ARCHAEOLOGICAL SERVICES
DURHAM UNIVERSITY

on behalf of
LCC Bell Developments Ltd

Dunelm Stables Phase 3
Thornley
County Durham

post-excavation assessment

report 6093
January 2024

Durham University

Contents

Photographs

Figures

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1. Summary

The project

1.1 This report presents the results of an archaeological excavation conducted in advance of a development at Dunelm Stables, Thornley, County Durham. The works comprised the excavation and recording of two areas.

1.2 The works were commissioned by LCC Bell Developments Ltd and conducted by Archaeological Services Durham University.

Results

1.3 A shallow pit of possible early prehistoric date pit was recorded in the centre of Area 1; this had previously been identified in an evaluation trench, and no further associated features were identified.

1.4 In Area 2 a single posthole of probable Iron Age or Romano-British date was identified. A pit and a shallow gully, both of uncertain date, were also recorded. The gully was cut by a large ditch; this had previously been identified in the evaluation and may be of later medieval /post-medieval origin.

2. Project background

Location (Figure 1)

2.1 The site is located at Dunelm Stables, Thornley, County Durham (NGR centre: NZ 35564 39208). It covers an area of approximately 3 ha. To the north, east, and west are houses, with the B1279 beyond to the north and the A181 beyond to the west. To the south is agricultural land.

Development

2.2 The development is residential. The planning application reference number is DM/22/00209/OUT.

Objective

2.3 The objective of the scheme of works was to identify, excavate and record significant archaeological features within the area in advance of development.

Research objectives

2.4 The updated regional research framework *North-East Regional Research Framework for the Historic Environment* (NERRF 2.0) (https://researchframeworks.org/nerf/ accessed 09-01-2024) contains an agenda for archaeological research in the region. The scheme of works was designed to address agenda items:

Neolithic and Early Bronze Age

NB4: How can we better understand early prehistoric settlement and agriculture?
NB10: How can we better understand landscape and settlement in the Neolithic and Bronze Age in both the uplands and lowlands?

Medieval

MD21: How can we better understand medieval field systems?

Specification

2.5 The works have been undertaken in accordance with a Written Scheme of Investigation provided by Archaeological Services Durham University (reference 23337) and agreed with the archaeological advisor to the planning authority. Area 2 was extended to the east, west, and south to fully expose archaeological features.

Dates

2.6 Fieldwork was undertaken between 4th and 8th January 2024. This report was prepared for January 2024.

Personnel

2.7 Fieldwork was conducted by Euan Johns, Rebecca Lawton, Dr Ronan O'Donnell, Zachariah Weissand, and Rachel Wells (supervisor). This report was prepared by Zachariah Weissand and Rachel Wells, with illustrations by David Graham. Specialist reporting was conducted by Elena Stefani (palaeoenvironmental). Sample processing was by Orlagh Carlin and Jack Mace. The Project Manager was Matthew Claydon.

Archive/OASIS

2.8 The site code is **DST24**, for **D**unelm **S**tables **T**hornley 20**24**. The archive will be transferred to County Durham Archaeological Archives within 6 months of it being open. The palaeoenvironmental residues were discarded following examination. The

flots and charred plant remains will be retained at Archaeological Services Durham University. Archaeological Services Durham University is registered with the **O**nline **A**cces**S** to the **I**ndex of archaeological investigation**S** project (**OASIS**). The OASIS ID number for this project is **archaeol3-522422**.

3. Landuse, topography and geology

3.1 At the time of the excavation, the development area comprised a field of pasture in the west and a construction site in the east.

3.2 The area has a central elevation of 175m OD, sloping sharply downwards to 166m OD in the east. Gore Burn runs around 700m east of the site.

3.3 The underlying bedrock geology of the area comprises Permian strata of dolostone of the Ford Formation, overlain by Devensian diamicton till (British Geological Survey 2024).

4. Historical and archaeological background

4.1 Archaeological Services conducted a trial trench evaluation for Phase 1 of the development to the immediate east of the site. No archaeological features were identified or artefacts recovered (Archaeological Services 2017). Archaeological Services also completed a trial trench evaluation approximately 400m west of the site. This identified two ditches of uncertain date (Archaeological Services 2014).

4.2 A geophysical survey undertaken across the present development area (Archaeological Services 2018) detected two possible rectilinear ditches. Probable former plough regimes were also identified. Archaeological Services subsequently conducted a trial trench evaluation (Archaeological Service 2021). This identified a pit which may be early prehistoric date, a ditch of uncertain, but possible medieval or post-medieval date, and a post-medieval or modern posthole in the west of the development area. Deposits relating to modern activity were identified in the east of the development area.

The prehistoric and Roman periods (up to 5th century)

4.3 A rectilinear enclosure has previously been identified by aerial photography approximately 2km west of the development site. This may be of late prehistoric / Roman date.

The medieval period (5th century to 1540)

4.4 The name of Thornley means ‘Thorney Hill’ in Old English. The earliest reference to Thornley is in a land grant of 1070/80; it is possible that there was a settlement there that pre-dated the Norman Conquest. The deserted medieval village of Old Thornley lies approximately 1km south-south-east of the development site.

The post-medieval period (1541 to 1899)

4.5 A survey of the lands of the Bishop of Westmoorland in 1569 records a coal mine at Thornley. The exact location of this mine is unknown. Cassop waggonway ran south of the site and is shown on the 1st Edition Ordnance Survey map.

5. The excavation

Introduction

5.1 Two areas were excavated in the north-west of the development area. Area 1 targeted a possible prehistoric pit and Area 2 targeted a ditch of possible later medieval or post-medieval date (Figure 2). Both areas were excavated using a machine equipped with a toothless ditching bucket under constant archaeological supervision. Trench plans are shown on Figure 3, and sections are shown on Figure 4. Context data is summarised in Table 1.1.

5.2 One furrow [F22] was recorded in Area 1 and six were recorded in Area 2, all aligned roughly north/south. The furrows in Area 2 were evenly spaced, averaging approximately 1.5m wide and 3m apart with a 9.4m wide gap in the centre of the area. They were filled by a grey-brown silty sandy clay [21].

Area 1

5.3 This area was 10m by 10m and was located in the north-west corner of the development area. It targeted a shallow pit identified during the evaluation. Natural subsoil [4], a yellow-orange clay, was identified 0.2m below the ground surface. This was cut in the centre of the area by the large, shallow oval pit identified in the evaluation [F10: 1.65m long by 0.98m wide, 0.11m deep; Photo 1]. It was filled by a dark grey charcoal-rich silty clay [9] containing frequent sub-rounded stones. Palaeoenvironmental evidence from the pit, recovered during the evaluation, suggested an early prehistoric date. Above this and across the whole area was a dark grey-brown clayey silt topsoil [3: 0.2m deep]. No additional archaeological features were identified.

Area 2

5.4 This area was 55.7m long by approximately 7.5m wide, with a 10.4m long by 2.8m wide extension in the centre of the south side. It was located to the north-east of Area 1 along the north edge of the development area and targeted a north-east/south-west aligned ditch identified in the evaluation. The natural subsoil [4] was identified at a depth of 0.2-0.4m below the ground surface.

5.5 Cutting the natural subsoil in the centre of the north side of the area was a shallow pit [F2: 1.1m long by 0.8m wide, 0.2m deep], filled with a grey sandy clay loam [1]. West of this was a circular posthole [F8: 0.4m diameter, 0.12m deep; Photo 2], which was filled by a dark grey sandy clay [7] containing spelt wheat, suggesting an Iron Age or Romano-British date. Further west was a shallow north-west/south-east aligned gully [F6=F12=F16: 11.3m long by 0.2-0.45m wide, 0.05-0.33m deep; Photo 3], which petered out to the north and south and was filled by a grey-brown silty clay [5=11=15].

5.6 Along the length of the area, cutting the gully, was a north-east/south-west aligned ditch [F14=F18=F20: 53.8mm long by 1.5-2.8m wide, 0.34-0.7m deep; Photo 4]. This continued beyond the edge of the development area to the west and petered out towards the east end, beyond which the ground had previously been truncated. It had a shallow, flat based profile at the west end, a deep V-shaped profile in the

centre, and a broad U-shaped profile in the east. It was filled throughout by a red-brown sandy silty clay [13=17=19]. It was cut by six north/south aligned furrows [F22] along its length. Over these and across the whole area was a dark grey-brown clayey silt topsoil [3: 0.2-0.4m deep].

6. The artefacts

6.1 No artefacts were recovered.

7. The palaeoenvironmental evidence

Introduction

7.1 Four bulk samples from Area 2 were submitted for palaeoenvironmental assessment. The samples were from a pit, posthole and gully of possible prehistoric date and a ditch provisionally dated to the medieval period.

Methods

7.2 The samples were manually floated and sieved through a 500μm mesh. The residues were examined for shells, fruitstones, nutshells, charcoal, small bones, pottery, flint, glass and industrial residues, and were scanned using a magnet for ferrous fragments. The flots were examined at up to x60 magnification using a Leica MZ7.5 stereomicroscope for waterlogged and charred botanical remains. Identifications were aided by comparison with modern reference material held in the Palaeoenvironmental Laboratory at Archaeological Services Durham University, and by reference to relevant literature (Cappers *et al.* 2006; Jacomet 2006). Plant nomenclature follows Stace (2010).

7.3 Selected charcoal fragments were identified to provide material suitable for radiocarbon dating and to determine the nature and condition of the assemblages. The transverse, radial and tangential sections were examined at up to x500 magnification using a Nikon Eclipse microscope. Identifications were assisted by the descriptions of Schweingruber (1990), Gale & Cutler (2000) and Hather (2000), and modern reference material held in the Palaeoenvironmental Laboratory at Archaeological Services Durham University.

7.4 The works were undertaken in accordance with the palaeoenvironmental research aims and objectives outlined in the regional archaeological research framework and resource agendas (Petts & Gerrard 2006; Hall & Huntley 2007; Huntley 2010), including the updated version: *North-East Regional Research Framework for the Historic Environment* (NERRF 2.0) (https://researchframeworks.org/nerf/accessed 18/01/2024).

Results

7.5 The samples produced small-sized flots, ranging from 60-100ml, comprising coal and clinker/cinder with small quantities of charcoal fragments in pit [F2] and posthole [F8]. The charcoal (oak stemwood) is generally poorly preserved, mainly due to the abundance of minerally-encrusted fragments. Most flots also contain moderate quantities of roots, presumably reflecting the shallow nature of the features. There were no artefacts.

7.6 Posthole [F8] produced a small, charred plant macrofossil assemblage with remains of spelt wheat (both grain and chaff), heather twigs and rhizomes. By contrast charred plant macrofossils are sparse in ditch [F14] and pit [F2] and absent in gully [F6].

7.7 Detailed palaeoenvironmental results and a provisional date for each context are presented in Table 1.2.

Discussion

7.8 The plant assemblage from posthole [F8] is consistent with Iron-Age and Romano-British occupation, particularly for this region (Hall & Huntley 2007). The few charred plant remains from the remaining features are not inconsistent with those periods, although they do not provide diagnostic dating evidence.

7.9 The previous evaluation indicated possible early prehistoric activity associated with the pit in Area 1 (Archaeological Services 2021), and a possible later medieval or post-medieval date for the ditch in Area 2 [F14], while the present assessment indicates Iron-Age and Romano-British activity in Area 2.

Recommendations

7.10 No further palaeoenvironmental analysis is required for these samples.

8. The archaeological resource

8.1 A large, shallow pit was recorded in the centre of Area 1. This was previously investigated in the evaluation and palaeoenvironmental assessment of the feature identified coal and clinker/cinder, alongside frequent oak stemwood charcoal fragments. Charred plant remains recovered included a cereal grain, sloe/wild plum fruitstones, a hawthorn fruitstone and a dock nutlet. The predominance of charcoal and wild plant foods in the pit may indicate an earlier prehistoric origin.

8.2 A pit, a posthole, a shallow gully, and a large ditch were identified in Area 2. Paleoenvironmental evidence suggests that the posthole was Iron Age or Romano-British in date, while the evidence from the pit, gully, and ditch was undiagnostic, although previous paleoenvironmental assessment of the ditch may indicate a later medieval or post-medieval date.

8.3 The updated regional research framework *North-East Regional Research Framework for the Historic Environment* (NERRF 2.0) (https://researchframeworks.org/nerf/ accessed 09-01-2024) contains an agenda for archaeological research in the region, which is incorporated into regional planning policy implementation with respect to archaeology. In this instance, the archaeological resource addresses agenda items:

Neolithic and Early Bronze Age

NB4: How can we better understand early prehistoric settlement and agriculture?
NB10: How can we better understand landscape and settlement in the Neolithic and Bronze Age in both the uplands and lowlands?

Roman

R1: How can we better understand the transition from the Iron Age to the Roman period in NE England?

Medieval
MD21: How can we better understand medieval field systems?

9. Sources

Archaeological Services 2014 *Dunelm Road, Thornley, Easington, County Durham: archaeological evaluation*. Report **3362**, Archaeological Services Durham University

Archaeological Services 2017 *Phase 1, Land at Dunelm Road, Thornley, County Durham: archaeological evaluation*. Report **4475**, Archaeological Services Durham University

Archaeological Services 2018 *Dunelm Stables, Thornley, County Durham: geophysical survey*. Report **4897**, Archaeological Services Durham University

Archaeological Services 2021 *Land at Dunelm Stables, Thornley, County Durham: archaeological evaluation.* Report **5440**, Archaeological Services Durham University

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Gale, R, & Cutler, D, 2000 *Plants in archaeology; identification manual of vegetative plant materials used in Europe and the southern Mediterranean to c.1500*. Otley

Hall, A R, & Huntley, J P, 2007 *A review of the evidence for macrofossil plant remains from archaeological deposits in northern England*. Research Department Report Series no. **87**. London

Hather, J G, 2000 *The identification of the Northern European Woods: a guide for archaeologists and conservators*. London

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Jacomet, S, 2006 *Identification of cereal remains from archaeological sites*. Basel

Petts, D, & Gerrard, C, 2006 *Shared Visions: The North-East Regional Research Framework for the Historic environment*. Durham

Schweingruber, F H, 1990 *Microscopic wood anatomy*. Birmensdorf

Stace, C, 2010 *New Flora of the British Isles*. Cambridge

Websites

https://researchframeworks.org/nerf/
https://www.bgs.ac.uk/

Appendix 1: Data tables

Table 1.1: Context data

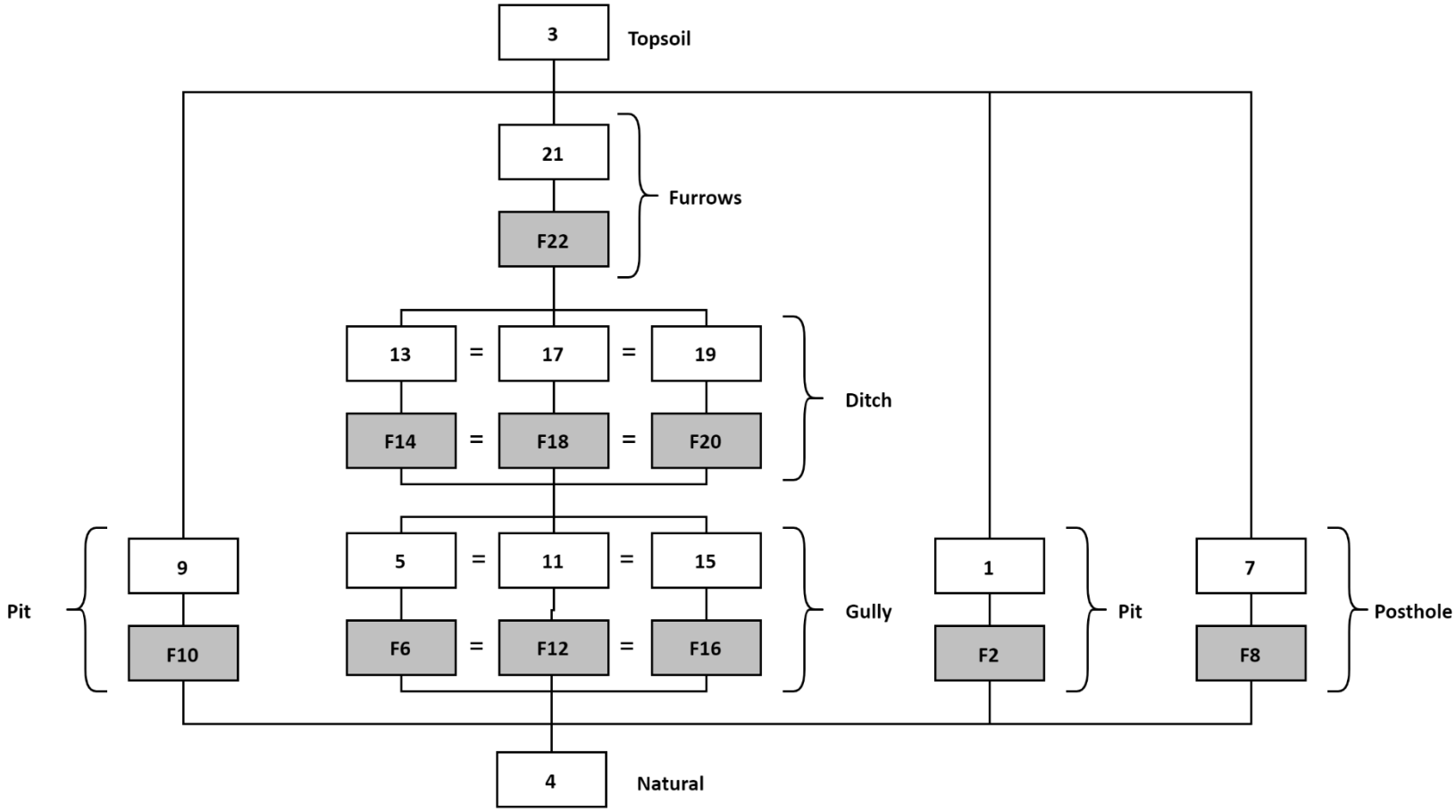
No	Area	Description
1	2	Fill of pit
F2	2	Cut of pit
3	All	Topsoil
4	All	Natural subsoil
5	2	Fill of gully
6	2	Cut of gully
7	2	Fill of posthole
8	2	Cut of posthole
9	1	Fil of pit
10	1	Cut of pit
11	2	Fill of gully
12	2	Cut of gully
13	2	Fill of ditch
14	2	Cut of ditch
15	2	Fill of gully
16	2	Cut of gully
17	2	Fill of ditch
18	2	Cut of ditch
19	2	Fill of ditch
20	2	Cut of ditch
21	All	Fill of furrows
22	All	Cut of furrows

Table 1.2: Data from palaeoenvironmental assessment

Sample	Context	Feature	Area	Volume processed (l)	Flot volume (ml)	C14 available	Rank	Notes
1	1	F2 - Pit fill	2	11	100	?	*	Small flot comprising small quantities of fragmented coal, clinker/cinder and charcoal (mineral-encrusted oak stemwood). The only charred plant remains consist of a single fragment of hazel nutshell. **Nothing diagnostic**
2	5	F6 - Gully fill	2	12	80	N	*	Small flot comprising coal and clinker/cinder. No charred plant remains. **Nothing diagnostic**
3	7	F8 - Posthole fill	2	8	80	?	**	Small flot comprising small quantities of fragmented coal, clinker/cinder and charcoal (mineral-encrusted oak stemwood). Charred plant remains include cereals (spelt chaff and a spelt-type grain), grasses and a few heather twigs and rhizomes. **IA/RB**
4	13	F14 - Ditch fill	2	15	60	N	*	Small flot comprising coal and clinker/cinder. The only charred plant remains consist of traces of rhizomes and heather twigs. **Nothing diagnostic**

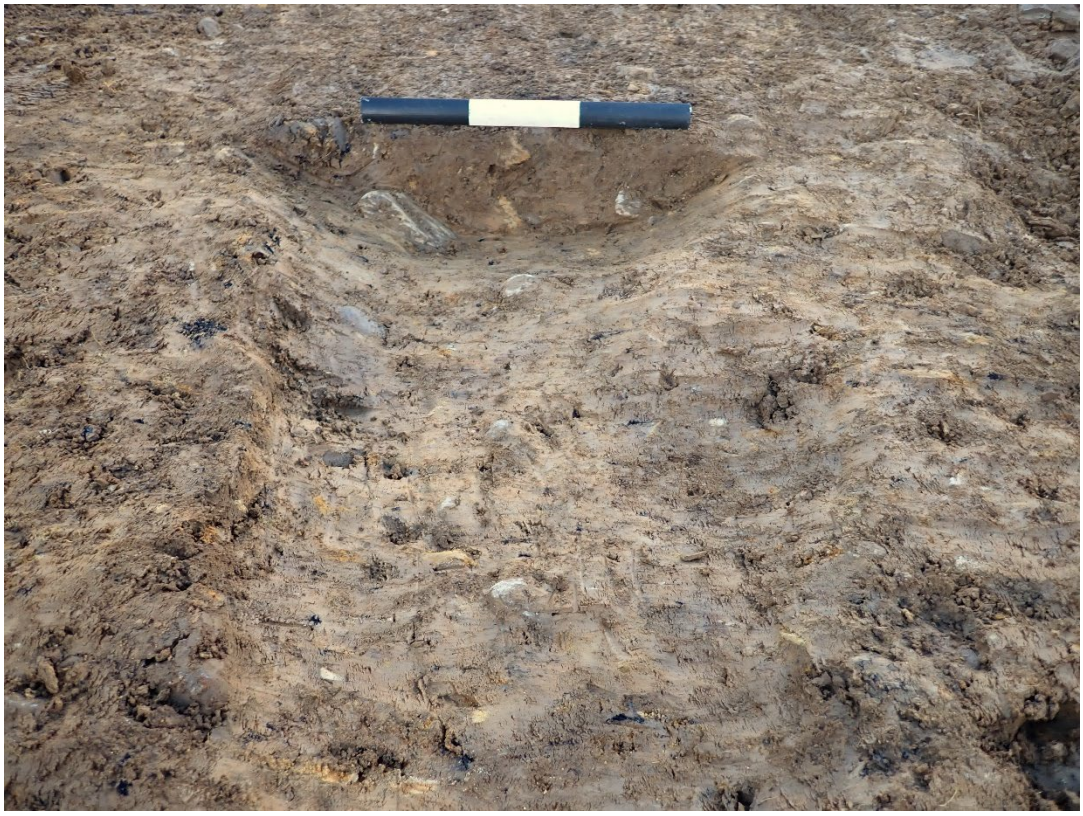
[Rank: *: low; **: medium; ***: high; ****: very high potential to provide further palaeoenvironmental information.
(?) = There is material for AMS dating, but not recommended due to long-lived species, amount of mineral-encrusting or sparsity]

Appendix 2: Stratigraphic matrix



Photograph 1: Pit [F10], looking north

Photograph 2: Posthole [F8], looking west



Photograph 3: Gully [F6], looking south

Photograph 4: Ditch [F14], looking west

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Dunelm Stables Phase 3
Thornley
County Durham

post-excavation assessment
report 6093

Figure 1: Site location

site boundary

0 1km
scale 1:25 000 for A4 plot

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Dunelm Stables Phase 3
Thornley
County Durham

post-excavation assessment
report 6093

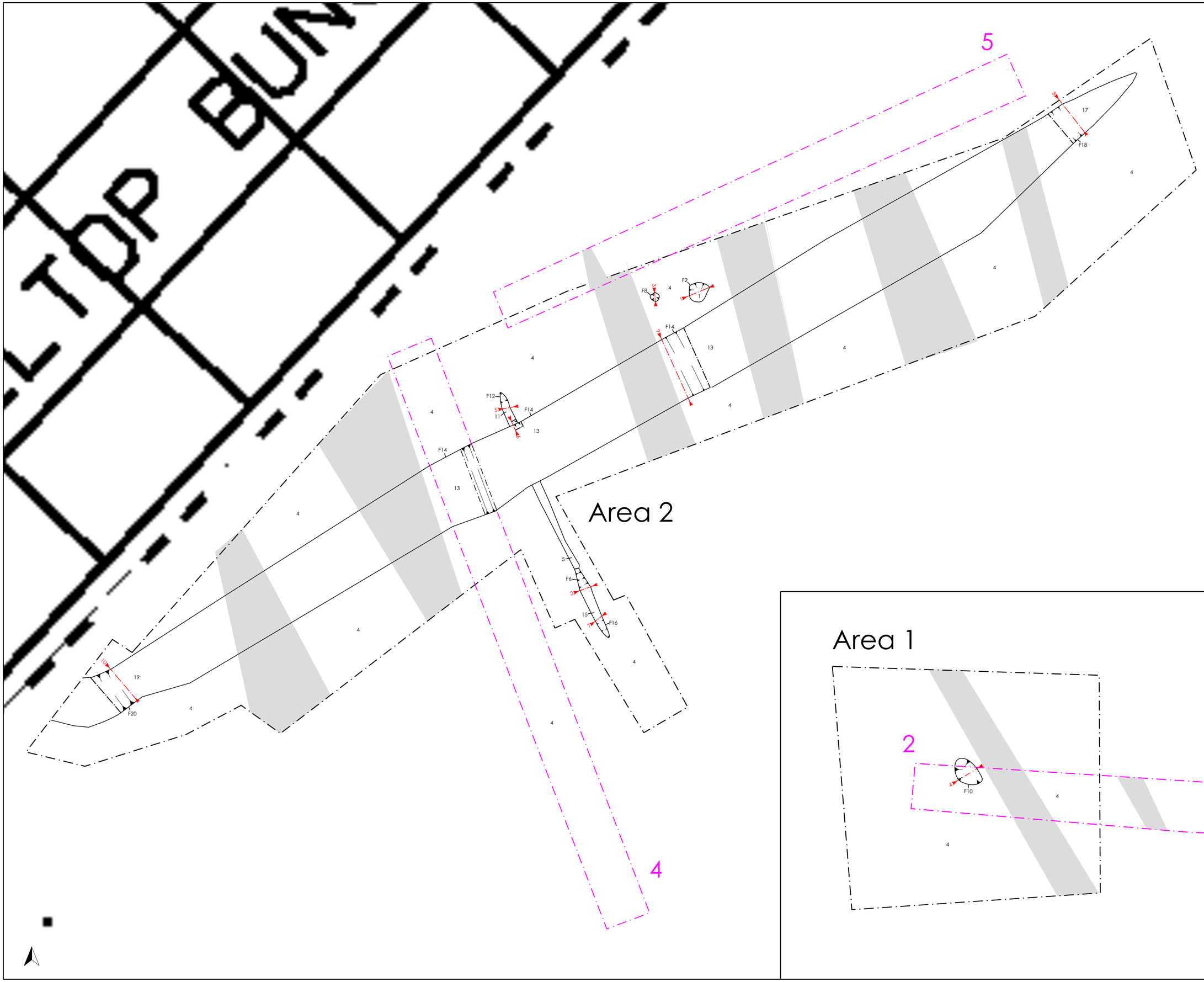
Figure 2: Trench locations

0 20m
scale 1:400 for A3 plot

strip, map and record area
- site boundary
- strip, map and record area
- furrow
- archaeological feature

archaeological interpretation (2018)
- magnetic survey
- possible soil-filled feature
- near surface ferrous/ road waste/ disturbed area
- utility (with 5m buffer)
- former ploughing
- horse trotting track
- trailer
- utility (electric - with 10m buffer)

archaeological evaluation (2020)
- edge of excavation
- furrow
- archaeological feature
- drain / cable



edge of excavation

section

furrow

evaluation trench 2020

0 5m

scale 1:100 for A2 plot

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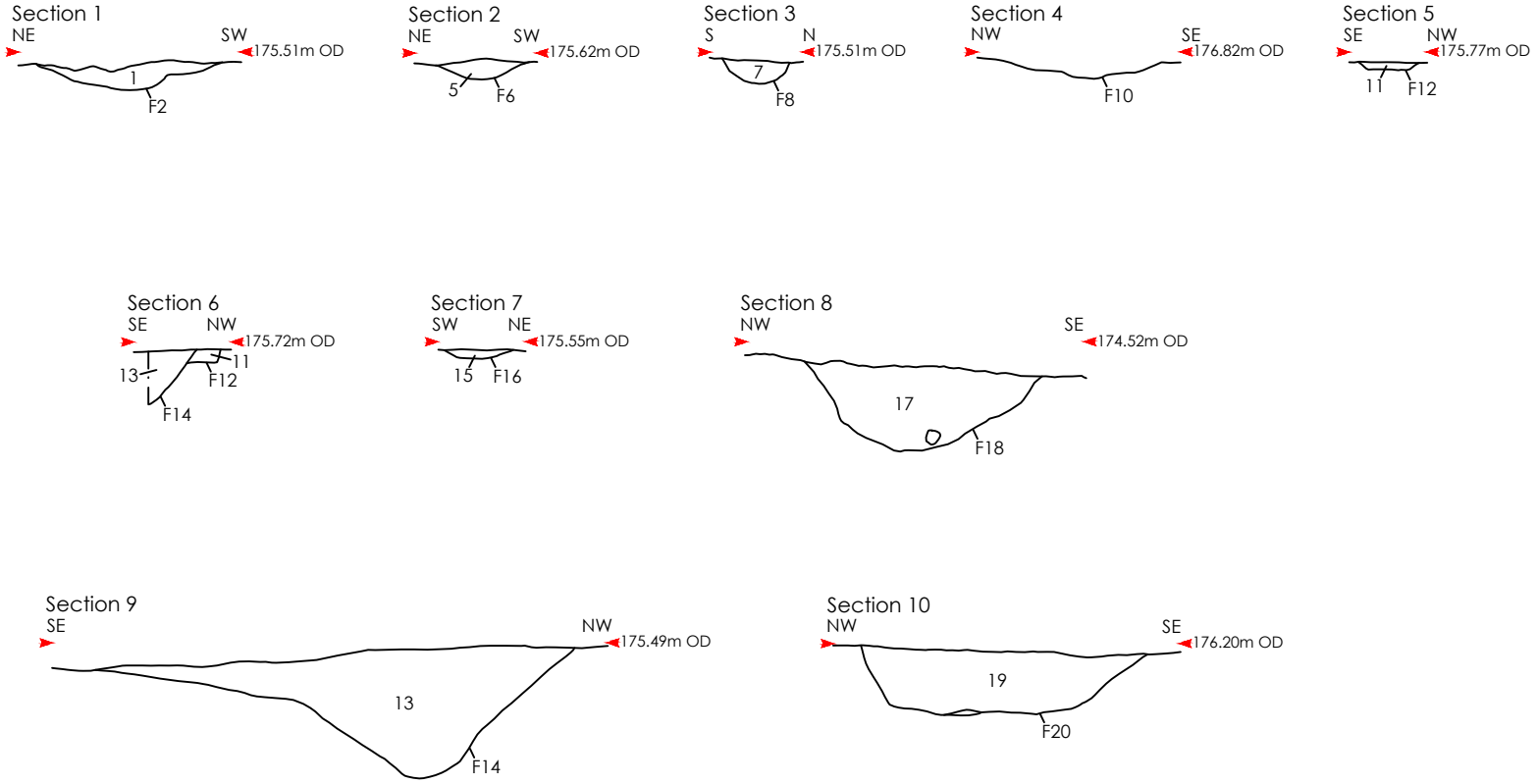
Dunelm Stables Phase 3
Thornley
County Durham

post-excavation assessment
report 6093

Figure 3: Plans



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Dunelm Stables Phase 3
Thornley
County Durham

post-excavation assessment
report 6093

Figure 4: Sections

0 2m
scale 1:40 for A4 plot