximity to other medieval features suggests that it is also of this period.

2.4.74 Pit 20247 was located just to the north-west of ditch 20523. It was unclear in plan but had shallow sides and a concave base, being 1.18m in diameter and 0.12m deep. It contained no datable material itself but was covered by the extensive spread in the centre of the site which included medieval pottery. Pit 20429, located to the south of spread 20225, was probably a tree throw pit, although it contained pottery of the 13-14th century. A large pit to the south-west of HP7 20439 was similarly probably a tree throw pit which contained pottery of the 12-15th century. As probably tree-throw pits, both of these features may be later in date.

2.4.75 There were several other deposits across the site which were less clearly related to other elements as described above. Some of these may represent dumps of material which formed during the medieval

use of the site and have been subsequently spread, others are likely to be patches of colluvial material into which cultural material from the settlement have been incorporated.

2.4.76 In the north-east part of the site, Deposit 10062/10060 lay on the south side of Boundary ditch A, and was spread on south-west to north-east alignment, extending to about 7m in length and 1.5m width. It contained pottery of the 12th-14th centuries and 13-15th centuries. Deposit 10190 was located at the southern-most extent of PA3, covering and area of c. 10m by c. 5m. It had originally been designated as HP1 and comprised a deposit of darker clay which contained pottery which has been dated to the 14th-15th century. It was not however structural and it may represent a midden dump.

2.4.77 Occupation deposit 20527 appears to have been a spread of material in the centre of PA1. It comprised a spread greater than 10m in length and c. 8m wide which included charcoal and pottery of 13-15th century date. It appears to have been cut by ditch CD, but obscured ditch 20529. On the south-east edge of the excavation adjacent to the railway was deposit group 20068. This comprised a series of related deposits c. 13m across which contained pottery of the 13-15th centuries. This group of deposits was 'cut' by a tree throw pit, 20079, which contained 13-15th century pottery which was probably derived from the underlying deposits.

2.4.78 Located on the south side of ditch CD, at its north-western end overlying part of Ditch CC, and similarly obscuring ditch CF at its south-east extent, 20225 was an irregular but broadly oval spread of material, 28m long by about 20m wide. It was a silty clay which contained occasional stones and charcoal and as well as pottery dated to the 13th-15th century. This appears to represent a colluvial deposit which contained accumulated settlement debris. To the north of this a spread of material c. 10m long consisting of several deposits including 25022 and 25003 was located north of the intersection of ditches BC and BD, obscuring a section of Ditch BD. This contained material of the 12th – 14th century. To the north of this, on the northern edge of the excavation and adjacent to the railway line, deposit 25168 covered ditches BE, BH and 25166. It was in excess of 8m in length and contained pottery dated to the 15th -16th century.

2.4.79 Deposit 25305 covered the 'corners' of ditches BH and BE and spread over an area of at least 10m by 13m, reaching the limit of excavation on the north and east sides, although it was only 0.06m thick. It was a silty clay with small amounts of flint and charcoal and appears to represent occupation debris which spread across the area after abandonment. It contained no finds.

2.5 Post-medieval and modern

2.5.0 In the northern-most part of the site, most of the post-medieval activity was confined to deposits and spreads of material which have been dated to this period as they incorporate pottery of the 16th-19th century. However, a pond located in the far north-east corner of the site was also in use during this period.

2.5.1 Pond 10231 continued beyond the excavated area to the east. It appears to have been an oval cut at least 5m across and 1.26m deep. It contained several silty clay fills. The lower fills did not produce any dateable material, but a probable 18th century sherd occurred in a secondary fill 10234, although pottery with a spot date of the 11-14th century occurred in the overlying context 10252. It is possible that the pond had medieval origins, but it was certainly open during the post-medieval period. Surrounding the pond was clay deposit 10258 which appeared to form a bank. It may have been derived from upcast from the pond, and it contained no dateable finds, supporting its origin as re-deposited natural.

2.5.2 Within the area surrounded by Ditch AL was 10206. This was thick layer (0.25m) of silty clay with sparse gravel and rare charcoal which contained pottery of the 16th century onwards. Near the north-eastern edge of PA3, situated to the north of Boundary ditch A was a deposit c. 7m long by c. 4m wide and up to 0.12m deep consisting of silty clay with limestone rubble which contained pottery of the 18th century onward. It may have represented a remnant subsoil. Adjacent to the north-east side of ditch AK was deposit 10179. This was c. 5m across and extended beyond the edge of the excavation to the south. It was silty clay with common angular gravels and stones and occasional charcoal, 0.19m thick and it contained pottery dated to the 16th century.

2.5.3 To the west of these deposits, south of Boundary ditch A were a series of deposits which also overlay medieval spreads and deposits. Deposit 10197 was a silty clay with rare small stones, at least 7m long and 7.6m wide and 0.23m thick containing pottery dated to the 15th-16th century. Deposit 10261 was a corresponding spread on the south-west side of 10197. Deposit 10263 was in the centre of this area at a similar level in the sequence.

2.5.4 At the south-eastern extent of the site, the line of Boundary ditch C was recut along its entire length, exiting the excavated area to the north-east and the south-west (Fig. 13). This re-cut had moderate/straight or concave sides and a concave base and was up to 1.98m wide and 0.30-0.69m deep. It contained pottery of the 17-18th century. Ditch CB was also recut during this period, having moderate sides and a concave to flat base (Fig. 13). It was broad at the north-western end, up to 1.17m wide, and narrowed towards the south-east (1.10m) It was between 0.20m and 0.62m deep and contained pottery of the 16th century.

2.5.5 Also located in the southern part of the site there was a south-west/north-east oriented brick-built structure 20003, 9.1m long and c. 5m wide. This was immediately adjacent to and in line with a standing timber barn situated to the south. Structure had 19th-20th century pottery in one of the foundation cuts. The walls were of brick, with a limestone floor and doorstep, with brick lined and covered drains. It appears on the 1st Edition Ordnance survey may and can be interpreted as a post-medieval barn. To the north of Structure 20003, closely adjacent on the south side of Ditch CH was a large oval pit, aligned north-west to south-east, 6.63m long and 3.56m wide, and 0.30m deep. This pit may have earlier origins, but there was a small amount of 20th century pottery in the upper fill. The pit

may have been associated with the use of Structure 20003 although the material may have only accumulated in a remnant depression or have been intrusive.

2.5.6 A boundary which was present on the 1st edition OS map running on a north-east to south-west alignment across the southern part of the site to the north-west of Structure 20003 was identified in two locations. The ditch was represented by cuts 20708 and 20725 and had gradual sides and a concave base 0.40m wide and 0.05-0.14m deep. It contained no finds but may have originated in the medieval system; at the least it respected the alignment of Boundary ditch C which seems to have survived into the post-medieval period, but does not appear on the 1st edition OS map.

2.5.7 There were a number of other modern features which included drains, fencelines and probably recent bioturbation.

2.6 Undated features

2.6.0 A number of features on the site produced no dating material during excavation and also do not have a clear stratigraphic or spatial relationship with other dated elements.

2.6.1 Pit 20278 was located to the south of Ditch CA but had no stratigraphic relationships to the nearby medieval ditches and gullies. It comprised a sub-circular cut with vertical sides and an uneven base, 0.39m long by 0.36m wide and 0.19m deep. It contained a grey-brown clay with sparse pebbles and calcined human remains, but no datable material and was an isolated feature. Similarly isolated was small pit 20100, which was a sub-circular cut with steep side to the north-east and a shallow one to the south-west, with rounded sides and base, 0.45m long, 0.35m wide and 0.22m deep. It contained a bluish black silty clay, which was charcoal rich and calcined human remains. The similarity in size and shape of the features suggests that they may be broadly contemporary.

2.6.2 Pit 20513/20545 was a large oval pit on a north-west to south-east alignment, parallel with and just to the south of ditch CD, which had shallow sides and a flat base, 8.8m long by 3.68m wide and 0.10m deep but did not contain dateable materials. Pit 20249 was located on the other site of ditch 20523, also undated. It was an irregular cut in plan with moderately steep sides and a concave base, 0.26m deep. Posthole 25090 was located just to the east of the northern terminal of ditch BG. It was a circular cut with concave sides and a concave base, 0.27m in diameter and only 0.06m deep and contained no dateable material. It cut undated but anthropogenic layer 25002.

2.6.3 There were a number of deposits and spreads across the site, some of which overlay archaeological features and deposits but which did not contain any dateable material. They may therefore have accumulated at various points from the medieval period onward.

2.7 Discussion

2.7.0 The archaeological works at Doddershall Deserted Medieval Village (DMV) have located various elements of the medieval settlement which were present across the entire site.

2.7.1 The evidence of activity earlier than the 9-11th century is minimal. There is very limited evidence of prehistoric use of the area represented by a handful of worked flints, one of which displays blade technology implying a Mesolithic/Early Neolithic date. The assemblage of three sherds of Roman pottery is probably derived from manuring and implies that the site was peripheral to settlement during the Roman period, perhaps part of the agricultural landscape associated with the site at Railway Cottages (Doc no: 1EW03-FUS_COP-EV- REP-CS04_CL20-000009) c. 0.5km to the south-east of the site.

2.7.2 Two small and isolated pits in the southern part of the site containing cremation related deposits are currently undated. However, they are not likely to date to the main period of use of the site, being most likely prehistoric, Roman or perhaps early medieval in date. Their interpretation is dependent on ascertaining a closer date, and this could shed more light on the use of the landscape prior to the establishment of the medieval settlement, and its relationships with nearby sites, especially Railway Cottages.

2.7.3 The main period of use of the site is the medieval deserted village. The inception of this is presently unclear, and whilst it is evident that there was progression in the creation, adaptation, and maintenance of the organisation of the settlement throughout the medieval period, further work needs to be done to clarify this. However, initial considerations suggest that the earliest group of features (or at least, those least obscured by later activity) were situated in the south-western part of the site along the south-western margin of area PA1. This has been identified on the basis of the pottery assemblage from some stratigraphically early ditches and gullies (e.g. 20154) tending towards the earlier part of the date ranges, without the inclusion of many later sherds. However, it should be noted that many of the features within this group conform to the general orientation of the boundary system which dominated the layout of the settlement throughout the medieval period. Organisation on a north-east to south-west/ north-west to south-east principal appears to have been established early in the life of the settlement.

2.7.4 The arrangement of the DMV with rows of tofts and crofts had been evident from the earthworks and geophysical surveys, and is traceable on the earliest map of the area dated to 1587 (Doc no: 1D037-EDP-EV-REP-040-000036). This appears to have been borne out by the excavation, although no one toft and croft layout was seen in its entirety, and it is difficult to directly associate any group of archaeological features with a particular part of the map depiction. Several 'house platforms', HP1-8, were initially identified from the earthworks and geophysics, but excavation demonstrated that not all of these 'platforms' contained a building.

2.7.5 The most complete croft and toft layout could be said to be that in PA1 which contained HP7 and its bounded backland. The building was located at the north-western end of a plot of land roughly 13m wide and 80m long extending away to the south-east. The house was adjacent to the north-western boundary of the settlement, and it appears the strip of land in which it sat was subdivided into paddocks extending to the south-eastern settlement boundary; these contained ponds (some more like watering holes in character, e.g. pond 20516). The HP7 plot was separated from its neighbour, HP6, located to the north-east side by the extant ditch which divided area PA1 from PA2.

2.7.6 The continued use of this boundary made it more difficult to discern the full layout of the HP6 croft/toft arrangement, but this appears to have comprised a parcel of land, at least 18m wide. It was less clear which areas of bounded land to the south-east were directly associated with this building, although there were a series of spaces extending all the way to the south-east settlement boundary. The house (HP6) was situated at the north-western end of the strip, and the complex of ditches on its north-west side also appear to have comprised the edge of the settlement. It was on the same alignment as HP7, but not in line with it, offset in a north-westerly direction. Whilst not seen fully in plan, the strip of land attached to this house also appears to have been subdivided and contained at least one pond.

2.7.7 Another strip of land on the south-western side of the HP7 probably extended the full distance between the north-west and south-east settlement boundaries, ditch CA forming its south-western side. The evidence for subdivision of this plot is more limited, and less of the area at the north-west end which it probably encompassed was seen. The location of any associated building in this part of the plot was more difficult to discern. However, it is notable that fragmentary sections of walling (20233) only occur at this end of the strip, and probably represent the remnants of another structure. The presence of yet another strip is implied to the south-west, although in this case, only part of the less densely utilised backland element adjacent to the south-eastern settlement boundary was uncovered.

2.7.8 To the north-east of the HP6 strip, further strip arrangements are indicated, but only partially seen in excavation. Directly to the north-east of HP6, probably defined by Ditch BD along its south-western side and BE/BH to the north-east, there appears to have been a narrow plot. In this case, there were some indications of fragmentary structures at the north-west end of this area in the form of limestone patches and blocks, situated in the area designated as HP5.

2.7.9 The arrangement to the north-east of this strip is more difficult to understand due to the location of the existing railway line, although the general orientation of the settlement was maintained. In most of area PA3, only a narrow strip was seen along the south-east side of the north-western settlement boundary. There were no houses identified here, although there were some elements of probable structure (e.g. Wall AD). These may represent more ephemeral buildings such as barns or sheds or even boundary walls, rather than domestic dwellings, although they appear to respect the tendency to locate buildings along this axis and are close to the settlement boundary. Houses also could have been positioned slightly further to the south-east, outside the limits of the excavation. There is however

evidence of tracks and yards in this area, with pathways along the south-eastern (interior) edge of the boundary ditch. This is supplemented by a trackway on a north-west to south-east alignment which may have provided a routeway through the settlement, allowing access between the north-west and south-east boundary ditches. In area PA3, the southern extent seems to support the pattern of the focus of activity not being on the south-eastern side, and it seems likely that any croft/tofts in this area had a similar interior arrangement to those to the south.

2.7.10 Across the excavated area, the arrangement of the houses within the plots, being located on the north-east side, appears to have in part been influenced by the topography. The land to the south-east slopes to the east and is more prone to waterlogging. This provides an explanation for the necessity of ditches for drainage as well as division of plots, but also provided a ready source of water for the ponds.

2.7.11 Only two original house platforms identified contained readily identifiable structures. The buildings HP6 and HP7 have similarities in their construction. Both were built on the underlying clay substrate, in places apparently levelled into and made up with deposits of material derived from this with some cultural material incorporated and defined by gullies which can most readily be understood as drip gullies channelling water away from the buildings. Both houses had their long axis parallel with the settlement boundary to the north-west on a north-east to south-west alignment. In both cases the footings involved stone walling and/or post pads which provided a foundation for a timber superstructure. This may have been either a cruck- or box-frame construction and further consideration needs to be given to the patterns of foundation/postholes in each case in order to understand this further.

2.7.12 A rammed earth floor appears to have been present within HP7, part of which was affected by the heat of a central hearth. Areas of cobbling on the outside seem to have been located in high traffic areas around what are likely to be doors. It is possible that the rows of postholes in HP6 may have supported a suspended floor rather than providing structural support or interior subdivision – the southern row of posts is very close to the wall to have provided an internal partition or be structurally sound as a form of roof support. Division of the space occurred, with partitions and a beamslot, or internal drain, within HP7 separating a living area from possible animal housing on a longhouse plan. The use of the internal space is of interest. The apparently deliberate positioning of a copper-alloy bowl next to the hearth in building HP6 (and in fact a largely complete pottery vessel in the hearth in HP7) may be part of a previously recognised habit of locating vessels near hearths (e.g. Shapwick, Somerset [Gerrard 2007]; Dinna Clerks, Dartmoor [Beresford 1979] Wharram Percy, N. Yorks. [Wrathmell 1989]), most particularly at Westbury, Bucks, where a total of ten, 13th-14th century pots occurred adjacent to hearths or ovens in several buildings (Ivens et al 1995, 272-5).

2.7.13 The walls of the buildings may have been infilled with wattle and daub or cob construction, given the limited amount of stone. Roofing was probably largely thatch although single examples of slate and stone, and fragments of ceramic roof tiles were recovered, mainly from post-occupation deposits. It is

not clear which buildings these may have related to, or even if this material originated from the buildings on the site. HP6 appears to have been surrounded on its north side by a deliberately constructed yard, with relatively coherent remnants of surfaces. This probably served a range of agricultural functions.

2.7.14 As mentioned above, identifying the date of the commencement of the settlement is at present problematic, but its use occurred within between the 11th to 16th century. In some cases, features were re-cut on several occasions which implies continued use over centuries. As already noted, the general layout appears to have been fixed from the beginning. However, there is some indication that the interior divisions between tofts/crofts may have predated the establishment of the boundary ditches. At least the boundary ditches were being re-cut and re-established after those croft boundaries. The general regularity of the layout suggests a degree of planning, but the lack of clarity in dating means that it is not possible to be definitive, and there are indications that there was at least some subdivision and 'infilling' which might suggest a less controlled development from a limited number of principal features.

2.7.15 The degree of contemporaneity of features is presently difficult to ascertain – it is assumed that the buildings HP6 and HP7 were contemporary with the creation and use of the land parcels within which they sat, but what is more difficult to distinguish is whether those buildings were directly contemporary with each other. The number of buildings present and/or crofts in use at any given time is currently elusive but would be useful to further explore in order to understand the trajectory of the settlement and its population over the course of the medieval period. There are some indications that HP6 may have been in use slightly later than HP7. The pottery recovered from that building appears to be more consistently skewed to a later series of date ranges, and features and deposits which either overlay the building or utilised the area of its yards produced ceramics which were consistently in the range of the 15-16th centuries, and which appears to represent the latest substantive medieval use of the site. This activity appears to have been characterised by high temperature activities, and it is probable that this area had become disused for habitation in the later medieval period, but still provided a suitable elevated and dry location for general work. However, there was little evidence of any identifiable industrial processes from the industrial waste, and it may have been that this became an area suitable for refuse disposal at the end of the medieval period, presumably removed from the new focus of settlement.

2.7.16 There was in general very low-level indications of metalworking on the site during the medieval period, with indistinct industrial residues recovered from a wide variety of contexts across the settlement. A cluster of features in area PA2 which were originally suspected as being of some industrial origin did not provide evidence of in situ high temperature activities and the fills did not contain any industrial residues.

2.7.17 The economic basis for the settlement is indicated largely by plant and faunal remains, but these are widely distributed with a limited number of locations which seem to have attracted specific activities. The arrangement of the plots suggests that the land attached to them, divided into paddocks with ready sources of water would have been of use for garden scale cultivation and small-scale animal husbandry. The animal remains are dominated by livestock with a significant component of equid (probably horse), dog, domestic birds, and deer. This is appropriate to a site of this type. One notable deposit of horse remains in pond 20643 is intriguing, but probably speaks to the use of these features for general rubbish disposal once they went out of use. The plant remains came from across the site, often in low density suggesting disposal of general hearth waste and include cereals herbs and legumes. The character of the assemblage is commensurate with a domestic setting.

2.7.18 The objects recovered cover the range of activities which one might expect within a medieval rural settlement. This included a range of personal items such as buckles, household items, large amounts of structural metalwork, as well as tools and items associated with the agricultural economy. Most of these objects are commonly seen on medieval rural sites. Some hint of access to more expensive goods is indicated by a fragment of a silver-gilt possible fede ring, and part of a copper alloy bowl. Two arrowheads suggest hunting or martial pursuits; one arrowhead is of an armour-piercing type. However, the pottery is generally of local manufacture with some regional wares and very limited numbers of imports, all entirely in keeping with a rural settlement. There is little indication of higher status within the site and an initial consideration of the distribution of material does not currently indicate a concentration of material which might indicate this in any particular location.

2.7.19 We know from map, aerial photograph, and documentary evidence (see Section 1) that the part of the site excavated is part of a wider utilised landscape. Whilst it provides only a partial picture, the excavated features and material provide indications of the chronology and nature of the site which can be regarded within the framework provided by the wider landscape, the location of Doddershall House, and documentary evidence. Within the excavated area it appears that a chronological sequence of development which might inform on the process of nucleation is not represented. However, the dating of the apparent decline of the settlement (at least in this part) accords with the early map evidence and provides information on the change in layout and use of the area in the later 15th and early 16th century. The nature of the features and the information from artefacts and environmental material as to the economy and status of the inhabitants can also be seen in relation to this part of the settlement comprising a particular element of the manorial arrangement.

2.7.20 This site fits within a picture for Buckinghamshire which includes other abandoned medieval villages and hamlets. The Midlands is characterised by nucleated settlement, rather than more dispersed models seen in other areas (Jones and Lewis 2012). The date of inception, development and degree of planning exhibited is therefore interesting to explore. The episode of apparent nucleation represented by Doddershall may have fitted a model of a succession to a late Saxon dispersed settlement pattern

(and indeed shifting settlement originally influenced by the focus of Roman period settlement at Railway Cottages), or indeed that nucleation had commenced close-by during the late Saxon period, but the dating evidence from the excavated area itself is slight and difficult to assess in isolation. The evidence from the excavated area does not support a particularly early origin, at least for this particular part of the settlement.

2.7.21 The classic village arrangement we might expect in this area is one of a closely related manorial centre and church, alongside an arrangement of regularly spaced and sized crofts and tofts, an arrangement which is illustrated for Buckinghamshire by a 15th century map of Boarstall (Jones and Lewis 2012, 190). The excavated area at Doddershall supplies a snapshot of part of a settlement which certainly supports the presence of the toft/croft arrangement between the c. 13th-c. 15th centuries, but it is unclear how this articulated with other elements one might expect to find, or whether there was any systematic application of dimensions to the plots as is seen elsewhere (e.g. West Cotton, Raunds [Chapman 2010]). As such, better understanding of the nature, chronology and degree of planning reflected in the excavated features, and by extrapolation the related earthworks, provides an opportunity to explore the similarities or regional character of settlement during this period.

2.7.22 It has long been recognised that many settlements in the Midlands were in decline at least from the 14th century due to social and economic factors (Dyer 1982), part of a national phenomenon associated with climatic change, animal and human disease, and long-term changes in labour supply. Whilst it is unclear as to the exact date at which change occurred at Doddershall, due to the long date ranges associated with the ceramics, it seems that there had been some decline – at least in the part of the settlement seen in the excavation – by the 15th century.

2.7.23 The form of the buildings themselves best fits that of the long house model (cf Beresford and Hurst 1971), where interior partitioning could facilitate animal housing or storage. The form of construction of the Doddershall buildings is not currently clear, other than that they utilised stone footings to a degree to support a timber framed structure. There is also little indication in the land parcels around HP6 or HP7 of other ancillary buildings which might provide sheds or barns. The other notable thing about both HP6 and HP7 is that ostensibly they have little evidence of rebuilding or repair, although this may reflect the mode of construction onto stone footings or pads. A question which however arises is of how long duration was the domestic occupation of each toft and croft plot as well as the contemporaneity between them. Should we see the layout of land parcels as simultaneously occupied or consider whether they were not all lived in/on at the same time, or whether it was possible for multiple plots to be rented but only one provide a dwelling. This all adds greater uncertainty to any consideration of overall population and the relative status of the inhabitants. It could be assisted by refinement of the dating. Further consideration of the building construction in conjunction with cultural material could inform on the functions carried out in these areas and the people who inhabited them

3 Finds Report

3.0 Roman pottery

By Pete Banks PCIfA

Introduction and quantification

3.0.0 The Roman assemblage comprises 3 sherds of pottery, weighing 12g. The assemblage was recovered by hand from one deposit. This report provides a broad characterisation of the assemblage by period/ceramic tradition, with a general summary of fabrics and depositional context.

Methodology

3.0.1 Recording of the pottery assemblage was direct to an Excel spreadsheet. This now forms part of the archive (Appendix 14.4). The pottery was examined by context, using a x10 binocular microscope. The fabrics are described (Table 5) in accordance with the Historic England guidelines (Barclay et al. 2016). Quantification is according to sherd count and weight. Concordance with the Buckinghamshire fabric series classified by P.T. Marney has also been provided where possible (Marney 1989).

Results and observations

3.0.2 Three body sherds (12g) of sand tempered black-surfaced wares (9) are recorded from Period 2 layer 25003.

3.0.3 Table 2: Summary of late prehistoric pottery by fabric type.

Ware	Fabric Description	Bucks Fabric Code*	Count	Weight (g)
Reduced wares	Sand-tempered black-surfaced wares	9	3	12

* codes taken from Marney 1989

Distribution

3.0.4 The assemblage provides possible evidence for Roman activity located in the DMV South PA2 area of the site. The assemblage is however residual in features dated to the medieval period or later.

3.1 Post-Roman pottery

Alejandra Gutiérrez BA (Hons) PhD MCIfA

Introduction and quantification

3.1.0 An assemblage of 6621 post-Roman pottery sherds, weighing 7.3kg, was recorded from 376 separate deposits. It was all hand-recovered during the excavation, with the exception of 264 sherds that were collected during the processing of soil samples.

3.1.1 Almost all the post-Roman pottery dates to the medieval period (11th-mid 16th) centuries, with negligible quantities of Late Anglo-Saxon wares (1% of total sherd count and weight) together with a small assemblage of post-medieval (0.8%), and modern material (0.4%).

3.1.2 The assemblage consists of small sherds, sometimes just scraps, and diagnostic or featured sherds are scarce. Some of the fragments are very abraded, with total loss of the original surfaces and rounded breaks, especially those medieval wares which were made of softer fabrics, such as the local Brill/Boarstall wares.

Methodology

3.1.3 The assemblage was recorded in full following the current professional standards (Barclay et al. 2016). The pottery was sorted into fabrics with the aid of a binocular microscope (x10 magnification), sorted into forms, counted and weighed by context. If rims were present, the diameter and surviving rim percentage (EVE) was also recorded whenever possible. Decoration, usage marks and condition were also recorded. A site-specific list of fabrics was created which was then correlated to the type series for Oxford (Mellor 1994) or London (MOLA 2014). The data were recorded directly into the HS2 template Excel spreadsheet (Appendix 14.4) and copied to the project Access database.

Results and observations

3.1.4 The post-Roman assemblage includes Late Anglo-Saxon pottery (10th-11th century), medieval (11th-mid 16th century), post-medieval (mid 16th-18th century) and modern wares (19th century onwards), (Table 6).

3.1.5 The Late Anglo-Saxon pottery comprises only sherds of Thetford ware. The average sherd weight of 10g indicates quite good preservation for this robust sandy fabric, although most of the assemblage consists of featureless body sherds with damaged surfaces. They are all hand-made, usually brown vessels with distinctive black surfaces; and only three short, straight rims were found. None of the vessels is decorated. All the sherds were residual, mixed with material of later date and must be redeposited.

3.1.6 The medieval pottery is clearly dominated by local Brill/Boarstall wares, both fine glazed jugs (BRIM) and unglazed coarser jars (BRIM2, MSW2), which together make up for 82% of all the medieval sherds recovered. The Brill/Boarstall jugs were manufactured in a fine, soft fabric and the assemblage is mostly very abraded, with glaze often having been lost, or in poor condition. The production area is only c. 14km south-west of the site (e.g. Farley 1982; Ivens 1982). Although difficult to date precisely, a few highly decorated jugs typical of the 13th and 14th century are present (including a face jug broken into 128 sherds from Period 2 track 10004, jugs with applied bands, rouletted and sometimes of contrasting clay colour), together with forms which were introduced during the late medieval period

(15th-16th centuries), such as bung-hole jars, pipkins, chafing dishes, and thin-walled cups in the style of Tudor Green wares from Surrey (Blinkhorn and Saunders 2002).

3.1.7 A number of other local and regional wares have also been identified (Table 6), all highly fragmented, with an average sherd size of just 12g and few large profiles. They include Potterspury ware of the 13th-15th centuries, late medieval shelly wares (SHE) of the 12th-mid 14th century; grey (GSW) or brown (MSW) sandy coarsewares of the 12th–15th centuries and a range of pottery from Surrey, mainly glazed jugs (Kingston, Border Ware, Tudor Green). Cistercian wares with their black glazes are good dating indicators of late medieval occupation (late 15th-16th centuries) and were possibly manufactured in the Midlands.

3.1.8 The number of foreign imports is very low but typical of an inland rural site. The group is composed of just 11 medieval sherds from the Saintonge area of south-western France and a single sherd of late medieval Raeren stoneware from Germany.

3.1.9 The post-medieval and modern assemblages are very small (64 sherds, 1079g) and include a handful of 16th-18th century earthenwares both local (PMR, BLAC) and from Surrey (BORD) and one or two fragments of tin-glazed ware, mottled ware and white salt-glazed stoneware (Table 6). The latest wares on site are the pearlwares and porcelain of the 19th century onwards. Part of a telegraph/telephone pole porcelain insulator of the 19th-20th century was also found (deposit 20054).

Table 3: Quantification of post-Roman pottery

Period	Ware	Fabric code	Count	Count %	Weight (g)	Weight (g) %
Late Anglo Saxon (9th-mid 11thC)	Thetford ware	THET	70	1.06	749	1.02
Medieval (mid 11th-mid 16thC)	Brill/Boarstall ware (Bucks)	OXAM	3193	48.23	36386	49.67
	Brill/Boarstall late med (Bucks)	late OXAM	94	1.42	1545	2.11
	Brill/Boarstall late med (Bucks)	OXBX	226	3.41	3607	4.92
	Brill/Boarstall overfired (Bucks)	OXAP	45	0.68	675	0.92
	Brill/Boarstall Tudor Green type (Bucks)	OXBC	26	0.39	204	0.28
	Brill/Boarstall early (Bucks)	BRIM2	984	14.86	9119	12.45
	Brill/Boarstall coarseware (Bucks)	MSW2	707	10.68	5831	7.96
	Potterspury (Bucks)	OX68	393	5.94	3868	5.28

Period	Ware	Fabric code	Count	Count %	Weight (g)	Weight (g) %
	Medieval sandy wares (Bucks/Northants)	MSW	351	5.30	4963	6.78
	Greywares (Bucks/Northants)	GSW (Ox MS3?)	248	3.75	2155	2.94
	Potterspury? (Bucks)	SGO	68	1.03	1471	2.01
	Late medieval shelly ware	OXBK	59	0.89	746	1.02
	Kingston-type ware (Surrey)	KING	27	0.41	269	0.37
	Cistercian Ware	CSTN	16	0.24	83	0.11
	Tudor Green ware (Surrey)	TUDG	19	0.29	68	0.09
	Flint-tempered coarseware (Bucks?)	F1	5	0.08	76	0.10
	Surrey White Ware	OXBG	4	0.06	14	0.02
	Brill? Early post-med redwares (Bucks)	PMRE	3	0.05	150	0.20
	Limestone-rich coarsewares	LI1	3	0.05	30	0.04
	Fine Kingston-type ware (Surrey)	FKING	3	0.05	39	0.05
	Coarse Surrey-Hampshire border ware (Surrey)	CBW	1	0.02	3	0.00
	Saintonge unglazed ware (France)	SAIU	1	0.02	30	0.04
	Saintonge ware (France)	SAIN	10	0.15	81	0.11
	Raeren stoneware (Germany)	RAER	1	0.02	8	0.01
Post-medieval	Brill/Boarstall post-medieval	BRILL2?	7	0.11	140	0.19
(mid 16th-18thC)	Surrey-Hampshire border white ware	BORD	6	0.09	77	0.11
	Post-medieval red earthenwares	PMR	6	0.09	187	0.26
	Sandy red ware	SRW	6	0.09	62	0.08
	Iron-glazed blackwares	BLAC	5	0.08	18	0.02
	Midlands orange ware	CRG	2	0.03	62	0.08

Period	Ware	Fabric code	Count	Count %	Weight (g)	Weight (g) %
	Dipped white salt-glazed stoneware	SWSG	3	0.05	4	0.01
	English tin-glazed ware	TGW	1	0.02	4	0.01
	Early tin glaze (Italian/Netherlandish)	TGW	1	0.02	3	0.00
	Early post-med redwares	PMRE	1	0.02	13	0.02
	Mottled ware	STMO	1	0.02	2	0.00
Modern	English grey stoneware	EGS	9	0.14	176	0.24
(19th onwards)	Pearlware	PEAR	8	0.12	9	0.01
	English stoneware with Bristol glaze	ENGS	4	0.06	158	0.22
	English porcelain	ENPO	2	0.03	5	0.01
	Brown refined ware	BR	1	0.02	9	0.01
	Industrial porcelain (telegraph/telephone)		1	0.02	150	0.20
Total			**6621**	**100.00**	**73249**	**100.00**

Distribution

3.1.10 Most of the assemblage (74%) is concentrated in DMV South, with the remaining 26% in DMV North.

3.1.11 Overall, about a third of all the pottery was found in the fills of features. In DMV North the pottery was found in surfaces and deliberate backfills of tracks (10037), fills of ditches (A, AA, AF, AI, AJ, BA), and levelling layers. In DMV South area it was also found infilling ditches (B, BA, BB, BC, BD, BE, BF, BG, BH, C, CA, CB, CC, CD, CE, CF, CG), ponds (20643) and gullies (20244, 20727).

3.1.12 Smaller quantities (c.2%) have been found in occupation layers, which in DMV North include (10086) and house platforms (10087, 10105) of Period 2. In DMV South are floors (e.g. 20068, 20253, 20527, 20536), pits and middens (e.g. 25029, 20516) and house platforms (20727, HP7; 25000, HP6).

3.1.13 About 7% of all the medieval sherds (443 sherds; 4.8kg) are residual in Period 3 (16th-19th century) and a further 5% (302 sherds; 3.3kg) are residual in Phase 4 (20th century), which includes the subsoil and topsoil.

3.1.14 The modern wares are approximately equally distributed between DMV North and DMV South areas. In the north area of the excavation (15 sherds), they appear in subsoil 10203 and 10189 and in the fill of pond 10234. In the south area, of 11 sherds 8 were in the topsoil and subsoil, the rest in deposit 20069 and 2 in fill 20026 of foundation cut 20024.

3.2 Lithics

3.2.0 By Jacky Sommerville BSc MA PCIfA

Introduction and quantification

3.2.1 A total of six worked flints (134g) and 23 pieces of burnt, unworked flint (272g) was recovered via the hand-excavation and bulk soil sampling of five deposits (Table 7).

Methodology

3.2.2 The artefacts were recorded according to broad debitage/artefact type as defined by Butler (2005) and catalogued directly onto a Microsoft Excel spreadsheet (Appendix 14.4).

Results and observations

3.2.3 The raw material is moderately fine-grained flint in all cases. Cortex is present on two items – it is chalky on one and abraded on the other. The flints comprise three flakes, one blade, one chip and one core. The core and the flake from the same deposit (layer 10190 in DMV North, PA3) are both burnt, and the burnt, unworked flint was also retrieved from this layer. The blade (Ra. 1036), from Boundary ditch A (10248, fill 10204) in DMV North (PA3) is regular and measures at least 62mm in length: the tip is missing. Blade technology was in use during the Mesolithic and Early Neolithic periods. The core is a single-platform type which was used for the production of flakes. Neither the core nor the flakes can be dated more closely than to the prehistoric period.

Table 4: Worked and burnt flint

Type	Count	Weight (g)
Burnt unworked	23	272
Flake	3	8
Blade	1	5
Chip	1	<0.1
Core	1	121
Total	**29**	**406**

Distribution

3.2.4 The worked and burnt lithics were all residual in deposits assigned to medieval Period 2 in DMV North (PA3) and DMV South (PA1 and PA2).

3.3 Stone

Ruth Shaffrey, Phd, MCIfA, FSA

Introduction and quantification

3.3.0 A total of 62 items of stone were retained and submitted for assessment. A total of nine objects were retained and two pieces of stone roofing. One of the objects is a small fragment of lava rotary quern (25110 in pond 25109), too degraded for form to be established. The remaining eight objects are whetstones.

Methodology

3.3.1 The stone was scanned for signs of burning or use. Burnt stone was weighed and counted by context and the type of burning was recorded. Worked or utilised stone was fully recorded (Appendix 14.4).

Results and observations

3.3.2 The stone roofing includes one small piece of slate (not diagnostic, but assumed to be from roofing), and one complete small stone tile with a pointed base, of Forest marble type (surface 25243). The single rotary quern is a degraded fragment of Mayen lava (25110 in pond 25109). The whetstones consist of seven shaped elongate hand-held whetstones and one irregular small slab. The sandstone slab (20342 in ditch CG) has been used across both faces and extensively across one edge, so that this is now dished. Two of the whetstones are carborundum and therefore modern (modern layer 20027). Three whetstones are schist, probably Norwegian rag, although one is unusually laminated and may be from an alternative source, perhaps from Scotland (20569[voided context number], 20691 [gully in HP7], 10091[deposit between ditches AH and AI). One whetstone with a circular cross-section is made of sandstone (20027). The last whetstone is a small square-sectioned whetstone, well used on all faces and with several point sharpening grooves (layer 25011 in PA2, SF 2500). This example is made of slate, or possibly a phyllite.

Distribution

3.3.3 The worked stone was recovered from a small number of features and layers: pond 25109, ditches 20341 and 20568, possible beam slot 20690, layers 10091, 25011 and 25243, and topsoil 20027.

3.4 Worked bone

By Claire Collier BA, MA, ACIfA

Introduction and quantification

3.4.0 Six items of worked bone, weighing 107g, were recovered (Appendix 14.4).

Methodology

3.4.1 The items are recorded by type, fragment count and weight directly onto an MS Access database. The report Is set out below with object use considered according to Crummy's functional categories (1983).

Results and observations

3.4.2 The surface condition of four of the objects is good, the rest are weathered. Two items are broken.

Objects of personal adornment or dress

3.4.3 An oval bead was recovered from Period 2 occupation layer 20067. According to MacGregor (1985, 99–102) beads made of bone are infrequently found before the medieval period, and the form does not lend itself to more specific dating.

Objects and waste material associated with antler and bone working

3.4.4 Four pieces of red deer antler were retrieved from two Period 2 ditch fills and one Period 2 construction trench for a wall. The two sawn burrs and tines are waste material left over from the procurement of raw material for the manufacture of objects. It is uncertain as to whether the smoothed points of the two tines are natural or from use.

Objects of unknown function

3.4.5 A piece of worked bone with two sawn notches and end was recovered from Period 2b layer 25050. A single piece of possible bird bone was recovered from an undated tree throw pit fill 10154. Although the surface appears polished it is unclear as to whether it has been worked. The bone has been subject to prolonged burning, indicated by its calcined nature and bright white colour (Lyman 1994).

Distribution

3.4.6 The objects were dispersed around the medieval settlement. The oval bead came from an occupation layer associated with House Platform 6 in DMV South, the red deer antler was recovered from the fill of ditches, CA, and 20180, along with construction trench 20589, part of House Platform 7 in DMV South, the possible polished bird bone was recovered from an undated tree-throw in DMV North and the piece of sawn bone from buried soil 25050 to the north-west of House Platform 6.

3.5 Metalwork

By Ruth Beveridge BA, PhD, MCIfA

Introduction and quantification

3.5.0 A total of 799 items of metalwork (weighing 23,176g) was recovered from the excavation. This total excludes coins which have been assessed separately (Section 3.6). Of the 799 items, 478 were collected from 114 stratified deposits; with a further 321 being recovered during metal detecting (designated

with a number prefaced with 'MD') of the subsoil and topsoil, recorded as unstratified or being retrieved from natural layers. During assessment, one of the metal-detected objects was found to be stone. Of those objects collected from stratified deposits, 44 were retrieved during the post-excavation processing of environmental soil samples. The objects are listed by chronological period and material in Table 8 and then by functional category in Table 9.

3.5.1 The condition of the metalwork varies. Many of the ironwork objects are fragmentary and exhibit greater levels of corrosion products than the artefacts of copper alloy. The artefacts are packed in perforated bags and supported with plastazote foam or in crystal boxes where necessary. They are stored in airtight boxes with humidity control as appropriate.

Methodology

3.5.2 The assemblage has been recorded directly onto an MS Excel spreadsheet which is presented as a preliminary catalogue in Appendix 14.4. Objects have been recorded in accordance with guidelines set out in the CifA Toolkit for Specialist Recording (CifA 2021). The objects have been examined with the assistance of low powered magnification and digital x-ray plates (nos. 1-22) that will be deposited with the archive

Results and observations

3.5.3 Table 9 summarises the metalwork by functional groupings, adapted from those introduced by Crummy (1983). This facilitates an overview of the range of items within the assemblage. Overwhelmingly, the majority of the datable items within the assemblage are from the medieval period; with objects reflecting everyday rural and domestic life. A small group of items, such as the gold ring, the copper alloy bowl and the iron spurs, indicate occupants of a higher status with possible access to continental markets.

3.5.4 There are comparatively few items of post-medieval date, testament to the demise of the village in the later medieval period. Those items of 17th century or later date are typically small portable items that have likely entered the archaeological record through casual loss.

3.5.5 Only two artefacts of possible Roman date have been recorded, and one of possible later prehistoric or Roman date; these are unlikely to relate to direct occupation on the site, more likely to represent transient activity from the Roman settlement to the south

Personal adornment

3.5.6 A total of 60 objects of personal adornment were recovered, and whilst 22 artefacts are unstratified or recovered from topsoil (20000) and subsoil (10001, 10189, and 20001) layers, 38 were collected from stratified deposits. They include 44 copper alloy objects: 23 buckles and a separate buckle plate; six belt mounts; three strap ends; three buttons; two pins; two strap slide/swivel loops; one bead; one lace tag; one wire fastener and one enamelled mount. Additionally, a gilded finger ring and a pewter button

were collected as well as 14 iron items that comprise 11 buckles, a strap end and two possible hobnails commonly associated with Roman style footwear.

3.5.7 Aside from the hobnails the earliest item of personal adornment is the copper alloy melon-shaped bead (MD 203) characterised by being decorated with spiralling grooves and ridges. Several examples are recorded on the Portable Antiquities Database (for example: Andrews-Wilson 2004 and Adams 2018) dating from the Bronze Age to the Roman period (c. 1500 BC to AD 100).

3.5.8 The buckles were primarily collected from DMV South (PA1 and PA2) with only eight copper alloy buckles from DMV North (PA3). Of the 26 buckles from DMV South, 18 are concentrated in the area around structure 25000 (HP6), some being in the buried soils of the post-occupation layers and midden layers. The buckle forms are primarily medieval and include five copper alloy examples (MD 36, 178, 187, 294 and 295) of oval or D-shaped frames with integral forked spacers dating between c. 1250 to c. 1450; simple annular or rectangular copper alloy frames of comparable date and a later 'spectacle' buckle (MD 335) of c.1350 to c.1720 (Whitehead 1996, 52, no. 288). The iron buckles are dominated by small annular frames commonly identified as shoe buckles (Egan and Pritchard 2002, 57).

3.5.9 The eight buckles from DMV North (PA3)were scattered across the area; six (MD 243, 244, 247, 255, Ra 1017 and one from subsoil 10001) are medieval, ranging in date from c. 1250 to c. 1500 and include simple frames amongst which are two sword belt hangers (MD 255 and Ra 1017). Buckle MD 243 retains remains of the leather strap between the belt plates. Two double loop rectangular buckles are later in date: MD 240 dates between c. 1450 and c. 1600, with MD 312 dating from c. 1570 to c. 1700.

3.5.10 In addition to buckles, belt mounts, strap-ends and strap slides/loops (MD 242 and 298) are dress accessories associated with belts that were collected across the site. A total of seven copper alloy belt mounts were retrieved, five (MD 119, 248, 251, 252 and RA 1006) from DMV North (PA3) and two (MD 205 and 295) from DMV South (PA1 and 2). Four (MD 205, 248, 251 and Ra 1006) are domed sexfoil mounts, commonly used from the middle of the 14th century onwards (Egan and Pritchard 2002, 186), presumably for the stiffening of belts as well as for decoration (Margeson 1993, 38). Belt mount MD 252 is a domed cinquefoil mount; MD 119 and MD 295 are more decorative rectangular mounts. One (MD 119) has an enamelled cross set within a raised lozenge, whilst MD 295 has repousse decoration and 'serrated' edge which may be of a slightly later medieval date comparable to examples from Norwich found in contexts dating between c. 1400 – 1600 (Margeson 1993, 40 and 41, fig, 23 nos. 275-282).

3.5.11 Three copper alloy strap ends (MD 166, 209 and Ra 1018) and one iron example from fill 20602 were collected, with only RA1018 being recovered in DMV North (PA3). The simple copper alloy strap ends are formed from two plates with knopped or trilobed terminals, of a type likely common throughout the medieval period (Margeson 1993, 34). The iron strap end made from folding a tapering sheet or iron widthways is comparable to an example found in a later 13th to 15th century deposit in London (Egan and Pritchard 2002, 129).

3.5.12 A silver gilt finger ring, (MD 206, Treasure reference 2022 T78) was recovered from buried soil 25037 in DMV South (overlying HP6), associated with the post-occupation debris of structure 25000 (HP6). The distorted band, decorated with bar lines and a saltire, is comparable in style to a copper alloy example recovered from a deposit in London dating between c. 1350 – 1400 (Egan and Pritchard 2002, 331, fig. 217, no. 1624). It may originally have been the band of a 'fede' ring, a love ring with clasped hands, popular from the 13th century onwards (Margeson 1993, 5)

3.5.13 Few objects of post-medieval date were retrieved: four buttons, three of copper alloy (MD 6, 307 and one from fill 20721 of Ditch CC) and one of pewter (MD 57) are of 18th century date or later.

Objects associated with leisure and religion

3.5.14 A single spherical stone or fired clay object (MD 8) was collected from topsoil layer 20000 in DMV South (PA2), comparable to examples recorded as marbles of post-medieval or later date (Griffiths 2013).

3.5.15 From subsoil layer 20001 in DMV South (PA2), above the spread of the midden layer 25054 south-east of HP6, a medieval lead ampulla (MD 177) was collected. Ampullae were bought by pilgrims from Holy sites and supposedly contained thaumaturgic water dispensed there. The example from Doddershall is decorated on one side with a compass drawn flower motif; on the other, a crowned double V for Virgo Virginum (Virgin of Virgins) indicating Mary, Mother of God and also forming the W of Walsingham, a Norfolk pilgrimage site. It likely dates from the 15th century, a point at which Walsingham rivalled Canterbury and a time when veneration of the Virgin Mary was in the ascendant (Mitchiner 1986, 13).

3.5.16 Whilst ampullae are commonly found on open rural land, an example from Bull Wharf in London is a close comparison to MD 177 (Spencer 2010, 205). Substantial numbers of 15th century ampullae have been recovered from the fields in East Anglia (Mitchiner 1986, 138), possibly a reflection of their use in the annual ceremony of 'Blessing the fields' each spring to pray for crops (Mitchiner 1986, 139, no 380 and 145, no 410).

Household utensils and furniture

3.5.17 A total of 28 household objects or pieces of furniture have been identified, primarily from DMV South (PA 1 and PA2); with over 50% being unstratified or recovered from the subsoil and topsoil layers.

3.5.18 The most notable object is a copper alloy bowl (Ra 2681) retrieved from fill 25196 of pit 25193 within HP6. Made from thinly hammered sheet (2.6mm thick), it is a round based vessel with plain everted rim. Whilst a significant proportion of the vessel survives, it is in poor condition. Conservation has been. Measurements and weight are close approximations due to the fragile nature of bowl, however, it is estimated that the diameter is approximately 155mm. Few copper alloy vessels are recovered in medieval assemblages, probably a reflection of their high cost in comparison to bowls utilising other materials (Margeson 1993, 90). It is possible this particular bowl may be of the type used alongside ewers for formal hand washing at meal-times (Egan 1998, 158). Bowl Ra 2681 may be continental in

origin, for as well as production in England, from the 13th century onwards a growing number of copper alloy vessels were imported into the country from Belgium and Germany (ibid, 158).

3.5.19 An additional nine copper alloy vessel fragments and two iron vessel fragments form part of the assemblage from the DMV, all but two (MD 241and 310) are from DMV South (PA1 and PA2). The objects from DMV North (PA3) comprise a cast copper alloy leg from an ewer or cauldron (MD 241) retrieved from ditch 10139, debris associated with cobbled surface 10253, and an unstratified fragment of vessel wall (MD 310). Legs from tripod ewers and cauldrons are commonly recovered amongst medieval assemblages (ibid, 161). Copper alloy vessels are represented from DMV South by dispersed, undiagnostic cast rim and wall fragments (Ra 2509, MD 31, 35, 214, 305, 313 and two without Ra numbers); they are from Periods 2 and 4 with spot-dates of 13th to 16th century date.

3.5.20 The iron vessel fragments were recovered from 19th – 21st century deposits 20024 and 20025 and include cojoining fragments from a tripod vessel and a piece of a saggy-based bowl.

3.5.21 Protracting the use of ceramic vessels is indicated by the retrieval of two lead plug repairs (MD 183 and 211) from natural and subsoil layers in DMV South. These makeshift repairs are created using melted lead (Egan 1998, 240) and are frequently recovered from assemblages of medieval date.

3.5.22 The stem of a late medieval lead alloy/pewter spoon (MD 49) was collected from topsoil layer 20000 above occupation layer 20222. It was part of the tableware of the household and whilst examples of 13th/14th century date are recorded (Egan 1998, 245), MD 49 is of 16th to 17th century date, comparable to examples collected from excavations in London (Egan 2005, 110-111, fig.100-101) and to one recorded on the Portable Antiquities Database from nearby Woodham, Buckinghamshire (Wood 2017).

3.5.23 Two iron candleholders provide an insight into lighting within the medieval household. One (Ra 2509) was collected from metalled surface 25017, outside wall 25075 (HP7) in DMV South (PA1), the other (Ra 1070) from deposit 10197 above cobbled surface 10253. They are the simplest form of medieval candleholders and continued in use into the post-medieval period (Goodall 1993a, 84), characterised by single cup candleholders with right-angled spikes for fixing into the wall. They comparable to an example recovered from a deposit dating c. 1350 – 1400 in London (Egan 1998, 143, fig. 109, no. 406).

3.5.24 Four medieval copper alloy sewing-thimbles (Ra 2030, MD 41, 118 and 254) are an indication of domestic activities within the household. Two (MD 41 and 118) were collected from topsoil layer 20000 in DMV South (PA1), close to HP7, whilst Ra 2030 was recovered from levelling layer 20595 that may also be associated with HP7.

3.5.25 The thimbles are domed examples, primarily dating to the 14th century, with Egan (1998, 265) noting that no medieval thimbles have been found in England from securely dated deposits prior to that time. One (MD 41) is of a distinct 'beehive' shape and MD 254 displays a 'tonsured' crown (Read 2018, 21).

3.5.26 Two copper alloy handles (MD 176 and 213) and three iron handles (Ra 2557, MD 340 and one unnumbered) are from either furniture or utensils. A copper alloy ring (MD 69) is of the type commonly used for the suspension of curtains or hangings (Margeson 1993, 82, fig. 47) and two copper alloy S-shaped links (MD 168) are from a chain.

Fasteners and fittings

3.5.27 A total of 534 objects have been recorded within this category, with the larger proportion (370) being iron nails or fragments of nails. Of the nails, 79 were collected from DMV North (PA 3), primarily from layers associated with structures including 21 from layer 10197 which covers cobbled surface 10253, as well as 11 from post-medieval pond fill 10232 and 20 from remnant subsoil layers. The larger assemblage of nails (291) was collected from DMV South (PA1 and PA2). As perhaps to be expected, the nails are clustered in layers associated with the abandonment of several structures: 44 nails associated with structure 25075 (HP7); 89 with House Platform 6. Further smaller groups of nails were retrieved from middens 25054 and 25029 as well as pit 25201 (HP6).

3.5.28 The nails are typically hand-forged carpentry nails with flat heads and square shanks with those being from medieval dated features likely to be of comparable date and falling into Goodall's (2011, 164) Types 1-3. Only 26 nails were complete, with a range in length from 28mm to 88mm and range in head diameters/width from 8mm to 21mm.

3.5.29 Amongst the remaining iron fasteners and fittings are three hinges and nine hinge pivots from DMV South, these would have been used for hanging doors, gates and shutters (Goodall 2011, 164); six staples for binding wood or attaching fittings to wood or stone (three rectangular and three U-shaped); nine strap/strip fittings used on doors and furniture; two possible spiked loops (Ra 2684 and 2719) and three swivel hooks and rings (Ra 1076, 2004 and one unstratified) that are components of chains that allow movement of whatever is suspended from them.

3.5.30 Four medieval iron rotary keys were collected: one (Ra 1045) from subsoil remnant layer 10206 in DMV North (PA3); three (Ra 2000, 2501 and 2664) were retrieved from layers associated with or close to structures in DMV South (PA 1 and 2). The keys fall into Goodall's Type G category (Goodall 2011, 241) distinguished by a solid stem with projecting tip and symmetrical bits that enable the key to be used from either side of a lock. The three keys from DMV South are Goodall Type G1 with wards perpendicular to the bit; key Ra 1045 however, is a Type G2 with the wards grouped around a central opening. The versatility of this type of key results in this being the most common key found during the later medieval period and the primary type of post-medieval key (ibid, 242).

3.5.31 The importance of security is further demonstrated by the recovery of an iron lock plate (Ra 2502), an iron lock bolt (Ra 2576) and three iron padlock components (Ra 1077, 2710 and one from fill 25043).

3.5.32 Lock plate Ra 2502 was recovered from occupational deposit 25012 associated with structure 25000 (HP6). It retains a bolt held in place by two U-shaped staples, plus part of the circular key ward comparable to an example from a late 13th to 14th century context in London (Egan 1998, 104-105, fig. 77 and 78. No. 276).

3.5.33 The lock bolt Ra 2576 is a component of Goodall's (2011, 235) medieval Type 1 lock, and whilst unstratified, was found within the vicinity of Structure 25000 (HP6).

3.5.34 Components of barrel padlocks retrieved from DMV South (PA2) include Ra 2710 from pit 25219 (HP6), an iron case tube with central longitudinal and transverse straps with missing end plates; and from fill 25043 a circular end plate and inner locking mechanism of two "Barb" springs.

3.5.35 Amongst the assemblage are 96 pieces of structural ironwork collected from the demolition debris of a 19th/20th century barn; these have been recorded in the catalogue but do not merit further discussion.

3.5.36 A section of a lead alloy pipe from pond 20643 in DMV South (PA1) and fragment of medieval lead window cames (Ra 1019) from DMV North (PA3) also form part of structural fixtures. The window cames, used for securing glass window sets in position, has a distinctive H-cross section (Rogerson et al. 1987, 39).

Tools

3.5.37 Thirty-one objects have been classified as tools: thirteen iron knife blades; four iron chisels/wedges; iron blades from a pair of scissors and pair of shears; two iron weeding hooks; four tools of uncertain function; an iron collar and ferrule from wooden tools; a modern iron file, a copper alloy bolster and two copper alloy hilt plates.

3.5.38 Of the knives, two (Ra 1000 and 1075) are whittle tang; these were prevalent throughout the medieval period with many continuing after (Goodall 2011, 108). Of these, Ra 1075 can be categorised as a Goodall Type C (Goodall 2011, 106, fig.8.2). The handle of Ra 1000 is comparable to that of a 16th century Elizabethan fork recovered from the London Globe Theatre excavations (Gastropod 2014).

3.5.39 There are five scale tang knives (Ra 1028, 1047, 2616, 2711 and MD 342) which includes one possible example of a Goodall Type O (Ra 2616) and one of a Goodall Type Q (Ra 1047). Scale tang knives first appeared in the 13th century and were more complex to produce (ibid, 108). The examples from Doddershall are of 13th to 14th century date. Two of the tangs retain the mineralised remains of wooden scales (Ra 1028 and 2711) and one the remains of copper alloy plates (MD 342), indicating the diversity of materials that could be used for the handles.

3.5.40 The remaining knives includes one that is possibly a folding knife (Ra 2581) and five (Ra 2022, 2503, 2516, 2661 and one unstratified example) that are too fragmentary to identify to type. Amongst the

latter group, Ra 2022 bears a pair of maker's marks close to the back of the blade; the first device is a crescent, the second a crown (Cowgill et al. 2000, 21-22, fig. 6, no. 31 and fig. 7, no. 101).

3.5.41 The two copper alloy hilt plates (MD 26 and 303), used to add a decorative element between the blade and handle of a knife (Goodall 1993b, 125), date from c. 1400 to c. 1700 (Maslin 2021), though some hilt plates may be of an earlier date. The bolster (MD 29) would have been positioned between the blade and tang of a knife and was a form of hafting introduced in the 16th century (Goodall 2011, 109).

3.5.42 Of the four knives collected from DMV North (PA3), three (Ra 1028, 1047 and 1075) are from layers associated with cobbled surface 10253; Ra 1000, from subsoil layer 10001, was not plotted. The knives from DMV South (PA1 and PA2) are associated with the structures in the northern east area.

3.5.43 Blades from a pair of scissors (Ra 2003) and a pair of shears (Ra 2575) were also recovered from DMV South. One of the blades (Ra 2003) was recovered from an occupation layer possibly associated with housing platform 7; the form of the blade and location of a circular perforation suggesting the blade belongs to a pair of late medieval scissors (Goodall 2011, 159, fig.8.29, G517-520). Scissors were less commonly used than shears in the medieval period and may have been associated with trades such as tailors (ibid, 113). The second (Ra 2575), from buried soil layer 25096 above structure 25000 (HP6), is a shears blade that falls within Goodall's Type 3 group, a type common in the 13th and 14th centuries, which have a moulding at the junction of handle and blade. During the medieval period shears had a wide range of functions from cutting hair and cloth to shearing sheep (ibid, 111); the smaller size of Ra 2575 indicating a more personal use.

3.5.44 In addition to the iron bladed tools discussed above, two iron horticultural tools were also retrieved, both weeding hooks (Ra 2012 and 2518). They were collected from DMV South, Ra 2012 from voided context 20515 and Ra 2518 from buried soil 25037 associated with the abandonment of structure 25000 (HP6). Weeding hooks were used throughout the medieval period to tackle the perennial problem of weeds in the open field; Ra 2012 is a tanged Goodall Type 1A with crescent-shaped blade (ibid, 93, fig. 7.6, F40, F44, F48 and 49); Ra 2518 also shares a crescent-shaped blade with flattened tang more reminiscent of Goodall's Type 2 tanged and flanged forms (ibid, 81).

3.5.45 Four possible iron chisels (Ra 2583, 2594, 2622 and one with no Ra number from layer 20222) were collected from DMV South. They have burred heads and range in length from 45.9mm to 168.5mm; it is likely they are medieval cold or hot chisels used by blacksmiths for cutting iron (ibid, 9) throughout the medieval period. The example from layer 20222 is comparable to a hot chisel from Thetford of probable 11th century date (Goodall 1984, 77 and 76, fig. 115, no. 6).

3.5.46 An iron rasp of 16th century or later date was retrieved from topsoil 20027, in the vicinity of the 19th/20th century barn. It is a woodworking tool comparable to an example with circular cross section that was recovered from London (Egan 2005, 154, fig. 147, no. 805).

3.5.47 The remaining six objects are either components of tools, such as iron collar Ra 2101 and an iron ferrule from layer 25009; or cannot be identified to type.

Occupation, craft and industry

3.5.48 In addition to the artefacts discussed in the tools section, craft and industrial activities on site are represented in the metalwork assemblage by four lead alloy offcuts collected for recycling (Ra 1023, 1104, 2679 and 2718); one piece of lead alloy casting waste (Ra 2584) and four lead alloy spindle whorls (MD 7, 185, 186 and 208).

3.5.49 The lead alloy spindle whorls were all collected from DMV South: MD 185 and 186 from subsoil layer 20001 in DMV South, lying above the layers of buried soil associated with Structure 25000 (HP6); of the remaining two, one was unstratified (MD 208) and one from topsoil layer 20000 (MD 7).

3.5.50 Spindle whorls were used for spinning fibres into yarn. Spindle whorl MD 185 is a cast discoidal form, Walton Rogers (2007) Form B1, a type considered to be in use from the Iron Age to the 12th century. However, the diameter (9.5mm) of the aperture is 'large', more indicative of spindle whorls from the early-medieval period onwards (Walton Rogers 2007, 23-24). The decorative pattern of incised/stabbed lines on one face is also more consistent with whorls from the later medieval period. Two of the spindle whorls (MD 7 and 208) are conical/plano-convex in shape (Walton Rogers A1 form) comparable to medieval examples from London (Egan 1998, 260, fig. 203, 803 and 804). The fourth spindle whorl (MD 186) is biconical with a pitted exterior surface that may once have been decorated. This form is typical of many medieval and later medieval whorls recorded on the Portable Antiquities Database (Leahy and Lewis 2018, 234).

Objects associated with transport

3.5.51 The use of equestrian forms of transport is reflected in the recovery of 53 items: 15 from deposits in the DMV North (PA) area and 38 from DMV South (PA1 and PA2).

3.5.52 Eight copper alloy objects are horse harness furniture (MD 3, 54, 117, 150, 246, 296, 297 and Ra 2682). These comprise five mounts for suspending pendants from horse harness that range in date from the 12th to 15th century. Two are bar suspension mounts (MD 117 and Ra 2682), with MD 117 being comparable to a smaller version from London (Clark 1995, 69, fig. 52, no 73 and 74). Two are plate suspension mounts (MD 3 and 297) and one is a square harness pendant suspension mount retaining a circular loop (Egan and Pritchard 2002, 221, fig. 138, no. 88.461/2). In addition, three pieces of armorial horse furniture were retrieved, including a lozengiform pendant (MD 296) with an inscribed and possibly enamelled motif that could be an eagle displayed, a motif often found on heraldic pieces (Ashley 2002, 15, fig. 15, no. 143 and 16, fig. 16, no.145) of 12th to 13th century date when the use of heraldry and enamelling was at its height (ibid, 29). The two later strap mounts are MD 54, a 17th

century sub-triangular plate mount (Read 2016, 40) and MD 246 a pressed mount with crescentic shaped plate and openwork 'fantail' with no comparison at present.

3.5.53 Iron horse furniture is in the form of three buckles, and three components from bridle bits. Two iron single loop rectangular buckles (MD 338 and RA 2646) with revolving strap bar to allow easy passing of a strap are likely from harness dating c. 12th – 14th century (Goodall 2011, 353, fig. 12.7, K167), and one trapezoidal buckle of comparable date, from subsoil layer 10189 that retains a sheet roller, indicates that it too was used for harness (Goodall 2011, 339 and 353, fig. 12.7, K148).

3.5.54 The cheek piece (MD 180) was collected from subsoil layer 20001 in DMV South close to the area of Structure 25000(HP6), where a small concentration of these horse related items were retrieved. The cheek piece is comparable to an example from a bridle bit retrieved at Weoley Castle, Birmingham of c. 1400 -1450 date (Goodall 2011, 375, fig. 13.6, L49). The bridle bit links comprise Ra 1055, a figure of eight curb chain link dating between 13th – 16th century (ibid, fig.13.7, L78) and a possible link from a jointed harness mouth-piece, Ra 1016 (ibid, 377, fig.13.7, L71).

3.5.55 A total of eleven iron horseshoes and 24 iron horseshoe nails were also recovered. Of the horseshoes six can be categorised according to Clark's (1995) typology. The earliest example (Ra 1015) was collected from layer 10184 in DMV North (PA3) and is a Type 2, characterised by the lobed outer edges, that predominate throughout the 12th century (Clark 1995, 96); this form of horseshoe was superseded by a heavier horseshoe with wider web, Type 3, dating between 13th – 14th century (ibid, 96) of which Ra 2534 is an example. It was collected from a buried soil layer, 25037, in DMV South (PA2). Four horseshoes (RA 2590, RA 1097, MD 321 plus one from fill 25098 of ditch 25097, ditch BG) have been identified as Clark Type 4 of later medieval date, 14th to 15th century (ibid, 96). Three of the medieval horseshoes are too fragmentary to identify to a particular type (RA 1010, RA 2508, RA 2674); whilst two collected from layer 20027 adjacent to the post-medieval building are of 19th to 20th century date.

3.5.56 The eleven horseshoe nails have primarily sub-triangular, or cuboid heads, most associated with Type 3 and Type 4 shoes (ibid, 87, fig. 66 and 89, fig. 70).

3.5.57 In addition to the horse equipment, three iron rowel spurs (Ra 1096, 2009, and 2588) and one copper alloy rowel (MD 308) was recovered. Whilst spurs were used for controlling horses, they were also an integral part of displaying a knight's status. Rowel spurs were first introduced in the 13th century (Ellis 1995, 127), however, the examples from Doddershall are of a later date. From 1400 and throughout the 15th century rowel spurs with long necks were fashionable (ibid, 129), the two examples from DMV South (RA2009 and RA2588) have long necks as well as curved sides angling downwards that date them between c. 1400 – 1450. After 1450 the sides of spurs became less curved and horizontally straight, as is the case with RA1096 from DMV North (PA3).

3.5.58 The copper alloy rowel (MD 308) from DMV North (PA3) reflects the 14th century development throughout Britain and Europe for increasingly large rowels with many points (ibid, 147). Two examples

of fashionably large rowels with diameters of 60mm and 75mm were recovered from Billingsgate (Clark 1995, 148, fig. 107, nos 361 and 362) and are represented on later 14th century carved effigies (Ellis 1995, 147). These are comparable to MD 308 from Doddershall which measures 67.9mm diameter and has 45 points. By the close of the 14th century the fashion for large multi-point rowels had ended with advent of long necked spurs.

Warfare and hunting

3.5.59 Ten artefacts have been identified that reflect either warfare or hunting pastimes. Of these, four are pieces of cast lead shot: three spherical musket balls (MD 9, 51 and 149) and one cylindrical pellet (MD 2). All the shot were recovered from either the topsoil or subsoil layers in DMV South (PA1 and PA2).

3.5.60 Weaponry is reflected in the recovery of two iron arrowheads. A tanged and barbed arrowhead (MD 316) from midden deposit 25054 in DMV South (PA2) to the south-east of HP6 is now missing its barbs. It falls into a group of arrowheads that became popular in the 13th and 14th centuries for hunting game, as they were designed to remain inside the body of the prey (Jessop 1997, 4, fig. 18). In contrast, MD 337, recovered from deposit 25218 associated with House Platform 6 in DMV South (PA2), is possibly a compact socketed arrowhead, of a type that have been found on military and non-military sites alike (ibid, 3 and fig. 11). It dates between the 13th to 15th centuries, a period when arrowhead design evolved to become suitable for piercing steel plate armour (ibid, 3).

3.5.61 In addition to the arrowheads, four chapes (Ra 2001, 2011, MD 40 and 301), fittings from the ends of scabbards used to protect the tips of blades, were found in the DMV South area; only Ra 2001 was from a stratified deposit.

3.5.62 Simple U-shaped chapes made from folded sheet metal, such as MD 40 and 301, have been recorded in Norwich (Margeson 1993, 228, fig. 175, no. 1857) and likely date to the 13th century. Objects Ra 2001 and 2011 are more cylindrical and narrower, these may be the base sections of later chapes such as those of 14th or 15th century date from Norwich (ibid, 228, fig. 175, no. 1856) or examples of larger contemporary lace tags (ibid, 23, fig. 12, no. 123).

Weights and measures

3.5.63 Two cylindrical objects formed from rolled pieces of cast lead sheet (MD 204 from DMV South and an example from fill 10093 in ditch 10268 (Boundary ditch A) in DMV North, PA3) are typically interpreted as weights for weighting fishing nets (Egan 2005, 158); however, it is possible that the example from DMV North (PA3) could be a waste offcut, neatly rolled ready for recycling.

Identification uncertain

3.5.64 A total of 77 objects are sufficiently undiagnostic that they have not been classified; of these seven were collected in area DMV North (PA3); the remainder were from DMV South (PA1 and PA2).

3.5.65 They comprise 16 copper alloy objects, including fragments of sheet, wire, ring and strips; 47 iron artefacts including strips that could be from fittings, and rods and iron shanks from unidentified objects. Of these, 13 iron items were collected from layer 20027 associated with a 19th/20th century barn and are likely elements of modern structural fixtures and fittings. Two lead items were also collected of uncertain function.

Table 5 Breakdown of metalwork and registered artefacts by date and material type

Period	Gold	Copper alloy	Iron	Lead alloy	Pewter	Other metal	Stone	Total
Roman		1	1					2
Medieval	1	62	126	5				194
Post medieval		10	2	5	1		1	19
Modern		1	167	1		1		170
Uncertain		26	375	13				414
Total	**1**	**100**	**672**	**24**	**1**	**1**	**1**	**799**

Table 6: Quantification of the assemblage by functional category

Functional category	Total number of finds
Personal adornment	60
Occupation, craft and industry	9
Objects associated with leisure and religion	2
Household utensils and furniture	28
Fasteners and fittings	534
Tools	31
Objects associated with transport	53
Weights and measures	2
Warfare and hunting	10
Identification uncertain	70

Distribution

3.5.66 Of the 799 items of metalwork, 133 artefacts were collected from Area DMV North (PA3); with the largest proportion of the assemblage retrieved in the northern sections of DMV South (PA2). In the sections above it has been demonstrated that many objects were concentrated in the vicinity of the housing platforms and structures, often from occupational layers or in the accumulated debris following abandonment.

3.6 Numismatics

By Ruth Beveridge BA, PhD, MCIfA

Introduction and quantification

3.6.0 A total of 23 coins was recovered from the excavation: 14 medieval coins; six post medieval coins or tokens and three illegible copper alloy coins. Of these, only two of the medieval coins (MD 207 and 249) were from stratified deposits of Period 2, with the remainder of the assemblage being unstratified, recovered by metal detecting from the topsoil and subsoil layers. The medieval assemblage comprises 14 silver issues (one silver voided short-cross cut half-penny, two silver voided long-cross cut quarters; one silver voided long-cross cut half-penny and ten silver long-cross pennies). The post-medieval assemblage includes three silver issues, one copper alloy jetton and one lead token. A further three copper alloy coins are too worn to be identifiable.

Methodology

3.6.1 The coins have been recorded onto an Excel spreadsheet recording weight and diameter as well as, where possible, the denomination, obverse ruler, reverse type and mint or moneyer (Appendix 14.4). The condition of the silver coins is fair, with the complete examples exhibiting more wear than the clipped fractions that appear to have been handled far less. At present 19 of the items have been assigned provisional identifications; cleaning will assist with further identification.

Results and observations

3.6.2 The identified coins range in date from the AD 1180 to 1649. These represent a broad chronological range, with the earliest issue being a cut silver voided short-cross half-penny (MD 55) dating to between the reigns of Henry II (AD 1154-1189) and Henry III (AD 1216-1272) of c. AD 1180 and 1247.

3.6.3 Three of the silver coins can be identified as voided long-cross pennies; two are cut quarters (MD 27 and 44) of Henry III (1247–79) minted in London. The third (MD 58) is a cut half penny issued of Henry III issued at the Irish mint of Dublin; the moneyer was Ricard.

3.6.4 There are nine silver long-cross pennies within the assemblage (MD 34, 39, 43, 68, 120, 176, 184, 207 and 309); ranging in date from 1279 – 1509. Further examination and cleaning will assist with determining the issuing rulers. Two of the long-cross pennies were minted in London (MD 176 and 309), one in Durham (MD 43) and two at episcopal mints (MD 120 and 184) of either Durham or York.

3.6.5 One of the long-cross denominations (MD 249) is possibly a florin of Edward III minted in Durham and dating between 1352 – 1353.

3.6.6 The three latest silver issues comprise two Elizabethan coins: a penny (MD 50) and groat (MD 53), both issued in London between 1558 – 1603; and a Charles I penny (MD 56).

3.6.7 Of the five copper alloy coins and tokens four are illegible. The copper alloy jetton (MD 311) is a Nuremberg Rose and Orb, 16th century type commonly found within many post-medieval assemblages (Egan 2005, 172). Jettons were used for casting accounts at the Royal Exchequer, and by government officers and merchants for conducting their respective financial calculations; this particular example however is pierced, possibly to facilitate suspension.

3.6.8 The single lead token (MD 5) is a Segmented Powell Type 3 uniface example (Powell 2010). Lead uniface tokens date between the 17th and 19th centuries and, may have been a means to address the deficits in small denominations at that time.

Distribution

3.6.9 majority of the coins were recovered from DMV South (PA1 and PA2); only four were collected from DMV North (PA3), the latter comprise two silver long-cross issues, the Rose and Orb jetton and one illegible copper alloy denomination.

3.6.10 There are no distinct clusters of silver coins to suggest the dispersed contents of a lost purse. The general pattern is that of casual coin loss on a settlement site with a small market economy.

3.7 Glass

By H.E.M. Cool BA PhD FSA

Introduction and quantification

3.7.0 A small assemblage of 896g of vessel and window glass was submitted for examination together with two glass objects. This have assessed below according to functional category.

Methodology

3.7.1 The assemblage was recorded in full, by count and weight, with the data recorded directly into the HS2 template Excel spreadsheet (Appendix 14.4) which was then copied across to the project's Access database.

Results and observations

Vessel glass

3.7.2 Where the type of vessel can be identified, all of the material comes from bottles. In total 694g is of modern date (19th century or later) and includes fragments that probably come from beer bottles and medicine bottles. It should be noted this includes fragments from the fill 10082 of ditch 10081 (Boundary ditch A) which is currently assigned to Period 2 (medieval).

3.7.3 Glass that can be assigned to the post-medieval period (here taken as the 17th to early 19th century) weighed 190g. In general, the precise forms of the bottles were not closely identified but the profile of

the neck fragment from the Period 3 subsoil remnant 10203 would be consistent with those of wine bottles of the 17th to 18th century. The cylindrical bottle base from ditch fill 10082 would have been of later date, within the later 18th to earlier 19th century period.

3.7.4 The glass identified as being of post-medieval date came from five contexts. Three were assigned to Phase 3. Two, however, are currently assigned to Period 2 including again ditch fill 10081 (Boundary ditch A) which also included modern glass.

3.7.5 No vessel glass of medieval date was identified.

Window glass

3.7.6 Modern colourless window glass was found in two Period 4 contexts. There was also one small fragment of flat potash glass that most likely came from a late medieval window pane from the undated post-occupation layer 10099.

Objects

3.7.7 One of the objects, a blue/green stopper, from the topsoil 20027 is modern.

3.7.8 The other, a bead from the fill of undated pit 20052 (same as 20021), is more problematic to date typologically. It is a simple small bead of opaque yellow glass. Such beads are found occasionally in the late Iron Age, very rarely in the Roman period, occasionally in the 5th to 6th century and very rarely in the medieval period. It appears very glossy and a relatively modern date may be suspected.

Distribution

3.7.9 The glass was recovered from a number of features and layers: ditches 10080, 10268, 20126, 20194 and 20207; pit 20052; foundation 20024; post-occupation layer 10099; possible remnant subsoil 10203, subsoil 20001 and topsoil 20027.

3.8 Clay tobacco pipe

By Alejandra Gutiérrez BA (Hons) PhD MICfA

Introduction and quantification

3.8.0 A total of 12 fragments of clay tobacco pipe, weighing 35g, was recovered from all the excavated areas. The assemblage was recorded directly into the HS2 template Excel spreadsheet (Appendix 14.4) and was then copied across to the project's Access database. All the material was recovered during excavation by hand (Table 10).

Methodology

3.8.1 The assemblage was recorded in full by count and weight. Bowl types and parallels were identified whenever possible using the available regional typologies (Atkinson and Oswald 1969; Oswald 1975).

Results and observations

3.8.2 The assemblage includes 4 pipe bowls and 4 stems, representing a minimum of 4 pipes. A single bulbous bowl from the subsoil 20001 can be dated to the central part of the 17th century (Oswald 1975, type 17; Atkinson and Oswald 1969, type 15). Two other bowls from deposits 10203 (subsoil remnant) and 10234 (fill of post-medieval pond 10231) date to the 18th century (Oswald 1975, type 21; Atkinson and Oswald 1969, types 25 and 26). The fourth bowl only survives as a small fragment; this is stamped with the mark '* WN' at the front of the bowl. The initials 'WN' are recorded in contemporary written records for William Newell, which was an apprentice pipe maker in London in 1721 (Atkinson and Oswald 1969, 53).

Table 7: Clay tobacco pipe assemblage by context

Context	Part	Count	Weight	Notes	Date
10093	stem	1	2		
10203	stem	1	1		
10203	bowl	2	4	upright bowl; no milling	C18
10203	bowl	1	1	mark '* WN'	C18
10234	bowl	4	6	upright, cylindrical bowl; no milling	c.1700-1740
20001	stem	1	2		
20001	bowl	1	12	bulbous bowl	c.1640-70
20209	stem	1	7		
	TOTAL	12	35		

Distribution

3.8.3 The clay pipes date to the 17th and 18th centuries and are concentrated in the subsoil and fills of features. They do not seem to derive from the buried stratigraphy investigated and they may represent instead occasional losses. The small group (4 sherds) found infilling the pond is redeposited, most probably as domestic rubbish being brought to the site as make up or levelling material.

3.9 Fired clay

By Alejandra Gutiérrez BA (Hons) PhD MICfA

Introduction and quantification

3.9.0 A total of 278 fragments of fired clay weighing 1.2kg was recovered from all the excavated areas. The assemblage was recorded directly into the HS2 template Excel spreadsheet (Appendix 14.4) and was then copied across to the project's Access database.

Methodology

3.9.1 The assemblage was recorded in full by count and weight. Any typological characteristics that might help identify the function of the material were also recorded when present.

Results and observations

3.9.2 The assemblage is composed of undiagnostic, unshaped small fragments of fired clay. Around 80% of these fragments were recovered during the processing of soil samples. They are all small pieces, with an average weight of 4g. Only three of them had a recognisable flat surface. They are mostly made of fine clay, sometimes with visible impressions of organic matter. They are usually grey or black, with a side which is light brown or orange. They resemble daub, although to clear or obvious wattle impressions were found.

Distribution

3.9.3 All the fired clay fragments were found in medieval deposits, with the exception of 11 pieces (87g) which were in layers of later phases, including the subsoil, where they must be residual.

3.9.4 The material from medieval deposits is found mainly infilling features, such as ditches, post-holes and pits, where it is likely to have been redeposited. The fired clay fragments might have been originally part of walling, either for buildings or smaller structures such as ovens, but none of the material was found in situ or is large enough to allow further identification.

3.10 Ceramic building material (CBM)

By Alejandra Gutiérrez BA (Hons) PhD MICfA

Introduction and quantification

3.10.0 A total of 1456 fragments of ceramic building material (CBM) weighing 7.2kg was recovered from all the excavated areas. The assemblage was recorded directly into the HS2 template Excel spreadsheet (Appendix 14.4) and was then copied across to the project's Access database.

Methodology

3.10.1 The assemblage was recorded in full. It was sorted into fabrics by eye, with the aid of a binocular microscope (x10 magnification) when needed. A site-specific fabric type series was constructed, with representative sherds selected and bagged separately for reference. After identifying fabrics, the assemblage was sorted into forms, counted and weighed by context.

Results and observations

Fabrics

3.10.2 The assemblage is dominated by red, fine fabrics, with a little sand, which make up for 86% by sherd number (and 81% by weight) of the material recorded. Other fabrics are much less important, representing each less than 3% of all the CBM sherds, with the exception of a modern fabric used for roof tile, brick and drain pipes (8% of all the sherds).

Types

3.10.3 The vast majority of the CBM recovered are flat roof tiles, and they account for 85% of all the sherds recorded. They all are plain and unglazed, pierced at the top with two round peg holes. All the tiles are very fragmented, and it has not been possible to reconstruct the complete measurements of a single tile, but their thickness varies between 13 and 18mm, and they are about 170mm wide.

3.10.4 Curved tiles are very scarce and some fragments are too small to identify with any certainty if they belong to ridge, hip or valley tiles. The ridge tiles (2% of all the CBM sherds) were the only roofing material which was glazed. Most sherds were undecorated, but at least one preserves the base of a crest that would have decorated the top of the tile. Hip tiles were also rare (0.3%) and very fragmented; a single surviving top part of one tile showed that they were also pierced with two peg holes at the top.

3.10.5 Five floor tiles were found (8 fragments), but they are only small fragments. They are between 16 and 25mm thick, all inlaid and decorated with an impressed pattern filled in with white clay under transparent glaze. They are Penn-type floor tiles, paralleled by complete examples published by Eames (1980) and Hohler (1941). They include one-tile and four-tile designs, including a geometric pattern (Eames 1980, tile 2029), circles with radiating branches (Hohler 1941, P160), and also with fleur-de-lis in the corners (similar to Hohler 1941, P67). Three further floor tiles are too abraded to identify any decoration. The group is likely to date to the 14th century.

3.10.6 A small group of 34 fragments of paving bricks (1.2kg) was recovered. At around 33mm thick, these are slight thicker than the decorated floor tiles. They are made in a red fabric, slightly sandy, similar to that used for most of the roof tiles and have chamfered edges. They lack any surface treatment or decoration.

3.10.7 A small group of 37 fragments of field drain pipes (1.3kg) was recovered, all in modern fabrics except for a single sherd in the red fabric similar to that used for the roof tiles. The fragments are small and represent cylindrical pipes of between 6 and 8cm of diameter for the bore.

3.10.8 A group of 53 brick fragments (8.2kg) was also found. The group is composed of small, abraded sherds. The dominant fabric is dark red, fine and silty, which produced hand-made bricks. Except for a single example, all the brick where surfaces survive is unfrogged. The only bricks for which any measurement survive were between 52 and 72mm (2" and 2¾") thick and 100–110mm (4"–47/16") wide. The single frogged brick is plain and unmarked (67mm thick by 110mm wide; 25/8"– 47/16"). A modern fabric, yellow or light orange in colour, produced bricks 66–68mm (25/8"– 211/16") thick, including an air brick with at least three rows of perforations. Most of the bricks lack any mortar and their surfaces appear to be clean.

Distribution

3.10.9 The vast majority of the ceramic building material was found in the south area of the excavation (DMV South, PA1 and PA2), which produced 85% of all the CBM assemblage.

3.10.10 Most of the roofing material was found in medieval contexts of Period 2. The same type of tile and fabrics were also recorded in later phases of the site, appearing in fills, levelling layers, subsoil and topsoil where they are residual. This suggests that mixing and spread of the upper layers of the medieval occupation occurred across the area investigated. Modern roofing material was negligible and concentrated in deposits of the 19th and 20th centuries, including the topsoil.

3.10.11 Some 173 roof tile fragments (10.3kg) are partially burnt or sooted, usually on the reverse and/or tile edge and they might have been positioned in the roof area located above open hearths. Re-use of roof tiles in chimney surrounds, for example, is well documented, but the high level of fragmentation makes it impossible to decipher if there are specific patterns that would confirm this use or help understand how the tiles were burnt. Only 13 of these sherds (1.1kg) were found associated with hearths and a firepit (fills 25049, 25170, 25173).

3.10.12 The floor tiles were not found in situ but dispersed across post-occupation layers of Phase 2 (medieval) or Phase 3 (16th-19th century). Several joining sherds across several deposits indicates they have been redeposited. Floor tiles of this type are generally associated with ecclesiastical buildings, such as churches.

3.10.13 Of the total 34 fragments of paving bricks, 27 are all in medieval deposits of Phase 1, all associated with occupation layers of house platform 25001.

3.10.14 The thinner type of brick (around 50mm or 2" thick) is thought to date to the 16th century date. The two examples found are contemporary with slightly thicker bricks (64mm thick) derived from brick structures 20136 and 20138, which are phased in the later medieval period (15th–16th centuries).

Except for small, abraded brick fragments found in ditch fills of medieval Phase 2, the rest of the brick is all in modern deposits of Phase 4, with a clear concentration in the topsoil over the barn, where all of the modern examples, including the air brick, were found (deposits 20026 (post-medieval structure 20003) and deposit 20027). The field drain pipes were also concentrated in the same modern deposits.

3.11 Mortar

By Richenda Goffin BA (Hons), MCIfA

Introduction and quantification

3.11.0 Seven fragments (67g) of plaster, mortar and stone fragments were recovered. The assemblage is small and in very poor condition.

Methodology

3.11.1 The material was quantified by count and weight by context. Details were recorded on the accompanying spreadsheet (Appendix 14.4).

Results and observations

3.11.2 Seven fragments of material were collected from five contexts, with a total weight of 67g. These are catalogued in Table 11.

3.11.3 None of the fragments are from painted plaster. Three fragments from post-medieval foundation cut fill 20026 and deposit 20027 are sandy fragments which could well be from modern concrete. Four pieces from 20576 (HP7), occupation spread 20579 and 20602 are probably fragments of limestone rather than mortar.

Table 8: Summary of wall plaster/mortar/stone.

Material	Context	No frags	Wt (g)	Mortar layer 1 description	Comments	Decoration
Mortar/ stone	20026	1	8	Perhaps concrete!		Unfaced, hard grey/brown, sandy, almost like concrete. Modern
Mortar/ stone	20027	2	22	Both have flat impressions		Unfaced, hard grey/brown, sandy, almost like concrete. Modern
Mortar/ stone	20576	2	13	2 joining, very hard		Probably not mortar, limestone
Mortar/ stone	20579	1	4	Same as 20576		Probably not mortar, limestone
Mortar/ stone	20602	1	20	Same as 20576	Could be burnt	Probably not mortar, limestone
Total		7	67			

Distribution

3.11.4 The assemblage derives from five contexts: a fill of foundation 20024, surface 20575, ashy deposit 20602, topsoil layer 20027 and occupation layer 20579

3.12 Industrial waste

By David Dungworth BA, PhD

Introduction and quantification

3.12.1 The material examined comprises metalworking slag (and related materials).

Methodology

All of the material submitted for assessment was examined visually and recorded (Appendix 14.4) following standard guidance (Historic England 2015). The material was sorted into categories and weighed. The main categories of material identified include the following:

Non-diagnostic Ironworking Slag — NDFe	Fragments of ironworking slag (fayalitic) which lack any diagnostic surface morphology that would allow a distinction to be made between smelting and smithing
PBC — Partially Burnt Coal	Incompletely combusted coal
Clinker	Vitrified coal ash
Hammerscale	Fragments of oxidised iron usually associated with smithing
HMR — Heat Magnetised Residues	Fragments of geology and cultural material (especially fired clay) which has acquired a degree of magnetisation through heating
Ferruginous stone	Natural geological material with an appreciable iron content

Results and observations

3.12.2 The assessment has recognised less than 0.1kg of possible metalworking debris, as well as 0.5kg of ferruginous stone (Table 12). The metalworking debris lacks distinctive characteristics that would allow the identification of the precise processes that produced it. Given the very small quantity of slag it is unlikely that metalworking was a significant activity in the areas excavated. One item from (layer 10197 in HP3) suggests non-ferrous metalworking (based on density and colour) but the process that produced it is not clear. One possibility given its size and shape (as well as density and colour) is that it is a used cupel; a small disk of bone ash used to refine/assay silver-bearing metals.

Table 9. Slag and other material (weight in grams)

Context	Ref	Description	Spot Date	Type	Comment	Wt
10006		Trackway	C14-15	Ferruginous stone		28
10082	<1005>	Ditch	Later medieval	Hammerscale and geology		0.4
10082	<1005>	Ditch	Later medieval	Clinker?		0.1
10148		Deposit	?	PBC-Clinker		5.0
10180		Deposit	C14-15	Ferruginous stone		18

10197		Deposit	C15-16	Non-ferrous MWD	Black and dense. Used cupel? Geological?	36
10305		Ditch	C14-15	Ferruginous stone		9.2
20026		Foundation	C19-20	Clinker	Dense: NDFe?	49
20027		Top soil	C19-20	Coal		41
20479		Ditch	C13-15	Ferruginous stone		94
20505		Ditch	?	Ferruginous stone		16
20522		Ditch	Later medieval	Ferruginous stone		46
20579		Occupation	?	NDFe		78
25034	<2504>	Ditch	?	Geology-HMR		3.5
25047	SF2538	Deposit	C14-15	Ferruginous stone		60
25050		Garden soil	C15-16	Ferruginous stone		62
25098		Ditch	Later medieval	Ferruginous stone		122
25098	SF2517	Ditch	Later medieval	Ferruginous stone		2.7
25120	<2520>	Gully	?	Geology		0.2
25131	SF2617	Deposit	C13-15	Ferruginous stone		88
25188	<2528>	Deposit	C15-16	HMR		6.8
25202	<2536>	Pit	C15-16	HMR-Geology		5.6
25205	<2531>	Post-hole	Later medieval	HMR-Geology		0.3
25235	<2539>	Post-hole	Later medieval	HMR-Geology		0.7
25295		Ditch	Later medieval	PBC-Clinker		41

3.12.3 The coal, partially-burnt coal, and clinker demonstrate that coal was burnt on site; however, there is no certainty that this was industrial and not domestic. Most of this material came from post-medieval contexts but some came from stratified medieval contexts.

3.12.4 The heat magnetised residues are generally composed of fragments of natural iron-rich minerals: these often show signs of abrasion (and even polishing). They do not show obvious signs of heating and they are unlikely to be of any industrial (or cultural) importance. One of these samples contained a single sphere that could derive from ironworking; however, a single sphere could also have been produced during an accidental conflagration.

Distribution

3.12.5 The material occurred across the excavated area in generally small quantities in various features and deposits shows that metalworking occurred in the vicinity but at a very low level or very rarely

4 Environmental Report

4.0 Animal bone

By Mathilda Holmes PhD

Introduction and quantification

4.0.0 3894 fragments (c.57kg) of animal bones and teeth were recovered by hand from 273 contexts, of these, 1723 fragments could be identified to taxon. This report aims to characterise the zooarchaeology

present at the site, assess the potential for understanding human-animal interactions in the past and state the significance of the material on local, regional and national levels.

Methodology

4.0.1 All bones and teeth were recorded (Appendix 14.4), although for some elements a restricted count was employed to reduce fragmentation bias: vertebrae were recorded when the vertebral body was present, and maxilla, zygomatic arch and occipital areas of the skull were identified from skull fragments. A basic recording method was implemented to assess the potential of the animal bone assemblage. The number of bones and teeth that could be identified to taxon were noted, as well as those used to age the major domesticates (tooth wear and bone fusion). The quantity of bones likely to be useful for metrical data was also recorded. Other information included condition and the incidence of burning, gnawing and butchery marks. All fragments were recorded by context including those that could not be identified to taxa. Material from environmental samples was scanned and fragments that could be identified to taxon or group (bird, fish, micro-mammal or frog/ toad) were counted. Recording methods and analysis are based on guidelines from Baker and Worley (2014).

Results and observations

4.0.2 Bones had varied states of surface preservation, ranging from good to poor, though most were in fair condition (Table 13). A considerable proportion (between 36% and 39%) of contexts contained loose teeth, which suggests either delayed burial or post-depositional disturbance, as the structures keeping teeth in the mandible or maxilla are robust, and teeth are not easily lost. Canid gnawing was prevalent in all periods, again implying a delay in burial when dogs had access to them. Processing in the form of butchery was also common. Burnt bones were rare and took the form of a few burnt or calcined fragments amongst non-burnt material. The exceptions to this were a group of 20 calcined medium-sized mammal fragments recovered from undated pit 20100 (context 20101), and a further 30 calcined fragments from medieval deposit 20602.

Table 10: Preservation and bone modifications observed on the bones for each context

	Preservation						Total	Bone Modification			
Period	Good	Good-fair	Fair	Fair-poor	Poor	Good-poor	Contexts	Gnawed	Butchered	Burnt	Loose teeth
2: medieval	29	8	112	6	39	1	195	45	29	7	74
3: post-medieval	5	1	12		5		23	7	5	2	9
4: modern	4		4		1		9	2			4
Undated	5		32	3	6		46	9	6	1	12

4.0.3 There were no obvious deposits of primary butchery, craft-working or skin-processing waste, most material appearing to come from general refuse deposits. The exception to this was a group of disarticulated horse remains from at least three animals in medieval pond 20643 (context 20646). The absence of crania may imply that they were skinned prior to deposition, though no butchery was recorded on the bones. A few antler fragments were recovered but with no signs of working, although a hare tibia from medieval deposit 25188 showed signs of polish on the shaft, and a large mammal scapula (context 25050) had been worked. The contents of medieval deposit in pit 25193 (context 25282) within HP6 were stained green, indicating they had been buried close to a copper or copper alloy object (copper alloy bowl, Ra.2681).

4.0.4 A few primary contexts were represented by loose epiphyses recovered alongside their corresponding metaphyses (post-medieval contexts 10203 and 10197), and several Associated Bone Groups (ABGs):

- Medieval deposit 10089 (context 10188): equid (horse or donkey) foot (first and second phalanges).
- Medieval ditch 10143 (context 10249): equid upper foreleg (scapula, humerus, radius and carpals).
- Post-medieval pond 10231 (context 10234): cattle fore legs (both sides, metacarpal, first, second and third phalanges).
- Modern topsoil (context 20027): fox skeleton mostly complete with a pathology affecting one foreleg.

Medieval

4.0.5 The largest assemblage came from the medieval deposits, of which cattle and sheep/ goats followed closely by equids and then pigs, with occasional finds of canid (dog or fox), cat and fallow deer (Table 14). Domestic birds (domestic fowl and goose) were next most commonly recorded. Equid numbers were inflated by the group of 51 bones from at least three animals disposed of in the pond but are still generally very well represented. Bones and antler of fallow deer and hare bones representing hunted game. More rabbits/ hares, micro-mammals (including mouse, shrew and vole), fish, frogs/ toads and a fragment of cockle shell were recovered from the samples (Table 15).

Table 11: Number of fragments recorded for the major domesticates, birds and other taxa

		Cattle		Sheep		Pig		Bird	Equid	Canid	Other	Total	Other taxa
Period	Unidentified	Bones	Teeth	Bones	Teeth	Bones	Teeth					identified	
2: medieval	1469	193	65	230	259	69	78	23	207	5	17	1149	Cat, fallow deer, deer, hare, goose, domestic fowl
3: post-medieval	405	81	26	85	87	14	17	4	30	4	3	351	?roe deer, rabbit/ hare, goose, domestic fowl
4: modern	65	9	13	7	18		2	2	7	2	1	61	rabbit/ hare, domestic fowl, wader
Undated	232	48	15	36	33	3	7		15	5		162	Equid, canid

Table 12: Summary data from samples

Period	Medieval	Post-medieval	Modern	Undated
Cattle	8	1		
Sheep/ goat	40	7	1	4
Pig	14	1	1	3
Rabbit/ hare	3			
Micro-mammal	68	17		27
Bird	5			2
Fish	1			1
Frog/ toad	25	18	10	10
Cockle	1			
Micro-taxa	Mouse	Shrew		Mouse
	Shrew	Vole		Vole
	Vole			Wader

4.0.6 The sheep/ goat assemblage produced a considerable amount of mortality and metrical data (Table 16). Cattle are also well-represented by long bone fusion and metrical data, pigs less so, with tooth wear less common due to the high fragmentation of mandibles discussed above, but there is still a reasonable quantity recorded to understand husbandry.

Table 13: Number of bones and teeth likely to provide ageing and metrical data for the major domesticates. TWS= wear from mandibles and individual teeth; fus= bone fusion; meas= metrical data.

	Cattle			Sheep/ goat			Pig		
Period	TWS	Fus	Meas	TWS	Fus	Meas	TWS	Fus	Meas
2: medieval	9	97	60	39	76	69	9	27	18
3: post-medieval	4	49	17	11	32	40		5	2
4: modern		5	1	5	3	4			
Undated	1	26	14	8	12	16		1	

Post-medieval

4.0.7 Sheep/ goats dominated this moderately sized assemblage (Table 14), with a considerable quantity of cattle remains also present. Pigs and equids were next most common, along with a few finds of goose, domestic fowl, rabbit/ hare and possible roe deer. Frog/ toad and micro-mammal bones and teeth (including shrew and vole) were also recorded (Table 3).

4.0.8 Pigs were poorly represented by mortality and metrical data (Table 16), but there is good potential to understand the sheep/ goat economy and for bone fusion to be useful to age cattle.

Modern

4.0.9 The smallest assemblage came from modern features (Table 14), where similar quantities of cattle and sheep/ goats were recovered alongside a few equids, pigs, canids, rabbit/ hare, domestic fowl and wader. Frog/ toad remains were also present in the samples (Table 3). There were very few mortality or metrical data (Table 16), not enough to be reliable in interpreting the animal economy.

4.1 Palaeoenvironmental remains

4.1.0 By Emma Aitken PCIfA, BSc (hons), MSc and Dana Challinor MA (Oxon), MSc.

Introduction and quantification

4.1.1 A total of 190 samples were recovered by hand excavation from Doddershall DMV, Doddershall Embankment, Buckingham (Appendix 14.4). Of these, 186 were bulk, 10 of which were additionally assessed for waterlogged plant remains alongside charred plant remains, and four were specifically taken for waterlogged assessment due to the feature type they were recovered from (i.e. pond). The plant remains and molluscs were recorded using an abundance scale (rare: + = 1-10 items, occasional: ++ = 11-50 items, moderate: +++ = 51-100 items, and abundant: ++++ = >100 items) and are discussed in diversity of species using a similar scale (low = 1-3 species, medium = 4-7 species, and high = >7 species). All of the 183 flots provided were examined superficially to determine an estimated quantity of

identifiable (>2mm) charcoal and potential for analysis. A number of the 'rare' and 'occasional' samples contained charcoal that was too small or sparse to merit microscopic examination.

Methodology

4.1.2 The samples were processed following standard flotation procedures (CA Technical Manual No. 2), using a 250µm sieve for the recovery of the flot and a 1mm sieve for the collection of the residue. Preliminary identifications of the plant remains and molluscs in these samples were carried out using a stereo-binocular microscope. The plant identifications follow the nomenclature of Stace (1997) for wild plants and Zohary et al (2012) for cereals. The mollusc shells have been recorded, following nomenclature according to Anderson (2005) and habitat preferences according to Kerney (1999) and Davies (2008). The charcoal assemblages were scanned under a binocular microscope at up to x45 magnification with up to 10 charcoal fragments randomly extracted, fractured (if necessary) and examined in transverse section to provide preliminary species identification. This method is generally reliable for ring porous taxa (eg. Quercus and Fraxinus), but the diffuse-porous taxa should be considered as 'type' and require confirmation. Fractured fragments were subsequently bagged separately according to taxa and quantity.

Results and observations

4.1.3 This report details the assessment of samples recovered from deposits that have associated dates, Period 2: Medieval (late 12-13th – 15th century), Period 3: Post-medieval (16-19th century), and Period 4: modern. Out of the 190 samples assessed, 151 samples with Period 2, six samples with Period 3, three samples with Period 4. The remaining 30 samples are undated. It was hope that the assessment of environmental remains from the undated deposits may aid in dating these features which would further our understanding of the site as a whole.

4.1.4 Preservation of plant remains was variable, with a large number of samples proving to be either devoid of plant remains or producing very minimal amounts. Some areas of the site have remained below the water-table, resulting in the preservation of plant remains through waterlogging. Assessment of waterlogged samples offers the potential to reveal information on the local flora and how the environment may have changed through time. The presence of charred plant remains is variable, with some samples being devoid of them whilst others have a variation of cereal grains and herb seeds. The presence of molluscs is also variable, with some samples being devoid of them and others producing varying amounts.

Period 2: Medieval (12-15th century)

4.1.5 151 samples were assigned to Period 2, with 19 of them recovered from DMV North (PA3). The environmental assemblages from Period 2 in this area contained low levels of charred plant remains and waterlogged plant remains. This suggests that these features were on the outskirts of the settlement area and are indicative of wind-blown/dispersed material.

4.1.6 The remaining 132 samples from Period 2 were recovered from DMV South (PA1 and PA2). Many of the assemblages assessed from Period 2 produced low levels of charred plant remains and waterlogged plant remains. The exception being those assemblages recovered from layer 25048 (sample 2509), layer 20067 (sample 2537), ditch 20417 (sample 2521), ditch 25199 (sample 2530), and pit 25201 (sample 2536). The environmental material recovered from ditch 25199, pit 25201, and layer 20067 are all located within House Platform 6, indicating that domestic settlement activity was taking place in this area during this period.

Period 3: Post-medieval (16th-19th century)

4.1.7 A total of six environmental samples were assigned to Period 3, four of which are in DMV North and the remaining two in DMV South. These assemblages were either devoid of plant remains or produced very minimal amounts. There is little to no evidence that these assemblages relate to domestic settlement activity.

Period 4: Modern

4.1.8 Three environmental assemblages have been assigned to Period 4, all of which contain a wider variety of the types of plant remains recovered (i.e. herbs, legumes, fruit/nuts). The preservation of these remains is also better than those recovered from Periods 1-3. This is most likely because the remains are modern in nature and have had less time to decompose.

Undated and VOID

4.1.9 Out of the 27 undated samples taken during excavation, approximately 15 of these produced very low or not plant remains at all, apart from small to occasional quantities of charcoal. Due to the sparsity of environmental material in these 15 assemblages, it is not possible to determine a potential date for these deposits.

4.1.10 The remaining 12 undated samples produced remains in varying abundancies and diversities which would aid in the dating of their respective deposits/features.

4.1.11 Three samples were later voided on site, but all of which are compatible with assemblages from Period 2.

Charred Plant Remains and Uncharred Plant Remains

Period 2: Medieval (12-15th century)

4.1.12 The majority of plant remains noted from Period 2 are sparse and low in diversity. There is an indication of domestic settlement activity taking place in the vicinity of deposit 25200 (sample 2530, ditch 25199), deposit 25202 (sample 2536, pit 25201) and layer 20067 (sample 2537) which are all within the area of House Platform 6. The increase in cereal grains, weed seeds and legumes suggests that food preparation activities were taking place in this area. Samples 2012 (ditch 20154), 2034 (ditch 20269),

2042 (layer 20252) and 2072 (pond 20643) showed a slight increase in the abundancy and variety of plant remains which suggests that domestic settlement activities were taking place.

4.1.13 The remains from sample 2012 appear to be representative of food preparation and waste material due to the high volume of charred cereal grains (including those of free-threshing wheat (Triticum turgidum/aestivum type), wheat (Triticum sp.), barley (Hordeum vulgare), and rye (Secale cereale) alongside an increase in the number of vetch/wild pea (Vicia/Lathyrus sp.) and celtic bean/pea (Vicia faba/Pisum sp.). Samples 2034 and 2042 are also indicative of food preparation and waste material. Some of the oats (Avena sp.) may be those of the cultivated variety (Avena sativa). The weed seeds are likely to have been brought in with the crops during harvesting. There is also an indication of the exploitation of a variety of environment types such as acidic sandier soils as favoured by sheep's sorrel (Rumex acetosella), drier soils which are favoured by species such as oat/brome grass (Avena/Bromus sp.) and clover/medick (Trifolium/Medicago sp.), damper soils as used by species such as curled docks (Rumex crispus), and hedgerow/woodland edge environments typical of species such as hazelnut (Corylus avellana), while the environmental remains from sample 2072 (pond 20643) are indicative of a damp and wet environment due to the presence of species such as water crowfoot (Ranunculus subgenus Batrachium), rush (Juncus sp.) and stonewort (Chara sp.). The presence of larger headed weed seeds, such as oat/brome grass and rye-grass/fescue (Lolium/Festuca sp.), also suggests that some of the assemblage may be representative of weed seeds brought in with the crops.

Period 3: Post-medieval (16th-19th century)

4.1.14 As stated above, the six samples recovered from Period 3 were either devoid of plant remains or produced very minimal amounts. Charcoal was noted in five of these assemblages in low quantities.

Period 4: Modern

4.1.15 The environmental remains recovered from the three assemblages from Period 4 demonstrate that a variety of environment types were being exploited during this time. This is seen by the presence of hedgerow/woodland edge species such as hazelnut, cherry (Prunus sp.) and acorns (Quercus sp.), and damper soils as favoured by such species as curled docks.

Undated and VOID

4.1.16 Plant remains noted in 12 out of the 27 undated assemblages are compatible with those of a medieval date due to the presence of charred free-threshing wheat remains. Free-threshing wheat was the dominant wheat species during the medieval periods in this part of Britain (Greig 1991). This is also supported by the presence of vetch/wild pea and celtic bean/pea seeds as they have been recorded in the majority of the assemblages recovered from Period 2. The remaining 15 samples that are undated produce little to no environmental evidence that would aid in the dating of their respective deposits/features.

4.1.17 The three assemblages that were later voided are all compatible with those recovered from Period 2.

Molluscs

4.1.18 Molluscs were noted in 96 of the 190 samples collected from site. Molluscs can be used to indicate the types of environment present during the occupation of the feature but also to show fluctuations in the environment, such as changes to the water table. All the molluscs noted within the assemblages are very common and widespread throughout this part of Britain.

4.1.19 A total of 24 samples from DMV North contained mollusc shells. These shell assemblages indicate that the area was mainly made up of a well-established open landscape with areas of shade (including those of long damp grass and hedgerow). There is also an indication that some of these areas were subject to seasonal flooding. This is suggested by the range of species, which included the open country species Vallonia sp., Pupilla muscorum, and Helicella itala, the intermediate species Cochlicopa sp., the shade-loving species Acanthinula aculeata, Clausilia/Cochlodina type and Carychium tridentatum, the marsh species Succinea/Oxyloma sp., and the aquatic species Galba truncatula, Anisus leucostoma and Planorbis planorbis. Anisus leucostoma and Galba truncatula are species that thrives in areas of seasonal flooding and desiccation. Planorbis planorbis is found 'in all kinds of well-vegetated aquatic habitats of lowland type but especially characteristic of shallow pools and swampy ditches that are liable to dry up in the summer months' (Kerney 1999). The only sample where the shade-loving species Acanthinula aculeata was noted was located on the northern edge of the excavation area which may suggest that this ditch was located on the edge of woodland or there was some scrub nearby. Acanthinula aculeata is a species which favours shady environments in open deciduous woodland, hedgerows or scrub rather than long grass.

4.1.20 The remaining 72 samples that contained mollusc shells were recovered from DMV South, where again the assemblages indicate that the area was made up of a well-established open landscape with pockets of areas where there are damp/loner grass, shade and seasonal flooding. The overall molluscan assemblage from DMV South is basically similar to that of DMV North, however there are some additional mollusc species that have been noted. These include the intermediate species Cepaea sp., and the aquatic species Pisidium sp. Two of the samples that contained aquatic species were recovered from or near ponds (ponds 20632 and 20643) located towards the southern area of DMV South which may suggest that there were some fluctuations of the water table as can be seen by the composition of the mollusc assemblages. The remaining samples that contained aquatic species, again indicating that there were some fluctuations of the water table, are all located towards the northern end of DMV South.

Charcoal

4.1.21 Charcoal was abundantly preserved at the site, with 64 samples producing assemblages of more than 100 identifiable fragments (including several with super-abundant assemblages of >10000). The

condition of the charcoal, however, was fair to poor; significant levels of both silt infiltration and iron impregnation were noted. Both of these are likely to have resulted from fluctuations in the water table at the site, with some (rare) possibility of proximity to iron objects found in the same context. There is no indication that the iron impregnation is associated with iron-working activities.

4.1.22 The presence of at least twelve taxa was determined: Acer (maple), Alnus/Corylus (alder/hazel), Ericaceae (heather/ling), Fagus (beech), Fraxinus (ash), Ilex (holly), Maloideae (hawthorn, apple, pear whitebeam/rowan etc.), Populus/Salix (poplar/willow), Prunus (blackthorn/cherry, Quercus (oak), Sambucus/Hedera (elder/ivy) and Ulmus (elm).

Distribution

4.1.23 The site was split into two main excavation areas: DMV North (PA3) and DMV south (PA1 and PA2). Samples were taken from both areas in order to provide a good overall coverage of the site. DMV North was allocated sample numbers starting with '1' and DMV South was allocated sample numbers that start with '2'. The majority of the samples recovered from DMV North were taken from ditches, with a handful of samples taken from layers, pits and a pond feature. Many of the samples collected from DMV South relate to various House Platforms that were identified during excavation. These include a variety of feature types such as ditches, pits, layer, postholes, and ponds. It appears that the samples spread across both areas relate to all periods of occupation (Periods 2-4).

4.2 Marine shell

By Emma Aitken PCIfA, BSc (Hons), MSc

Introduction and quantification

4.2.0 A total of 40 deposits were noted to contain marine shell that was both recovered by hand excavation and through sample sorting from the site of Doddershall DMV, Doddershall Embankment, Buckingham (Appendix 14.4). The marine shells were recorded using an abundance scale (rare: + = 1-10 items, occasional: ++ = 11-50 items, moderate: +++ = 51-100 items, and abundant: ++++ = >100 items). The marine shell abundance scores reflect the number of umbos (hinge parts) of the bivalve shells and apices (tops) of the gastropod shells rather than number of shell fragments.

Methodology

4.2.1 Where marine shell was recorded from samples, the samples were processed following standard flotation procedures (CA Technical Manual No. 2), using a 250µm sieve for the recovery of the flot and a 1mm sieve for the collection of the residue. Preliminary identifications of the marine shell assemblages have been recorded, following nomenclature according to Barrett and Younge (1958) and Younge (1960).

Results and observations

4.2.2 The 40 deposits discussed within this report have associated dates, Period 2: Medieval, Period 3: Post-medieval (16-19th century), and Period 4: modern, with five of these deposits remaining undated and one unstratified. Only a single deposit contained marine shell recovered from the modern period (Period 4).

4.2.3 Oyster (Ostrea edulis) shell was noted in 36 of the 40 deposits, most notably in Period 2, and is a species found commonly on rocky shores and in estuaries. In the other four deposits, three contained shells of mussel (Mytilus edulis) and one contained a single common whelk (Buccinum undatum) shell. All these shells are common and widespread throughout Britain. Mussel shell was recorded in Periods 2 and 3 whilst the common whelk shell was only recorded in Period 2.

4.2.4 The quantity of marine shells retrieved from the site suggests that they were not likely to represent a major food source on this site at any time, but rather occasionally augmented the local diet during the medieval and post-medieval period. The assemblage is too small to make any comments on the likely source of the shells and the nature of the oyster and mussel beds.

Distribution

4.2.5 The site was split into two main excavation areas: DMV North (PA3) and DMV south (PA1 and PA2). Samples were taken from both areas in order to provide a good overall coverage of the site. DMV North was allocated sample numbers starting with '1' and DMV South was allocated sample numbers that start with '2'. The shell was recovered from 16 deposits in DMV North, and from 24 deposits in DMV South. Approximately half of the DMV South deposits relate to the House Platforms that are located to the northern area of DMV South with the remaining DMV South deposits being scattered around the area. The majority of the deposits that contained marine shell from DMV North run parallel to Ditch 10112 which runs north eat to southwest through the area of DMV North.

4.3 Geoarchaeology – monolith samples

By Agata Kowalska

Introduction and quantification

4.3.0 A series of 10 monoliths were recovered from three sequences on the site. These sequences were taken from two medieval ditches associated with field systems and a possible medieval pond:

- Sequence 1 – Ditch 20142, monolith samples 2019, 2018 and 2020 and its recut-20128, monoliths 2021, 2022, and 2023 (Fig. 25 and Appendix 14.4: Tables 1 to 6).
- Sequence 2 – a possible post-medieval Pond 10231, monolith samples 1021 and 1020 (Fig. 26 and Appendix 14.4: Tables 7 and 8).

- Sequence 3 – Ditch 20256, monolith samples 2085 and 2086 (Fig. 27 and Appendix 14.4 Tables 9 and 10).

4.3.1 The monolith samples were taken to assess the sediments in order to characterise depositional and post-depositional processes leading to the formation of the fills encountered in these features. This assessment was also done to provide recommendations for potential future palaeoenvironmental analysis.

Methodology

4.3.2 A total of 10 monolith samples were retained in steel tins measuring 100 x 100 x 500mm and 100 x 100 x 250 mm and were then wrapped and labelled following standard sampling procedures (CA 2017).

4.3.3 The monoliths were unwrapped, and the deposits cleaned, photographed and recorded. The lithostratigraphy of the samples was described according to standard geological criteria provided by Jones et al. (1999); Munsell Color (2018); and Tucker (2011).

4.3.4 All the sediments were divided into separate units based on their lithological characteristics and boundaries that were visible in the monolith samples. The observations were supplemented by field records.

4.3.5 The results of the geoarchaeological assessment are presented in tabulated form in (Appendix 14.4). Each sequence was described separately. In the text units are described in stratigraphic order with the earliest unit first.

Results and observations

Sequence 1 – Ditch 20142 (monoliths 2019, 2018 and 2020) and its recut-20128 (monoliths 2021, 2022, and 2023) (Appendix 14.4: Tables 1–6)

4.3.6 Sequence 1 was taken from two parallel ditches dating to the medieval period. These ditches ran roughly on a north-west/south-east alignment and possibly were associated with drainage/field systems. The stratigraphic relation recorded in the field suggests that ditch 20142 was earlier and ditch 20128 is a possible later re-cut (Fig. 25). Six monoliths were taken in total from the sequence.

4.3.7 The lowermost Unit 7, context 20002, represented the archaeological natural deposit, the superficial alluvium, recorded at the site by BGS maps. A clear erosional contact boundary separated Unit 7 from the overlying units. The erosional contact reflects the cut of ditch 20142.

4.3.8 The single fill of ditch 20142, context 20144, was separated into three units during the geoarchaeological assessment. The basal Unit 6 was a firm, brown silt/clay with rare yellowish red mottling and iron/manganese nodules. The homogenous and fine texture is characteristic of deposition under low energy processes. The lowest fill could have been washed into the ditch and/or represents an

erosion (slumping) of the ditch sides. The silty/clay component has derived from the local geological background – alluvium. The common redox features were a result of post-depositional processes related to oxidation.

4.3.9 Unit 6 was then covered by Unit 5, which was characterised by a grey colour and slightly siltier texture. The contact between Unit 5 and Unit 6 was sharp and could suggest erosion and/or a change in deposition. The greyish and siltier nature of Unit 5 may indicate the presence of organic matter. This would imply that there was a possible hiatus in deposition and a stabilisation of vegetation within the ditch. However, in the field Unit 5 was not defined; so Unit 5 could be a pocket of a former land surface (possibly A/B horizon) that has been incorporated into the ditch by erosion. Unit 5 was overlain by Unit 4, which consisted of a firm, grey silt/clay with very rare limestone granules and redox features throughout. The fine and homogenous texture is indicative of natural and low energy depositional processes, possibly a fluvial input from rain wash and flooding. The redox features are the result of post-depositional later oxidation.

4.3.10 The lowermost unit recorded in recut ditch 20128 was Unit 3, context 20146, that consisted of a firm, brown silt/clay with very rare subrounded to rounded Tertiary pebbles and limestone gravel. A diffuse contact boundary separated Unit 3 from Unit 2, context 20147. The overlying unit consisted of a firm, grey silt/clay with rare yellowish red mottling. The fine and homogenous texture of both units suggests the accumulation of the sediments due to natural and low energy processes representing washed in and/or eroded ditch` sides (cut into clay/silt alluvium). The diffuse contact between units indicates a gradual silting under same processes. Rare redox features and the nature of the units is an effect of post-depositional fluctuation in water table.

4.3.11 A firm and stoneless dark greyish brown silt/clay subsoil was recorded in as the uppermost Unit 1, context 20002.

Sequence 2 – Pond 10231, monoliths 1021 and 1020 (Appendix 14.4: Tables 7 and 8)

4.3.12 Two monolith samples were taken from a possible post-medieval pond 10231 (Fig. 26). The lowermost Unit 4, context 10247, consisted of grey silt/clay with a large limestone embedded in the fine matrix. The fine and gleyed silt/clay accumulated due natural silting, likely the alluvial sediments were washed in and settled within the pond. During the field work a layer made of limestone and CBM fragments was recorded at the base of the pond. As shown in Fig. 26, all clasts seem to be well sorted in terms of size and lain down horizontally. It could be suggested that they were deliberately placed as a part of the possible pond construction. Post-depositional iron oxides mottling was recorded throughout the unit.

4.3.13 Unit 4 was overline by Unit 3, context 10246, which in turns was silted by Unit 2, contexts 10252/10234. Unit 3 and Unit 2 were separated by diffuse contact boundary which suggests the gradual silting over a longer period. Both units were composed of a firm and homogenous silt/clay. Unit 3 was grey and Unit

2 greyish brown. The brownish colour of Unit 2 is an effect of a post-depositional oxidation due to a fluctuating winter/summer water table in the years after infilling.

4.3.14 A diffuse contact boundary separated Unit 2 and the uppermost Unit 1, context 10232, which was a firm grey silt/clay with very rare limestones. The diffuse contact can suggest a continuous natural silting under low energy processes. Common micropores and rootlets were present throughout and are a result of post-depositional bioturbation. Post-depositional iron oxide mottling was observed and implies a changing water table level.

Sequence 3 – Ditch 20256 (Fig. 27), monoliths 2085 and 2086 (Appendix 14.4: Table 9 and 10)

4.3.15 The basal fill recorded in the ditch, Unit 4, context 20257, consisted of a firm, light blue silt/clay. The clayey, gleyed and homogenous texture suggests accumulation under low energy processes and a presence of reduced conditions. It is likely that the fine particles were washed in from the clayey soils and the ditch sides, and then settled from suspension in standing water at the ditch base. Common mottling is a post-depositional product of changing oxidation conditions.

4.3.16 A sharp contact boundary separated Unit 4 and Unit 3, context 20258. Unit 3 was a firm greyish brown silt/clay. Limestone clasts were randomly distributed in the clayey matrix. Common pale reddish mottling was recorded. It could be suggested that there was a change in depositional processes. The limestone clasts could be derived from weathered sides of the ditch (possible erosion during winter season) or were washed in from the former soils. The gradual change into Unit 2, context 20264/20258, suggests a continuation of the natural silting. Both Units were oxidised and bioturbated by root channels.

4.3.17 Cultural domestic waste material was recorded at the base of the ditch. It could be concluded that the domestic waste was discarded into the drainage/boundary ditch or it have been washed in from the surrounding fields.

Discussion

4.3.18 The geoarchaeological assessment of the monolith samples has enabled the interpretation of sedimentary processes associated with the fills. These examined ditches and the possible pond were cut through clayey superficial alluvial deposit and former soils, formed in the top of the alluvial parent material. Consequently, the fine-grained fills and limestone clasts were derived from the local geological background.

4.3.19 Ditch 20142, its recut-20128 and ditch 20256 were drainage/field boundary ditches. The fine fills likely accumulated by natural processes relating to cyclical flooding of the area. The fine particles of silt and clay were carried by flowing water within the drainage ditches and settled down from the suspension. Pocket of slightly humic material and limestone suggest that former subsoil/topsoil material was

washed into the ditch. Weathering and collapsing of ditches sides may possibly have also occurred. The recutting of the ditch (re-cut 20128) suggests that the drainage system was maintained during this period. The post-depositional processes affecting the fills include bioturbation that could resulted in mixing of the fills and their homogenisation and oxidation. Replacement of organic material by iron oxides was common, thus mineralisation of organic matter was intense due to fluctuation of water level.

4.3.20 The possible pond 10231 could have played an integral function in the drainage of water from the area as well as the provision of water for the grazing of livestock. The limestone lining recorded at the base may have formed some type of embankment around the pond that was later dumped into the feature, or it may have used as some form of hard standing for the livestock. Structures associated with ponds have been recorded across many medieval and post-medieval sites, including in Cambridgeshire (Upex 2004).

4.3.21 The possible pond has filled by natural silting. After deposition the fills were re-worked by roots action and affected by changing oxidation conditions. No organic layers that could be linked with vegetation growing within the pond were recorded. This may suggest cleaning out of the pond or poor preservation of organic material due to the lack of permanent waterlogged conditions.

4.4 Pollen

By Michael Grant PhD

Introduction and quantification

4.4.0 A series of 10 monoliths were recovered from two medieval ditches associated with field systems and a possible medieval pond. Following geoarchaeological assessment (see Geoarchaeology assessment), 12 subsamples were taken for pollen assessment. The samples were from:

- Sequence 1 – Ditch 20142, monolith samples 2019, 2018 and 2020 (Fig. 28) and its recut-20128, monoliths 2021, 2022, and 2023 (Fig29).
- Sequence 2 – a possible Pond 10231, monolith samples 1021 and 1020 (Fig. 30).
- Sequence 3 – Ditch 20256, monolith samples 2085 and 2086 (Fig. 31).

Methodology

4.4.1 Standard preparation and assessment methods were used. The pollen assemblage has been calculated as %Total Land Pollen (TLP). The TLP sum excludes aquatics and pteridophyes, which are calculated as % + Group. A TLP sum of 100 grains was obtained for the pollen assessment from all 12 samples.

Results and observations

Sequence 1 – Ditch 20142 (monoliths 2019, 2018 and 2020) and its recut-20128 (monoliths 2021, 2022, and 2023)

4.4.2 The pollen assemblage from Ditch 20142 (Fig 28) is dominated by Poaceae (grasses), with Cyperaceae (sedges) and Cichorium intybus-type (including dandelion and chicory). Trees are represented by low occurrences of pollen taxa such as Quercus (oak), Tilia cordata (small-leaved lime) and Corylus avellana-type (hazel), indicating that this is a predominantly treeless environment with some localised areas of woodland / scrub, possibly along field boundaries. Plantago lanceolata (ribwort plantain), Brassicaceae (cabbage family) and Cichorium intybus-type are likely to indicate disturbed ground, possibly linked with pastoral activity. Similarly, the presence of Chenopodiaceae (goosefoots) might be linked to pastoral activity in relation to nitrogen enrichment (from animal manure) and the colonisation of disturbed soils. Potamogeton natans¬-type (pondweed) is present.

4.4.3 A similar pollen assemblage, dominated by Poaceae, Cichorium intybus-type, Chenopodiaceae and Plantago lanceolata, is also present within recut-20128 (Fig. 29).

Sequence 2 – Pond 10231 (monoliths 1021 and 1020)

4.4.4 The base of the sequence, context 10247, contains high percentages of Pinus (pine) along with Abies (fir) and Picea (spruce) (Fig. 30). While some grains were well preserved, many were degraded and corroded and found to coincide with pre-Quaternary spores, implying that these were likely to be derived from the local geology. This basal sample also contained high amounts of Poaceae, along with taxa such as Cyperaceae and Ranunculus acris-type (buttercups), which might be associated with damp ground around the pond margins.

4.4.5 In the overlying contexts, 10246 and 10252/10234, woodland percentages are much lower, with the assemblage dominated by Poaceae. Plantago lanceolata is present, indicating disturbed ground, while Polygonum (knotgrass), Centaurea scabiosa (greater knapweed) and Trifolium-type (clover) likely reflect open ground and grassland. Some disturbed / waste ground is indicated by Cichorium intybus-type, Solidago virgaurea-type (goldenrods and asters) and Pteridium aquilinum (bracken). Avena-Triticum (oat-wheat) pollen is present indicating local arable activity.

Sequence 3 – Ditch 20256 (monoliths 2085 and 2086)

4.4.6 The pollen assemblage is dominated by Poaceae, with Cichorium intybus-type (Fig. 31). Taxa such as Cyperaceae and Ranunculus acris-type might be associated with damp ground around the ditch margins, while Brassicaceae, Cirsium-type (thistle), Solidago virgaurea-type and Cichorium intybus-type are likely to indicate disturbed ground, possibly linked with pastoral activity. Tree pollen percentages are very low indicating a predominantly treeless environment.

Discussion

4.4.7 The pollen assessment has shown that all three sequences were situated within a largely open grassland environment with few trees and some local arable activity occurring. The only indication of aquatic vegetation within the sequences are low occurrences of pondweed in sequence 1, with some damp ground communities around the edge of all three features. Local ground disturbance, possibly in the form of pastoral activity, is recorded in all three sequences.

4.5 Human Remains Report

Sharon Clough MSc, MCIfA

Introduction and quantification

4.5.0 Two human cremation burials were recovered from DMV South (Appendix 14.4).

Methodology

4.5.1 The human remains were assessed for their potential for further information in accordance with the recommendations in Mays et al. 2018. The cremated bone was collected as a whole earth sample and wet-sieved, once dried the bone was handpicked out down to the 2mm size. Unburnt bone was hand collected on site and then washed and dried as standard.

Results and observations

4.5.2 Undated pit 20100 contained fill 20101 (sample 2011). A total of 29.5g of cremated bone came from the fill. The pit was 0.22m deep, it is possible that vertical truncation had removed a quantity of the original amount deposited, since an average of 600-900g is recovered from UK cremation burials (McKinley 2013, 154). However, the original deposited amount may have been less as the cremated bone appeared small and thin indicating that it may be from a non-adult.

4.5.3 Undated pit 20279 contained fill 20278 (sample 2038). A total of 50.2g of cremated bone came from the fill. The bone was unevenly burnt and of adult size. Although no obviously human elements, there was no indication they were animal in origin. As the previous cremation burial the quantity of bone is well below that expected and may represent a token or heavily truncated burial.

Distribution

4.5.4 The burials are apparently isolated events located a distance from one another. Once dated it may be possible to ascertain any relationship.

5 Conservation Report

5.0 Introduction and quantification

5.0.0 As potentially unstable material types, the gold, silver, copper alloy, iron and lead alloy objects are all stored with supportive packaging and a desiccant (silica gel) to ensure a dry environment below 35% relative humidity; their condition is frequently monitored. The metal objects have been X-radiographed as part of the assessment phase to provide a basic record and as an aid to identification. Micro-excavation and stabilisation of one object – a copper alloy bowl (RA2681) – has been carried out by Pieta Greaves, Drakon Heritage; details are provided below. On the basis of the assessment of the wider assemblage, it is recommended that further cleaning and/or stabilisation is carried out on 15 coins (14 of silver and one of copper alloy) and one other copper alloy object – a harness mount (Table 17).

Table 14. Metal objects selected for further cleaning/conservation

RA/MD_ID	Deposit_ID	ObjectMaterial	ArchObject
27	20000	Silver	Coin
34	20000	Silver	Coin
39	20000	Silver	Coin
43	20000	Silver	Coin
44	20000	Silver	Coin
55	20000	Silver	Coin
58	20000	Silver	Coin
68	20000	Silver	Coin
120	20000	Silver	Coin
176	20001	Silver	Coin
181	20001	Copper alloy	Coin
184	20001	Silver	Coin
207	25037	Silver	Coin
249	10137	Silver	Coin
296	25011	Copper alloy	Harness pendant
309	US	Silver	Coin

5.1 Conservation treatment for copper alloy bowl RA 2681

Pieta Greaves

Excavation

5.1.0 The bowl was removed from its soil bulk in the labs at Cotswold archaeology, Milton Keynes. Redeposited soils were discarded and the soil within the bowl retained for further analysis as needed. The bowl was only excavated as far as to reveal the internal contents, after which the post-ex team at Cotswold Archaeology removed the contents. Once the bowl was empty it was transported to the conservation studio for stabilisation.

Stabilisation

5.1.1 The bowl was first cleaned with cotton swabs and distilled water, this revealed the surface of the bowl and it condition. The bowl is completely mineralised with no original metal remaining. The shape had been largely retained by the soil with the bowl now in several dozens of small fragments. Before the soil was removed from the outside of the bowl the inside was consolidated with ethylene vinyl acetate copolymer (EVA) to stabilise both the soil, mineralised metal and small fragments in place. Larger fragments were not able to be re-joined on the break edges due to their fragility, therefore Remay (a synthetic textile) was used to hold fragments together. Once the inside was stable the outer soil was removed and cleaned, break edges were supported with Remay attached with 20% Paraloid B72. A large area of Remay was attached where no original material remained.

Methodology

5.1.2 The finds and palaeoenvironmental assemblages were reviewed with reference to the assessments completed by the various finds and environmental specialists. One metal artefact and 15 coins were identified as requiring conservation during the post-excavation assessment stage.

Finds investigation

5.1.3 No conservation input was required in order to carry out the post-excavation assessment of the finds assemblages and paleoenvironmental remains with the exception of that carried out on copper alloy bowl (RA2681), which required cleaning with cotton swabs and distilled water in order to reveal the surface of the vessel.

5.1.4 Initial assessment of the various finds assemblages has not identified any objects or remains as requiring further investigative conservation input at analysis stage, with the exception of the metal artefacts, which have been x-rayed to ensure a complete post-excavation record.

Work required for illustration/photography

5.1.5 As part of this post-excavation assessment, the various find types have been assessed for their potential to be illustrated/photographed. At this stage a small proportion of the post-Roman pottery, worked bone artefacts, metalwork, coins and ceramic building material, along with a single worked bone bead and a clay pipe bowl fragment have been recommended for illustration. However, it is not currently anticipated that conservation will be required to carry out finds illustration/photography.

Preparation for deposition in archive

5.1.6 Finds and environmental samples have been fully processed, stabilised, boxed and stored appropriately. Further management of boxes (e.g., labelling or re-boxing) may be necessary for transfer into the archive.

6 Site Archive Report

6.0 Quantification and characterization of the site archive

6.0.0 As part of the archaeological recording undertaken at the site, the following records were created and maintained during the completion of the fieldwork (Table 15).

Table 15 Quantification of site archive

Record Type	**1C19DDHAR** **Total**
Context register	55
Context sheets	1381
Wall recording sheets	7
Masonry recording sheets	43
Matrices	18
Section drawing register sheets	18
Plan sheets	6
Section sheets	362
No. of sections	386
Registered artefact index sheets	16
No. of registered artefacts	370
Environmental sample register sheets	20

No. of samples	208
Photographic register sheets	110
Digital photos (indexed)	3853

6.0.1 On completion of the reporting stage of the project, the finds and documentation archive will be prepared for deposition in accordance with the methodology set out in the LSWSI, HS2 technical standards (Document No. HS2-HS2-EV-STD-000-000039 and HS2-HS2-EV-STD-000-000040) and current professional standards (Brown 2011; CIfA 2014c).

6.0.2 Subject to agreement with the legal landowner, the site archive will be deposited with a suitable local museum under a unique accession number, which has yet to be confirmed.

6.1 Site records

6.1.0 All paper records, including registers, context sheets and drawing sheets, have been scanned and saved as PDF files. The paper records will be prepared for archive deposition according to specification. All digitally collected spatial data has been cleaned and assembled into the project GIS project.

6.2 Finds assemblages

6.2.0 The finds recovered from excavation Area C25089 predominately comprise pottery and CBM. The remaining finds retrieved during the archaeological recording comprise small to moderate quantities of flint, fired/burnt clay, clay pipe, glass, gold, industrial waste, mortar, iron, silver coins, copper coins, lead-alloy, copper alloy and pewter objects, worked stone and worked bone, providing additional evidence of the nature of activity at the site. The finds are quantified in Table 19 .

Table 16: Quantification of the finds assemblages

Material	No. Contexts	Count	Weight (g)
Pottery	416	6624	73261
Flint	5	29	406
CBM	172	1456	72035
Clay Pipe	5	12	35
Fired/burnt Clay	41	278	1248
Glass	13	68	916
Gold	1	1	≤1

Industrial waste	26	186	814
Mortar	5	7	67
Iron	127	757	20814
Silver Coins	4	17	12
Copper Coins	4	5	19
Lead alloy	13	26	1290
Copper alloy	44	165	1057
Pewter	1	1	3
Other Metal	1	1	31
Worked stone	9	12	1176
Worked bone	6	7	118
Grand Total	**893**	**9652**	**173302**

6.3 Palaeoenvironmental remains

6.3.0 The animal bone assemblage recovered from site is very large and the shell, charred and waterlogged plant assemblages, along with charcoal and pollen are of size and exhibit a variety of taxa. These remains provide evidence of the exploitation of resources during the various phases of land use on site. The palaeoenvironmental remains are quantified in Table 20.

Table 17: Quantification of palaeoenvironmental remains

	Area C25089 1C19DDHAR		
Material	**No. Contexts**	**Count**	**Weight (g)**
Animal Bone	273	3894	57000
Charcoal	189	N/A	N/A
Charred plant remains	178	N/A	N/A
Waterlogged Plant Remains	12	N/A	N/A
Molluscs	100	N/A	N/A

6.4 Human Remains

6.4.0 The entire assemblage of human bone, which is included in the archive, comprised the remains of two cremation burials. These are spatially isolated and are currently undated.

6.5 Digital archive components

6.5.0 The digital archive generated during the completion of the archaeological recording will be prepared archived in accordance with the Technical Standard: Historic Environment Digital Data Management and Archiving Procedure (Document No. HS2-HS2-EV-STD-000-000040). The following items are considered essential for long-term storage with the ADS project archives:

- GIS-based site plan and supporting files
- Selection of digital photographs and metadata
- Geophysics data
- Site record scans
- Context database
- Site reports
- Specialist data spreadsheets, databases and metadata

6.5.1 Digital GIS deliverables will be provided in accordance with the Cultural Heritage GIS Specification (Document No. HS2-HS2-GI-SPE-000-000004). The GIS data is temporarily stored on the COPA server, which is backed up daily. For long-term storage of the digital data, CDs/DVDs will be used. Each disk will be fully indexed and accompanied by the relevant metadata as provenance. The data will be transferred to HS2 for long-term archival storage in due course.

6.6 Readiness of archive components

6.6.0 Paper records and scans of paper records have been prepared and stored as required for physical and digital deposition. Finds and environmental samples have been fully processed, stabilised, boxed and stored appropriately. Further management of boxes (e.g., labelling or re-boxing) may be required when the receiving body is confirmed.

6.7 Recommendations for retention or discard

6.7.0 Recommendations for retention or discard have been developed with reference to the CIfA Toolkit for Selecting Archaeological Archives (CIfA nd), which lists the elements that should be taken into account when developing the selection strategy. These include internal recording and reporting policies, the

policies and guidance of relevant curatorial bodies and the receiving institution (the latter to be confirmed), material-specific guidance documents, and the aims and objectives of the project and research frameworks. Of the last, the following are particularly relevant:

- headline Objective 03: A highly accessible and outstanding archival legacy will be developed and actively promoted;
- headline objective 06: A diverse range of quality outputs will be delivered across the lifetime of the project. These will address the needs of a broad range of audiences and set new standards for publication and engagement;
- specific Objective CE4: Accessible information and knowledge sharing; and,
- KC48: Methods of using digital technology and social media to engage with public, communities and volunteers should be explored in a manner that enables parties to contribute to research and interpretation as well as enabling easy access to knowledge and ultimately archives.

6.7.1 The following recommendations for the physical archive have been made at this stage of post-excavation assessment:

6.7.2 The post-Roman pottery is a large assemblage with significant potential for further analysis and should all be retained. This follows the advice set out in the Standard for Pottery Studies in Archaeology (PCRG et al. 2016). The ceramic building material assemblage has moderate potential for further analysis and the metalwork and coin assemblages have significant potential for further work and all three assemblages should be retained. The assemblage of worked stone tools has moderate potential for further work and should be retained. The glass has no potential for further analysis and the modern elements of the assemblage should be discarded. The Roman pottery assemblage is small and lacking in diagnostic material and has no potential for further analysis and should be discarded. The flint, fired clay, metalworking debris, plaster and mortar, worked bone and clay pipe assemblages have no potential for further work but should be retained.

6.7.3 The animal bone mollusc assemblage should be retained, as these could have moderate potential to contribute to any wider research and comparative analysis of similar assemblages from comparable sites.

6.7.4 The charred and waterlogged plant remains, the pollen samples, geoarchaeological samples and charcoal assemblages should be retained, as a proportion of this material has potential for analysis and may be suitable for radiocarbon dating. A more-informed decision regarding retention in the archive can be made at the UPD and analysis stages, but as a general principle, all material extracted, analysed and reported should be included in the archive unless it is unstable.

6.7.5 The cremated and non-cremated human remains should be retained following analysis and should also be considered for radiocarbon dating where there is suitable potential.

7 Part B Assessment of potential for further work

7.0 Assessment and Interpretation of results

Assessment method statement

7.0.0 All stratigraphic data have been recorded in an Access database and have so far undergone a general review and initial grouping and phasing based on preliminary analysis of the stratigraphic relationships and morphology of archaeological features, in conjunction with initial spot dating. Preliminary plans demonstrating the layout and phasing of the archaeological remains revealed on site have also been produced. The data require more detailed examination in order to refine the phasing of the features. The existing illustrations created for this assessment should be revised in the light of any clarifications and reinterpretations of the stratigraphic data.

Potential for further stratigraphic analysis

7.0.1 As noted in Section 2 there are indications of multiple episodes of re-cutting and re-establishment of boundaries, and some features are clearly early in the sequence. Some early stratigraphic features located in PA1 have pottery ranges which would be compatible with assigning a date range in the earlier part of the ceramic chronological range. Additionally, with respect to the areas around the buildings HP6 and HP7, there are some indications that some stratigraphically later contexts contain some pottery with date ranges which extend later than those which occur in earlier stratigraphic contexts.

7.0.2 It is therefore possible that further chronological resolution may be achieved by additional stratigraphic analysis combined with information from the further analysis of the pottery and other inherently dateable objects. This may be more achievable in some areas than others. For example, it may be possible to determine whether HP6 and HP7 were likely to be contemporary, or one succeeded the other. On the other hand, determining which episode of the north-western boundary ditch was contemporary with one or both of the structures may prove more problematic due to the number of re-cuts and overlapping nature of most of the dateable cultural material which it contained, probably partly due to re-deposition of material derived from earlier re-cuts. There are some indications from the stratigraphic relationships that some at least of the sub-dividing interior ditches may be earlier than the north-west and south east boundary ditches. This could be further examined as it has potential implications for the degree of planning related to the sequence of establishment or regularisation of the settlement.

Absolute dating summary

7.0.3 No radiocarbon dating has been carried out so far. The currently undated cremated human remains would benefit from being dated, so that they can be assigned to the prehistoric, Romano-British or early medieval periods. With respect to the medieval deposits, there would be considerable benefits of additional dating information to assist further stratigraphic analysis. However, assessment of the material available suggests that suitable samples are limited. The majority of the plant remains and charcoal are suggestive of dispersed material. There are a small number of more concentrated deposits, including some from ditch contexts and consideration could be given to the suitability of submitting these for dating. Whilst animal bone was widespread across the site, the majority of this was disarticulated/co-mingled material and not desirable as samples. There were only a couple of articulated portions of animal carcase which are more likely to be rapidly incorporated and undisturbed, and consideration should be given to dating these if they are judged to be in locations which would assist the site narrative. Additionally, it may be worth considering a group of disarticulated horse remains from at least three animals in medieval pond 20643. Whilst disarticulated, the nature of this deposit suggests that they may represent a primary deposit, and this is an interesting practice which would be useful to understand further.

Potential for analysis of Roman pottery

7.0.4 The Roman assemblage is small and lacking in diagnostic material. It is entirely residual in a later-dated deposit and as such it is of limited archaeological significance. The Roman group has no potential for further analysis and further work is not recommended. A report summarising the nature of the material, based on this assessment, should be included in any forthcoming publication. The Roman pottery assemblage and has limited potential for future academic study. As such no long-term curation is recommended.

Potential for analysis of Post-Roman pottery

7.0.5 This is a large assemblage of medieval pottery which documents the occupation of the deserted village until its occupants were evicted in the 16th century. The whole assemblage has been recorded in full but it has the potential to be interrogated further, even where the condition is moderately poor and the pottery has been found dispersed across features, rather than associated with individual domestic spaces. A full analysis is recommended to investigate the spatial distribution of the pottery across the deserted village to try and document:

- dating and period of occupation by plot,
- patterns of consumption by plot,
- patterns of rubbish disposal and site formation,
- identify potential areas of later occupation within the village,

- examine the pottery with other associated finds to see if chronologies can be refined.

7.0.6 The analysis should include comparison with other rural assemblages from the region in order to put the Doddershall assemblage into context. A selection of 80 vessels should be drawn that represent a selection of fabrics, forms and periods. All the pottery should be retained to facilitate any future research.

Potential for analysis of Lithics

7.0.7 This small lithic assemblage constitutes evidence of prehistoric activity, probably including activity during the Mesolithic or Early Neolithic periods. A short report on the lithics, based on this assessment, should be included in the final report. No further recording, analysis or illustrations are required.

Potential for analysis of Stone

7.0.8 This small assemblage of worked stone has some potential to add to our understanding of the nature of activities on site and should be considered alongside other evidence for metalworking or tool maintenance. The whetstones should be described and discussed in light of final site phasing and they should be placed in their local and regional context (how common are the different material types, for example). The possible stone object (MD 8) should be included with the stone assemblage for any future reporting.

Potential for analysis of Worked bone

7.0.9 The worked bone assemblage is of a small size consisting of antler working waste and a bead. It is uncertain as to whether the piece of burnt bone has been worked. Recording undertaken as part of this assessment is sufficient for the purpose of the archives. A short report, which may be a version of this report updated to take account of the final phasing, should be prepared for publication and include an illustration of the bead.

Potential for analysis of Metalwork

7.0.10 The metalwork assemblage is of a large size with a significant proportion relating to the occupation and abandonment of the medieval village. The assemblage includes a range of objects from personal adornment to objects associated with transport, the household and also items relating to occupational activities typical of medieval rural communities, be that pastoral or industrial. The small group of higher status objects have the potential for exploring the nature of the wealth of some occupants and access to markets outside the immediate vicinity.

7.0.11 As a whole, the medieval assemblage has the potential for assisting with the dating of the structures on the site as well as understanding the nature of activity within and around the structures up until the decline of the settlement.

7.0.12 The post-medieval and modern material associated with the 19th/20th century barn has been recorded in full and requires no further analysis.

7.0.13 Taking into consideration the condition of the objects and considering the future archival storage of the assemblage the following recommendations are made:

- A report on the medieval metalwork, with illustrated catalogue, should form part of any future analysis, considering the finds spatially and temporally, as well as relating the assemblage to those from similar sites regionally and nationally. Further spatial analysis of the assemblage may assist with dating some of the artefacts currently undatable.
- Clean and stabilise copper alloy harness pendant MD 296; this has been marked in the full catalogue (Appendix 14.4)
- Draw or photograph 113 artefacts; these are marked in the full catalogue (Appendix 14.4).
- Metal analysis could be undertaken on copper alloy bowl Ra 2681 to determine the metal composition and possibly ascertain whether an import; or even if produced from recycled material (viability to be determined by metallurgical specialist if required).

Potential for analysis of Numismatics

7.0.14 The recovery of cut silver fractional denominations is not uncommon for a medieval assemblage (Kelleher 2017, 1136), and likely demonstrates gradual loss of coinage over a relatively long period of time. The introduction of the long-cross penny by Edward I brought an end to cut fractional denominations.

7.0.15 The coins of medieval date have the potential to further assist with the dating of the site and with exploring the wealth and economy of the site. The presence of nine long-cross issues demonstrate that this activity extended into the later medieval period.

7.0.16 Taking into consideration the condition of the objects and considering the future archival storage of the assemblage the following recommendations are made:

- A report on the medieval coins, with illustrated catalogue, should form part of any future analysis, considering the finds spatially and temporally, as well as relating the assemblage to those from similar sites regionally and nationally.
- Clean and stabilise 15 coins; these have been marked in the full catalogue Appendix14.4)
- Draw or photograph 15 coins; these are marked in the full catalogue (Appendix 14.4).

Potential for analysis of Glass

7.0.17 The assemblage has already been recorded fully and no further work is recommended. Should the dating of pit 20052 be refined, it would be appropriate to carry out analysis on the bead found in it.

7.0.18 Depending on the discard policy in place for this excavation, the material that has been identified as modern could be discarded.

Potential for analysis of Clay tobacco pipe

7.0.19 The clay tobacco pipe has been recorded in full and does not hold any potential for further analysis. The stamped bowl fragment should be illustrated.

Potential for analysis of Fired clay

7.0.20 The fired clay assemblage does not hold any potential for further analysis.

Potential for analysis of Ceramic building material

7.0.21 The bulk of the assemblage has been fully recorded and does not need to be re-recorded. The medieval floor tile would benefit from more detailed analysis to identify local examples and place the group into a regional context.

7.0.22 A full CBM report is recommended that considers and summarises aspects of the assemblage, such as phasing, distribution on site and regional context. The decorated floor tile and the diagnostic roof tile should be drawn (12 sherds).

Potential for analysis of Plaster

7.0.23 Apart from checking spatially and chronologically where the finds came from, no further work is recommended. No illustrations or photographs are recommended.

Potential for analysis of Industrial waste

7.0.24 Very little of this material warrants further analysis. The non-ferrous metalworking waste is curious and requires some analysis in order to be properly understood.

Potential for analysis of Faunal remains

7.0.25 This is a large zooarchaeological assemblage and is significant as good-sized animal bone assemblages from deserted medieval villages which can be subjected to a range of analysis are rare in the region (Munby 2010). The animal remains from this site can aid understanding of elements identified in the regional review framework for the Solent Thames area (Munby and Allen 2014), particularly the identification of 'farming counties', meat diet, role of wild resources, and contribution to national productivity in goods such as cloth and grain. Assemblages from post-medieval rural sites are even more scarce and this makes it of national significance. The zooarchaeology will also provide data that

can be used to satisfy site-specific HERDS objectives 7 (Defining economic activity, agricultural regimes and local production on site) and 9 (Defining lifestyle parameters, diet and quality of life).

7.0.26 Specific research questions can include: specific waste disposal; insights into the meat diet and the role of domestic and wild resources; the mode of production, and the location of culling processing consumption or redistribution in or out of the site; emphasis on meat and/ or secondary products (wool, milk, traction), including the use of equids; indicators of social status; evidence of interactions between people and animals; change through time; and comparison with other regional assemblages to better understand differences in agriculture and site provisioning.

7.0.27 This is a well-dated, sizeable assemblage of an uncommon resource. Full recording is recommended of medieval and post-medieval zooarchaeological deposits.

7.0.28 Several cattle and sheep/ goat petrous bones were identified. It is possible to include one of each taxon/ period in an ongoing project taking place through the Smurfitt Institute of Genetics, Trinity college Dublin, investigating the genetic changes affecting cattle and sheep in Europe between the Neolithic and late medieval periods at no cost to the client.

Potential for analysis of Environmental remains

Charred plant remains

7.0.29 There is some limited potential for the analysis of charred plant remains from two environmental samples recovered from Period 2 medieval features to provide information on the type of settlement, range of crops, and the nature of the local environment. This analysis has some small potential to augment the information on these themes for the wider area for this period. It is recommended that the charred plant remains from sample 2509 (layer 25048) and sample 2530 (ditch 25199) are analysed in more detail.

Waterlogged plant remains

7.0.30 There is no potential for further analysis of waterlogged plant remains recovered from this site to provide a more detailed picture of the nature of the local environment, than that ascertained by the assessment.

Molluscs

7.0.31 A small number of the molluscan assemblages could be examined in more detail to enhance the information on the local landscape and the nature of the aquatic environments during the medieval periods. The samples recommended for further molluscan analysis are samples 1018, and 1027, from pond 10231, 2072, from ditch 10112, 2073, from pond 20643 and 2530, from ditch 25199. There is potential for these assemblages to provide information on the fluctuations in the nature of the aquatic

environment within the pond features and ditches as well as information on the surrounding local environment.

Charcoal

7.0.32 The large quantities of charcoal and the wide range of taxa already identified indicates that the material offers high potential for a thorough study into the fuelwoods used at the medieval settlement (with limited comparison to later periods). There is an opportunity for the study of both short-term (single event or last event type residues) and the patterns determined from longer-term accumulation (multiple deposition or discrete activity residues). There are also assemblages with large fragment sizes, offering the potential for examining woodland management and fuelwood supply practices. Medieval fuelwood supplies are rarely examined on such a scale as this site offers and it is highly recommended that full analysis on the charcoal from a large selection of the samples is undertaken. Many of the assemblages appeared to be of low diversity (predominately oak) and one of the main lines of investigation will be to determine if this relates to specific activities or phases. The presence/absence of certain taxa is also of interest: the use of beech, for example, is rarely seen prior to the early medieval period and remains a key research interest for changes in fuelwood supplies from earlier periods.

Potential for analysis of Marine shell

7.0.33 Due to the low abundancies and poor preservation levels of the marine shell assemblage, there is no potential for further analysis

Potential for analysis of Geoarchaeological monoliths

7.0.34 There is no potential for further analysis of the geoarchaeological monoliths, however, see section 8.0.38 below.

Potential for analysis of Pollen

7.0.35 The pollen assemblages from each of the three sequences are complementary, showing a largely treeless environment, though with slightly increased woodland representation associated with ditch 20142, which might indicate the proximity of small stands of woodland such as along field margins. Pollen analysis for any of the three sequences should be informed by the other palaeoenvironmental evidence, as the assessment results show a fairly uniform vegetation patterns with some local variations of woodland or arable activity. These patterns, however, are unlikely to be further refined with additional sampling or increased pollen counts from any of the sequences.

Potential for analysis of Human remains

7.0.36 It is recommended that the cremated bone is fully analysed, including recording identified elements, colour and fragmentation. The remains then need placing in their context with reference to other features on the site and within a local and national framework.

7.0.37 Radiocarbon dating the currently undated features would aid in their interpretation. The cremated bone deposits have the potential to provide a radiocarbon date.

8 HERDS objectives summary

8.0.0 The archaeological recording set out to address a number of specific objectives defined in the GWSI: HERDS in order to understand the broader context and significance of the site and to mitigate construction impacts. The specific objectives were partially achieved by the archaeological recording. An assessment of the results against the specific objectives is made in Table 21, as defined in the LSWSI. Further analysis has a potential to contribute to several specific objectives, as detailed below.

Table 18: HERDS objectives

Specific objective	Recommended further work
KC30: Identify the location and form of early and middle Saxon settlement and investigate evidence for land use in the period;	No evidence for early or middle Saxon settlement or activity has been identified. Three fragments of Roman pottery suggests that this area was peripheral during that period, and there is no indication that this changed during the mid-1st millennium AD. Objective not addressed.
KC31: Identify the location of middle to late Saxon settlement, explore processes of settlement nucleation and understand the development of associated field types and agricultural regimes;	There is a significant amount of late Saxon pottery present on the site, but this is residual within the later assemblage. No features or discrete deposits can be dated to this period. There is a suggestion that there was settlement nearby in the 9th-10th century, but it did not occur within the confines of the excavated area. The results do, however, signal development of settlement in this locale from the late Saxon period but that may have shifted. The location of the late Saxon pottery may bear further consideration. Objective partly addressed, with some potential for further analysis.
KC34: Undertake research and investigation into medieval manorial complexes. What was their origin, development and impact on the landscape?	The evidence of the medieval settlement is that of a croft and toft arrangement which may relate to housing and garden/agricultural plots of tied peasantry or tenants such as cottagers. The relationship of this to the manorial centre and the structure of the manor as a whole is unclear, and may repay further consideration, including how the paths and tracks within the excavated area may relate to the wider medieval landscape. Objective partly addressed, with some potential for further analysis.
KC35: Investigate the impacts on rural communities of social and economic shocks in the mid-14th century and	Whilst the settlement may have slightly earlier origins, the majority of evidence centres on the 13th-14th centuries, with some activity

thereafter in their contribution to the settlement's desertion;	continuing into the 15th-16th centuries, but on first examination of a more limited nature. Further clarification of the site chronology may reveal the trajectory of the inception and development of the settlement and facilitate how this relates to 13th century expansion and economic, climatic and social issues from the first half of the 14th century onward. Initial assessment does imply settlement contraction, if not abandonment. Further consideration may indicate whether potential contraction accords with dates for known from documentary evidence. The faunal remains suggests a fairly typical pastoral economy for the period and area, but there are elevated numbers of equid remains and it is possible that consideration of butchery and pathological lesions from the assemblage could inform on issues of the use of both cattle and horse for traction and the extent to which horses were consumed. Examination of the location of disposal of the material may be informative as to the use to which these animals were put. The plant remains appear to be in keeping with other sites of the period in the area, but further analysis of a limited number of suitable samples may elucidate this further.
KC40: Identify patterns of change within medieval rural settlement from the 11th to mid 14th century;	Initial considerations seem to suggest that the orientation and layout of the settlement was a consistent feature from its inception. However, there is considerable evidence for re-working, additions and sub-divisions and re-working of boundaries throughout the medieval period. There are some indications of a shift in emphasis within the excavated area over time. Further consideration of this may clarify the degree to which the DMV came into existence in a possibly planned form or agglomerated and expanded. This would also assist in understanding the relationship of this element of settlement to the manorial structure (KC34), and potentially changing population levels. Evidence for social and economic change may be evident from consideration of the artefacts and environmental material.
Kc47: Test and develop geophysical survey methods.	Geophysical survey successfully identified the core of the deserted medieval settlement at C25089. Objective addressed.

8.1 Evaluation of methodologies used

8.1.0 The programme of archaeological recording at the site encompassed one land parcel (C25089), encompassing two fields and measuring c. 2.21 ha in total. In line with the methodologies set out in the

Project Plan and LSWSI, a suitable sample of archaeological features were excavated and dating evidence retrieved where this was present. The soil horizons throughout the stratigraphic sequence were discernible and archaeological features were clearly visible during the investigations, and it is unlikely that features remained unidentified within the excavation areas.

8.1.1 The archaeological recording strategy followed the standard iterative approach employed in British archaeology, initially using historical records and non-intrusive surveys, such as LiDAR, aerial photographic evidence and geophysical survey results, followed by trial trench evaluation, to enable specific features or areas of the site with archaeologically significant potential to be targeted. This evidence-led approach also drew on site-specific and local topographical and geological information, documentary evidence and known areas of past human activity within the immediate vicinity. The archaeological recording comprised the investigation of two excavation areas encompassing parts of two fields and targeted upon medieval remains revealed at the site during the preceding trial trench investigations.

8.1.2 It is considered that the archaeological recording has achieved its aims and specific objectives, as stated in the LSWSI, and that the methodology employed was appropriate. The archaeological recording revealed the remains of part of a deserted medieval village (DMV), comprising the remains of croft/toft strip orientated north-west/south-east and defined between substantial noerth-east/south-west orientated land boundary ditches. This was focused in the central/north-west parts of DMV South and DMV North. The remains of several House Platforms were recorded across the site with the remains of two buildings surviving in the noerth-west of DMV South. Numerous pits, ditches, walls, buried soils and make up layers were also recorded in DMV North and South, and these represent the remains of domestic and industrial/craft activity associated with the settlement, predominantly in the medieval period, although more limited post-medieval activity was also recorded. Analysis of the finds, as described above in section 8.1, will further elucidate the settlement's stratigraphic sequence and the present interpretation of the results.

8.1.3 In tandem with analysis of the pottery, metalwork, industrial waste and other finds, analysis of the palaeoenvironmental and biological remains recovered during the archaeological recording, in particular the medieval animal bone and the charcoal, is likely to provide insights into the nature of past land use, settlement economy and status within the local and regional settlement hierarchy.

8.1.4 The archaeological recording has expanded upon the results of the preceding trial trench evaluation by recording the presence, extent and nature of archaeological remains within the site. On that basis, the results of the investigation are considered to be a true reflection of the archaeological potential of the site.

8.2 Additional HERDS objectives

8.2.0 Assessment of the archaeological evidence identified during the investigations at C25089 have the potential to contribute towards the following additional GWSI: HERDS objectives, as detailed in Table 22.

Table 19 Additional HERDS objective

Herds Objective	Proposed further work
KC35: Investigate the impacts on rural communities of social and economic shocks in the mid-14th century and thereafter in their contribution to the settlement's desertion;	The site produced a range of materials which in some cases suggest activities, pastimes and value which may indicate some differentiation in status between the inhabitants of the village. The connections to market centres and long distance networks is also of interest in understanding the overall prosperity of the settlement, and individual households within it. Further analysis of the artefactual material taking into account its distribution between crofts/tofts could approach these matters of differing status within the settlement. Objective partly addressed, with high potential for further analysis.
KC40: Identify patterns of change within medieval rural settlement from the 11th to mid 14th century;	The footprints of two buildings survived largely intact and provide evidence of both the ground plans and structure. This appears to have included, walls (or stone footings) earthfast posts and post-pads, for use with a timber superstructure. The nature of the construction could be further considered from the type and location of these structural elements. The materials used for the structure and roofing could be further explored via consideration of the distribution of ceramic and stone roof tile, to ascertain if it was likely to have been used on these buildings or originated as dumping from elsewhere.
KC40: Identify patterns of change within medieval rural settlement from the 11th to mid 14th century;	The organisation and use of the internal space of the buildings is capable of further exploration. The spaces are subdivided and further examination of finds distribution may inform as to whether the supposition of partial use in housing animals is correct or these are buildings used by higher status tenants. The location of the copper alloy bowl beside the hearth in HP6 (and position of an almost entire pot in a similar location in HP7) may suggest use, or indeed closure deposits. Objective partly addressed, with high potential for further analysis.

8.3 Risk assessment

8.3.0 Given the relatively straightforward nature of the archaeological stratigraphy, the moderate size and limited nature of several of the finds assemblages, the likely availability of specialists and good

understanding of the archaeological remains and regional parallels no known risks to future analysis, research or publication were identified during the post-excavation assessment stage

8.4 Third Parties, potential collaboration

8.4.0 The post-excavation assessment has identified conservation, radiocarbon dating and metallurgical analysis as tasks that will require third party collaboration during the analysis stage.

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AWHi – Location Specific Written Scheme of Investigation for Archaeological Recording at Deserted Medieval Village, Doddershall Embankment, Buckinghamshire AC250/24 (Site Code: 1C19DDHAR)	1EW03-FUS_COP-EV-REP-CS05-000001
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van Zeist, W., Wasylikowa, K. and Behre, K-E. (eds) 1991 *Progress in Old World Palaeoethnobotany*, Rotterdam, Balkema	van Zeist *et al* 1991
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11 Fieldwork signoff sheets

Historic Environment Fieldwork Sign-off Sheet			
Work Package Reference:	AWHi		
Site code:	AC250/24		
Shapefile:			
Site Name:	Doddershall Deserted Medieval Village, Doddershall Embankment, Buckinghamshire.		
Historic Environment Investigation Type:	Excavation		
Contractor:	COPA		
Fieldwork Conducted by (Site Director):	Daniele Pirisino	**Dates**:	21st July 2020-9th June 2021

Summary of Results:

DMV North (PA3)

Investigation of the northern area of PA3 is now completed. The area is a subdivision of PA3, as shown in the accompanying figure (green rectangle).

- A north-east to south-west aligned ditch bisected the area. Most of the features and deposits recorded in the northern part of PA3 were recorded along the south-eastern side of this ditch, which formed the north-western boundary of the village in this part of the DMV.
- The earliest features on site comprised an enclosure at the north-eastern corner of PA3 and a north-east/south-west aligned ditch recorded to the north of HP3. This ditch was a predecessor of the village's north-western boundary. The enclosure was truncated by the construction of a pond, which contained abundant construction debris and possible 14th to 16th Century pottery (no spot dating returned yet).
- The predecessor of the village's north-western boundary was covered by a discontinuous rubble surface/surfaces. The rubble surface/surfaces were in their turn covered by a bank which resulted from the construction or re-working of the village's north-western boundary.
- No clear evidence for a house was identified in HP2, HP3, and HP4.
- A rubble wall was recorded 7m north-east of HP3. A series of interventions at this location did not reveal any feature or structural element comparable to those recorded in HP7 (P.A.1) and HP6 (P.A.2).

Document References:

	Document Type	Document No.
1.	Project Plan	1EW03-FUS-EV-PLN-CS04-CL 20-000007
2.	LSWSI	1EW03-FUS_COP-EV-REP-CS05-000001
3.		
4.		

	Name:	Date:	Signature:
Compiled by:	Daniele Pirisino	10/06/21	[redacted]
Checked by:	**Name:**	**Date:**	**Signature:**
	Richard Brown	10/06/21	[redacted]
Approved by:	**Name:**	**Date:**	**Signature:**
	Dan Hounsell	10/06/21	[redacted]

12 Figures

471000
472000
473000
474000
221000
220000
C25089
Doddershall house
Shipton Lane
Quainton
Aylesbury Vale District
Cherwell District
Dacorum District (B)

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Site boundary
HS2 route
Public Right of Way

High Speed Two

DMV North and South (C25089), Site location

Fig. 1

Internal

HS2

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Scale at A3: 1:10,000

1:10,000
0 100 200 300 400
Metres

Doc Number: 1EW03-FUS-GI-MAP-CS05-000026

Date: 13/06/22

472200
472400
472600
220600
220400
Drain
MP 5
Pond
C25089
Aylesbury Vale District
Quainton

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Legend

- Site Boundary
- Archaeology Possible (Spread)
- Archaeology Possible (Strong)
- Archaeology Possible (Weak)
- Archaeology Probable (Spread)
- Archaeology Probable (Strong)
- Archaeology Probable (Weak)
- Ferrous/Debris (Spread)
- Magnetic Disturbance
- Natural (Spread)
- Natural (Weak)
- Undetermined (Spread)
- Undetermined (Strong)
- Undetermined (Weak)

Geophysics Survey Results

- Archaeology
- Archaeology
- Drain
- Pipe
- Ridge and Furrow
- Ferrous
- Archaeology

High Speed Two

DMV North, Doddershall (C25089), Plan showing Geophysical Survey Results Doddershall Embankment, Buckinghamshire

Fig. 2
Internal

HS2

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Scale at A3: 1:1500

1:1500
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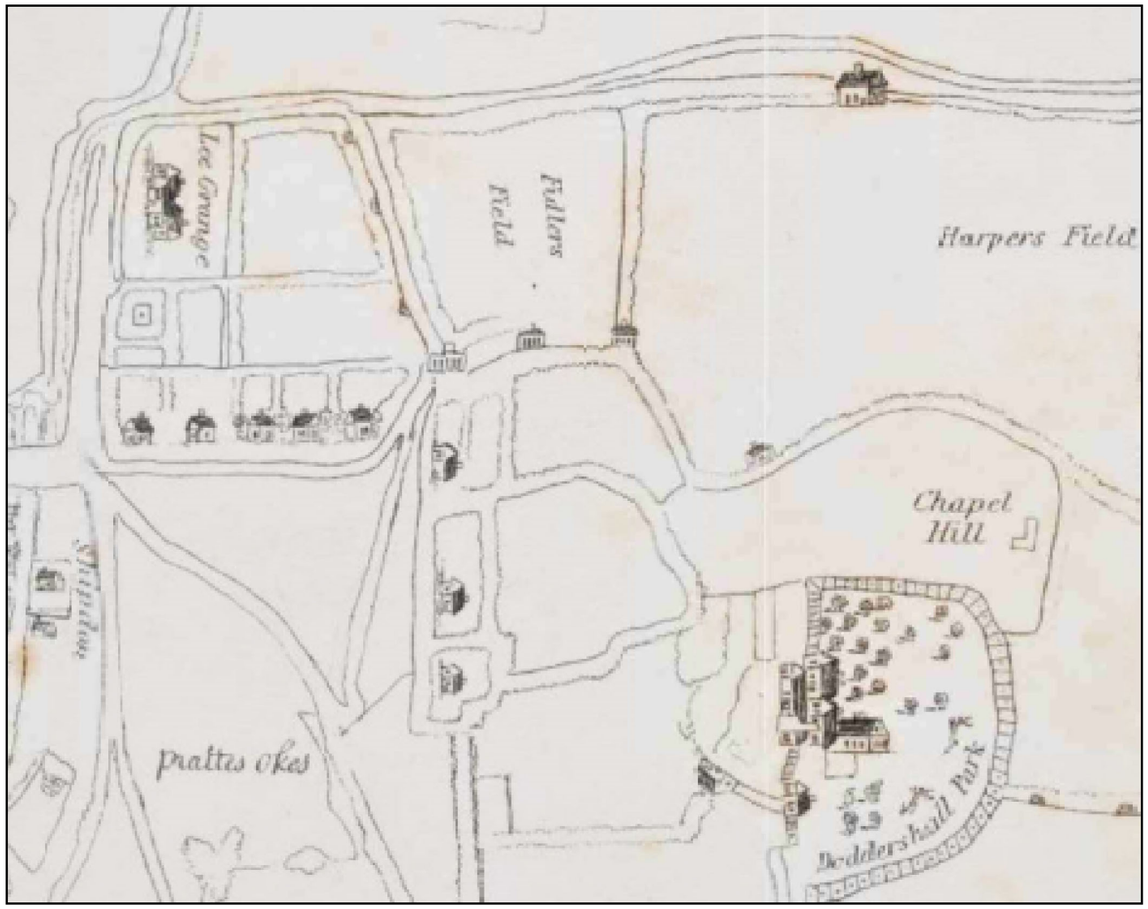
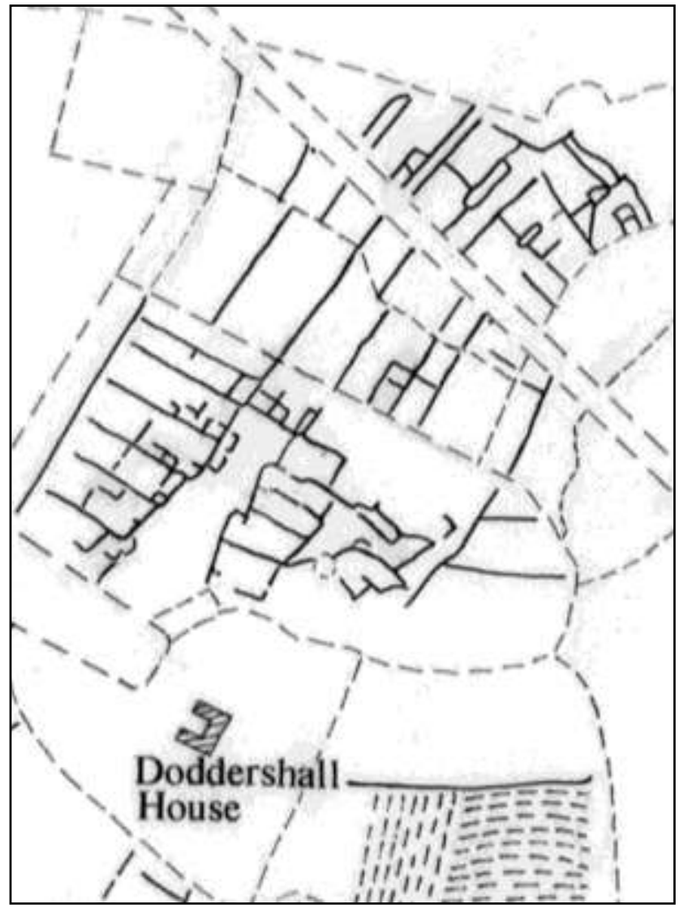
Metres

Doc Number: 1EW03-FUS-GI-MAP-CS05-000026

Date: 08/07/22





High Speed Two

Doddershall (C25089) 1587 Map of village and plot of 1976 Aerial Photo, Doddershall Embankment, Buckinghamshire

Fig. 3

Internal

HS2

Registered in England. Registration number 06791686.
Registered office: 2 Snowhill, Queensway, Birmingham B4 6GA.

Not to scale

Doc Number: 1EW03-FUS-GI-MAP-CS05-000026

Date: 08/07/22

472100
472300
472500
220600
220400
see Fig. 5
see Fig. 6
see Fig. 7
see Fig.8
see Fig.9
see Fig. 10
see Fig. 11
see Fig. 12
see Fig. 13
see Fig. 14
HP1
HP2
HP3
HP4
HP5
HP6
HP7
HP8
PA1
PA2
PA3
Drain
Pond
MP 5
Aylesbury Vale District
Quainton

Site boundary
Limit of excavation
Test pit
HS2 route
Flint
Field drain
Truncated feature
House platform
Unconfirmed house platform
Structure

Phase (excavated/unexcavated)
Medieval
Post-medieval
Modern
Undated

Deposit (excavated/unexcavated)
Medieval
Post-medieval
Modern
Undated

High Speed Two

Doddershall DMV (C25089), Plan showing locations of house platforms and medieval, post-medieval and modern phases, all features. Doddershall Embankment, Buckinghamshire

Fig. 4
Internal

HS2

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Registered office: 2 Snowhill, Queensway, Birmingham B4 6GA.

Scale at A3: 1:1500

1:1500
0 15 30 45 60
Metres

Doc Number: 1EW03-FUS-GI-MAP-CS05-000026

Date: 08/07/22

472300

220600

10203

10072

10144

10254

10246

10231

10231/10258

10147

10248

HP4

10212

10250

10206

10242

BOUNDARY DITCH A

10213

10075

DITCH AL

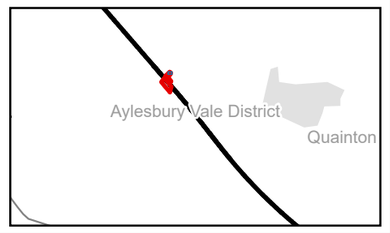
DITCH AM

10229

10285

10064

10288



- Site boundary
- Limit of excavation
- Test pit
- Section location
- Flint blade
- Field drain
- Truncated feature
- House platform
- Structure

Phase (excavated/unexcavated)
- Medieval
- Post-medieval
- Undated

Deposit (excavated/unexcavated)
- Medieval
- Post-medieval
- Undated

High Speed Two

DMV North, Doddershall (C25089), Plan showing locations of house platforms and medieval, post-medieval and modern phases, all features. Doddershall Embankment, Buckinghamshire

Fig. 5
Internal

HS2

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Registered office: 2 Snowhill, Queensway, Birmingham B4 6GA.

Scale at A3: 1:150

1:150

0 1.5 3 4.5 6

Metres

Doc Number: 1EW03-FUS-GI-MAP-CS05-000026

Date: 17/06/22

472300

10248
A
10250
10212
10206
BOUNDARY DITCH A
10242
10213
A
10229
10075
DITCH AM
10285
10064
DITCH AL
10288
10293
10283
10241
10290
HP4
10244
10222
10210
10230
10308
10080
10306
10278
10280
10301
10299
10112
B
10265
10266
10267
10303
10263
10297
10197
10179
10311
10314
10264
10281
10253
10168
DITCH AK
DITCH AJ
10260
10152
B
10205
HP2
10310
10148
10099
10304
10139
10261
10262
10259
10198
10115
10100
10200
DITCH AG
10046
10048
10022
10068

Aylesbury Vale District
Quainton

Site boundary
Limit of excavation
A A Section location
Field drain
Truncated feature
House platform
Structure

Phase (excavated/unexcavated)
Medieval
Undated

Deposit (excavated/unexcavated)
Medieval
Post-medieval
Undated

High Speed Two

DMV North, Doddershall (C25089). Plan showing locations of house platforms and medieval, post-medieval and modern phases, all features. Doddershall Embankment, Buckinghamshire

Fig. 6
Internal

HS2

Registered in England. Registration number 06791686.
Registered office: 2 Snowhill, Queensway, Birmingham B4 6GA.

Scale at A3: 1:150

1:150
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Metres

Doc Number: 1EW03-FUS-GI-MAP-CS05-000026

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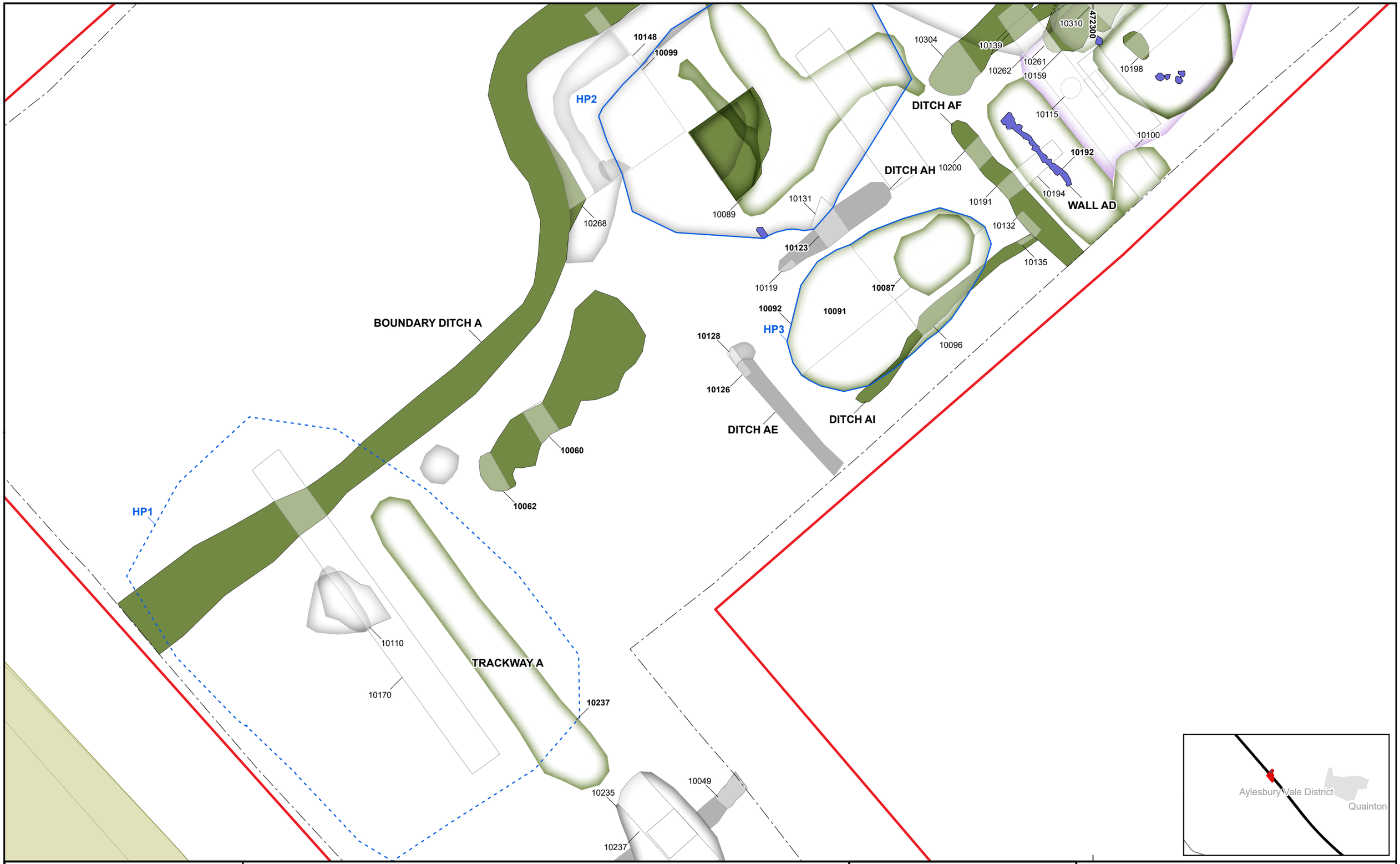

- Site boundary
- Limit of excavation
- HS2 route
- Field drain
- Truncated feature
- House platform
- Unconfirmed house platform
- Structure

Phase (excavated/unexcavated)
- Medieval
- Undated

Deposit (excavated/unexcavated)
- Medieval
- Post-medieval
- Undated

High Speed Two

DMV North, Doddershall (C25089), Plan showing locations of house platforms and medieval, post-medieval and modern Phases, all features. Doddershall Embankment, Buckinghamshire

Fig. 7
Internal

HS2
Registered in England. Registration number 06791686.
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Scale at A3: 1:150

1:150
0 1.5 3 4.5 6
Metres

Doc Number: 1EW03-FUS-GI-MAP-CS05-000026

Date: 17/06/22

- Site boundary
- Limit of excavation
- HS2 route
- Section location
- Field drain
- Truncated feature
- House platform
- Unconfirmed house platform
- Structure

Phase (excavated/unexcavated)
- Medieval
- Undated

Deposit (excavated/unexcavated)
- Medieval
- Post-medieval
- Undated

High Speed Two

DMV North, Doddershall (C25089). Plan showing locations of house platforms and medieval, post-medieval and modern phases, all features. Doddershall Embankment, Buckinghamshire

Fig. 8
Internal

HS2

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Registered office: 2 Snowhill, Queensway, Birmingham B4 6GA.

Scale at A3: 1:150

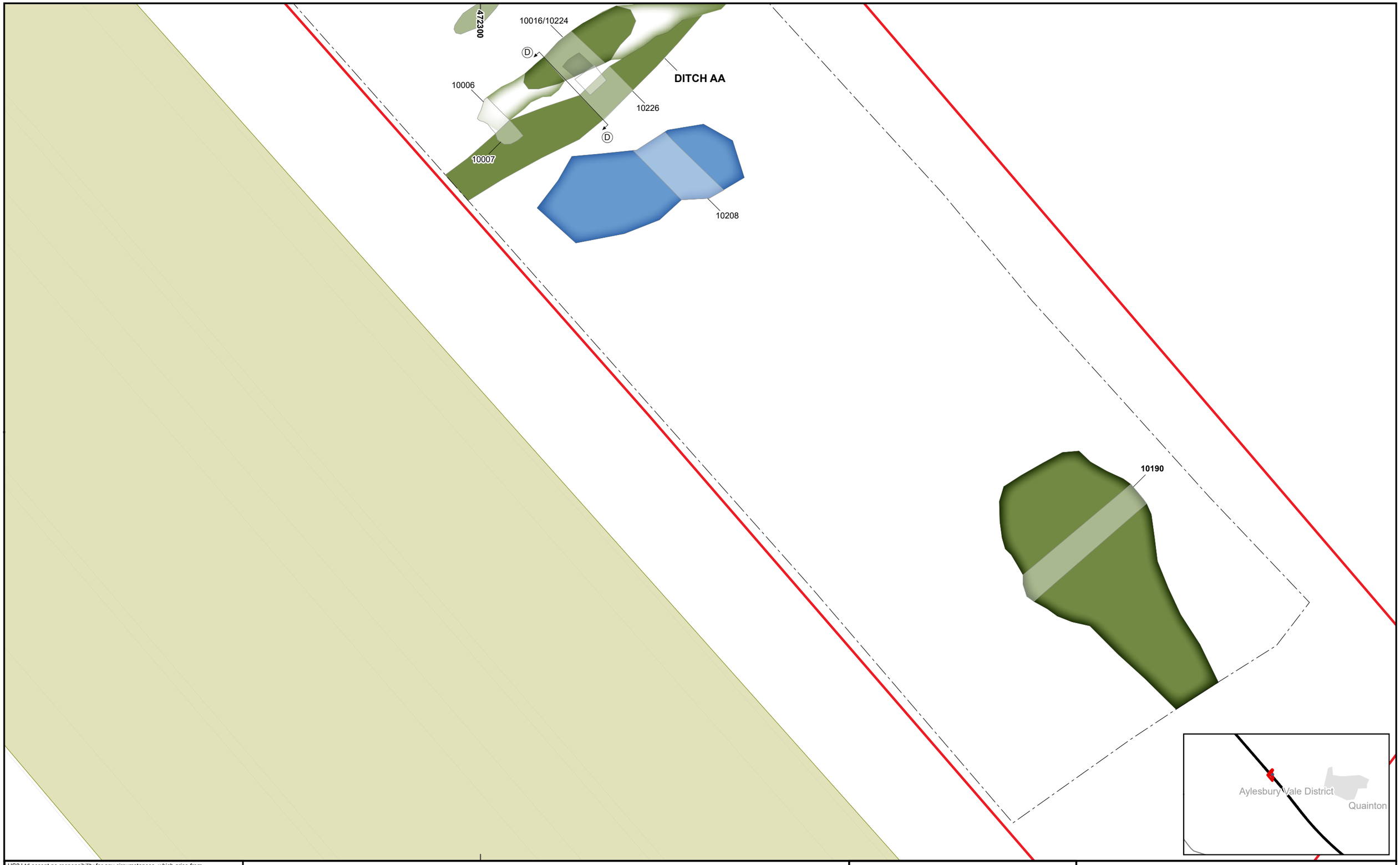
1:150

0 1.5 3 4.5 6

Metres

Doc Number: 1EW03-FUS-GI-MAP-CS05-000026

Date: 17/06/22



Site boundary
Limit of excavation
HS2 route
Ⓐ Ⓐ Section location

Phase (excavated/unexcavated)
Medieval
Modern

Deposit (excavated/unexcavated)
Medieval
Modern

High Speed Two

DMV North, Doddershall (C25089). Plan showing locations of house platforms and medieval, post-medieval and modern phases, all features. Doddershall Embankment, Buckinghamshire

Fig. 9
Internal

HS2
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Registered office: 2 Snowhill, Queensway, Birmingham B4 6GA.

Scale at A3: 1:150

1:150
0 1.5 3 4.5 6
Metres

Doc Number: 1EW03-FUS-GI-MAP-CS05-000026

Date: 17/06/22

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- Site boundary
- Limit of excavation
- Test pit
- HS2 route
- Section location
- Field drain
- Truncated feature
- House platform
- Structure

Phase (excavated/unexcavated)
- Medieval
- Modern
- Undated

Deposit (excavated/unexcavated)
- Medieval
- Undated

High Speed Two

DMV South, Doddershall (C25089), Plan showing locations of house platforms and medieval, post-medieval and modern phases, all features. Doddershall Embankment, Buckinghamshire

Fig. 10
Internal

HS2

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Scale at A3: 1:250

1:250

0 2.5 5 7.5 10

Metres

Doc Number: 1EW03-FUS-GI-MAP-CS05-000026

Date: 17/06/22

see Fig. 16

BOUNDARY DITCH B
DITCH BC
DITCH BD
DITCH BA
DITCH BB
POND 25109
DITCH CD
DITCH CC
DITCH CE
DITCH CF
DITCH CG
HP7
HP8
DEPOSIT 20257

Aylesbury Vale District
Quainton

- Site boundary
- Limit of excavation
- Test pit
- HS2 route
- Section location
- Hobnail/stud
- Field drain
- Truncated feature
- House platform
- Unconfirmed house platform
- Structure

Phase (excavated/unexcavated)
- Medieval
- Post-medieval
- Modern
- Undated

Deposit (excavated/unexcavated)
- Medieval
- Undated

High Speed Two

DMV South, Doddershall (C25089), Plan showing locations of house platforms and medieval, post-medieval and modern phases, all features. Doddershall Embankment, Buckinghamshire

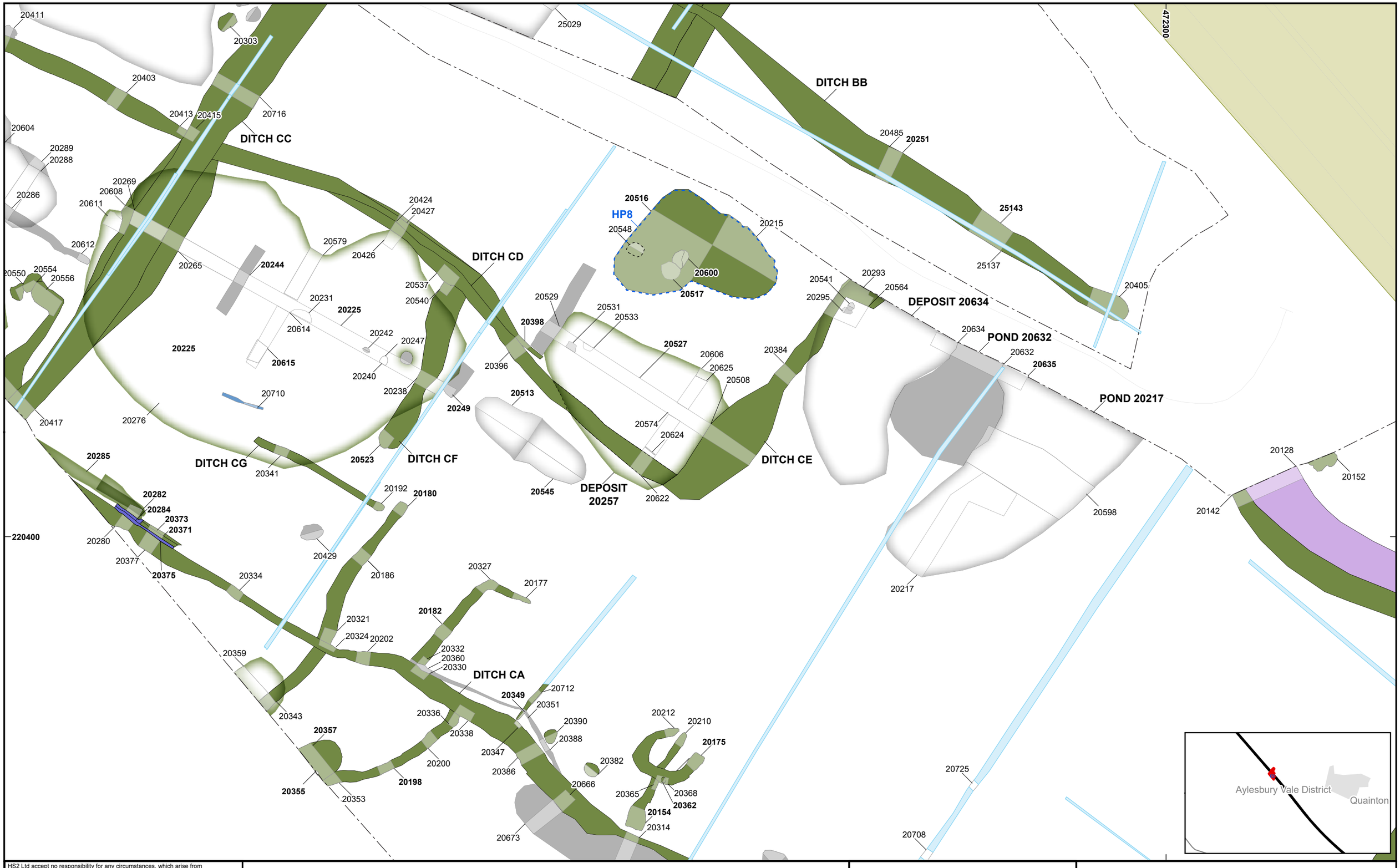
Fig. 11
Internal

HS2
Registered in England. Registration number 06791686.
Registered office: 2 Snowhill, Queensway, Birmingham B4 6GA.

Scale at A3: 1:250
1:250
0 2.5 5 7.5 10
Metres

Doc Number: 1EW03-FUS-GI-MAP-CS05-000026

Date: 17/06/22



Site boundary
Limit of excavation
HS2 route

Field drain
Truncated feature
Unconfirmed house platform
Structure

Phase (excavated/unexcavated)
Medieval
Post-medieval
Modern
Undated

Deposit (excavated/unexcavated)
Medieval
Undated

High Speed Two

DMV South, Doddershall (C25089), Plan showing locations of house platforms and medieval, post-medieval and modern phases, all features. Doddershall Embankment, Buckinghamshire

Fig. 12
Internal

HS2
Registered in England. Registration number 06791686.
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Scale at A3: 1:250
1:250
0 2.5 5 7.5 10
Metres

Doc Number: 1EW03-FUS-GI-MAP-CS05-000026

Date: 17/06/22

Site boundary
Limit of excavation
HS2 route
Field drain
Truncated feature
Structure

Phase (excavated/unexcavated)
Medieval
Post-medieval
Modern
Undated

Deposit (excavated/unexcavated)
Medieval
Modern
Undated

High Speed Two

DMV South, Doddershall (C25089), Plan showing locations of house platforms and medieval, post-medieval and modern phases, all features. Doddershall Embankment, Buckinghamshire

Fig. 13
Internal

HS2

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Registered office: 2 Snowhill, Queensway, Birmingham B4 6GA.

Scale at A3: 1:250

1:250

0 2.5 5 7.5 10

Metres

Doc Number: 1EW03-FUS-GI-MAP-CS05-000026

Date: 17/06/22

472300

20021
20394
20028
20010
20004
20005
20025
20006
20005
20024
20007
20011
20020
20642
DITCH CA
20636
20640
20638
20110
20173
20170
20111
20196
20194
20117
20701
POND 20643
20643
20106
20104
DITCH C
20100
20346
20097
20234
20236
20463
20465
20467
20129
20139
20133
Drain

Aylesbury Vale District
Quainton

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- Site boundary
- Limit of excavation
- HS2 route
- Field drain
- Truncated feature
- Structure

Phase (excavated/unexcavated)
- Medieval
- Post-medieval
- Modern
- Undated

Deposit (excavated/unexcavated)
- Modern
- Undated

High Speed Two

DMV South, Doddershall (C25089), Plan showing locations of house platforms and medieval, post-medieval and modern phases, all features. Doddershall Embankment, Buckinghamshire

Fig. 14
Internal

HS2

Registered in England. Registration number 06791686.
Registered office: 2 Snowhill, Queensway, Birmingham B4 6GA.

Scale at A3: 1:250

1:250

0 2.5 5 7.5 10
Metres

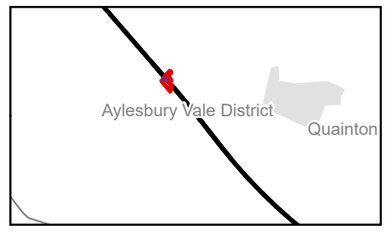
Doc Number: 1EW03-FUS-GI-MAP-CS05-000026

Date: 17/06/22

472200

HP5

25156
25079
25197
25227
25239
25267
25271
25299
25229
25068
25038
25097
25176
25132
25099
DITCH BG
DITCH BF
25088
25050
25046
20449
25104
25017
25053
25106
25078
20445
25113
25101
25178
25047
25080
25019
25094
25066
25072
25077
25052
25063
25186
25218
HP6
25061
25013
25180
25054
25199
25201
25169
25193
25059
25048
25264
25236
25315
25209
25234
25230
25218/
25189
25247
25206
25306
25288
25249
25214
25219
25203
25253
25189
25290
25096
25276/
25253
25255
25262
25292
20067
25251
25286
25211
25278
25280
STRUCTURE 25075
25284
25257
25222
25270
25297
25310



Site boundary
Limit of excavation
Field drain
Truncated feature
House platform
Structure
Structure 25075

Phase (excavated/unexcavated)
Medieval
Undated

Deposit (excavated/unexcavated)
Medieval
Undated

High Speed Two

DMV South,
Doddershall (C25089) ,
Plan of house platform 6
Doddershall Embankment,
Buckinghamshire

Fig. 15
Internal

HS2

Registered in England. Registration number 06791686.
Registered office: 2 Snowhill, Queensway, Birmingham B4 6GA.

Scale at A3: 1:100

1:100
0 1 2 3 4
Metres

Doc Number: 1EW03-FUS-GI-MAP-CS05-000026

Date: 17/06/22

472200

20252

20662

20775

20660

20664

20777

20647

20754

20752

20770

20595

20593

20778

20586

20526

20596

20747

20732

20750

20675

20690

20745

20694

20776

20668

20762

20758

20737

20677

20731

20779

20729

20680/20749

20591

20589

20695

HP7

20738

20760

20765

20766

20569

20570

20768

20576

20592

20575

20580

Aylesbury Vale District

Quainton

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Site boundary

Limit of excavation

Section location

House platform

Structure

Phase (excavated/unexcavated)

Medieval

Post-medieval

Modern

Undated

Deposit (excavated/unexcavated)

Medieval

Post-medieval

Undated

High Speed Two

DMV South,
Doddershall (C25089) ,
Plan of house plantform 7
Doddershall Embankment,
Buckinghamshire

Fig. 16
Internal

HS2

Registered in England. Registration number 06791686.
Registered office: 2 Snowhill, Queensway, Birmingham B4 6GA.

Scale at A3: 1:100

1:100

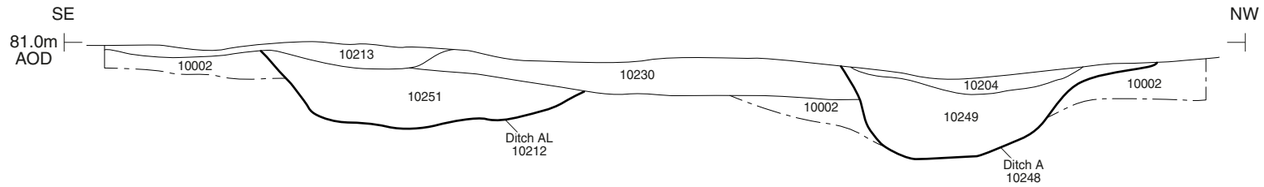
0 1 2 3 84

Metres

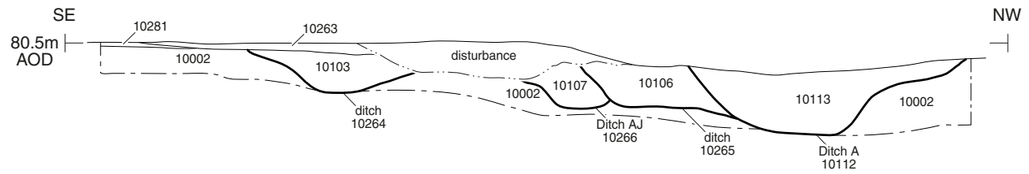
Doc Number: 1EW03-FUS-GI-MAP-CS05-000026

Date: 17/06/22

Section AA, Ditch AL and Boundary Ditch A



Section BB, Ditch AJ and Boundary Ditch A



Boundary ditch, looking north-east (2m scales)

High Speed Two

DMV North and South (C25089), DMV North boundary ditch section and photographs

Fig. 17

Internal

Registered in England. Registration number 06791686.
Registered office: 2 Snowhill, Queensway, Birmingham B4 6GA.

Scale at A3: 1:50

1:50

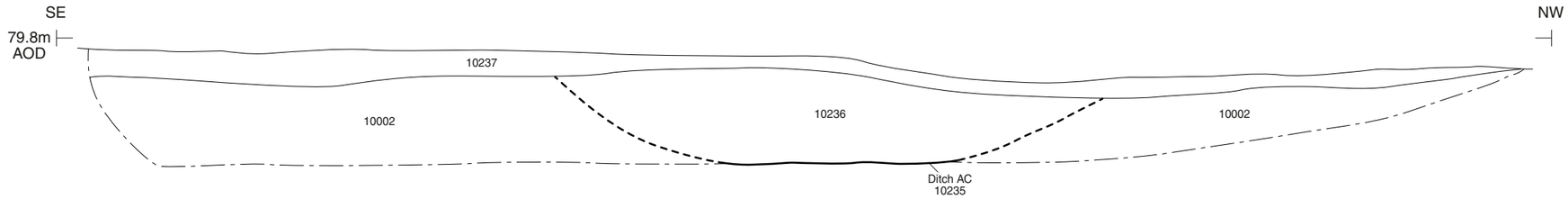
0 2

Metres

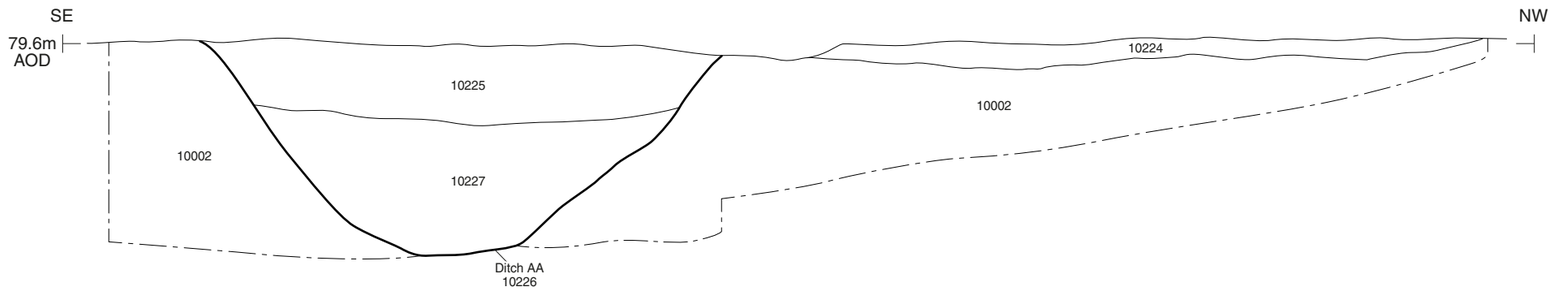
Doc Number: 1EW03-FUS-GI-MAP-CS05-000026

Date: 20/01/22

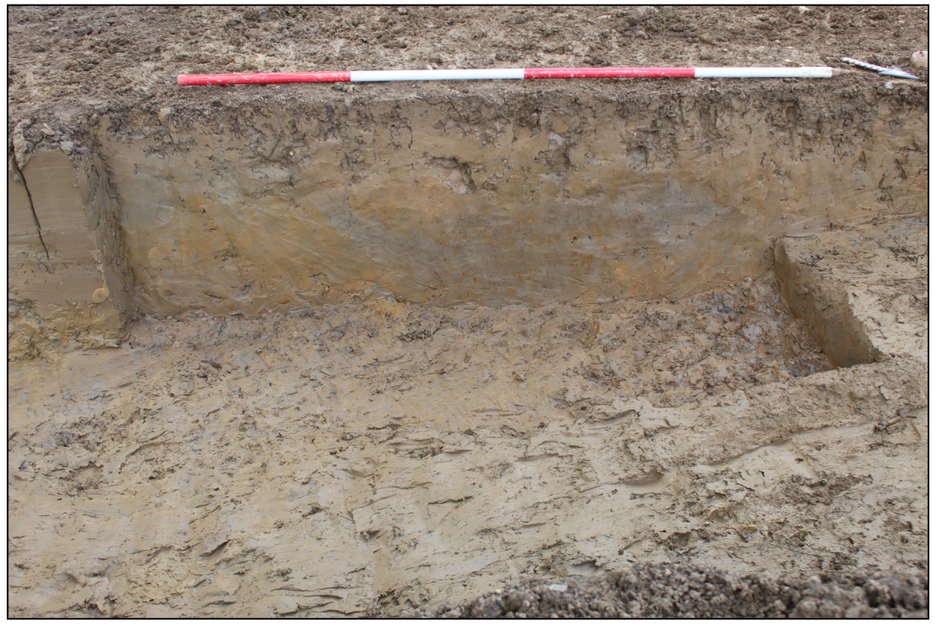
Section CC, Ditch AC



Section DD, Ditch AA



Ditch 10235 and gravel deposit 10237, looking south-west (1m and 2m scale)



Ditch 10226, looking south-west (1m and 2m scale)

High Speed Two

DMV North and South (C25089), DMV North, ditches sections and photographs

Fig. 18

Internal

HS2

Registered in England. Registration number 06791686.
Registered office: 2 Snowhill, Queensway, Birmingham B4 6GA.

Scale at A3: 1:20

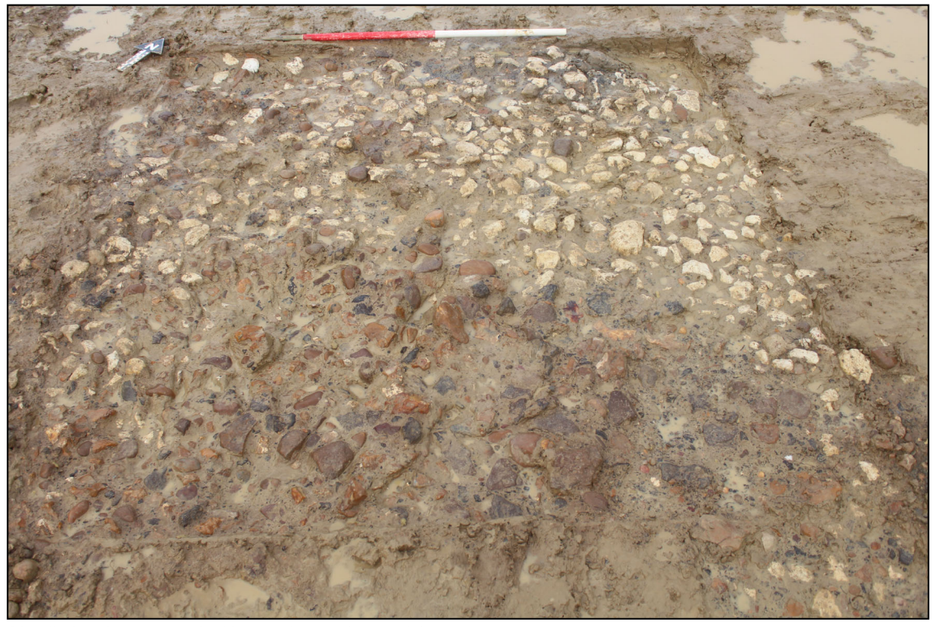
1:20
0 0.25 0.5
Metres

Doc Number: 1EW03-FUS-GI-MAP-CS05-000026

Date: 20/01/22

Ditch 10212, looking north-east (1m scale)

Pond 10231, looking south-east (1m scale)



Metalled surface 10045, looking north-west (1m scale)

High Speed Two

DMV North and South (C25089), DMV North, ditchm pond, and surface photographs

Fig. 19

Internal

HS2

Registered in England. Registration number 06791686.
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Scale at A3: NA

Doc Number: 1EW03-FUS-GI-MAP-CS05-000026

Date: 20/01/22

Ditch 20175, looking south-east (0.3m scale)

Ditch 20154, looking north-east (1m scale)

High Speed Two

DMV North and South (C25089), DMV North, photographs of potentially early features

Fig. 20

Internal

HS2

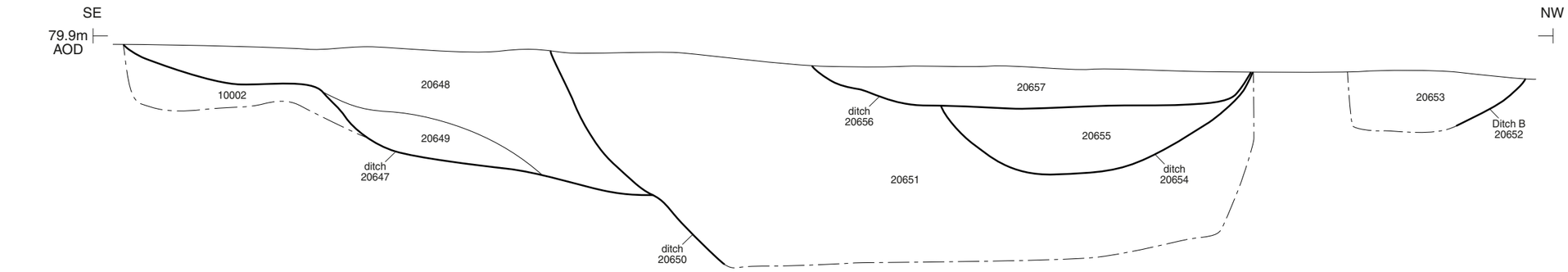
Registered in England. Registration number 06791686.
Registered office: 2 Snowhill, Queensway, Birmingham B4 6GA.

Scale at A3: NA

Doc Number: 1EW03-FUS-GI-MAP-CS05-000026

Date: 20/01/22

Section EE, Ditch B



High Speed Two

DMV North and South (C25089), DMV North, boundary ditch sections

Fig. 21

Internal

HS2

Registered in England. Registration number 06791686.
Registered office: 2 Snowhill, Queensway, Birmingham B4 6GA.

Scale at A3: 1:20

1:20
0 0.25 0.5
Metres

Doc Number: 1EW03-FUS-GI-MAP-CS05-000026

Date: 17/06/22

House Platform 6, looking north-east (2m scales)

House Platform 6 gully, looking north-east (1m scale)

House Platform 6 postholes including 25288, looking south-east (0.5m scale)

High Speed Two

DMV North and South (C25089), DMV North, House Platform 6, section and photographs

Fig. 22

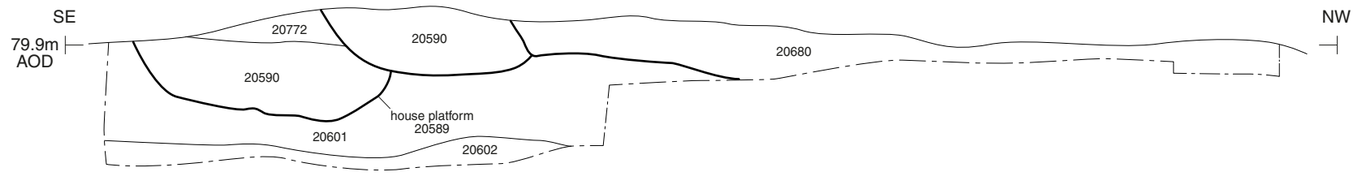
Internal

Registered in England. Registration number 06791686.
Registered office: 2 Snowhill, Queensway, Birmingham B4 6GA.

Doc Number: 1EW03-FUS-GI-MAP-CS05-000026

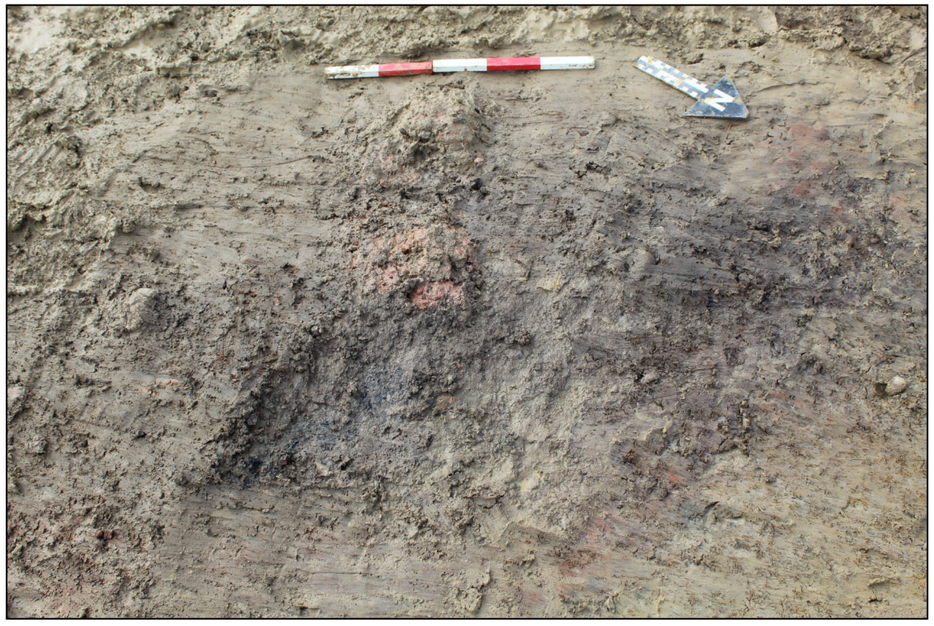
Date: 20/01/22

Section FF



House Platform 7, 20589 and 20590, looking south-west (2m scales)

House Platform 7, looking south-east (2m scales)



Hearth in House Platform 7, looking south-west (0.5m scale)

High Speed Two

DMV North and South (C25089), DMV North, House Platform 7, sections and photographs

Fig. 23

Internal

HS2

Registered in England. Registration number 06791686.
Registered office: 2 Snowhill, Queensway, Birmingham B4 6GA.

Scale at A3: 1:20

1:20
0 0.25 0.5
Metres

Doc Number: 1EW03-FUS-GI-MAP-CS05-000026

Date: 17/06/22

Building 20003, looking east (1m scales)

High Speed Two

DMV North and South (C25089), DMV North, photograph of post-medieval building 20003

Fig. 24

Internal

HS2

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Scale at A3: NA

Doc Number: 1EW03-FUS-GI-MAP-CS05-000026

Date: 20/01/22

Section showing relationship between ditch 20142 and its re-cut 20128 (2m scale)

High Speed Two

DMV North and South (C25089), DMV South, *Section showing relationship between ditch 20142 and its re-cut 20128*

Fig. 25

Internal

HS2

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Scale at A3: NA

Doc Number: 1EW03-FUS-GI-MAP-CS05-000026

Date: 20/01/22

Section of a possible pond 10231 (scale 2m)

High Speed Two

DMV North and South (C25089), DMV North, *Section of a possible pond 10231*

Fig. 26

Internal

HS2

Scale at A3: NA

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Doc Number: 1EW03-FUS-GI-MAP-CS05-000026

Date: 20/01/22

Section showing ditch 20256, looking south-west (scale 2m)

High Speed Two

DMV North and South (C25089), DMV South, *Section showing ditch 20256*

Fig. 27

Internal

HS2

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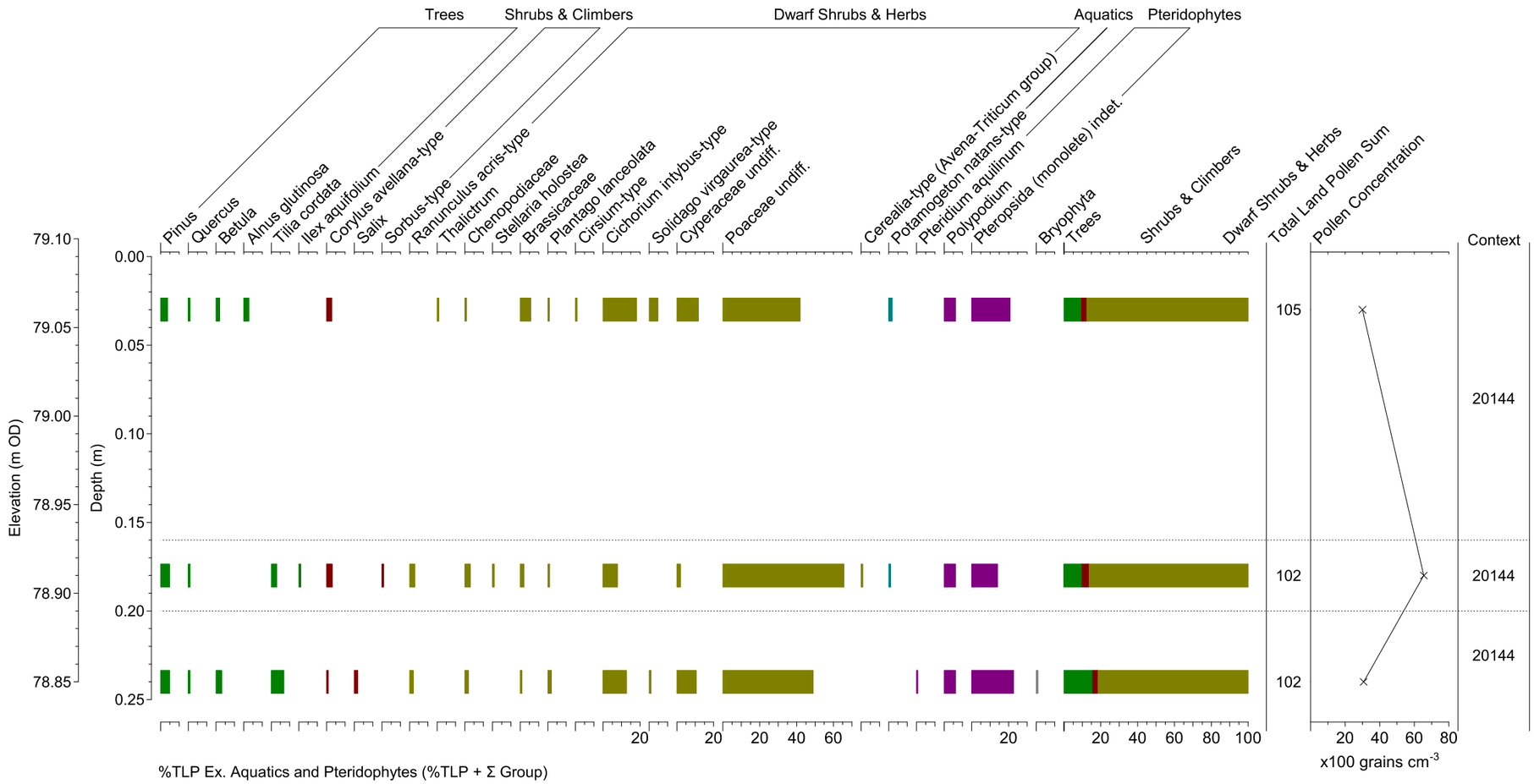
Scale at A3: NA

Doc Number: 1EW03-FUS-GI-MAP-CS05-000026

Date: 20/01/22



High Speed Two

DMV North and South (C25089),
Pollen Diagram Ditch 20142

Fig. 28

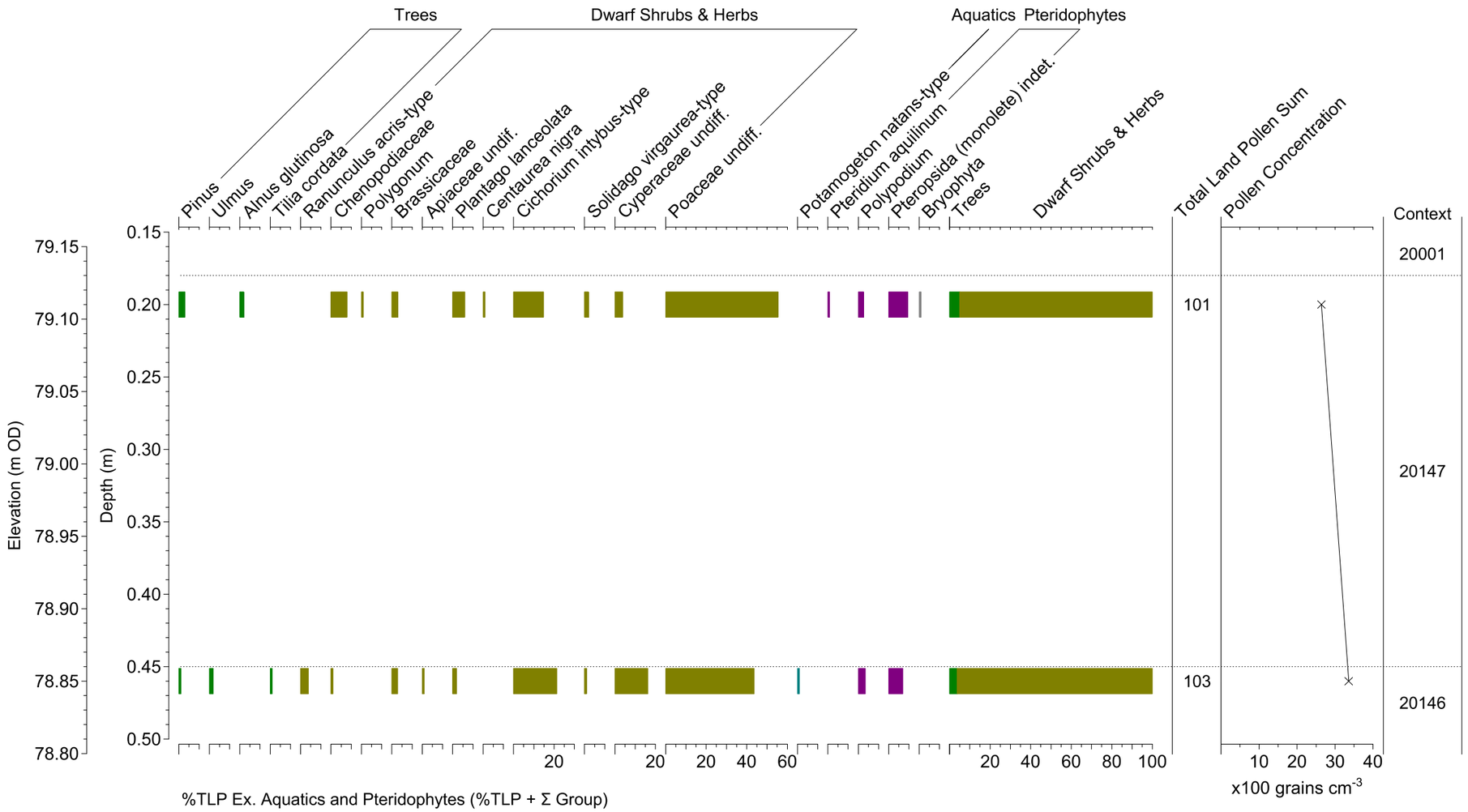
Internal

Registered in England. Registration number 06791686.
Registered office: 2 Snowhill, Queensway, Birmingham B4 6GA.

Scale at A3: NA

Doc Number: 1EW03-FUS-GI-MAP-CS05-000026

Date: 20/01/22



High Speed Two

DMV North and South (C25089),
Pollen Diagram Ditch 20128

Fig. 29

Internal

HS2

Registered in England. Registration number 06791686.
Registered office: 2 Snowhill, Queensway, Birmingham B4 6GA.

Scale at A3: NA

Doc Number: 1EW03-FUS-GI-MAP-CS05-000026

Date: 20/01/22

High Speed Two

DMV North and South (C25089),
Pollen Diagram Ditch 10231

Fig. 30

Internal

Registered in England. Registration number 06791686.
Registered office: 2 Snowhill, Queensway, Birmingham B4 6GA.

Scale at A3: NA

Doc Number: 1EW03-FUS-GI-MAP-CS05-000026

Date: 20/01/22

High Speed Two

DMV North and South (C25089),
Pollen Diagram Ditch 10231

Fig. 31

Internal

Registered in England. Registration number 06791686.
Registered office: 2 Snowhill, Queensway, Birmingham B4 6GA.

Scale at A3: NA

Doc Number: 1EW03-FUS-GI-MAP-CS05-000026

Date: 20/01/22

13 OASIS summary form

Top of Form

Post Excavation Assessment at Doddershall DMV, Buckinghamshire

Bottom of Form

Top of Form

OASIS ID (UID): hs2copa1-507264

Project Name: Post Excavation Assessment at Doddershall DMV, Buckinghamshire

Activity type: Post Excavation Assessment

Project Identifier(s): 1C19DDHAR

Planning Id: [no data]

Reason for Investigation: Planning requirement

Organisation Responsible for work: HS2COPA

Project Dates: 26-May-2020 - 09-Jul-2021

HER: High Speed 2 Ltd - Phase 1

HER Identifiers: [no data]

Project Methodology: The archaeological recording comprised the investigation of one land parcel, comprising one land parcel (C25089) encompassing two areas and measuring c.2.21ha in total. It was preceded by a geophysical

survey and LiDAR survey (Document No. P1C2-ETM-EV-REP-000-000008_P01) and a Test Pit Evaluation undertaken on Site in 2017-18 (Document Nos 1EW03-FUS-EV-REP-CS04_CL20-007851; 1EW03-FUS-EV-REP-CS04_CL20-007852).

Project Results: A programme of archaeological recording at Doddershall Deserted Medieval Village (Site code: 1C19DDHAR), was commissioned as part of the enabling works for High Speed Two, Phase 1. The fieldwork was undertaken between May 2020 and July 2021. The site is located 0.2km to the north-east of the Grade II* Listed Doddershall House and its associated parkland, and 1.6km west of Quainton village, in Buckinghamshire. It comprises a parcel of land (C25089) divided into two areas (DMV South and DMV North, which comprise a total

of 2.21ha combined and lie to either side of an extant freight railway line and associated embankment, which bisects the site. Previous phases of geophysical and LIDAR survey and a programme of test pit evaluation (Fig. 2) undertaken in 2017-2018 confirmed a high density of archaeological remains which appeared likely to date to the 13th century and were thought to be associated with the deserted medieval village (DMV) of Doddershall. The archaeological recording was targeted on the anticipated remains of the DMV revealed by the preceding investigations. The investigated areas were selected to mitigate construction impacts arising as part of the HS2 Phase 1 Central Scheme of Works. Archaeological remains were present in both areas within land parcel C2509. Remains in DMV South were characterised by toft and croft strips, delineated by ditches and gullies. Two house platforms ponds, middens, and possible industrial features were recorded in the crofts. In the southern half of DMV North were ditches and trackways though to define the boundaries of the village, a hearth containing complete pottery jugs and a midden. In the northern half was a ditch defining the village's north-western boundary, scatters of midden material, rubble surfaces, one rubble wall and evidence of buried occupation soils. The evidence suggests that the village was probably established in the 12th century, superseding an earlier, 11th century settlement. It expanded between the 13th and 15th centuries, until its final abandonment in the 16th century.

Keywords:

Subject/Period: Toft: MEDIEVAL

FISH Thesaurus of Monument Types

Subject/Period: Croft: MEDIEVAL

FISH Thesaurus of Monument Types

Subject/Period: Ditch: MEDIEVAL

FISH Thesaurus of Monument Types

Subject/Period: Deserted Settlement: MEDIEVAL

FISH Thesaurus of Monument Types

Subject/Period: Gully: MEDIEVAL

FISH Thesaurus of Monument Types

Subject/Period: House Platform: MEDIEVAL

FISH Thesaurus of Monument Types

Subject/Period: Pond: MEDIEVAL

FISH Thesaurus of Monument Types
Subject/Period: Midden: MEDIEVAL FISH Thesaurus of Monument Types
Subject/Period: Industrial Site: MEDIEVAL FISH Thesaurus of Monument Types
Subject/Period: Trackway: MEDIEVAL FISH Thesaurus of Monument Types
Subject/Period: Hearth: MEDIEVAL FISH Thesaurus of Monument Types
Subject/Period: Jug: MEDIEVAL FISH Archaeological Objects Thesaurus
Subject/Period: Hard Standing: MEDIEVAL FISH Thesaurus of Monument Types
Subject/Period: Wall: MEDIEVAL FISH Thesaurus of Monument Types
Subject/Period: Buried Soil Horizon: MEDIEVAL FISH Thesaurus of Monument Types
Archive: **Reports in OASIS:** Randall, C., Hewson, M., (2022). Post-Excavation Assessment Report for Archaeological Recording at Doddershall DMV . Birmingham: HS2COPA. 1EW03-FUS-EV-REP-CS05-007852
Bottom of Form

14 Appendices

14.0 Context; Section; Plan; Image; sample; small finds registers

15 Site sequence/ Matrix diagramme

16 Specialist team summary table

Role/Material	Company	Name	Qualification	Contact Details
Finds Manager/CBM/Fired Clay	Cotswold Archaeology	Grace Jones	BA MA PhD MCIfA	[redacted]
Senior Finds Officer/ Lithics	Cotswold Archaeology	Jacky Sommerville	BSc MA PCIfA	[redacted]
Finds Officer/prehistoric pottery roman pottery/Glass	Cotswold Archaeology	Peter Banks	LLB LLM DipHE PCIfA	[redacted]
Finds Officer/Metalwork/Coins	Wardell-Armstrong	Ruth Beveridge	PhD	[redacted]
Lecturer/Coins	Cotswold Archaeology	Philippa Walton	PhD	[redacted]
Assistant Finds Officer/Worked Bone	Cotswold Archaeology	Clare Collier	BSc MA ACIfA	[redacted]
Project Officer / Worked Stone	Oxford Archaeology	Ruth Shaffrey	PhD MCIfA FSA	[redacted]
Finds Manager/Wall Plaster	Cotswold Archaeology	Richenda Goffin	BA MCIfA	[redacted]
Freelance/Industrial Waste	Freelance	David Dungworth	BA PhD	[redacted]

17 Specialist data tables